CITY OF SYDNEY

20 August 2026

At 5.00 pm

Central Sydney Planning Committee

Agenda

1. Disclosures of Interest
2. Confirmation of Minutes
3. Matters Arising from the Minutes
4. Post Exhibition - Planning Proposal - 150 Day Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment
5. Post Exhibition - Planning Proposal - 580 George Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment
6. Summary of Applications to be Reported to the Central Sydney Planning Committee

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To enable the committee to hear a wide range of views and concerns within the limited time available, we encourage people interested in speaking at the Central Sydney Planning Committee to:

1. Register to speak by calling Secretariat on 9265 9702 or emailing secretariat@cityofsydney.nsw.gov.au before 10.00am on the day of the meeting.
2. Check the recommendation in the committee report before speaking, as it may address your concerns so that you just need to indicate your support for the recommendation.
3. Note that there is a three minute time limit for each speaker (with a warning bell at two minutes) and prepare your presentation to cover your major points within that time.
4. Avoid repeating what previous speakers have said and focus on issues and information that the committee may not already know.
5. If there is a large number of people interested in the same item as you, try to nominate three representatives to speak on your behalf and to indicate how many people they are representing.

At the start of each Central Sydney Planning Committee meeting, the Chair may reorder agenda items so that those items with speakers can be dealt with first.

Central Sydney Planning Committee reports are available at www.cityofsydney.nsw.gov.au

Item 1.

Disclosures of Interest

Pursuant to the provisions of the City of Sydney Code of Meeting Practice and the City of Sydney Code of Conduct, Members of the Central Sydney Planning Committee are required to disclose and manage both pecuniary and non-pecuniary interests in any matter on the agenda for this meeting.

In both cases, the nature of the interest must be disclosed.

This includes receipt of reportable political donations over the previous four years.

Item 2.

Confirmation of Minutes

Minutes of the following meeting of the Central Sydney Planning Committee are submitted for confirmation:

Meeting of 25 June 2026

Item 3.

Matters arising from the Minutes

Matters arising from the minutes of the Central Sydney Planning Committee of 25 June 2026.

Item 4.

Post Exhibition - Planning Proposal - 150 Day Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

File No: X090796

Summary

Central Sydney is an engine room of the NSW economy. The Central Sydney Planning Strategy is a 20-year growth strategy that recognises Central Sydney's role in metropolitan Sydney, NSW and Australia, and the need to maintain and grow its status as a global city with a dynamic economy and high quality of life. As housing grows, the Strategy prioritises employment growth with increased capacity, ensures development takes place in areas that can accommodate greater building height, encourage pedestrian connections and the use of public transport, and moves towards a more sustainable city.

A planning proposal, consistent with the Central Sydney Planning Strategy, was prepared for 150 Day Street, Sydney, following a request by the proponent to amend the planning controls for the site. The planning proposal seeks to amend the building height and floor space controls to facilitate the adaptive reuse of an existing hotel building and deliver a 22-storey hotel with more than 30,600sqm of commercial (hotel) floor space. The proposed controls require the substantial retention of the existing building on site, representing a significant amount of embodied carbon, and achieving environmental performance targets above City targets and controls.

A draft site specific Development Control Plan was prepared to support the planning proposal and provide guidance on sustainability targets, landscaping, transport, flooding and design excellence. A Voluntary Planning Agreement (VPA) has been prepared to provide affordable housing contributions above the requirements of clause 7.13 of the Sydney Local Environmental Plan.

The planning proposal and draft development control plan were approved for public exhibition by the Central Sydney Planning Committee and Council on 18 and 22 September 2025 respectively. Council also noted the preparation of the draft planning agreement which was to be exhibited concurrently. The Department of Planning, Housing and Infrastructure issued a Gateway determination on 27 January 2026.

The planning proposal, draft development control plan and VPA were placed on public exhibition from 18 March 2026 to 20 April 2026. 59 responses to the exhibition were received, including 48 objections and feedback from 6 government agencies. The majority of objections related to overshadowing and view loss to neighbouring properties. The overshadowing is within current requirements or those that applied when the affected buildings were constructed. The view loss is also considered reasonable given the strategic contribution of the proposal, the nature of development in this area and that the planning framework does not protect private views, particularly in strategic locations such as Central Sydney. This report does not recommend any changes to the exhibited planning controls or building envelope.

Minor amendments have been made to the planning proposal regarding end of journey floor space, updates to the project timeline, and responses to feedback from government agencies. Amendments have been made to the draft development control plan in response to government agency feedback regarding the facade articulation zone and the preparation of a flood impact and risk assessment.

This report recommends approval of the planning proposal and draft development control plan and notes the City will enter into the planning agreement.

Recommendation

It is resolved that:

(A) the Central Sydney Planning Committee note the matters raised in response to the public exhibition of Planning Proposal - 150 Day Street, Sydney, the draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, and draft Voluntary Planning Agreement, as shown in Attachment D to the subject report

(B) the Central Sydney Planning Committee approve Planning Proposal - 150 Day Street, Sydney as shown at Attachment A to the subject report, to be sent to the Department of Planning, Housing and Infrastructure to be made as a local environmental plan

(C) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 17 August 2026, that Council approve the draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, as shown at Attachment B to the subject report, noting the approved Development Control Plan will come into effect on the date of publication of the subject Local Environmental Plan

(D) authority be delegated to the Chief Executive Officer to make any minor amendments to the Planning Proposal - 150 Day Street, Sydney and draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, to correct any minor errors or omissions prior to finalisation

(E) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 17 August 2026, that Council note the draft Voluntary Planning Agreement, as shown at Attachment C to the subject report, will be executed under delegation of Council in accordance with the Environmental Planning and Assessment Act 1979.

Attachments

Attachment A. Planning Proposal - 150 Day Street, Sydney and appendices

Attachment B. Draft Sydney Development Control Plan - 150 Day Street, Sydney

Attachment C. Voluntary Planning Agreement

Attachment D. Summary of submissions

Attachment E. Resolutions of Council and Central Sydney Planning Committee

Attachment F. Gateway determination dated 27 January 2026

Background

1. In March 2025, a request to prepare a planning proposal was lodged for 150 Day Street, Sydney ('the site'). The site is shown in Figure 1.

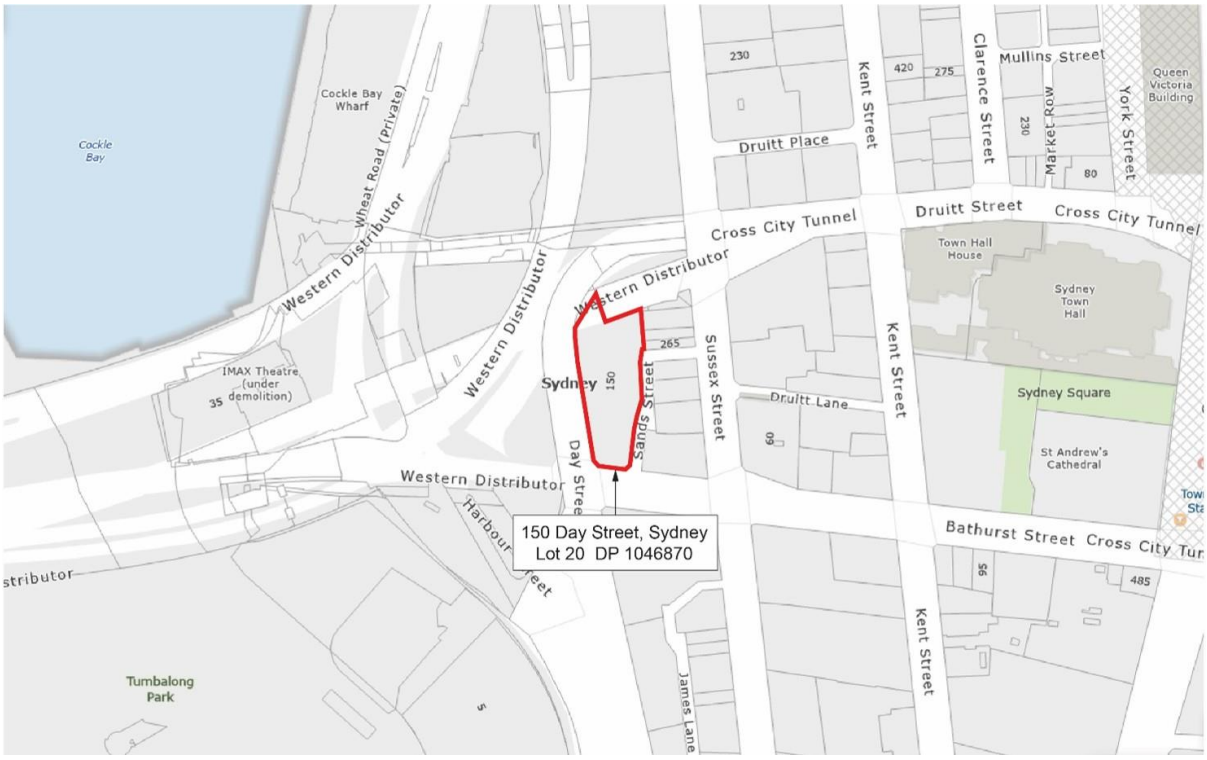


Figure 1: Land affected by this planning proposal

2. The site has an area of 2,279sqm and has frontages to Bathurst Street, Sands Street, Day Street, an on-ramp to the Western Distributor and the Cross City Tunnel Harbour Street exit. The existing development on the site is known as the PARKROYAL Darling Harbour, an 11-storey building containing approximately 17,000 square metres of tourist and visitor accommodation floor space, which was constructed in 1988.

3. Further details of the site and existing planning controls can be found in sections 1 and 2 of the planning proposal, at Attachment A. Photos of the site and existing development are at Figures 2 and 3.



Figure 2: 150 Day Street, western facade fronting Day Street and Cross City Tunnel Harbour Street exit, outlined in red



Figure 3: 150 Day Street, northern and eastern facades fronting Western Distributor onramp, outlined in red

The proponent requested amendments to building height and floor space ratio controls to enable an expansion of the hotel on site

4. The proponent requested a planning proposal to facilitate a redevelopment to achieve:

   (a) a total of 30,617sqm of tourist and visitor accommodation floor space in Central Sydney, aligning with the strategic direction of the Central Sydney Planning Strategy and City of Sydney Economic Development Strategy 2025-2035

   (b) an adaptive reuse of the existing structure, with 11 storeys added to the existing 11-storey building, and the primary structure and floors (including columns, beams and slabs) substantially retained, representing significant embodied carbon and achieving environmental performance targets above and beyond City targets and controls.

5. Illustrations of the indicative scheme are shown at Figures 4 and 5.

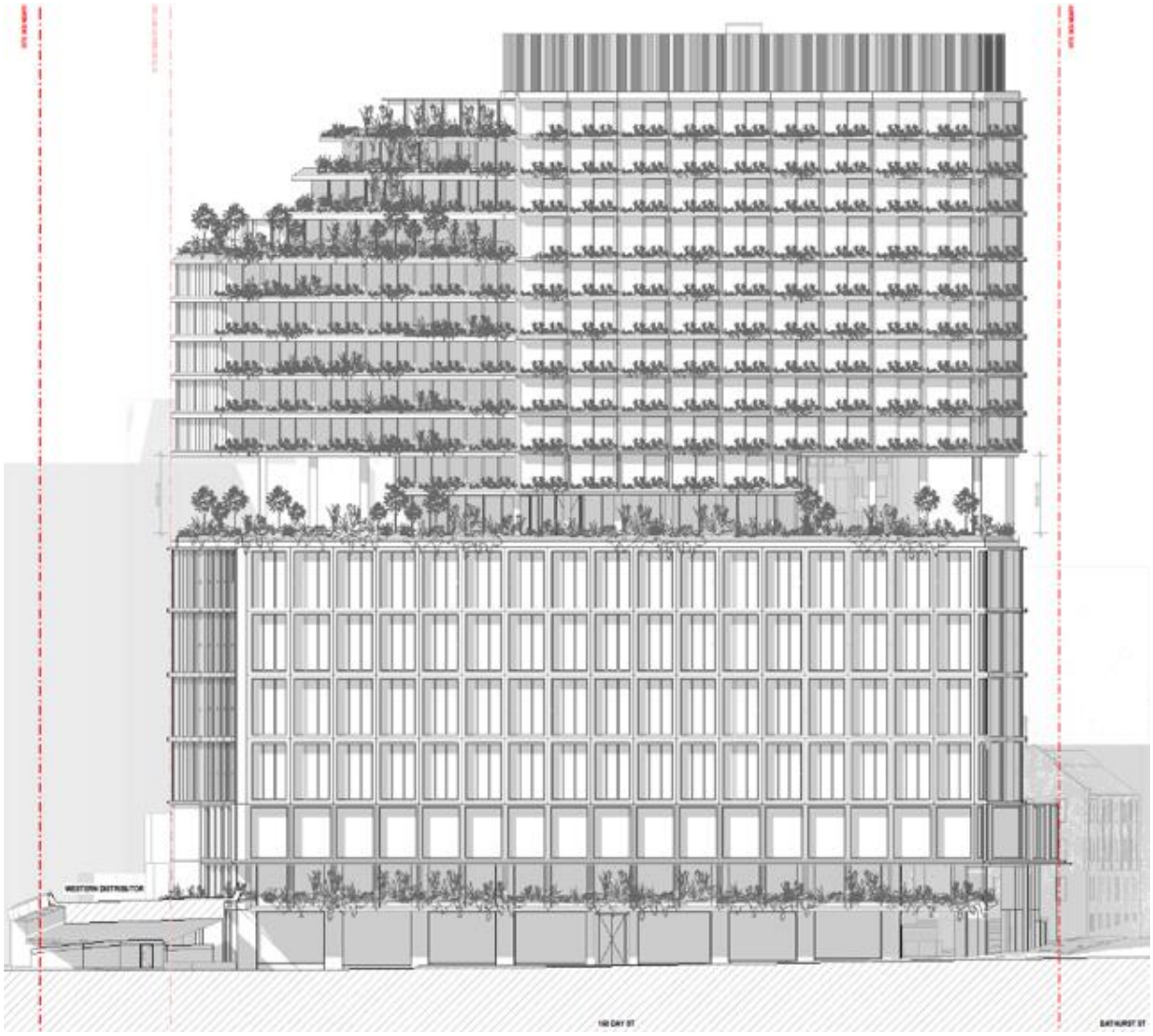


Figure 4: Technical drawing of indicative design - western (Day Street) elevation



Figure 5: Artistic representation of indicative design - northwestern perspective

The City prepared a planning proposal to increase the height and floor space controls for a commercial hotel development

6. The planning proposal details the proposed amendments to the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) by inserting new site-specific provisions to incentivise productive floor space. These provisions are to:

   (a) permit a maximum building height of RL 87.7 metres (approximately 85 metres), an increase from the current control of 45m

   (b) increase the maximum floor space ratio control from 9.9:1 to 13.5:1 inclusive of any additional floor space awarded for a building demonstrating design excellence

   (c) ensure development would not cause any additional overshadowing of Town Hall Steps, Sydney Square and future Town Hall Square

   (d) ensure the resulting building would not be used for the purposes of residential accommodation or serviced apartments

   (e) ensure any development taking advantage of these amended controls must feature substantial retention of the existing structure, including columns, beams and slabs.

7. Further explanation of the provisions can be found in section 4 of the planning proposal at Attachment A.

Changes to the Development Control Plan will ensure the development demonstrates a high-quality built form and protects the public domain

8. A draft site-specific Development Control Plan (draft DCP) is at Attachment B and provides further guidance for development facilitated by this planning proposal. The draft DCP provisions include:

   (a) dimensions of a maximum building envelope as shown at Figure 6

   (b) sustainability targets above standard requirements for hotels in Central Sydney

   (c) additional requirements regarding landscaping, transport and flooding for any future development application

   (d) a design excellence strategy.

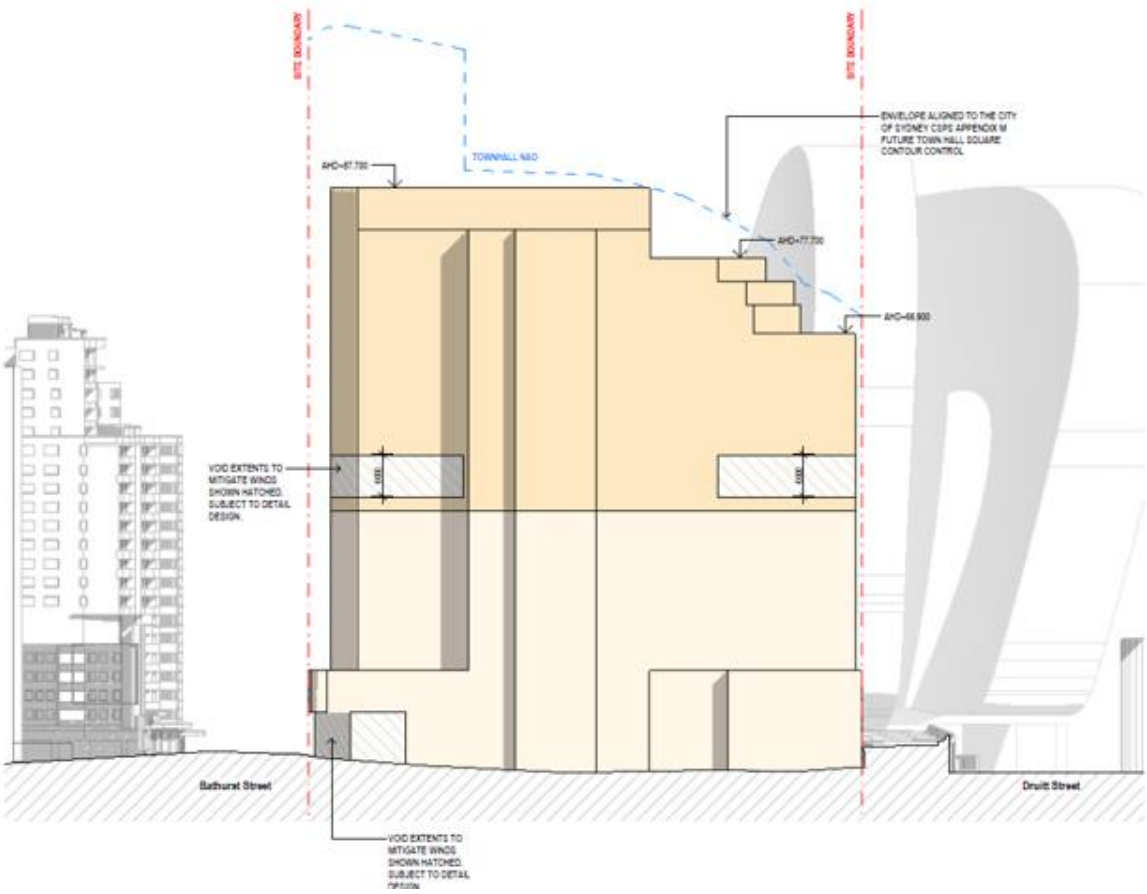


Figure 6: Maximum building envelope - east elevation

The planning proposal received Gateway determination and was placed on public exhibition

9. The planning proposal was approved by the Central Sydney Planning Committee on 18 September 2025 and by Council on 22 September 2025 to be submitted to the Minister for Planning and Public Spaces for Gateway determination and approved for public authority consultation and public exhibition. The Council also approved the draft DCP for public authority consultation and public exhibition with the planning proposal. The resolutions of CSPC and Council are at Attachment E.

10. The request for a gateway determination was sent to the Department of Planning, Housing and Infrastructure ('the Department') for a Gateway determination on 25 September 2025. Gateway determination was received from the Department on 27 January 2026 and is provided at Attachment F. The Gateway determination included a reference to the exhibition of a draft contributions plan for 150 Day Street. This was subsequently clarified with the Department as a mistaken reference to the Voluntary Planning Agreement (VPA).

11. Council also noted that the Chief Executive Officer would prepare a draft VPA in accordance with the letter of offer received from the proponent and the requirements of the Environmental Planning and Assessment Act 1979 ('the Act), which would be exhibited in accordance with the Act and concurrently with the planning proposal. The VPA provides an additional affordable housing contribution of 1% of the increased floor area facilitated by this planning proposal, in line with the proposed changes to the Affordable Housing Program. This additional amount does not offset any applicable Affordable Housing contributions required under the Sydney LEP 2012 or the Act.

12. The planning proposal, draft DCP and draft VPA were placed on public exhibition from 18 March 2026 to 20 April 2026.

Key Implications

We received 59 responses to the public exhibition of the Planning Proposal

13. The following activities were undertaken to support the public exhibition:

    (a) A webpage and survey were created for people to review the planning proposal and supporting documentation and provide their feedback.

    (b) 1,007 letters were sent to property owners and occupiers within a 75-metre radius of the site boundary.

    (c) The project was included in the April 2026 edition of the Sydney Your Say eNews.

    (d) The planning proposal was referred to Ausgrid, the Department of Climate Change, Energy, the Environment and Water (DCCEEW), NSW State Emergency Service (SES), Sydney Water and Transport for NSW, for consultation and comment as required by the Gateway determination.

14. A total of 52 submissions were received from members of the community in response to the exhibition. Of these, 48 were opposed and 4 were supportive. The proponent also made a submission. All 5 government agencies contacted provided comment and a submission was received from Placemaking NSW, the agency responsible for Darling Harbour. No submissions were received regarding the draft VPA.

15. The City's response to the issues raised in submissions are discussed below and in the summary of submissions at Attachment D.

Six government agencies provided feedback on the Planning Proposal

16. Ausgrid and Sydney Water reviewed the planning proposal but did not provide any specific feedback or recommendations for this stage of the development. The agencies provided information on consultation and documentation requirements for future stages of the development.

17. Placemaking NSW indicated support for the proposed land use, upgrades to public domain and the installation of public art. The agency also provided feedback on consultation and documentation requirements for future stages of the development.

Flooding

18. The site is located in the flood planning area, with various points vulnerable to both 1% AEP and PMF flood levels. The retention of the existing structure means that no changes to the ground plane are being proposed that would change or worsen existing flood conditions. The reference design proposes flood control devices for lobby, basement and loading dock entrances.

19. DCCEEW's feedback made recommendations for updates to Sydney DCP regarding flood control devices and long-term climate change conditions. The Policy and Housekeeping Amendments to Sydney LEP 2012 and Sydney DCP, approved by Council in June 2025, include updated guidance for flood control devices. These changes are currently with the Department for drafting and finalisation. Further amendments to Sydney DCP will be considered following the finalisation of the Climate Change and Natural Hazards State Environmental Planning Policy and Climate Change Scenario Guidelines by the Department, expected later this year.

20. The NSW SES reviewed the proposal and recommended updates to the Flood Risk and Impact Assessment (at Attachment A12) to include further consideration of the impacts of climate change and the risks of prolonged flooding, emphasise passive protection over flood control devices, and further details and clarifications to the Flood Emergency Response Plan. In response, the draft site-specific DCP at Attachment B has been amended to include a requirement for the Flood Impact and Risk Assessment, submitted as part of a future development application, to include further consideration of over-floor flooding risks and a sensitivity test to assess risks should flood control devices fail. The assessment will also need to consider the Climate Change and Natural Hazards State Environmental Planning Policy and Climate Change Scenario Guidelines following their finalisation.

Transport and servicing

21. Feedback from Transport for NSW (TfNSW) raised concerns regarding the risk of traffic backing up onto Bathurst Street and the proposed removal of the porte cochere on the subject site, which would make the hotel fully reliant on TfNSW-controlled land on Day Street for hotel pick up/drop off activities. The Transport Impact Assessment, at Attachment A11, has found that additional traffic generated by the proposal is low (23 additional vehicle trips per hour in the morning peak and 13 additional vehicle trips per hour in the evening peak) and manageable considering the Day Street/Bathurst Street intersection currently experiences excellent operating conditions with substantial spare capacity. An addendum to the Transport Impact Assessment has been provided and is at Attachment A27, which demonstrates that the proposed hotel drop off bays have sufficient capacity to accommodate the forecast demand.

22. Transport for NSW raised concerns with the possibility of any projections or overhangs (such as louvres, windows or other façade elements) into the airspace above TfNSW-owned land, with particular reference to the Western Distributor along the northern boundary of the site. This was implied by the inclusion of a façade articulation zone in the building envelope figures in the site-specific DCP at Attachment B. The DCP and the Building Envelope drawings at Attachment A4 have been amended to remove the zone along the northern boundary of the site, and any future development will be constructed fully within the subject site.

The proponent made a submission raising concern over the application of end of journey floor space in the proposed controls

23. The proponent requested an amendment to the proposed Sydney LEP controls, removing the 0.3:1 floor space bonus for providing end of journey facilities as:

    (a) clause 6.6 of Sydney LEP regarding end of journey floor space only applies to commercial premises excluding tourist and visitor accommodation; and

    (b) due to the building retention and adaptive reuse approach, the proposal cannot meet the requirement of clause 6.6 for end of journey facilities to be located together in one area of the building.

24. Section 4 Explanation of Provisions and Appendix 1 of the Planning Proposal at Attachment A have been amended to remove the application of end of journey floor space to the site. No additional floor space will be available for providing end of journey facilities, noting that the overall floor space ratio applying to the site under Sydney LEP remains unchanged at 13.5:1 and any future development application will still need to satisfy the requirements to provide end of journey facilities in accordance with section 3.11.3 of Sydney DCP.

Submissions from surrounding property owners and occupiers raised concerns regarding overshadowing, view loss and excessive bulk and scale

25. The City received 4 submissions supporting and 48 submissions objecting to the proposal. All 4 supportive submissions provided general support via the online survey.

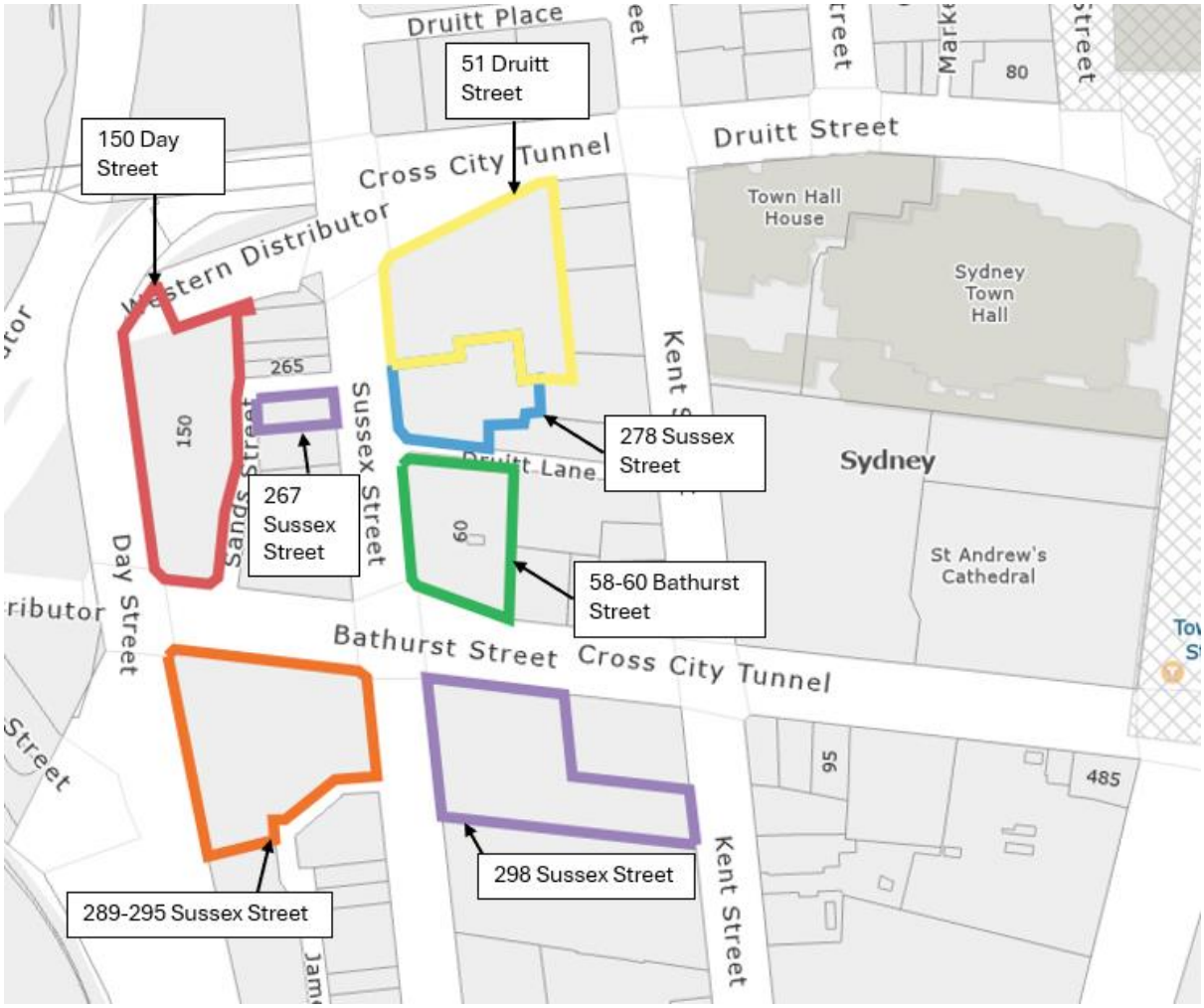


Figure 7: Location of identifiable submissions in relation to the subject site at 150 Day Street (red)

Overshadowing

26. 44 submissions from residents were received raising concern regarding the impact of overshadowing on neighbouring apartments, including loss of direct sun access and poorer amenity for residents. 35 objections were received from the residents of Millennium Towers at 289-295 Sussex Street, 6 objections from the residents of 58-60 Bathurst Street, 2 objections from 267 Sussex Street and 1 objection from 298 Sussex Street. There was also 1 objection from a commercial tenant of 51 Druitt Street.

27. The commercial building at 51 Druitt Street and the residential building at 58-60 Bathurst Street are not affected by overshadowing between the hours of 9am to 3pm at midwinter and there is no change to the number of apartments receiving more than 2 hours of direct sunlight at midwinter, consistent with the objectives of the Apartment Design Guide. At 267 Sussex Street, 20 out of 21 apartments currently enjoy more than 2 hours of direct sunlight at midwinter and there is no change to this as a result of the planning proposal.

28. The planning proposal acknowledges the overshadowing impact to 289-295 Sussex Street and 298 Sussex Street. These buildings were originally approved in 1995 and 1997 respectively, before the implementation of the current Sydney DCP and Apartment Design Guide. As a result, they were not designed nor oriented to maximise direct sun access at midwinter. However, at the time of their construction, the applicable development control was to protect a minimum of 2 hours sun access on the autumn equinox (21 March) and this proposal is consistent with that requirement.

Impact on views

29. A total of 38 submissions raised concerns about the loss of views to Cockle Bay, Tumbalong Park and areas further west, and the resulting impact on amenity and property values. These comprised 33 submissions from residents of Millennium Towers at 289–295 Sussex Street, 4 submissions from 58–60 Bathurst Street, one submission from 278 Sussex Street, and one submission from a commercial tenant at 51 Druitt Street.

30. The planning proposal acknowledges these impacts through the View Sharing Analysis at Attachment A10. Applying the principles established in *Tenacity Consulting v Warringah Council*, the analysis found that while the affected views are not 'iconic', the complete loss of some partial water views to Cockle Bay and the partial loss of whole views to Tumbalong Park would have a moderate to severe impact, particularly where views are obtained from primary living areas.

31. The proposal increases the building height control applying to the site from 45 metres to RL 87.7 metres (approximately 85 metres). While this would affect existing views, the proposed height is consistent with the surrounding built form, including 298 Sussex Street at RL 97.9 m and 58–60 Bathurst Street at RL 91.3 m. Millennium Towers has a height of RL 74.5 m and already exceeds the current planning control of 50m.

32. The Tenacity principles seek to consider whether a more skilful design could achieve similar development outcomes while reducing view impacts. Given the site's location, orientation and narrow dimensions, any increase in height would affect views currently available from surrounding properties. In addition, the building envelope is constrained by no additional overshadowing controls to Sydney Square, Town Hall Steps and the future Town Hall Square.

33. The site occupies a strategically important location between Darling Harbour, Town Hall and the commercial core of Central Sydney, and the proposal is consistent with the Central Sydney Planning Strategy and Economic Development Strategy which seek to increase employment capacity and support growth in key economic sectors, including tourism. Neither the planning framework nor the Central Sydney Planning Strategy seek to protect private views. The views currently enjoyed by neighbouring properties on Sussex and Bathurst Streets are uncharacteristic of their CBD location and the proposed height is compatible with the surrounding context. There is no practical alternative design that would achieve comparable development outcomes while materially reducing impacts. Having regard to the site's strategic significance, the physical constraints affecting its redevelopment and the broader public benefits of increased economic activity and employment, the resulting view loss is considered reasonable.

Bulk and scale

34. 37 submissions were received raising concern with the proposed height and floor space ratio, stating that these controls were inconsistent with neighbourhood character. The proposal to increase the FSR control from 9.9:1 to 13.5:1 is consistent with other commercial developments in Central Sydney and aligns with the strategic direction of the Central Sydney Planning Strategy to prioritise employment growth and increase capacity in Central Sydney. The maximum height of RL 87.7m has been tested to ensure that it can accommodate the proposed floor area. The site will remain subject to the no additional overshadowing controls protecting sun access to Sydney Town Hall steps, Sydney Square and future Town Hall Square. The maximum height of RL 87.7m is consistent with the maximum heights of surrounding buildings, including RL 74.5m at 289-295 Sussex Street, RL 97.9m at 298 Sussex Street, RL 91.3m at 58-60 Bathurst Street and RL 95.9-132.2m at Darling Park.

Transport, parking and access

35. 35 submissions were received regarding transport and access issues, particularly the impact to Bathurst Street and the lack of on-site parking. The Transport Impact Assessment, at Attachment A11, finds that the proposal will generate an additional 23 vehicle trips per hour during the morning peak period, and an additional 13 vehicle trips per hour during the evening peak period. This level of traffic generation is acceptable, considering the Day Street/Bathurst Street intersection currently experiences excellent operating conditions with substantial spare capacity.

36. The site's location within walking distance of major transport infrastructure, namely Town Hall Station 300 metres to the west, encourages the use of public transport. This is consistent with the strategic direction of City Plan 2036 and Sustainable Sydney 2030-2050: Continuing the vision, to locate development and growth in areas with existing transport infrastructure. Development on this site also represents an opportunity to improve the public domain and pedestrian linkages between the City and Darling Harbour, including along Bathurst Street, which can be explored with any future Development Application.

Submissions raised concern over the planning merit of the proposal, criticising the proposed land use and lack of precinct-wide strategic planning

37. 33 submissions were received raising concern about the planning merit of the proposal, criticising the proposed tourist and visitor accommodation land use in a housing crisis, and the use of a spot rezoning rather than a precinct-wide approach.

38. Section 5.3 of the planning proposal at Attachment A demonstrates how the proposal is consistent with the objectives of the Greater Sydney Region Plan, Eastern City District Plan, City Plan 2036, Sustainable Sydney 2030-2050: Continuing the vision, Central Sydney Planning Strategy and City of Sydney Economic Development Strategy. In particular, the Central Sydney Planning Strategy seeks to prioritise employment growth and increase capacity in Central Sydney and the City of Sydney Economic Development Strategy seeks to support efforts to create world class visitor services and promote areas with strong sector specialisations such as the tourism sector in Darling Harbour. It is also in alignment with the NSW Government's Visitor Economy Strategy 2030 Review, which sets objectives to increase hotel room supply statewide by 40,000. These are strategies which apply across the entire Central Sydney precinct.

The planning proposal has been amended to update timelines and correct minor errors

39. The planning proposal document at Attachment A has been amended to update the project timeline, with the Department remaining the plan-making authority with responsibility for drafting and finalisation. Minor errors have also been corrected regarding the summary of the site-specific DCP, removing references to requirements for an embodied carbon emissions integrated report and detailed site assessment. These reports are already required by other guidance and so were removed from the DCP to avoid unnecessarily duplication.

40. The site-specific DCP at Attachment B has been updated to clarify that, as a result of the design excellence process, only additional floor space is available not additional building height, consistent with the explanation of provisions in Section 4 of the planning proposal.

The planning proposal is consistent with the City's strategic vision

Central Sydney Planning Strategy

41. The Central Sydney Planning Strategy is a 20-year growth strategy that revised previous planning controls to create opportunities for height and density for jobs growth where balanced with environmental initiatives and excellence in urban design. This planning proposal aligns with the Central Sydney Planning Strategy by:

    (a) prioritising employment growth in Central Sydney, delivering new tourist and visitor accommodation in walking distance of Central Sydney's major commercial, cultural and entertainment precincts (including Darling Harbour), supporting the visitor economy in a location with existing tourism infrastructure

    (b) supporting moves towards a more sustainable city, where the building retention approach reduces greenhouse gas emissions by preserving the embodied carbon within the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets

    (c) ensuring development responds to context and protects Central Sydney's public spaces, ensuring no additional overshadowing protections for Sydney Square, Town Hall Steps and future Town Hall Square while the accompanying draft DCP contains a maximum building envelope designed to protect the amenity of the public domain

    (d) reaffirming the commitment to design excellence, with future development on site subject to a full competitive design process and the draft DCP including a design excellence strategy.

Local strategic planning statement

42. The City's Local Strategic Planning Statement, City Plan 2036, sets out the 20-year vision for land use planning in the city and the planning priorities and actions needed to achieve the vision. This planning proposal gives effect to City Plan 2036 by:

    (a) supporting the priority to create walkable neighbourhoods, with this planning proposal facilitating redevelopment in a location within walking distance of Central Sydney's major commercial, cultural and entertainment precincts, and the transport hub of Town Hall

    (b) aligning development and growth with supporting infrastructure, increasing visitor numbers and commercial activity in a location with existing and sufficient transport, utility and service infrastructure to accommodate more demand

    (c) creating better buildings and reducing emissions through the adaptive reuse of the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets.

Economic development strategy

43. This planning proposal gives effect to the actions of the City's Economic Development Strategy. By supporting an expansion of tourist and visitor accommodation within walking distance of Darling Harbour, Town Hall and Chinatown it supports efforts to create world class visitor services in a location well-placed to leverage major events, festivals and business conferences. Darling Harbour and its surrounds is an area with a strong tourism sector specialisation and features a cluster of complementary economic activity. It also represents an opportunity to test new ideas and innovation in the transition to net zero and showcases Sydney as a global champion of net zero.

Strategic alignment - Sustainable Sydney 2030-2050 Continuing the vision

44. Sustainable Sydney 2030-2050 Continuing the Vision renews the communities' vision for the sustainable development of the city to 2050. It includes 10 strategic directions to guide the future of the city, as well as 10 targets against which to measure progress. This planning proposal is aligned with the following strategic directions and objectives:

    (a) Direction 2 - A leading environmental performer - This planning proposal requires building retention and adaptive reuse for any development wishing to take advantage of the new planning controls, reducing greenhouse gas emissions by preserving the embodied carbon within the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets.

    (b) Direction 4 - Design excellence and sustainable development - Multiple architects will participate in a competitive design process to deliver design excellence, with the site-specific DCP including a design excellence strategy which requires competitors with demonstrated experience in environmental sustainability

    (c) Direction 5 - A city for walking, cycling and public transport - The site is well-positioned to take advantage of existing transport infrastructure, including rail, light rail, Metro and bus services, and nearby cycleways. The site is located within walking distance of Central Sydney's major commercial, cultural and entertainment precincts, including Darling Harbour.

(d) Direction 9 - A transformed and innovative economy - This planning proposal supports employment growth and the visitor economy in Central Sydney, helping to maintain the City's position locally, nationally and globally as a destination for business, investment and talent.

Risks

45. City staff have undertaken a thorough assessment of the planning proposal and found that it demonstrates strategic and site-specific merit in accordance with NSW Government guidelines. The planning proposal is consistent with City policies and strategies including City Plan 2036, Central Sydney Planning Strategy, Business Development Strategy and Sustainable Sydney 2030-2050 Continuing the Vision. Progressing the planning proposal is within the City's risk tolerance and appetite.

46. The planning proposal has demonstrated that development can be capable of complying with relevant environmental and planning laws, regulations and industry standards and is within the City's minimal appetite for non-compliance with environmental laws, regulations and industry standards.

47. Should Council and the Central Sydney Planning Committee approve the planning proposal, it will be forwarded to the Department of Planning, Housing and Infrastructure for drafting and finalisation. Proceeding with the planning proposal will meet the City's minimal appetite for disruption to our regulatory functions as decisions will be within the timeframes set in the NSW Government's Statement of Expectations Order 2026.

Relevant legislation

48. Environmental Planning and Assessment Act 1979.

49. Environmental Planning and Assessment Regulation 2021.

Critical dates / Time frames

50. The Gateway determination requires that the amendment to Sydney LEP 2012 is completed by 6 November 2026.

51. The Department of Planning, Housing and Infrastructure remains the plan-making authority. Should Council and the Central Sydney Planning Committee approve the planning proposal, it will be forwarded to the Department to liaise with Parliamentary Counsel to draft and make the local environmental plan. Once this process is complete, the amendment to the Sydney LEP 2012 will come into effect when published on the NSW Legislation website.

52. If approved by Council, the draft DCP will come into effect on the same day as the amendment to the Sydney LEP 2012.

53. The VPA is to be executed prior to the finalisation of the amendments to the Sydney LEP 2012 and Sydney DCP 2012.

GRAHAM JAHN AM

Chief Planner / Executive Director City Planning, Development and Transport

James Dirickx-Jones, Planner

Attachment A

Planning Proposal – 150 Day Street, Sydney

CITY OF SYDNEY

Planning Proposal: 150 Day Street, Sydney



Planning Proposal
August 2026

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

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Executive summary

The City of Sydney (the City) has prepared this planning proposal for 150 Day Street, Sydney (the site), also known as the PARKROYAL Hotel Darling Harbour, in response to a request from the landowner, UOL Group Limited (UOL), for the City to prepare a planning proposal for the site.

The planning proposal will facilitate development consistent with the objectives and priorities of the Greater Sydney Region Plan, Eastern City District Plan, City Plan 2036, and the Central Sydney Planning Strategy (Strategy). This proposal seeks to increase the maximum building height and floor space ratio to support future redevelopment delivering the following key benefits:

- the delivery of 30,617 square metres of tourist and visitor accommodation floor space in Central Sydney, responding to demand, and helping to promote development, investment and business opportunities in a key precinct for commercial, cultural and entertainment activities supported by existing infrastructure;
- the adaptive reuse of existing structure, retaining significant embodied carbon and achieving environmental performance targets above and beyond City targets and controls;
- a development capable of achieving design excellence;
- protecting the existing amenity of the public domain by ensuring no additional overshadowing of Sydney Square, Town Hall Steps and future Town Hall Square, and delivering a built form producing a comfortable and safe wind environment in adjacent public places.

The site

The site is located in the southern CBD, on the boundary with the Darling Harbour precinct, and in close walking distance to Town Hall and Chinatown.

It has a total area of 2,279 square metres with street frontages to Day Street along the western boundary, Bathurst Street along the southern boundary, Sands Street along the eastern boundary, and access ramps to the Western Distributor and Cross City Tunnel along the northern boundary.

Existing development on the site consists of an 11-storey building containing tourist and visitor accommodation.

Existing development controls

The site is zoned SP5 Metropolitan Centre permitting a broad range of uses including office, retail, residential and tourist and visitor accommodation. The site has a maximum floor space ratio of 9.9:1 and a maximum building height of 45m.

The planning proposal – Sydney Local Environmental Plan 2012 controls

The City has prepared this planning proposal following a detailed review of the proponent's planning proposal request.

This planning proposal seeks to insert a new site-specific clause in Division 5 of the LEP to:

- increase the maximum building height from 45 metres to RL 87.7 metres (approximately 85m);
- increase the maximum floor space ratio from 9.9:1 to 13.5:1 inclusive of design excellence;
- prevent development consent being granted under this clause unless the consent authority was satisfied that the resulting building would:
  - feature substantial retention of the existing columns, beams and slabs;
  - cause no additional overshadowing of Sydney Town Hall Steps, Sydney Square, and future Town Hall Square (in accordance with section 6.18 of Sydney LEP); and

  - not be used for the purpose of residential or serviced apartments.
- continue to permit alternative development on the site using the existing LEP controls.

Draft site-specific Development Control Plan

The City has prepared a draft site-specific amendment to the Sydney Development Control Plan 2012 (draft DCP) to help ensure the objectives and intended outcomes of this planning proposal are achieved. The draft DCP includes controls relating to the built form of the proposed development, sun access and wind conditions in the public domain, maximum building envelope dimensions, sustainability targets and landscaping, vehicular access, servicing and waste management, flooding and design excellence.

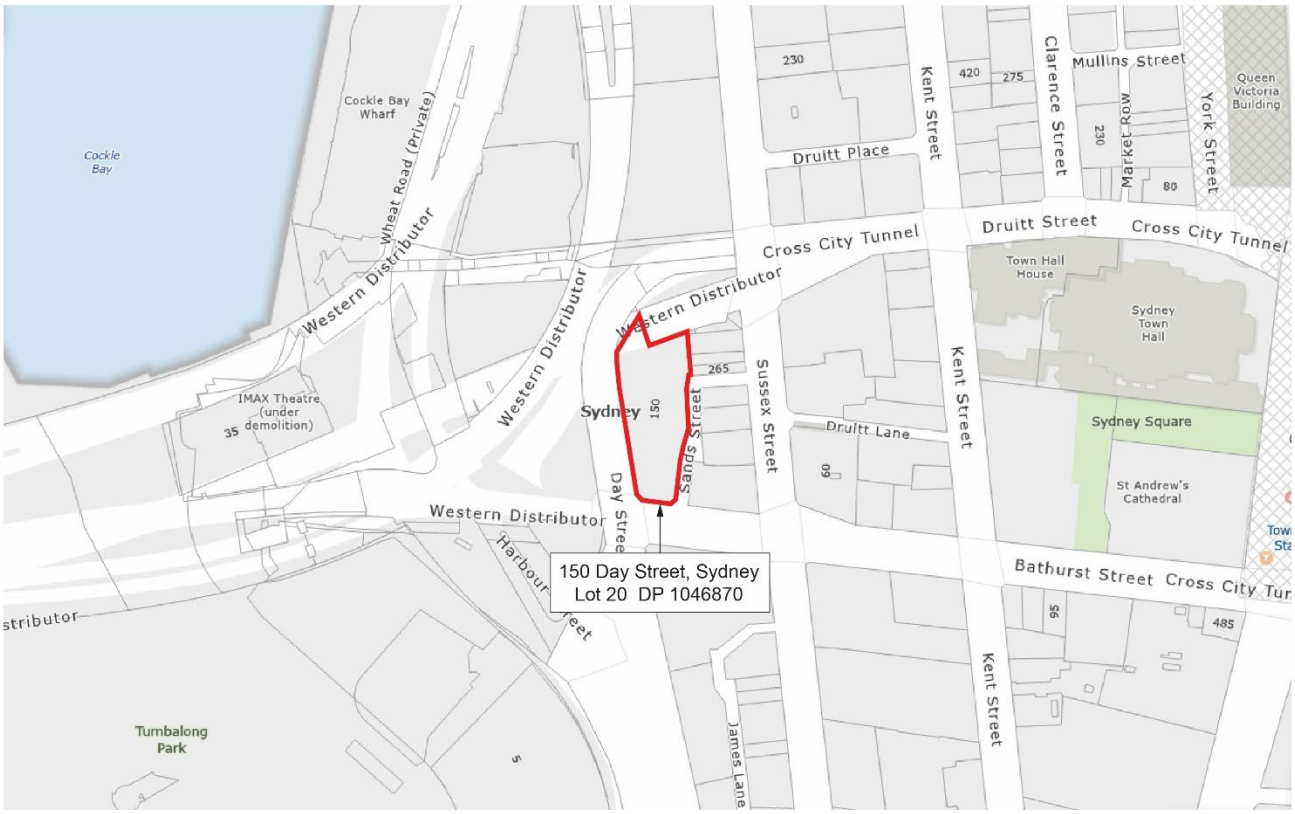
This planning proposal has been amended, new text is shown in bold underline and deleted text is shown as ~~bold strikethrough~~.

1. Site identification

1.1 Site identification

The address and lot reference affected by this planning proposal are collectively referred to as ‘the site’. The site is located at 150 Day Street, Sydney and the lot reference is Lot 20 in DP 1046870. A map of the site, outlined in red, is shown in Figure 1.

Figure 1. Land affected by this Planning Proposal



1.2 Site location

The site is located in Central Sydney within the City of Sydney Local Government Area. The site has street frontages to Day Street to the west, Sands Street to the east, Bathurst Street to the south, and the Western Distributor and Cross City Tunnel to the north.

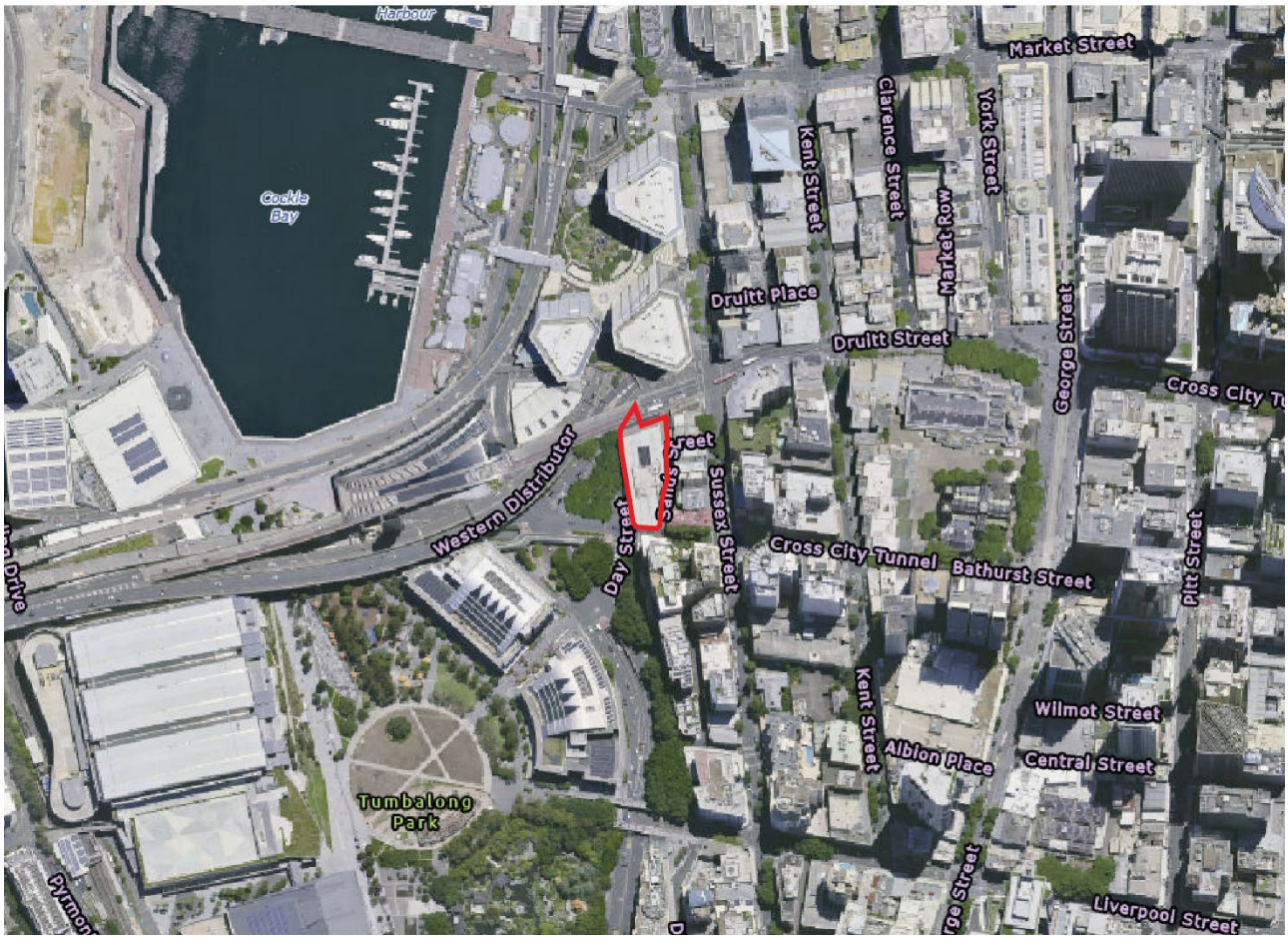
The site is located on the boundary of the Darling Harbour precinct, 300 metres east of the key tourism infrastructure of the International Convention Centre and its associated theatres, 400m south of the Sydney Aquarium and 500m south of the Maritime Museum, and 500m north of Darling Square and Dixon Street.

Key public open spaces nearby include Tumbalong Park and the Chinese Garden of Friendship located 250m to the southwest. Sydney Town Hall is located 250m to the east of the site.

The site is located approximately 300m west of Town Hall Rail Station with intercity, suburban, light rail and bus connections. To the north of site is an on-ramp to the Western Distributor and the Cross City Tunnel Harbour Street exit.

An aerial photo of the site and surrounding area is shown in Figure 2.

Figure 2. Aerial photo of the site



1.3 Site characteristics

The site comprises one allotment that has a total area of 2,279m^2. It has frontages of approximately 72m to Day Street, 17m to Bathurst Street, 59m to Sands Street and 59m to the underside of the Western Distributor. The common boundary with the 4 properties to the north-east spans a length of approximately 26m. The site is irregular in shape and its topography is relatively level, with a gentle fall from the south-eastern corner to the north-west.

Existing development on the site consists of an 11-storey hotel building occupied by the PARKROYAL Darling Harbour that contains 336 hotel rooms and supporting amenities, as well as a ground floor hospitality venue at the corner of Day Street and Bathurst Street. The development also contains 2 levels of basement carparking accessible from Day Street, and a loading dock accessible from Sands Street. The current hotel entrance is located on Day Street.

The original building was constructed in 1988 as a 10-storey hotel, with a concrete frame and roof. An upgrade in 1996 added a steel roof to the former concrete roof to facilitate a habitable space on the 11th storey.

Surrounding development consists of a mixture of commercial and residential development, and transport infrastructure. To the west across Day Street is a vehicle turning circle and area of trees and landscaping associated with the exit to the Cross City Tunnel. To the south across Bathurst Street is a 20-storey residential building at 289-295 Sussex Street and 158-166 Day Street, known as Millennium Towers. To the east across Sands Street are a series of buildings, both commercial and residential including:

– 281-287 Sussex Street, a heritage-listed 3-storey former warehouse known as the “Vintage Building”
– 273-279 Sussex Street, a 13-storey residential building known as “KAZ Tower”
– 267 Sussex Street, a 12-storey residential building known as “Jade Apartments”.

To the north-east directly adjoining the site are a series of one- and two-storey commercial terraces and a substation owned by Transport for NSW. To the north is an onramp connecting Druitt Street to the Western Distributor, a tunnel exit from the Cross City Tunnel intersecting with Bathurst and Harbour Streets, and a pedestrian connection underneath the Western Distributor onramp connecting Day Street with Sussex and Druitt Streets.

The site is surrounded by a complicated series of overlapping land titles associated with the Western Distributor, Cross City Tunnel and Darling Harbour precinct. Both Transport for NSW and Place Management NSW own lots to the north and east of the site. Of particular interest is the triangular shaped portion of land in the northwestern corner of the site, which represents a publicly accessible area currently part of a pedestrian route passing underneath the Western Distributor onramp. UOL Group Limited owns part of the ground floor of this area as part of the pedestrian route, with Transport for NSW owning airspace above and below associated with the Western Distributor and Cross City Tunnel respectively. These land ownership arrangements are illustrated in Figure 3.

Images of the building and its immediate context are shown in Figures 4 to 12.

Figure 3. 150 Day Street and surrounding land ownership arrangements

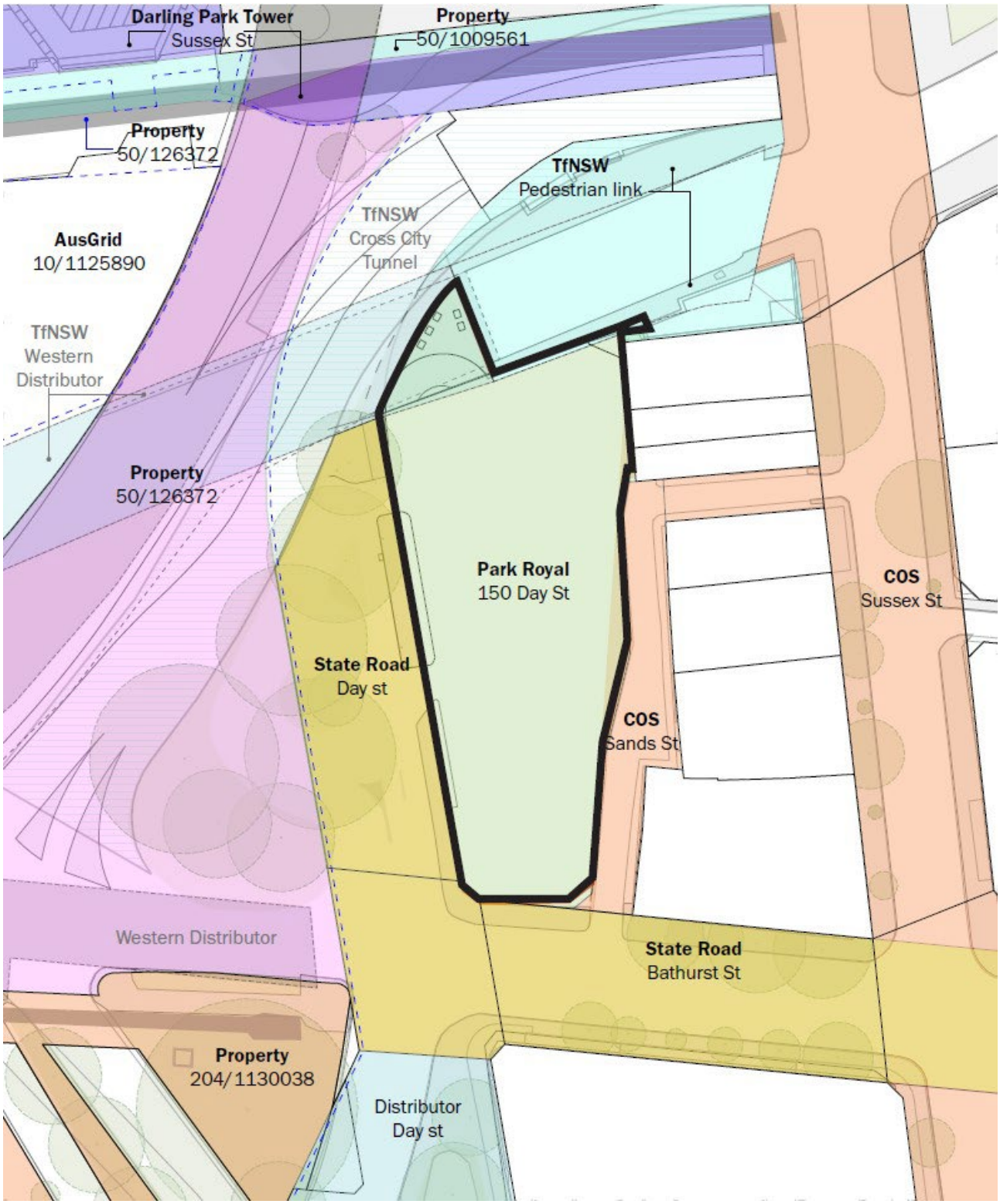


Figure 4. 150 Day Street outlined in red, looking south-west from Sussex Street towards Western Distributor on-ramp



Figure 5. 150 Day Street outlined in red, looking south across Western Distributor on-ramp



Figure 6. 150 Day Street outlined in red, looking east at Day Street frontage



Figure 7. 150 Day Street outlined in red, looking north at Day Street and Bathurst Street frontages



Figure 8. 150 Day Street outlined in red, looking north along Sands Street



Figure 9. 150 Day Street loading dock on Sands Street, looking west



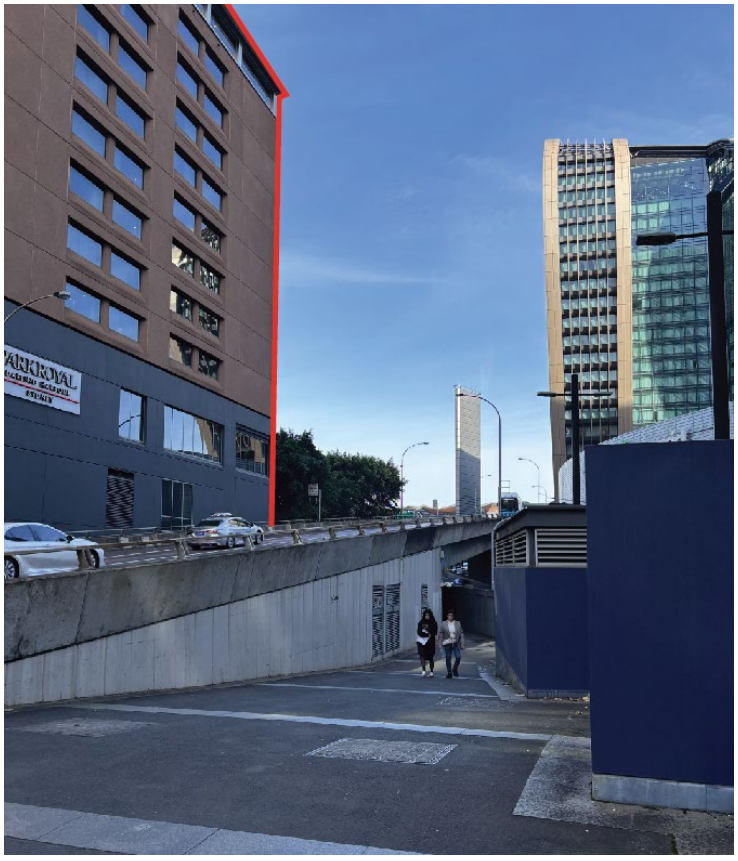
Figure 10. Pedestrian route underneath Western Distributor onramp, site boundary outlined in red



Figure 11. Day Street road reserve, looking south



Figure 12. 150 Day Street outlined in red, looking west showing entrance to pedestrian route underneath onramp



2. Existing planning controls

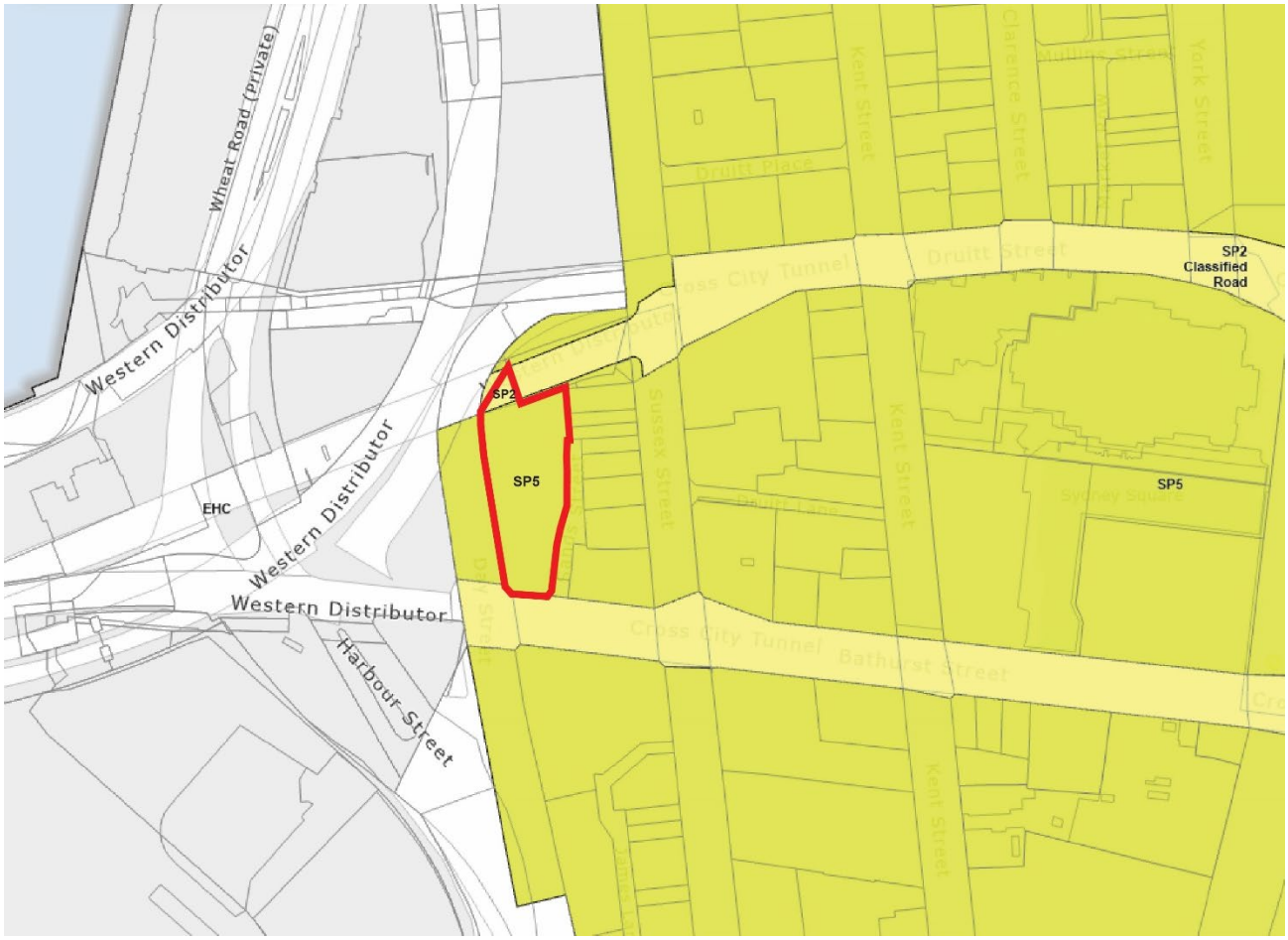
2.1 Zoning

The site is located within the SP5 ‘Metropolitan Centre’ Zone. The objectives of this zone include:

– to recognise and provide for the pre-eminent role of business, office, retail, entertainment and tourist premises in Australia’s participation in the global economy

– to provide opportunities for an intensity of land uses commensurate with Sydney’s global status.

Figure 13. Extract from zoning map in Sydney LEP 2012

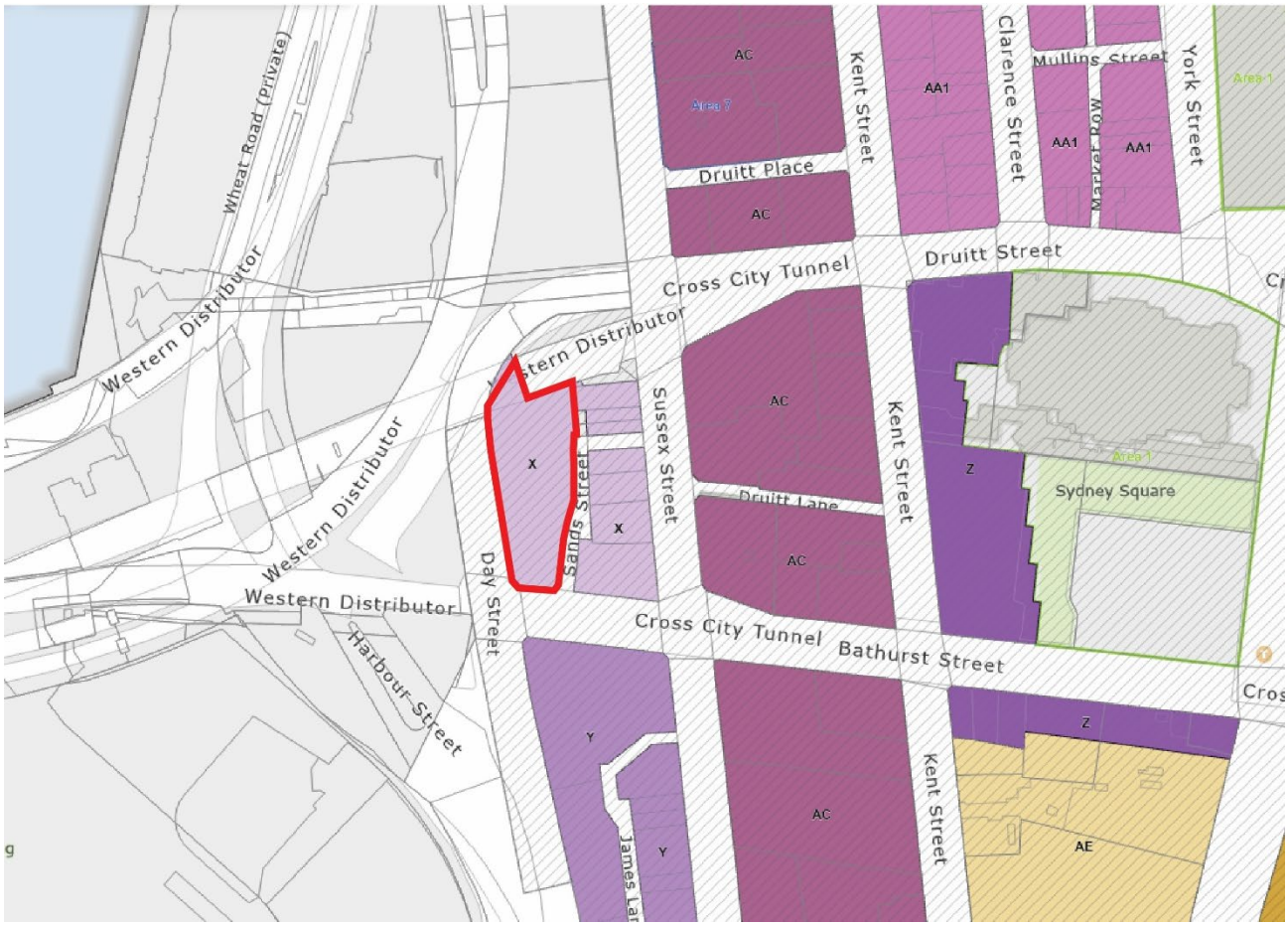


2.2 Building height

The site is subject to a maximum height of building control of 45 metres in Sydney LEP 2012, as represented by 'X' and the purple shading in Figure 14.

The site is also subject to the no additional overshadowing controls of Sydney Square, Sydney Town Hall and future Town Hall Square during the control periods, as outlined in section 6.18 of the Sydney LEP.

Figure 14. Extract from Height of building map in Sydney LEP 2012

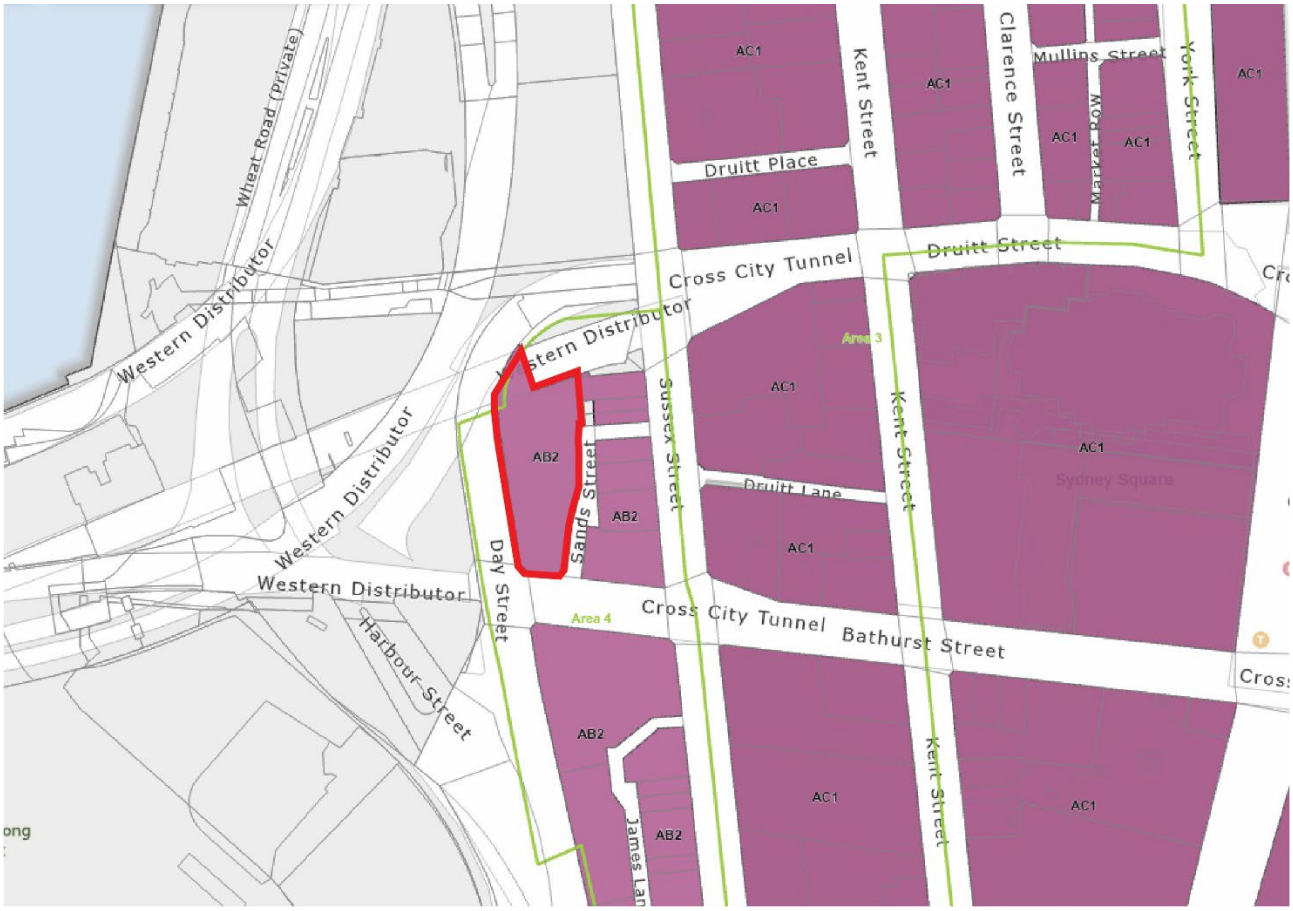


2.3 Floor space ratio

The site is subject to a maximum floor space ratio control of 7.5:1 in Sydney LEP 2012, as represented by 'AB2' and the purple shading in Figure 15. The site is located in Area 4 which, under clause 6.4 of the Sydney LEP, means the site is eligible for accommodation floor space of up to 1.5:1 for hotel or motel accommodation. In addition, the site may be eligible for an amount of additional floor space of up to 10% should a development demonstrate design excellence through a competitive design process.

The site is therefore capable of achieving a maximum FSR of 9.9:1 under current controls.

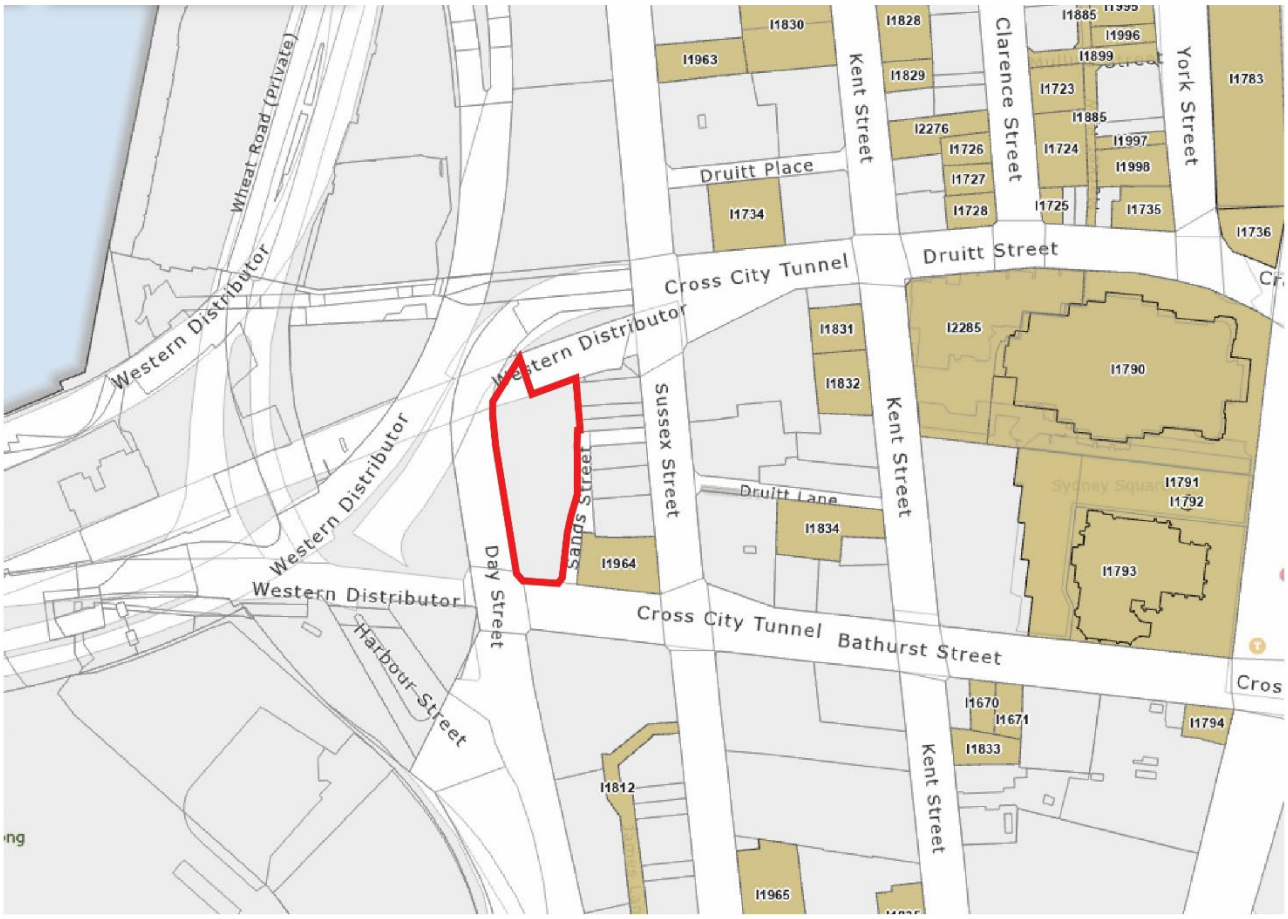
Figure 15. Extract from floor space ratio map in Sydney LEP 2012



2.4 Heritage

The site is not heritage listed or located within a heritage conservation area. There is a local heritage item neighbouring the site to the east on the opposite side of Sands Street. The local heritage item at 281-287 Sussex Street is identified as Item No. I1964: Former warehouse 'The Vintage Building'. The building is 3 storeys along Sussex Street and 4 storeys along Sands Street and the western end of Bathurst Street. Its warehouse character is prominent with a face brick façade, large windows and simple street wall.

Figure 16. Extract from heritage map in Sydney LEP 2012



3. Objectives and intended outcomes

This planning proposal will enable the redevelopment of 150 Day Street, Sydney to deliver:

- a total of 30,617 square metres of tourist and visitor accommodation floor space in Central Sydney, aligning with the strategic direction of the Central Sydney Planning Strategy;
- the adaptive reuse of existing structure, where the primary structure and floors (including columns, beams and slabs) are substantially retained, representing significant embodied carbon and achieving environmental performance targets above and beyond City targets and controls;
- a built form capable of achieving design excellence;
- a built form which protects and enhances the amenity of the public domain, in particular through no additional overshadowing of Sydney Square, Town Hall Steps and future Town Hall Square, and through a comfortable and safe wind environment at ground level.

The draft DCP accompanying the Planning Proposal will provide more detailed guidance for the site, including built form, sustainability, vehicular access, servicing and waste management, flooding and design excellence.

4. Explanation of provisions

4.1 Sydney Local Environmental Plan 2012

To achieve the objectives and intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan by inserting a new site-specific clause under Division 5 Site Specific Provisions to:

- Permit a maximum building height of RL 87.7m (approximately 85m);
- Permit a maximum floor space ratio of 13.5:1, inclusive of:
  - the mapped floor space ratio (in accordance with clause 4.4);
  - accommodation floor space (clause 6.4);
  - ~~**end of journey floor space (clause 6.6);**~~
  - Additional floor space, of up to 10%, if the building demonstrates design excellence (under clause 6.21D(3)(b));
- Prevent development consent being granted under this clause unless the consent authority was satisfied that the resulting building would:
  - feature the substantial retention of the existing structure, including columns, beams and slabs
  - cause no additional overshadowing of Sydney Town Hall Steps, Sydney Square, and future Town Hall Square (in accordance with section 6.18 of Sydney LEP); and
  - not be used for the purpose of residential or serviced apartments.

Clause 6.6 should not apply to this site, no additional floor space for providing end of journey facilities should be available to exceed the maximum floor space ratio set at 13.5:1.

Clause 6.21D(3)(a) should not apply to these site specific controls, no additional building height should be available to exceed the maximum set at RL 87.7 metres.

These controls should not prevent alternative development on the site taking place under the existing LEP controls.

Appendix 1 of this Planning Proposal provides some example clauses of the proposed controls. The final version of the clauses to be inserted into Division 5 would be subject to drafting and agreement by the Parliamentary Counsel's Office.

4.2 Sydney Development Control Plan 2012

To ensure future development is consistent with the objectives of the planning proposal, site-specific provisions for the DCP will be drafted to ensure a high-quality built form and public domain. These provisions include:

- objectives for a high quality built form including substantial retention of the existing structure, causing no additional overshadowing of Town Hall Steps, future Town Hall Square and Sydney Square, and resulting in a comfortable and safe wind environment in adjacent public places;

– dimensions of a maximum building envelope;
– sustainability targets above standard requirements for hotels in Central Sydney;
– requirements for the preparation of **~~an embodied carbon emissions integrated report,~~** landscape plan, delivery servicing plan**~~, and detailed environmental site assessment as part of any future development application;~~** and
– a design excellence strategy.

A draft of the new site-specific provisions for the DCP, also **~~to be~~** placed on public exhibition, can be found at Attachment B.

5. Justification

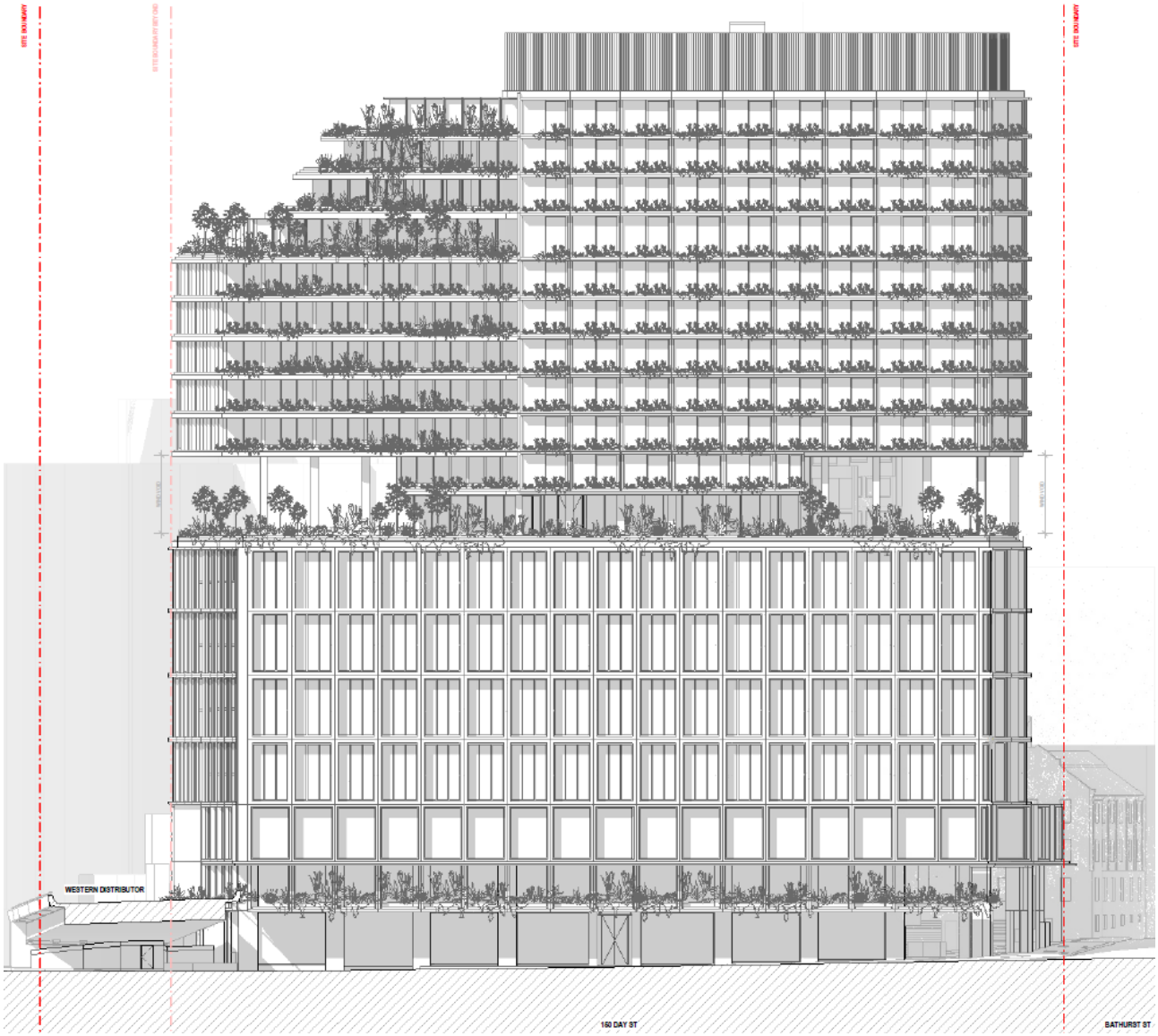
5.1 Landowner request

The applicant UOL Group Limited, supported by Mecone and Hassell, lodged a formal request to prepare a planning proposal in March 2025. The intention for the development is to renovate the existing 11-storey hotel and add a new 11-storey hotel above. This would operate as two different hotel brand offerings (Parkroyal and Pan Pacific) with combined back-of-house and service operations. The reference design depicts active frontages at ground level with potential retail or food and beverage tenancies, and tourist and visitor accommodation and new or upgraded facilities (dining areas, meeting rooms, ball room, gymnasium, pool, bar and restaurant) on all upper levels.

Figure 17. Artistic representation of indicative design – northwestern perspective



Figure 18. Technical drawing of indicative design - western (Day Street) elevation



5.2 Need for the planning proposal

Is the planning proposal a result of an endorsed LSPS, strategic study or report?

This planning proposal is the result of a request from the landowner to change the planning controls that relate to the site.

The landowner has provided a Planning Proposal Justification Report and a number of studies in support of the request, including an Urban Design Report prepared by Hassell. Together they describe how the proposal is consistent with relevant strategies and demonstrate how the site is capable of accommodating growth in employment generating floor space through amending building height and floor space ratio controls without unacceptable impacts on public domain and amenity.

The supporting documents commissioned by the applicant to support their request are attached as the following Attachments to this planning proposal:

- Attachment A1: Planning Proposal Justification Report – Mecone
- Attachment A2: Urban Design Report – Hassell
- Attachment A3: Draft site-specific DCP as suggested by proponent – Mecone
- Attachment A4: Building Envelopes
- Attachment A5: Survey Drawings
- Attachment A6: Economic Impact Assessment – Atlas Economics
- Attachment A7: Planning Stage Structural Report – TTW
- Attachment A8: Pedestrian Wind Environment Study – Windtech
- Attachment A9: Sustainability Vision and Strategy Report – Atelier Ten
- Attachment A10: View Sharing Analysis – Urbis
- Attachment A11: Transport Impact Assessment – ptc
- Attachment A12: Flood Impact and Risk Assessment – TTW
- Attachment A13: Statement of Heritage Impact – Weir Phillips Heritage
- Attachment A14: Air Quality Assessment – SLR
- Attachment A15: Noise Impact Assessment – Acoustic Logic
- Attachment A16: Infrastructure Report – LCI
- Attachment A17: Report on Preliminary Site (Contamination) Investigation – Douglas Partners
- Attachment A18: Report on Desktop Geotechnical Assessment – Douglas Partners
- Attachment A19: Report on Footing Investigation – Douglas Partners
- Attachment A20: Civil Engineering Preliminary Review – TTW
- Attachment A21: Existing Building Services Condition Report – LCI
- Attachment A22: Building Code of Australia 2022 Capability Statement – Metro Building Consultancy
- Attachment A23: Preliminary Public Art Strategy – UAP
- Attachment A24: Social and Community Needs Assessment – Mecone
- Attachment A25: Connecting to Country: Aboriginal Design Principles – WSP
- Attachment A26: Concept Operational Waste Management Plan – Elephants Foot
- **Attachment A27: Addendum to Transport Impact Assessment – Mecone and ptc**

Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

This Planning Proposal seeks to insert new site-specific provisions into the LEP for the site. The objective is to deliver 30,617 square metres of tourist and visitor accommodation floor space which is approximately 8,000 square metres more than what is currently allowed under the floor space ratio controls of the Sydney LEP. The resulting conditions have been assessed to ensure any future built form is appropriate and does not result in any unacceptable impacts on adjoining properties or the public domain. The amended controls would facilitate the delivery of additional employment generating floor space consistent with the objectives of the Local Strategic Planning Statement and Central Sydney Planning Strategy.

5.3 Relationship to the strategic planning framework

Will the planning proposal give effect to the objectives and actions of the applicable regional or district plan or strategy?

A Metropolis of Three Cities – The Greater Sydney Region Plan

The planning proposal gives effect to the following objectives of the Greater Sydney Region Plan:

- Objective 14: Integrated land use and transport creates walkable and 30-minute cities –The site is located in Central Sydney, within 300m of Town Hall with intercity and suburban rail, metro, light rail and bus connections, with additional bus stops nearby on Sussex Street and cycleways on Kent Street providing additional linkages with the metropolitan transport network. The location within the Metropolitan Centre Zone and proximity to residential areas in the CBD and Pyrmont promotes the vision of a 30-minute city. The proposal to remove any private parking reduces the use of private vehicle trips and encourages walking and the use of public transport.
- Objective 18: Harbour CBD is stronger and more competitive – The site's location within the Harbour CBD and the provision of additional tourist and visitor accommodation floor space helps to achieve the strategies for an internationally competitive commercial sector to support an innovation economy.
- Objective 22: Investment and business activity in centres – The site is located within the metropolitan centre of the Eastern Harbour City, supporting the economic significance of the Harbour CBD.
- Objective 24: Economic sectors are targeted for success – The site, proposing additional tourist and visitor accommodation, is located in the Harbour CBD of the Eastern Harbour City, in close proximity to iconic landmarks including Darling Harbour and the network of cultural institutions and conference centres, linking business and leisure visits.
- Objective 33: A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change – This planning proposal supports the aspirational objectives of achieving net-zero emissions through the embodied carbon savings of the building retention requirement, and the 5-star Green Star Buildings and 4.5-star NABERS Energy ratings targets.

Eastern City District Plan

The planning proposal gives effect to the following Planning Priorities of the Eastern City District Plan:

- Planning Priority E7: Creating a stronger and more competitive Harbour CBD – Central Sydney is at the core of the Harbour CBD. This planning proposal will facilitate new tourist and visitor accommodation floor space, supporting the strong cultural, arts and entertainment focuses of the Harbour CBD, a diverse and vibrant night-time economy, and an internationally competitive commercial sector to support an innovation economy.
- Planning Priority E10: Delivering integrated land use and transport planning and a 30-minute city – Any redevelopment of the site under the controls made by this planning proposal would be designated for tourist and visitor accommodation, which would be well-positioned to take advantage of the metropolitan transport network, including rail, light rail, metro and bus connections, nearby cycleways, as well as being within walking distance of the Harbour CBD's major commercial, cultural and entertainment precincts.
- Planning Priority E11: Growing investment, business opportunities and jobs in strategic centres – The site is located within the metropolitan centre of the Eastern City District (Harbour CBD) and any redevelopment facilitated by controls made by this planning proposal would provide new tourist and visitor accommodation floor space, supporting employment growth while being well-positioned to take advantage of existing services and transport infrastructure.

- Planning Priority E13: Supporting growth of targeted industry sectors – This planning proposal facilitates new tourist and visitor accommodation floor space within walking distance of key commercial, cultural and entertainment precincts, including Darling Harbour, supporting initiatives to attract more visitors and improve visitor experiences at key tourist attractions.
- Planning Priority E19: Reducing carbon emissions and managing energy, water and waste efficiently – This planning proposal supports the aspirational objectives of achieving net-zero emissions through the embodied carbon savings of the building retention requirement, and the 5-star Green Star Buildings and 4.5-star NABERS Energy ratings targets.

Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary or GCC, or another endorsed local strategy or strategic plan?

City Plan 2036 (Local strategic planning statement)

The planning proposal gives effect to the following priorities of City Plan 2036:

- Priority I1: Movement for walkable neighbourhoods and a connected city – This planning proposal would facilitate new development and tourist and visitor accommodation well-positioned to integrate with existing and future transport connections in Central Sydney, within walking distance to the CBD's major commercial, cultural and entertainment precincts including Darling Harbour.
- Priority I2: Align development and growth with supporting infrastructure – This planning proposal would facilitate the development of new tourist and visitor accommodation in Central Sydney, well-positioned to take advantage of existing transport, utilities and services infrastructure, increasing visitor numbers in the location with the greatest capacity to accommodate them.
- Priority P1: Growing a stronger, more competitive Central Sydney – This planning proposal supports growth in Central Sydney by facilitating future development that will deliver additional capacity for economic and employment growth.
- Priority S2: Creating better buildings and places to reduce emissions and waste and use water efficiently – This planning proposal requires a building retention approach for any development wishing to take advantage of the new planning controls, reducing greenhouse gas emissions by preserving the embodied carbon within the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets.

Sustainable Sydney 2030-2050: Continuing the vision

This planning proposal gives effect to the following strategic directions of Sustainable Sydney 2030-2050: Continuing the vision:

- Direction 2: A leading environmental performer - This planning proposal requires a building retention approach for any development wishing to take advantage of the new planning controls, reducing greenhouse gas emissions by preserving the embodied carbon within the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets.
- Direction 4: Design excellence and sustainable development – This planning proposal requires a building retention approach for any development wishing to take advantage of the new planning controls. Multiple architects will participate in a competitive design process to deliver design excellence, with the site-specific DCP to include a design excellence strategy which requires competitors with demonstrated experience in environmental sustainability.
- Direction 5: A city for walking, cycling and public transport – The site is well-positioned to take advantage of existing transport infrastructure, including rail, light rail, Metro and bus services, and nearby cycleways. The site is located within walking distance of Central Sydney's major commercial, cultural and entertainment precincts, including Darling Harbour.

– Direction 9: A transformed and innovative economy – This planning proposal supports employment growth and the visitor economy in Central Sydney, helping to maintain the City's position locally, nationally and globally as a destination for business, investment and talent.

Central Sydney Planning Strategy

This planning proposal gives effect to the following key moves of the Central Sydney Planning Strategy:

– 1. Prioritise employment growth and increase capacity – This planning proposal will facilitate redevelopment of the site delivering new tourist and visitor accommodation, increasing capacity within Central Sydney and supporting the visitor economy.

– 5. Ensure infrastructure keeps pace with growth – Development facilitated by this planning proposal is subject to the Central Sydney Development Contributions Plan 2020 and City of Sydney Affordable Housing Program.

– 6. Move towards a more sustainable city – This planning proposal requires a building retention approach for any development wishing to take advantage of the new planning controls, reducing greenhouse gas emissions by preserving the embodied carbon within the existing structure and improving energy efficiency through the implementation of Green Star Buildings and NABERS Energy targets.

– 7. Protect, enhance and expand Central Sydney's heritage and public spaces – This planning proposal delivers additional building height while retaining no additional overshadowing protections to Sydney Square, Town Hall Steps and future Town Hall Square.

– 8. Move people more easily – The site is located within easy walking distance of multiple public transport services as well as Central Sydney's major commercial, cultural and entertainment precincts including Darling Harbour.

– 9. Reaffirm commitment to design excellence – Future development on site facilitated by this planning proposal will be subject to a full competitive design process, with the site-specific DCP to include a design excellence strategy.

Is the planning proposal consistent with any other applicable State and regional studies or strategies?

City of Sydney Economic Development Strategy 2025-2035

This planning proposal gives effect to the actions of the City's Economic Development Strategy. By supporting an expansion of tourist and visitor accommodation in this part of Central Sydney, within close walking distance of Darling Harbour, Town Hall and Chinatown, it:

– supports efforts to invest in and leverage major events, festivals and business conferences to promote Sydney to global audiences

– supports efforts to create world class visitor services

– promotes areas with strong sector specialisations and a clustering of complementary economic activities

– trials and tests new ideas and approaches to support industry innovation in the transition to net zero, and showcases Sydney as a global champion of net zero.

Is the planning proposal consistent with applicable SEPPs?

The following table (Table 1) outlines the consistency of this planning proposal with applicable State Environmental Planning Policies (SEPPs).

Table 1. Consistency with applicable SEPPs

SEPP	Comment
SEPP (Biodiversity and Conservation) 2021	This Planning Proposal is consistent. Chapters 3, 4, 5 and 13 are not applicable to this site. In reference to Chapter 2, as the site is located in Central Sydney, there is no vegetation to be cleared and the planning proposal requires retention of existing structure and no change to site coverage. In reference to Chapter 6, the site is located in the Sydney Harbour Catchment but is not located in the Foreshores and Waterways Area, nor is it located within 100m of a natural waterbody. The impact of development in a regulated catchment (Sydney Harbour Catchment) is addressed in the Urban Design Report (Attachment A2), Flood Impact and Risk Assessment (Attachment A12), and Infrastructure Report (Attachment A16). Because the existing structure is being retained, with no additional excavation, no change to current site coverage, and no change to current drainage infrastructure proposed, it is considered unlikely that the proposal with have any adverse impact on water quality and quantity, aquatic ecology, recreation and public access, or flooding beyond the boundaries of the site. Further investigation regarding water will be undertaken following as part of any future development application, including any need to improve or upgrade the existing City of Sydney stormwater asset running underneath the site.
SEPP (Exempt and Complying Development Codes) 2008	This planning proposal is consistent.
SEPP (Housing) 2021	This planning proposal is consistent.
SEPP (Industry and Employment) 2021	This planning proposal is consistent.
SEPP (Planning Systems) 2021	This planning proposal is consistent.
SEPP (Precincts – Eastern Harbour City) 2021	This planning proposal is consistent.
SEPP (Resilience and Hazards) 2021	This planning proposal is consistent. The site is not located in a coastal environment area or a coastal use area. With reference to Chapter 4 Remediation of Land, the City has considered the potential for contamination reflecting the history of the site, and the proponent has prepared a Report on Preliminary Site (Contamination) Investigation at Attachment A17.

SEPP	Comment
	No change in land use is facilitated by this planning proposal and the development would require the retention of the existing structure with no bulk excavation. However a limited degree of excavation would be required for lift pits, footing expansions and services. Preliminary results have not revealed any issues of concern. Further investigation regarding potential contamination will be undertaken as part of any future development application process, and the Report on Preliminary Site (Contamination) Investigation has provided recommendations for future testing and assessment.
SEPP (Resources and Energy) 2021	This planning proposal is consistent.
SEPP (Sustainable Buildings) 2022	This planning proposal is consistent. All development on site will be consistent with standards for non-residential development as articulated in Chapter 3.
SEPP (Transport and Infrastructure) 2021	This planning proposal is consistent. ~~**Noting the close proximity and the overlapping land ownerships associated with the Western Distributor and Cross City Tunnel, the planning proposal will be referred to Transport for NSW for comment.**~~ ~~**The proponent has already undertaken preliminary engagement with Transport for NSW.**~~ **Noting the close proximity and the overlapping land ownerships associated with the Western Distributor and Cross City Tunnel, the planning proposal was referred to Transport for NSW (TfNSW) for comment. TfNSW outlined future consultation that must occur with itself and Transurban with regard to the potential impact of any construction on the Cross City Tunnel, including the requirement to enter into an interface agreement with Transurban.** **Any public domain works involving Day Street, Bathurst Street or the pedestrian underpass below the Western Distributor will require the consultation and approval of TfNSW and Transurban.** **Further feedback and recommendations to the Transport Impact Assessment were provided with regard to traffic modelling and vehicle access, including pick up/drop off arrangements on Day Street, and more details on this advice are available in the Summary of Submissions at Attachment D to the council report.**

The following SEPPs are not applicable to this planning proposal:

– SEPP (Precincts – Central River City) 2021, SEPP (Precincts – Regional) 2021, SEPP (Precincts – Western Parkland City) 2021, SEPP (Primary Production) 2021

Is the planning proposal consistent with applicable Ministerial Directions (section 9.1 Directions) or key government priority?

The following table (Table 2) outlines the consistency of this planning proposal with applicable Local Planning Directions.

Table 2. Consistency with Local Planning Directions

Ministerial Direction	Comment
1.1 Implementation of Regional Plans	This planning proposal is consistent, as demonstrated in section 5.3 of this document.
1.3 Approval and Referral Requirements	This planning proposal is consistent. No provisions are being proposed that would require the concurrence, consultation or referral of development applications to a Minister or public authority, nor identify the development as designated development.
1.4 Site Specific Provisions	This planning proposal is consistent. The planning proposal does not unnecessarily restrict the permitted uses on the land. The planning proposal provides development uplift for tourist and visitor accommodation uses. This is consistent with strategic priorities established in the relevant regional and district plan and LSPS. Development that does not make use of the uplift provided by the planning proposal can continue to make use of the full range of uses permitted in the SP5 zone.
3.1 Conservation Zones	This planning proposal is consistent. The site is not located within an environmentally sensitive area, a conservation zone nor land otherwise identified for environment conservation/protection purposes.
3.2 Heritage Conservation	The planning proposal is consistent. There are no heritage-listed items on the site, and the site's proximity to a heritage item is fully considered by the planning proposal. A Heritage Impact Statement, provided by the proponent, is at Attachment A13.
3.5 Recreation Vehicle Area	The planning proposal is consistent. The site is not being developed for the purpose of a recreation vehicle area.
3.7 Public Bushland	The planning proposal is consistent. The site does not contain any urban bushland.
3.9 Sydney Harbour Foreshores and Waterways Area	This planning proposal is consistent. The site is not located within the Foreshores and Waterways Area.
3.10 Water Catchment Protection	This planning proposal is consistent. The site is located within the Sydney Harbour Catchment but outside the Foreshores and Waterways Area boundary. Apart from the harbour itself there are no natural watercourses in the vicinity, however there is an extensive below ground pit and pipe stormwater network that collects stormwater runoff to Darling Harbour. As this planning proposal would facilitate development requiring retention of the

Ministerial Direction	Comment
	existing structure, it is considered unlikely that any development would worsen water quality. Proposed greenspaces and landscaping of new structure provides opportunities to improve the quality of water runoff. The planning proposal does not conflict with the objectives of the Direction, and the proponent has provided a Planning Stage Structural Report, Flood Impact and Risk Assessment and Civil Engineering Preliminary Review, attached to this document at Attachments A7, A12 and A20 respectively. ~~**Considering the proximity of Sydney Water assets to the site, it is expected that the City will refer this planning proposal to Sydney Water for comment.**~~ **The proposal was referred to Sydney Water for comment who raised no objections or recommendations at this stage, and provided some high level information regarding water and wastewater servicing to be considered with any future Development Application.**
4.1 Flooding	The planning proposal is inconsistent with this direction. The Flood Impact and Risk Assessment prepared by the proponent, at Attachment A12, shows floor levels of the existing structure to be below the flood planning level for this development type of a minimum 1% AEP flood level. As this planning proposal would facilitate a significant increase in the number of hotel rooms located on this site, this would appear to be contrary to the provisions of this local planning direction. However, this direction allows a planning proposal to be inconsistent should the planning proposal be supported by a flood and risk impact assessment prepared in accordance with the principles of the Floodplain Development Manual 2005 and consistent with the relevant planning authorities' requirements. This planning proposal facilitates an increase in the intensity of the land use on this site, with an additional 150-200 hotel rooms, but because there is no change proposed to the existing building extent at the ground floor plane, there will be no change in flood behaviour when compared with the existing scenario. Even when considering the building retention approach, redevelopment offers the opportunity to achieve compliance with the City's upcoming provisions for Water and Flood Management outlined in the draft policy and housekeeping amendments to the Sydney DCP endorsed by Council in June 2025. This includes raising floor levels above the flood planning level and the installation of flood barriers at lobby, basement and loading dock entrances should all other options having been explored are unable to address the risk. It should be noted that the Sands Street loading dock floor level is below the 20% AEP flood level, and the ability to rectify this is constrained due to the limited space for vehicle turning, gradient compliance and the existing road level of Sands Street. Raising Sands Street is not possible due to the existing adjacent

Ministerial Direction	Comment
	properties and their loading dock entrances If in the detailed DA flooding can't be addressed by any other means, the loading dock could be protected using flood barriers that would be fully automated with their own independent power supply. There is also no opportunity for flood water entering the loading dock to flow into the rest of the ground floor or basement due to raised internal floor levels which are above the PMF. The relatively frequent flooding of the dock to be expected by a floor level below the 20% AEP flood level can be managed through a Delivery Servicing Plan, which will be required in the site-specific DCP attached to this document at Attachment B. The Flood Impact and Risk Assessment also includes a Preliminary Flood Emergency Management Plan which assesses flood behaviour and risk, flood inundation times, and a flood response strategy with reference to the shelter-in-place guidelines published by the Department of Planning, Housing and Infrastructure. A detailed Flood Emergency Response Plan, prepared in accordance with the requirements in the NSW Flood Risk Management Guideline including EM01 Support for Emergency Management Planning, FB01 Understanding and Managing flood, and NSW shelter in-place guidelines will be required as part of any future development application, and is included as a requirement in the site-specific DCP attached to this document at Attachment B. ~~**It is expected that this planning proposal be referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and the State Emergency Service (SES) as part of agency referrals following Gateway Determination. Their feedback can be incorporated into the planning proposal and the subsequent design excellence process ahead of any future development application.**~~ **The proposal was referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW), who made recommendations for updates to Sydney DCP with regard to flood gate protection measures and Flood Emergency Response Plans. Some of these recommendations have already been adopted as part of the Policy and Housekeeping Amendments to the Sydney DCP which were approved by Council in June 2025. Others will be considered following the publication of the NSW Climate Change and Natural Hazards State Environmental Planning Policy and Climate Change Scenario Guidelines later in 2026.** **The proposal was referred to the NSW State Emergency Service (SES) who made recommendations for updates to the Flood Impact and Risk Assessment (FIRA) with regard to climate change impacts and the installation of flood control devices such as flood gates. The site-specific DCP, at Attachment B to the council report, has been amended to include a requirement for the FIRA at DA stage to include consideration of over-floor flooding risks and a sensitivity test in case of any failure of flood control devices. More**

Ministerial Direction	Comment
	information on our response to the recommendations of SES can be found in the Summary of Submissions at Attachment D to the council report.
4.2 Coastal Management	The planning proposal is consistent. The site is not located within the coastal environment area or coastal use area.
4.4 Remediation of Contaminated Land	The planning proposal is consistent. The City has considered the potential for contamination reflecting the history of the site, and the proponent has prepared a Report on Preliminary Site (Contamination) Investigation at Attachment A17. No change in land use is facilitated by this planning proposal and the development would require the retention of the existing structure with no bulk excavation. However a limited degree of excavation would be required for lift pits, footing expansions and services. Preliminary results have not revealed any issues of concern. Further investigation regarding potential contamination will be undertaken as part of any future development application process, and the Report on Preliminary Site (Contamination) Investigation has provided recommendations for future testing and assessment.
4.5 Acid Sulfate Soils	The planning proposal is consistent. The site is located within areas classified as Class 1 & 2 under section 7.14 of the Sydney LEP and any development facilitated by this planning proposal would result in the intensification of land uses on the site. While no change in land use is proposed and the development would require the retention of the existing structure, a limited degree of excavation would be required for lift pits, footing expansions and services. An acid sulfate soils management plan will be required as part of any future development application.
5.1 Integrating Land Use and Transport	The planning proposal is consistent. The site is located in an area that is well serviced by existing public and private transport options.
5.2 Reserving Land for Public Purpose	The planning proposal is consistent. No changes to existing zonings or reservations of land for public purposes are facilitated by this planning proposal.
6.1 Residential Zones	This planning proposal is consistent. The planning proposal does not prevent a residential use from occurring on the site under the current zoning and development standards. It introduces additional standards to encourage commercial uses.
6.2 Caravan Parks and Manufactured Home Estates	This planning proposal is consistent.
7.1 Employment Zones	This planning proposal is consistent. It will encourage employment growth in a suitable location, as well as protect and

Ministerial Direction	Comment
	support the viability of an area identified in the relevant regional and district plans and LSPS for commercial uses.

The following Ministerial Directions are not applicable to this planning proposal:

– Ministerial Direction 1.2 Development of Aboriginal Land Council Land, 1.4A Exclusion of Development Standards from Variation, 1.5 Parramatta Road Urban Transformation Strategy, 1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan, 1.7 Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan, 1.8 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan, 1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor, 1.10 Implementation of the Western Sydney Aerotropolis Plan, 1.11 Implementation of Bayside West Precincts 2036 Plan, 1.12 Implementation of Planning Principles for the Cooks Cove Precinct, 1.13 Implementation of St Leonards and Crows Nest 2036 Plan, 1.14 Implementation of Greater Macarthur 2040, 1.15 Implementation of the Pyrmont Peninsula Place Strategy, 1.16 North West Rail Link Corridor Strategy, 1.17 Implementation of the Bays West Place Strategy, 1.18 Implementation of the Macquarie Park Innovation Precinct, 1.19 Implementation of the Westmead Place Strategy, 1.20 Implementation of the Camellia-Rosehill Place Strategy, 1.21 Implementation of the South West Growth Area Structure Plan, 1.22 Implementation of the Cherrybrook Station Place Strategy, 3.3 Sydney Drinking Water Catchments, 3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs, 3.6 Strategic Conservation Planning, 3.8 Willandra Lakes Region, 4.3 Planning for Bushfire Protection, 4.6 Mine Subsidence and Unstable Land, 5.3 Development Near Regulated Airports and Defence Airfields, 5.4 Shooting Ranges, 5.5 High Pressure Dangerous Goods Pipelines, 7.2 Reduction in non-hosted short-term accommodation period, 7.3 Commercial and Retail Development along the Pacific Highway, North Coast, 8.1 Mining, Petroleum Production and Extractive Industries, 9.1 Rural Zones, 9.2 Rural Lands, 9.3 Oyster Aquaculture, 9.4 Farmland of State Regional Significance on the NSW Far North Coast.

5.4 Environmental, social and economic impact

Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected because of the proposal?

The planning proposal applies to a site in Central Sydney, currently occupied by a hotel with full site coverage and no vegetation within its boundaries. Any redevelopment would be an intensification of existing uses and similar to surrounding buildings. It is highly unlikely for any adverse impact on a critical habitat or threatened species, population or ecological community to take place as a result of this proposal.

Are there any other likely environmental effects of the planning proposal and how are they proposed to be managed?

Building retention and sustainability

The existing building was originally constructed in 1988 as a 10-storey concrete frame building. The proponent has prepared an Existing Building Services Condition Report, at Attachment A21, which outlines the range of mechanical, electrical, communications, hydraulics, fire, emergency and vertical transportation services which need to be replaced due to the 37-year age of the building and subsequent changes to NCC standards. Rather than pursue a full demolition and rebuild, with the substantial associated loss of embodied carbon, the proponent has chosen to undertake an adaptive reuse approach.

As outlined in the Urban Design Report provided at Attachment A2, the proponent has applied a structures retention methodology to investigate the extent to which the existing fabric can be retained, the impact of new strengthening and structural elements to accommodate increased building height, and an audit to identify façade deficiencies and improve performance. The Report has identified opportunities to pursue full electrification and reduce reliance on gas. The existing façade's glazing can be replaced with a new lightweight system which addresses noise and heat gain issues, reducing HVAC-related carbon emissions and aligning with NCC 2025 standards by enhancing thermal and acoustic performance while decreasing structural load. The reference design proposes to strip away the actual concrete façade and a new lightweight system to be installed which, while removing carbon from the building, reduces carbon over the future life of the hotel by reducing the weight on the existing structure (minimising strengthening works) and supporting improvements to thermal and acoustic performance. The Urban Design Report also proposes to retain the façade on site, crushed into new cladding, for example. The lightweight façade also facilitates significant landscaping on walls, terraces, balconies and roofs.

Further opportunities to improve retention of existing structure and embodied carbon, and enhance sustainability measures including energy efficiency and landscaping, can be explored as part of the competitive design process. As made clear in part 4 of this report, the additional building height and floor space ratio is only available where the City is satisfied that the resulting development features the substantial retention of the existing structure, including columns, beams and slabs. In addition the draft site-specific DCP, at Attachment B, requires development on the subject site for tourist and visitor accommodation to meet, as a minimum, a 5-star Green Star Buildings v1 rating and a 4.5-star NABERS Energy rating, which exceeds the energy performance standards required for hotels in section 3.6.1(7) of the Sydney DCP.

Floor Space Ratio

This planning proposal will insert site-specific floor space ratio (FSR) controls in the LEP for the site, 150 Day Street. These FSR controls are specific to the building envelope outlined in this planning proposal and have been tested to ensure that it is possible to accommodate the proposed FSR within the dimensions of the proposed building envelope. It should be noted that the existing structure being retained as part of this proposal pre-dates the implementation of the Sydney DCP, having been constructed in 1988, and has architectural features that do not comply with the DCP,

namely floor-to-floor heights of 2.85m. However, all additional floors to be constructed above the existing building will be consistent with the DCP in terms of floor-to-floor heights (3.4m).

The planning proposal increases the maximum FSR on the site from 9.9:1 to 13.5:1, inclusive of accommodation floor space~~**, end of journey floor space**~~ and design excellence. A Planning Proposal Justification Report and Urban Design Report, prepared by Mecone and Hassell respectively on behalf of the landowner, are at Attachment A1 and A2. They detail how the desired density is consistent with the City's vision for Central Sydney and will result in additional commercial floor space for tourist and visitor accommodation without significant adverse impacts.

To be eligible for the proposed development controls, future development on the site is to meet the site-specific requirements in the LEP, such as restricting future development on site to non-residential uses only, feature substantial retention of the existing including columns, beams and slabs, and not cause any additional overshadowing of Sydney Town Hall Steps, Sydney Square and future Town Hall Square.

Urban design

The planning proposal will insert site-specific building height controls in the LEP. The increase in the maximum building height from 45m to RL 87.7m (approximately 85m) will facilitate the requested increase in FSR. The site will remain subject to the no additional overshadowing controls as outlined in section 6.18 of the Sydney LEP. In particular, no additional overshadowing is permitted to:

– Sydney Town Hall Steps, from 14 April to 31 August, between 10.30am and 4pm;

– Sydney Square, from 14 April to 31 August, between 11am and 4pm; and

– future Town Hall Square, all year, between midday and sunset.

The interaction of these two controls results in a maximum building height as demonstrated in Figures 19-22. Proposed site-specific DCP controls will establish a maximum building envelope which complies with the above restrictions.

Figure 19. Maximum building envelope - south elevation

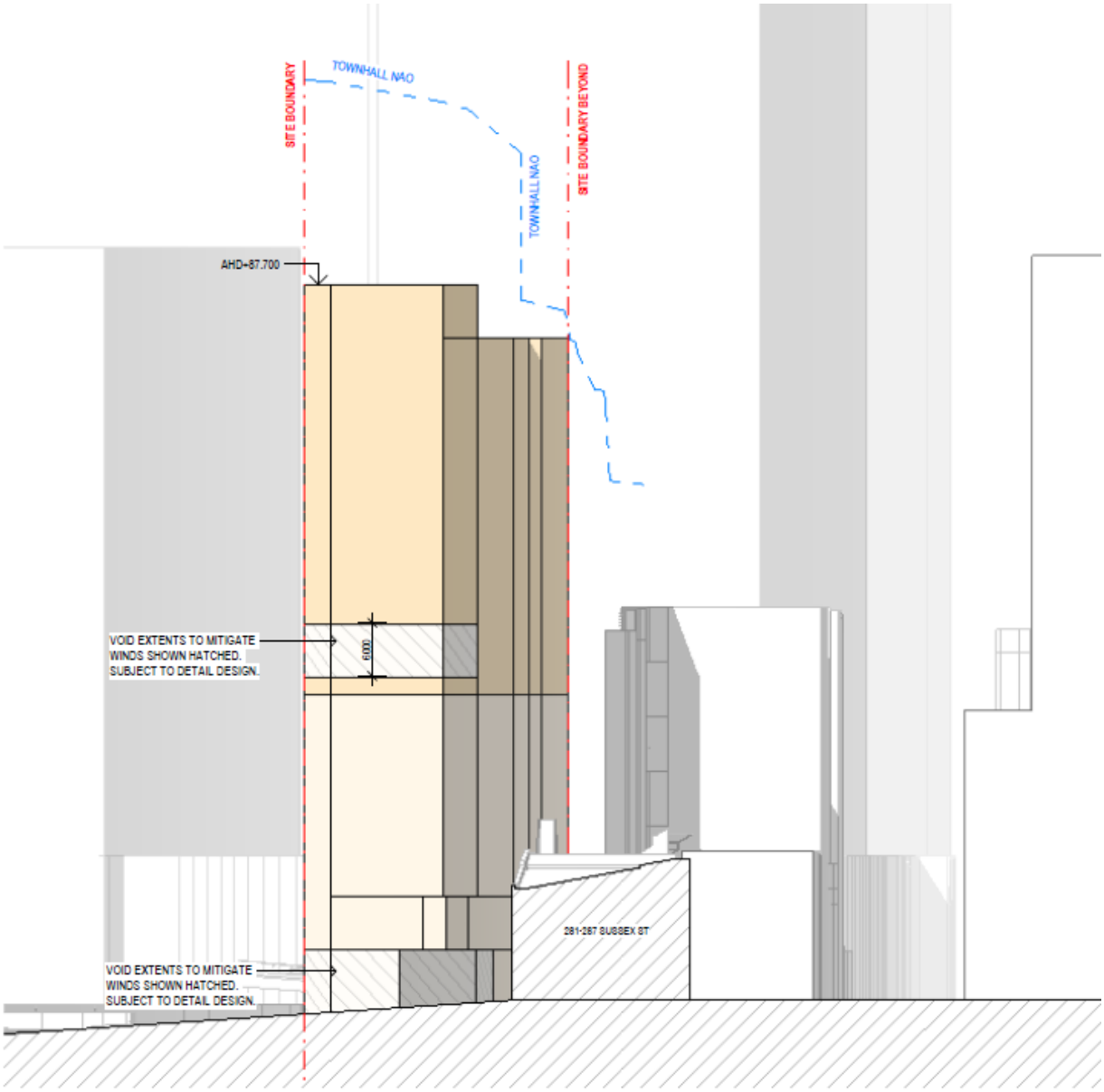


Figure 20. Maximum building envelope - east elevation

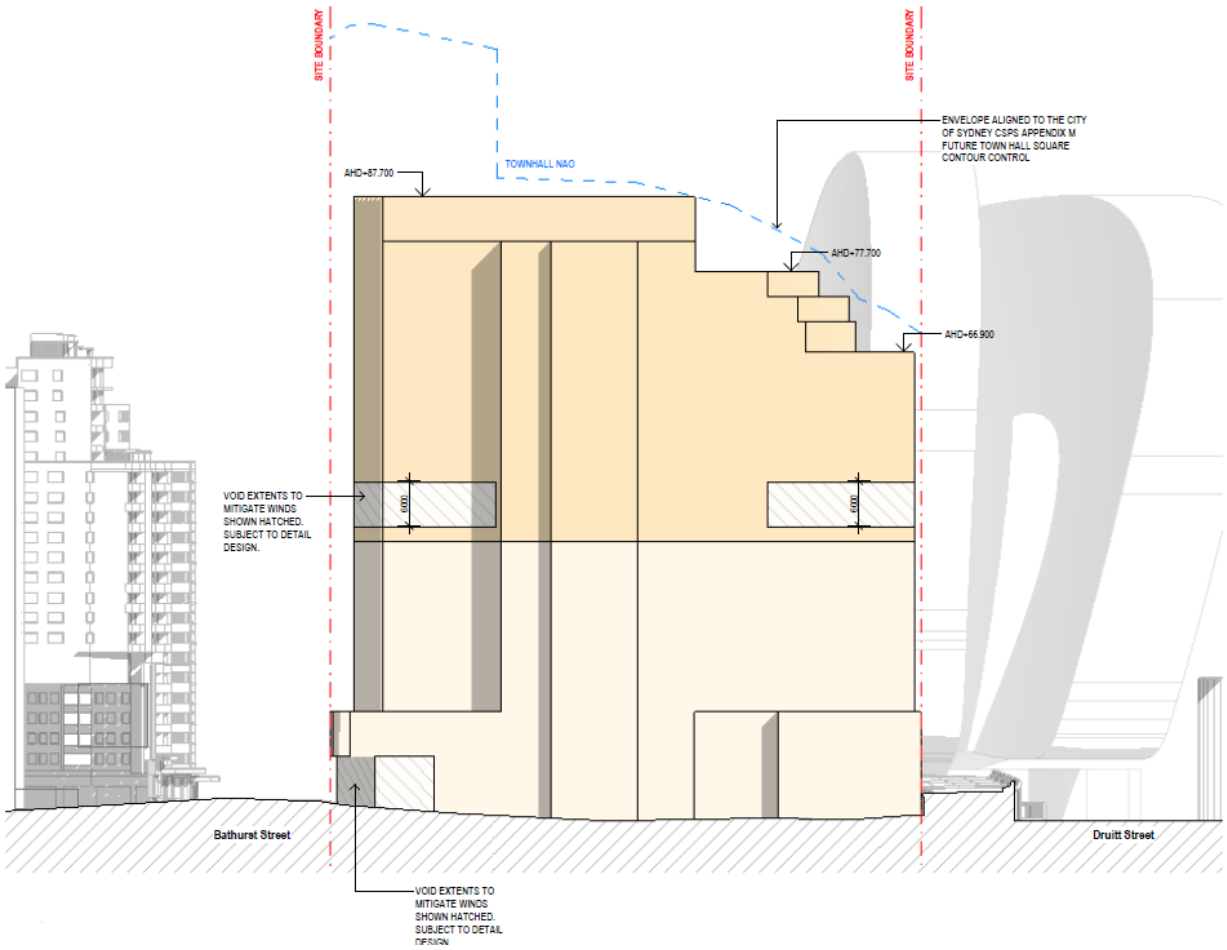


Figure 21. Maximum building envelope - north elevation

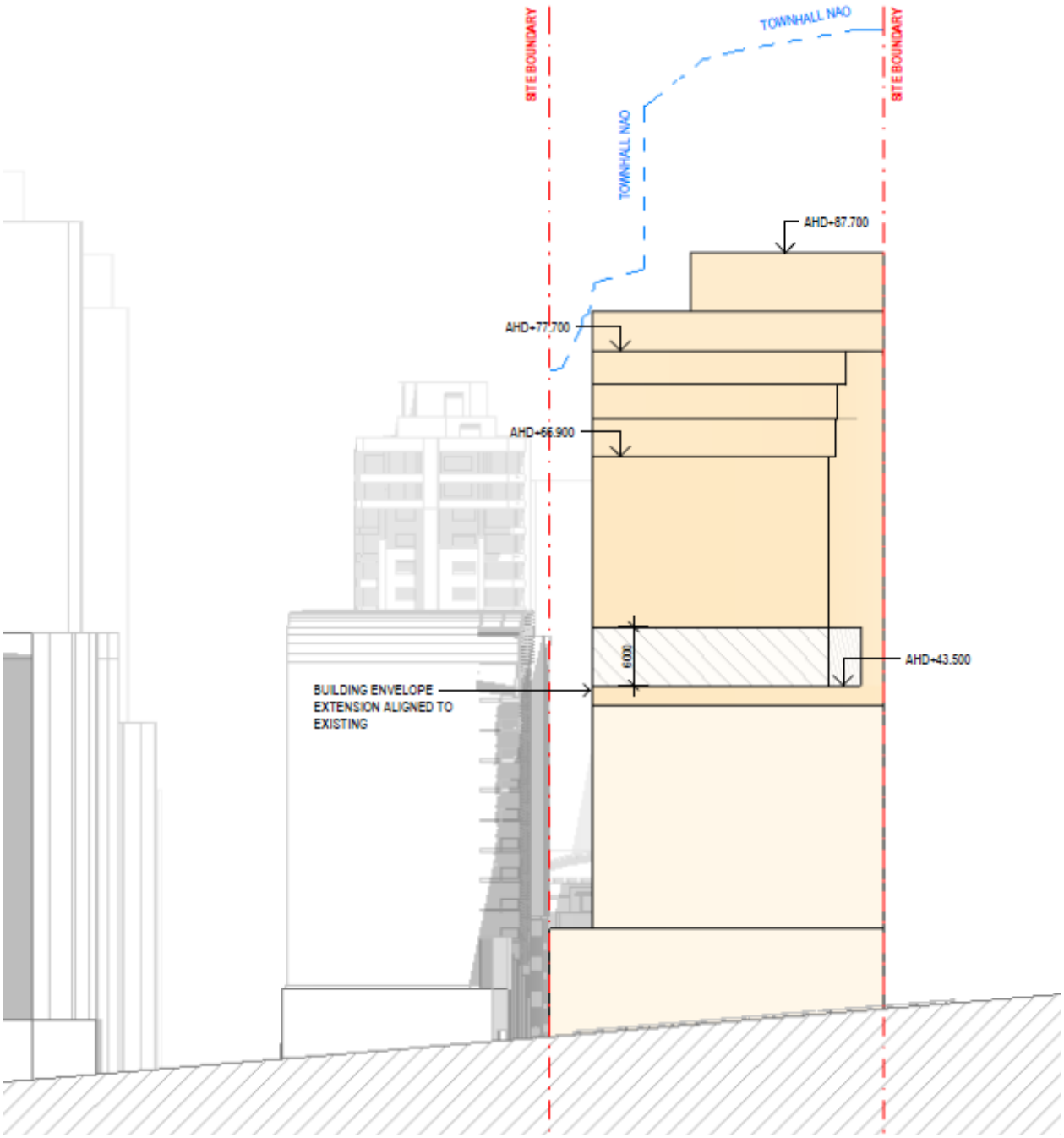
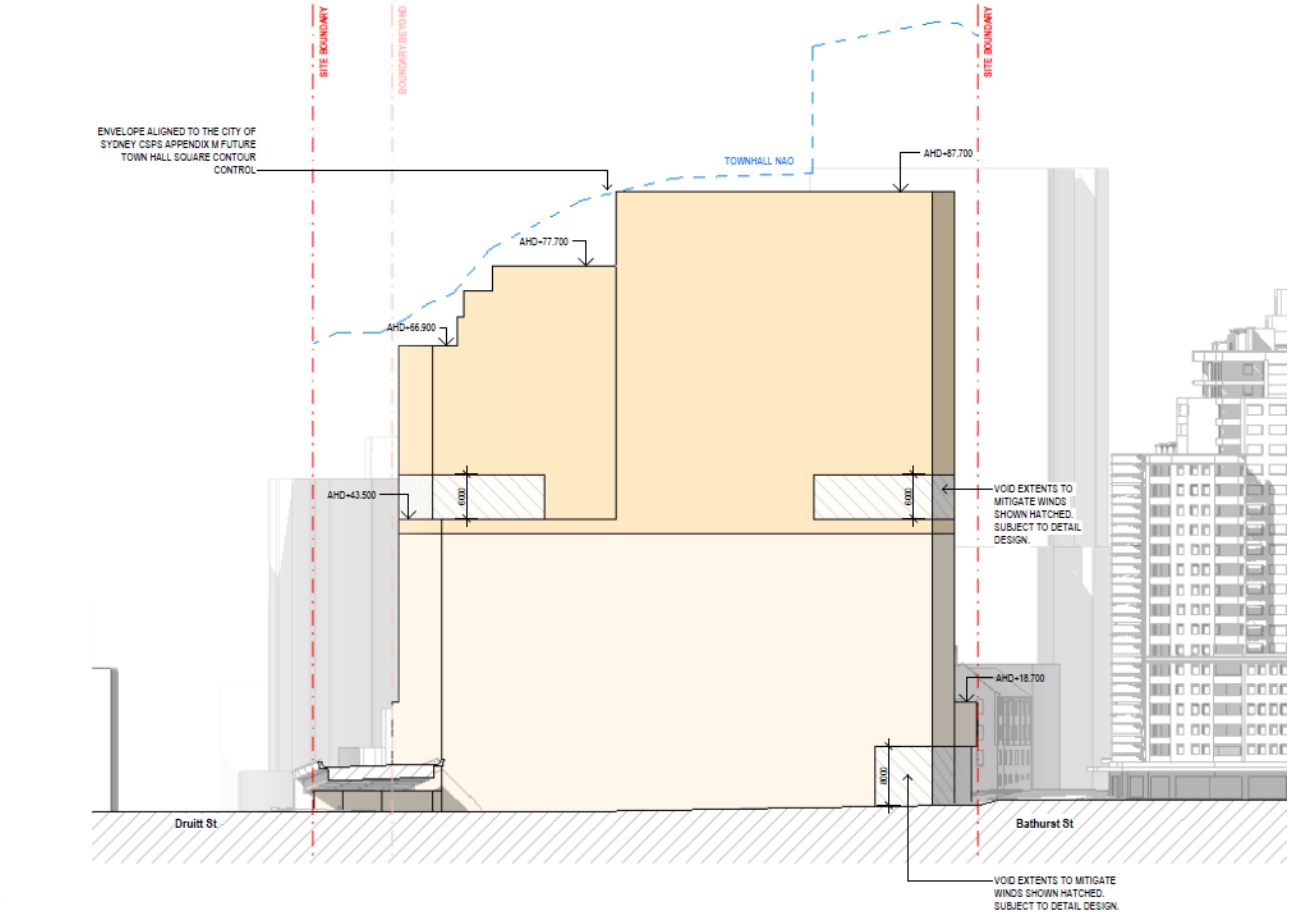


Figure 22. Maximum building envelope - west elevation



The proposal uses the existing structure to support a vertical extension on the site. In this case, the maximum building envelope facilitates a 22-storey building which steps downwards from RL 87.7m to RL 66.9m towards the northern boundary of the site, in accordance with the Town Hall Square No Additional Overshadowing Control. The locations of new floor levels are determined in large part by the location of existing columns and the geometry of the existing building, which is largely built to the boundary on all sides.

According to section 5.1.1.1 of the Sydney DCP, buildings with a total height between 55 and 120 metres should feature street frontage heights of 45 metres, a street setback of 8 metres, from public places (streets and lanes), before continuing a vertical extrusion up to the maximum height allowable. If these street setbacks were applied to this site, it would mean that any vertical extrusion above 45 metres in height would be between 4 to 16 metres wide – too small and narrow to accommodate hotel rooms, lift core and building services. This is illustrated below in Figures 23 and 24. As a result, the proponent has undertaken a series of tests to determine that an alternative maximum building envelope can be developed which achieves commercially viable floorplates for a hotel while also achieving acceptable wind, overshadowing and other urban design outcomes.

Figure 23. Section 5.1.1.1 compliant building envelope as illustrated by proponent

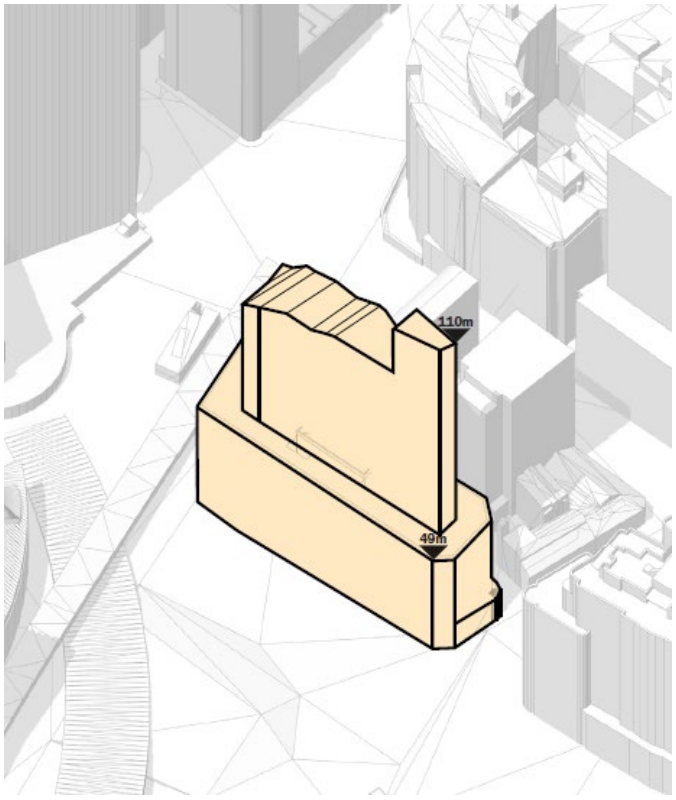
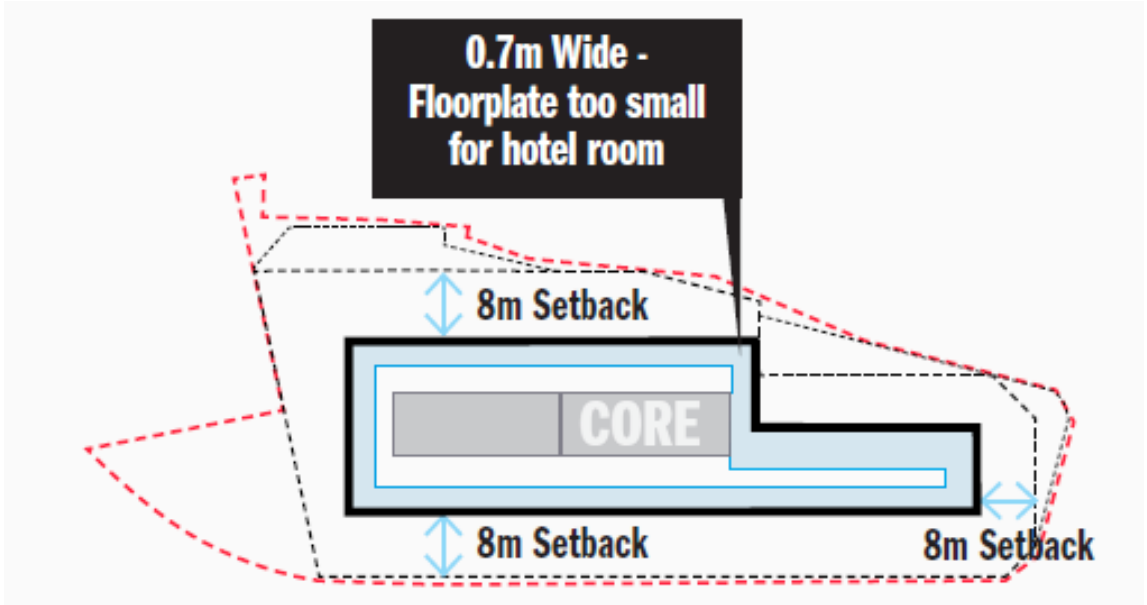


Figure 24. Section 5.1.1.1 compliant floor plate as illustrated by proponent



Wind

The proponent has provided a Pedestrian Wind Environment Study, as required by section 5.1.9 of the Sydney DCP 2012, at Attachment A8. This report illustrates how existing wind conditions on Day Street currently fail the City of Sydney's Wind Safety Standard and Wind Comfort Standards for various testing points around the subject site. These exceedances occur from westerly winds which downwash off the façade and are funnelled down to Day Street and along Bathurst and Druitt Streets. The Sydney DCP requires development not to worsen (by increasing spatial extent, frequency or speed) an existing wind speed that exceeds the Wind Safety Standard or Wind Comfort Standard.

The report outlines how wind tunnel testing of the proposed building envelope resulted in additional modifications to the massing, namely the inclusion of an 8-metre chamfer along the ground level southern edge of the site, and the inclusion of void spaces along the northern and southern boundaries of the building envelope across Levels 11 and 12. These measures, when tested in the wind tunnel, demonstrate that the proposal can deliver wind conditions equivalent to or improved on current conditions. The voids and chamfer are included in planning envelope diagrams shown in Figures 19 to 22, as well as in the site-specific DCP, at Attachment B, which defines the maximum building envelope for the site. Figures 25 to 28 outline the wind tunnel test results for the existing and proposed developments.

The site-specific DCP includes provisions which make clear that any future development taking advantage of the controls proposed in this planning proposal may alter the location and extent of the voids and chamfer if demonstrated that wind conditions are further improved from what is proposed here. Additional wind tunnel testing will take place following the design competition to assess the winning detailed building design and the City will need to be satisfied that wind conditions are acceptable as part of any development application.

Figure 25. Wind tunnel test results of existing building close to site (red lines indicating points of exceedance and associated wind direction)

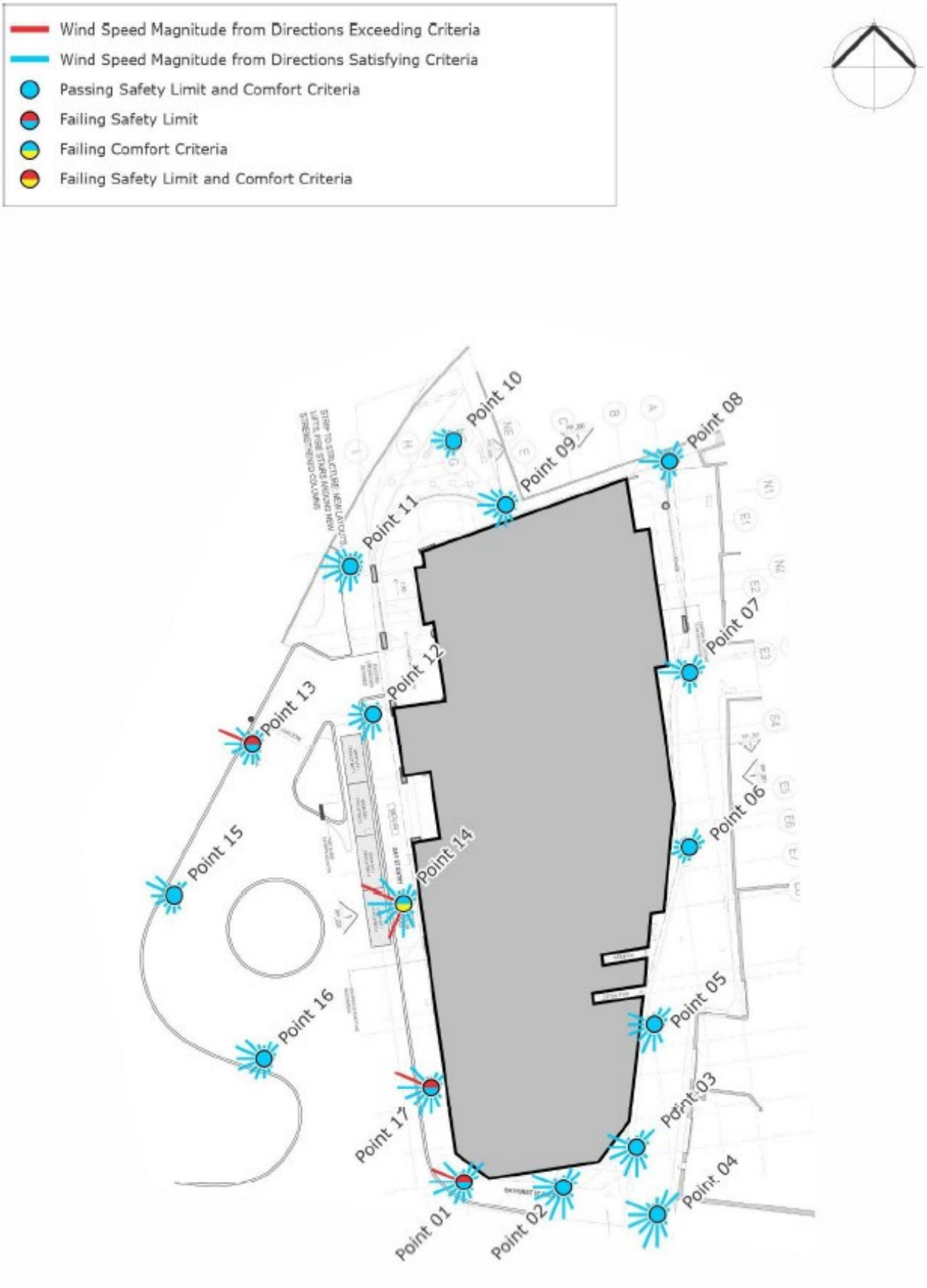


Figure 26. Wind tunnel test results of existing building further from site (red lines indicating points of exceedance and associated wind direction)

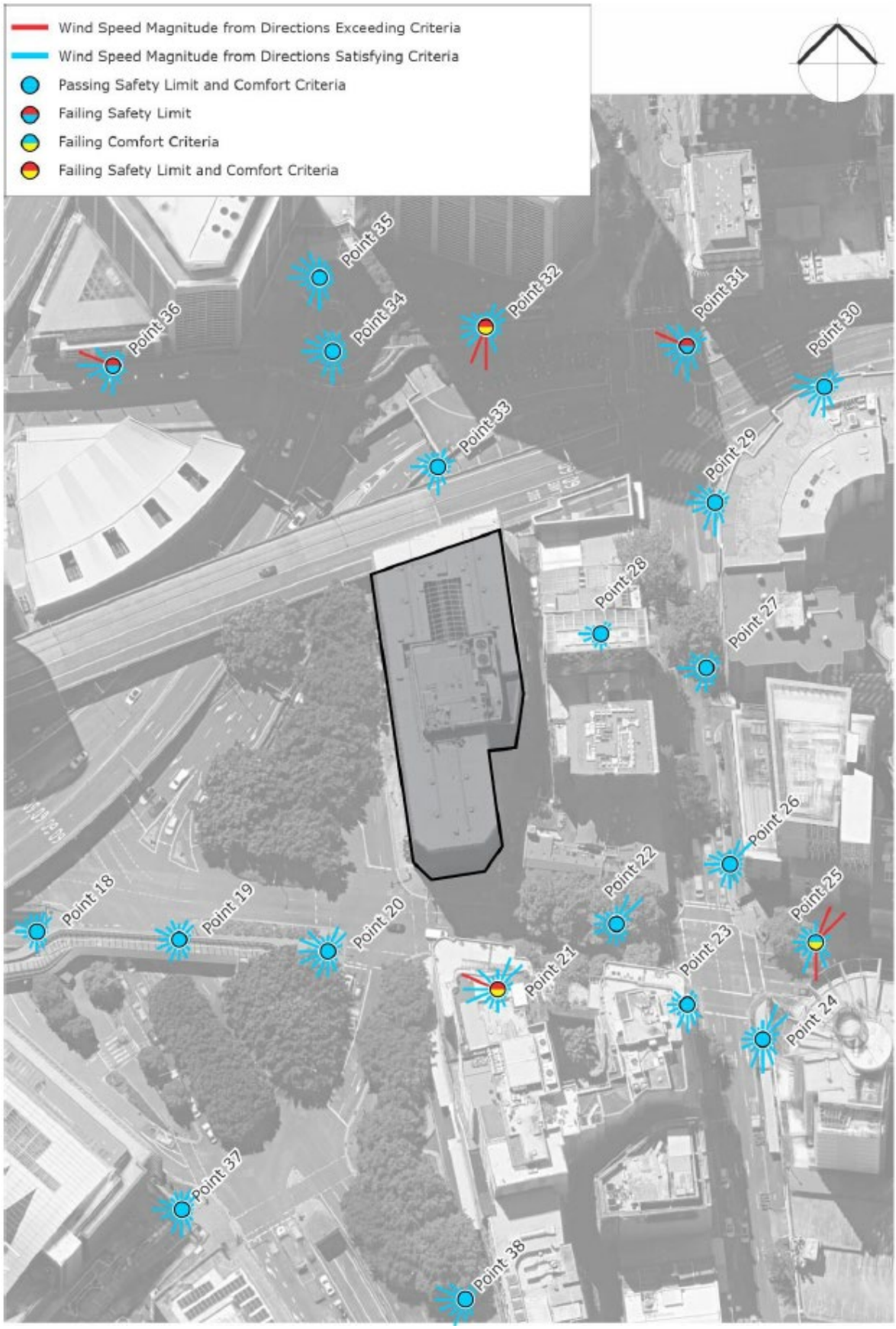


Figure 27. Wind tunnel test results of proposed building envelope close to site (red lines indicating points of exceedance and associated wind direction)

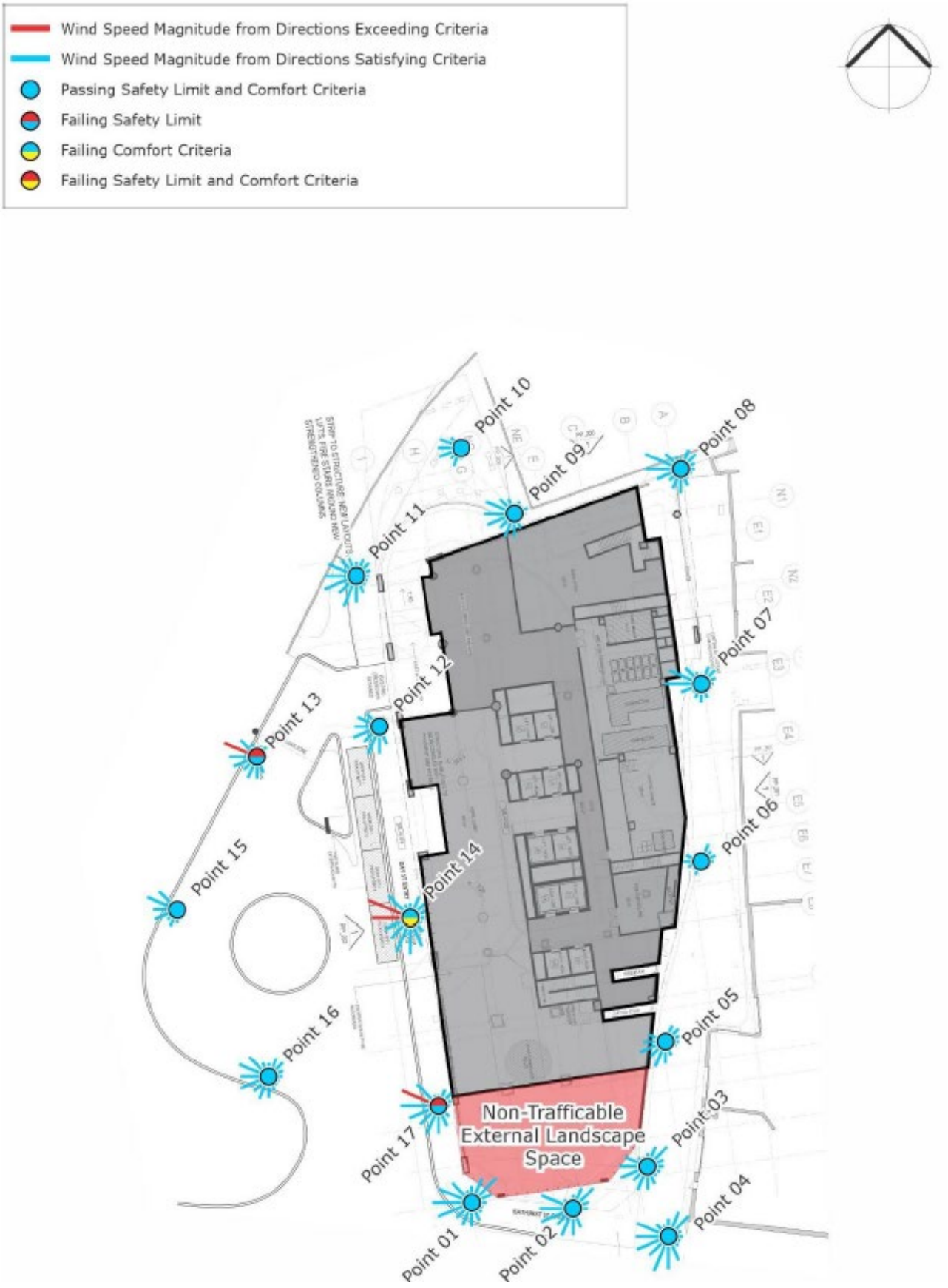
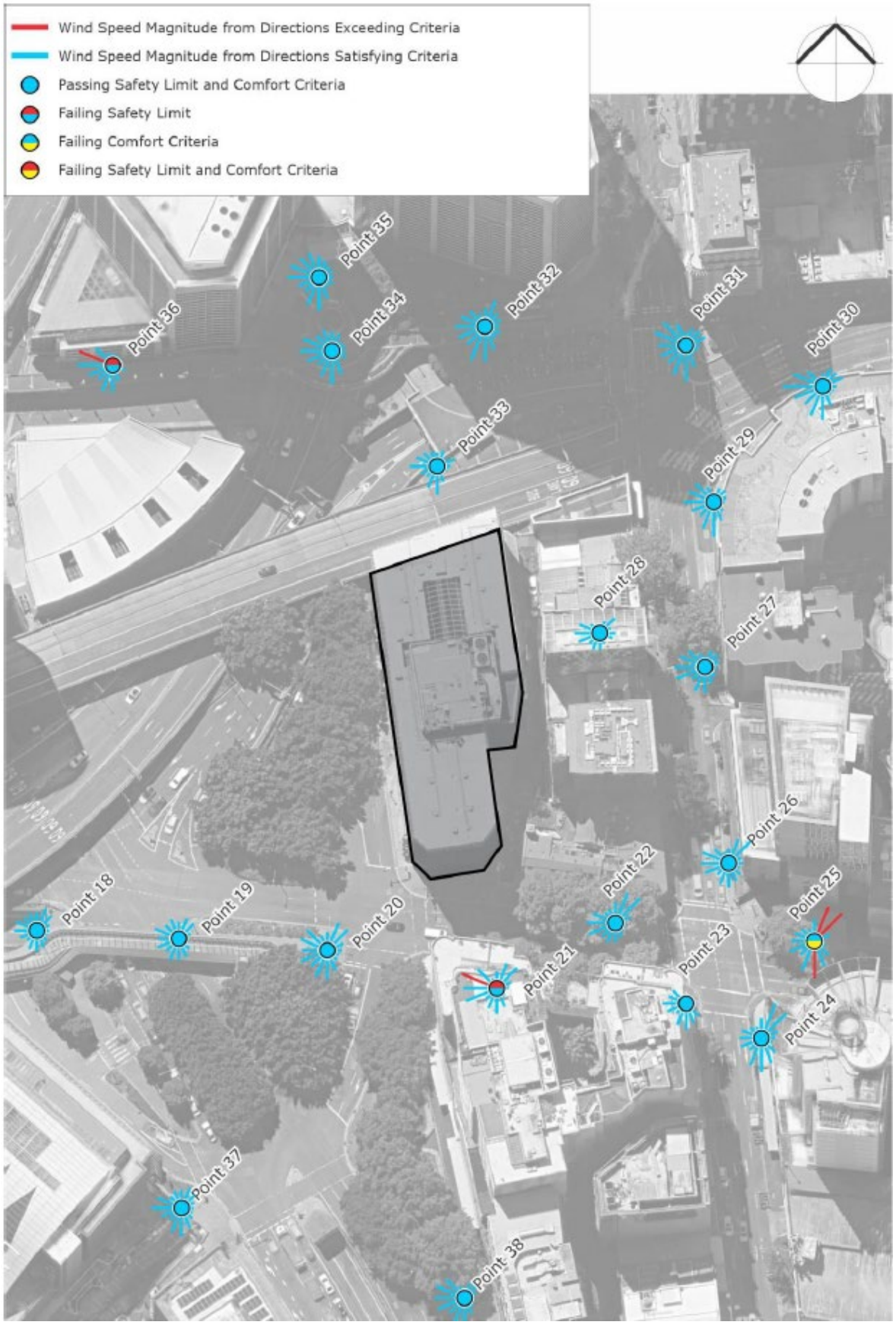


Figure 28. Wind tunnel test results of proposed building envelope further from site (red lines indicating points of exceedance and associated wind direction)



Overshadowing

The proposal impacts on residential buildings located to the south and east of the site on Bathurst and Sussex Streets.

Figure 29. Aerial view of buildings analysed for overshadowing impact, subject site in yellow and number of stories in red



The following buildings were analysed for potential overshadowing impact, as indicated on Figure 29 above:

1. Jade Apartments, 267 Sussex Street
2. Kaz Tower, 273-279 Sussex Street
3. Millennium Towers, 289-295 Sussex Street
4. Maestri Towers, 298 Sussex Street
5. Crowne Plaza, 58 Bathurst Street.

With regard to Jade Apartments at 267 Sussex Street, due to the northern orientation of all living spaces, 20 out of 21 apartments in the building currently enjoy more than 2 hours of direct sunlight access at midwinter. There is no change to this as a result of the proposed increase in building height at 150 Day Street. Crowne Plaza was found to not be impacted by the proposal between the hours of 9am and 3pm at midwinter and there is no change to the number of apartments receiving more than 2 hours of direct sunlight at midwinter.

Kaz Tower at 273-279 Sussex Street is a 14-storey residential building of 38 apartments that is currently non-compliant with the Apartment Design Guide. The proposal increases the number of apartments that currently receive less than 2 hours direct sunlight at midwinter by 2 or 5.6%.

Millennium Towers at 289-295 Sussex Street contains 318 apartments over 20 floors. The building is currently non-compliant with the Apartment Design Guide with only 37% of apartments (118) currently receiving 2 hours of direct sunlight at midwinter. The proposal increases the number of apartments that receive less than 2 hours of direct sunlight at midwinter by 12 or 3.7%. Maestri

Towers at 298 Sussex Street contains 284 apartments over 26 floors. The building is currently non-compliant with the Apartment Design Guide with only 29% of apartments (83) currently receiving 2 hours of direct sunlight at midwinter. The proposal increases the number of apartments that receive less than 2 hours of direct sunlight at midwinter by 6 or 2.1%.

Millennium Towers at 289-295 Sussex Street was originally approved in 1995 and Maestri Towers at 298 Sussex Street was originally approved in 1997. Both buildings were approved before the implementation of the current Sydney DCP and the Apartment Design Guide, and were not designed nor oriented to maximise direct sun access to living spaces at midwinter as current planning controls require. As a result, any increase to building height at 150 Day Street would increase overshadowing at midwinter to these residential properties. This means that no additional development for commercial activity can take place at 150 Day Street, without accepting overshadowing impacts in this Central Sydney location, which is contrary to the objectives and directions of the regional, district and local plans and strategies outlined in section 5.3 of this report. In particular, Action 28.2 of the Central Sydney Planning Strategy to “ensure residential development does not restrict new commercial development” and Objective (e) of section 5.1.2 of the Sydney DCP to “ensure existing residential accommodation and serviced apartment developments do not unreasonably impede the development of commercial and other employment related floor space”.

It should be noted that, at the time of approval and construction of Millennium and Maestri Towers, the applicable development control in the Central Sydney Development Control Plan 1996 stated that “where possible, sun access should be for a minimum of two hours per day on the equinox (March 21) measured on the main window of the rooms or at the front edge of the open space”. If the proposal were to be assessed according to the control in place at the time of the buildings’ original design and construction, the proposal would cause no change to the number of apartments receiving 2 hours of direct sunlight on the equinox.

Based on the detailed solar access assessment and considerations of the objectives and directions of the regional, district and local plans and strategies, this proposal is considered suitable to progress**. 44 submissions were received which raised concerns regarding overshadowing, and these issues are discussed in the Summary of Submissions at Attachment D to the council report.** ~~**through the process for consultation.**~~

Views

~~**The proponent has prepared a View Sharing Analysis, at Attachment A10, which analysed the surrounding visual context and potential visual catchment of the proposal. The analysis found that none of the views to be affected include icons, and the views assessed would not be considered as iconic as established in the view sharing planning principle from *Tenacity Consulting v Warringah Council*. Nor were the views affected considered to be scenic or highly valued, with the proposal located in a highly urbanised location which includes development of height and scale similar to the proposal.**~~

~~**As stated in section 5.1.2(6) of the Sydney DCP, when considering the likely impacts of a development on surrounding developments, any adverse impacts on existing private views are considered reasonable where compliance with street frontage height, street setback and outlook field provisions are achieved. This planning proposal proposes an alternative maximum building envelope with variations to these provisions, however the View Sharing Analysis demonstrates how the impact on private views would be largely the same with a DCP-compliant maximum building envelope. As a result, these impacts on existing private views are considered reasonable.**~~

This planning proposal acknowledges an impact on views, as demonstrated in the View Sharing Analysis at Attachment A10. Referring to the view sharing planning principles established by *Tenacity Consulting v Warringah Council*, while none of the views were identified as ‘iconic’, the total loss of partial water views of Cockle Bay and the partial loss of whole views of Tumbalong Park to the west were assessed as having moderate to severe

impact. These views are currently obtained from front boundaries and from living spaces, accentuating the level of impact.

The fourth step of the Tenacity planning principle is to assess the reasonableness of the proposal causing the impact. This planning proposal would increase the height of buildings control applying to the site from 45m to RL 87.7m. This height is consistent with the surrounding context. The building height control to the east of Sussex Street is 110m, with 298 Sussex Street measuring RL 97.9m and 58-60 Bathurst Street measuring RL 91.3m, both higher than this proposal. The Darling Park commercial buildings to the north of the site reach between RL 95.9m and RL 132.2m. Millennium Towers at 289-295 Sussex Street is RL 74.5m, which exceeds the planning control on the site of 50m.

The Tenacity planning principle requires an assessment of whether a more skilful design could provide the applicant with the same development potential and amenity while reducing the impact on the views of neighbours. Because of the location and orientation of the site, any increase in height will result in impacts to the views currently enjoyed by properties on Sussex and Bathurst Streets. The maximum height possible on the site has already been reduced by the application of the no additional overshadowing protection to Sydney Square, Town Hall Steps and future Town Hall Square, which means that the maximum height of RL 87.7m does not apply across the whole site. Along the northern boundary, the maximum height of the building envelope is reduced to RL 66.9m. Due to the narrowness of the site, imposing setbacks above street frontage height to reduce massing are incompatible with the need for a viable floorplate.

The site in question is strategically located between the major tourism infrastructure of Darling Harbour, the transport infrastructure of Town Hall, and the commercial and retail centres of the CBD. As established in section 5.3 of the Planning Proposal at Attachment A, the proposed development is consistent with the strategic direction established by the Central Sydney Planning Strategy and the City's Economic Development Strategy. In particular, the Central Sydney Planning Strategy seeks to prioritise employment growth and increased capacity in Central Sydney. The Economic Development Strategy encourages the growth of the tourism sector and precincts with strong sector specialisations. Therefore, the proposed land use is appropriate for the location.

The views currently enjoyed by neighbouring properties on Sussex and Bathurst Streets are uncharacteristic of their CBD location. To inhibit the development potential of 150 Day Street to protect these private views is unsustainable considering the strategic importance of the land and its ability to contribute to economic growth and job creation in Central Sydney. With consideration of the proposed building height and its context, the site restrictions that prevent a different design from achieving the same development potential while reducing impact on views for neighbours, and the clear strategic direction of the Central Sydney Planning Strategy and Economic Development Strategy, the view loss is considered reasonable.

Flooding

The proponent has prepared a Flood Impact and Risk Assessment, provided at Attachment A12, which provided an updated flood model following a site inspection and detailed topographical survey. This assessment found the entrances to the lobby, basement and loading dock in the existing building vulnerable to flood water in both 1% AEP and PMF events.

Table 3. Flood planning levels compliance

Location	Existing floor level (AHD)	1% AEP flood level (AHD)	Probable Maximum Flood (PMF) level (AHD)
Sands Street loading dock entrance	4.27m	4.58m	5.41m
Day Street lobby entrance	4.40m	<50mm deep	4.64m
Day Street basement entrance	3.70m	3.78m	4.64m

The entrance to the Sands Street loading dock is located at a trapped low point, where overland flow approaches this area from Sussex Street and begins to pond when the flow exceeds the capacity of the stormwater pits and pipe network. The Flood Impact and Risk Assessment (FIRA) also demonstrates that the loading dock flood level is 80mm below the 20% AEP flood level, which is a 1-in-5 year event. A review of the architectural constraints of the loading dock demonstrates that:

– moving the loading dock is not consistent with the adaptive reuse and building retention approach of the proposal

– raising the loading dock floor level is not possible due to the limited space and need to maintain gradient compliance with the road level of Sands Street

– raising the Sands Street low point is not possible due to existing adjacent properties and loading dock entrances.

As a result, it is proposed that the loading dock is protected from flooding using flood barriers in the form of automated roller shutter doors, which can be fully automated and have their own independent power supply. Considering the above average use of these flood barriers due to the existing floor level below the 20% AEP level, their use will be incorporated into the delivery servicing plan required in the site-specific DCP, attached to this document at Attachment B. However, it should be noted that the impact of any flooding to the loading dock should have no impact on the rest of the building as internal floor levels connecting the loading dock to the ground floor lobby or basement are above the PMF level. In addition, opportunities to explore upgrades to the stormwater pits and pipe network can occur as part of any future detailed design stage and development application.

The pedestrian lobby entrance off Day Street has a finished floor level of 4.4 metres, which is within 50mm of the expected level of a 1% AEP (1-in-100 year) flood event and 24cm below the PMF level. The proponent has argued that to raise the finished floor level above the PMF is not feasible, due to the need to remain flush with the footpath level for compliance with the Disability Discrimination Act 1992. They have proposed the use of a flood gate, which is raised by the hydraulic pressure of flood water itself and does not require human intervention for its operation.

Similarly the vehicle entrance to the basement off Day Street is located below the 1% AEP and PMF levels, and the proponent argues for the use of flood gates considering the need for the entrance to the basement to be flush with the existing road and the lack of internal space or headroom for the existing ramp to the raised or lengthened to provide a crest above the flood levels.

The building retention and adaptive reuse approach of this proposal limits the options available to respond to existing flood conditions. However, the fact that no changes to the ground plane are being proposed means that no change or worsening to the flood conditions will take place as a

result of this proposal. The refurbishment of the existing building provides opportunity for substantial improvement in flood resistance while attaining the environmental benefits of reusing the structure verses demolition. Mitigation measures include flood-proof doors and windows, flood-resistant materials at ground level, reconfiguration of fire stairs to enable safe egress during flood events, and the installation of flood gates.

The use of flood gates is generally discouraged in the City. However the upcoming changes to water and flood management outlined in the draft policy and housekeeping amendments to the Sydney DCP endorsed by Council in June 2025 provide provision for their use where all other passive structural flood mitigation options have been explored and documented, and the council is satisfied that none of the options can be implemented. **A new DCP section 'Design to reduce risk and hazard' has been introduced which requires a Plan of Management providing comprehensive details about any flood control devices and their ongoing operation. The FIRA submitted as part of any future DA will need to demonstrate compliance with the amended Sydney DCP and include a Plan of Management to be approved concurrently with the DA.**

Following feedback from the NSW State Emergency Service, the site specific DCP (at Attachment B to the council report) has been amended to include a requirement for the FIRA at DA stage to include consideration of over-floor flooding risks and a sensitivity test to understand potential risks in the case of failure of any flood control devices.

The FIRA submitted as part of any future DA will also need to respond to the NSW Climate Change and Natural Hazards State Environmental Planning Policy and Climate Change Scenario Guidelines which are expected to be finalised later in 2026. More details on feedback received from SES and the Department of Climate Change, Energy, the Environment and Water, and the City's response, can be found in the Summary of Submissions at Attachment D to the council report.

The design excellence process following the making of the amendment to the Sydney LEP offers an opportunity for their use to be re-examined, and any future development application will need to demonstrate compliance with the Sydney DCP as well as relevant state government instruments and directions.

Transport

The Transport Impact Assessment, prepared by the proponent and at Attachment A11, assesses traffic generation, parking and loading and servicing requirements for the site. It finds that the proposal will generate an additional 23 vehicle trips per hour during the morning peak period, and an additional 13 vehicle trips per hour during the evening peak period. This level of traffic generation is acceptable, considering that the Day Street/Bathurst Street intersection currently experiences excellent operating conditions with substantial spare capacity.

An addendum to the Transport Impact Assessment has been prepared and is at Attachment A27, containing a queueing analysis which assesses the capacity of the hotel drop-off bays in Day Street if the porte cochere were to be removed as proposed in the reference design. The analysis finds that, under the typical hotel drop-off operation assuming a 2-minute service time, all forecast vehicles can be accommodated within the four proposed drop-off bays, with no queueing expected. A further assessment was undertaken using a conservative 5-minute service time to represent a worst-case scenario where all 45 forecast hotel drop-off vehicles arrive during the AM peak hour and occupy a drop-off bay for 5 minutes. Under this scenario, the proposed drop-off bays are expected to be fully occupied, with up to two vehicles queueing at the 95% confidence level. The analysis also demonstrates that there is sufficient overflow space on Day Street and for additional vehicles to queue without impacting the Day Street/Bathurst Street intersection.

Due to the retention of the existing structure, no substantial changes are proposed for the basement space and existing car parking arrangements. The reference design proposes 26 car parking spaces, which is well below the maximum 112 allowable under the Sydney LEP. The basement parking for the hotel is currently valet-operated with no access to the general public, and

this arrangement is proposed to continue following the redevelopment of the site. End of trip facilities will also be provided in accordance with the Sydney DCP.

Due to the retention of the existing structure, the loading dock currently accessed off Sands Street cannot be expanded. It currently features 3 SRV spaces and 2 B99 (van/ute) spaces. This is below the 7 spaces required by the Sydney DCP, however it is in alignment with the Transport for NSW Urban Freight Forecaster tool which suggests a total of 3 service vehicle bays. This is considered acceptable provided that vehicle access is managed under a Delivery Servicing Plan, which will be required as part of the site-specific DCP at Attachment B. It should be noted that no service vehicle bays are proposed within the basement due to a head height constraint of 2.3 metres.

Site specific Development Control Plan

A site specific Development Control Plan (DCP) will be exhibited alongside this planning proposal. It includes:

– objectives and provisions for a high quality built form including substantial retention of the existing structure, causing no additional overshadowing of Town Hall Steps, future Town Hall Square and Sydney Square, and resulting in a comfortable and safe wind environment in adjacent public places;

– dimensions of a maximum building envelope;

– sustainability targets above standard requirements for hotels in Central Sydney;

– requirements for the preparation of ~~**an embodied carbon emissions integrated report,**~~ landscape plan, delivery servicing plan, ~~**and detailed environmental site assessment as part of any future development application**~~; and

– a design excellence strategy.

These provisions are to apply in addition to the standard provisions of the Sydney DCP.

Has the planning proposal adequately addressed any social and economic effects?

Economic impact

This planning proposal provides an opportunity for the redevelopment of the subject site to provide in total more than 30,000 square metres of tourist and visitor accommodation floor space – approximately 490-540 hotel rooms over 22 storeys. This represents an increase on the current capacity by 150-200 rooms and 13,000 square metres of gross floor area. The intensification of commercial activity in Central Sydney and increase in tourist and visitor accommodation in close proximity to major tourism and transport infrastructure is in alignment with the key moves of the Central Sydney Planning Strategy, and the priorities of the relevant regional, district and local plans and strategies. It is also in alignment with the NSW Government's *Visitor Economy Strategy 2030 Review*, which set objectives to increase the NSW visitor economy to $91 billion a year, including increasing hotel room supply by 40,000 statewide.

The proponent has prepared an Economic Impact Assessment, which is attached to this document at Attachment A6. This assessment concludes that the development has the potential to generate 313 full-time jobs during construction and additional 84 full-time jobs on site following completion. It considers the extra 150-200 hotel rooms to be desirable in a Sydney market that is consistently supply-constrained following a surge in international and domestic visitation post-Covid and is in line with visitor demand projections. According to Tourism Research Australia's September 2024 data for average domestic expenditure per trip per night, the expansion in tourist and visitor accommodation floor space on this site could inject approximately $31.8 million into Sydney's tourism economy.

Heritage

The site is not heritage listed nor located in a Special Character Area or Heritage Conservation Area. The site is located adjacent to a locally-listed heritage item, *Former warehouse 'The Vintage*

Building' (I1964), which is directly across Sands Street to the east. A Statement of Heritage Impact prepared by the proponent is at Attachment A13.

The statement concludes that while the proposed height increase will result in some minor visual impact on "The Vintage Building", the existing PARKROYAL Darling Harbour already serves as a dominant backdrop to the heritage item and the retention of the existing structure means that the current interface, podium form and alignment will be unchanged and views towards "The Vintage Building" will remain unaffected.

5.5 Infrastructure (Local, State and Commonwealth)

Is there adequate public infrastructure for the planning proposal?

The site is located in Central Sydney, with numerous public transport options in close proximity. The site is within walking distance of public spaces and major tourism facilities in Darling Harbour, Chinatown, Town Hall and so on.

The site is already serviced by public utilities including water, sewer and stormwater, gas, electricity and telecommunications. No upgrades are expected to be necessary for water, sewer and gas connections, and the relevant utilities will be contacted for comment during the exhibition period.

The Infrastructure Report prepared by the proponent and at Attachment A16, assumes that, with regard to electricity, existing surrounding substations do not have the electrical capacity for the development and proposes that the development will be supplied via a dedicated Ausgrid triplex substation arrangement located on ground level, in the north-east corner of the site. The planning proposal will be referred to Ausgrid for comment during the public exhibition period.

Any development application on the site will be subject to section 7.12 development contributions as outlined in the Central Sydney Development Contributions Plan 2020.

5.6 State and Commonwealth interests

What are the views of the state and federal public authorities and government agencies consulted in order to inform the Gateway determination?

~~**The gateway determination will advise the public authorities to be consulted as part of this planning proposal process. Any issues raised will be incorporated into this planning proposal following consultation in the public exhibition period.**~~

The Gateway determination received on 27 January 2026 required consultation with Department of Climate Change, Energy, the Environment and Water (DCCEEW), Transport for NSW (TfNSW), Ausgrid, Sydney Water, and the NSW State Emergency Service (SES). Comments were received from all of these agencies as well as Placemaking NSW, as the major landowner in Darling Harbour. Details on the advice received and the City's response can be found the Summary of Submissions at Attachment D to the council report.

6. Mapping

This planning proposal does not include any amendments to maps.

No change will be made to any maps contained in the LEP as part of this planning proposal, instead additional floor space ratio is proposed to be included through new site-specific provisions under Division 5 as discussed earlier in this planning proposal document.

7. Community consultation

~~**This Planning Proposal is to be exhibited in accordance with a Gateway Determination issued by the Department of Planning, Housing & Infrastructure.**~~

~~**It is anticipated that the Gateway Determination will require public exhibition for a period of not less than 28 days in accordance with the Environmental Planning and Assessment Act 1979 and the Local Environmental Plan Making Guideline.**~~

~~**Notification of the public exhibition will be consistent with the Gateway Determination and the City's Community Engagement Strategy and Participation Plan.**~~

~~**Consultation with Transport for NSW, Department of Climate Change, Energy, the Environment and Water, Sydney Water, State Emergency Service, Ausgrid, and other relevant NSW agencies, authorities and organisations will be undertaken in accordance with the Gateway Determination.**~~

The Planning Proposal was exhibited in accordance with the Gateway Determination issued by the Department of Planning, Housing & Infrastructure, at Attachment F.

The consultation period ran from 18 March to 20 April 2026, consistent with the Gateway Determination and the City's Community Engagement Strategy and Participation Plan.

Consultation with the Ausgrid, Department of Climate Change, Energy, the Environment and Water, NSW State Emergency Service, Placemaking NSW, Sydney Water and Transport for NSW was undertaken as required by the Gateway Determination.

1,007 letters were sent to neighbouring property owners and occupiers, and a webpage and survey created for people to review the planning proposal and supporting documentation and provide their feedback.

Details of the exhibition and feedback received from community members and government agencies are available in the Summary of Submissions at Attachment D to the council report.

8. Project timeline

The anticipated timeframe for the completion of the planning proposal is as follows:

Stage	Timeframe
Commencement / Gateway Determination	~~October 2025~~ 27 January 2026
Government agency consultation	~~November to December 2025~~ March to April 2026
Public exhibition	~~November to December 2025~~ March to April 2026
Consideration of submissions	~~January to February 2026~~ April 2026 to June 2026
Post exhibition consideration of proposal	~~March to May 2026~~ July to August 2026
~~Draft and finalise LEP~~	~~June 2026~~
~~LEP made~~	~~July 2026~~
~~Plan forwarded to the Department of Planning, Housing & Infrastructure~~	~~July 2026~~
Plan forwarded to the Department of Planning, Housing & Infrastructure for drafting and finalisation	August 2026

Appendix 1

Example clauses

The final version of the clauses to be inserted into Division 5 would be subject to drafting and agreement by the Parliamentary Counsel's Office, but may be written as follows:

Part 6 Local provisions – height and floor space

Division 5 Site specific provisions

6.XX 150 Day Street, Sydney

(1) The provisions of the clause are to provide additional building height and floor space to encourage:

(a) tourist and visitor accommodation land uses

(b) the substantial retention of existing structure on the land.

(2) This clause applies to 150 Day Street, Sydney, being Lot 20 DP 1046870.

(3) The maximum height for a building on the land to which this clause applies is RL 87.7 metres.

(4) A building on land to which this clause applies may have a floor space ratio of up to the ratio of the sum of the following to the site area-

(a) the gross floor area permitted as a result of applying the floor space ratio shown for the land on the Floor Space Ratio Map

(b) the gross floor area resulting from applying a floor space ratio of ~~**2.97:1**~~ **3.27:1**

(c) any accommodation floor space for which the building is eligible under clause 6.4

~~**(d) any end of journey floor space for which the building is eligible under clause 6.6**~~

~~**(e)**~~ **(d)** if the building is a building demonstrating design excellence – the gross floor area, determined by the consent authority, of up to 10% of the sum of the amounts specified in paragraphs (a)-~~**(c)(d)**~~.

(5) The total floor space ratio calculated under subclause (4) must not exceed 13.5:1.

(6) Subclauses (3), (4), and (5) do not apply unless the consent authority is satisfied-

(a) the development will not result in a building used for the purposes of residential accommodation or serviced apartments, and

(b) the development features the substantial retention of the existing structure, including columns, beams and slabs.

(7) Clause 6.6 does not apply in relation to development carried out under this clause.

~~**(7)**~~ **(8)** Clause 6.21D(3)(a) does not apply in relation to development carried out under this clause.

~~**(8)**~~ **(9)** To avoid doubt, clause 6.18 prevails over this clause to the extent of any inconsistency.



Attachment A1

Planning proposal justification report



150 Day Street

Planning Proposal

March 2025

Mecone

Mecone acknowledges the Traditional Custodians of the land on where this project is undertaken and across the Mecone offices that this report is prepared, paying respect to the Elders past and present. We recognise the ongoing connection of Aboriginal and Torres Strait Islander peoples to land, waters, and culture.

Project Director

Ben Hendriks – **Founder and Executive Chair**

Contributors

Jack Rixon - **Associate**

Jessie Wiseman - **Associate**

Revision	Revision date	Status	Authorised: Name & Signature	
1	27 March 2025	Draft	Jack Rixon	
2	28 March 2025	Final	Ben Hendriks	

* This document is for discussion purposes only unless signed and dated by the persons identified.
This document has been reviewed by the Project Director.

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150 Day Street

UOL identifies an ambitious upgrade and expansion of the existing Park Royal Hotel at 150 Day Street.



The project aims to adaptively reuse the existing building to support a dual hotel offering with the introduction of the Pan Pacific Hotel above. This design approach directly aligns with the City of Sydney and UOL's Sustainability Framework which underpins UOL's commitment to shape a resilient built environment and contribute towards a clean, green and sustainable future.



The project responds to the growing need for hotel rooms in Sydney and the NSW's target to grow the NSW visitor economy to $91 billion in visitor expenditure by 2035.

UOL brings substantive experience in delivering innovative green facades. Their vision seeks to weave the essence of coastal and bushland environments and respond to Sydney's unique ecosystem.



490-540 HOTEL KEYS

$85.3M ANNUAL NET INCREASE IN OUTPUT

APPROX. 30,000M2 OF EMPLOYMENT / VISITOR GFA

The project will achieve...

Substantive Adaptive Reuse



Exceptional Environmental Performance Targets



Increased Biodiversity and Tree Canopy



Enhanced Public Domain Outcomes



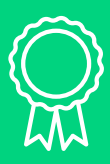
Delivery of Dual Hotel Offering



Reinforces the City's Green Edge



Commitment to Design Excellence and Connecting with Country



Improved Wind and Flood Conditions



Responds to Existing Built Form and Heritage



Executive Summary

Introduction

This Planning Proposal has been prepared by Mecone Group Pty Ltd (**Mecone**) on behalf of UOL Group Limited (**UOL**) in relation to 150 Day Street, Sydney (**the site**). This planning proposal seeks an amendment to *Sydney Local Environmental Plan 2012* (the **LEP**). It satisfies the requirements of Section 3.33 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) and aligns with NSW Department of Planning, Housing and Infrastructure (**DPHI**) *Local Environmental Plan Making Guideline* dated August 2023 (the **Guidelines**).

The Site

The site is located at 150 Day Street, Sydney and is legally described as Lot 20 in Deposited Plan (DP) 1046870. It has a total area of approximately 2,250m^2 with street frontages to Day Street, Bathurst Street and Sands Street. The site also abuts the Western Distributor to the north. The site is located 350m west of Town Hall Station and 240m south-east of Darling Park.

The surrounding area includes a mix of commercial and residential development as well as major arterial roads. Three residential towers are located to the east and south of the site. The site is also situated adjacent to a local heritage item on the opposite side of Sands Street.

Planning Background

The existing building was originally constructed in 1988 as a 10-storey hotel, featuring a concrete frame and concrete roof. This was subsequently upgraded in 1996 to add on a steel roof to the former concrete roof to facilitate a habitable space on the 11th storey.

The Proposal

The planning proposal for the existing PARKROYAL Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions of the *Sydney Local Environmental Plan 2012* to allow a maximum building height of 85 metres and floor space ratio of 13.5:1 for hotel and associated land uses with achievement of design excellence.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – PARKROYAL Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),

- New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
- Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.

- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

The proposal is also accompanied by an initial public benefit offer to enter into a Planning Agreement to cater for increased infrastructure demand (refer **Appendix 5**).

Rationale for the proposed changes to the planning controls

The planning proposal has been developed in response to the Central Sydney Planning Strategy, which outlines objectives and a framework to prioritise employment growth and increase employment capacity to maintain and grow its status as a global city with a dynamic economy and high quality of life. Tourism is one of the fastest growing economic sectors with strong demand for hotel accommodation.

The Central Sydney Planning Strategy acknowledges that Central Sydney has a limited capacity to grow and adapt because of its natural containment, heritage and the growth of residential development. As Sydney is compact and growing, proactive efforts are needed to ensure efficiency and productivity. In Central Sydney's limited space, substantive adaptive reuse projects such as the proposed not only supports the aspiring sustainability objectives of the City but also provides the most efficient and productive use of the land.

The anticipated delivery of new hotel accommodation supply is expected to soften in the coming years. A detailed room supply analysis completed by Dransfield (Hotel Futures 2025), shows that room growth in the Sydney market is unlikely to exceed 2.7% per annum with even softer growth in the short-term. Accordingly, the Proposal plays a role in addressing some of the potential unmet future demand over the coming years.

The Proponent has commissioned various technical studies to support this planning proposal report, which demonstrates how the proposal aligns with the City's vision for a competitive Central Sydney. The supporting technical studies are provided as appendices to this report. The vision for the site aims to accommodate growth through increased building height and density while safeguarding public domain amenity.

Strategic Merit

The appropriateness of the planning proposal needs to be understood in the context of the strategic planning framework and the future surrounding development that will emerge in response to this framework.

Greater Sydney Region Plan – A Metropolis of Three Cities

The site is located on the south western edge of the Harbour CBD which is designated by the *Greater Sydney Region Plan – A Metropolis of Three Cities* (**the Greater Sydney Plan**) as Australia's global gateway and financial capital. A key objective of the Greater Sydney Region Plan is to make the Harbour CBD stronger and more competitive. The diversification of the Harbour CBD's assets and uses is noted as being integral to promoting its economic strength and competitiveness. The proposal aligns with the objective in that it will assist in increasing the variety of uses in the Harbour CBD by providing high quality visitor accommodation and retail floor space.

Visitor Economy Strategy 2030 and 2030 Review

The NSW Government's *Visitor Economy Strategy 2030* outlines a roadmap for rebooting the visitor economy to recover from the impact of drought, bushfires and COVID-19 and to grow in the future. Following a review in 2024, the NSW Government has announced a new target to grow the NSW visitor economy to $91 billion in visitor expenditure by 2035. In achieving this, the review identifies the need ***"expand and upgrade accommodation across the state adding 40,000 rooms".*** The proposal aligns with the ambitious targets of the NSW Government by maintaining and upgrading existing hotel stock and supporting the delivery of new hotel rooms.

City Plan 2036: Local Strategic Planning Statement

City Plan 2036: Local Strategic Planning Statement identifies that the demand for hotels in Central Sydney is anticipated to grow by 4.7% annually to 2020. In light of this, the Planning Proposal will address the growing demand for hotel accommodation precipitated by the flux of corporate travellers associated with the growing office market in southern Central Sydney. Of relevance to this planning proposal, the final principle of *City Plan 2036: Local Strategic Planning Statement* stipulates that:

> *"Proposals must give consideration to strategically valuable land uses that are* ***under-provided by the market, such as but not limited to hotels,*** *cultural space (including performance and production space), medical uses, education uses and childcare centres, and having regard to the appropriateness of the use for the context."*

The Planning Proposal identifies a dual hotel offering for the site. By providing mixed-range hotel accommodation offerings, the Planning Proposal will address the growing demand identified by the LSPS for affordable mid-range hotel options in the Sydney CBD. This will bolster the economy by providing genuine choice in accommodation options, catering for a diverse range of needs, preferences and price points.

Central Sydney Planning Strategy

The *Central Sydney Planning Strategy* aims to ensure strong planning for Central Sydney. It recognises Central Sydney's role in metropolitan Sydney, New South Wales and Australia, and the need to maintain and grow its status as a global city with a dynamic economy. A core objective identified within the *Central Sydney Planning Statement* is to protect and grow employment floor space to maintain its economic vitality and resilience, and to respond to the changing needs of markets.

Central Sydney has a limited capacity to grow and adapt because of its natural containment, heritage and the growth of residential development. As Sydney is compact and growing, proactive efforts are needed to ensure efficiency and productivity, including the support for larger towers which represent the most efficient and productive use of land in Central Sydney.

The *Central Sydney Planning Strategy* notes tourism as one of the fastest growing economic sectors and is a significant contributor to employment opportunities. Reflected in high occupancy rates and growth in room rates, demand in the hotel and accommodation sector is strong. Currently however, the large-scale development of new hotels is not financially feasible unless part of a mixed-use development.

The proposal aligns with the Central Sydney Planning Strategy in that it:

- Supports the delivery of new employment floor space.
- Aims to substantially reduce embodied carbon emissions for the site, closely aligning with the City of Sydney's sustainability objectives.
- Supports the most efficient and productive use of the land, maximising Central Sydney's limited space.
- Aims to improve the amenity, safety and accessibility of surrounding public spaces which will greatly enhance these spaces.
- Identifies a commitment to design excellence and setting a new benchmark for development in the City.
- Ensures greater certainty in the delivery of hotel development as an owner/occupied proposal.

Site Specific Merit

The proposed development is the outcome an iterative design testing process that has been underpinned by technical input from a supporting team of specialists. The planning proposal demonstrates site specific merit as it:

- Involves the substantive adaptive reuse of the existing hotel building and aims to achieve exceptional environmental sustainability targets.
- Will provide improved public domain outcomes for the surrounding area including improvements to safety and amenity of existing pedestrian links, expanding biodiversity typologies and public art installation opportunities.

- Will achieve equal or improved pedestrian wind conditions in all trafficable outdoor locations within and around the site.
- Will not cause additional overshadowing to protected public spaces (e.g. Future Town Hall Square) and manages overshadowing impacts to neighbouring residential developments in accordance with relevant design guidelines.
- Will not affect significant views from public places whilst maintaining acceptable private views in the context of a highly urbanised environment of Sydney CBD.
- Will have a negligible impact on the operation of the local road network and is delivered with a range of measures to improve and encourage access by active and sustainable modes, compliant with local and regional policy.
- Ensures a future built form that achieves a cohesive architectural connection with the surrounding heritage context, most notably “The Vintage Building".
- Will improve flood risk conditions for the site and surrounding area compared to existing conditions.
- Will deliver a range of public and economic benefits during operation compared to the existing scenario case, including:
    - $85.3m annual net increase in output (additional $52.8m in direct activity)
    - $43.7m annual net increase in gross regional product (additional $17.3m in direct activity)
    - $26.3m annual net increase in incomes and salaries (additional $17.3m in direct activity)
    - 368 full-time operational jobs, and
- Will capitalise on the sites excellent access to public transport infrastructure and increases the site’s capacity to accommodate employment generating floor space.
- Is located in a well-established area, well serviced by public transport and utility infrastructure.

In light of the above, the Planning Proposal will facilitate the achievement of a myriad of site specific and economic benefits. These benefits can be realised without giving rise to any adverse environmental social or economic impacts.

Conclusion

The proposal is consistent with the aims and objectives of the relevant strategic and statutory plans and policies. It is therefore considered that the proposal satisfies both the strategic and site-specific merit tests. It is therefore requested that Council forward this planning proposal to DPHI for Gateway Determination.

Part A - Background

1. Introduction

This planning proposal has been prepared by Mecone Group Pty Ltd (**Mecone**) on behalf of UOL Group Limited (**UOL**) to facilitate alterations and additions to an existing hotel development. It seeks to amend the LEP in respect of the land at 150 Day Street, Sydney (the **site**).

1.1 Planning Proposal Overview

The planning proposal for the PARKROYAL Hotel at 150 Day Street, Sydney, involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site. Strategically positioned at the western edge of the Sydney Central Business District, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves an expansion of the existing core and egress upgrades to service new floors over the existing hotel, the employment of a 'strip to structure' approach from the ground to Level 02, and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (**Sydney LEP**) by inserting a new site-specific clause for the site under Part 6 Division 5 Site specific provisions of the Sydney LEP to allow a maximum building height of 85 metres and floor space ratio of 13.5:1 for hotel and associated land uses with achievement of design excellence.

A draft Site-Specific Development Control Plan (DCP) also accompanies the Planning Proposal to provide certainty that a suitable development outcome is achievable at the detailed Development Application phase (refer **Appendix 6**). It is also accompanied by an initial public benefit offer to enter into a Planning Agreement to cater for increased infrastructure demand (refer **Appendix 5**).

1.2 Project Background

Originally constructed in the late 1980s, the PARKROYAL Hotel is need of substantial upgrade and renovation to meet changing guest expectations, design trends, and operational needs.

Underpinned by UOL's Sustainability Framework, an exciting opportunity to adaptively reuse and expand the existing hotel development was identified for the site to renovate and upgrade the existing PARKROYAL Hotel and support a vertical expansion of the hotel to accommodate new hotel offering (Pan Pacific Hotel).

The development of this planning proposal has been an iterative process and design evolution, with feedback and consultation provided by officers at City of Sydney dating back to November 2022.

Written advice from Council pertaining to the current design approach was provided on 4 June 2024 which identified the following key items to be addressed and the Planning Proposal's response to these items.

Table 1: Response to Council Advice – June 2024

Council Advice	Planning Proposal Response
Strategic Merit *The site is not located in a tower cluster area as outlined in the Central Sydney Planning Strategy and so any proposal for uplift in this area must be well supported with clear strategic merit. Economic analysis should be provided showing the need for additional hotel rooms at the proposed standard in this part of Central Sydney. The age and expected lifespan of the existing building and hotel offering should also be considered as part of any economic analysis.* *All redevelopment sites in Central Sydney provide opportunities for the City to meet and exceed its net zero energy targets and align with the directions of Sustainable Sydney 2030-2050 Continuing the Vision. An Environmentally Sustainable Development (ESD) Report must be provided as part of any proposal, outlining how the new storeys and the existing structure can achieve exceptional environmental performance with consideration to, but not limited to, embodied carbon, thermal efficiency, ventilation, renewable energy, water efficiency, waste management, and green roofs and walls.* *Considering UOL's track record in delivering hotel concepts with notable green features such as the Parkroyal Collection, this issue should form a key part of any strategic merit argument.*	An economic report has been prepared by Atlas Economics (**Appendix 4**) discussing the need for hotel rooms within the locality and the expected lifespan. The main findings of the report demonstrate a strong demand and limited for hotel accommodation in Sydney, with economic modelling showing significant positive economic impacts to the Sydney LGA economy. For further details, please refer to **Appendix 4** and Section 4 Part 3 of this Planning Proposal. An Ecologically Sustainable Development (**ESD**) Report has been prepared by Atelier Ten (**Appendix 10**) outlining the exceptional environmental performance target of 5 Star Green Star and 4.5 NABERS efficiency rating for the existing and new structure. The ambitious adaptive reuse project and commitment to ESD excellence is identified to greatly align with the objectives City's Sustainable Sydney 2030-2050 objectives and vision for Sydney and positive contribute to the City's sustainable tourism industry. For further details, please refer to **Appendix 10**, and Section 3 and 4 Part 3 of this Planning Proposal for further details.
Wind *The site's location on the western edge of the CBD leaves it highly exposed to wind. Initial proposals presented do not feature a tower setback or other building envelope features that*	A quantitative wind assessment has been prepared by Windtech (**Appendix 9**) which demonstrates comparative or improved wind

could interrupt downdrafts generated by the building. A quantitative wind effects report is required to evaluate the existing wind conditions and any changes caused by the proposed building envelope. The safety and comfort standards for wind conditions in Central Sydney are outlined in section 5.1.9 of the Sydney Development Control Plan 2012 (DCP). Note that the Wind Comfort Standard applied should be appropriate for the proposed use of the public place, noting the intention for the activation of street frontages along Day Street. Awnings and/or landscaping elements and trees cannot be relied upon to mitigate wind impacts.	conditions for the proposed massing as existing. Refer to **Appendix 9** and Section 4 Part 3 of this Planning Proposal for further details.
Solar Access and View Analysis *Some analysis of solar access to neighbouring residential buildings has been conducted, but more detail is required to ensure the proposal complies with the objectives of the Apartment Design Guide. The City's draft guidelines for Minimising overshadowing of neighbouring apartments can assist with the methods for measuring compliance. These calculations need to be completed for all affected neighbouring residential properties. A View Impact Assessment will also be required for nearby residential buildings, including those on the eastern side of Sussex Street that may not be directly affected by a loss of sun access.*	Solar Analysis of the proposal building envelope has been prepared by Hassell (**Appendix 2**) to assess potential overshadowing impacts against the objectives of the Apartment Design Guide and the City's draft guidelines for minimising overshadowing of neighbouring apartments. As demonstrated in Section 7.3.2, the proposal complies with the relevant solar provisions applicable to the site and neighbouring developments. A View Impact Assessment has also been prepared by Urbis (**Appendix 11**) to assess the potential impacts to existing views. Whilst the report acknowledges that some views will be impacted by the proposal, the proposed impacts considered to be reasonable and acceptable within the highly urbanised environment CBD environment, For further details, please refer to **Appendix 2**, **Appendix 11** and Section 4 Part 3 of this Planning Proposal.
No additional overshadowing analysis *Initial sun access analysis provided states that the proposed building envelope has been delineated according to the indicative contours of the Future Town Hall Square No Additional Overshadowing control provided in section 5.1.7.2 of the Sydney DCP. Part of the additional sun access analysis required will need to prove that any proposal will satisfy section 6.18 'Overshadowing of certain public places' of the Sydney LEP, namely that any development will not cause additional overshadowing to the Future Town Hall Square between midday and sunset all year.*	Solar Analysis of the proposal building envelope has been prepared by Hassell (**Appendix 2**) which demonstrates no additional overshadowing to Future Town Hall Square. Refer to **Appendix 2** and Section 4 Part 3 of this Planning Proposal for further details.
Transport *A Transport Impact Study will be required to consider the impacts of the increased traffic generated by the intensification of uses on the site. Earlier discussions proposed changes to vehicle access including the removal of one of the driveways, reorientation of the basement levels, a new vehicular exit to*	A transport Impact Study has been prepared by PTC (**Appendix 12**) which assesses the potential traffic generated impacts associated with the development. The report demonstrates that the proposed development will have a negligible impact on

Sands Street, and removal of the porte-cochere resulting in the use of the public place of Day Street for all visitor pick-ups and drop-offs. Impacts on surrounding streets including Sussex and Bathurst Streets must be clearly articulated, and it must be proven that the site can accommodate all servicing and loading requirements within its boundaries.	the operation of the local road network and is being delivered with a range of measures to improve and encourage access by active and sustainable modes, compliant with local and regional policy. Refer to **Appendix 12** and Section 4 Part 3 of this Planning Proposal for further details.
Public Domain *Internal discussions at the City will continue regarding the future intentions for the public domain of Day Street. Any additional information that can be provided regarding the landowner's vision for the space would be appreciated and should feature as part of the scoping proposal. It should be reiterated that the City will not support any removal of the fig trees currently on site.*	The Public Domain strategy prepared by Hassell (**Appendix 2**) has been prepared in consultation with CoS and adjoining land owners (TfNSW and Place NSW). Existing Fig trees are proposed to be retained as part of the Public Domain Strategy. Refer to **Appendix 2** and Section 4 Part 3 of this Planning Proposal for further details.
Cross City Tunnel *The site is located on land identified as being affected by the Cross City Tunnel Ventilation Stack, as stated in section 7.24 of the Sydney LEP. Any planning proposal request will need to be accompanied with information showing how all future development applications will be able to satisfy the requirements of this clause.*	An Air quality report has been prepared by SLR Consulting (**Appendix 15**) to assess the potential impacts of the development on the dispersal of emissions from the Cross City Tunnel ventilation stack and persons using the development not being unduly affected by the emissions. The report confirms the air quality issues do not pose a constraint for the project. Refer to **Appendix 15** and Section 4 Part 3 of this Planning Proposal for further details.

1.3 Report Structure

The Planning Proposal has been prepared in accordance with:

- Section 3.33 of the Environmental Planning and Assessment Act 1979 (**EP&A Act**); and
- The NSW Department of Planning Housing and Infrastructure (**DPHI**) Local Environmental Plan Making Guideline dated August 2023 (the **Guidelines**).

Specifically, the planning proposal includes the following information:

- A description of the site in its local and regional context,
- A statement of the objectives or intended outcomes of the proposed changes to the instrument,
- An explanation of the provisions that are to be included in the instrument, and
- The justification for those provisions and the process for their implementation including:
    - whether the proposed instrument will comply with relevant directions under Section 9.1 of the EP&A Act,
    - the relationship to the strategic planning framework,
    - environmental, social and economic impacts,
    - any relevant State and Commonwealth interests, and
    - details of the community consultation that is to be undertaken before consideration is given to the making of the proposed instrument.

The Planning Proposal is accompanied by the following reports:

- Appendix 1 – Survey Drawings – Woolpert
- Appendix 2 – Urban Design Package – Hassell
- Appendix 3 – Building Envelopes – Hassell
- Appendix 4 – Economic Impact Assessment – Atlas Economics
- Appendix 5 – Initial public benefit offer - UOL
- Appendix 6 – Draft Site-specific DCP Amendments – Mecone
- Appendix 7 – Connecting with Country – Letter of Support and Aboriginal Design Principals - WSP
- Appendix 8 – Structural Engineering Report – TTW
- Appendix 9 – Qualitative Wind Assessment - Windtech
- Appendix 10 – Ecologically Sustainable Design Report – Atelier Ten
- Appendix 11 – View Impact Assessment - Urbis
- Appendix 12 – Traffic Impact Assessment – PTC
- Appendix 13 – Flood and Risk Assessment - TTW
- Appendix 14 – Statement of Heritage Impact – Weir Phillips
- Appendix 15 – Air Quality Assessment – SLR
- Appendix 16 – Noise Impact Assessment – Acoustic Logic
- Appendix 17 – Social and Community Needs Assessment – Mecone
- Appendix 18 – Infrastructure Report – LCI
- Appendix 19 – Preliminary Site Investigation Report – Douglas Partners
- Appendix 20 – Public Art Plan – UAP
- Appendix 21 – Desktop Geotechnical Report – Douglas Partners
- Appendix 22 – Report on Footing Investigation – Douglas Partners
- Appendix 23 – Preliminary Civil Engineering Report
- Appendix 24 – Existing Building Services Condition Report - LCI
- Appendix 25 – BCA Capability Statement – Metro BC

2. Site Description

2.1 The Site

The site is located at 150 Day Street, Sydney and is legally described as Lot 20 in DP 1046870. It has a total area of approximately 2,250m^2. It is located within the Sydney CBD and near Darling Harbour which is home to a variety of tourist, entertainment, recreational and cultural facilities.

It abuts the Western Distributor to the north and has street frontages to Day Street, Bathurst Street and Sands Street. The site is located 350m west of Town Hall Station and 240m south-east of Darling Park.

Originally constructed in 1988, the existing 11 storey hotel is occupied by the PARKROYAL Darling Harbour with 336 hotel rooms and amenities.

The location of the site is identified in **Figure 1** below with a summary of key features provided in **Table 2.**

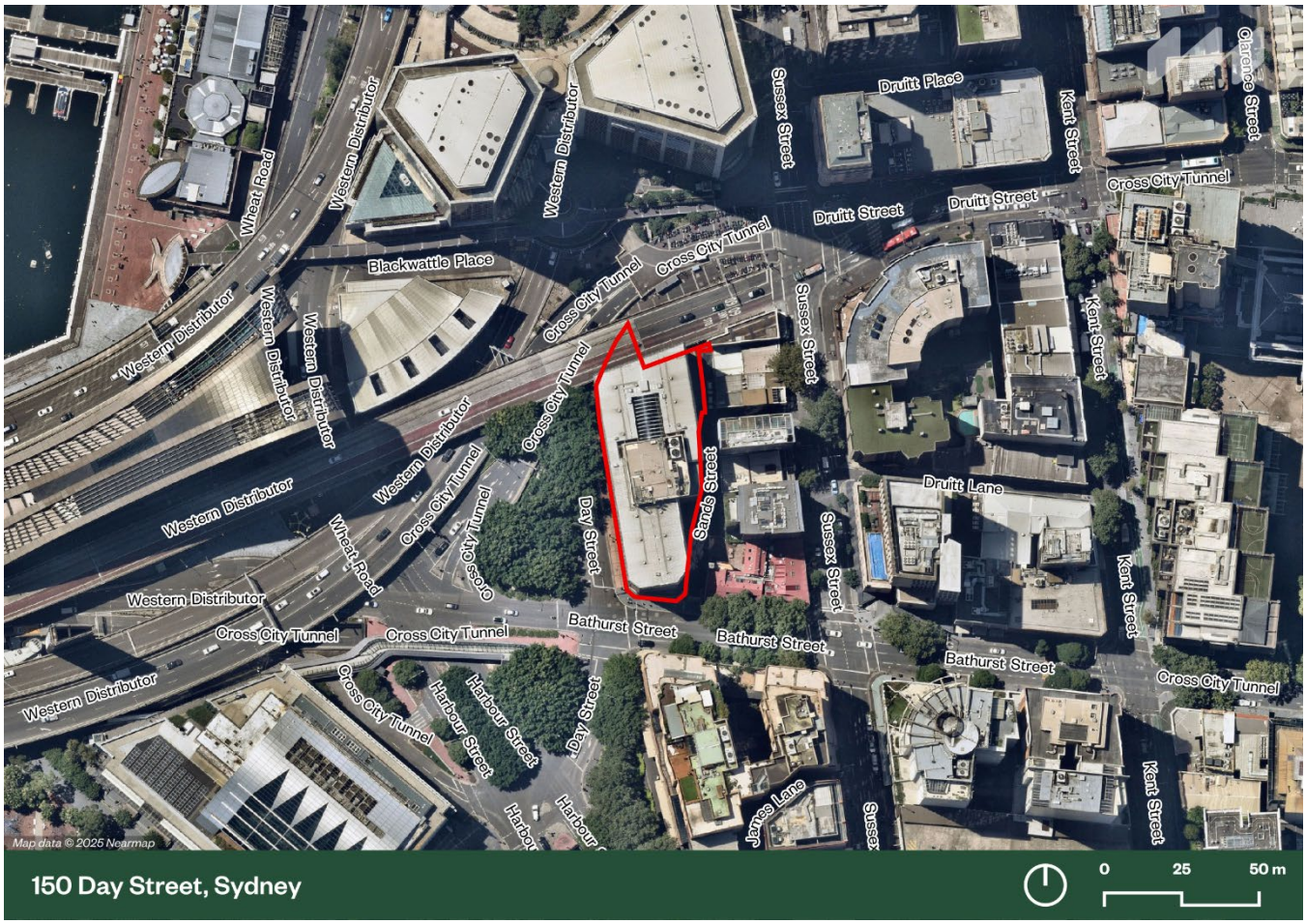


Figure 1: Site Location
Source: Mecone

Table 2: Summary of Key Features

Item	Description
Address	150 Day Street, Sydney
Legal Description	Lot 20 DP 1046870
Total Site Area	2,250m^2
Description of the site	The site currently features the PARKROYAL Darling Harbour Hotel - an 11-storey hotel building. It was originally constructed in 1988, with structural upgrades made in 1996 to convert the roof into a habitable 11th storey.
Topography	The site is irregularly shaped and is relatively flat (approximately 5m AHD). Surface levels across the site fall away from the south-eastern corner with a maximum fall of around 3m towards the north-west, in the direction of Darling Harbour. While the site itself is generally free from vegetation, the public domain area directly to the west of the site on Day Street features some attractive large fig trees.
Local Context	The surrounding area includes a mix of commercial and residential development as well as major arterial roads. Three residential towers located at 267, 273-279 and 289-295 Sussex Street are located to the east and south of the site.
Surrounding Uses and Development	**North:** The Western Distributor abuts the site to the north. **West:** Immediately west of the site is Day Street and redundant road reserve associated with the Western Distributor and Cross City Tunnel (see **Figure 7**), identified as part of Harbour Street (Lot 1 in DP 1199026). **South and East:** Three residential towers located at 267, 273-279 and 289-295 Sussex Street are located to the east and south of the site. The site is also situated adjacent to a local heritage item on the opposite side of Sands Street.
Transport and access	The site is also surrounded by major arterial roads and key vehicular infrastructure, such as the Cross City Tunnel and Western Distributor. The site is well serviced by existing public transport with the site located within 400m of nine bus stops and Town Hall Station, with Gadigal Metro station and QVB Light Rail just outside the 400m radius. A pedestrian through-site link is provided along the north-western boundary of the site.

2.2 Site Context

The surrounding area includes a mix of commercial and residential development as well as major arterial roads. Three residential towers located at 267, 273-279 and 289- 295 Sussex Street are located to the east and south of the site. The site is also situated adjacent to a local heritage item on the opposite side of Sands Street.

The site sits at the interface between the more traditional rectilinear urban forms of Sussex and Kent Streets to the east and the more idiosyncratic and curvilinear forms of Darling Harbour and the network of arterial roads forming the Western Distributor and Cross City Tunnel to the west.

Land to the west of the site features some attractive large fig trees. There is also a vehicular carriageway that currently serves as a porte-cochere to the hotel and provides little public benefit, other than connecting to the pedestrian underpass of the adjacent western distributor ramp, which currently offers very poor amenity and personal security.



Figure 2: Local context
Source: Mecone



Figure 3 View of Day Street from Bathurst looking north
Source: Hassell



Figure 4 View of Day Street from pedestrian link under Western Distributor
Source: Hassell



Figure 5 View north east of pedestrian link under Western Distributor
Source: Hassell



Figure 6 View south west of pedestrian link under Western Distributor
Source: Hassell

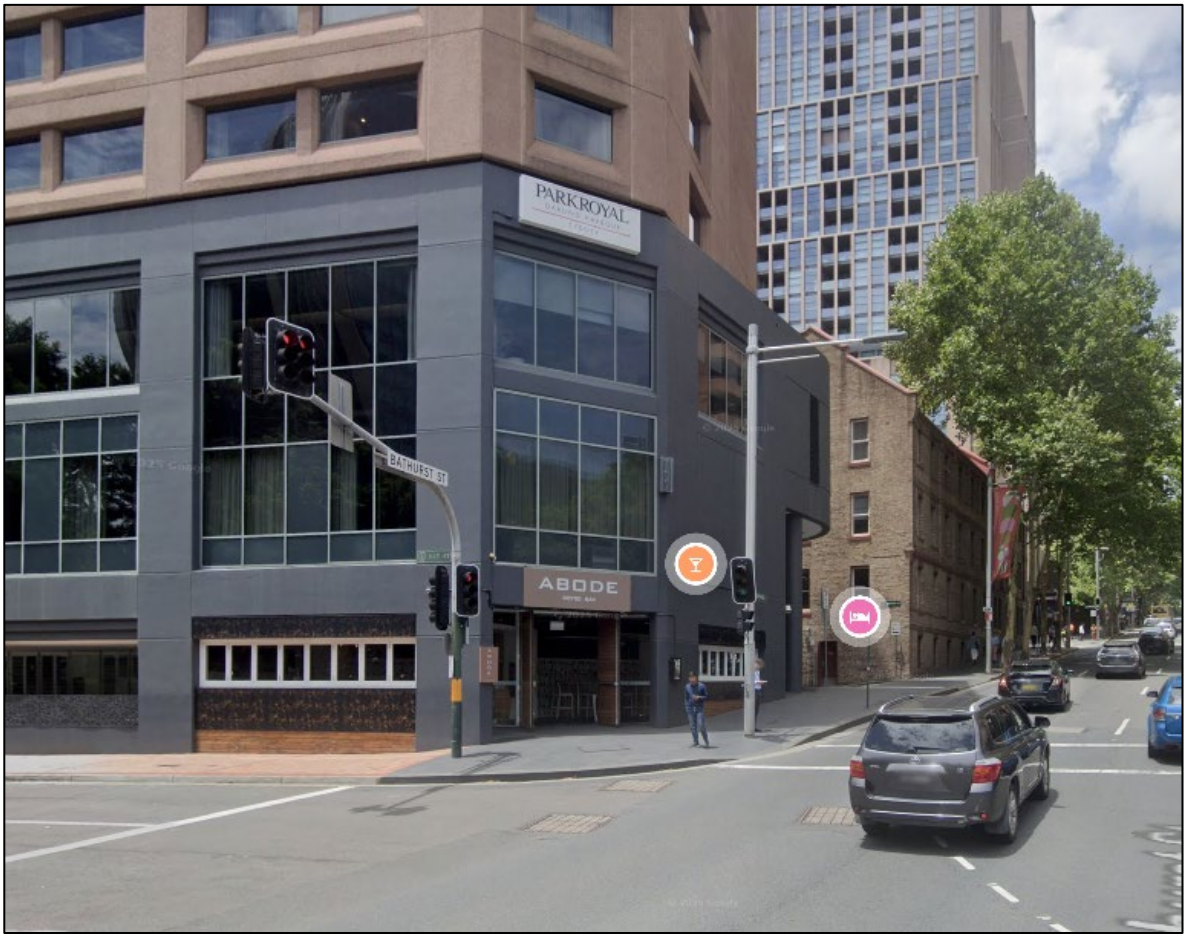


Figure 7 View from intersection of Day and Bathurst looking east
Source: Google maps



Figure 8 View of Southern Bathurst Street Elevation of site
Source: Weir Phillips



Figure 9 View of Sands Street looking south towards Bathurst Street
Source: Weir Phillips



Figure 10 View of Sands Street from Bathurst Street looking north
Source: Hassell

3. Planning Context

3.1 State Planning Policies

3.1.1 A Metropolis of Three Cities – The Greater Sydney Region Plan

A Metropolis of Three Cities sets a 40-year vision (**Region Plan**) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters. The Region Plan is underpinned by a suite of five District Plans, which drill down into more specific detail at a district level and act as a bridge between regional and local planning.

The vision for Greater Sydney is underpinned by the aspiration for most residents to live within 30 minutes by public transport of their jobs, education and health facilities, services and great places. The 30-minute city aspiration will guide future land use decision-making and brings new thinking to land use and transport patterns to boost liveability, productivity, and sustainability benefits.

The Region Plan identifies that opportunities for urban renewal need to be considered by location and capacity of existing and proposed infrastructure. Optimising development near existing and future mass transit nodes improves access to jobs, housing, schools and services and maximises utilisation of this infrastructure.

Greater Sydney is poised to continue to be Australia's prime international gateway. The Region Plan notes that the visitor experience is shaped by major attractions and events and equally by the places people visit, the facilities available and how needs are met. The Eastern Harbour City offers iconic landmarks, beaches and the Harbour, which must be supported by a network of cultural institutions and conference centres. Linking business and leisure visits provides better experiences and has widespread benefits.

The Region Plan notes that Greater Sydney's productivity and global competitiveness will be critical to increasing the region's economic activity by 2036. Central to boosting economic success will be Greater Sydney's high liveability and international tourist appeal.

3.1.2 Eastern City District Plan

The Eastern City District Plan (**District Plan**) was released by the then Greater Sydney Commission in 2018. The District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney.

The planning priorities within the District Plan are focused on achieving a liveable, productive and sustainable future for the District. Relevant objectives, strategies and actions from *A Metropolis of Three Cities* are embedded in each of the planning priorities, including the underpinning vision of a 30-minute city.

It notes that the Eastern City District is one of the world's premier tourism and major events destinations. The Eastern City District boasts assets that attract global talent and encourage businesses to invest. Action 57 within the District Plan requires the consideration of opportunities to enhance the tourist and visitor economy in the District, including a coordinated approach to tourism activities, events and accommodation.

3.1.3 Visitor Economy Strategy 2030 and 2030 Review

The NSW Government's *Visitor Economy Strategy 2030* (**the Visitor Strategy**) outlined a roadmap for rebooting the visitor economy to recover from the impact of drought, bushfires and COVID-19 and to grow in the future. The strategy sets a vision for NSW to be the premier visitor economy of the Asia-Pacific by 2030, with a target of $65 billion in total visitor expenditure by 2030.

The Visitor Strategy describes five strategic pillars that underpin the NSW Government's vision to be the premier visitor economy in the Asia Pacific. *Strategic Pillar 5 - Facilitate Growth* focuses on ensuring increased levels of private sector investment into visitor infrastructure, specifically, to "*ensure hotel supply meets future market demand*".

Following a review of the Visitor Strategy in 2024 (the *Visitor Economy Strategy 2030 Review*), the NSW Government has announced a new target to grow the NSW visitor economy to $91 billion in visitor expenditure by 2035.

The Review expects tourism-related employment to grow significantly by up to 50% (150,000 jobs) by 2035, making tourism one of the fastest growing employment sectors in the state and essential to the economic vitality of NSW.

To make this ambition a reality, the Review states that NSW should:

- *Enhance its unique experiences to capture greater market share.*
- *Improve access within and to NSW.*
- ***Expand and upgrade accommodation across the state adding 40,000 rooms.***
- *Increase airline capacity by 8.5 million seats.*
- *Develop and drive demand for compelling visitor experiences*

(**our emphasis added**)

Several key factors identified within the *Visitor Economy Strategy 2030 Review* justify a need for additional visitor accommodation in the coming years to meet the target, including:

Projected Visitor Growth

The completion of the Western Sydney International Airport in 2026, additional international airline routes and additional international routes from Newcastle Airport will all significantly expand international and domestic travel options.

Establishing a 24-hour Economy

NSW Government envisages a 24-hour economy for Sydney, cementing NSW as a world class nightlife destination. NSW Parliament passed the *24-Hour Economy Legislation Amendment (Vibrancy Reforms) Act 2024*. This legislation will facilitate growth and enhancement of Sydney's nighttime economy and increase visitor attraction.

The Vibrancy Reforms have been implemented from November 2024 to improve Sydney's night time economy. These reforms seek to help music and performance venues thrive, support significant community and cultural events, produce vibrant precincts, facilitate outdoor events/business and modernise licencing.

Building NSW's International Student Market

The *Review* seeks to further build NSW's international student market through advocating the Australian Government for policies that are favourable to international education and driving closer collaboration between the NSW Government and the international education sector.

3.2 Local Planning Policies

3.2.1 City Plan 2036: Local Strategic Planning Statement

The City of Sydney's City Plan 2036: Local Strategic Planning Statement (**LSPS**) sets out a 20-year land use vision that aims to balance the need for housing and economic activities while protecting and enhancing local character, heritage, public places and spaces.

Productivity

Council's LSPS recognises that Central Sydney is the economic powerhouse of the nation and the most economically productive and internationally competitive area in Greater Sydney. It notes that the night time and visitor economy is a key part of Sydney's success. The LSPS states that Sydney is Australia's primary international gateway and most visited city with the country's largest night time economy. In 2018, the City of Sydney (the **City**) had close to 20 per cent of hotel rooms across all major cities in Australia and received close to 45 per cent of all international visitors and 480,000 day visitors. Both the visitor and night-time economy make a significant contribution to the local area's economy, generating up to $11 billion in both direct expenditure and economic benefits across a range of businesses, sectors and communities.

The night time and visitor economy supports the city's global standing in terms of liveability and productivity by providing diverse social and cultural offerings for residents, visitors and workers of all ages. The City's commitment to continue to be both a liveable and productive city calls for us to balance priorities to enable the continued growth of the night time and visitor economy, while maintaining a high standard of facilities and services and a wide range of options for residents, businesses, workers and visitors.

The LSPS seeks to build upon the economic significance of the CBD and has a key focus on productivity. It recognises that productivity is about enabling jobs and skills growth and a well-connected city to create conditions for a stronger economy. Therefore, job growth remains a key priority – with the LSPS setting a jobs target of 200,000 jobs to support the productivity of Greater Sydney, NSW and Australia. This exceeds the baseline targets set by the District Plan.

Central Sydney is a hub for tourism, which plays a major role in the local area's character and economy. It is recognised that providing a diversity of accommodation opportunities that respond to the different levels of demand in the market will be central to achieving this. A place-led and people-focused approach will unlock new sites for a diverse range of future hotel accommodation and deliver world-class public spaces that characterise Sydney as the nation's premier destination city.

Urban Design and Placemaking

The LSPS recognises that high-quality urban design, planning and place making can improve the amenity and safety of the city. The creation of walkable streets can support the liveability of the city, by providing safe, comfortable and well-connected paths so that people can access their day-to-day needs more easily and conveniently.

Environment and Sustainability

The protection and enhancement of the natural environment for a resilient city is a key priority of the LSPS. The LSPS acknowledges there are opportunities to implement canopy cover and biodiversity within the city, potentially through avenues such as site-specific planning proposals. It notes that planning proposals provide an opportunity to strategically reconfigure spaces to achieve both development and landscaping and canopy cover in deep soil areas.

The LSPS articulates that canopy cover and landscaping can also be realised through planting vegetation in the public realm. The City has a focus on working with other stakeholders to reprioritise space for pedestrians and to that effect, the LSPS notes that the City will identify opportunities to increase landscaping and canopy along streets, particularly on key pedestrian and cycling routes that require high amenity.

The LSPS notes that given space is limited, additional vegetation can be provided on the roofs and walls of buildings. It states that green roofs and walls can improve air quality, support biodiversity, better insulate buildings, reduce the heat island effect and improve stormwater management. They also create additional recreation space for people, beautify the city and promote physical and mental wellbeing.

Site-Specific Rezonings

The LSPS establishes principles for growth that must be considered as part of any spot rezonings. Of relevance to this planning proposal, is the final principle which stipulates the following:

> *"Proposals must give consideration to strategically valuable land uses that are **under-provided by the market, such as but not limited to hotels,** cultural space (including performance and production space), medical uses, education uses and childcare centres, and having regard to the appropriateness of the use for the context."*

3.2.2 Central Sydney Planning Strategy

The Central Sydney Planning Strategy (**CSPS**) aims to ensure strong planning for Central Sydney. It outlines how Central Sydney will grow in the future and includes development controls to promote the type of growth and environment for Central Sydney to remain part of one of the world's truly unique and memorable global cities, recognising its role as the State and nation's economic, cultural and social engine. It outlines several key objectives including:

- *Prioritise employment growth and increase employment capacity*
- *Ensure development responds to context*
- *Provide for employment growth in new tower clusters*
- *Move towards a more sustainable city*
- *Protect, enhance and expand Central Sydney's heritage,*
- *Reaffirm commitment to design excellence*

The CSPS also provides a framework of 10 'key moves' which aim to drive the continued growth and economic success of Sydney and its expansion. These are further discussed and addressed in **Section 7.3.1** of this report, whereby it is demonstrated that the planning proposal is consistent with the relevant key moves.

Employment Growth

The CSPS recognises Central Sydney's role in metropolitan Sydney, New South Wales and Australia, and the need to maintain and grow its status as a global city with a dynamic economy. A core objective identified within the CSPS is to protect and grow employment floor space to maintain its economic vitality and resilience, and to respond to the changing needs of markets.

Central Sydney has a limited capacity to grow and adapt because of its natural containment, heritage and the growth of residential development. Strong demand for residential development in particular, has resulted in the displacement of existing employment space and future opportunities for new employment space. This situation represents a direct risk to the Australian economy and must be rebalanced to retain metropolitan Sydney's international competitiveness.

"A central business district that fails to manage the growth of residential strata risks becoming primarily residential in character, alienating economic and business growth as well as the ability to compete for investment in jobs and global talent[1]."

Accordingly, the CSPS aims to refocus the current development environment that favours residential use of land towards accommodating employment needs. In order to protect and grow employment floor space, the CSPS aims to strike a balance in land use that serves its people while ensuring that the mix of land use contributes to a city that is dynamic and world-class.

With respect to the significant constraints existing residential development places on the development of new employment floor space, the CSPS acknowledges that:

- *maintenance of sunlight access to residential apartments should not unduly restrict the economic performance and growth of Central Sydney,* and
- *new development is not* [to be] *impeded by the preservation of private views*

Refer to Section 7.3.2 of this report for further discussion.

Tourism

It notes that tourism is one of the fastest growing economic sectors and is a significant contributor to employment opportunities. Tourism generates more than $30 billion of the state economy every year and contributes approximately $36 million a day across metropolitan Sydney.

At the end of 2012, metropolitan Sydney's accommodation providers recorded close to 80 million visitor nights. Most hotels are located in Central Sydney, but with a growing number to the south in the precincts surrounding Central Railway Station and Broadway, where a large number of backpacker hostels attract visitors.

The CSPS notes that in 2012, about 60 per cent of Sydney visitors who stayed in paid accommodation were leisure travellers, almost 30 per cent were corporate travellers, and about 4 per cent visited for meetings, incentives, conventions and exhibitions (MICE). While there are fewer corporate travellers, they occupy a similar number of rooms as leisure travellers, who tend to have more people per room.

It notes that the proportion of corporate and MICE visitors staying in upscale hotels has increased, but there has been a decline of these visitors in standard hotels. Standard hotels have had growth in leisure and education visitors, who are also choosing to stay outside of Central Sydney.

It recognises the importance of climate change. New buildings and renovation and extension of existing building stock should be highly water and energy efficient and be designed to conserve resources conservation and limit waste.

The Strategy notes that many of Sydney's major hotels were developed from the mid to late 1980s. Development activity slowed from 2001, and the global financial crisis held back a recovery in the late 2000s, but strong trading in recent years has led to the planning of new accommodation. The CSPS notes that future demand will be strongest in the three-star category, assuming the conversion of old office building stock in the city centre and changes in the profile and preferences of international visitors. Reflected in high occupancy rates and growth in room rates, it notes that demand for space in the hotel and accommodation sector is strong.

[1] City of Sydney, Central Sydney Planning Strategy (page 173)

3.2.3 Sustainable Sydney 2030 – 2050: Continuing the Vision

The Sustainable Sydney 2030-2050 (SS) establishes the broad Sydney 2030 vision of a green, global, connected city. It is a blueprint for a city that is environmentally, economically, socially and culturally sustainable and establishes 10 ambitious targets for sustainability.

Of relevance to this planning proposal, the SS identifies:

- an ambitious strategy to achieve **net zero emissions by 2035**.
- A **minimum overall green cover, including 27% tree canopy cover** by 2050 including the use of innovation and design to create more planting opportunities.
- By 2050, 9/10 people working in the city centre and 2/3 people working in the rest of the local area will **use public transport, walk or cycle when travelling to and from work**.

The SS identifies the opportunities for private developments to contribute towards the City's net zero energy targets and ensuring the city grows sustainably and with good design.

The proposal includes an ambitious adaptive reuse project and commitment to ESD excellence which demonstrates significant alignment with the objectives City's Sustainable Sydney 2030-2050 objectives and vision for Sydney and positive contribute to the City's sustainable tourism industry.

3.2.4 Economic Development Strategy

The City of Sydney's Economic Development Strategy (December 2013) is the City's 10-year strategy to strengthen the city economy and support business. It centres on further improving the solid foundations for success; creating opportunities for individuals, businesses, the community and future generations and addressing the challenges that might otherwise limit Sydney's potential growth as a global city.

The Strategy sets out the City's vision for the economy of Sydney and the strategies and actions to achieve that vision. With respect to tourism, it emphasises the importance of tourism as it leads to increased knowledge and cultural awareness between countries and distributes information about a particular country's history, civilisation, traditions and customs. It notes that tourism is a major contribution to national and international recognition of Sydney as a great place to visit, live, work, invest, study and stage events.

The Strategy notes that the supply of visitor accommodation in the City is an issue. It notes the City is working in partnership with industry and Government to stimulate investment in hotel development to address the current capacity constraints.

3.2.5 Tourism Action Plan

The City of Sydney's Tourism Action Plan (December 2013) sets out how the City will work with partners to maintain and further develop the vibrant tourism sector in Sydney.

It notes that the size of the tourism sector relative to other industries, the number and diversity of jobs associated with the tourism industry and the role tourism plays as a catalyst for economic investment in NSW and Australia through international visitation support this priority status. However, there are many challenges facing the sector. They include increased competition over Sydney as a destination of choice for tourists and business travellers within the Asia-Pacific region and high hotel occupancy levels which limit the capacity for growth and the attraction of conferences and events.

The Strategy notes that the Australian tourism market has experienced declines in domestic and international tourist numbers due to the high value of the Australian dollar relative to other global currencies. The focus of the City's actions will be directed to the maintenance and growth of tourism-related industry in the city to ensure Sydney remains a highly desirable destination for the global tourist travel and business markets. It notes the economic contribution of tourism-related businesses to the city is significant, as is their contribution more generally to the liveability of Sydney for residents, workers and visitors and the cross-cultural promotion of Australia as a destination for trade and tourism. Many of the initiatives set out in the Tourism Action Plan focus on enhancing the quality of the experience of visitors to Sydney, strengthening partnerships to maximise visitor numbers and encouraging the development of tourism products and infrastructure, and the marketing of Sydney to a wider audience of potential visitors.

In terms of accommodation, the Strategy notes that demand for accommodation in Central Sydney has risen significantly since 2000. Between December 2000 and December 2012, the number of visitor arrivals increased by 37%, and the number of visitor nights increased by 15.9%. However, tourism accommodation supply decreased by 3.9% in this period, which has resulted in an occupancy rate of 85.4% for the year to December 2012 – one of the highest on record for the city, and in Australia. The Strategy notes the City has benefitted from increased global connectivity particularly with visitors from East Asia – China, Indonesia and South Korea. It also notes visitor arrival numbers have increased by more than a third since 2000, with an extra 1.5 million visitor nights per year

Growing numbers of interstate and international visitors will continue to create a demand for tourist accommodation in the City, especially due to the ongoing growth of the cruise ship industry and the increased importance of major business events.

The Strategy notes that new hotels have not been built due to competing demands for land and the large capital investment required constructing them. Of note, there is a particular shortage in the 3–3.5 star range as well as in the diversity of product on offer in terms of boutique accommodation. Different industry forecasts estimate that somewhere between 5,000 and 9,000 additional hotel rooms are required in the next decade to meet the demand of growing tourist numbers in Sydney. Sydney has long-standing and successful tourism products like the Sydney Opera House, Sydney Harbour Bridge and Bridge Climb, Taronga Zoo, Sydney Aquarium and Wildlife Sydney, harbour cruises and the Sydney Tower, but to remain competitive, it needs to invest in new products to target new markets and offer a new experience to return visitors.

It also notes that there is emerging demand for sustainable tourism options in the business events industry where customers are demanding improved environmental performance by tourism accommodation providers and facilities to satisfy their own corporate responsibility goals. To capture and grow this lucrative market, tourism product and service providers in the city will need to deliver greater sustainable tourism options and also capitalise on the 'green consumer' tourism market by offering accommodation options that reflect sustainable design and management.

3.2.6 Visitor Accommodation Action Plan

The Visitor Accommodation Action Plan focuses on how the City's planning framework and processes can provide an investment and regulatory environment that supports and encourages visitor accommodation which includes hotels and serviced apartments. It builds upon the City's Sustainable Sydney 2030, Economic Development Strategy and Tourism Action Plan. It responds to Australian and NSW government strategies. It also forms part of the City's review of the planning framework for the city centre.

The Visitor Accommodation Action Plan proposes a series of actions related to the City's planning framework that will support investment in new and existing visitor accommodation and help deliver benefits to the visitor and city economies. It sets out the City's actions to make sure the planning framework supports private sector investment in new and existing visitor accommodation. The actions will assist a sustainable, demand driven supply of accommodation that encourages long term investment in visitor accommodation for Sydney and helps grow the local, state and national visitor economy.

The Action Plan articulates that Sydney is Australia's premier destination city and the gateway to New South Wales and Australia. It notes that 10.5 million visitors came to Sydney in 2012 with 4.3 million staying in the council area. About 50 per cent of Australia's international visitors come to see Sydney's iconic attractions.

Visitors are important to the City's economy. They contributed over $5 billion to the economy in 2012. This supported over 10,000 businesses in the transport, accommodation, education, retail, cultural and recreation sectors and almost 27,000 jobs or 7 per cent of the city's workforce.

The Action Plan recognises that tourism is a priority for the City, as it creates jobs, growth and resilience. It increases international knowledge and networks. It contributes to Sydney's national and international reputation as a great place to visit, live, work and invest. Tourism is also important for the success of the City's international and national business networks.

4. Statutory Planning Framework

4.1 Sydney Local Environmental Plan 2012

The Sydney LEP is the principal environmental planning instrument that applies to the site. The key applicable development standards are outlined below.

4.1.1 Land Use Zone

The site is zoned part SP5 Metropolitan Centre and part SP2 Infrastructure (Classified Road).

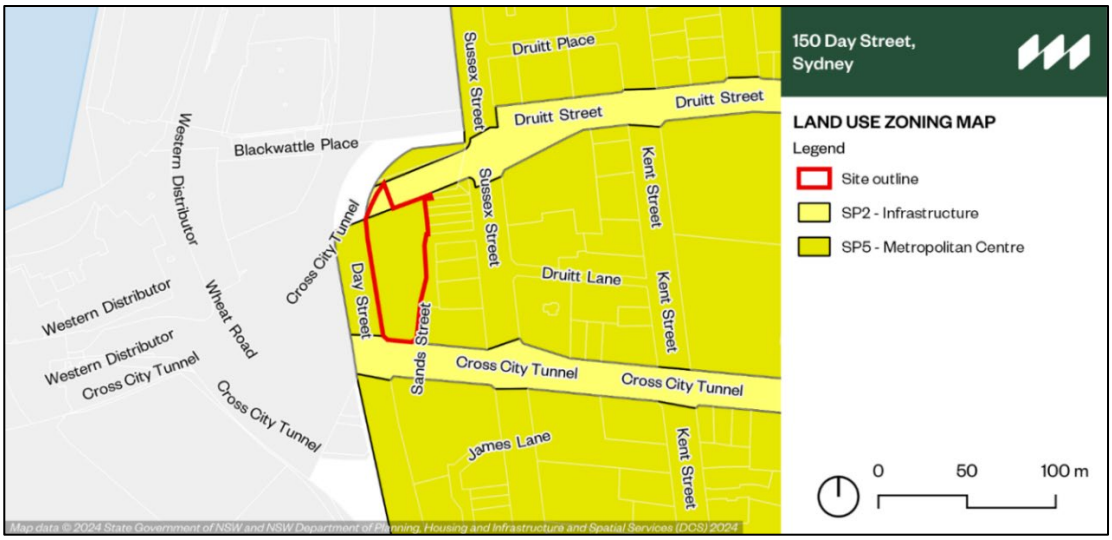


Figure 11 Existing Land Use Zones
Source: Mecone

4.1.2 Building Height

The site is currently subject to a maximum height of building control of 45m.

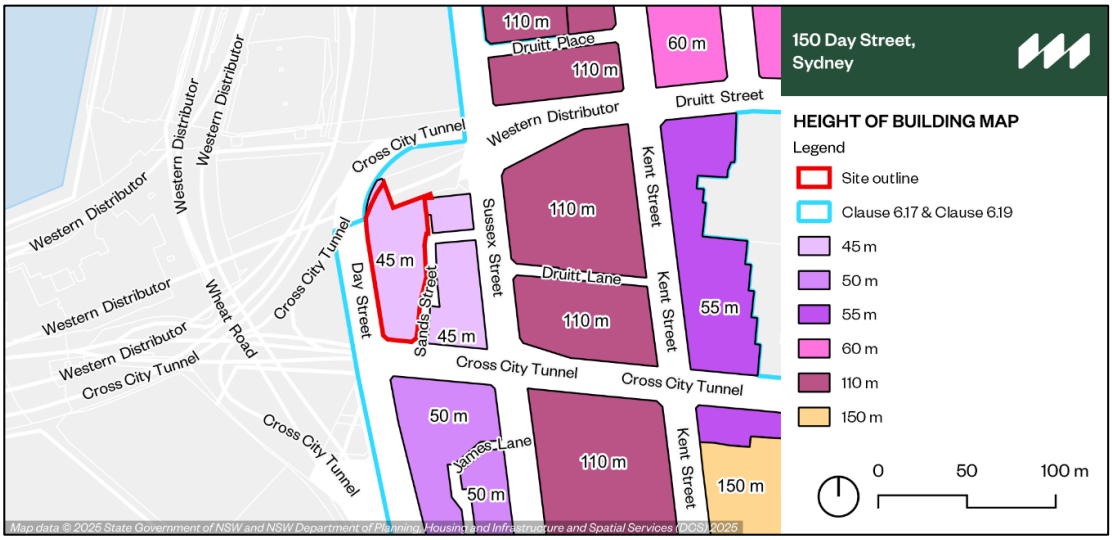


Figure 12 Existing Maximum Height of Building Controls
Source: Mecone

The site is also affected by Clause 6.17 – Sun Access Planes and Clause 6.19 View Planes of the Sydney LEP, along with the proposed public view protection planes provision.

4.1.3 Floor Space Ratio

The site is currently subject to a maximum FSR control of 7.5:1.

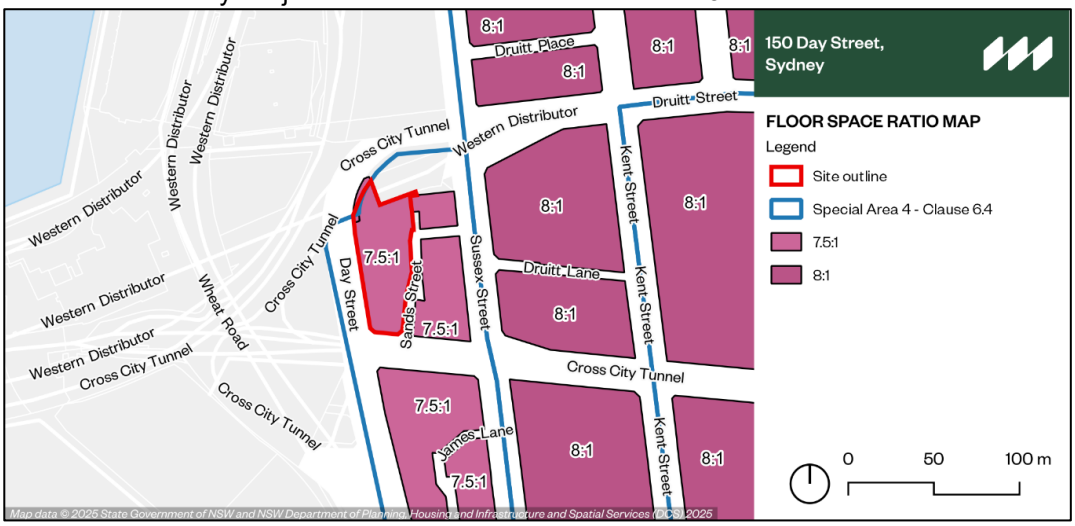


Figure 13 Existing FSR Controls
Source: NSW Legislation, Sydney LEP 2012

Clause 6.4 (Accommodation Floor Space) of the LEP also applies to the site, which triggers additional floorspace ratio entitlements for certain land uses (including hotel or motel accommodation). Given the site is mapped in Area 4, an additional FSR of 1.5:1 is currently available for the purposes of hotel or motel accommodation.

Additionally, Clause 6.21D (Competitive Design Process) of the LEP requires a competitive design process to be held for developments greater than 55m. As the proposal envisages a building height of up to 85m, any future development application would be required to undertake a competitive design process. Buildings that demonstrate design excellence under a competitive design process may be eligible for additional floor space of up to 10% of the FSR map (Clause 4.4) and accommodation floor space (Clause 6.4).

Therefore, the site is capable of achieving a maximum FSR 9.9:1 under current controls.

4.1.4 Heritage

A local heritage item (Item No. I964 – Former warehouse including interiors) is located to the east of the site at 281-287 Sussex Street, Sydney on the opposite side of Sands Street. Various other heritage items are scattered throughout the broader locality.

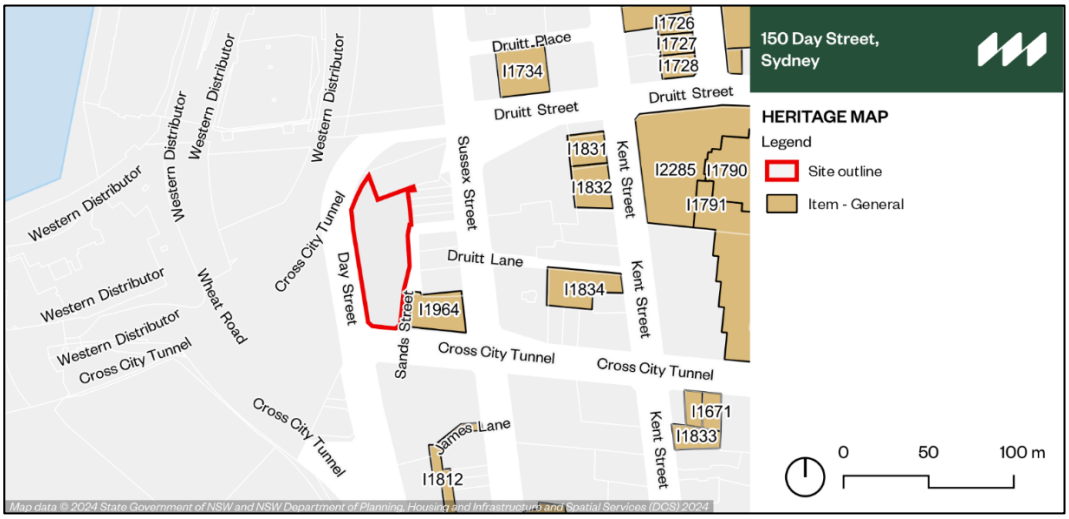


Figure 14 Existing Heritage Items
Source: NSW Legislation, Sydney LEP 2012

5. Project Vision and Design Approach

Constructed in the 1980s, the existing PARKROYAL Hotel is in need of major renewal / redevelopment to meet the current needs and expectations of guests. Existing building services are also fast approaching end of life requiring a full upgrade to existing building services to meet current building standards. As such, redevelopment of the site is of crucial timing for site.

Recognising the site's strategic location within Sydney CBD and proximity to Darling Harbour, UOL aim to upgrade and expand the existing PARKROYAL hotel offering whilst providing the addition of a new separate 5-star hotel over. The co-location of two hotels significantly reduces the development footprint of the new hotel and will allow for the optimisation of shared services.

To achieve this, UOL identifies an ambitious adaptive reuse to retain the existing hotel building and support an additional 11 storeys above. In supporting this vision, extensive investigations and structural advice has been undertaken to provide the necessary strengthening and to maximise the extent of retained structure (refer to further discussion in Section 6.3). Additionally, UOL aim to achieve exceptional environmental performance targets of 5 Star Green Star and 4.5 NABERS efficiency rating. This design approach directly aligns with UOL's Sustainability Framework which underpins UOL's commitment to shape a resilient built environment and contribute towards a clean, green and sustainable future.

Noting UOL's track record in delivering hotel concepts with notable green features, such as PARKROYAL on Pickering, PARKROYAL Marina Bay, PARKROYAL Kuala Lumpur, a key design objective of the proposal is to increase biodiversity in the city. Through collaboration with Gadigal/First Nations Elders and Knowledge Holders and experienced landscape architect(s), future design seeks to weave the essence of the coastal natural environment and bushland into the project and ensures that plantings flourish and responds to Sydney's unique ecosystem.

Redevelopment of the site also provides an opportunity to enhance and improve the amenity, safety and accessibility of surrounding public domain which is to be developed further through discussion with relevant public authorities and build on initial engagement with First Nation knowledge holders undertaken to date (refer to **Appendix 7**).



Figure 15 Conceptual Design Render
Source: Hassell

6. Building Envelope and Reference Scheme

The proposed building envelope and reference scheme has been prepared by Hassell to illustrate the intended design outcome intended to be facilitated by the proposed planning controls. This is included in Hassell's urban design package in **Appendix 2**.

The reference design supports the project vision to upgrade and expand the existing PARKROYAL hotel and vertical extension to support a dual hotel offering for the site. Key aspects of the reference design are as follows:

- Retention and adaptive redevelopment of existing 11 storey hotel and 2 levels of basement and new 11 storey extension (including transfer level plus plant) of new hotel space resulting:
    - Two hotel brand offerings – PARKROYAL Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

A site-specific Development Control Plan (**DCP**) has been prepared in support of this Planning Proposal which supports the project vision and design approach identified in the reference scheme.

The following headings provide additional detail of the reference design scheme. For full details, please refer to the Urban Design Report in **Appendix 2**.

6.1 Height

The maximum building height identified for the site is defined by the Future Town Halll Solar Plane as provided in Section 6.18 of the Sydney LEP. This results in a maximum building height of 90m at its tallest point, with the massing stepping down to the north of the site to align with the solar plane contours. However, when considering the existing building environment (i.e. Crown Plaza Hotel), the maximum building envelope may be extended 110m.

The reference scheme identifies a maximum building height of 85 metres before stepping down to the north and ensures no additional overshadowing to the Future Town Hall.

6.2 Built Form

The proposed building utilises the existing hotel structure to support a vertical extension on the site. As such, the new floor levels are largely defined by the location of existing columns and the geometry of the existing building.

The existing building is largely built to its boundary with some minor upper-level setbacks accommodated above the podium level at Bathurst Street and part of Sands Street. In order to address structural and operational requirements for the new hotel floors, no additional setbacks to the west, south and east are able to be accommodated in the proposed design. Notwithstanding, setbacks along the northern façade have been identified within the reference scheme in an effort to reduce the scale of the western façade and to allow extensive greening opportunities as discussed further in Section 6.4 below.

Recognising potential wind impacts associated with increased height proposed, additional measures have also been incorporated into the design including:

- Tapering of building along north-western corner,
- 8m high void across levels 11 and 12 on the southern aspect of the building, and

- Double height void on ground and first floor at Bathurst Street.

These measures ensure that the proposed massing is able to mitigate adverse downdrafts impacts from the development, however, are to be reviewed in further detail during detailed design development.

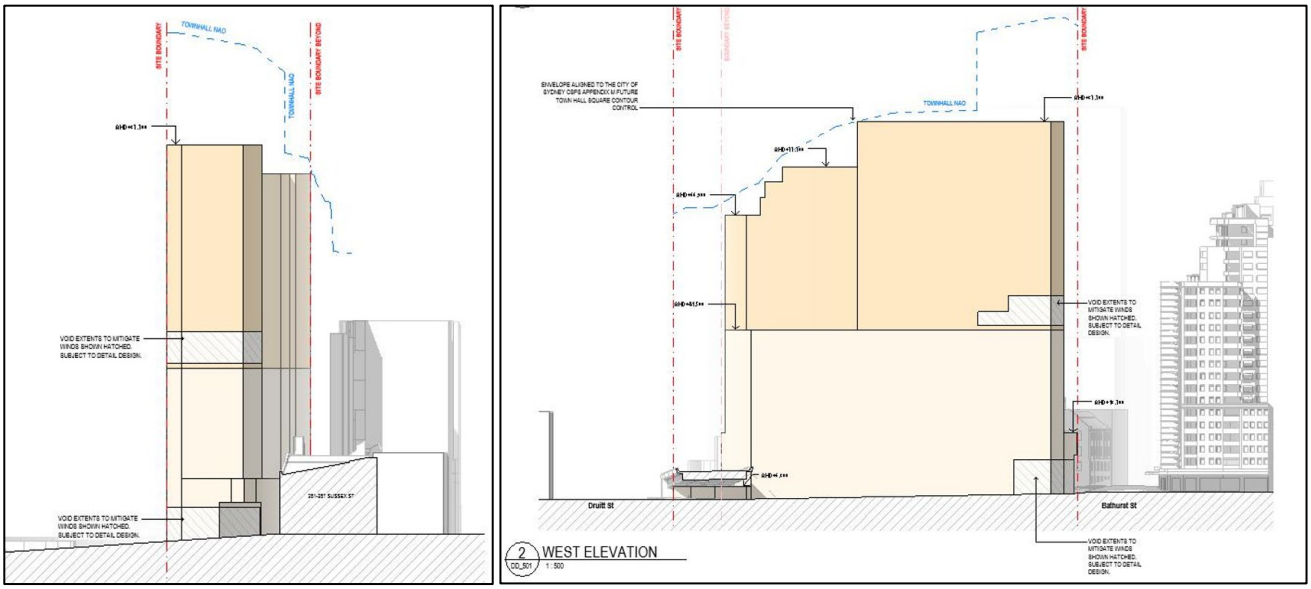


Figure 16 Building Envelope – Southern Elevation (Left) and Western Elevation (Right)
Source: Hassell



Figure 17 Building Envelope – Podium Setback (Ground Floor Plan)
Source: Hassell

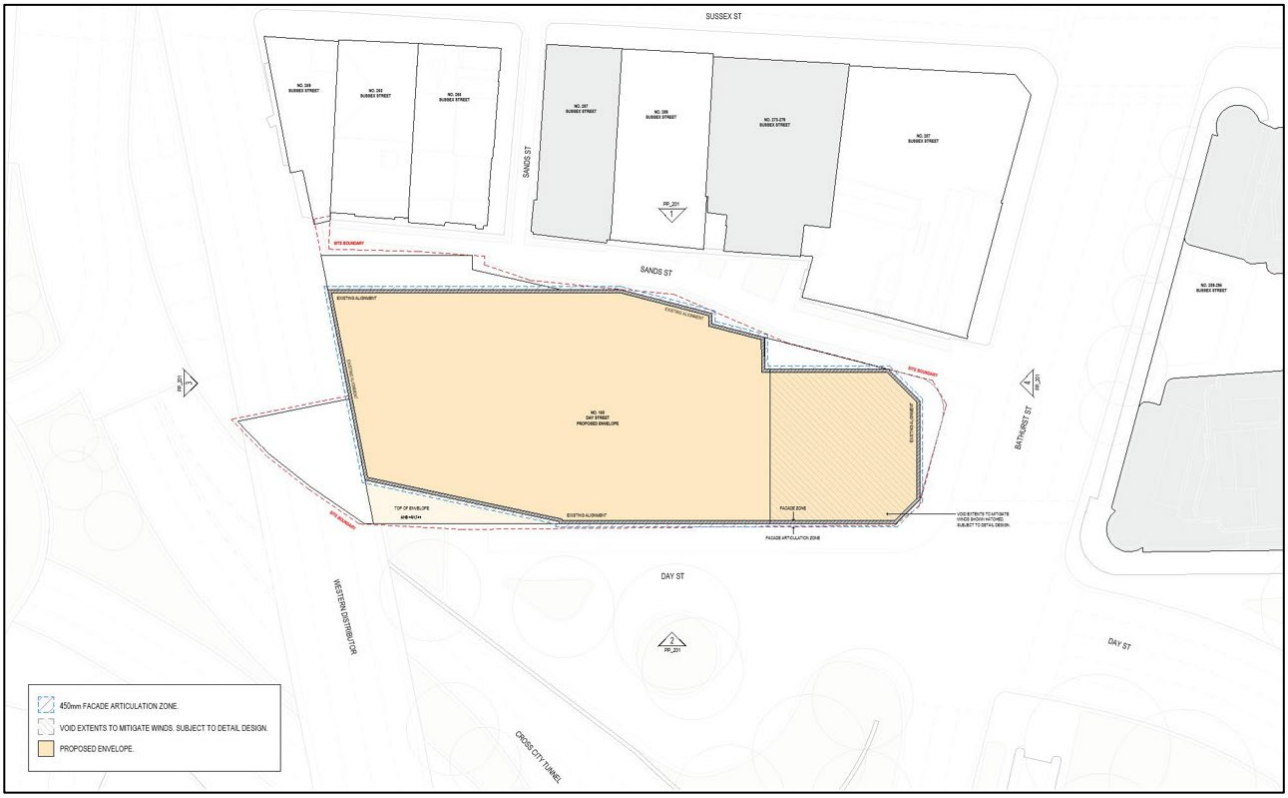


Figure 18 Building Envelope – Transfer Setback (Level 11 Floor Plan)
Source: Hassell

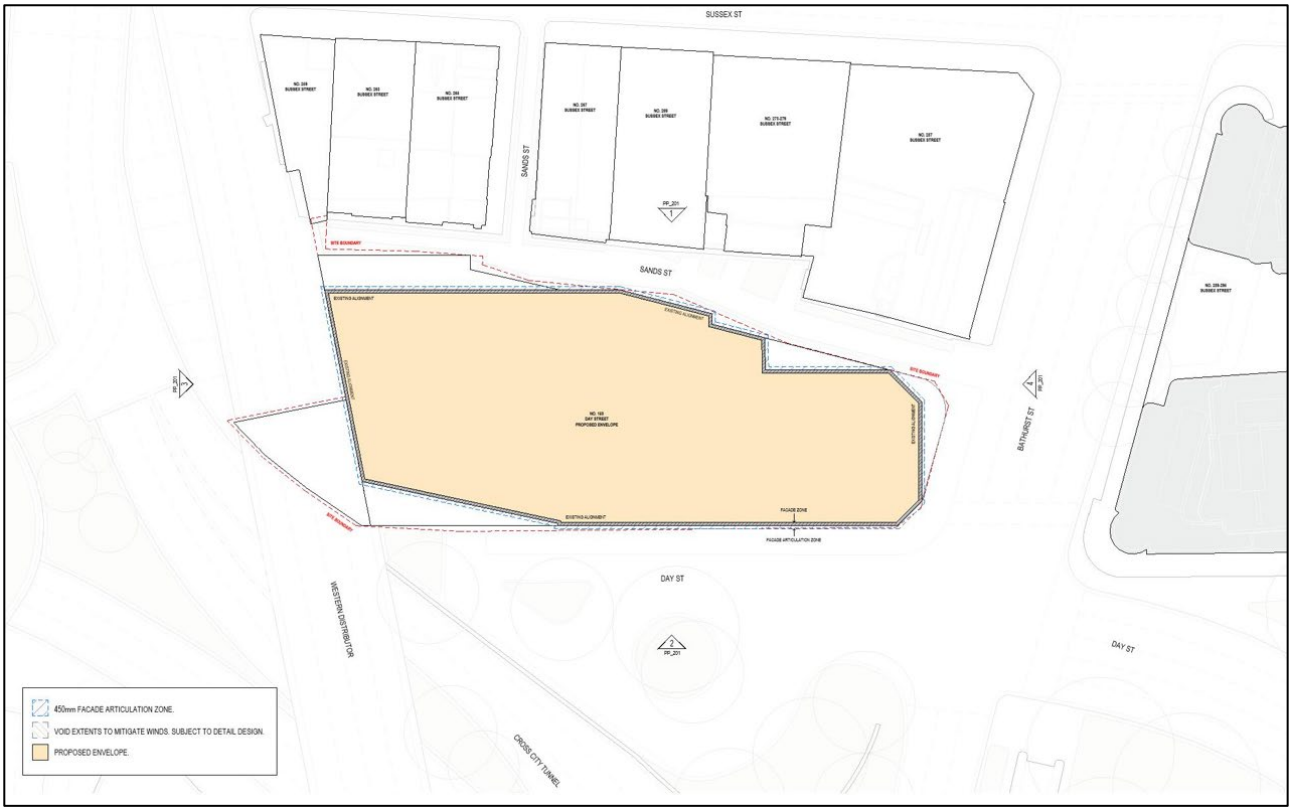


Figure 19 Building Envelope – New Tower Setback (Level 13-17 Floor Plan)
Source: Hassell

6.3 Adaptive Reuse and Structural Approach

The proposed reference scheme identifies an ambitious adaptive reuse strategy to retain the existing hotel building and support an additional 11 storeys above.

In supporting UOL's adaptive reuse vision, extensive investigations and structural advice has been undertaken to maximise the extent of retained structure, which aims to set a benchmark for future developments in Sydney. To accommodate increased building height, significant strengthening works are required.

The building is founded on shallow pad footings, bearing directly onto sandstone. Given the high bearing capacity of the sandstone foundation, the proposal is able to incorporate a "jacketing approach" of existing columns and footings to accommodate the vertical extension. Where located between hotel rooms, this strengthening approach can be concealed within existing walls, however on non-typical hotel floors, a "strip to structure" approach is required due to compromised spatial layouts.

Strengthening of existing lift cores was also identified to structurally support the buildings increased load, whilst also bringing the lifts into compliance with current earthquake codes and maximising retention strategy. For additional lifts, the existing atrium void has been utilised to minimise impacts on the current structure.

For the new building component, a larger room grid (38m^2 rooms) with a wider frontage and a shallower layout is proposed. This is achieved through a transfer structural truss at Level 11 which enables the loads from the upper grid to be supported. This configuration aligns with the room size requirements of the Pan Pacific Hotel, offering a more functional design for the hotel's upscale offering. Additionally, this approach supports the project brief of maximum retention whereby the existing hotel rooms can undergo finishes upgrade only with minimal upgrades to structures.

Overall, the proposal showcases maximum retention and adaptive reuse by preserving the existing building structure, including the lift core and concrete frame, and integrating them into the new design. The design team has chosen to highlight retained structural features and repurposing of the existing atrium for additional lifts. The project seeks to significantly reduce embodied carbon while sustaining operational efficiency, setting a benchmark for future developments in Sydney.



Figure 20 Existing Building – PARKROYAL Hotel
Source: Hassell

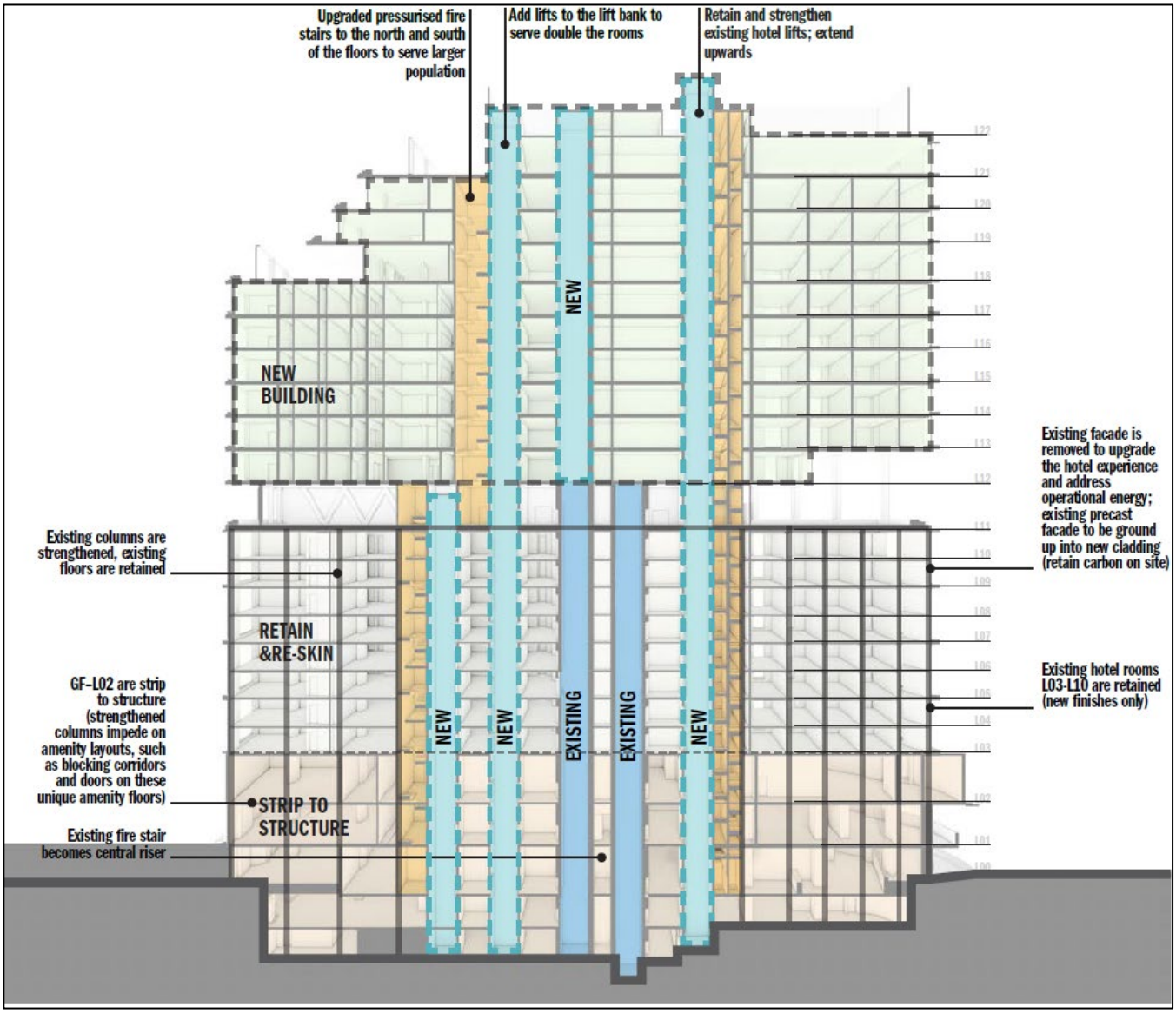


Figure 21 Adaptive Reuse / Retention Strategy
Source: Hassell

6.4 Façade Design and Landscaping

Following an audit on the existing precast concrete façade, it was revealed that the glazing was underperforming, both acoustically and thermally. This led to the installation of a secondary glazing layer in each hotel room to minimise noise. Additionally, the poor thermal performance resulted in excessive heat gain, necessitating higher operational carbon emissions due to increased heating, ventilation, and air conditioning usage.

To enhance the thermal and acoustic performance, the project proposes to strip the facade back to its structure and install a new lightweight system. This approach reduces the weight on the existing structure (minimising strengthening works) whilst significantly improving both thermal and acoustic performance in accordance with NCC 2025 facade requirements.

Whilst this approach remove carbon from the building, the works are necessary to meet new current building code requirements and ensure reduced carbon over the future life of the hotel. To minimise embodied carbon, the project team propose for the existing precast concrete panels to be crushed into a new product so that it can be retained on site.

The new hotel extension is to also consist of a lightweight façade structure with significant landscaping identified on terraces and balconies of the new building form. Proposed landscaping draws inspiration from three iconic vegetation typologies unique to Sydney: sandstone gully forests, sandstone ridgeline bushland, and coastal heathlands. Strategic species selection will ensure ecological success and foster a meaningful connection to Sydney's environment.

6.5 Public Domain – Initial Public Benefit Offer

Public domain works identified by this proposal have been informed by a wide-ranging analysis of the surrounding environment. The following opportunities as presented in our initial public benefit offer, aim to enhance the pedestrian experience and improve public domain offering, representing a significant public benefit to the community.

Day Street:

- **Vegetation**: Spontaneous vegetation and monocultures are the current conditions of planting on site. Expanding biodiversity typologies within existing garden beds will provide for a more vibrant and biodiverse typologies that will significantly improve guest experience and public alike.
- **Porte cochere**: The porte-cochere will be removed from the urban realm, increasing active frontage to Day Street and prioritising pedestrian movements over vehicles.
- **Paving**: Existing paving is inconsistent with more recent paving upgrades through the city. Improvements to paving will ensure consistency with the rest of the city and provide an improve amenity for pedestrians.

Pedestrian Link under Western Distributor:

- **Lighting and Safety**: The Western distributor underpass is currently under lit, poorly finished and incredibly hostile to pedestrians. Increasing pedestrian legibility, wayfinding and safety will return it to a key east-west pedestrian link and spread the revitalisation around the city.

Bathurst and Sands:

- **Permeable Paving**: Initial conceptual approach with new drainage infrastructure including use of permeable paving to address drainage and flooding issues along Sands Lane and to extend the useable city space for pedestrians.
- **Street Planting**: Opportunities for landscape planting on Bathurst Street and Sands Street aimed to improve pedestrian amenity.
- **Sands Street Interventions**: Subject to further design development with City of Sydney, there may be opportunities to extend the useable city space and human scale experience within Sands Street and Bathurst Street to improve pedestrian amenity and interest.

Public Art:

- **Public Art Integration**: Work alongside UAP will occur to procure, arrange and develop a public art strategy for the project in accordance with Council's Public Art Policy, with opportunities identified in the Public Art Strategy within the:
    - Northern Pedestrian Link (Western Distributor Underpass)
    - Arrival Experience along building façade at Day Street, and
    - Day Street Public domain.

Initial consultation of the preliminary has received in principle support from TfNSW (primary land owner of neighbouring public land) with no objection raised by City of Sydney during preliminary scoping meetings. Further detailed design of public domain works is subject to ongoing consultation with public authority landowners and future design excellence process.

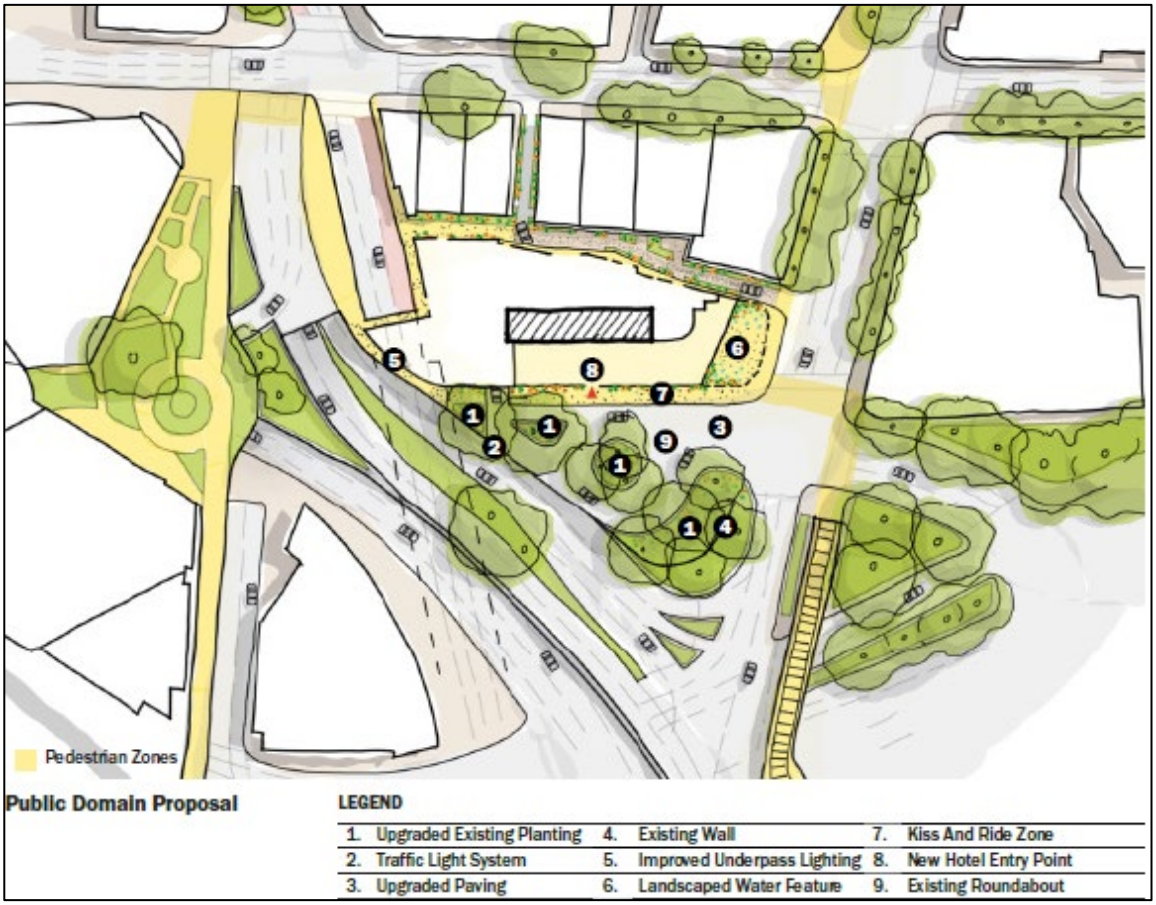


Figure 22 Preliminary Public Domain Proposal – Day Street
Source: Hassell

Part B – Planning Proposal

7. Planning Proposal Overview

7.1 Part 1 – Objectives and Intended Outcomes

Objectives

The key objectives of this planning proposal include:

- Enable additional hotel accommodation to address the growing demand for hotel floor space within the Sydney CBD.
- Provide additional employment generating uses that will strengthen the economic competitiveness of Central Sydney, energising Sydney's visitor economy and provide job opportunities.
- Facilitate a building envelope of intermediate scale suitable for the size of the site that provides an appropriate transition in scale.
- Adaptively reuse the existing hotel building - setting a benchmark for future developments in Sydney.
- Amend the applicable planning controls to provide the built form parameters for a future tower capable of exhibiting design excellence.
- Protect and enhance the amenity of the surrounding public domain and development

Intended Outcomes

The intended outcomes of the Planning Proposal are to:

- Provide revised planning controls to enable the transformative adaptive reuse of the existing building and delivery of additional employment generating floorspace / hotel accommodation within Central Sydney.
- Support a built form that is consistent with the future character of the surrounding area and with acceptable environmental outcomes.
- Significantly enhance the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals.
- Enable redevelopment of the site which will enable greater street activation, public domain improvements and pedestrian amenity.
- Ensure a future detailed Development Application can achieve a high standard of environmental sustainability.

7.2 Part 2 – Explanation of the Provisions

7.2.1 Amendments to Sydney Local Environmental Plan

The Planning Proposal seeks to achieve the intended outcomes outlined under Part 1 above through the proposed introduction of a site-specific provision within the Sydney LEP. The proposal seeks to amend the Sydney LEP, by introducing a new site-specific LEP provision, as follows:

(1) The objective of this clause is to encourage—

(a) the delivery of additional hotel accommodation within Central Sydney, and

(b) a satisfactory distribution of built form and floor space that is appropriate to the surrounding area, and

(c) the sustainable and adaptive re-use of an existing hotel.

(d) Achievement of Design Excellence in design of future hotel.

(2) This clause applies to Lot 20, DP 1046870, 150 Day Street, Sydney.

(3) A building on land to which clause apply may have–

(a) A maximum building height of 85m, and

(b) A maximum floor space ratio of 13.5:1.

(4) Development consent to which this clause applies must not be granted unless the consent authority is satisfied the development–

(a) will be used for hotel or motel accommodation and ancillary uses, and

(b) where required, be subject to a competitive design process under Division 4 and the building demonstrates design excellence within the meaning of that clause.

(5) A building on land to which this clause applies is not entitled to additional floor space permitted by Clause 6.4 Accommodation Floor Space and 6.21D(3) Competitive Design Process.

(6) In this clause—

***building demonstrating design excellence** has the same meaning as in Division 4.*

7.2.2 Proposed Site-Specific Development Control Plan Provisions

Given the substantive adaptive reuse of the base building and necessary structural strengthening required for the redevelopment, site specific development controls are necessary to support the redevelopment of the site and to give effect to proposed LEP amendments. The proposed draft Site Specific DCP amendment is provided at **Appendix 6.**

7.3 Part 3 - Justification of strategic and site – specific merit

This section of the report provides a detailed assessment of the proposal's strategic and site-specific merit. It also considers the interaction between these findings and demonstrates that the proposal will align with the strategic planning framework and context and have any environmental, social, or economic impacts.

7.3.1 Strategic merit

Section A – Need for the planning proposal

Q1. Is the planning proposal a result of an endorsed LSPS, strategic study or report?

The planning proposal is consistent with and supports key state and local strategic planning documents including:

- A Metropolis of Three Cities – the Greater Sydney Region Plan,
- Eastern City District Plan,
- Visitor Economy Strategy 2030 and Review 2030,
- City Plan 2036: Local Strategic Planning Statement,
- Central Sydney Planning Strategy,
- Sustainable Sydney 2030-2050: Continuing the Vision,
- City of Sydney's Economic Development Strategy,
- City of Sydney's Tourism Action,
- City of Sydney's Visitor Accommodation Plan, and
- Guideline for site-specific Planning Proposals in Central Sydney.

The planning proposal's consistency with these documents is detailed in **Section B** below and previously in **Section 3**.

In summary, the need for the planning proposal is justified as follows:

- The proposal maintains and supports the delivery of new hotel floor space in support of the City of Sydney and NSW Government's efforts to grow hotel floor space.

- The substantive adaptive reuse of the existing hotel building and exceptional environmental sustainability targets aligns with the City of Sydney's ambitious sustainability targets, setting a new benchmark for future redevelopment in Sydney.
- Central Sydney has a limited capacity to grow and adapt due of its natural containment, heritage and the growth of strata subdivision residential development. The vertical extension of the site supports the efficient use of the site to support additional employment floor space.
- It will deliver substantive public and economic benefits during operation compared to the existing scenario, including:
    - $85.3m annual net increase in output (additional $52.8m in direct activity)
    - $43.7m annual net increase in gross regional product (additional $17.3m in direct activity)
    - $26.3m annual net increase in incomes and salaries (additional $17.3m in direct activity)
    - 368 full-time operational jobs, and
- The proposal will result in improved environmental outcomes in relation to flooding, wind and landscaping, whilst also supporting much needed public domain improvements around the site. Other potential environmental impacts identified by the proposal are either minor and/or acceptable for a development of this nature within the CBD context as discussed further in Section C below.

Q2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Yes, it is considered that the Planning Proposal represents the best means of achieving the objectives and outcomes for the site and realising additional height and employment generating floor space. The intended outcomes of the proposal cannot be delivered under the current planning framework, therefore a Planning Proposal is required.

Section B – Relationship to the strategic planning framework

Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional or district plan or strategy (including any exhibited draft plan or strategies)?

The Planning Proposal will give effect to the objectives and outcomes of the applicable regional/district plans or strategies, as outlined in **Table 3**, **Table 4** and **Table 5**.

Greater Sydney Region Plan – A Metropolis of Three Cities

The Greater Sydney Regional Plan 2056 was published in March 2018 and sets out a vision, objectives, strategies and actions for a metropolis of three cities across Greater Sydney. The Plan outlines 10 overarching directions supported by 40 objectives which aim to provide interconnected infrastructure, productivity, liveability and sustainability benefits to all residents. The Planning Proposal's consistency with the key relevant objectives is discussed in the following table.

Table 3: Consistency with The Greater Sydney Region Plan

Objective	Topic / Theme	Consistency with Objective
Objective 1 – Infrastructure supports the three cities.	Infrastructure and collaboration	This planning proposal is underpinned by transit-oriented development principles and seeks to capitalise on existing and planned public transport infrastructure within the Sydney CBD. It is also supported by an initial public benefit offer to enter into a Planning Agreement to ensure that the proposed uplift can be suitably serviced by infrastructure. Further details are provided in **Section 6.5** and **Appendix 5** of this report.
Objective 2 – Infrastructure aligns with forecast growth –	Infrastructure and collaboration	The proposal aligns with population, tourism and employment demand and will be addressed through additional hotel floor space.

Objective	Topic / Theme	Consistency with Objective
growth infrastructure compact.		
Objective 3 – Infrastructure adapts to meet future needs.	Infrastructure and collaboration	The proposal will provide enhanced public domain areas surrounding the site. It is also supported by an initial public benefit offer to enter into a Planning Agreement to ensure that the proposed uplift can be suitably serviced by infrastructure. Further details are provided in **Section 6.5** and **Appendix 5** of this report.
Objective 4 – Infrastructure use is optimised.	Infrastructure and collaboration	The proposal will locate hotel accommodation within the Sydney CBD, in close proximity to transport infrastructure, key tourism attractions, open space, social and road infrastructure.
Objective 6 - Services and infrastructure meet communities' changing needs.	Liveability	The proposal is within a highly accessible location which will assist in optimising the delivery and use social infrastructure. The proposal is also supported by an initial public benefit offer to enter into a Planning Agreement to ensure that the proposal can be appropriately serviced by local infrastructure. This is further discussed in **Section D** below.
Objective 7 - Communities are healthy, resilient and socially connected.	Liveability	The proposal will provide new pedestrian connections to form part of a broader integrated network, promoting walkability and pedestrian movement within the Sydney CBD. The proposal will reinforce the fine grain urban character in an area that is undergoing substantial revitalisation.
Objective 8 - Greater Sydney's communities are culturally rich with diverse neighbourhoods.	Liveability	The proposal will celebrate the identity and sense of place of the Sydney CBD. In particular, the proposal seeks to facilitate an adaptive reuse of the existing hotel on the site. The proposal aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site.
Objective 9 - Greater Sydney celebrates the arts and supports creative industries and innovation.	Liveability	The proposal will provide opportunities for creative and artistic expression as part of the proposed development through potential public art installations. This is further discussed in the Public Art Plan prepared by UAP (refer **to Appendix 20**).
Objective 12 - Great places that bring people together	Liveability	Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.
Objective 13 - Environmental heritage is identified, conserved and enhanced.	Liveability	The proposal has been carefully designed having regard for nearby heritage items, as discussed in **Section C** below and **Appendix 14**.
Objective 14 - A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities	Productivity	The site occupies a pivotal location as a primary entry point into Sydney. Positioned between Darling Harbour and the CBD, it serves as a critical threshold for visitors and residents arriving from the western approach. Its visibility and strategic placement offer a unique opportunity to define a strong sense of arrival and establish a dynamic

Objective	Topic / Theme	Consistency with Objective
		presence within Sydney's urban fabric. It is also located approximately 350m west of Town Hall Station. The site is situated within a highly active network of movement, where pedestrian pathways intersect with vehicular routes and public transport systems. Above-ground expressways, below-ground tunnels, and laneways converge here, creating a dynamic flow of activity. This makes the site a crucial connector, capable of uniting fragmented urban links and improving accessibility between key destinations like Tumbalong Park, Darling Harbour, and the city core.
Objective 15 - The Eastern, GPOP and Western Economic Corridors are better connected and more competitive	Productivity	Central Sydney is a hub for tourism, business visitors, students and faculty that are attracted to its world-class educational institutions, iconic landmarks, heritage buildings, civic and cultural places, and night-time economy. Therefore, tourism plays a major role in the local area's character and economy. This proposal seeks to support the success of the economy by providing a diversity of accommodation opportunities that respond to the different levels of demand in the market. It seeks to contribute to a diverse range of future hotel accommodation within the CBD and deliver world-class public spaces that characterise Sydney as the nation's premier destination city.
Objective 17 - Regional connectivity is enhanced	Productivity	The proposal will support increased connectivity of people across Greater Sydney by situating renewal within walking distance of major transport infrastructure.
Objective 18: Harbour CBD is stronger and more competitive	Productivity	The proposal seeks to support the Harbour CBD's tourism and economic offering, providing quality accommodation options in the heart of the CBD.
Objective 22 - Investment and business activity in centres	Productivity	The proposal seeks to optimise its central location within the CBD, noting it is well serviced by public transport and co-located with major trip generating activities (such as retail, hospitality, offices, health and education, community and administrative services).
Objective 27 Biodiversity is protected, urban bushland and remnant vegetation is enhanced	Sustainability	The site will be covered in a large, green offer to the wider city. It integrates Sydney landscape character onto the built form, enveloping the site in the mixture of colour and textures present in healthy Country.
Objective 28 Scenic and cultural landscapes are protected.	Sustainability	The proposal supports a considerate built form which protects the cultural heritage significance of the surrounding area. The northern facade opens towards the water, reducing the visual impact of the western elevation and providing optimal views while integrating with the urban context.
Objective 30 Urban tree canopy cover is increased.	Sustainability	Extensive greening will be provided on the northwest elevation. It draws inspiration from coastal shrubs, providing natural shading, improving thermal performance, and aligning with the Proponent's commitment to sustainability.

Objective	Topic / Theme	Consistency with Objective
Objective 31 Public open space is accessible, protected and enhanced.	Sustainability	As part of the planning agreement offer, the proposal seeks to improve the amenity, safety and accessibility of surrounding public spaces which will greatly enhance these spaces.
Objective 32 The Green Grid links parks, open spaces, bushland and walking and cycling paths	Sustainability	The proposal prioritises urban porosity. It seeks to create vibrant public spaces with active frontages, fine-grain connections and open plazas. It also seeks to introduce laneways and through-site links that improve connectivity to Darling Harbour, the CBD, and surrounding precincts.
Objective 33 A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change.	Sustainability	The proposal has been carefully designed with environmental sustainability at the core. The project's Sustainability Strategy is to meet the City of Sydney's ESD requirements at a minimum and focus additional efforts meeting aspirations of the Sustainability Vision. In this way, the ESD requirements underpin the project's Sustainability Vision and additional targets are captured in the Sustainability Strategy. This is further detailed in the ESD Report prepared by Atelier Ten (**Appendix 10**). It is important to note that UOL has a strong track record in delivering hotel concepts with notable green features such as the PARKROYAL Collection.
Objective 34 Energy and water flows are captured, used and re-used.	Sustainability	It seeks to reduce water use through inclusion of water efficient fixtures. This is further discussed in the ESD Report prepared by Atelier Ten (**Appendix 10**).
Objective 35 More waste is re-used and recycled to support the development of a circular economy	Sustainability	The proposal seeks to facilitate an adaptive reuse of the existing hotel on site. It seeks to retain and showcase key elements of the existing hotel to minimise demolition waste and preserve site heritage. Retained materials and structural elements will be prominently showcased as key design features, celebrating the site's history and craftsmanship while emphasising sustainable reuse.
Objective 36 People and places adapt to climate change and future shocks and stresses.	Sustainability	The proposal has been designed to build operational capacity over time, to ensure the project is resilient.

The Region Plan is supported by a suite of five District Plans, including the Eastern City District Plan. A summary of the planning proposal's consistency with the Eastern City District Plan priorities is provided in **Table 4**.

Table 4: Consistency with the Eastern City District Plan

Objective number / ref	Topic / Theme	PP Consistency with the objective
Planning Priority E1 Planning for a city supported by infrastructure	Infrastructure and collaboration	An initial public benefit offer to enter into a Planning Agreement is provided as **Appendix 5**. This is further discussed in 6.5 of this report.
Planning Priority E3 Providing services and	Liveability	The site holds the potential to transform into a dynamic hub by linking key urban nodes, enhancing pedestrian and

social infrastructure to meet people's changing needs		transport flows, and turning underutilised areas into vibrant public spaces that extend Sydney's urban program. This is further discussed in the Urban Design Package prepared by Hassell (**Appendix 2**).
Planning Priority E4 Fostering healthy, creative, culturally rich and socially connected communities	Liveability	The proposal seeks to encourage an activated ground plane. It seeks to creates vibrant public spaces with active frontages, fine-grain connections, and open plazas. This is further discussed in the Urban Design Package prepared by Hassell (**Appendix 2**).
Planning Priority E6 Creating and renewing great places and local centres, and respecting the District's heritage	Liveability	The proposed amendments will facilitate the realisation of a built form outcome that exhibits design excellence and contributes to the renewal of the area. The adaptive reuse of the existing building will be sensitively designed to maintain consistency with the future character of the surrounding area. It has also been carefully designed having regard for nearby heritage items, as discussed in **Section C** below of this report.
Planning Priority E7 Growing a stronger and more competitive Harbour CBD	Productivity	By delivering hotel accommodation, the proposal will provide a use that is complementary to the growing office market and emerging innovation and technology precinct.
Planning Priority E8 Growing and investing in health and education precincts and the Innovation Corridor	Productivity	Relative to the existing development on the site, the proposal will substantially increase the supply of employment generating floor space. In turn, it will foster job creation within the Innovation Corridor which is earmarked for economic growth.
Planning Priority E13 Supporting growth of targeted industry sectors	Productivity	The Plan identifies tourism is a key economic sector for the Harbour CBD's economy. It identifies the need for continued growth across all of the sector's facets including business and leisure. In accordance with the objective, the proposal will provide additional hotel accommodation in the context of a growing office market for both business and leisure purposes. The Plan also identifies that 'planning controls need to be flexible to allow for the needs of the innovation economy'. The site is within the Innovation Corridor. The Planning Proposal seeks to increase the amount of employment generating floor space on the site to support the growing innovation economy and the associated demand for temporary accommodation.
Planning Priority E14 Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways	Sustainability	The proposal relates to the adaptive reuse of an existing building in an existing urban context. It will not impact existing public access to Sydney's waterways, foreshores and the coast, and will in fact improve access for tourists and visitors access, particularly Darling Harbour, given its proximity and increased room capacity.
Planning Priority E15 Protecting and enhancing bushland and biodiversity	Sustainability	The project incorporates regenerative design principles to actively enhance Sydney's urban native environment.
Planning Priority E16 Protecting and	Sustainability	The proposal supports a considerate built form which protects the cultural heritage significance of the

enhancing scenic and cultural landscapes		surrounding area. The proposal will not cause additional overshadowing to protected public spaces (e.g. Future Town Hall Square) or affect significant views from public places.
Planning Priority E17 Increasing urban tree canopy cover and delivering Green Grid connections	Sustainability	Extensive greening will be provided on the northwest elevation. It draws inspiration from coastal shrubs, providing natural shading, improving thermal performance, and aligning with the Proponent's commitment to sustainability.
Planning Priority E18 Delivering high quality open space	Sustainability	As part of the initial public benefit offer, the proposal seeks to improve the amenity, safety and accessibility of surrounding public spaces which will greatly enhance these spaces.
Planning Priority E19 Reducing carbon emissions and managing energy, water and waste efficiently	Sustainability	A comprehensive sustainability strategy is central to the project, guided by six sustainability pillars: Innovation, Better Places, Strengthen Community, Emissions Reduction, Operate Efficiently, and Circular Economy. Each pillar will drive specific initiatives to reduce the environmental impact of the project while enhancing its social and economic value. The project will meet the required environmental standards, including achieving a 5 Star Green Star rating, a 4.5 NABERS Energy rating, and materially exceeding Section J of the NCC, making it a benchmark for sustainable development in Sydney.

Q4. Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary or another endorsed local strategy or strategic plan?

Council's Local Strategic Planning Statement sets out a 20-year land use vision that aims to balance the need for housing and economic activities while protecting and enhancing local character, heritage, public places and spaces. This is further discussed in **Section 3.2.1** of this report.

Table 5 provides an overview of the LSPS planning priorities and the Planning Proposal's consistency with each priority.

Table 5: Consistency with the City Plan 2036: Local Strategic Planning Statement

Objective / Priority number / ref	Topic / Theme	PP Consistency with the priority / objective
I1 – Movement for walkable neighbourhoods and a connected city	Infrastructure	This planning proposal seeks to enhance the pedestrian experience. The Western distributor underpass is currently under lit, poorly finished and incredibly hostile to pedestrians. Upgrades to the area will return it to a key east-west pedestrian link and spread the revitalisation around the city. More broadly, the proposal also seeks to increase pedestrian legibility, wayfinding and safety. It introduces laneways and through-site links that improve connectivity to Darling Harbour, the CBD, and surrounding precincts.
I2 – Align development and growth with supporting infrastructure	Infrastructure	This planning proposal is supported by initial public benefit offer to enter into a Planning Agreement (refer **Section 6.5** and Appendix 5 of this report), which seeks to ensure that infrastructure can appropriately service the proposed development.
I3 – Supporting community wellbeing with social infrastructure	Infrastructure	This planning proposal seeks to enhance pedestrian linkages to the broader open space network. It is anticipated that these pedestrian links will also provide attractive and convenient places for activities such as walking and cycling, social gatherings and public events. As previously discussed, this planning proposal is also supported by an initial public benefit offer to enter into a Planning Agreement (refer **Section 6.5** and Appendix 5 of this report).
L1 – A creative and socially connected city	Liveability	The proposal seeks to create vibrant public spaces with active frontages, fine-grain connections, and open plazas. Public art for the site will be developed to align with the City's vision and goals for public art and drawing from the City's Sustainable Sydney 2030 vision and related public art policies, strategies and plans. This is further discussed in **Section 6.5** of this report and within the Urban Design Package (**Appendix 2**) and Public Art Plan (**Appendix 20**).
L2 – Creating great places	Liveability	This planning proposal seeks to improve walkability by increasing the safety and comfort of streets and providing direct, pleasant, sociable and interesting walking connections to the broader locality. It is considered that the proposal will be a great asset to Sydney's tourism offering, by providing high quality accommodation opportunities in a well-located area, on the doorstep of iconic tourism destinations, everyday amenities and public transport hubs.

		This planning proposal has been carefully designed to exhibit exemplar urban design outcomes. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location. Health and amenity have been key considerations throughout the design process. Potential wind, air quality, solar access and noise impacts are further discussed in **Section C** of this report. The future built form achieves a cohesive architectural connection with the surrounding heritage context, most notably “The Vintage Building". This is further discussed in **Section C** below and the Statement of Heritage Impact provided as **Appendix 14**.
P1 – Growing a stronger, more competitive Central Sydney	Productivity	This planning proposal seeks to contribute to the broader mix of land uses that supports Central Sydney’s role as the metropolitan centre and its visitor and night-time economies. It will provide high quality hotel accommodation offerings in a key location that will suit visitor needs. The proposal aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site. It has been carefully designed through a place-led and people-focused approach to ensure that it meets the needs of future visitors, while also being compatible with the local surroundings.
P2 – Developing innovative and diverse business clusters in City Fringe	Productivity	Additional hotel accommodation on the subject site will support the broader economic goals of the city, particularly within the Innovation Corridor. The proposal will not compromise commercial outcomes within the CBD. Rather, it could deliver significant positive economic impacts to the Sydney LGA economy. It would also play a role in addressing the expected supply imbalance in the Sydney CBD market over the coming years through the delivery of additional hotel rooms and renewal of existing ageing stock. This is further discussed in the Economic Impact Assessment prepared by Atlas Economics provided as **Appendix 4** to this report.
S1 Protecting and enhancing the natural environment for a resilient city	Sustainability	The proposal has been designed to prioritise sustainability. This proposal not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment. It has been carefully designed to significantly enhance the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. It seeks to maximise adaptive reuse, reduce embodied carbon, and create better places. In this way, the ESD requirements underpin the project’s design brief and massing design approach. Existing systems have been audited and integrated into any hotel briefing requests. Extensive greening draws inspiration from coastal shrubs, providing natural shading, improving thermal performance and aligning with our commitment to sustainability.

S2 Creating better buildings and places to reduce emissions and waste and use water efficiently	Sustainability	The proposal introduces extensive rooftop greenery to enhance urban biodiversity, improve microclimates, and contribute to urban cooling. It also implements carbon capture systems and sustainable materials to reduce the project's environmental footprint. Another sustainability approach is that it incorporates shading, natural ventilation, and energy-efficient systems to optimise building performance and reduce reliance on mechanical systems.
S3 – Increasing resilience of people and infrastructure against natural and urban hazards	Sustainability	The proposal will improve flood risk conditions for the site and surrounding area compared to existing conditions and aims to support increased canopy cover to reduce urban heat island effects.

Q5. Is the planning proposal consistent with any other applicable State and regional studies or strategies?

Central Sydney Planning Strategy

Council's CSPS sets out a 20-year growth strategy that delivers on our Sustainable Sydney 2030 program for a green, global and connected city. Through 10 key moves, the strategy balances opportunities for development to meet the demands of growing numbers of workers, residents and visitors and their changing needs in Central Sydney.

Table 6 provides an overview of some of the LSPS planning priorities and the Planning Proposal's consistency with each priority.

Table 6: Consistency with the Central Sydney Planning Strategy

Key Move	PP Consistency with the priority / objective
1. Prioritise Employment Growth	The proposal supports the delivery of new hotel employment floor space. The adaptive reuse project supports the most efficient and productive use of the land which maximises Central Sydney's limited space.
2. Ensure Development Responds to context	The proposed built form is generally consistent with the surrounding locality, particularly other commercial developments which maintain a linear tower form. The proposal aims to set a new standard development for sustainable developments within the city as with the resulting built form to be celebrated as an exemplar in adaptive reuse.
5. Ensure infrastructure keeps pace with growth to sustain a resilient city with a strong community, economy and high standard of living	As part of the initial public benefit offer, the proposal seeks to improve the amenity, safety and accessibility of surrounding public spaces which will greatly enhance these spaces. Additionally, monetary contributions in accordance with Council's contribution plans will be payable as part of any future development application.
6. Move towards a more sustainable city	The proposal seeks to undertake an ambitious adaptive reuse project which will substantially reduce embodied carbon emissions for the site and future development. This closely aligns with the City of Sydney's sustainability objectives.
7. Protect, enhance and expand Central Sydney's heritage,	As stated above, the proposal seeks to enhance existing public spaces surrounding the site which aim to improve the use and amenity of these spaces.

public places and spaces	
9. Reaffirm commitment to design excellence	UOL are committed to delivering design excellence as part of the future development of the proposal into the development application phase.

Sustainable Sydney 2030 – 2050 Continuing the Vision

The SS establishes the broad Sydney 2030 vision of a green, global, connected city. It is a blueprint for a city that is environmentally, economically, socially and culturally sustainable and establishes 10 ambitious targets for sustainability.

Table 7 provides an overview of some of the 10 targets aimed to measure progress within the SS.

Table 7: Consistency with Sustainable Sydney 2030-2050

Target	Response
1. **By 2035 we will achieve net zero emissions** in the City of Sydney local area.	The proposal's ambitious adaptive reuse development and exceptional sustainability performance targets are aligned with the City's sustainability objectives and target for net zero emissions. As identified in **Appendix 10**, the comprehensive sustainability strategy is central to the project. Guided by six sustainability pillars, the project will meet the required environmental standards, including achieving a 5 Star Green Star rating, a 4.5 NABERS Energy rating, and materially exceeding Section J of the NCC, making it a benchmark for sustainable development in Sydney.
2. **By 2050 there will be a minimum overall green cover of 40%**, including 27% tree canopy cover.	The proposal seeks to provide substantial greening to the building which supports the City's tree canopy targets. Furthermore, opportunities for additional landscaping within the public domain is also to be considered as part of the project's initial public benefit offer.
3. **By 2030 residential potable water use will be reduced to 170 litres a person** a day in the City of Sydney local area. Non-residential potable water use will be reduced by 10% (measured per square metre) from 2018/19 levels.	The dual hotel offering for the site will provide significant efficiencies in the use of water, particularly in relation to servicing and laundry operations. The efficient use of water will also be developed as part of the detailed design development of the proposal to align with the project's sustainability objectives.
4. **By 2030 there will be a 15% reduction in waste generated by each person** based on 2015 levels. And by 2030 there will be 90% recycling and recovery of residential waste, commercial and industrial waste, and construction and demolition waste, which will be maintained at that level to 2050.	The adaptive reuse of the existing hotel building will substantially reduce construction and demolition waste for the future development with opportunities to reuse existing material on site (i.e. the crushing of existing precast concrete existing precast concrete panels to create new product so that it can be retained on site).
5. **By 2036 there will be approximately 700,00**0 jobs in the City of Sydney local area including 200,000 new jobs compared to 2017. An increased proportion of all jobs will be secure jobs.	The proposal supports the effective and efficient use of land through the vertical extension of the site which will provide additional employment floor space and jobs within Sydney CBD.
8. **By 2050 people will use public transport, walk or cycle to travel to and**	The site is well located to public transport.

from work. This includes 9 out of 10 people working in the city centre and 2 out of 3 people working in the rest of the local area.	The minimisation of parking on site also aligns with this target as it will also encourage the use of public transport by guests and staff.

Visitor Economy Strategy 2030 and Review 2030

The NSW Government's *Visitor Economy Strategy 2030* (**the Visitor Strategy**) describes five strategic pillars that underpin the NSW Government's vision to be the premier visitor economy in the Asia Pacific. *Strategic Pillar 5 - Facilitate Growth* focuses on ensuring increased levels of private sector investment into visitor infrastructure, specifically, to "*ensure hotel supply meets future market demand*".

Following a review of the Visitor Strategy in 2024 (the *Visitor Economy Strategy 2030 Review*), the NSW Government has announced a new target to grow the NSW visitor economy to $91 billion in visitor expenditure by 2035. To make this ambition a reality, the Review states that NSW should:

- *Enhance its unique experiences to capture greater market share.*
- *Improve access within and to NSW.*
- ***Expand and upgrade accommodation across the state adding 40,000 rooms.***
- *Increase airline capacity by 8.5 million seats.*
- *Develop and drive demand for compelling visitor experiences*

With Sydney expected to provide the 'lions share' of future hotel rooms, the Proposal plays a significant role in delivering additional hotel room supply. The renewal of existing, ageing rooms would also assist in mitigating some of the pressure demonstrated to be building in the local hotel market.

Tourism Action Plan

The Tourism Action Plan sets out how the City will work with partners to maintain and further develop the vibrant tourism sector in Sydney.

In supporting and enabling the growth of the tourism sector, the Tourism Action Plan identifies the need to develop the capacity of hotel accommodation throughout the city, particularly within the 3-4 star range.

The proposal aligns with the objectives of the Tourism Action Plan in maintaining and refurbishing the PARKROYAL hotel, to be provided as a 3.5 star hotel, whilst enabling supporting additional hotel rooms in the delivery of an additional hotel rooms to be operated by the Pan Pacific hotel (5 star).

Q6. Is the planning proposal consistent with applicable SEPPs?

The proposal is consistent with all relevant Environmental Planning Policies (SEPPs). The following outlines the intent of the relevant SEPPs and consistency of the Planning Proposal.

Table 8: Consistency with State Environmental Planning Policies

SEPP	Consistent?	Assessment
SEPP (Biodiversity and Conservation) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP.
SEPP (Exempt and Complying Development Codes) 2008	Yes	The proposal does not contradict or hinder the application of the SEPP.
SEPP (Housing) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP. The Urban Design Report (**Appendix 2**) demonstrate the proposal is capable of complying with the key design criteria of the Apartment Design Guide in relation to solar.

SEPP (Industry and Employment) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP.
SEPP (Planning Systems) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP.
SEPP (Precincts – Eastern Harbour City) 2021	N/A	Site located outside of Bays West Precinct and Darling Harbour area identified in the SEPP.
SEPP (Resilience and Hazards) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP.
SEPP (Transport and Infrastructure) 2021	Yes	The proposal does not contradict or hinder the application of the SEPP.

Q7. Is the planning proposal consistent with applicable Ministerial Directions (section 9.1 Directions) or key government priority?

The planning proposal is consistent with the applicable Section 9.1 Ministerial Directions as detailed in **Table 9**.

Table 9: Consistency with Ministerial Directions

Ministerial Direction	Consistent?	Comments
Focus area 1: Planning Systems		
1.1 Implementation of Regional Plans	Yes	As demonstrated in **Section 3** and above of this report, the planning proposal is consistent with the Region Plan and Eastern City District Plan. It will encourage employment growth by increasing the supply of employment generating floor space
1.2 Development of Aboriginal Land Council land	N/A	Not applicable.
1.3 Approval and Referral Requirements	Yes	No new concurrence provisions are required.
1.4 Site Specific Provisions	Yes	The planning proposal will not result in any unnecessarily restrictive site-specific planning controls. The proposed site-specific LEP provision is intended to facilitate the orderly development of the site. The proposal is also accompanied by a site-specific development control plan to guide future development on the site. Further details are provided in **Section 7.2.2** and **Appendix 6** of this report.
1.4A Exclusion of Development Standards from Variation	N/A	The proposal does not seek to exclude clause 4.6 variations.
Focus area 1: Planning Systems – Place-based		
	N/A	No place-based strategies are applicable to the site.
Focus area 2: Design and Place		

	N/A	[This Focus Area was blank when the Directions were made]
Focus area 3: Biodiversity and Conservation		
3.1 Conservation Zones	N/A	The site is not within a conservation zone.
3.2 Heritage Conservation	Yes	The proposal appropriately considers heritage conservation and is consistent with this Ministerial Direction. This is further discussed in **Section C below** and the **Statement of Heritage Impact** prepared by Weir Phillips (refer **Appendix 14**).
3.3 Sydney Drinking Water Catchments	N/A	The site is not located within the Sydney Drinking Water Catchment.
3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs	N/A	Site is not located in Far North Coast or zoned C2 or C3.
3.5 Recreation Vehicle Areas	N/A	The site is not sensitive land or land with significant conservation values that is intended to be used by recreational vehicles.
3.6 Strategic Conservation Planning	N/A	The site is not identified as a conservation zone.
3.7 Public Bushland	Yes	The proposal is consistent with the objectives of this direction and seeks to enhance the biodiversity environment within the public domain and on the proposed development.
3.8 Willandra Lakes Region	N/A	The site is not located in the Willandra Lakes Region.
3.9 Sydney Harbour Foreshores and Waterways Area	N/A	The proposal is located outside of the Foreshores and Waterways Area as defined in the *State Environmental Planning Policy (Biodiversity and Conservation) 2021*.
3.10 Water Catchment Protection	Yes	This direction applies as the site is located within the Sydney Harbour Catchment area. The proposal is consistent with the objectives of the direction and is not likely to have an adverse impact on natural waterbody, or terrestrial, aquatic or migratory animals or vegetation.
Focus area 4: Resilience and Hazards		
4.1 Flooding	Yes	The proposal does not create, remove or alter the existing land use zone for the site. The proposal seeks to improve the flood risk to the development compared with the existing hotel building. For further details relating to the project's compliance with this direction, refer to the flood risk and assessment report in **Appendix 13**.
4.2 Coastal Management	N/A	Site is not located within a coastal zone.

4.3 Planning for Bushfire Protection	N/A	The site is not identified as Bushfire Prone Land.
4.4 Remediation of Contaminated Land	N/A	The site is not on land within an investigation area, a development for a purpose referred to in Table 1 to the contaminated land planning guidelines, or used for the purpose of residential, educational, recreational or childcare purposes. Notwithstanding, the Preliminary Site (Contamination) Investigation (**Appendix 19**) concludes that the site maintains the existing use on site and presents a generally low risk to future site users from a contamination perspective. This is further discussed in **Section C** below.
4.5 Acid Sulfate Soils	Yes	The site is identified as Class 1 and Class 2 Acid Sulfate Soils. The proposal maintains the existing basement levels and is anticipated to have minimal excavation works to accommodate additional strengthening. It is anticipated any relevant technical studies can be provided at the DA stage.
4.6 Mine Subsidence and Unstable Land	N/A	The site is not within a declared mine subsidence district.
Focus area 5: Transport and Infrastructure		
5.1 Integrating Land Use and Transport	Yes	The proposal will support access to housing, jobs, services by walking, cycling and public transport in the Sydney CBD. It provides limited opportunities for on-site parking and therefore will foster the use of public transport and reduce the reliance on private vehicles.
5.2 Reserving Land for Public Purposes	Yes	The proposal does not create, alter or reduce existing zonings or reservations of land for public purposes.
5.3 Development Near Regulated Airports and Defence Airfields	Yes	The Planning Proposal facilitates a development with a height of 85m (<100m AHD) which will not penetrate the Obstacle Limitation Surface (OLS), which is 156m AHD over the site
5.4 Shooting Ranges	N/A	The proposal does not affect, create, alter or remove a zone or a provision relating to land adjacent to and/ or adjoining an existing shooting range.
Focus area 6: Housing		
6.1 Residential zones	Yes	The proposal does not change the permissibility of residential development on the site or contain provisions that reduce the permissible residential density on the site.
6.2 Caravan Parks and Manufactured Home Estates	N/A	The proposal does not alter provisions that permit development for the purposes of a caravan park.
Focus area 7: Industry and Employment		

7.1 Employment Zones	Yes	The proposal will retain the current land use and zoning. It will not reduce the potential floor space area for employment uses and related public services. The proposal will encourage employment growth through the delivery of additional non-residential floor space, consistent with the objectives of this Ministerial Direction. Further details relating to potential employment benefits are provided in the Economic Impact Assessment prepared by Atlas Economics (**Appendix 4**).
7.2 Reduction in non-hosted short-term rental accommodation period	N/A	The site is not within the Byron Shire Council local government area.
7.3 Commercial and Retail Development along the Pacific Highway, North Coast	N/A	The site is not within the relevant council areas between Port Stephens Shire Council and Tweed Shire Council.
Focus area 8: Resources and Energy		
8.1 Mining, Petroleum Production and Extractive Industries	N/A	The proposal will not prohibit or permit mining, petroleum production and extractive activities.
Focus area 9: Primary Production		
9.1 Rural Zones	N/A	The site is not located within a rural zone.
9.2 Rural Lands	N/A	The site is not located within rural lands.
9.3 Oyster Aquaculture	N/A	The proposal does not relate to oyster aquaculture.
9.4 Farmland of State and Regional Significance on the NSW Far North Coast	N/A	The site is not located on the NSW Far North Coast.

7.3.2 Site-specific merit

Section C – Environmental, Social and Economic Impact

Environmental Effects

Q8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

There are no critical habitat or threatened species, populations or ecological communities, or their habitats on or around the site that will be affected by this Planning Proposal.

Q9. Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?

The planning proposal has been carefully prepared having regard to various environmental considerations as detailed below:

Built Form and Massing

Existing Context

The site is located within a highly urbanised environment on the edge of Sydney CBD and Darling Harbour. Surrounding developments vary in building form, height and scale, characterised by a mix of commercial, residential, and hospitality development.

Existing built forms are largely built to boundary with some of the larger residential developments (e.g. Maestri Towers and Millenium Towers) incorporating a step back in the tower form.

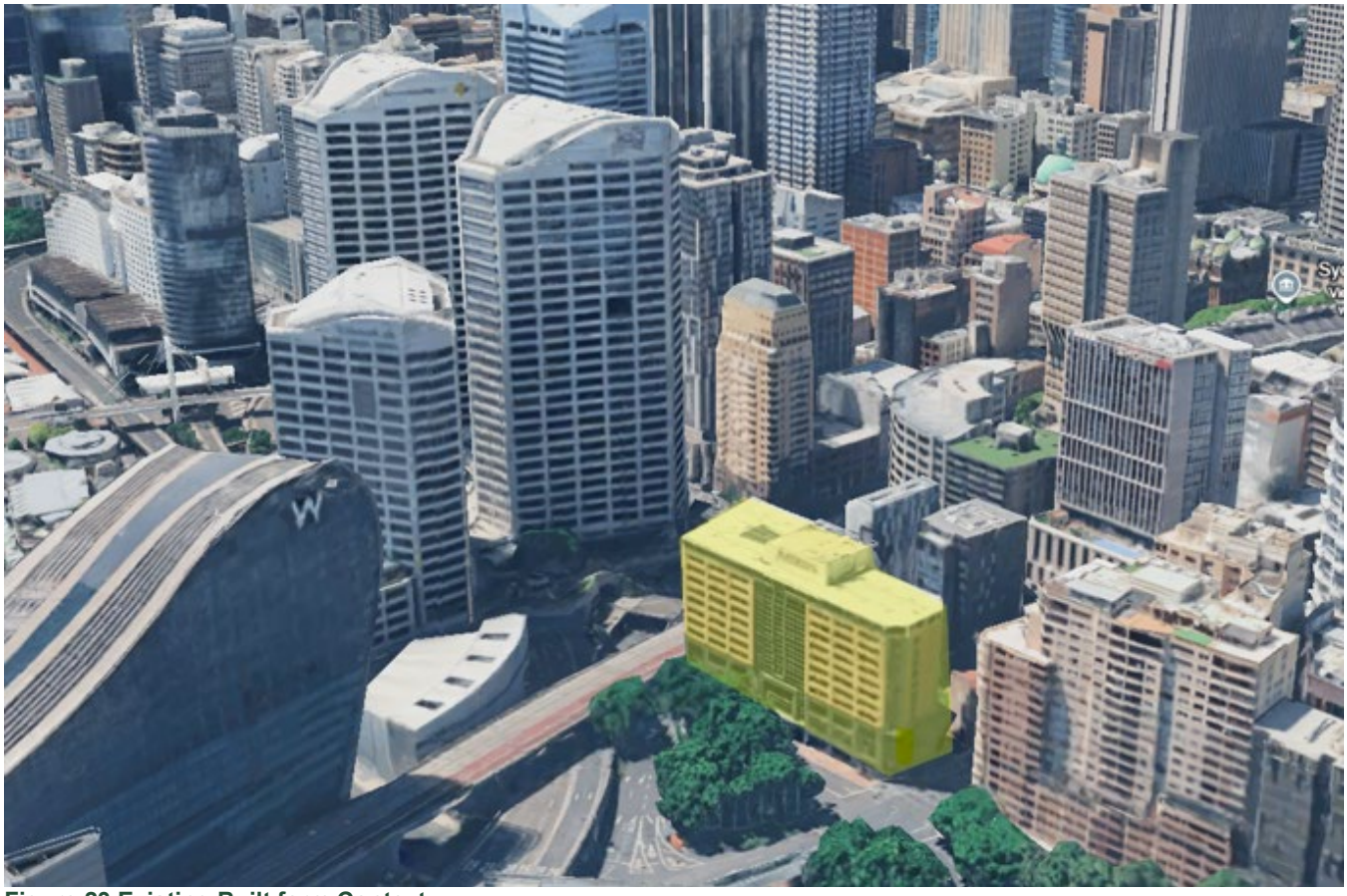


Figure 23 Existing Built form Context
Source: Google Earth

Proposed Built Form

The built form and massing of the base building is largely consistent with the existing built form, albeit with some amendments anticipated to address wind conditions and new façade as discussed in Section 6.

Due to nature of the proposal being an adaptive reuse project, new floor levels are largely defined by the location of existing columns and the geometry of the existing building, to a maximum building height. Notwithstanding, setbacks along the northern façade have been identified within the reference scheme in an effort to reduce the scale of the western façade and to allow extensive greening opportunities.

The proposed built form is generally consistent with the surrounding locality, particularly other commercial developments which maintain a linear tower form. The proposal aims to set a new standard development for sustainable developments within the city as with the resulting built form to be celebrated as an exemplar in adaptive reuse.

Guideline for Site Specific Planning Proposals in Central Sydney

The City of Sydney's *Guideline for Site Specific Planning Proposals in Central Sydney* details the planning pathway to access additional height and density through site specific planning proposals in Central Sydney.

Consistent with the CSPS, the Guideline limits these growth opportunities to employment floor space and promotes the efficient use of land.

The Guideline outlines the methodology for determining a possible maximum building envelope as well as the minimum submission requirements. With regard to height and FSR, the proposal satisfies the minimum submission requirements as provided in **Table 10** and **Table 11** below

Table 10 – Minimum Submission Requirements - Height

Analysis	Minimum Submission Requirements	Response
Overshadowing of protected public spaces	A detailed site survey and demonstrated compliance via an overshadowing envelope analysis of sun protection controls including Sun Access Planes and No Additional Overshadowing as detailed in tables 4_19 and 4_20 of the Strategy.	As demonstrated in the overshadowing analysis below and within the Urban Design Package (**Appendix 2**), the proposed built form will not overshadow the Future Town Hall Square between midday and sunset, and is not identified to overshadow any other protected public spaces.
Public view protection planes	To demonstrate compliance with No Additional Overshadowing controls buildings and land between the subject site and the protected space will require detailed surveys. An indicative model of the sun protection controls can be provided by the City.	The site is not identified within any protection planes or of a height that would significantly impact a view protection plane.
Sydney Airport Prescribed Airspace	For envelopes within 30 metres of an airspace protection surface detailed construction methodology must be provided demonstrating no temporary penetrations of surfaces are required for cranes and other construction equipment (see Figure 5)	The outer horizontal surface of Sydney Airport's Obstacle Limitation Surface is 156m AHD. At a maximum building height of 85m, the proposal will be located substantially below the Sydney Airport Prescribed Airspace.
Wind tunnel testing	A quantitative wind effects report prepared by a suitably qualified wind specialist. The report is to detail findings of wind tunnel testing conducted in accordance with Schedule 11 of Sydney DCP. The report is to identify all locations and elements requiring wind management. Note: Wind tunnel testing is a mandatory requirement for all Requests. This wind tunnel testing may also apply where setback and separation variations to Sydney DCP are proposed	A Quantitative Wind Assessment (**Appendix 9**) has been prepared in support of the proposal in accordance with Schedule 11 of Sydney DCP.
Wind and daylight equivalence test	Where variations to Minimum Street Setbacks, Minimum Side and Rear Setbacks, Street Wall Heights, Building Form Separations and Tapering controls under Sydney DCP are proposed a Procedure B: Wind and Daylight Equivalence report is to be prepared in accordance with Schedule 11 of Sydney DCP	The proposed built form includes variations to the minimum street setback distances. As demonstrated within the Quantitative Wind Assessment (**Appendix 9**), the proposal demonstrates improved or equitable wind conditions compared to existing circumstances. With regard to solar impacts, the overshadowing analysis below and within the Urban Design Package (**Appendix 2**) demonstrates acceptable solar impacts to neighbouring developments

Table 11 – Minimum Submission Requirements - FSR

Analysis	Minimum Submission Requirements	Response
Podium and tower forms	Towers are to have podium form with a Street Frontage Height in accordance with the Sydney DCP unless otherwise justified by an equivalency variation test	As provided above, the proposal includes variations to the minimum street setback distances which have been adequately justified within the Quantitative Wind Assessment (**Appendix 9**) Urban Design Package (**Appendix 2**).
Roof/construction zones	Where the maximum height of the building is determined by a sun or view control – a 15 metre roof/construction zone should be provided below the control height. Where the maximum height of the building is determined by Sydney Airports Prescribed Airspace - at least 30 metres roof/construction zone should be provided below the control height with construction methodology provided for constructing the upper floors without cranes penetrating Sydney Airports Prescribed Airspace. Or an amount as demonstrated by best practice and a reference design.	The proposed building envelope provides sufficient consideration for a roof/construction zone below the Future Town Hall sun plane.
Floor to floor heights	5 metres clear floor to floor for ground and first floors, and allowances for new pedestrian links and public domain improvements supported by urban design analysis. 3.3 metres floor to floor for typical hotel floors and structural transfer zones at steps in the building massing.	Existing floor to floor heights exceeds 5m on ground and first floors with typical floors for new hotel rooms greater than 3.3m. Due to the adaptive reuse of the existing building, existing hotel rooms cannot be changed
Vehicle access, servicing and services at ground level	Floor space configuration and calculations are to be precedent based on reference examples.	Substantive vehicle access, servicing and service investigations have been undertaken as part of the proposed Planning Proposal and incorporated in the reference scheme.
Plant	A full floor plant level for every 20 occupied levels at minimum 6 metres high floor to floor should be provided for.	two plant levels are provided within the reference scheme less than every 20 storeys.
Architectural articulation	A minimum proportion of the entire design envelope for architectural articulation and external façade depth and external sun shading (not occupied by floor space) of 8.0% plus 0.5% for each 10metres in height above 120m up to a maximum value to 16% articulation. Note: the proportion (percentage) is established according to the maximum building height, this proportion is then applied to the whole envelope.	A minimum 8% proportion of the design envelope has been considered for architectural articulation and external façade depth and external sun shading (not occupied by floor space).
Core	Minimum 16% floor space exclusions associated with the core.	Average 21% floor space exclusions allocated to building core and other non-floor space elements achieved across all floors existing and proposed.
Balconies	Balconies, voids or other areas not counted as floor space (including voids for vertical villages) should be determined from a reference design	balconies, voids or other areas not counted as floor space are provided for within the reference design.

As identified above and in the following sections below, the proposed built form is suitable within the CBD context.

Overshadowing of Public Spaces

The proposed building envelope has been designed to ensure no additional overshadowing of the Future Town Hall Square between midday and sunset in accordance with Section 6.18 of the Sydney LEP.

As demonstrated in the **Figure 24**, the Future Town Hall Square solar plane reaches a maximum height of RL 90m at the southern extent and tapers down towards the north of the site. Additionally, the Crowne Plaza, located between the site and the Future Town Hall Square, extends above the Town Hall solar plane. As such, the southern extent of the site would be capable of extending to a maximum height of approximately RL 110m without causing additional overshadowing of the Future Town Hall Square.

The proposed building envelope provides for a maximum building height of 85m with a tapering of height to the north to ensure no additional overshadowing of the Future Town Hall Square between midday and sunset in accordance with Section 6.18 of the Sydney LEP.

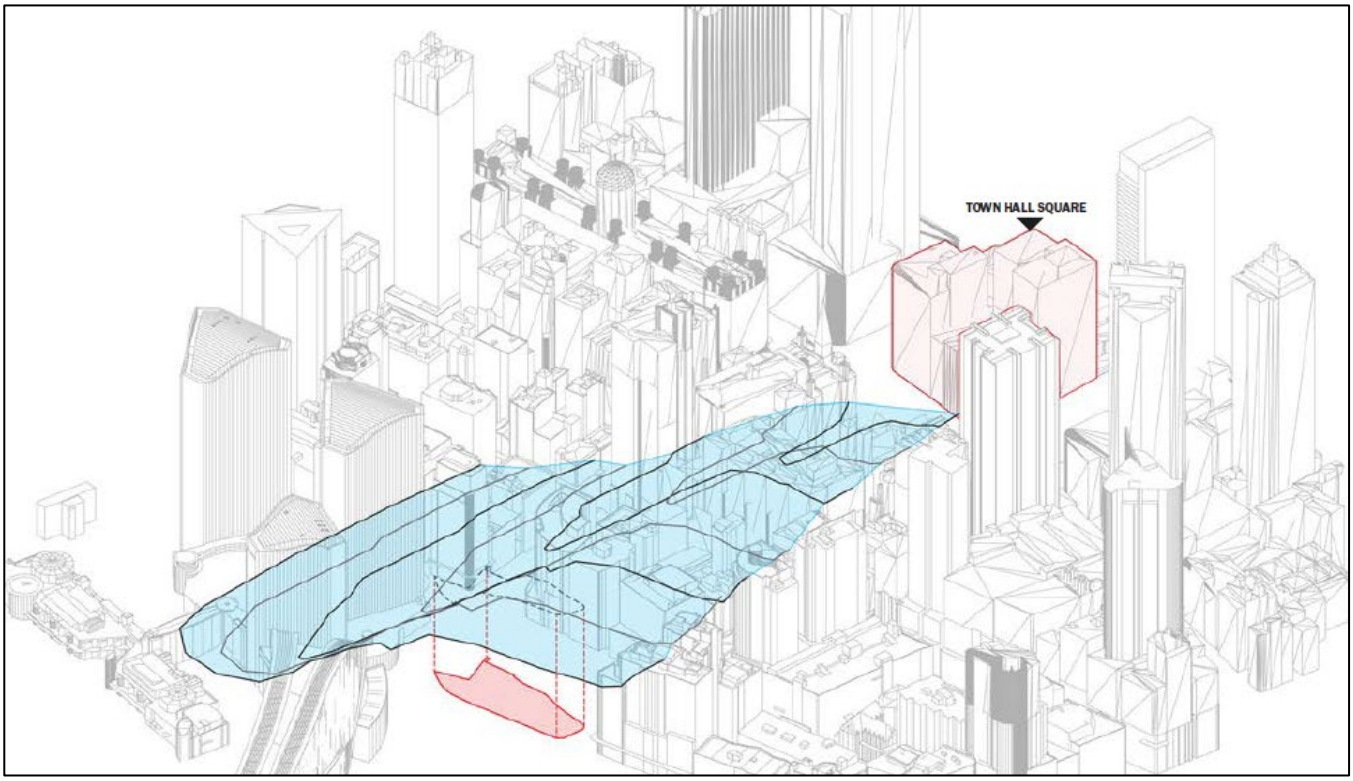


Figure 24 Future Town Hall Solar Plane Analysis
Source: Hassell

Overshadowing of neighbouring residential developments

Strategic Background and Context

The CSPS recognises that Central Sydney has a limited capacity to grow and adapt due to its natural containment, heritage and the growth of residential development. With regard to residential development, the strategy recognises that the maintenance of sunlight access to existing residential apartments can place significant constraints on development of new employment floor space, placing a direct risk to the Australian economy and Sydney's international competitiveness.

The CSPS aims to refocus the current development environment that favours residential use of land towards accommodating employment needs while keeping a balance with social infrastructure and amenity. Accordingly, it identifies an action to "*ensure residential development does not restrict new commercial development*".

The site is located in proximity to five residential flat buildings which have the potential to be overshadowed as part of the proposed development. These include:

- Crown Plaza (58 Bathurst Street)
- Jade Luxury Apartments (267 Sussex Street)
- Kaz Towers (273 – 279 Sussex Street)
- Maestri Towers (298 - 304 Sussex Street), and
- Millennium Towers (289 - 295 Sussex Street)

Solar Analysis Criteria and Assessment

The Apartment Design Guide (**ADG**) provides useful consideration of overshadowing impacts to neighbouring residential flat buildings and has been analysed as part of the Hassell's solar analysis for neighbouring residential buildings (**Appendix 2**).

Objective 3B-2 of the ADG, provides the following design guidance in relation to overshadowing impacts to neighbouring residential properties:

> *Living areas, private open space and communal spaces should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access*
>
> *Solar access to living rooms, balconies and private open spaces of neighbours should be considered,*
>
> *Where an adjoining property does not currently receive the required hours of solar access, the proposed development ensures solar access to neighbouring properties is not reduced by more than 20%.*

For the purposes of satisfying the design criteria above, *4A Solar and daylight access* provides the following relevant design criteria:

> *Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter* (Sydney Metropolitan Area), and
>
> *A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter*

Millenium Towers and Maestri Towers were both designed prior to 2000 with the relevant development controls pre-dating the ADG and Sydney DCP. As such, we consider it reasonable for the consideration of solar access controls at the time of assessment.

Maestri Towers (originally approved in 1997), was subject to the development controls of the *Central Sydney Development Control Plan 1996*. The relevant solar access controls applicable at the time of assessment of Maestri Towers are as follows:

- *6.1.4. Living rooms and private open space should be the main recipients of sunlight in dwelling units. Where possible, sun access should be for a* ***minimum of two hours per day on the equinox (March 21)*** *measured on the main window of the rooms or at the front edge of the open space. Buildings should be designed to maximise the number of dwelling units with sun access to the principal windows.*
- *6.1.5. On west facing facades subject to direct sunlight, external shading or other energy saving measures should be integrated into the design of residential buildings and serviced apartments. Alternatively, the area of glazing should be restricted to about 2% of the floor area served, in accordance with solar design principles.*
- *6.1.6 The maximum depth of a habitable room from a window providing light and air to that room is to be 10 metres.*

(Emphasis added)

Millenium Towers (originally approved December 1995) pre-dates the Central Sydney Development Control Plan 1996. Following review of Z95-00757, there does not appear to be any consideration for solar access in the assessment of the proposed apartments. As the solar access controls in Central Sydney Development Control Plan 1996 came into effect soon after the approval of Z95-000757, and in the absence of any other solar access

controls at the time of assessment, we consider it reasonable in this instance to consider the *Central Sydney Development Control Plan 1996* in determining solar access to Millenium Towers.

For overshadowing analysis of the proposal has been prepared by Hassell as part of the Urban Design Package (**Appendix 2**) with a summary of the findings and further analysis provided below.

Table 12 – Solar Compliance ADG (Winter Solstice)

	Existing	Proposed	Change
Crown Plaza			
≥ 2-hours 9am – 3pm Living and Private Open Space	67 / 95 = 71%	67 / 95 = 71%	No change
Jade Luxury Apartments			
≥ 2-hours 9am – 3pm Living and Private Open Space	20 / 21 = 95%	20 / 21 = 95%	No change
Kaz Towers			
≥ 2-hours 9am – 3pm Living and Private Open Space	21 / 36 = 58%	19 / 36 = 53%	2 = 5%
Maestri Towers			
≥ 2-hours 9am – 3pm Living and Private Open Space	83 / 284 = 29%	77 / 284 = 27%	6 = 2%
Millenium Towers			
≥ 2-hours 9am – 3pm Living and Private Open Space	118 / 318 = 37%	106 / 318 = 33%	12 = 4%

Table 13 – Maestri Towers and Millenium - Solar Compliance (Equinox – March 21)

	Existing	Proposed	Change
Maestri Towers			
≥ 2-hours 9am – 3pm Living and Private Open Space	89 / 284 = 31%	89 / 284 = 31%	No Change
Millennium Towers			
≥ 2-hours 9am – 3pm Living and Private Open Space	92 / 318 = 29%	92 / 318 = 29%	No Change

Crown Plaza and Jade Luxury Apartments

As identified in Table 12, the proposal will not affect the number of apartments within Crown Plaza or Jade Luxury Apartments from complying with the 4A Solar and daylight access under the ADG.

Kaz Tower

Kaz Tower, located at 267 Sussex Street, west of the site, does not currently satisfy the required hours of solar access under the ADG. This is principally attributable to its CBD context and limited to no setback from the property boundary. The property is a 14-storey mixed use development in single ownership (i.e. not strata subdivided).

The proposed building envelope will reduce the number of units receiving 2 hours of solar access by 2 (5%) and increase the number of units receiving no solar access by 1 (3%). Moreover, the total number of solar hours affected by the proposed building envelope is 6%. Accordingly, the proposal is compliant with this design criteria in that the solar access to Kaz Towers is not reduced by more than 20%.

Maestri Towers and Millenium Towers

Maestri Towers (267 Sussex Street) and Millennium Towers (289 - 295 Sussex Street) are located south east and south of the site respectively. As identified above, both developments were approved and constructed prior to the commencement of the ADG and DCP. As such, compliance with the previous control under has been considered as part of solar access analysis *Central Sydney Development Control Plan 1996.*

As identified in **Table 13**, the proposal does not affect the number of apartments receiving 2 hours of solar access at Equinox.

Notwithstanding, the proposed building envelope will reduce the number of apartments receiving 2 hours of solar access at winter solstice by less than 20%, consistent with design criteria within Objective 3B-2 of the ADG.

Summary

Having regard to the findings of the Solar Access Analysis and the guidance of the ADG, potential overshadowing impacts of the proposal is reasonable because:

- The proposal achieves the guidance with respect to Part 3B-2 of the ADG to minimise overshadowing to adjoining properties as there is less than a 20% reduction in the number of apartments receiving 2 hours of solar access.
- Maestri Towers and Millennium Towers were built pre-ADG and were not orientated to maximise solar access or achieve compliance with any solar access controls. Considering the solar access provisions under the *Central Sydney Development Control Plan 1996*, the proposal will not reduce the number of apartments 2 hours solar access at equinox.
- The site is located within a CBD context characterised by tall tower buildings. Maintaining existing solar access inhibits change and would render Central Sydney uncharacteristically static. As recognised by the CSPS, the delivery of new employment floor space within the CBD context should not be unreasonably restricted by the need to maintain sunlight access to residential apartments.

View Impact Analysis

A View Sharing Analysis (**VSA**) has been prepared by Urbis and is provided as **Appendix 11** to this report.

The site is identified to be within a highly urbanised location located at the south end of Sydney's CBD, near Darling Harbour. The surrounding visual context is characterised by mid-height and taller tower forms of varied height and scale.

The CSPS recognises Central Sydney's role in metropolitan Sydney, New South Wales and Australia, and the need to protect and grow employment floor space to maintain and grow its status as a global city with a dynamic economy.

With respect to views, the CSPS recognises that views are subject to change as redevelopment occurs and regulating for maintenance of private views *"is overly restrictive and complex"*. It adds that *"maintaining existing private views inhibits change and would render Central Sydney uncharacteristically static*". Importantly, it notes that there is often no scope available within the confines of planning requirements to adjust the shape of a building in Central Sydney or move its location on the site. The CSPS states that for these buildings, better design to provide a better view is rarely possible.

Urbis' analysis has been considered in context of the Tenacity planning principle, based on computer generated images (CGI's) which show the potential views (see and extent of visual change that would occasion the approval and construction of the proposed development. The analysis also considers a base case model for the site identifies the maximum building height envelope for the site for the future town hall square under Clause 6.18 of

the Sydney LEP and street wall setbacks of 8m above the existing building in accordance with the City of Sydney's development control plan.

In total, seven buildings were assessed with findings of the VSA provided below:

View Point 1 – 252 Sussex Street: Minor to Moderate impact

- The existing composition of views are characterised by a mixture of urban built-form development including tower forms of varied height and scale as well as lower height development with large floorplates and significant bulk and scale arranged around Tumbalong Park.
- The proposal will be visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

View Point 2 – 273 Sussex Street: Moderate to Severe impact

- The existing foreground composition is comprised of the existing roof and plant overrun of the PARKROYAL.
- The proposal impacts the mid ground composition of views to existing tall urban development around Darling Harbour to the top floor dwelling only. Lower levels of the of the building would not experience any view loss as the existing view from each level is comprised of the eastern elevation of the existing hotel on site.

View Point 3 – 58 Bathurst Street: Moderate to Severe impact

- The existing mid-ground composition includes views of tall urban development around Darling Harbour and a section of open water in Darling Harbour.
- The proposal would introduce a new built-form development to the foreground composition which blocks views to the parts of the mid-ground composition including Darling Harbour and built-form surrounding it. The land-water interface that is blocked by the proposal is however of an artificial construction and would not be considered a scenic interface if compared to a natural foreshore.

Viewpoint 4 – 289 **Sussex Street: Moderate impact**

- The existing mid-ground composition includes views of tall urban development around Darling Harbour and a section of open water in Darling Harbour.
- The proposal blocks a section of the Pyrmont Bridge and Darling Harbour, as well as the narrow view of Sydney Harbour and Balls Head Reserve, as well as a distant section of residential development.
- The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context. Due to the oblique nature of the view of the proposal, compositions to the left and right of the development would be unaffected.

Viewpoint 5 – 298 Sussex Street: Moderate impact

- The existing mid-ground composition includes views of tall urban development around Darling Harbour and a section of open water in Darling Harbour.
- The proposal would introduce a new development to the foreground composition which blocks views to the parts of the mid-ground composition including Darling Harbour, built form surrounding it and 'Pyrmont Bridge'. The land-water interface that is blocked by the proposal is however of an artificial construction and would not be considered a scenic interface if compared to a natural foreshore.

Viewpoint 6 – 72 Liverpool Street: Minor impact

- Existing foreground and mid-ground composition is characterised by urban development which includes development of varied height and scale ranging from tower forms through to mid-height development which creates a varied urban skyline with a small section of Darling Harbour, Pyrmont Bridge and development in Pyrmont visible between commercial development.
- The majority of the composition is unaffected by the proposal and the intrinsic character of the view is maintained.

Viewpoint 7 – 528 Kent Street: Minor impact

- Existing foreground and mid-ground composition is characterised by urban development which includes development of varied height and scale ranging from tower forms through to mid-height development

which creates a varied urban skyline with a small section of Darling Harbour, Pyrmont Bridge and development in Pyrmont visible between commercial development.

- The majority of the composition is unaffected by the proposal and the intrinsic character of the view is maintained.

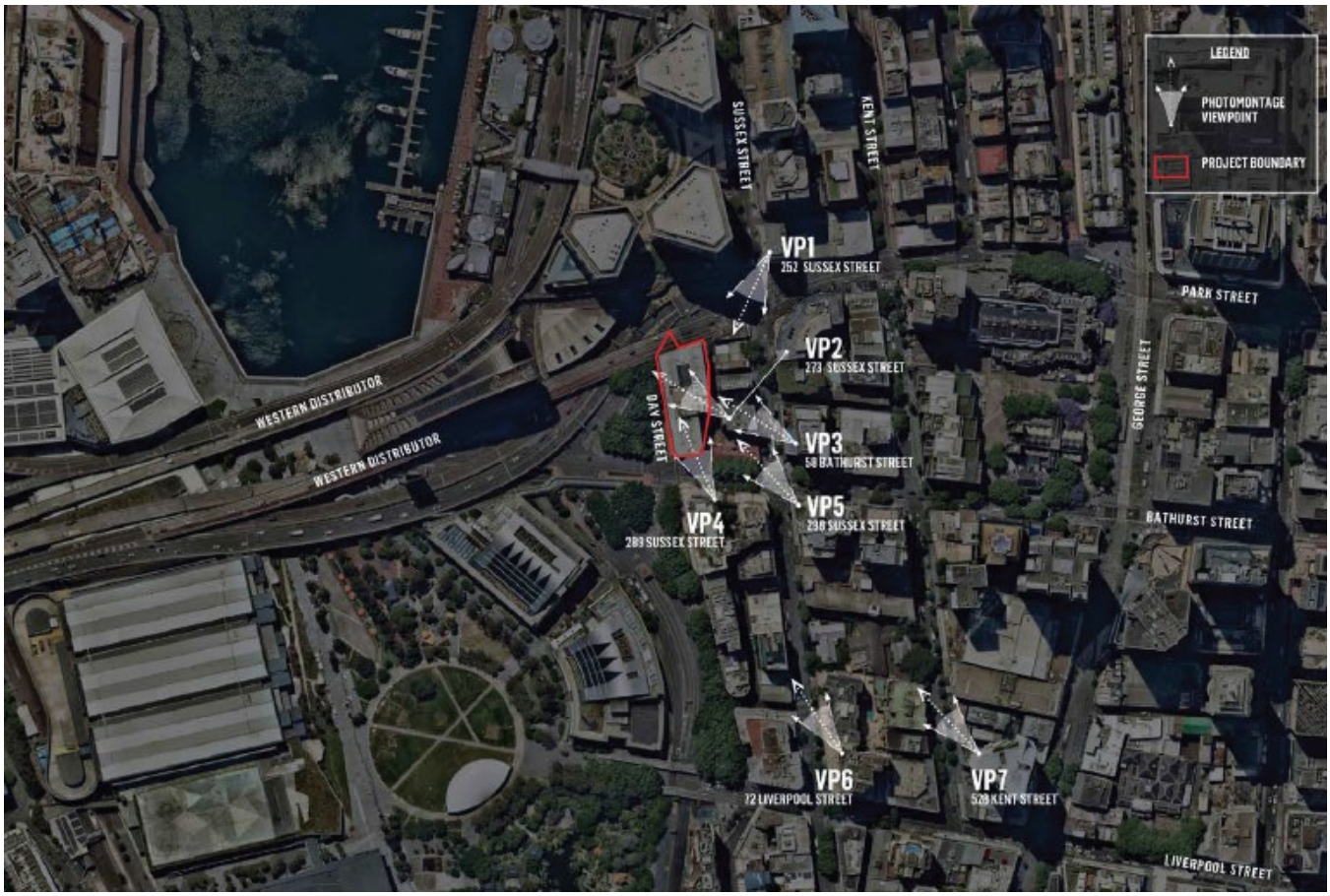


Figure 25 Viewpoint location map
Source: Urbis

As established in the CSPS, private views within a highly urbanised environment of Sydney CBD are subject to change as redevelopment occurs. Maintaining existing private views inhibits change and would render Central Sydney uncharacteristically static which would create a direct risk to the Australian economy and the international competitiveness of Sydney.

The proposal relates to the substantive reuse of the existing building which not only supports the aspiring sustainability objectives of the City through the reduction of embodied carbon emissions but supports the delivery of additional visitor accommodation and employment floor space within the CBD.

Noting the highly urbanised environment CBD environment, the proposed impacts are acceptable in this instance.

Wind

A Qualitative Wind Assessment has been prepared by Windtech and is provided as **Appendix 9** to this report.

The Assessment includes a wind tunnel study which has been undertaken to assess wind speeds at select critical outdoor trafficable areas within and around the site using a scale model of the proposed built form as well as surrounding buildings and topography.

The model was tested in the wind tunnel without the effect of any form of wind ameliorating devices such as screens, balustrades, etc. The effect of vegetation was also excluded from the testing, although it is noted that the western edge of the site is heavily vegetated and is expected to enhance comfort levels. The existing site conditions were also tested, for comparison. In-principal treatments have been recommended for any area exposed to strong winds including:

- Tapering of building along north-western corner,
- 8m high void across levels 11 and 12 on the southern aspect of the building, and
- 1.5-meter horizontal facade articulation zone across Level 18 and 21.

The results of the study indicate that wind conditions for all trafficable outdoor locations within and around the development will either satisfy the safety limit/relevant comfort criterion or will be equivalent to/better than the existing site conditions. Hence, it is expected that wind conditions for all outdoor trafficable areas within and around the development will be suitable for their intended uses.

It is recognised that further wind tunnel testing will be reviewed as part the future design development for the site with opportunities for further improvements and design refinement to be considered.

Heritage

A Statement of Heritage Impact (**SoHI**) has been prepared by Weir Phillips and is provided as **Appendix 14** to this report.

The site is not listed as a heritage item nor located in a Conservation Area as identified by Schedule 5, Parts 1 and 2 of the Sydney LEP. The site is, however, located in the vicinity of heritage items listed by this Schedule 5 Part 1 of the Sydney LEP, including *Former warehouse 'The Vintage Building'* (I1964) which is directly opposite the site across Sands Street. The site is also further removed from other heritage items as well as items listed on the State Heritage Register under the *NSW Heritage Act 1977*.

The SoHI notes that it presents the opportunity to enhance the setting of nearby items by providing both a better backdrop and streetscape frontage to the heritage items in the immediate vicinity. With regard to nearby heritage items and the assessment of heritage impacts, it notes the Planning Proposal is considered acceptable for the following reasons:

- The potential impact of a larger building within the limits sought by the proposal (and described by its reference design) will not cause any significant impact to the heritage significance of nearby heritage items.
- Historic views from, *the Vintage Building* will not be further blocked, impeded or unreasonably disrupted; the proposed building envelope will read as a in keeping with current and future development of the Sydney CBD. This is reinforced by the accompanying 3D views showing photomontages of the proposed building envelope on site.
- No significant view corridors to or from the items identified in Section 3.2 of the SoHI will be blocked, impeded or unreasonably disrupted. Views from the site are not considered to have heritage significance.
- The proposal offers a future opportunity to activate the intrusive and inactive ground plane at Bathurst and Sands Street which forms the closest interface to the Vintage Building.
- Changes to the controls will still facilitate a tower which will require the major alteration to the building on site. The buildings on site are not considered to be of heritage significance, either through the assessment of City of Sydney Council or by the authors of the SoHI.

It concludes the concept design by Hassell successfully establishes a future built form that achieves a cohesive architectural connection with the surrounding heritage context. It ensures the preservation of the historical character and setting of nearby items while accommodating modern development. The Planning Proposal aligns with the Council's vision for a vibrant and dynamic city centre, enhancing connectivity and activation at the CBD edges adjoining Darling Harbour.

Traffic and Parking

A Traffic Impact Assessment Report has been prepared by PTC and is provided as **Appendix 12** to this report, which provides the following key findings with respect to traffic and parking:

- The hotel is located in Sydney's CBD, which offers excellent public transport connectivity throughout the broader Sydney region.

- A review of walking and cycling infrastructure indicates that the hotel is highly accessible on foot due to high-quality footpath coverage.
- The basement parking will be reduced from 52 double-stacked parking spaces to 26 spaces. As the Sydney LEP does not mandate a minimum parking requirement, this reduction aligns with the project's sustainability goals.
- An external pick-up and drop-off area with four spaces will be provided in place of the undercroft Porte Cohere, improving the pedestrian environment on Day Street and reducing conflicts with vehicle crossovers.
- As part of the proposed upgrades, a minimum of 55 bicycle parking spaces, 55 personal lockers and six showers are planned to better accommodate the needs of the hotel to better promote sustainable transportation options.
- The resultant traffic impact of the proposed development is negligible, and therefore, no mitigation is necessary.
- The adaptive reuse of an existing hotel leads to some efficiencies in relation to servicing and waste, as these will be collated in the back of the house, which has a marginal reduction in heavy vehicle activity.
- A queueing assessment for pick-up and drop-off operations estimates that, with four designated spaces, there is a 95% likelihood of no significant queueing along Day Street.

In conclusion, it has been demonstrated that the proposed development will have a negligible impact on the operation of the local road network and is being delivered with a range of measures to improve and encourage access by active and sustainable modes, compliant with local and regional policy.

Contamination and Acid Sulfate Soils

A Preliminary Site Investigation (**PSI**) Report has been prepared by Douglas Partners and is provided as **Appendix 19** to this report. The objective of the PSI was to assess the potential for contamination at the site based on past and present land uses and to comment on the need for further investigation and/or management.

The investigation comprised a desktop study and a limited scope of opportunistic soil investigation from boreholes drilled to assess current footings. The site history shows that the site has been used for commercial or industrial purposes since the 1930s before being developed into a hotel in the 1980s and 1990s.

Limited fill was identified in the boreholes (**BH**), with no fill recorded at BH102, BH103 and BH106. However, this may not be representative of conditions away from the current footings. Samples were tested from the fill (two samples) and from the natural sandstone (three samples). The concentration of contaminants in all analysed soil / rock samples were below the adopted site assessment criteria.

The report concludes that the site presents a generally low risk to future site users, from a contamination perspective, under the proposed development subject to the following recommendations:

- Additional soil vapour sampling is conducted within the lower basement to assess potential risk of volatile organic compounds (**VOC**) / diesel contamination impacting air quality in the building. If results indicate the potential for VOC or total recoverable hydrocarbons (**TRH**) in soils vapour at the site, further assessment (including of groundwater) may also be warranted.
- If there is any change in land use, or significant excavation proposed further assessment of soils may be warranted.
- Undertaking a hazardous building materials survey of the current buildings within the site to assess the presence or otherwise of hazardous building materials prior to redevelopment. Identified hazardous building materials are then to be appropriately managed in accordance with applicable legislation.
- It is also recommended that waste classification assessment will be required for any excess fill or natural soils / rock arising from the proposed redevelopment that may require offsite disposal.

Geotechnical Engineering

A Geotechnical Report has been prepared by Douglas Partners and is provided as **Appendix 21** to this report. The purpose of this desktop assessment is to provide preliminary information on subsurface soil, rock and

groundwater conditions to support the submission of a Planning Proposal, and to provide preliminary information for the design of the proposed redevelopment.

The assessment involved a review of previous investigations undertaken by Douglas at the site during the development of Day Street Hotel (now PARKROYAL Hotel), in 1988. A summary of findings from neighbouring sites is also provided in this report, together with preliminary comments relating to design and construction practice.

The report notes that the primary geotechnical issues that should be considered for the proposed development include the following:

- Due to the presence of the G.P.O Fault zone, which runs from the northeast to the southwest of the site, areas of lower strength rock and a high degree of fracturing occurs within the rock mass. As a result, a reduced bearing pressure of 1,500 kPa was adopted for foundations within the fault zone. Outside of the fault zone, fracturing and discontinuities in the rock mass limit the allowable bearing pressure to 3,500 kPa.
- To accommodate the expected two-fold increase in bearing pressure, the footings of the existing building will need to be assessed and strengthened.
- Groundwater levels were measured during the 1988 investigation at depths between 1.9 m to 5.4 m below ground level. These levels can vary seasonally and long-term due to climatic conditions, prolonged rainfall, and local factors such as drainage changes and nearby developments. Localised excavations within the existing basement levels (such as lift pits) may need to consider the possible presence of groundwater within the design.

The report provides the following recommendations for further investigation:

- Existing footings that need to support additional loads should be assessed to confirm their capacity and the suitability of the underlying foundation material for the required load. Such investigation can also be used to inform the design of footing strengthening that may be required. A preliminary assessment of a number of footings is currently underway and will be reported separately.
- Assessment of the possible increased settlement below the existing or strengthened footings should also be completed once detailed information is available about the increased loading and foundation design.
- All new foundation excavations or foundation strengthening should be inspected by a geotechnical engineer to confirm the suitability of the material for the design allowable bearing capacity. In addition, any unsupported excavations within rock should be inspected and geologically mapped by a geotechnical engineer/engineering geologist for the presence of adversely oriented discontinuities which may form unstable wedges.

As flagged in the recommendations above, a Report on Foot Investigations has also been prepared by Douglas Partners Pty Ltd and is provided as **Appendix 22** to this report. The aim of the investigation is to provide an assessment of the foundation conditions below the existing building footings and to provide information for the design of the proposed development.

The report concludes that given the potential for variability in the foundation conditions it is recommended that any footings that are to be subject to increased loading are individually investigated to confirm the bearing capacity of the foundation material. Assessment of foundation conditions of the existing footings on an individual basis may also provide opportunities to adopt higher bearing capacities which could reduce the need for footing strengthening, subject to the existing and proposed increased loading conditions.

Within proximity of the G.P.O fault zone a higher degree is variability, weathering and weaker material is anticipated, in line with the conditions considered within the original design. The presence of this material should be carefully considered in the design with regard to settlement and differential settlement of footings under increased load where footings are potentially bearing on material of differing strengths.

It is recommended that a detailed monitoring plan be developed for the redevelopment works, prior to any additional loading of the existing columns. The plan should include detailed survey monitoring of any columns

where load increases of more than 10% are proposed and / or locations where settlement is considered a higher risk due to either expected foundation conditions or residual uncertainty around foundation conditions.

Structural Engineering

A Planning Stage Structural Report has been prepared by Taylor Thomson Whitting (**TTW**) and is provided as **Appendix 8** to this report.

The report reviews the existing structure in order to define the key opportunities, requirements and risks associated with the project aims. More specifically, reviews have focused on the structural strengthening of required structural elements so that the existing structure can be fundamentally retained and reused with associated benefits to sustainability.

The findings of the report confirm the need for existing columns, footings and core-walls must be strengthened in order to support the increased weight from the new additions. However, the existing floor slabs can generally be maintained, with substantial environmental benefits from reducing the requirement to demolition and rebuild these elements.

The report, and the associated drawing mark-ups in the appendices, have been produced in order to communicate these items, with a particular emphasis on retention, strengthening, constructability and safety, which will assist in supporting the detailed design development of the proposal into the development application stage.

Stormwater

A Preliminary Civil Engineering Review has been prepared by TTW and is provided as **Appendix 23** to this report.

The report identifies that due to the site's location within the Sydney Water's 'City Area 30 Catchment', and the runoff is to be discharged into Sydney Water's assets, Sydney Water will dictate the OSD requirements. Initial correspondence from Sydney Water indicates that there is no need for any OSD required for any development located at 150 Day St.

With regard to Stormwater quality, the report recognises that the design intent to include expansive greenspaces on the hotel's new rooftop areas will drastically improve the quality of water runoff compared with the existing state of the building.

Flooding

A Flood Impact and Risk Assessment (**FIRA**) has been prepared by TTW and is provided as **Appendix 13** to this report.

Flood modelling analysis within the FIRA is based on Council's adopted Darling Harbour Floodplain Risk Management Study, WMA Water (2018). Updates were made to Council's model following topographical survey and site inspection in and around the development site and provide a better representation of the real world. Flood modelling has assessed the flood behaviour, flood hazard and flood risk associated with the planning proposal.

Flood modelling confirms that there is a trapped low point in Sands Street which provides a source of overland flooding to the east of the building. The solid boundary wall to the west of Day Street prevents overland flow escaping this area and provides a source of overland flooding to the west of the building.

A full range of flood events have been modelled, and additional sensitivity testing has been completed that allow for future potential increases in rainfall and sea level associated with climate change.

This assessment confirms that the planning proposal complies with the required Flood Planning Levels, with raised floor and threshold levels, flood gates where raised threshold cannot be met for the existing building and flood proofing for the loading dock. The planning proposal will improve flood risk compared with the existing hotel

building. There is no impact on flood behaviour associated with the development and the planning proposal therefore meets Council's Interim Floodplain Management Policy and state flood planning requirements.

Noise

A Noise Impact Assessment has been prepared by Acoustic Logic and is provided as **Appendix 16** to this report. The Assessment indicates that mitigation of noise impacts is needed to achieve compliance with the nominated assessment criteria. Some examples of these include glazed facades (windows and doors), external wall construction materials, entry door requirements, external roof and ceiling construction materials, and ventilation and air conditioning provisions.

The Noise Impact Assessment concludes that provided these mitigation measures are adopted, the development will comply with the acoustic requirements of the following documents:

- Council's DCP.
- Australian and New Zealand AS/NZS 3671:1989 Acoustics – Road traffic noise intrusion – Building siting and construction.
- Australian and New Zealand AS/NZS 2107:2016 Recommended design sound levels and reverberation times for building interiors.
- NSW Department of Planning Development near Rail Corridors or Busy Roads – Interim Guideline (DNRCBR) 2008.
- NSW EPA *Noise Policy for Industry* (**NPfI**) October 2017.

Air Quality

An Air Quality Assessment (AQA) has been prepared by SLR Consulting Australia (**SLR**) and is provided as **Appendix 15** to this report. The aim of the AQA is to address air quality requirements of the Sydney LEP and the DCP in relation to development near the Cross City Tunnel ventilation stack (CCT Stack). It has been prepared with reference to the New South Wales Environment Protection Authority (EPA) document *The Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (NSW EPA 2022).

The report concludes that air quality issues do not pose a constraint for the project. This is further detailed in the AQA provided as **Appendix 15.**

Q10. Has the planning proposal adequately addressed any social and economic effects?

Social Effects

Social and Community Needs

A Social and Community Needs Assessment has been prepared by Mecone and is provided as **Appendix 17** to this report.

The report finds that the proposed development aligns with the City's strategic objectives while addressing potential social and community infrastructure needs. The analysis confirms that existing infrastructure within the area, including open spaces, community facilities, and transport networks, has sufficient capacity to accommodate the projected increase in visitors generated by the Proposal. Additionally, the proposal includes on-site amenities to mitigate potential impacts on local services. The incremental demand generated by the project is minimal compared to broader residential and visitor growth, supporting the conclusion that it will generate negligible strain on public services, utilities, and cultural infrastructure.

Potential impacts, such as temporary disruptions during construction, have been identified and will be addressed at the Development Application stage, with measures to minimise noise, vibration, and overshadowing impacts on nearby assets.

Overall, the project's emphasis on adaptive reuse, sustainable urban design, and enhanced hotel offerings supports the revitalisation of the Sydney CBD and reinforces Darling Harbour as a premier tourism and cultural hub. It does so without adversely affecting housing diversity or affordability, given it is intensifying hotel use on an

existing hotel site, thereby supporting community resilience and inclusivity. The project aims to set a benchmark for sustainable urban redevelopment and aligns with the City of Sydney's vision for a liveable, connected, and globally competitive city.

Connecting with Country

WSP's Indigenous Specialist Services (ISS) team were engaged to assist with the development of Connecting to Country themes and outcomes for this planning proposal. A letter of support has been prepared by WSP and is provided as **Appendix 7** to this report.

WSP has also developed an Aboriginal Design Principles document for the project and is provided as **Appendix 7** to this report. It aims to:

- Provide further cultural context and competency for anyone with interest in the First Nations people and culture of the area.
- Propose principles that align with important guidelines, such as the Connecting to Country Guidelines by the NSW Government Architects Office, The International Indigenous Design Charters Principles, and the 3 tenors of the Reconciliation Australia of Respect, Relationships and Participation.
- Consider high level concepts for how project might engage and co-design with Aboriginal people.

As the proposed design develops into a future development application, the proposal will continue to:

- Organise and deliver additional Aboriginal engagement with Elders and Knowledge Holders to further inform and co-design the culturally appropriate elements for inclusion.
- Update the Aboriginal Design Principles document with outcomes from the engagement sessions and add to the design ideas and opportunities as the design is developed and refined.
- Review and input into the proposed design as it is developed during design workshops and via document reviews.

Public Art

A Preliminary Public Art Strategy has been prepared by UAP (**Appendix 20**). The Strategy notes that public art for the site will be developed to align with the City of Sydney's vision and goals for public art and drawing from the City's Sustainable Sydney 2030 vision and related public art policies, strategies and plans. **Figure 26** provides an overview of the potential public art zones identified for the proposal to be developed as part of the development application process.

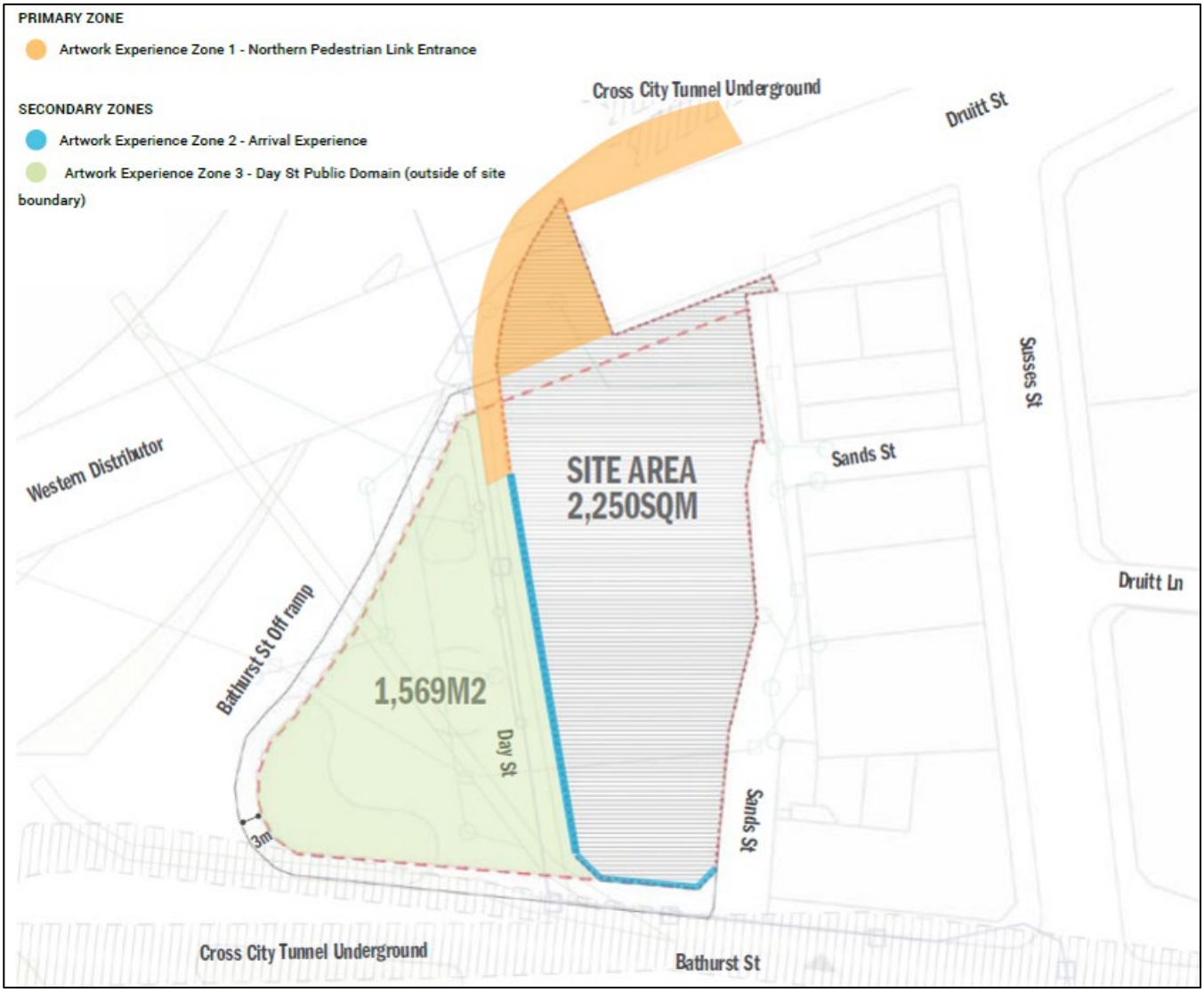


Figure 26 Potential Public Art Zones
Source: Urbis

Economic Effects

An Economic Impact Assessment has been prepared by Atlas Economics and is provided as **Appendix 4** to this report. It has been prepared to assess the need for the Proposal and examine the economic impacts of the Proposal if delivered. The report notes that the findings of the economic modelling shows that the proposal could generate significant and positive economic impacts:

- During construction, it is estimated to result in a significant (but short-term) increase in economic activity through a mix of direct and indirect (flow-on) activity, including:
  - **$307.3 million in output** ($204.1 million in direct activity)
  - **$119.1 million contribution to GRP** ($65.6 million direct contribution)
  - **$80.9 million in wages and salaries** paid to local workers ($50.2 million paid directly)
  - **601 FTE jobs** (313 directly employed in construction activity).

- Critically, the Proposal would generate significant net additional economic impacts upon completion. Compared to the existing scenario (i.e. no change to the existing hotel), the proposal would generate an:
  - **Additional $85.3 million in output** (additional $52.8 million in direct activity).
  - **Additional $43.7 million contribution to GRP** (additional $26.7 million in direct activity).
  - **Additional $26.3 million in incomes and salaries** (additional $17.3 million in direct income).

- **Additional 368 FTE jobs** (additional 276 FTE directly related to activity on the site).

The report concludes that in addition to the abovementioned impacts, the proposal has the potential to support the Meetings, Incentives, Conferences and Events (**MICE**) market and mitigate the risk associated with operators looking to other capital cities (e.g. Melbourne, Brisbane) for major events or trade shows where room supply is greater and more affordable.

Overall, economic modelling shows that development of the Proposal could deliver significant positive economic impacts to the Sydney LGA economy. It would also play a role in addressing the expected supply imbalance in the Sydney CBD market over the coming years through the delivery of an additional 219 hotel rooms and renewal of existing ageing stock.

Section D – Infrastructure (Local, State and Commonwealth)

Q11. Is there adequate public infrastructure for the Planning Proposal?

It is recognised that infrastructure upgrades will be required to cater for the proposed uplift. Therefore, this planning proposal is supported by an initial public benefit offer to enter into a Planning Agreement (refer to **Appendix 5**).

The proposal is strategically located in an established, urban area. It is located in the heart of the Sydney CBD and is well serviced by public transport.

An Infrastructure Report has been prepared by Lehr Consultants International (Australia) Pty Ltd (**LCI**) and is provided as **Appendix 18** to this report. A Water Cycle and Preliminary Civil Engineering Report has also been prepared by TTW and is provided as **Appendix 23** to this report. A summary of likely civil and building services considerations are detailed in **Table 14**.

TABLE 14: CIVIL AND INFRASTRUCTURE SERVICES

SERVICE	COMMENT
Electrical Supply	The proposed development site is within the authority of the Ausgrid network, with existing Ausgrid electrical assets adjacent to the site boundary. There are currently two (2) existing Ausgrid chamber substations to the north and one (1) chamber substation north east of the development. The existing development is currently fed from LV direct distributor No.9 from substation SUSSEX SANDS S.7983. It is assumed all existing surrounding substations do not have the electrical capacity for the development. Therefore, it is proposed that the development will be supplied via a dedicated Ausgrid triplex substation arrangement located on ground level, north east of the site. Incoming cables will be entering the development from Sands Street
Communications	The development currently has a NBN connection from Sands Street, with an unknown quantity of fibre connections from other telco providers as well terminating into an MDF room. It is proposed that this MDF room will be retained, and connection is maintained including any existing NBN equipment on site be relocated to the new Telecommunication Room in Basement 1 of the development.
Stormwater Drainage	As the site's location sits within Sydney Water's 'City Area 30 Catchment', and the runoff will be discharged into their assets, Sydney Water will dictate the OSD requirements. Initial correspondence from Sydney Water indicates that there is no need for any OSD required for any development located at 150 Day St.
Sewer Drainage	The site is serviced for sewer by an existing Gravity Sewer Main on the eastern side of the site in Sands Street, the existing sanitary drainage from site reticulates to this main. The sewer main is owned and operated by Sydney Water Corporation. The existing sewer main reticulates from Druitt Street and Druitt Lane down Sussex through Sands Street, under the existing building (within an existing easement) across Day Street and down towards Tumbalong Park. Upstream of 150 Day Street

	the sewer main captures the lots between Druitt and Bathurst Street and up to Kent Street. No upgrade to the sewer infrastructure is required for the proposed development.
Potable Cold Water	The site 150 Day Street, Sydney is serviced for potable and fire water from an existing 250mm water main located in Day Street owned and operated by Sydney Water Corporation. Preliminary calculations indicate that the flow rates required for water services are 7L/s for potable water and 40L/s for fire services. The development has designed in a “day tank” for the potable water service to allow for water mains outages, breaks and isolations. This tank will allow for reduced flow rates. The fire service design has allowed for a combined fire water tank. This is a DTS (deemed to satisfy) solution for a combined fire hydrant and fire sprinkler system. A pressure and flow statement has not yet been obtained from Sydney Water however annual testing from incumbent fire service contractors indicates that 500kpa is available through the main at 20L/s. Proposed designs are feasible and can be supplied from the existing water mains, they require further development and detailed pricing in detailed design, however no upgrades are expected to the existing water main.
Natural Gas Service	The existing site is serviced for natural gas from a DN200 1,050kpa main located in Sands Street. The existing building uses natural gas for heated water generation, space heating and commercial cooking. The proposed development will not be using natural gas for heated water generation or space heating. The development will retain natural gas for some commercial cooking uses, particularly for leased restaurant space. As the proposed development will be reducing the amount of natural gas being used on site it is expected there will be no capacity issues with the existing main.

Section E – State and Commonwealth Interests

Q12. What are the views of state and federal public authorities and government agencies consulted in order to inform the Gateway determination?

Consultation with State and Commonwealth agencies will be undertaken once the Gateway Determination has been issued, which is likely to include, but not limited to:

- Transport for NSW
- Sydney Metro
- Sydney Water
- Endeavour Energy
- School Infrastructure NSW
- Heritage NSW
- NSW Environmental Protection Authority (EPA)

Part 4 – Maps

No maps are requiring amendment as part of this Planning Proposal.

Part 5 – Community consultation

Schedule 1, Clause 4 of the EP&A Act requires the relevant planning authority to consult with the community.

Subject to the provision of a Gateway Determination from DPHI, the planning proposal will be placed on public exhibition. Confirmation of the public exhibition period and requirements for consultation will be detailed as part of the Gateway Determination.

The planning proposal will be publicly exhibited for at least 28 days in accordance with DPHI's Local Plan Making Guidelines. Consideration will also be given to the City of Sydney's Community Participation Plan.

At a minimum, the notification of the public exhibition of the planning proposal is expected to involve:

- Written correspondence to owners and occupiers of adjoining and nearby properties.
- Public notice on Council's website and a local newspaper.

Part 6 – Project timeline

An indicative project timeline is set out in the following table.

Table 15: Indicative Project Timeline

Stage	Timeframe and/or date
Lodgement of the Planning Proposal	April 2025
Consideration by Council	May – July 2025
Consideration by Local Planning Panel	August 2025
Council decision (pre-Gateway Determination)	September 2025
Issue to DPHI for Gateway Determination	October 2025
Gateway determination	November 2025
Pre-exhibition	December 2025
Commencement and completion of public exhibition period	January 2026
Consideration of submissions	February - March 2026
Council decision (post-exhibition)	April 2026
Submission to the Department for finalisation	June 2026
Gazettal of LEP amendment	July 2026

Conclusion

The planning proposal for the PARKROYAL Hotel at 150 Day Street, Sydney, involves an ambitious upgrade and expansion of the existing hotel. More specifically, the project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline. Achieving this vision involves an expansion of the existing core and lift upgrades to service new floors over the existing hotel, the employment of a 'strip to structure' approach from the ground to Level 02, and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney LEP by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions of the Sydney LEP to allow a maximum building height of 85 metres and floor space ratio of 13.5:1 for hotel and associated land uses with achievement of design excellence.

This planning proposal represents significant strategic merit in that it directly aligns with the relevant strategic plans, including the Greater Sydney Region Plan, the Eastern City District Plan, Visitor Economy Strategy 2030 and Review 2030, City of Sydney Local Strategic Planning Statement, Central Sydney Planning Strategy, Sustainable Sydney 2030-2050: Continuing the Vision, City of Sydney's Economic Development Strategy, City of Sydney's Tourism Action, City of Sydney's Visitor Accommodation Plan, and Guideline for site-specific Planning Proposals in Central Sydney. In summary, the strategic merit and need for the planning proposal is justified as follows:

- The proposal maintains and supports the delivery of new hotel floor space in support of the City of Sydney and NSW Government's efforts to grow hotel floor space.
- The substantive adaptive reuse of the existing hotel building and exceptional environmental sustainability targets aligns with the City of Sydney's ambitious sustainability targets, setting a new benchmark for future redevelopment in Sydney.
- Central Sydney has a limited capacity to grow and adapt due of its natural containment, heritage and the growth of strata subdivision residential development. The vertical extension of the site supports the efficient use of the site and delivery of additional employment and visitor floor space.
- It will deliver substantive public and economic benefits during operation compared to the existing scenario, including:
    - $85.3m annual net increase in output (additional $52.8m in direct activity)
    - $43.7m annual net increase in gross regional product (additional $17.3m in direct activity)
    - $26.3m annual net increase in incomes and salaries (additional $17.3m in direct activity)
    - 368 full-time operational jobs,

The proposed development is the outcome of an iterative design testing process that has been underpinned by technical input from a supporting team of specialists. The planning proposal demonstrates site specific merit as it:

- Will provide improved public domain outcomes for the surrounding area including improvements to safety and amenity of existing pedestrian links, expanding biodiversity typologies and public art installation opportunities.
- Will achieve equal or improved pedestrian wind conditions in all trafficable outdoor locations within and around the site.

- Will not cause additional overshadowing to protected public spaces (e.g. Future Town Hall Square) and manages overshadowing impacts to neighbouring residential developments in accordance with relevant design guidelines.
- Will not affect significant views from public places whilst maintaining acceptable private views in the context of a highly urbanised environment of Sydney CBD.
- Will have a negligible impact on the operation of the local road network and is delivered with a range of measures to improve and encourage access by active and sustainable modes, compliant with local and regional policy.
- Ensures a future built form that achieves a cohesive architectural connection with the surrounding heritage context, most notably “The Vintage Building".
- Will improve flood risk conditions for the site and surrounding area compared to existing conditions.
- Will capitalise on the sites excellent access to public transport infrastructure and increases the site’s capacity to accommodate employment generating floor space.
- Is located in a well-established area, well serviced by public transport and utility infrastructure.

In light of the above, the Planning Proposal will facilitate the achievement of a myriad of economic benefits. These benefits can be realised without giving rise to any adverse environmental social or economic impacts.

The proposal is consistent with the aims and objectives of the relevant strategic and statutory plans and policies. It is therefore considered that the proposal satisfies both the strategic and site-specific merit tests. It is therefore requested that Council forward this planning proposal to DPHI for Gateway Determination.

Mecone

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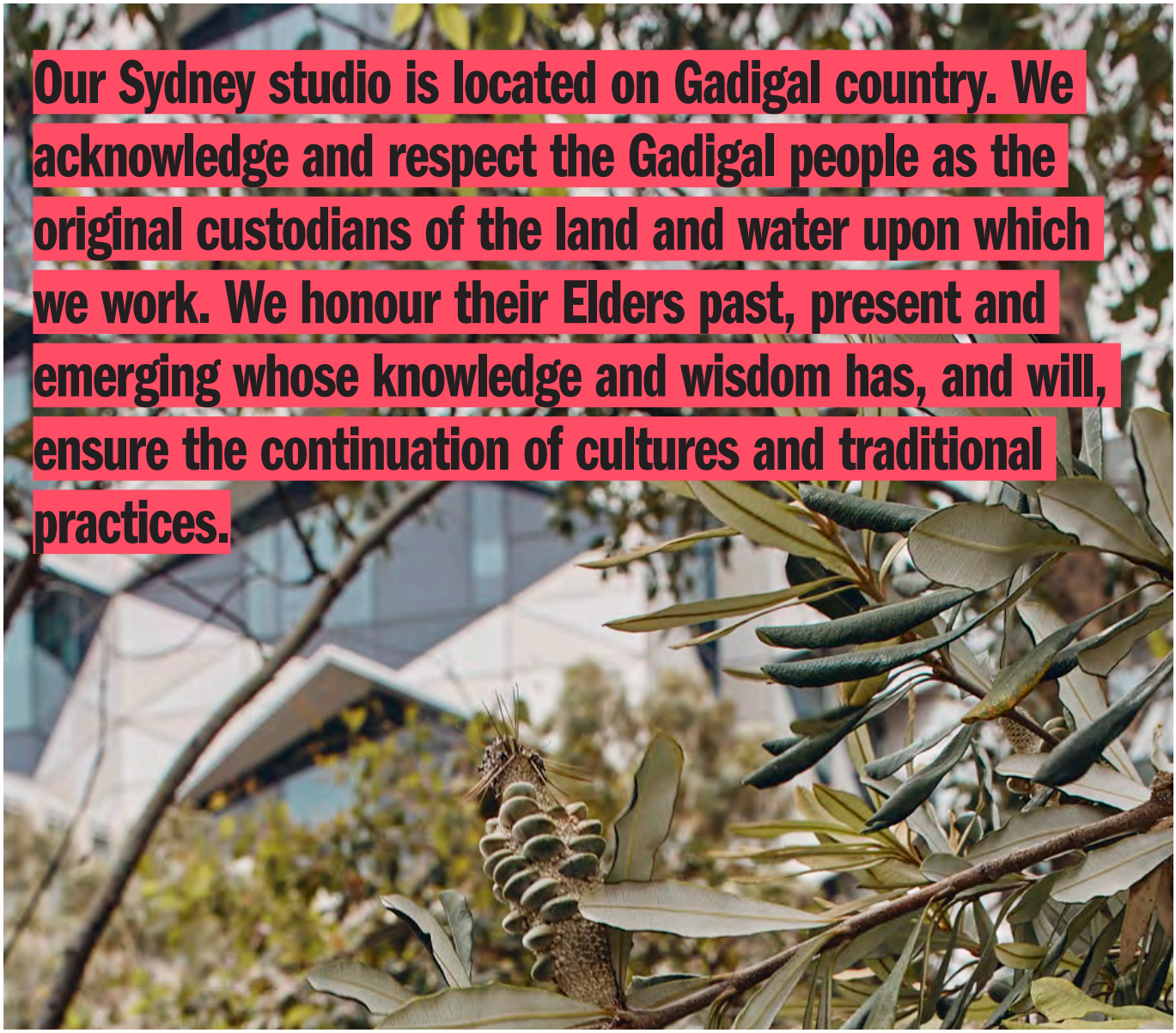
Attachment A2

Urban design report - Part 1

Hassell

150 DAY STREET
PLANNING PROPOSAL





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EXECUTIVE SUMMARY

This planning proposal will facilitate development that is consistent with the City's vision for Central Sydney, providing additional employment generating floor space and a new hotel while delivering design excellence and public domain improvements.

The planning proposal for the existing PARKROYAL Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing PARKROYAL and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 (the LEP) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/ hotel use and not residential accommodation or serviced apartments encouraging diversity of accommodation.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
  - Two hotel brand offerings – PARKROYAL Hotel (3.5 star) and Pan Pacific Hotel (5 star)
  - 490-540 hotel keys with gross floor area of ~30,000m2
  - Upgrade existing infrastructure and services (including new lift core),
  - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
- Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

DESIGN PROCESS UNDERTAKEN:

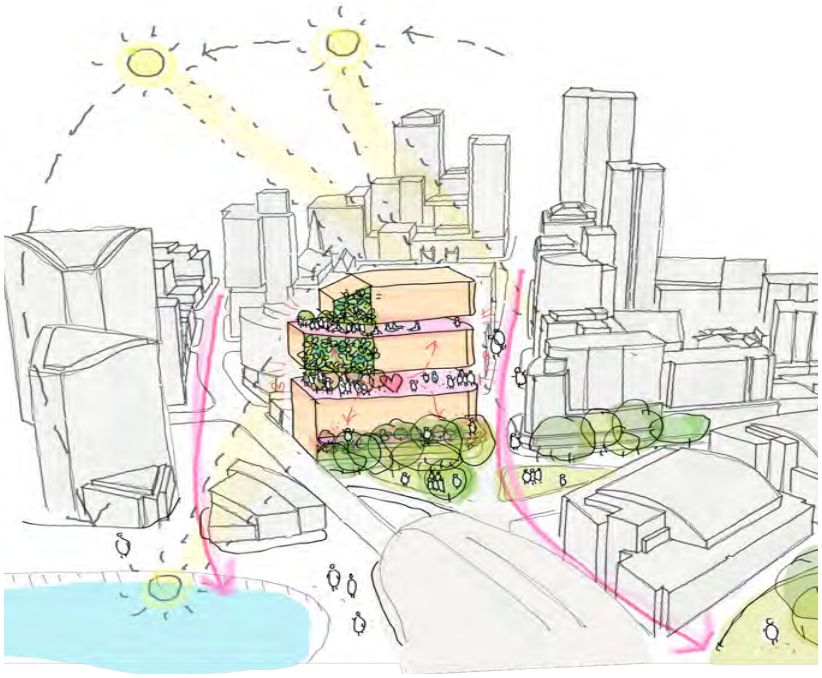
Workshops with key hotel stakeholders, including two different operators, discussing current and future operations

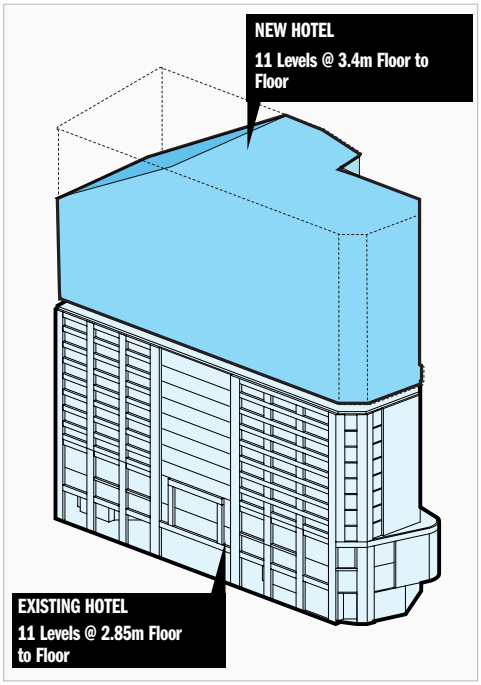
↓

Workshops with specialist consultants to assess existing building assets (MEP, structures) and whether retaining building fabric is the best outcome or upgrading to better performing materials - the approach varies across many work streams

↓

Return briefing process with the client, UOL, who operates two hotel brands, to confirm the evolving brief for this adaptive reuse project




NEW HOTEL
11 Levels @ 3.4m Floor to Floor
EXISTING HOTEL
11 Levels @ 2.85m Floor to Floor



WHAT IS UNIQUE ABOUT THIS PROPOSAL?

UOL's unique owner-operator model in Sydney's CBD strategically advances sustainable urban development and economic growth, aligning with key tourism goals and enhancing the public realm.

In Sydney's Central Business District (CBD), UOL stands out as a unique player by functioning both as the site landowner and the hotel operator. This dual role offers strategic advantages that differentiate UOL from typical mixed-use developments, where developers generally collaborate with separate hotel operators.

Owner Operated Model:

The owner-operator model adopted by UOL is a rarity in Sydney's CBD, where the prevalent model entails partnerships between developers and hotel operators. Given the feasibility challenges commonly associated with high-rise hotel projects, along with the deferment of numerous potential developments due to prevailing market hesitations, UOL's approach grants it a distinct competitive edge. The owner-operator model provides UOL with a compelling incentive to advance the project pro-actively, ensuring its timely and successful completion despite the uncertainties present in the market.

City of Sydney's Visitor Accommodation Action Plan:

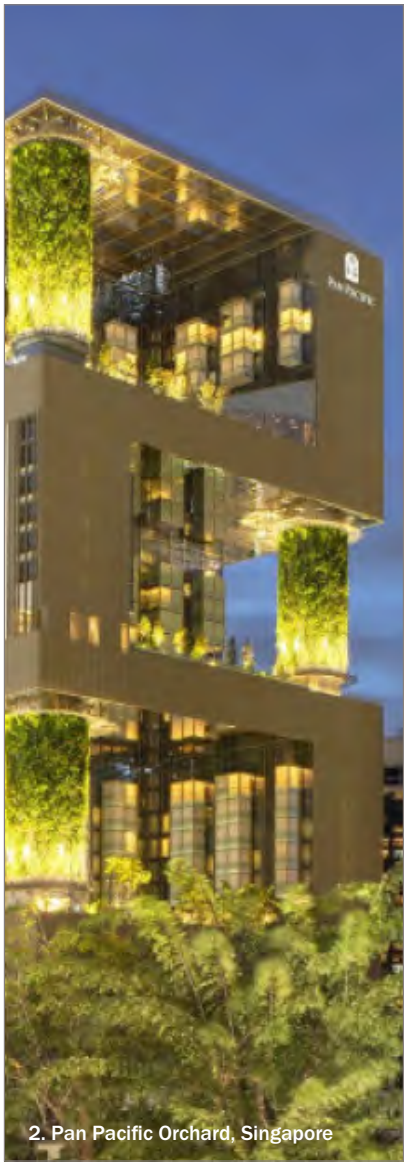
This project holds significant importance in the context of the City of Sydney's (CoS) Visitor Accommodation Action Plan, which underscores tourism as a vital priority for job creation and economic growth. The Minns Government has set an ambitious target for $91 billion in annual visitor economy expenditure by 2035, marking a 40% increase from previous objectives. Key challenges to achieve this target include the necessity for 40,000 additional hotel rooms, overcoming significant worker and skills shortages, and expanding business event facilities in Sydney and other key regions. UOL's initiative, therefore, serves not only as a real estate development but as a pivotal contributor to these broader economic and tourism goals, fulfilling a portion of the demand for additional hotel accommodations.

Delivering Innovative Green Facades:

UOL brings to the table its extensive experience in delivering innovative green facades. This expertise aligns seamlessly with the City of Sydney's sustainability goals, aiming to significantly enhance the greening of both the public realm and the CBD skyline. UOL's commitment to sustainability not only fulfills environmental objectives but also contributes positively to the aesthetic and functional aspects of urban landscapes.

City Block Under Single Ownership:

The project site in represents an entire city block under single ownership by UOL, presenting a unique opportunity for substantial improvement to the public domain in this area of the city. This singular ownership structure enables UOL to implement comprehensive enhancements that can profoundly impact the public space, reflecting a cohesive vision and facilitating the integration of the development with its surrounding urban environment.



2. Pan Pacific Orchard, Singapore



1. PARKROYAL Collection Pickering, Singapore



3. 150 Day St - Project Proposal



4. 150 Day St - Project Proposal

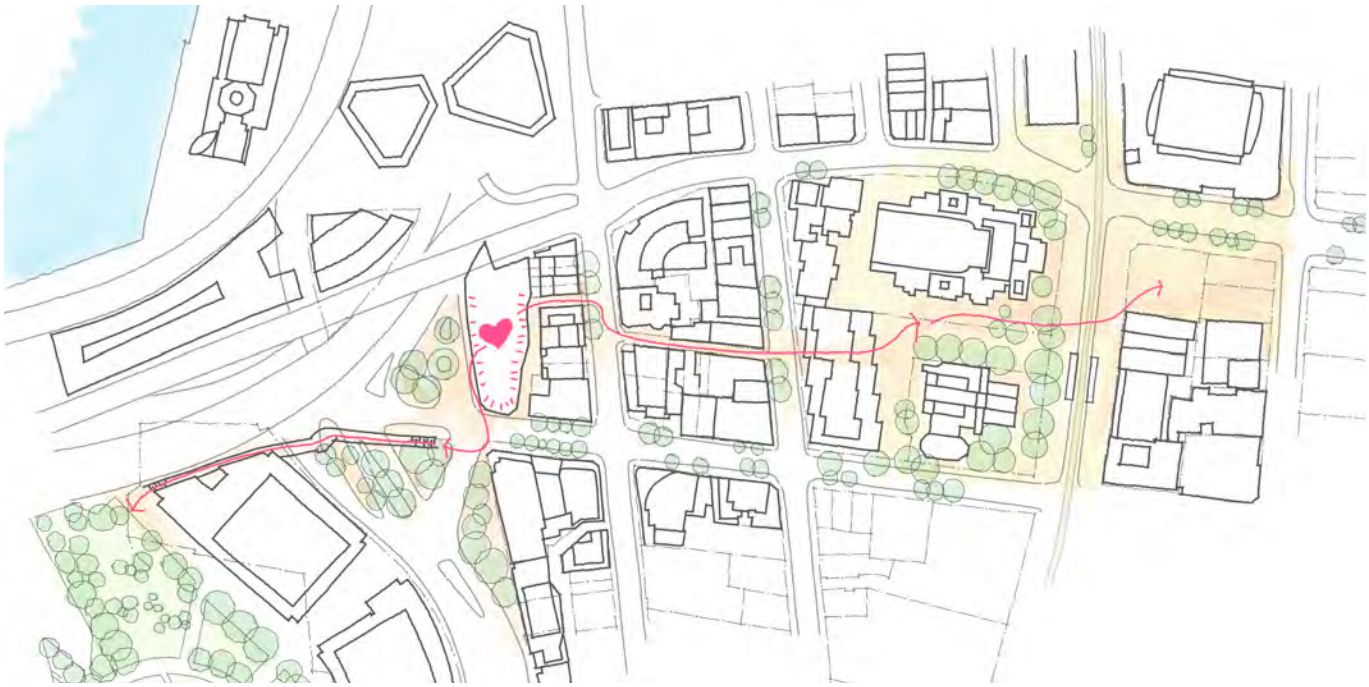


5. 150 Day St - Project Proposal



6. 150 Day St - Project Proposal

WHAT CAN THIS SITE DELIVER?



Improving a dense urban environment under single ownership.

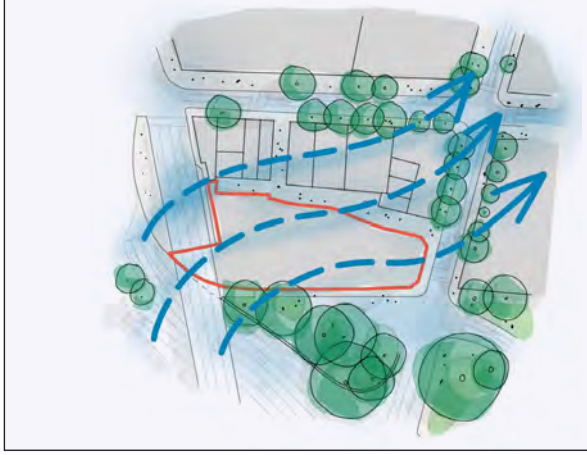
In dense urban environments, evaluating development requires a broad understanding of the current place amenity. This area of the city is under-performing in many areas and there are significant opportunities to enhance the city through broader placemaking improvements across multiple metrics.

1. Public domain safety under the Western Distributor improved
2. Extreme winds on Day St improved
3. Overland flow from Town Hall towards Darling Harbour is improved
4. Biodiversity and green spaces are increased in this infrastructure heavy area of the city
5. Street activation with pedestrian priority through active frontages and removing a porte cochere/ vehicle crossovers
6. Benchmark adaptive reuse development project: expanding hotel keys in the city at an existing site that services hotel in order to minimise built environment impacts

1. Public Domain Safety



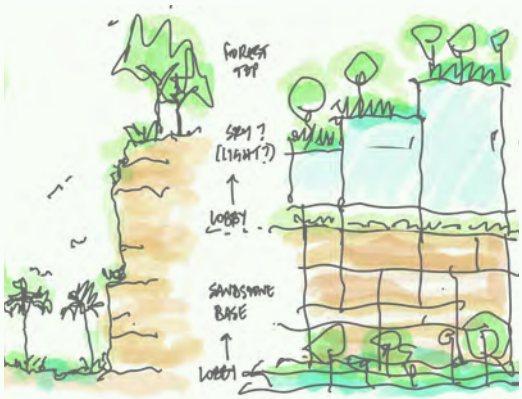
2. Safer Wind Speeds



3. Flooding Amelioration



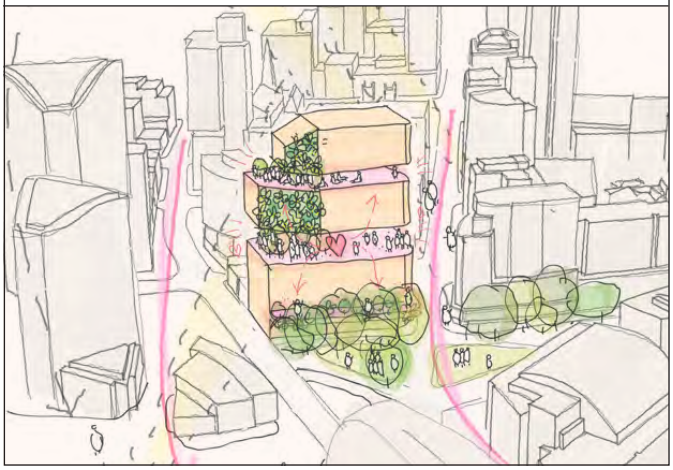
4. Biodiversity



5. Street Activation



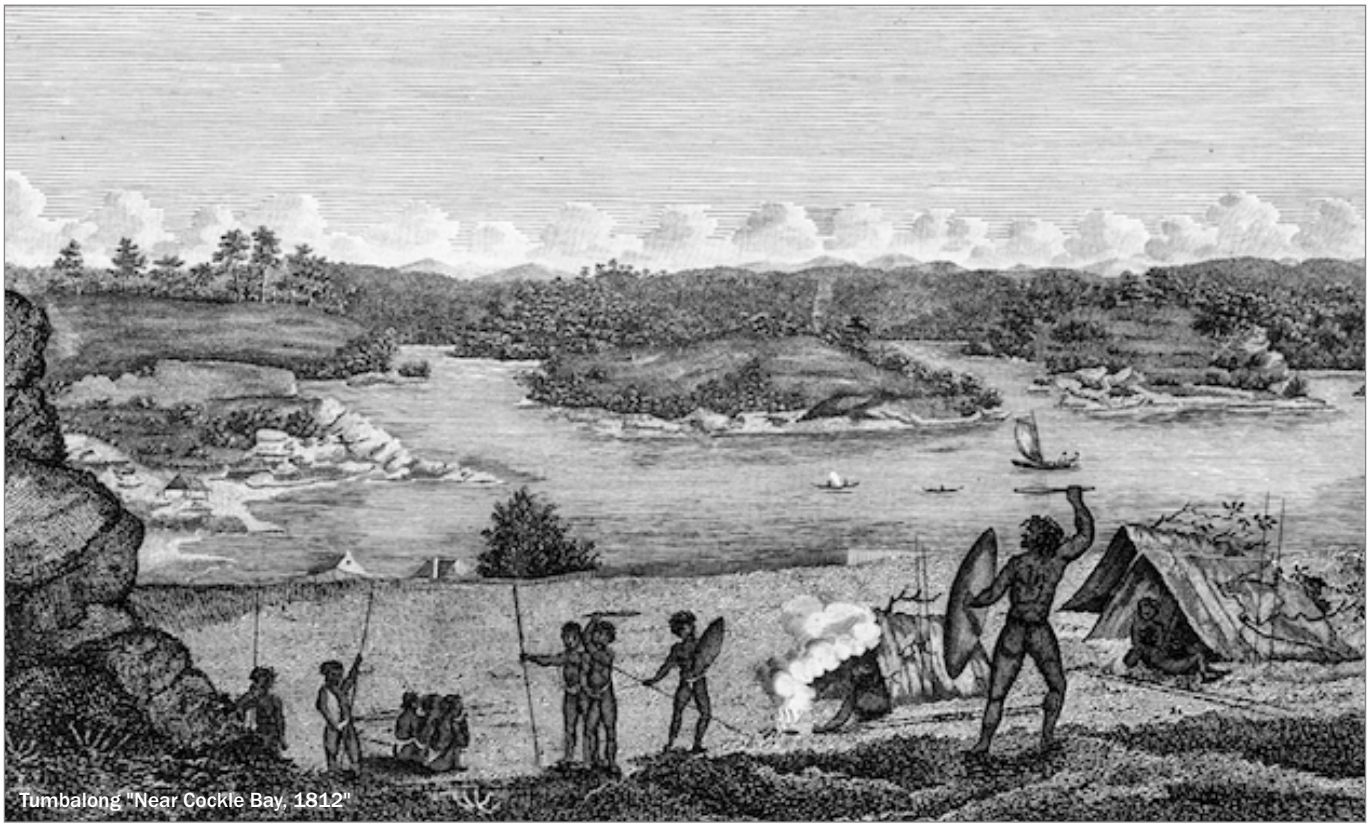
6. Adaptive Reuse



SITE CONTEXT

PROJECT CONTEXT

Informed by consultation with WSP, Aunty Yvonne Simms, and Dr Shane Smithers



Tumbalong "Near Cockle Bay, 1812"

Through consultations with Dharug knowledge holders and insights shared by WSP, the following information about the place and its history has been researched.

The site is located on Gadigal Country, which extends from the Inner South Head at the entrance to Port Jackson, through the Eastern Suburbs, and reaches Woolloomooloo Bay, Farm Cove, and Warrane (Sydney Cove), ending at Darling Harbour (Barangaroo). The site's marshy mangroves and low-lying waterways, which flow down from the ridge of what is now the city centre to Darling Harbour, created a rich and abundant environment. Aboriginal people camped behind the harbour and travelled to the water to gather food and resources. In this temperate landscape, with resources plentiful, the Gadigal people had time and energy to gather, feast, and host visitors from neighbouring areas. Sydney was recognized as a dynamic cultural place, a place of expression. While the area has changed significantly since colonization, Sydney—once the most densely populated Indigenous land in the region—continues to be a place of cultural vibrancy.

This design focuses on creating a 'place' rather than merely a 'building.' We believe that 'place' is most powerfully experienced in nature, which has inspired much of the design for the PARKROYAL.

The site lies at the boundary of the City and Darling Harbour, known by the Eora people as Tumbalong, meaning "a place where seafood is found." The shores were once covered with oyster shells and other shellfish remains, accumulated over thousands of years, which led Europeans to call the area Cockle Bay.



Darling Harbour, 1859, State Library of New South Wales



Aerial View of Darling Harbour, 1870s, City of Sydney Archives



{Pyrmont Peninsula, 1890's, Goldsbrough



1. Advancing Shore Line Over Time Due To Land Reclamation - The PARKROYAL Site Is Located On The Historic Shore Line

TRACING THE EVOLUTION

The Changing Face of the Site Through Time



Pre-1788
Tumbalong: A Place of Abundance and Connection

→ The site was part of Gadigal Country, encompassing a rich ecological system of marshy mangroves and tidal waterways flowing into Darling Harbour (Tumbalong).
→ The Gadigal people thrived here, gathering food such as shellfish and hosting feasts, ceremonies, and cultural exchanges.
→ Tumbalong symbolised abundance and connection, with time for art, storytelling, and welcoming visitors from neighbouring groups.
→ Evidence of shell middens along the shores demonstrates the enduring presence and sustainable practices of the Gadigal people.
The area was a densely populated and culturally significant hub, long before colonisation altered the landscape.

1788 – 1920s
Reclamation and Industry: Reshaping the Land

→ Colonisation drastically transformed the natural landscape through land reclamation projects, draining mangroves and filling waterways to create usable land.
→ The area, now known as Cockle Bay, became a vital industrial and shipping hub in the 19th century, supporting Sydney's economic expansion.
→ Rail lines, warehouses, and goods yards dominated the site, forming a centre for the movement of goods between the harbour and the growing city centre.
→ This transformation marked a shift from a balanced ecosystem to a utilitarian infrastructure focused on production and trade.
→ The natural and cultural layers of the land were obscured, replaced by the colonial narrative of growth and progress.

1930s – 1990s
Urban Decline and Renewal: From Industry to Civic Space

→ By the mid-20th century, industrial activity declined, leaving much of the Darling Harbour area underutilised and neglected.
→ Urban renewal efforts began in the 1980s, driven by the vision of transforming Darling Harbour into a civic, cultural, and leisure precinct.
→ New developments included iconic attractions such as the Sydney Convention and Exhibition Centre, the Sydney Aquarium, and public promenades.
→ The focus shifted from production to recreation, reconnecting Sydney's residents and visitors with the waterfront.
While the transformation revived the area, it also solidified the divide between the dense CBD and Darling Harbour's open public spaces.



CAUGHT BETWEEN DENSITIES: A SITE OF MOVEMENT, ISOLATION, AND UNTAPPED CONNECTION.

2000s – Present Contemporary Fragmentation: A Place of Barriers and Potential

- → Today, the site lies at the critical juncture of Sydney's CBD and Darling Harbour, acting as a bridge between two contrasting urban densities.
- → Major roads and vehicular infrastructure dominate the area, creating physical and visual barriers that disconnect pedestrians from the site's historical significance.
- → While the site serves as a conduit for movement, its street-level experience is characterised by walls, barriers, and a lack of cohesion.
- → The legacy of its historical importance—as a place of cultural gathering, industrial productivity, and urban renewal—remains hidden under layers of urban fragmentation. Despite these challenges, the site holds immense potential to be re-imagined as a dynamic connector between city and harbour, reclaiming its role as a vital node of activity.



1. Identity and its relationship to its immediate context


2. The Site today - Identity and its relationship to its immediate context

HERITAGE CONTEXT

281-287 Sussex Street







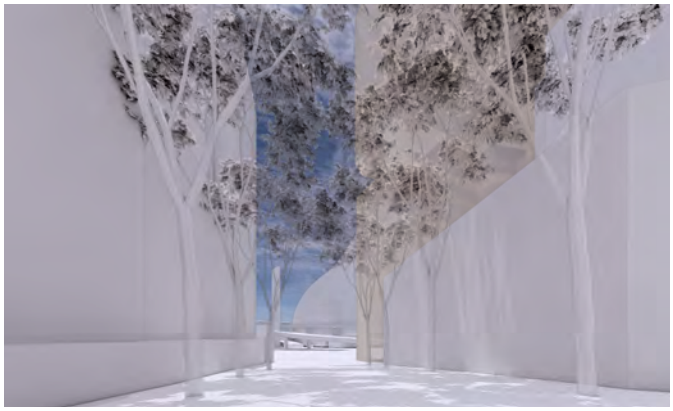


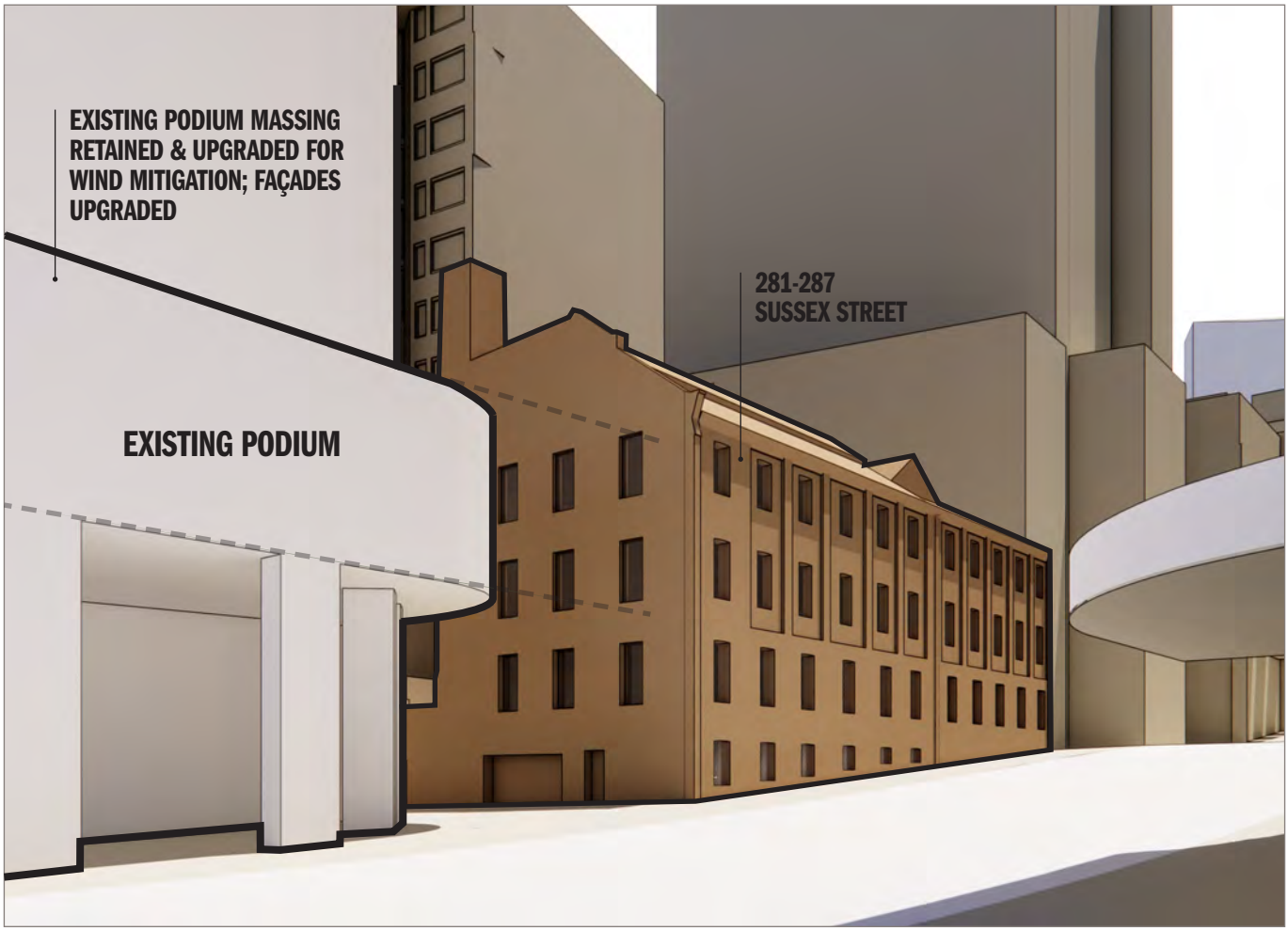
The Vintage Building, 281-287 Sussex Street

The Vintage building at 281-287 Sussex Street in Sydney, New South Wales is listed as a heritage building. It is a brick warehouse style building that was built in 1893 for the Mungo Scott Flour Mills. Following that, the building was later used by Seppelts Wines of South Australia, in which wine was prepared and matured. They occupied the building from 1923 to 1972.

In 1981, the building was named 'The Vintage' and was converted into apartments by architects Wills, Denoon and Partners, with ground floor commercial spaces. The apartments have high cathedral ceilings, exposed beams and pillars, along with open plan living, kitchen and dining spaces.

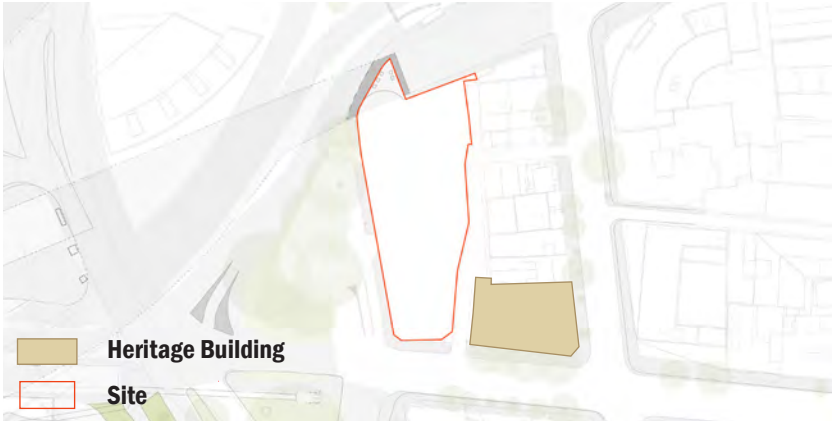






Podium Alignments

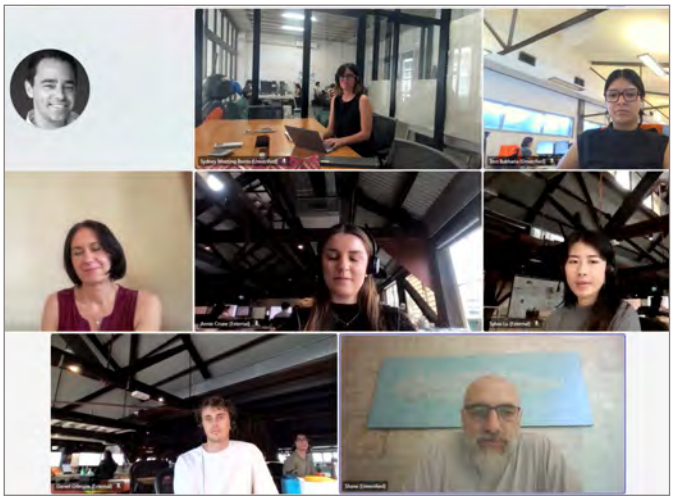
Podium massing has been retained as per the existing building massing. The existing podium levels align with the existing 281-287 Sussex Street features and parapet. However the existing facade will be upgraded and the new hotel will open out towards the heritage building, improving the current relationship between the two structures.



FIRST NATIONS ENGAGEMENT

Design Consultation at Project Inception





1st Yarn with Aunty Yvonne Simms

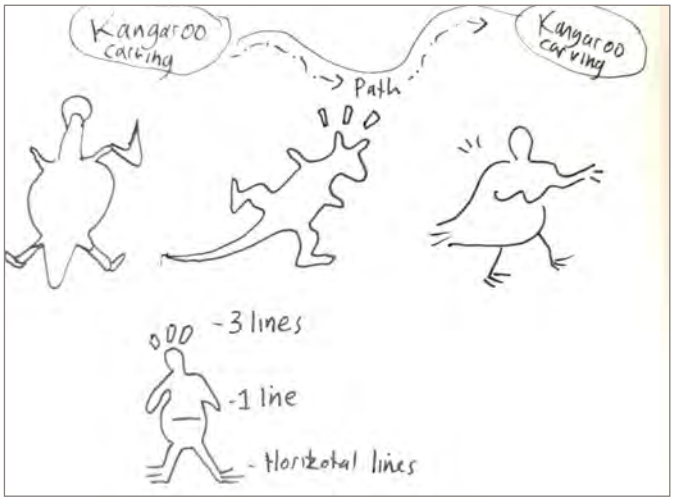
On Wednesday the 30th of October, the HSL design team met with Aunty Yvonne Simms at her house to talk about the site and project. Key design ideas discussed were that balconies are an important connection to country, that sandstone cliffs are important in Sydney iconography, connection to water will be key, and that the Day Street landscape has fantastic potential to include native plants and could reference a bora ring in some way - a welcome space for visitors.

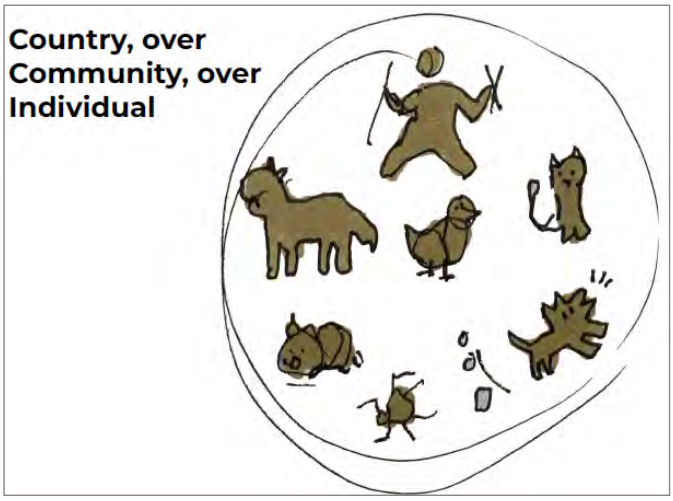
An overwhelming theme is that telling the story of clan groups is important as key knowledge sharers age. This project, with event spaces and amenity offerings, has a lot of opportunities to integrate aboriginal language in to floor and room names.

1st Yarn with Dr Shane Smithers

On Thursday the 7th of November, the HSL design team met with Dr Shane Smithers to talk about the site and project. One of the main points reiterated through engagement is the importance of early workshops with Elders, knowledge holders and community members.

- → The group discussed that the site location was known as a place where people would meet for festivals. The festival would include trades with saplings or seeds. Mt Annan had many species brought there from these festivals.
- → Many species were culturally introduced through this practice, some by human's, others by birds. Both birds and humans would carry tree seeds and deposit them leading to native flora being spread around the area. This process helps maintain biodiversity and allows tree species to spread across various regions. Any future proposals should aspire to reintroduce biodiversity into the urban realm.
- → Moreton Bay figs were a common species of tree within the area. These trees are native to the area and provided resource and shelter to the local mobs.





Aboriginal Design Principles (WSP)

→ Aboriginal Led

Aboriginal people(designers, elders and community members) should be leading or co-leading the Indigenous design elements.

→ Community involvement

The local Aboriginal communities will be engaged in a co-design process; where design teams, client and Aboriginal groups design the project together.

→ Appropriate use of Indigenous design

All Aboriginal design elements must be approved by consulted Indigenous Knowledge Holders. If approval is not given, the knowledge will not be used on the project.

Design Approach (WSP)

Image - Signage/surface treatment/ walls/art

Surface treatments using local Indigenous design knowledge, commissioned from artists, or by urban designers with engagement and approval from community. Signage helps to share the story of Country and its people.

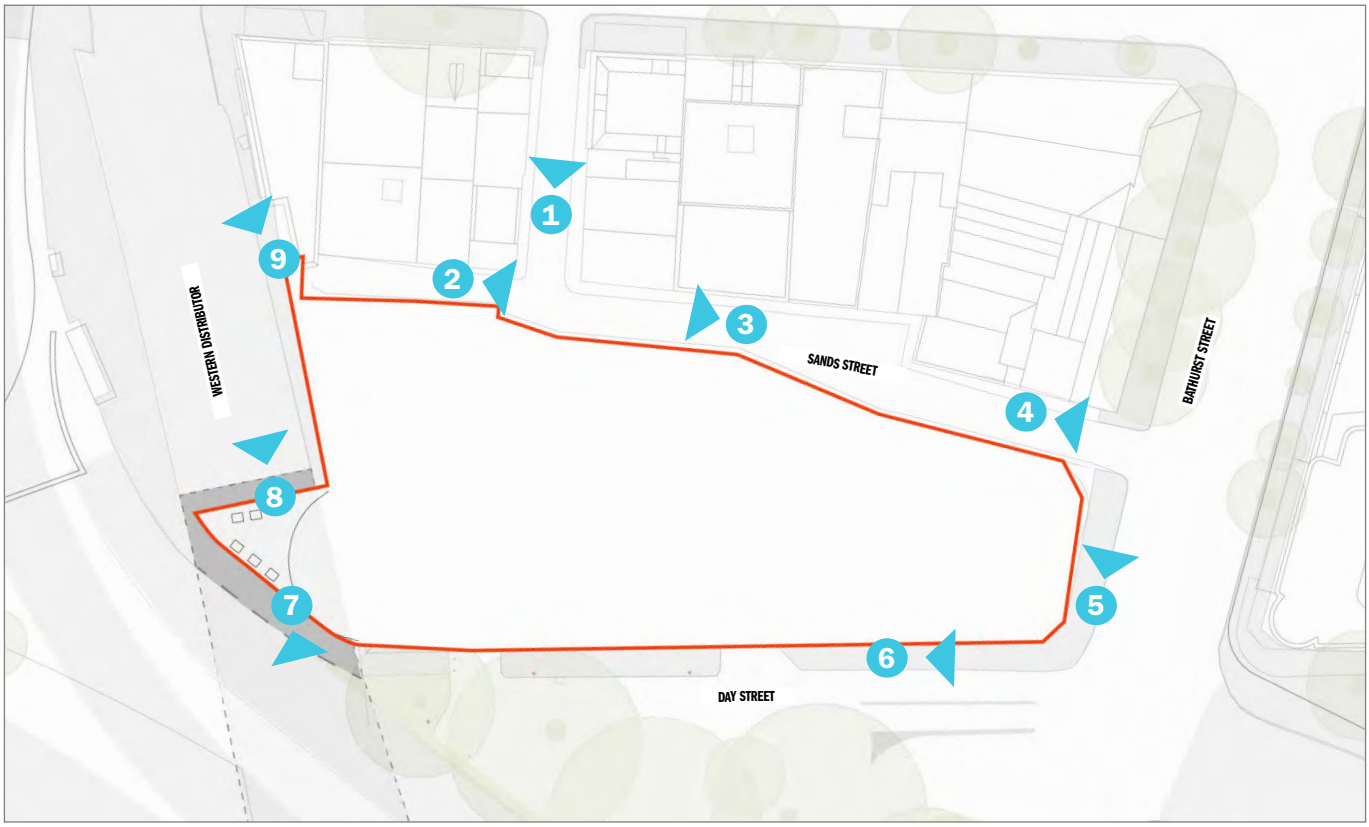
Space - Indigenous space/ landscaping

A space or landscape where Aboriginal people can have their culture celebrated. Yarning circles, space for contemplation, spaces for non human kin, cultural land stewardship practices, cultural fire, yam daisy propagation, etc. 3D forms, such as sculpture and art.

Language

Using First Nations language in the built environment to use it and keep it alive.

THE SITE TODAY



A 2281 m² site at the intersection of Darling Harbour and Sydney City.

The existing Day Street streetscape follows a predominantly straight line from China Town to Darling Harbour, lined by large trees, with the canopy of the trees defining the edge of the city. The immediate surrounding area is characterised by a stark contrast from open space roadways bordering Darling Harbour to the continuous face of medium rise buildings that form the city wall. Whilst there are limited heritage items on Day Street, there are multiple heritage sites in the broader context as the roads ascend up towards Town Hall.

The site location provides key strategic importance for the transformation of the interface between Darling Harbour and the City Centre. Unlocking its potential will help to create stronger pedestrian connections between the two key tourist locations. Currently the existing hotel building provides limited contribution the surrounding street environment and Town Centre Character.

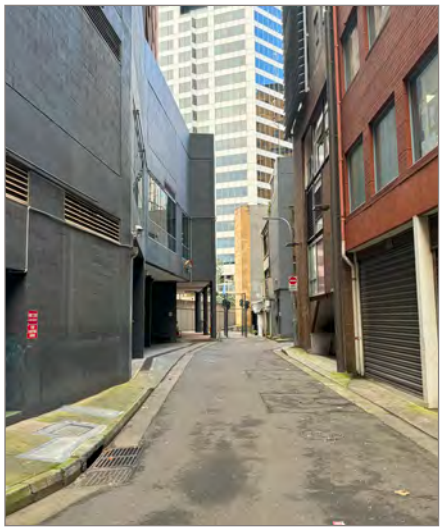
The existing street character along both Day Street and Bathurst Street is predominantly defined by concrete frame buildings from the 1980s to the early 2000's. Notable design features in the area are chamfered geometries, window walls, and coloured concrete finishes (with the exception of heritage brick structures).



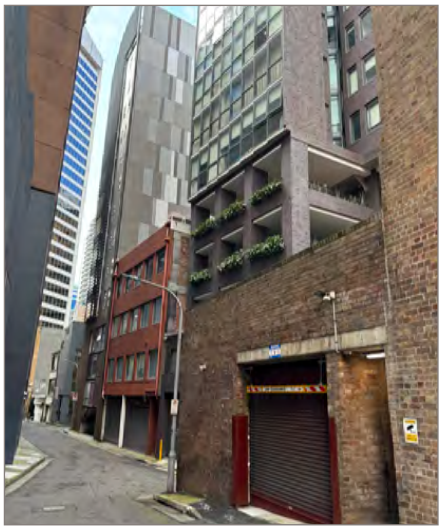
1. Sands Street



2. Sands Street



3. Sands Street



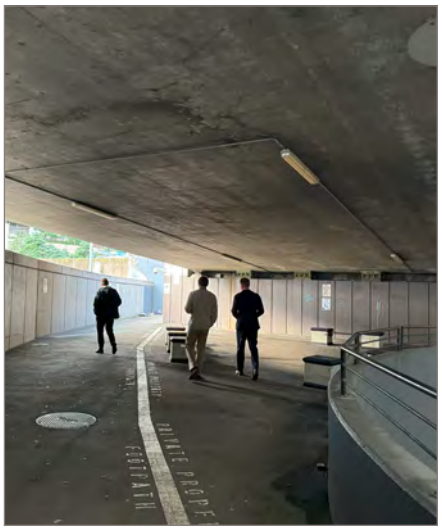
4. Sands Street



5. Bathurst Street



6. Day Street



7. Under Western Distributor



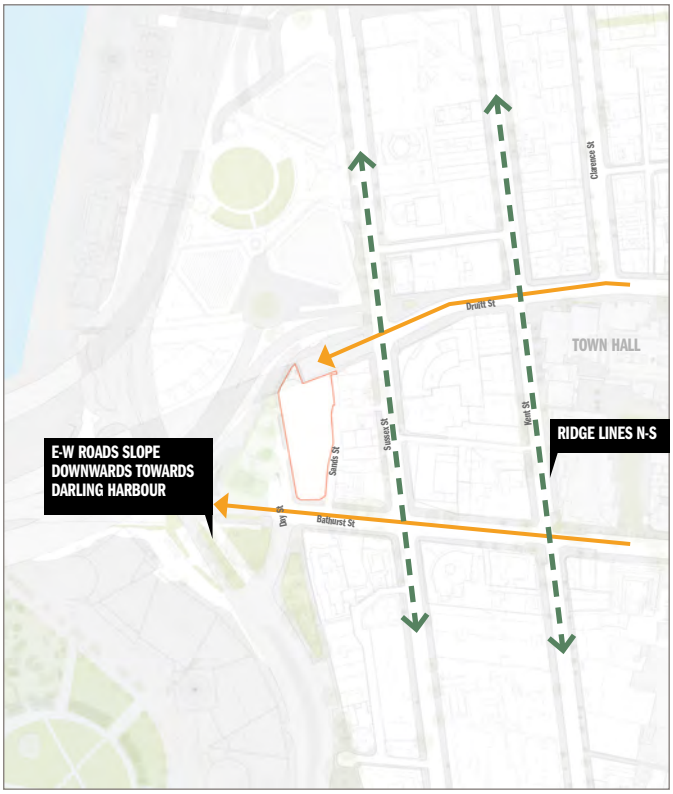
8. Under Western Distributor

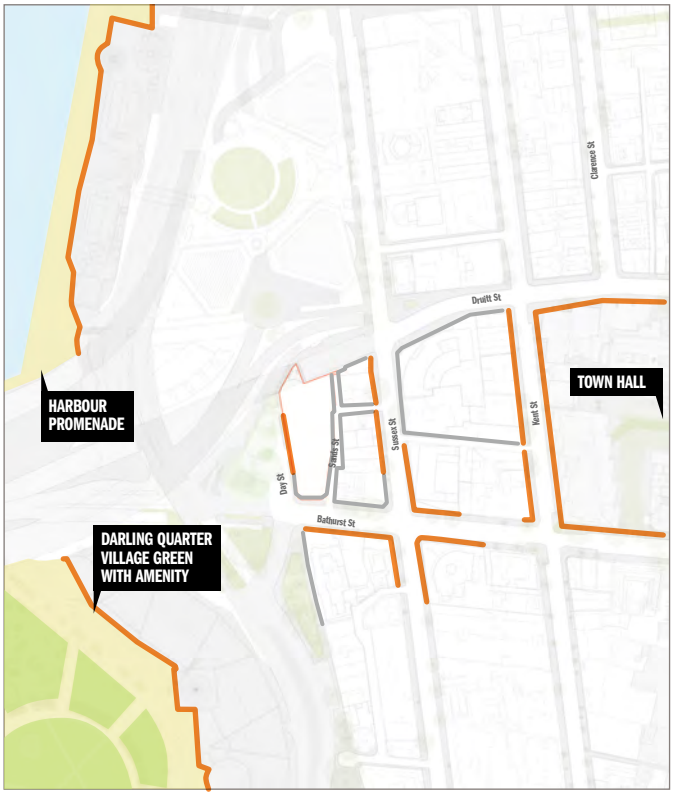


9. Sands Street

SITE ANALYSIS

A Place of Confluence – where land and water meet, shaped by the flow of people and vehicles.





Precinct Topography

The site is located at the base of a sandstone ridge that runs north-south through the city. The topography slopes from the Town Hall down towards Darling Harbour and the waters edge. This results in the PARKROYAL building being sited lower than the CBD tall buildings and a natural stepping down of forms to the west.

LEGEND

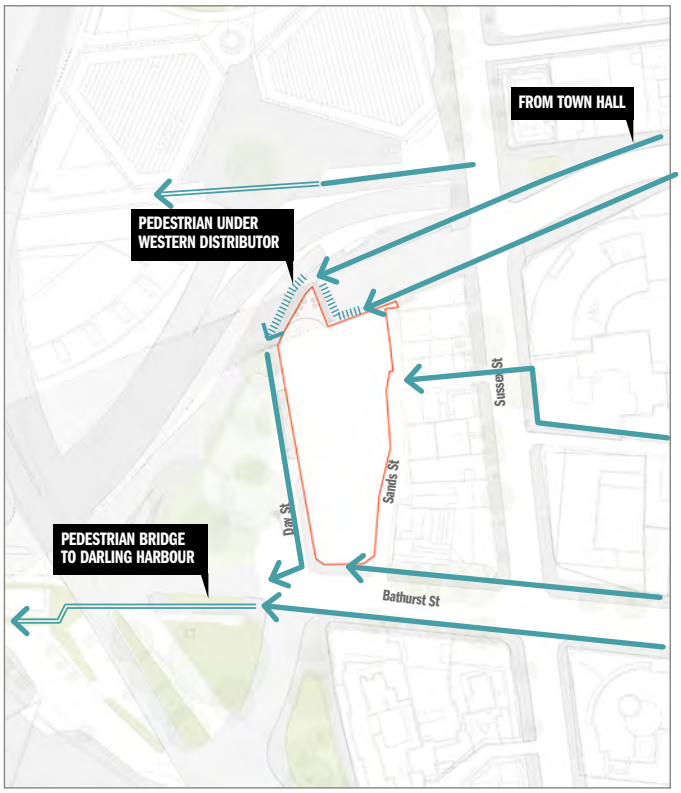
- Major North-South Vehicular Access
- Downward Topography Direction

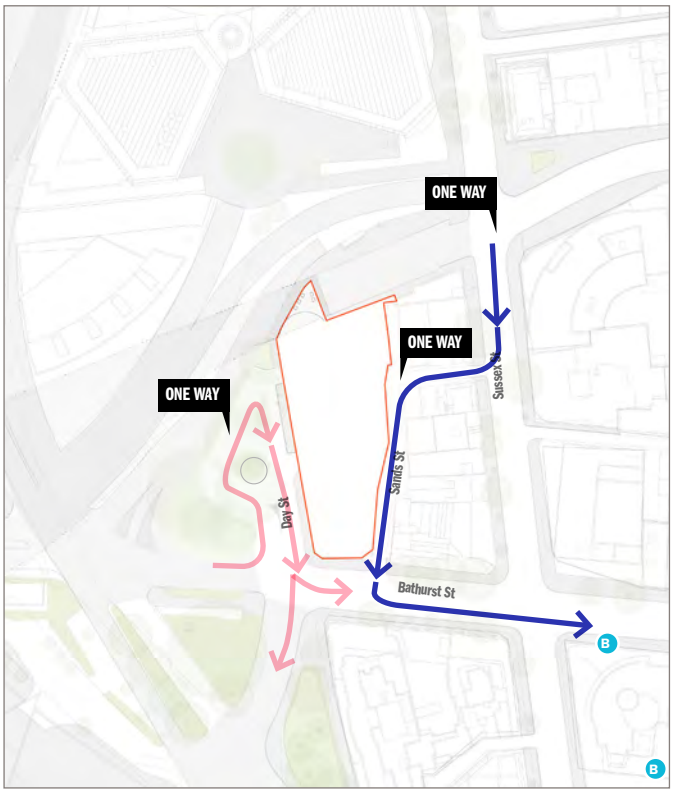
Urban Public Open Space and Active Frontage.

The site is located at the western edge of the CBD, with limited active frontages in this area. Given the site location on the boundary between the City and Darling Harbour, it can play a key role in activating the city edge and laneway networks between Darling Harbour and the Town Hall.

LEGEND

- Active Frontage
- Inactive Frontage
- Public Open Space
- Green Open Space





Pedestrian Network: East-West Connections.

To the west, fast-moving traffic flows along major roads and the Western Distributor, while to the east, slower pedestrian and vehicular movement occurs through laneways. Pedestrians mainly travel east to west between the city and Darling Harbour, crossing under the Western Distributor to the north or over a bridge to the south. This project could significantly improve the pedestrian experience in this area.

LEGEND

- Pedestrian Access
- Pedestrian Below
- Pedestrian Above

Transport Connectivity and Vehicle Access.

The main transport connections at the site are to the east, in the CBD. Almost all hotel patrons leave the site and move east, unless specifically going to Darling Harbour. The hotel could better address this movement along Bathurst street.

The hotel drop off and servicing are defined by the one way streets, and there is a very strong division between BOH and FOH in the current arrangement.

LEGEND

- Service Vehicle
- Drop-off Vehicle

PLANNING AND POLICY CONTEXT

SITE LOCATION AND CONTEXT



A strategic site to improve the City of Sydney Urban Fabric.

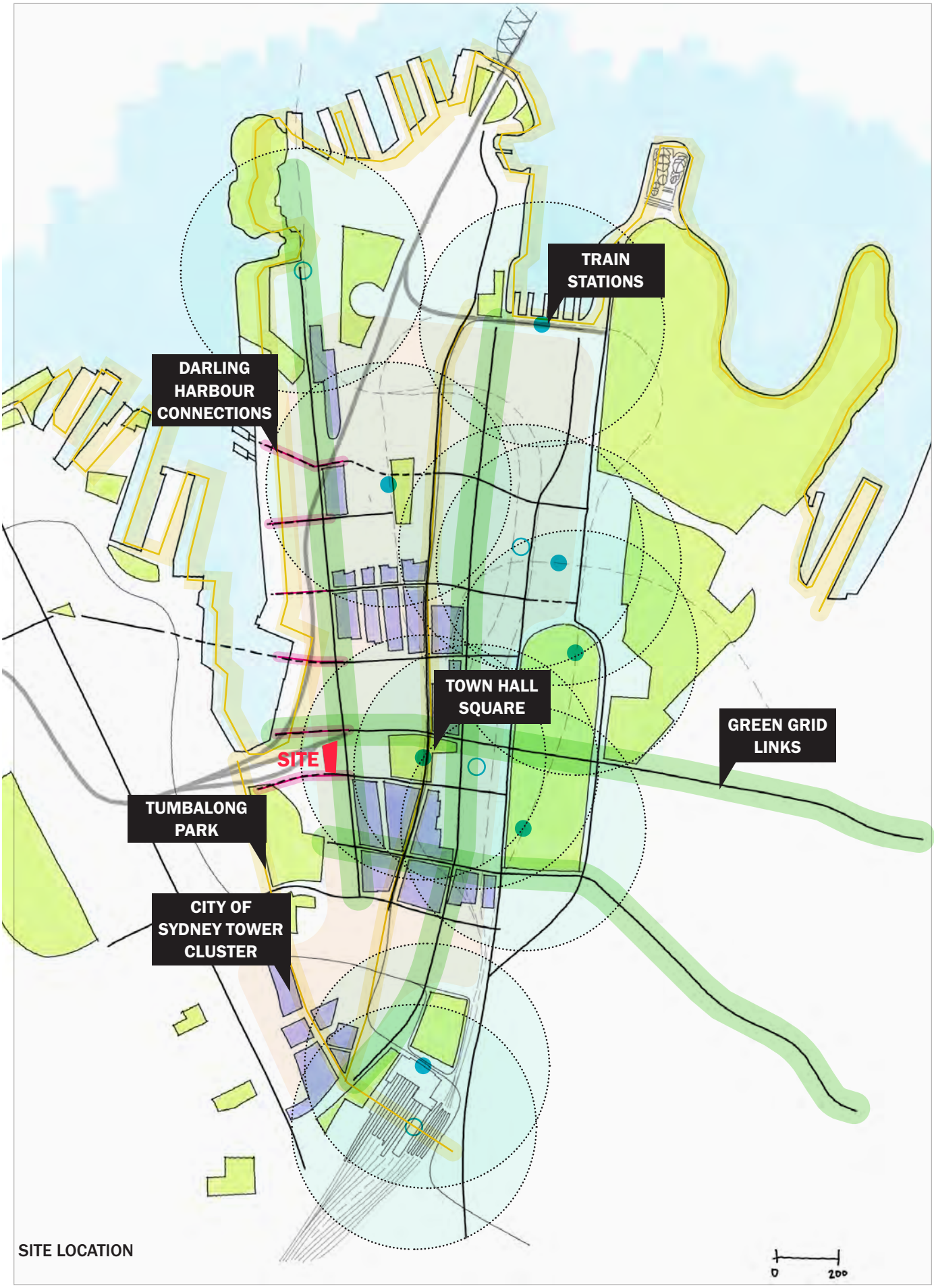
150 Day Street is situated in the western part of Central Sydney, within the City of Sydney local government area. The site is bordered by Day Street to the west, where the main entrance to the PARKROYAL Hotel is located. To the south, it is bound by Bathurst Street, and to the east, by Sands Street. To the north, the site faces the Western Distributor and connects to a pedestrian laneway that separates it from the surrounding road infrastructure.

This location is positioned at a crucial interface between Sydney's city centre and the Darling Harbour entertainment precinct. It is within walking distance of Sydney Town Hall and offers easy access to metropolitan, intercity, light rail, and bus networks.

The planning proposal has been developed in accordance with the Central Sydney Planning Strategy (CSPS), which emphasizes the need for the city centre to provide employment-generating floorspace. In line with this objective, the proposal seeks to add further employment floorspace to a site that is well-served by amenities, close to public transport, and less impacted by sun access controls.

The aim of this proposal is to define a built form for the site that ensures a suitable development outcome, demonstrates design excellence, and aligns with the objectives of the CSPS and broader strategic planning goals. This vision has guided the Reference Scheme created by Hassell, which is detailed in the accompanying Urban Design Report.

This proposal minimises embodied carbon while maximising servicing efficiencies by appropriately expanding on the existing hotel offer.



SITE LOCATION

METROPOLITAN STRATEGIC CONTEXT

Strategies, Policies and Guidelines

In developing the 150 Day St Proposal it has been critical to ensure consistency with NSW Government policies and strategic priorities. The documents indicated here are seen as the key strategy and policy documents of relevance ensuring alignment across all levels of government.



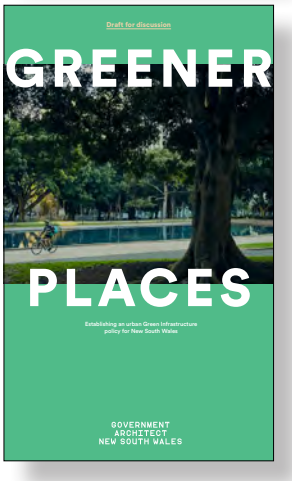




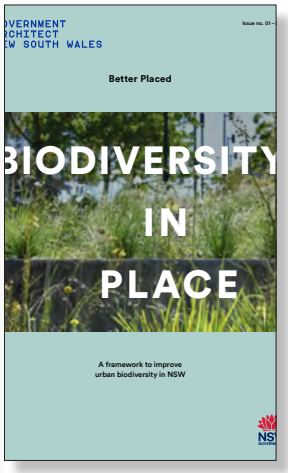






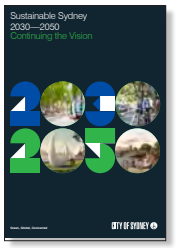






Sustainable Sydney 2030–2050 Continuing the Vision, City of Sydney

- → Create a city centre that is inviting, clean and safe by day and night. At its heart are creativity and public art.
- → Ensure that our local main streets are thriving hubs with their own distinctive characters.
- → Design a city that is greener and calmer with more space for people on the streets.



Public spaces & public life: Sydney 2020, Ghel

- → Improve the pedestrian links between the city and the water physically and visually.
- → Continue to promote active ground floors and human scale details whilst creating a comfortable, shaded, micro-climate.
- → East-west streets should be calmed over time and provide direct access to harbour and parklands.
- → Activate lane ways and create environments conducive for dwelling.



Biodiversity in place, Government Architect NSW

- → Integrate water-sensitive urban design to treat and hold water.
- → Plant diverse understory to support street tree health.
- → Introduce greater planting and diversity to help to mitigate the impacts of climate change and contribute to a new ‘civic’ identity in our urban environments.
- → Add to a series of smaller and iterative moves to create a network across the urban environment.



Think Darling Harbour 2050: Key Directions Report, Urbis

- → Breakdown boundaries between Darling Harbour and the city, start to blur the hard lines between formal and informal.
- → Opportunities to reconnect and explore the natural experiences.
- → "Open space delivered as part of privately owned built form should deliver part of the strategic public domain network."
- → Explore the possibilities of the “in-between” spaces and breaking down the distinctions and boundaries.



CENTRAL SYDNEY PLANNING STRATEGY

"Introducing a new planning pathway for heights and densities above the established maximums limits will increase growth opportunities for employment floor space, promote the efficient use of land, and encourage innovative design. It will also unlock opportunities for the delivery of cultural, social and essential infrastructure and improved public spaces commensurate with growth. These opportunities are focused in those areas of Central Sydney less constrained by sun access planes."

The below assessment reviews the planning proposal against the CSPS 10 key principals:

Principal 01. This proposed development will approximately double the capacity of the existing hotel, from the provision of additional accommodation to increased hospitality offers.

Principal 02. This proposal is grounded in a commitment to retain the existing building structure, whilst improving the envelope performance significantly.

Principal 03. The proposal commits to removing car parking access infrastructure in order to release active frontage and create a permeable ground plane that better connects the city to the Darling Harbour.

Principal 04. This proposal is aspirational in its vision of building a new hotel over the top of an existing one, using existing resources and land efficiently and significantly increasing employment floor space.

Principal 05. This proposal aims to increase the quality of the road and footpath infrastructure on the western fringe of the Sydney, whilst enhancing key pedestrian routes, such as the current derelict pedestrian link underneath the western distributor.

Principal 06. This project will set a new benchmark for retention of existing building fabric by plunging new lifts through an existing building, in order to service a new building over the top. Beyond adaptive reuse, the co-location of two hotels allows for the optimisation of shared services to support two distinct hotels.

Principal 07. The maximum height of the proposal is defined by the solar access plane to the Future Town Hall Square. The site is ideally located away from any key solar access planes to public spaces and does not break through any proposed solar access planes. Given the topography slopes downhill from the city centre to the site, it is an ideal location to increase floor space under any solar planes.

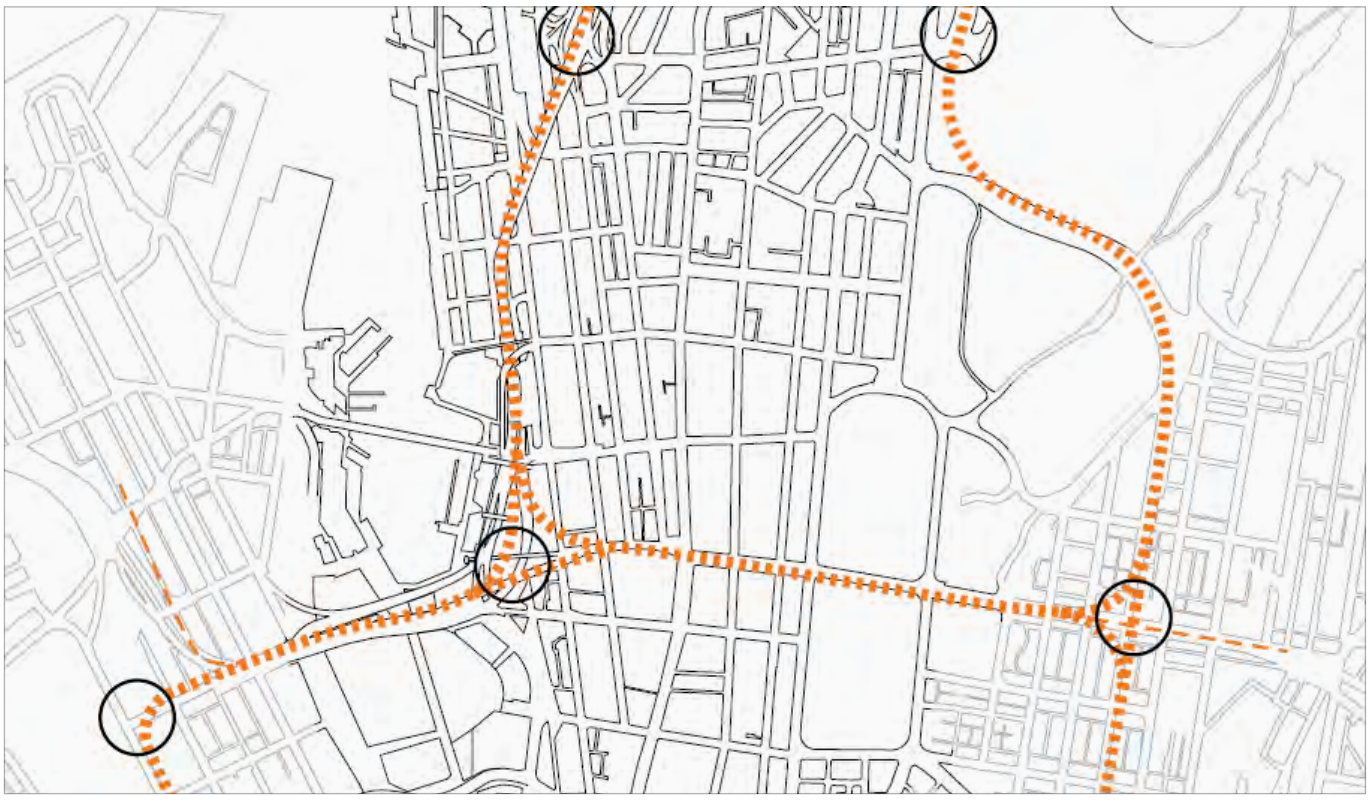
Principal 08. Increasing the building height in order to provide accommodation for a second hotel will release ground floor functions to be activated frontages. A porte-cochere will be removed from the urban realm and wider streets that are pedestrian priority will be reinstated in this busy pedestrian area.

Principal 09. The conceptual design approaches of grafting a new building to an existing structure and providing significant greening across the building envelope combine to create a significant design opportunity.

Consolidate and simplify planning controls by integrating disconnected precincts back into the city,







GROWING THE TOURISM SECTOR IN THE NSW ECONOMY

"Tourism is one of the fastest growing economic sectors in the world. It contributes significant economic growth and diversification across a wide range of employment opportunities. Tourism generates more than $30 billion of the state economy every year, and contributes approximately $36 million a day across metropolitan Sydney." - CSPS

The planning proposal has been developed in response to the Central Sydney Planning Strategy, which outlines objectives and a framework to ensure growth is:
- employment-driven;
- sensitive to significant locations; and
- highly sustainable, addressing climate change.

The landowner has commissioned various studies to support this request, including this report, which demonstrates how the proposal aligns with the City's vision for a competitive Central Sydney. The vision aims to accommodate growth through increased building height and density in select areas, while safeguarding public domain amenity.

Central Sydney Planning Strategy

The proposed amendments to planning controls will support the creation of additional employment-generating floor space, in line with the Central Sydney Planning Strategy's vision. This growth will not negatively impact public spaces and will enhance public domain outcomes in an infrastructure-intensive area of the city.

Greater Sydney Region Plan

The Greater Sydney Region Plan outlines key characteristics for Greater Sydney's future, noting that:

"Development should focus on optimizing air rights rather than expanding the urban footprint to create more space."

This proposal to develop a new building on top of an existing hotel will set a new standard for sustainable densification in Sydney city.

Objective 24 identifies the economic sectors which are targeted for success. The Jobs for the Future report identifies eleven segments that NSW should target to create 1 million new jobs in NSW by 2036. These segments include: Tourism.

Strategic Location

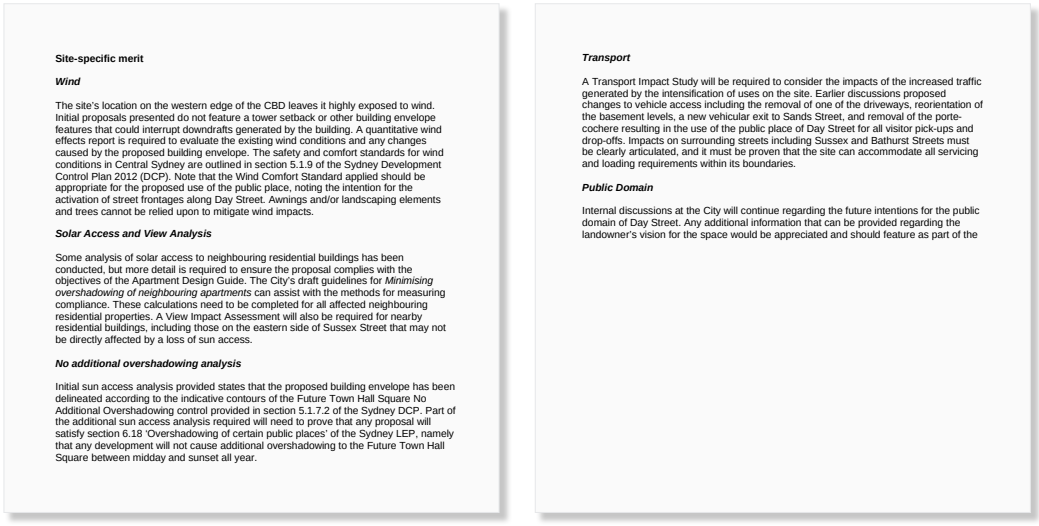
The site is strategically located at the boundary of the Central CBD and Darling Harbour. It is in close proximity to both business hubs and major visitor attractions, offering essential visitor and overnight accommodation to strengthen the connection between business and tourism.

City of Sydney Visitor Accommodation Action Plan

The plan emphasizes the need to expand and diversify the supply of accommodation to meet the growing demand from domestic and international visitors.

In conclusion, the proposal for two co-located hotels is highly efficient, offering environmental benefits, reducing loading and traffic demands, and increasing the number of hotel rooms in central Sydney on sites that are already designated for hotel use.

STRATEGIC CONSULTATION WITH THE CITY OF SYDNEY



Site-specific merit

Wind

The site's location on the western edge of the CBD leaves it highly exposed to wind. Initial proposals presented do not feature a tower setback or other building envelope features that could interrupt downdrafts generated by the building. A quantitative wind effects report is required to evaluate the existing wind conditions and any changes caused by the proposed building envelope. The safety and comfort standards for wind conditions in Central Sydney are outlined in section 5.1.9 of the Sydney Development Control Plan 2012 (DCP). Note that the Wind Comfort Standard applied should be appropriate for the proposed use of the public place, noting the intention for the activation of street frontages along Day Street. Awnings and/or landscaping elements and trees cannot be relied upon to mitigate wind impacts.

Solar Access and View Analysis

Some analysis of solar access to neighbouring residential buildings has been conducted, but more detail is required to ensure the proposal complies with the objectives of the Apartment Design Guide. The City's draft guidelines for *Minimising overshadowing of neighbouring apartments* can assist with the methods for measuring compliance. These calculations need to be completed for all affected neighbouring residential properties. A View Impact Assessment will also be required for nearby residential buildings, including those on the eastern side of Sussex Street that may not be directly affected by a loss of sun access.

No additional overshadowing analysis

Initial sun access analysis provided states that the proposed building envelope has been delineated according to the indicative contours of the Future Town Hall Square No Additional Overshadowing control provided in section 5.1.7.2 of the Sydney DCP. Part of the additional sun access analysis required will need to prove that any proposal will satisfy section 6.18 'Overshadowing of certain public places' of the Sydney LEP, namely that any development will not cause additional overshadowing to the Future Town Hall Square between midday and sunset all year.

Transport

A Transport Impact Study will be required to consider the impacts of the increased traffic generated by the intensification of uses on the site. Earlier discussions proposed changes to vehicle access including the removal of one of the driveways, reorientation of the basement levels, a new vehicular exit to Sands Street, and removal of the porte-cochere resulting in the use of the public place of Day Street for all visitor pick-ups and drop-offs. Impacts on surrounding streets including Sussex and Bathurst Streets must be clearly articulated, and it must be proven that the site can accommodate all servicing and loading requirements within its boundaries.

Public Domain

Internal discussions at the City will continue regarding the future intentions for the public domain of Day Street. Any additional information that can be provided regarding the landowner's vision for the space would be appreciated and should feature as part of the

Letter from City of Sydney

All redevelopment sites in Central Sydney provide opportunities for the City to meet and exceed its net zero energy targets and align with the directions of Sustainable Sydney 2030-2050 Continuing the Vision.

Long term commitment to enhancing urban fabric and economic vitality.

For the past two years, we have engaged in ongoing consultation with the City of Sydney to identify ways for this site to better contribute to the city's urban fabric, employment economy, and environmental targets. This dialogue has shaped the vision for the proposed redevelopment, ensuring alignment with key strategic priorites

Environmental Sustainability at the Core.

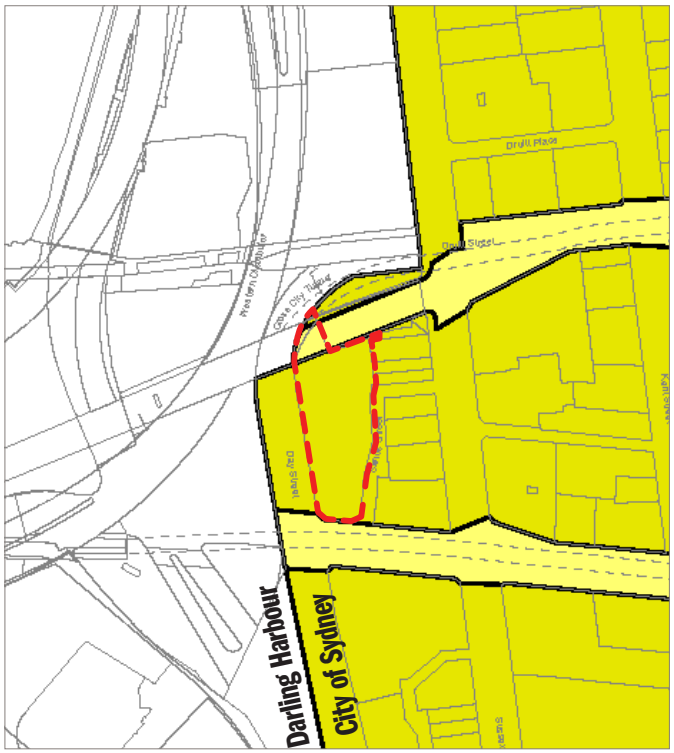
An Environmentally Sustainable Development (ESD) Strategy is the cornerstone of this proposal, responding to the City of Sydney requests to:

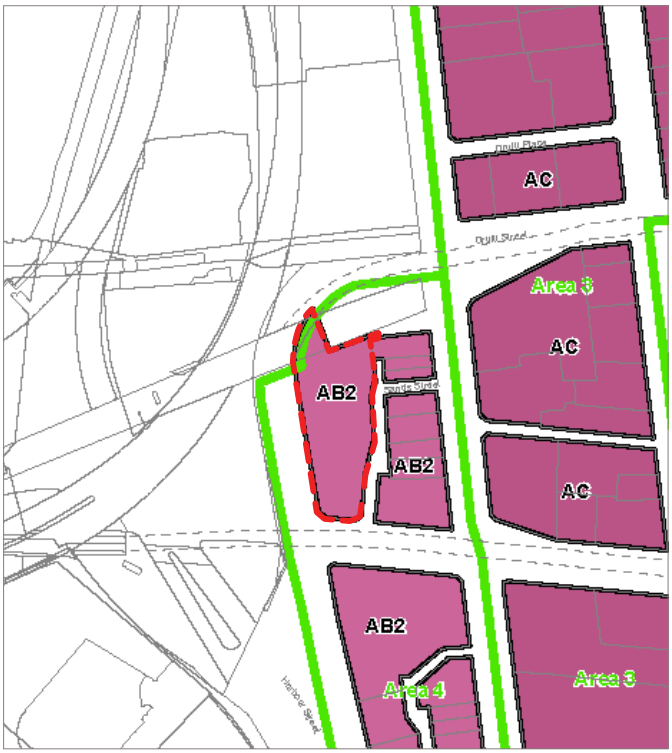
"Outline how the new storeys and the existing structure can achieve exceptional environmental performance with consideration to, but not limited to, embodied carbon, thermal efficiency, ventilation, renewable energy, water efficiency, waste management, and green roofs and walls.

Considering UOL's track record in delivering hotel concepts with notable green features such as the Parkroyal Collection, this issue forms a key part of this project's strategic merit argument."

This project is underpinned by the very sustainable concept of increasing hotel capacity at sites that are already servicing hotels. The expansion of an existing hotel to provide a second hotel offer not only streamlines the provision of services efficiently from reducing traffic impacts to reducing embodied carbon from the project, but also uses land in a more efficient manner within the central sydney CBD whilst enabling the economy to grow.

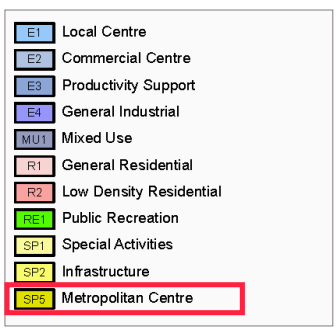
CURRENT PLANNING CONTROLS
Sydney LEP 2012





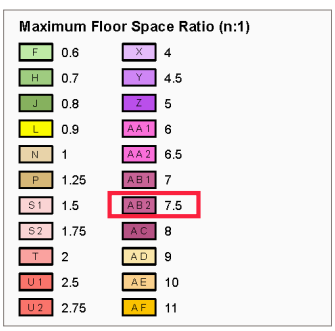
Land Zoning.

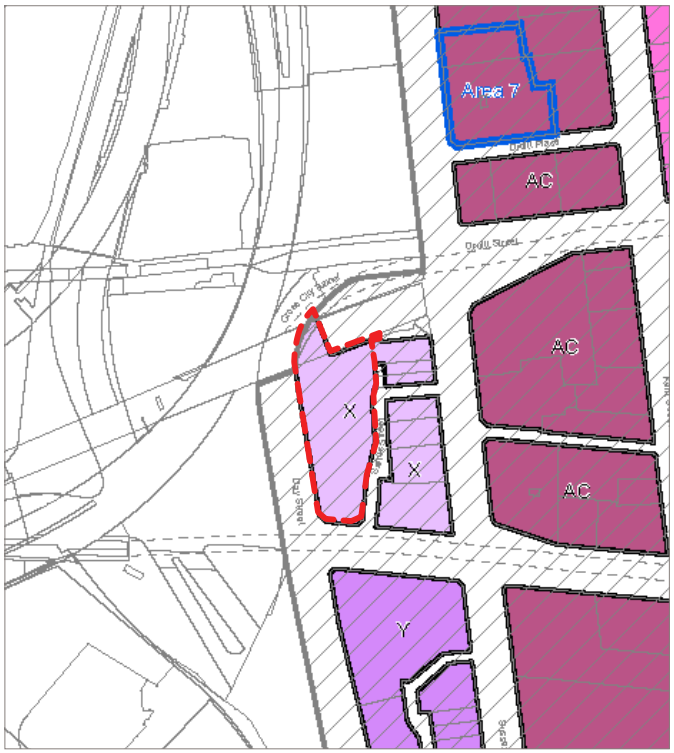
The Site is zoned as Metropolitan Centre (SP5) according to the Sydney LEP 2012.

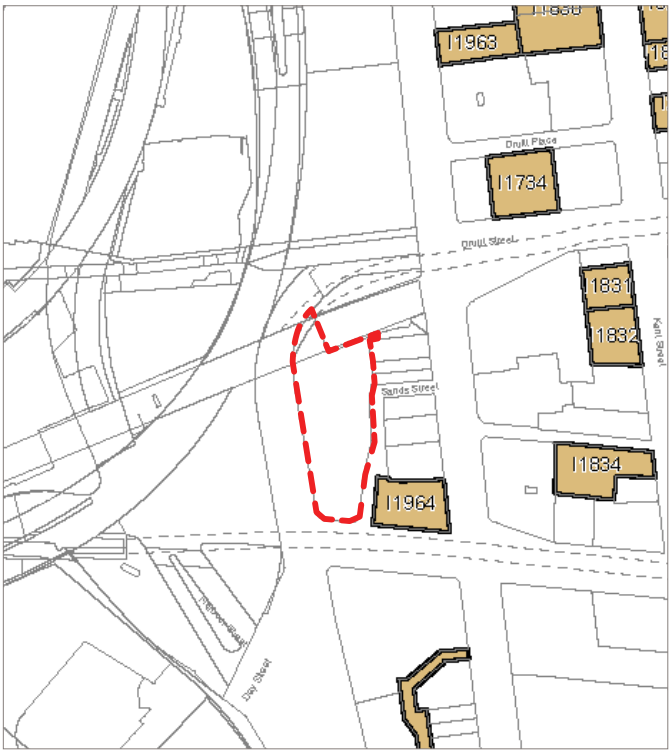


Floor Space Ratio.

The maximum permissible floor space ratio on the site is 7.5 : 1 according to Sydney LEP 2012. City of Sydney noted that there can be a commensurate increase to the maximum FSR control when increase the building height limit from 45m to approx. 85m.

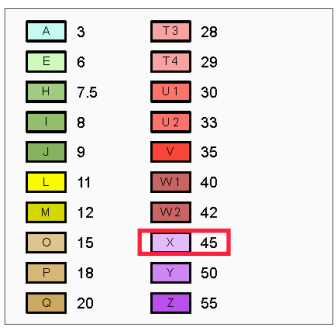






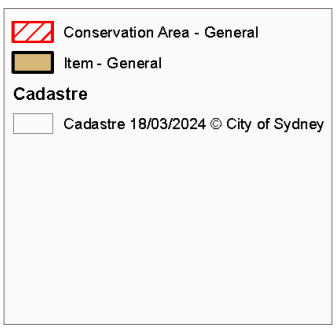
Heights of Buildings.

The Maximum Building Height is 45m as per the Sydney LEP 2012. The proposal is to increase the building height limit from 45m to 85m according to the City of Sydney.

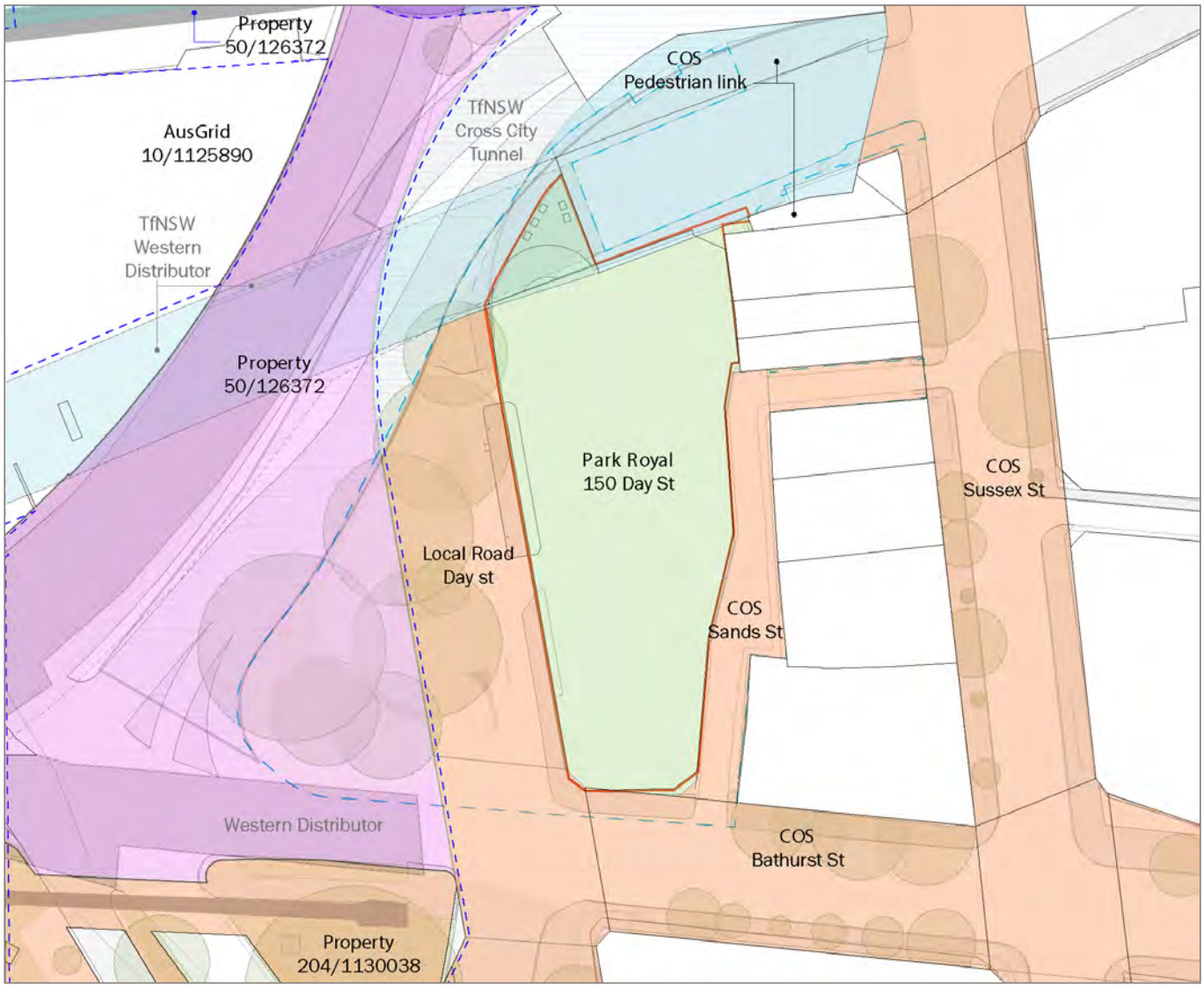


Heritage.

No part of the site is listed in the Sydney 2012 LEP as a Heritage Item. The neighbouring building I1964 is a listed heritage item as per Sydney LEP 2012.

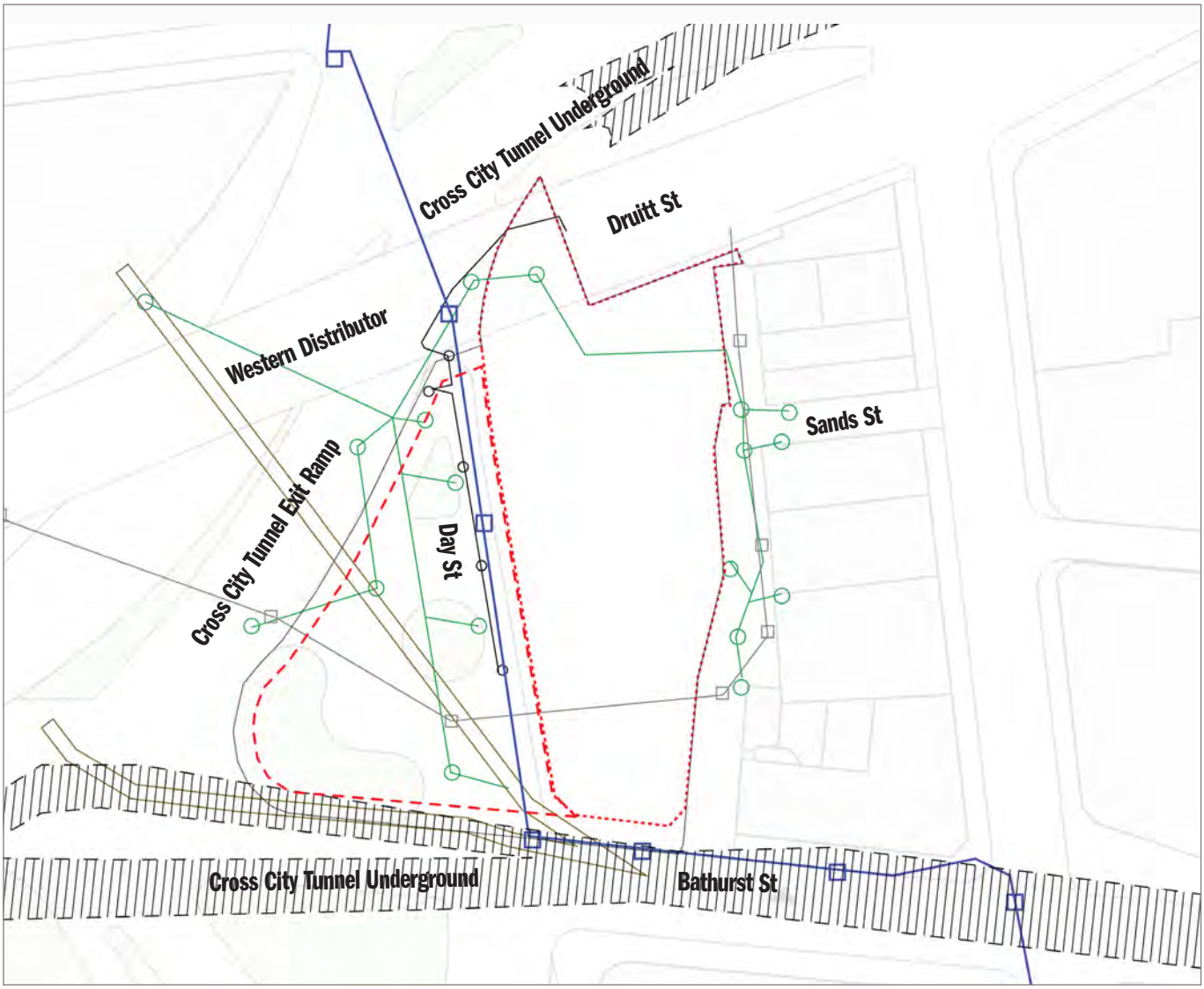


CURRENT PLANNING CONTROLS



Land Ownership.

The site boundary sits wholly within the City of Sydney, while the Day Street frontage is also within Placemaking NSW remit. This is noted when discussing possible urban realm upgrades and better activation of the pedestrian areas bordering this site.



Services and Infrastructure Interfaces.

The site is bound by the cross city tunnel to the north and south, and the western distributor. Given the site is adjacent to this significant road infrastructure a study has been undertaken confirming there is no critical infrastructure impeding further development of the site.

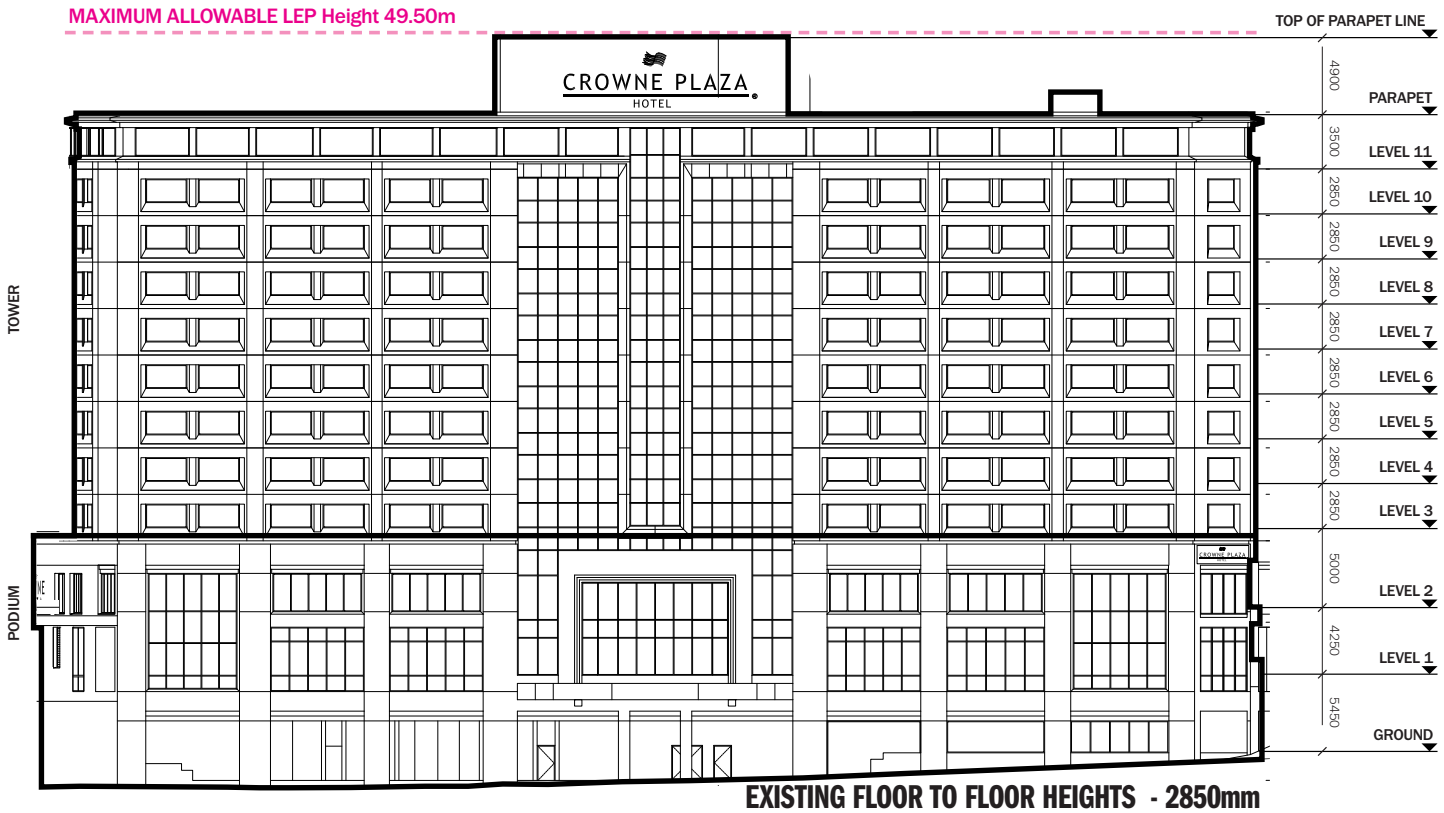
No current DA's or immediate plans for Day St according to Council's Duty Planner and Traffic Operations Team.

Council not currently aware of any major infrastructure below the surface level of Day St.

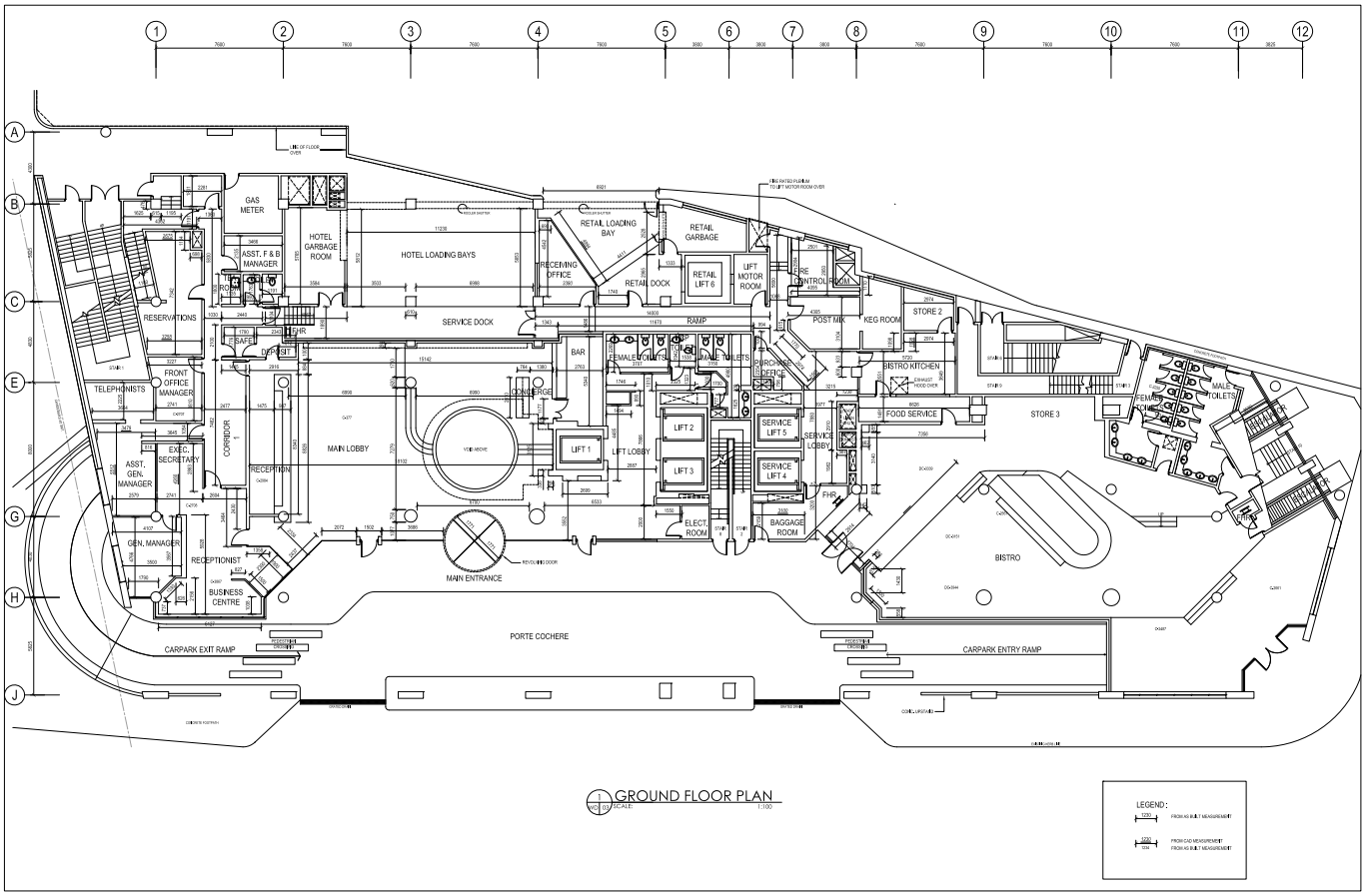
- Existing Site Boundary
- Extended Site Boundary
- AUSGRID
- Storm Water Mtnce Hole
- Storm Water conduit
- Storm water Structures
- OPTUS Cable
- Cross City Tunnel
- Underground Electrical Cable
- Electrical Pit

EXISTING BUILDING OVERVIEW

The existing building height is the maximum allowable under the LEP and therefore restricts investment in the site. The existing structure of the building is built to the site boundary. The existing hotel floor to floors encourage the hotel to preserve its current use in any adaptive reuse scenario.



EXISTING FLOOR TO FLOOR HEIGHTS - 2850mm


GROUND FLOOR PLAN
1:100
LEGEND :
FROM AS-BUILT MEASUREMENT
FROM CAD MEASUREMENT
FROM AS-BUILT MEASUREMENT
CROWNE PLAZA DARLING HARBOUR
SYDNEY
UOL
CROWNE PLAZA
DARLING HARBOUR
SYDNEY

PROJECT VISION

THE ROLE OF THIS SITE IN THE CITY

Location



Gateway To The City

The site occupies a pivotal location as a primary entry point into Sydney. Positioned between Darling Harbour and the CBD, it serves as a critical threshold for visitors and residents arriving from the western approach. Its visibility and strategic placement offer a unique opportunity to define a strong sense of arrival and establish a dynamic presence within Sydney's urban fabric.



Convergence Of Movement

The site is situated within a highly active network of movement, where pedestrian pathways intersect with vehicular routes and public transport systems. Above-ground expressways, below-ground tunnels, and laneways converge here, creating a dynamic flow of activity. This makes the site a crucial connector, capable of uniting fragmented urban links and improving accessibility between key destinations like Tumbalong Park, Darling Harbour, and the city core.



Bridging Characters And Scales

The site uniquely bridges two contrasting urban conditions: the dense, high-energy character of the CBD and the more open, relaxed atmosphere of Darling Harbour. Its transitional position allows it to mediate these scales, creating opportunities to harmonize the fast-paced city environment with the waterfront's leisure-focused identity. This duality offers potential for a design that integrates and celebrates the diverse urban experiences of Sydney.

Challenges



Fragmented Urban Edges

The site is characterised by disconnected edges and underutilised spaces that disrupt its relationship with the surrounding city. These fragmented areas fail to integrate with neighbouring precincts such as Darling Harbour, Tumbalong Park, and the CBD.



Underwhelming Western Arrival Experience

The site forms part of Sydney's western arrival sequence, yet it does not establish a strong or memorable gateway to the city.

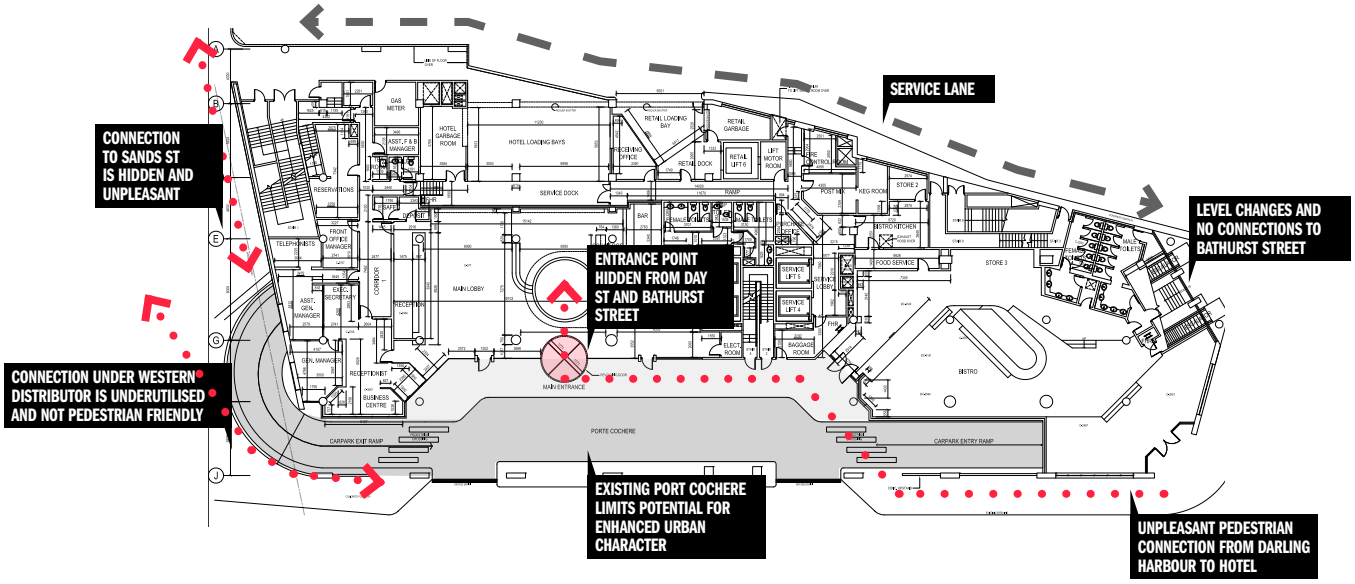
Opportunity



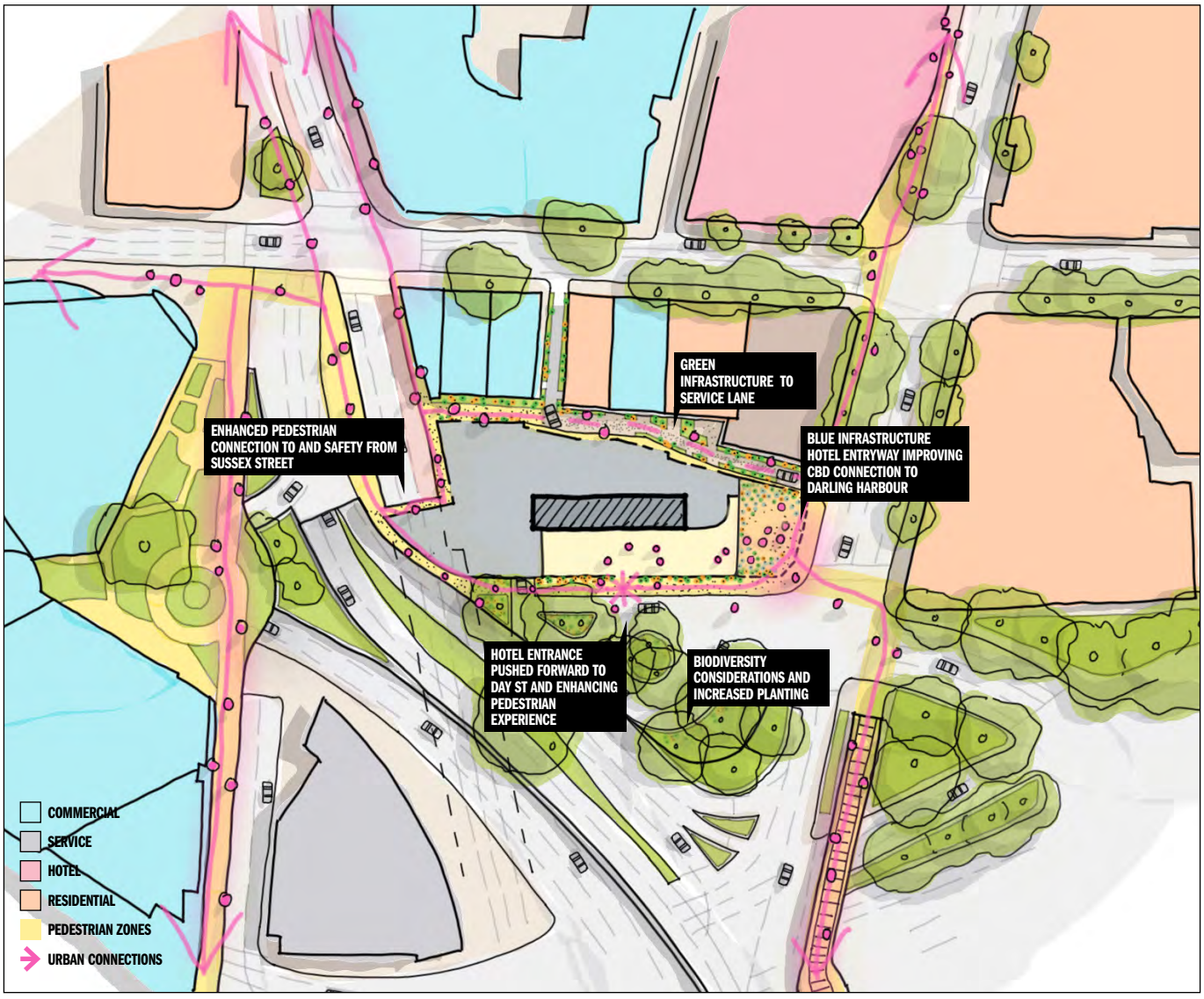
Reconnecting And Activating The Urban Fabric

The site holds the potential to transform into a dynamic hub by linking key urban nodes, enhancing pedestrian and transport flows, and turning underutilised areas into vibrant public spaces that extend Sydney's urban program.

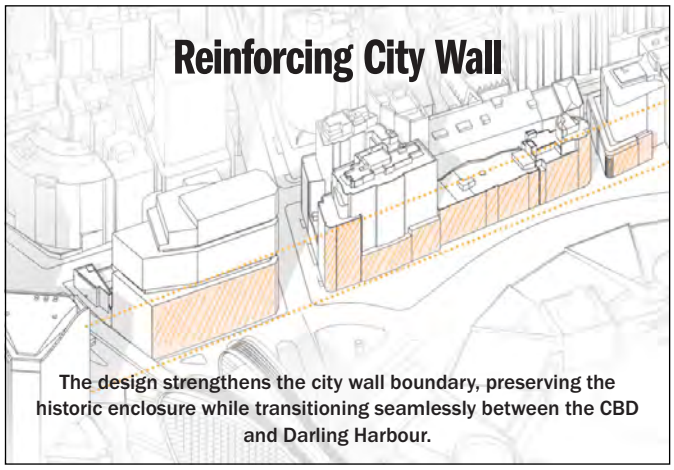
Existing

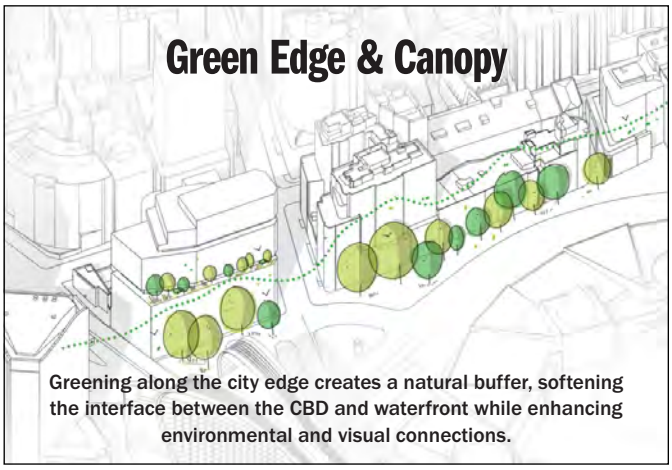


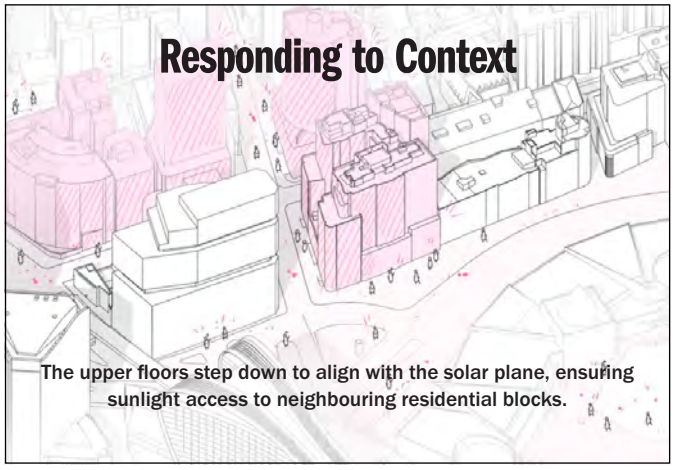
Proposed

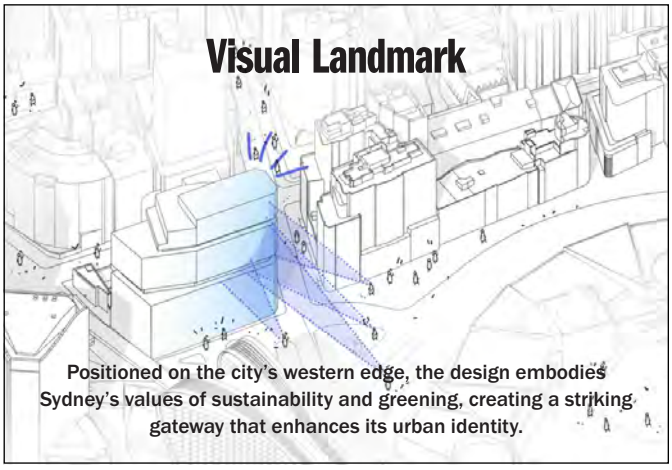


URBAN DESIGN RESPONSE









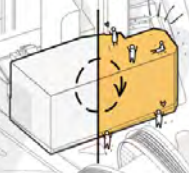
The hotel design thoughtfully integrates into Sydney's urban fabric by addressing key urban challenges and opportunities. Positioned at the intersection of Darling Harbour and the city core, it transforms Day Street into a vibrant connector, linking the CBD to Darling Harbour and Tumbalong Park. The proposal prioritises solar compliance, preserving sunlight access for key public spaces, including the future Town Hall Square, as well as surrounding residential buildings.

Building separation distances are maintained to respect privacy and ensure harmony with the existing urban context.

The hotel's massing maintains its existing setbacks while still protecting and enhancing the urban character at street level. This approach ensures the development remains a good neighbour and supports the western arrival sequence, particularly along Bathurst Street. Fine-grain connections and an engaging street presence activate underutilised spaces, creating a welcoming and dynamic ground plane. By combining public realm improvements with high-quality internal programming, the hotel serves as both a destination and a vital urban link. Its mixed-use approach integrates hospitality, public engagement, and urban activation, contributing to a safe, vibrant, and cohesive cityscape.

MASSING DEVELOPMENT

Existing Hotel Retention



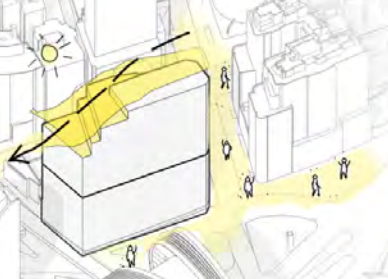
The design retains the existing hotel structure, avoiding demolition to reduce environmental impact and align with sustainable building practices.

Layering Old and New



A transfer structure separates the existing building from the new hotel above, accommodating two distinct brands with a heavier form at the base and a lighter volume above.

Solar Compliance



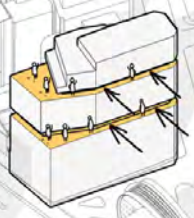
The upper floors step down to align with the solar plane, ensuring sunlight access to town hall.

Reducing Visual Impact



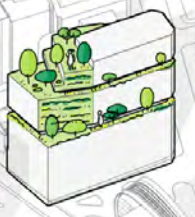
The northern facade opens towards the water, reducing the visual impact of the long western elevation while integrating with the urban context.

Terraced Amenities



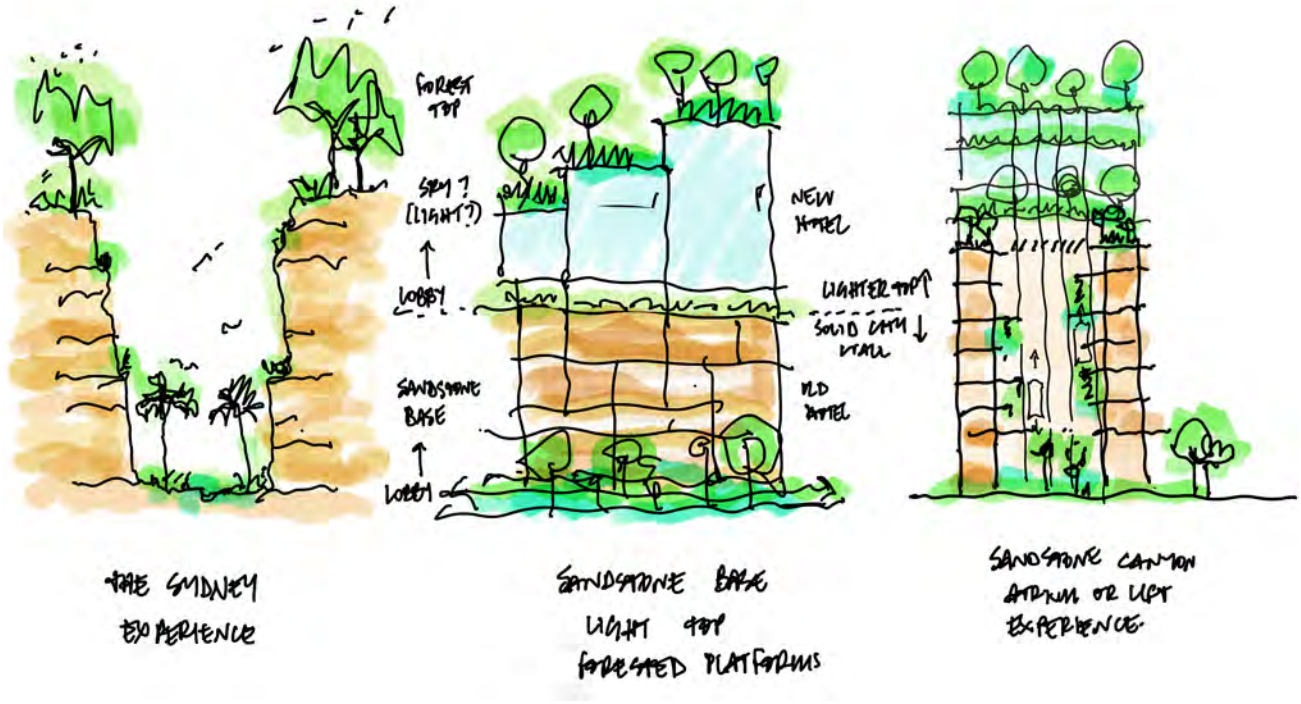
Articulation on amenity floors create green terraces, enhancing urban biodiversity, offering outdoor spaces for guests, and activating the building's profile.

Expressed Green Edges



Extensive greening on the northwest elevation draws inspiration from coastal shrubs, providing natural shading, improving thermal performance, and aligning with the client's commitment to biodiversity.

A CONCEPTUAL DESIGN APPROACH



The proposed hotel re-imagines urban accommodation as a sanctuary amidst the vibrant dynamism of Sydney. The concept draws inspiration from the city's natural heritage, such as sandstone cliffs and coastal shrubs, creating a place that interfaces with the city's flow while offering calm and renewal.

We have adopted a conceptual design approach for this hotel project to create an architectural response that thoughtfully engages with the site's unique conditions, aligns with the client's ambitions and values, and reflects Hassell's core design philosophies. This approach allows us to craft a vision that integrates seamlessly into Sydney's vibrant urban context while addressing key insights from the site analysis.

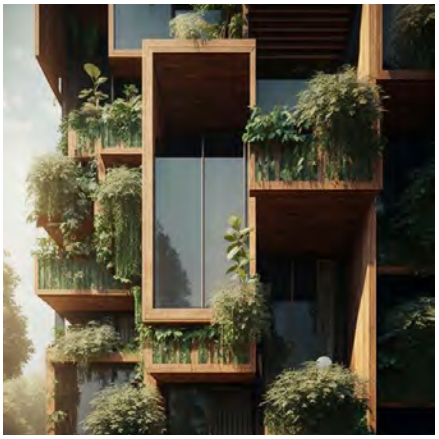
The design is shaped by the specific challenges and opportunities identified on the site, including fragmented urban connections, underutilised spaces, and its pivotal role as a gateway between Darling Harbour, Tumbalong Park, and the city core. By addressing these factors, the concept unlocks thresholds, activates the public realm, and establishes the hotel as a meaningful urban connector.

In parallel, the concept aligns with the client's ambitions by prioritising sustainability, creating vibrant public spaces, and offering a distinctive guest experience rooted in Sydney's identity. Regenerative design strategies, including rooftop ecology, adaptive reuse, and integrated greenery, position the hotel as a forward-looking and environmentally responsible development.

Hassell's design philosophies are reflected in the emphasis on connectivity, inclusivity, and adaptability. The project fosters interaction between public and private realms, celebrates the site's natural and cultural heritage, and creates spaces that are future-ready, ensuring long-term relevance and flexibility.

Unlocking Connections

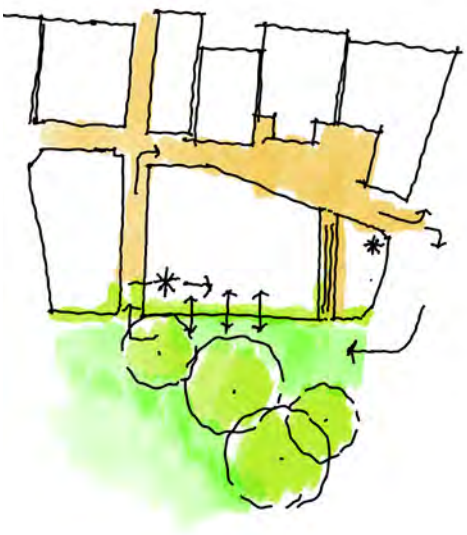
Wrapped in a constant flow of movement—from laneways to expressways—the site transforms underutilised spaces into vibrant thresholds, connecting the city's edges.

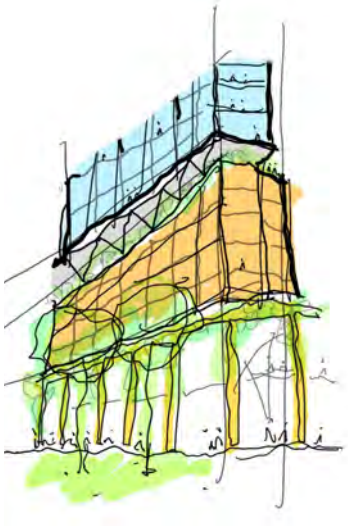


A Sanctuary Above

Elevated above the bustling network, the hotel becomes a cocoon of calm and renewal, inspired by sandstone cliffs offering shelter.







"Where the sky meets the earth, we have life."

– Dr Shane Smithers

Revealing Layers

The design embraces adaptive reuse by exposing and building upon the existing framework, conceptually reflecting the layered strata of sandstone cliffs to create a dialogue between old and new.





BUILDING DESIGN PRINCIPLES

1. Retention On Display

The design celebrates the site's history by retaining and re-purposing key elements of the existing structure. This approach reduces demolition waste, supports a circular economy, and showcases adaptive reuse as a central feature, reflecting the City's commitment to sustainable and culturally sensitive development.

2. Biodiversity

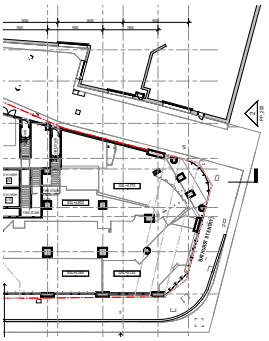
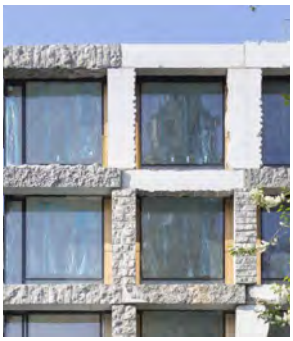
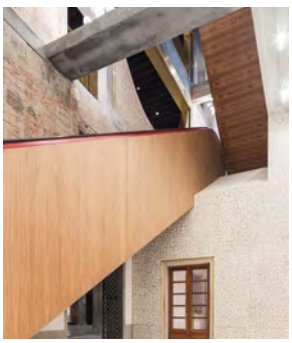
The project incorporates regenerative design principles to actively enhance Sydney's urban environment. By integrating rooftop ecology, carbon capture technologies, and significant greenery, the proposal contributes to urban cooling, biodiversity, and long-term environmental resilience, aligning with the City of Sydney's sustainability goals.

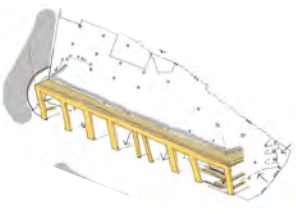
3. Urban Porosity

The proposal prioritises urban porosity to improve connectivity and accessibility. Through activated ground-level spaces, laneways, and safer pedestrian links, the design creates seamless transitions that integrate the site with the surrounding urban fabric, enhancing walkability and fostering vibrant public life.

1. Retention On Display

- Adaptive Reuse of Existing Structures: Retains and showcases key elements of the existing hotel to minimise demolition waste and preserve site heritage.
- Material Transparency: Retained materials and structural elements are prominently showcased as key design features, celebrating the site's history and craftsmanship while emphasising sustainable reuse.
- Integrated Storytelling: The retained features are incorporated as design highlights, emphasising the narrative of transformation and sustainability.

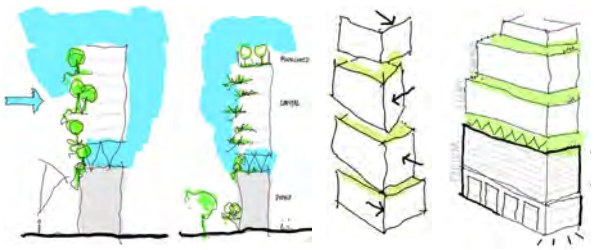




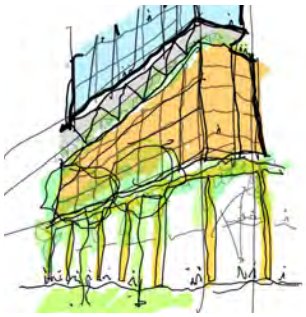



2. Biodiversity

- Rooftop Ecology: Introduces extensive rooftop greenery to enhance urban biodiversity, improve micro climates, and contribute to urban cooling.
- Carbon Reduction Measures: Implements carbon capture systems and sustainable materials to reduce the project's environmental footprint.
- Passive Design Strategies: Incorporates shading, natural ventilation, and energy-efficient systems to optimise building performance and reduce reliance on mechanical systems.







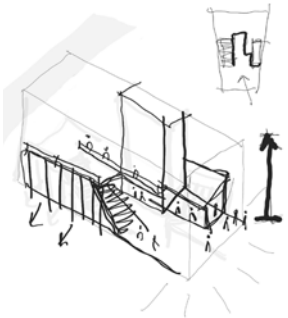


3. Urban Porosity

- Activated Ground Plane: Creates vibrant public spaces with active frontages, fine-grain connections, and open plazas.
- Pedestrian Pathways: Introduces laneways and through-site links that improve connectivity to Darling Harbour, the CBD, and surrounding precincts.
- Seamless Public-Private Transition: Balances open public areas with semi-private zones, encouraging interaction while maintaining functionality.



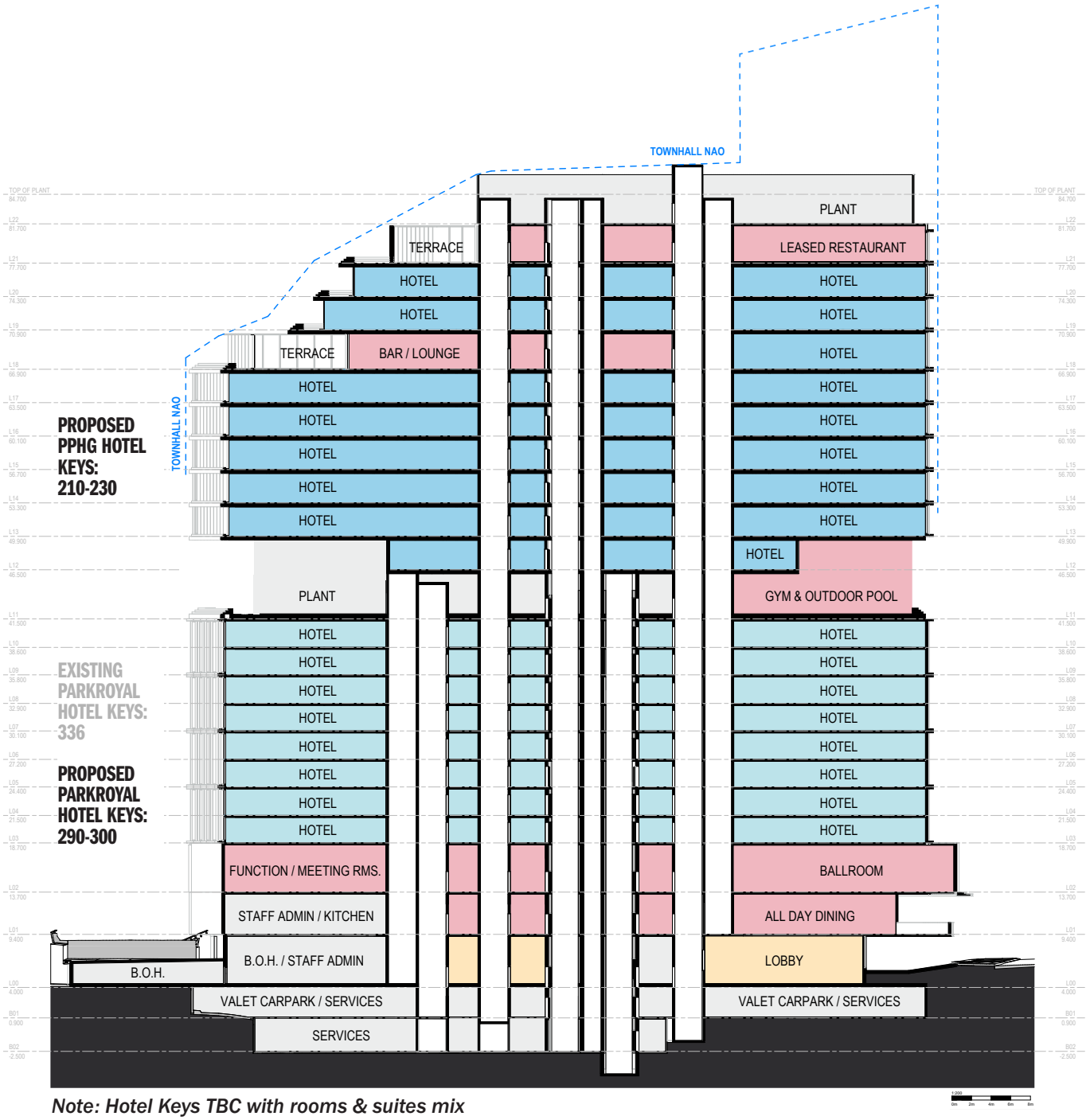




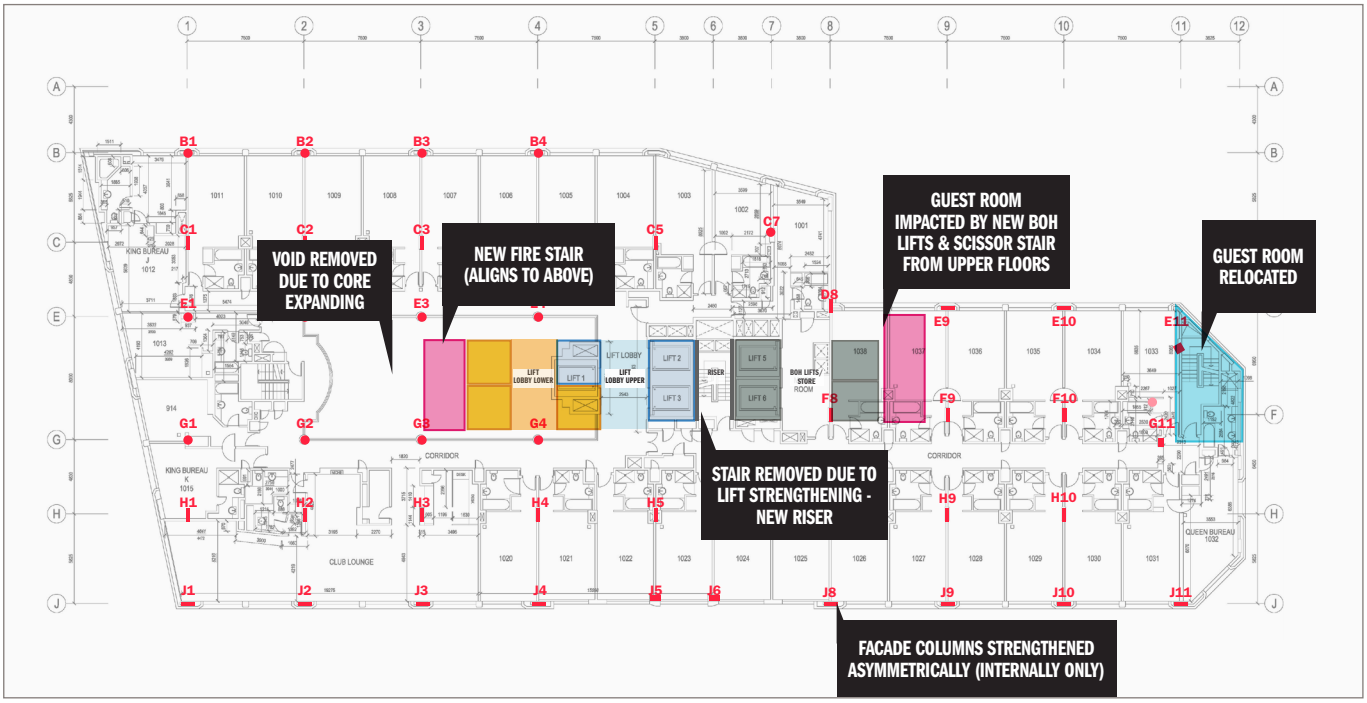




HOTEL SPATIAL BRIEF



Note: Hotel Keys TBC with rooms & suites mix



Existing Hotel Typical Plan

→ A new 5 star hotel offer (Pan Pacific Hotel) is proposed in the new floors above with the lower floors to be maintained for existing PARKROYAL Hotel

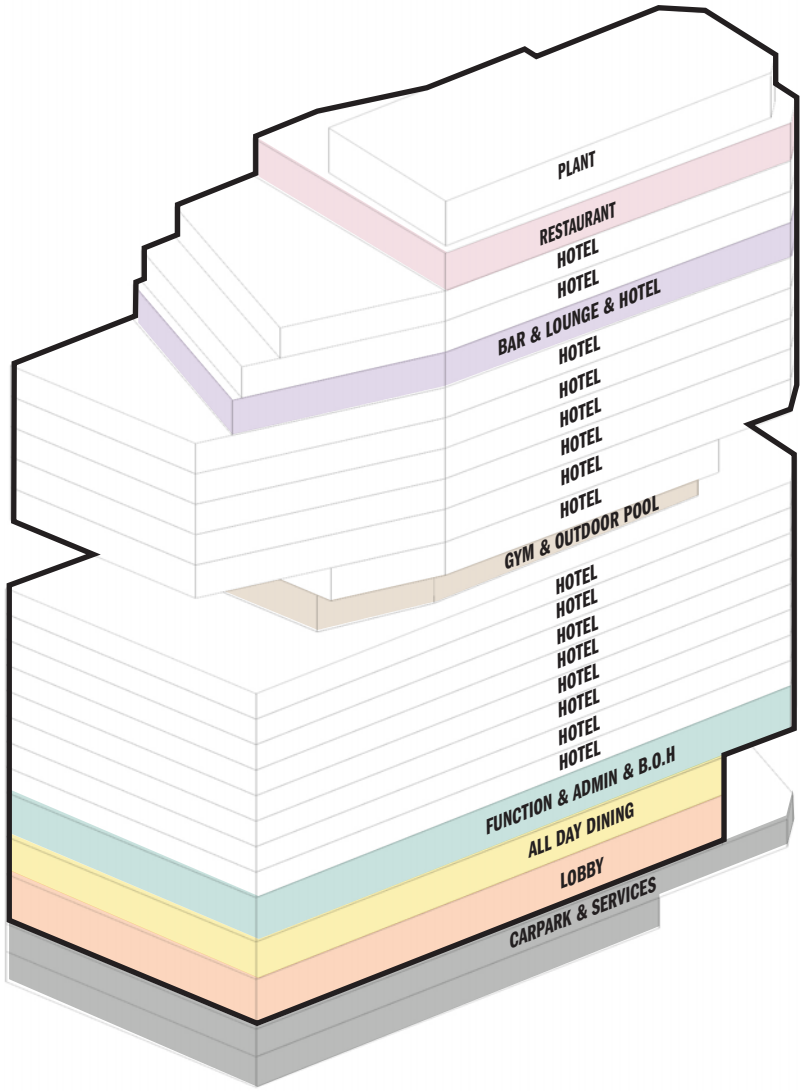
→ Recognising Sydney's role as an international tourism centre - UOL are proposing to deliver a new and exciting concept, to operate individual hotel brands in different parts of the building.

→ The brief looks to retain 300 hotel rooms in the existing PARKROYAL and to develop 210-230 new hotel rooms in a Pan Pacific Hotel proposed on top of the existing building.

→ The proposal brings an expanded lift core down from the new building into the existing building central void, thus minimising the impact to existing hotel rooms and structures.

→ The proposal includes separate guest lift lobbies for each hotel brand, along with two shared BOH lifts serving both brands.

SPATIAL LAYOUT STRATEGY



Level 21 Amenity

→ Restaurants open to the public.

Level 18 Amenity

→ Amenity space for the upper Pan Pacific Hotel.

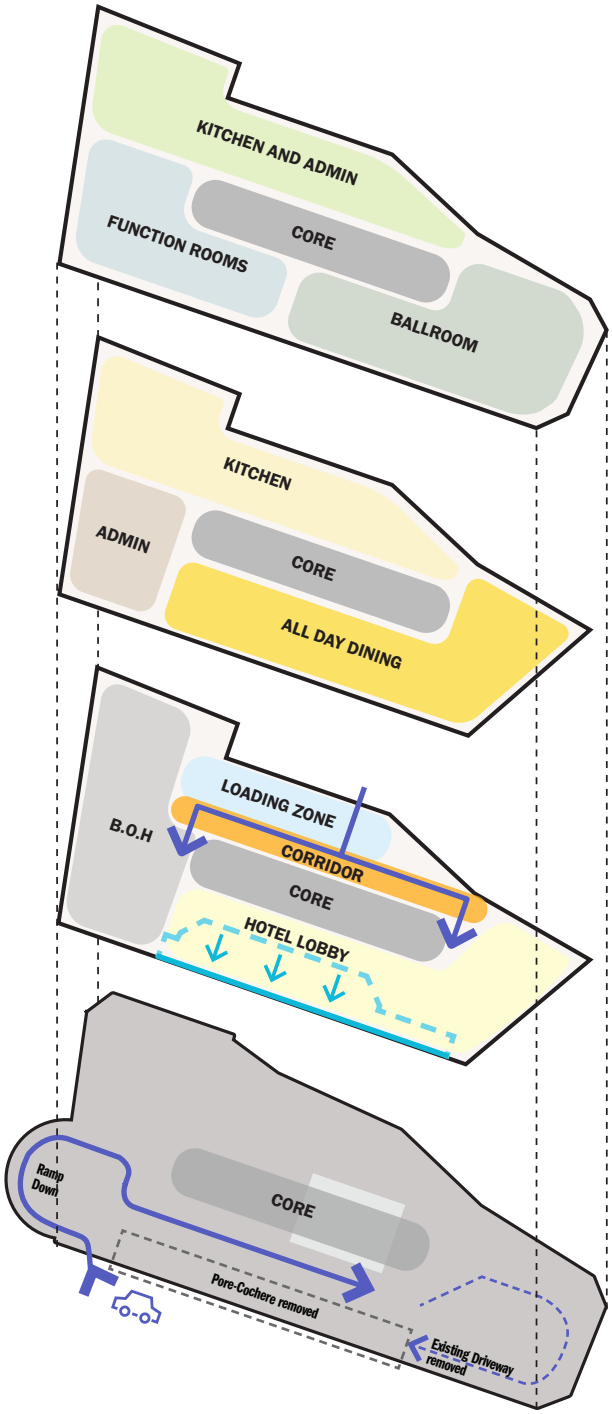
Level 11 Transfer Floor

→ Transfer structural truss enables & gym, pool, plant & significant greening .

Level G-02 Podium

→ Function space for hotel guests and external events.

PODIUM STRATEGY



Second floor - ballroom

→ Ballroom remains on the same location on the second floor.
→ Existing all day dining and kitchen on the second floor are moved to the first floor

First floor - all day dining

→ Existing hotel rooms on the first floor are replaced with all day dining
→ Existing meeting rooms on the first floor are replaced with kitchen

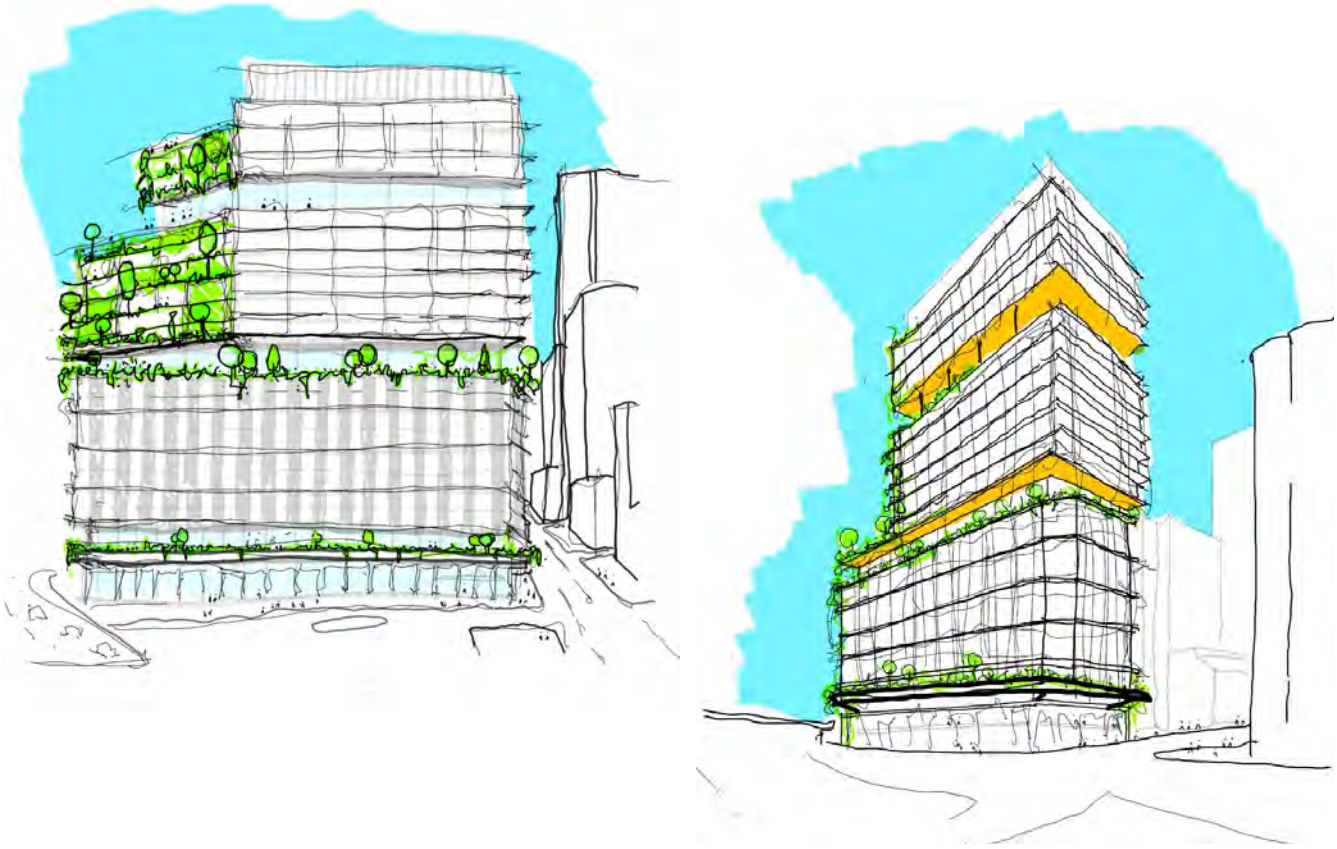
A reinvigorated ground plane

→ Removing the porte cochere to increase active frontage
→ Opening up the sands/bathurst elevation towards the city
→ Core upgraded with all new lifting and new fire stairs
→ Only structure will be retained in the podium and all other hotel elements will need to be re-planned around strengthening works.

Basement - carpark

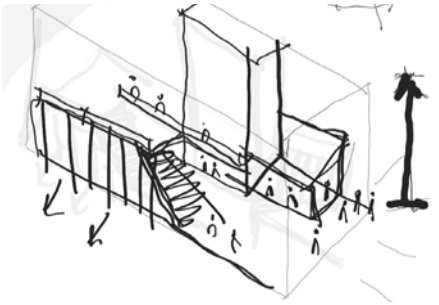
→ Remove entry ramp to maximise active frontage at day street
→ Additional plant for the new hotel will be placed in the existing basement

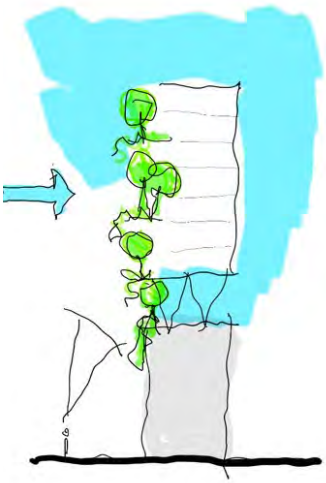
REALISING THE VISION

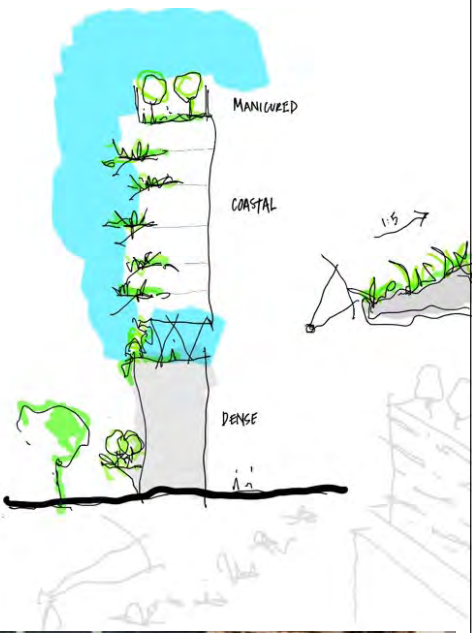


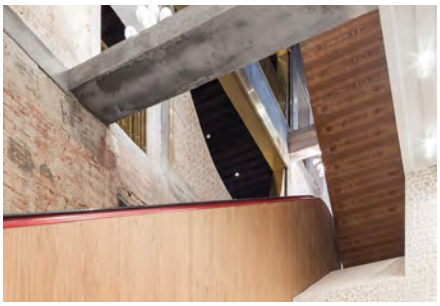
The design breathes new life into the existing PARKROYAL Hotel while introducing a new hotel brand above. The form is designed to ensure the hotel remains a good neighbour. The northwestern setback evokes Sydney's windswept coastal landscapes, while the southern portion serves as an iconic marker, defining the city's gateway and bridging the densities of the CBD and Darling Harbour.








MANICURED
COASTAL
1:5
DENSE



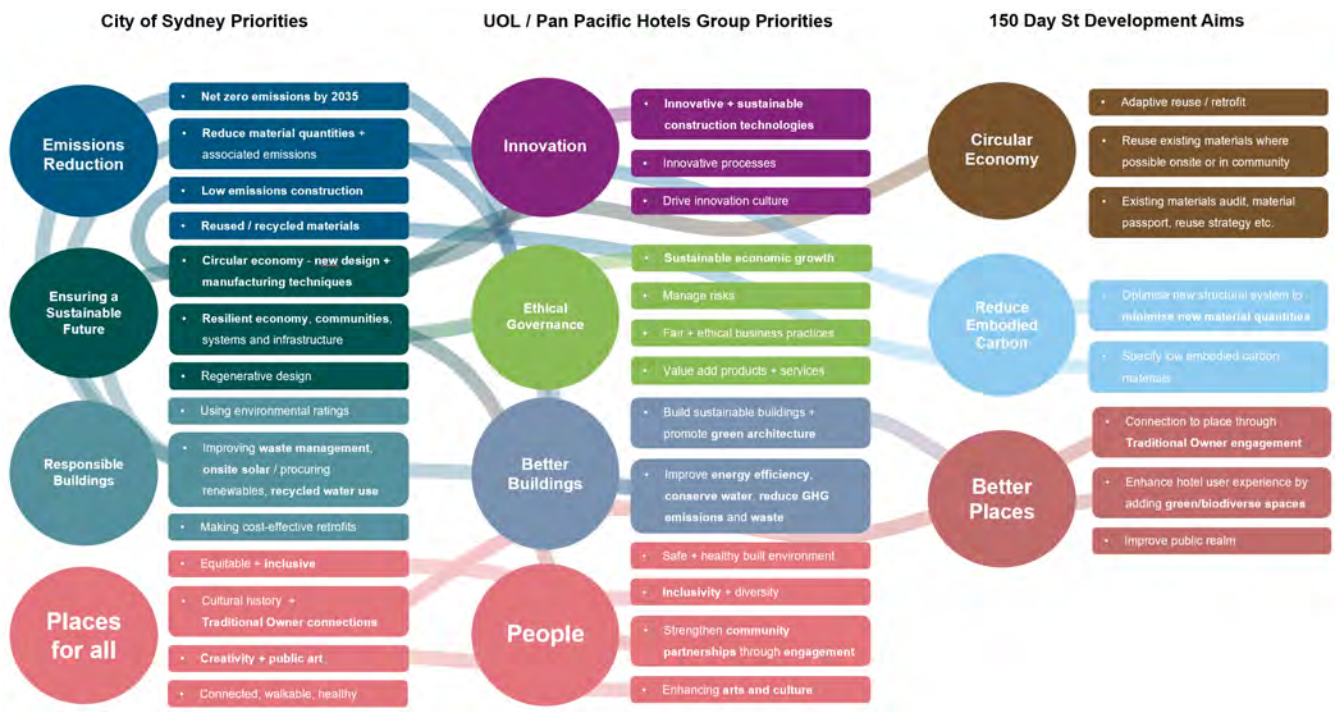








BUILDING ON ESD AS THE DRIVING FORCE FOR DESIGN



Source: Atelier Ten

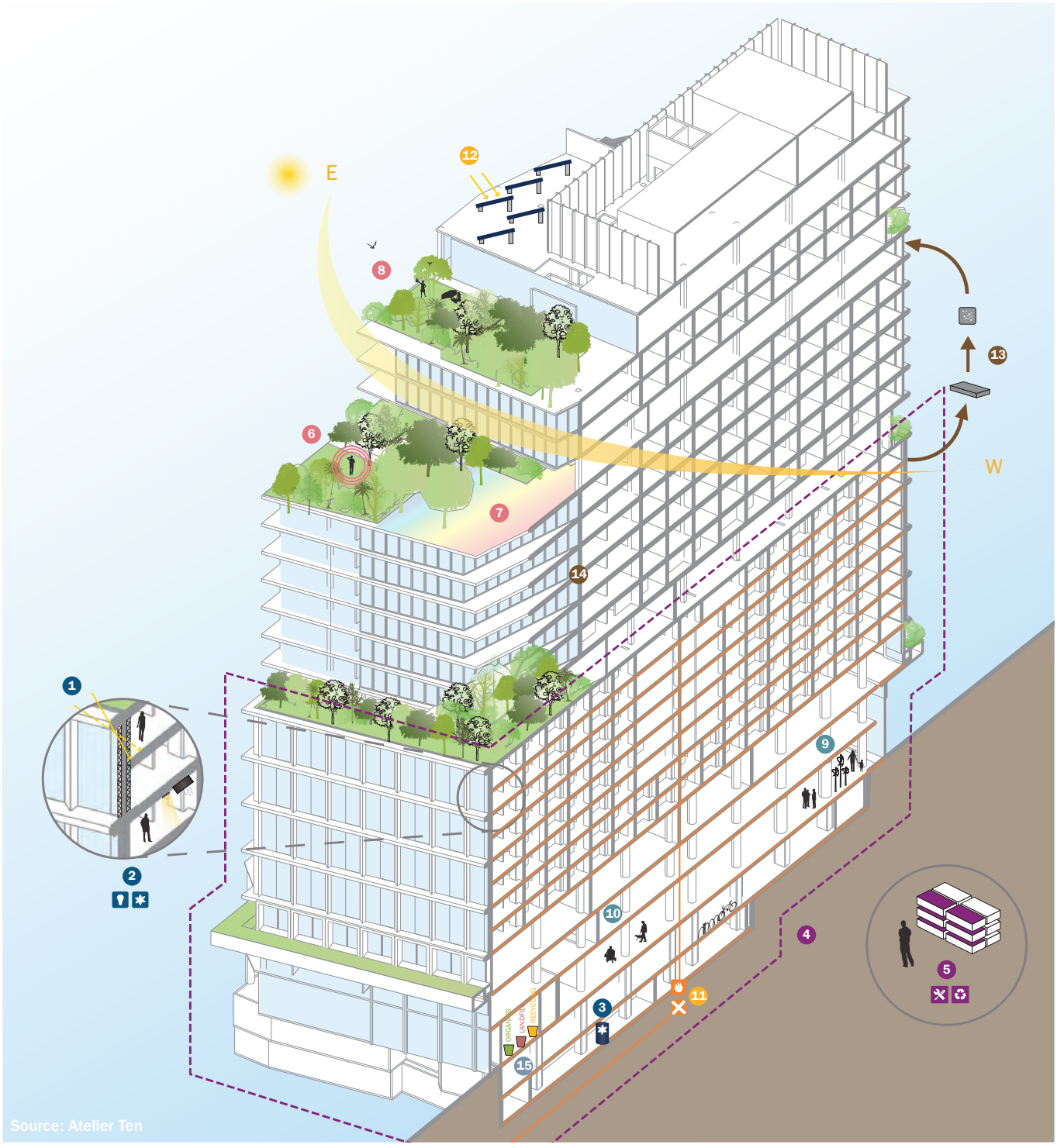
The project's Sustainability Strategy is to exceed the City of Sydney's ESD requirements and focus additional efforts towards aspirations in the project Sustainability Vision such as maximising adaptive reuse, reducing embodied carbon, and creating better places. In this way, the ESD requirements underpin the project's design brief and massing design approach. Existing systems have been audited and integrated into any hotel briefing requests.

Attachment A2

Urban design report - Part 2

Key:

1. Improve facade performance
2. Provide controls for lighting & air-conditioning
3. Choose high performance chillers
4. Pioneer the retention and adaptive reuse of existing hotel buildings in Sydney
5. Adopt leading circular economy strategies
6. Connect place and Country
7. Mitigate urban heat island effect
8. Design rooftop & ground to connect to nature
9. Strengthen community & art culture through public art
10. Project is to be inclusive to a diverse range of people with different needs
11. Remove existing gas connections
12. Maximise on-site renewable energy
13. Specify low carbon materials
14. Target a zero waste landfill approach
15. Improve waste management



Source: Atelier Ten

ADAPTIVE REUSE APPROACH

SERVICES RETENTION METHODOLOGY

150 DAY STREET SERVICES ASSESSMENT



Asset	Service	Recommendations
Hydrant Water Storage Tank	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Booster Assembly	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Hydrant Pumps	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Hydrant landing Valves	Wet Fire	Relocate within fire egress stairs on each level within building. Alternatively, develop a performance solution to address maintaining the current hydrant locations outside the fire stairs.
Sprinkler Water Storage Tank	Wet Fire	Survey effective capacity of the existing sprinkler tank to confirm size.
Range Pipes	Wet Fire	Replace to meet latest NCC Standards
Fire Sprinkler Pumps	Wet Fire	Replace to meet new increased demand
Fire Hose Reel	Wet Fire	Replaced existing fire hose reels with new fire hose reels that incorporate a 36m hose. Develop a performance solution to remove all hose reels from all Class 5 areas of the building.
Dry Fire Cabling	Dry Fire	Replace to meet latest NCC Standards
Smoke Detectors	Dry Fire	Replace to meet latest NCC Standards
Fire Indicator Panel	Dry Fire	Replace with newer model
Fire Functional Control Panel	Dry Fire	Replace with newer model
EWIS Cabling	EWIS	Replace to meet latest NCC Standards
EWIS Speakers, Phones	EWIS	Replace to meet latest NCC Standards
Guest Lift 1,2.3	Vertical Transportation	Maintain usage for future scheme. Adequate design life until 2033.
Service Lift 4,5	Vertical Transportation	Complete replacement of these lifts with larger lift cars to suit the latest architectural scheme

Embodied Carbon.

Assessing the embodied carbon of implementing new services versus the operational carbon of retaining inefficient existing systems was a critical consideration for the project. This evaluation was underpinned by a full audit of existing services. As per the MEP consultant advice, it was proposed that all services were at the end of their life and required upgrading.

Electrification.

In this comprehensive audit by LCI,it was identified that many building services at the PARKROYAL Hotel are nearing the end of their life. This situation presents an opportunity to upgrade these systems to full electrification, eliminating reliance on gas and aligning the project with the City of Sydney's sustainability targets.

Co-location.

By co-locating the PARKROYAL and the proposed Pan Pacific hotels on a single site, the project enables shared systems for services, leading to significant operational efficiencies.

STRUCTURES RETENTION METHODOLOGY

150 DAY STREET SERVICES ASSESSMENT

1

EXTENT OF RETENTION OF EXISTING FABRIC

2

IMPACT OF STRENGTHENING & STRUCTURAL APPROACH

3

FACADE DESIGN

Extent of retention of existing fabric.

A thorough investigation of existing conditions, through site visits, drawings and a detailed 3D survey, revealed that significant strengthening works are necessary to accommodate the additional height being added to the building.

Impact of strengthening & structural approach.

To accommodate increased building height, structural elements require strengthening, including a typical jacketing approach for columns and enlarged pad footings extending above the finished floor level. Extensive work on non-typical floors necessitates a "strip to structure" strategy. However existing hotel rooms will remain unaffected as strengthening works will be within existing wall build-ups.

Facade design.

Following an audit that identified acoustic and thermal deficiencies in the existing façade's glazing, the project team has proposed to replace it with a new lightweight system. This solution not only addresses noise and heat gain issues, thereby reducing HVAC-related carbon emissions, but also aligns the building with NCC 2025 standards by enhancing thermal and acoustic performance and decreasing structural load.

EXTENT OF RETENTION OF EXISTING FABRIC



The existing structure must be strengthened in order to increase the height of the building and support additional loads.

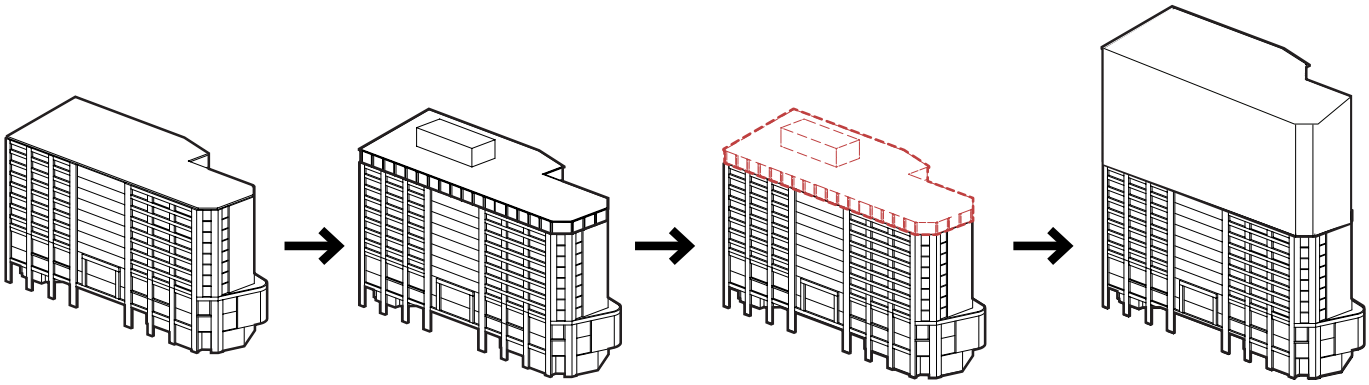
Structural strengthening compromises spatial efficiencies as it reduces internal area around existing columns and footings.

A comprehensive audit of the existing building, coupled with a detailed 3D survey, offered the design and coordination team an in-depth understanding of the current conditions.

The involvement of the original structural engineer from the 1988 project added significant value, as their extensive knowledge and familiarity with the building's design ensured the production of all necessary documentation. This facilitated a precise evaluation of the structural elements and aided in making informed decisions for the project's development.

While the concrete frame remains in good condition, the addition of height to the existing building necessitates strengthening works to support the increased load. However, the strengthening works can compromise existing spatial layouts.

The design team conducted an in-depth analysis of the strengthening works implications, continuously evaluating them against the baseline case of maximising retention. This approach ensures that the upgrade works integrated into the design intentionally.



1988 Original construction.

10 storey, concrete frame building is constructed with concrete roof

1996 Upgrades to existing.

Steel roof added onto existing concrete roof to make Level 11 a habitable space

Columns at capacity once addition was constructed (100% loaded)

Footings at 80% capacity after addition

No additional floors can be added to existing 11 storeys

Columns and/or footings will need to be strengthened in any development scenario

Original core structure is not designed to modern earthquake provisions - even without increasing lift shaft heights, the core must be strengthened.

Proposal: Structural platform introduced.

Demolish Level 11 Steel roof structure in order to create a concrete platform for additional levels to be added

Proposal: Strengthened columns & footings.

Multiple additional levels

Column strengthening required

Footing strengthening required

Existing basement program compromised for footing expansions (parking and MEP area)

If existing building massing is doubled, footing volume doubles

2850mm Floor-to-floor in the existing building restricts the opportunities for adaptation from a Hotel function

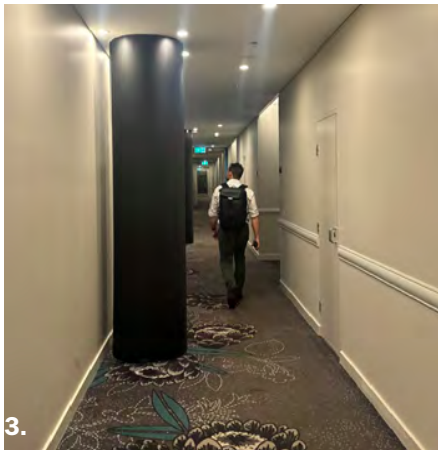
IMPACT OF STRENGTHENING

Columns

Both columns and footings of the existing building require strengthening to accommodate an increase in height. Typically, a "jacketing approach" is applied, encasing all sides of a column to support additional loads. However, variations occur in specific scenarios.



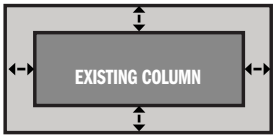




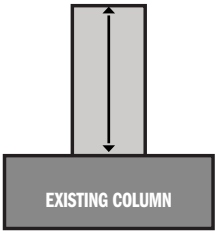


Images:

1. Columns on site boundary (Hassell)
2. Columns on site boundary (Hassell)
3. Columns impacting circulation (Hassell)
4. Columns impacting carpark (Hassell)







1. Typical jacketing approach.

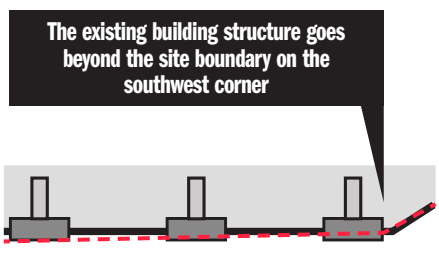
The method of encasing all sides of a column is unsuitable for certain scenarios, such as columns against the site boundary on façades, within hotel rooms, or in unique situations where full encasement is impractical. On non-typical hotel floors, this approach can compromise spatial layouts, thus supporting a "strip to structure" approach where new layouts are proposed that work with the larger columns.

2. Columns between hotel rooms.

Where columns are located between hotel rooms, they can be extended in two directions within the party wall. This approach conceals the structural upgrade, minimising impact on existing rooms and supports the consideration for maximum retention of existing fabric.

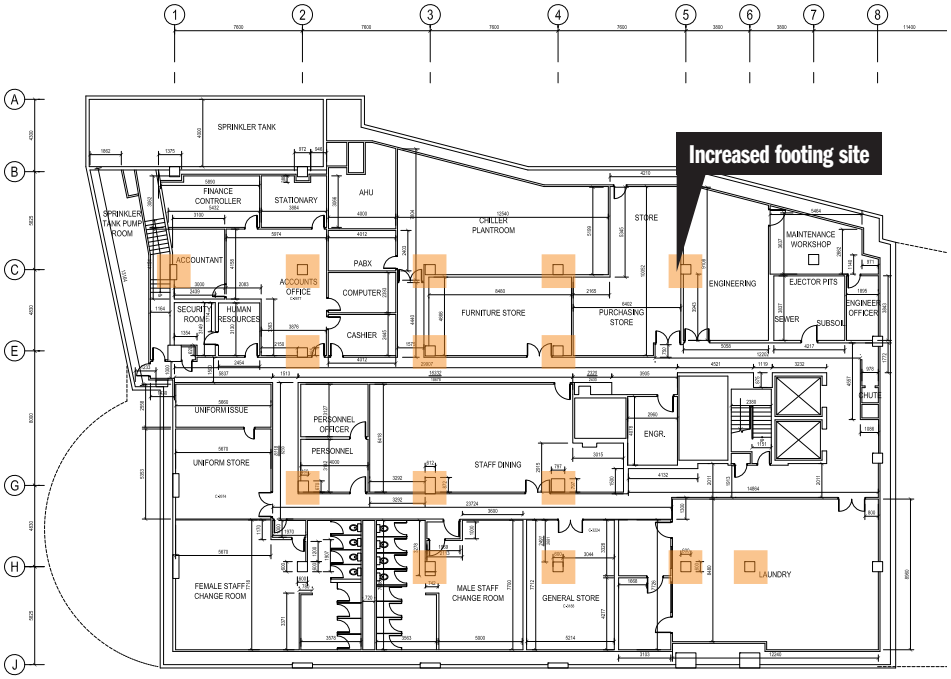
3. Facade columns.

For columns adjacent to the facade, they can be expanded in a "T" shape inward within the boundary. This expansion also remains concealed within the party wall of hotel rooms, preserving the wall thickness of hotel rooms, minimising impact & supporting maximum retention.

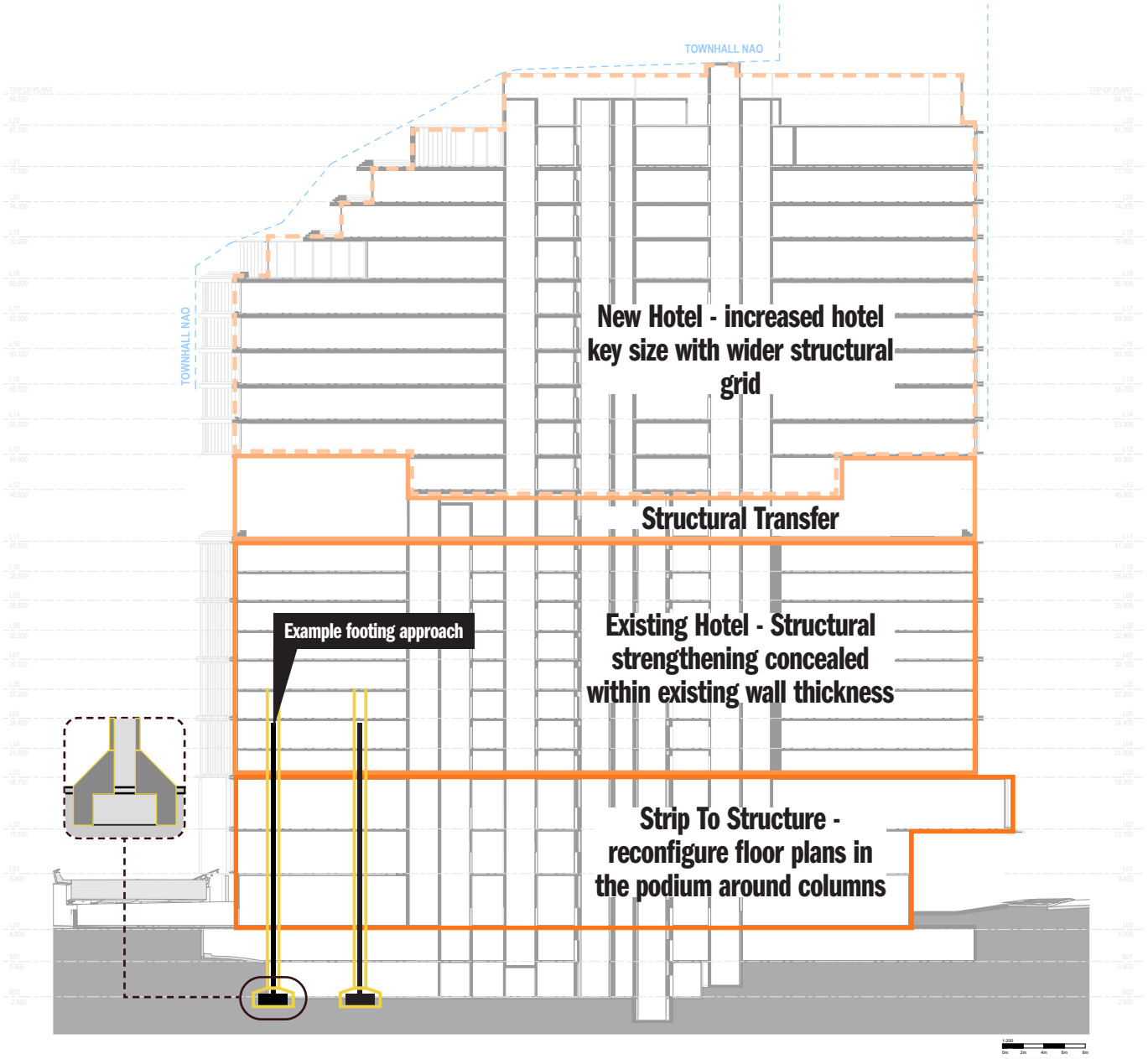


IMPACT OF STRENGTHENING

Footings

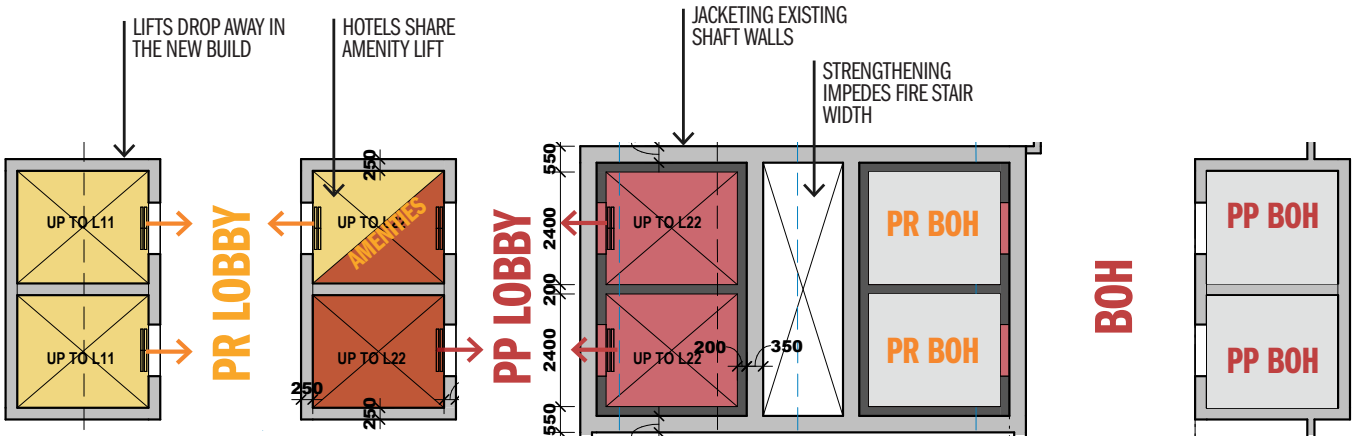


Extensive investigation and structural consultant advice has determined that the existing pad footings need strengthening to support the increased building height. This involves enlarging the pad footings, which will now extend above the finished floor level, affecting the spatial layout of the basement. These changes underscore the necessity for a "strip to structure" approach (in the podium only) and a comprehensive re-planning of the affected zones to maintain functionality and design integrity.


TOWNHALL NAO
TOWNHALL NAO
New Hotel - increased hotel key size with wider structural grid
Structural Transfer
Existing Hotel - Structural strengthening concealed within existing wall thickness
Strip To Structure - reconfigure floor plans in the podium around columns
Example footing approach

IMPACT OF STRENGTHENING

Core



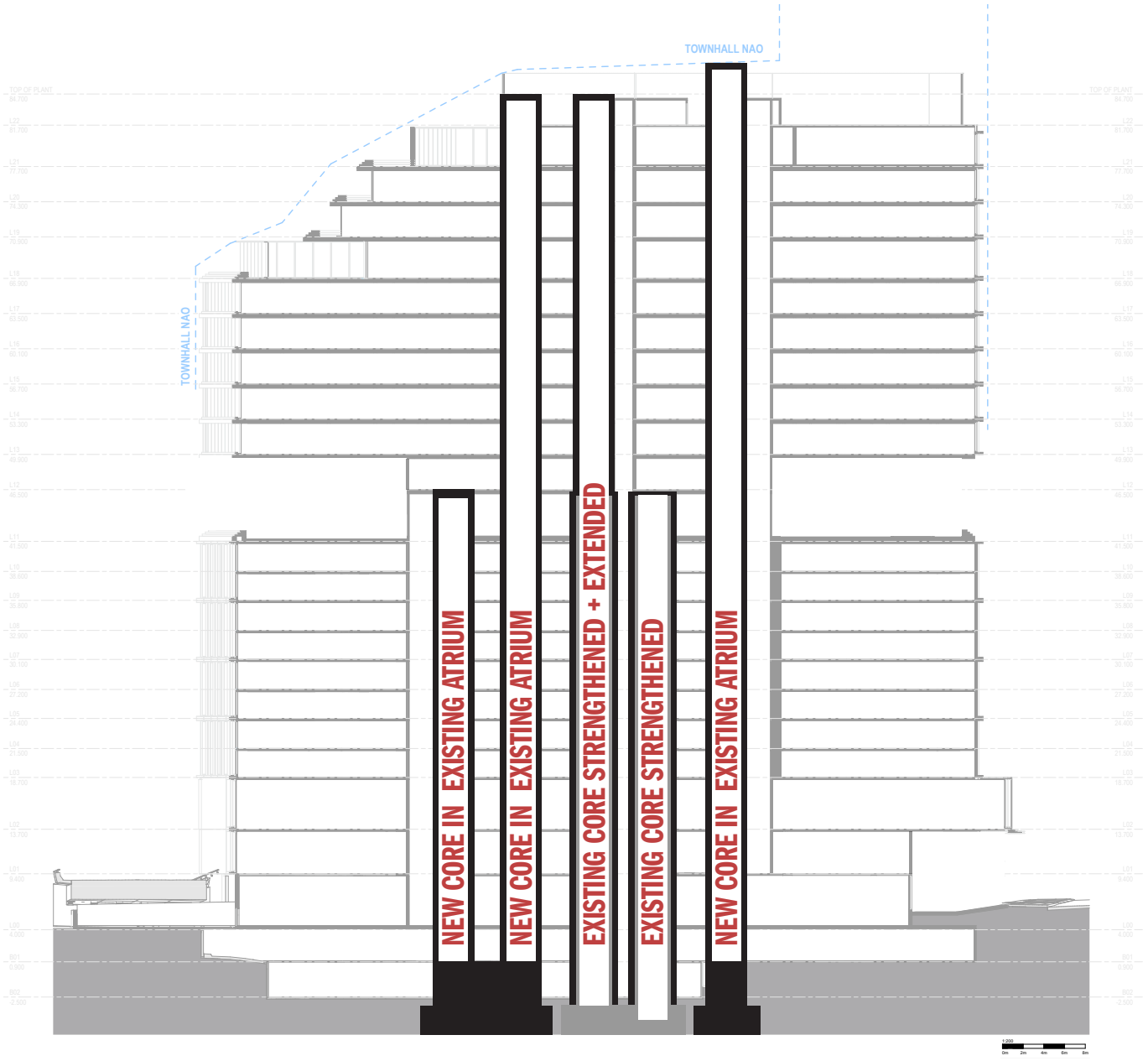
Even without an additional height increase, the existing core requires strengthening to bring the concrete into compliance with the current earthquake code.

In determining how to structurally support the building's increased load, the approach to the lift core proved critical, given its role in accommodating both the structural demands and the increased population of the new hotel above. Initially, a complete demolition and reconstruction of the existing core was considered to optimise the new layout. However, this was dismissed due to its misalignment with the project's sustainability ambitions, as it would result in excessive embodied carbon and complex construction processes.

Services consultant evaluations indicated that the existing core could be upgraded to support new lift systems, consequently reducing operational carbon emissions.

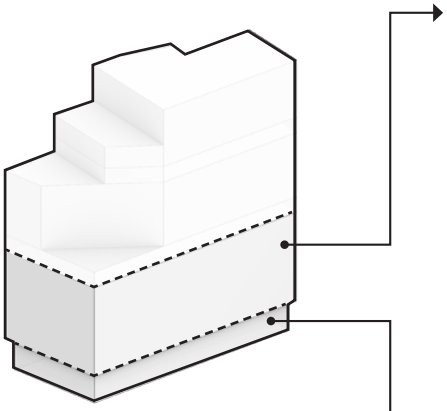
Structurally, it was advised to employ a "jacketing" reinforcement approach, similar to the strengthening works of the columns. Even without additional height, this strengthening was necessary to comply with current earthquake codes. This enhancement also enabled the existing core to be extended vertically into the new build. However, this "jacketing" approach affected the width of the existing fire stairs, necessitating their conversion into a riser zone. As a result, the fire stair has been relocated, enabling an upgrade to meet the NCC 2025 standards.

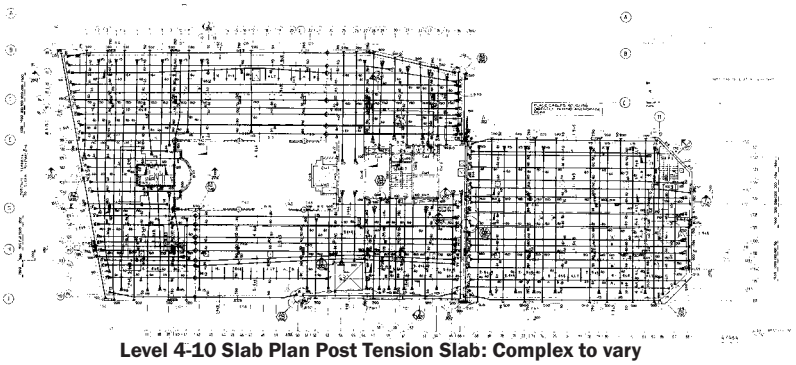
For the additional lifts required, the existing atrium void has been utilised, minimising impact on the current structure and underscoring the project's commitment to retention and sustainability.


TOWNHALL NAO
TOWNHALL NAO
NEW CORE IN EXISTING ATRIUM
NEW CORE IN EXISTING ATRIUM
EXISTING CORE STRENGTHENED + EXTENDED
EXISTING CORE STRENGTHENED
NEW CORE IN EXISTING ATRIUM

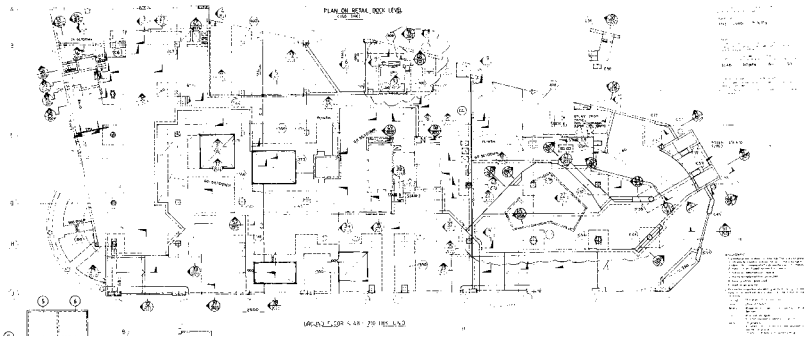
STRUCTURAL APPROACH

Exploration of Systems & Materials





Level 4-10 Slab Plan Post Tension Slab: Complex to vary

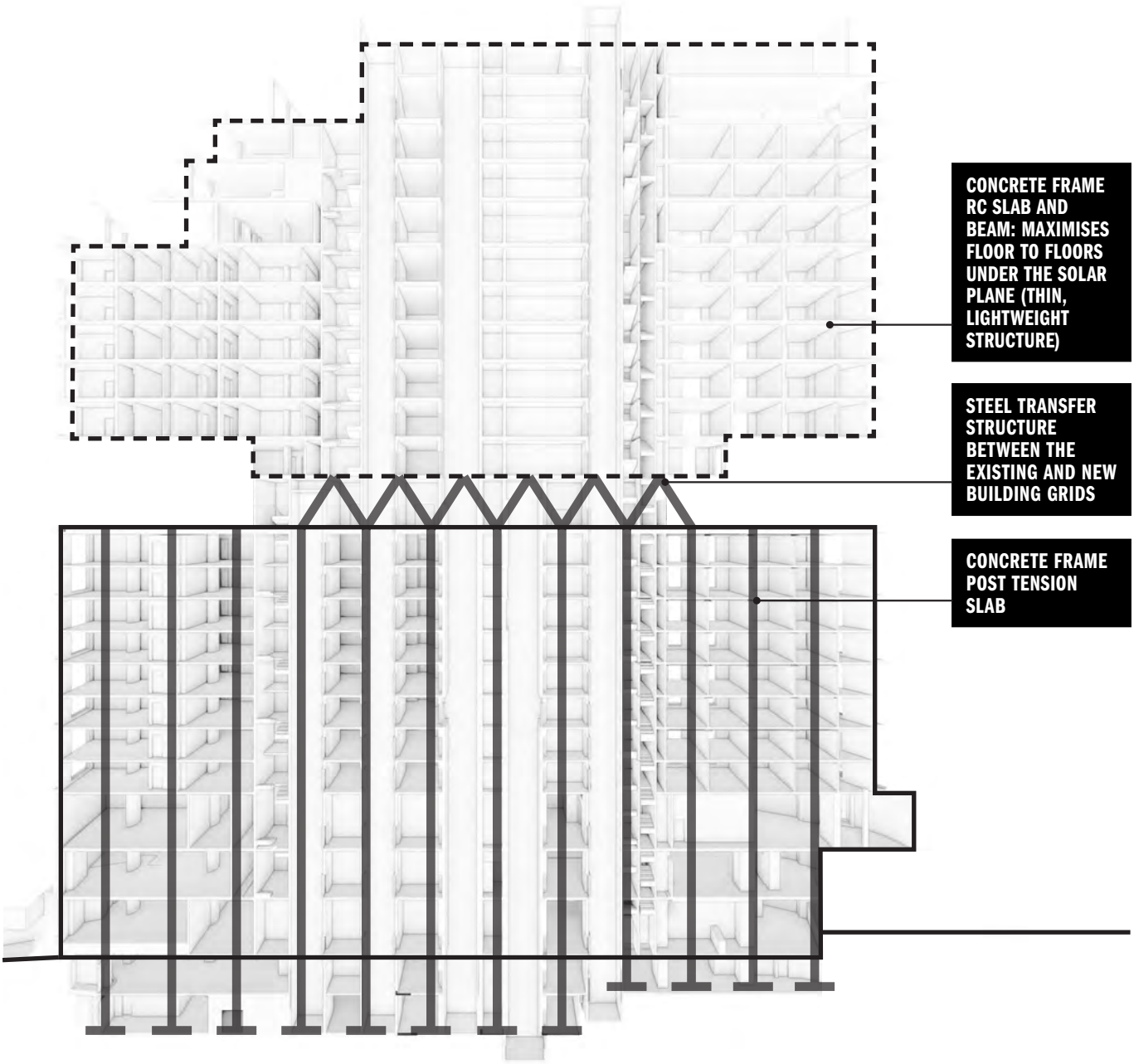


Ground Floor Slab Plan (Reinforced Concrete Slab)

By preserving existing structures where applicable, this project creates a distinctive hotel arrival experience that showcases maximum retention.

Through an in-depth investigation of the existing materials and structural systems, it was found that Levels B01 to L02 are constructed using a traditional reinforced concrete slab, while the typical hotel floors from L03 to L10 use a post-tension slab and concrete frame. Structural advice indicates that post-tension slabs are more challenging to demolish and rebuild due to the numerous tendons embedded within them. As a result, the design team has developed interventions that respect these existing building conditions, opting for maximum intervention on the podium levels.

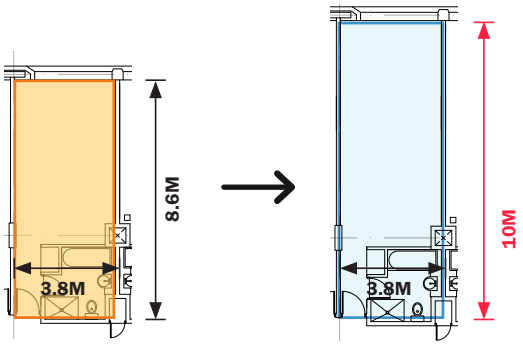
Guided by the structural consultant advice, the design team evaluated various structural systems to meet the project's sustainability goals and functional requirements. A primary objective was ensuring the massing appeared light atop the existing structure, optimising the structural integrity below and reducing embodied carbon. The post-tensioned flat plate system was selected for its ability to use less reinforcement, with thinner slabs and smaller columns, thereby minimising embodied carbon.

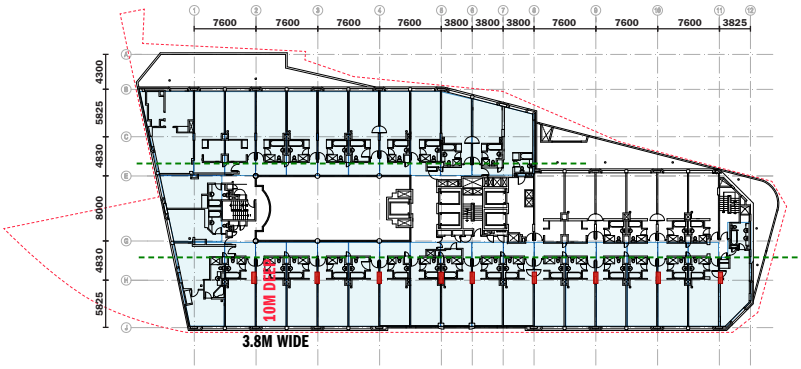

CONCRETE FRAME RC SLAB AND BEAM: MAXIMISES FLOOR TO FLOORS UNDER THE SOLAR PLANE (THIN, LIGHTWEIGHT STRUCTURE)
STEEL TRANSFER STRUCTURE BETWEEN THE EXISTING AND NEW BUILDING GRIDS
CONCRETE FRAME POST TENSION SLAB

STRUCTURAL APPROACH

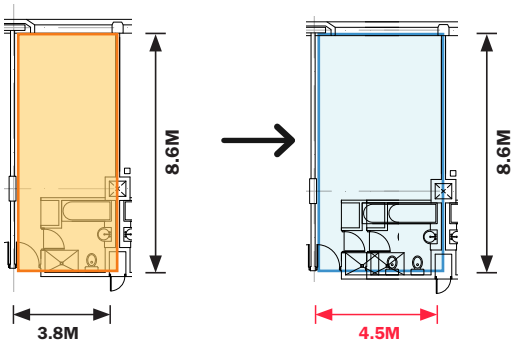
Transfer Structure

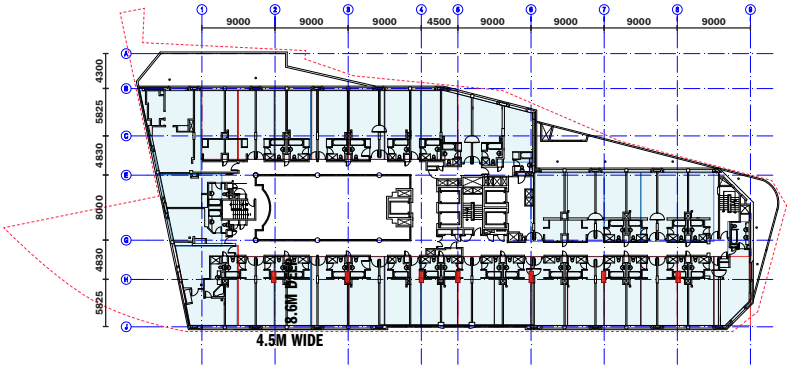
DISCOUNTED - NO TRANSFER





FINAL OPTION - TRANSFER





Structure is driven by the project's functional requirements. Increased contemporary hotel room area standards has prompted a re-evaluation of existing structural grids that dictate hotel room sizes.

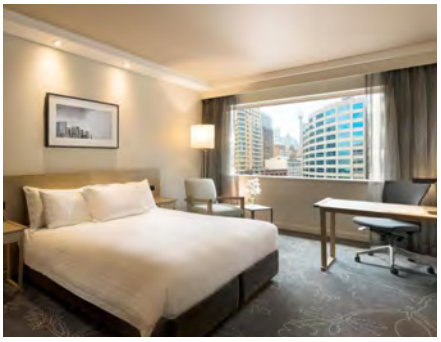
In order to achieve increased room sizes in the new 5-star hotel product (PPHG), two structural options were considered: Extend the existing grid up through the new massing or Implement a transfer floor where a new grid can be created to optimise hotel room sizes.

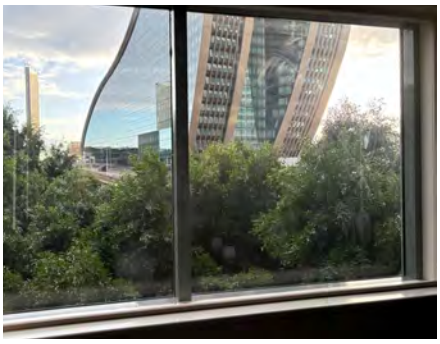
Option 1: Without a transfer structure, extending the existing structure upwards results in a room layout where the new 38 sqm room is aligned with the current structural grid. This alignment leads to rooms that are too deep, making this approach unsuitable for continuing the current structure upwards.

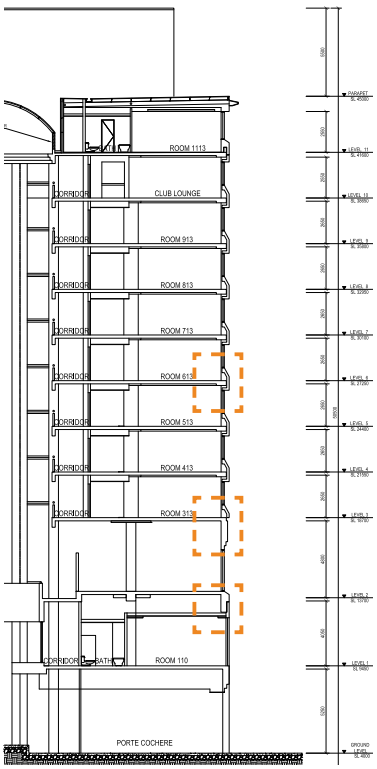
Option 2: This plan proposes a new structural grid for the upper hotel levels, creating a 38 sqm room with a wider frontage and a shallower layout. This is achieved through a transfer structure at Level 11 which enables the loads from the upper grid to be supported. This configuration aligns better with the desired room proportions, offering a more functional design for the hotel's upscale offering. Additionally, this approach supports the project brief of maximum retention whereby the existing hotel rooms can undergo a finishes upgrade only with minimal upgrades to structures.

FACADE DESIGN

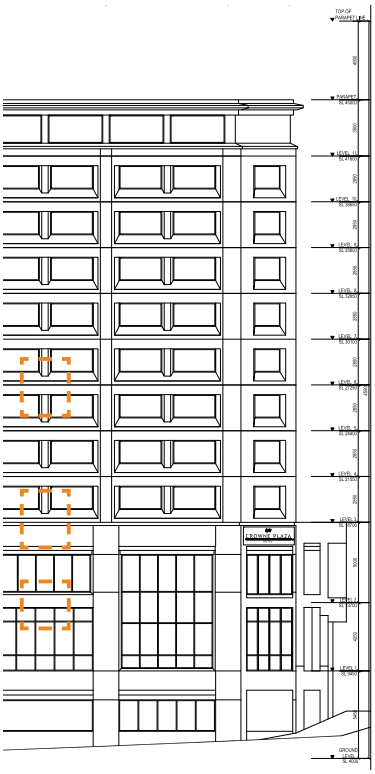








EXISTING HOTEL SECTION



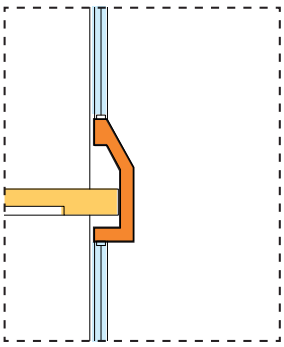
EXISTING HOTEL ELEVATION

→ The existing window openings are integrated into the precast cladding.

→ Windows have required a secondary internal layer to address sound and heat issues in the existing building.

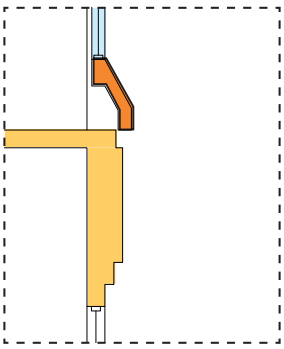
→ Proposing a new facade with increased environmental performance and reduced operational energy, whilst re-using precast material in different ways on site.

Level 4 - Level 10
Precast Facade Cladding



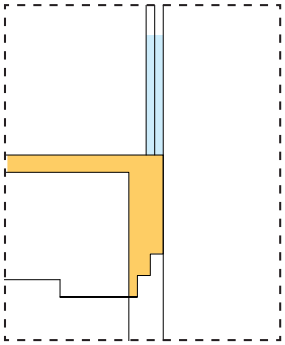
TYPICAL HOTEL

Level 3
Precast Facade Cladding



HOTEL MEETS PODIUM

Level 1
Cast in Place



PODIUM

Pre-Cast Cladding
Concrete Structure
Glazing

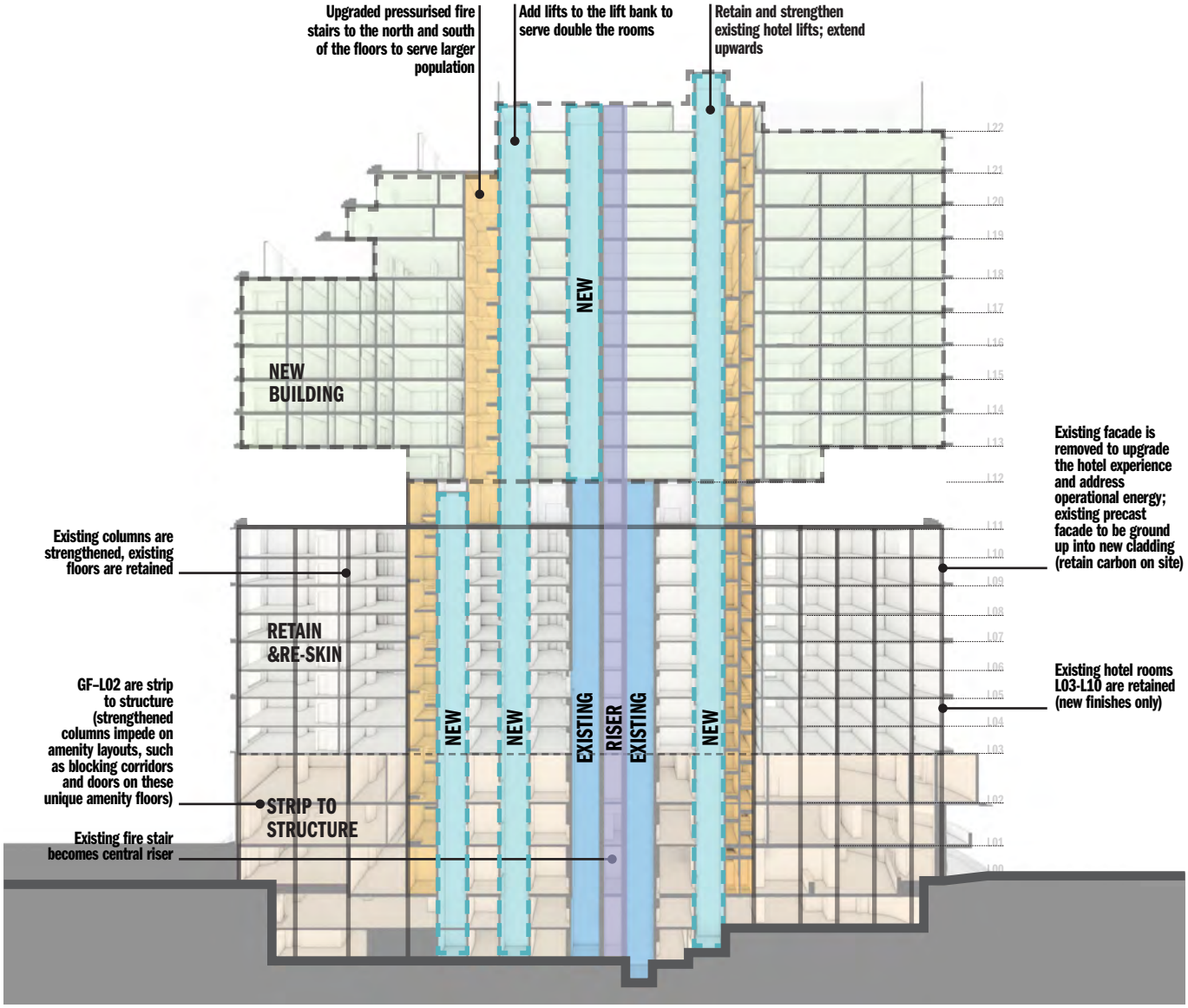
The project proposes to install a new facade; a lightweight system that enhances thermal and acoustic performance thus meeting NCC 2025 standards and lowering operational carbon.

The existing facade is constructed with precast concrete panels and inset glazing for hotel rooms, while a glazed curtain wall has been utilised for portions of the podium. An audit revealed that the glazing was under-performing, both acoustically and thermally. This led to the installation of a secondary glazing layer in each hotel room to minimise noise from the surrounding environment, such as the Western Distributor. Additionally, the poor thermal performance resulted in excessive heat gain, resulting in higher operational carbon emissions due to increased HVAC usage.

It was initially proposed for minimal upgrades to the facade, involving updating the glazing to meet current thermal standards. However, further investigation and consultation with facade engineers indicated that simply replacing the glazing wasn't sufficient. Such upgrades would also require an increased wall build-up, including insulation and waterproofing, to align the precast wall with NCC 2025 standards.

Ultimately, the project team has proposed to strip the facade back to its structure and install a new lightweight system. This approach reduces the weight on the existing structure (minimising strengthening works) whilst significantly improving both thermal and acoustic performance, aligning with NCC 2025 facade requirements. This approach does remove carbon from the building, but reduces carbon over the future life of the hotel. The project team propose to retain the facade on site, crushed into a new product.

ADAPTIVE REUSE OVERVIEW & NCC COMPLIANCE



This project showcases maximum retention and adaptive reuse by preserving the existing building structure, including the lift core and concrete frame, and integrating them into the new design. The design team has chosen to highlight retained structural features and re-purposing of the existing atrium for additional lifts. The project seeks to significantly reduce embodied carbon while sustaining operational efficiency.

1
FIRE COMPLIANCE STRATEGY

Consultant engagement.

The design team has collaborated with both a BCA consultant and a Fire Engineer to ensure that the layouts are compliant and that any necessary deviations are addressed through performance solutions. Engagement with the fire brigade is planned for the next phase.

The proposed structural system for the upper levels uses concrete to minimise fire risk, and a new facade is planned to meet compliance standards. Fire exit distances and fire stairs are compliant with the use of smoke doors in corridors.

2
STRUCTURAL COMPLIANCE STRATEGY

Concrete structure retained.

All existing structures will be strengthened to support the proposed massing above, ensuring compliance with current codes, such as the earthquake code, so that there are no structural non-compliances.

3
ENVIRONMENTAL PERFORMANCE & MEP COMPLIANCE STRATEGY

Services & facade upgrade.

Following the audit of all MEP systems conducted by the services consultant, it was determined that the existing services are at the end of their life and require upgrading to meet current code compliances. Additionally, the existing facade is proposed to be replaced due to the extensive work required to retain it, particularly to meet enhanced thermal standards. This replacement allows the facade to be upgraded to comply with the NCC.

4
SPATIAL PLANNING AND ACCESSIBILITY

Consultant engagement.

The design team has collaborated with a BCA consultant to ensure that the layouts are compliant with the NCC, from accessibility requirements to bathroom numbers. Any necessary deviations are to be addressed through performance solutions.

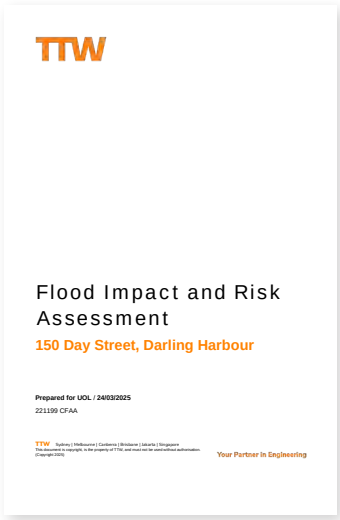
5
TRAFFIC AND CARPARK COMPLIANCE

Traffic compliance.

A traffic engineer has reviewed changes to the existing basement and confirmed that given the basement is not for public access, is only served by BOH lifts, and is valet only, that retaining the basement parking is acceptable. The additional plant required to service the new hotel has significantly reduced parking numbers. Bicycle parking is now proposed to be provided in the upgraded basement.

FLOOD APPROACH

ADAPTIVE REUSE: FLOOD LEVELS APPROACH OVERVIEW



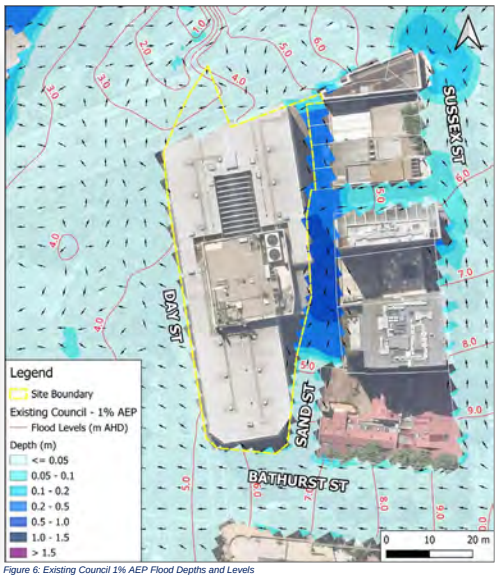


Figure 6: Existing Council 1% AEP Flood Depths and Levels

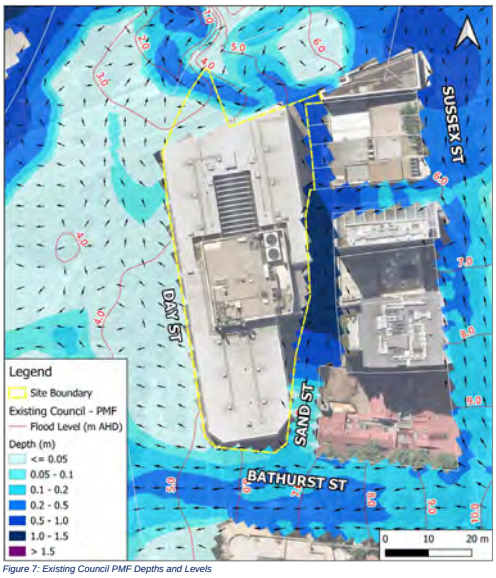


Figure 7: Existing Council PMF Depths and Levels

Overview of Day Street Flooding Approach:

- The existing building is flood prone land with no protection for the ground floor or basement levels and inundation in the 1% AEP and PMF.
- The proposed extension is over an existing building (ie above the flood prone land and flood planning area with protection above the PMF). However the proposal also allows for flood mitigation to the existing building (including raised floor levels as high as possible and flood barriers where thresholds cannot be raised further).
- Under LPd 3(g) *The proposal must not 'result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures'*: The current building would require evacuation through external routes and high hazards that may rely on potential emergency services. Any mitigation as part of this upgrade reduces government spending.
- The proposal allows for the building to be ptotected from flooding for all storms up to the PMF and shelter in place would be a suitable flood response that actively reduces the reliance on emergency services by protecting the buildingand creating a safe refuge from flooding within the building.

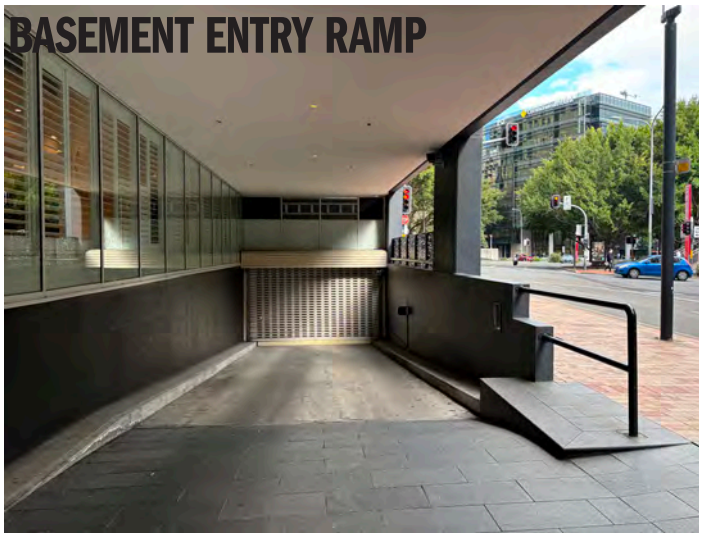
Overview of Flood Analysis:

- TTW have completed work on a Flood Impact and Risk Assessment (FIRA), notably updating the Council's flood model in the area, conducting a topographical survey and including the concrete wall adjacent to the Cross City Tunnel.
- The FIRA provides mapping for 1% AEP and PMF events and also includes assessment of flood risk in the existing as well as post development situation based on duration of flooding, depth & velocity, flood warning & evacuation time, period of isolation, frequency of inundation and flood hazards for a full range of events up to and including PMF. The FIRA includes flood modelling in PMF for longer duration storms to determine period of isolation to assist in emergency management. The 5%, 1%, 0.2% AEP and PMF have been assessed as well as climate change scenarios.
- Post development does not change as there is no change to existing surface levels or building extent.
- Longer duration modelling has been completed for the Flood Emergency Management.
- Combined impacts of increased rainfall and sea level are also assessed.
- An assessment of freeboard against the increased climate change level and flood planning levels is also considered - we note that there is no planning requirement within the current Interim Floodplain Policy to allow increased flood levels associated with climate change to be used to set the flood planning levels.

The reference design looks to balance active frontages and safer city streets, with flood resilience. The current urban outcome at the site is not considered a good outcome for the city.









It is proposed to remove this ramp:

- Ramp causes vehicle and pedestrian crossover
- Creates an inactive, dark facade to Day street
- Significant flood risk to basement

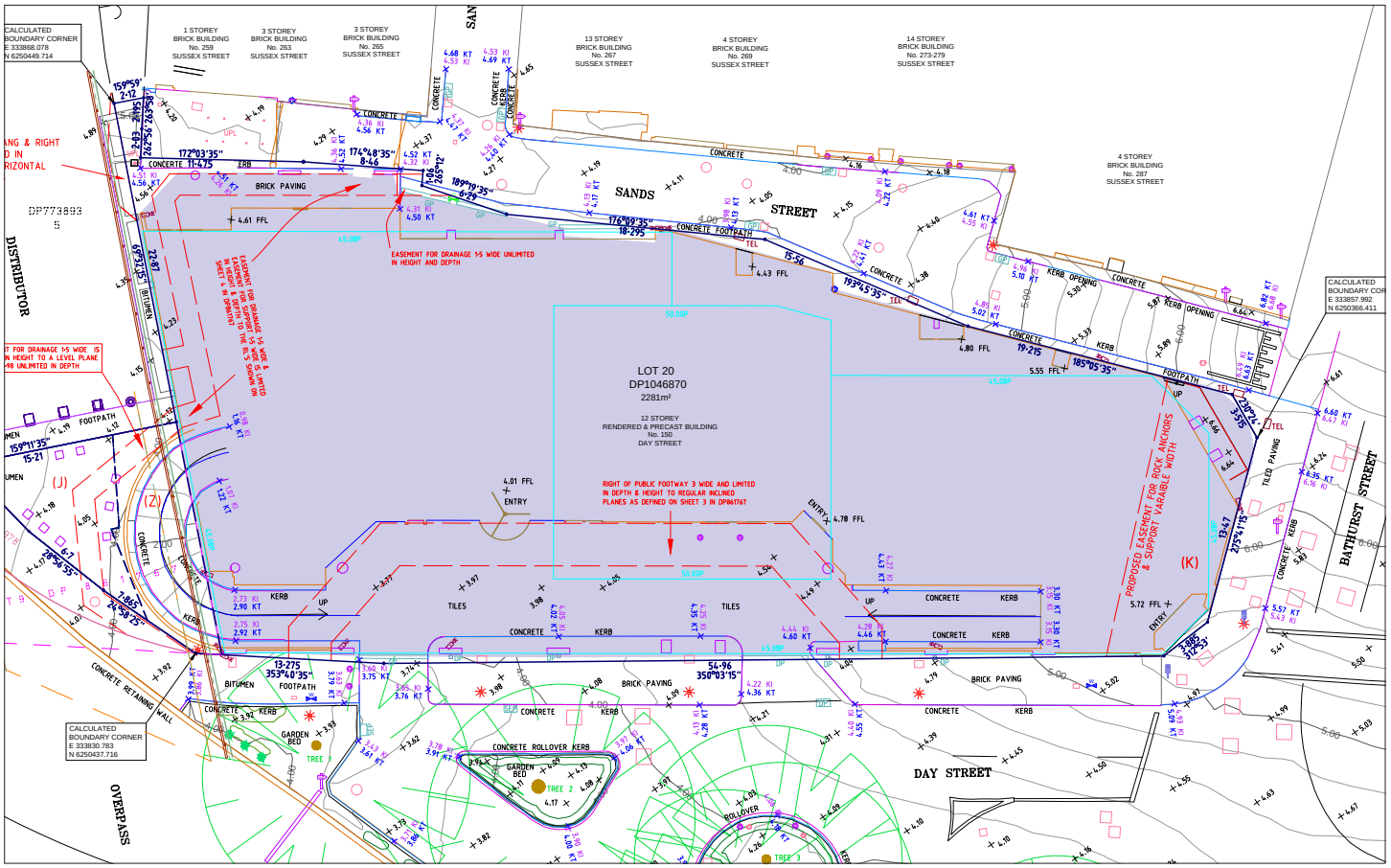
It is proposed to retain this ramp:

- Minimal impact to facade as it curves around the north elevation of the building
- Minimise existing openings to flood waters (this ramp is a smaller opening than the existing entry ramp)

EXSTING AND NEW FLOOR LEVELS

Approach to Flood Levels in Adaptive Reuse

Topography of Day Street around basement and pedestrian entrances:



Topography of Sands Street, and the multitude of existing loading bays:



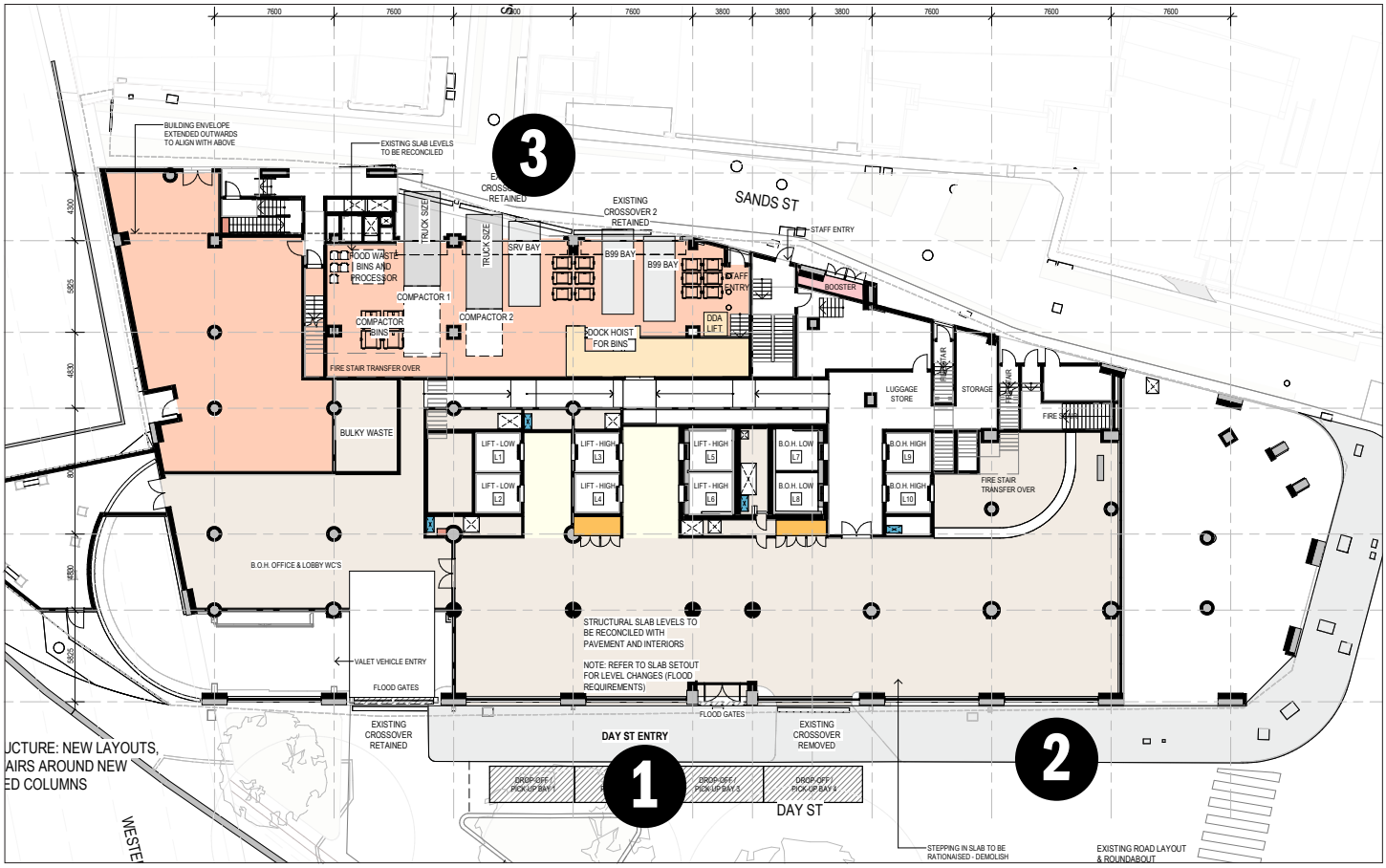
1 **Hotel Lobby:** Existing FFL is raised to 4.4RL across the GF (the existing building has varied floor levels). The proposed GF is set above the climate change sensitivity level of 4.02. The proposal increases the varied floor levels to an FFL of 4.4RL. This level allows the project to continue to meet Australian equal access requirements by opening flush to Day Street, and allow the hotel to continue to meet practical requirements for a hotel lobby (with suitcases etc).

The process of lifting existing slab levels requires using void-former polystyrene formwork, a method chosen to mitigate the impact on structural loads while achieving an increased elevation. The ground floor levels have been worked through to minimise any demolition of existing slabs.

For areas where fire stairs provide egress from basement levels, the design routes the stairs up to reach the FPL before descending back down to the Sand Street laneway.

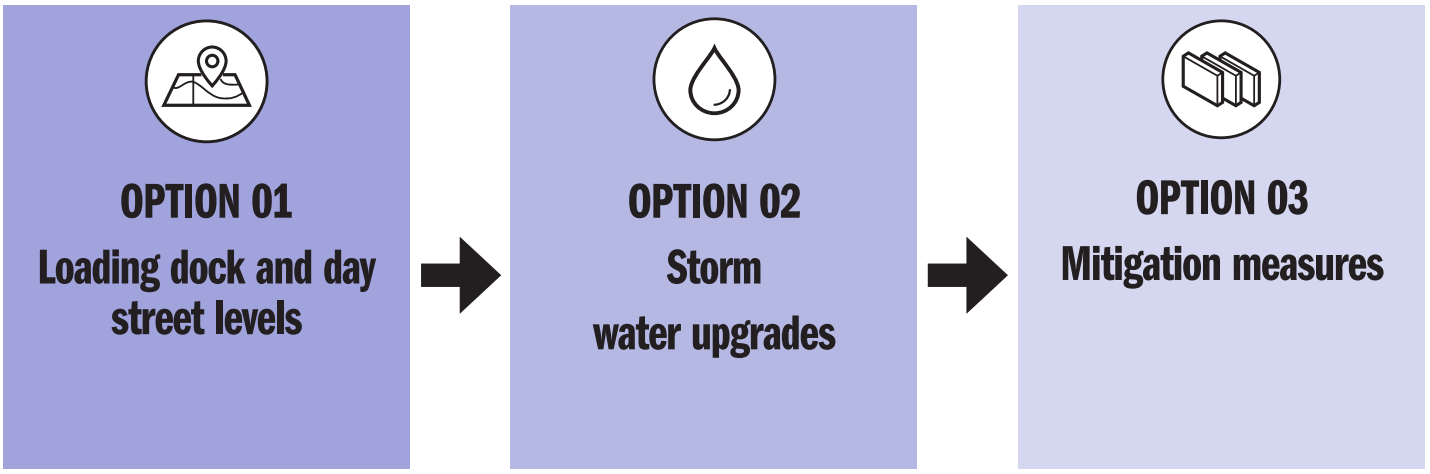
2 **Existing Basements:** The existing porte-cochere and entry/exit ramps to the basements sit lower than the proposed 4.4FFL of the lobby. It is proposed to remove the porte-cochere and the entry ramp to the basement and to raise the floor level at these points above the climate change sensitivity level of 4.02, up to 4.4. This improves the ground plane from the current building and reduces basement access to one opening (to be flood protected) rather than two. Given the existing carpark ramp is retained, a flood barrier is proposed to this existing ramp.

3 **Existing Loading Dock:** The existing loading dock sits at the level of Sands Street. Whilst there is clear height to increase the level of the loading dock and be able to fit trucks, there is not the depth within the site to ramp trucks upwards to a higher, flat loading dock level. It was considered operationally insufficient to propose trucks load on a slope. Sands Street itself could be raised at low points to enable flood compliant loading, however this would interrupt operations for other buildings along Sands Street. Therefore the loading dock FFL is proposed as per the existing level, with a new flood barrier to be installed in order to improve the current performance of the building.



FLOOD MITIGATION STRATEGIES:

Design process and outcomes



A Study of potential flood mitigation measures has been undertaken.

- Considering the level of inundation in Sands Street and the loading dock, the FIRA should recommends suitable measures to mitigate the risk rather than suggesting flood proofing up to the Flood Planning Levels.
- The current reference design relies on flood gates to protect the ground floor and basement along Day Street. The City's position on flood gates is that they are not permissible except where all other passive structural flood mitigation options, including design, have been explored and documented and Council is satisfied that none of the options can be implemented.
- Detailed assessment of potential stormwater upgrades have been considered in the following pages.

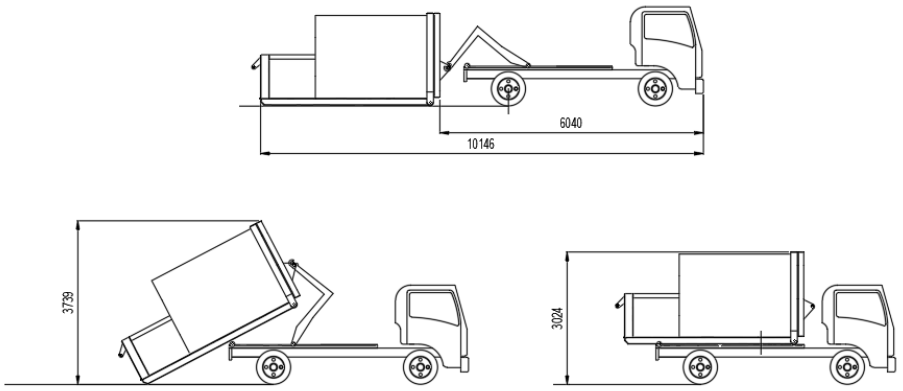
01 LOADING DOCK FFL

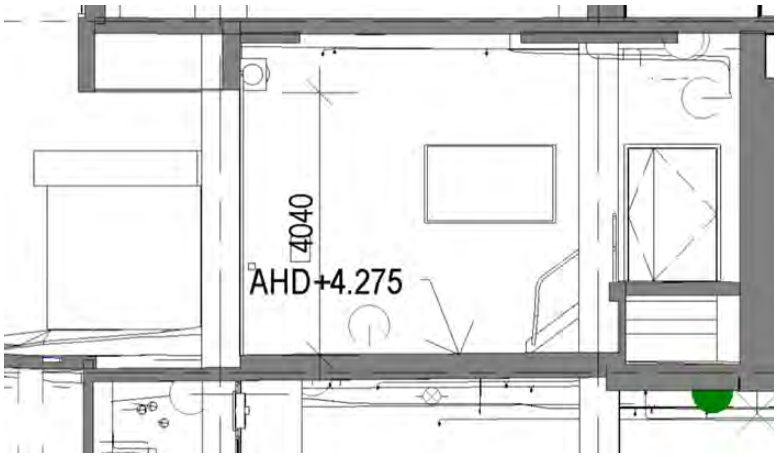
A - Preserving Clear Heights for a Compactor

AT90-100

10m Transportable AUGER Compactor

TRUCK WIDTH: 2300 mm
(2800 mm WITH MIRRORS)





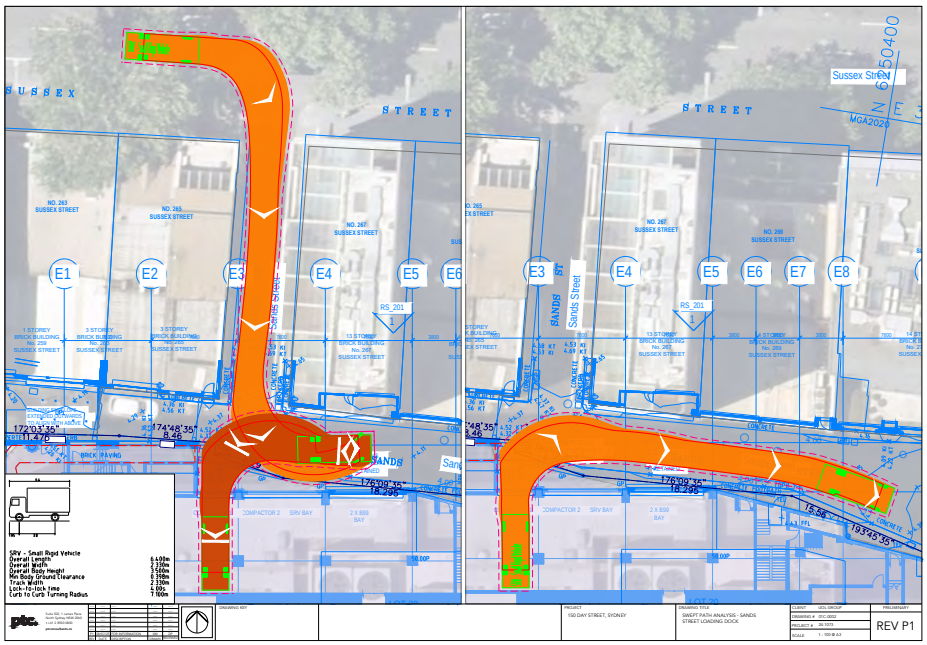
- The initial flood mitigation strategy studied was the options to raise the floor levels to 4.58RL, above the most extreme flood level. As previuosly discussed the Lobby floor level has been raised above the cliamte change requirements however it does not exceed the worst case scenario flood level due to access requirements from the street into the hotel.
- Regarding the loading dock, it was considered to raise the loading dock from 4.275 to 4.58, to avoid any stormwater upgrades. This will be an increase of 305mm to the loading dock FFL. This leaves 3,753 clear under the existing rollershutter and external soffit. A clear head height of 3750mm would be sufficient for the truck to enter / exit the loading dock with the compactor loaded (max 10m3 size). The compactor would not be loaded / unloaded at this point, it would load from within the dock where there is a greater height clearance.
- However, for an SRV, the maximum rate of change is 1:12 (8.3%). Due to the existing Sands Street levels and the existing loading dock being so narrow, achieving a compliant gradient is not possible without causing operational issues - the truck would be unloading uphill.

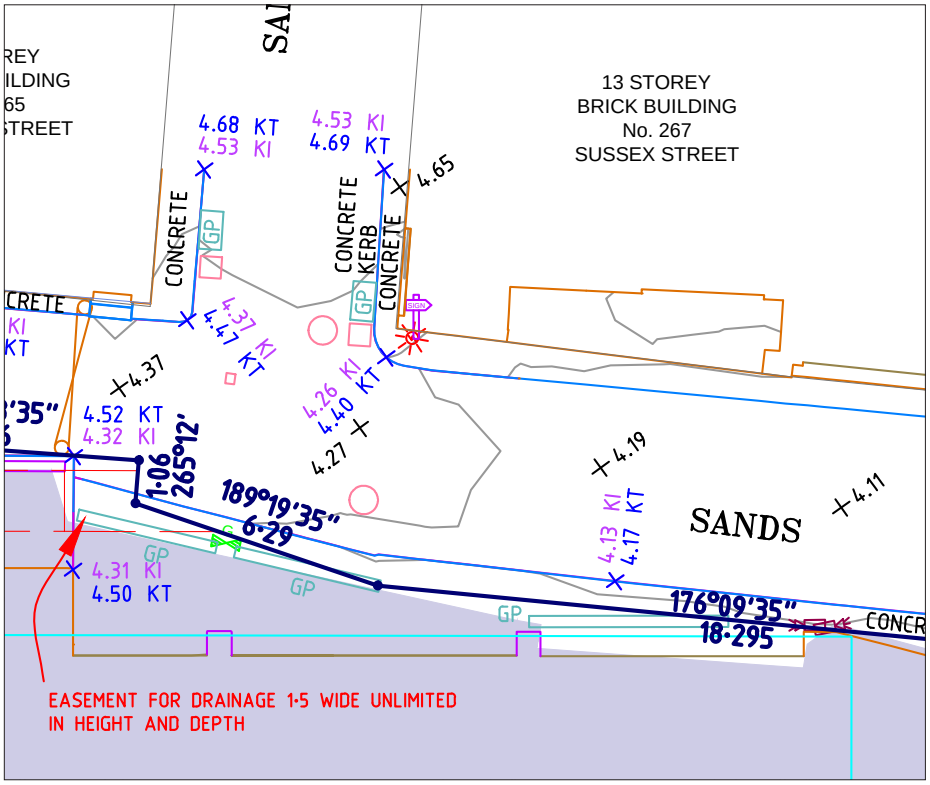
01 LOADING TRACKING

B - Access To Loading Dock Slab Height Cannot Be Too Steep / All Lane Loading Uses The Full Lane Width (Changing Levels Must Not Undermine Neighbours Access)

Summary

- 1% AEP flood level is 4.58m;
- External levels in Sand Street and adjacent docks are below flood levels (limiting scope for improving the dip in Sands Street);
- Loading entrance thresholds or floor level could be raised to 4.35FFL (to not imapct stormwater dia.) however this creates gradient and cross over issues;
- An SRV can only ramp up a maximum 1:12 slope and cannot load at a gradient (there is no space for ramps from Sands Street, nor opportunity to alter Sand St without affecting adjacent loading docks and their truck movements);
- Vehicle turning space sets loading dock location for the SRVs and compactors - the loading dock has been designed around tracking.



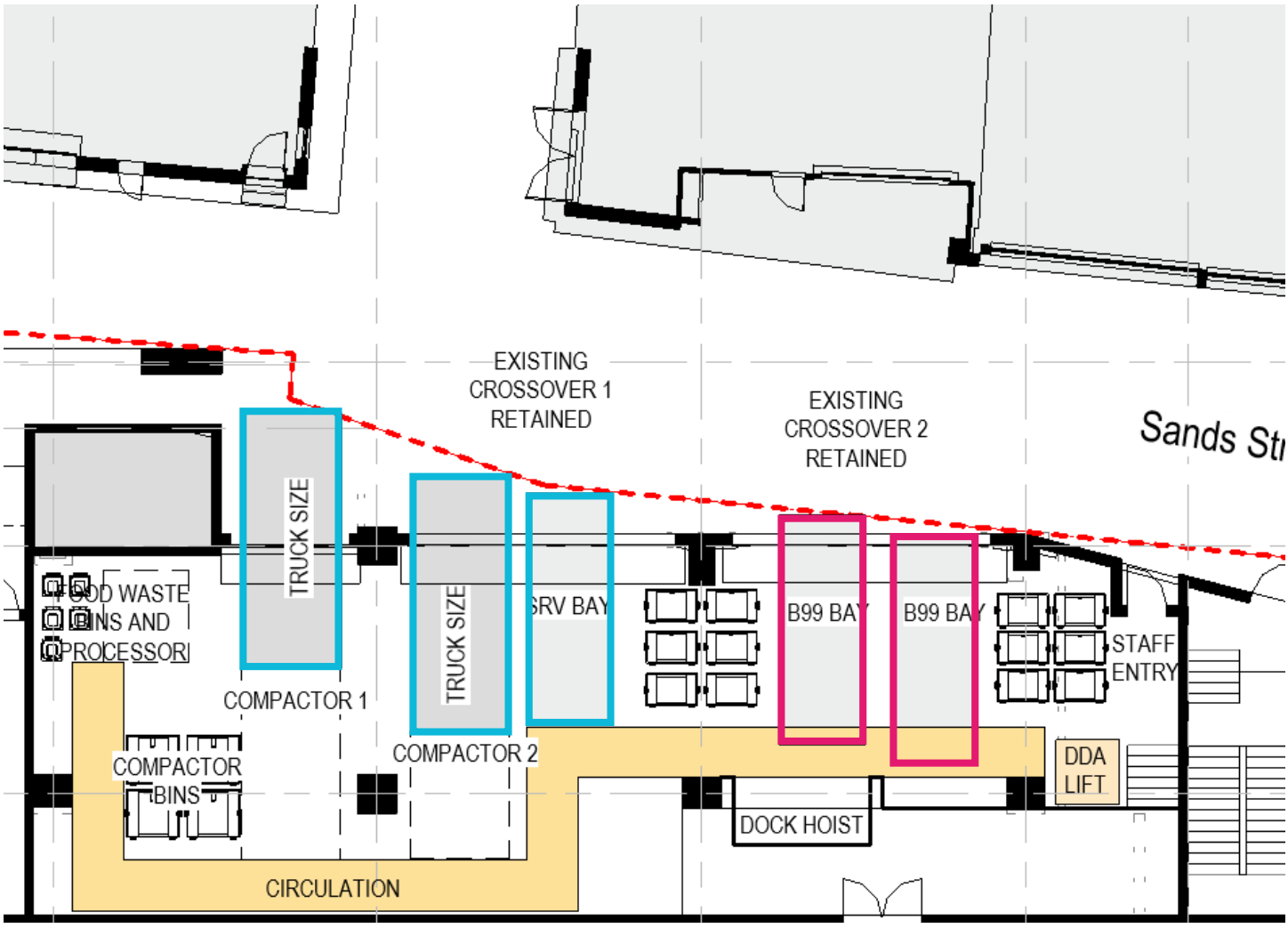


SRV here - smaller transition to building FFL

B99 here - larger transition to building FFL

01 LOADING DOCK LAYOUT

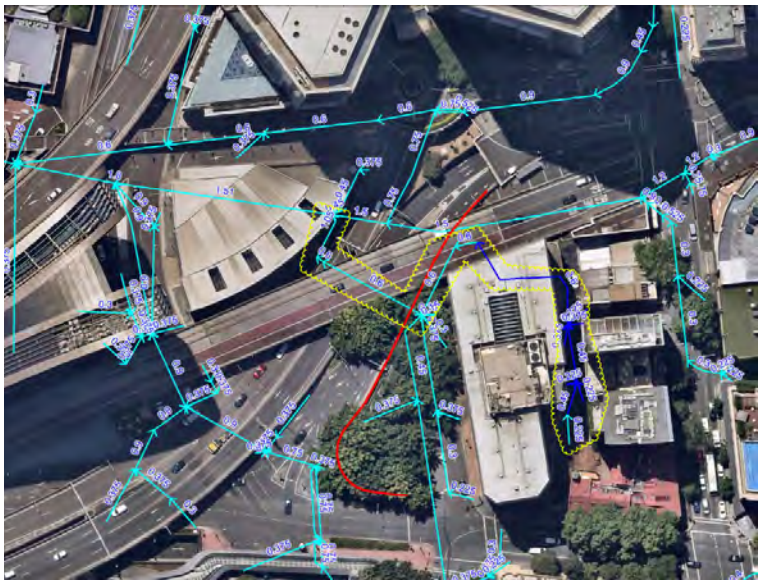
C - Ramp gradient into the site limits raising the existing dock FFL

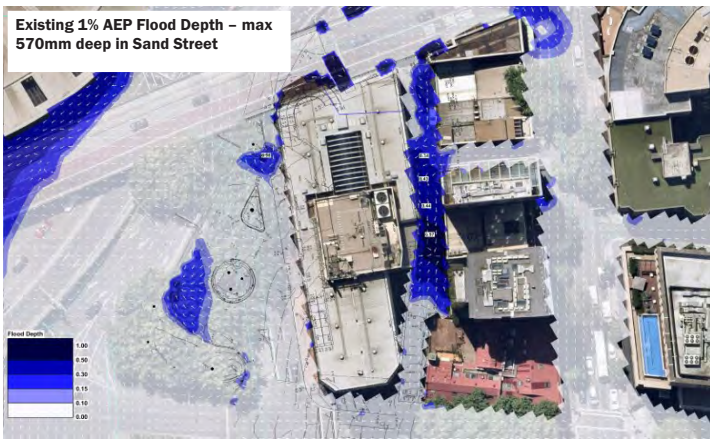


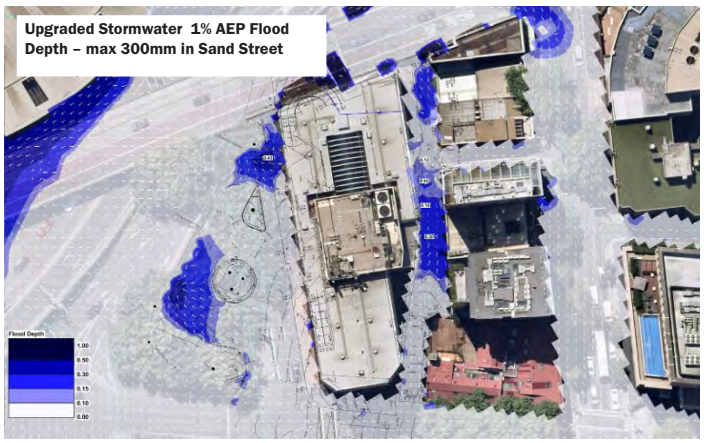
02 UPGRADE STORMWATER

Is the areas flood management improved through stormwater upgrades?









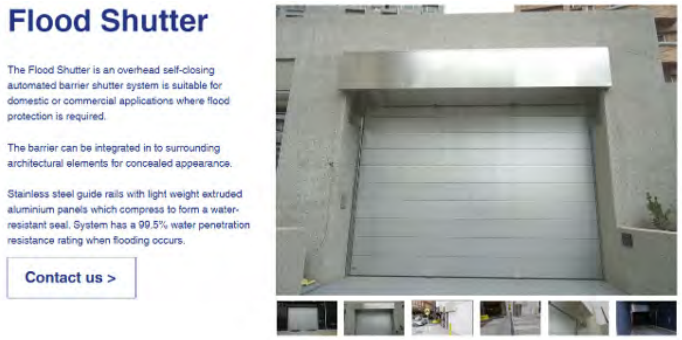
Overview of considerations to improve the stormwater network:

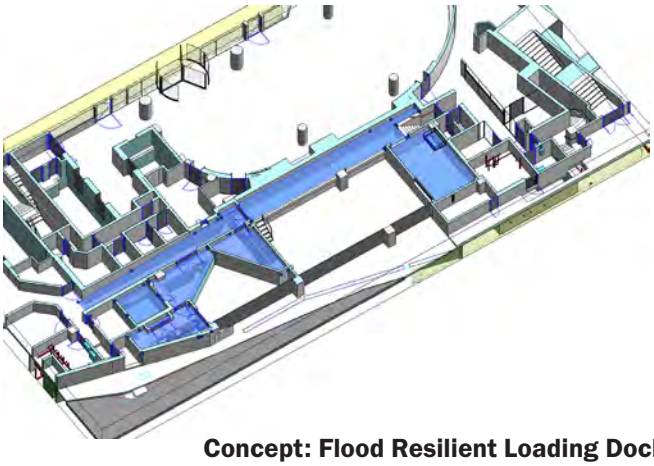
- Existing site easement: 600mm diameter stormwater pipe within a 1.5m easement (see photo);
- Based on this information, in order to achieve a 4.33 flood level at the site it would be required to double the capacity of the existing pipe (for example provide 2 x 600mm dia. pipes) - This can fit within the existing easement;
- This easement then flows into overflow at Day Street (ie because water flows at Day Street aren't that significant this extra capacity for overflow provides relief from Sands st onto Day st);
- However, this solution requires upgrades to stormwater pits and pipes around Day Street and underpass (pipes from 200 to 400d, or 4 additional pits);
- Even with all these upgrades within the site and to Day Street, there is no benefit to the urban realm or to other properties in the vicinity. It is very difficult to justify such extensive diruption to the existing streets for no benefit to the area. With all upgrades above, it still does not achieve a 1% AEP flood level below the loading dock level – minimum level achieved is 4.33m;
- With these upgrades the existing driveways in Sand Street are still below 1% AEP flood level.

03 MITIGATION MEASURES

Loading Dock Levels

" If a flood-proofed loading dock is not resolved through level changes or stormwater changes, the alternative option is a flood barrier or flood roller shutter door, and to design the loading dock to be a flood barrier to the building. "



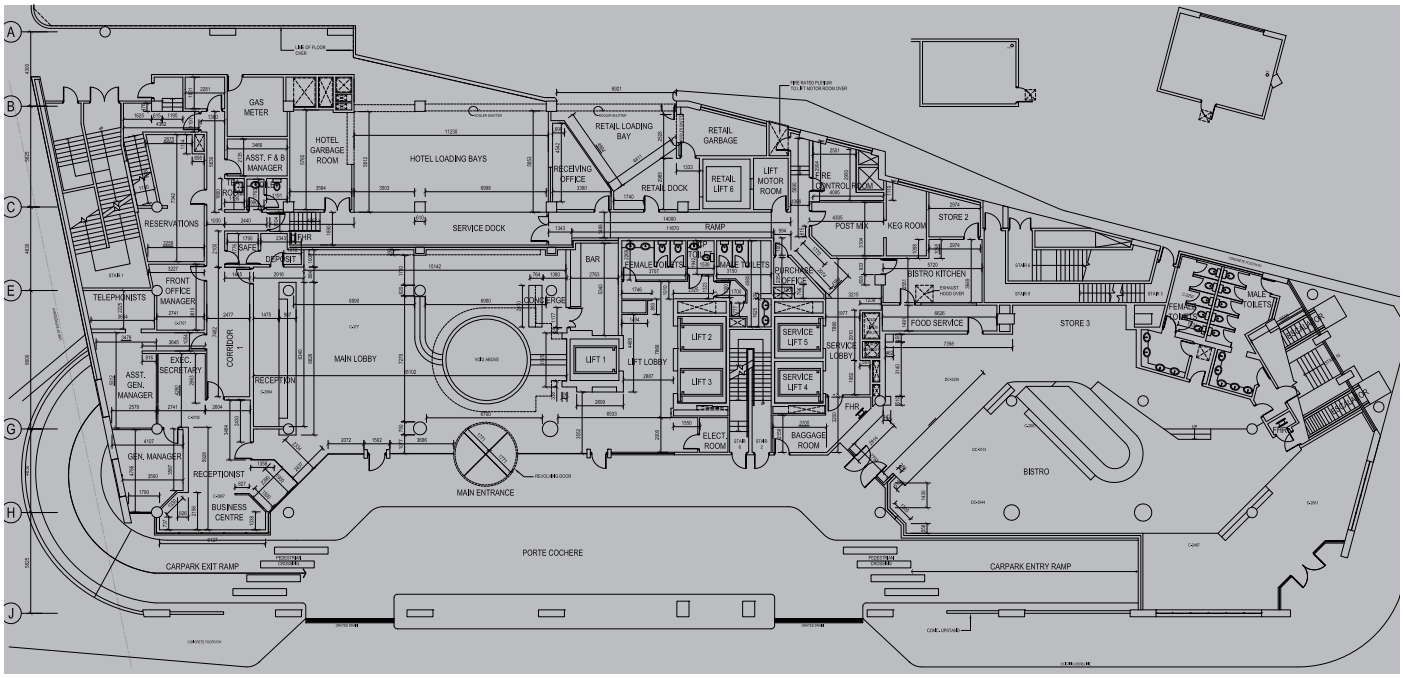


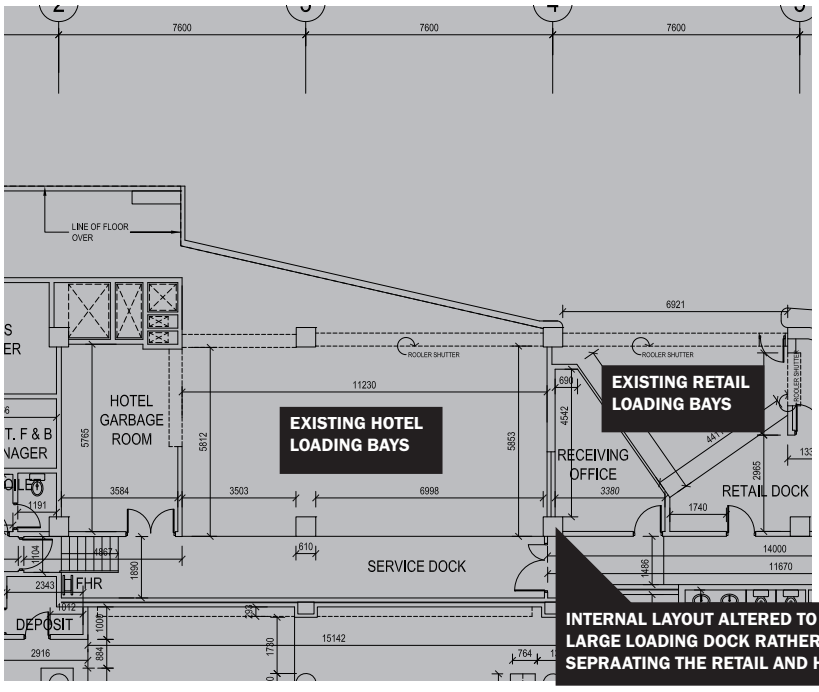
Concept: Flood Resilient Loading Dock

LOADING & SERVICING APPROACH

ADAPTIVE REUSE: LOADING AND SERVICING APPROACH

Existing Loading Dock Plans: This is an adaptive reuse project that does not propose changes to the loading dock location or cross-overs.





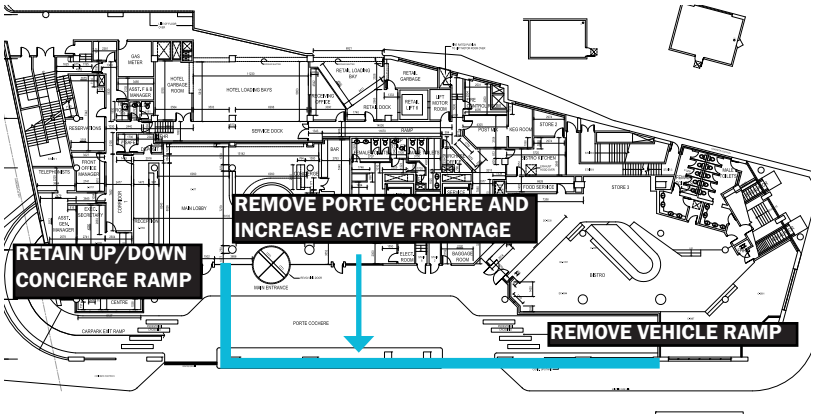


INTERNAL LAYOUT ALTERED TO CREATE A SINGLE LARGE LOADING DOCK RATHER THAN A WALL SEPRAATING THE RETAIL AND HOTEL DOCKS

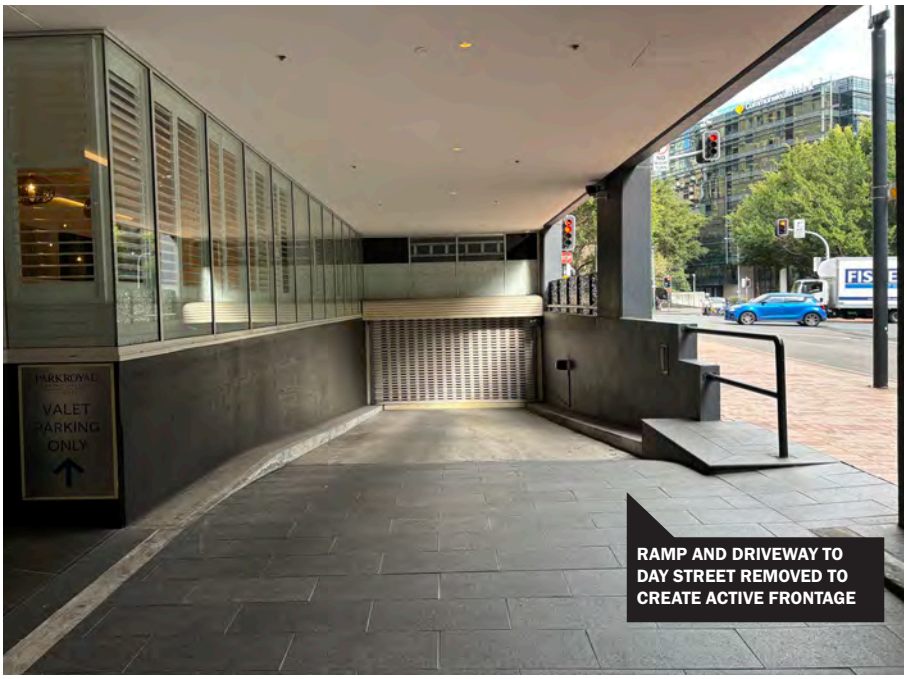
Attachment A2

Urban design report - Part 3

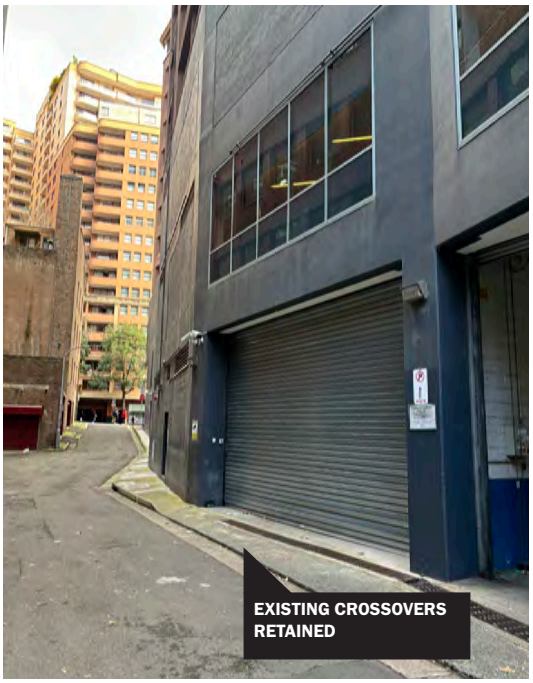
This is an adaptive reuse project reduces vehicles movements that clash with pedestrian movements and also maximises active frontage.

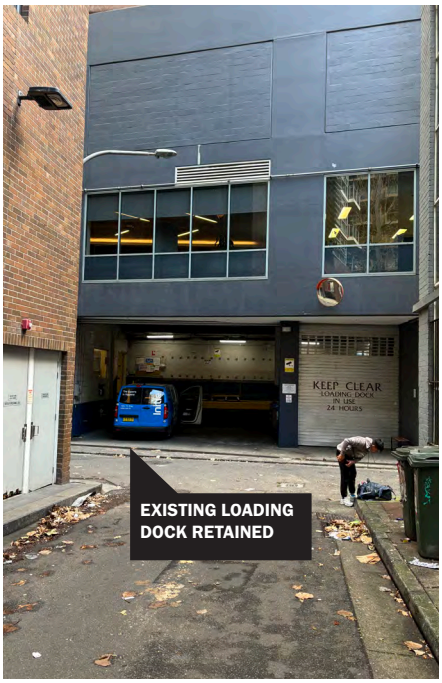



PORTE COCHERE ON DAY STREET REMOVED

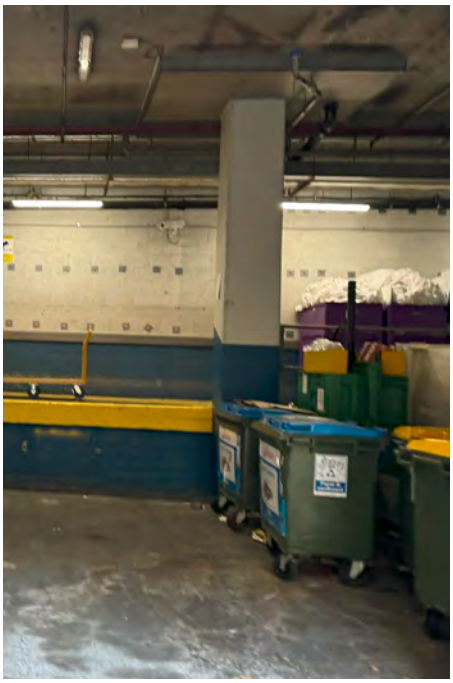


RAMP AND DRIVEWAY TO DAY STREET REMOVED TO CREATE ACTIVE FRONTAGE


EXISTING CROSSOVERS RETAINED



EXISTING LOADING DOCK RETAINED



LOADING DOCK: PROPOSED APPROACH

EXISTING LOADING STRATEGY:

Park Royal's current loading strategy generally:

- Early morning: most food deliveries
- Varies: laundry deliveries
- Night: waste collection

Note: Refer to survey data in TIA

PROPOSED LOADING STRATEGY:

Location	Waste Room Type	Equipment	Estimated Area Required (m^2)
Loading Dock		**General Waste** • 1 × 8m³ or 10m³ portable compactor • 2 × 1,100 L bins **Paper/Cardboard Recycling** **General Waste** • 1 × 8m³ or 10m³ portable compactor • 2 × 1,100 L bins **Comingled Recycling** • 8 × 1,100 L bins **Food Waste:** • 1 × food waste processing system • 10 x 240L bins	Dependant on layout
	Bulky Waste Room or Caged Area		35

PROPOSED LOADING LAYOUT:

- SRV tracking has informed the dock layout, and shows that the spaces at GF for SRVs are located based on laneway tracking and easy access to parking spaces.
- Refer to TIA.
- No MRVs are proposed, not even for Compactor collection.



SRV LOADING STRATEGY:

The existing strategy and proposed strategy does not allow SRV access to the basement.

- SRV loading is from the Loading dock on Sands Street.
- Why? This renovation does not propose changes to the basements, and therefore the existing ramp access which is 2.4m clear will be retained. Given there is an allowance of 200mm tolerance, the maximum vehicle height entering the existing basement can be 2.2m. As such, SRV with clearance of 3.5m is not able to enter the basement level.
- The existing Basement 01 floor to ceiling height (to underside of services) is 2.35m and therefore does not accommodate SRV loading.

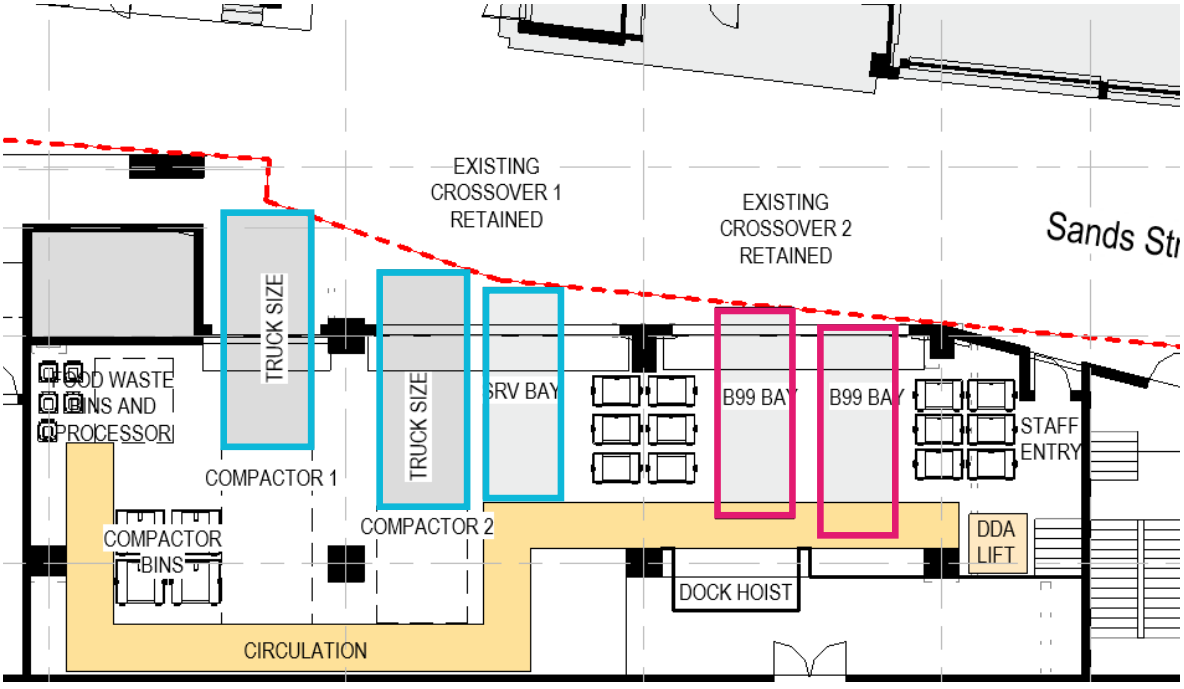
Table 4.1 — Service bay dimensions

Vehicle class	Bay width m min.	Bay length m min.	Platform height m	Vertical clearance m min.
SRV	3.5	6.4	0.75 to 0.90	3.5
MRV	3.5	8.8	0.95 to 1.10	4.5[a]
HRV	3.5	12.5	1.10 to 1.40	4.5[a]
AV	3.5	20.0	1.10 to 1.40	4.5[a]

[a] 4.8 m for animal transport vehicles, vehicle carriers and 4.6 m high vehicles or where access to the top of a tall vehicle, e.g. pantechnicon or load is required.

INDICATIVE LOADING DOCK PLAN AT GROUND FLOOR:

- 3 x SRVs located in the most direct relationship to Sands Street approach to ease tracking movements required.
- 2 x B99 Bays proposed after the turn from Sands Street as these smaller vehices can easily manouvre.



LOADING DOCK: PROPOSED APPROACH

VERIFYING COMPACTOR SPECIFICATION AND CORRESPONDING WASTE SERVICE VEHICLE CAN BE ACCOMMODATED IN THE LOADING DOCK:

The design team have coordinated with multiple parties involved in confirming the loading management plan can be achieved, including:

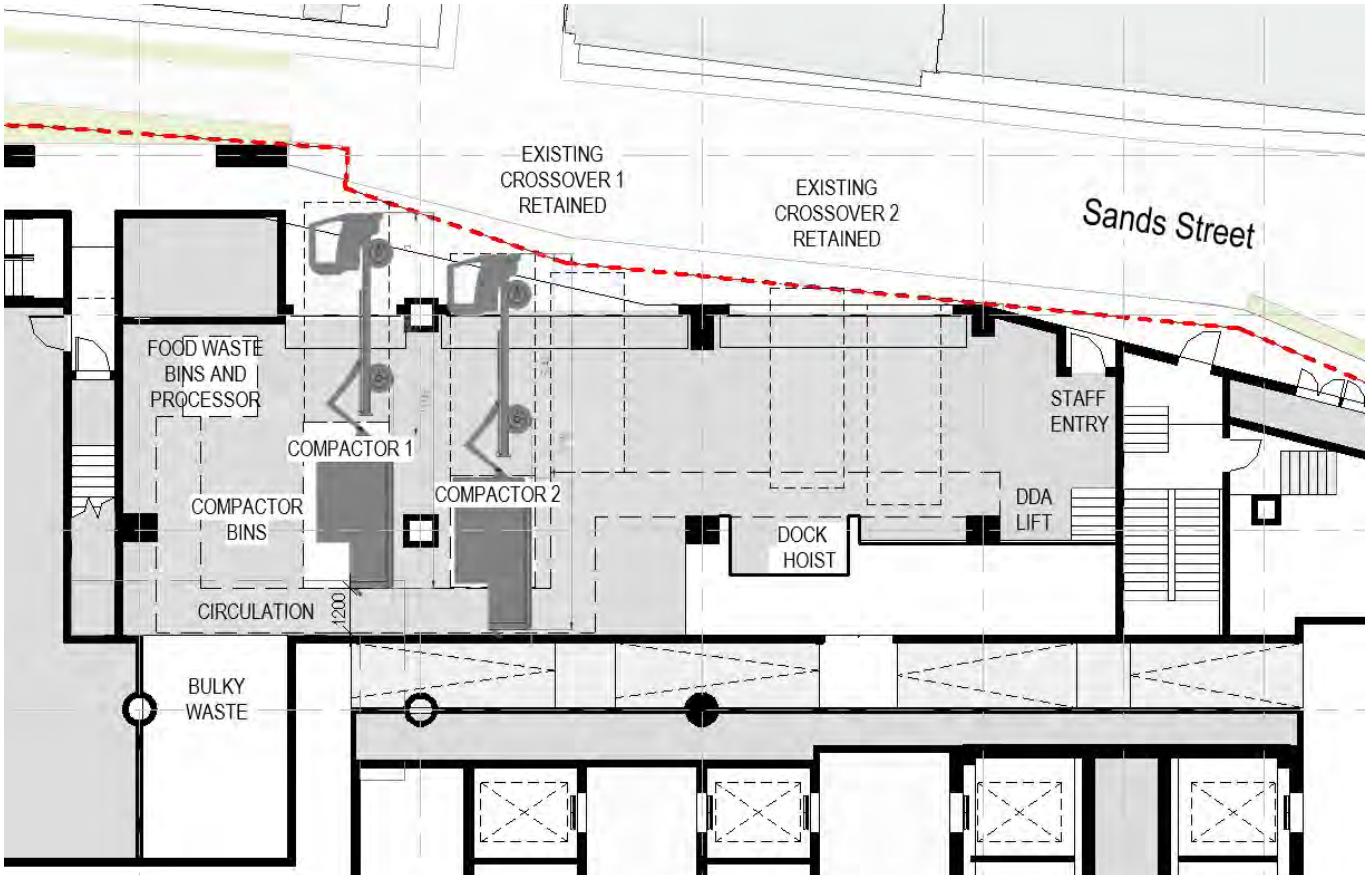
- Elephants Foot, Waste Consultant;
- PTC, Traffic Consultant; and
- Veolia; Waste Contractor

The following process was undertaken to confirm loading dock functionality:

1. Elephants foot advised the site requires 2 x 8m3 compactors;

2. The waste contractor, veolia, confirmed their larger sizes of 10m3 compactors fit in the allocated spaces, as illustrated on the below plan (specification dimensions shown on adjacent page). The below plan also shows the Veolia compactor collection vehicle which fits within the site boundary.

3. PTC have confirmed that the waste vehicle tracking from Sands Street is possible as per Veolia advice (see SRV tracking movements in TIA).



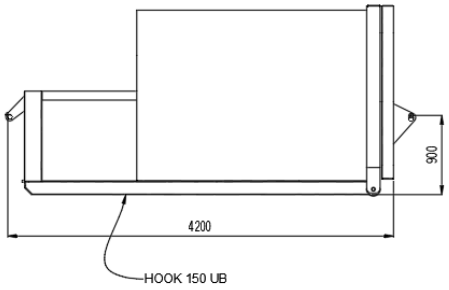
BELOW IS A SPECIFICATION FOR A 10M3 VEOLIA WASTE COMPACTOR.

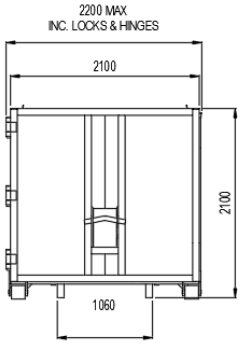
SOURCE: VEOLIA WASTE SERVICES

Note: Veolia manufacture compactors in Sydney and can adjust height, width, and legnth dimensions based on unique site requirements.

AT90-100

10m Transportable AUGER Compactor

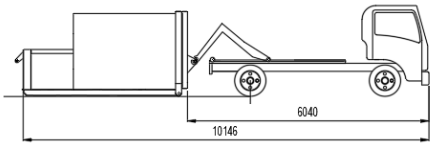


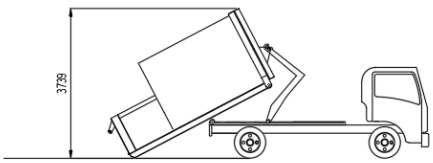


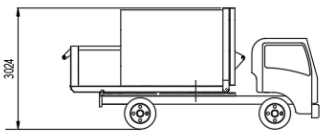
AT90-100

10m Transportable AUGER Compactor

TRUCK WIDTH: 2300 mm
(2800 mm WITH MIRRORS)

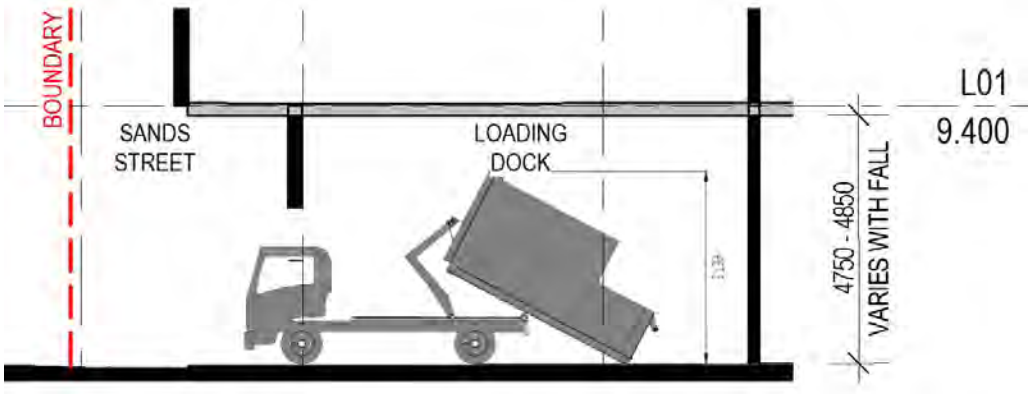






EXISTING LOADING DOCK SECTION

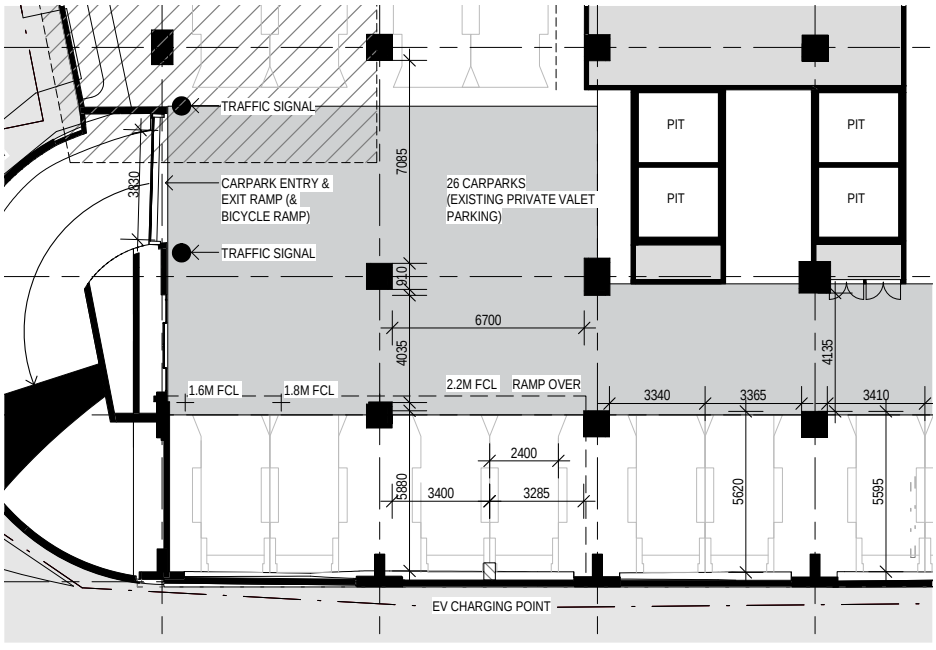
VEOLIA WASTE SERVICES TRUCK SHOWN IN GREY



BASEMENT: PROPOSED APPROACH

- The existing basement layout allows for most parking spaces to be B99 spaces (as the existing column grid is not designed to parking bay sizes).
- The existing basement will be concierge only, with no public access allowed to the basement. Even bicycles will be a concierge service at the ground floor. Only staff are allowed in the basement and only one vehicles will be driven at any one time.
- Current PTC analysis in line with CoS regulations is the 1 SRV and 2B99s are required for loading for the site. Whilst the basement can accommodate B99s, it is not generally proposed to allow access to unfamiliar drivers, it is a private garage. Loading has been allowed for at the ground floor loading dock.
- There will be only one concierge driving cars in or out of the existing garage.
- Cycle access from lifts to cycle parking has been segregated from cars.
- Visitor cycle parking (with concierge service) will be located on the upper basement.
- Staff cycle parking will be located on the lower basement, adjacent to staff changerooms and EOT.

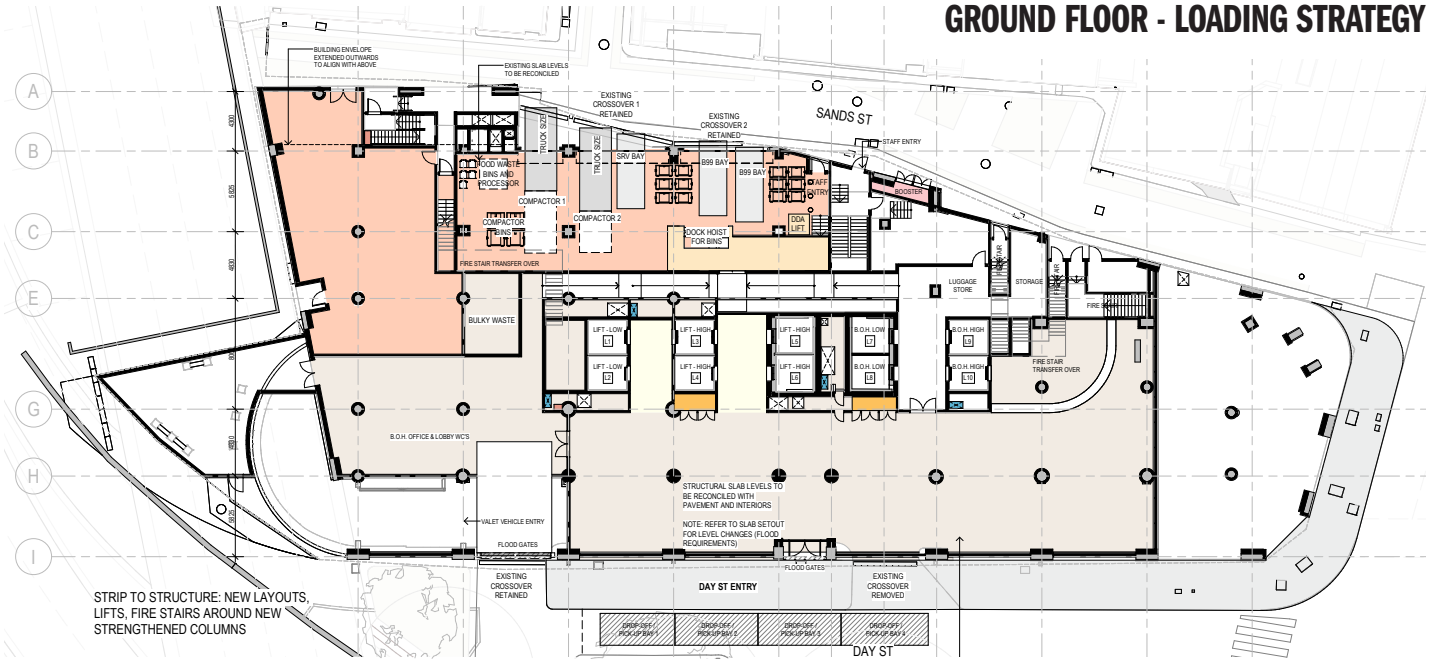
UPPER BASEMENT - PARKING DIMENSIONS



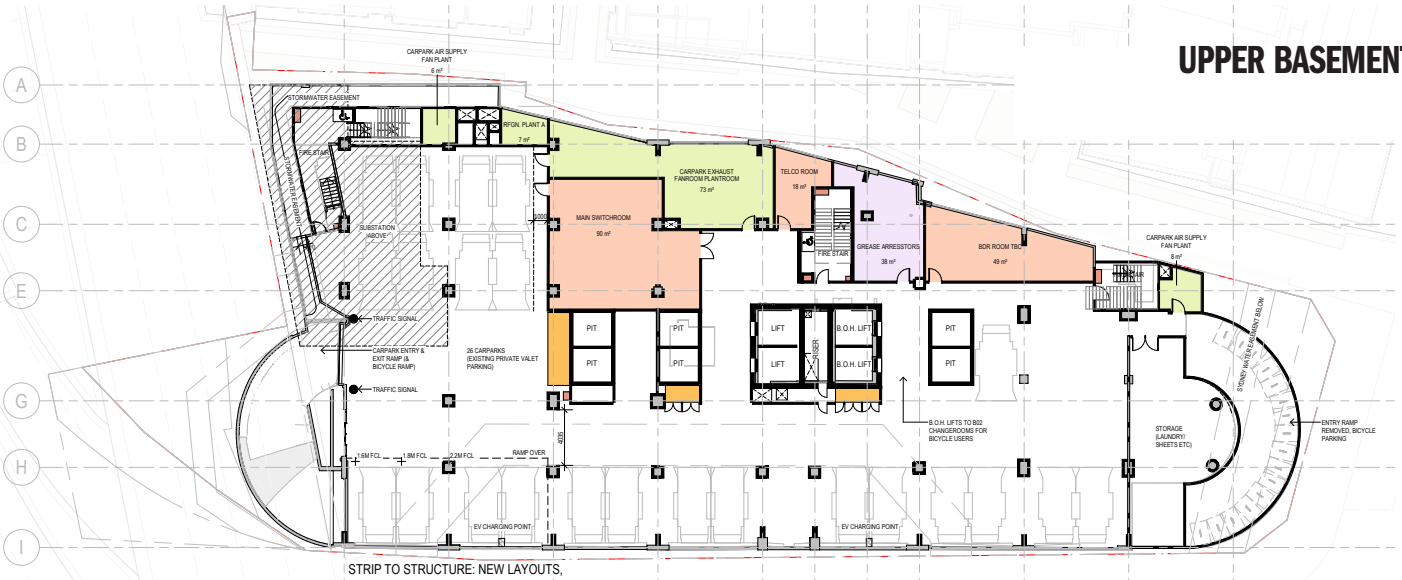


Proposed parking spaces are all larger than the standard 2.4m x 5.4m (they generally vary from 3.2-3.4m x 5.5-5.6m), enabling manoeuvring into and out of parking spaces.

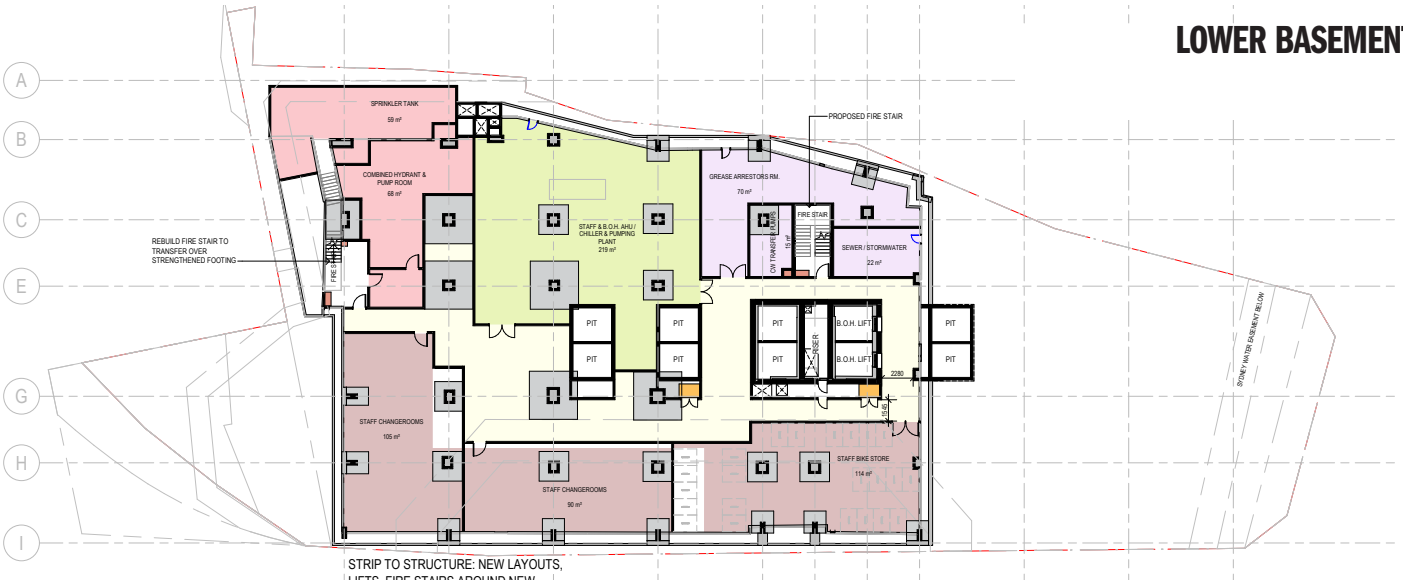
GROUND FLOOR - LOADING STRATEGY



UPPER BASEMENT



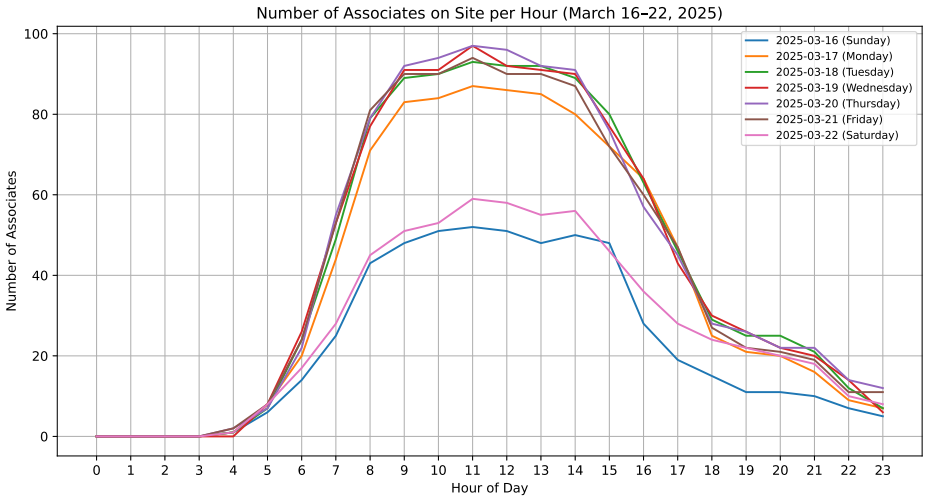
LOWER BASEMENT



BASEMENT: EOT APPROACH

1. Bicycle parking must be calculated based on the entire site, and not just the uplift in development.

At any one time in the existing hotel there are maximum 100 staff on site. The following staff calculations for cycle parking allow for 180 staff at any one time which as we can see here aligns generally with increasing the current pattern.



2. Bicycle parking area must not be obstructed by/ conflict with vehicle swept paths;

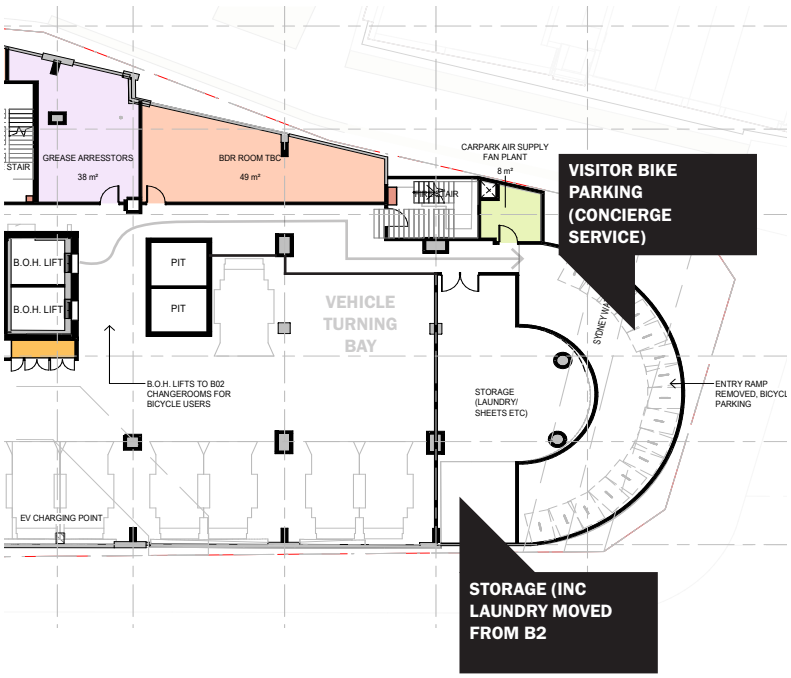
3. The Transport Study must specify how access to guest bike parking will be managed should guest bike parking be provided in the basement;

4. Access to bicycle parking in basement should be accessible by both the lift core and vehicle ramp.

- Bicycle parking is a concierge service, no public will access the existing basement.
- Visitors leave their bike at reception and EOT is on L01 (eg if cycling to attend an event at the hotel).
- Staff may bring their bicycles down in the BOH lifts.
- The path for bicycles is separate from the turning bay for vehicles.
- The existing ramp to the basement is not altered.
- Staff bring there bicycles in at Ground level and use the goods lifts to access staff EOT at level B2

BASEMENT: EOT APPROACH

UPPER BASEMENT



Bicycle parking must be calculated based on the entire site, and not just the uplift in development.

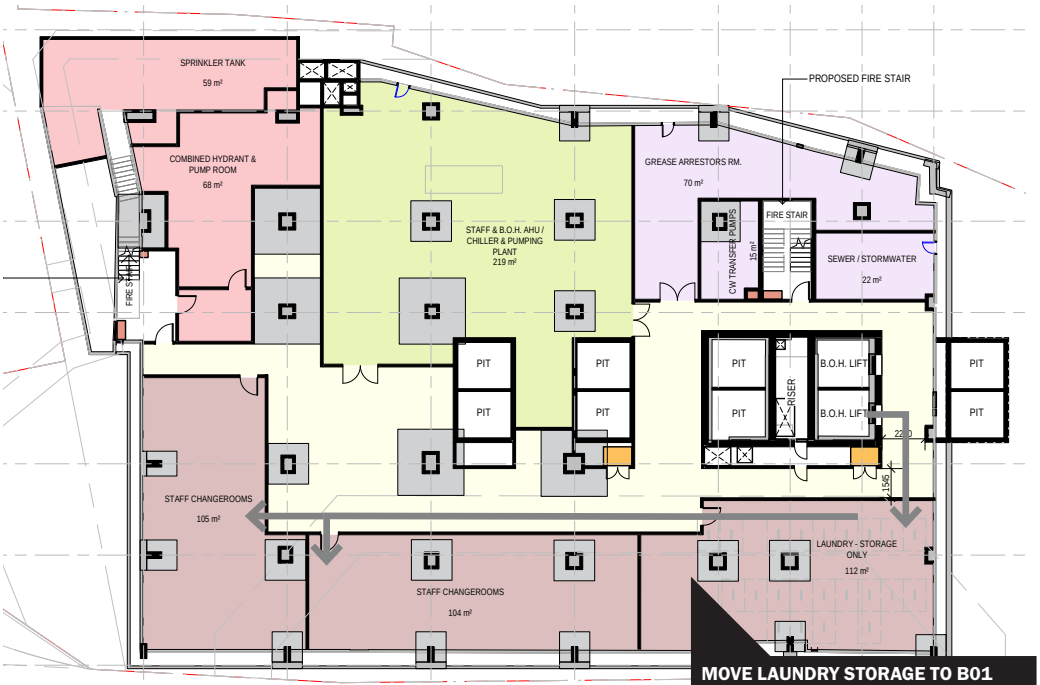
- Max 539 keys = 1 bike per 20 rooms = 27 bikes
- 360 staff, but in 2 shifts of 180 at any one time = 1 bike per 4
- 77 bikes total
- Shower and change per 10 = 8 shower and change total
- 1 locker per bike space
- 1.8m wide access to bike parking
- EOT for visitors are on L01 and L02 (Function) = 3 showers/ change
- 5 shower and change for staff in B02 adjacent to staff change

There are existing staff shower and change rooms with lockers on B2 for the hotel. These facilities will be enhanced to be both staff changerooms and also compliant EOT facilities for staff.

Visitor EOT will be on Level 01 of the hotel.

LOWER BASEMENT

- There are existing staff shower and change rooms with lockers on B2 for the hotel. These facilities will be enhanced to be both staff changerooms and also compliant EOT facilities for staff.



STRIP TO STRUCTURE: NEW LAYOUTS, LIFTS, FIRE STAIRS AROUND NEW STRENGTHENED FOOTINGS

PUBLIC REALM AND LANDSCAPE

VISION AND APPROACH

150 Day Street will be a celebration of Sydney's landscape, brought into the CBD. The substantial greening across the building will weave together a robust and verdant landscape in a city-leading way. A building encased and surrounded in green which reaches from the public domain, along the facade and across rooftop terraces shall connect the guests of 150 Day street to the Country it resides on.

Darling Harbour has always been a place of concentrated energy and gathering. Life that is centred within and drawn to the harbour, have been managed and cared for by its traditional custodians, the Gadigal for millennia.

Dr Shane Smithers tell us that Gadi Country stretches across the Land, Sea and Sky of what is now called Sydney. Despite the destructive effects of colonisation, the land remains Gadigal Country.

Darling Harbour remains a place of congregation and celebration, a threshold between Land and Sea Country and a key part of Sydney's international identity.

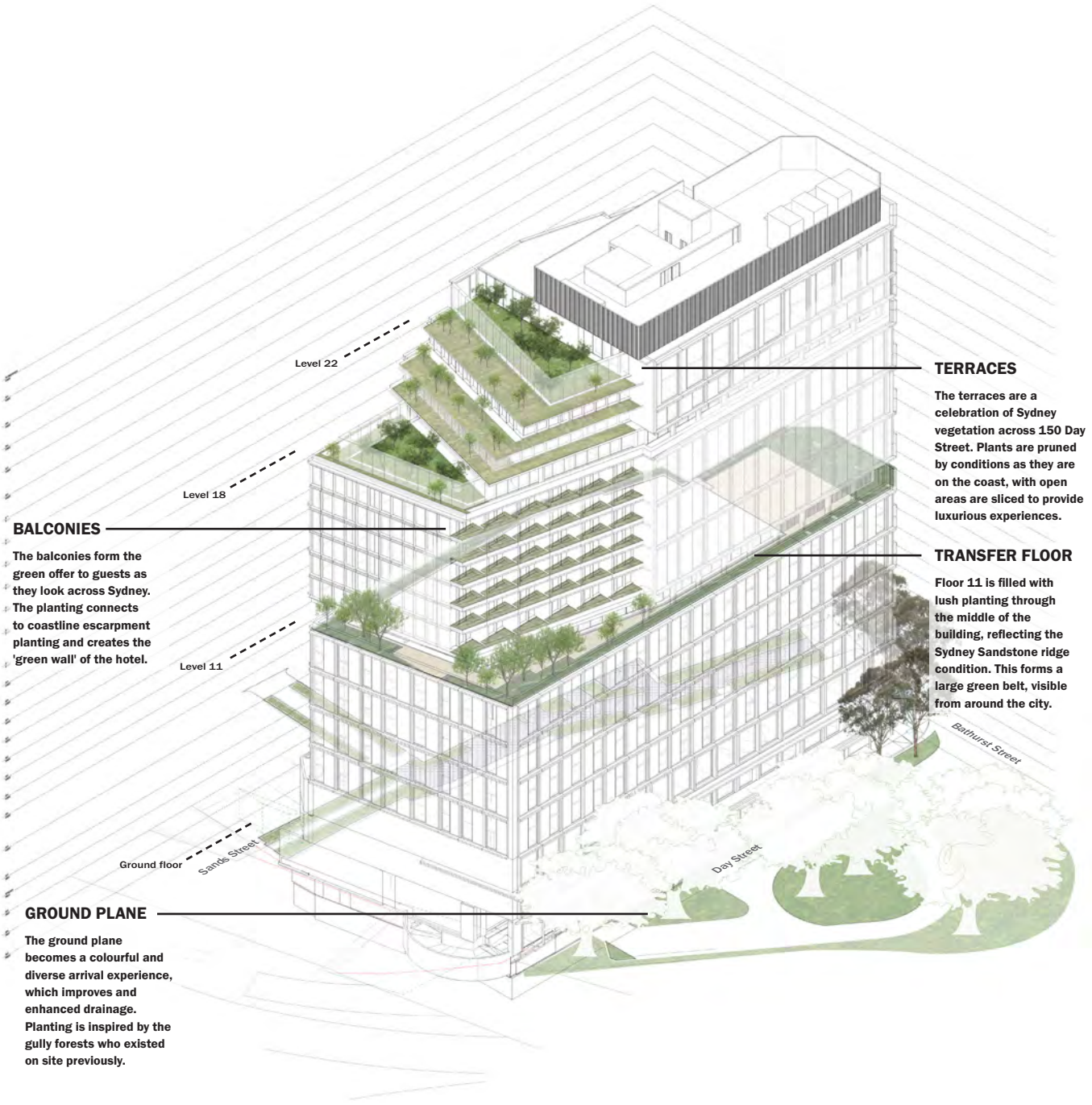
This connection and culture runs through the core of the 150 Day Street site, as it attempts to stitch the city's East-West permeability, to improve the experience of broader city users and imagine what healthy Country looks like within an urban context.

The imposition of post-industrial, modern structures feels objectively contrary to this, however, the building still exists upon, and as a part of Country.

150 Day Street is a point of transience and movement. Surrounded by major arterial roads, it offers a reprieve from the Chaos around. Key through site links will be upgraded, to further improve the fine-grain network of a human scale Sydney.

Wrapping this form in a large and dense green offer, allows the reach of healthy Country to run deep into the urban heart of the City of Sydney. The site has been identified as further than 200m from any open space, thus a great candidate for change.

By drawing parallels between the variety of natural micro climates present around Sydney and the incredibly constructed condition that 150 Day Street sits within, informed plant species choices are able to be made. Placing species in areas which mirror their natural condition maximises their success, as well as that of the project and its connection to Sydney.



TERRACES

The terraces are a celebration of Sydney vegetation across 150 Day Street. Plants are pruned by conditions as they are on the coast, with open areas are sliced to provide luxurious experiences.

TRANSFER FLOOR

Floor 11 is filled with lush planting through the middle of the building, reflecting the Sydney Sandstone ridge condition. This forms a large green belt, visible from around the city.

BALCONIES

The balconies form the green offer to guests as they look across Sydney. The planting connects to coastline escarpment planting and creates the 'green wall' of the hotel.

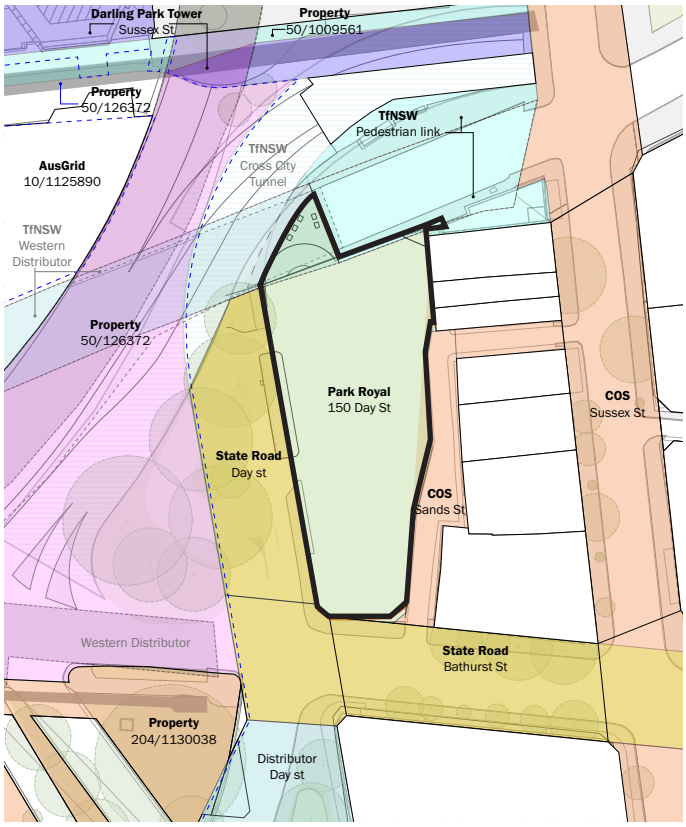
GROUND PLANE

The ground plane becomes a colourful and diverse arrival experience, which improves and enhanced drainage. Planting is inspired by the gully forests who existed on site previously.

LANDSCAPE STRATEGY

Landscape stitches the built form into the wider city. The strategy for 150 Day street has been informed by wide ranging analysis. An understanding of the constraints informs the major design moves and choices.





Public domain spaces

3 zones have been identified for potential areas of public domain improvement. The porte cochère and arrival zone in the west, Sands and Bathurst Street interfaces and the Northern pedestrian links. They will enhance the access and permeability of the city as well as fine grain, East-West connections.

LEGEND

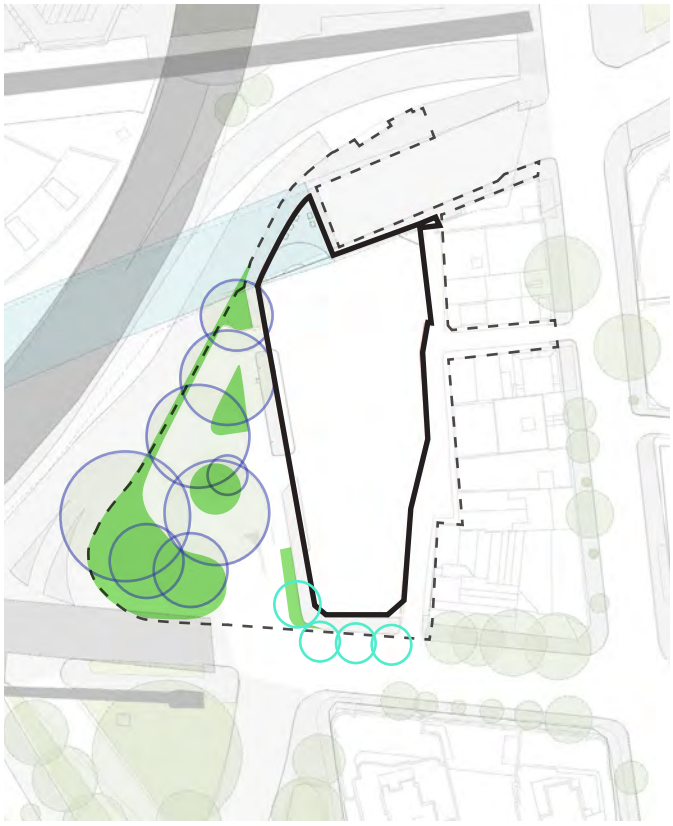
	Study area
	150 Day St lot boundary
	Northern pedestrian links
	Day Street
	Porte cochère & arrival garden
	Sands and Bathurst Street

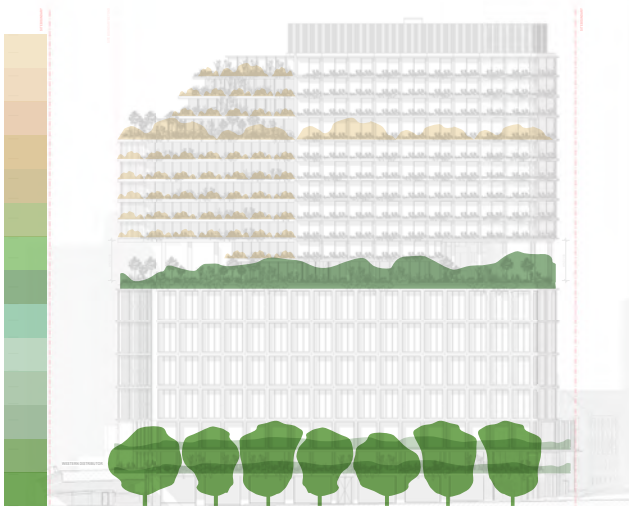
Property ownership

The area around 150 Day street features complex and diverse land ownership. 150 Day Street shares a boundary with or is in close proximity to land owned by the City of Sydney, Transport for NSW, Placemaking NSW as well as private owners.

LEGEND

	150 Day St lot boundary
	150 Day St
	City of Sydney
	Transport for NSW
	Placemaking NSW
	State Road





A healthy blue and green ground plane

Permeability of water across the site will be greatly improved with paving and new planting. Existing planting will be upgraded, with scope to expand. This will increase the biodiversity present in the area and connect to wider city networks. All trees present will be retained with more proposed.

LEGEND

	Study area
	150 Day St lot boundary
	Retailed trees
	Proposed trees
	Upgraded planting

City Greening

Landscape zones are crafted throughout the hotel, taking inspiration from the surrounding Sydney vegetation. These are informed by the micro climates mirrored and created in the built form. The zones include the coast, the ridge and gully.

LEGEND

	Coastline planting
	Sandstone ridge line planting
	Gully Forest planting

PUBLIC BENEFIT OPPORTUNITIES

Upgrades across the public domain of 150 Day Street target specific issues existing on site as well as through the wider city.

Aligning with the key design principles developed through the design process, they are focused on improving east-west connectivity and fine grain pedestrian permeability, enhancing the pedestrian experience and increasing the urban biodiversity and biodiverse network of the city. Allowing water to return to the ground on site is also a priority.



Positive outcomes for water sensitive urban design

Storm water collects in Sands Street as it funnelled by the city and boxed in by 150 Day Street's walls.

Adding rain gardens will address this issue, return water to Country and alleviate stress from the storm water systems.



Spreading Country positive design in the public domain

Land has been sealed and endemic vegetation removed across the site of 150 Day Street.

Integrating water sensitive, native vegetation into appropriate places allows the reaches of healthy country to re-establish in the highly urbanised area.



Integrating public art to expand the offer to the city

The City of Sydney's large public art collection currently does not extend to the area around 150 Day Street.

Leaving space and scope for generous integration will expand 150 Day Street's broader public offer.



Increasing city green and biodiversity

Spontaneous vegetation and monocultures are the current conditions of planting on site, with no garden bed having more than 3 species.

Turning the existing planters into vibrant and biodiverse typologies are crucial for supporting habitat. Hassell and the GANSW's 'Biodiversity in place' says "multi layered diverse plant species they can support up to 20 x more species."



Stitching into existing biodiversity networks

The site is over 200 meters away from any open space, as identified by the City of Sydney's open space deficiency analysis.

Increasing quantum of plants and species, as well as diversity of flowering and fruiting species, will allow the site to integrate into and expand the network of habitat across Sydney, acting as a stepping stone of habitat to broader city connections.



Upgrading city fabric

The Western distributor underpass is currently under lit, poorly finished and incredibly hostile to pedestrians.

Upgrades to the area will return it to a key east-west pedestrian link, and spread the revitalisation around the city

Increasing pedestrian legibility, wayfinding and safety

150 Day Street has 4 ground plane finishes around its border. Blue stone to Bathurst street, Asphalt to Sands, concrete under the western distributor and paving along the Day street interface.

Unifying these finishes to a city standard will prevent the ambiguity of public space, and allow the site to have a stronger relationship with the city.

PUBLIC DOMAIN PROPOSAL

Day Street

The arrival spaces to and through 150 Day Street will offer a diverse and colourful Sydney garden, improving the experience of guests and public alike.

The public domain proposal involves minimal interventions outside of the 150 Day Street property boundary, focusing on improvements to the Day St Footpath. It will also feature minor upgrades to the underpass and improvements to existing planting Further coordination with adjoining land owners (placemaking NSW, City of Sydney and TFNSW) is required.

Key Elements

- A large area at 1763m², the porte cochère has 600m² of garden bed.
- It will become a pleasant and safe place to drop off and pick up guests and users.
- Planting will be diverse and colourful, actively improving the biodiversity of the area. People will arrive into a diverse, colourful Sydney garden.
- It will provide a dense and central green outlook from the lobby and surrounding city.

Images:

1. Fish Lane town square, Brisbane
2. Park House, Melbourne
3. Wendy Whiteley's Secret Garden, Sydney
4. Hayden lane, Sydney

Existing site





Landscape character





Design character











Public Domain Proposal

LEGEND

1.	Upgraded Existing Planting	4.	Existing Wall	7.	Kiss And Ride Zone
2.	Traffic Light System	5.	Improved Underpass Lighting	8.	New Hotel Entry Point
3.	Upgraded Paving	6.	Landscaped Water Feature	9.	Existing Roundabout

PUBLIC DOMAIN PROPOSAL

Bathurst and Sands Street

150 Day street faces onto Bathurst, Day and Sands Street. Upgrades will change how the building meets the city and how the city flows around it.

A focus on permeability is placed, with opportunities for water gardens and chances to return water to the ground present on site.

Another part of the enhanced public realm scenario, Bathurst and Sands Street interventions will require coordination with the City of Sydney.

Key Elements

The site edges onto Day, Bathurst and Sands Street. These city interfaces will be calmed and offer improved pedestrian experiences.

Planting in the public realm extends the benefit to all people of the City rather than just users of the hotel.

Street trees planted on Bathurst Street increase the Cities canopy cover. Rain gardens in Sands Street also improve the permeation of water across the site.

Sands Street interventions extend usable city space and further the process of bringing Sydney to the human scale.

Images:

1. Foley Lane, Sydney (Hassell)
2. Victoria Park, Sydney (Hassell)
3. Sydney Metro Planting Trials (Hassell)

Existing site



Design character



1.

Planting character


2.


3.



Public Domain Proposal

LEGEND

1. Swale Planting 2. Public Art Integration 3. Landscaped Water Feature

PUBLIC DOMAIN PROPOSAL

Western Distributor Underpass

The Western distributor underpass is exists with very poor lighting, the floor finishes are in poor condition and the area is incredibly hostile to pedestrians.

Upgrades to the area will return it to well utilised east-west pedestrian link. These will include upgrading and unifying ground plane, improving lighting elements and integrating public art.

This is a key public upgrade and aligns with the 150 Day street, as well as City of Sydney Public domain strategies. It is intently focused on creating well designed, safe and accessible space.

Key Elements

- Connecting Day and Sands street to the North running Sussex Street. The western Distributor runs above.
- Revitalising the underpass will return it as a through site link, and key, east west, pedestrian link between the CBD and Darling Harbour.
- Reducing places pedestrians feel unsafe allows for the percolation of the public around the building, providing wide reaching public benefit and returning parts of the city to the people.

Images:

1. Drift Inversion, Denver, USA
2. Mirage at Underpass Park, Toronto, Canada

Existing site





Design character













Public Domain Proposal

LEGEND

1. Upgraded Paving	2. Public Art Integration	3. Improved Planting	4. Swale Planting

PUBLIC DOMAIN PROPOSAL

Public Domain Planting Revitalisation

Following the planting motivations of the project, species choice is informed by parallels between the micro climates of Country and 150 Day Street's urban condition.

Planting design

Deep shade is present all around the site, from the urban form as well as under the established Morten bay figs of the port cochere. Species choice has been dictated by these conditions, as well as the expected swale plantings.

→ Pre colonial vegetation community

Plantings has been informed largely by the remnant vegetation communities of Eastern Suburbs Banksia Scrub and Sydney Casurina Swamp Forest.



Notolaea longifolia



Dicksonia antarctica



Asplenium australasicum



Baurea rubioides



Leucopogon lanceolatus



Dianella spp



Hibbertia scandens



Machaerina juncea



Viola hederacea



Rulingia hermannifolia



Cyathea cooperi



Banksia robur

MATERIALS PALETTE

Public Domain

all images are indicative

Hardworks











Softworks



Port cochere planting
Hassell planting design



Sands Street planting
Hassell planting design

Urban Elements



Underpass Lighting
Kent Street Underpass



Garden lighting
Ecologically sensitive lighting



Integrated lighting
Into fixtures and structures



Street trees
Natives



City of Sydney treegrate
Tzannes

BUILDING LANDSCAPES VISION AND APPROACH

150 Day Street will be covered in a large, green offer to the wider city. It integrates Sydney landscape character onto the built form, enveloping the site in the mixture of colour and textures present in healthy Country.

Sydney's natural bushland is a defining feature of the city, with green corridors threading through its urban fabric. This project draws inspiration from three iconic vegetation typologies unique to Sydney: sandstone gully forests, sandstone ridge-line bushland, and coastal heathlands.

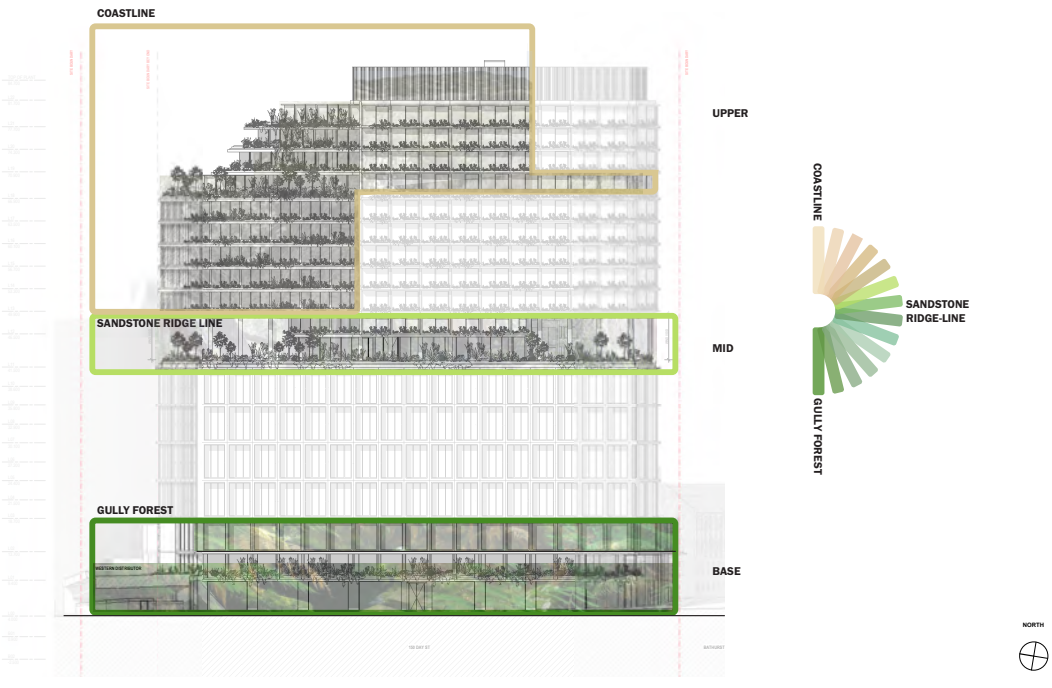
By reflecting the microclimatic diversity of Sydney's native ecosystems, the design works with the distinct urban context of 150 Day Street rather than against it. Strategic species selection aligns with the natural conditions these species thrive in, creating opportunities for ecological success and fostering a meaningful connection to Sydney's environment.

This approach seeks to weave the essence of Sydney's bushland into the project, balancing ecological integrity with urban resilience. It ensures that plantings not only flourish but also strengthen the identity of the space as a vibrant extension of Sydney's unique landscape.










UPPER PLANTING
The upper planting mirrors that of Sydney's iconic coastline. Pruned and trimmed by extreme conditions this vegetation is tight and mounding. Texture, form and colour are all highly recognisable as a Sydney typology.


MID PLANTING
Planted through the central area of the building, this reflects the natural condition of Sydney's ridge lines and escarpments. The form and look is dictated by its climate and sandstone soils.


BASE PLANTING
nforming the planting around the base of the building, the lush gully forest reflects the coolness and tranquillity of the Sydney enriched sandstone understory.

BUILDING LANDSCAPES

Green Edges

Turning the city wall green, the terraces and balconies of 150 Day Street will display iconic Sydney vegetation typologies to the wider city. Visible from key areas, it will operate as an important landmark and city benchmark for design and innovation.

Key Elements

Residing at level 11, the key terrace will display a concentration of green, anchoring the above floors.

The floor will be integrated with the gym and other hotel amenities, allowing the planting to be interacted with, and extend within the built form.

Providing large areas for planting, this concentrated loop will be bright, colourful and biodiverse. This will also provide habitat for other kin within the city.

Not only visible from the hotel, this planting will be a landmark for the city, with strong views from the Western Distributor and Darling Harbour.

Images:

1. Surry Hills 1 Sydney
2. Rozelle Rooftop, Sydney
3. Victorian Parliament House, Melbourne
4. Skyline, Sydney
5. The Nine, Sydney
6. M Central Sydney

Landscape character





Design character



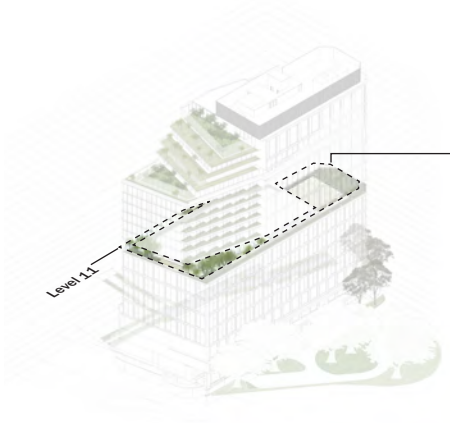












TRANSFER FLOOR

The Transfer floor has the verdant planting of a Sydney sandstone ridge. A key visible area, anchoring important views from Darling harbour and the Western Distributor (East bound), the large green belt, will act as a new landmark for the city. Planted into large soil depth, the transfer floor will support established species, mounding and undulating to create further interest.



Level 11 - Gym & Transfer floor

LEGEND

1. Accessible balcony
- - Site boundaries
2. Sandstone ridge planting
Proposed trees

Sample Planting Design

Planting along the transfer floor aims to create volume and vibrance all year round.

It should be a diverse and flowering garden, which provides habitat and joins the Darling Harbour and wider Sydney City biodiversity network

Species are informed by Sydney sandstone ridge line and rock plate plant communities.

The form of the floor will either be seen from a wide variety of distances and resolutions, and thus must provide interest at both through form, colour and variation.


Melaleuca armillaris


Kunzea capitata


Isopogon anemonifolius


Baeckea brevifolia


Pennisetum alopecuroides 'Pennstripe'


Banksia ericifolia

BUILDING LANDSCAPES

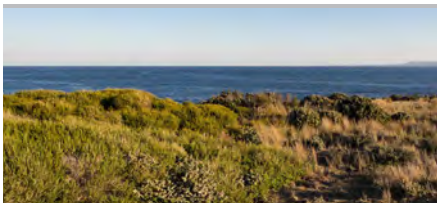
Balconies & Terraces

The celebration of Sydney vegetation across the roofs of 150 Day Street. Plants hemmed by conditions as on the coast, areas are sliced to provide luxurious experiences.

Landscape character







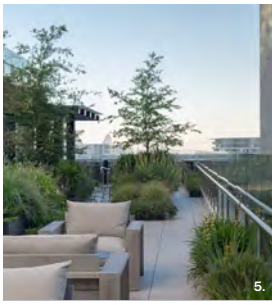
Design character



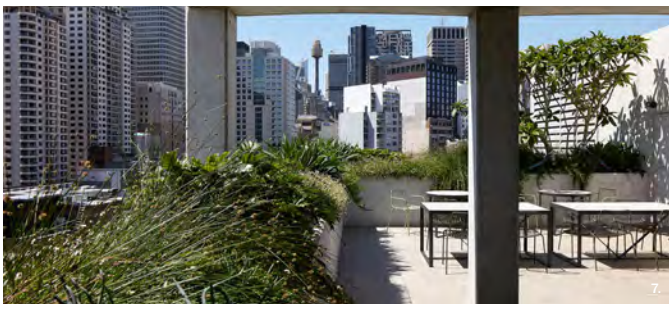






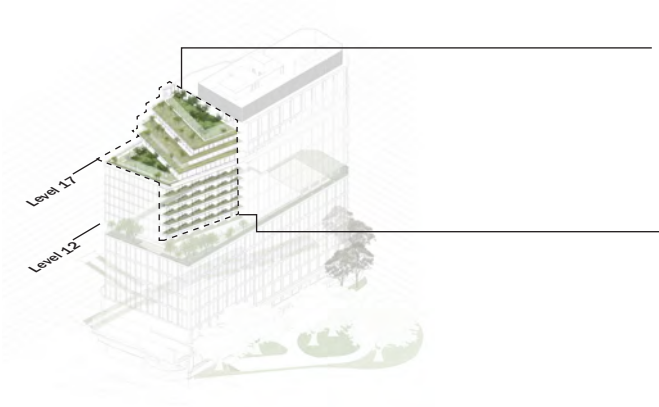






Images:

1. Mornington Peninsular, Victoria
2. Sydney Modern art gallery, Sydney
3. Sydney Modern art gallery, Sydney
4. Surry Hills 1, Sydney
5. Skyline, Sydney
6. Intercontinental, Sydney
7. 52 Reservoir Street, Sydney

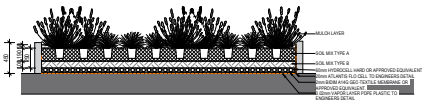


TERRACES

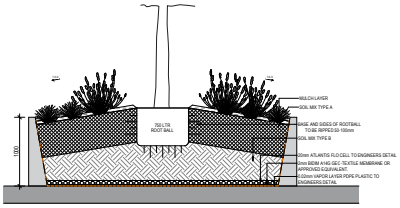
The rooftop terraces cap the experience of 150 Day street's extensive green. Planted to resemble the beaten heathlands of Sydney's coasts, their form is unique to the iconic city it sits within. In the accessible areas of the terraces, planting is protected by screens, and is able to grow larger and be pruned by human maintenance, providing a more manicured experience

BALCONIES

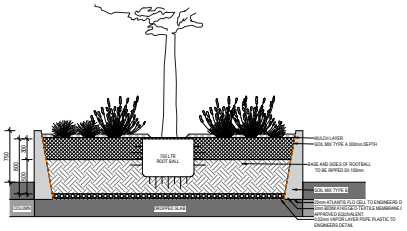
The balconies stretch from level 12 to 17, and form the green wall of the hotel. Reading as the clumping forms seen in coastal headlands, the balconies read as a homogeneous mass rather than individual planters. From within the hotel, guest's views are framed by successful and diverse planting, typical of Sydney.



Typical section - Ground cover planter on slab



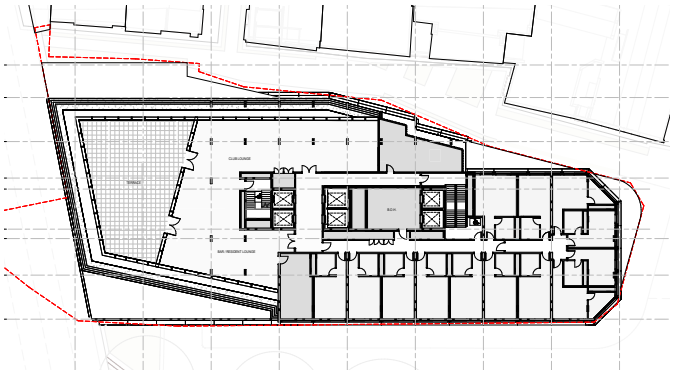
Typical section - Battered tree planter on slab



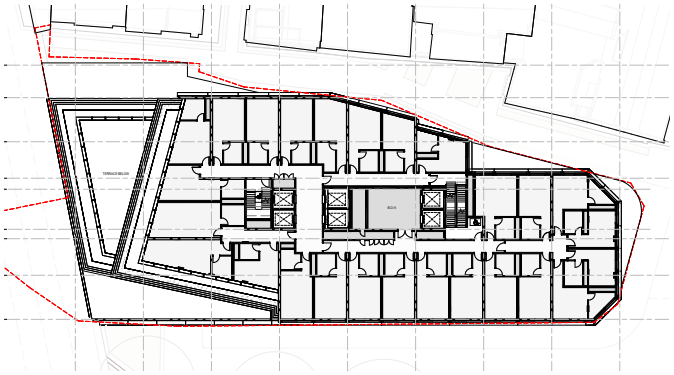
Typical section - Dropped slab planter



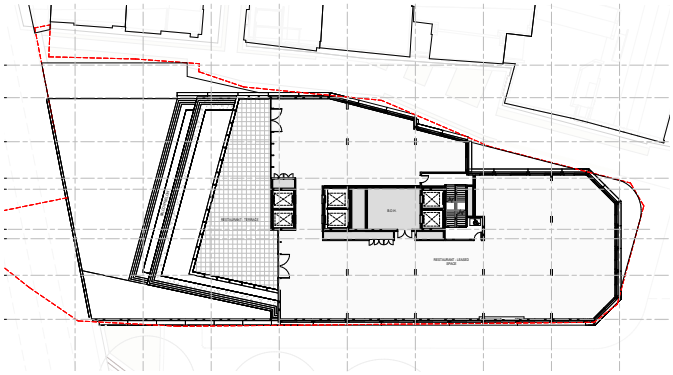
Level 13 Balconies



Level 18 Terrace



Level 19 Balconies



Level 21 Terrace

ENVELOPE DESIGN

PROPOSED MASSING COMPLIANCE

Pedestrian Wind Environment Report

All wind points analysed are equal to or better than existing conditions. - Windtech, Pedestrian Wind Environment Report.

View Sharing Impact Analysis

"For all views considered based on the CGIs, view loss per dwelling is limited in qualitative terms, and the view impact per dwelling based on the information available, is reasonable and acceptable." - Urbis, View Sharing Impact Analysis

Solar

The design guidance in ADG relating to overshadowing of adjoining property states solar access to neighbouring properties must not be reduced by more than 20% (compliant as an average per apartment).

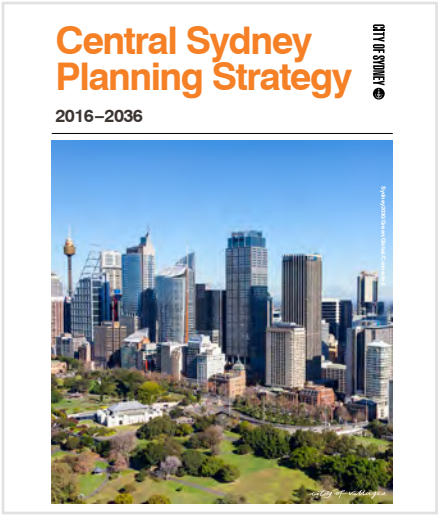
The envelope for the planning proposal is defined by three key metrics that impact the urban environment. With Solar being a key driver, The Central Sydney Planning Strategy acknowledges and anticipates overshadowing as the city grows.

Vision: 'Introducing a new planning pathway for heights and densities above the established maximums limits will increase growth opportunities for employment floor space, promote the efficient use of land, and encourage innovative design. It will also unlock opportunities for the delivery of cultural, social and essential infrastructure and improved public spaces commensurate with growth.'

Location based aspirations: 'These opportunities are focused in those areas of Central Sydney less constrained by sun access planes.'

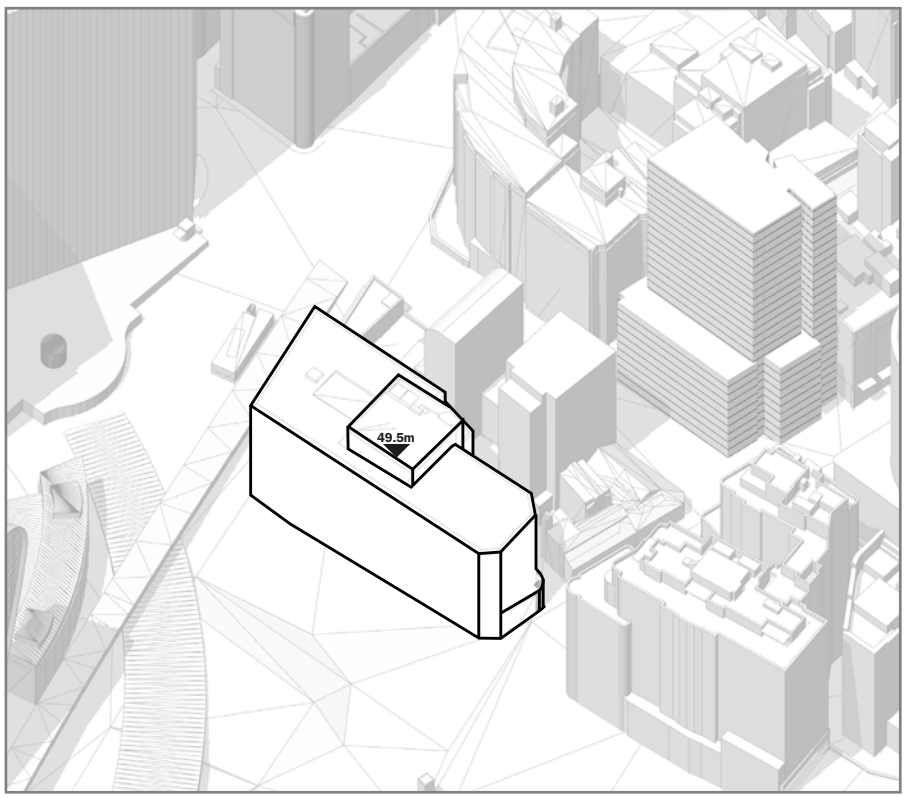
Use based aspirations: 'Prepare a guideline to allow additional height for employment-related development where there is no additional overshadowing of protected places.'

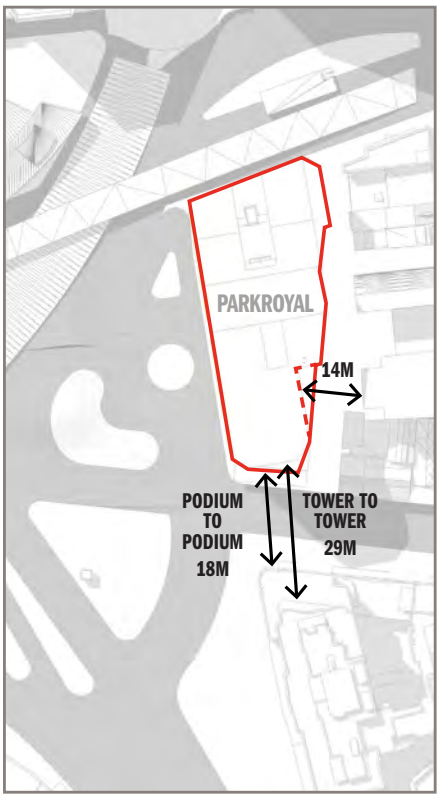
Aims: 'To ensure the development of new commercial buildings is not unreasonably impeded by existing residential buildings' and .... 'To ensure that new development is not impeded by the preservation of private views'.



MASSING
Existing Building

The existing hotel is directly north of adjacent residential developments, however it maintains large building separations to mitigate view impacts and solar impacts. Where overshadowing is a risk at the south of the site, the building separation is over 18m, mitigating impacts.





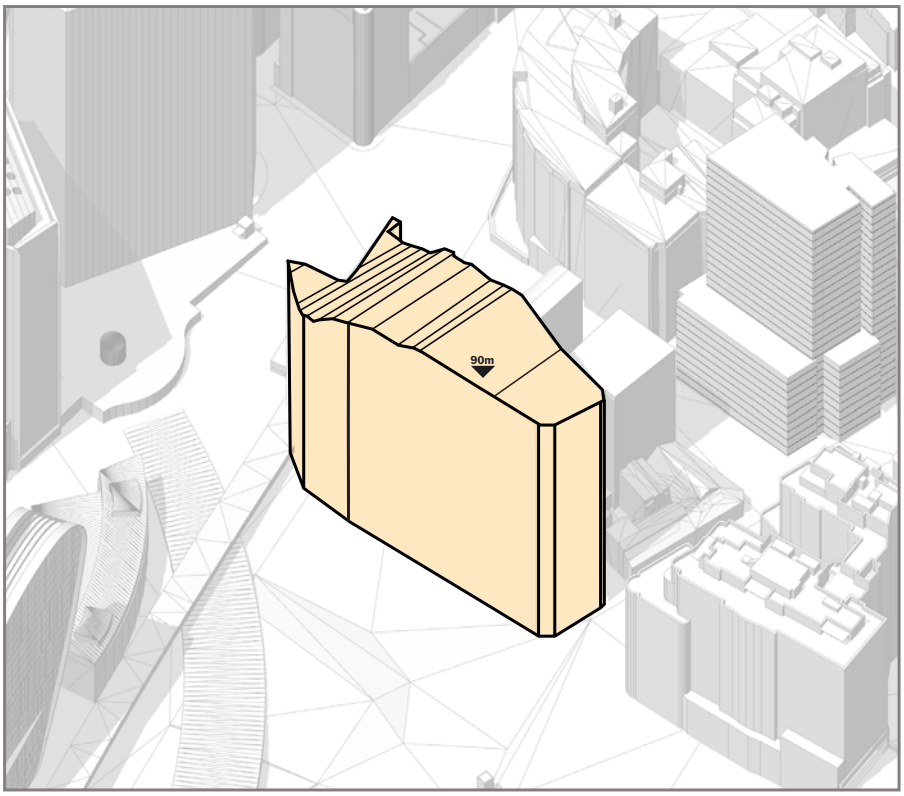
MASSING

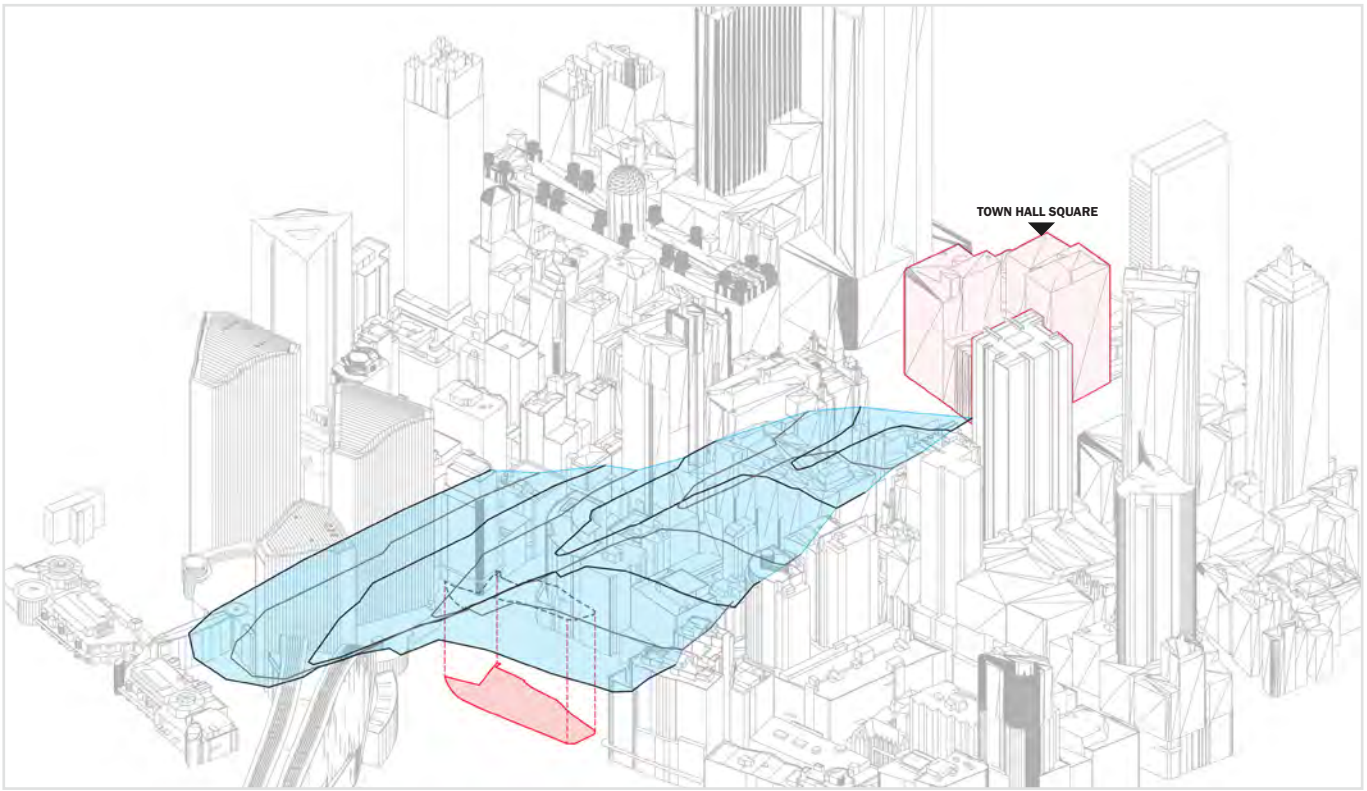
Step 1 - Extrude the site boundary to intersect with the Town Hall Solar Plane

Maximum envelope under Town Hall Solar Plane.

Sydney Local Environmental Plan (LEP) 2012 Clause 6.19 lists the future Town Hall square as one of the Public Places in the City Centre which must not be additionally overshadowed by new development.

The Town Hall envelope, as defined by the Town Hall solar plane, reaches a maximum height of RL 90m.





MASSING

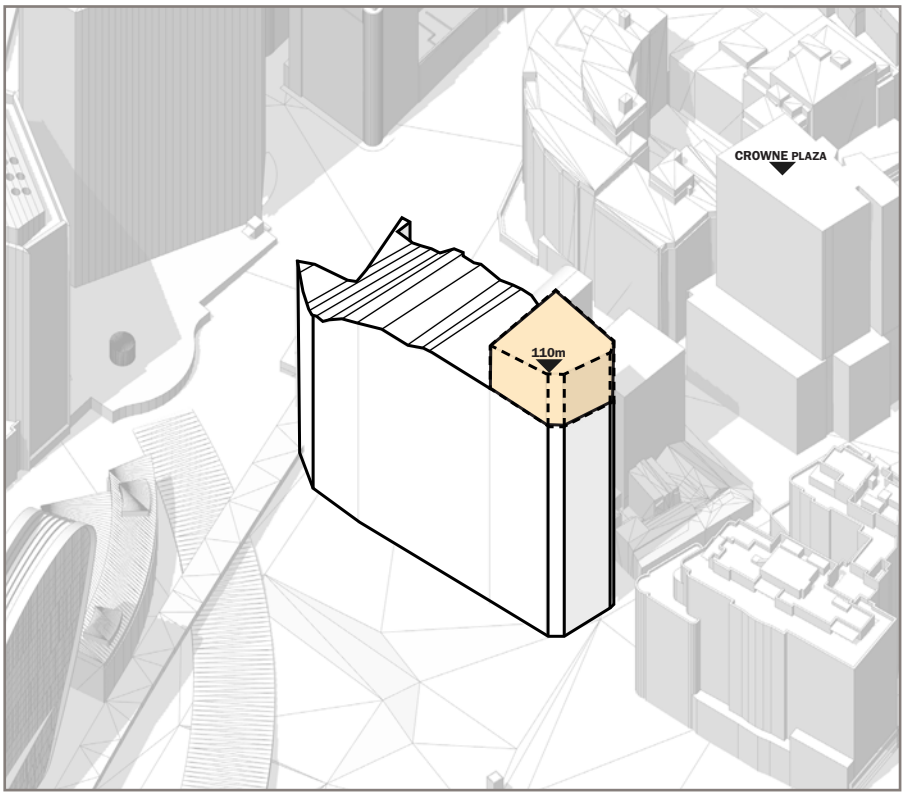
Step 2 - Increase height within the shadow of other developments

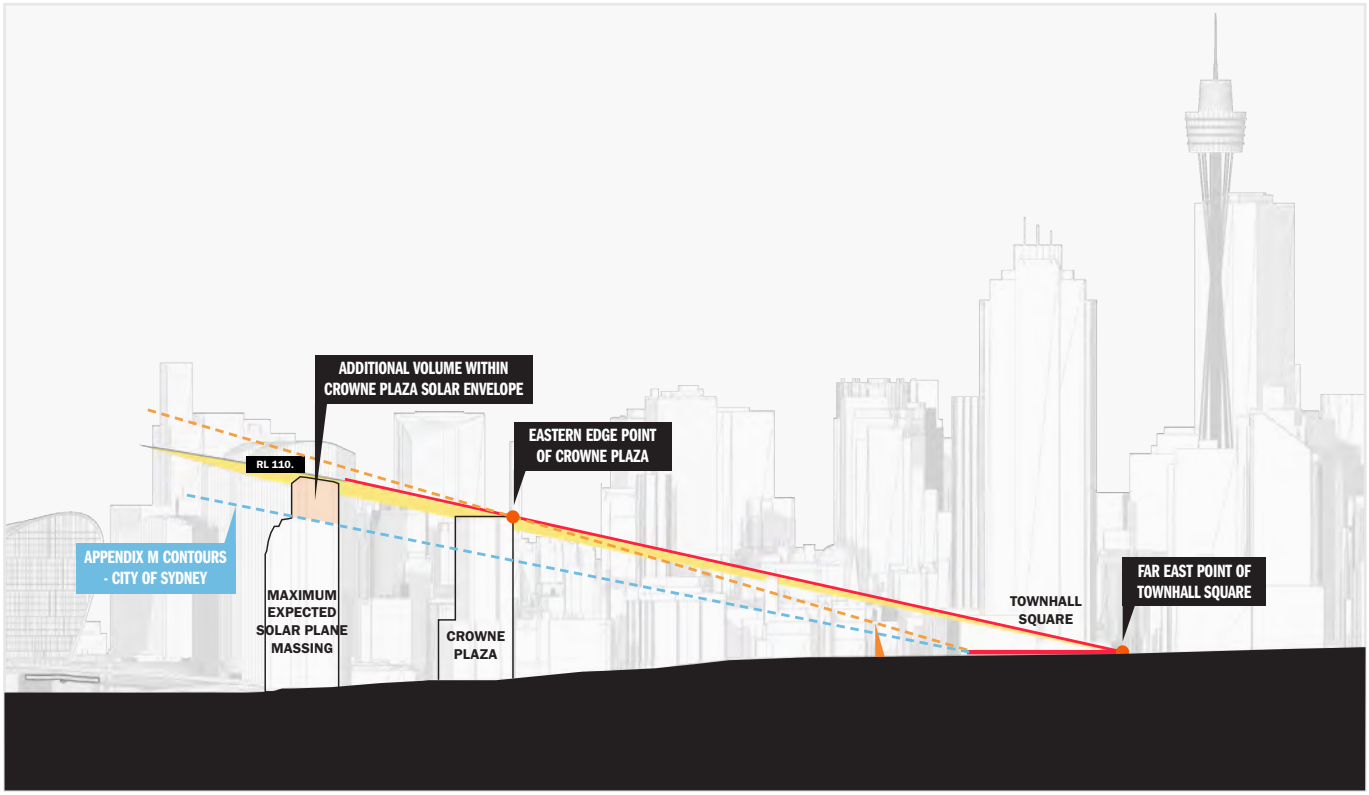
Maximum envelope that can sit behind Crowne.

Since the Crowne Plaza, positioned between the project site and Town Hall Square, exceeds the town hall solar plane, it permits additional height on the site without further overshadowing the square.

The revised solar plane is created by connecting key points from Town Hall to Crowne Plaza and includes lines from the northeast and northwest corners of Town Hall Square to the far points of the Crowne Plaza.

By linking the far-west points of Town Hall Square to the southeast corner of Crowne Plaza, a higher plane is formed. Additional height beyond the Town Hall solar plane is feasible behind Crowne Plaza without compromising sunlight access to Town Hall Square.





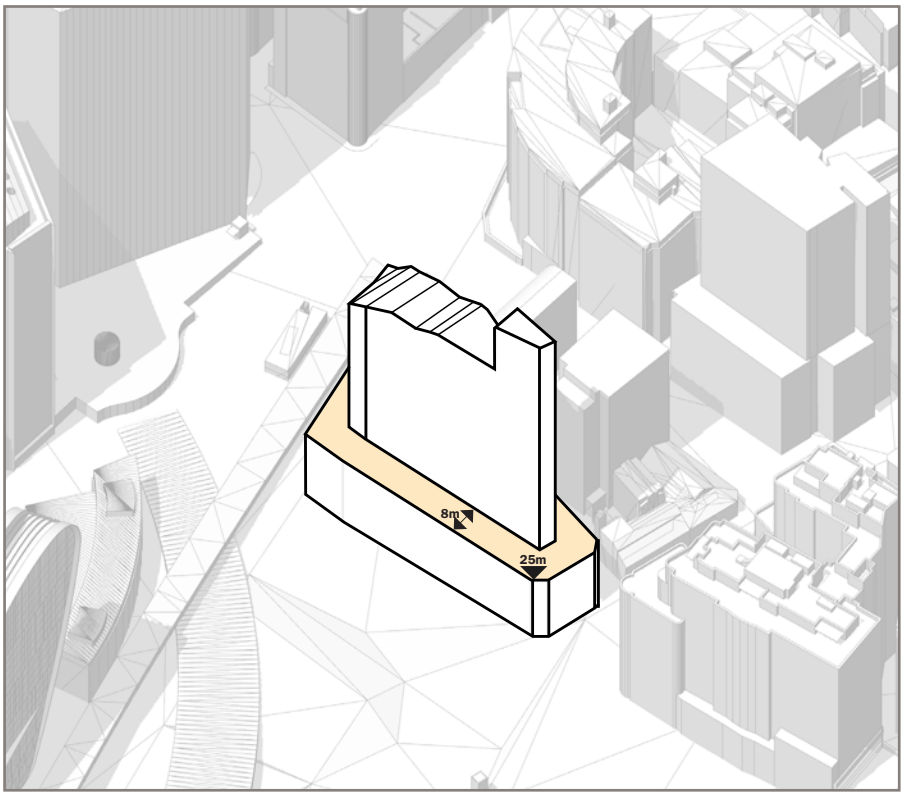
MASSING

Step 3 - Apply DCP setbacks

25m podium and 8m setbacks as per CoS.

Step 3 involves applying the City of Sydney's guidance, which sets the introduction of a 25 meter podium followed by an 8 meter setback for the tower above.

However, even with the application of these 8-meter setbacks, there is minimal overshadowing relief provided to the surrounding residential buildings, given the site's direct northern orientation in relation to Millennium Towers and Maestri Towers. As such, it is the overall height of the development, rather than the width, that contributes to overshadowing in this context.



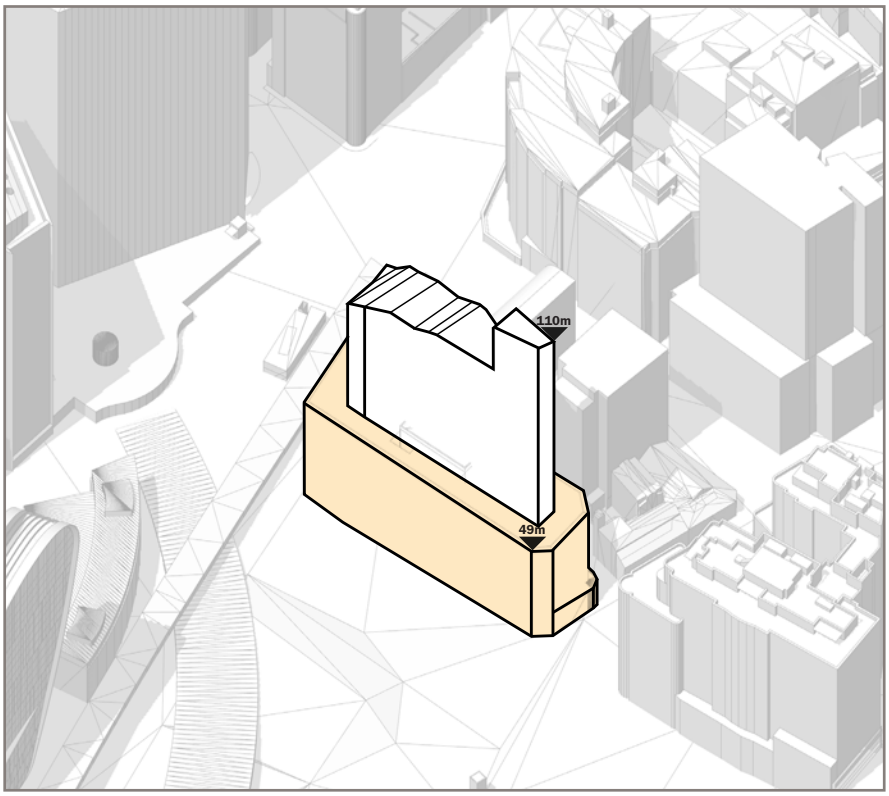
MASSING - DCP BASE CASE ENVELOPE

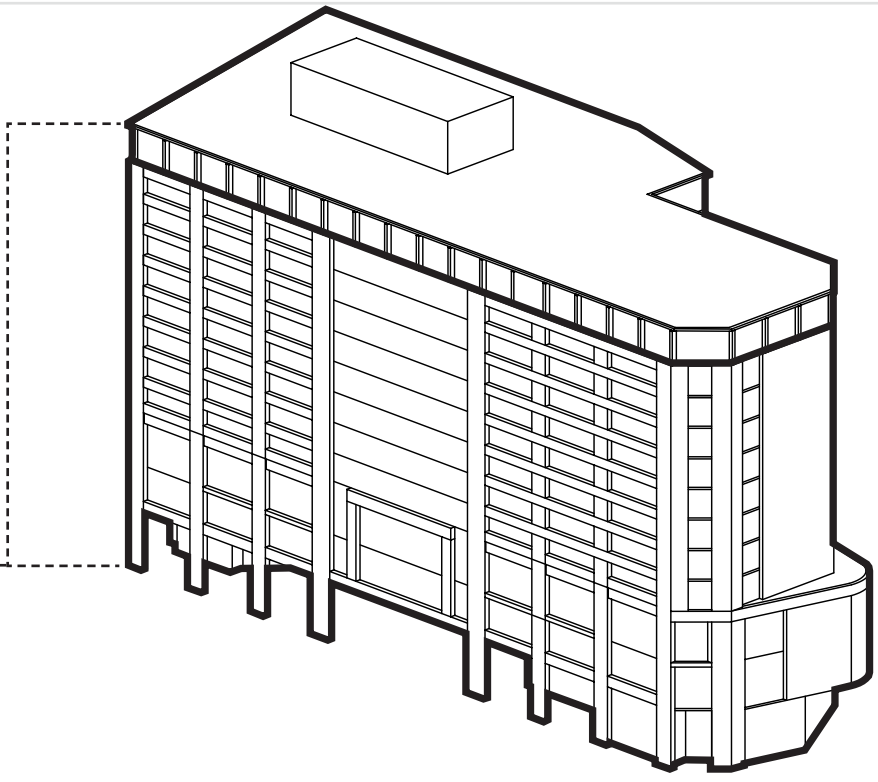
Step 4 - Overlay the existing building which will be retained

Retained existing building envelope.

Given that the project's proposal significantly depends on the merit of adaptive reuse, the existing built envelope is set to be retained. Therefore, the next step in developing the DCP base case envelope involves overlaying the current building, which exceeds the City of Sydney's 25-meter podium guidance.

This approach ensures alignment with adaptive reuse principles and sustainability measures.





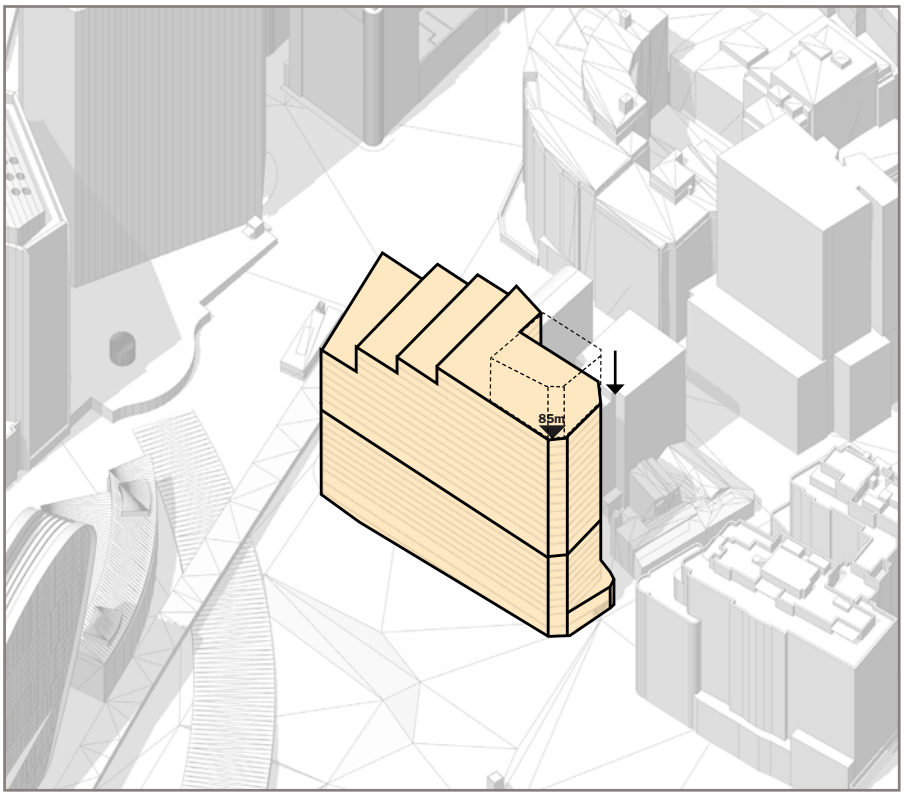
Retained the existing structure, thus maintaining the podium envelope.

MASSING - PROPOSED ENVELOPE

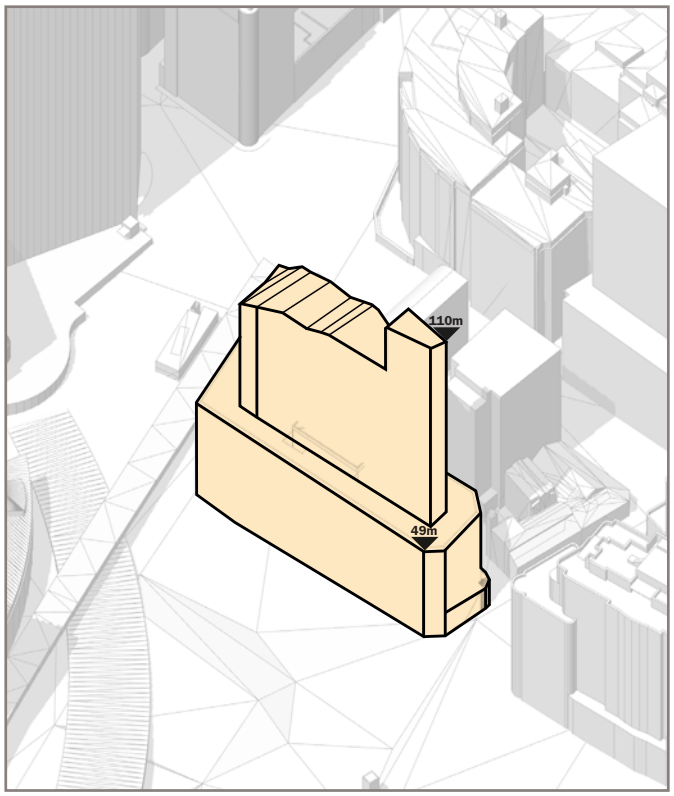
Step 5 - Reduce height to mitigate solar impacts to neighbouring residential properties

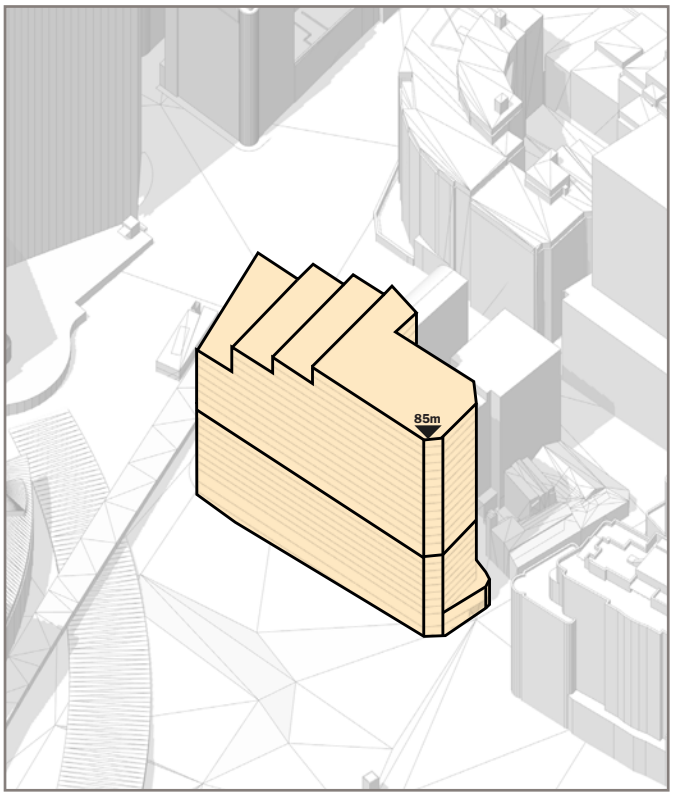
Optimise envelope against planning context.

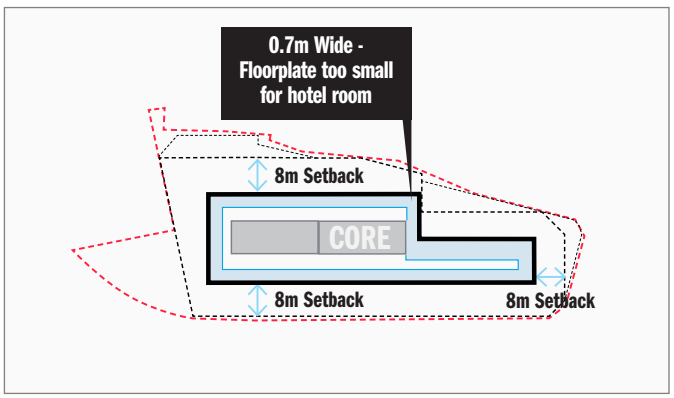
The proposed envelope features a reduced height compared to the base case to mitigate solar impact on adjacent residential properties.

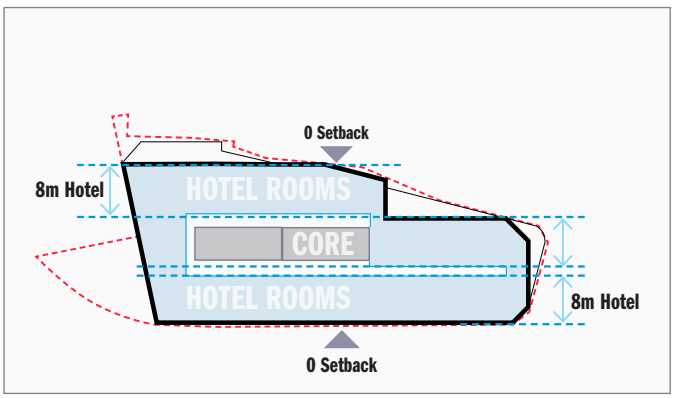


28 STOREYS → 23 STOREYS









Schedule 11 Comparison Envelope

The Schedule 11 Envelope floorplate is not useable as floor area in a hotel or commercial building due to the narrow width.

Given a residential development is directly south of the project site the height of the proposed envelope creates a long shadow to the buildings to the south, and thus the altered proposed envelope looks to reduce the proposed height.

Proposed Envelope

Being lower than the comparison envelope, this massing "provides equivalent or improved wind comfort, wind safety and daylight levels in adjacent Public Places relative to a base case building massing." - Schedule 11

MASSING - SCHEDULE 11 VS PROPOSED

The City of Sydney DCP Schedule 11 provides "procedures for demonstrating compliance with variation provisions for setbacks, separations and tapering in Central Sydney." This planning proposal has followed this procedure.

SCHEDULE 11 BASE ENVELOPE

As the subject site is greater than 1,000m2, the initial step in the procedure is to determine a base case massing for comparison.

BASE ENVELOPE REQUIREMENTS

Under the City of Sydney Central Sydney Planning Strategy, the maximum heights of both the Schedule 12 Comparison Envelope and the Proposed Envelope are determined by relevant Solar Access Planes and No Additional Overshadowing Controls. In the 'Solar Envelope' section of this report three factors have determined the maximum height of the total envelope:

The Future Town Hall Square Solar Plane

Solar Access to Living Areas of Adjacent residential properties

View Impact Analysis from Neighbouring buildings

PROCEDURE B: Equivalent of improved wind comfort and wind safety and daylight levels in adjacent public places

In order to demonstrate compliance with Section 5.1.1.1(3)(b) and Section 5.1.1.3(5) in regards to varying Minimum Street Setbacks and Side and Rear Setbacks, Building Form Separations and Tapering provisions respectively, the following procedure must be followed:

(1) Procedure B can only be used to vary setbacks for sites larger than 1000m2. [COMPLIANT]

(2) Where (1) is satisfied, variation to relevant setbacks may be permitted to building massing that provides equivalent or improved wind comfort [COMPLIANT], wind safety [COMPLIANT] and daylight levels in adjacent Public Places [COMPLIANT] relative to a base case building massing with complying Height, Street Frontage Heights, Street Setbacks, Side and Rear Setbacks an Tapering [COMPLIANT: EXISTING BUILDING RETAINED AS PODIUM, HEIGHT UNDER SOLAR PLANE, AND BUILDING SITS UNDER 120M - NO TAPER]

(3) The base case building massing with complying Street Frontage Heights, setbacks and tapering is established by modelling 3 dimensional podium and tower components as follows:

(a) The podium is modelled by extruding the subject site boundary vertically 35m above existing ground level (as it varies around the site perimeter) for buildings up to 120m high and 25m above ground level for taller buildings.

(b) The Tower Component is modelled by defining an area set out by the required street, side and rear streetwall setbacks identified under the DCP, excluding areas over heritage items and Tower Component areas narrower than 6m wide. For Tower Components where at least one face is longer than 30m the resultant area is chamfered with a 10m radius at all external corners. The resultant shape is extruded to the maximum permissible building height as it varies around the site. The resulting tower form must be tapered by scaling it horizontally in both horizontal directions (X and Y) by 95% between 120-240m and by 90% above 240m above ground level.

VIEW IMPACT ASSESSMENT









The proposal is located within a highly urbanised location which includes development of varied height and scale, similar to the proposal.

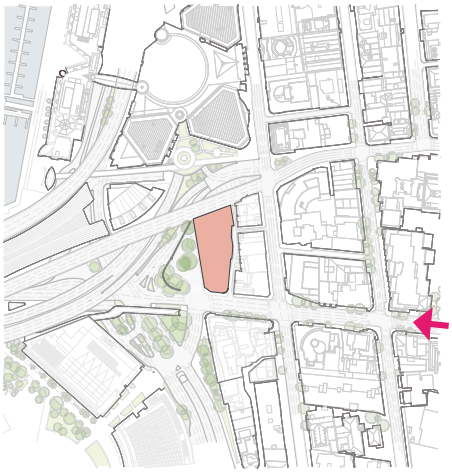
- → The affected views of 273 Sussex Street would likely only be on the top two levels orientated to the west, with all levels below already looking at the existing built-form of the hotel on site. Views to the north, east and south would be unaffected.
- → None of the views to be affected include icons, and the views assessed would not be considered as iconic in Tenacity terms.
- → The views affected were not considered to be scenic or highly valued views.
- → The Sydney DCP 2012 contemplates views versus outlooks and that views cannot be guaranteed, and that private views should not unduly restrict the economic performance or growth of Central Sydney.
- → "The proposal is highly compatible in visual terms with its surrounding context."
- → For all views considered based on the CGIs, view loss per dwelling is limited in qualitative terms, and the view impact per dwelling based on the information available, is reasonable and acceptable.

Attachment A2

Urban design report - Part 4

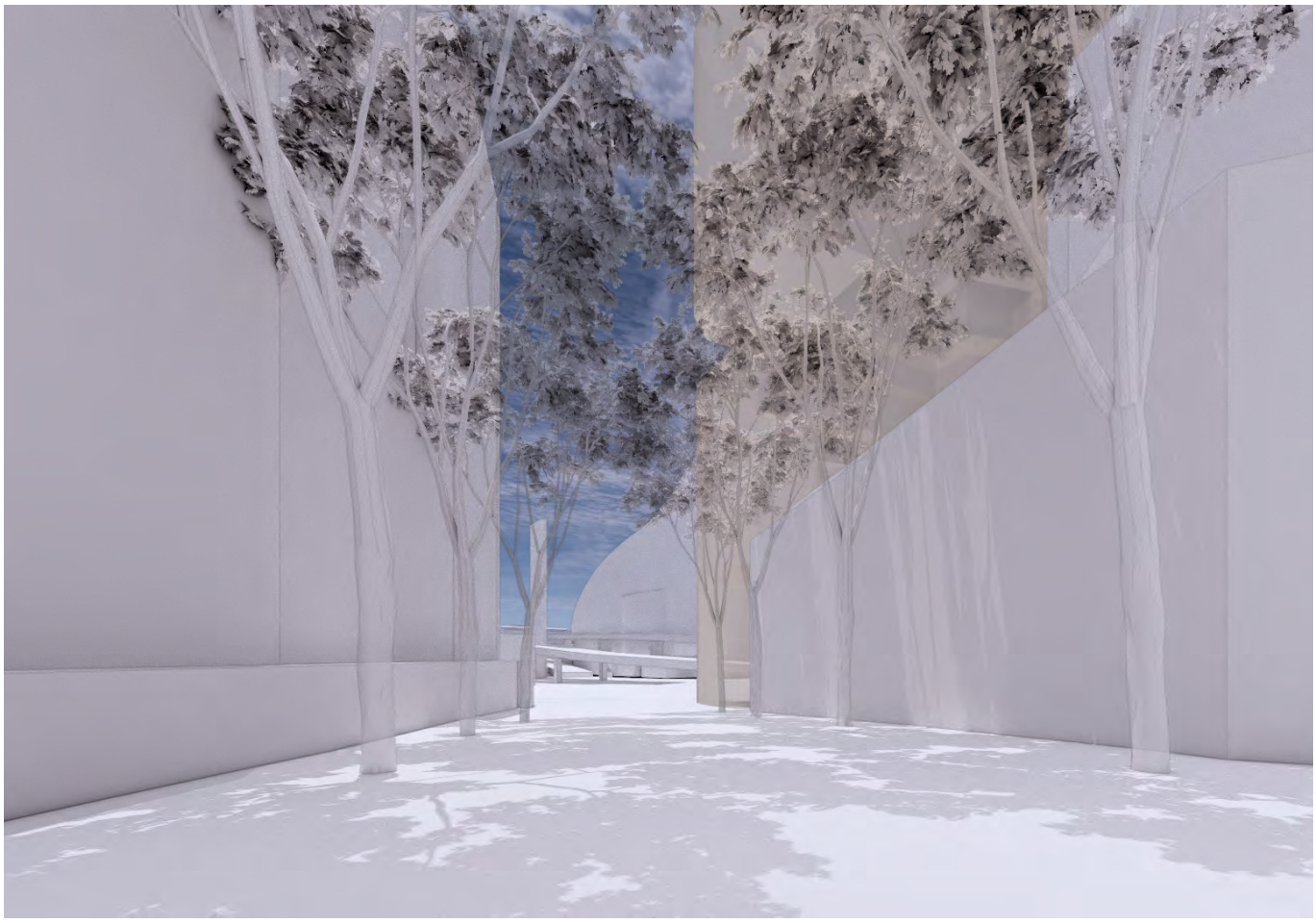
KEY PEDESTRIAN STREET VIEWS

George Street – Bathurst Street Intersection



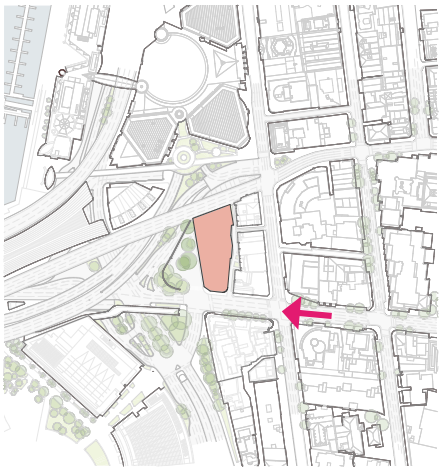






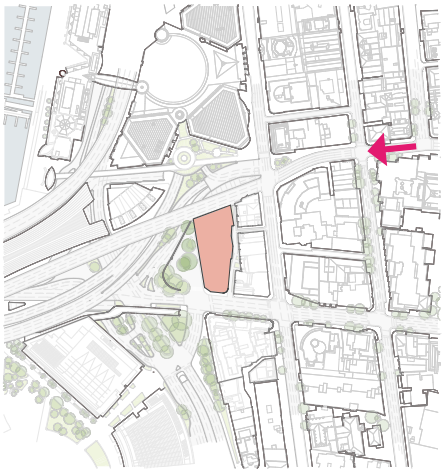


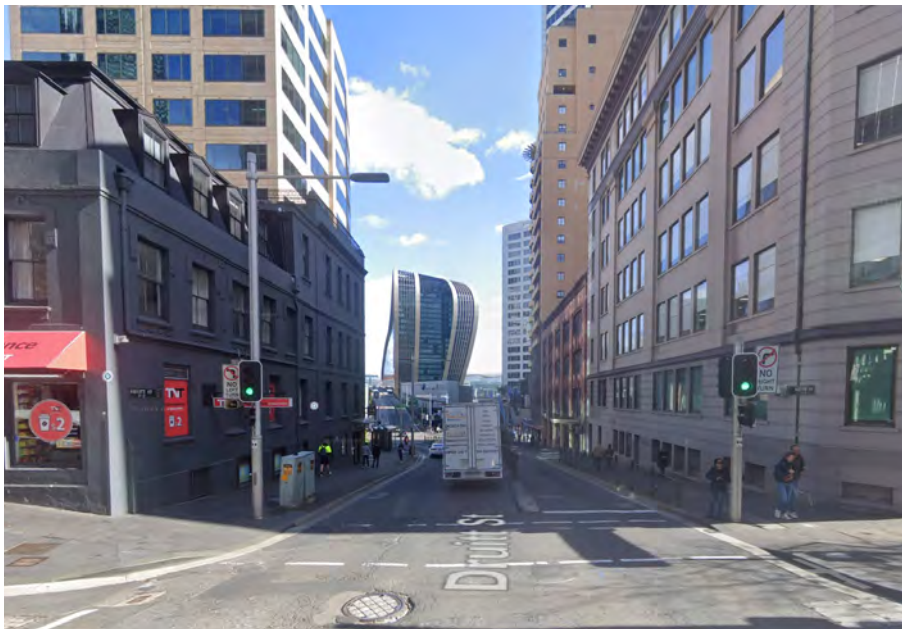
Sussex Street – Bathurst Street Intersection

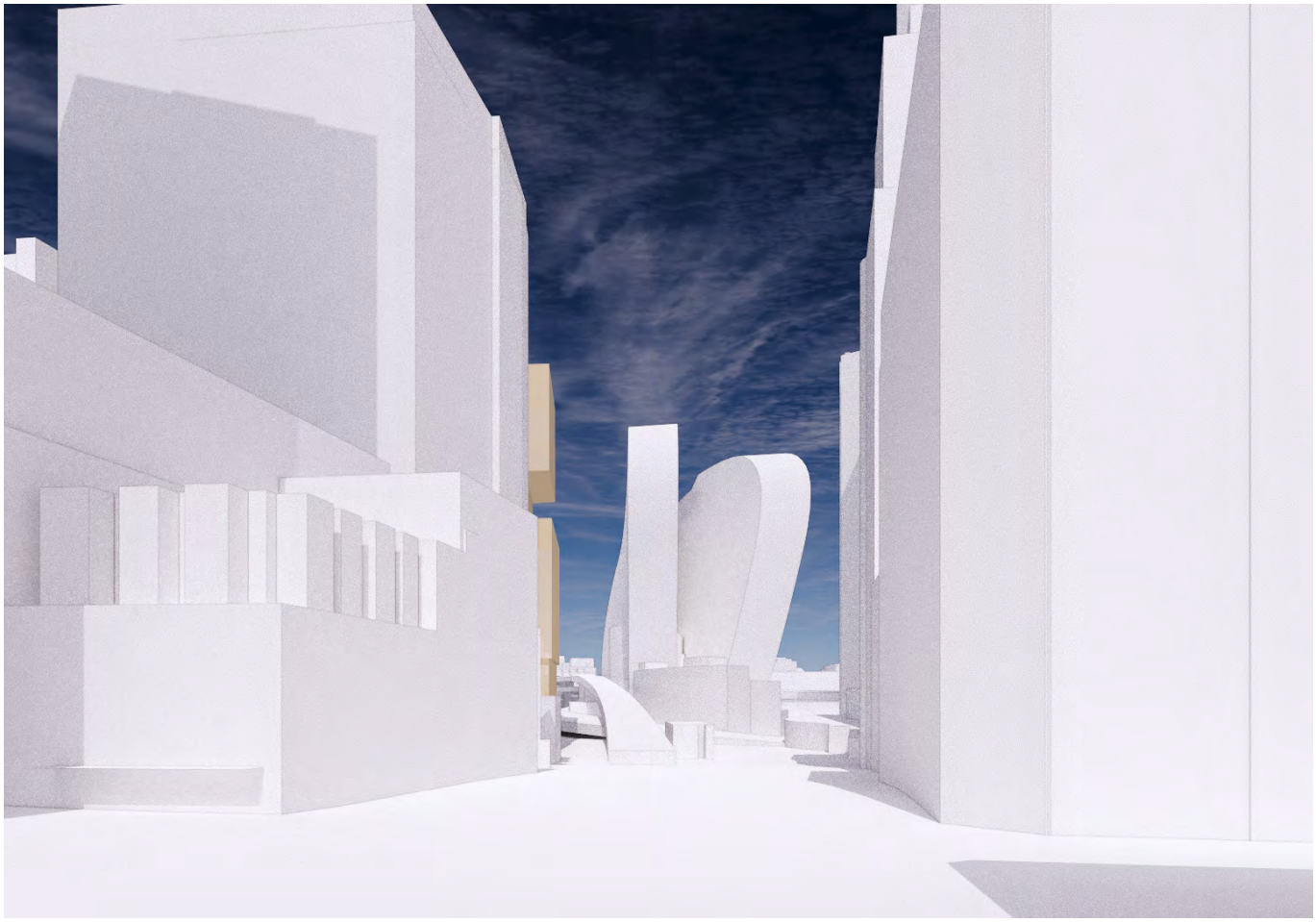


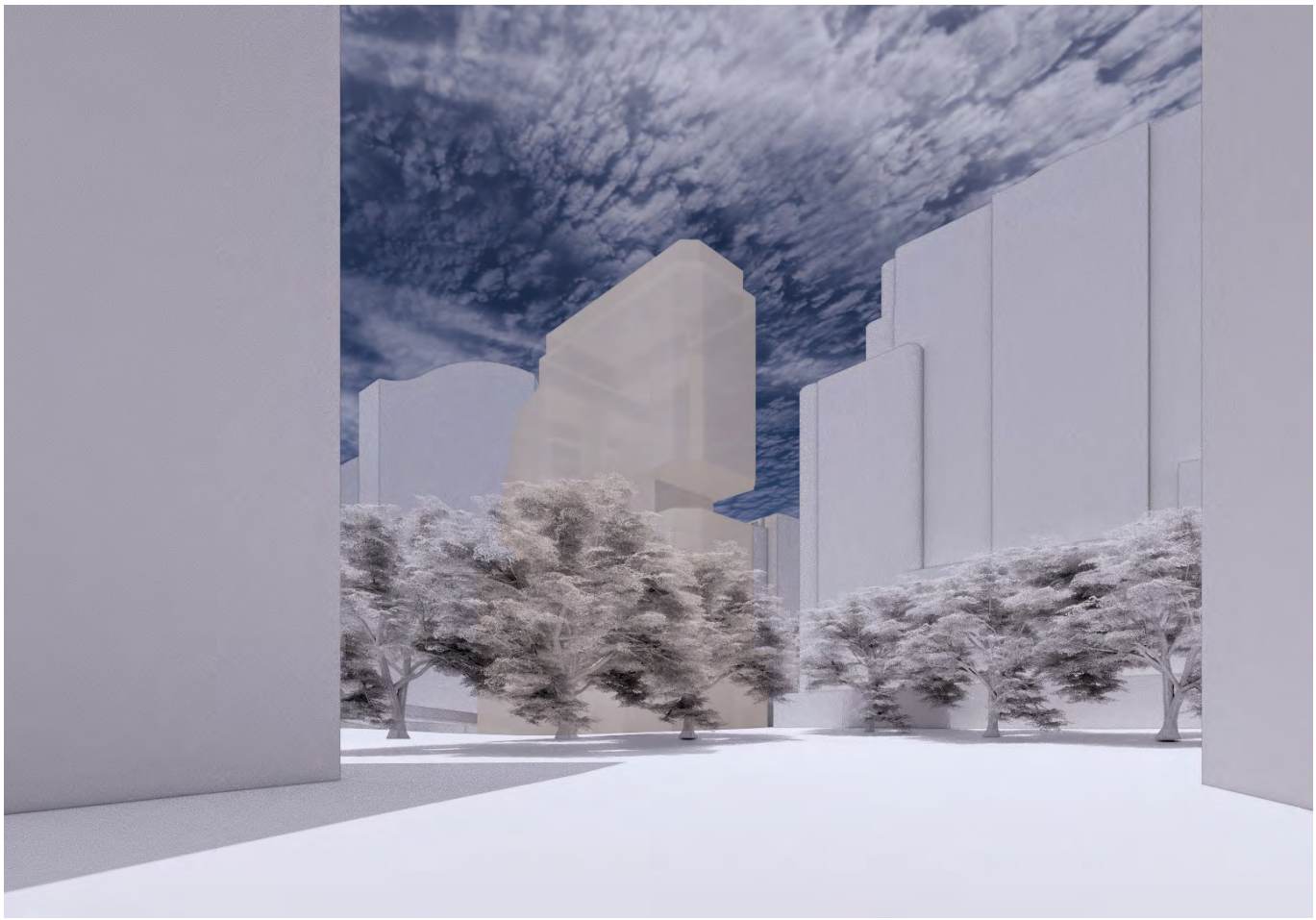
KEY PEDESTRIAN STREET VIEWS

Druitt Street – Kent Street Intersection



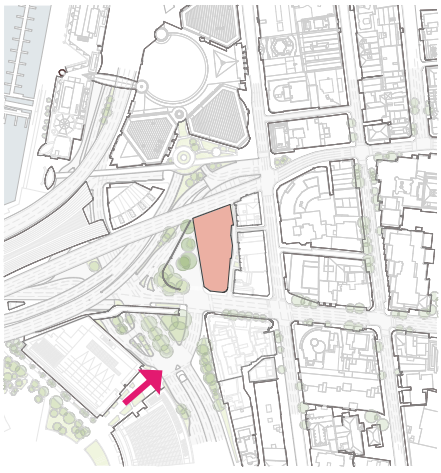






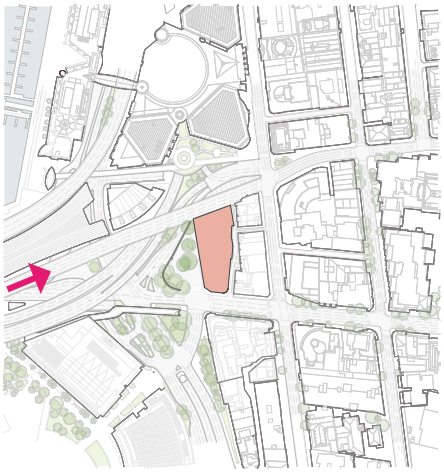


Darling Harbour Walk

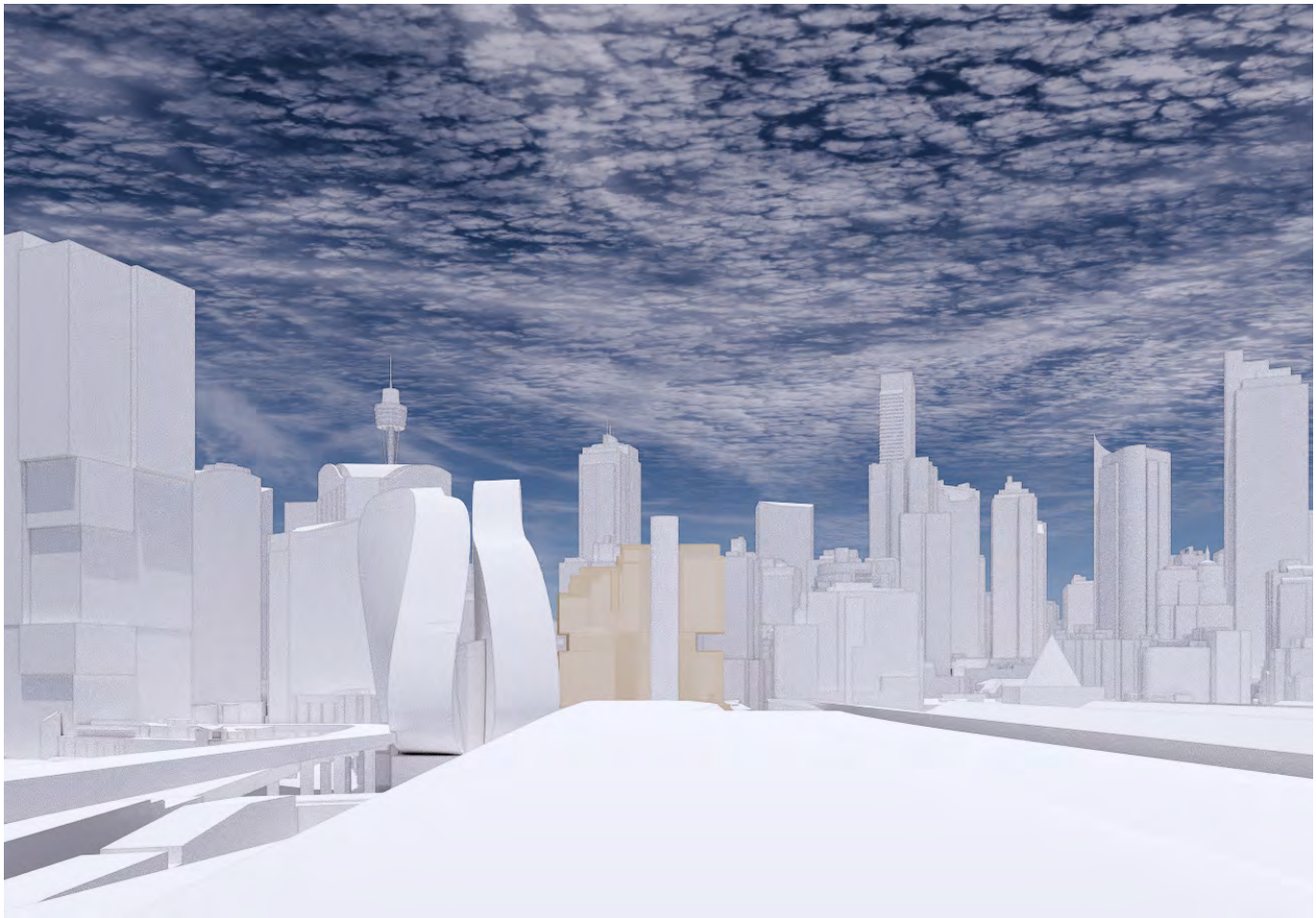


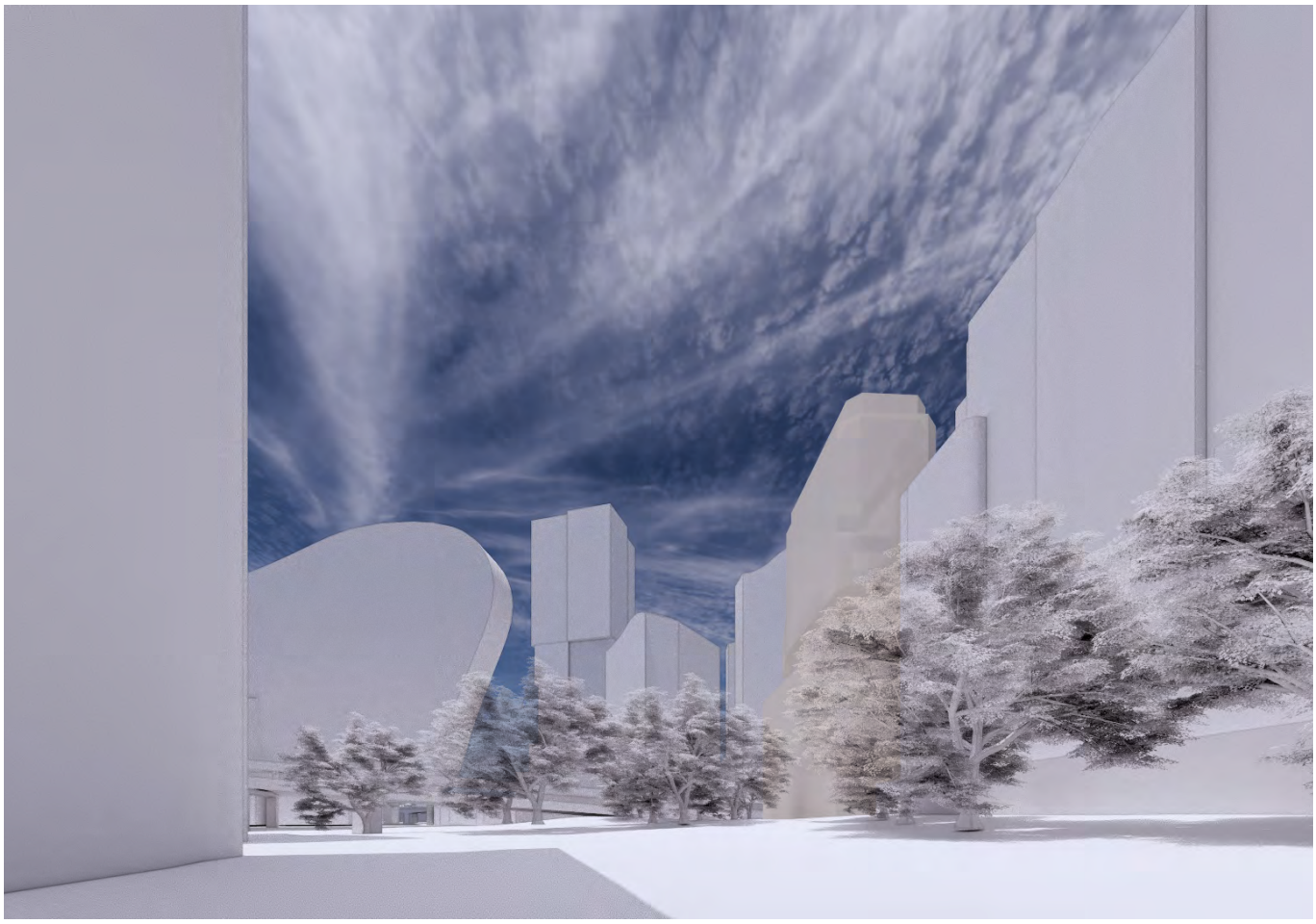
KEY PEDESTRIAN STREET VIEWS

Western Distributor



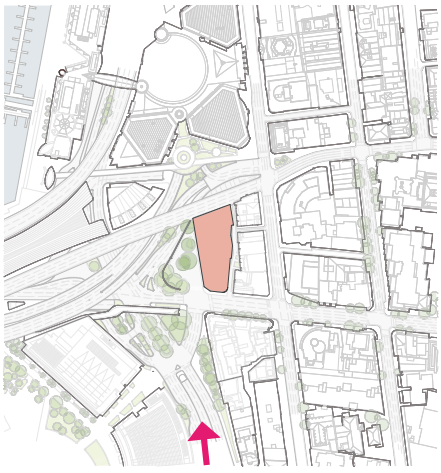








Harbour Street

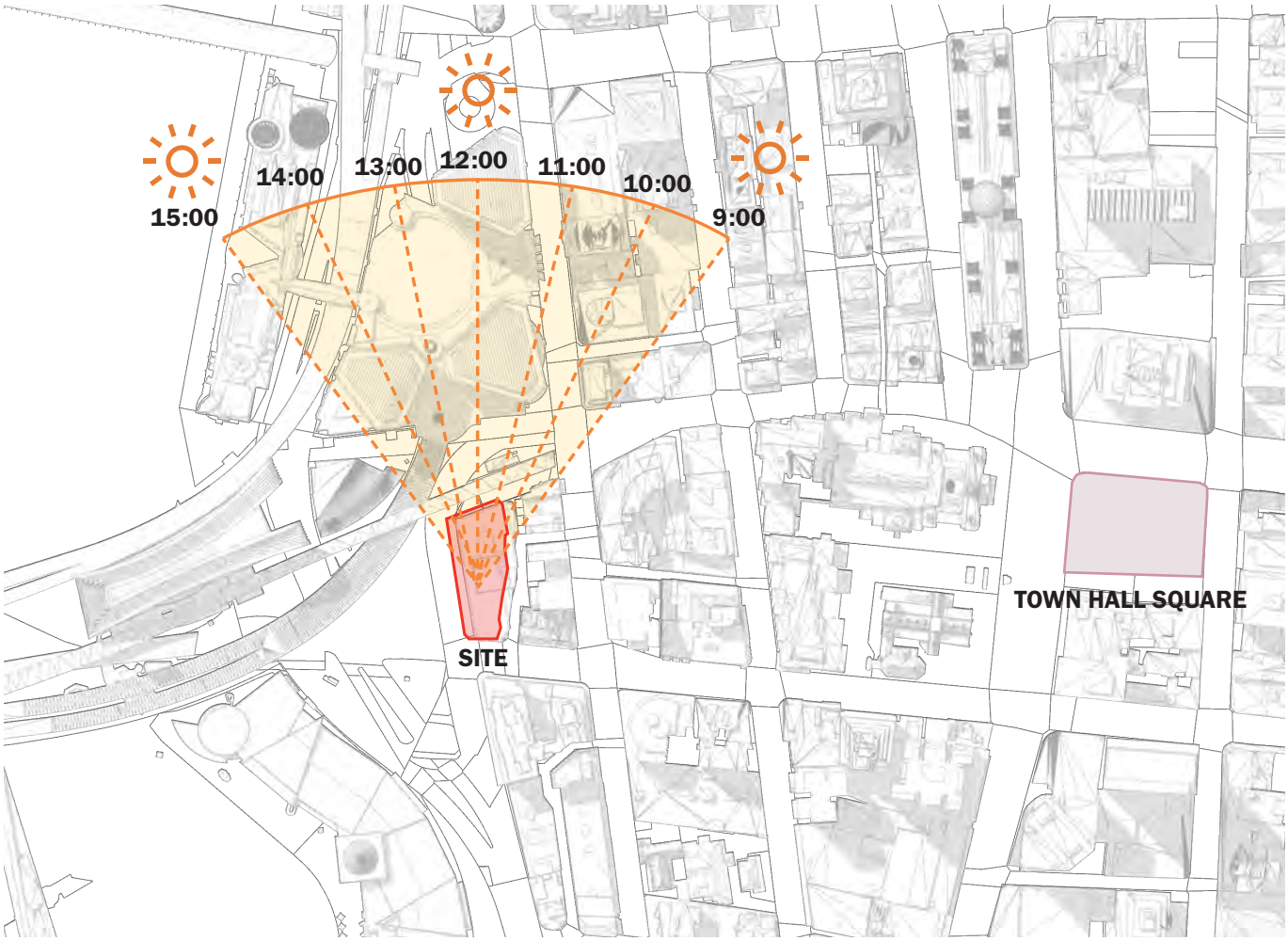


SOLAR ANALYSIS

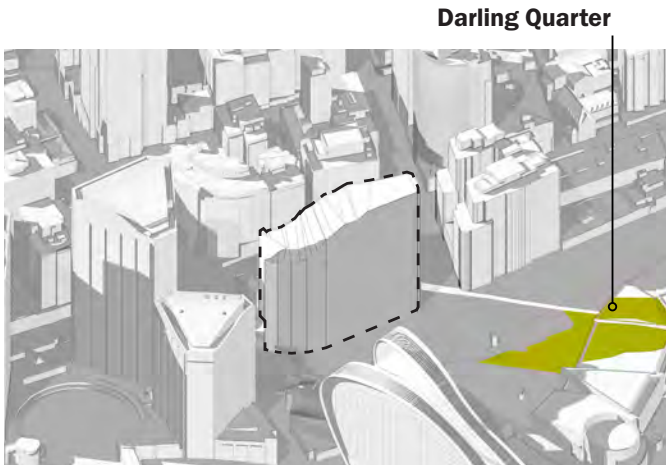
HOW DO SHADOWS MOVE ACROSS THE SITE?

Winter Solstice 09:00-15:00

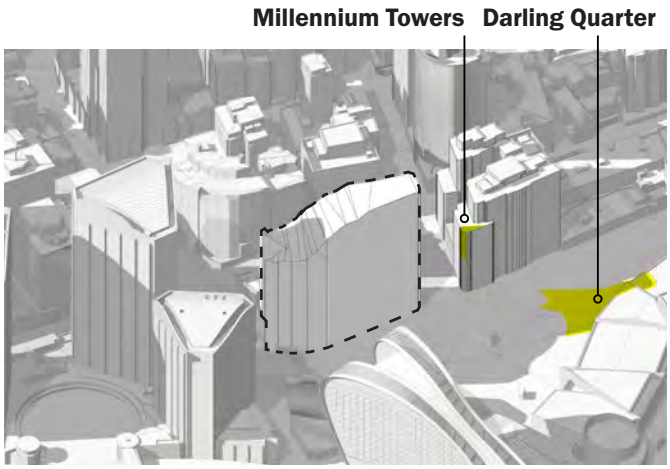
Understanding Overshadowing Impact On Adjacent Buildings



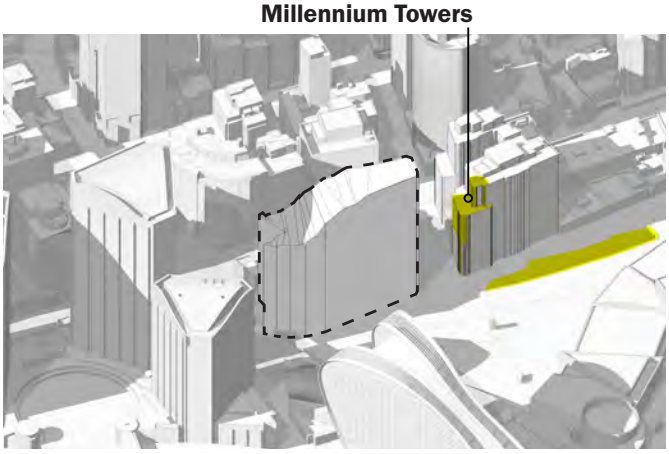
→ The site sits north of residential buildings along Bathurst street.



10:00



11:00



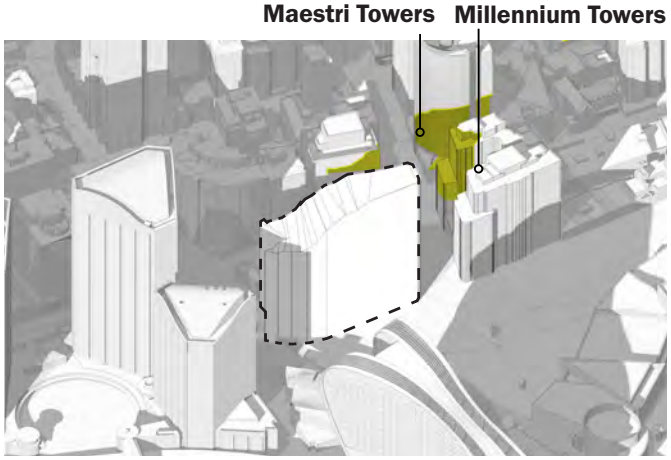
12:00



13:00



14:00



15:00

→ The Town Hall envelope massing will cast shadows on the neighbouring Millennium Towers between 11:00 AM and 3:00 PM and on Maestri Towers between 2:00 PM and 3:00 PM during the winter solstice.

OVERSHADOWING IMPACT

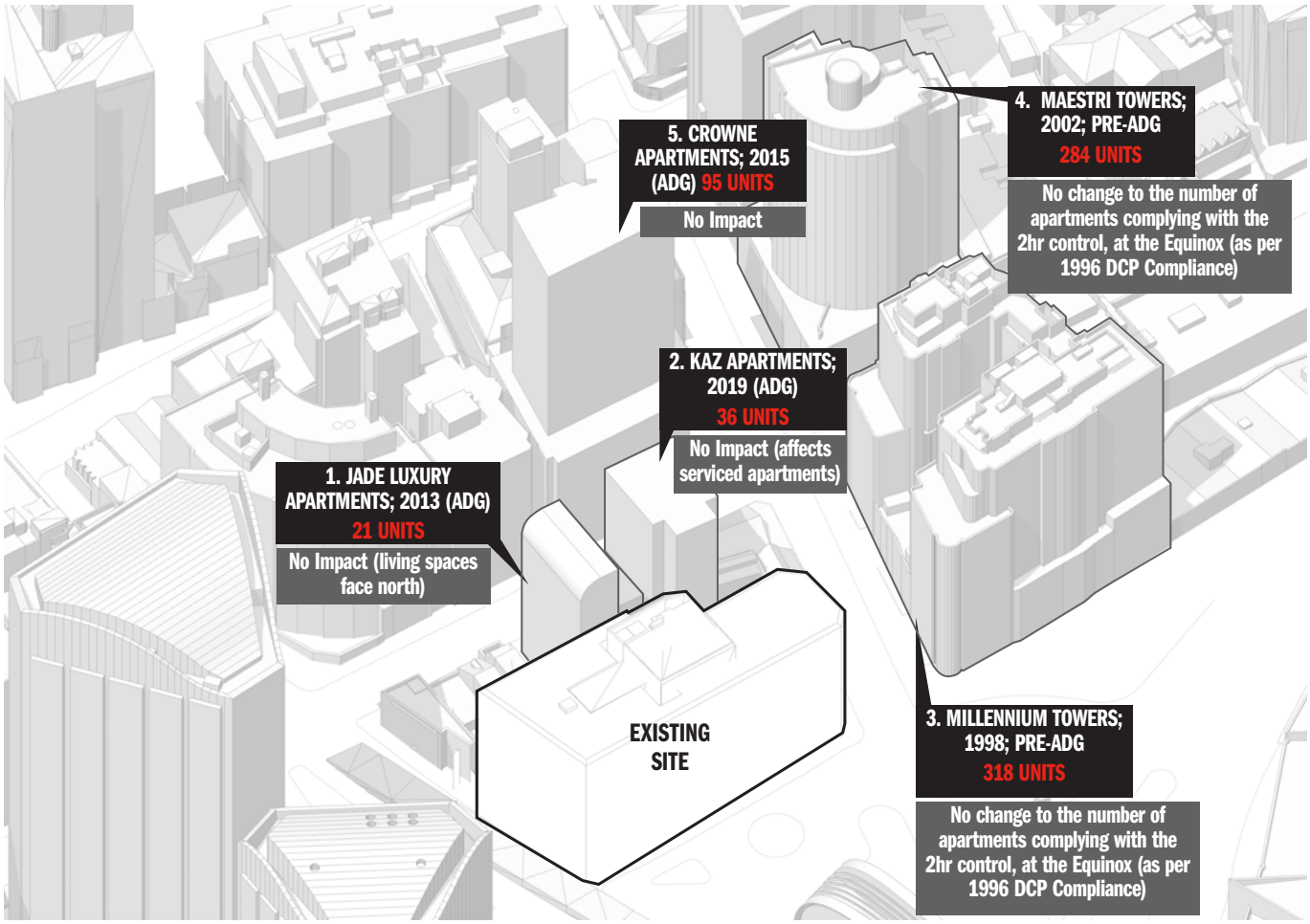
Overshadowing Impact to Neighbouring Residential Buildings



Future Context and Building Heights Around the Site; Changing Context Predominantly 20 Storeys+

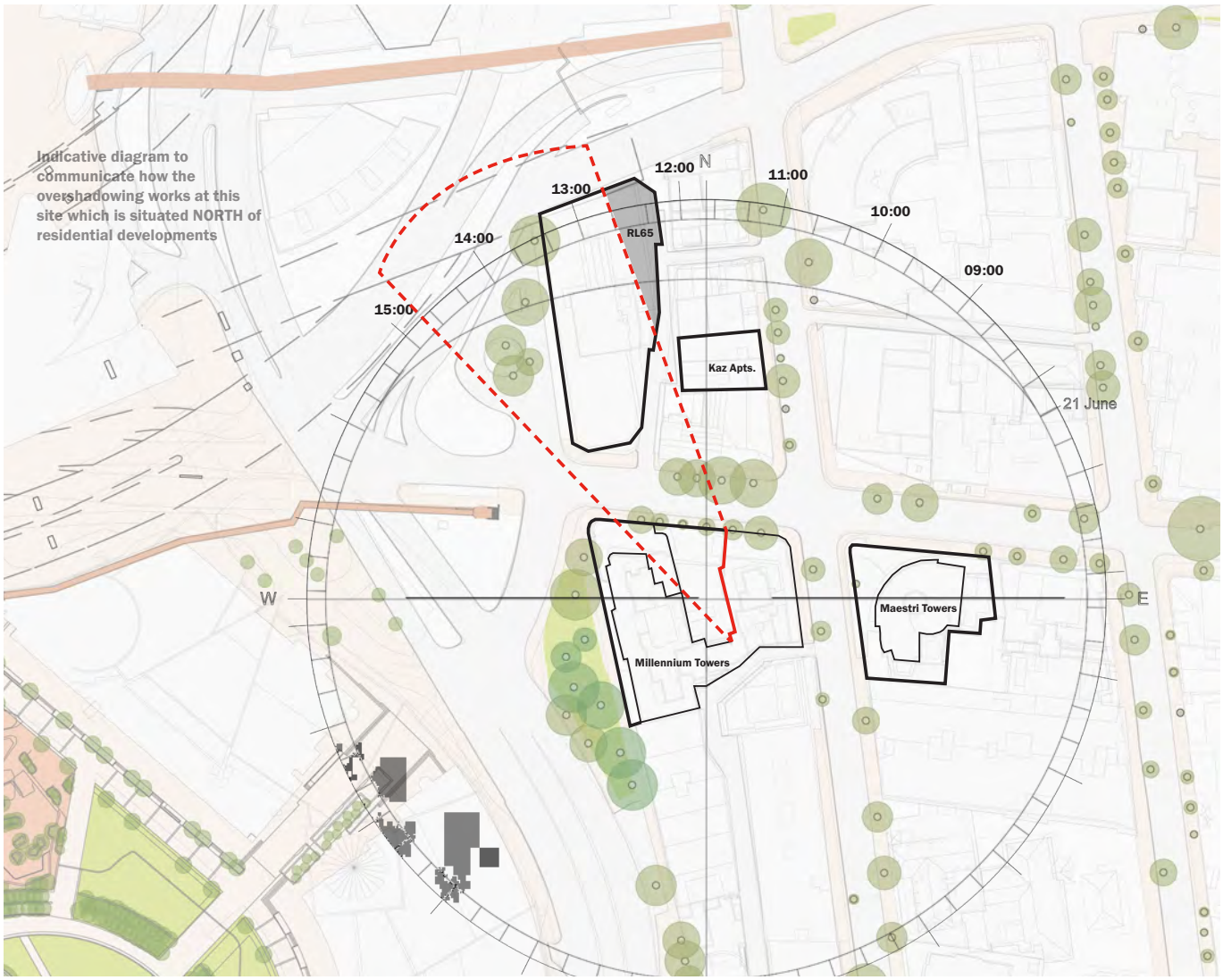
Neighbouring Developments:

1. Jade Apartments 267 Sussex St.; 12 Storeys
2. Kaz Tower 273-279 Sussex St.; 13 Storeys
3. Millennium Towers 289-295 Sussex St.; 22 Storeys
4. Maestri Towers 298 Sussex St.; 26 Storeys
5. Crowne Plaza 58 Bathurst St.; 27 Storeys
6. Cockle Bay Towers; 40 Storeys


5. CROWNE APARTMENTS; 2015 (ADG) 95 UNITS
No Impact
4. MAESTRI TOWERS; 2002; PRE-ADG
284 UNITS
No change to the number of apartments complying with the 2hr control, at the Equinox (as per 1996 DCP Compliance)
2. KAZ APARTMENTS; 2019 (ADG)
36 UNITS
No Impact (affects serviced apartments)
1. JADE LUXURY APARTMENTS; 2013 (ADG)
21 UNITS
No Impact (living spaces face north)
EXISTING SITE
3. MILLENNIUM TOWERS; 1998; PRE-ADG
318 UNITS
No change to the number of apartments complying with the 2hr control, at the Equinox (as per 1996 DCP Compliance)

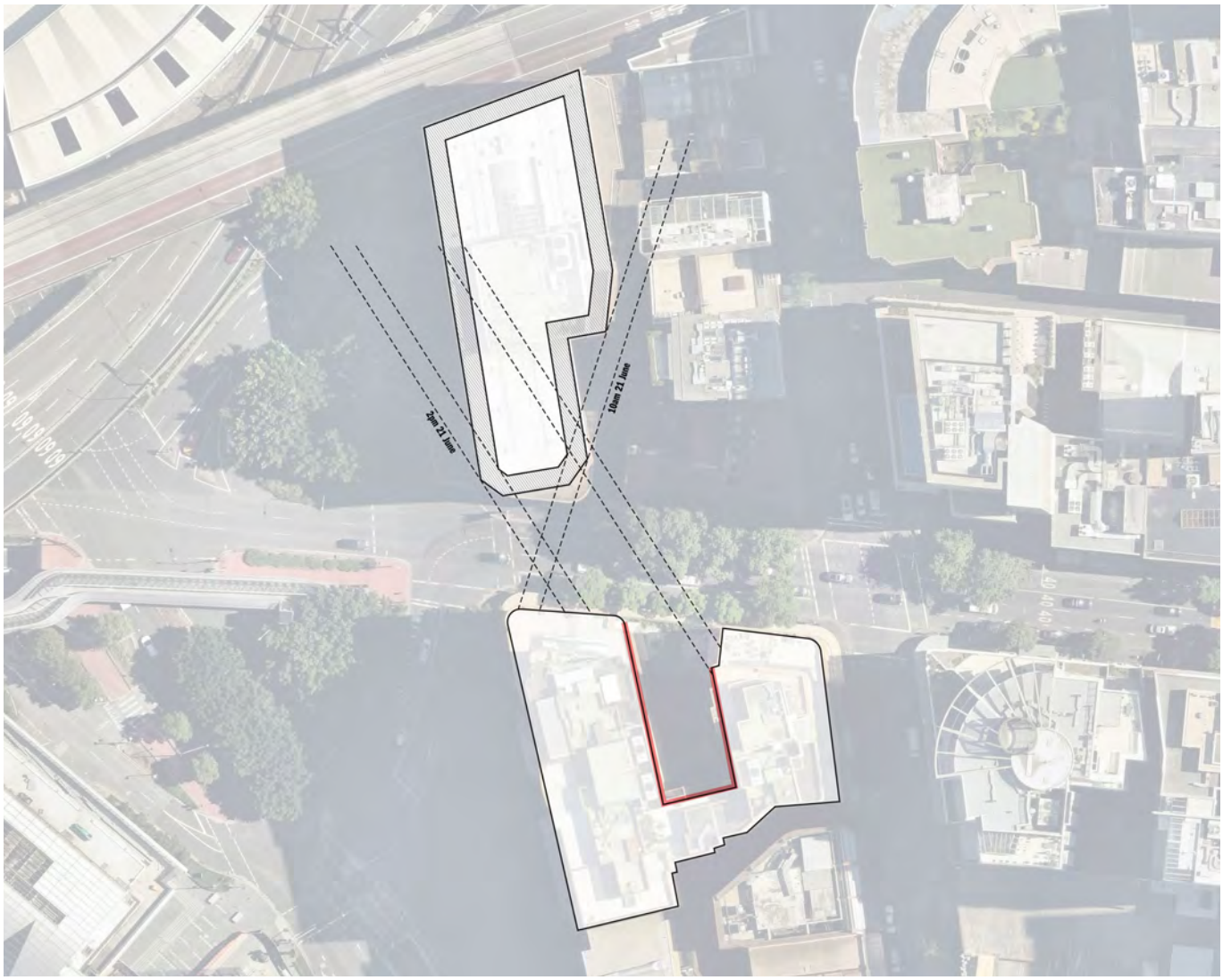
OVERSHADOWING IMPACT

Overshadowing Impact to Neighbouring Residential Buildings



Sun Path Overview

- → The largest impact that 150 day street is having on residential properties is to Millennium Towers.
- → The inner courtyard of Millennium towers is overshadowed by itself during morning hours of the winter solstice dates due to the angular geometry.
- → To preserve the afternoon solar access to the millennium courtyard, the central part of the 150 Day St site must be clear of any building which is not feasible



Approach To Setbacks

→ Proposed massing aligns to the existing building to enable all existing structure to be retained and strengthened as the building height increases.
→ Current building is reflective of a minimal width for 2 hotel rooms with a central corridor.
→ Overshadowing of the central courtyard apartments to Millennium towers is not affected by setbacks, but rather by the height of any proposal to the north.
→ Building height is impacting the overshadowing of the courtyard and has been mitigated in the schedule 11 massing development proposal.

SOLAR SUMMARY

This planning proposal will facilitate development that is consistent with the City's vision for Central Sydney, providing additional employment generating floor space and a new hotel while delivering design excellence and public domain improvements.

Millennium Towers and Maestri Towers, are substantially non-compliant with the ADG design criteria achieving:

- → Millennium Towers
  - → 37% of apartments achieve at least 2 hours of direct solar access in mid winter
  - → 16% of apartments have less than 15 minutes of direct solar access in mid winter
- → Maestri Towers
  - → 29% of apartments achieve at least 2 hours of direct solar access in mid winter
  - → 49% of apartments have less than 15 minutes of direct solar access in mid winter

Despite meeting the minimum building separation distances under ADG, given the existing CBD context and these buildings being located directly south of 150 Day Street, minimising overshadowing in accordance with Council's DCP and Guidelines may unduly restrict future commercial and visitor accommodation growth for the site.

Suggested amendments to DCP Controls:

Millennium Towers and Maestri Towers were both designed prior to 2000 with the relevant development

Controls pre-dating the ADG and Sydney DCP. As such, we consider it reasonable for the consideration of

Solar access controls at the time of assessment.

Maestri Towers (originally approved in 1997), was subject to the development controls of the Central Sydney Development Control Plan 1996. The relevant solar access controls applicable at the time of assessment of Maestri Towers are as follows:

- → 6.1.4. Living rooms and private open space should be the main recipients of sunlight in dwelling units. Where possible, sun access should be for a minimum of two hours per day on the equinox (March 21) measured on the main window of the rooms or at the front edge of the open space. Buildings should be designed to maximise the number of dwelling units with sun access to the principal windows.
- → 6.1.5. On west facing facades subject to direct sunlight, external shading or other energy saving measures should be integrated into the design of residential buildings and serviced apartments. Alternatively, the area of glazing should be restricted to about 2% of the floor area served, in accordance with solar design principles,
- → 6.1.6 The maximum depth of a habitable room from a window providing light and air to that room is to be 10 metres.

Millennium Towers (originally approved December 1995) pre-dates the Central Sydney Development Control

Plan 1996. Following review of Z95-00757, there does not appear to be any consideration for solar access in

The assessment of the proposed apartments. As the solar access controls in Central Sydney Development Control Plan 1996 came into effect soon after the approval of Z95-000757, and in the absence of any other solar access controls at the time of assessment, we consider it reasonable in this instance to consider the Central Sydney Development Control Plan 1996 in determining solar access to Millennium Towers.

Noting the difficulty for older residential development to satisfy current solar access requirements under the ADG and Sydney DCP, we propose that the following provisions be included within the DCP as part of the housekeeping amendment:

- → The assessment of solar access to neighbouring residential development approved prior to the commencement of the ADG, be assessed in accordance with the relevant solar access control at the time, and
- → A reduction in the number of apartments achieving solar access compliance is not reduced by more than 20% (consistent with Objective 3B-2 of the ADG).

Where a neighbouring residential property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%.

Millennium Towers (Equinox; Pre-ADG)

2%

Average percentage reduction in solar hours access at equinox.

NO CHANGE TO THE NUMBER OF APARTMENTS COMPLYING WITH THE 2 HOUR CONTROL

Maestri Towers (Equinox; Pre-ADG)

3%

Average percentage reduction in solar hours access at equinox.

NO CHANGE TO THE NUMBER OF APARTMENTS COMPLYING WITH THE 2 HOUR CONTROL

Kaz Apartments (Winter Solstice; ADG)

6%

Average percentage reduction in solar hours access at equinox.

2 OUT OF 35 APARTMENTS MOVED FROM OVER 2 HOURS TO UNDER 2 HOURS (6%)

Jade Apartments (Winter Solstice; ADG)

0%

Percentage reduction in solar hours access at equinox.

NO CHANGE TO THE NUMBER OF APARTMENTS COMPLYING WITH THE 2 HOUR CONTROL

Crowne Towers (Winter Solstice; ADG)

0%

Percentage reduction in solar hours access at equinox.

NO CHANGE TO THE NUMBER OF APARTMENTS COMPLYING WITH THE 2 HOUR CONTROL

WIND ANALYSIS

WIND TUNNEL & PEDESTRIAN IMPACT ASSESSMENT

Massing Development Aligned to Wind Effects

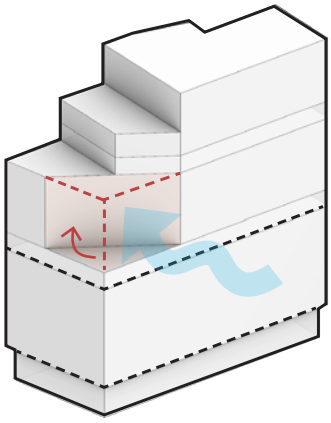
Anytime a building height is increased, down-drafts from the facade onto the street must be assessed and considered through design. This building massing has been designed to minimise down-drafts from the taller façades.

Through ongoing workshops with the Wind Consultant, two reports have been developed - A Pedestrian Environment Statement & A Wind Tunnel Assessment.

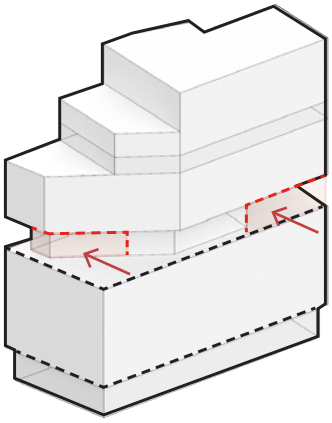
The wind consultants Pedestrian Wind Environment Statement evaluates the impact of the proposed development on local wind conditions, underscoring the necessity for design modifications such as impermeable awnings and perimeter screening. These adjustments aim to enhance pedestrian comfort in outdoor spaces, including ground-level footpaths and amenity floor terraces in the upper massing.

The initial massing of the building was iteratively tested in a Wind Tunnel Assessment to ensure alignment with existing conditions.

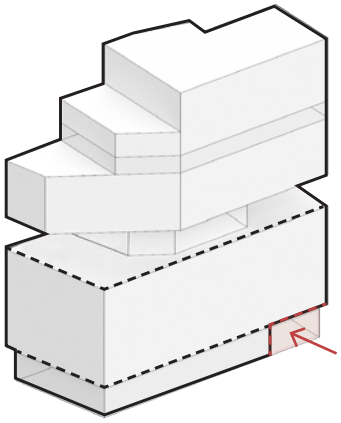
During a collaborative workshop with the wind consultant, significant massing strategies were proposed to counteract the down-wash effects of westerly winds, which have influenced the building's overall form. These strategies include an 8-meter high void across levels 11 and 12 on the northern and southerns aspect of the building enhancing both wind mitigation and the architectural character of the development.



NW winds result in recessing the corners at the north of the site to address strong winds.



To minimise down-drafts to bathurst street voids between the new and existing massing have been exaggerated.



To reduce wind speeds at the corner of Day Street and Bathurst Street, a recess at ground floor has been exaggerated.

WIND TUNNEL & PEDESTRIAN IMPACT ASSESSMENT

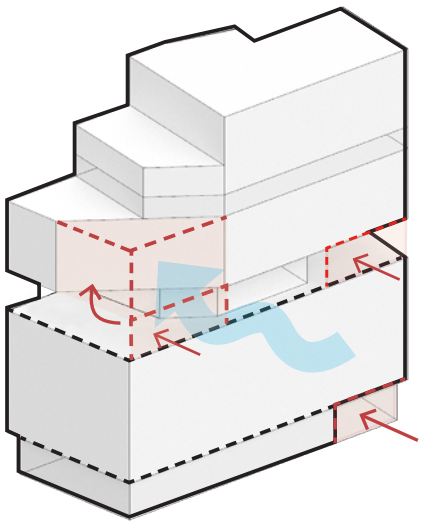
Improved wind conditions

We have developed multiple strategies in collaboration with our wind consultant. These strategies were iteratively tested through wind-tunnel analyses and have shown to improve the existing wind conditions at a multitude of assessment points.

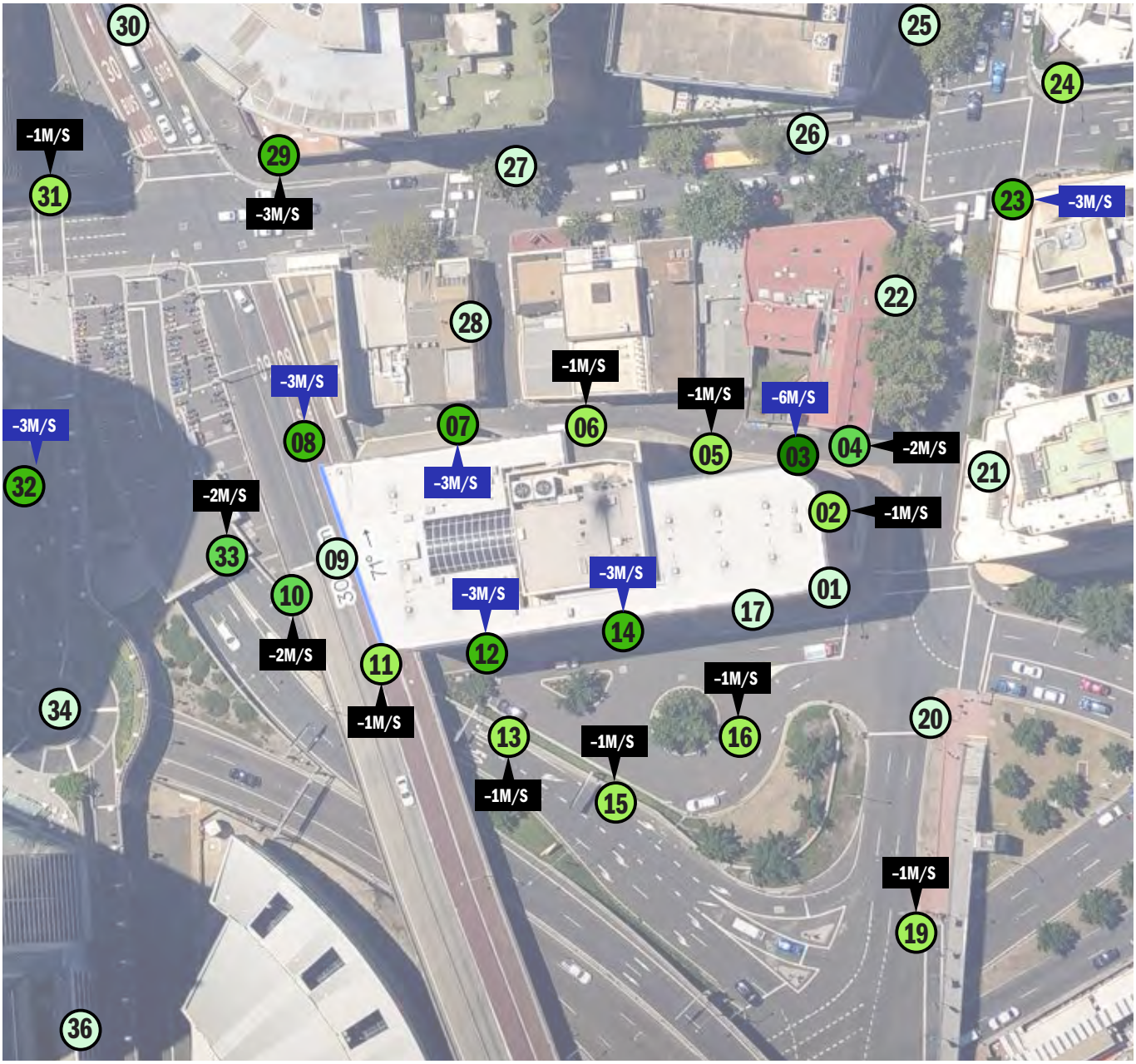
The existing site conditions were measured by Windtech during wind tunnel testing.

The results of the study indicate that wind conditions for some of the trafficable outdoor locations currently exceed the relevant criteria for comfort and/or safety as set by City of Sydney.

The proposed expansion of the existing PARKROYAL Hotel has been designed to not have any impact on existing street level conditions and in many cases improve a windy area of the city.



Points significantly improved by the proposed envelope massing (annual gust):



DEVELOPMENT PROPOSAL

SUMMARY: BUILDING ENVELOPE

Refer Appendix 3

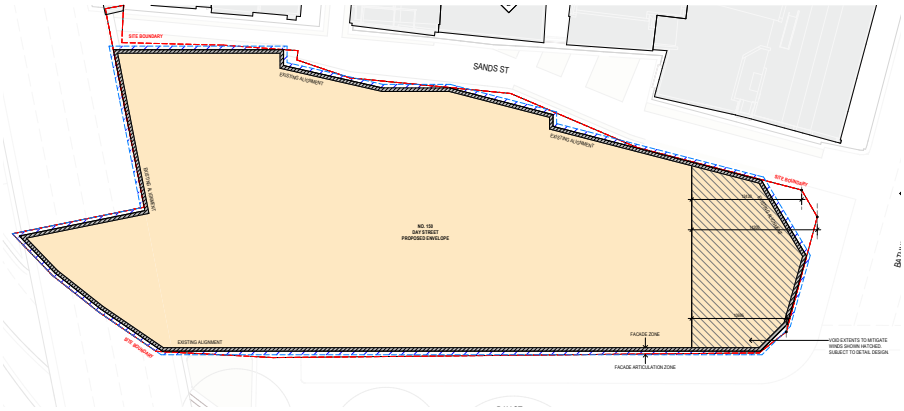
Building Setout

The proposed building utilises the existing hotel structure to support this new massing and is therefore setout based on the location of the existing columns.

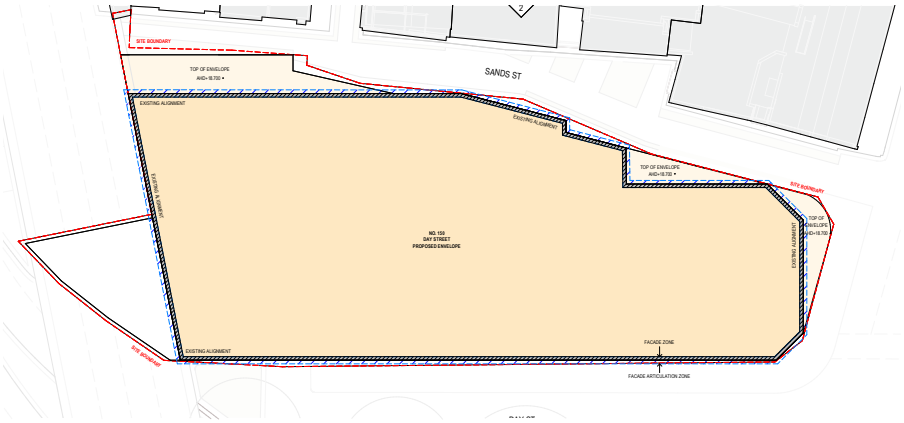
The existing podium columns are aligned to the boundary at the west, and therefore the new building is also setout to the western boundary.

The second factor defining the new building setout is the geometry of the site boundary which tapers to the south of the site. This tapering means that the building massing is defined by the width of a central corridor and a hotel room either side of this corridor - thus resulting in minimal setbacks to the south and east, following the extents of the existing building in the upper floors.

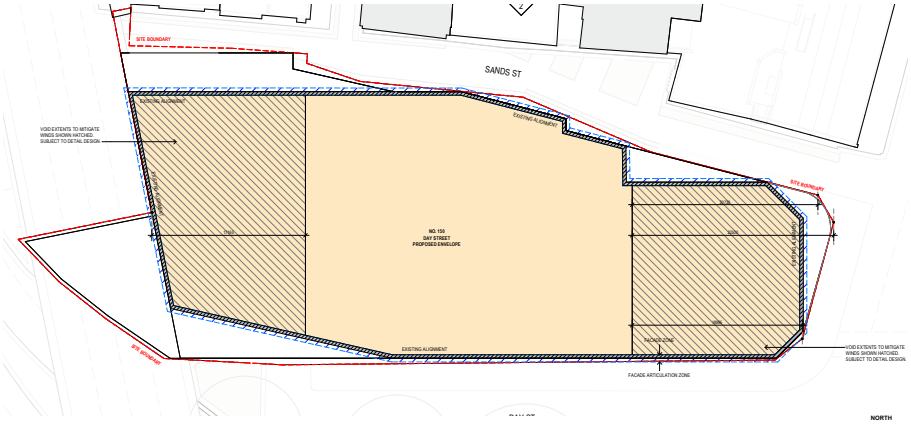
At the upper floors the building steps back at the northern boundary in response to the town hall solar plane.



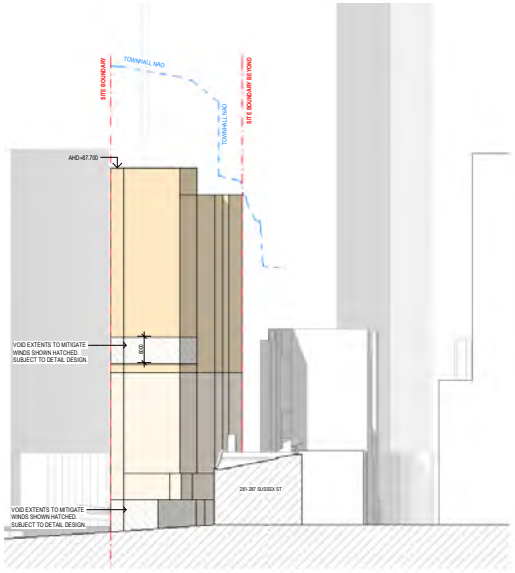
Podium Setback



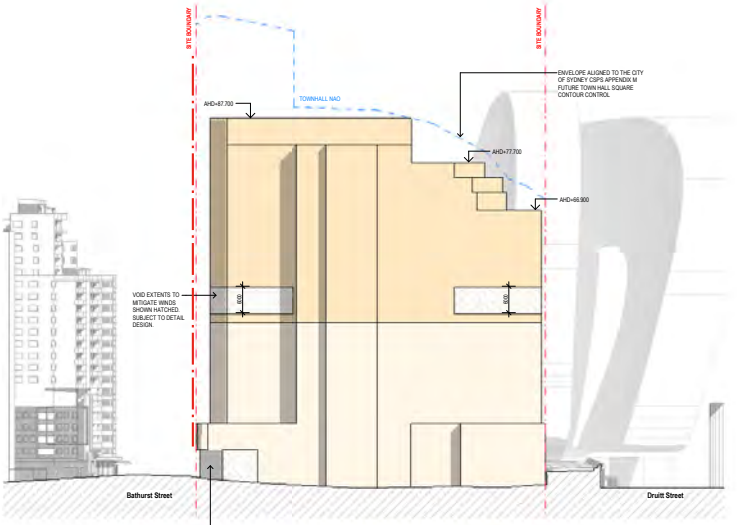
Tower Setback



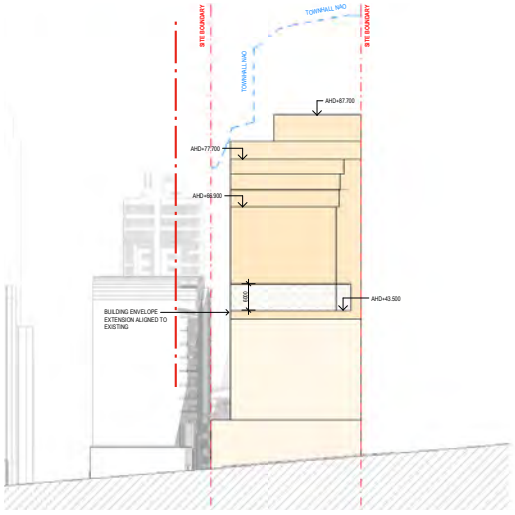
Transfer Floor Setback



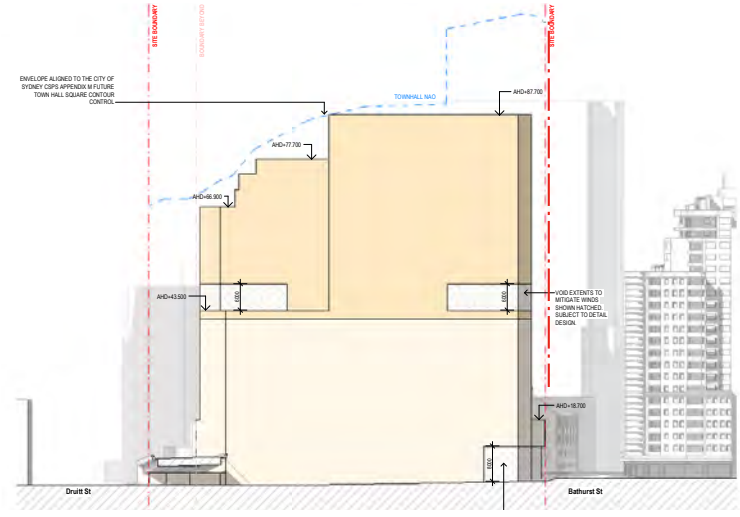
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



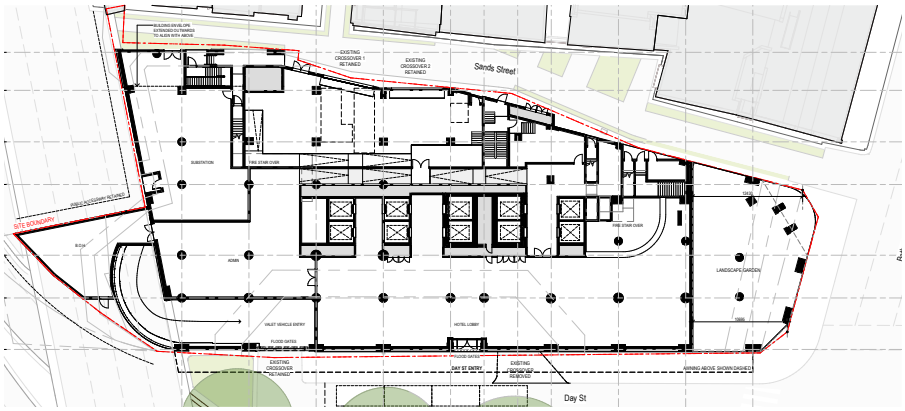
WEST ELEVATION

SUMMARY: REFERENCE SCHEME

Drawing List

Refer to the appendix for the reference scheme drawing set.

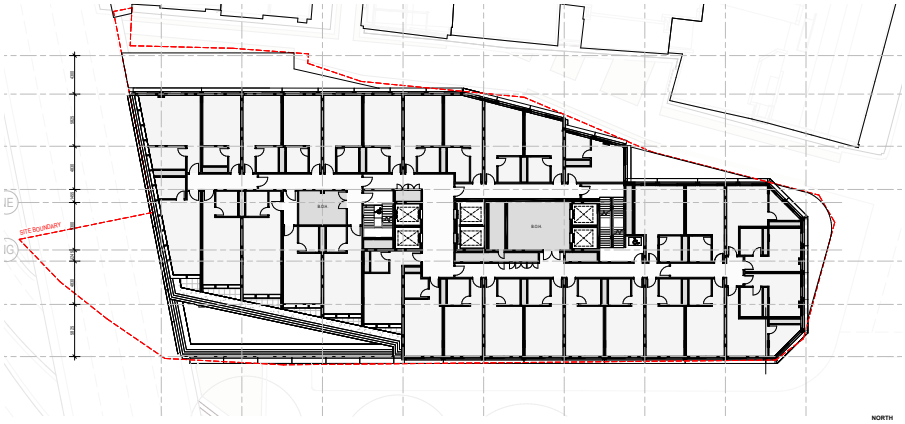
Site Conditions	
RS-020	Existing North & South Elevation
RS-021	Existing East Elevation
RS-022	Existing West Elevation
RS-050	Proposed Site Plan
GA Plans	
RS-098	Basement 01 Plan
RS-099	Basement 02 Plan
RS-100	Level 00 Plan
RS-101	Level 01 Plan
RS-102	Level 02 Plan
RS-103	Level 03 Plan
RS-104	Level 04 Plan
RS-105	Level 05 Plan
RS-106	Level 06 Plan
RS-107	Level 07 Plan
RS-108	Level 08 Plan
RS-109	Level 09 Plan
RS-110	Level 10 Plan
RS-111	Level 11 Plan
RS-112	Level 12 Plan
RS-113	Level 13 Plan
RS-114	Level 14 Plan
RS-115	Level 15 Plan
RS-116	Level 16 Plan
RS-117	Level 17 Plan
RS-118	Level 18 Plan
RS-119	Level 19 Plan
RS-120	Level 20 Plan
RS-121	Level 21 Plan
RS-122	Level 22 Plan
RS-123	Level 23 Plan
GA Elevations	
RS-200	Proposed North & South Elevation
RS-201	Proposed East Elevation
RS-202	Proposed West Elevation
GFA Plans	
RS-800	Proposed GFA Plans & Schedule



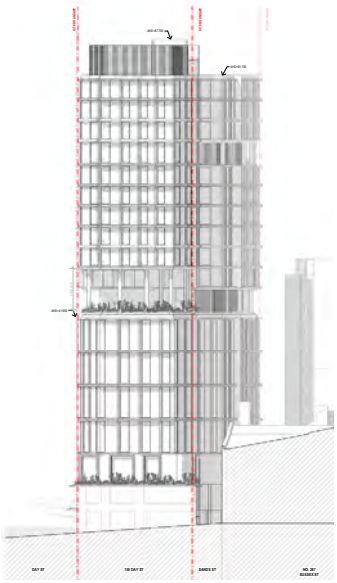
Ground Floor Plan



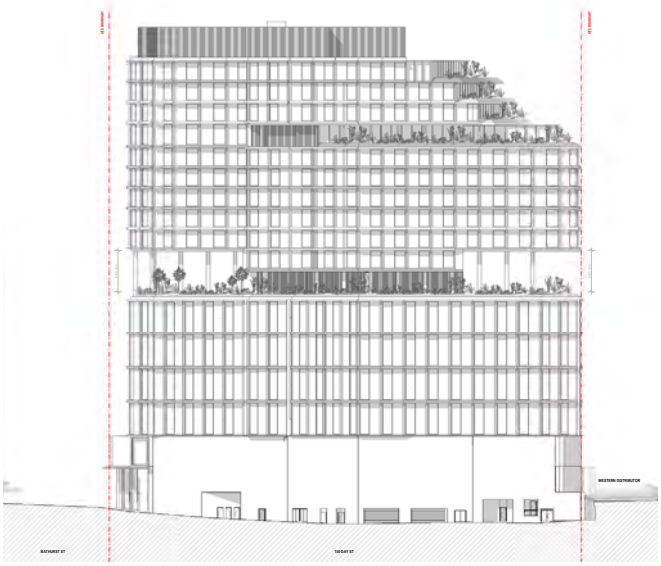
Typical Existing Hotel Floor Plan



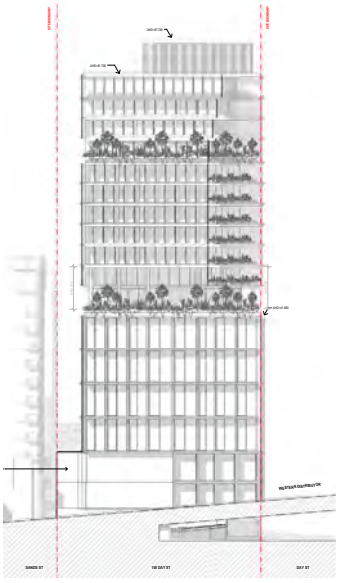
Typical New Hotel Floor Plan



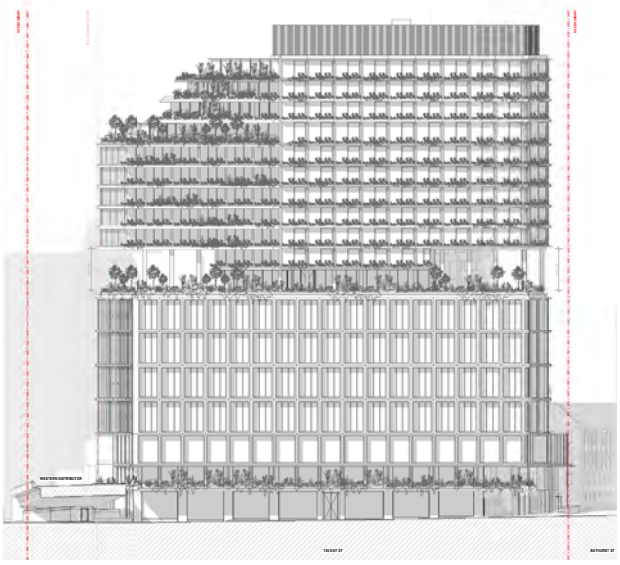
PROPOSED SOUTH ELEVATION



PROPOSED EAST ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED WEST ELEVATION

INDICATIVE SCHEME FSR PROPOSAL

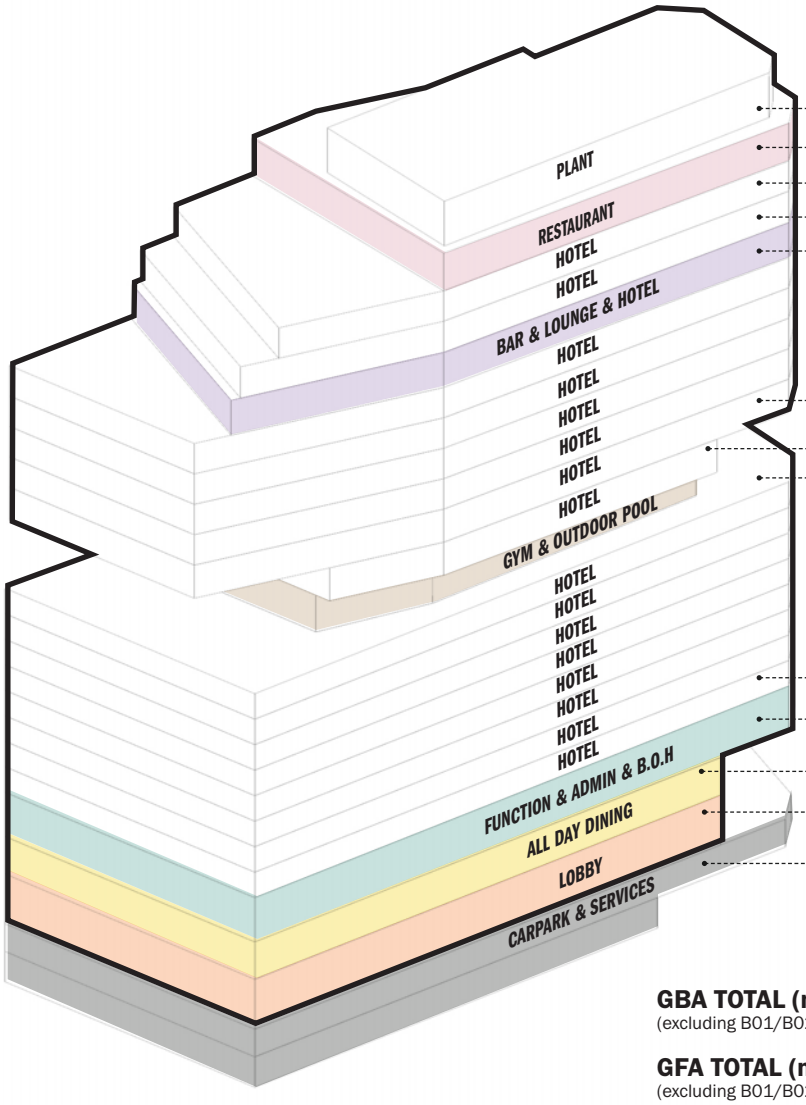
Current Planning Controls: DCP Design Excellence Strategy

Although the site is not located in tower cluster, the proposed reference scheme demonstrates compliance against Section 3.3.8 City of Sydney DCP.

- The proposed development retains the existing building. The existing facade is built to the boundary & a new massing is aligned above structurally.
- The additional floors complies with the design excellence standards listed.

15m Architectural Roof Feature Zone	✓	
5m Clear floor to floor for ground & first floors & allowances for new pedestrian links & public domain improvements supported by urban design analysis.	✓	Existing building retained: L00 = 5.4m L01 = 4.3m L02 = 5m
3.3m floor to floor for typical hotel floors	✓	New hotel = 3.4m
A full plant level at least for every 20 occupied levels at minimum 6m floor to floor should be provided for plant equipment with no floor space	✓	Every 10 levels, with flexible use floor space
A minimum proportion of the entire design envelope for architectural articulation and external façade depth and external sun shading (not occupied by floor space) of 8.0% up to a maximum value of 16% articulation.	✓	
Minimum 16% floor space exclusions allocated to building core and other internal non-floor space elements.	✓	Average 21% achieved across all floors existing and proposed.
Vehicle access, servicing, services, balconies, voids or other areas are not counted as floor space.	✓	

Existing / Proposed	Hotel Operator	Level	Use	GBA (m2)	GFA (m2)	Keys	F2F (m)	Height RL (m)	AHD (m)
			Lift Overrun					84.1	87.70
Proposed	*Pan Pacific Hotel Group*	Level 22	Plant	898.0	36		6.00	78.1	81.70
Proposed	*Leased Restaurant*	Level 21	Leased Restaurant	1465.0	1096		4.00	74.1	77.70
Proposed	*Pan Pacific Hotel Group*	Level 20	Hotel	1529.0	1167	24	3.40	70.7	74.30
Proposed	*Pan Pacific Hotel Group*	Level 19	Hotel	1592.0	1232	26	3.40	67.3	70.90
Proposed	*Pan Pacific Hotel Group*	Level 18	Hotel Amenity, BOH + Plant	1807.0	1249	13	4.00	63.3	66.90
Proposed	*Pan Pacific Hotel Group*	Level 17	Hotel	1807.0	1496	31	3.40	59.9	63.50
Proposed	*Pan Pacific Hotel Group*	Level 16	Hotel	1807.0	1496	31	3.40	56.5	60.10
Proposed	*Pan Pacific Hotel Group*	Level 15	Hotel	1807.0	1496	31	3.40	53.1	56.70
Proposed	*Pan Pacific Hotel Group*	Level 14	Hotel	1807.0	1496	31	3.40	49.7	53.30
Proposed	*Pan Pacific Hotel Group*	Level 13	Hotel	1807.0	1496	31	3.40	46.3	49.90
Proposed	*Pan Pacific Hotel Group*	Level 12	Hotel	1565.0	771	11	3.40	42.9	46.50
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	Level 11	Hotel Amenity, BOH + Plant	1841.0	544		5.00	37.9	41.50
Existing Structure	*Park Royal*	Level 10	Hotel + Pool Plant	1928.0	1462	34	2.85	35.1	38.65
Existing Structure	*Park Royal*	Level 09	Hotel	1928.0	1612	38	2.85	32.2	35.80
Existing Structure	*Park Royal*	Level 08	Hotel	1928.0	1590	38	2.85	29.4	32.95
Existing Structure	*Park Royal*	Level 07	Hotel	1928.0	1612	38	2.85	26.5	30.10
Existing Structure	*Park Royal*	Level 06	Hotel	1928.0	1590	38	2.85	23.7	27.25
Existing Structure	*Park Royal*	Level 05	Hotel	1928.0	1612	38	2.85	20.8	24.40
Existing Structure	*Park Royal*	Level 04	Hotel	1928.0	1590	38	2.85	18.0	21.55
Existing Structure	*Park Royal*	Level 03	Hotel	1928.0	1612.0	38	2.85	15.1	18.70
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	Level 02	Hotel Amenity, BOH + Plant	2079.0	1686.0		5.00	10.1	13.70
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	Level 01	Hotel Amenity, BOH + Plant	2030.0	1477.0		4.30	5.8	9.40
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	Level 00 (Ground)	Hotel Lobbies, BOH, Loading, Plant	2016.0	989.0		5.40	0.4	4.00
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	BASEMENT 01	Valet Carpark + Plant	2031.0	213.0		3.10		
Existing Structure	*Park Royal & Pan Pacific Hotel Group*	BASEMENT 02	BOH + Plant	1412.0	0.0		3.40		
		GBA TOTAL (m2)		44724.0					
		GFA TOTAL (m2)			30617				
		SITE AREA (m2)			2281				
		FSR			13.5				



LEVEL	GFA
L22	36m²
L21	1096m²
L20	1167m²
L19	1232m²
L18	1249m²
L13-17	1496m²
L12	771m²
L11	544m²
L03-10	~1600m²
L02	1686m²
L01	1477m²
L00	989m²
B01	213m²

GBA TOTAL (m²) (excluding B01/B02)	**44,724m²**
GFA TOTAL (m²) (excluding B01/B02)	**30,617m²**
SITE AREA (m²)	**2,281m²**
FSR	**13.5**

KEYS

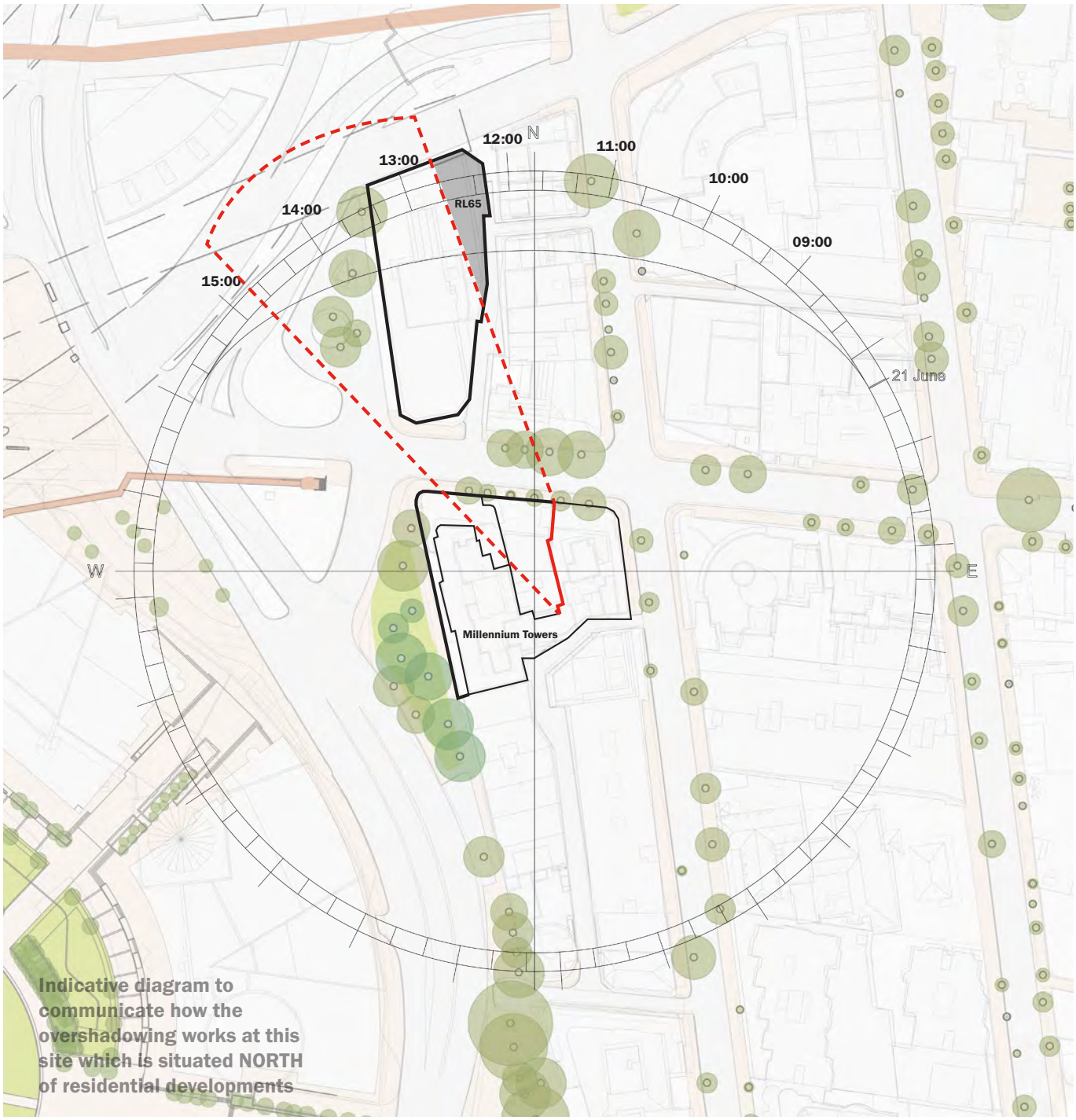
PARKROYAL KEYS	300
PAN PACIFIC HOTEL GROUP	229
HOTEL KEYS TOTAL	**529***

***Key number to be confirmed and reduced once larger suites are located.**

ATTACHMENT A: SOLAR ANALYSIS

MILLENNIUM TOWERS

OVERSHADOWING OVERVIEW



- → Millennium Tower sits directly south of 150 Day st and it is therefore affected by the proposed development.
- → The building contains 318 apartments on 20 floors.
- → The impact on Millennium tower occurs in the afternoon between 12.30 and 3 pm.
- → Because the site sits directly north of Millennium tower, additional setbacks have small impact on the overshadowing whilst the height directly affects the overshadowing into the courtyards apartments.
- → The overshadowing impact is greater during the Winter solstice and is greatly reduced by the equinox time as the building was designed to perform at equinox as per the pre-ADG guidance.

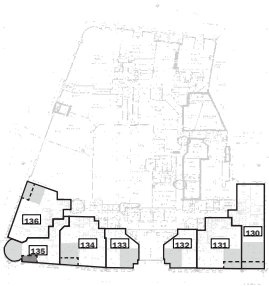
APARTMENTS CONFIGURATION

DA1995

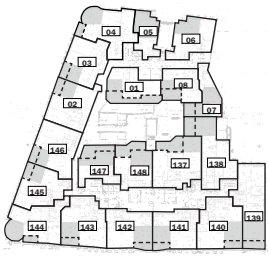
Living Areas Windows (3D Analysis)



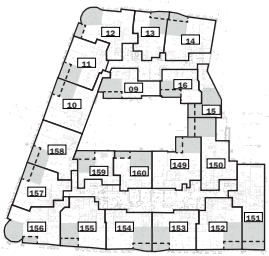
Level 1



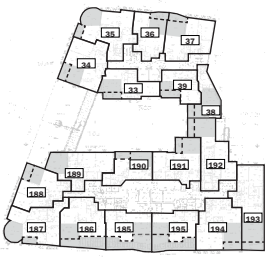
Level 2



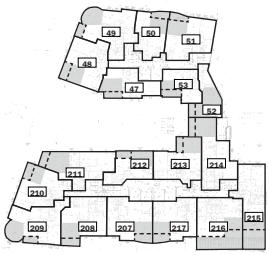
Level 3-5



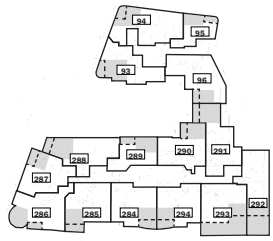
Level 6



Level 8-14



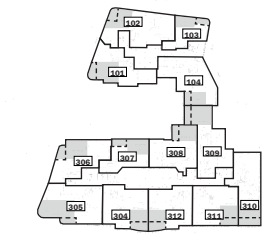
Level 15



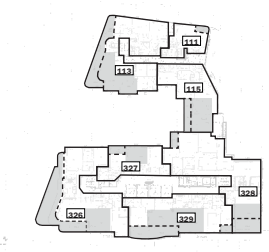
Level 16



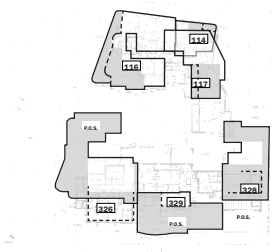
Level 17-19



Level 20



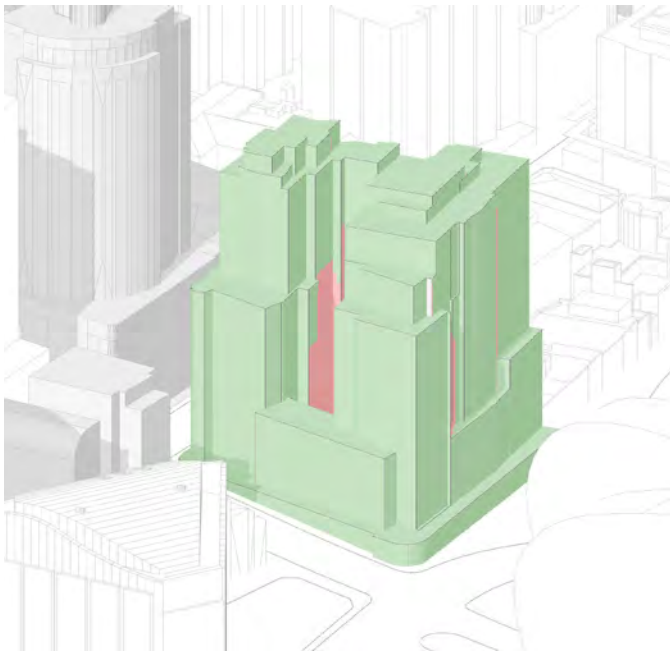
Level 21



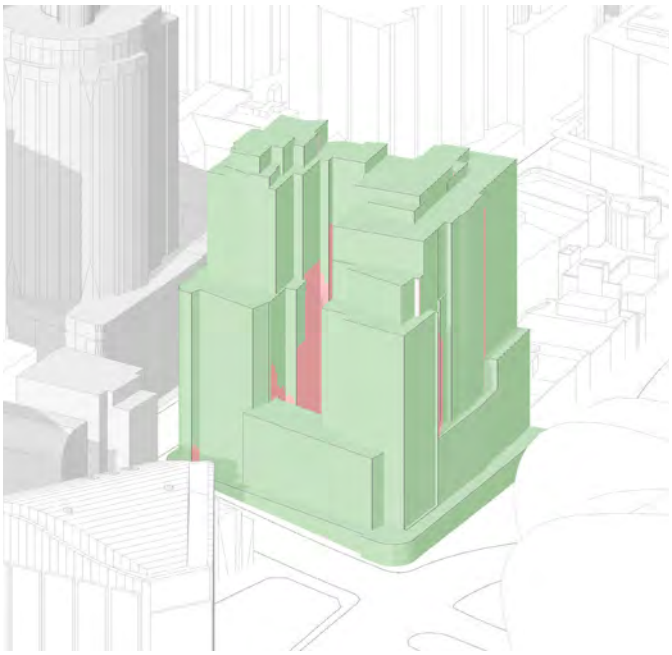
OVERSHADOWING: MARCH (EQUINOX)

Existing Vs. Proposed

March Existing



March Proposed



Receives Sunlight > 2 Hours

Receives Sunlight < 2 Hours

Average Change Per Apartment(%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	92/318	92/318	0
-2%	29%	29%	0%

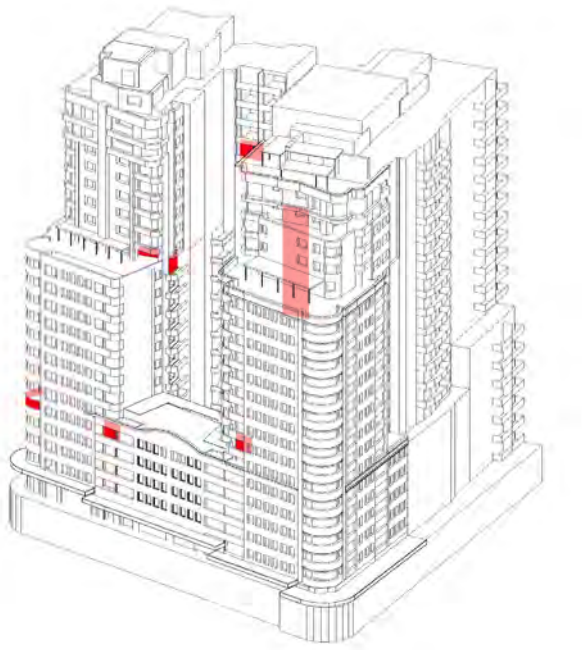
ALL COMPLIANT 2HR+ UNITS REMAIN 2HR+

TOTAL AVERAGE IMPACT IS 2% ACROSS 318 APARTMENTS

OVERSHADOWING: JUNE (WINTER SOLSTICE)

Existing Vs. Proposed

12 Units Moved Into Below 2hrs (4%)

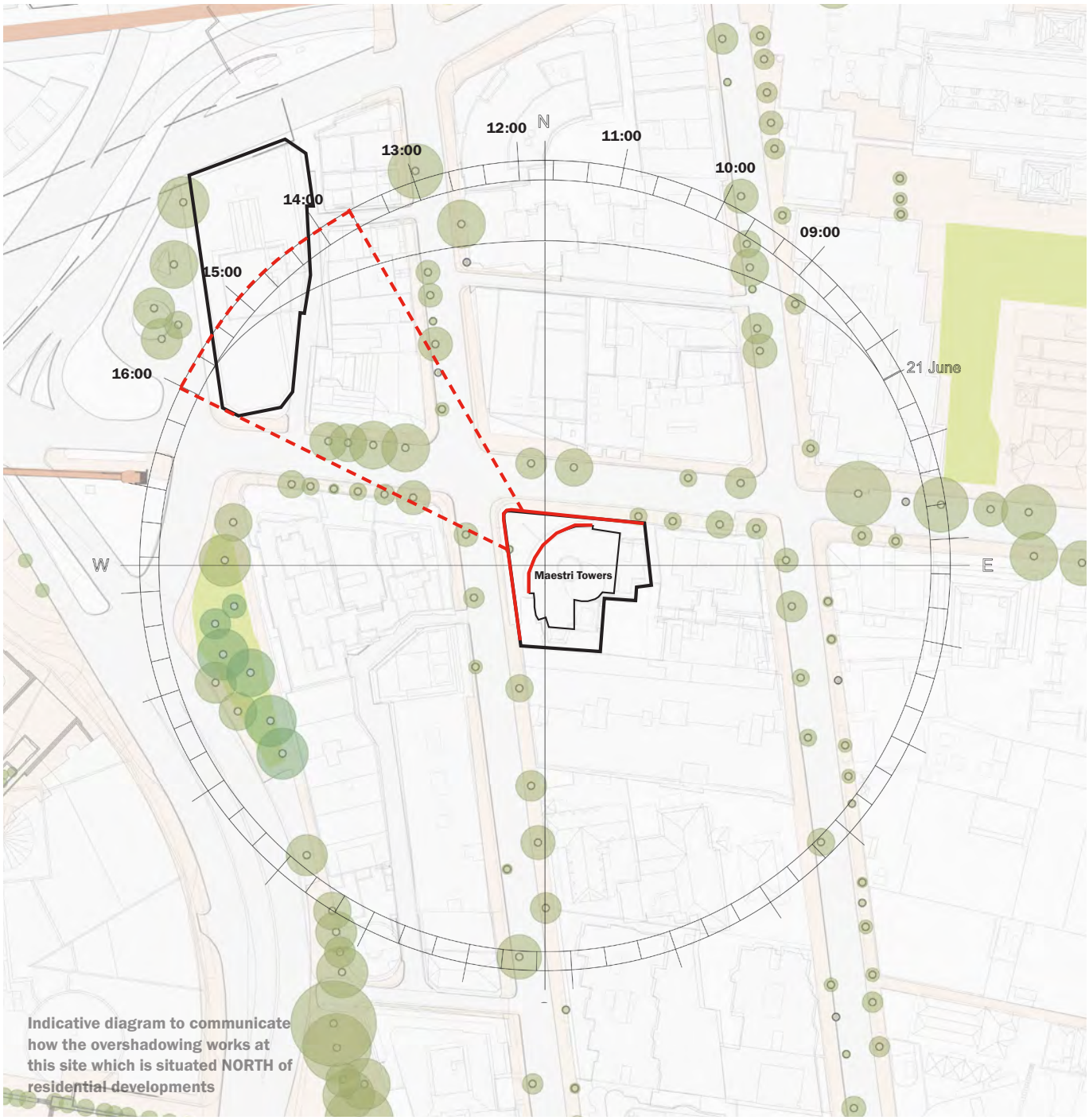


Average Change Per Apartment(%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	118/318	106/318	12
-18%	37%	33%	4%

TOTAL AVERAGE IMPACT IS 18% ACROSS 318 APARTMENTS (BELOW 20%)

MAESTRI TOWERS

OVERSHADOWING OVERVIEW



- → Maestri Tower sits south east of 150 Day st and it is therefore affected by the proposed development.
- → The building contains 284 apartments on 26 floors.
- → The impact on Maestri tower occurs in the afternoon between 13.30 and 15.00.
- → Because of the distance to the proposed building on 150 Day St, the overshadowing only impacts the west facing portion of the podium and the first 2 floors of the base of the tower.
- → The overshadowing impact is greater during the Winter solstice and is greatly reduced by the equinox time as the building was designed to perform at equinox as per the pre-ADG guidance.

APARTMENT CONFIGURATION

DA1998 13/10

Level 1



Level 2



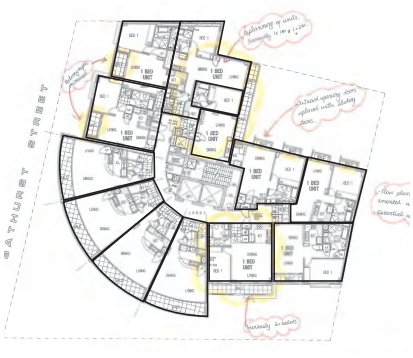
Level 3 to 7



Level 8



Level 9



Level 10/12/14...24



Level 11/13/15...23



Level 25



OVERSHADOWING: MARCH (EQUINOX)

Existing Vs. Proposed

March Existing



March Proposed



Receives Sunlight > 2 Hours

Receives Sunlight < 2 Hours

Average Change Per Apartment(%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	89/284	89/284	0
-3%	31%	31%	0%

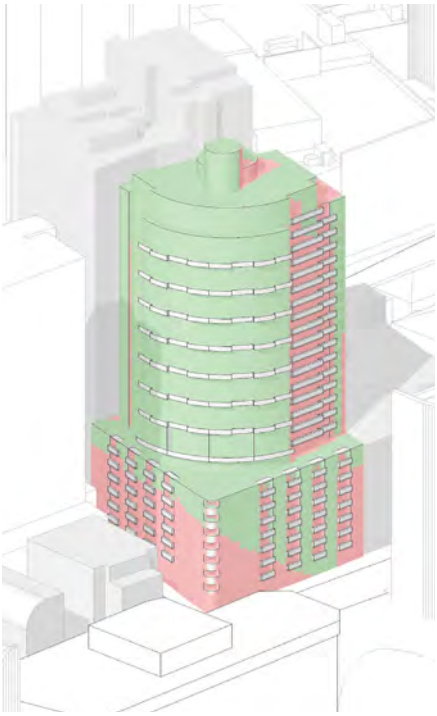
ALL COMPLIANT 2HR+ UNITS REMAIN 2HR+

TOTAL AVERAGE IMPACT IS 3% ACROSS 284 TOTAL APARTMENTS

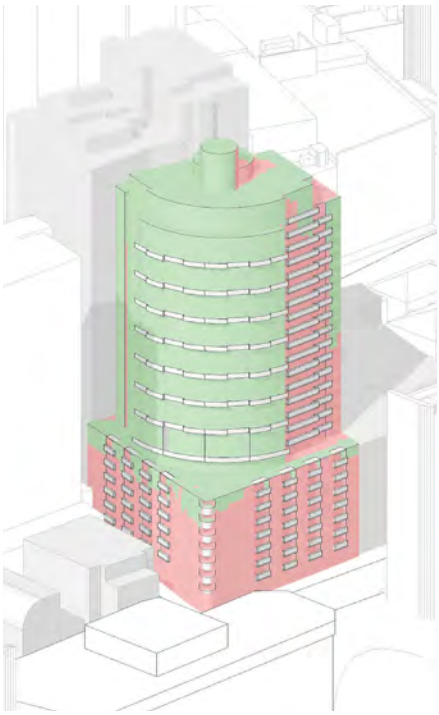
OVERSHADOWING: JUNE (WINTER SOLSTICE)

Existing Vs. Proposed

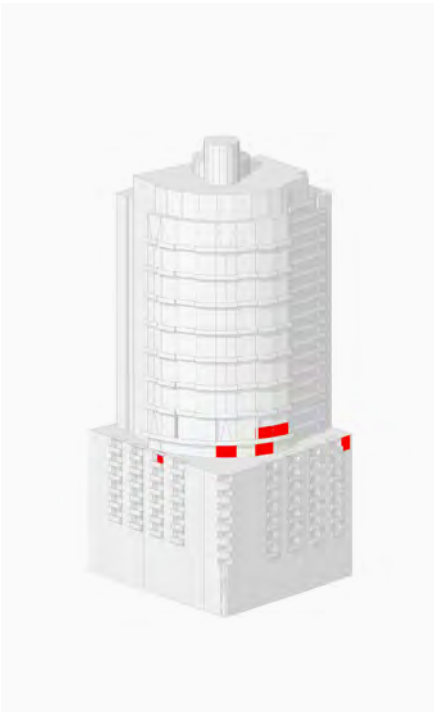
June Existing



June Proposed



6 Units Moved To Below 2hrs (2%)



Receives Sunlight > 2 Hours

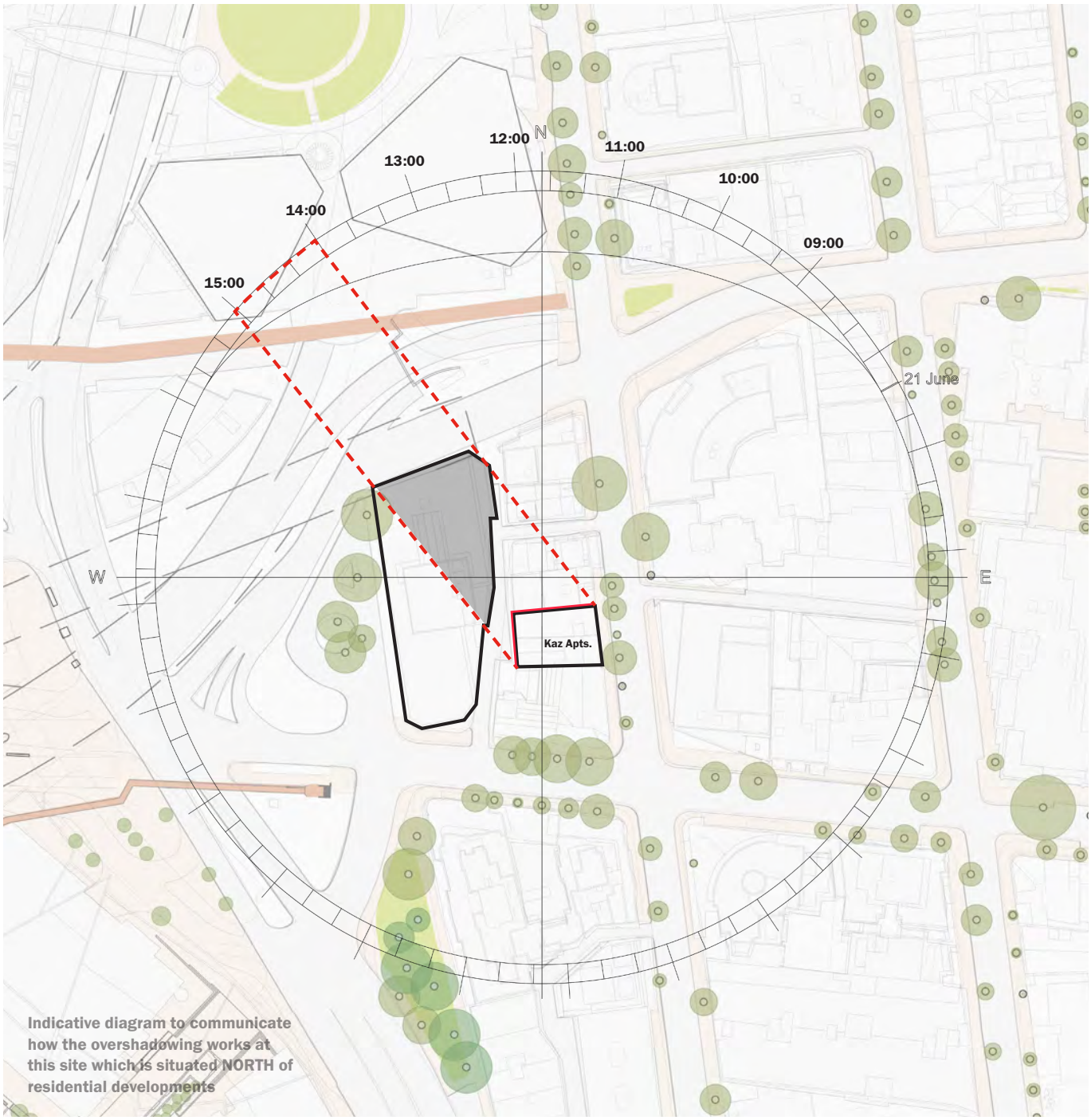
Receives Sunlight < 2 Hours

Average Change Per Apartment(%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	83/284	77/284	6
-8%	29%	27%	2%

TOTAL AVERAGE IMPACT IS 8% ACROSS 284 TOTAL APARTMENTS

KAZ TOWER

OVERSHADOWING OVERVIEW



- → Kaz Tower sits east of 150 Day st and it is therefore affected by the proposed development.
- → The building contains 36 apartments on 13 floors.
- → The impact on Kaz tower occurs in the afternoon between 14.00 and 15.00.
- → Because the existing building is already affecting Kaz tower, the additional overshadowing is minimal.
- → The overshadowing impact is greater during the Winter solstice but remains fairly consistent through out the year.

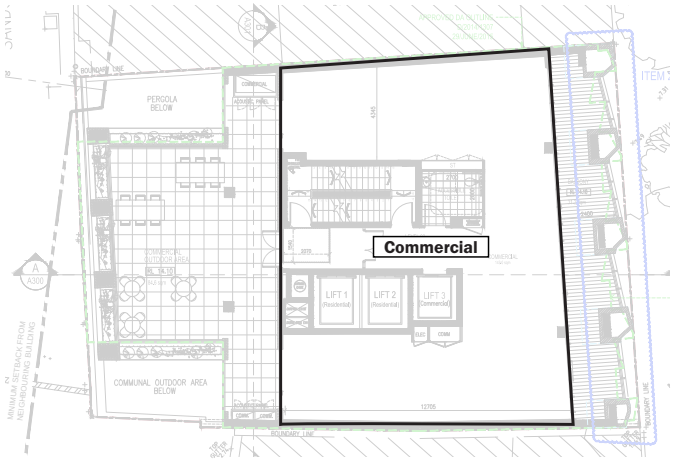
Attachment A2

Urban design report - Part 5

APARTMENT CONFIGURATION

D/2014/1307/B

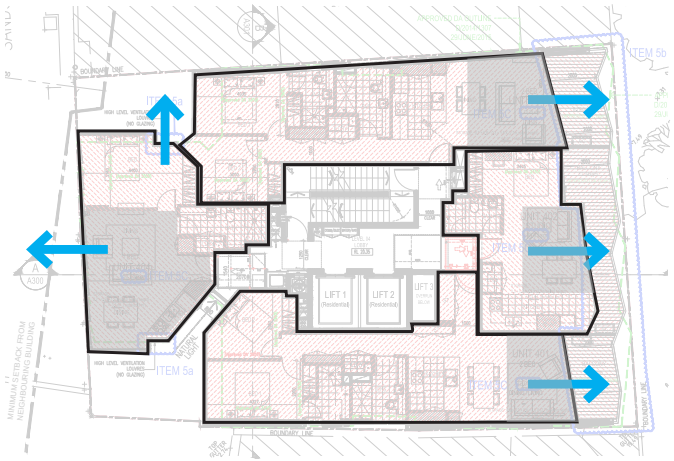
Level 2



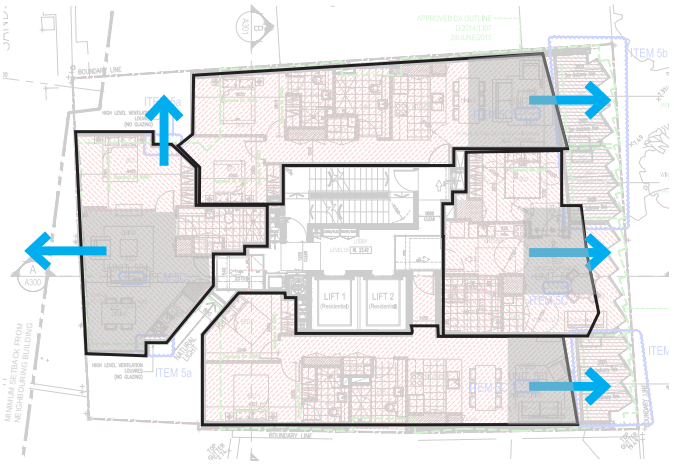
Level 3



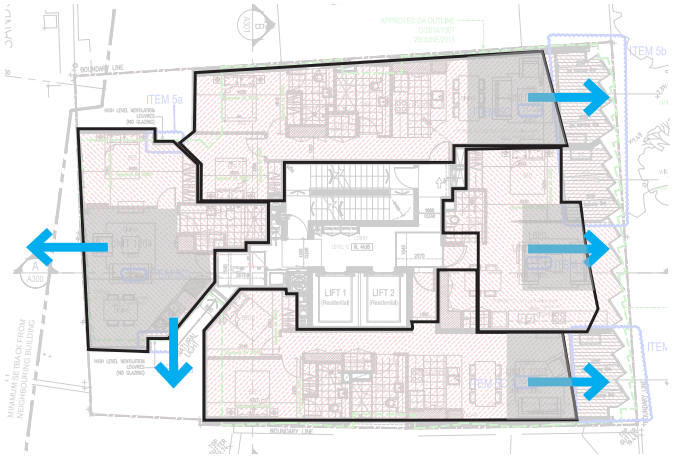
Level 4-8



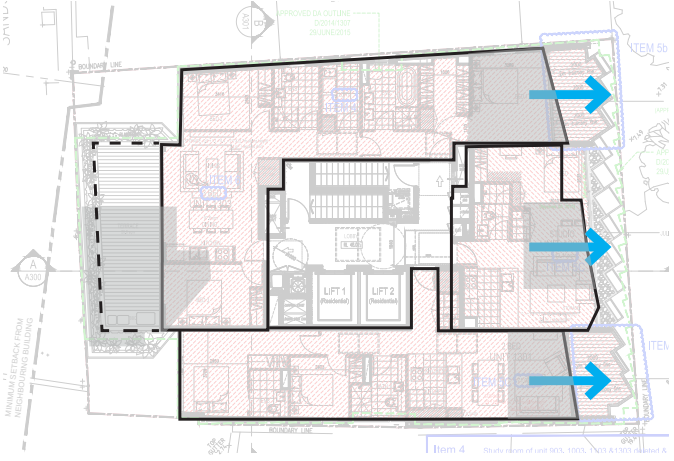
Level 9-11



Level 12



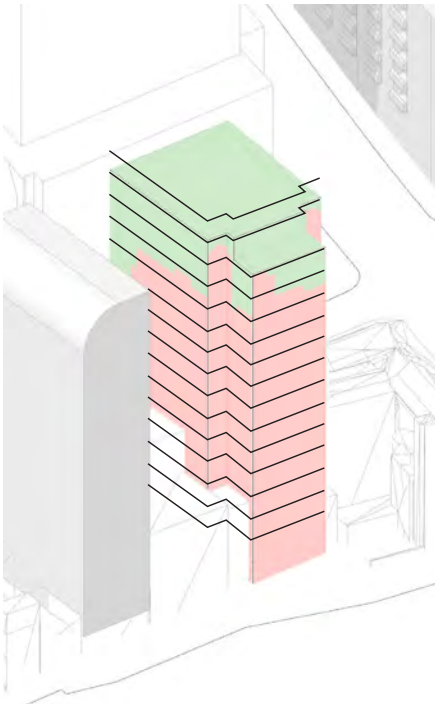
Level 13



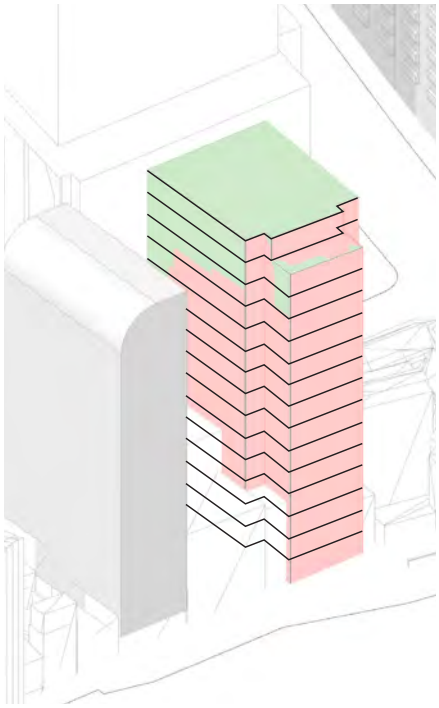
OVERSHADOWING: JUNE (WINTER SOLSTICE)

Kaz Apartments - Existing vs Proposed

June Existing



June Proposed



2 Affected Units



Receives Sunlight > 2 Hours

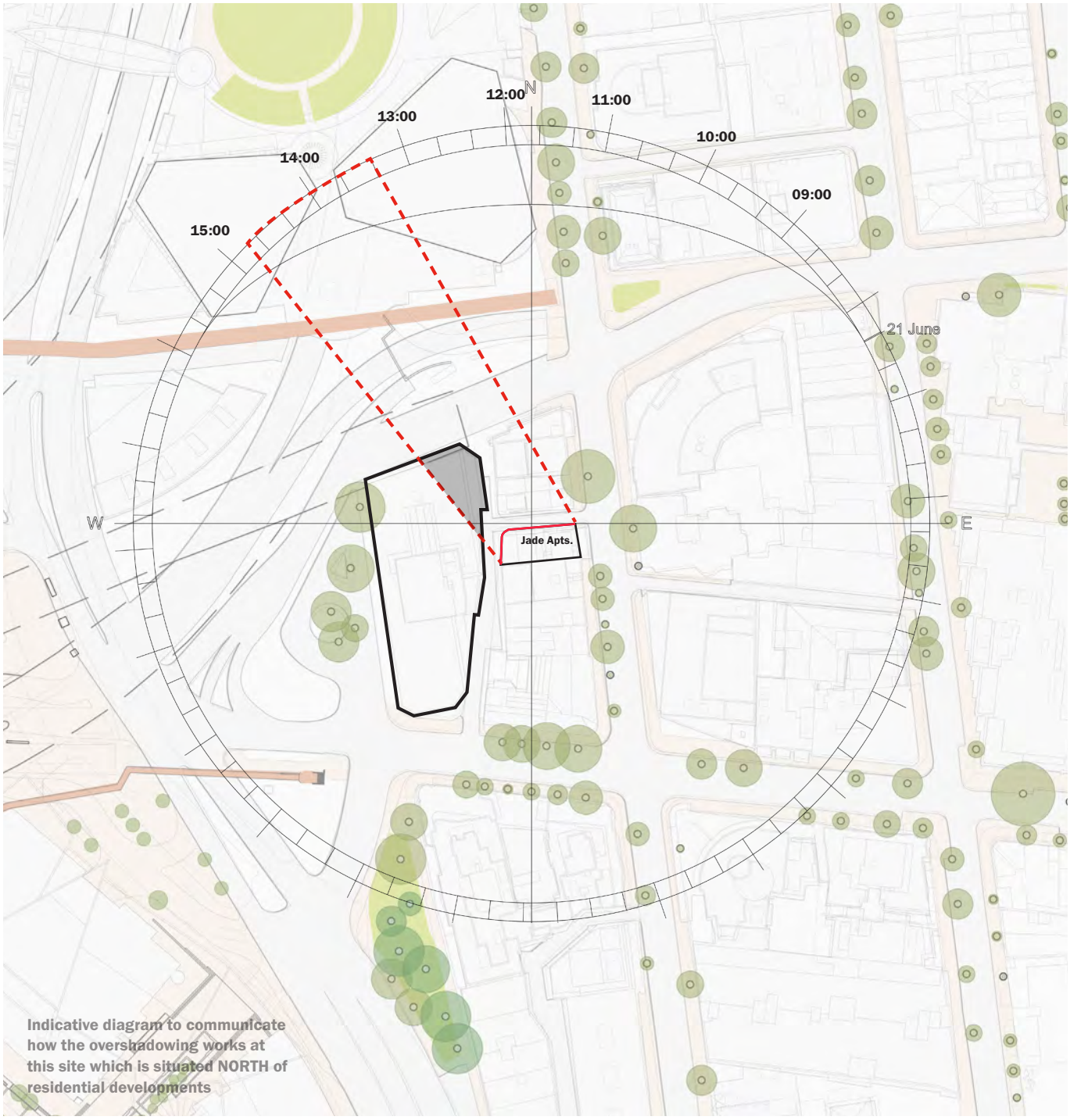
Receives Sunlight < 2 Hours

Average Change Per Apartment (%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	21/36	19/36	2
-5%	58%	53%	6%

TOTAL AVERAGE IMPACT IS LESS THAN 20% ACROSS 36 APARTMENTS

JADE APARTMENTS

OVERSHADOWING OVERVIEW

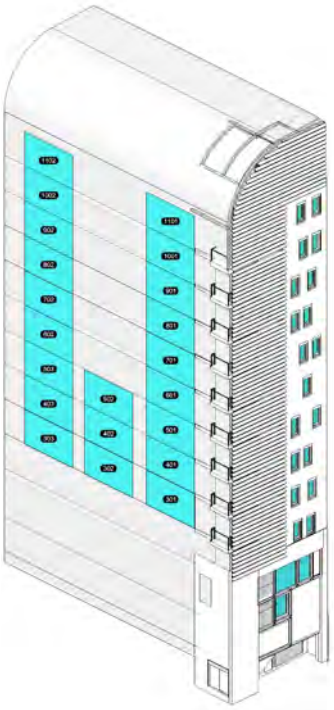


- → Jade Tower sits east of 150 Day st and it is therefore affected by the proposed development.
- → The building contains 21 apartments on 11 floors. All living spaces receive sun access from the north elevation.
- → The impact on Jade tower occurs in the afternoon between 13.30 and 3 pm.
- → Because the existing building is already affecting Jade tower, the additional overshadowing is minimal.
- → The overshadowing impact is greater during the Winter solstice but remains fairly consistent through out the year.

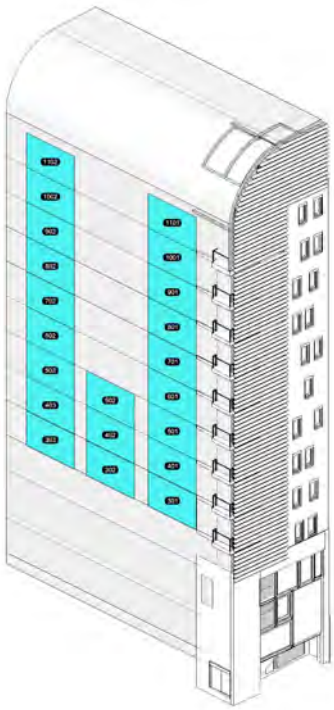
APARTMENT CONFIGURATION

D/2010/1358-02

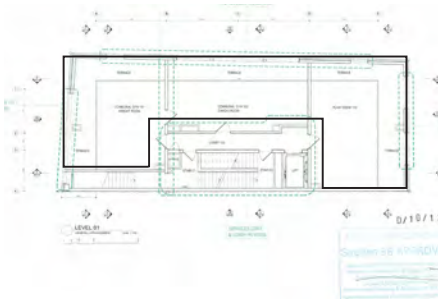
All Windows



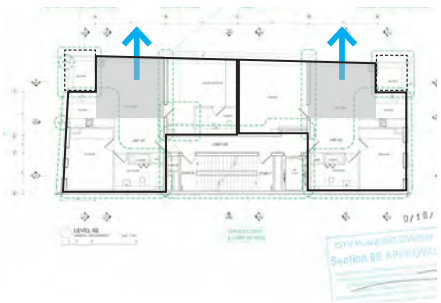
Living Area Windows



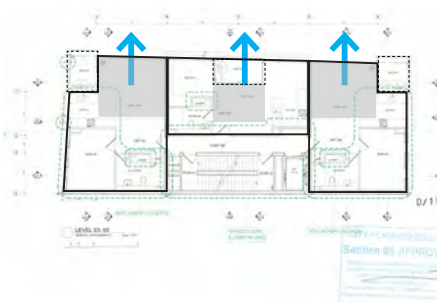
Level 1



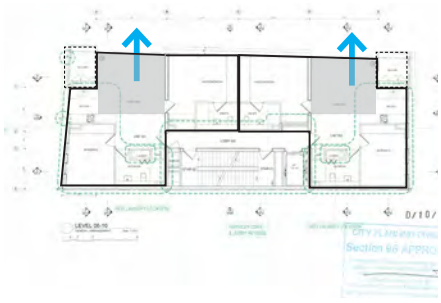
Level 2



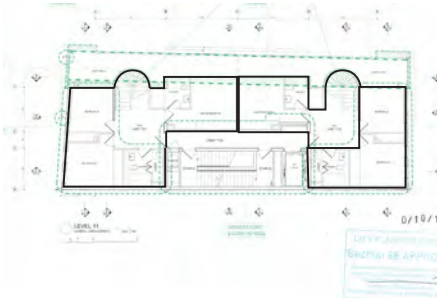
Level 3-5



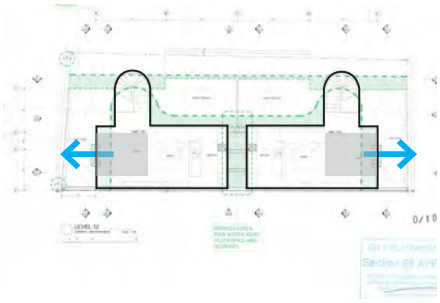
Level 6-10



Level 11



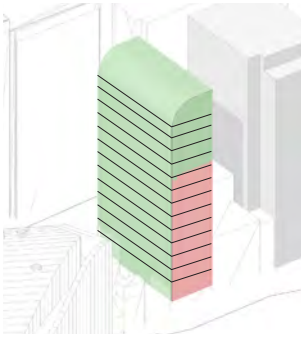
Level 12



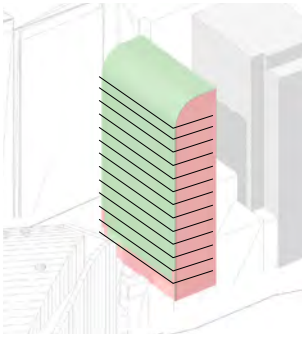
ADDITIONAL OVERSHADOWING:

Existing Vs. Proposed

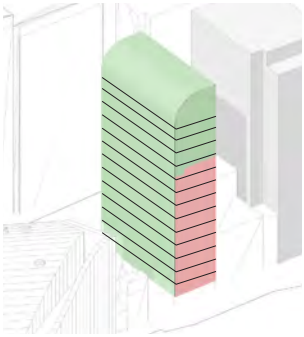
March Existing



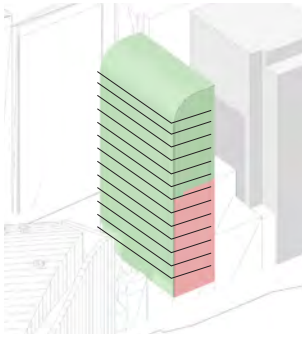
June Existing



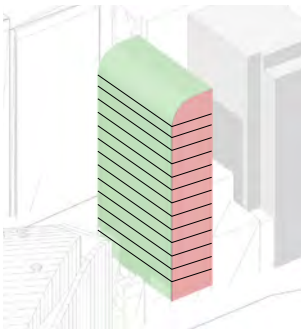
September Existing



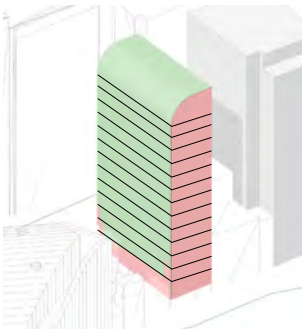
December Existing



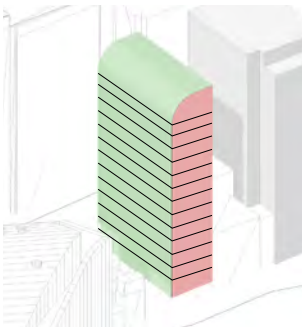
March Proposed



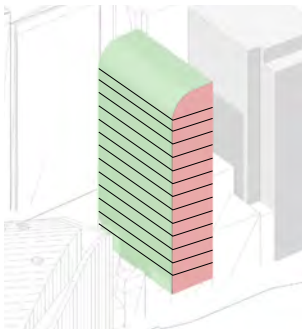
June Proposed



September Proposed



December Proposed



Receives Sunlight > 2 Hours

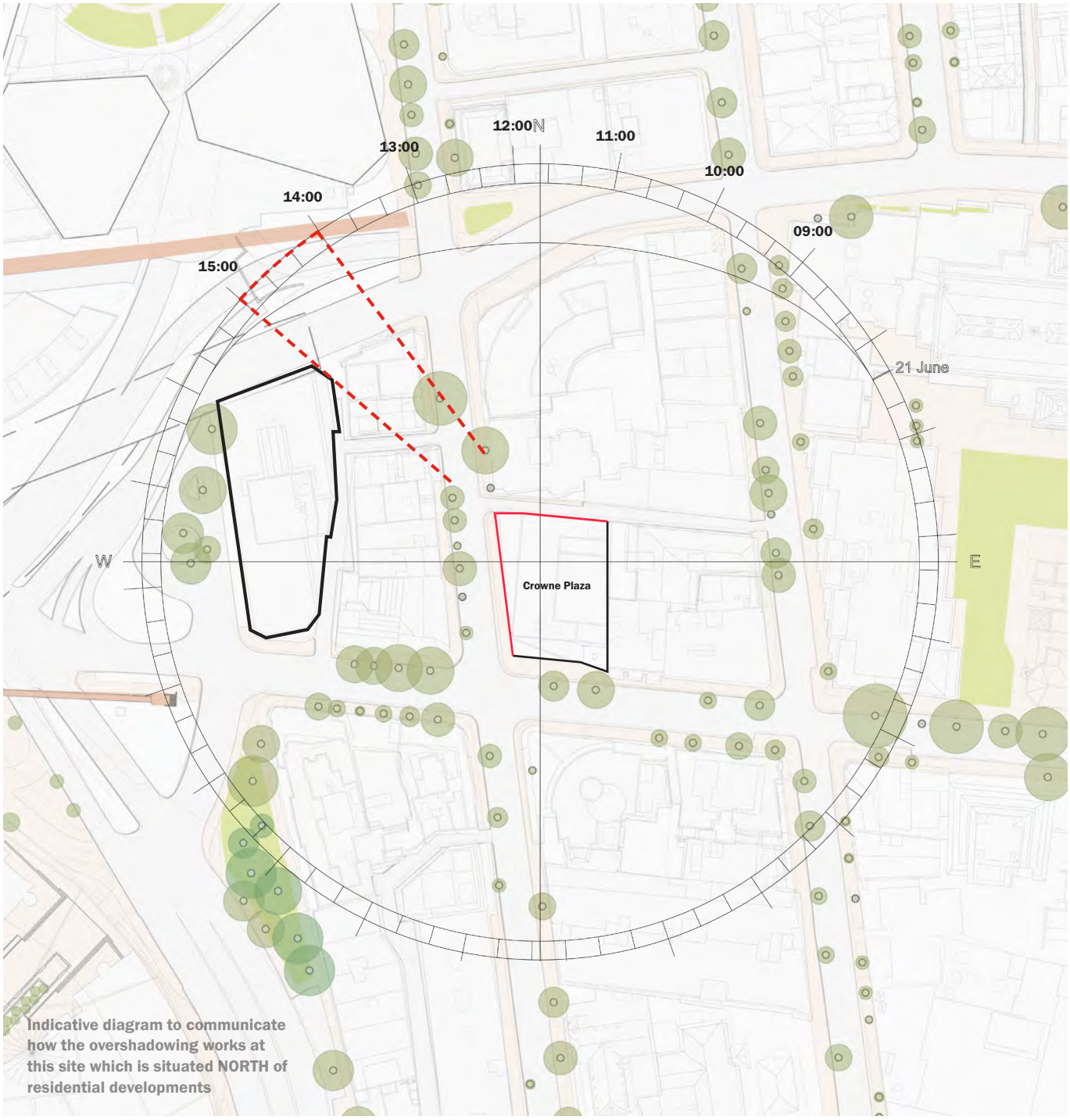
Receives Sunlight < 2 Hours

Average Change Per Apartment (%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	20/21	20/21	
0%	95%	95%	0%

TOTAL IMPACT TO LIVING AREAS IS 0% ACROSS 21 APARTMENTS

CROWNE PLAZA

OVERSHADOWING OVERVIEW



→ The Crowne Plaza Solar Plane establishes the maximum allowable height for any building volumes to ensure no additional shadows are cast on Town Hall Square. This plane is defined as the lowest surface created by connecting points from the Town Hall to the Crowne Plaza.

→ The boundary of the Crowne Solar Plane is defined by connecting (a) the far northeast point from Town Hall Square and the far northwest point of Crowne Plaza; (b) the far southeast point from Town Hall Square and the far south point of Crowne Plaza. The Crowne Solar Plane is generated by connecting and extending the two boundaries.

APARTMENT CONFIGURATION

Level 09 (First Residential Floor)



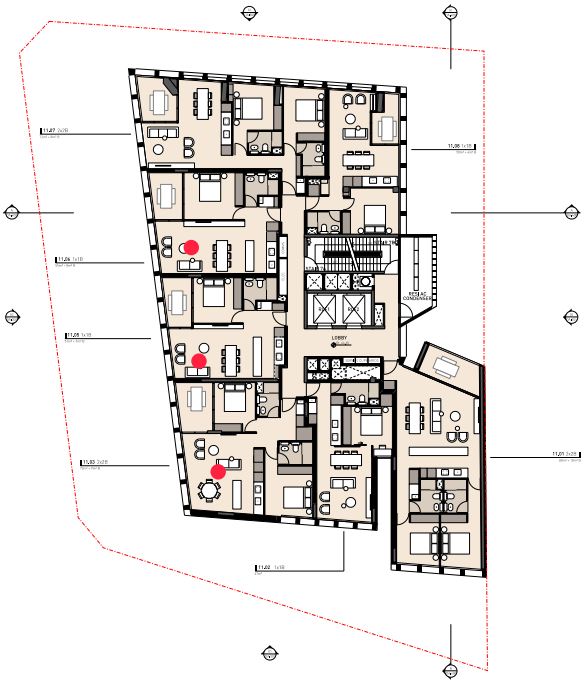
Level 10: 4 Units

2 Units Face West



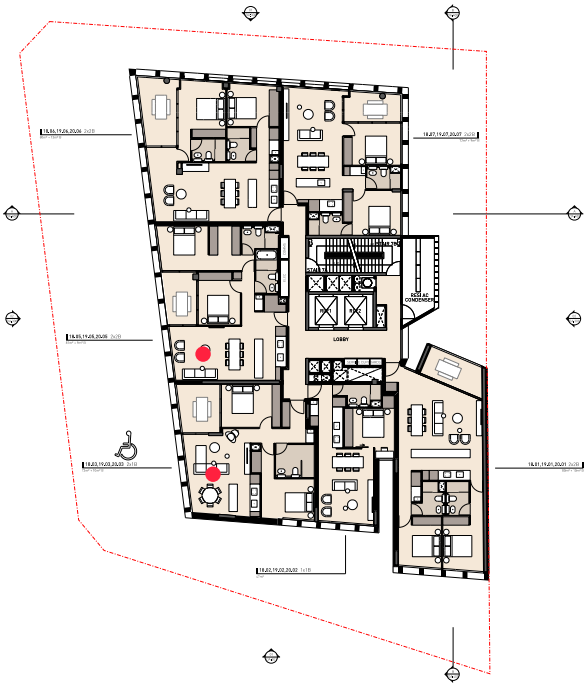
Level 11-16: 7 Units

3 Units Face West



Level 17-20: 6 Units

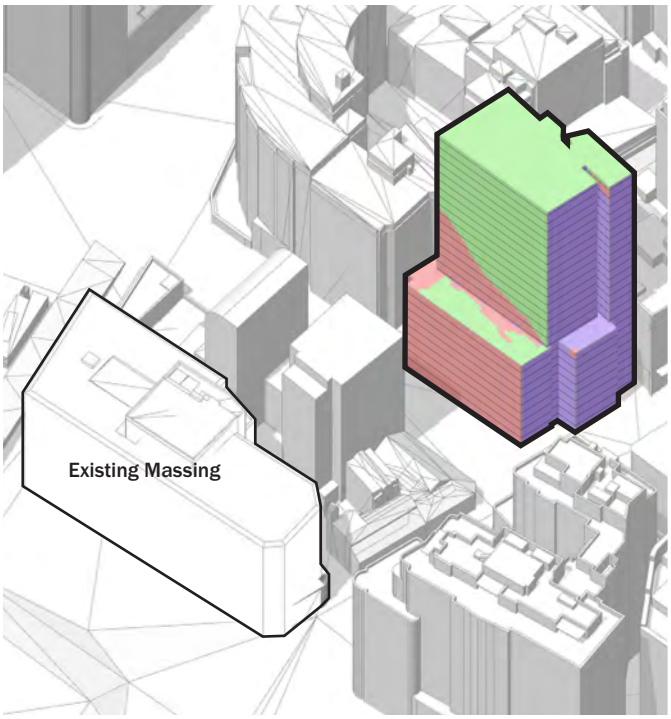
2 Units Face West



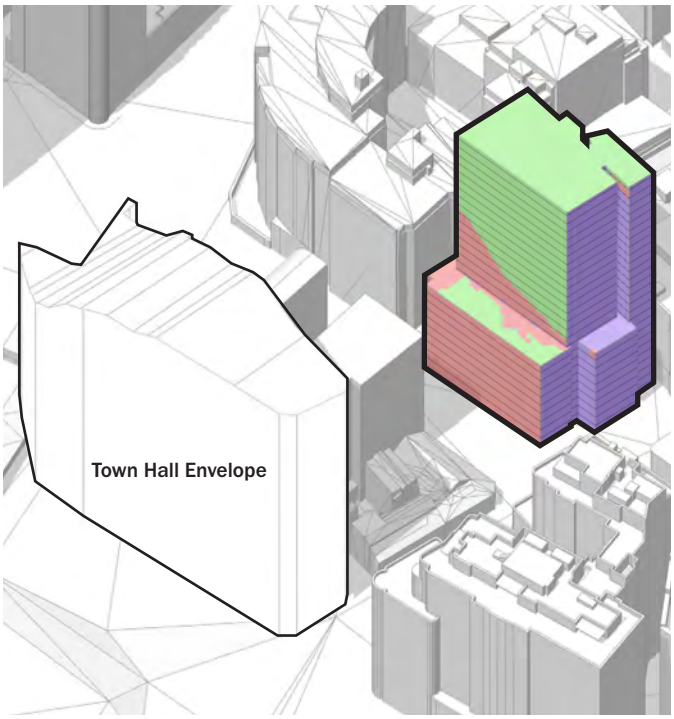
OVERSHADOWING: JUNE (WINTER SOLSTICE)

Existing Vs. Proposed

Existing



Proposed



Receives Sunlight > 2 Hours
Receives Sunlight < 2 Hours
Receives Sunlight < 15 Minutes

Impacted < 2 Hours

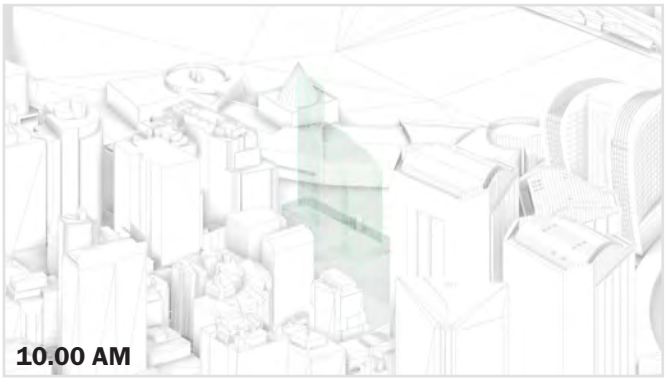
Average Change Per Apartment (%)	Existing Above 2 Hours	Proposed Above 2 Hours	x>2 to x<2
	67/95	67/95	0
0	71%	71%	0

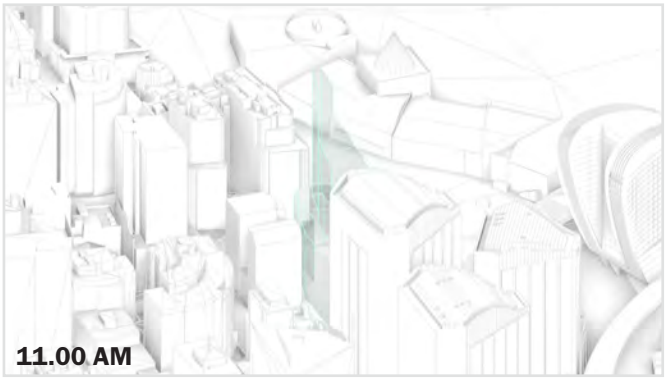
TOTAL IMPACT TO LIVING AREAS IS 0% ACROSS 95 APARTMENTS (NOT INCLUSIVE OF COMMERCIAL PODIUM)

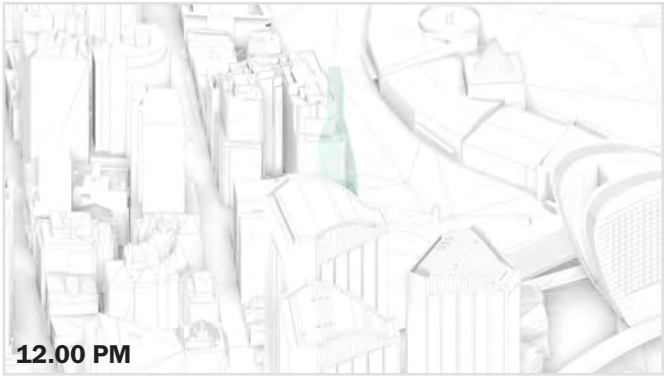
ATTACHMENT B: VIEWS FROM THE SUN

VIEW FROM THE SUN - WINTER SOLSTICE

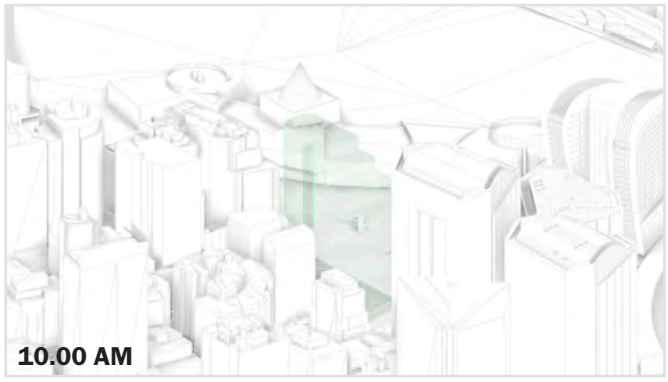
The Expected Envelope:

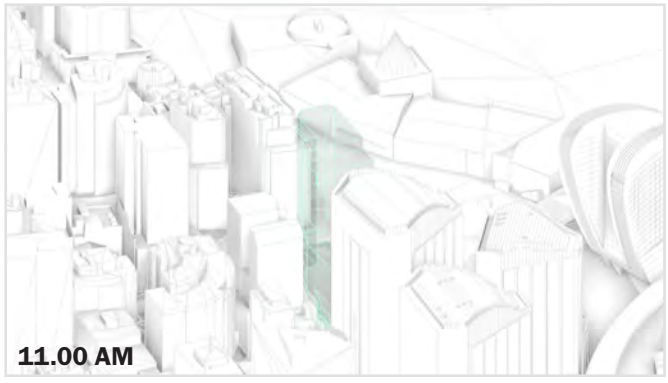


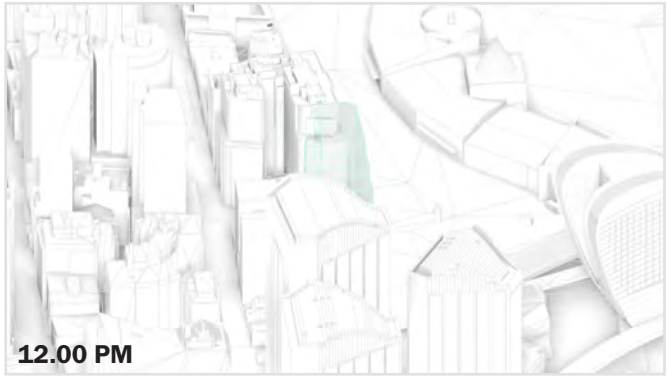




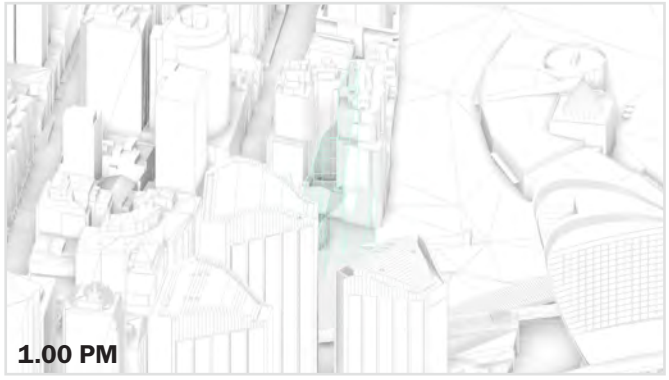
The Proposed Massing:



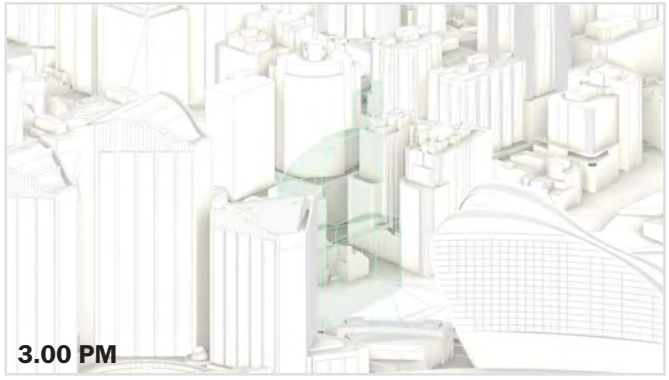




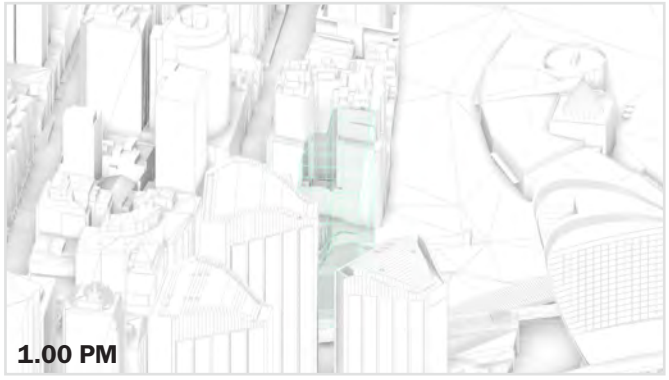
The Expected Envelope:

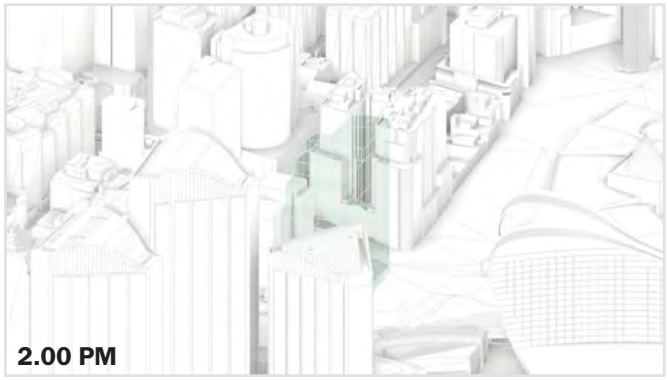


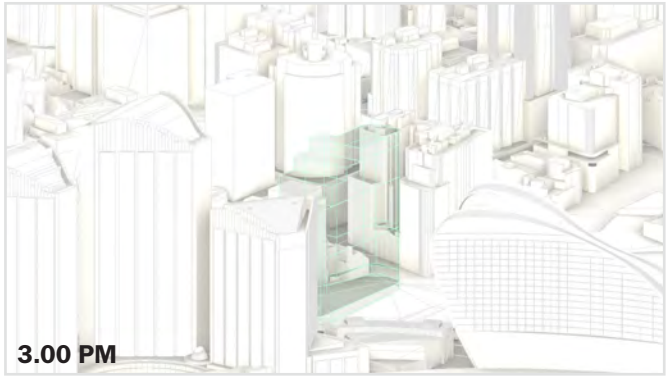




The Proposed Massing:





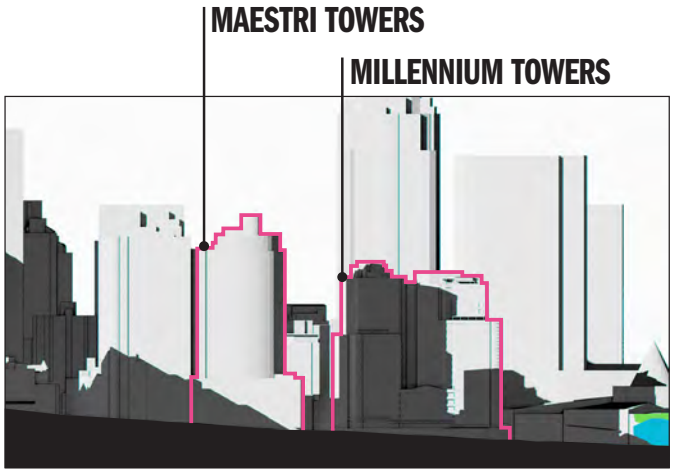


ATTACHMENT C: OVERSHADOWING ELEVATIONS

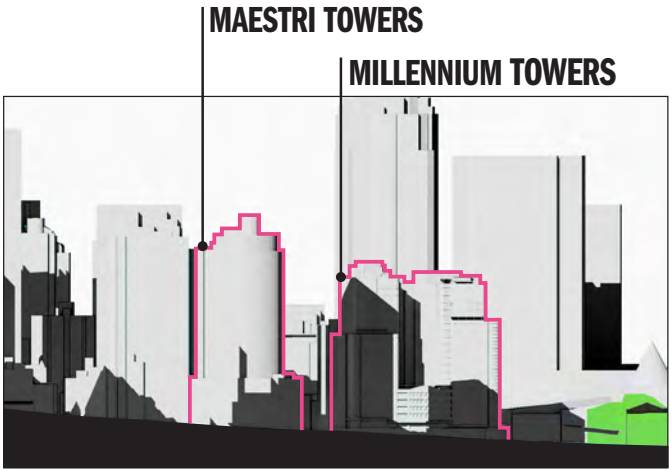
OVERSHADOWING IMPACT TO SOUTH

Bathurst Street Elevation

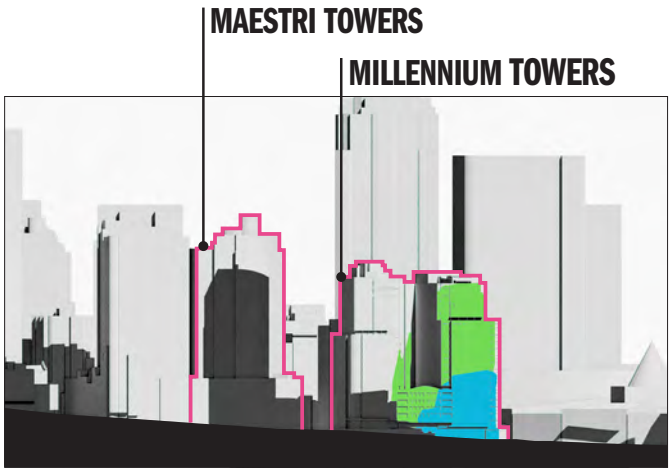
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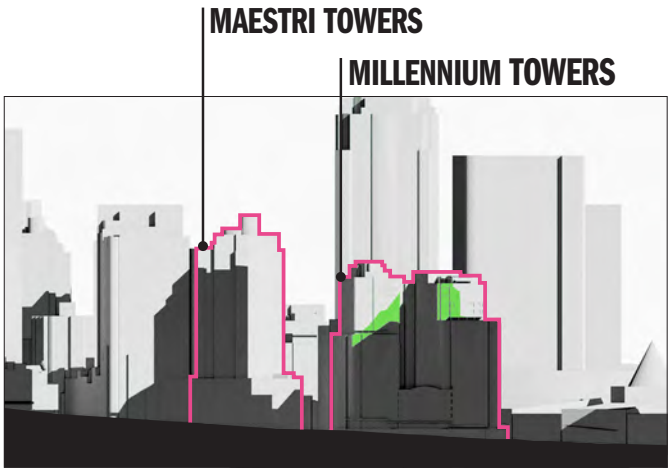
10:00



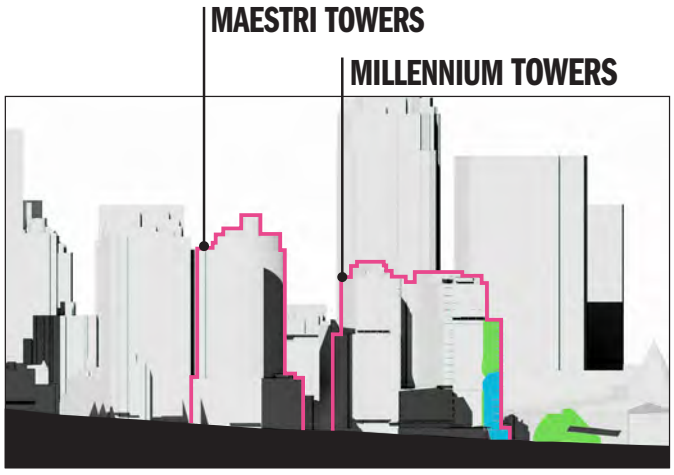
13:00



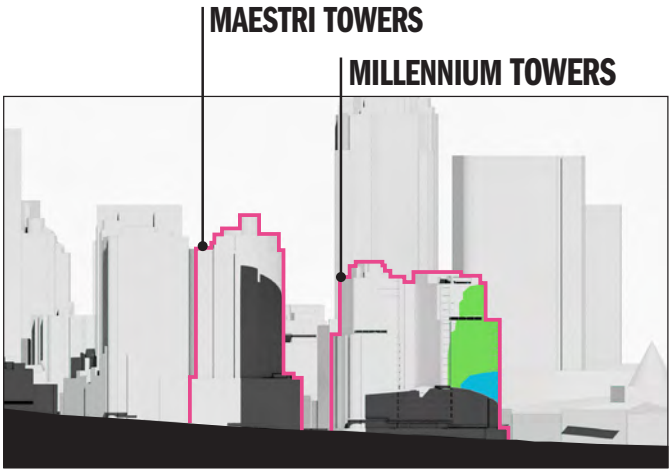
14:00



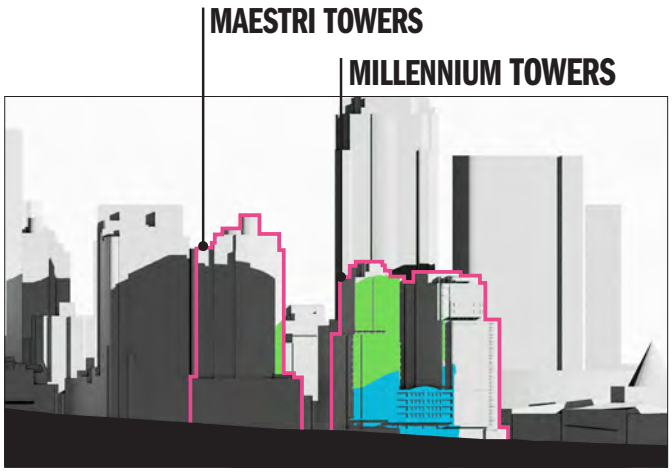
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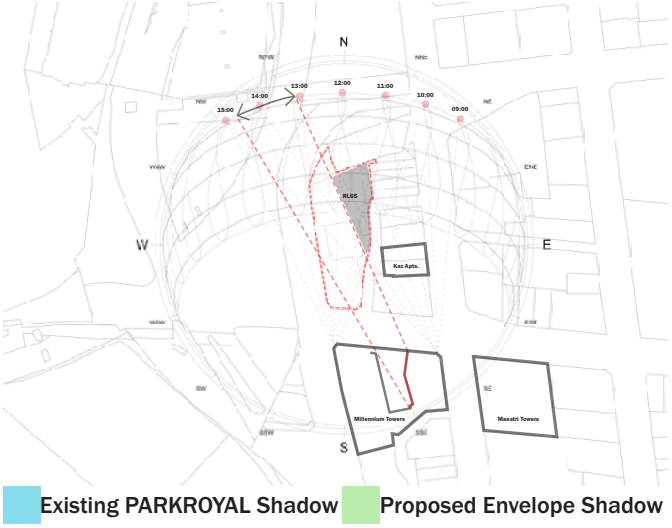


12:00



15:00





ATTACHMENT D: REFERENCE SCHEME DRAWINGS

REFERENCE SCHEME SHEET LIST

Sheet Number	Sheet Name	Current Revision	Current Revision Date	Current Revision Description
RS_000	COVER SHEET	C	30/07/25	Planning Proposal Updates 02
RS_020	EXISTING NORTH & SOUTH ELEVATION	B	15/04/25	Planning Proposal Updates
RS_021	EXISTING EAST ELEVATION	B	15/04/25	Planning Proposal Updates
RS_022	EXISTING WEST ELEVATION	B	15/04/25	Planning Proposal Updates
RS_050	SITE PLAN	B	15/04/25	Planning Proposal Updates
RS_098	BASEMENT 02 PLAN	C	30/07/25	Planning Proposal Updates 02
RS_099	BASEMENT 01 PLAN	C	30/07/25	Planning Proposal Updates 02
RS_100	GROUND FLOOR PLAN	C	30/07/25	Planning Proposal Updates 02
RS_101	LEVEL 01 PLAN	B	15/04/25	Planning Proposal Updates
RS_102	LEVEL 02 PLAN	B	15/04/25	Planning Proposal Updates
RS_103	LEVEL 03 PLAN	B	15/04/25	Planning Proposal Updates
RS_104	LEVEL 04 PLAN	B	15/04/25	Planning Proposal Updates
RS_105	LEVEL 05 PLAN	B	15/04/25	Planning Proposal Updates
RS_106	LEVEL 06 PLAN	B	15/04/25	Planning Proposal Updates
RS_107	LEVEL 07 PLAN	B	15/04/25	Planning Proposal Updates
RS_108	LEVEL 08 PLAN	B	15/04/25	Planning Proposal Updates
RS_109	LEVEL 09 PLAN	B	15/04/25	Planning Proposal Updates
RS_110	LEVEL 10 PLAN	B	15/04/25	Planning Proposal Updates
RS_111	LEVEL 11 PLAN TRANSFER FLOOR	B	15/04/25	Planning Proposal Updates
RS_112	LEVEL 12 PLAN	B	15/04/25	Planning Proposal Updates
RS_113	LEVEL 13 PLAN	B	15/04/25	Planning Proposal Updates
RS_114	LEVEL 14 PLAN	B	15/04/25	Planning Proposal Updates
RS_115	LEVEL 15 PLAN	B	15/04/25	Planning Proposal Updates
RS_116	LEVEL 16 PLAN	B	15/04/25	Planning Proposal Updates
RS_117	LEVEL 17 PLAN	B	15/04/25	Planning Proposal Updates
RS_118	LEVEL 18 PLAN - HOTEL AMENITY	B	15/04/25	Planning Proposal Updates
RS_119	LEVEL 19 PLAN	B	15/04/25	Planning Proposal Updates
RS_120	LEVEL 20 PLAN	B	15/04/25	Planning Proposal Updates
RS_121	LEVEL 21 PLAN - RESTAURANT	B	15/04/25	Planning Proposal Updates
RS_122	LEVEL 22 PLAN - PLANT	B	15/04/25	Planning Proposal Updates
RS_123	LEVEL 23 PLAN - ROOFPLAN	B	15/04/25	Planning Proposal Updates
RS_200	PROPOSED NORTH & SOUTH ELEVATION	B	15/04/25	Planning Proposal Updates
RS_201	PROPOSED EAST ELEVATION	B	15/04/25	Planning Proposal Updates
RS_202	PROPOSED WEST ELEVATION	B	15/04/25	Planning Proposal Updates
RS_800	PROPOSED - GFA PLANS & SCHEDULE	A	15/04/25	Planning Proposal Updates



150 DAY ST, SYDNEY 2000

ARCHITECTURE - PLANNING PROPOSAL REFERENCE SCHEME

CONSULTANT

Hassell

Hassell LTD ABN 24 007 711 435
Level 2, Pier 8/9,23 Hickson Rd
Sydney NSW 2000 Australia
T +61 2 9101 2000
F +61 2 9101 2100
sydney@hassellstudio.com
Nominated Architects NSW:
Tony Grist 5350
Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

NOTES

1. Do not scale drawing. Written dimensions govern
2. All dimensions are in millimeters unless noted otherwise
3. All dimensions shall be verified on site before proceeding with the work. Hassell shall be notified in writing of any discrepancies.
4. This drawing must be read in conjunction with all relevant contracts, specifications and drawings

This drawing is an uncontrolled copy. Unless noted otherwise

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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 02	30/07/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
COVER SHEET

REVIEWED
AC

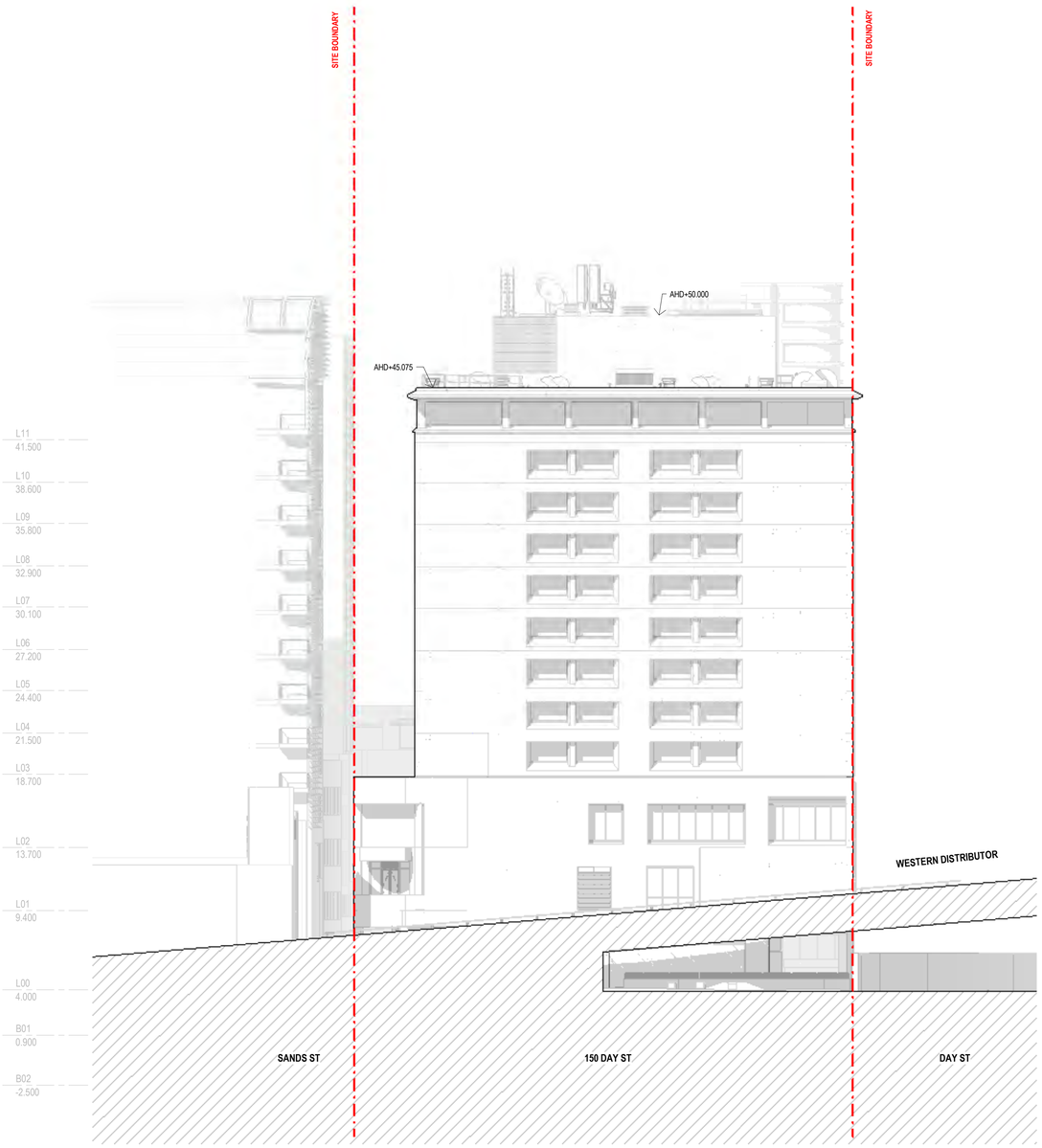
APPROVED
AK

DRAWING NO.
RS_000

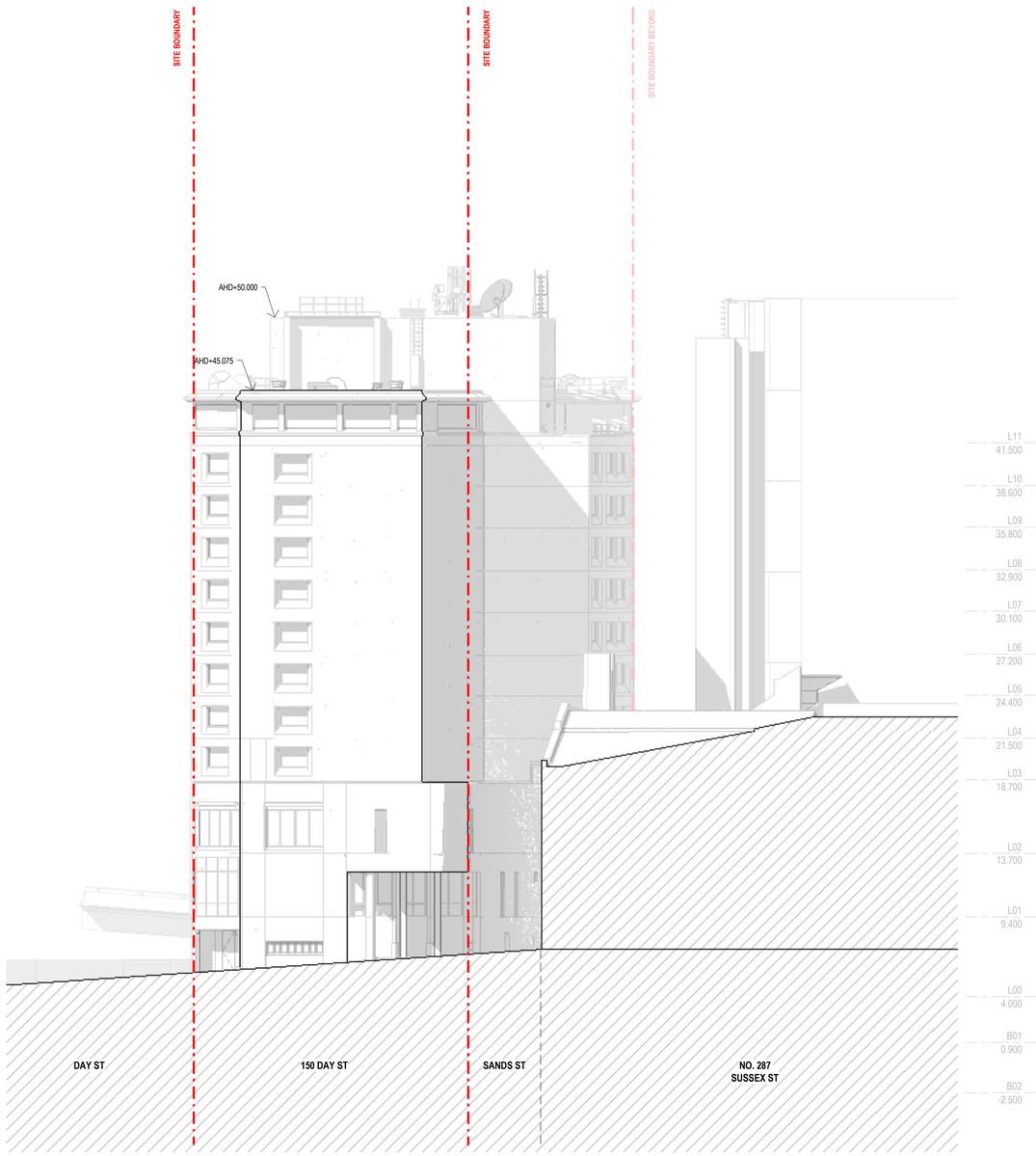
SCALE @ A1

PROJECT NO.
016185

REV NO.
C



1 EXISTING NORTH ELEVATION
1 : 200



2 EXISTING SOUTH ELEVATION - BATHURST ST
1 : 200

CONSULTANT
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Level 2, Pier 8/9,23 Hickson Rd
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F +61 2 9101 2100
sydney@hassellstudio.com
Nominated Architects NSW:
Tony Grist 5350
Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES
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A	Planning Proposal	21/03/25

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
EXISTING NORTH & SOUTH ELEVATION

REVIEWED
AC

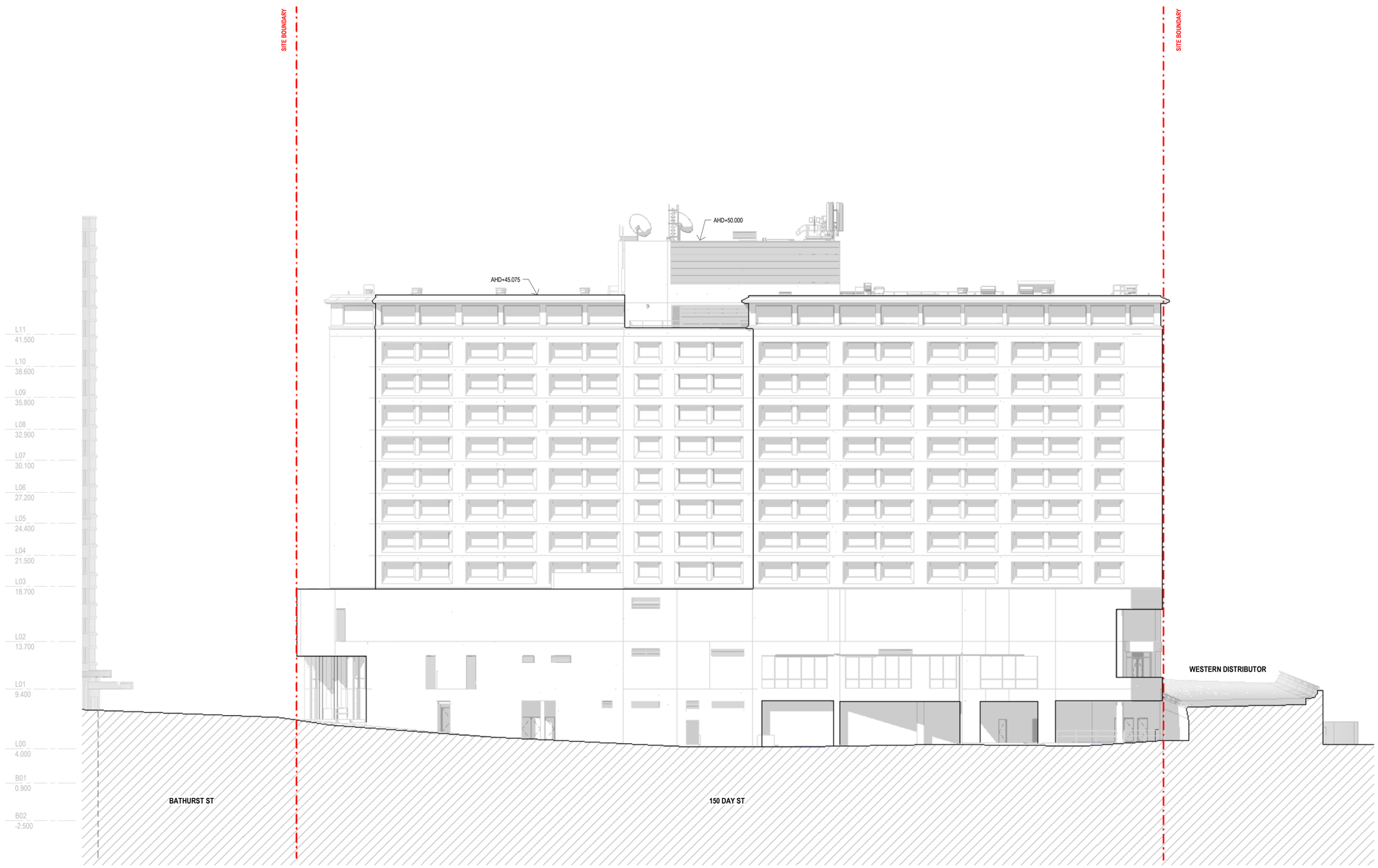
APPROVED
AK

DRAWING NO.
RS_020

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



1 EXISTING EAST ELEVATION - SANDS ST
1 : 200

CONSULTANT

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Nominated Architects NSW:
Tony Grist 5350
Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

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A	Planning Proposal	21/03/25

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
EXISTING EAST ELEVATION

REVIEWED
AC

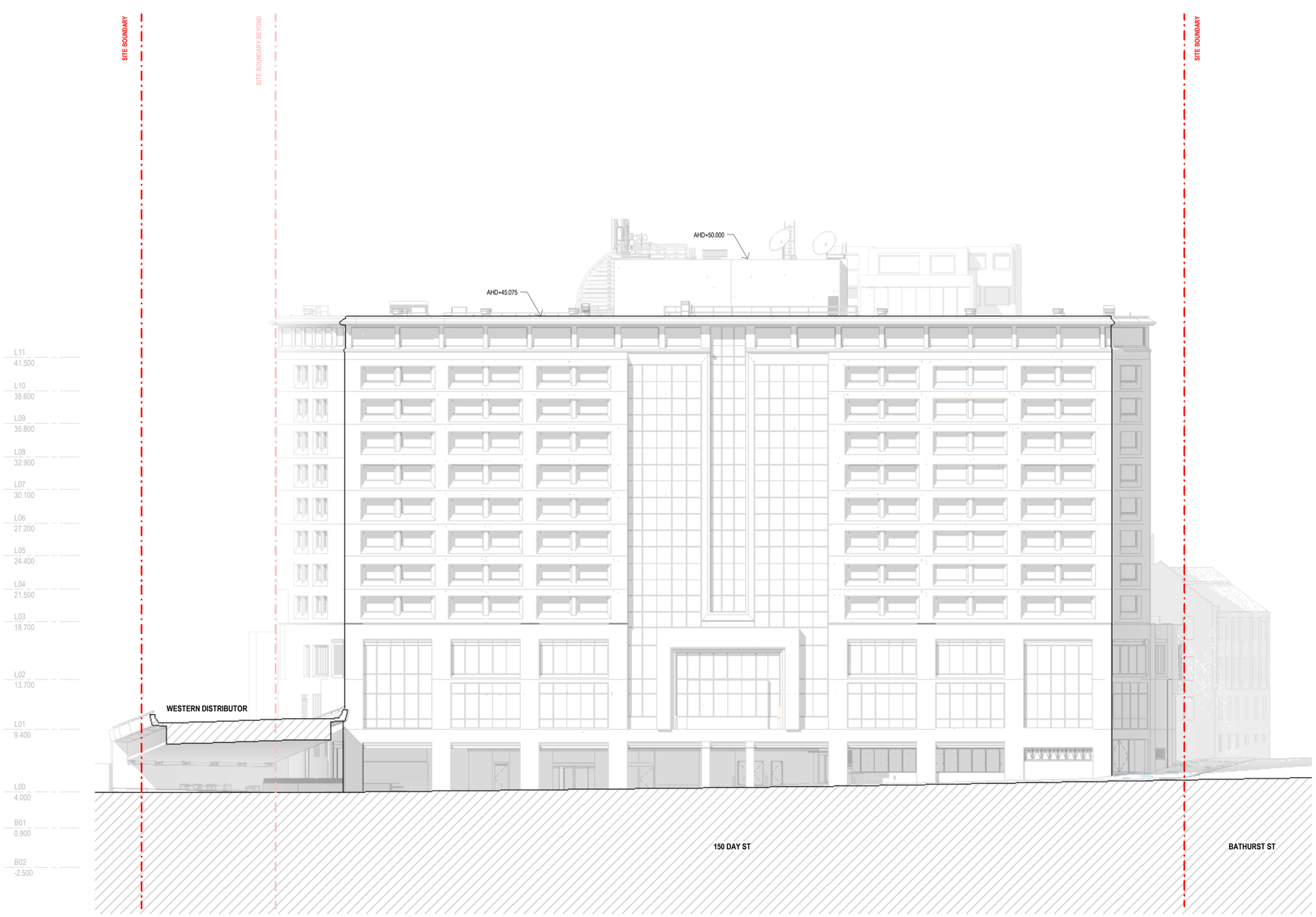
APPROVED
AK

DRAWING NO.
RS_021

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



1 EXISTING WEST ELEVATION - DAY ST
1 : 200

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
EXISTING WEST ELEVATION

REVIEWED
AC

APPROVED
AK

DRAWING NO.
RS_022

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



2 SITE PLAN
RS_200 1 : 500

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Ross de la Motte 7398

REFERENCE

NORTH

1:500
0m 5m 10m 15m 20m

NOTES

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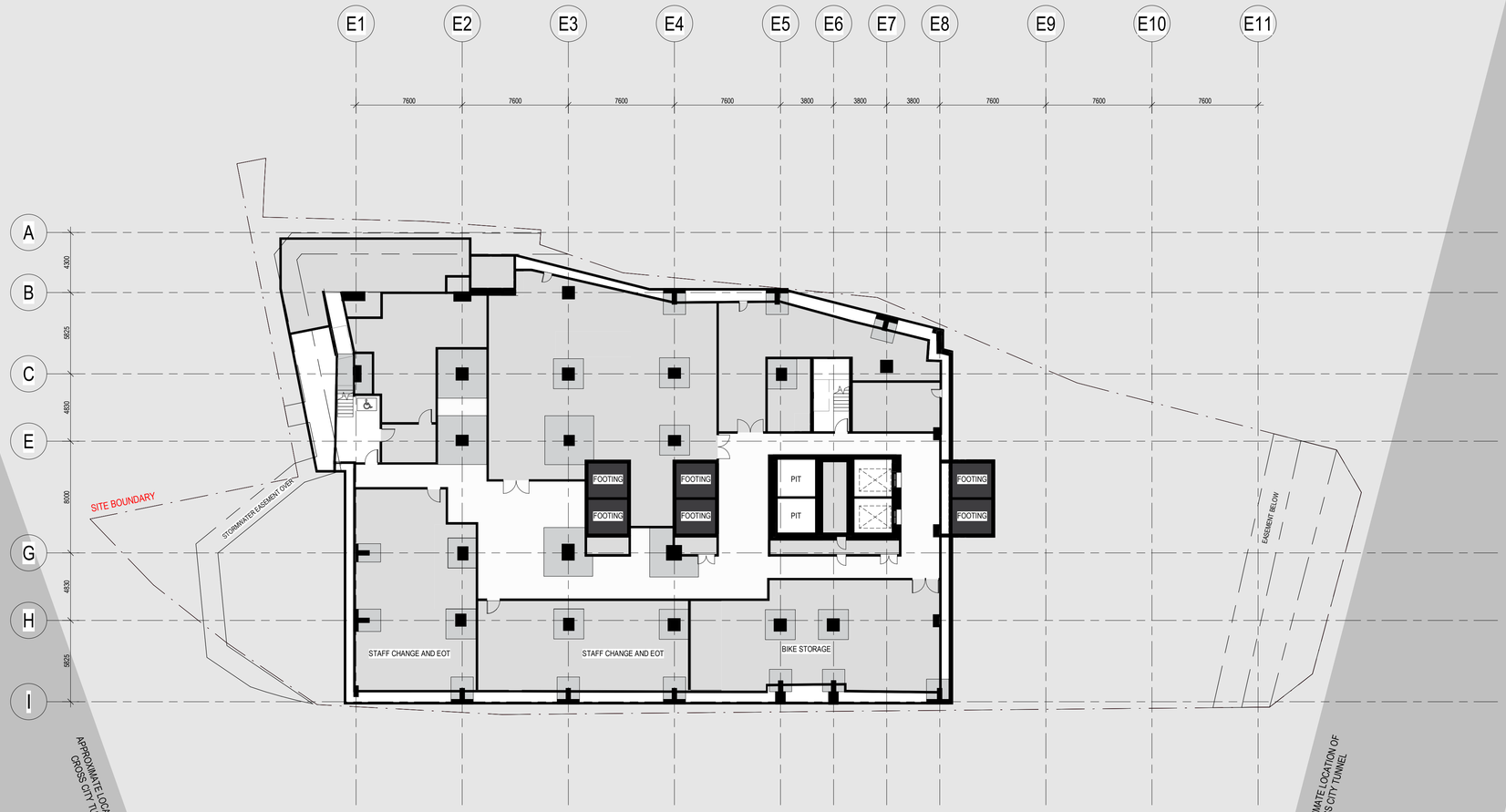
CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
SITE PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_050
SCALE @ A1 1 : 500
PROJECT NO. 016185
REV NO. A



1 RS_020 BASEMENT 02 PLAN

1 : 200

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Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

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A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 02	30/07/25

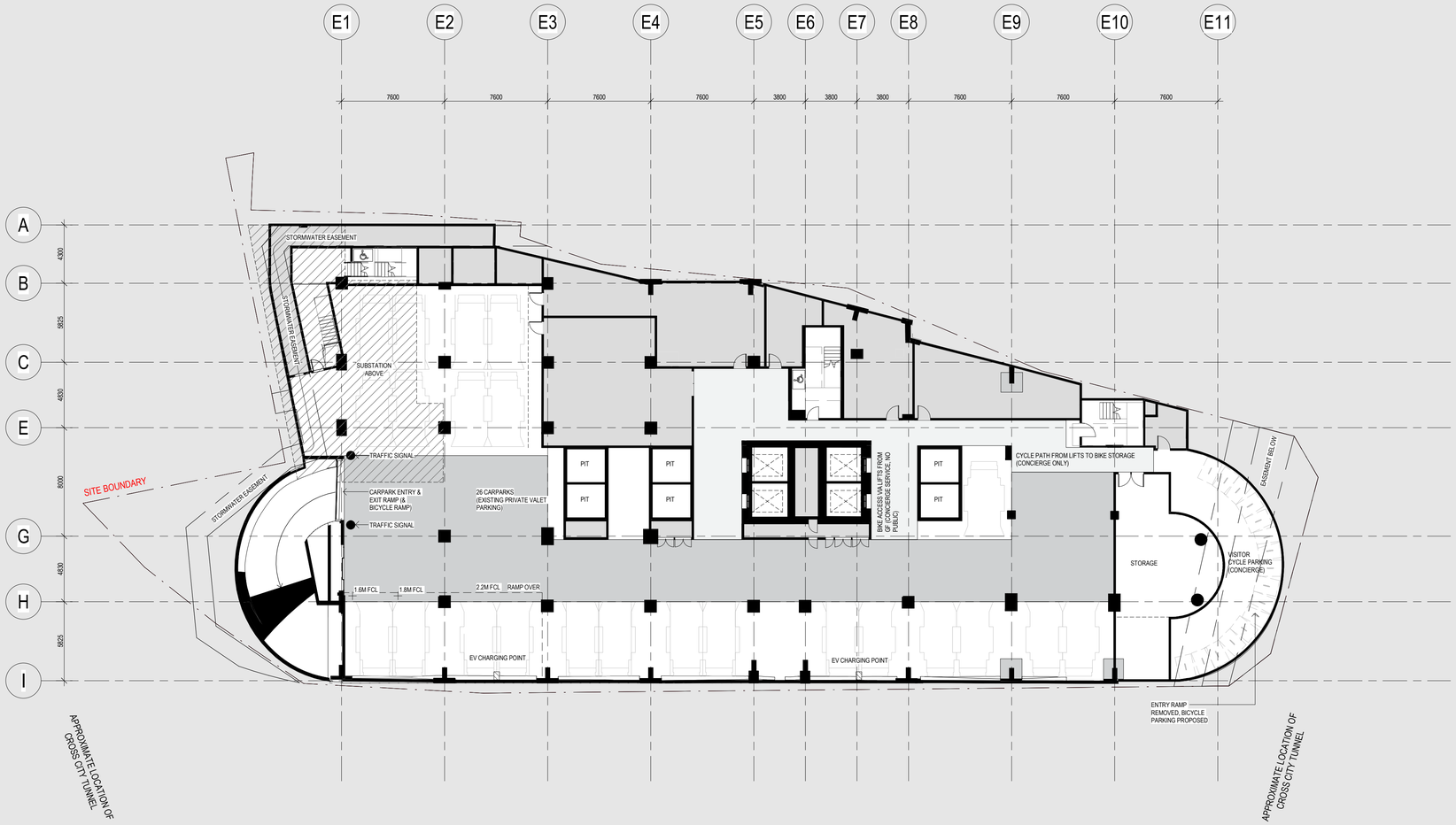
CLIENT
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
BASEMENT 02 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_098
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. C



1 RS_020 BASEMENT B01 PLAN

1 : 200

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 02	30/07/25

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
BASEMENT 01 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_099
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. C



1 RS_020 GROUND FLOOR L00 PLAN 1 : 200

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1:200
0m 2m 4m 6m 8m

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B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 02	30/07/25

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
GROUND FLOOR PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_100
REV NO. C



382

1 RS_020 L01 PLAN
1 : 200

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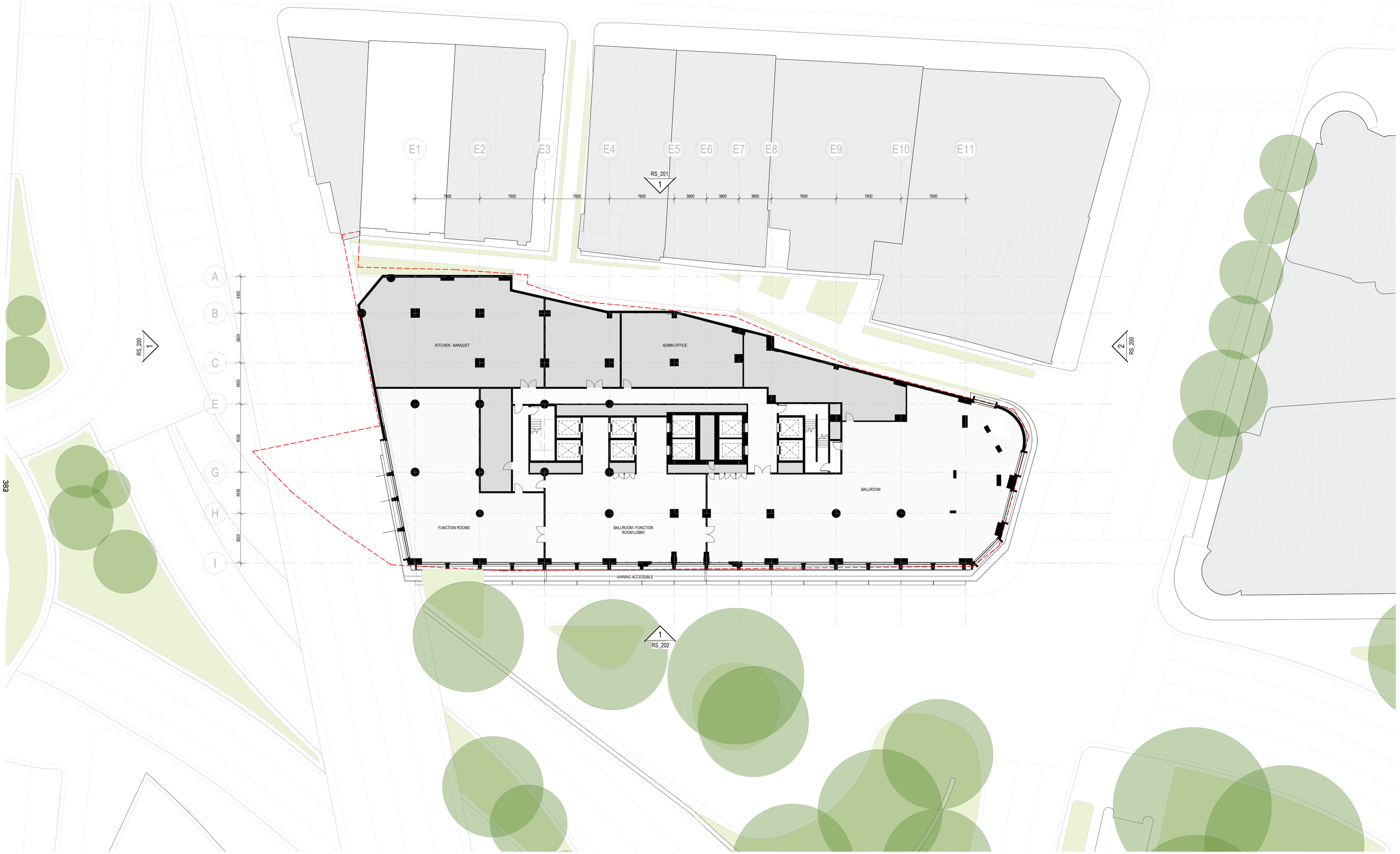
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 01 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_101
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



1 RS_020 L02 PLAN

1 : 200

383

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NORTH

1:200
0m 2m 4m 6m 8m

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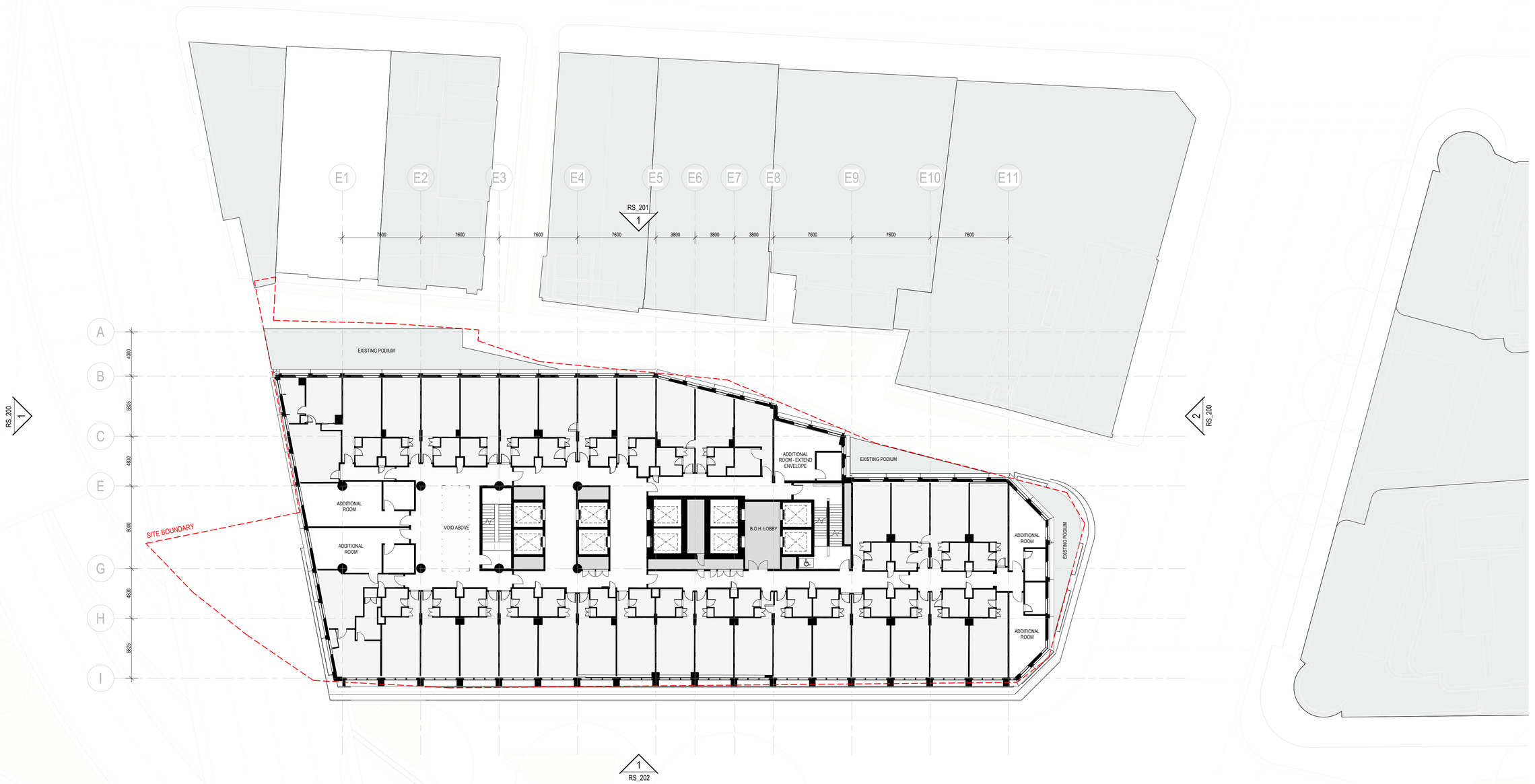
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 02 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_102
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



383

1 RS_020 L03 PLAN
1 : 200

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Ross de la Motte 7398

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NORTH

1:200
0m 2m 4m 6m 8m

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 03 PLAN

REVIEWED
AC

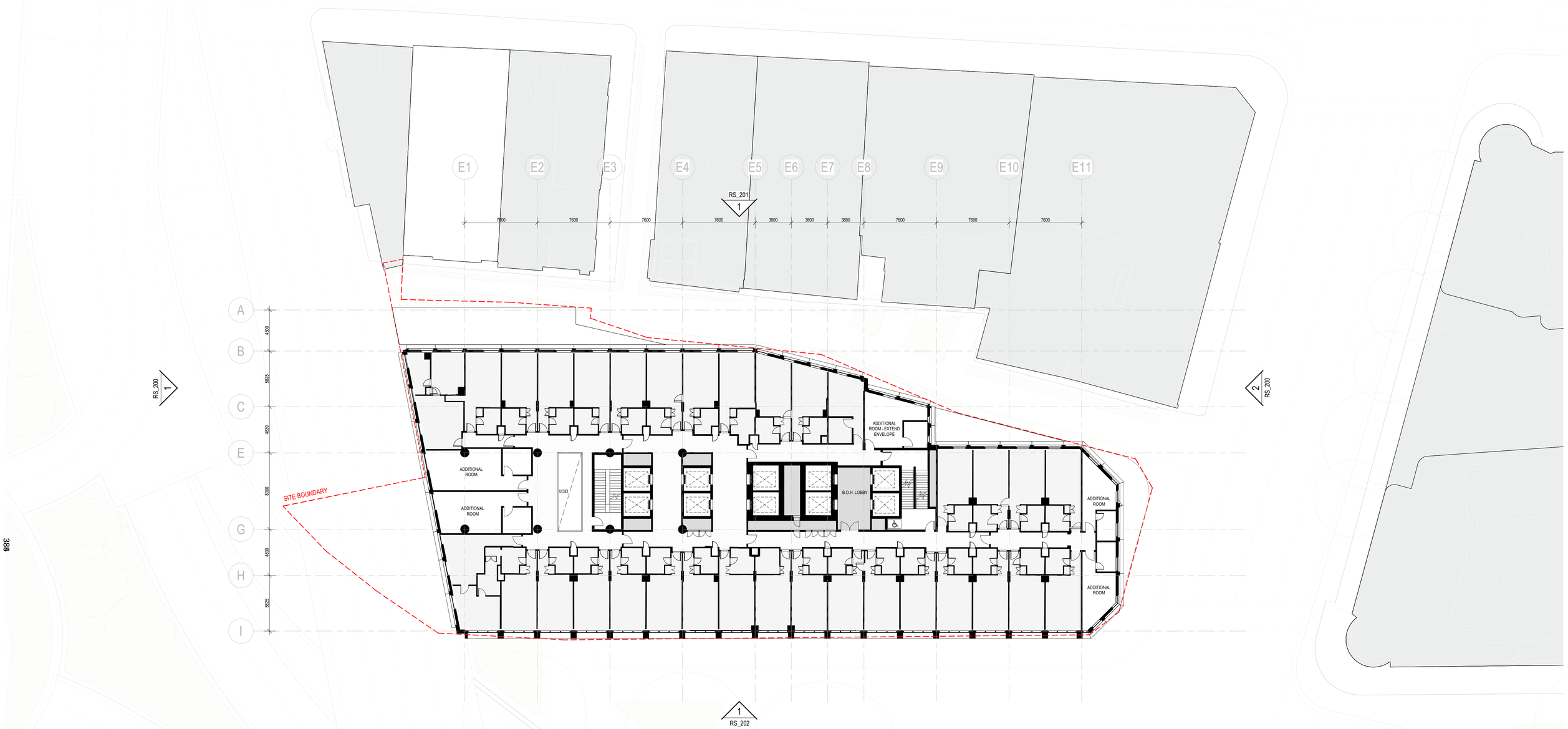
APPROVED
AK

DRAWING NO.
RS_103

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



1 L04 PLAN
RS_020 1 : 200

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Ross de la Motte 7398

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NORTH

1:200
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 04 PLAN

REVIEWED
AC

APPROVED
AK

DRAWING NO.
RS_104

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



386

1 RS_020 L05 PLAN
1 : 200

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Ross de la Motte 7398

REFERENCE

NORTH

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0m 2m 4m 6m 8m

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 05 PLAN

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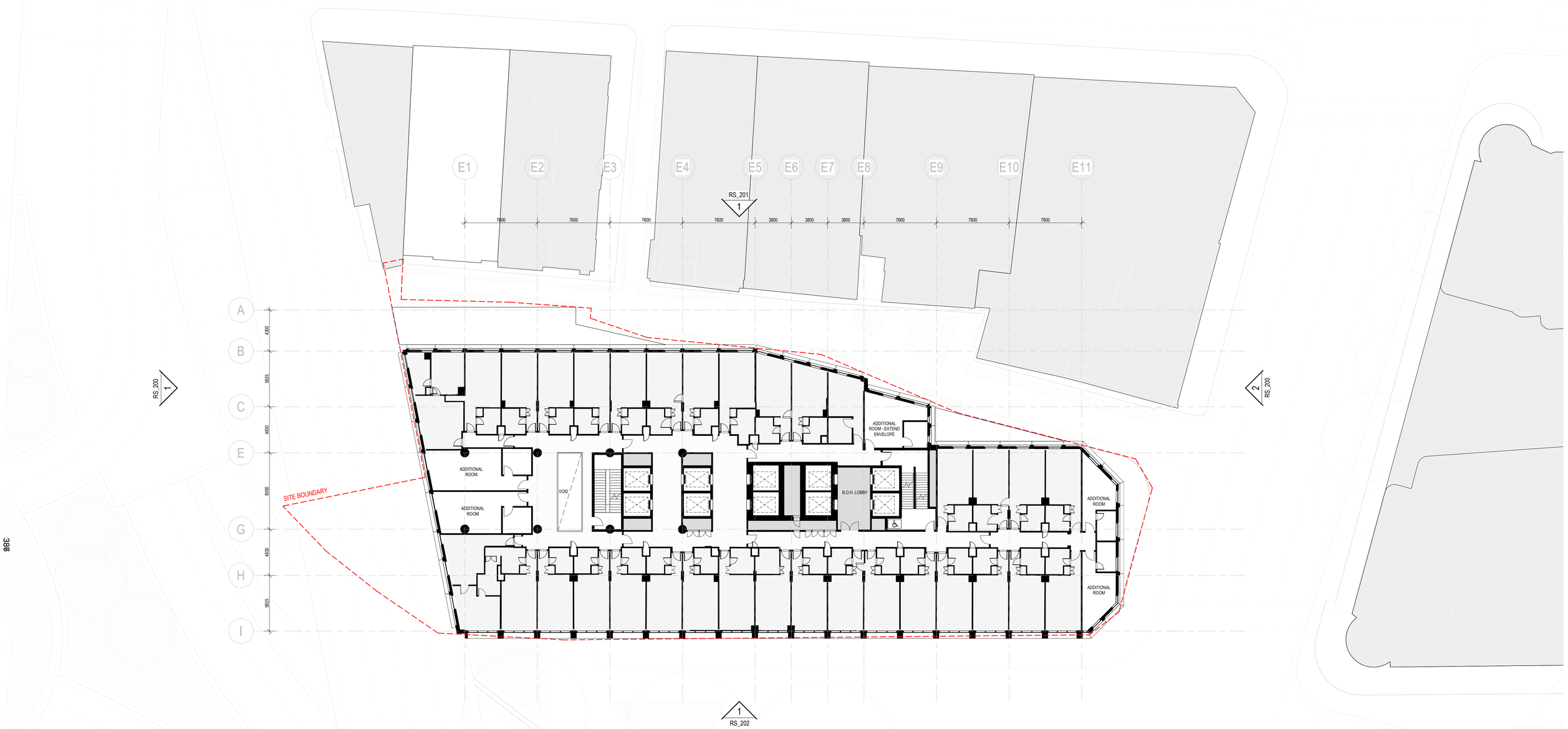
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RS_105

SCALE @ A1
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REV NO.
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386

1 RS_020 L06 PLAN
1 : 200

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NORTH

1:200
0m 2m 4m 6m 8m

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 06 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_106
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



388

1 L07 PLAN

RS_020 1 : 200

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Ross de la Motte 7398

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NORTH

1:200
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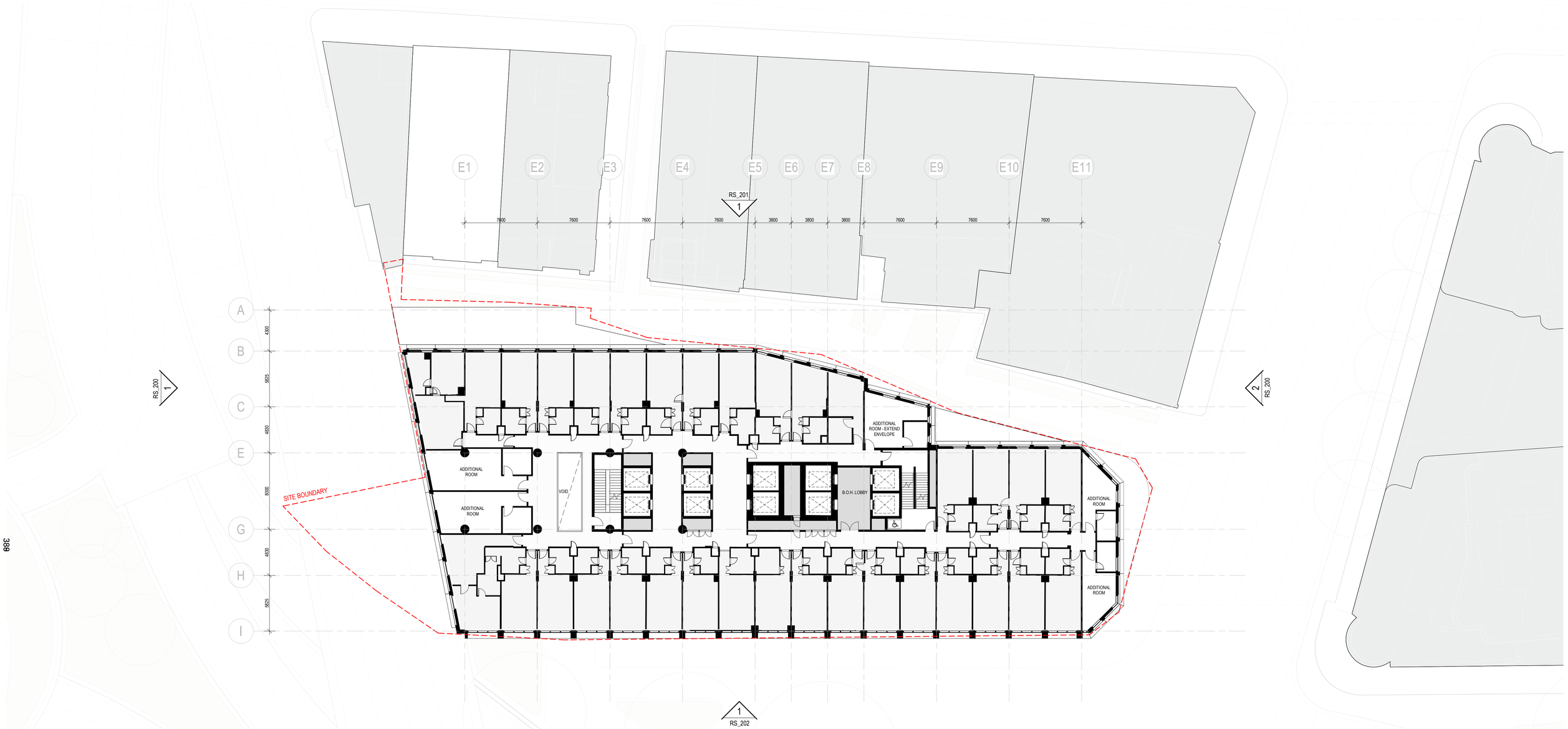
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 07 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_107
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



389

1 RS_020 L08 PLAN
1 : 200

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 08 PLAN

REVIEWED
AC

APPROVED
AK

DRAWING NO.
RS_108

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



1 L09 PLAN

RS_020 1 : 200

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NORTH

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0m 2m 4m 6m 8m

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A	Planning Proposal	21/03/25

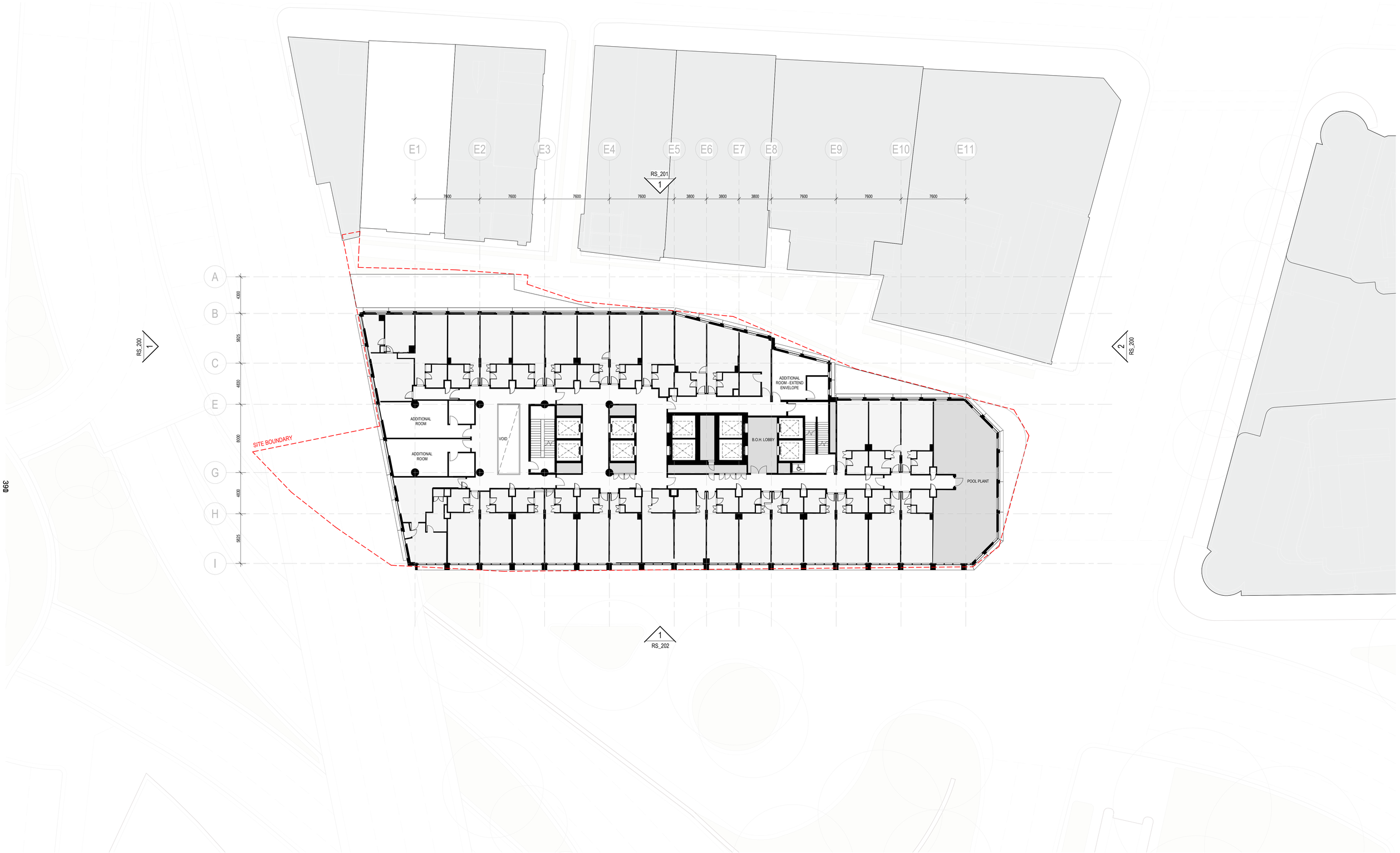
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 09 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_109
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



390

1 RS_020 L10 PLAN
1 : 200

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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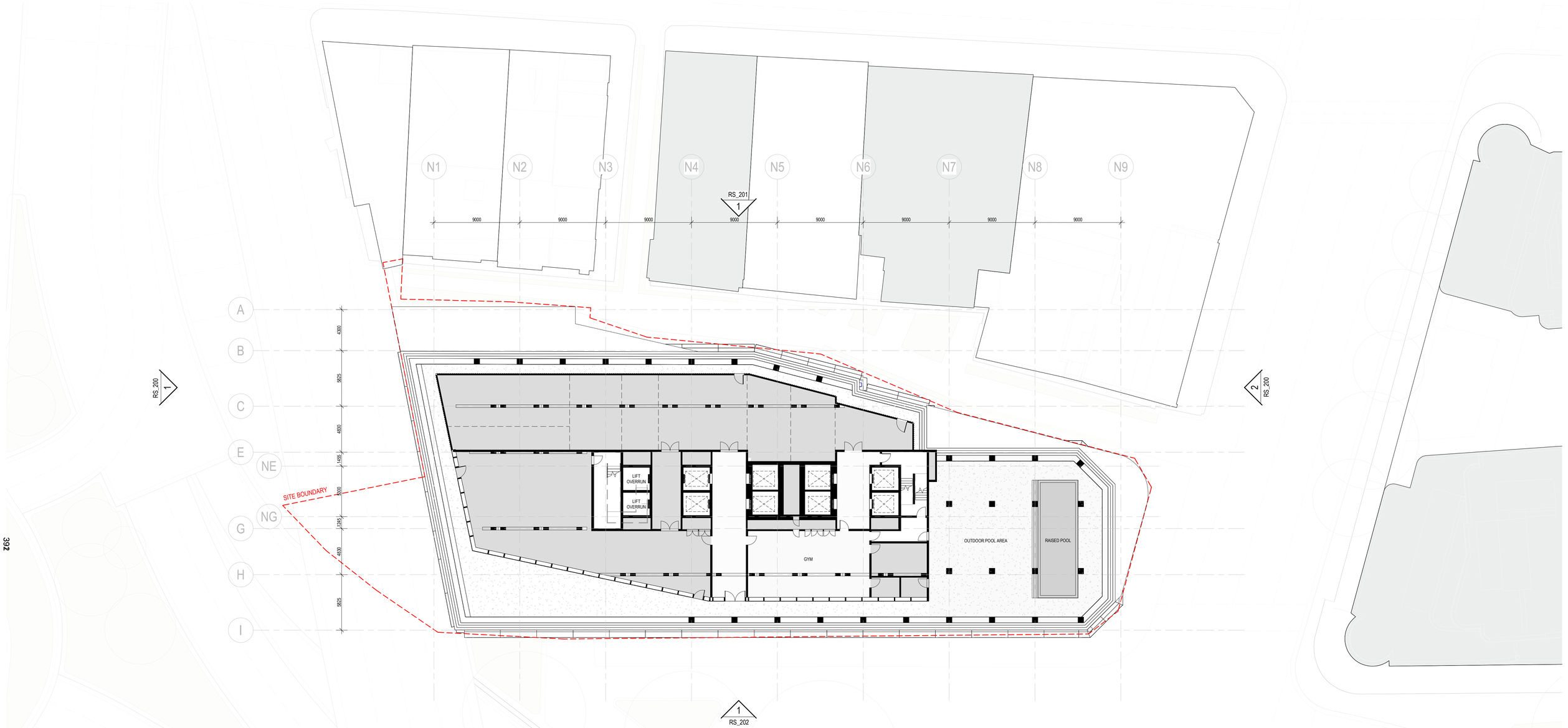
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 10 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_110
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



392

1 L11 PLAN - TRANSFER FLOOR

1 RS_020 1 : 200

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NORTH

1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 11 PLAN TRANSFER FLOOR

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_111
REV NO. A



1 L12 PLAN

RS_200 1 : 200

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150 Day Street - Park Royal Darling Harbour

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DRAWING TITLE
LEVEL 12 PLAN

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AC

APPROVED
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DRAWING NO.
RS_112

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
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398

1 L13 PLAN
RS_200 1 : 200

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LEVEL 13 PLAN

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SCALE @ A1 1 : 200
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DRAWING NO. RS_113
REV NO. A



1 L14 PLAN
RS_200 1 : 200

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STATUS

DRAWING TITLE
LEVEL 14 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
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PROJECT NO. 016185
DRAWING NO. RS_114
REV NO. A



1 L15 PLAN

RS_200 1 : 200

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LEVEL 15 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
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PROJECT NO. 016185
DRAWING NO. RS_115
REV NO. A



396

1 L16 PLAN
RS_200 1 : 200

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150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 16 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_116
REV NO. A



398

1 L17 PLAN
RS_200 1 : 200

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DRAWING TITLE
LEVEL 17 PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. RS_117
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



1 L18 PLAN
RS_200 1 : 200

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 18 PLAN - HOTEL AMENITY

REVIEWED AC
APPROVED AK
DRAWING NO. RS_118
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



1 L19 PLAN
RS_200 1 : 200

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 19 PLAN

REVIEWED
AC

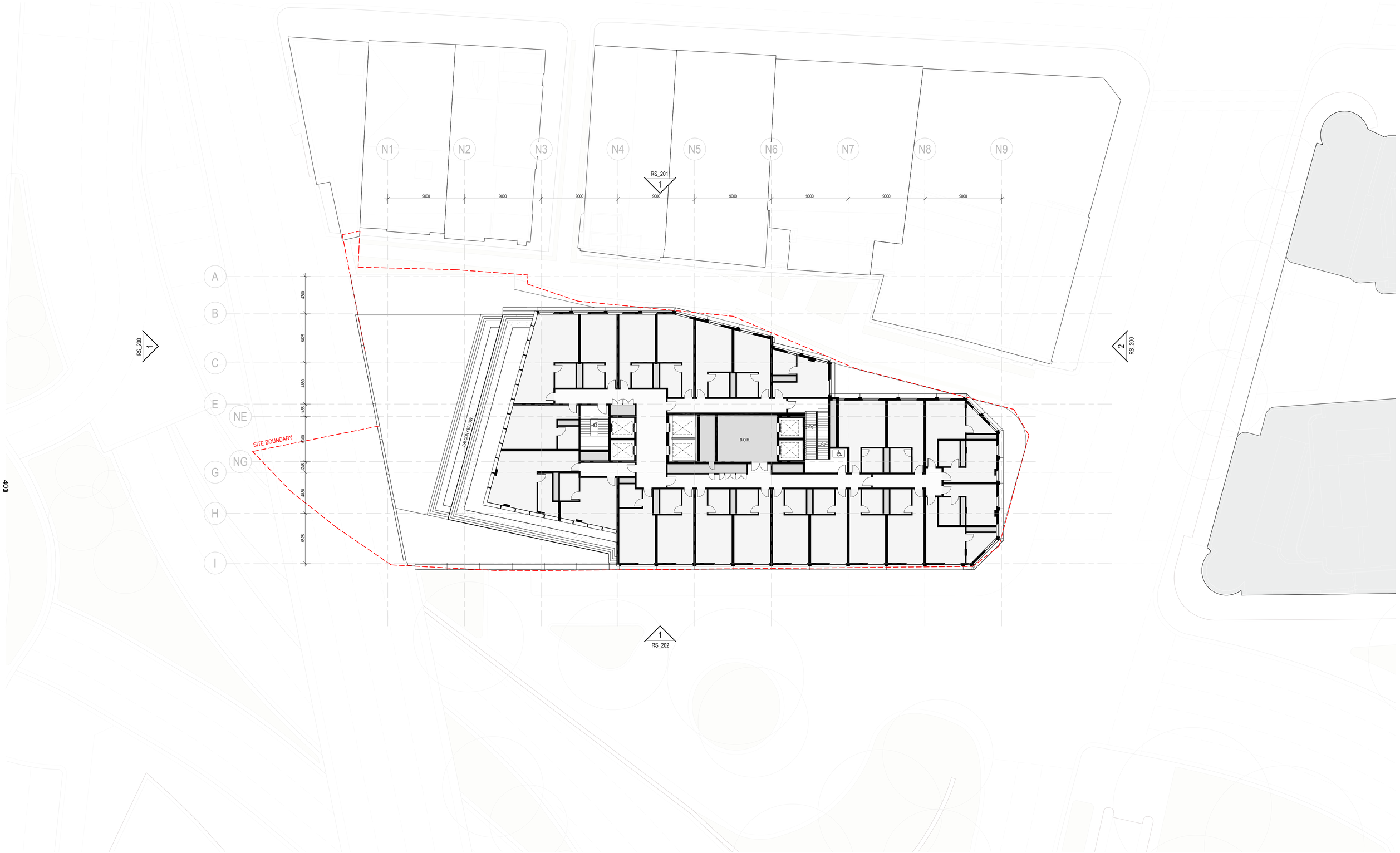
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DRAWING NO.
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SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



400

1 L20 PLAN
RS_200 1 : 200

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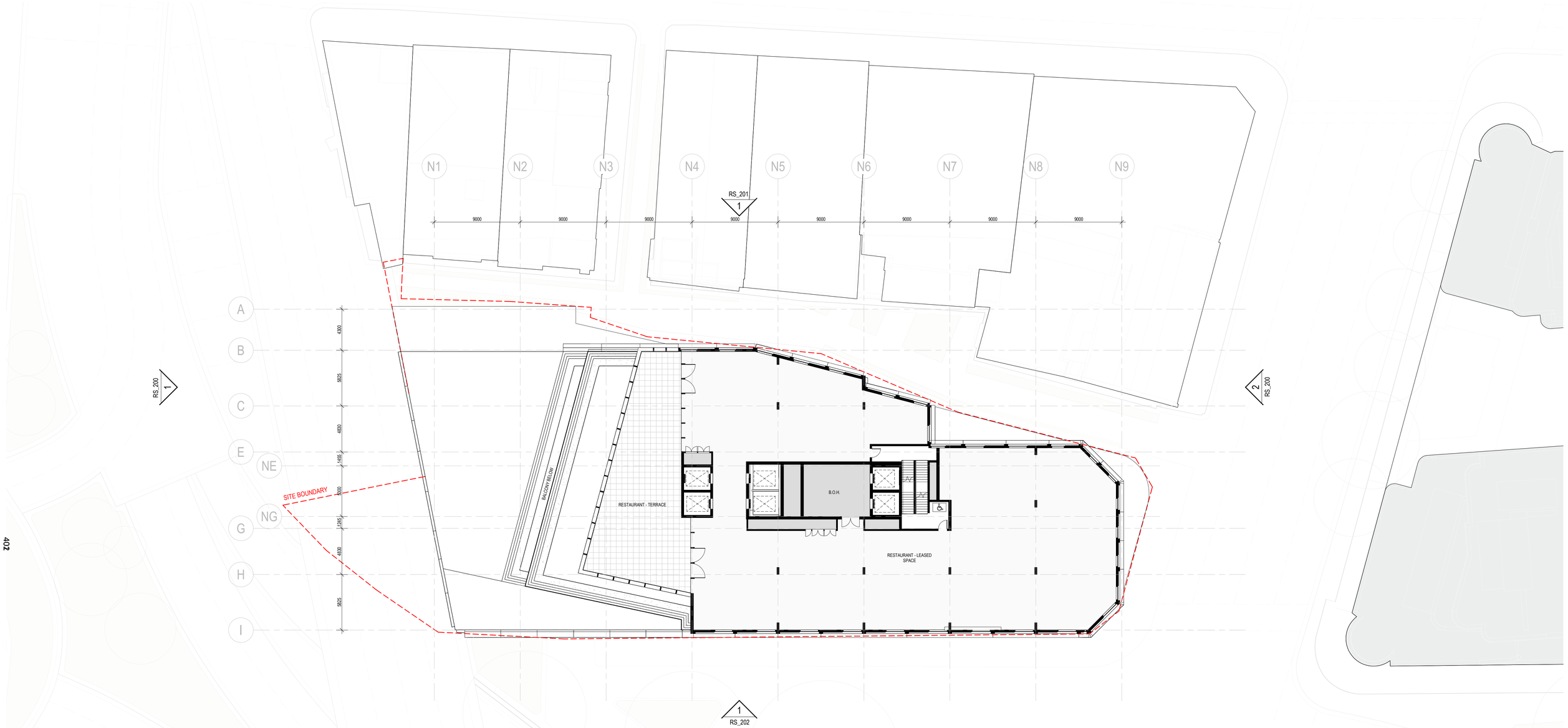
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 20 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
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PROJECT NO. 016185
DRAWING NO. RS_120
REV NO. A



402

1 RS_200 L21 PLAN
1 : 200

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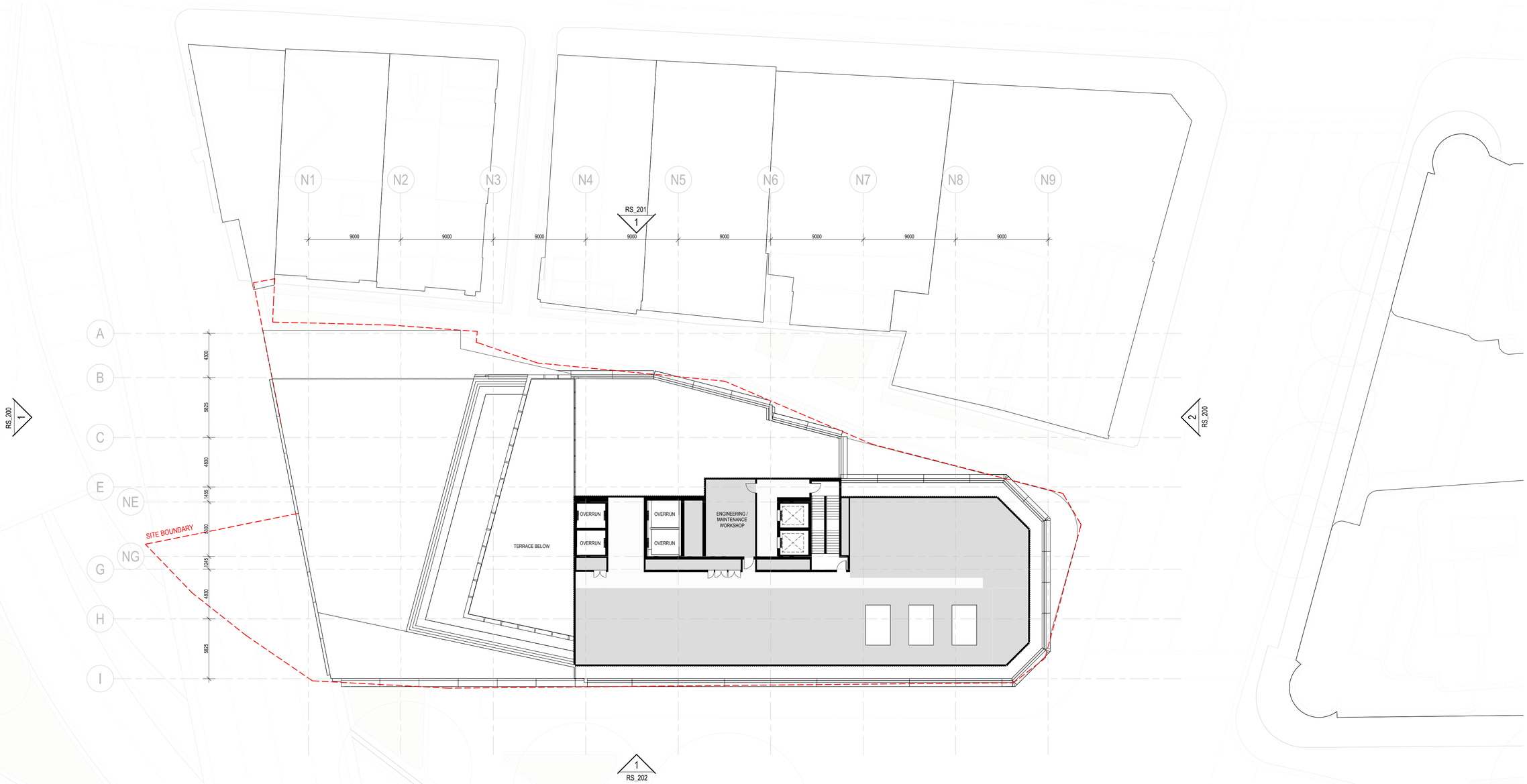
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 21 PLAN - RESTAURANT

REVIEWED AC
APPROVED AK
DRAWING NO. RS_121
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



403

1 RS_200 L22 PLAN - PLANT
1 : 200

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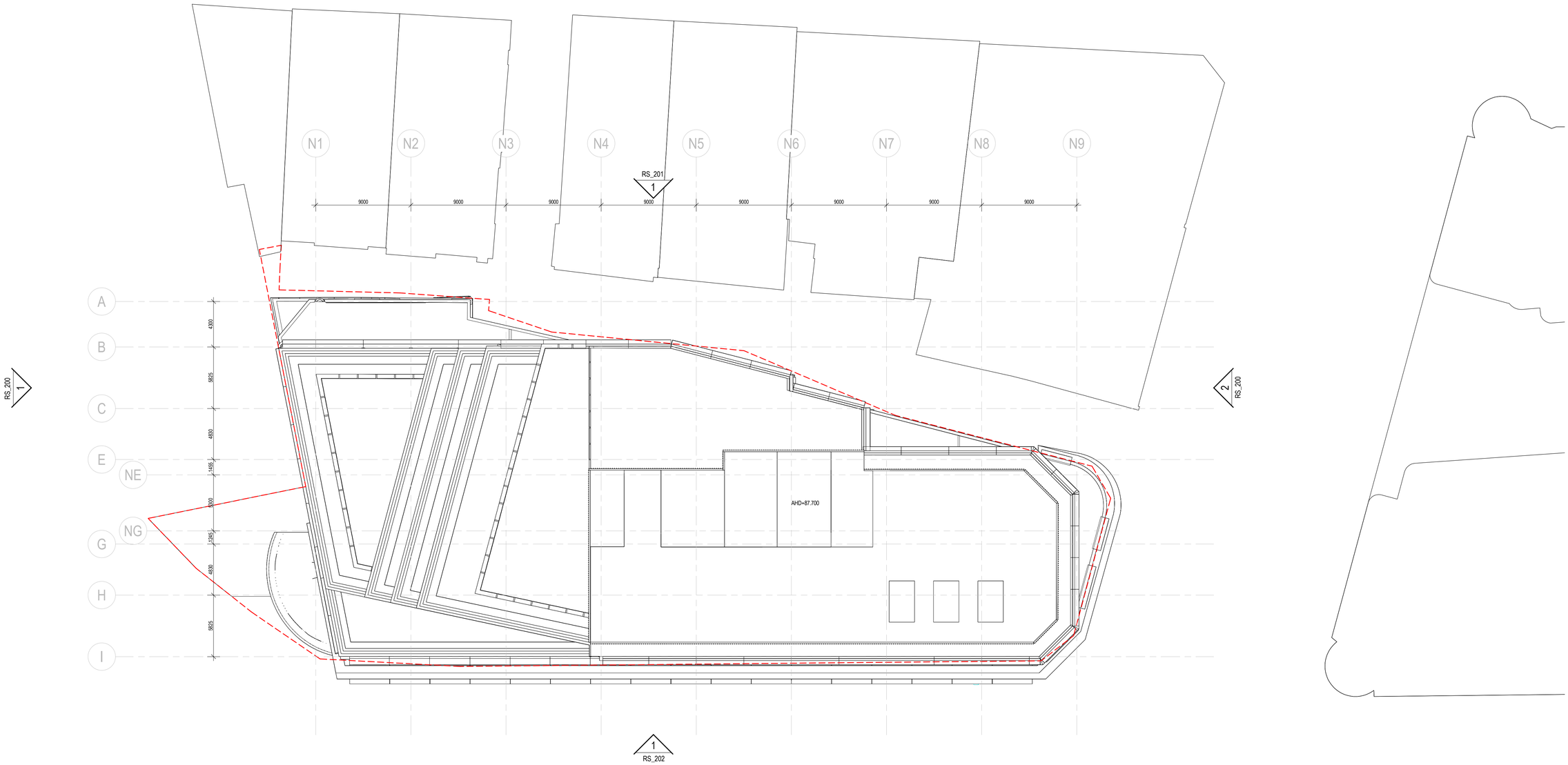
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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 22 PLAN - PLANT

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DRAWING NO. RS_122
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. A



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150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 23 PLAN - ROOFPLAN

REVIEWED
AC

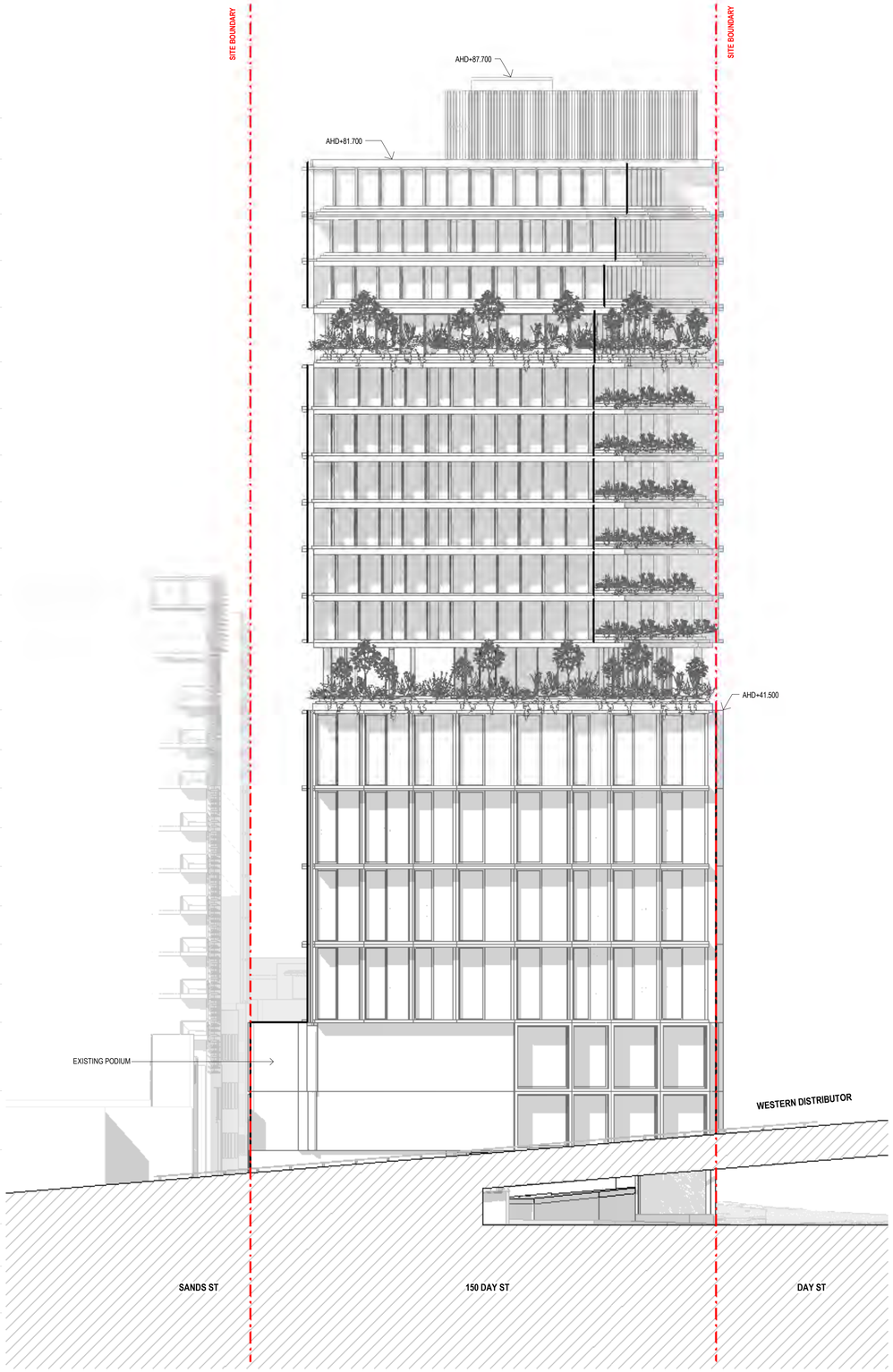
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1 : 200

APPROVED
AK

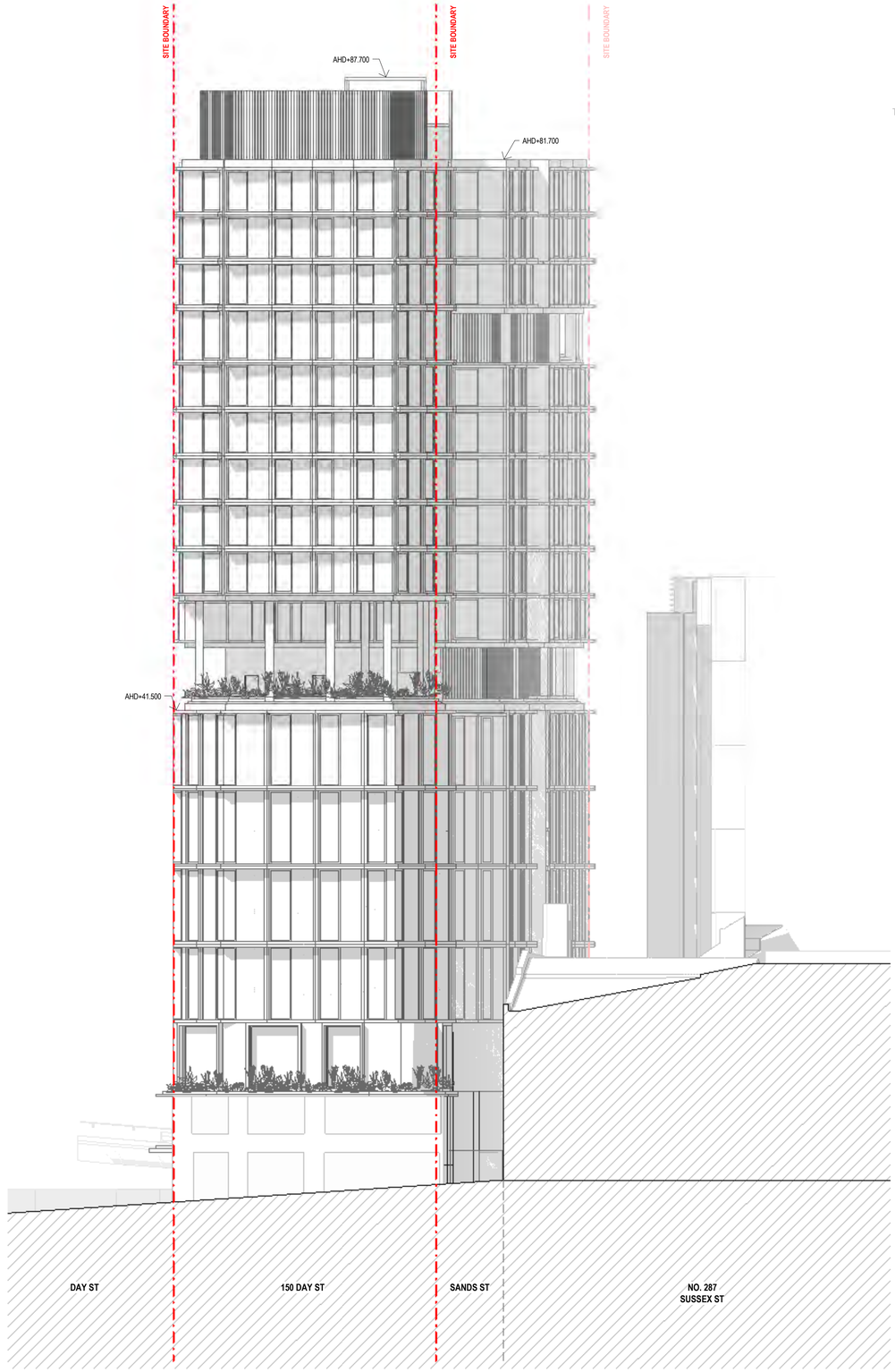
PROJECT NO.
016185

DRAWING NO.
RS_123

REV NO.
A



1 DD_501 PROPOSED NORTH ELEVATION
1 : 200



2 DD_501 PROPOSED SOUTH ELEVATION - BATHURST ST
1 : 200

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NORTH

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
PROPOSED NORTH & SOUTH ELEVATION

REVIEWED
AC

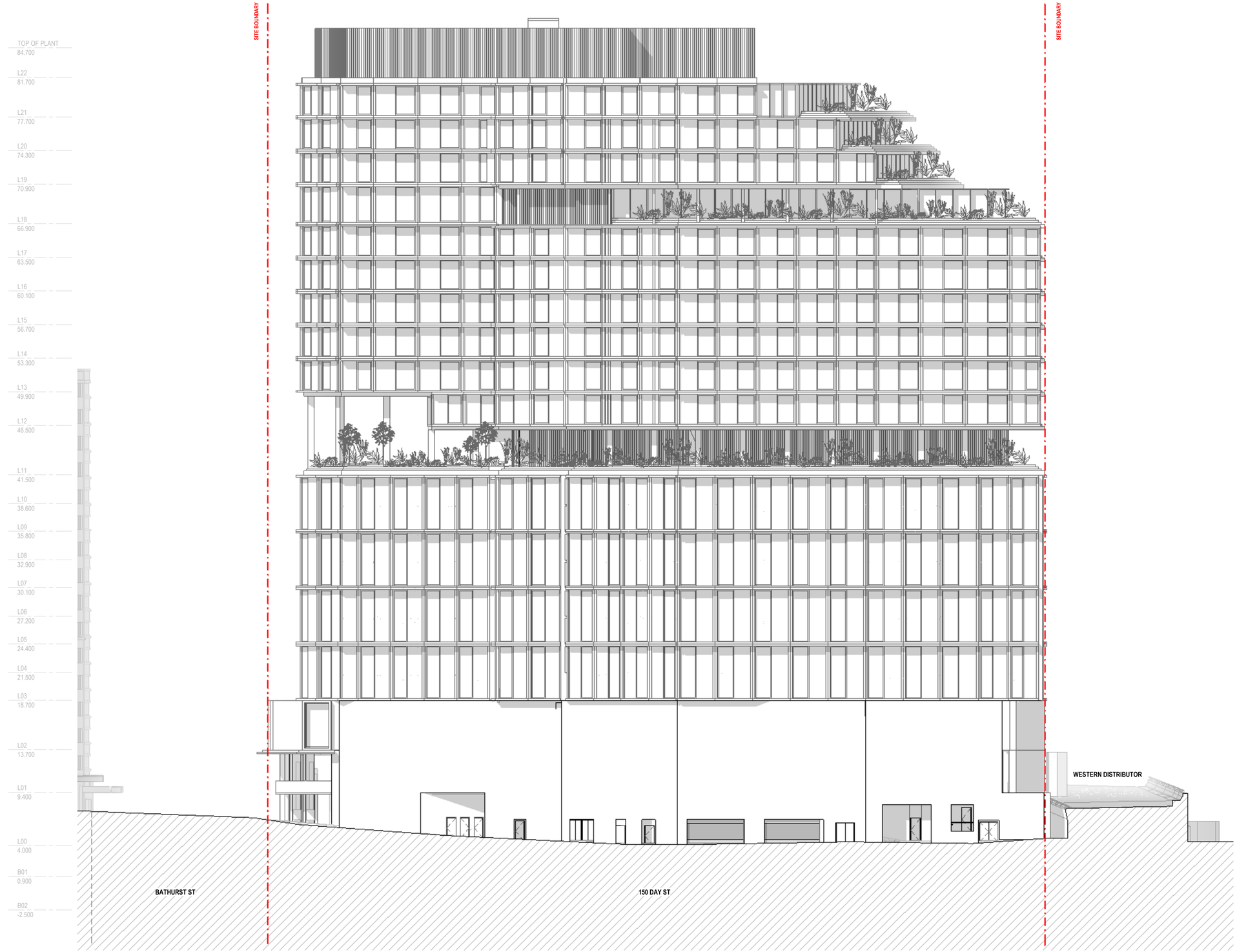
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DRAWING NO.
RS_200

SCALE @ A1
1 : 200

PROJECT NO.
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REV NO.
A



1 DD_501 PROPOSED EAST ELEVATION - SANDS ST
1 : 200

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DRAWING TITLE
PROPOSED EAST ELEVATION

REVIEWED
AC

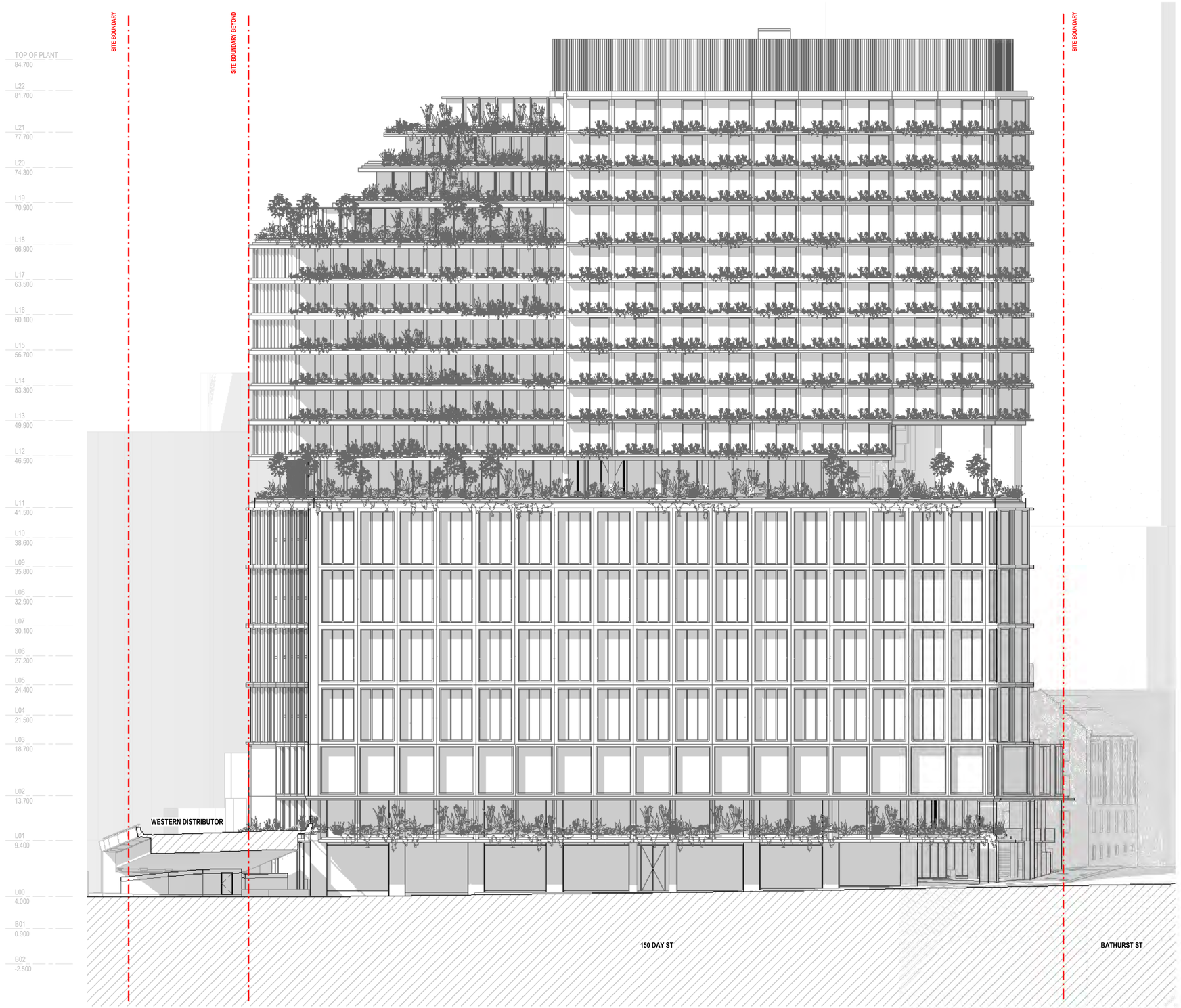
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DRAWING NO.
RS_201

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A



1 DD_501 PROPOSED WEST ELEVATION - DAY ST

1 : 200

406

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STATUS

DRAWING TITLE
PROPOSED WEST ELEVATION

REVIEWED
AC

APPROVED
AK

DRAWING NO.
RS_202

SCALE @ A1
1 : 200

PROJECT NO.
016185

REV NO.
A

Attachment A3

Draft site specific DCP as suggested by proponent

Site-Specific Development Control Plan (DCP) - 150 Day Street, Sydney

1. The Purpose of this Development Control Plan

The purpose of this plan is to amend *Sydney Development Control Plan 2012* to provide objectives and provisions to inform future development on 150 Day Street, Sydney.

This Plan is to be read in conjunction with draft Planning Proposal: 150 Day Street, Sydney

2. Citation

This plan may be referred to as the 150 Day Street, Sydney Amendment.

3. Land covered by this plan

This plan applies to land identified as 150 Day Street, Sydney – which is legally described as 20/DP1046870, and associated public domain works as specified in this document.

4. Relationship of this plan to Sydney Development Control Plan 2012

This plan amends *Sydney Development Control Plan 2012* in the manner set out below.

Amendment to Sydney Development Control Plan 2012 – Section 6 – Specific Sites

[1] Figure 6.1

Amend Figure 6.1: Specific Sites Map to include 150 Day Street, Sydney.

[2] Section 6.3 Specific site controls prepared for the Planning Proposal

The following objectives and provisions apply to 150 Day Street, Sydney – as shown in Figure 6.1 Specific Sites map, where the provisions of the *Sydney Local Environmental Plan 2012* – 150 Day Street, Sydney are implemented.

Objectives

(a) Provide detailed controls to satisfy the provisions of clause 6.60XX 150 Day Street, Sydney in *Sydney Local Environmental Plan 2012*.

(b) Enable the adaptive reuse of the existing building and extension for the redevelopment of the site for hotel use.

(c) Deliver a high-quality built form that:

i. is of appropriate bulk, massing and scale for its location,

ii. achieves an appropriate built form and external appearance,

iii. ensures sympathetic adaptive reuse of the existing building,

iv. achieves an acceptable relationship with other buildings including “The Vintage Building”,

v. ensures appropriate level of amenity for public places and important publicly accessible places,

vi. is comfortably contained within the defined the maximum building envelope, ensuring the local context is respected and acceptable levels of solar access, acoustic amenity, wind comfort and daylight are maintained, and

(d) Meet high performance benchmarks for ecologically sustainable development.

(e) Ensure appropriate vehicle, pedestrian and service access and circulation.

(f) Improvements in landscaping, quality and amenity of public domain and incorporation of high-quality public art.

(g) Respond positively to adjoining development.

1. Building Envelope (Built form)

Provisions

(1) Building massing, height, footprint and setbacks are to be generally consistent with Figures 1-17 for 150 Day Street, Sydney.

(2) The maximum height building height is to be AHD 90m above ground to the highest point on the building including any plant and rooftop architectural features.

(3) The proposed development must maximise the retention of the existing building (Park Royal Hotel) including:

a. Strip to structure is supported in existing Basement levels, Ground, Level 01 and Level 02 to enable reconfiguration of these existing floor levels to accommodate necessary strengthening works.

b. Existing hotel rooms Level 03 to Level 10 are to be retained and renovated.

c. Replacement of existing façade is supported where necessary to address ESD requirements.

(4) Existing building alignment and setbacks are to be maintained.

(5) No street wall setbacks are applicable to the site.

2. Façade

Provisions

(1) Façade elements are not to extend beyond the site boundaries by more than 450mm.

(2) The design of Day Street façade is to incorporate green landscaping and tree planting to complement the notable green edge of the City Centre along Harbour Street. Opportunities for greening of other facades is also encouraged.

3. Environmentally Sustainable Development

Provisions

(1) The development is to be designed to meet a 5 Star Green Star Design and As-Built v.13 rating for the whole development.

(2) Future hotel development should be designed to meet 4.5 star NABERS Energy rating.

(3) Provide an operational and embodied carbon emissions integrated design report that demonstrates how operational and embodied carbon emissions have been minimised over the lifecycle of development.

4. Parking and Vehicular Access

Provisions

(1) Parking on site is to be limited to hotel valet parking spaces to maximise sustainable modes of transport.

(2) Vehicular access to the existing basement level is to be via Day Street.

(3) Should future development remove either existing ingress or egress ramps to basement, a traffic light system or equivalent measure is required to manage the safe and orderly use of the basement level.

(4) All site servicing, loading and delivery facilities are to be accommodated within the existing modified loading dock on Sands Street or via existing basement level.

(5) Delivering and servicing needs are to minimise impact to use of any footpath.

5. Wind

Provisions

(1) A qualitative wind effects report is to be submitted with a detailed development application for the subject site.

(2) The quantitative wind effects report is to demonstrate that the proposed development will not:

a. cause wind speeds that exceed the Wind Safety Standard, the Wind Comfort Standard for Walking and the Wind Comfort Standard for Sitting in Parks except where the existing wind speeds exceed the standard; and

b. worsen an existing wind condition that exceeds the Wind Safety Standard, the Wind Comfort Standard for Walking and the Wind Comfort Standard for Sitting in Parks by increasing the spatial extent, frequency or speed of the wind.

Flood

Provisions

(1) A Flood risk assessment is to be prepared by a suitably qualified person and experienced hydrologist to address compliance with Water and Flood Management provisions within Section 3 of the Sydney Development Control Plan.

(2) In instances where it has been demonstrated that raised thresholds for flood planning levels cannot be achieved, alternatives such as flood gates may be permitted.

6. Stormwater Quality

Provisions

(1) A Stormwater Quality Assessment must be prepared by a suitably qualified Civil Engineer as part of any future development application.

(2) Noting the substantive adaptive reuse of the future development, typical water quality targets identified in Section 3.7.3 are not to be strictly applied to the future development application with adequate justification to be provided as part of the Stormwater Quality Assessment.

(3) At a minimum, the development must be designed so that the flow of pollutants from the site due to stormwater is reduced.

7. Solar Access to Neighbouring properties

Provisions

(1) For neighbouring residential properties constructed prior to commencement of the Apartment Design Guide (July 2015), the proposed building must not reduce the number of apartments receiving 2 hours at equinox (March 21) in accordance with 6.1.4 of the *Central Sydney Development Control Plan 1996*.

(2) For all other neighbouring residential properties, overshadowing impacts of the proposed development are to be assessed in accordance with Objective 3B-2 of the Apartment Design Guide.

8. Public Domain

Provisions

(1) Future development of the site is to be inclusive of public domain works in agreement with Council and adjoining public authority land owners that incorporates:

a. Adequate lighting and improved safety for pedestrians,

b. Effective and clear wayfinding for pedestrian movement,

c. High quality landscaping of indigenous species, and

d. Permeable surfaces to enhance streetscape environment where possible.

9. Design Excellence

Provisions

(1) An invited architectural design competition is to be undertaken in accordance with clause 6.21 of the *Sydney Local Environmental Plan 2012* and the City of Sydney Competitive Design Policy.

(2) Noting the substantial design development and technical design development that has occurred to date to establish adaptive reuse feasibility, future design competition is limited to:

a. three competitors (minimum two to be local or national Australian firm),

b. competitors with demonstrated experience on projects that have either received an environmental sustainability award or achieved high Green Star Design & As Built or NABERS Energy/Water ratings high level of skill in sustainable design, and

c. competitors with gender representation ratio of 40% male, 40% female, 20% any gender in their design team.

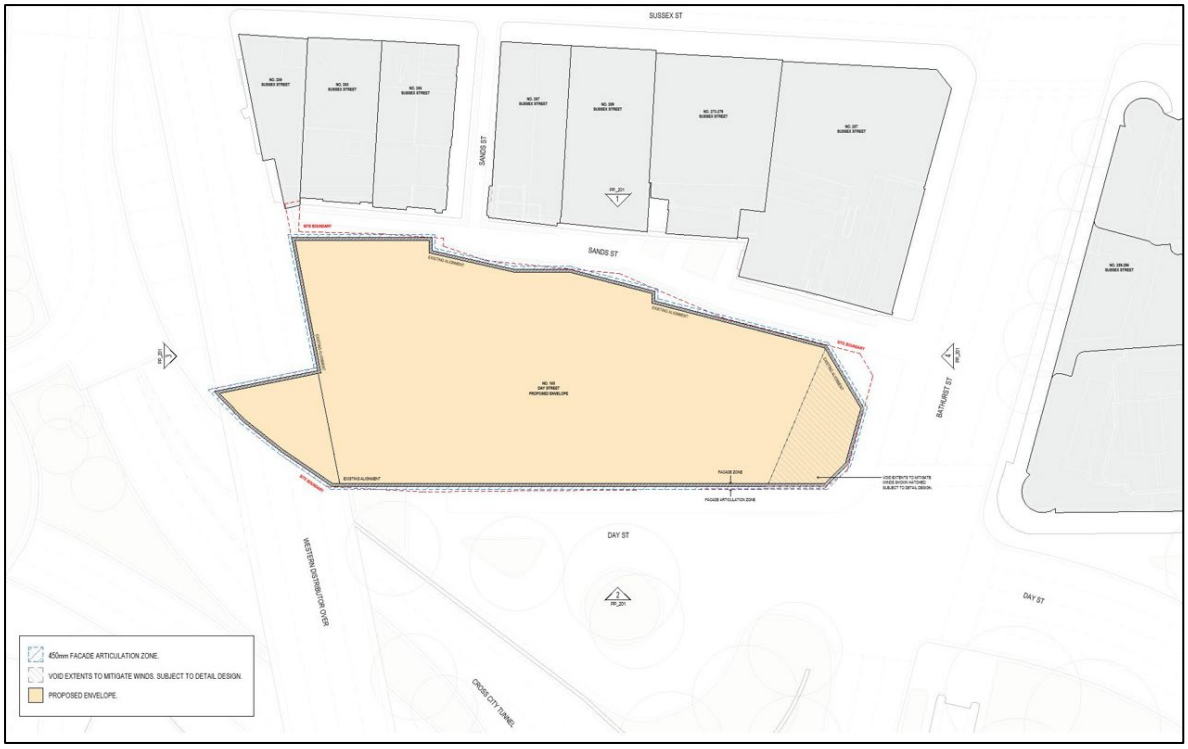


Figure 1 – Building Envelope – Ground (Level 00)

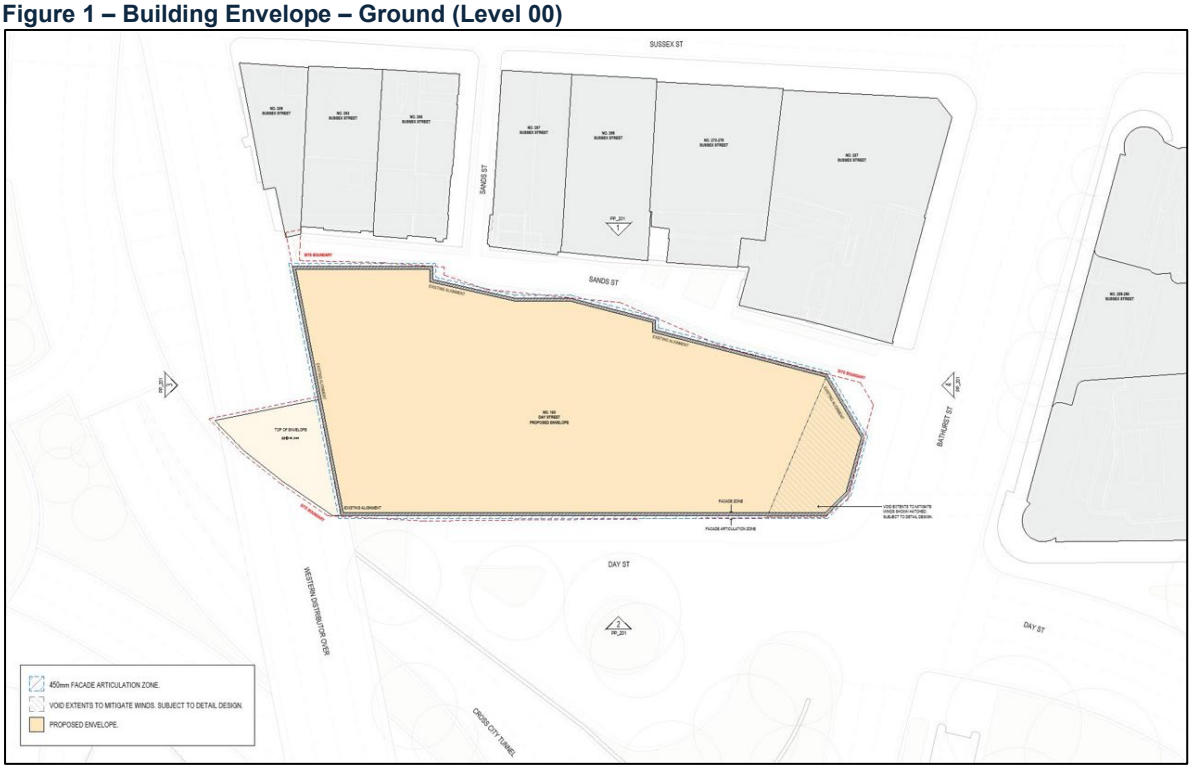


Figure 2 – Building Envelope – Level 01



Figure 3 – Building Envelope – Level 02

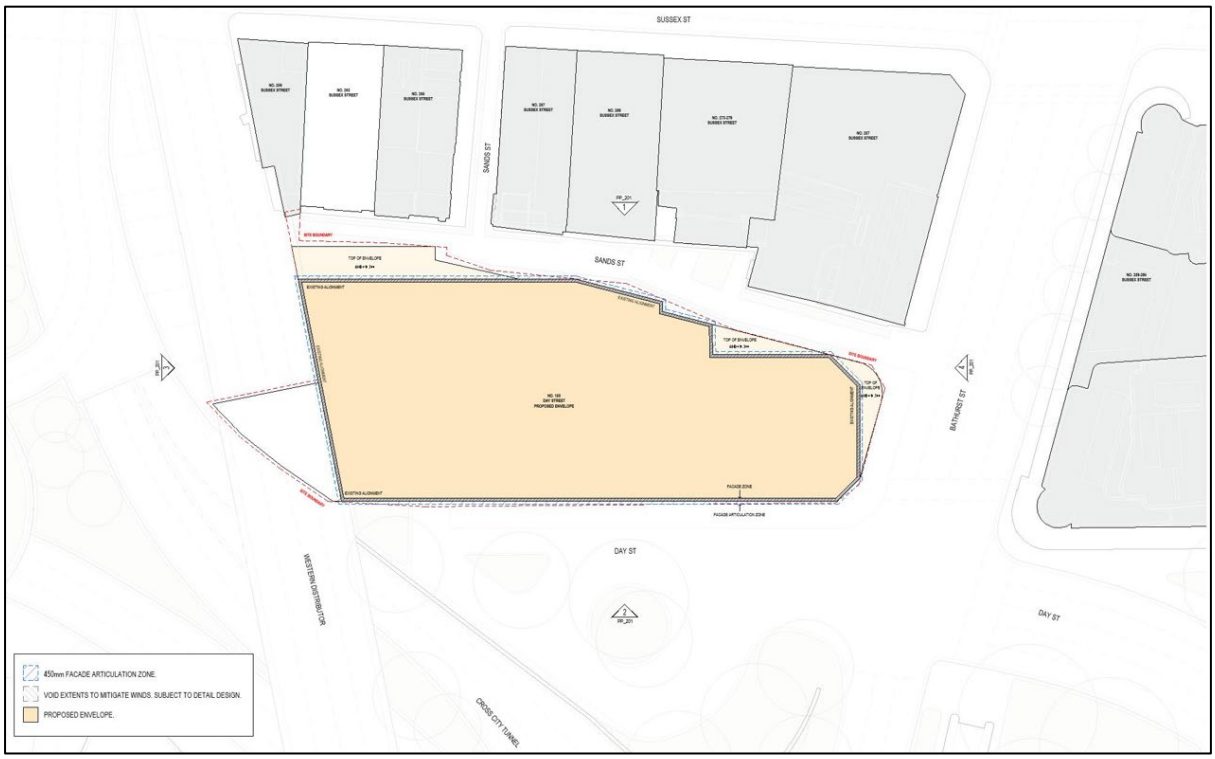


Figure 4 – Building Envelope – Level 03-10

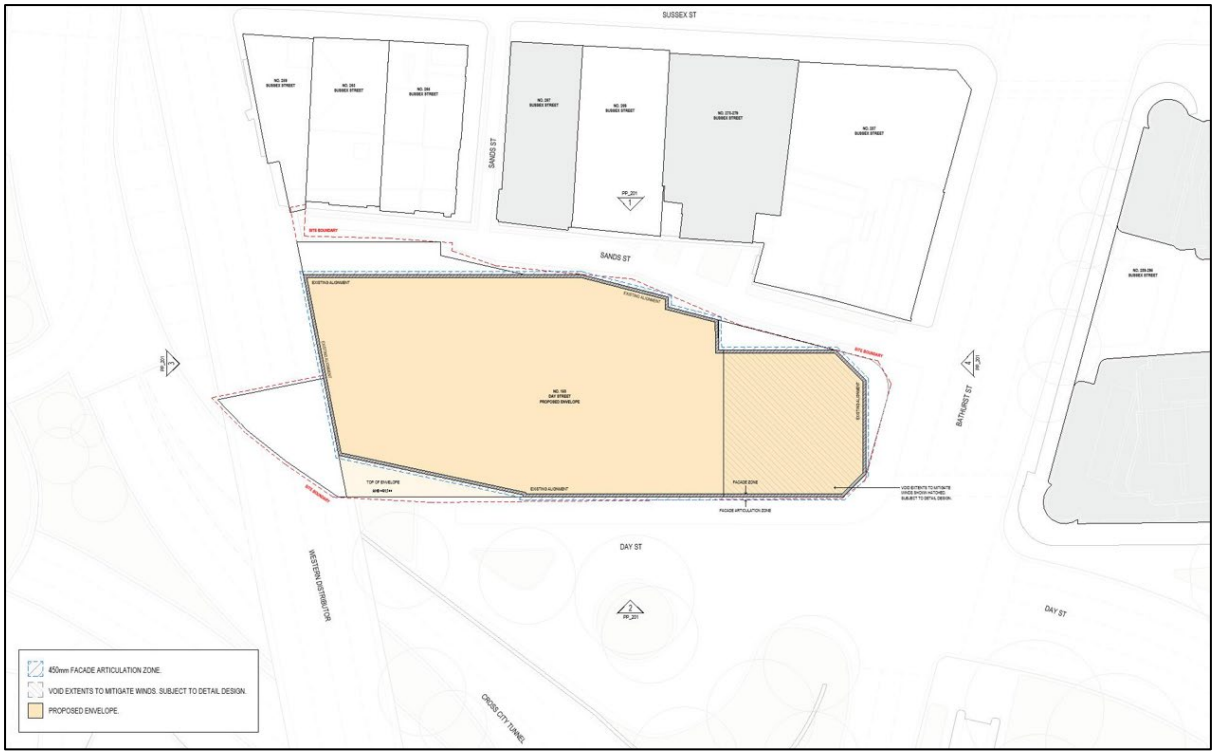


Figure 5 – Building Envelope – Level 11

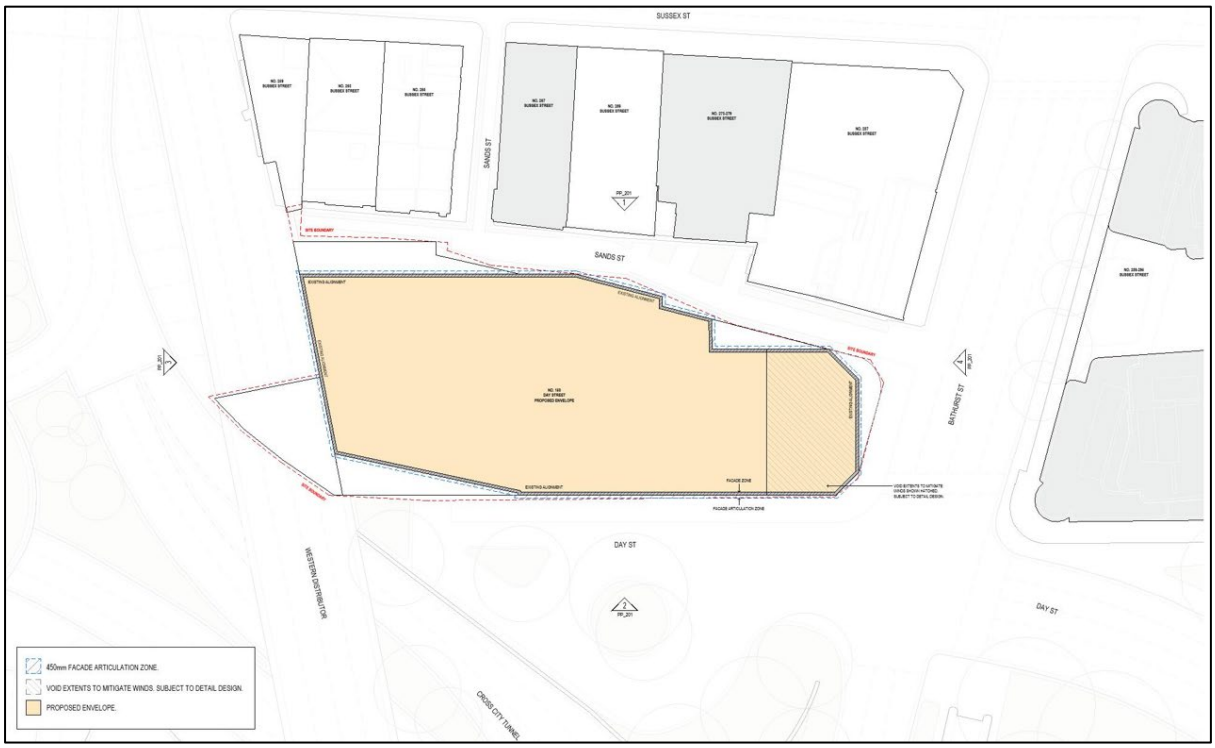


Figure 6 – Building Envelope – Level 12

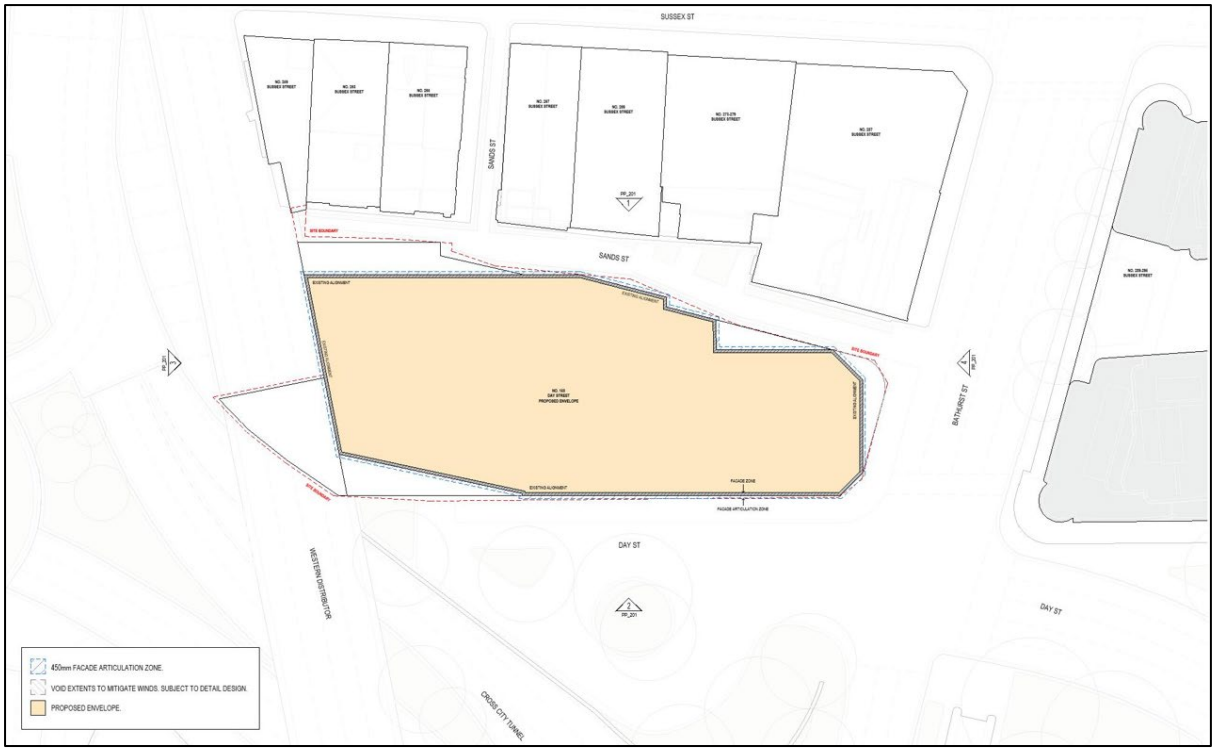


Figure 7 – Building Envelope – Level 13-17

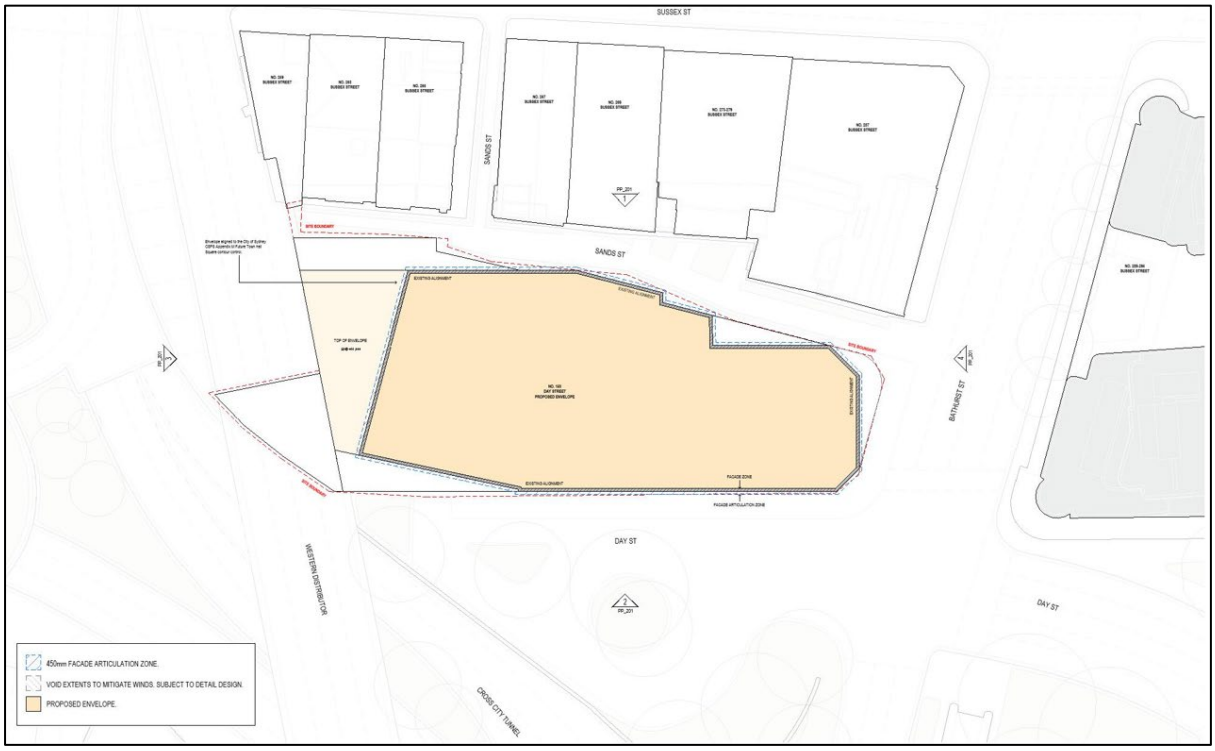


Figure 8 – Building Envelope – Level 18

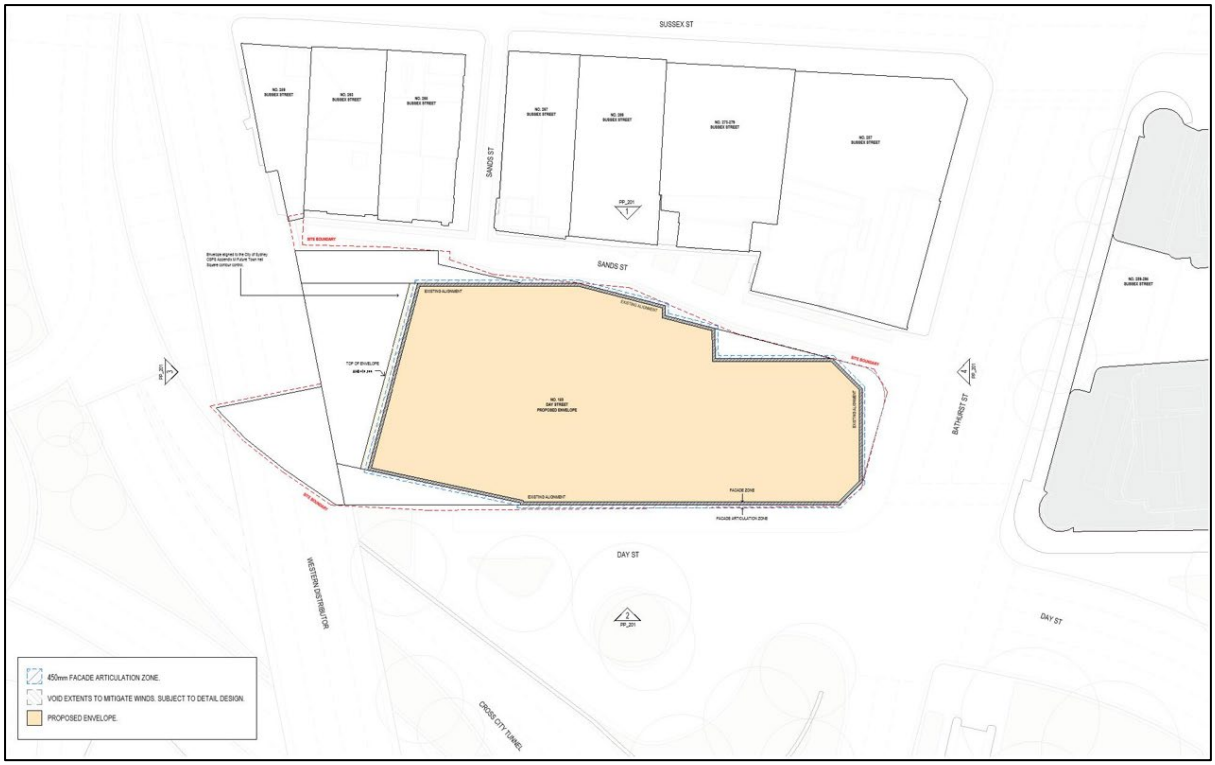


Figure 9 – Building Envelope – Level 19

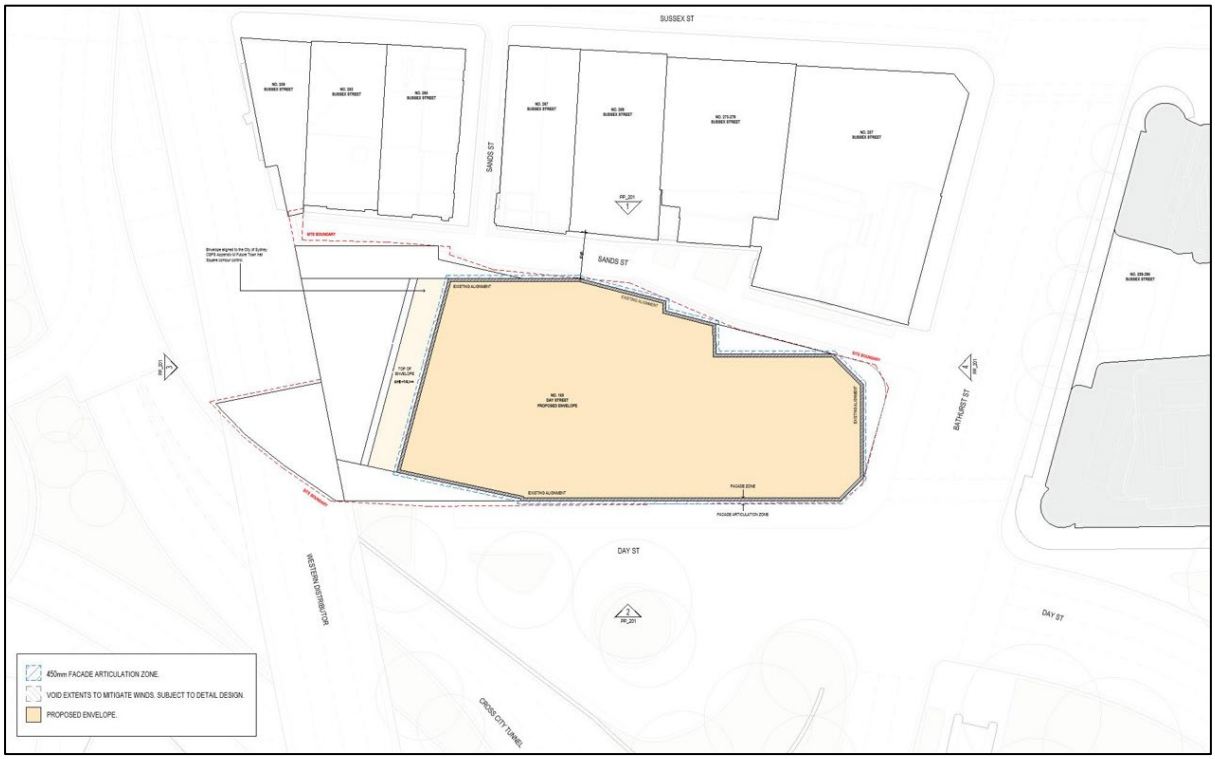


Figure 10 – Building Envelope – Level 20

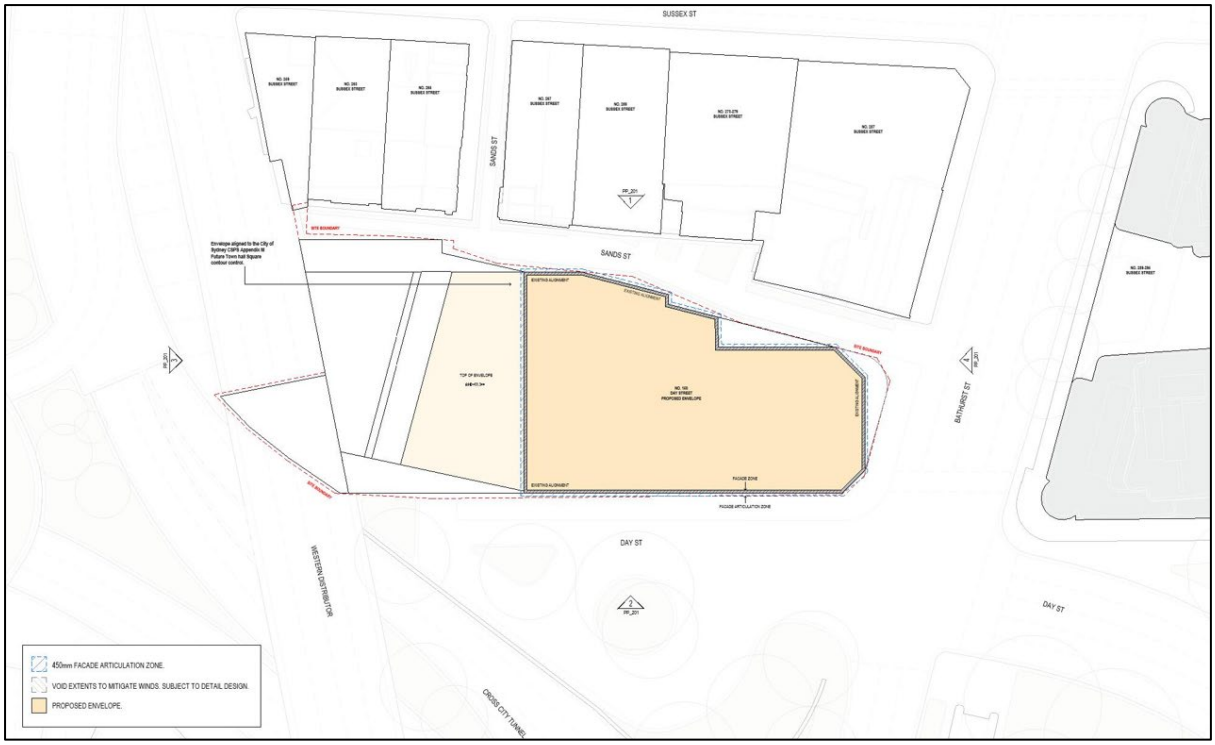


Figure 11 – Building Envelope – Level 21

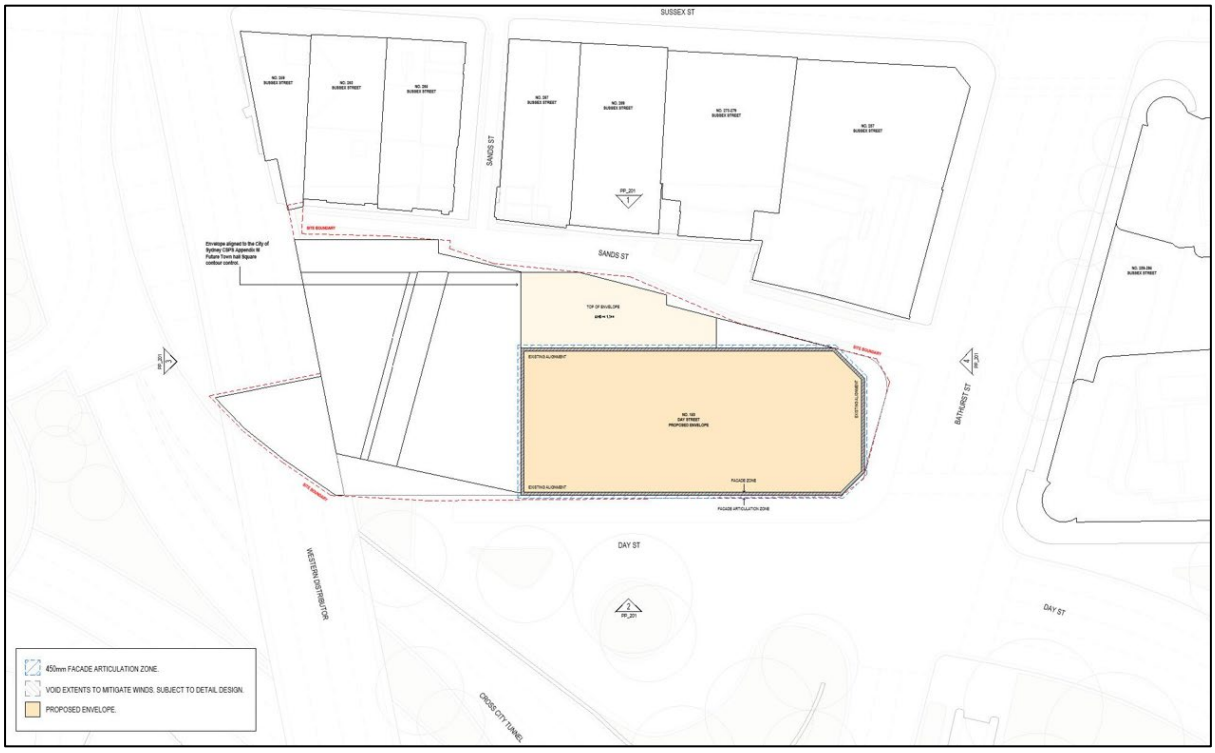


Figure 12 – Building Envelope – Level 22

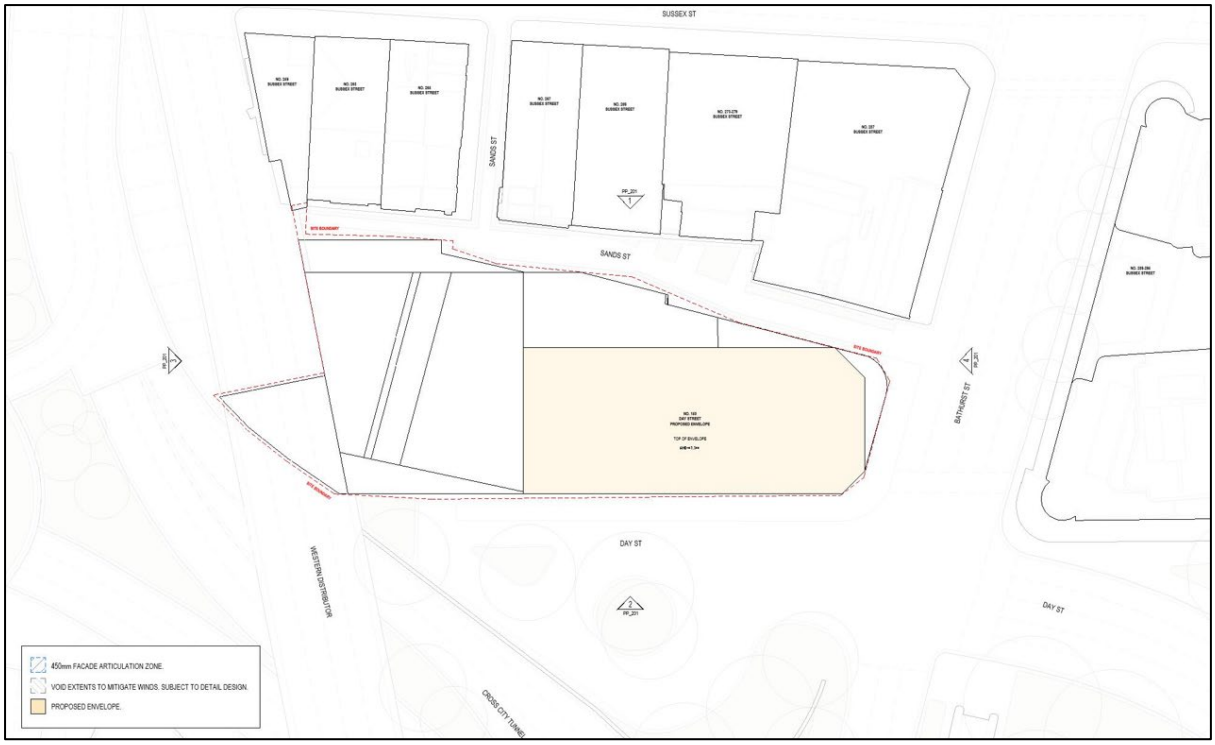


Figure 13 – Building Envelope – Level 23

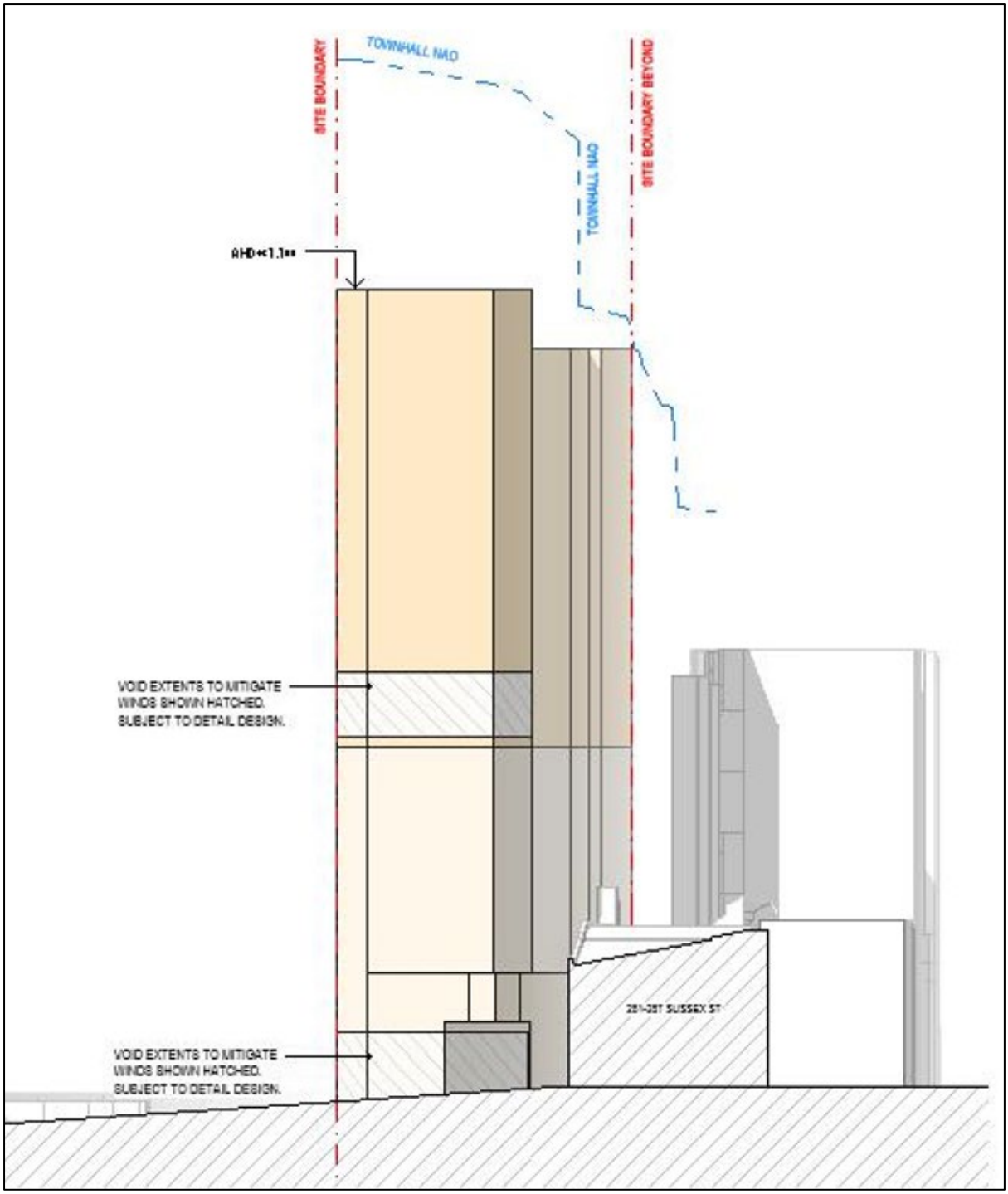


Figure 14 – Building Envelope – South Elevation

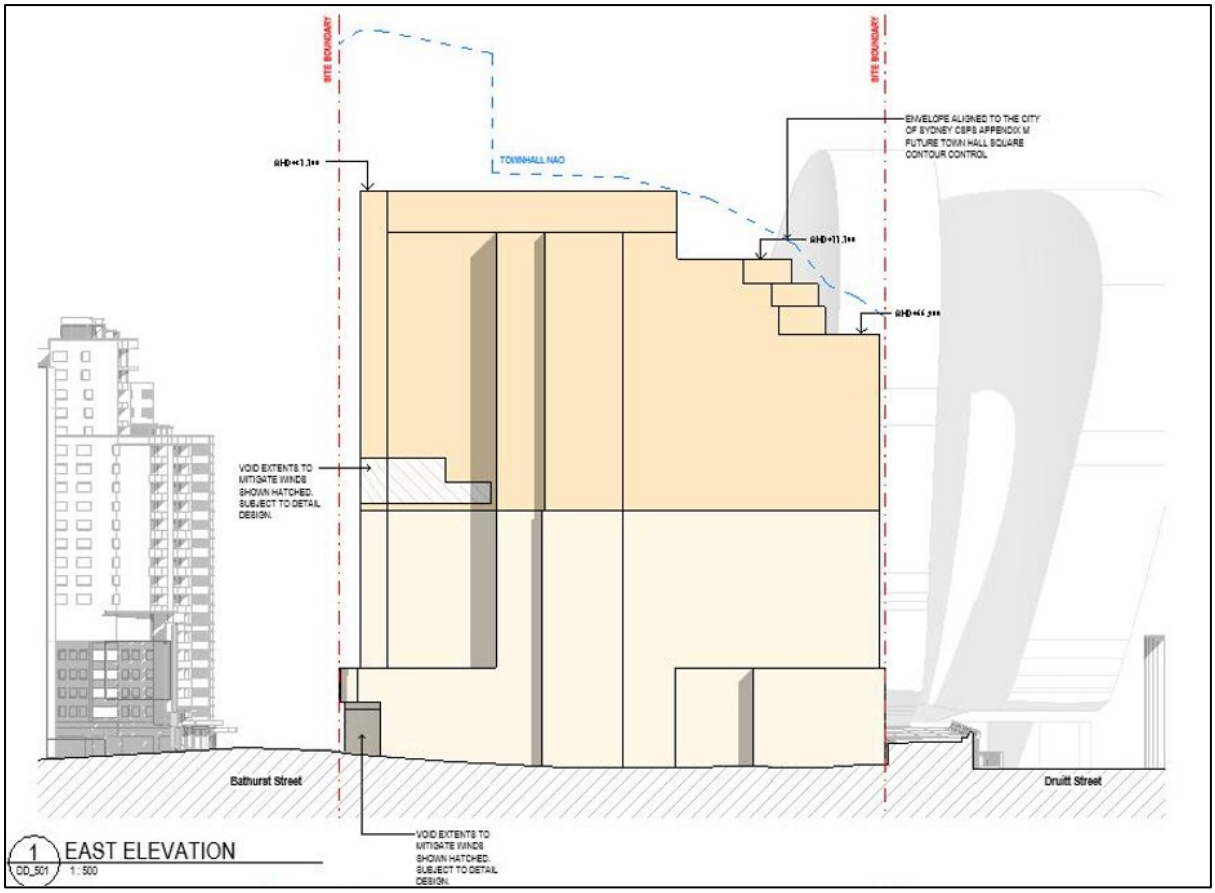


Figure 15 – Building Envelope – East Elevation

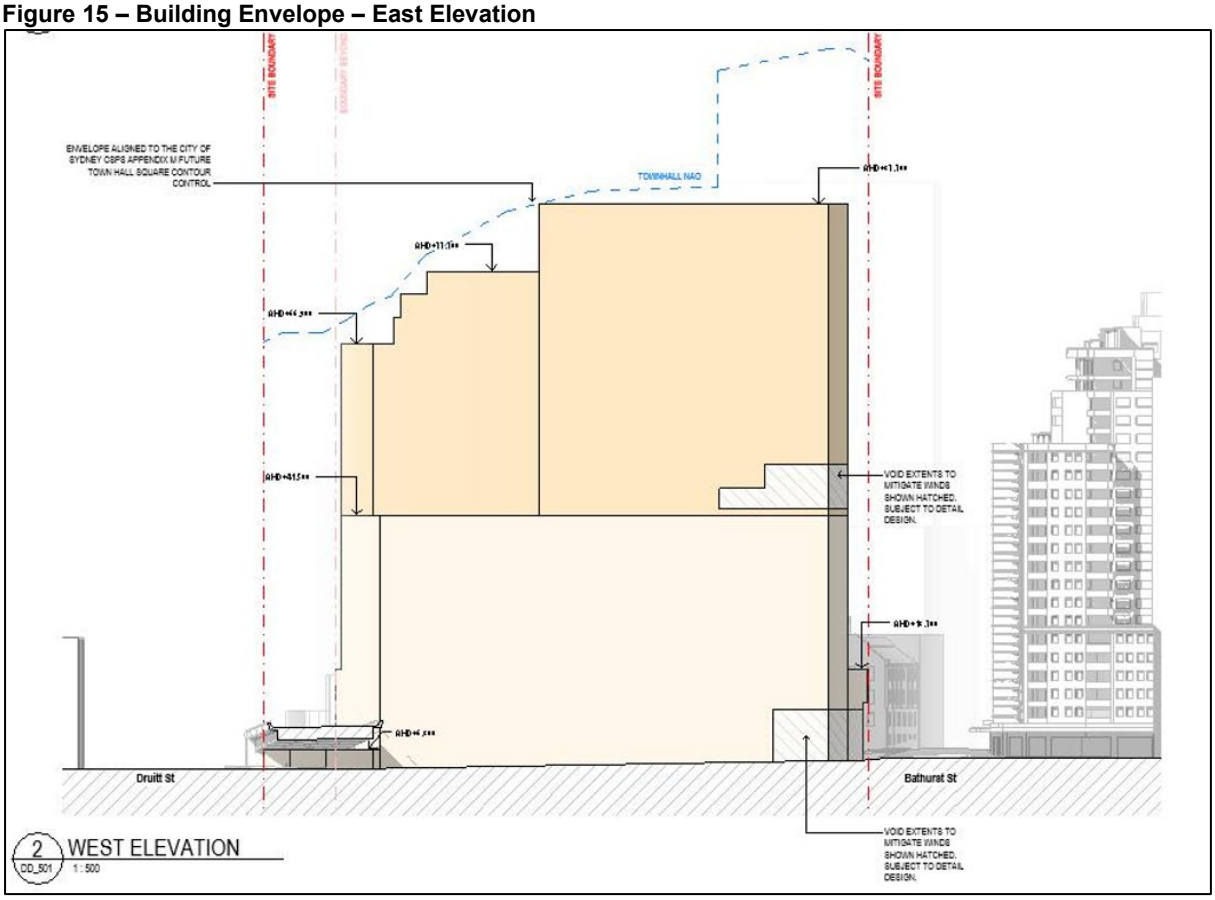


Figure 16 – Building Envelope – West Elevation

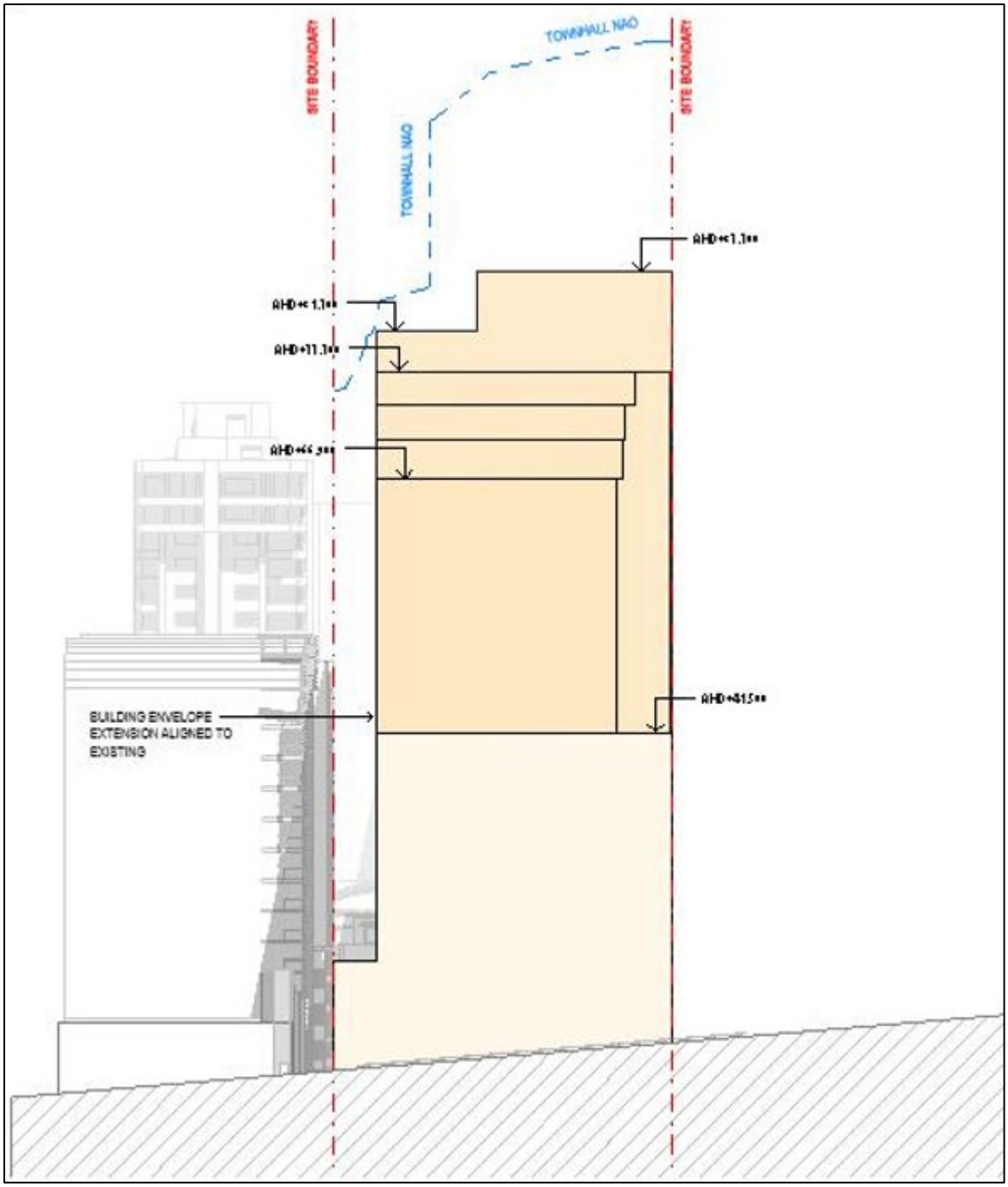


Figure 17 – Building Envelope – North Elevation

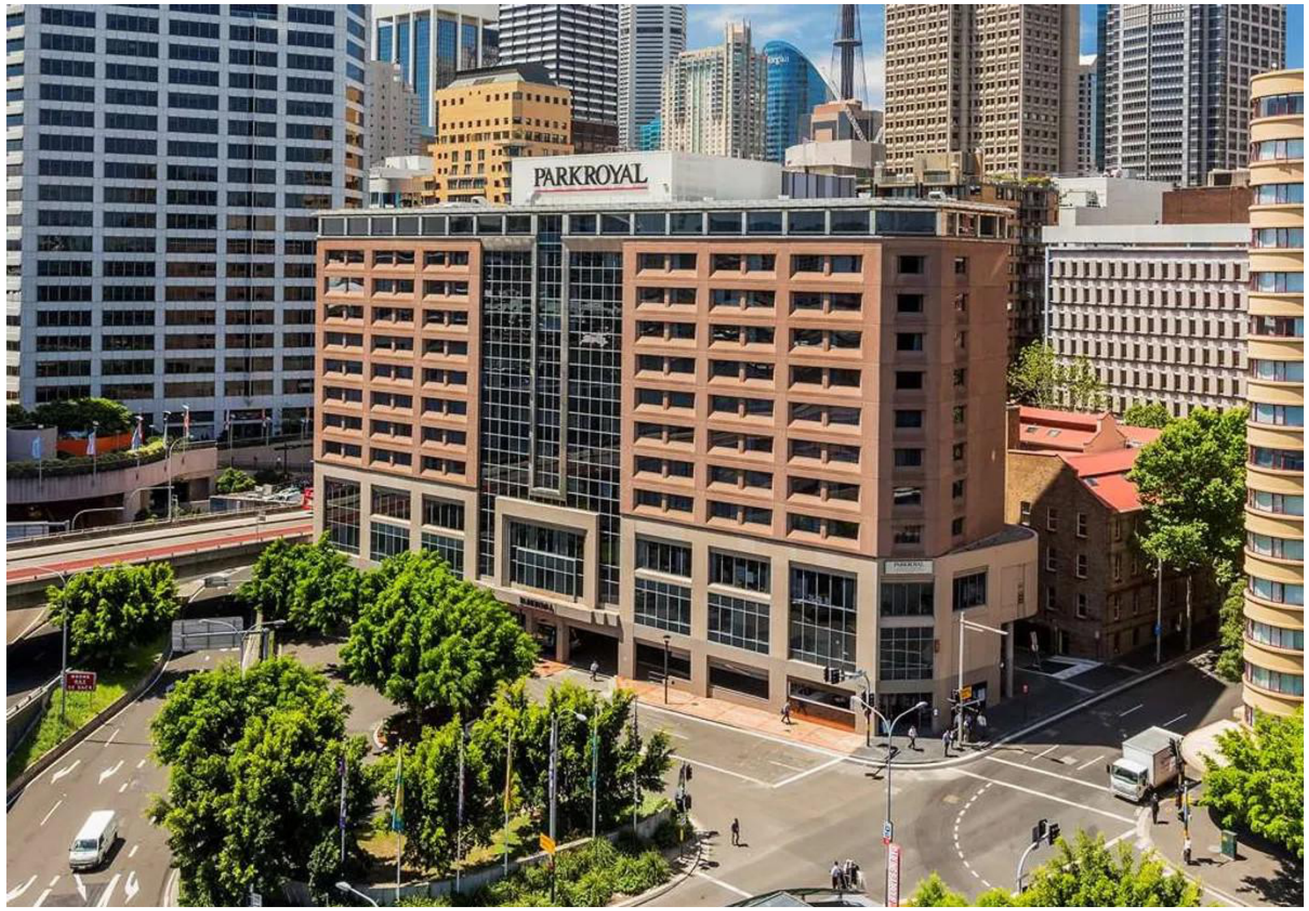
Attachment A4

Building envelopes

PLANNING PROPOSAL DRAWING LIST				
Sheet Number	Sheet Name	Current Revision	Current Revision Date	Current Revision Description
PP_000	COVER SHEET	C	21/07/26	Planning Proposal Updates 03
PP_100	PP - L00 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_101	PP - L01 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_102	PP - L02 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_103	PP - L03-10 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_104	PP - L11 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_105	PP - L12 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_106	PP - L13-17 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_107	PP - L18 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_108	PP - L19 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_109	PP - L20 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_110	PP - L21 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_111	PP - L22 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_112	PP - L23 FLOOR PLAN	C	21/07/26	Planning Proposal Updates 03
PP_201	GA ELEVATIONS	C	21/07/26	Planning Proposal Updates 03

150 DAY ST, SYDNEY 2000

PLANNING PROPOSAL ENVELOPE DRAWINGS



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A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

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PROJECT

150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE

COVER SHEET

REVIEWED

AC

APPROVED

AK

DRAWING NO.

PP_000

SCALE @ A1

PROJECT NO.

016185

REV NO.

C



450mm FACADE ARTICULATION ZONE.

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150 Day Street - Park Royal Darling Harbour

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DRAWING TITLE

PP - L00 FLOOR PLAN

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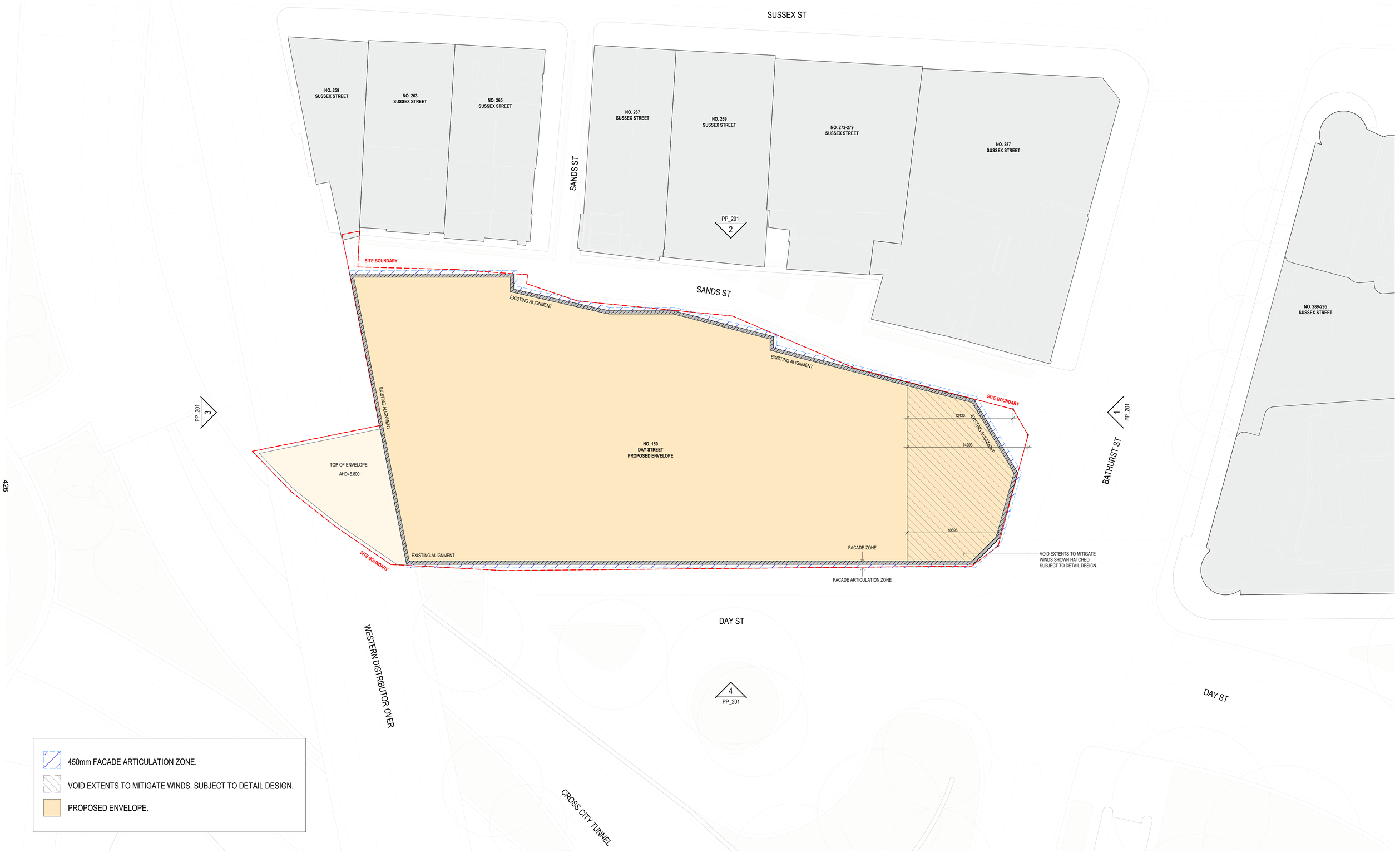
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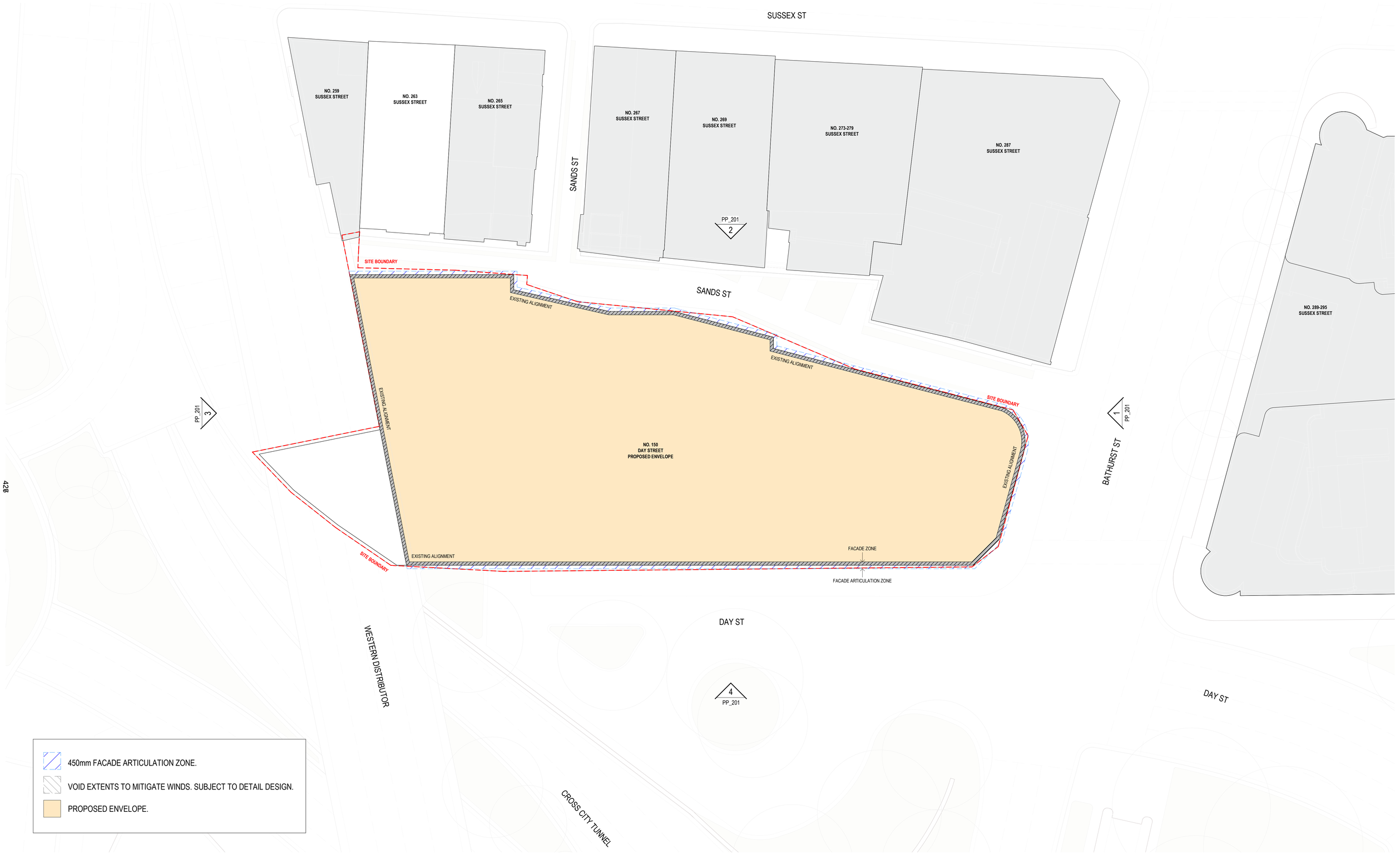
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PP - L02 FLOOR PLAN

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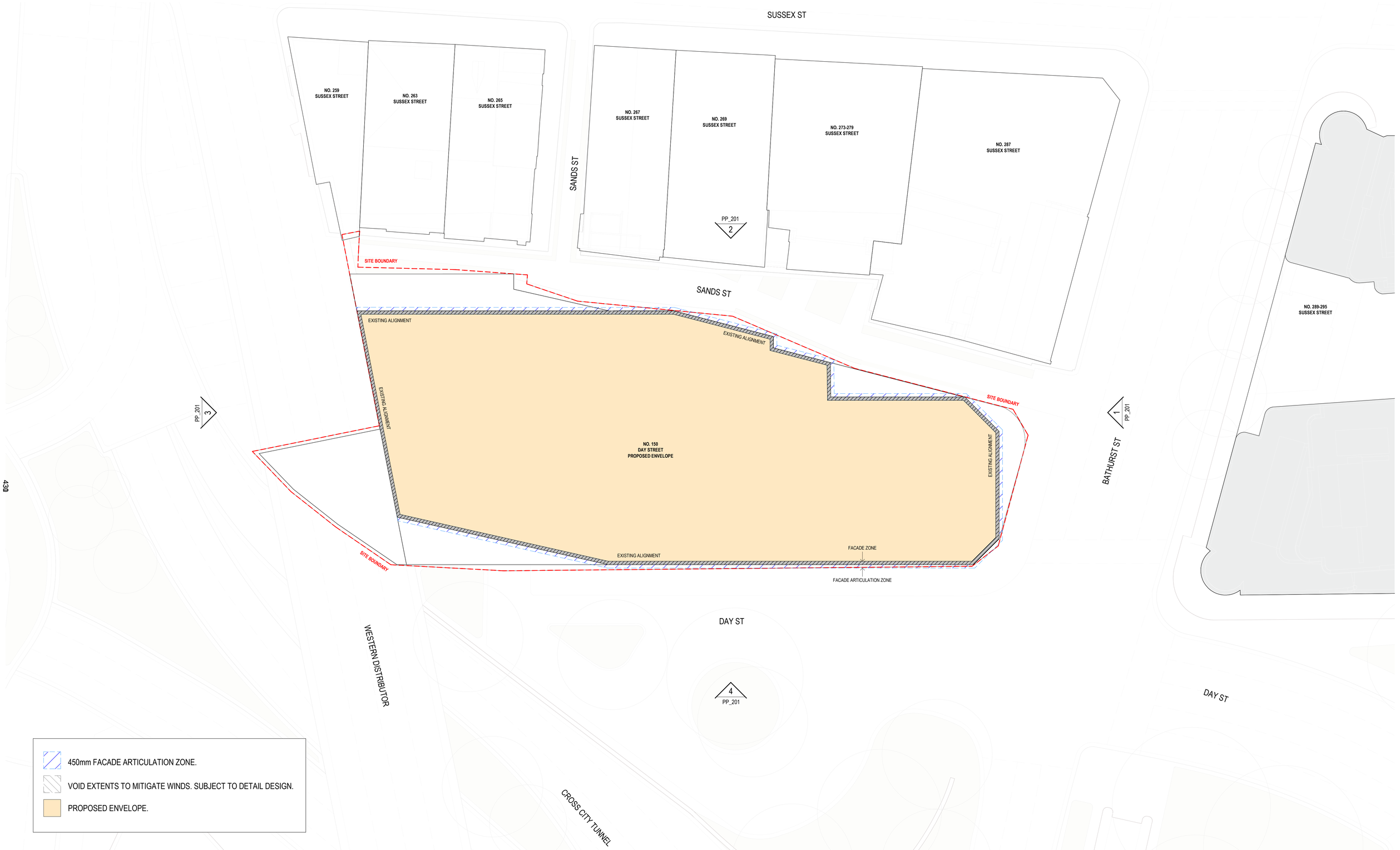
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150 Day Street - Park Royal Darling Harbour

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PP - L13-17 FLOOR PLAN

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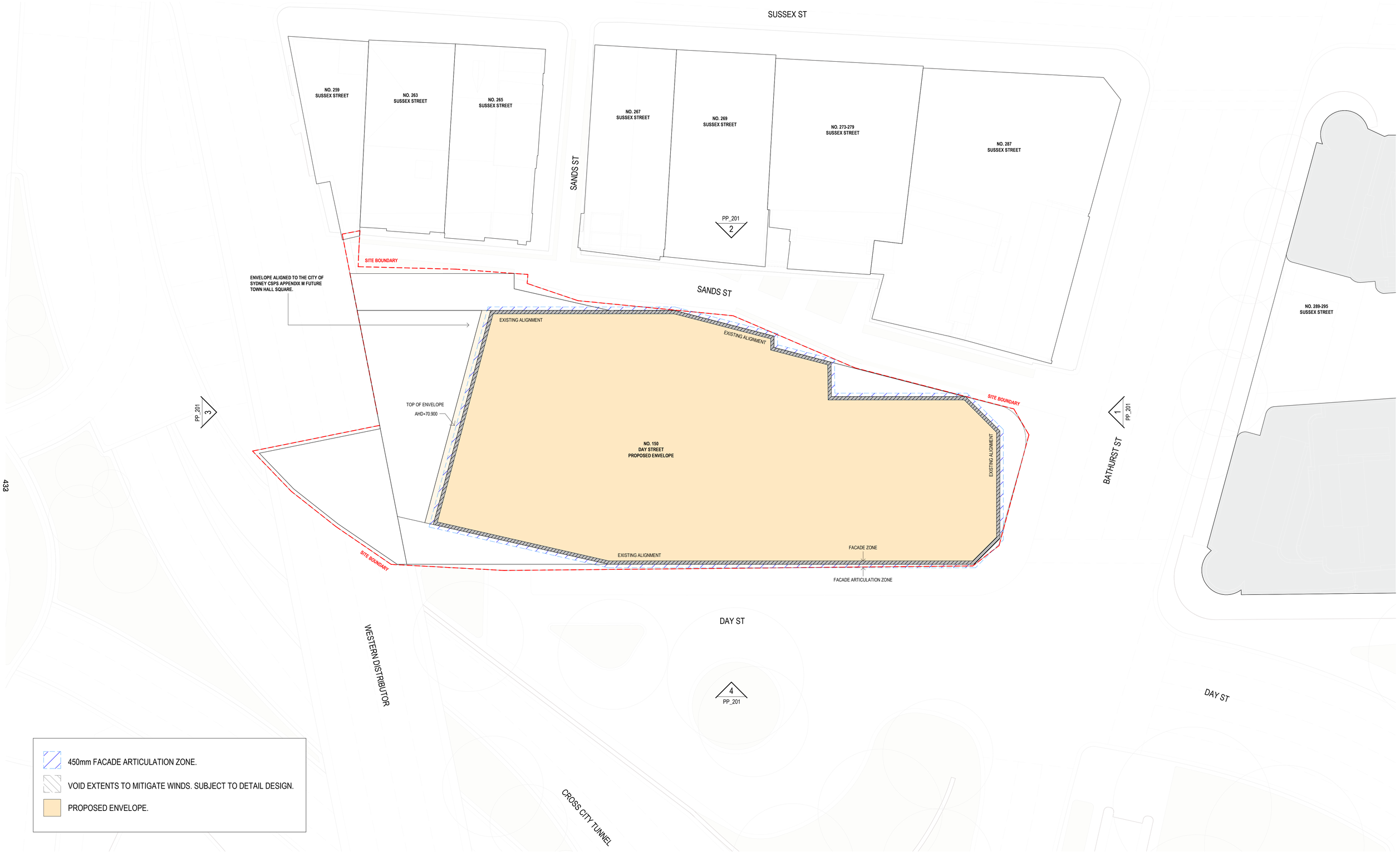
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150 Day Street - Park Royal Darling Harbour

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DRAWING TITLE
PP - L18 FLOOR PLAN

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SCALE @ A1 1 : 200
PROJECT NO. 016185
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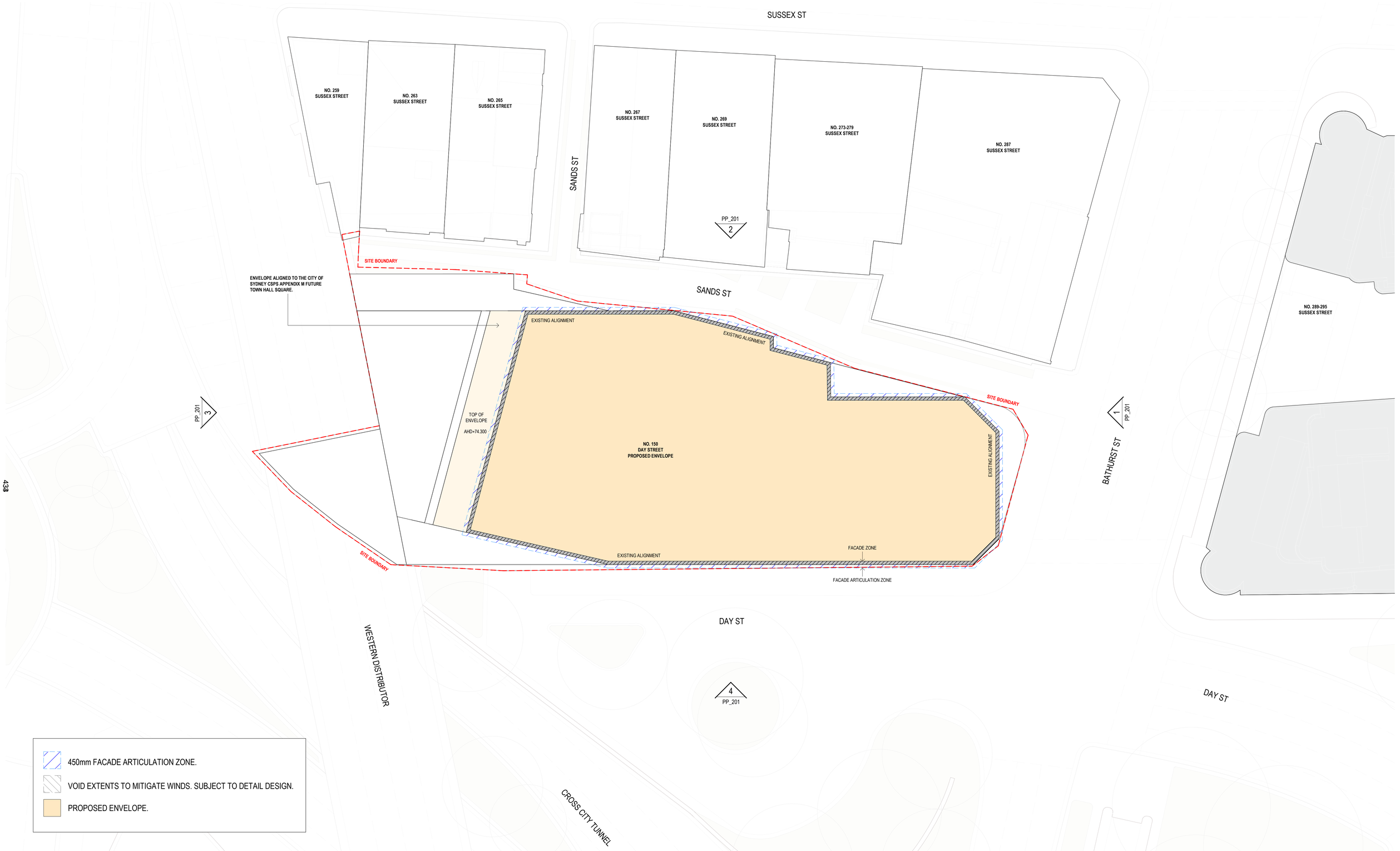
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DRAWING TITLE
PP - L19 FLOOR PLAN

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PROJECT NO. 016185
REV NO. C



433

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sydney@hassellstudio.com
Nominated Architects NSW:
Tony Grist 5350
Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

1. Do not scale drawing. Written dimensions govern
2. All dimensions are in millimeters unless noted otherwise
3. All dimensions shall be verified on site before proceeding with the work. Hassell shall be notified in writing of any discrepancies.
4. This drawing must be read in conjunction with all relevant contracts, specifications and drawings

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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
PP - L20 FLOOR PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. PP_109
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. C

SUSSEX ST

NO. 259
SUSSEX STREET

NO. 263
SUSSEX STREET

NO. 265
SUSSEX STREET

NO. 267
SUSSEX STREET

NO. 269
SUSSEX STREET

NO. 273-279
SUSSEX STREET

NO. 287
SUSSEX STREET

SANDS ST

PP_201
2

SITE BOUNDARY

ENVELOPE ALIGNED TO THE CITY OF SYDNEY CSPS APPENDIX M FUTURE TOWN HALL SQUARE.

SANDS ST

EXISTING ALIGNMENT

EXISTING ALIGNMENT

SITE BOUNDARY

PP_201
3

TOP OF ENVELOPE
AHD+77.700

NO. 150
DAY STREET
PROPOSED ENVELOPE

EXISTING ALIGNMENT

PP_201
1

BATHURST ST

NO. 289-295
SUSSEX STREET

EXISTING ALIGNMENT

FACADE ZONE

FACADE ARTICULATION ZONE

SITE BOUNDARY

DAY ST

WESTERN DISTRIBUTOR

4
PP_201

DAY ST

CROSS CITY TUNNEL

450mm FACADE ARTICULATION ZONE.

VOID EXTENTS TO MITIGATE WINDS. SUBJECT TO DETAIL DESIGN.

PROPOSED ENVELOPE.

CONSULTANT

Hassell

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

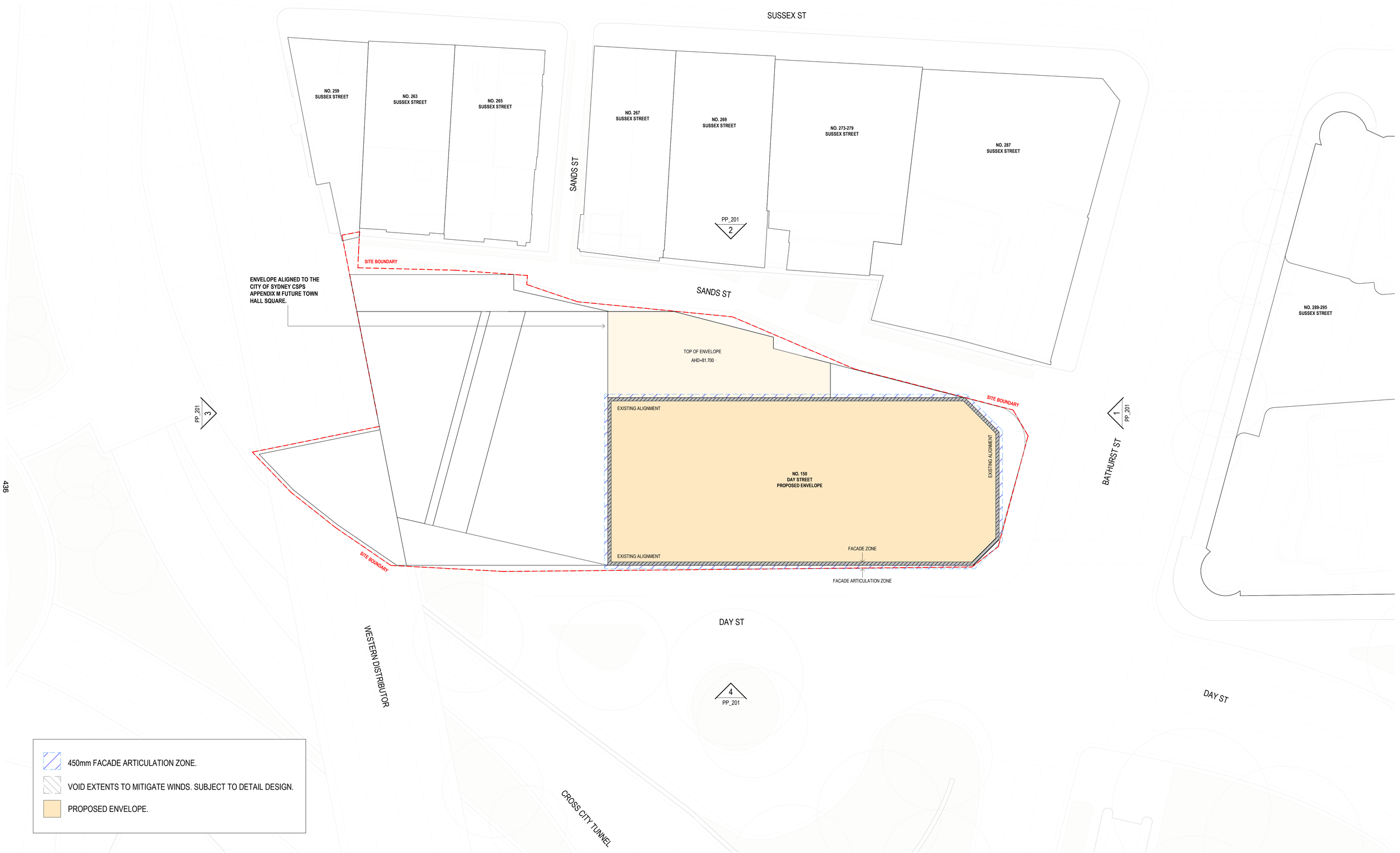
CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
PP - L21 FLOOR PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. PP_110
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. C



436

CONSULTANT

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Nominated Architects NSW:
Tony Grist 5350
Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
PP - L22 FLOOR PLAN

REVIEWED AC
APPROVED AK
DRAWING NO. PP_111
SCALE @ A1 1 : 200
PROJECT NO. 016185
REV NO. C

SUSSEX ST

NO. 259
SUSSEX STREET

NO. 263
SUSSEX STREET

NO. 265
SUSSEX STREET

NO. 267
SUSSEX STREET

NO. 269
SUSSEX STREET

NO. 273-279
SUSSEX STREET

NO. 287
SUSSEX STREET

NO. 289-295
SUSSEX STREET

SANDS ST

SANDS ST

PP_201
2

SITE BOUNDARY

SITE BOUNDARY

SITE BOUNDARY

SITE BOUNDARY

PP_201
3

PP_201
1

BATHURST ST

NO. 150
DAY STREET
PROPOSED ENVELOPE

TOP OF ENVELOPE

AHD+87.700

436

DAY ST

WESTERN DISTRIBUTOR

4
PP_201

DAY ST

CROSS CITY TUNNEL

450mm FACADE ARTICULATION ZONE.

VOID EXTENTS TO MITIGATE WINDS. SUBJECT TO DETAIL DESIGN.

PROPOSED ENVELOPE.

CONSULTANT

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sydney@hassellstudio.com
Nominated Architects NSW:
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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

NOTES

1. Do not scale drawing. Written dimensions govern
2. All dimensions are in millimeters unless noted otherwise
3. All dimensions shall be verified on site before proceeding with the work. Hassell shall be notified in writing of any discrepancies.
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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

CLIENT

UOL

PROJECT

150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE

PP - L23 FLOOR PLAN

REVIEWED
AC

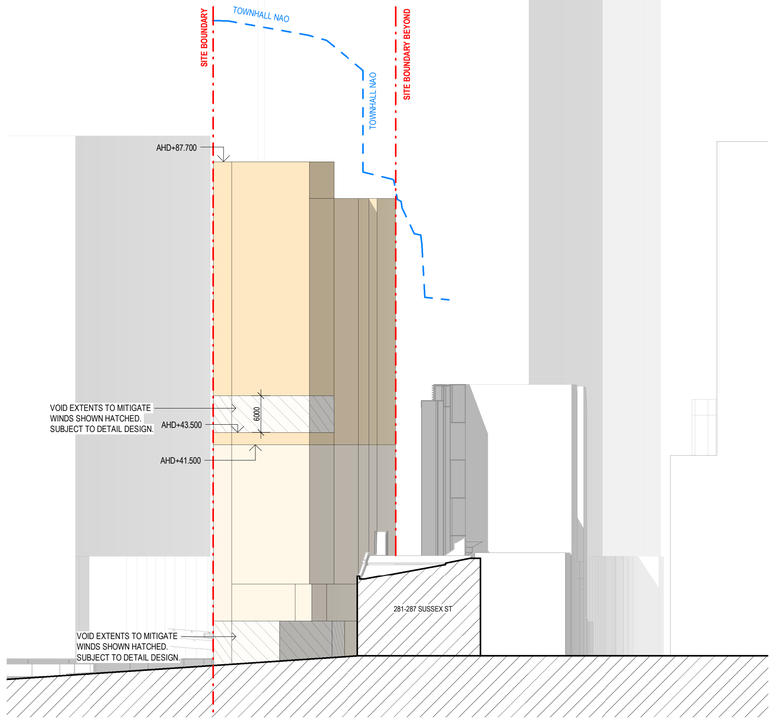
SCALE @ A1
1 : 200

APPROVED
AK

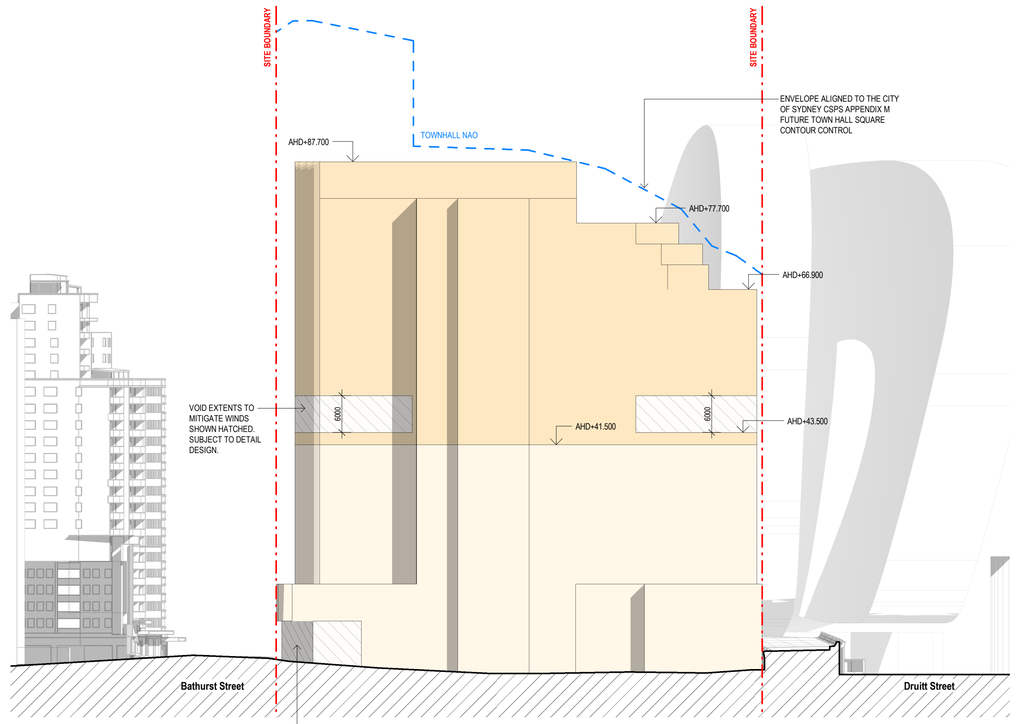
PROJECT NO.
016185

DRAWING NO.
PP_112

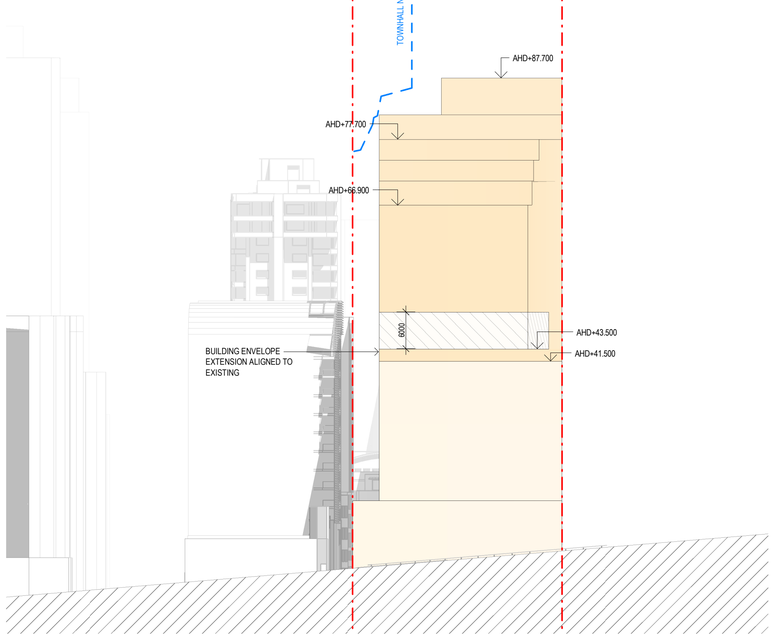
REV NO.
C



1 SOUTH ELEVATION
DD_501 1 : 500



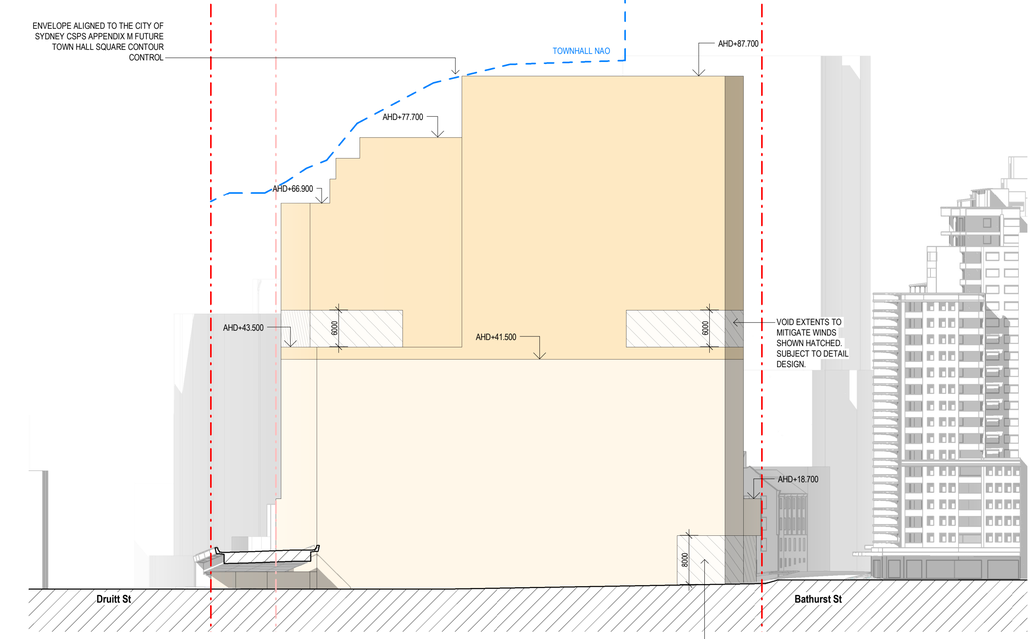
2 EAST ELEVATION
DD_501 1 : 500



EXISTING ENVELOPE

PROPOSED ENVELOPE

3 NORTH ELEVATION
DD_501 1 : 500



4 WEST ELEVATION
DD_501 1 : 500

CONSULTANT

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Nominated Architects NSW:
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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:500
0m 5m 10m 15m 20m

NOTES

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REV	DESCRIPTION	DATE
A	Planning Proposal	21/03/25
B	Planning Proposal Updates	15/04/25
C	Planning Proposal Updates 03	21/07/26

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
GA ELEVATIONS

REVIEWED AC
SCALE @ A1 As indicated
APPROVED AK
PROJECT NO. 016185
DRAWING NO. PP_201
REV NO. C

Attachment A5

Survey drawings

MGA 2020

LOT 20
DP1046870
2281m²

12 STOREY
RENDERED & PRECAST BUILDING
No. 150
DAY STREET

WESTERN DISTRIBUTOR

SANDS ST

SANDS STREET

DAY STREET

BATHURST STREET

CROSS CITY TUNNEL

OVERPASS

CONCRETE RETAINING WALL

CALCULATED BOUNDARY CORNER
E 333868.078
N 6250449.714

CALCULATED BOUNDARY CORNER
E 333830.783
N 6250437.716

CALCULATED BOUNDARY CORNER
E 333857.992
N 6250366.411

1 STOREY BRICK BUILDING No. 259 SUSSEX STREET

3 STOREY BRICK BUILDING No. 263 SUSSEX STREET

3 STOREY BRICK BUILDING No. 265 SUSSEX STREET

13 STOREY BRICK BUILDING No. 267 SUSSEX STREET

4 STOREY BRICK BUILDING No. 269 SUSSEX STREET

14 STOREY BRICK BUILDING No. 273-279 SUSSEX STREET

4 STOREY BRICK BUILDING No. 287 SUSSEX STREET

23 STOREY RENDERED BUILDING No.121 DAY STREET

EASEMENT FOR OVERHANG & RIGHT OF FOOTWAY IS LIMITED IN STRATUM BETWEEN HORIZONTAL PLANES AT RL9 & 13·5

EASEMENT FOR DRAINAGE 1·5 WIDE IS LIMITED IN HEIGHT TO A LEVEL PLANE AT RL 5·98 UNLIMITED IN DEPTH

EASEMENT FOR DRAINAGE 1·5 WIDE & EASEMENT FOR FOOTWAY IS LIMITED IN HEIGHT & DEPTH TO THE RL'S SHOWN ON SHEET 4 OF DP861767

EASEMENT FOR DRAINAGE 1·5 WIDE UNLIMITED IN HEIGHT AND DEPTH

RIGHT OF PUBLIC FOOTWAY 3 WIDE AND LIMITED IN DEPTH & HEIGHT TO REGULAR INCLINED PLANES AS DEFINED ON SHEET 3 IN DP861767

PROPOSED EASEMENT FOR ROCK ANCHORS & SUPPORT VARIABLE WIDTH

(J) (Z) (K)

DP1031912 2

DP773893 5

DP1262372 50

DP1262372 55

TREE DIMENSIONS			
TREE NUMBER	TRUNK DIAMETER	SPREAD DIAMETER	HEIGHT
TREE 1	0.6m	19.0m	20.0m
TREE 2	0.9m	22.0m	22.0m
TREE 3	0.6m	19.0m	23.0m
TREE 4	0.7m	19.0m	23.0m
TREE 5	0.7m	16.0m	23.0m
TREE 6	0.6m	19.0m	19.0m
TREE 7	0.5m	19.0m	19.0m
TREE 8	0.6m	13.0m	19.0m
TREE 9	0.7m	16.0m	19.0m
TREE 10	0.6m	9.0m	22.0m

LOT 20 IS UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THOSE PARTS SHOWN (J) (K) & (Z) WHICH ARE STRATUMS LIMITED IN HEIGHT AND DEPTH TO INCLINED & HORIZONTAL PLANES AS INDICATED UPON DP1046870

CHECKED: 16/12/2024

PAUL WILD
SURVEYOR, REGISTERED UNDER THE SURVEYING AND SPATIAL INFORMATION ACT 2002. No. 1603

CLIENT: UOL Group Ltd.

REV	DATE	DESCRIPTION	CKD
A	11/12/2024	INITIAL RELEASE	CH

PROJECT
PLAN OF LOT 20 IN DP1046870
150 DAY STREET
SYDNEY, NSW 2000

PLAN OF SELECTED FEATURES
SPOT HEIGHTS & CONTOURS

NOTES
LEVELS ARE ON AUSTRALIAN HEIGHT DATUM, ORIGIN ADOPTED FROM S.C.I.M. DATED SEPTEMBER 2024 WHEN OBSERVING LEVELS ALWAYS CHECK ONTO A SECOND POINT OF KNOWN HEIGHT
BOUNDARY OCCUPATIONS & IMPROVEMENTS ON OR NEAR BOUNDARIES HAVE NOT BEEN SHOWN ON THIS PLAN
THIS PLAN IS TO BE READ IN CONJUNCTION WITH A SITE INSPECTION
THESE NOTES MUST REMAIN AN INTEGRAL PART OF THE PLAN
THIS PLAN MAY BE COLOUR CODED. BLACK & WHITE COPIES MAY NOT FULLY DISCLOSE THE INFORMATION HEREON
THIS PLAN HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT, NAMED HEREON. NO RESPONSIBILITY IS TAKEN FOR ANY LOSS INCURRED BY ANY THIRD PARTY RESULTING FROM UNAUTHORISED USE OF THE PLAN.
THIS DRAWING REMAINS THE PROPERTY OF WOOLPERT AUSTRALIA PTY. LTD. IT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. UNAUTHORISED USE OF THIS DRAWING PROHIBITED

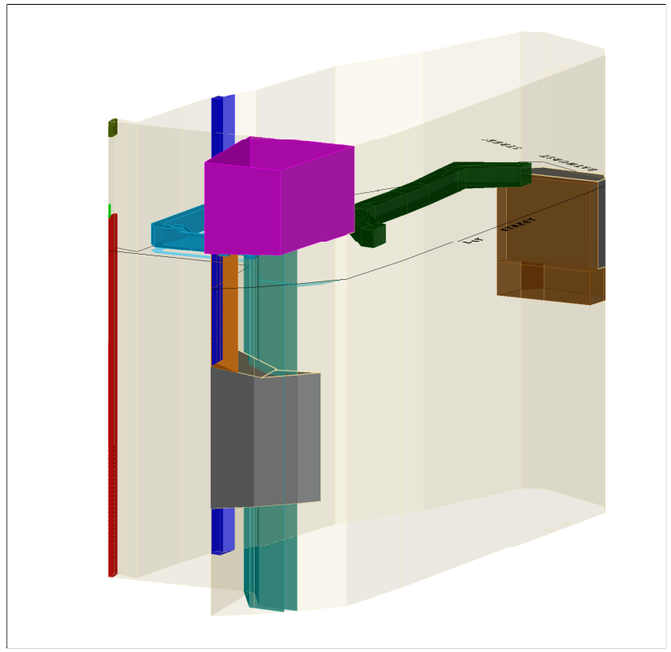
LEGEND
BOLLARD, CCTV, COLUMN, FFL FINISHED FLOOR LEVEL, KI KERB INVERT, KT KERB TOP, LIGHT POLE, GAS VALVE, GATE, PP PARAPET HEIGHT, RS ROAD SIGN, SIGN, SOFFIT HEIGHT, SPOT HEIGHT, TREE, TRAFFIC LIGHT, WATER STOP VALVE, BOUNDARY - SITE, BOUNDARY - ADJOINING, BROKEN LINE, COLUMN, CONCRETE SLAB, CONTINUOUS LINE, DOOR, DOOR TOP, DOUBLE LINE, DRAINAGE GULLY PIT, EASEMENT, EDGE OF SHRUBS, GLASS, HEDGE, KERB BACK, KERB INVERT, KERB TOP, LINE EDGE, LINE MARKING, PARAPET, RETAINING WALL, SOFFIT, STEPS, STOP LINE, SURFACE CHANGE, TURNING ARROW, WALL, GRATED PIT, SIDE ENTRY PIT, TELECOMMS PIT, UNKNOWN MANHOLE, UNKNOWN PIT, UNKNOWN POLE

HORIZ DATUM MGA56/GDA2020
LEVEL DATUM AHD
ORIGIN OF LEVELS
PM 40170 RL 17.428m
SHEET 01 OF 01
LENGTHS ARE IN METRES
SCALE 1:200 @A1
WLPT NUMBER 46747

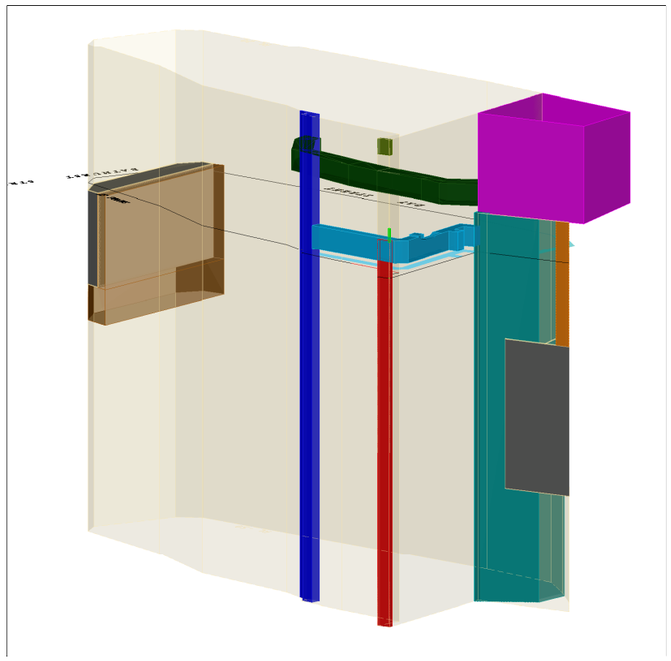
SURVEYED	SV/AH	09/2024
DRAFTED	MW/TT	10/12/2024
CHECKED	CH	11/12/2024
APPROVED	DS	11/12/2024

DRAWING NUMBER 46747-SUR-WLPT-0001 A
REVISION

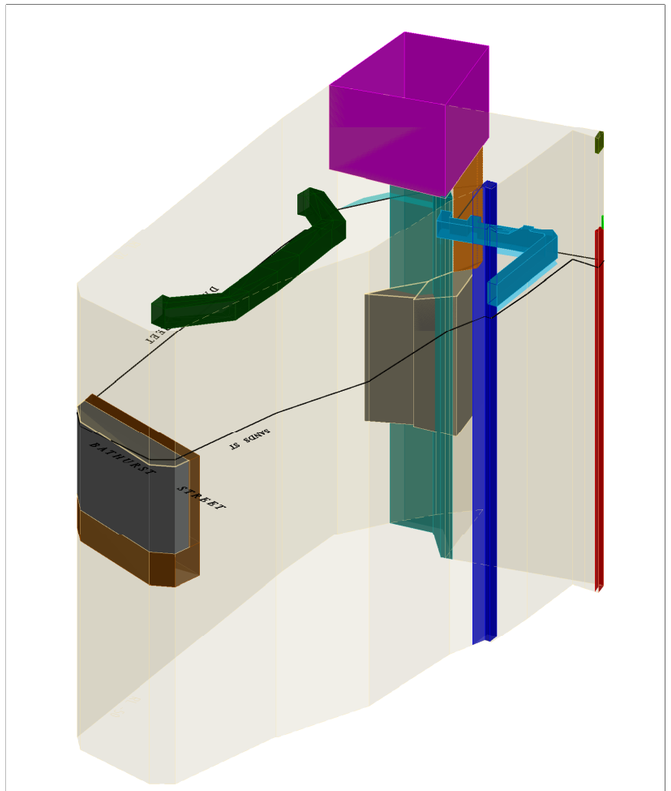
WOOLPERT
SUITE 4, 33 WATERLOO ROAD
MACQUARIE PARK
(PH) 02 8879 1600 (FAX) 02 8879 1633
(WEB) WOOLPERT.COM



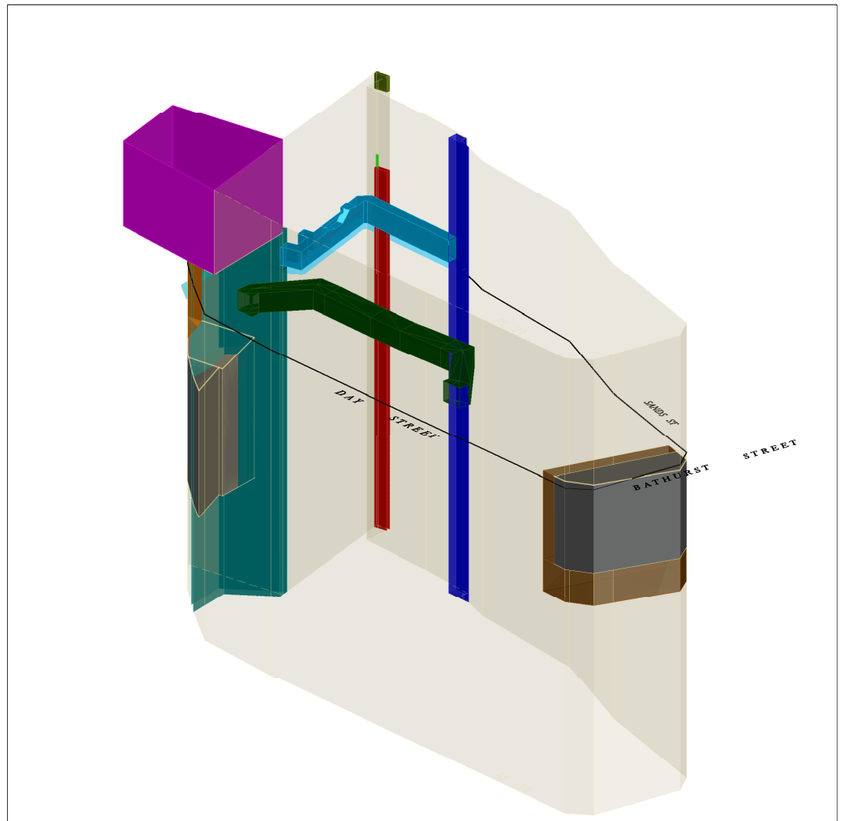
NORTH-WEST PERSPECTIVE



NORTH-EAST PERSPECTIVE



SOUTH-EAST PERSPECTIVE



SOUTH-WEST PERSPECTIVE

LIST OF EASEMENTS

(C) EASEMENT FOR DRAINAGE 1·5 WIDE & EASEMENT FOR SUPPORT 1·5 WIDE IS LIMITED IN HEIGHT & DEPTH TO THE RL'S SHOWN ON DP861767 SHEET 4

(F) RIGHT OF PUBLIC FOOTWAY 3 WIDE AND LIMITED IN DEPTH & HEIGHT TO REGULAR INCLINED PLANES AS DEFINED IN DP861767 SHEET 3

(D) EASEMENT FOR DRAINAGE 1·5 WIDE UNLIMITED IN HEIGHT AND DEPTH - VIDE DP861767

(E) EASEMENT FOR DRAINAGE 1·5 WIDE IS LIMITED IN HEIGHT TO A LEVEL PLANE AT RL 5·98 & UNLIMITED IN DEPTH

(R) EASEMENT FOR ROCK ANCHORS & SUPPORT VARIABLE WIDTH LIMITED IN DEPTH & HEIGHT TO THE INCLINED PLANES AS DEFINED IN DP1046870

(X) EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH - VIDE DP1092390

LIST OF PROPOSED EASEMENTS

(E) PROPOSED EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH(BELOW GROUND FLOOR) LIMITED IN HEIGHT TO RL 5·42 & UNLIMITED IN DEPTH - VIDE DP1110512

(R1) PROPOSED RIGHT OF WAY 0·98 WIDE & VARIABLE WIDTH (GROUND LEVEL) LIMITED IN STRATUM BETWEEN RL 5·23 & RL 7·23 - VIDE DP1110512

(R4) PROPOSED RIGHT OF WAY VARIABLE WIDTH (ROOF LEVEL) LIMITED IN DEPTH TO RL 17·66 & UNLIMITED IN HEIGHT - VIDE DP1110512

LEASES

AR7373419 LEASE TO WAVECONNPTY LTD (SEE AT832503) PART FOLIO IDENTIFIER 201, 046870, FOR PURPOSES OF A TELECOMMUNICATIONS BASE STATIONS FORMING PART OF A TELECOMMUNICATIONS NETWORK

REV	DATE	COMMENTS	CKD
H			
G			
F			
E			
D			
C			
B			
A	20/12/2024	ISSUED	

WOOLPERT
SUITE 4, 33 WATERLOO ROAD
MACQUARIE PARK, NSW, 2113
TEL: (02) 8879 1600 FAX: (02) 8879 1633
WEB: www.woolpert.com

PARKROYAL DARLING HARBOUR

DEFININTION OF ENCUMBRANCES UPON LOT 20 DP1046870 PERSPECTIVE VIEWS

DRAWN	GV
DATE	20/12/2024
CHECKED	
SCALE A3	1:300
LEVEL DATUM	AHD

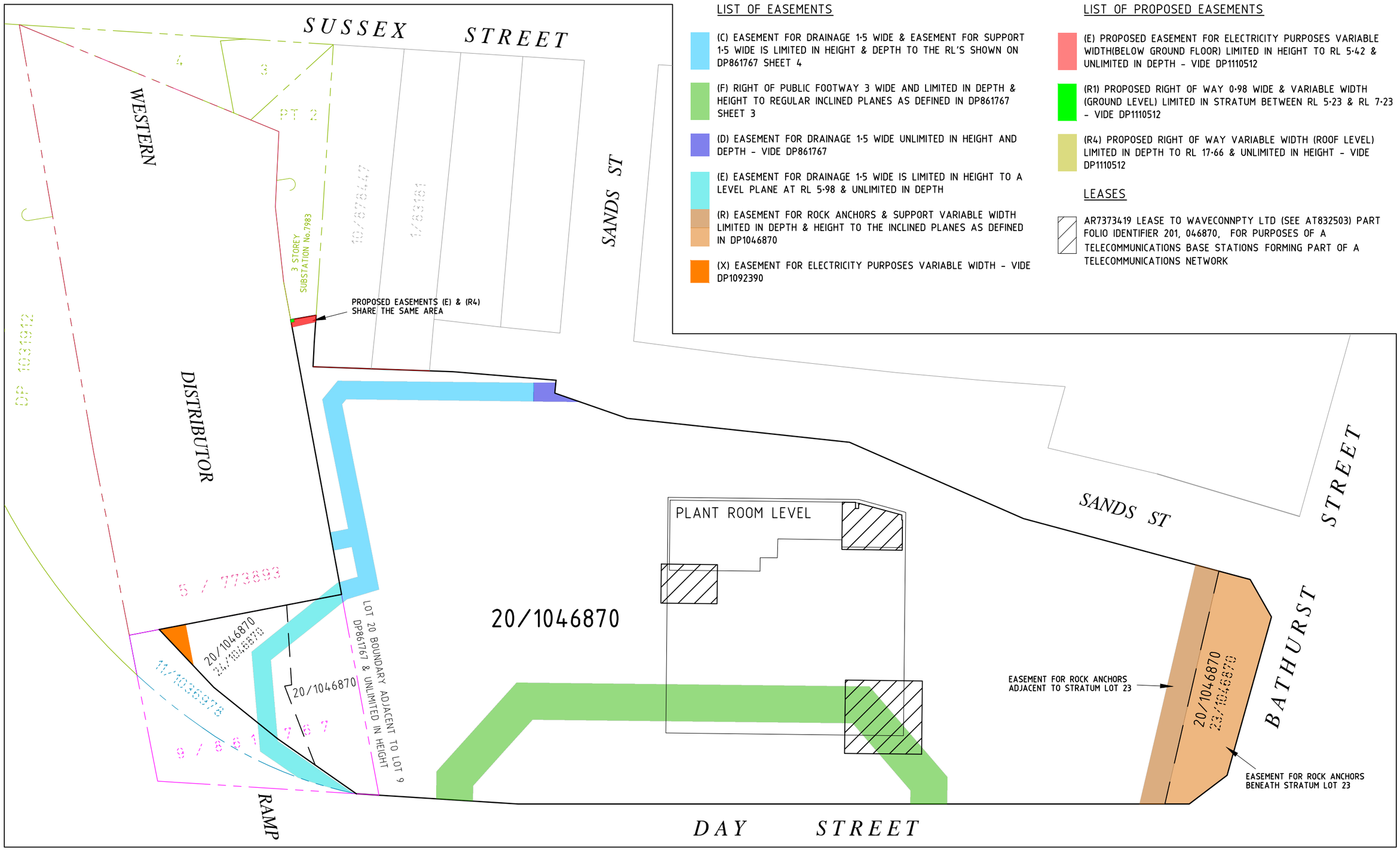
SCALE
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LENGTHS ARE IN METRES

DRAWING NUMBER WLPT-SUR-0004

REV A

JOB NUMBER 46747

440



LIST OF EASEMENTS

(C) EASEMENT FOR DRAINAGE 1·5 WIDE & EASEMENT FOR SUPPORT 1·5 WIDE IS LIMITED IN HEIGHT & DEPTH TO THE RL'S SHOWN ON DP861767 SHEET 4

(F) RIGHT OF PUBLIC FOOTWAY 3 WIDE AND LIMITED IN DEPTH & HEIGHT TO REGULAR INCLINED PLANES AS DEFINED IN DP861767 SHEET 3

(D) EASEMENT FOR DRAINAGE 1·5 WIDE UNLIMITED IN HEIGHT AND DEPTH - VIDE DP861767

(E) EASEMENT FOR DRAINAGE 1·5 WIDE IS LIMITED IN HEIGHT TO A LEVEL PLANE AT RL 5·98 & UNLIMITED IN DEPTH

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(X) EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH - VIDE DP1092390

LIST OF PROPOSED EASEMENTS

(E) PROPOSED EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH(BELOW GROUND FLOOR) LIMITED IN HEIGHT TO RL 5·42 & UNLIMITED IN DEPTH - VIDE DP1110512

(R1) PROPOSED RIGHT OF WAY 0·98 WIDE & VARIABLE WIDTH (GROUND LEVEL) LIMITED IN STRATUM BETWEEN RL 5·23 & RL 7·23 - VIDE DP1110512

(R4) PROPOSED RIGHT OF WAY VARIABLE WIDTH (ROOF LEVEL) LIMITED IN DEPTH TO RL 17·66 & UNLIMITED IN HEIGHT - VIDE DP1110512

LEASES

AR7373419 LEASE TO WAVECONNPTY LTD (SEE AT832503) PART FOLIO IDENTIFIER 201, 046870, FOR PURPOSES OF A TELECOMMUNICATIONS BASE STATIONS FORMING PART OF A TELECOMMUNICATIONS NETWORK

442

REV	DATE	COMMENTS	CKD
H			
G			
F			
E			
D			
C			
B			
A	20/12/2024	ISSUED	

WOOLPERT
SUITE 4, 33 WATERLOO ROAD
MACQUARIE PARK, NSW, 2113
TEL: (02) 8879 1600 FAX: (02) 8879 1633
WEB: www.woolpert.com

PARKROYAL DARLING HARBOUR

DEFININTION OF ENCUMBRANCES UPON LOT 20 DP1046870

DRAWN	GV
DATE	20/12/2024
CHECKED	
SCALE A3	1:300
LEVEL DATUM	AHD

SCALE
-3 0 3 6 9 12
LENGTHS ARE IN METRES

DRAWING NUMBER
WLPT-SUR-0003

JOB NUMBER 46747

REV A



443

REV	DATE	COMMENTS	CKD
H			
G			
F			
E			
D			
C			
B			
A	20/12/2024	ISSUED	

WOOLPERT
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MACQUARIE PARK, NSW, 2113
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WEB: www.woolpert.com

PARKROYAL DARLING HARBOUR

CADADTRAL BOUNDARIES
ADJOINING LOT 20 DP1046870

DRAWN	GV
DATE	20/12/2024
CHECKED	
SCALE A3	1:300
LEVEL DATUM	AHD

SCALE
-3 0 3 6 9 12
LENGTHS ARE IN METRES

DRAWING NUMBER
WLPT-SUR-0002

REV
A

JOB NUMBER
46747

Attachment A6

Economic impact assessment

Atlas Economics

150 Day Street, Sydney

Economic Impact Assessment

UOL GROUP LIMITED

MARCH 2025



Beyond the horizon thinking.

Document Control

JOB ID	J436
JOB NAME	Parkroyal EIA
CLIENT	UOL Group Limited
CLIENT CONTACT	Jack Rixon (Mecone)
DOCUMENT NAME	Parkroyal Economic Impact Assessment draft
LAST SAVED	24/03/2025 1:37 PM

VERSION	DATE	PREPARED BY	REVIEWED BY
Draft v1.0	17 February 2025	Connor Merigan, Jacob Vince	Jacob Vince
Final v1.0	21 March 2025	Jacob Vince	Jacob Vince
Final v1.1	24 March 2025	Connor Merigan	Jacob Vince

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Executive Summary

Background

UOL Group Limited (**UOL Group**) are progressing a Planning Proposal to enable the redevelopment of 150 Day Street, Sydney (**the Site**). The Site is located at a key interface between the Sydney CBD and Darling Harbour precinct places and is currently improved by an 11-storey, 3.5 star hotel branded as the Parkroyal Hotel.

The Planning Proposal seeks to amend the Sydney Local Environmental 2012 (**Sydney LEP**) to increase the building height and maximum floor space ratio (**FSR**) to support adaptive reuse of the existing hotel building and enable the development of a separate 11-storey hotel (including transfer) above the existing building (**the Proposal**). To enable development of the Proposal, the following amendments to the Sydney LEP would be required:

- An increase in the maximum height of building from 45m to ~85m.
- An increase in the maximum FSR from 7.5:1 to 13.5:1.
- Restrict permitted land uses to employment/hotel use and not residential accommodation or serviced apartments.

Atlas Economics (**Atlas**) are engaged to prepare a Needs Assessment and Economic Impact Assessment (referred to interchangeably as '**EIA'** and '**the Study'**) to assess the need for the Proposal and examine the economic impacts of the Proposal if delivered.

THE PROPOSAL

The Proposal envisages the retention and reconfiguration of the Parkroyal Hotel and utilises the existing hotel structure to support the development of a separate 11-storey hotel. Key features of the Proposal include:

- Retention of the existing Parkroyal Hotel from Level 1-11. The reconfigured Parkroyal Hotel is envisaged to comprise between 280 to 310 rooms with approximately 17,700sqm gross floor area **(GFA**), including ~4,800sqm of hotel amenity, retail and back of house (BOH) and plant room floorspace.

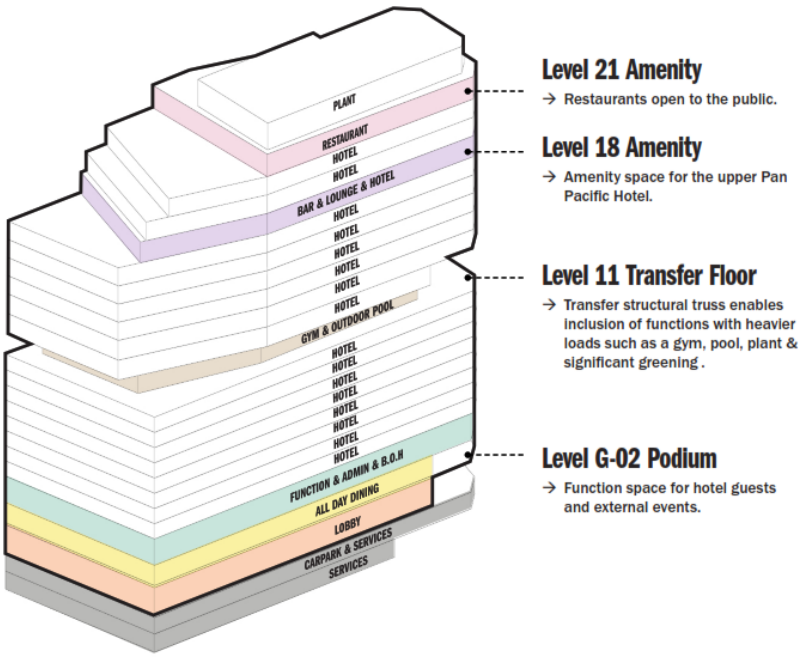
  Retention of the 34-year old hotel will not only ensure it can meet the contemporary standards of modern travellers but facilitate the upgrade of many of its existing base building services which have been identified as surpassing their economic useful life (maximum of 20-25 years).

- Development of a new 5-star Pan Pacific Hotel from Level 12-22. The new hotel would comprise 220-240 hotel rooms and circa 12,300sqm GFA, including an 871sqm restaurant on Level 21.

In total, the Proposal would comprise ~30,000sqm GFA and 490-540 hotel rooms (keys) across a 22-storey building (plus plant).

FIGURE ES-1 illustrates the vertical arrangement of the different uses envisaged in the Proposal.

FIGURE ES-1: The Proposal



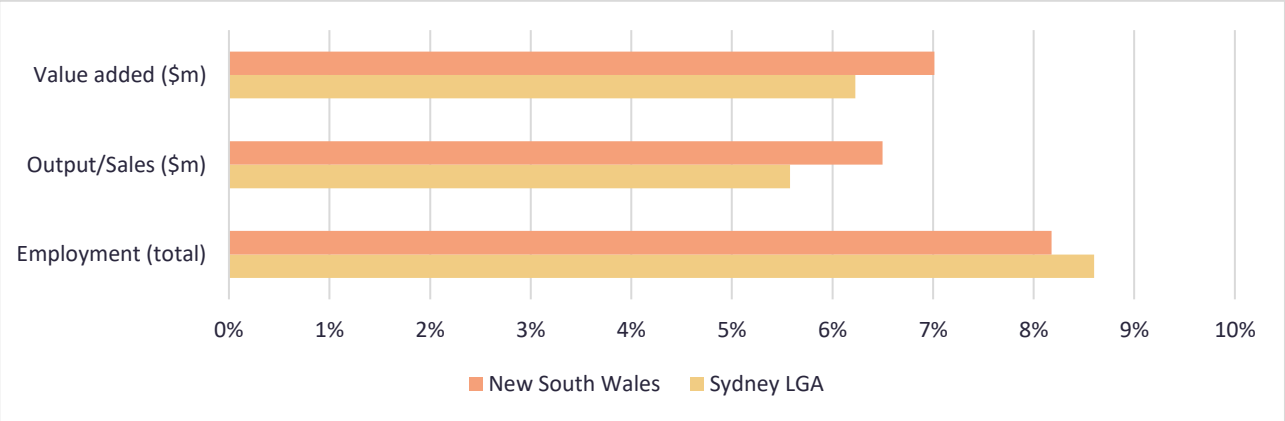
Source: Hassell

Importance of the Visitor Economy

The visitor economy is one of the Sydney LGA's largest sectors and critical to the vitality of the local economy. As at FY2023, the tourism industry in the Sydney LGA generated a total of ~57,300 jobs, with ~26,700 being 'direct' jobs and ~30,600 'indirect' jobs. This equates to 8.6% of total employment in the Sydney LGA. Comparatively, tourism accounts for 8.2% of employment across NSW.

From an economic contribution perspective, the Sydney LGA's tourism industry generated over $8.3 billion in value-added in FY2023. This is equivalent to 6.2% of the total economic activity (in value added terms) generated by the City of Sydney economy. Notably, the Sydney LGA tourism industry generates ~20% of the total economic activity generated by NSW's tourism sector.

FIGURE ES-2: Economic Role of Tourism (FY2023), Sydney LGA and NSW



Source: NIEIR (2024)

The importance of the visitor economy is well-outlined in various State and local strategic planning policies. Encouraging the growth and evolution of the tourism sector in the Sydney CBD is a fundamental principle in the:

- *Eastern City District Plan* (NSW Government)
- *Visitor Economy Strategy 2030* (NSW Government)
- *City of Sydney Economic Development Strategy 2025-2035* (City of Sydney)

Darling Harbour and the Sydney CBD Hotel Market

Darling Harbour is critical to the Sydney and NSW visitor economy. It attracts over 15 million visitors each year and is NSW's third-most visited destination, only surpassed by the Sydney Opera House and Sydney Harbour Bridge. It accommodates multiple visitor destinations, large conference and events centres and a range of hotel establishments.

The Sydney hotel market has historically been the most consistently supply-constrained capital city market in Australia, typified by occupancy levels well over 80% and the highest Average Room Rates (ARR) in the country. The downturn in the Sydney CBD hotel market as a result of the COVID-19 pandemic was swift and severe and only surpassed by the Melbourne CBD.

Since the reopening of international borders in Q1 2022, the market has however rebounded. The Sydney CBD was the first capital city to record hotel occupancy levels of above 80%, with room rates now surpassing pre-COVID-19 levels following a surge in international and domestic visitation. Once again, the Sydney CBD hotel market is becoming effectively 'full'.

Visitor growth forecasts, both domestic and international over the coming years are strong. Tourism Research Australia domestic and international visitor growth forecasts for NSW over the 2024-2028 period are in the order of 2.9% and 6.9% per annum, respectively. The Sydney LGA has historically recorded much higher levels of visitation growth than that observed across the broader State.

A detailed room supply analysis (Dransfield, 2024) shows that room growth in the Sydney market is unlikely to exceed 2.7% per annum with even softer growth in the short-term. Without some drastic response in supply, the most likely outcome will be continued growth in occupancy levels, fewer available rooms and even more expensive room rates.

Whilst the 'pull' of the Sydney CBD makes room demand somewhat inelastic, there is a real risk that a lack of new supply will impact some parts of the visitor economy. This could particularly apply to the Meetings, Incentives, Conferences and Events (**MICE**) market. The MICE market generated ~$4.1 billion to the NSW economy in 2024, with the 'lions share' of this generated in the Sydney CBD.

A lack of available room supply in the Sydney CBD could result in some MICE organisers redirecting some events to other gateway cities (e.g. Melbourne, Brisbane) where room supply is greater, and room rates are more affordable. This presents a risk to the status of Darling Harbour and the broader Sydney CBD as Australia's premier tourism destination and would present challenges to many of the objectives for the Sydney CBD as identified in State and local strategic planning policy.

Economic Impacts of the Proposal

The economic impacts of the Concept Plan are estimated using Atlas' proprietary Input-Output model and assessed at the Sydney LGA level. The assessment distinguishes the economic impacts during construction and those generated upon completion.

The modelling considers the two key drivers of economic activity generated by hotel uses – activity generated by hotel turnover (room rate spend) and visitor spend elsewhere.

The findings of the economic modelling shows that the Proposal could deliver significant and positive economic impacts:

- During construction, it is estimated to result in a significant (but short-term) increase in economic activity through a mix of direct and indirect (flow-on) activity, including:
    - **$307.3 million in output** ($204.1 million in direct activity).
    - **$119.1 million contribution to GRP** ($65.6 million direct contribution)
    - **$80.9 million in wages and salaries** paid to local workers ($50.2 million paid directly)
    - **601 FTE jobs** (313 directly employed in construction activity).
- Critically, the Proposal would generate significant net additional economic impacts upon completion. Compared to the Base Case (i.e. no change to the existing hotel), the Proposal would generate an:
    - **Additional $85.3 million in output** (additional $52.8 million in direct activity).
    - **Additional $43.7 million contribution to GRP** (additional $26.7 million in direct activity).
    - **Additional $26.3 million in incomes and salaries** (additional $17.3 million in direct income).
    - **Additional 368 FTE jobs** (additional 276 FTE directly related to activity on the Site).

In addition to these economic impacts, the Proposal has the potential to support the MICE market and mitigate the risk associated with operators looking to other capital cities (e.g. Melbourne, Brisbane) for major events or trade shows where room supply is greater and more affordable.

Redevelopment of the existing hotel will ensure

Overall, economic modelling shows that development of the Proposal could deliver significant positive economic impacts to the Sydney LGA economy. It would also play a role in addressing the expected supply imbalance in the Sydney CBD market over the coming years through the delivery of an additional 219 hotel rooms and renewal of existing ageing stock.

Accordingly, it is recommended that the Proposal be considered for approval, subject to other technical findings.

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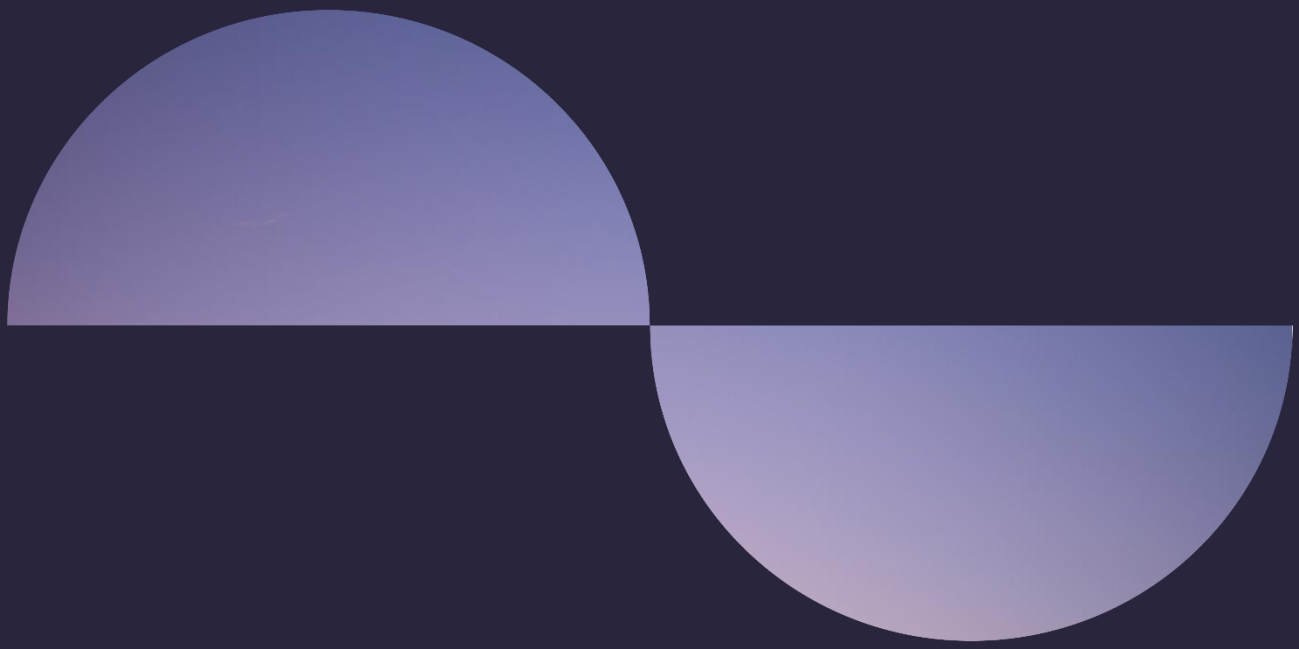
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1
Introduction



Beyond the
horizon thinking.

150 Day Street, Sydney

1.1 Background

UOL Group Limited (**OUL Group**) are progressing a Planning Proposal to enable the redevelopment of 150 Day Street, Sydney (**the Site**). The Site is located within the City of Sydney local government area (**LGA**) and is currently improved by an 11-storey, 3.5 star hotel branded as the Parkroyal Hotel.

The Planning Proposal seeks to amend the Sydney Local Environmental 2012 (**Sydney LEP**) to increase the building height limit and maximum floor space ratio (**FSR**) to support adaptive reuse of the existing hotel building and enable the development of a separate 11-storey hotel above the existing building (**the Proposal**).

Atlas Economics (**Atlas**) are engaged to prepare a Needs Assessment and Economic Impact Assessment (referred to interchangeably as '**EIA'** and '**the Study'**) to assess the need for the Proposal and examine the economic impacts of the Proposal if delivered.

1.2 The Site and Proposal

THE SITE

The Site is irregularly shaped and measures 2,250sqm in land area and is zoned SP5 Metropolitan Centre/ SP2 Infrastructure Classified Road under Sydney LEP. The existing height control of 45m is subject to clauses 6.17 and 6.19 of the Sydney LEP.

The existing FSR control of 7.5:1 is subject to Special Area 4 - clause 6.4 of the Sydney LEP.

Figure 1-1: The Site and Surrounding Area



Source: Atlas Economics

THE PROPOSAL

The Proposal involves an ambitious upgrade and expansion of the existing hotel. It aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel. Strategically positioned at the edge of the Sydney CBD, the Proposal reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The Proposal is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, the Proposal seeks to amend the Sydney Local Environmental Plan 2012 by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

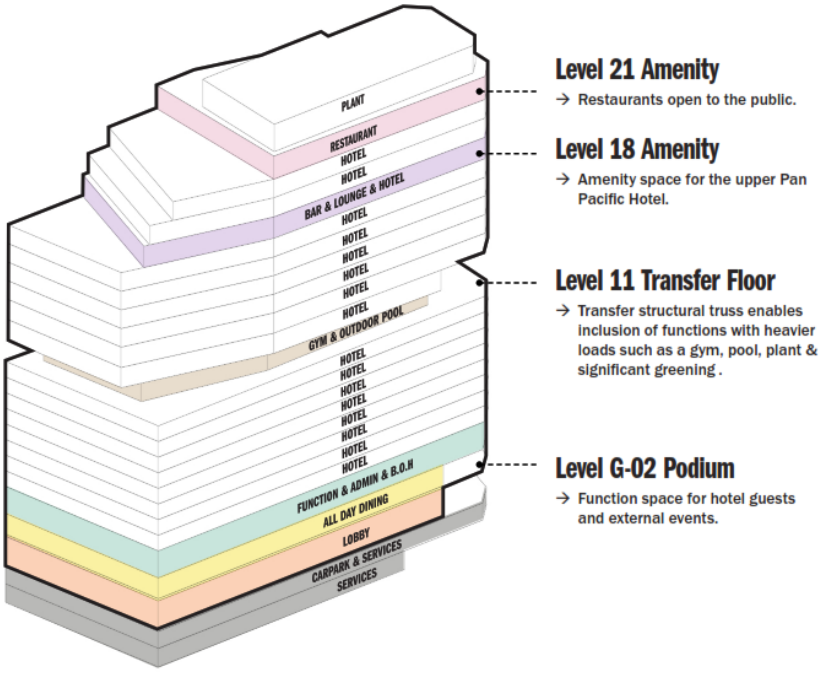
- Allow a maximum building height of RL 85 metres,
- Permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- Restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting in:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star).
    - 490-540 hotel keys with gross floor area of ~30,000m2.
    - Upgrade existing infrastructure and services (including new lift core).
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp for single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design.
- Significant greening and landscaping of western façade.

FIGURE 1-2 illustrates the vertical arrangement of the different uses envisaged in the Proposal.

FIGURE 1-2: The Proposal



Source: Hassell

1.3 Scope and Approach

To assist UOL Group, Atlas have carried out the Study to assess the potential market need for additional hotel accommodation and estimate the economic impact of the Proposal. A Needs Analysis explores the market need for additional hotel accommodation in the Sydney CBD through:

- Analysis of key demand drivers for hotel accommodation;
- Review of existing and planned supply of hotel accommodation; and
- Assessment the role of the Site to address any gap between projected demand and planned supply.

The EIA estimates the economic impacts (direct and indirect) of the Proposal during construction and once completed and operational (i.e., contribution to employment, gross regional product, wages/salaries and output). Also estimated is the net additional visitor expenditure that it expected to be generated by the Proposal.

1.4 Assumptions and Limitations

Atlas acknowledges several assumptions and limitation associated with this Study:

- The macro-economic outlook is subject to significant uncertainty due to, *inter alia*, global and domestic inflation, geopolitical tensions, trade labour shortages and various military conflicts.
- The 2021 Census was administered during the COVID-19 pandemic and at a time of widespread lockdowns across Australia's east coast. Activity recorded at this time may not be accurately representative of employment or visitation levels.
- Tourism data is collected and collated by Tourism Research Australia. COVID-19 had various impacts on Sydney and Australian tourism and visitation and the capacity for data collection.
- Population projections (by the NSW Department of Planning, Housing and Infrastructure) were released in November 2024 and are based on the Australian Bureau of Statistics' Estimated Resident Population in 2021.
- Visitation forecasts relied upon were published in November 2023 by Tourism Research Australia.
- Market research is carried out on a 'desktop' basis without the benefit of site surveys and internal inspections.

Notwithstanding the above, due care, skill and diligence has been applied to this Study as is reasonably expected.

2
Site Context





Beyond the
horizon thinking.

2.1 Location

The Site is located on the western edge of the Sydney Central Business District (**CBD**), just east of Darling Harbour. It is broadly bound by Day Street (west), Bathurst Street (south), Sands Street (east) and the Western Distributor and Druitt Street to the north.

The Site's location at the interface between the Sydney CBD and Darling Harbour precinct places it within walking distance of multiple public transport nodes, retail precincts and major attractions.

Town Hall Train Station, the Darling Quarter Precinct, IMAX Sydney, International Conferences and Conventions Centre (ICC) precinct, Cockle Bay Wharf, Sydney Aquarium, Tumbalong Park, Queen Victoria Building and Chinese Garden of Friendship all fall within 400m of the Site. Other major attractions beyond this 400m radius, such as Star Casino, Barangaroo, Hyde Park, the Sydney Fish Market and rest of the Sydney CBD all remain within easy walking distance.

FIGURE 2-1 illustrates the Site's relative location to key anchor assets in the locality.

FIGURE 2-1: Location Map



Source: Atlas Economics/Metromap

2.2 Economic Role of Darling Harbour

Darling Harbour plays an integral role in the Sydney LGA and broader Greater Sydney economy. It is one of Sydney's primary tourist destinations and accommodates a broad mix of anchors, attracting approximately 15 million domestic and international visitors each year (Placemaking NSW, 2025). It is also a major business and employment hub, accommodating over 27,300 jobs and generating some $8.04 billion in economic activity in 2021 (NIEIR, 2024). This represents some 6% of the broader Sydney LGA economy with an area of just 5.3sqkm.

More recently, Darling Harbour has undergone substantial urban transformation, becoming one of the CBD's largest residential hubs. The Darling Square precinct was completed in 2019 and delivered a new dining and retail precinct with some 1,500 apartments. It is estimated that over 7,100 residents lived in the Precinct in 2021 (ABS, 2022). The role of the Precinct as a tourism destination has also been further strengthened with the completion of several major hotels, including the Sofitel Sydney Darling Harbour in 2017 and the world's largest W Hotel in 2023.

Looking forward, the economic importance of the Darling Harbour Precinct is set to further expand. A number of new developments are underway across Darling Harbour (and proximate the Site), including:

- The State Significant Development (**SSD**) of the Harbourside Shopping Centre. Poised to transform the 1980s centre into a new modern mixed use precinct, the $764.5 million redevelopment proposes to deliver a new shopping centre, dining precinct, public open space and promenade, commercial office and 265 dwellings within a 50-storey tower. Construction has commenced with completion earmarked for mid-2027.
- A $24 million restoration of the Pyrmont Bridge. Being one of the world's oldest electrically operated swingspan bridges, it is also a tourist attraction and a vital connection point. Construction works are currently underway.
- The new 'sound shell' at Tumbalong Park directly west of the Site, with the $10 million development by Placemaking NSW will create Sydney's newest concert space and site for sporting events and community festivals.
- The recently completed expansion of the Chinese Garden of Friendship which has delivered a new 2,000sqm playground and direct connection into Tumbalong Park.

TOURISM ROLE

Darling Harbour is identified by Destination NSW as one of Sydney's six primary visitor precincts. On a visitor night basis (including both domestic and international visitors), it is the most popular of these six precincts, which are Circular Quay, The Rocks, Chinatown, Bondi and Manly. Notably, Darling Harbour is NSW's third-most visited destination, only surpassed by the Sydney Opera House and Sydney Harbour Bridge.

Key findings from Destination NSW's most recent (2023) tourism profile for Sydney Harbour show:

- In 2023, Darling Harbour accommodated 2.2 million domestic overnight visitors and 1.8 million international visitors, some 4 million overnight visitors in total.
- Approximately 21% of domestic overnight travellers who visited Sydney visited Darling Harbour during their trip in 2023, whilst 57% of international visitors to Sydney visited Darling Harbour during their trip.
- Unsurprisingly, holiday visitors are the primary reason for travellers visiting Darling Harbour with 46% of domestic overnight and 56% of international visitors being holiday makers. Business trips accounted for a further 28% of domestic overnight travellers whilst just 9% of international overnight visitors.
- Solo travel groups are the most prominent visitor type observed in Darling Harbour. More than half (54%) of international visitors travelled alone, as did 30% of domestic overnight visitors to Darling Harbour. A further 22% of domestic travel parties were adult couples, as too was the case for 20% of international travel parties.
- The majority of international visitors to Darling Harbour in 2023 were observed from China (accounting for 11% of total), followed by the United States of America (**USA)** (10%) and the United Kingdom (**UK**) (9%).
- Domestic overnight travellers are broadly observed from Australia's East Coast, with nearly one-third (29%) observed from Regional NSW, a further 25% travel from Victoria and 21% from Queensland.

Like Sydney's other major visitor precincts, visitation to Darling Harbour has rebounded strongly over the past 2-years following a collapse in visitation in the wake of the COVID-19 pandemic.

2.3 Surrounding Development

The Site is immediately surrounded by a variety of land uses, reflective of its CBD location and proximity to Darling Harbour. The following uses immediately surround the Site:

- North of the Site (on the northern side of Druitt Street) is Darling Park – a 3.6ha office precinct comprising three A-grade office buildings ranging from 35 to 40-storeys. Key anchor tenants include Commonwealth Bank, IAG and Rabobank.
- Immediately east of the Site are a mix of older style office buildings, apartment buildings and a heritage-listed warehouse.
- To the south of the Site is a 22-storey apartment building with ground floor retail uses.
- South-west of the Site is the 'Darling Quarter' precinct; a retail, dining and commercial office development comprising two 8-storey office buildings centred around Tumbalong Park.
- West of the Site is the Cross City Tunnel and Western Distributor, connecting to the west of Sydney and North Sydney.

Overall, the west of the Site is characterised by more recent commercial and residential development whereas south and east of the Site is typified by older mixed use buildings.

2.4 Existing Improvements

The Site is currently improved by a 336-key Parkroyal hotel comprising 17,660sqm GFA. Guestrooms and corridors account for around 66% of total floorspace within the building, with 420sqm (2%) used as meeting and function room space. The Parkroyal Hotel also comprises basement parking, a gymnasium, restaurants and bars (including all day dining).

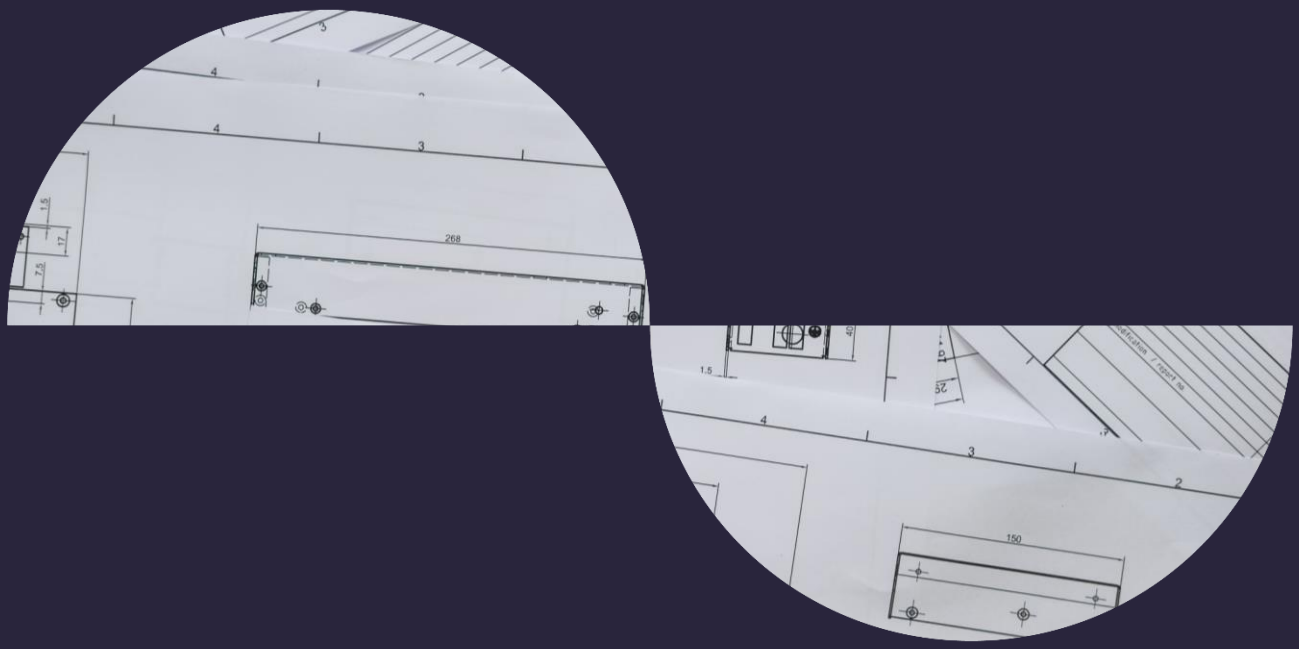
The existing hotel building was constructed in the early 1990s and is approximately 34 years old. An *Existing Building Services Condition Report* (LCI, 2024) has considered the viability of retaining and re-using the building's existing 'base' services. It was found that most of the buildings existing services have surpassed their economic useful life of approximately 20-25 years.

FIGURE 2-2: Existing Building and Interior



Source: Tripadvisor

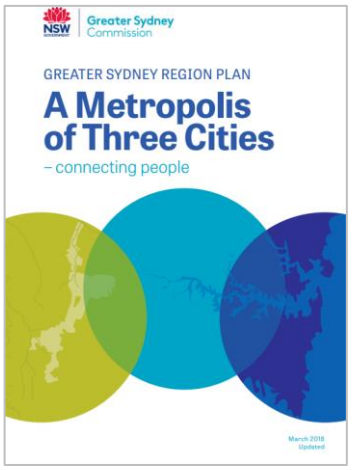
3
Planning Context



Beyond the
horizon thinking.

3.1 State Planning Policy

3.1.1 Greater Sydney Region Plan



The Greater Sydney Region Plan (**the Region Plan**) envisages Greater Sydney as three interconnected cities - the Eastern Harbour City, anchored by the Sydney CBD; The Central River City, anchored by Parramatta; and the Western Parkland City, which is focused on the emerging Aerotropolis and the future Western Sydney International Airport.

The key objectives of the Region Plan are to:

- Align **infrastructure development** to support population growth;
- Enhance **liveability, and connectivity**, especially for access to housing and employment;
- Improve **economic productivity** by investing in health, education and innovation; and
- Promote **environmental sustainability** and ensure resource management.

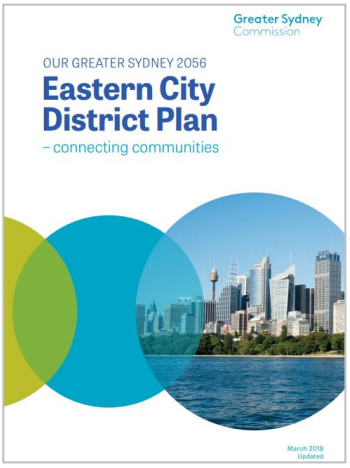
Darling Harbour is located within the Harbour CBD of the Eastern Harbour City. The Harbour CBD is recognised for the concentration of various industries including finance, health, education and the emerging innovation sector.

Objective 18 of the Region Plan is to ensure the Harbour CBD is "*stronger and more competitive*". Greater Sydney's economic strength globally and nationally is due to its role as a regional hub within global financial markets. The strength of the Harbour CBD is recognised and channelled through:

- Various entertainment, cultural, tourist and conference facilities;
- An internationally competitive health and education precinct;
- A robust creative sector providing entrepreneurial and job opportunities; and
- High quality and quantity of amenity.

The Region Plan acknowledges "*facilitating the attraction and development of innovation activities enhances Greater Sydney's global competitiveness*."

3.1.2 Eastern City District Plan



The Eastern City District Plan (**the District Plan**) is a strategic framework developed to guide future growth of the Eastern City District over the 2018-2038 period. The District Plan was concurrently prepared with and aligns with the broader vision of the Region Plan.

Key objectives of the District Plan are to:

- Align **infrastructure planning and delivery** with forecasted population and employment growth to support communities and the enhance economic activity; and
- **Facilitate development** of a diversity of housing, cultural experiences and necessary infrastructure to maximise liveability.

Darling Harbour is recognised as a key component of the Harbour CBD, the latter described as *the "engine room of Greater Sydney's economy"* by Chief Commissioner of the Greater City Commission Lucy Hughes Turnbull.

The District echoes the Region Plan, emphasising the importance of the Harbour CBD and Darling Harbour to the maintenance and development of Greater Sydney's domestic and global competitiveness. Ongoing infrastructure investment is recognised as essential to supporting Greater Sydney's role as a major economic, cultural and community hub.

Darling Harbour and the Harbour CBD are recognised as significant tourism hubs given the mix and scale of tourism facilities, the presence of many of Australia's internationally cultural institutions and entertainment and leisure facilities. The District Plan cites "*cultural, entertainment, arts and leisure activities must continue to be provided to build a more diverse and competitive offering in these sectors*".

3.1.3 Visitor Economy Strategy 2030 and 2030 Review



Prepared in the aftermath of the COVID-19 pandemic, the NSW Government's *Visitor Economy Strategy 2030* (**the Visitor Strategy**) outlined a roadmap to support the visitor economy to recover from the impact of drought, bushfires and COVID-19 and to grow in the future. The strategy set a bold vision for NSW to be the premier visitor economy of the Asia-Pacific by 2030, with a target of $65 billion in total visitor expenditure by 2030.

The Visitor Strategy describes five strategic pillars that underpin the NSW Government's vision to be the premier visitor economy in the Asia Pacific. *Strategic Pillar 5 - Facilitate Growth* focuses on ensuring increased levels of private sector investment into visitor infrastructure, specifically, to "*ensure hotel supply meets future market demand*".

Following a review of the Visitor Strategy in 2024 (the *Visitor Economy Strategy 2030 Review*), the NSW Government has announced a new target to grow the NSW visitor economy to $91 billion in visitor expenditure by 2035.

The Review expects tourism-related employment growth to grow significantly over this period, increasing by 50% (150,000 jobs) between 2024-2035, making tourism one of the fastest growing employment sectors in the state and essential to the economic vitality of NSW.



The Review identifies a series of initiatives and plans to enhance attractions, expand on visitor experiences and improve the NSW night time economy. These initiatives aim to increase visitation and expenditure levels (particularly from overseas travellers) and promote NSW as a global holiday destination.

Several key factors identified within the *Visitor Economy Strategy 2030 Review* justify a need for additional visitor accommodation in the coming years to meet the target, including:

- **Projected Visitor Growth**

  Additional international airline routes (including Turkish Airlines' *Istanbul-Sydney*, QANTAS' *Sydney-London* and *Sydney-New York*) is expected to increase thousands of additional visitors on a yearly basis.

  The completion of the Western Sydney International Airport in 2026, the increased capacity at the existing Sydney Airport and additional international routes from Newcastle Airport will all significantly expand international and domestic travel options.

- **Establishing a 24-hour Economy**

  NSW Government envisages a 24-hour economy for Sydney, cementing NSW as a world class nightlife destination. NSW Parliament passed the 24-Hour Economy Legislation Amendment (Vibrancy Reforms) Act 2024. This legislation will facilitate growth and enhancement of Sydney's nighttime economy and increase visitor attraction.

  Reforms have been implemented from November 2024 to improve Sydney's nighttime economy. These reforms seek to help music and performance venues thrive, support significant community and cultural events, produce vibrant precincts, facilitate outdoor events/business and modernise licencing.

- **Building NSW's International Student Market**

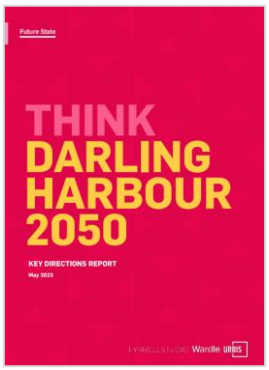
  The *Review* seeks to further build NSW's international student market through advocating the Australian Government for policies that are favourable to international education and driving closer collaboration between the NSW Government and the international education sector.

REQUIRED HOTEL SUPPLY TO MEET TARGETED VISITOR GROWTH

To meet the targeted level of visitor growth by 2035, the *Review* expects NSW will require 40,434 additional hotel rooms. Some of 75% (30,325 rooms) within Greater Sydney. Given the significant role of the Sydney CBD in Sydney's tourism sector, the 'lion's share' of this would be expected to be accommodated within the Sydney CBD.

The *Review* identifies the need for streamlining planning and enhanced government collaboration to encourage private sector investment in visitor economy infrastructure and visitor experiences.

3.1.4 Think Darling Harbour 2050



Think Darling Harbour 2050 (**TDH**) is a directional report outlining framework for the future development of Darling Harbour. TDH outlines the value on Darling Harbour's role as a vibrant, inclusive and sustainable waterfront precinct.

NSW Government released TDH to provide a 'big picture' for the community, allowing the precinct to evolve over time while maintaining its character. TDH highlights Darling Harbour as:

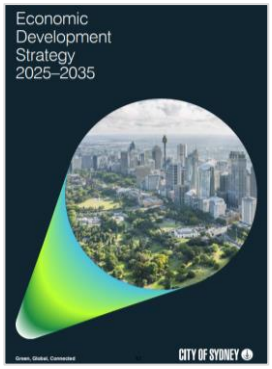
- **A place of cultural significance**, given the unique place set and landscape;
- A place to showcase **creativity and knowledge**, utilising commercial and cultural assets;
- **A big day out destination**, hosting major events, festivals and celebrations;
- **A natural resource for recreation**, providing local residents and visitors with a place of entertainment and leisure; and
- **A social and spatial connector**, as the precinct is located in a prominent transport corridor integrating the CBD, Haymarket, Pyrmont and Tech Central - Sydney's innovation precinct.

Resources such as Darling Quarter are highlighted, specifically as a "*civic and cultural quarter*" and an international showcase for Sydney that provides platforms for sharing social and cultural differences. Local Planning Policy

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3.2 Local Planning Policy

3.2.1 Economic Development Strategy (2025)



The City of Sydney's draft Economic Development Strategy 2025-2035 (**the EDS**) outlines a series of actions to drive innovation-led growth that is sustainable, inclusive and provides great local experiences. A set of 33 actions are grouped into four key themes – Sustainable, Inclusive, Innovative and Experiential.

Evolving the visitor experience is key objective of the EDS, with several of the actions outlined in the EDS relating to supporting and growing the local visitor economy:

- Action 6: Invest in and leverage major events, festivals and business conferences to promote Sydney and its values to global audiences;
- Action 7: Collaborate to create world class visitor services to deepen the visitor experience in Sydney;
- Action 27: Reinforce local character and increase visitation by developing and promoting distinct local places and high street offerings;
- Action 28: Support the development of a diverse and sustainable 24 hour economy that meets the needs of residents, visitors and businesses.

The EDS highlights Darling Harbour as a thriving theatre scene and destination for world class events such as SXSW Sydney, and a 24-hour economy attract people from around the world to come study, work, live and visit. Given the significance as a major commercial and cultural precinct, Darling Harbour is likely to play a crucial role in realising key objectives, particularly attracting visitors, supporting business, and hosting events that contribute to Sydney's economy.

3.2.2 Central Sydney Planning Strategy (2022)



The Central Sydney Planning Strategy (**the Planning Strategy**) is a 20-year growth strategy which outlines a revised set of planning controls for the Sydney CBD in order to a series of objectives around sustainability, connectivity and innovation.

Through 10 key moves, the strategy balances opportunities for development to meet the demands of growing numbers of workers, residents and visitors and their changing needs.

The Planning Strategy aims to accommodate increased development and density whilst maintaining the liveability and attraction of the Sydney LGA through revising planning controls. Consideration is given to commercial precincts, residential areas, cultural and community significant areas and amenity. Enhancing economic competitiveness is emphasised, drawing on investment attraction and business growth as essential to the Sydney LGA's vitality.

4

Need for Short-term Accommodation





Beyond the
horizon thinking.

150 Day Street, Sydney

4.1 Role and Importance of the Visitor Economy

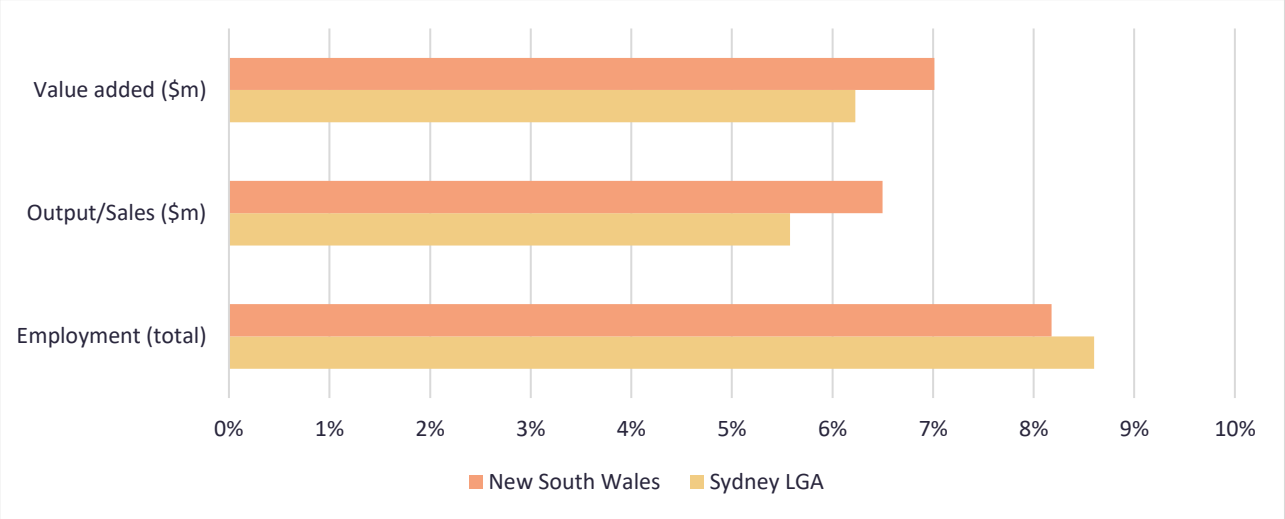
ECONOMIC IMPORTANCE

The visitor economy is one of the Sydney LGA's largest sectors and critical to the vitality of the local economy. As at FY2023, the tourism industry in the Sydney LGA generated a total of ~57,300 jobs, with ~26,700 being 'direct' jobs and ~30,600 'indirect' jobs[1]. This equates to 8.6% of total employment in the Sydney LGA. Comparatively, tourism accounts for 8.2% of employment across NSW.

From an economic contribution perspective, the Sydney LGA's tourism industry generated over $8.3 billion in value-added in FY2023. This is equivalent to 6.2% of the total economic activity (in value added terms) generated by the City of Sydney economy.

Notably, the Sydney LGA tourism industry generates ~20% of the total economic activity in NSW's tourism sector.

Figure 4-1: Economic Role of Tourism (FY2023), Sydney LGA and NSW



Source: NIEIR (2024)

TOURISM AND HOSPITALITY WORKFORCE

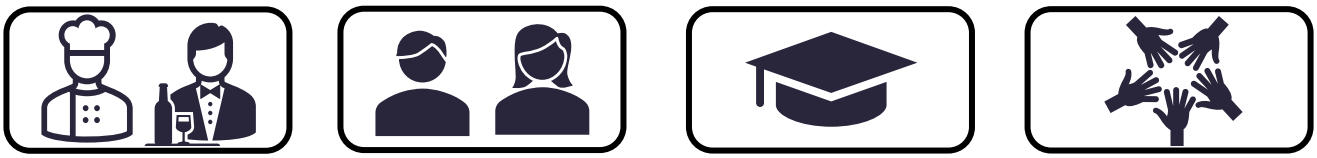
In the Sydney LGA, the most common jobs for tourism and hospitality workers are waiters (15%) and chefs (14%).

The tourism industry is a major employer of young workers. More than half (56%) of these workers are between 25 and 44 years old, a further 21% are below the age of 24 years. Tourism makes up 11% of all jobs for workers under the age of 24 years in Sydney LGA.

Importantly, tourism also employs workers with a variety of qualification levels in the Sydney LGA. More than one-third (36%) are qualified with a bachelor or higher degree, whilst a slightly lower proportion (30%) have no tertiary qualifications. This mix of skill levels is more apparent in the Sydney LGA compared with NSW's tourism industry more broadly.

Additionally, the tourism industry in Sydney LGA is characterised by a highly multicultural workforce. The vast majority of tourism workers (64%) were born overseas. Comparatively, 40% of NSW tourism workers are born overseas.

Figure 4-2: Tourism and Hospitality Worker Characteristics



Chef - 15%	<24 years - 21%	Bachelor/ higher degree - 36%	Australian born - 37%
Waiter - 14%	25 - 44 years - 56%	No qualification - 30%	Born overseas - 64%
Bar Staff - 7%	45 - 54 years - 12.4%	Advanced diploma/ diploma - 19%	Speaks language OTE - 54%
Kitchen Hand - 7%	55 - 64 years - 10.5%	Certificate level - 14%	

Source: NIEIR (2024)

[1] Direct jobs are defined as jobs relating directly to the process of producing goods or providing a service. Indirect jobs are jobs that exist to produce the goods and services needed by the workers with direct job.

4.2 Greater Sydney Visitor Profile

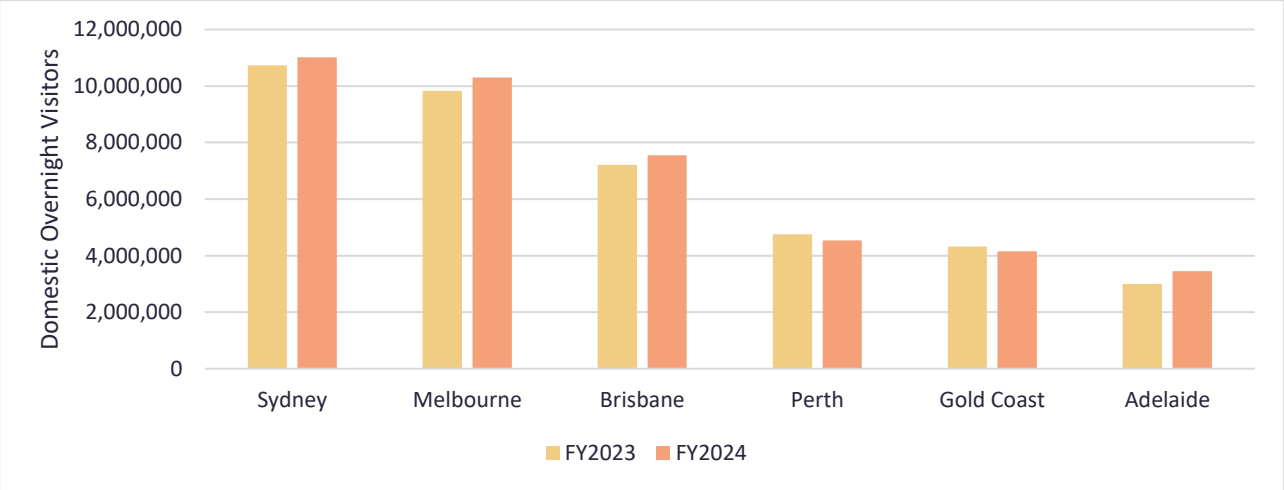
Sydney is Australia's most popular destination for domestic and international visitors. Following the COVID-19 pandemic and the widespread ramifications it had on the tourism industry, visitation levels, visitor nights and visitor spend have all returned to, and exceeded pre-COVID-19 levels.

4.2.1 Domestic Visitors

VISITOR GROWTH

In FY2024, Greater Sydney accommodated 11.1 million overnight domestic visitors. This is a 2.7% increase from 10.7 million in FY2023. Melbourne (10.3 million) and Brisbane (7.5 million) accommodated fewer domestic overnight visitors in the same period.

Figure 4-3: Number of Domestic Overnight Visitors (FY2023 and FY2024)



Source: TRA (2024)

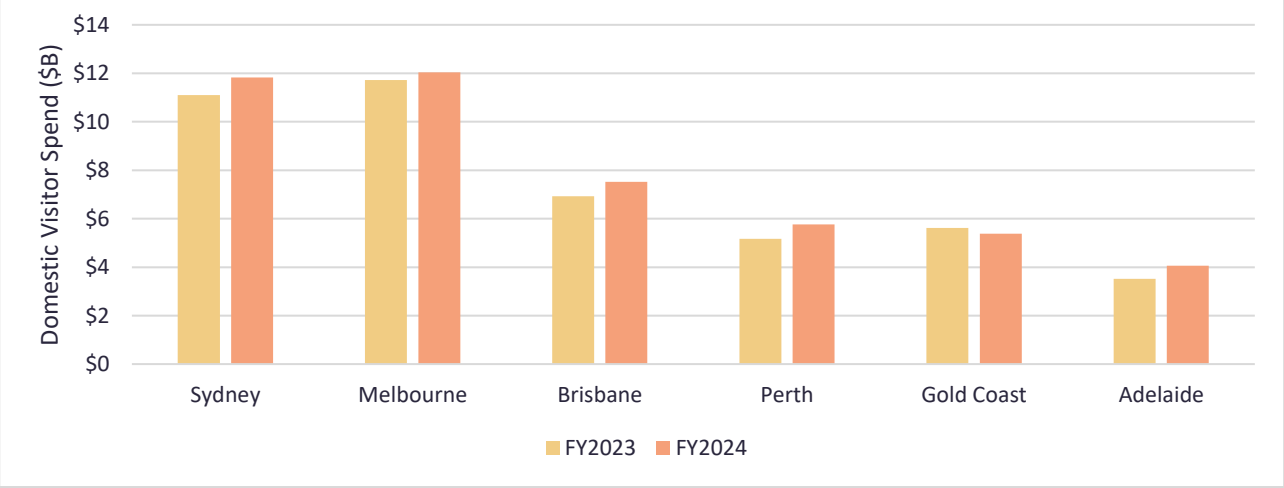
In FY2024, domestic visitors stayed in Greater Sydney for an average 2.9 nights, a nominal increase from 2.8 nights recorded in the previous 12-month period. Approximately 31.5 million domestic visitor nights were recorded in Greater Sydney in FY2024.

VISITOR SPEND

Domestic overnight visitors spent over $11.8 billion in Greater Sydney in FY2024, equating to $1,073 per visitor or $375 per night. This is an increase from $11.1 billion spent in FY2023, averaging $1,035 per visitor or $369 per night.

Domestic overnight visitors who stayed in commercial accommodation (e.g., hotels, motels, serviced apartments, etc.) spent more per day. Domestic overnight visitors who stayed in commercial accommodation spent an average $507 per night in FY2024. This is 35% higher than the average nightly visitor spend ($375 per night) recorded across all accommodation types.

Figure 4-4: Visitor Spend ($ billions) (FY2023 and FY2024)



Source: TRA (2024)

4.2.2 International Visitors

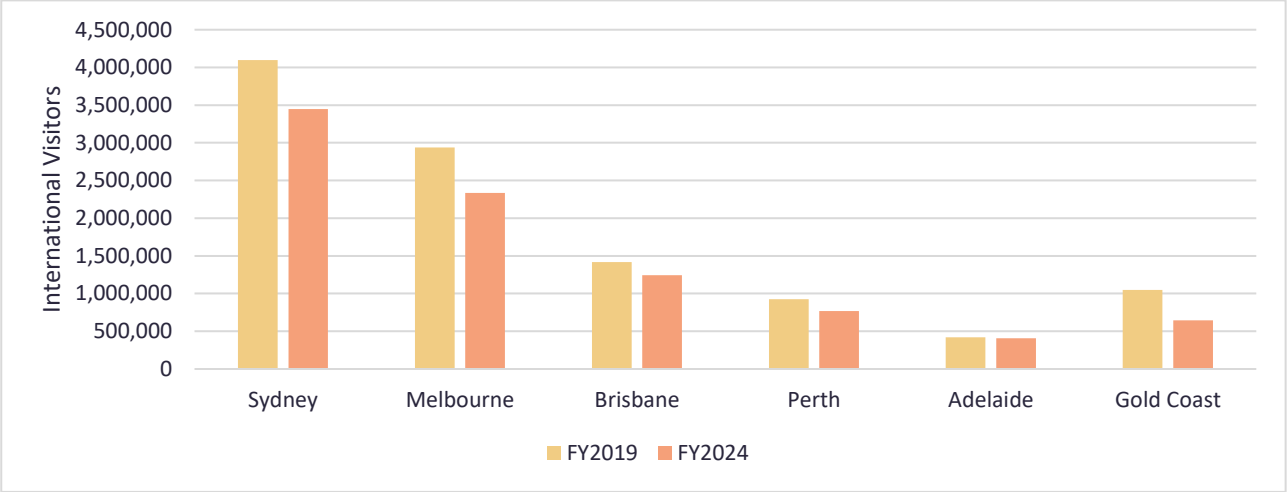
VISITOR GROWTH

Greater Sydney remains Australia's premier tourism destination for international visitors. The COVID-19 period saw a three-year lull in international visitation, however key metrics - international visitation levels, number of nights stayed, and visitor expenditure have all almost reached, if not exceeded, pre-COVID-19 levels.

In FY2024, nearly 3.5 million international visitors stayed in Greater Sydney. This is equivalent to 84% of FY2019 levels, when Greater Sydney accommodated ~4.1 million international visitors - an all-time high.

Comparatively, other capital cities of Melbourne (2.3m) and Brisbane (1.2m) both recorded notably fewer international visitors.

Figure 4-5: Number of International Visitors (FY2019 and FY2024)



Source: TRA (2024)

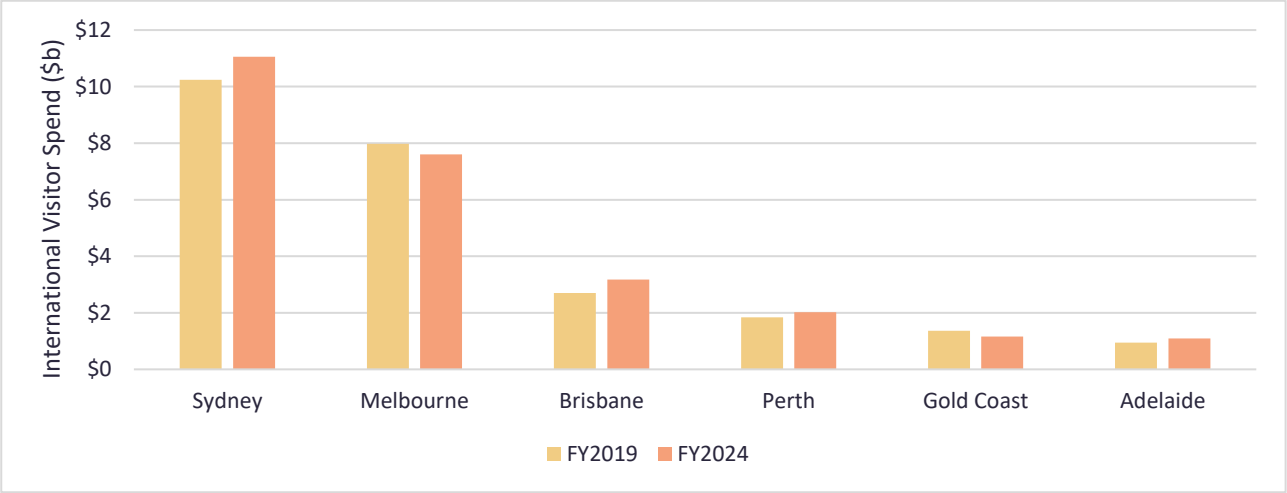
In FY2024, international visitors stayed in Sydney for an average 23.8 nights, a notable increase from 20.3 nights in FY2019. Comparatively, international visitors are staying in Melbourne for an average 24.9 nights and Brisbane for an average 21.7 nights.

VISITOR SPEND

International visitors are also spending more in Greater Sydney than pre-COVID. In FY2024, international visitors spent a total $11.1 billion in Sydney, a marked increased from $10.2 billion in FY2019.

In FY2024, international visitors in Sydney spent an average $3,200 per trip, compared to $2,500 in FY2019. This equates to $135 per night in FY2024 - notably higher than $123 in FY2019. In Melbourne and Brisbane, international visitors spent an average $3,250 and $2,250 per trip, equating to $130 and $117 per night respectively.

Figure 4-6: International Visitor Spend ($ billion) (FY2019 and FY2024)



Source: TRA (2024)

4.3 City of Sydney Visitor Profile

4.3.1 Domestic Visitors

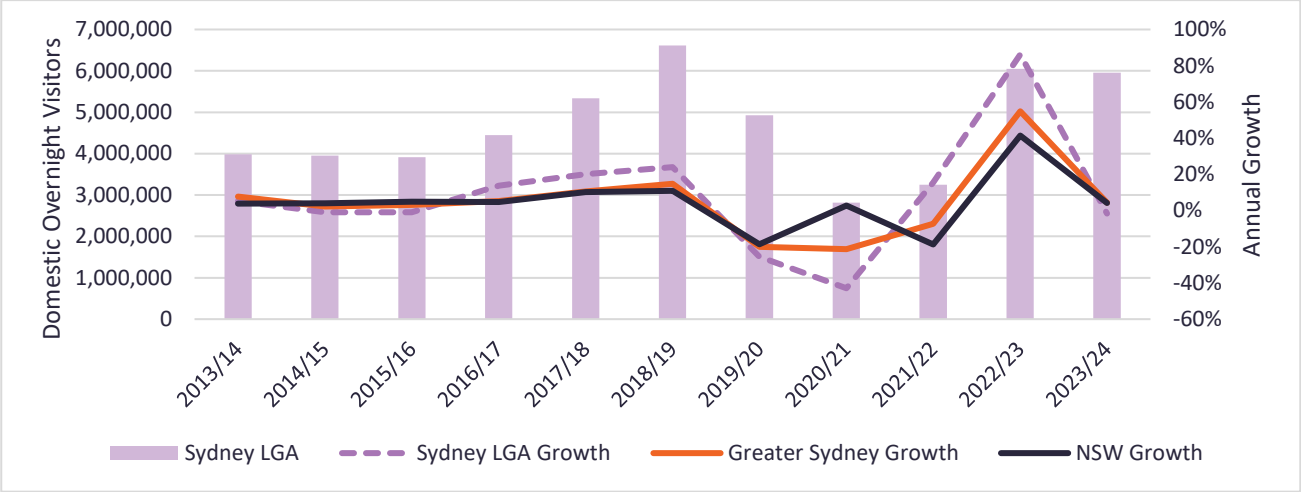
OVERNIGHT VISITOR GROWTH

The number of domestic overnight visitors to the Sydney LGA has rebounded in recent years and is beginning to approach the peak levels observed just prior to the COVID-19 outbreak.

In FY2024, 5.9 million domestic overnight tourists stayed in Sydney LGA, reaching 90% of pre-COVID-19 levels, nominally lower than 6 million recorded in FY2023.

The Sydney LGA has recorded stronger domestic overnight tourism growth over the past decade compared to the rest of NSW, with average annual growth of 4.1% compared to Greater Sydney and NSW which averaged growth of 3.6% and 3.8% per annum.

Figure 4-7: Overnight Visitors (FY2014 to FY2024)



Source: TRA (2024)

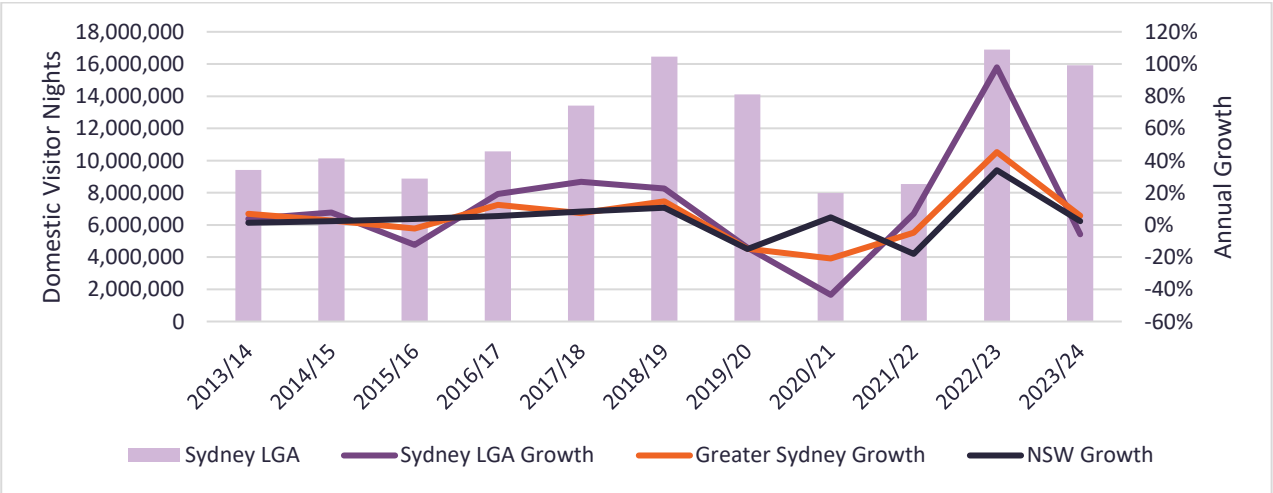
VISITOR NIGHT GROWTH

Domestic visitor nights have generally been trending upwards over the past decade. In FY2014, the Sydney LGA accommodated ~9.4 million domestic visitor nights. In FY2024, Sydney LGA accommodated ~15.9 million domestic visitor nights. This is equivalent to 42% of domestic visitor nights and 14% of NSW domestic visitor nights.

From FY2014-FY2024, domestic visitor nights in Sydney LGA increased by 69%. This is considerably higher than growth observed across Greater Sydney (35%) and the rest of NSW (37%).

Domestic visitor nights account for nearly one-third (32%) of the total Sydney LGA visitor population.

Figure 4-8: Domestic Visitor Nights (FY2014 to FY2024), Sydney LGA



Source: TRA (2024)

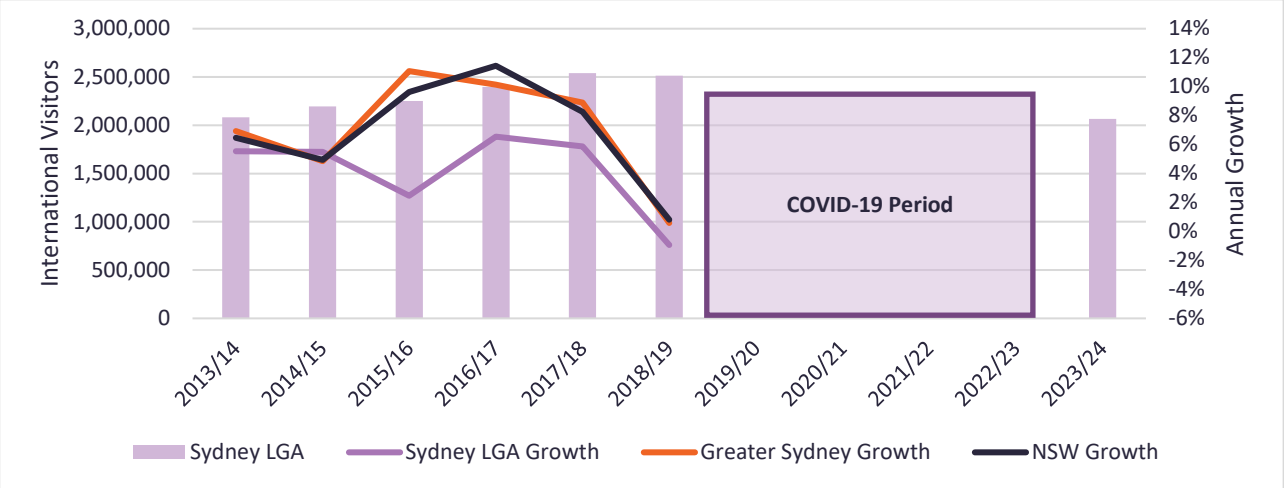
4.3.2 International Visitors

VISITOR GROWTH

Prior to the COVID-19 pandemic, the number of international visitors received by Sydney LGA was increasing yearly. From FY2013 to FY2019, the number of international visitors in Sydney LGA increased by an average 4.1% per annum. More than 2.5 million international visitors came to Sydney LGA in FY2019.

In FY2024, the Sydney LGA received almost 2.1 million international visitors, equivalent to 83% of pre COVID-19 levels.

Figure 4-9: International Visitors (FY2014 to FY2024), Sydney LGA



Source: TRA (2024)

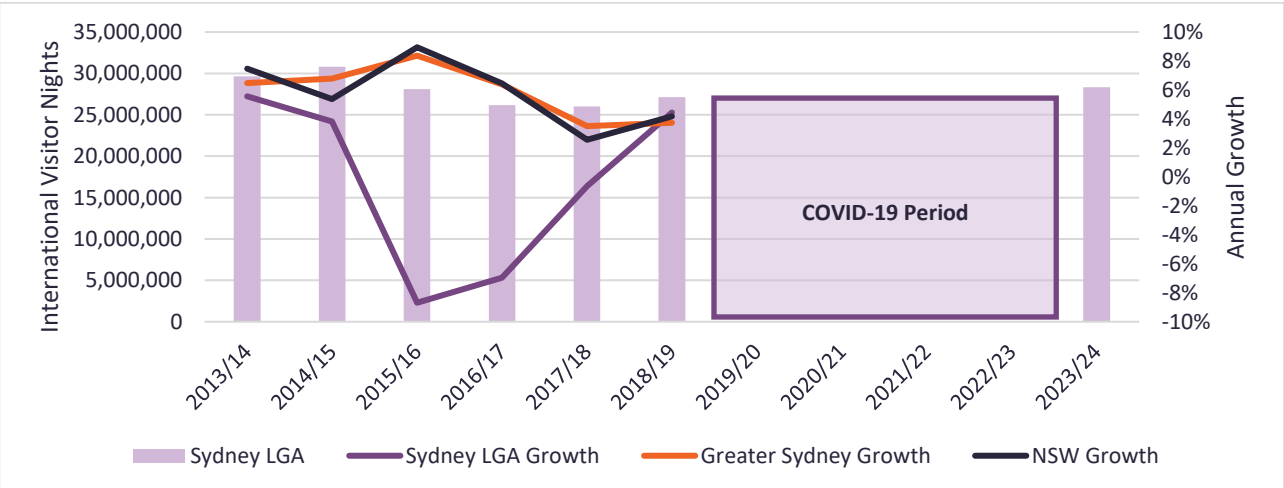
Despite the number of international visitors only recovering to ~83% of pre-COVID-19 levels, international visitors are now staying in the Sydney LGA for longer periods. The average length of stay for international visitors in 2023/24 was recorded at 13.7 nights. This contrasts within 10.8 nights in 2018/19.

VISITOR NIGHTS

Over the FY2015-FY2018 period, international visitor nights decreased in Sydney LGA by an average 5% per annum, despite the number of international visitors increasing. This is largely attributed to visitors spending fewer nights in Sydney LGA and exploring other areas in Greater Sydney, Regional NSW and Australia. This trend has since appeared to reverse.

However, in FY2024, Sydney LGA accommodated more than 28.3 international visitor nights, equivalent to 104% of FY2019 levels. This increase reflects the longer periods international visitors are staying in the Sydney LGA, despite visitor numbers below pre-COVID levels.

Figure 4-10: International Visitor Nights (FY2014 to FY2024), Sydney LGA



Source: TRA (2024)

4.4 Sydney CBD Hotel Market

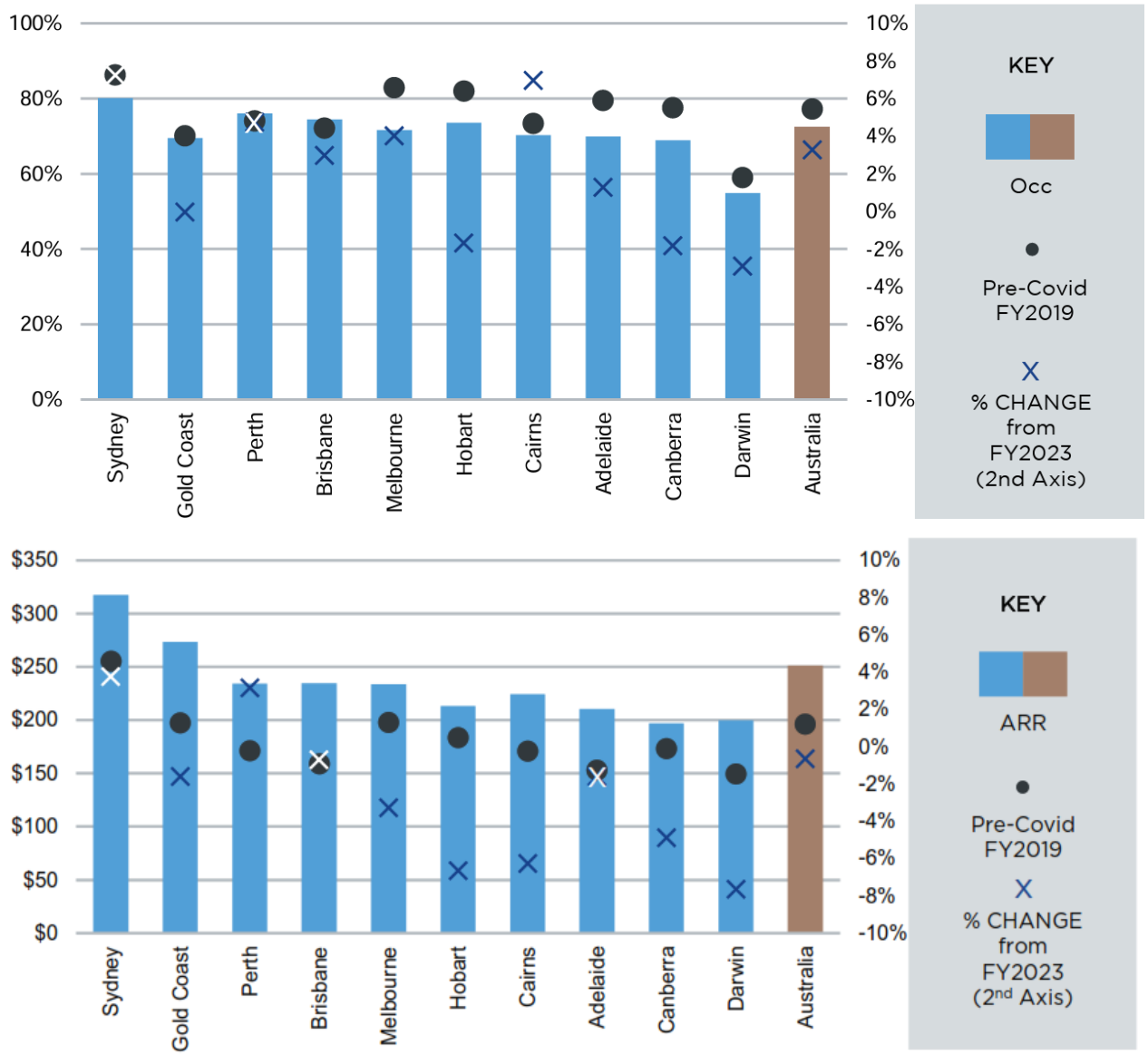
MARKET PERFORMANCE

Prior to the COVID-19 outbreak in Q1 2020, the Sydney CBD hotel market has experienced robust market conditions. Hotel occupancy levels in 2017-2019 were hovering around 83%-86%, well above the 60%-70% occupancy rates which are typically reflective of a healthy demand-supply balance. Many market commentators at the time noted that the Sydney hotel market was effectively "full".

During the COVID-19 pandemic, occupancy levels unsurprisingly crashed. However, the CBD market has rebounded strongly since the reopening on international borders in February 2022. The Sydney CBD hotel market was the first CBD market in Australia to return to occupancy levels of ~80% in 2024, reflecting the rebound in both domestic and international visitation. Compared to FY2023, occupancy levels in the Sydney CBD grew by 7.2% - significantly higher than the average capital city rate of 3.3% (Dransfield, 2024).

This strong growth in occupancy levels, coupled with limited new hotel supply being brought to market, has resulted in increased pressure on Average Room Rates (ARR) – a core hotel performance indicator. ARR (otherwise known as Average Daily Rates or ADR) for the Sydney CBD rose by 3.8% over FY2024, the highest of any of Australia's capital city markets. The Sydney ARR is currently circa $317 per room, which surpasses the rates observed in FY 2019 (circa $250 room).

Figure 4-11: Hotel Market Indicators (Occupancy, Average Room Rate), Australian Capital City Markets



Source: STR, complied by Dransfield (2024)

SUPPLY ACTIVITY

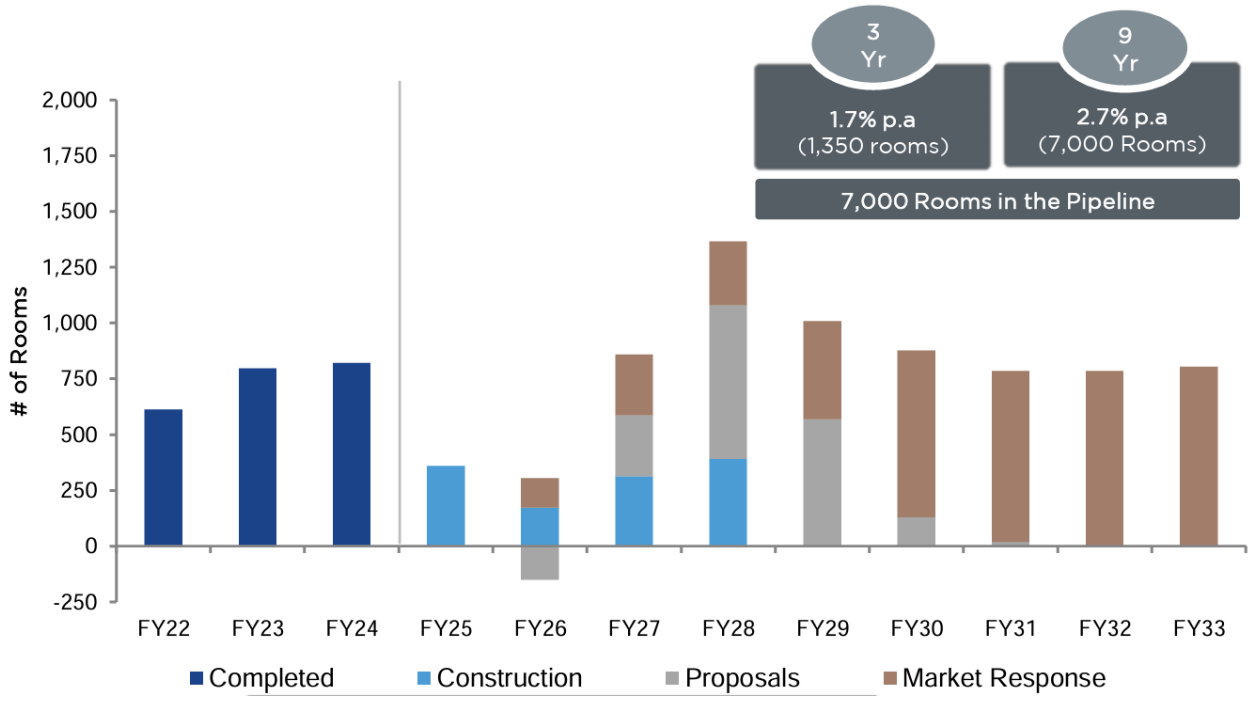
There has been a major decline in new hotel supply in the Sydney (and broader Australian) market in recent years. This follows uncertainty generated by the COVID-19 pandemic, which delayed and reduced projects whilst feasibility and financing became increasingly difficult on the back of rapid construction cost escalation.

Approximately 1,800 hotel rooms are expected to be made available across Sydney in FY2025. The majority of this new supply will be delivered within the Sydney CBD, with key projects such as Moxy Sydney (314 keys) and NH Collection (254 keys).

Given costs of capital and construction cost inflation, it is anticipated that delivery of new hotel accommodation supply will soften in the coming years. The availability of sites and competition from other land uses (i.e. residential) in the Sydney CBD will in particular challenge increasing supply levels.

Tourism experts Dransfield (2024) are expecting the Sydney market to deliver approximately 7,000 new hotel rooms over the coming years to FY2033, reflecting average annual growth of 2.7%. These forecasts expect growth in the shorter term (3-years) to be notably softer at 1.7% per annum, or 1,350 rooms.

FIGURE 4-12: Hotel Room Supply Forecasts (2025-2033), Sydney



Source: Dransfield (2024)

4.5 Visitor Demand Projections

Tourism forecasts are undertaken by Tourism Research Australia (**TRA**) on an annual basis. These forecasts are published at a state-wide level. To estimate the potential demand for hotel and accommodation in the Sydney LGA in the coming years, NSW tourism forecasts historical data and future catalysts for demand have been analysed.

To estimate the potential demand for hotel accommodation in the Sydney LGA, different tourism growth scenarios have been tested, based on TRA tourism forecasts and historical data.

It is noted that the *Visitor Economy Strategy 2030 Review* was published in October 2024, prior to TRA forecasts. The Strategy Review set objectives to increase the NSW visitor economy to $91 billion, achieved through a suite of key initiatives including increasing hotel room supply by 40,000 rooms. This target by NSW Government is anticipated to act as a growth catalyst for even more domestic visitor nights to Greater Sydney.

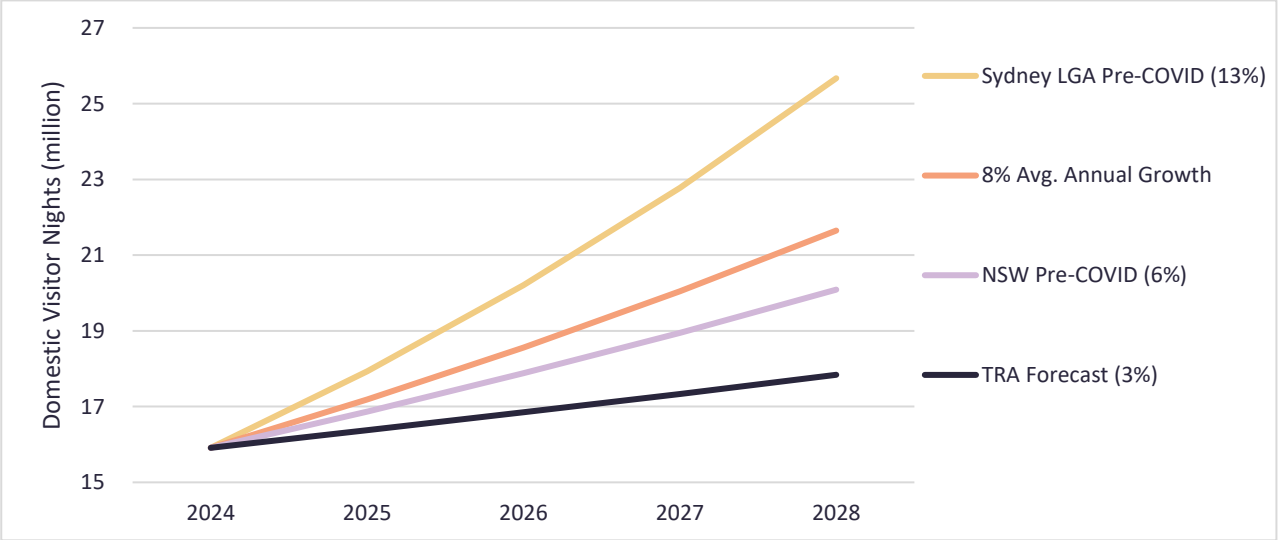
DOMESTIC VISITOR NIGHTS

To estimate the likely domestic visitor nights in Sydney LGA in the coming years, the following has been considered:

- From 2024-2028, TRA forecast NSW domestic visitor night growth of 2.9% (average) per annum. In the five years leading to the COVID-19 pandemic, domestic visitor nights in Sydney LGA grew by an average 12.7% per annum compared to 6.4% across NSW.
- Accordingly, a series of growth rates have been applied to the FY2024 domestic visitor night count of 15.9 million - ranging from 2.9% per annum (per the TRA forecast) and 12.7% per annum (per the Sydney LGA pre-COVID 5-year growth).
- A 'mid-growth scenario' of 8% per annum has also been considered.

Based on this mix of growth scenarios, domestic visitor nights in the Sydney LGA could reach between 17.8m and 25.7m by 2028.

Figure 4-13: Domestic Visitor Night Growth Scenarios (2024-2028), Sydney LGA



Source: TRA (2024)/ Atlas Economics

INTERNATIONAL VISITORS

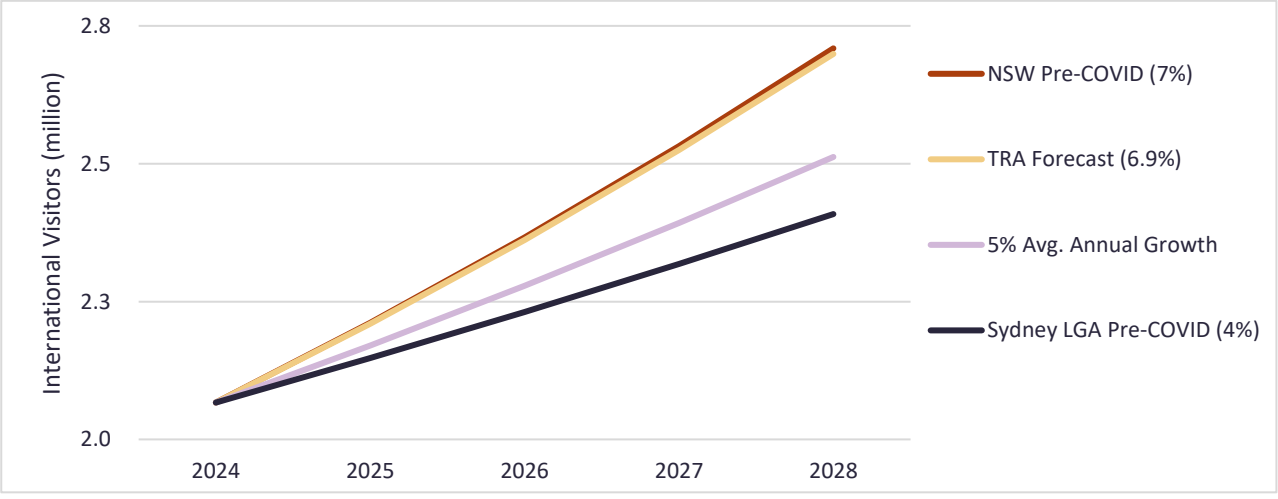
To estimate the likely number of international visitors to Sydney LGA in the coming years, the following has been considered:

- From 2024-2028, TRA has forecast NSW international visitor growth of 6.9% (average) per annum.
- In the five years prior to the COVID-19 pandemic, international visitors in Sydney LGA grew by an average 3.9% per annum compared to 7% across NSW.

As such, a series of growth rates have been applied to the FY2024 international visitor count of 2.1 million - ranging from 3.9% per annum (per the Sydney LGA pre-COVID 5-year growth) to 7% per annum (per the NSW pre-COVID 5-year growth).

These growth rates indicate Sydney LGA international visitor levels could reach between 2.4 million and 2.7 million by 2028.

Figure 4-14: International Visitor Growth Scenarios (2024-2028), Sydney LGA



Source: TRA (2024)/ Atlas Economics

4.6 Implications for the Proposal

The tourism sector is a critical component of the Greater Sydney and indeed the Sydney LGA economy. It makes a valuable contribution to the vibrancy, productivity and consistent renewal of the Sydney CBD. The sector supports some 57,300 local jobs and generates around $8.3 billion in economic activity (NIEIR, 2024).

SUSTAINED DEMAND FOR SHORT-TERM ACCOMMODATION

Since the reopening of international borders in Q1 2022, the market has rebounded strongly. The Sydney CBD was the first capital city to record hotel occupancy levels of above 80%, with ARR now surpassing pre-COVID-19 levels following a surge in international and domestic visitation. Once again, the Sydney CBD hotel market is becoming effectively 'full', with elevated occupancy levels expected to remain until a significant and sustained supply response can be delivered.

Visitor growth forecasts, both domestic and international over the coming years are strong. TRA domestic and international visitor growth forecasts for NSW over the 2024-2028 period are in the order of 2.9% and 6.9% per annum, respectively. The Sydney LGA has historically recorded much higher levels of visitation growth than that observed across the broader State.

The Sydney hotel market has historically been the most consistently supply-constrained capital city market in Australia, typified by occupancy levels well over 80% and the highest average room rates in the country. The downturn in the Sydney CBD hotel market as a result of the COVID-19 pandemic was swift and severe and only surpassed by the Melbourne CBD.

SHORTFALL IN SUPPLY AND CONSEQUENCES

A detailed room supply analysis (Dransfield, 2024) shows that room growth in the Sydney market is unlikely to exceed 2.7% per annum with even softer growth in the short-term. Without some drastic response in supply following an improvement in development conditions, it is highly unlikely that future supply will satisfy demand growth in the CBD. The most likely outcome will be continued growth in occupancy levels and room rates remaining expensive.

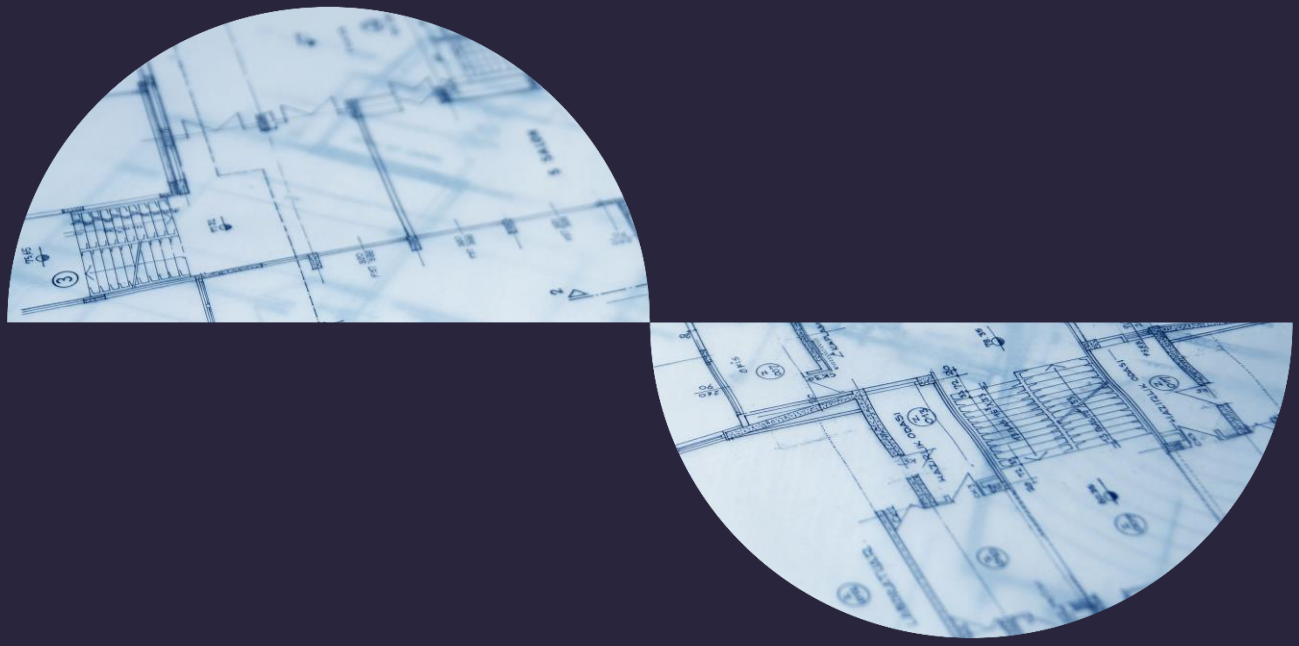
Whilst the 'pull' of the Sydney CBD makes room demand somewhat inelastic, there is a significant risk that a lack of available room supply will impact some parts of the market. This could particularly apply to the Meetings, Incentives, Conferences and Events (**MICE**) market – a key type of business tourism involving large-scale business events, trade shows, conferences and other incentive trips. The MICE market was estimated to generate approximately $4.1 billion to the NSW economy in 2024 (IBISWorld, 2024), with the 'lions share' of this likely to be generated in the Sydney CBD where the majority of large conference and events centres are located.

A lack of available room supply in the Sydney CBD could result in some MICE organisers redirecting some events to other gateway cities (e.g. Melbourne, Brisbane) where room supply is greater and room rates are more affordable. This presents a risk to the status of the Sydney CBD as Australia's premier tourism destination and would present challenges to many of the objectives for the Sydney CBD as identified in State and local strategic planning policy.

Accordingly, the Proposal could play a role in addressing some of the potential unmet future demand over the coming years. The delivery of an additional room supply and renewal of existing, ageing rooms would assist in mitigating some of the pressure demonstrated to be building in the local hotel market.

The next Chapter considers the potential economic impacts which may result if the Proposal proceeded to delivery.

5
Economic Impact Assessment



Beyond the
horizon thinking.

150 Day Street, Sydney

5.1 Introduction and Approach

This chapter examines the economic activity and impacts that could be facilitated through progression of the Proposal during construction and upon completion. The analysis estimates the economic activity supported in the following scenarios:

- **Base Case:**
  - The Site remains as is, continuing to operate as a 336-key Parkroyal Hotel.
  - The ARR of the hotel remain consistent at $258 per room.
  - Occupancy of the hotel remains consistent at 87%.
- **Proposal Case**
  - Increases to maximum height of building from 45m to ~85m and maximum density (FSR) from 7.5:1 to 13.5:1 support the adaptive reuse of the existing hotel building and support an additional 11 storeys of hotel accommodation.
  - The Proposal has the potential to deliver 490-540 hotel keys with gross floor area of ~30,000m2. For the purposes of economic modelling, the following hypothetical yield assumptions are made:
    - Existing Parkroyal Hotel comprises 304 keys.
    - The new Pan Pacific Hotel comprises 230 keys.
  - Parkroyal Hotel achieves an ARR of $258 per room whilst the PPHG Hotel achieves an ARR of $290 per room.
  - Both hotels achieve 87% occupancy.

METHODOLOGY

Economic impact modelling (using models known as Input-Output models) are a method to estimate the overall economic impact within a certain area resulting from a stimulus to the economy, such as a new development or policy.

The economic impacts are assessed at the Sydney LGA level. Output models (including the development of specific regional Input-Output transaction tables) have been developed to reflect the economic structure of the Sydney LGA.

Input-Output modelling considers economic activity through examining four types of impacts as described in **TABLE 5-1**.

TABLE 5-1: Economic Impact Indicators

INDICATOR	DESCRIPTION
OUTPUT	The gross value of goods and services transacted, including the cost of goods and services used in the development and provision of the final product. Care should be taken when using output as an indicator of economic activity as it counts all goods and services used in one stage of production as an input to later stages of production, thus overstating economic activity.
GROSS VALUE ADDED	The value of output after deducting the cost of goods and services inputs in the production process (less the impact of net taxes on final production). Gross Value Added (GVA) defines a net contribution to economic activity.
INCOMES	The wages and salaries paid to employees as a result of the Project either directly or indirectly.
EMPLOYMENT	Employment positions generated by the Project or Proposal (either full time or part time, directly or indirectly). Employment is reported in terms of Full-time Equivalent (**FTE**) positions or person-years.

Source: Atlas Economics

Input-Output modelling traces the economic impact resulting from a 'shock' to a local economy through measuring a series of impacts - referred to as 'Direct' and 'Flow-on' impacts.

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Flow-on impacts**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
  - Production-induced impacts (**Type I**) show the effects of additional activities undertaken by supply chain industries increasing their production in response to direct and subsequent rounds of spending.
  - Consumption-induced impacts (**Type II**) estimate the re-circulation of labour income earned as a result of the initial spending, through other industry impacts, or impacts from increased household consumption.

The estimates of economic impacts consider production and consumption-induced flow-on impacts. Type II impacts are commonly considered to overstate economic activity and therefore the types of flow-on impacts are reported separately.

5.2 Drivers of Economic Activity

To understand the economic impacts likely to result from the Proposal, it is necessary to distinguish economic impacts during the construction phase and those economic impacts that will be more permanent in nature following construction completion and operations commencement and stabilisation to long-run averages.

- **Construction Phase**
  - Construction activity will draw resources from and thereby generate economic activity in Greater Sydney. Modelling assumes the construction phase is serviced by labour and businesses within the Greater Sydney area.
- **Operational Phase**
  - Direct turnover generated by the hotel and commercial/retail operational activities on-Site (Proposal and Base Case).
  - Additional visitor expenditure within the Sydney LGA generated through the accommodation (Proposal Case only).

Refer to Schedule 1 for a description of the drivers and assumptions that underpin the assessed economic impacts.

5.3 Economic Activity and Impacts

5.3.1 Construction Phase

The Base Case assumes that the Site is not developed and remains 'as is'. The Site is improved by a 336-key Parkroyal hotel comprising 17,660sqm GFA. Accordingly, no construction phase impacts are measured for the Base Case.

Construction impacts in the Proposal Case are expected to generate the following economic impacts:

- **$307.3 million in output** ($204.1 million in direct activity).
- **$119.1 million contribution to GRP** ($65.6 million direct contribution)
- **$80.9 million in wages and salaries** paid to local workers ($50.2 million paid directly)
- **601 FTE jobs** (313 directly employed in construction activity).

The total economic impacts during construction are summarised in **TABLE 5-2**.

Atlas highlights that construction impacts are reported ***in total*** for the construction phase over the life of the development, and do not represent an average annual estimate.

TABLE 5-2: Construction Phase Impacts (Sydney LGA), The Proposal

IMPACT	OUTPUT ($M)	GRP ($M)	INCOMES ($M)	EMPLOYMENT (FTE)
Direct	$204.1	$65.6	$50.2	313
Production Induced	$68.6	$34.9	$21.1	180
Consumption Induced	$34.5	$18.6	$9.5	108
Total Impact	**$307.3**	**$119.1**	**$80.9**	**601**

Note: Totals may not sum due to rounding

Source: Atlas Economics

5.3.2 Operational Phase

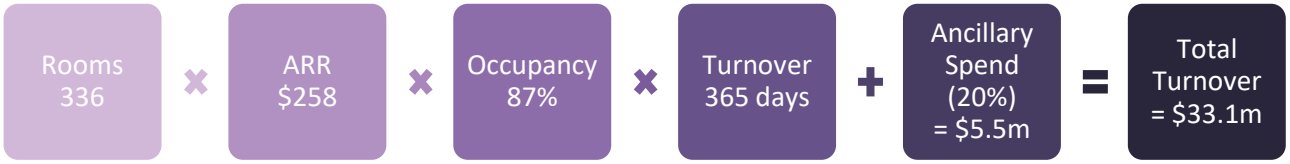
BASE CASE

The Base Case assumes the Site remains as a 336-key Parkroyal Hotel, with the ARR of the hotel remain consistent at $258 per room and the occupancy of the hotel remains consistent at 87%. The Site is estimated to continue to support the following annual economic activity[2] across the Sydney LGA:

- **$162.4 million in output** ($100.3 million in direct activity).
- **$84.1 million contribution to GRP** ($51.4 million in direct activity).
- **$50.8 million in incomes and salaries** paid to households ($33.5 million in direct income).
- **742 FTE jobs** (451 FTE directly related to activity on the Site).

FIGURE 5-1 illustrates how direct output for hotel turnover is derived. Assumptions on ADR, occupancy and ancillary spend are derived from most recent TRA data and Parkroyal Hotel financials. This is detailed in Schedule 1.

FIGURE 5-1: Direct Output (Turnover) Methodology (Base Case Example)



Source: Atlas Economics

TABLE 5-3 summarises the two-fold economic impacts associated with the existing Parkroyal Hotel operations, the economic activity - induced by hotel turnover (room rate spend) and visitor spend elsewhere. Visitor spend is derived from average daily spend of domestic and international visitors (TRA, 2024).

TABLE 5-3: Operational Impacts (Sydney LGA), Base Case

IMPACT	OUTPUT ($M)	GRP ($M)	INCOMES ($M)	EMPLOYMENT (FTE)
Hotel Turnover				
Direct	$33.1	$15.5	$10.3	125
Production Induced	$11.6	$6.0	$3.3	29
Consumption Induced	$7.6	$4.1	$2.1	25
Total Hotel Turnover	**$52.3**	**$25.6**	**$15.7**	**179**
Visitor Spend				
Direct	$67.2	$35.9	$23.2	441
Production Induced	$25.8	$13.3	$7.2	65
Consumption Induced	$17.1	$9.3	$4.7	57
Total Visitor Spend	**$110.1**	**$58.5**	**$35.2**	**563**
Total Impact				
Direct	$100.3	$51.4	$33.5	566
Production Induced	$37.4	$19.3	$10.4	94
Consumption Induced	$24.8	$13.4	$6.8	82
Total Impact	**$162.4**	**$84.1**	**$50.8**	**742**

Note: Totals may not sum due to rounding

Source: Atlas Economics

[2] Impacts measured through hotel turnover and visitor spend

PROPOSAL CASE

The Proposal Case assumes the Site is redeveloped to comprise a 304-key Parkroyal hotel and 230-key Pan Pacific hotel. The ARR of the Parkroyal hotel remains consistent at $258 per room whilst the Pan Pacific hotel achieves a higher ARR of $290 per room.

It is estimated the Proposal would support the following annual economic activity[3] across the Sydney LGA:

- **$153.1 million in output** ($153.1 million in direct activity).
- **$127.8 million contribution to GRP** ($78.1 million in direct activity).
- **$77.1 million in incomes and salaries** paid to households ($50.8 million in direct income).
- **1,110 FTE jobs** (842 FTE directly related to activity on the Site).

TABLE 5-4: Operational Impacts (Sydney LGA), Proposal Case

IMPACT	OUTPUT ($M)	GRP ($M)	INCOMES ($M)	EMPLOYMENT (FTE)
Hotel Turnover				
Direct	$55.4	$26.0	$17.2	209
Production Induced	$19.4	$10.0	$5.5	48
Consumption Induced	$12.8	$6.9	$3.5	42
Total Hotel Turnover	**$87.6**	**$42.9**	**$26.2**	**300**
Visitor Spend				
Direct	$97.7	$52.1	$33.6	633
Production Induced	$37.5	$19.4	$10.5	95
Consumption Induced	$24.8	$13.4	$6.9	82
Total Visitor Spend	**$160.1**	**$84.9**	**$50.9**	**811**
Total Impact				
Direct	$153.1	$78.1	$50.8	842
Production Induced	$56.9	$29.4	$15.9	143
Consumption Induced	$37.6	$20.3	$10.4	125
Total Impact	**$247.7**	**$127.8**	**$77.1**	**1,110**

Note: Totals may not sum due to rounding

Source: Atlas Economics

NET IMPACTS

Compared with the Base Case, the Proposal Case assumes the Site comprises an additional 198 hotel rooms.

It is estimated the Proposal Case would support the following annual net economic activity across the Sydney LGA:

- **Additional $85.3 million in output** (additional $52.8 million in direct activity).
- **Additional $43.7 million contribution to GRP** (additional $26.7 million in direct activity).
- **Additional $26.3 million in incomes and salaries** (additional $17.3 million in direct income).
- **Additional 368 FTE jobs** (additional 276 FTE directly related to activity on the Site).

TABLE 5-5: Net Operational Impacts (Sydney LGA), Proposal Case

IMPACT	OUTPUT ($M)	GRP ($M)	INCOMES ($M)	EMPLOYMENT (FTE)
Additional Hotel Turnover				
Direct	$22.3	$10.5	$6.9	84
Production Induced	$7.8	$4.0	$2.2	19
Consumption Induced	$5.2	$2.8	$1.4	17
Total Hotel Turnover	**$35.3**	**$17.3**	**$10.5**	**121**

[3] Hotel turnover impacts are shown as a total for both the Parkroyal Hotel and PPHG Hotel

IMPACT	OUTPUT ($M)	GRP ($M)	INCOMES ($M)	EMPLOYMENT (FTE)
Additional Visitor Spend				
Direct	$30.5	$16.2	$10.4	192
Production Induced	$11.7	$6.1	$3.3	30
Consumption Induced	$7.7	$4.1	$2.2	25
Total Visitor Spend	**$50.0**	**$26.4**	**$15.7**	**248**
Additional Total Impact				
Direct	$52.8	$26.7	$17.3	276
Production Induced	$19.5	$10.1	$5.5	49
Consumption Induced	$12.8	$6.9	$3.6	43
Total Impact	**$85.3**	**$43.7**	**$26.3**	**368**

Note: Totals may not sum due to rounding

Source: Atlas Economics

5.4 Summary of Economic Impacts

The Proposal is shown to deliver significant and positive economic impacts to the Sydney LGA economy.

During construction, it is estimated to result in a significant (but short-term) increase in economic activity through a mix of direct and indirect (flow-on) activity, including:

- **$307.3 million in output** ($204.1 million in direct activity).
- **$119.1 million contribution to GRP** ($65.6 million direct contribution)
- **$80.9 million in wages and salaries** paid to local workers ($50.2 million paid directly)
- **601 FTE jobs** (313 directly employed in construction activity).

More critical is the permanent economic impacts that Proposal could generate. Modelling has considered the two key drivers of economic activity generated by hotel uses – activity generated by hotel turnover (room rate spend) and visitor spend elsewhere.

When operational, the Proposal is estimated to result in an ***annual*** net increase in economic activity. Compared to the Base Case (i.e. no change), the Proposal would generate:

- **Additional $85.3 million in output** (additional $52.8 million in direct activity).
- **Additional $43.7 million contribution to GRP** (additional $26.7 million in direct activity).
- **Additional $26.3 million in incomes and salaries** (additional $17.3 million in direct income).
- **Additional 368 FTE jobs** (additional 276 FTE directly related to activity on the Site).

In addition to these economic impacts, the Proposal has the potential to support the MICE market which is a fundamental driver of the local visitor economy. The MICE sector generated approximately $4.1 billion to the NSW economy in 2024, with the 'lions share' of this activity likely occurring in the Sydney CBD which accommodates the majority large corporate and industry events in the state.

Increasing room supply will enable the Sydney CBD hotel market to better accommodate demand from the MICE market and mitigate the risk associated with MICE operators looking to other capital cities (e.g. Melbourne, Brisbane) for major events or trade shows where room supply is greater and more affordable.

Additionally, retention of the 34-year old Parkroyal hotel will ensure that it can not only meet the contemporary standards of modern travellers but facilitate the upgrade of many of its existing base building services which have been identified as surpassing their economic useful life (maximum of 20-25 years).

Accordingly, the economic impacts estimated in this chapter demonstrates the Proposal has economic merit, having the ability to contribute significantly to the Sydney LGA economy.

5.5 Alignment with Strategic Planning Objectives

Expanding supply of hotel accommodation in Darling Harbour is necessary step in shaping Sydney's future as a global city. Across all levels of strategic planning, there is a consistent view that expansion of Sydney's tourism offering is vital to its competitiveness.

Sydney is well established as a global gateway city. The Harbour CBD, which encompasses Darling Harbour, is positioned as the economic heart of Greater Sydney, a centre of finance, education, innovation, and culture. The Greater Sydney Region Plan sets out objectives to align infrastructure delivery with population and employment growth, enhance liveability, and improve economic productivity.

Sydney's nightlife, events, and cultural offerings are integral to its tourism economy. The *Visitor Economy Strategy 2030* outlines a clear vision for growth. More than 300,000 people are employed in the tourism sector, which is expected to rise to 450,000. The provision of additional accommodation is essential to meet this target.

The NSW Government's 24-hour economy strategy, backed by recent legislative reforms, is transforming Sydney into a more vibrant, 'round-the-clock' destination. The introduction of new airline routes and the opening of Western Sydney International Airport in 2026 will drive an increase visitation, reinforcing the demand for more hotel rooms. Darling Harbour, with its established role as a major events and entertainment precinct, will be at the forefront of this growth. Expanding the Sydney LGA accommodation offering will allow for capitalisation of this growth, ensuring visitors access facilities in a location that maximises their experience.

Accordingly, the provision of increased hotel accommodation as envisaged in the Proposal is considered to align with strategic planning from all levels of government.

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Schedules



Beyond the
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SCHEDULE 1

Input-Output Modelling Methodology

Input-Output models are a method to describe and analyse forward and backward economic linkages between industries based on a matrix of monetary transactions. The model estimates how products sold (outputs) from one industry are purchased (inputs) in the production process by other industries.

The analysis of these industry linkages enables estimation of the overall economic impact within a catchment area due to a change in demand levels within a specific sector or sectors.

Impacts are traced through the economy via:

- Direct impacts, which are the first round of effects from direct operational expenditure on goods and services.
- Flow-on impacts (indirect impacts), which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
    - Industry Support Effects (Type I) derived from open Input-Output models. Type I impacts represent the production induced support activity as a result of additional expenditure by the industry experiencing the stimulus on goods and services, and subsequent round effects of increased purchases by suppliers in response to increased sales.
    - Household Consumption Effects (Type II) derived from closed Input-Output Models. Type II impacts represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the catchment economy.

Economic analysis considers the following four types of impacts.

TABLE S1-1: Economic Impact Indicators

INDICATOR	DESCRIPTION
Output	The gross value of goods and services transacted, including the cost of goods and services used in the development and provision of the final product. Care should be taken when using output as an indicator of economic activity as it counts all goods and services used in one stage of production as an input to later stages of production, thus overstating economic activity.
Gross Value Added	The value of output after deducting the cost of goods and services inputs in the production process (less the impact of net taxes on final production). Gross Value Added (GVA) defines a net contribution to economic activity.
Incomes	The wages and salaries paid to employees as a result of the Project or Proposal either directly or indirectly.
Employment	Employment positions generated by the Project or Proposal (either full time or part time, directly or indirectly). Employment is reported in terms of Full-time Equivalent (FTE) positions or person-years.

Source: Atlas Economics

Regional Model Development

Multipliers used in this assessment have been created using a regionalised Input-Output model derived from the 2020-2021 Australian transaction table (ABS, 2023a).

Estimates of gross industry production in the catchment area were developed based on the share of employment (by place of work) of the catchment area within the Australian economy (ABS, 2022) using the Flegg Location Quotient and Cross Hauling Adjusted Regionalisation Method (CHARM). See Norbert (2015) and Kronenberg (2009) for further details. Where required, values were indexed to current dollar values using CPI (ABS, 2023b).

Modelling Limitations and Assumptions

Input-Output modelling is subject to a number of key assumptions and limitations (ABS, 2023a):

- **Lack of supply–side constraints**: The most significant limitation of economic impact analysis using multipliers is the implicit assumption that the economy has no supply–side constraints. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices**: Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. Prices are assumed to be unaffected by policy and any crowding out effects are not captured.
- **Fixed ratios for intermediate inputs and production**: Economic impact analysis using multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. As such, impact analysis using multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount.
- **No allowance for purchasers' marginal responses to change**: Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints**: Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these notable limitations, Input-Output techniques provide a solid approach for assessing the direct and flow-on economic impacts of a project or policy that does not result in a significant change in the overall economic structure.

Drivers of Economic Activity

In order to understand the economic impacts likely to result from the Proposal, it is necessary to distinguish economic impacts during the construction phase and those economic impacts that will be more permanent following construction completion.

- **Construction Phase**

Construction activity will draw resources from and thereby generate economic activity in Sydney.

Modelling assumes the construction phase is serviced by labour and businesses within the Greater Sydney area.

- **Operational Phase**

Estimated ongoing economic activity from industrial businesses locating on the Site.

CONSTRUCTION PHASE

For modelling purposes, construction costs (including contingency) for the Proposal were broken down into their respective Australia and New Zealand Standard Industrial Classification (ANZSIC) industries.

The breakdowns were developed based on the following assumptions by Atlas regarding the most appropriate ANZSIC industries for each activity and estimated average square metre construction costs for occupying businesses.

Construction costs have been estimated based on industry benchmarks from sources such as RLB and from Atlas industry knowledge.

TABLE S1-2: Construction Cost Allocation (including Contingency), Proposal Case

WORK TYPE	$M	ANZSIC
Site Works	$4.60	Construction Services
Hotel Construction/ Expansion	$115.0	Heavy and Civil Engineering
Hotel Construction/ Expansion	$115.0	Non-Residential Construction
Professional Fees	$28.2	Professional, Scientific and Technical Services
Total	**$262.8**	

Note: Totals may not sum due to rounding.

Source: Atlas

Of the above capital outlay, not all activity will be undertaken within the Sydney LGA economy. It was assumed:

- Approximately 75% of the direct expenditure on construction-related (i.e. Non-Residential Building Construction and Construction Services) activity would be sourced from local businesses and labour. Of this:
- Approximately 25% of purchases on goods and services (supply chain related activity) made by construction-related businesses sourced from outside the Sydney LGA would be spent within the local economy (i.e., 25% of the Type I flow on activity associated with non-local construction companies is assumed to represent additional local activity in the Sydney LGA).
- Approximately 5% of wages and salaries paid to construction-related workers sourced from outside the region would be spent on local goods and services, such as food and beverages (i.e. 5% of the Type II).

Only flow-on activity of locally sourced professional, scientific and technical services activity (75%) is included, as it is not anticipated professional, scientific and technical services businesses located outside of Sydney LGA would purchase goods/ services locally.

OPERATIONAL PHASE

In order to model the economic impacts, operational employment levels for the economic activity occurring in the two scenarios were categorised into the ANZSIC industries which Atlas considered most appropriate.

Operational employment levels for the economic activity occurring in the Base Case were categorised into the ANZSIC industries. Employment was estimated through benchmarking the Sydney CBD employment profile as at FY2023 to establish the existing economic impact of the Site remaining as is.

TABLE S1-3: Operational FTE Allocation, Base Case and Proposal

USE/ANZSIC	SPACE	JOBS (FTE)	DIRECT OUTPUT ($M)	ANZSIC
Base Case				
Hotel, Restaurant, Bar, Café, nfd.	336 Rooms	124	$33.1	Accommodation and Food Services
Proposal Case*				
Parkroyal Hotel	304 Rooms	209	$55.4	Accommodation and Food Services
PPHG Hotel	230 Rooms			
Restaurant, Bar, Café, nfd.	3,917sqm GFA			

*Hypothetical room yield adopted in the Proposal Case for the purpose of economic modelling

Source: Atlas Economics

The short-term accommodation (hotel and serviced apartments) component is indicatively estimated to have an average room occupancy rate of 87% over the course of the year, with an average room rate per night of approximately $258.

Estimates of employment were developed based on direct Input-Output multipliers for the accommodation industry and industry turnover as derived in the table below.

TABLE S1-4: Hotel Turnover Assumptions, Base Case and Proposal

ANZSIC	Base Case	Proposal Case (Parkroyal)	Proposal Case (PPHG)	Proposal Case (Total)
Rooms*	336	304	230	534
ARR	$258	$258	$290	$272
Occupancy	87%	87%	87%	87%
Turnover	$27.6	$24.9	$21.2	$46.1
Ancillary Spend	$5.5	$5.0	$4.2	$9.2
Total Turnover	**$33.1**	**$29.9**	**$25.4**	**$55.4**

*Hypothetical room yield adopted in the Proposal Case for the purpose of economic modelling

*Numbers may not some due to rounding

Source: TRA (2024), Atlas Economics

INDUCED VISITATION EXPENDITURE

Estimates for direct visitor spend generated by the hotel development in both Base Case and Proposal Case were developed based on room availability and an occupancy rate of 87%.

An estimated 25%: 75% split has been applied for domestic and international visitor nights for the proposed hotel, based on the visitation split for those coming to the Sydney region and staying in commercial accommodation in 2023 (TRA, 2024).

It was assumed that 10% of hotel guests would be residents of Sydney LGA, using the hotel to meet short term accommodation needs (i.e., only 90% of guests would be visitors to the region). The expenditure of locals has been excluded from the assessment as it is assumed this expenditure would occur regardless. Further, it was assumed approximately 25% of non-local hotel guests would stay in the Sydney LGA if the hotel was not developed (i.e., only 75% of visitors staying in the hotel are assumed to represent net new visitors to the LGA). A further +10% visitation impact for conferences at the Site are assumed under the Base Case, increasing to 15% additional in the Proposal Case.

Based on these assumptions it is estimated there would be an additional 10,407 net new visitor nights in the Sydney LGA economy as a result of the hotel in the Base Case and 27,200 in the Proposal Case.

TABLE S1-5: Visitor Assumptions, Base Case and Proposal Case

ANZSIC	Base Case	Proposal Case
Accommodation	$0.0	$0.0
Food and Beverage Services	$22.9	$32.3
Gambling	$0.4	$0.6
Heritage, Creative and Performing Arts	$3.7	$5.6
Other Services	$2.3	$3.6
Rental and Hiring Services (Except Real Estate)	$3.1	$4.7
Retail Trade	$28.6	$40.5
Road Transport	$1.8	$2.8
Automotive Repair and Maintenance	$0.4	$0.6
Water, Pipeline and Other Transport	$4.1	$7.1
Total	**$67.2**	**$97.7**

Source: TRA (2024), Destination NSW (2024), Atlas Economics



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Attachment A7

Planning stage structural report

Planning Stage Structural Report

150 Day Street

Prepared for UOL / 20th March 2025

Issue: Revision 2

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1.0 Project Description

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

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2.0 Introduction

TTW has been engaged to provide structural engineering consulting services in assistance of the planning proposal for the Park Royal Hotel at 150 Day Street Sydney.

This project involves the ambitious addition of up to 11 storeys of new hotel, plan and amenity space above the existing hotel. We have aimed to maximise the extent of retained structure by strengthening key components to facilitate the additional storeys above. By maximising the adaptive reuse opportunities in this structure, we hope to set a benchmark for future developments in Sydney in alignment with the City of Sydney's sustainability goals. Figure 1, produced by Hassell, shows an indicative section of the proposed building additions.

TTW has carried out structural reviews of the existing structure in order to define the key opportunities, requirements and risks associated with the project aims. Our reviews have focussed on structural strengthening of required structural elements so that the existing structure can be fundamentally retained and reused with associated benefits to sustainability. Existing columns, footings and core-walls must be strengthened in order to support the increased weight from the new additions. However, the existing floor slabs can generally be maintained, with substantial environmental benefits from reducing the requirement to demolition and rebuild these elements.

We have used our experience in similar adaptive reuse projects to propose efficiencies in construction methodology that could be utilised while carrying out these works. The efficiencies include the sequencing of strengthening works and core-construction, and the opportunities present in the construction of the additional storeys.

This report, and the associated drawing mark-ups in the appendices, have been produced in order to communicate these items, with a particular emphasis on retention, strengthening, constructability and safety.

The marked-up set of documentation in Appendix A is intended to be referred to while reading this report.

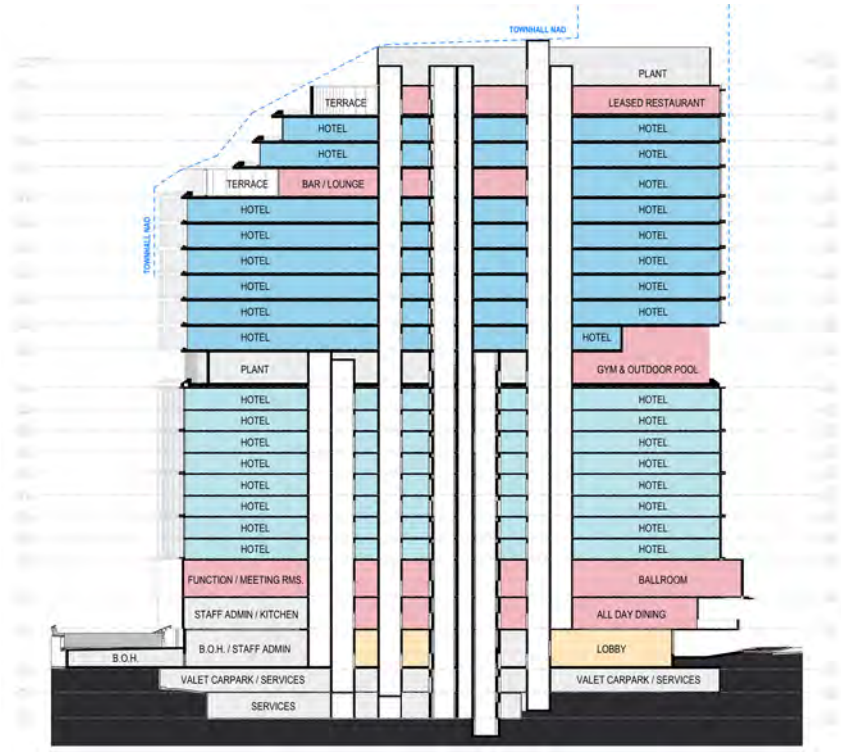


Figure 1: Proposed Building Cross-Section

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3.0 Existing Structure History

The Park Royal Hotel at 150 Day Street is located within the City of Sydney local government area. It is bound by Day Street to the west, Bathurst Street to the south and Sands Street to the east, with the Druitt Street Western Distributor on-ramp and the westbound Cross City Tunnel exist to the north. The southern part of the site is adjacent to the eastbound Cross City Tunnel under Bathurst Street. Refer to Figure 2.

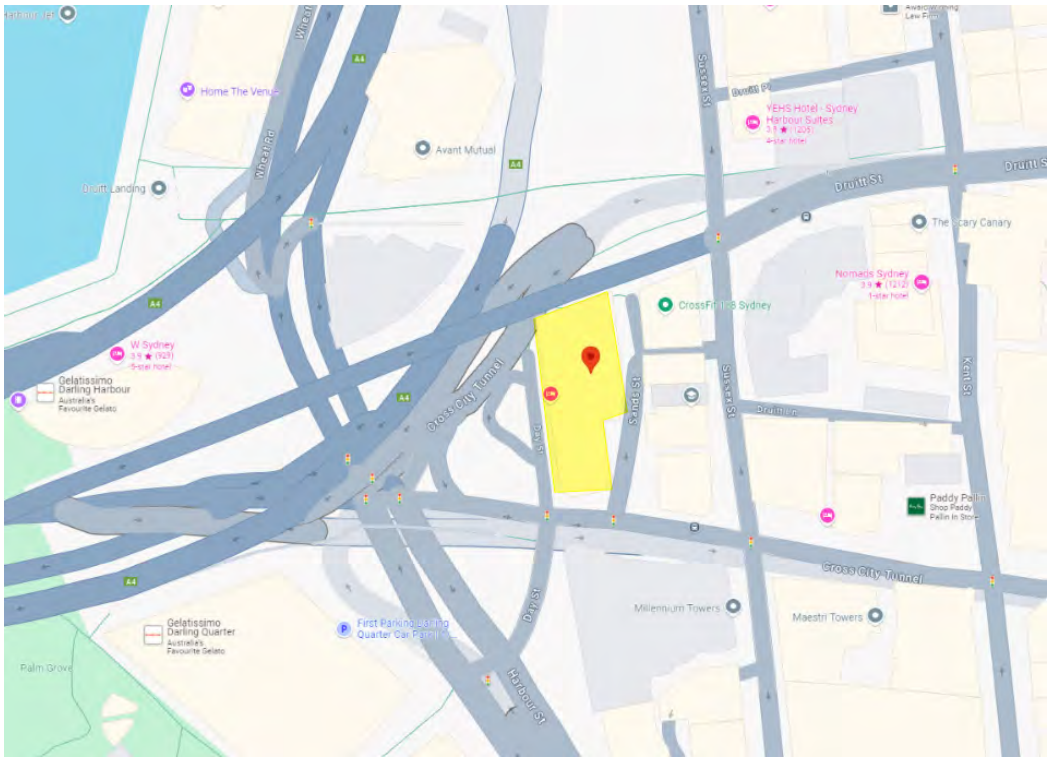


Figure 2: Location of 150 Day Street

The existing building is a reinforced and post-tensioned concrete structure and is 11 storeys high, with two-storeys of basement.

Lateral stability of the existing structure is provided by a reinforced concrete lift core. Floors are typically constructed as a system of flat-plate concrete elements with drop panels. The lower storeys of the structure (levels B1-L3) are constructed using conventionally reinforced concrete. The upper storeys of the structure (L4 and above) are constructed using post-tensioned concrete.

Concrete columns provide vertical loads-paths throughout the building, with transfer structures limited to two areas: above the existing entry at Ground Floor; and above the exiting ballroom at L2 South.

The building is founded on shallow pad footings, bearing directly onto sandstone.

The existing structure was designed in 1988 by Taylor Thomson Whitting (TTW Project Reference 88151). Some structural modifications were carried out in 1996, also designed by Taylor Thomson Whitting (TTW Reference 96311). These 1996 works were limited to the addition of a new steel roof, and the modification of L11 into a habitable space.

As the base-build engineer on the project, TTW has access to the original drawings and specifications for the project which have been reviewed throughout the planning works.

As part of the proposed new works, the steel roof added in 1996 is to be removed, and additional storeys added above this floor.

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4.0 Geotechnical Parameters

The original structural design was based on contemporary geotechnical advice from Douglas Partners. The site is underlain by Hawkesbury sandstone at shallow depth, and all existing footings are founded within the sandstone.

There exists a fault zone through the site, as highlighted in yellow on Figure 3 below. Existing footings within this zone have been designed for a reduced allowable bearing capacity of 1500kPa.

In the original 1988 building design, all footings outside of the fault zone were designed for geotechnical allowable bearing pressures of 3500kPa.

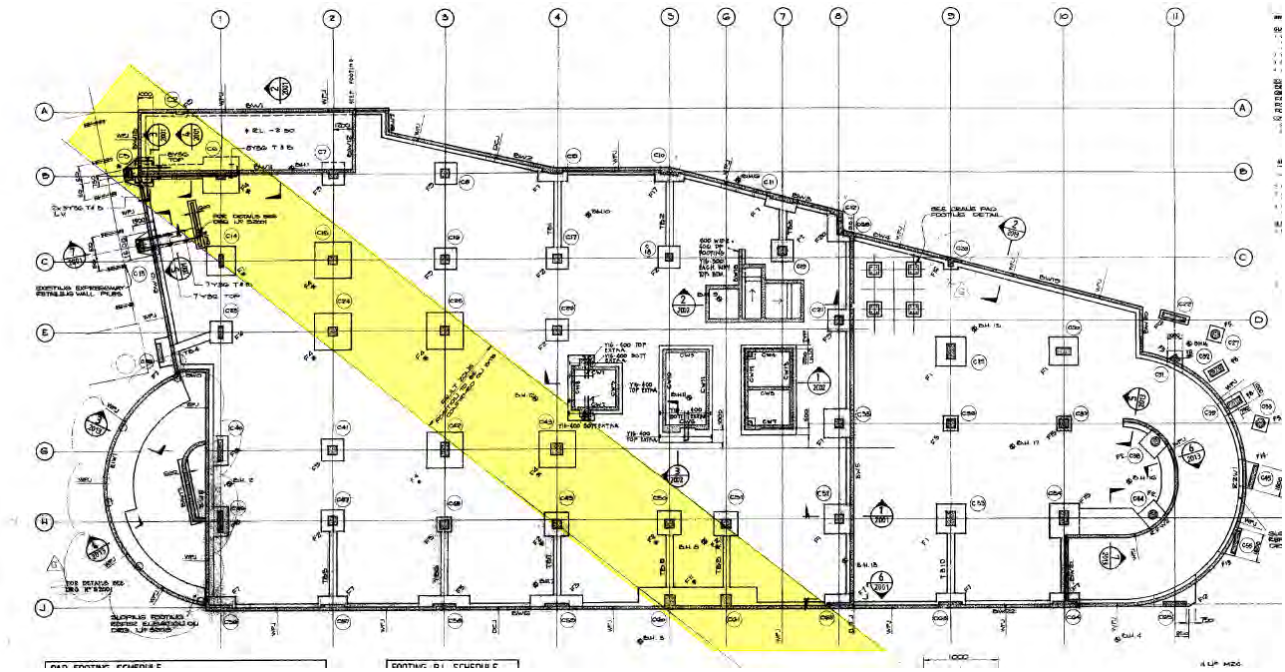


Figure 3: Existing Foundation Plan Showing Fault Zone

New investigations have been carried out by Douglas in December 2024 (as described in report *231572.00.R.002.Rev0*) which re-assessed the foundation conditions below the existing building footings. Six boreholes were drilled at existing foundation locations in order to assess the strength of the existing rock.

Based on a combination of rock strengths assessed on site and defects present, Douglas Partners have provided updated allowable bearing capacities for the foundation material encountered on site. Douglas Partners have advised that typically an Allowable Bearing Capacity of 5000kPa can be assumed, with 1500kPa capacity maintained in the fault zone as per the 1988 design.

Douglas Partners recommend that each footing subject to uncreased loading are to be individually investigated to confirm the bearing capacity of the foundation material.

Douglas Partners also recommend that a detailed monitoring plan be developed for the redevelopment works prior to any additional loading of the existing columns.

TTW have utilised these updated allowable bearing pressures in our design in order to minimize the required foundation strengthening while allowing for the increased loads of the additional storeys above.

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5.0 Strengthening Methodology

5.1 Columns

The structural capacity of the existing concrete columns on the building have been analysed using the original structural documentation. The existing columns have been designed relatively efficiently and are close to their full-strength utilisation under current loading conditions.

In order to carry out the proposed structural additions to the building, strengthening of all columns in the existing structure is to be allowed for.

TTW has considered alternate options to concrete strengthening for internal and external columns. These approaches have been considered with a focus on constructability and spatial arrangements within the structure. For all column strengthening, in-depth analysis of differential settlement, creep and strain-compatibility of existing and new concrete elements will be carried out as a component of the detailed design of the project.

5.1.1Internal Columns- Structural Solutions

For typical internal columns, TTW has designed a reinforced concrete jacketing solution to strengthen the columns to withstand the additional load from the proposed extensions.

In general, a 150mm thick reinforced concrete jacket on all side of the existing concrete elements will provide adequate additional strength. Coordination with Hassell and LCI has been carried out throughout the Planning Stage with these dimensions. Refer to Figure 4 for indicative structural requirements for strengthening of internal columns.

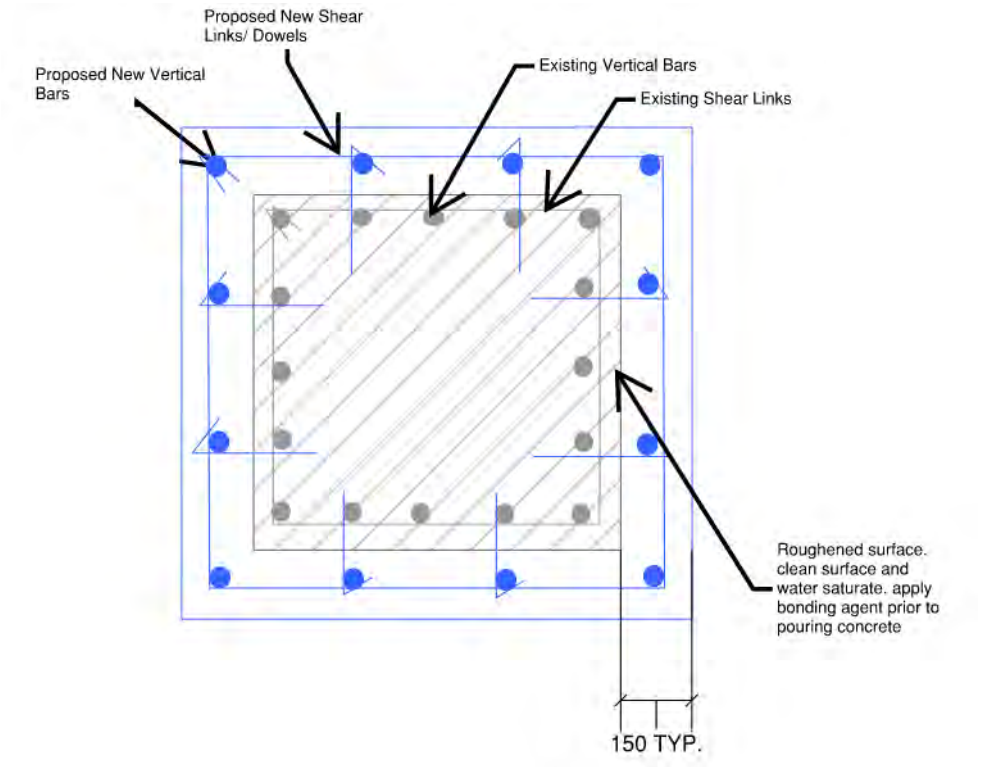


Figure 4: Internal Column Strengthening Strategy

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At the higher levels of the existing structure, a modified solution has been considered in order to minimise disruption into existing hotel rooms. This solution is to limit strengthening to either side of the existing columns and contain the strengthening entirely within the existing wall-zone between rooms. See Figure 5.

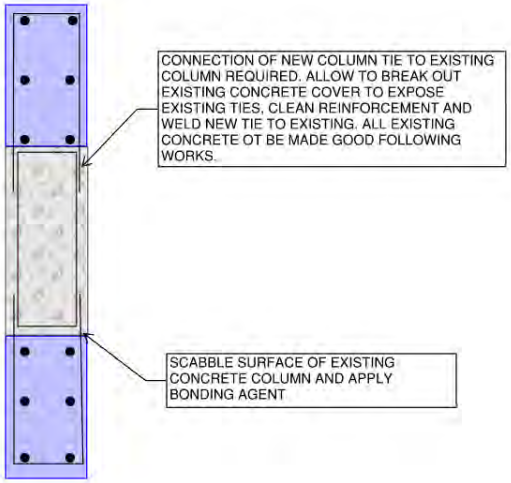


Figure 5: Column Strengthening of Internal Columns at Hotel Rooms

5.1.2 Perimeter Columns- Strengthening Solutions

For perimeter columns, a jacketing solution will not be possible due to clashes with the façade and shoring wall structure.

For this reason, perimeter columns are proposed to be strengthened by the addition of a return wall as indicated in figure 6. This return wall is intended to fit within the existing non-structural hotel wall at upper levels, minimising the impact of strengthening on the existing spatial layout of hotel rooms.

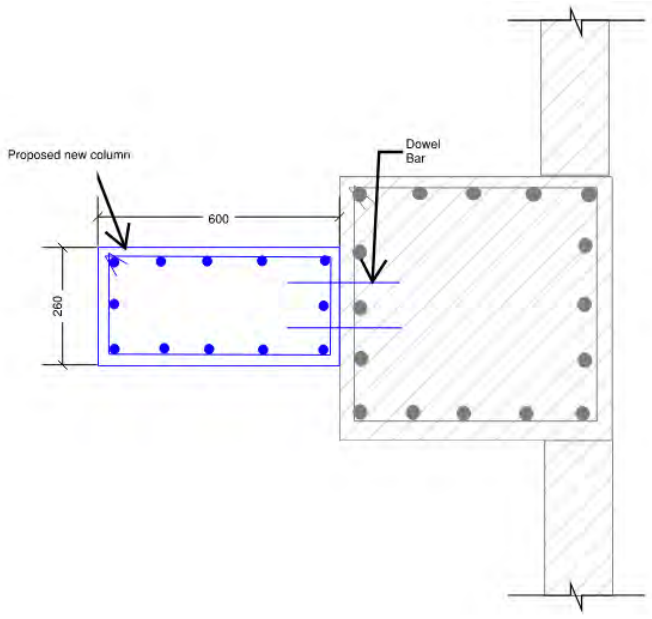


Figure 6: Column Strengthening of Perimeter Columns

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5.2 Footings

The additional weight imposed by the proposed building extension will add additional loading into the existing foundations. We have analysed the existing footing capacity in order to ascertain the structural strengthening requirements.

Based on the geotechnical investigations carried out by Douglas Partners in 2024 (*231572.00.R.002.Rev0),* foundation material is typically stronger than previously allowed for in the existing design. See section 3 of this report for more information.

Utilising these increase allowable bearing pressures, we are able to limit the amount of foundation strengthening to only the footings shown in yellow on figure 7:



Figure 7:Extent of Foundation Strengthening required

As noted in the Douglas Partners report, there remains a risk of variability in strength under each specific footing, and it is recommended that investigations of founding material beneath all footings is carried out prior to construction works progressing to manage this risk.

Other risks associated with these works include differential settlement of foundations subject to existing and new loads. Monitoring of existing levels is to take place during construction works to compare measured values against theoretical settlements calculated by TTW and the Geotechnical Engineer.

5.2.1 Internal Footings

In order to achieve efficiencies in construction program and cost, foundation strengthening is recommended to be carried out by the addition of new concrete elements above the basement slab as shown in figure 8. This new concrete element provides a larger surface area of concrete to bear into the founding material and provides associated increases in strength.

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The key benefit of this strategy is that requirements for propping, jacking, excavating and underpinning of existing footings can be minimised. This will lead to associated benefit to safety, program and cost.

The spatial requirements for this strengthening solution have been coordinated with Hassell and LCI throughout the Planning Stage of Works to ensure that this strategy is feasible and allows for coordination with services and parking requirements.

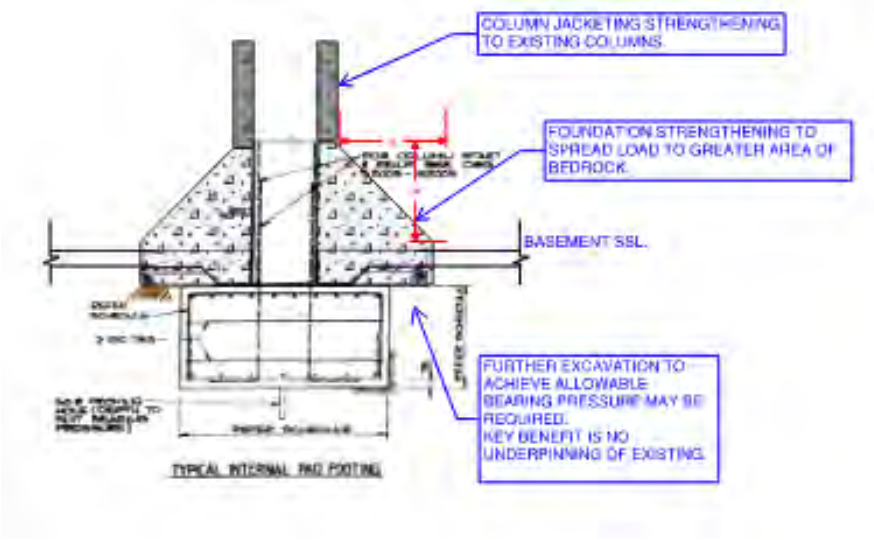


Figure 8: Indicate Footing Strengthening Solution

5.3 Structural Core

The increased structural height and mass, along with increased requirements for earthquake resistance since the original building design will require that the lateral stability system of the building be substantially strengthened. This will be achieved by increasing the number of concrete cores throughout the building.

Our proposed strategy for core strengthening and construction has been designed with a focus on minimising demolition and increasing construction efficiency.

In particular, the construction sequence of the strengthened and rebuilt cores can take place in such a way as to minimise or eliminate the requirement for temporary lateral bracing to be provided by ensuring that the required permanent structure is present at any given time.

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The existing structure is stabilised by three lift-core boxes, highlighted in yellow onto the existing structural plans in figure 9.

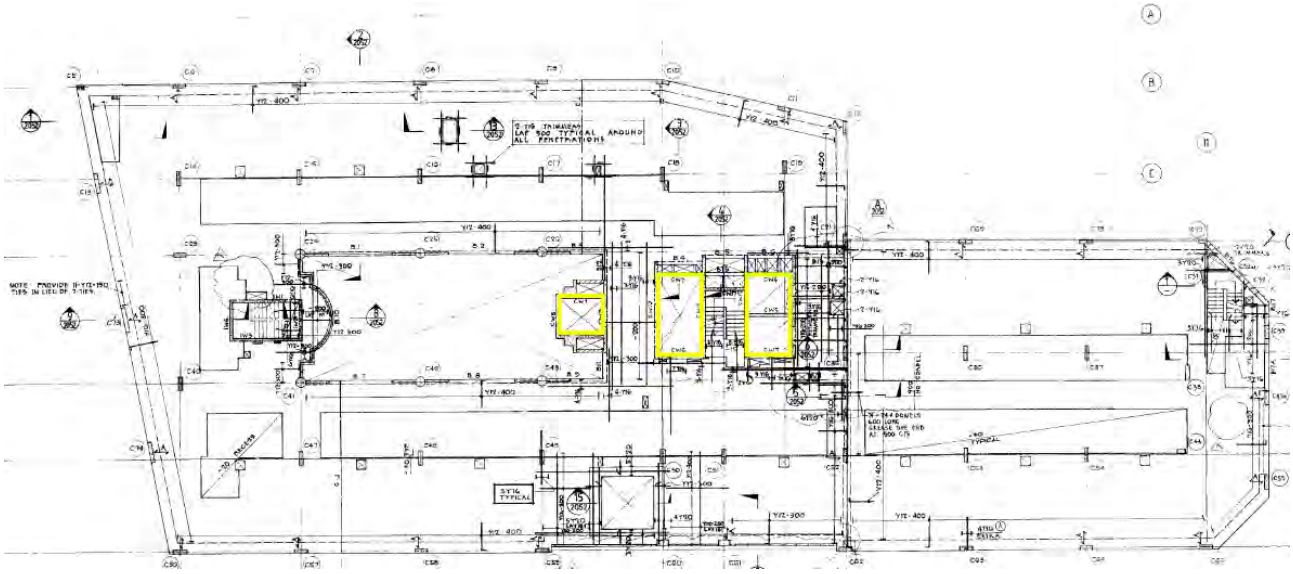


Figure 9: Existing Lateral Support System

The adaptive reuse strategy for the building involves the expansion of this lateral support system to include five lift core boxes as shown in figures 10 and 11. This new system includes new cores (nominated as A, B and E in Figure 10), and retained strengthened cores (nominated as C and D).

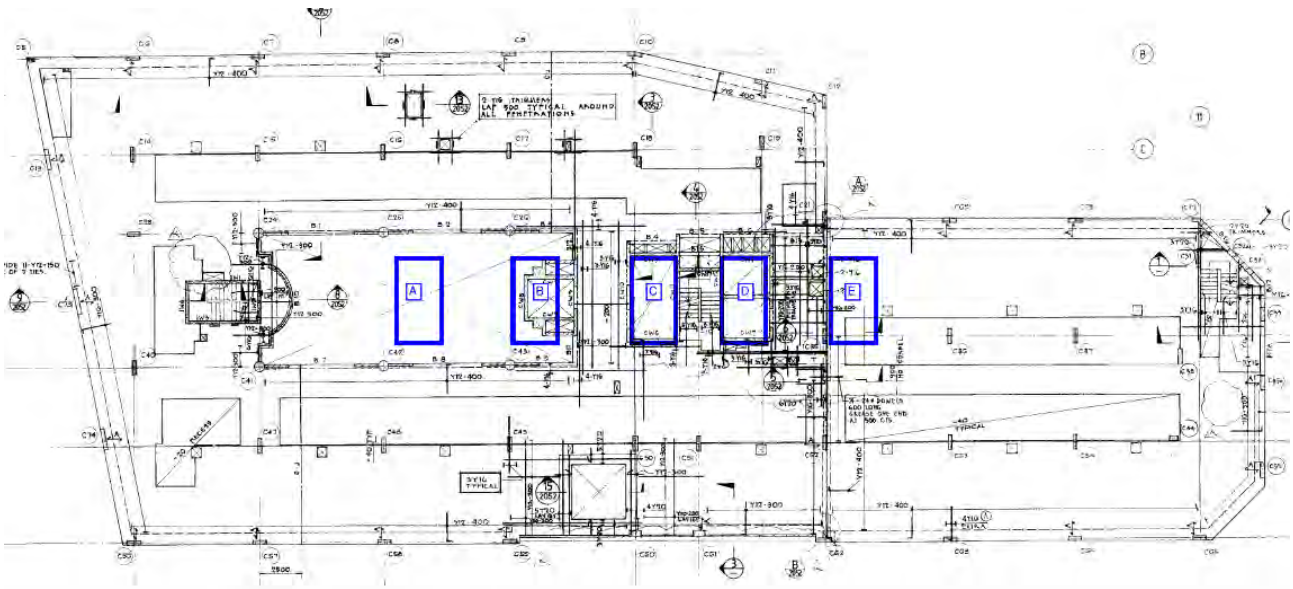


Figure 10: Layout of New Cores overlayed on existing building plan

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Figure 11: Layout of New Cores over new floor layout

The location of these cores has been carefully reviewed and coordinated with Hassell to maximise retained structure and minimise temporary works required during construction. Specific benefits to each core location and specification which have been considered are:

5.4 Core A:

The location of this core is within the existing atrium space. This allows for a simplified construction methodology which reduces demolition or impact on the existing post-tensioning layout at upper levels.

It is intended that this core be constructed first, to provide a system of temporary lateral stability prior to any existing core being modified or demolished.

This core must be tied into the surrounding concrete structure to ensure that lateral diaphragm forces are transferred. This will be achieved through a combination of breaking back the existing concrete edge around the atrium to tie in new structure, and a system of steel and composite concrete flooring which will be used to frame out the other areas of the atrium infill.

5.5 Core B:

The location of this core is also within the existing atrium space, however the construction of this core will require the demolition of the existing single-lift core in this location. It is intended that demolition of the existing core is delayed until new cores at A and E are constructed to ensure structural stability of the existing building at all times. The new core will be tied into the existing structure in order to transfer lateral diaphragm forces by breaking back the existing concrete slabs by approximately 1.0m and leaving the existing reinforcement exposed. New reinforcement is to be lapped into the existing reinforcement to provide a permanent load-path into the lateral support structure.

5.6 Cores C and D:

These existing cores are to be strengthened in order to increase their capacity to the new requirements imposed by the increased building height and mass. Strengthening these cores, as opposed to demolishing and rebuilding, has been considered in order to limit the amount of demolition of the existing structure and provide benefits to cost and program.

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The strengthening strategy for these walls requires that:

1. Back-propping is installed around the perimeter at which the slab is to be broken back to.
2. The existing slabs around the walls are to be broken back for 1.0m beyond the location of the new walls.
3. Existing reinforcement must be maintained at the broken-out slab such that the new reinforcement for the wall can be tied in for structural continuity
4. A new concrete jacket, approximately 350mm thick, is to be cast against all perimeters of the existing wall.

See Figure 12 below. Appendix A of this report also provides more in-depth information of the requirements and locations of this strengthening strategy.

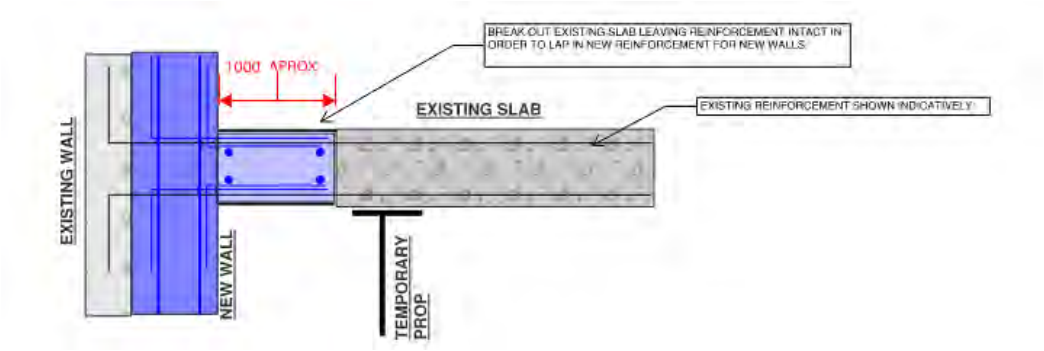


Figure 12: Existing Wall Strengthening Strategy

5.7 Core E:

This location of this new core has been optimised to stabilise the southern portion of the building and be founded at the upper level of the basement.

The location of this core will require demolition of a void in the slab, at levels 4 and above. Slabs are to be broken back beyond the extent of the new wall to allow for connection of the slab to the new wall as described for cores C and D.

In this particular location, forming the void in the slab will require truncation of the existing post-tensioned reinforcement. Truncation of the existing post tensioning system may require strengthening of slabs adjacent to the new penetration. See annotations in Appendix A for more information on these requirements.

6.0 Rebuilt Areas of Structure

In order to achieve the required performance of the updated architectural design, various portions of the existing structural will require some degree of strengthening, or demolition and re-construction.

An extensive discussion of the requirements for these areas is annotated onto the drawing in Appendix A and should be referred to.

Specific areas for which some degree of modification, including demolition and rebuild include:

1. Ground Floor North- New Substation
   Substantial changes to the existing structure are required to provide the requirements of the substation. These requirements include substantially higher loading capacities, increased Fire Rating Level, and specific spatial layouts to comply with Ausgrid Requirements.
2. Ground Floor West and South- modification of structure is required to achieve new levels, either through the addition of toppings or the demolition and rebuild of slabs at lower levels.

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3. Level 2 North West- Modification of existing stepped slab to reduce structural slab level to consistent level for the rest of the structure
4. Level 3 South- Potential modification to transfer beams in order to allow for removal of a column in the Ballroom

7.0 Building Extension: Floor Options

TTW has considered a variety of structural solutions for the construction of the proposed additional storeys. These structural solutions include:

1. Post-Tensioned Concrete Flat-Plate

2. Reinforced Concrete Flat-Plate

3. Composite Steel/Concrete Solutions

Appendix A and B contain sizes and information for each of these schemes intended for high-level costing and spatial planning purposes.

We understand that the client's priority for the project is to minimise the structural zone for the project. Because of this, we have progressed the design through planning phase assuming a flat-plate post-tensioned concrete solution will be used. This solution has key benefits in reduced structural depth and allows for full structural integration into the existing concrete core and column structure.

A timber solution for the building extension has also been considered at this stage and has been considered sub-optimal at this stage of design. It has been considered that the required size of timber elements will not lead to a feasible outcome when considered in the context of the spatial requirements of the project. We note that here may be opportunities to use structural timber in combination with a modified column grid, or in a hybrid steel/timber or concrete/timber system as the design progresses.

8.0 Building Extension: Specific Spaces

Refer to Appendix A for detailed requirements for specific spaces and elements in the new building extension.

Notably:

1. L11 is to provide transfer structures for the column gride in order to allow for a modified column grid in the new building extension.
   Transfer structures have been designed and coordinated to transfer columns in one direction (north south) through the use of structural trusses, or other deep elements on the perimeter.
   We note that opportunities existing to minimise or remove transfer structures by lining up columns for the new building extension directly above the existing column locations. This opportunity has been discussed with the client and not progressed at this stage so as to allow for greater flexibility to room sizes in the new expansion.
2. There are specific structural requirements for support and isolations at the proposed Pool and Gym areas. Refer to the annotated plans for additional information on these areas.
3. The current architectural scheme proposes deep cantilevering planter boxes at the north-west perimeter of the new structure. We have provided a structural solution utilising upstand beams concealed within non-structural walls to support these heavy cantilevered loads. Refer to annotated plans for additional information on this solution.

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9.0 Construction Considerations

One of the main considerations in the design of the 150 Day Street works has been the construction and buildability aspects of the structure. The site is heavily constrained on all sides and has a relatively small floor plate for working within.

9.1 Minimise of temporary works

Due to the significant nature of some of the proposed interventions, incorporating the temporary works within the structural design would be of benefit to the project. By integrating any temporary works into the final structure, the design will generally have a higher degree of robustness and resilience in addition to avoiding double ups in the amount of structure required to deliver the project. In particular, we believe that the integration of a construction deck at L11 with the permanent structure for this area will achieve this goal on this particular project. This deck will allow for the safe construction of the proposed additional storeys, and by integrating it into the permanent structure it will also provide the increased load capacity to allow for the planter, gym and plant space currently proposed in the architectural design.

9.2 Maximise use of the existing structure

The existing structure has a high degree of structural integrity. Maximising the amount of structure that is being retained is a good approach from sustainability, heritage and economical perspective.

Our structural strengthening solutions as discussed in this report have been considered in this context.

9.3 Craneage and access

Craneage and access are important considerations in the design of the structure and access into the building. Due to the retention of the existing floor structures, the removal of demolition material and the installation of new structure should be considered around access.

It may be optimal to construct a temporary crane grillage above the existing structure in order to provide crane access throughout the construction of the project.

It is envisioned that a crane grillage would connect to existing columns, and the strengthening of those columns would incorporate the load requirements from the crane. The grillage would also form part of the integrated construction deck as described in section 8.1 of this report.

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10.0 Existing Fire Rating

TTW has carried out a preliminary review of the intrinsic FRL of the existing structure.

Typically, the existing reinforced and post-tensioned slabs will achieve an FRL of at least 90/90/90 when assessed with reference to the modern NCC and Concrete Structures Code.

Existing load-bearing structural walls and columns in the structure will generally be strengthened or replaced as part of the structural works required to support the proposed additions, in which case the required FRL for those elements will be achieved as part of those works.

It may be possible to justify a higher FRL in some cases by carrying out a detailed thermodynamic analysis of the existing structure as allowed by AS3600:2018- 5.3(b). It may also be possible to justify a lower required FRL through a Fire Engineering Assessment.

As noted in the MetroBC report (*Existing Conditions & Concept Review BCA Report*, October 2024, page 8) “unless the Development Consent requires an upgrade of the existing building there is no current requirement to investigate and determine if the FRL’s comply with the BCA requirements”.

Noting the above, we understand that requirement for an upgrade could be triggered by the change of use of a specific area of the building. We have carried out an initial review of the existing FRLs of the existing structure in order to provide a base-line achievable level of Fire Resistance. Depending on the requirements provided in the specific Development Consent Conditions, more detailed studies could be carried out, including critical review of FRLs required through a Fire Engineering Assessment.

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11.0 BCA and Legislative Requirements Items

11.1 BCA Report Notes

MetroBC has prepared a BCA report on the Existing Conditions and Concept Design dated October 2024.

As it pertains to structural concerns, this report has highlighted the following key criteria:

1. The report highlights various changes in use of areas of the existing building. Changes of use may be associated with different requirements of fire-rating of a structure and be a trigger for structural upgrades for compliance.
   Of particular note is the addition of a substation at the ground floor. The implications of this are discussed in the annotated plans in Appendix A.
2. It is noted the FRL required for fire-isolated stairs serving the tower levels is 180/120/120 if loadbearing and -/120/120 if non-loadbearing. Typically, the fire stairs in question will be new-built structure which will be designed to achieve the required FRL. At this stage of design, these fire-stairs are anticipated to be non-load bearing elements, constructed with column and beam systems, with masonry infill walls to achieve the required insulation and integrity requirements.
3. It is noted that unless the Development Consent requires an upgrade of the existing building there is no current requirement to investigate and determine if the FRL's comply with the BCA requirements. As per section 9.3 of this report, TTW has carried out a review of the achievable existing FRLs based on the existing structural documentation. The Consent Conditions for the project must be carefully reviewed with reference to this potential requirement

11.2 Authority Approvals

Due to the location of the site, it is anticipated that a number of public and private stakeholders will require consultation during the design stages of the project. These stakeholders are likely to include:

1. Transport for New South Wales (TfNSW)
2. Sydney Water
3. The City of Sydney
4. Transurban (in regard to the Cross City Tunnel)

Transport for New South Wales (TfNSW)

We are aware that initial consultation with TfNSW has taken place in a meeting attended by Hassell and Mecone in early February 2025.

It was discussed in this meeting that TfNSW has previously compulsorily acquired the strata of rock at the south end of site for the Cross City Tunnel. The current architectural scheme includes increasing loads of columns which are founded in this rock strata. Concerns have been raised by TfNSW regarding the impact of modifying the loads or existing condition of structure over this portion of the site.

Based on our previous experience with building above or near tunnel assets within the CBD, we anticipate that structural and geotechnical analysis will be required in order to manage the risk of modification the structure near the TfNSW asset to the satisfaction of the stakeholder.

The analysis would require coordination of TTW with a highly skilled geotechnical engineer to model the existing rock and determine the impact of the increased column loads. It would typically also be required to carry out a dilapidation survey of the tunnel before and after works as well as undertake monitoring during construction.

TfNSW should be consulted to confirm if they are comfortable to follow this approach in this particular instance.

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Sydney Water Asset

Information retrieved through a Dial Before You Dig request has highlighted that a Sydney Water Sewer Asset is present in the southern portion of the site. This is indicated as a 300DIA Vitrified Clay Sewer Pipe.

This asset is highlighted in yellow on Figure 13 below.

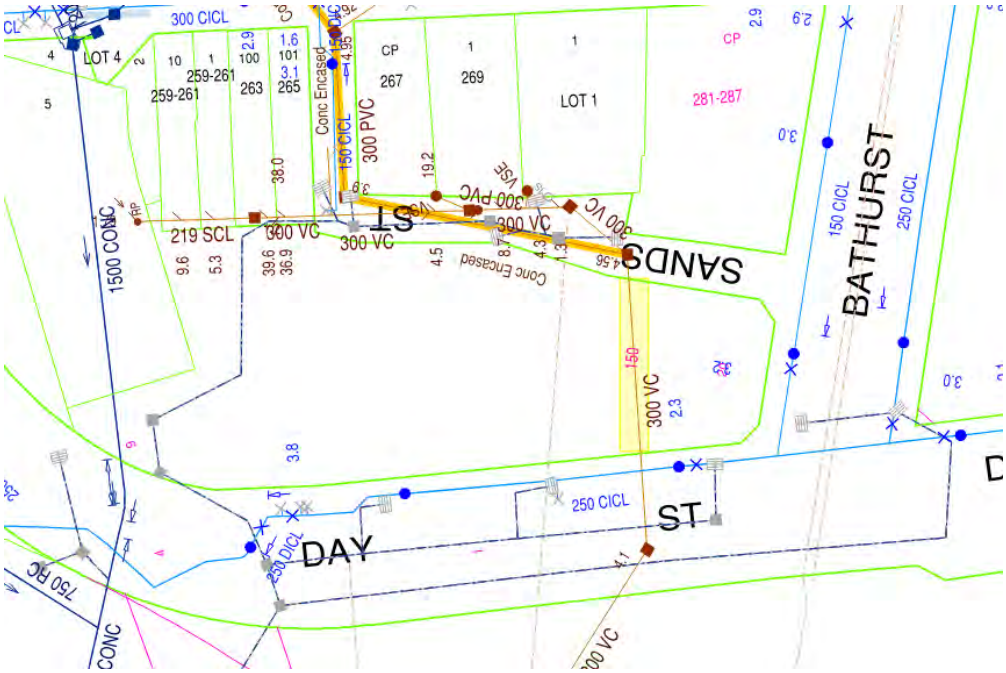


Figure 13: Location of Sydney Water Asset

Sydney Water has a number of requirements and limitations when there is new construction occurring above or around their assets. A Special Engineering Assessment may be required by Sydney Water to carry out the proposed works on the site. This assessment would be required to ascertain the impact of construction works and modifications of existing foundation loads on the existing sewer. Sydney Water must be consulted with regard to the requirements for a Special Engineering Assessment on this particular project.

TTW has a specialist team which is able to carry out this assessment to the requirements of Sydney Water and is able to carry out the engineering components of this assessment if this is a requirement on this project.

City of Sydney Stormwater Asset

Information retrieved through a Dial Before You Dig request, as well as a site inspection, has shown that there is an existing stormwater conduit present in the northern portion of the site.

City of Sydney must be consulted with regard to any specific requirements for protection of this asset during construction works and allowance for future access if required.

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Figure 14: City of Sydney Stormwater Asset

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Regulatory Requirements

11.3 Consent Conditions

There are a number of regulatory requirements which may be triggered by extensive building upgrades such as those proposed. The information presented below is not intended to be an exhaustive review of all requirements but is intended to prompt discussion with a certifier regarding specific requirements for works.

11.4 General Compliance with NCC2022

Many aspects of the existing structure are unlikely to comply with the modern NCC. Specific requirements for reinforcement detailing, cover and minimum design forces have changed since the structure was built in the 1970s. It will not be feasible to comply with any requirements for general upgrades of the structure to comply with NCA2022. Consultations with a PCA will be required early in the design process to propose appropriate and achievable consent conditions for the expected works which may allow for a performance solution to be achieved for the existing structure.

The general intention of the structural solution is to not modify the existing floor plates unless necessitated in order to transfer loads into new cores. We will carry out structural checks for strength and serviceability on the existing retained structures, but due to modified requirements and specifications in the NCC since the time of construction, it will not be possible to re-certify existing structural elements to modern design codes. The specific requirements for certification, and negotiation on consent conditions will be required as the project progresses to ensure that a reasonable result is achieved which allows for the majority of existing structural components to be retained.

11.5 Upgrading Building Structure for Earthquake Actions

In this project, we have progressed with a design based on strengthening the lateral stability system by the construction of new structural cores which are designed to withstand the lateral wind and earthquake loads required by modern design codes.

Structures built at the time of 150 Day Street were generally not designed with an appreciation for earthquake loads. A building upgrade for the structure to comply with modern design standards may generally triggered because of one or multiple factors below:

Legislation

Under the EP&A Act, changes of use or substantive changes to the building can trigger the requirement for upgrade or compliance with the NCC. This requirement is best worked through early in the design process with the private certifier to ensure an overall certification framework is established for a project.

Approval Authority

The approval authority may require compliance with parts or all of the NCC as part of the approval conditions. The requirements for these upgrades can in many instances be discussed with the Authority depending on the types of work being undertaken.

Client Decision

Client may wish to understand the level of building performance and life safety. In the event that a building does not require any upgrade from a statutory or certification, it may be decided that a minimum level of performance is required. Following an initial structural assessment on the building which would gain an understanding of overall performance – a partial or full upgrade program of works could be developed based on the specific performance requirements agreed upon.

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It is vital to determine the expected outcome from upgrade at the early stage of project in order to satisfy any one of the factors above. If none of abovementioned factors triggers upgrade of building structure and the structure can remain as is with existing building not being certified as part of the works.

11.6 Confirmation of Fire Rating Period of Existing Structure

We have carried out a review of the existing fire-rating of the structure as a desk-top study based on the existing drawings. We note that certifiable confirmation of the existing fire-rating levels requires a very detailed site investigation to confirm the exact construction methodologies which were followed at the time of construction.

Depending on specific consent conditions and requirements for certification, it may be required to assess and certify that the existing structure has appropriate fire rating levels in compliance with the NCC. A PCA should be consulted early in the design process to confirm what extent of works may trigger a requirement to certify the existing fire-rating of the structure.

Certification of the fire rating period of the existing structure will generally require extensive investigation of all structural elements. As the primary structural framing of the upper levels of the tower is structural steel beams, it is assumed that these have some fire protection in the form of fire-rated cladding, vermiculite fire-spray or concrete encasement. The extent, build up and condition of fire rating would need to be confirmed across the full extent of the structure to certify the existing fire-rating level.

In addition, the thickness and condition of existing concrete elements would need to be investigated to assess the current fire rating level of the structure.

Rectification details to structural steelwork and concrete elements may be required depending on the result of investigative works.

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Recommended Structural Investigations

In order to provide certainty of the existing structural integrity, there are a number of additional investigations which we propose are required in order to verify the analysis to date, provide further design input to future stages of a design scheme and to provide assurance of the existing structural capacity.

These investigations include:

1. Radar scanning throughout the suspended floors of the structure in order to confirm the depth of the existing concrete floor slabs as a due diligence check that the structure has been built in accordance with existing documentation.
2. A general visual inspection of the superstructure behind finishes and cladding to provide assurance that there are no discrepancies to the structural layout in comparison of the existing documentation. We note that TTW have access to the original structural design documentation and have verified this to a high-level degree based on site visits and surveys conducted to date.
3. A general condition survey of the structure. Further details on this item are provided below.
4. Testing of concrete at a number of locations throughout the building, including multiple instances at core walls, floor slabs, existing columns and slabs. Further details on concrete testing are provided below.
5. Survey of condition and deflection of existing structural components.
6. Geotechnical investigations as discussed elsewhere in this report.

11.7 Concrete Tests

We recommend performing concrete tests on existing structure in respect to the following two aspects:

1. In-situ concrete compressive strength
2. Concrete tests, such as chloride ion content and depth of carbonation, to evaluate corrosion status of existing concrete reinforcement.

11.7.2. Concrete Compressive Strength Test

The 28-day characteristic concrete compressive strength is specified for design purpose. However, the in-situ concrete strength will continue grow after 28 days from casting. Other factors, such as different mix design, supplied by different plants, ambient condition etc, would also lead to variation in concrete strength and it is generally higher than the specified 28 days strength. Therefore, we will recommend performing tests on existing structure to determine the in-situ concrete strength, in particular columns and walls. Strengthening works may be reduced in quantity or even avoid if existing structure is shown to have a higher design strength.

11.7.3. Reinforcement Corrosion Condition

Commercial buildings generally have 50 years of design life. 150 Day Street was constructed in 1989 and its concrete structure, especially the parts expose to atmospheric environment, may be showing some signs of corrosion. The following tests will allow us to understand the current reinforcement condition and evaluate if structure is exposed to any risk of reinforcement corrosion or concrete damage in near future.

Carbonation of concrete is a cause of reinforcement corrosion. New concrete has high pH value which reacts with the bare steel reinforcement to form an oxide film to protect the reinforcement from corrosion. If the reinforcement cover is sufficient, the reinforcement will remain in uncarbonated concrete for the life of building. However, the carbonation of concrete reduces pH in concrete which allows reinforcement to corrode.

Chloride ions are a major cause of reinforcement corrosion, particularly in areas where the structure is exposed to a marine environment. If the chloride content at the depth of reinforcement exceeds a figure of 0-.06% by weight of concrete, corrosion of the reinforcement is likely to commence. Chloride penetration is a time related process and establishing a chloride profile can allow forward predictions of future chloride ion penetration to be undertaken.

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Sulphate attack on concrete is when sulphate enters concrete and combines with components of the cement paste and begins destroying the paste that holds the concrete together. New crystal compound forms as result of this chemical reaction and occupies void within concrete, which ultimately cracks and breakdown concrete micro-structure and leads to loss strength in concrete structure or corrosion in reinforcement.

11.8 Existing Building Condition Survey

It is also recommended to carry out building condition survey and remediate any defect as required when able. Laboratory and field tests are recommended to evaluate current building condition and forecast any risk may lead to deterioration.

We suggest undertaking a building structure condition survey after removal of all finishes to identify any structural defect and provide remediate as required.

Prepared by
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KEVIN BERRY
Managing Director

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Appendix A

Structural Review of Architectural Set

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EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED CONCRETE SLAB ON GROUND

ALLOW FOR EXCAVATION AND NEW FOOTING AT EACH LOCATION SHOWN DOTTED. AT THESE LOCATIONS, EXISTING FOOTING WILL LIKELY REQUIRE EXTENSION TO PROVIDE BASE TO STRENGTHENED PERIMETER COLUMN.

FOOTING TO BE ENTIRELY BELOW EXISTING BASEMENT SSL TO NOT INTERRUPT EXISTING PLENUM AND DRAINAGE.
SEE COLUMN STRENGTHENING DETAILS IN THIS REVIEW SET FOR MORE INFORMATION.
INTENTION AT THESE AREAS IS THAT BACK-PROPPING, JACKING AND UNDERPINNING BE MINIMISED AND ELMINATED IF POSSIBLE.

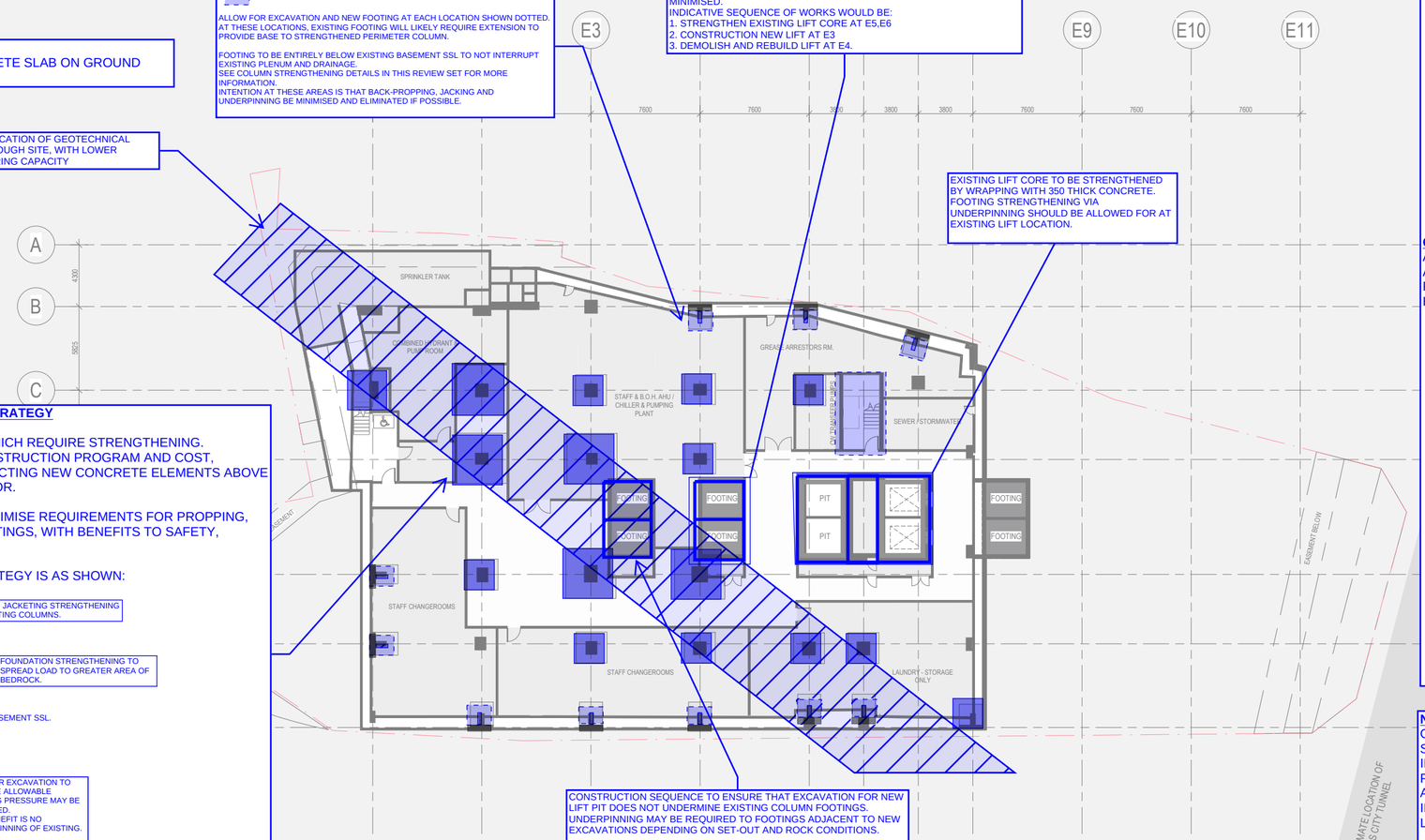
NOTE REGARDING SEQUENCING OF LIFT DEMOLITION AND REBUILD

EXISTING SINGLE-LIFT AT THIS LOCATION TO BE DEMOLISHED AND REPLACED BY NEW LIFT.
DEMOLITION TO BE SEQUENCED SUCH THAT GLOBAL STRUCTURAL STABILITY IS MAINTAINED AND TEMPORARY STABILITY BRACING IS MINIMISED.
INDICATIVE SEQUENCE OF WORKS WOULD BE:
1. STRENGTHEN EXISTING LIFT CORE AT E5,E6
2. CONSTRUCTION NEW LIFT AT E3
3. DEMOLISH AND REBUILD LIFT AT E4.

APPROXIMATE LOCATION OF GEOTECHNICAL FAULT ZONE THROUGH SITE, WITH LOWER ALLOWABLE BEARING CAPACITY

APPROXIMATE LOCATION OF CROSS CITY TUNNEL.
DEPTH AND LOCATION TO BE CONFIRMED, ALLOW FOR CONSULTATION WITH STAKEHOLDERS TO DISCUSS IMPLICATIONS OF ADDITIONAL STOREYS ON FOUNDATION FORCES.

EXISTING LIFT CORE TO BE STRENGTHENED BY WRAPPING WITH 350 THICK CONCRETE. FOOTING STRENGTHENING VIA UNDERPINNING SHOULD BE ALLOWED FOR AT EXISTING LIFT LOCATION.



CONSTRUCTION SEQUENCE TO ENSURE THAT EXCAVATION FOR NEW LIFT PIT DOES NOT UNDERMINE EXISTING COLUMN FOOTINGS. UNDERPINNING MAY BE REQUIRED TO FOOTINGS ADJACENT TO NEW EXCAVATIONS DEPENDING ON SET-OUT AND ROCK CONDITIONS.

EXCAVATIONS IN FAULT AFFECTED SANDSTONE REQUIRE TEMPORARY BATTERS OF 0.75(H):1(V).

UNSUPPORTED EXCAVATIONS IN ROCK WILL REQUIRE GEOTECHNICAL INSPECTIONS AT 1.5m DROPS IN EXCAVATION.

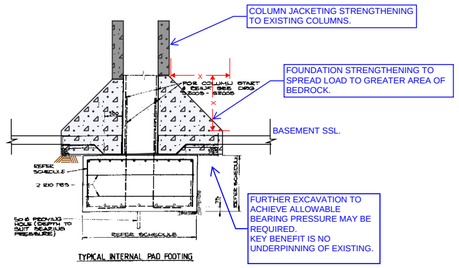
APPROXIMATE LOCATION OF CROSS CITY TUNNEL.
DEPTH AND LOCATION TO BE CONFIRMED, ALLOW FOR CONSULTATION WITH STAKEHOLDERS TO DISCUSS IMPLICATIONS OF ADDITIONAL STOREYS ON FOUNDATION FORCES.

INTERNAL FOUNDATION STRENGTHENING STRATEGY

BLUE MARK-UP INDICATES FOUNDATIONS WHICH REQUIRE STRENGTHENING.
IN ORDER TO ACHIEVE EFFICIENCIES IN CONSTRUCTION PROGRAM AND COST, FOUNDATION STRENGTHENING BY CONSTRUCTING NEW CONCRETE ELEMENTS ABOVE THE BASEMENT SLAB HAS BEEN ALLOWED FOR.

THE INTENTION OF THIS STRATEGY IS TO MINIMISE REQUIREMENTS FOR PROPPING, JACKING AND UNDERPINNING EXISTING FOOTINGS, WITH BENEFITS TO SAFETY, PROGRAM AND COST.

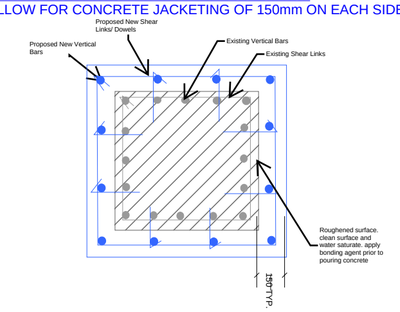
INDICATIVE FOOTING STRENGTHENING STRATEGY IS AS SHOWN:



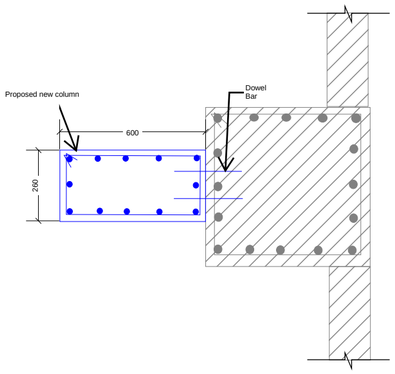
NOTE REGARDING COLUMN STRENGTHENING:

ALL EXISTING COLUMNS MUST BE STRENGTHENED IN ORDER TO RESIST THE WEIGHT OF ADDITIONAL STOREYS ABOVE.

GENERAL STRATEGY AT INTERNAL COLUMNS:
ALLOW FOR CONCRETE JACKETING OF 150mm ON EACH SIDE.



GENERAL STRATEGY AT PERIMETER COLUMNS:
ALLOW FOR INTERNAL RETURN COLUMN ON INSIDE FACE. NEW LOADS FROM ADDITIONAL STOREYS TO LOAD DIRECTLY INTO THESE EXTENSIONS.
PLAN GEOMETRY OF STRENGTHENED SECTION MAY BE MODIFIED, AT TYPICAL HOTEL FLOOR INTENTION IS FOR COLUMN TO FIT WITHIN HOTEL WALL.



NOTE REGARDING FOUNDATION STRENGTH:
ORIGINAL STRUCTURAL DESIGN WAS BASED ON TYPICAL ALLOWABLE BEARING STRENGTH OF 3500kPA, AND 1500kPa IN FAULT ZONE.
INVESTIGATIONS IN 2024 INDICATE THAT 5000kPa ALLOWABLE BEARING PRESSURE OUTSIDE OF FAULT ZONE IS ACHIEVABLE.
ALTHOUGH THE LOADS ONTO THE FOUNDATIONS ARE SUBSTANTIALLY INCREASED BY THE ADDITIONAL STOREYS ON THE BUILDING, THIS ADDITIONAL LOAD CAN GENERALLY BE ALLOWED FOR WITH THE INCREASED CAPACITY, UNO.

ITEMS TO CONSIDER THROUGHOUT DESIGN AND CONSTRUCTION PROCESS:
1. INVESTIGATIONS UNDER EACH FOOTING WITH ADDITIONAL LOADING MUST BE UNDERTAKEN TO ENSURE THERE ARE NO FAULTS WHICH WOULD LIMIT THE ALLOWABLE BEARING CAPACITY.
2. MONITORING OF DEFLECTION AND SETTLEMENT MUST TAKE PLACE DURING CONSTRUCTION IN ORDER TO ENSURE THAT BUILDING MOVEMENTS DO NOT EXCEED EXPECTED TOLERANCES.

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
Job Number: 221199
Sketch No. : SK250320.1

1 / RS_020 BASEMENT 02 PLAN
1 : 200

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1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
BASEMENT 02 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_098
REV NO. B

EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED FLAT SLAB WITH DROP PANELS
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY 3kPa, 5kPa IN EXISTING PLANT ROOMS

SOUTHERN PORTION IS SLAB ON GROUND AS INDICATED.

APPROXIMATE LOCATION OF CROSS CITY TUNNEL.
DEPTH AND LOCATION TO BE CONFIRMED, ALLOW FOR CONSULTATION WITH STAKEHOLDERS TO DISCUSS IMPLICATIONS OF ADDITIONAL STOREYS ON FOUNDATION FORCES.

EXISTING STRUCTURAL CAPACITY TO BE REVIEWED AGAINST WEIGHTS OF PLANT EQUIPMENT IN THESE ZONES.
HEAVY PLANT MAY NEED OT BE LOCATED CLOSE TO COLUMNS, OR STRUCTURE MAY REQUIRE STRENGTHENING FOR SUBSTANTIAL LOAD INCREASES.

ALLOW FOR EXCAVATION AND NEW FOOTING AT EACH LOCATION SHOWN DOTTED. AT THESE LOCATIONS, EXISTING FOOTING WILL LIKELY REQUIRE EXTENSION TO PROVIDE BASE TO STRENGTHENED PERIMETER COLUMN.

FOOTING TO BE ENTIRELY BELOW EXISTING BASEMENT SSL TO NOT INTERRUPT EXISTING PLENUM AND DRAINAGE.
SEE COLUMN STRENGTHENING DETAILS IN THIS REVIEW SET FOR MORE INFORMATION.
INTENTION AT THESE AREAS IS THAT BACK-PROPPING, JACKING AND UNDERPINNING BE MINIMISED AND ELIMINATED IF POSSIBLE.

NEW EXCAVATION AND STRUCTURAL CORE-WALLS FOR NEW LIFT.
SEE NOTES ON B2 FOR COMMENTS ON SEQUENCING AND METHODOLOGY.

EXISTING CORE DEMOLISHED AND REBUILT

EXISTING CORE RETAINED AND STRENGTHENED

SEE GENERAL STRATEGY FOR PERIMETER COLUMN STRENGTHENING NOTED ON B2 PLAN.

NOTE: STRENGTHENING NOT REQUIRED TO INTERNAL COLUMN FOUNDATIONS AT B1 FOLLOWING 2024 GEOTECHNICAL INVESTIGATIONS.

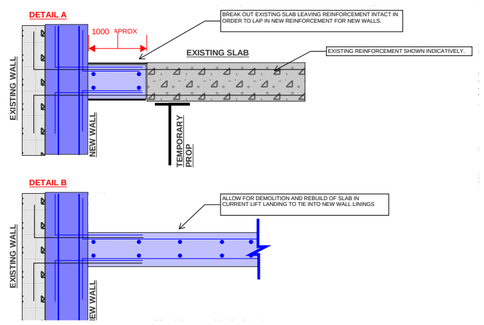
SOUTHERN PORTION OF EXISTING B1 STRUCTURE BEARS DIRECTLY ON GROUND.

APPROXIMATE LOCATION OF SYDNEY WATER SEWER PIPE (300DIA VITRIFIED CLAY) AS IDENTIFIED IN DIAL BEFORE YOU DIG PLAN.
SEE TTW PLANNING STAGE REPORT FOR COMMENTARY ON IMPLICATIONS AND POTENTIAL REQUIREMENTS FOR A SYDNEY WATER SPECIAL ENGINEERING ASSESSMENT OF THIS ASSET.

APPROXIMATE LOCATION OF CROSS CITY TUNNEL.
DEPTH AND LOCATION TO BE CONFIRMED, ALLOW FOR CONSULTATION WITH STAKEHOLDERS TO DISCUSS IMPLICATIONS OF ADDITIONAL STOREYS ON FOUNDATION FORCES.

CORE-WALL CONSTRUCTION AND STRENGTHENING STRATEGY

AT LOCATION OF NEW LIFTS CORES, STRENGTHENED LIFT CORE WALLS, OR NEW VOIDS FOR STAIRS, ALLOW FOR:
1. BREAK OUT OF EXISTING REINFORCED CONCRETE SLAB FOR APPROX 1.0m BEYOND THE LOCATION OF NEW WALL OR STRENGTHENED WALL.
2. EXISTING REINFORCEMENT MUST BE MAINTAINED AT BROKEN OUT SLAB SUCH THAT NEW REINFORCEMENT FOR WALL CAN BE TIED IN FOR STRUCTURAL CONTINUITY.
3. TEMPORARY BACK-PROPPING TO FOUNDATION LEVEL REQUIRED PRIOR TO ANY DEMOLITION.



1 RS_020 BASEMENT B01 PLAN
1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
Job Number: 221199
Sketch No. : SK250320.1

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CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
BASEMENT 01 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_099
REV NO. B

Sussex Street

EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED FLAT SLAB WITH DROP PANELS
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY 5kPA

SUBSTATION CONSTRUCTION METHODOLOGY NOTE

ALLOW FOR DEMOLITION AND RECONSTRUCTION OF AREA FOR NEW SUBSTATION. AREA MUST BE REBUILT TO ALLOW FOR:
1. SUBSTANTIAL INCREASE IN REQUIRED STRENGTH CAPACITY. TYPICAL STRENGTH REQUIRED AT SUBSTATION IS 10kPa LIVE LOAD AND 5kPa SDL.
2. VERY SPECIFIC SLAB AND PIT LEVELS ARE REQUIRED FOR THE CABLE RUNS AND ENTRY POINTS INTO THE SUBSTATION.
3. FIRE RATING OF 240MINS IS REQUIRED TO SUBSTATION BASE SLAB, WALLS AND ROOF. THIS WILL REQUIRE REBUILT GROUND FLOOR SLAB, AND INSTALLATION OF A NEW CONCRETE "CEILING" ABOVE GROUND FLOOR, OR STRENGTHEN L1 SLAB ABOVE.

DEMOLITION OF EXISTING SLAB REQUIRES CONSIDERATION AND ALLOWANCE FOR:
1. INTERNAL TEMPORARY PROPPING OF SHORING WALL ALONG SITE PERIMETER TO MAINTAIN STABILITY WHEN SLAB REMOVED.
2. OVER-BREAK OF EXISTING STRUCTURE BEYOND SUBSTATION EXTENT AS SHOWN. EXISTING REINFORCEMENT TO BE EXPOSED AND NEW REINFORCEMENT TO BE TIED-IN TO PROVIDE STRUCTURAL CONTINUITY.
3. TEMPORARY PROPPING AT DEMOLITION PERIMETER TO BE PROVIDED.
4. TEMPORARY BRACING AT COLUMN LOCATIONS WITHIN DEMOLITION EXTENT TO BE PROVIDED TO ENSURE STABILITY WHEN SLAB REMOVED.

NOTE THAT EXISTING STRUCTURAL CAPACITY ALLOWS FOR 5.0kPa LIVE LOAD. THIS IS TYPICAL ADEQUATE FOR STORAGE AREAS AND MEDIUM RIGID VEHICLES.
SPECIFIC USES OF THIS SPACE TO BE ASSESSED DURING DETAILED DESIGN TO REVIEW WHETHER ANY ADDITIONAL STRENGTHENING IS REQUIRED.

SEE NOTE ON B2 AND B1 PLAN REGARDING SEQUENCING OF CORE RE-BUILD, AND CONSTRUCTION REQUIREMENTS TO TIE INTO EXISTING STRUCTURE.
ALLOW FOR DEMOLITION OF 1.0m OF SLAB AROUND NEW CORES AND STRENGTHENED WALLS WITH EXISTING REINFORCEMENT MAINTAINED..
PROVIDE TEMPORARY PROPPING AT ALL SLAB EDGES AROUND DEMOLITION.

MODIFICATIONS TO SLAB WILL BE REQUIRED TO FACILITATE NEW VOIDS FOR STAIR PENETRATIONS. SPECIFIC REQUIREMENTS TO BE REVIEWED IN DETAILED DESIGN STAGE, ALLOW FOR TEMPORARY SUPPORT AROUND ALL TEMPORARY PENETRATIONS.

EXISTING BUILDING JOINT

EXISTING CORE RETAINED AND STRENGTHENED

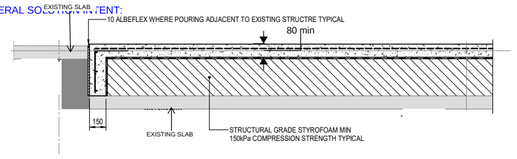
SLAB LEVEL BUILD-UP NOTE

EXISTING STRUCTURAL SLAB HAS A STEP AT THIS LOCATION AT INTERFACE OF DROP-OFF AREA.
GENERAL STRATEGY IS TO BUILD UP LEVEL OF EXISTING EXTERNAL AREA TO MATCH INTERNAL LEVEL.
STRUCTURAL LOAD INCREASE TO BE MINIMISED BY BUILD-UP USING POLYSTYRENE VOID FORMER AND 80mm THICK TOPPING SLAB.

WHERE EXISTING STRUCTURE LEVEL MUST BE DECREASED, OR STRENGTH CAPACITY IS FOUND TO BE INADEQUATE, DEMOLITION AND REBUILD OF SLAB REQUIRED AS PER NOTE ON SOUTHERN SIDE AND SUBSTATION OF GROUND FLOOR. IN PARTICULAR, NOTE REQUIREMENTS FOR TEMPORARY SUPPORT OF PERIMETER RETAINING WALLS DURING DEMOLITION WORKS.

IN-DEPTH STRUCTURAL REVIEWS OF EXISTING CAPACITY AND CURRENT FINISHED TO DRIVE-WAY TO ASSESS IMPACT OF NEW BUILD-UP AND ANY REQUIREMENT FOR STRENGTHENING.

GENERAL SOLUTION INTENT:



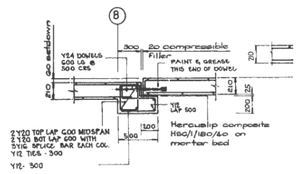
SEE GENERAL STRATEGY FOR PERIMETER COLUMN STRENGTHENING NOTED ON B2 PLAN.

COLUMNS HAVE BEEN BROUGHT DOWN THROUGH PREVIOUS OPEN SPACE IN ORDER TO AVOID OVERLOADING AND STRENGTHENING EXISTING TRANSFER BEAM AT L1 WHEN NEW LOADS FROM ADDITIONAL STOREYS IS ADDED.
SPECIFIC DETAIL AT INTERFACE WITH L1 TO BE ASSESSED IN DETAILED DESIGN.

NOTE REGARDING BUILDING JOINT:

THERE IS AN EXITING BUILDING JOINT AT GRID 8 WHICH STRUCTURALLY SEPARATES THE STRUCTURE TO THE NORTH AND SOUTH OF THIS LINE FROM THE BASE TO THE TOP OF THE EXISTING STRUCTURE.
STEEL PLATES WILL BE USED TO TIE TOGETHER THE STRUCTURE ACROSS THIS JOINT AT ALL FLOORS SO THAT THE BUILDING BEHAVES ROBUSTLY AS A SINGLE STRUCTURAL ELEMENT.

DETAIL FROM ORIGINAL STRUCTURAL DOCUMENTATION:



STEPPING CONCRETE REBUILD CONSTRUCTION NOTE

EXISTING SLAB IN THIS ZONE HAS A VARIETY OF LEVELS SEPARATED BY STEPS AND FOLDS IN THE STRUCTURAL SLAB. IN ADDITION, THE EXISTING SLAB DOES NOT HAVE THE STRENGTH CAPACITY FOR HEAVY LANDSCAPE LOADING.

GENERAL STRATEGY TO FORM A CONSISTENT FINISH LEVEL IS TO:
1. DEFINE THE NEW LEVEL AS ONE OF THE EXISTING LEVELS IN THIS ZONE.
2. DEMOLISH PORTIONS OF EXISTING CONCRETE AT HIGHER LEVEL AND REBUILD AT LOWER LEVEL.

IN-DEPTH STRUCTURAL REVIEW OF EXISTING CAPACITY AND FINISHED REQUIRED IN ORDER TO ASSESS IMPACT OF NEW BUILD-UP AND CONSIDER ANY STRENGTHENING REQUIRED.
WHERE DEMOLITION REQUIRED, ALLOW FOR TEMPORARY PROPPING AT ALL FREE EDGES, AND DEMOLISH 1.0m PAST EXTENT OF REQUIRED LEVEL TO EXPOSE EXISTING REINFORCEMENT AND PERMIT TYING IN THE NEW STRUCTURE.
SEE NOTE ON SUBSTATION AT NORTH END OF GROUND FLOOR SLAB FOR DISCUSSION OF REQUIREMENTS DURING DEMOLITION. IN PARTICULAR, NOTE REQUIREMENTS FOR TEMPORARY SUPPORT OF PERIMETER RETAINING WALLS DURING DEMOLITION WORKS.

SEE GENERAL SOLUTION INTENT AT WESTERN SIDE OF GROUND FLOOR SLAB.

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1 GROUND FLOOR L00 PLAN
1 RS_020 1 : 200

516

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REV	DESCRIPTION	DATE
A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
GROUND FLOOR PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_100
REV NO. B

EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED FLAT SLAB WITH DROP PANELS
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY LIVE LOAD- 5kPa, SUPERIMPOSED DEAD LOAD- 2kPa (PARTITIONS)

NOTE: FIRE STAIRS TO NORTH AND SOUTH OF LIFT CORES ARE INTENDED TO HAVE NON-LOAD BEARING WALLS.
FIRE-STAIRS DO NOT EXTEND TO BASEMENT LEVELS, SO STRUCTURAL LOAD PATH TO FOUNDATIONS IS NOT PROVIDED.

GENERAL INTENT IS TO FRAME OUT NEW STAIR VOIDS WITH BEAMS AND COLUMN SYSTEM, AND ALLOW FOR BLOCKWORK MASONRY WALLS.

EXISTING STAIR VOID TO BE INFILLED. ALLOW FOR STEEL BEAM AND BONDEK STRUCTURE.

NOTE, 4 HOUR FRL WILL BE REQUIRED ABOVE SUBSTATION.

EXISTING BUILDING JOINT

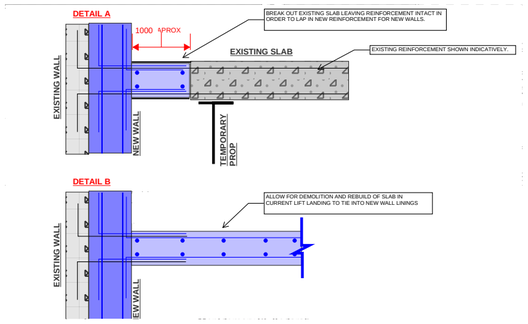
EXISTING CORE RETAINED AND STRENGTHENED

PERIMETER COLUMN STRENGTHENING. SEE NOTE ON BASEMENT PLANS OF THIS SET.

NOTE, FORMING NEW SET-DOWN OR REBATES IN EXISTING SLAB WILL NOT BE POSSIBLE DUE TO EXISTING REINFORCEMENT DEPTHS.
TILING ZONE REQUIREMENTS AND THRESHOLDS MUST BE CAREFULLY COORDINATED TO ENSURE THAT WEIGHTS REMAIN WITHIN STRUCTURAL LIMITATIONS AND STEPS OR RAMPS ARE ARCHITECTURALLY ACCEPTABLE.

CORE-WALL CONSTRUCTION AND STRENGTHENING STRATEGY

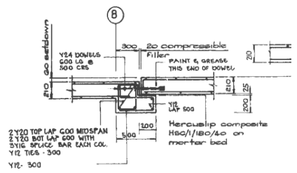
AT LOCATION OF NEW LIFTS CORES, STRENGTHENED LIFT CORE WALLS, OR NEW VOIDS FOR STAIRS, ALLOW FOR:
1. BREAK OUT OF EXISTING REINFORCED CONCRETE SLAB FOR APPROX 1.0m BEYOND THE LOCATION OF NEW WALL OR STRENGTHEN WALL.
2. EXISTING REINFORCEMENT MUST BE MAINTAINED AT BROKEN OUT SLAB SUCH THAT NEW REINFORCEMENT FOR WALL CAN BE TIED IN FOR STRUCTURAL CONTINUITY.
3. TEMPORARY BACK-PROPPING TO FOUNDATION LEVEL REQUIRED PRIOR TO ANY DEMOLITION.



NOTE REGARDING BUILDING JOINT:

THERE IS AN EXITING BUILDING JOINT AT GRID 8 WHICH STRUCTURALLY SEPARATES THE STRUCTURE TO THE NORTH AND SOUTH OF THIS LINE FROM THE BASE TO THE TOP OF THE EXISTING STRUCTURE.
STEEL PLATES WILL BE USED TO TIE TOGETHER THE STRUCTURE ACROSS THIS JOINT AT ALL FLOORS SO THAT THE BUILDING BEHAVES ROBUSTLY AS A SINGLE STRUCTURAL ELEMENT.

DETAIL FROM ORIGINAL STRUCTURAL DOCUMENTATION:



Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

1 RS_020 L01 PLAN
1 : 200

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REFERENCE

NORTH

1:200 0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 01 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_101
REV NO. B

EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED FLAT SLAB WITH DROP PANELS
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY LIVE LOAD- 5kPa, SUPERIMPOSED DEAD LOAD- 2kPa (PARTITIONS)

SEE REQUIREMENTS NOTED ON LOWER LEVEL PLANS FOR STRUCTURAL IMPLICATIONS AND PROPOSED METHODOLOGY OF CORE-REBUILD.

REMOVING EXISTING COLUMN FROM THIS LOCATION IS POSSIBLE, BUT WILL REQUIRE SUBSTANTIAL STRUCTURAL WORKS AT LEVEL ABOVE.
A NEW STRUCTURAL TRANSFER BEAM WOULD BE REQUIRED AT L3, SPANNING FROM (E11,E) TO (E11,H).
THE DEPTH OF THIS BEAM WOULD BE AT LEAST 1200mm, WHICH WOULD MATCH THE EXISTING TRANSFER BEAMS ON GRIDS E9 AND E10 AT LEVEL 3.

REQUIREMENTS FOR THIS WOULD INCLUDE AND NOT BE LIMITED TO:

1. TEMPORARY PROPPING REQUIRED TO SUPPORT COLUMN, INCLUDING SIGNIFICANT TEMPORARY STEELWORK TO FOUNDATION. HYDRAULIC JACKING UP OF COLUMN REQUIRED TO LIFT OFF EXISTING SUPPORT PRIOR TO DEMOLITION OF COLUMN BELOW.
2. DEMOLITION OF COLUMN AT L2.
3. DEMOLITION OF PORTION OF SLAB AT L3 FOR NEW TRANSFER BEAM TO BE BUILT. TEMPORARY PROPPING OF SLAB AROUND TEMPORARY PENETRATION AT L3 REQUIRED PRIOR TO DEMOLITION.
4. CONSTRUCTION OF NEW TRANSFER BEAM, TO BE TIED INTO EXISTING L3 STRUCTURE.

EXISTING STAIR VOID TO BE INFILLED.
NOMINALLY ALLOW FOR STEEL BEAM AND BONDEK SOLUTION.

3no. EXISTING COLUMNS IN THIS LOCATION MAY BE REMOVED.
COLUMNS SUPPORT FIRE STAIR CURRENTLY WHICH IS REMOVED IN PROPOSED SCHEME.

THIS PORTION OF EXISTING SLAB IS STEPPED TO A HIGHER SSL.
THIS PORTION OF STRUCTURE COULD BE LOWERED TO THE SAME SSL AS THE REST OF L1 BY FOLLOWING THE METHODOLOGY OF:
1. PROVIDE TEMPORARY PROPPING AROUND THE EDGE OF THE AREA OF TEMPORARY DEMOLITION.
2. PROVIDE BRACING TO TEMPORARILY STABILISE THE COLUMNS AT THE LEVEL OF THE L1 SLAB.
3. REVIEW FACADE SUPPORT IMPLICATIONS
4. DEMOLITION EXTENT TO EXTEND PAST EXISTING STEP, WITH EXISTING REINFORCEMENT EXPOSED FOR 1.0m LENGTH TO TIE IN NEW REINFORCEMENT.
5. NEW CONCRETE STRUCTURE TO BE CAST TO REQUIRED LEVEL.

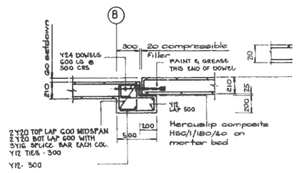
EXISTING CORE RETAINED AND STRENGTHENED

PERIMETER COLUMN STRENGTHENING. SEE NOTE ON BASEMENT PLANS OF THIS SET.

NOTE REGARDING BUILDING JOINT:

THERE IS AN EXITING BUILDING JOINT AT GRID 8 WHICH STRUCTURALLY SEPARATES THE STRUCTURE TO THE NORTH AND SOUTH OF THIS LINE FROM THE BASE TO THE TOP OF THE EXISTING STRUCTURE.
STEEL PLATES WILL BE USED TO TIE TOGETHER THE STRUCTURE ACROSS THIS JOINT AT ALL FLOORS SO THAT THE BUILDING BEHAVES ROBUSTLY AS A SINGLE STRUCTURAL ELEMENT.

DETAIL FROM ORIGINAL STRUCTURAL DOCUMENTATION:



1 L02 PLAN
RS_020 1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

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Nominated Architects NSW:
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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 02 PLAN

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_102

REV NO.
B

EXISTING STRUCTURAL SYSTEM:
CONVENTIONALLY REINFORCED FLAT SLAB WITH DROP PANELS
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY LIVE LOAD- 2kPa IN ROOMS, 4kPa IN CORRIDORS,
SUPERIMPOSED DEAD LOAD- 1kPa (PARTITIONS)

SEE REQUIREMENTS NOTED ON LOWER LEVEL PLANS FOR STRUCTURAL IMPLICATIONS AND PROPOSED METHODOLOGY OF CORE-REBUILD.

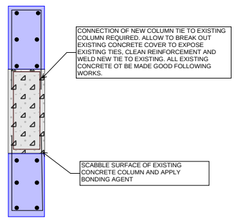
EXISTING FIRE STAIR AND ATRIUM VOID IN FILLED WITH STRUCTURAL STEEL BEAMS AND BONDEK IN ARRANGEMENT SHOWN.

GENERAL SOLUTION TO INFILL EXISTING STAIR VOIDS WITH BONDEK AND STRUCTURAL STEEL FRAMING.

SEE NOTE ON LEVEL 2 PLAN REGARDING WHAT WOULD BE REQUIRED IN TERMS OF BUILDING A NEW TRANSFER BEAM TO REMOVE COLUMN AT L2.

ALL EXISTING COLUMNS ARE TO BE STRENGTHENED, EXTENT SHOWN HERE INDICATIVELY ONLY, REFER TO ORIGINAL STRUCTURAL DRAWINGS TO ESTIMATE QUANTUM OF WORKS FOR COSTING.

TYPICAL COLUMN STRENGTHENING SOLUTION TO ALL COLUMNS AT HOTEL FLOORS,
INTERNAL COLUMN STRENGTHENING:



PERIMETER COLUMN STRENGTHENING
GENERAL INTENT OF WORKS AS PER NOTES ON B2 SHEET OF THIS SET.

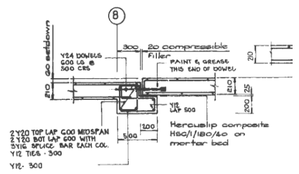
EXISTING CORE RETAINED AND STRENGTHENED

EXISTING BUILDING JOINT

NOTE REGARDING BUILDING JOINT:

THERE IS AN EXITING BUILDING JOINT AT GRID 8 WHICH STRUCTURALLY SEPARATES THE STRUCTURE TO THE NORTH AND SOUTH OF THIS LINE FROM THE BASE TO THE TOP OF THE EXISTING STRUCTURE.
STEEL PLATES WILL BE USED TO TIE TOGETHER THE STRUCTURE ACROSS THIS JOINT AT ALL FLOORS SO THAT THE BUILDING BEHAVES ROBUSTLY AS A SINGLE STRUCTURAL ELEMENT.

DETAIL FROM ORIGINAL STRUCTURAL DOCUMENTATION:



1 RS_020 L03 PLAN
1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting Job Number: 221199 Sketch No. : SK250320.1

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 03 PLAN

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_103
REV NO. B

519

STRUCTURAL REQUIREMENTS AT L04-L10 ARE SIMILAR

EXISTING STRUCTURAL SYSTEM:
POST-TENSIONED CONCRETE STRUCTURE
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY LIVE LOAD- 2kPa
SUPERIMPOSED DEAD LOAD- 2kPa (PARTITIONS)

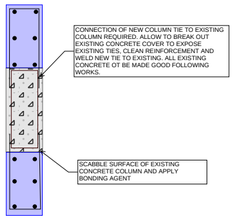
SEE REQUIREMENTS NOTED ON LOWER LEVEL PLANS FOR STRUCTURAL IMPLICATIONS AND PROPOSED METHODOLOGY OF CORE-REBUILD.

EXISTING FIRE STAIR AND ATRIUM VOID IN FILLED WITH STRUCTURAL STEEL BEAMS AND BONDEK IN ARRANGEMENT SHOWN.

GENERAL SOLUTION TO INFILL EXISTING STAIR VOIDS WITH BONDEK AND STRUCTURAL STEEL FRAMING.

ALL EXISTING COLUMNS ARE TO BE STRENGTHENED, EXTENT SHOWN HERE INDICATIVELY ONLY, REFER TO ORIGINAL STRUCTURAL DRAWINGS TO ESTIMATE QUANTUM OF WORKS FOR COSTING.

TYPICAL COLUMN STRENGTHENING SOLUTION TO ALL COLUMNS AT HOTEL FLOORS,
INTERNAL COLUMN STRENGTHENING:



PERIMETER COLUMN STRENGTHENING
GENERAL INTENT OF WORKS AS PER NOTES ON B2 SHEET OF THIS SET.

EXISTING CORE RETAINED AND STRENGTHENED

NOTE: NEW RISER VOIDS AT CENTRAL LIFT CORE MUST BE COORDINATED AROUND EXISTING POST-TENSIONING LAYOUT.

YELLOW HIGHLIGHTED ZONE INDICATES LOCATION WHERE STRENGTHENING MAY BE REQUIRED DUE TO TRUNCATION OF POST-TENSIONING REINFORCEMENT. STRENGTHENING OPTIONS INCLUDE STRUCTURAL STEELWORK AND CARBON-FIBRE SOLUTIONS.

NOTE ON REQUIREMENTS FOR TRUNCATING EXISTING POST-TENSIONING.

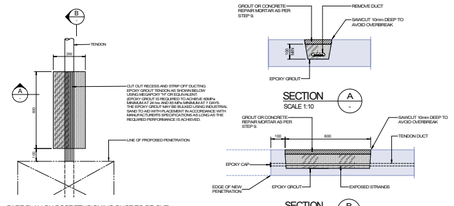
FOR NEW LIFT AND STAIR SOUTH OF GRID E8 IN PARTICULAR.

TRUNCATION OF EXISTING POST-TENSIONING WILL BE REQUIRED TO FORM NEW OPENING FOR LIFT AND STAIR VOID. DETAILED ANALYSIS REQUIRED AT NEXT DESIGN STAGE IN ORDER TO ASSESS ANY ADDITIONAL STRENGTHENING IN ADJACENT SLAB WHICH MAY BE REQUIRED TO FACILITATE THIS TRUNCATION.

TYPICAL REQUIREMENT FOR PT TRUNCATION SHOWN BELOW, THESE ARE PROVIDED FOR GENERAL INFORMATION ONLY AND WILL BE UPDATED FOR THE SPECIFIC REQUIREMENTS OF THIS PROJECT.

PROCEDURE FOR CUTTING
NEW SLAB PENETRATION

1. Mark out area of slab to be removed.
2. Precisely locate slab tendons in area of penetration by locating the tendon staples on the underside of the slab or by GPR scanning. Contact the Engineer to arrange inspection.
3. For each tendon to be cut, carefully remove a 600 long by 250 wide strip of concrete from above and around the tendon 100mm from the penetration. DO NOT CUT ANY REINFORCEMENT. Strip off the ducting and clean out the existing grout.
4. Epoxy grout infill the strip as per details A and B using Megapoxy 'H' or equivalent in accordance with Manufacturers instructions. Allow sufficient time for the epoxy to cure. Epoxy grout to achieve at least 60 MPa in 24 hrs and 85 MPa in 7 days.
5. Install a propped platform just below the area to be demolished to retain debris.
6. Core drill the corners of the penetration to eliminate the need for overcutting and then cut the penetration using a diamond saw.
7. Cut the slab into manageable chunks and remove them.
8. Remove the platform and props.
9. Infill top portion of strip with 3:1 sand:cement grout or 'Renderoc HB' for internal applications and 'Renderoc HB40 Plus' for external applications or areas with no applied finishes. Infill is to be finished flush with surrounding concrete surface.
10. Epoxy paint exposed strands to prevent corrosion.



1 RS_020 — L04 PLAN
1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting — Job Number: 221199 Sketch No. : SK250320.1

529

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REFERENCE

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1:200
0m 2m 4m 6m 8m

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PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 04 PLAN

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_104

REV NO.
B

ALLOW FOR STRENGTHENING TO EXISTING L11 STRUCTURE TO FACILITATE CHANGE OF USE. STRENGTHENING MAY BE ACHIEVED BY A GRILLAGE OF BEAMS ABOVE THE EXISTING SLAB (HIDDEN WITHIN AN ACCESS FLOOR) TO SUPPORT THE WEIGHTS OF PLANT, LANDSCAPE AND POOL LOADS.
THIS STRENGTHENING COULD BE INCORPORATED INTO A CONSTRUCTION CRASH DECK WHICH WOULD BE INSTALLED TO ALLOW FOR CONSTRUCTION OF THE ADDITIONAL STOREYS WHILE ACCESS IS MAINTAINED BELOW FOR MODIFICATION AND FIT-OUT WORKS,

EXISTING CONCRETE TOPPINGS MUST BE REMOVED FROM THIS SLAB TO MINIMISE EXISTING WEIGHT PRIOR TO NEW WORKS TAKING PLACE.
RENOVATION WORKS IN THE 1990s INCLUDED ADDITION OF NEW TOPPINGS WHICH HAVE REDUCED AVAILABLE STRUCTURAL CAPACITY BELOW ORIGINAL DESIGN INTENT.

EXISTING STRUCTURAL SYSTEM:
POST-TENSIONED CONCRETE STRUCTURE
EXISTING FRL AT LEAST 90/90/90
EXISTING LIVE LOAD CAPACITY LIVE LOAD- 3kPa TYPICALLY, 7.5kPa IN EXISTING PLANT-ROOM.

NOTE ON HEAVY PLANT EQUIPMENT

HEAVY PLANT WILL REQUIRE STEEL GRILLAGE AT LOW LEVEL FOR STRUCTURAL SUPPORT IN ORDER NOT TO OVERLOAD EXISTING SLAB.
GENERAL INTENTION IS TO PROVE AND ACCESS FLOOR OVER LOW-LEVEL STEEL BEAM GRILLAGES.

STRUCTURAL REVIEW ON EIGHTS OF PLANT, INCLUDING PLINTHS, MUST BE CARRIED OUT TO EXISTING STRUCTURE IS NOT OVERLOADED.
HEAVY PLANT SHOULD BE LOCATED CLOSE TO STRUCTURAL SUPPORTS (COLUMNS) AND LIGHT-WEIGHT PLINTHS SPECIFIED TO MINIMISE STRENGTHENING REQUIREMENTS.

AT BUILDING PERIMETER, COLUMN TRANSFER COULD BE ACHIEVED BY TRUSSES, OR BY DEEP STRUCTURE, POTENTIALLY HIDDEN WITHIN THE DEPTH OF THE PROPOSED PLANTER BEDS.

ALLOW FOR 1200WB455 TO TRANSFER LOADS FOR INDICATIVE COSTING.

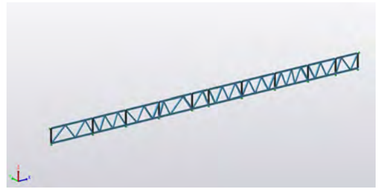
SEE REQUIREMENTS NOTED ON LOWER LEVEL PLANS FOR STRUCTURAL IMPLICATIONS AND PROPOSED METHODOLOGY OF CORE-REBUILD.

GENERAL STRUCTURAL SOLUTION TO PROVIDE FULL STOREY STEEL TRUSSES TO TRANSFER COLUMN LOADS AT THIS STOREY.

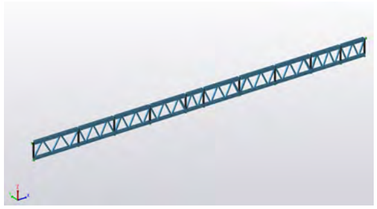
TRUSSES TO BE ARRANGED IN NORTH-SOUTH ORIENTATION OVER EXISTING COLUMN GRID LOCATIONS AS INDICATED.

LOWER STEEL-TONNAGE SOLUTIONS WILL BE ACHIEVED WITH IRREGULAR WARREN TRUSSES WHICH DIRECTLY TRANSFER COLUMN LOADS BY DIAGONALS AT EXACT REQUIRED LOCATIONS.
NOMINALLY, AN IRREGULAR TRUSS WITH OPTIMISED GEOMETRY WILL REQUIRE APPROXIMATELY HALF THE STEEL TONNAGE OF A REGULAR TRUSS.

OPTION 1: OPTIMISED IRREGULAR TRUSS
TOTAL STEEL WEIGHT FOR COSTING, APPROXIMATELY 450kg/m



OPTION 2: NON-OPTIMISED REGULAR TRUSS
TOTAL STEEL WEIGHT FOR COSTING, APPROXIMATELY 1100kg/m



NOTE ON DEEP PLANTER ZONE AND INTEGRATED TEMPORARY WORKS DECK AT L11

INCLUSION OF DEEP PLANTER ZONE AT L11 WILL REQUIRE EXTENSIVE STRENGTHENING OF EXISTING STRUCTURE DUE TO INCREASED WEIGHT.

AS WE WILL BE BUILDING ABOVE THE EXISTING HOTEL FROM THIS FLOOR, THERE WILL BE EFFICIENCIES IN INCORPORATING THIS STRENGTHENING INTO A CRASH-DECK AND CONSTRUCTION PLATFORM WHICH WILL ALLOW FOR SAFE CONSTRUCTION ABOVE THE EXISTING STRUCTURE.

NOTE ON PROPOSED USE OF GYM AREA

GENERALLY ALLOW FOR SUB-FLOOR OR ACCESS FLOOR WITHIN GYM AREA TO MINIMISE IMPACT OF VIBRATION PROPAGATION THROUGH STRUCTURE.
SOME DEGREE OF STRUCTURAL STRENGTHENING LIKELY REQUIRED IN GYM AREA IN ORDER TO INCREASE EXISTING CAPACITY TO REQUIRED LEVEL. EXTENT OF STRENGTHENING TO BE ADVISED FOLLOWING DETAILED INVESTIGATION OF EXISTING CAPACITY AND WEIGHTS OF EXISTING FINISHES.

AT BUILDING PERIMETER, COLUMN TRANSFER COULD BE ACHIEVED BY TRUSSES, OR BY DEEP STRUCTURE, POTENTIALLY HIDDEN WITHIN THE DEPTH OF THE PROPOSED PLANTER BEDS.

ALLOW FOR 1200WB455 TO TRANSFER LOADS FOR INDICATIVE COSTING.

NOTE ON REQUIREMENTS FOR TRUNCATING EXISTING POST-TENSIONING.

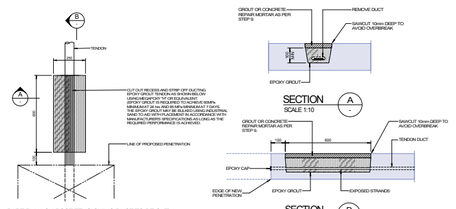
FOR NEW LIFT AND STAIR SOUTH OF GRID E8 IN PARTICULAR.

TRUNCATION OF EXISTING POST-TENSIONING WILL BE REQUIRED TO FORM NEW OPENING FOR LIFT AND STAIR VOID.
DETAILED ANALYSIS REQUIRED AT NEXT DESIGN STAGE IN ORDER TO ASSESS ANY ADDITIONAL STRENGTHENING IN ADJACENT SLAB WHICH MAY BE REQUIRED TO FACILITATE THIS TRUNCATION.

TYPICAL REQUIREMENT FOR PT TRUNCATION SHOWN BELOW. THESE ARE PROVIDED FOR GENERAL INFORMATION ONLY AND WILL BE UPDATED FOR THE SPECIFIC REQUIREMENTS OF THIS PROJECT.

PROCEDURE FOR CUTTING
NEW SLAB PENETRATION

1. Mark out area of slab to be removed.
2. Precisely locate slab tendons in area of penetration by locating the tendon staples on the underside of the slab or by GPR scanning. Contact the Engineer to arrange inspection.
3. For each tendon to be cut, carefully remove a 600 long by 250 wide strip of concrete from above and around the tendon 100mm from the penetration. DO NOT CUT ANY REINFORCEMENT. Strip off the ducting and clean out the existing grout.
4. Epoxy grout infill the strip as per details A and B using Megapoxy 1rf or equivalent in accordance with Manufacturers instructions. Allow sufficient time for the epoxy to cure. Epoxy grout to achieve at least 6 MPa in 24 hrs and 85 MPa in 7 days.
5. Install a propped platform just below the area to be demolished to retain debris.
6. Core drill the corners of the penetration to eliminate the need for overcutting and then cut the penetration using a diamond saw.
7. Cut the slab into manageable chunks and remove them.
8. Remove the platform and props.
9. Infill top portion of strip with 3:1 sand:cement grout or 'Renderoc HB' for internal applications and 'Renderoc HB40 Plus' for external applications or areas with no applied finishes. Infill is to be finished flush with surrounding concrete surface.
10. Epoxy paint exposed strands to prevent corrosion.



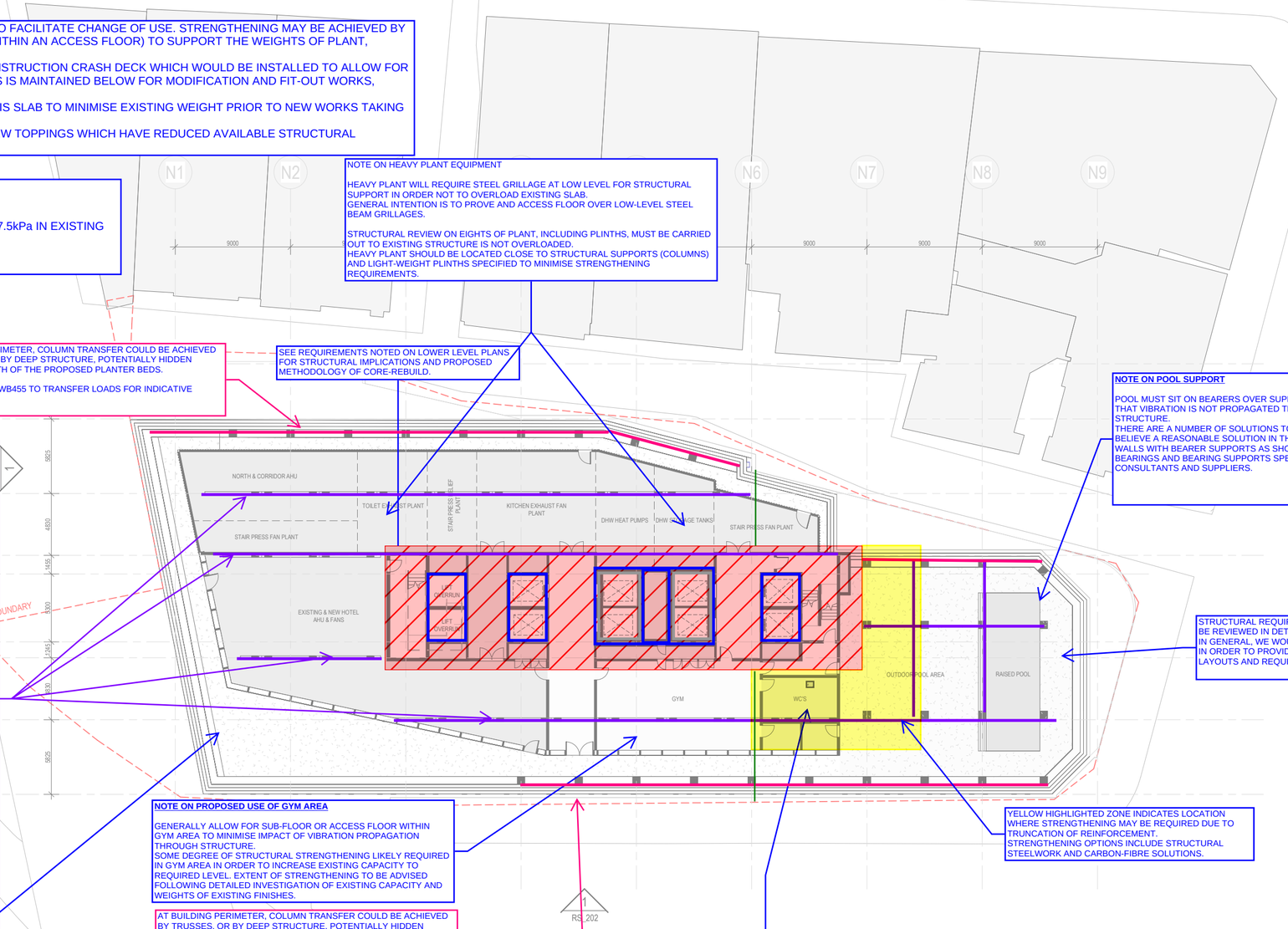
PART PLAN ON POST TENSIONING DUCT TO BE CUT
SCALE 1:10

NOTE ON POOL SUPPORT

POOL MUST SIT ON BEARERS OVER SUPPORTING STRUCTURE TO ENSURE THAT VIBRATION IS NOT PROPAGATED THROUGH TO THE GLOBAL STRUCTURE.
THERE ARE A NUMBER OF SOLUTIONS TO ACHIEVE THIS, HOWEVER WE BELIEVE A REASONABLE SOLUTION IN THIS CASE WOULD INVOLVE DWARF WALLS WITH BEARER SUPPORTS AS SHOWN IN INDICATIVE DETAILS BEARINGS AND BEARING SUPPORTS SPECIFIED BY SPECIALIST CONSULTANTS AND SUPPLIERS.

STRUCTURAL REQUIREMENTS TO SUPPORT WEIGHT OF POOL PLANT MUST BE REVIEWED IN DETAIL WITH INPUT FROM A POOL CONSULTANT.
IN GENERAL, WE WOULD EXPECT THAT A POOL CONSULTANT BE ENGAGED IN ORDER TO PROVIDE SPECIALIST ADVICE REGARDING PLANT, SPATIAL LAYOUTS AND REQUIREMENTS FOR BALANCE TANKS.

YELLOW HIGHLIGHTED ZONE INDICATES LOCATION WHERE STRENGTHENING MAY BE REQUIRED DUE TO TRUNCATION OF REINFORCEMENT.
STRENGTHENING OPTIONS INCLUDE STRUCTURAL STEELWORK AND CARBON-FIBRE SOLUTIONS.



1 RS_202

1 RS_020 L11 PLAN - TRANSFER FLOOR
1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Job Number: 221199
Sketch No. : SK250320.1

520

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 11 PLAN TRANSFER FLOOR

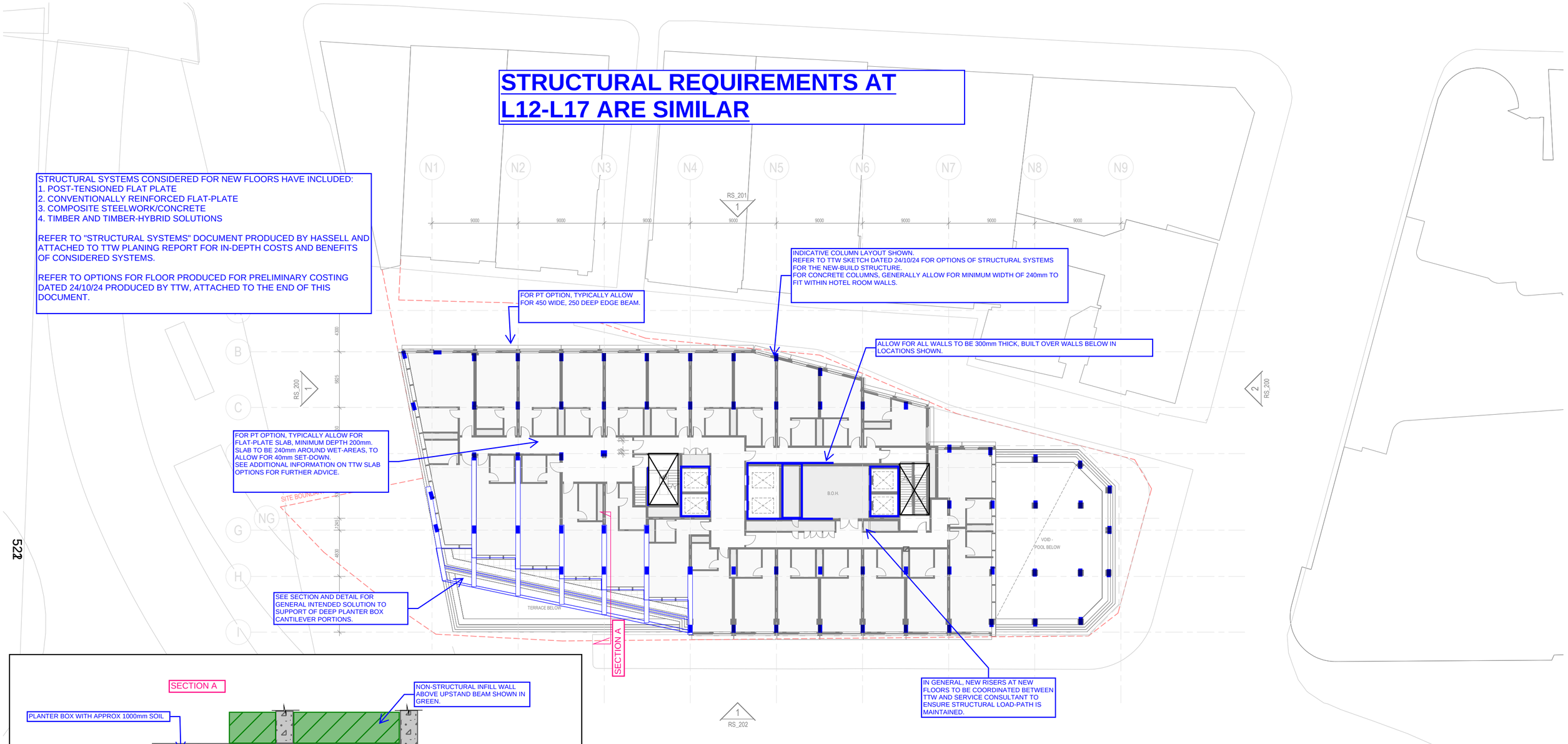
REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_111
REV NO. B

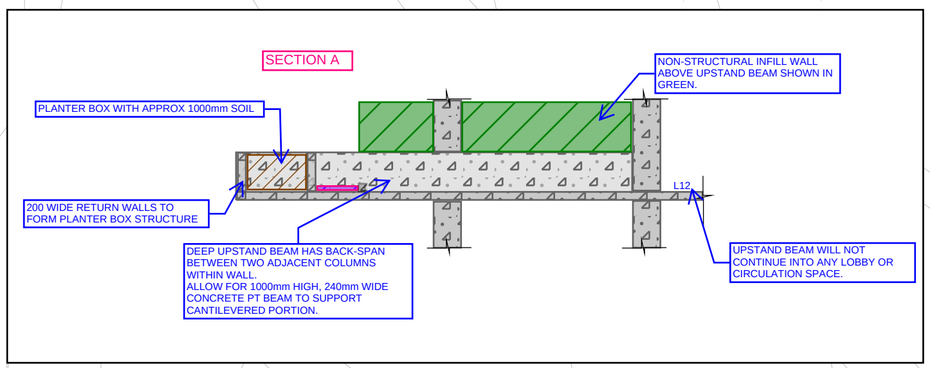
STRUCTURAL REQUIREMENTS AT L12-L17 ARE SIMILAR

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
1. POST-TENSIONED FLAT PLATE
2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

REFER TO "STRUCTURAL SYSTEMS" DOCUMENT PRODUCED BY HASSELL AND ATTACHED TO TTW PLANING REPORT FOR IN-DEPTH COSTS AND BENEFITS OF CONSIDERED SYSTEMS.

REFER TO OPTIONS FOR FLOOR PRODUCED FOR PRELIMINARY COSTING DATED 24/10/24 PRODUCED BY TTW, ATTACHED TO THE END OF THIS DOCUMENT.





1 L12 PLAN
RS_200 1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 12 PLAN

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_112

REV NO.
B

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
1. POST-TENSIONED FLAT PLATE
2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

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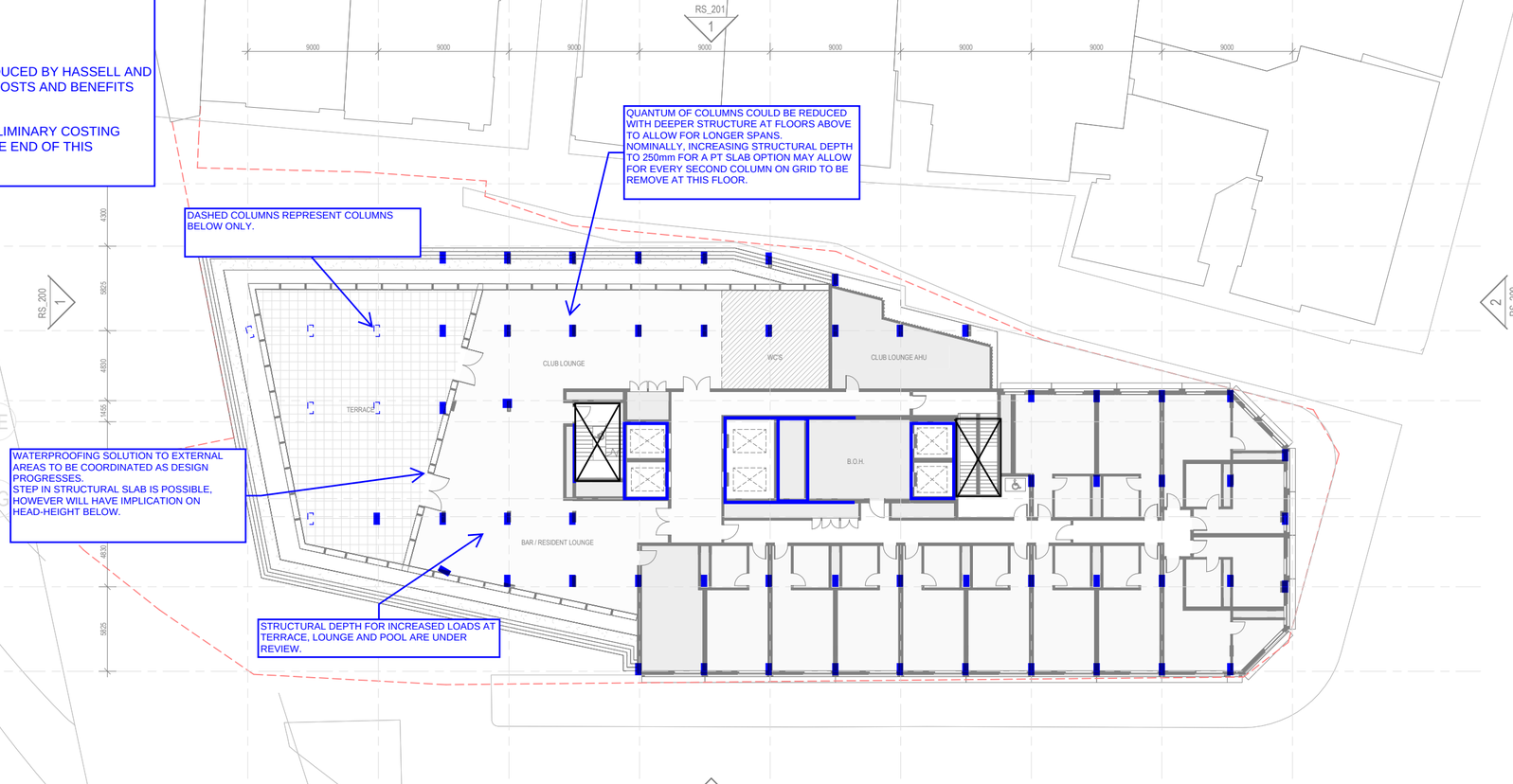
REFER TO OPTIONS FOR FLOOR PRODUCED FOR PRELIMINARY COSTING DATED 24/10/24 PRODUCED BY TTW, ATTACHED TO THE END OF THIS DOCUMENT.

QUANTUM OF COLUMNS COULD BE REDUCED WITH DEEPER STRUCTURE AT FLOORS ABOVE TO ALLOW FOR LONGER SPANS.
NOMINALLY, INCREASING STRUCTURAL DEPTH TO 250mm FOR A PT SLAB OPTION MAY ALLOW FOR EVERY SECOND COLUMN ON GRID TO BE REMOVE AT THIS FLOOR.

DASHED COLUMNS REPRESENT COLUMNS BELOW ONLY.

WATERPROOFING SOLUTION TO EXTERNAL AREAS TO BE COORDINATED AS DESIGN PROGRESSES.
STEP IN STRUCTURAL SLAB IS POSSIBLE, HOWEVER WILL HAVE IMPLICATION ON HEAD-HEIGHT BELOW.

STRUCTURAL DEPTH FOR INCREASED LOADS AT TERRACE, LOUNGE AND POOL ARE UNDER REVIEW.



523

1 L18 PLAN
RS_200 1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 18 PLAN - HOTEL AMENITY

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_118

REV NO.
B

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
1. POST-TENSIONED FLAT PLATE
2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

REFER TO "STRUCTURAL SYSTEMS" DOCUMENT PRODUCED BY HASSELL AND ATTACHED TO TTW PLANING REPORT FOR IN-DEPTH COSTS AND BENEFITS OF CONSIDERED SYSTEMS.

REFER TO OPTIONS FOR FLOOR PRODUCED FOR PRELIMINARY COSTING DATED 24/10/24 PRODUCED BY TTW, ATTACHED TO THE END OF THIS DOCUMENT.

FOR PT OPTION, TYPICALLY ALLOW FOR 450 WIDE, 250 DEEP EDGE BEAM.

INDICATIVE COLUMN LAYOUT SHOWN.
REFER TO TTW SKETCH DATED 24/10/24 FOR OPTIONS OF STRUCTURAL SYSTEMS FOR THE NEW-BUILD STRUCTURE.
FOR CONCRETE COLUMNS, GENERALLY ALLOW FOR MINIMUM WIDTH OF 240mm TO FIT WITHIN HOTEL ROOM WALLS.

ALLOW FOR ALL WALLS TO BE 300mm THICK, BUILT OVER CALLS BELOW IN LOCATIONS SHOWN.

FOR PT OPTION, TYPICALLY ALLOW FOR FLAT-PLATE SLAB, MINIMUM DEPTH 200mm. SLAB TO BE 240mm AROUND WET-AREAS, TO ALLOW FOR 40mm SET-DOWN.
SEE ADDITIONAL INFORMATION ON TTW SLAB OPTIONS FOR FURTHER ADVICE.

N1 N2 N3 N4 N5 N6 N7 N8 N9

9000 9000 9000 9000 9000 9000 9000 9000

A B C G H I NG

4300 5825 1245 4830 5825

TERRACE BELOW

B.O.H.

SITE BOUNDARY

RS_201 1

RS_200 1

2 RS_200

1 RS_202

523

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

1 L19 PLAN
RS_200 1 : 200

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 19 PLAN

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_119

REV NO.
B

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
1. POST-TENSIONED FLAT PLATE
2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

REFER TO "STRUCTURAL SYSTEMS" DOCUMENT PRODUCED BY HASSELL AND ATTACHED TO TTW PLANING REPORT FOR IN-DEPTH COSTS AND BENEFITS OF CONSIDERED SYSTEMS.

FOR PT OPTION, TYPICALLY ALLOW FOR 450 WIDE, 250 DEEP EDGE BEAM.

INDICATIVE COLUMN LAYOUT SHOWN.
REFER TO TTW SKETCH DATED 24/10/24 FOR OPTIONS OF STRUCTURAL SYSTEMS FOR THE NEW-BUILD STRUCTURE.
FOR CONCRETE COLUMNS, GENERALLY ALLOW FOR MINIMUM WIDTH OF 240mm TO FIT WITHIN HOTEL ROOM WALLS.

ALLOW FOR ALL WALLS TO BE 300mm THICK, BUILT OVER CALLS BELOW IN LOCATIONS SHOWN.

FOR PT OPTION, TYPICALLY ALLOW FOR FLAT-PLATE SLAB, MINIMUM DEPTH 200mm.
SLAB TO BE 240mm AROUND WET-AREAS, TO ALLOW FOR 40mm SET-DOWN.
SEE ADDITIONAL INFORMATION ON TTW SLAB OPTIONS FOR FURTHER ADVICE.

N1 N2 N3 N4 N5 N6 N7 N8 N9
9000 9000 9000 9000 9000 9000 9000 9000
RS_201 1
A B C E NE NG G H I
4300 5825 4850 12450 4830 5825
RS_200 1
2 RS_200
SITE BOUNDARY
BALCONY BELOW
B.O.H.
1 RS_202

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

1 L20 PLAN
RS_200 1 : 200

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 20 PLAN

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

PROJECT NO.
016185

DRAWING NO.
RS_120

REV NO.
B

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
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2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

REFER TO "STRUCTURAL SYSTEMS" DOCUMENT PRODUCED BY HASSELL AND ATTACHED TO TTW PLANING REPORT FOR IN-DEPTH COSTS AND BENEFITS OF CONSIDERED SYSTEMS.

FOR PT OPTION, TYPICALLY ALLOW FOR FLAT-PLATE SLAB, MINIMUM DEPTH 240mm. SLAB TO BE 280mm AROUND WET-AREAS, TO ALLOW FOR 40mm SET-DOWN. DEEPER SLAB PROVIDED TO ALLOW FOR HEAVIER LOADS IN RESTAURANT SPACE.

INDICATIVE COLUMN LAYOUT SHOWN.
REFER TO TTW SKETCH DATED 24/10/24 FOR OPTIONS OF STRUCTURAL SYSTEMS FOR THE NEW-BUILD STRUCTURE.

COLUMNS MAY BE REDUCED AT THIS FLOOR. PRIMARY IMPLICATION WILL BE DEEPER STRUCTURE AT PLANT SUPPORT FLOOR ABOVE DUE TO INCREASED SPAN.

SET-DOWNS IN SLAB MUST BE CONSIDERED AS DESIGN PROGRESSES TO ENSURE IMPLICATIONS ON HEAD-HEIGHT OF SPACE BELOW ARE CONSIDERED.

ALLOW FOR ALL WALLS TO BE 300mm THICK, BUILT OVER CALLS BELOW IN LOCATIONS SHOWN.

WATERPROOFING SOLUTION TO EXTERNAL AREAS TO BE COORDINATED AS DESIGN PROGRESSES.
STEP IN STRUCTURAL SLAB IS POSSIBLE, HOWEVER WILL HAVE IMPLICATION ON HEAD-HEIGHT BELOW.

N1 N2 N3 N4 N5 N6 N7 N8 N9

RS_201 1

9000 9000 9000 9000 9000 9000 9000 9000

A B C E NE G NG H I

4300 925 4850 1455 2300 2245 4830 925

RS_200 1

SITE BOUNDARY

BALCONY BELOW

RESTAURANT - TERRACE

B.O.H.

RESTAURANT - LEASED SPACE

RS_200 2

1 RS_202

526

1 L21 PLAN
RS_200 1 : 200

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

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Glenn Scott 6842
Ross de la Motte 7398

REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
A	Planning Proposal - DRAFT	19/12/24
B	Planning Proposal	28/03/25

CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 21 PLAN - RESTAURANT

REVIEWED
AC

SCALE @ A1
1 : 200

APPROVED
AK

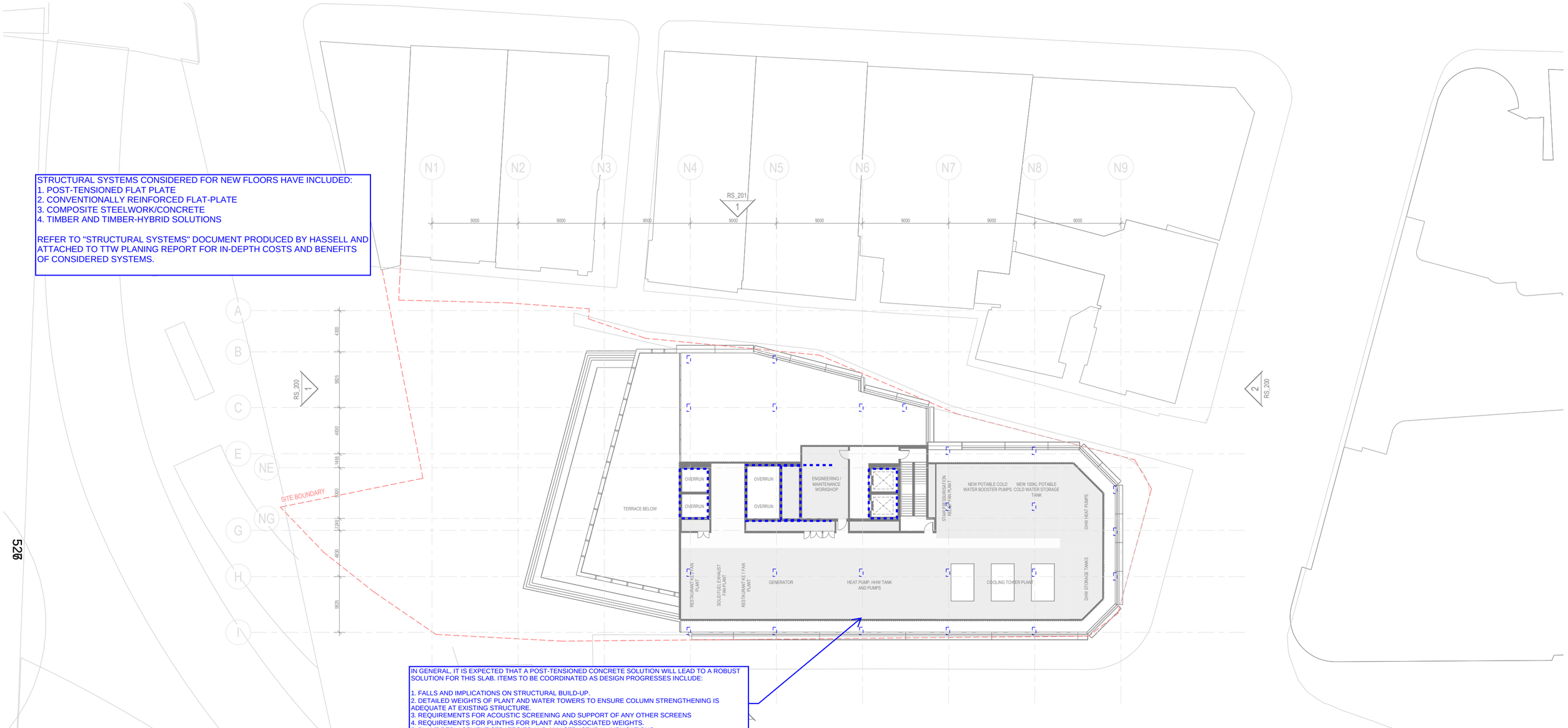
PROJECT NO.
016185

DRAWING NO.
RS_121

REV NO.
B

STRUCTURAL SYSTEMS CONSIDERED FOR NEW FLOORS HAVE INCLUDED:
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2. CONVENTIONALLY REINFORCED FLAT-PLATE
3. COMPOSITE STEELWORK/CONCRETE
4. TIMBER AND TIMBER-HYBRID SOLUTIONS

REFER TO "STRUCTURAL SYSTEMS" DOCUMENT PRODUCED BY HASSELL AND ATTACHED TO TTW PLANING REPORT FOR IN-DEPTH COSTS AND BENEFITS OF CONSIDERED SYSTEMS.



IN GENERAL, IT IS EXPECTED THAT A POST-TENSIONED CONCRETE SOLUTION WILL LEAD TO A ROBUST SOLUTION FOR THIS SLAB. ITEMS TO BE COORDINATED AS DESIGN PROGRESSES INCLUDE:

1. FALLS AND IMPLICATIONS ON STRUCTURAL BUILD-UP.
2. DETAILED WEIGHTS OF PLANT AND WATER TOWERS TO ENSURE COLUMN STRENGTHENING IS ADEQUATE AT EXISTING STRUCTURE.
3. REQUIREMENTS FOR ACOUSTIC SCREENING AND SUPPORT OF ANY OTHER SCREENS
4. REQUIREMENTS FOR PLINTHS FOR PLANT AND ASSOCIATED WEIGHTS.
5. PLANT REPLACEMENT STRATEGIES AND ANY STRUCTURAL IMPLICATIONS.

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

1 RS_200 L22 PLAN - PLANT
1 : 200

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Glenn Scott 6842
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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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B	Planning Proposal	28/03/25

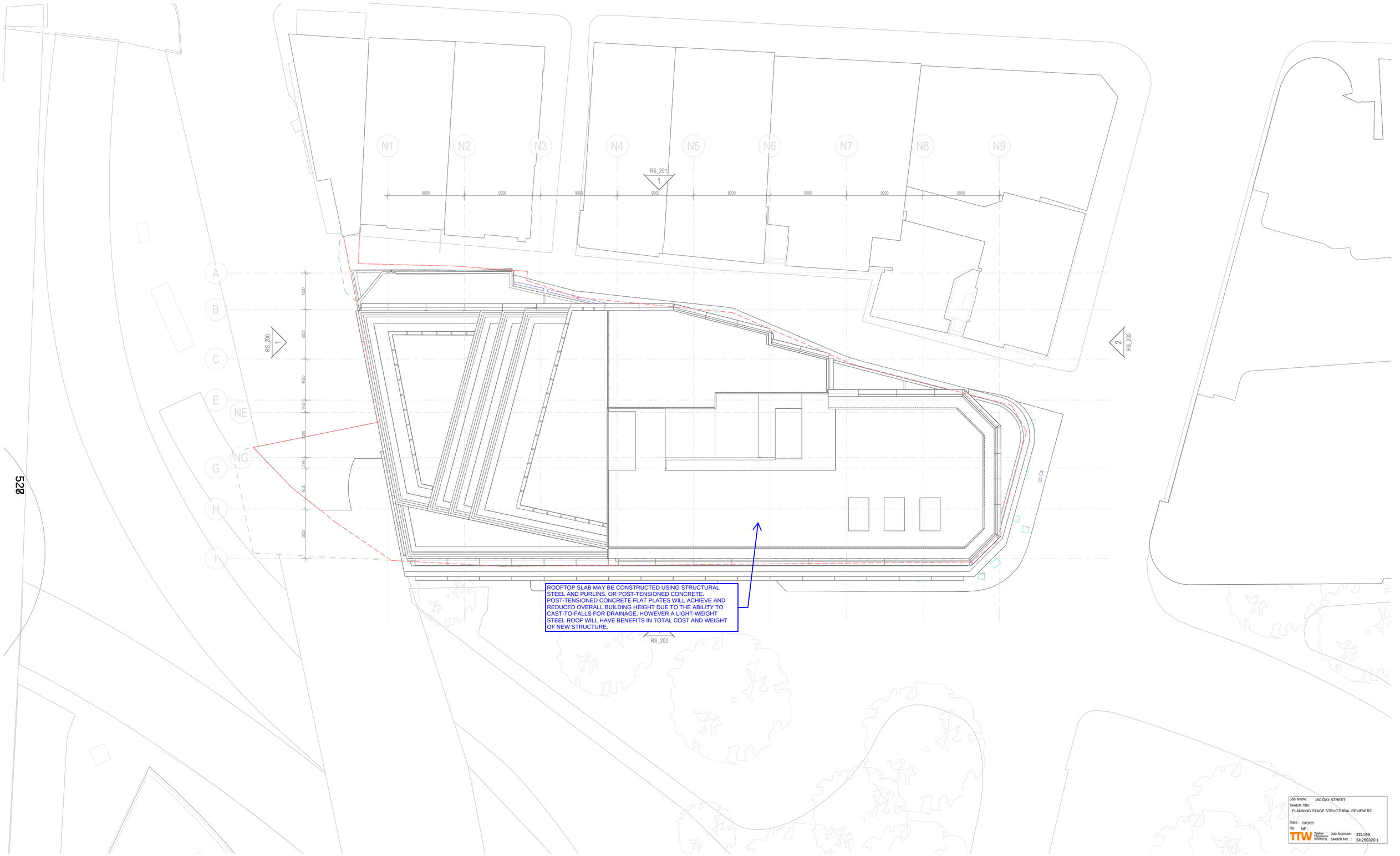
CLIENT
UOL

PROJECT
150 Day Street - Park Royal Darling Harbour

STATUS

DRAWING TITLE
LEVEL 22 PLAN - PLANT

REVIEWED AC
SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_122
REV NO. B



528

Job Name : 150 DAY STREET
Sketch Title: PLANNING STAGE STRUCTURAL REVIEW R2
Date: 20/3/25
By: NF
TTW Taylor Thomson Whitting
Job Number: 221199
Sketch No. : SK250320.1

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REFERENCE

NORTH

1:200
0m 2m 4m 6m 8m

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REV	DESCRIPTION	DATE
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B	Planning Proposal	28/03/25

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PROJECT
150 Day Street - Park Royal Darling Harbour

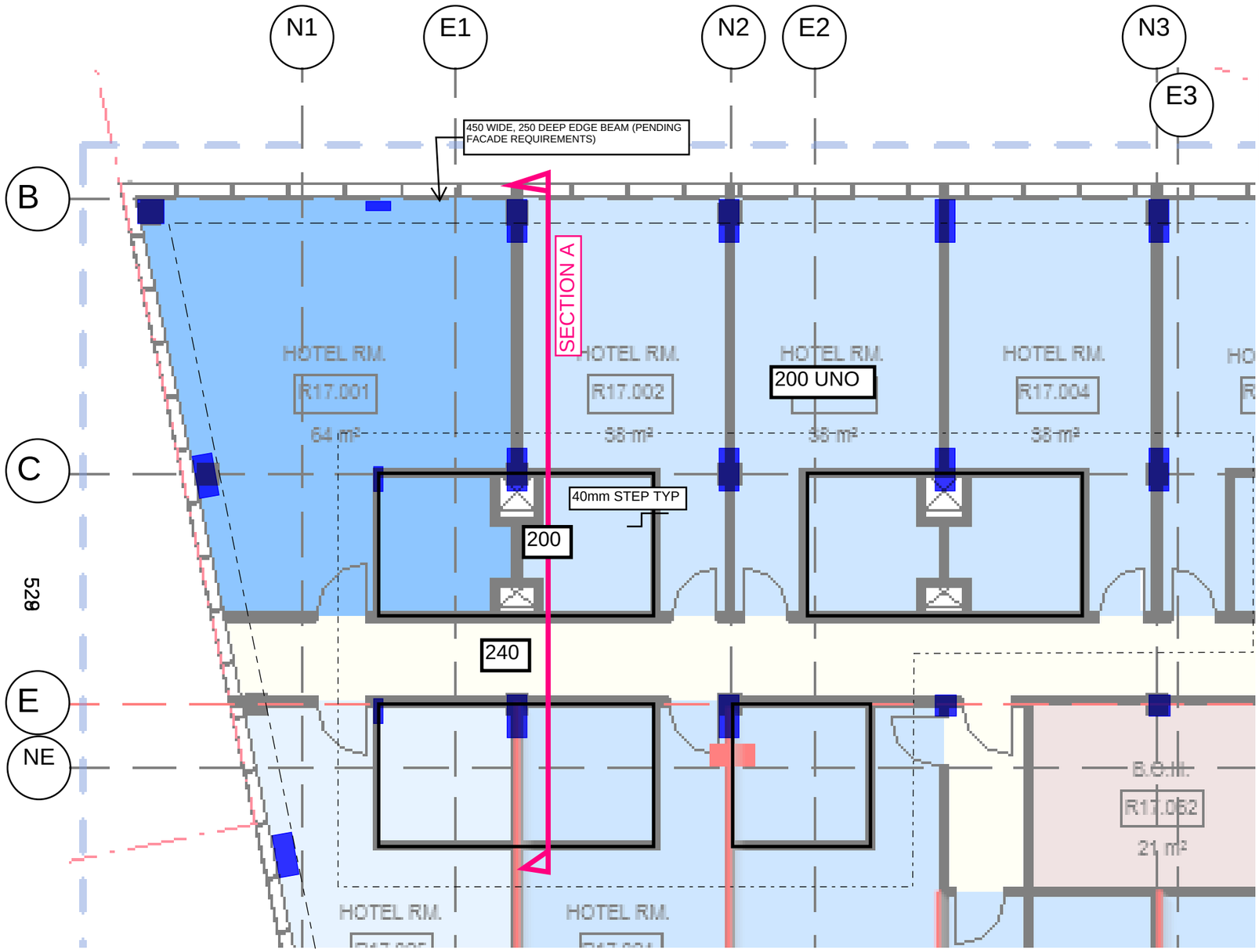
STATUS

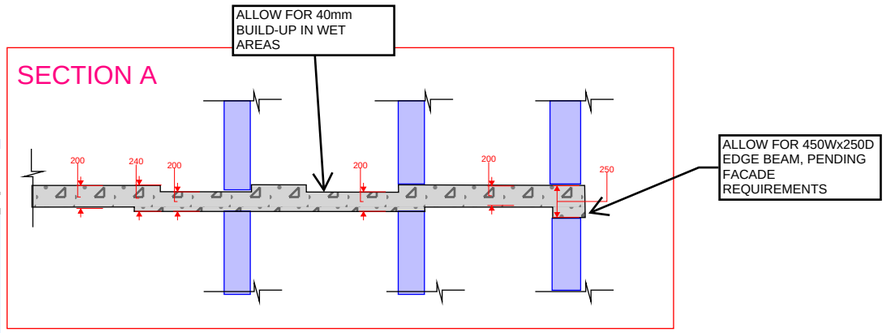
DRAWING TITLE
LEVEL 23 PLAN - ROOFPLAN

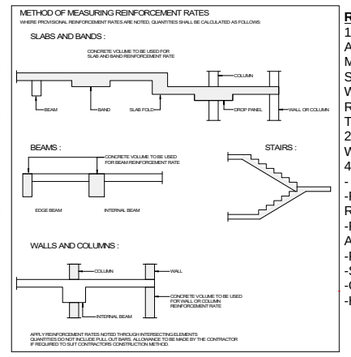
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SCALE @ A1 1 : 200
APPROVED AK
PROJECT NO. 016185
DRAWING NO. RS_123
REV NO. B

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OPTION 1: POST-TENSIONED FLAT PLATE







REINFORCEMENT RATES NOTES:

1. MEASURED QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY. RATES ARE PROVIDED TO ALLOW FOR HIGH-LEVEL COSTING DURING PLANNING STAGE AND MUST BE INTERPRETED IN THE CONTEXT OF COMPARISON BETWEEN ALTERNATE SCHEMES. ACTUAL QUANTITIES MAY VARY AS DETAILED DESIGN IS DEVELOPED AND WHILST ALL REASONABLE EFFORTS WILL BE UNDERTAKEN TO MAINTAIN AFC REINFORCEMENT +-20% OF THESE QUANTITIES, IT IS NOT POSSIBLE TO GUARANTEE THESE ESTIMATES.
2. NO ALLOWANCE HAS BEEN MADE FOR POST-TENSIONING AND REINFORCEMENT WASTAGE.
4. NOT INCLUDED IN THE PROVIDED RATES ARE THE FOLLOWING:
- SAFETY MESH
-REINFORCEMENT REQUIRED BY BUILDER SUCH AS ADDITIONAL SUPPORT REINFORCEMENT
-ROLLING MARGINS (TYPICALLY ALLOW FOR 10% ADDITIONAL FOR ROLLING MARGINS AND WASTAGE)
-POST TENSIONING PAN AND ANTI-BURST REINFORCEMENT
-SLAB TO CORE CONNECTIONS
-CONSTRUCTION AND TEMPORARY MOVEMENT JOINTS
-HOBS, UP-STANDS AND PLINTHS

DESIGN PARAMETERS FOR PRELIMINARY COSTING PURPOSES

Design Loading: SDL=1.5kPa TYP. 2.5kPa in Bathrooms
LL=2.0kPa in Hotel Rooms
LL=4.0kPa in Corridors, Stairs, Landings

Concrete Strength: f'c=40MPa
Allow for Reinforcement Rates of: 5kg/m2 PT + 65kg/m3 RC
Note: RC rate includes requirement of 15kg/m3 for Diaphragm Reinforcement in accordance with requirements of AS3600:2018

Larger Quantities of Reinforcement will be required at Plant Floors, Function Areas, External Terraces and Rooftops

For Preliminary Costing Purposes, Allow for Column Design of Either:

1. 750X260 RECTANGULAR COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
2. 400x400 SQUARE COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
3. 450 DIA CIRCULAR COLUMN. f'c=65MPa. 240kg/m3 REBAR RATE

COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Sketch	Date
P1	PRELIMINARY ISSUE	NF	24.10.24

Architect/Client: **HASSELL/UOL**

Engineer: TTW www.ttwengineers.com

Project: **150 DAY STREET**

Sketch Subject: **SRUCTURAL SCHEMES FOR PRELIMINARY COSTING**

Scale : A3: **1:100 (APPROX)**

Sketched: **NF**

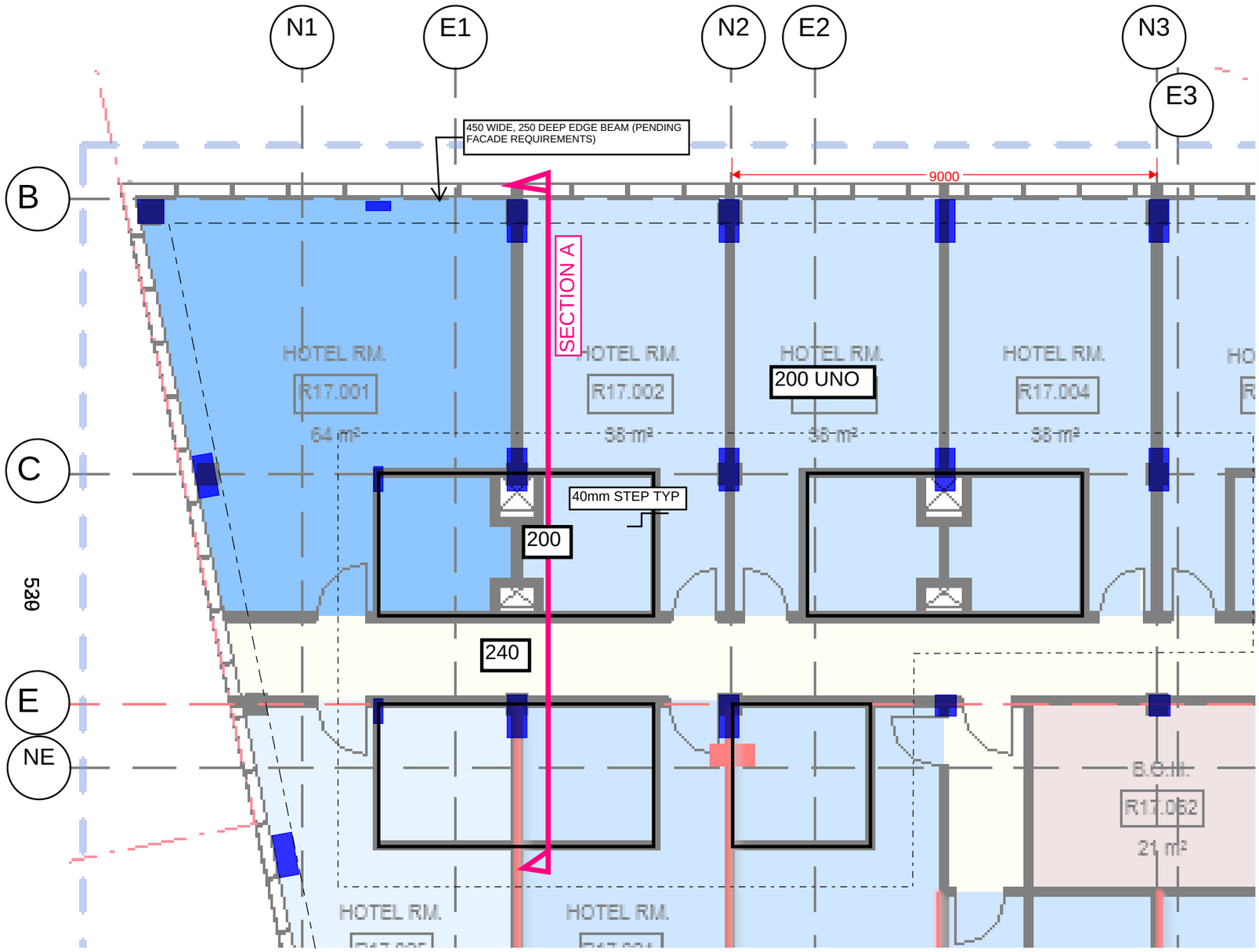
Project No: **221199**

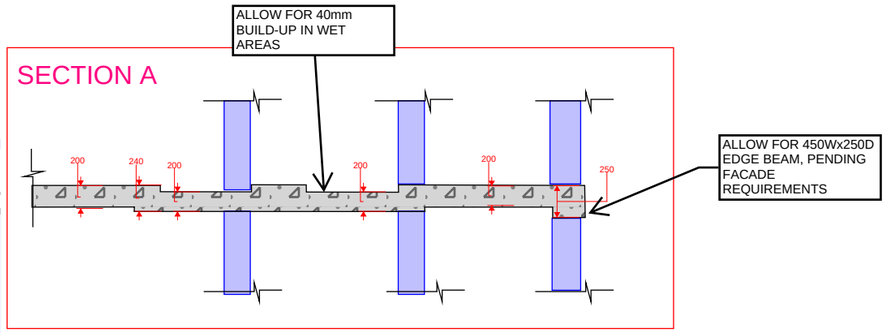
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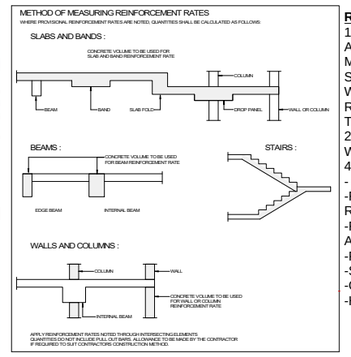
Revision: **P1**

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OPTION 2: CONVENTIONALLY REINFORCED FLAT PLATE







REINFORCEMENT RATES NOTES:

1. MEASURED QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY. RATES ARE PROVIDED TO ALLOW FOR HIGH-LEVEL COSTING DURING PLANNING STAGE AND MUST BE INTERPRETED IN THE CONTEXT OF COMPARISON BETWEEN ALTERNATE SCHEMES. ACTUAL QUANTITIES MAY VARY AS DETAILED DESIGN IS DEVELOPED AND WHILST ALL REASONABLE EFFORTS WILL BE UNDERTAKEN TO MAINTAIN AFC REINFORCEMENT +-20% OF THESE QUANTITIES, IT IS NOT POSSIBLE TO GUARANTEE THESE ESTIMATES.
2. NO ALLOWANCE HAS BEEN MADE FOR POST-TENSIONING AND REINFORCEMENT WASTAGE.
4. NOT INCLUDED IN THE PROVIDED RATES ARE THE FOLLOWING:
- SAFETY MESH
-REINFORCEMENT REQUIRED BY BUILDER SUCH AS ADDITIONAL SUPPORT REINFORCEMENT
-ROLLING MARGINS (TYPICALLY ALLOW FOR 10% ADDITIONAL FOR ROLLING MARGINS AND WASTAGE)
-POST TENSIONING PAN AND ANTI-BURST REINFORCEMENT
-SLAB TO CORE CONNECTIONS
-CONSTRUCTION AND TEMPORARY MOVEMENT JOINTS
-HOBS, UP-STANDS AND PLINTHS

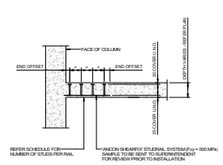
DESIGN PARAMETERS FOR PRELIMINARY COSTING PURPOSES

Design Loading: SDL=1.5kPa TYP. 2.5kPa in Bathrooms
LL=2.0kPa in Hotel Rooms
LL=4.0kPa in Corridors, Stairs, Landings

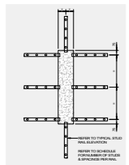
Concrete Strength: f'c=40MPa
Allow for Reinforcement Rates of: 130kg/m3
Note: RC rate includes requirement of 15kg/m3 for Diaphragm Reinforcement in accordance with requirements of AS3600:2018

Larger Quantities of Reinforcement will be required at Plant Floors, Function Areas, External Terraces and Rooftops

Note: Punching Shear Reinforcement will be required at approximately 50% of column locations for 200mm RC Flat Plate.
For costing purposes, allow for Ancon Studrails to indicative detail below.



TYPICAL STUDRAIL ELEVATION UNO



STUDRAIL SCHEDULE				
TYPE	STUD dia	NUMBER OF STUDS PER RAIL	END OFFSET	COMMENT
SR1	16mm	4 STUDS AT 100 CENTRES	95mm	

For Preliminary Costing Purposes, Allow for Column Design of Either:

1. 750X260 RECTANGULAR COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
2. 400x400 SQUARE COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
3. 450 DIA CIRCULAR COLUMN. f'c=65MPa. 240kg/m3 REBAR RATE

COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Sketch	Date
P1	PRELIMINARY ISSUE	NF	24.10.24

Architect/Client
HASSELL/UOL

Engineer
TTW
www.ttwengineers.com

Project
150 DAY STREET

Sketch Subject
SRUCTURAL SCHEMES FOR PRELIMINARY COSTING

Scale : A3
1:100 (APPROX)

Sketched
NF

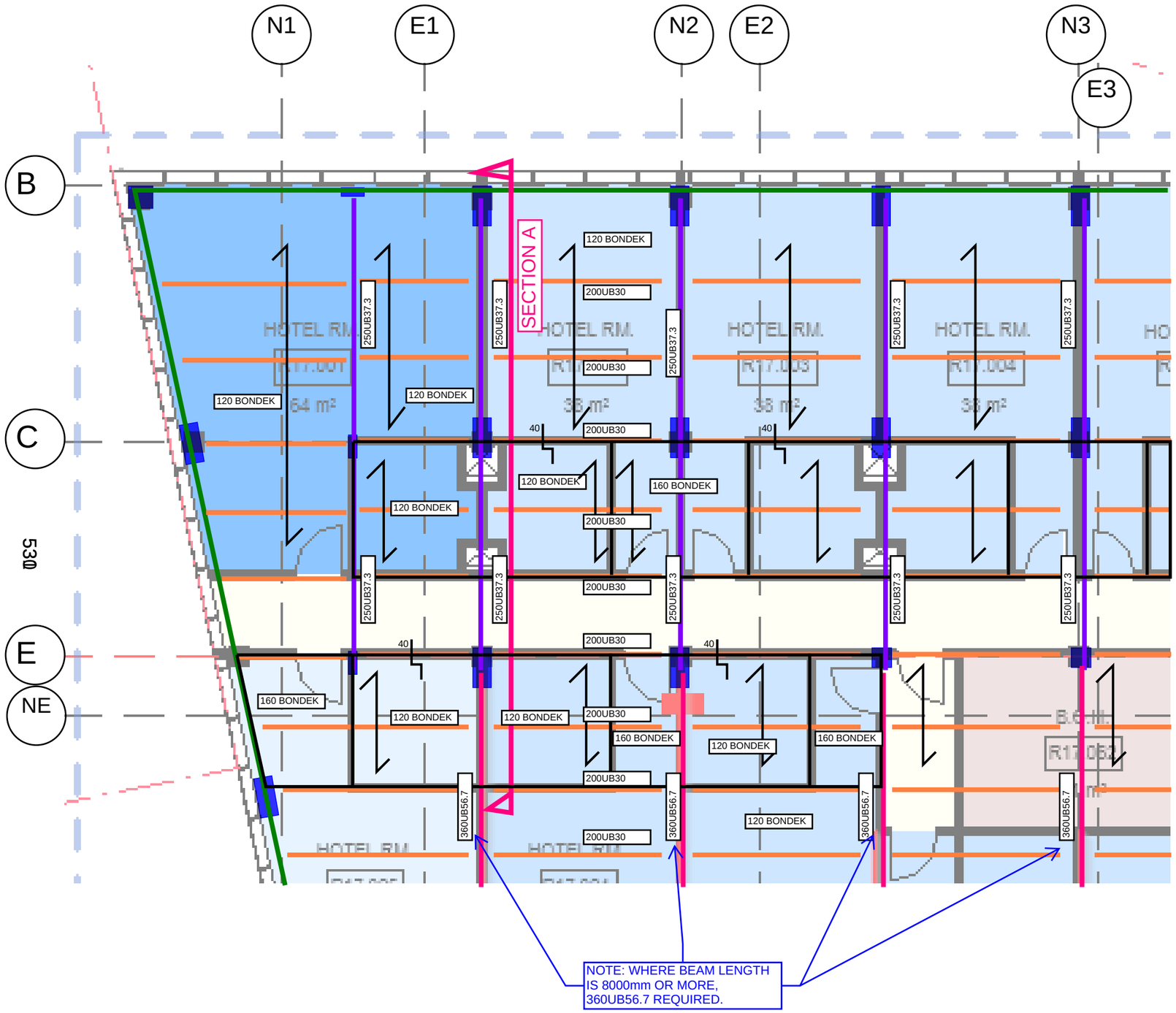
Project No
221199

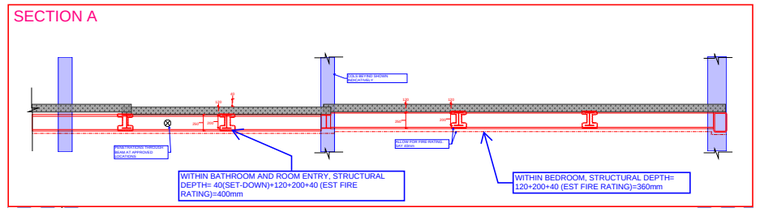
Sketch No
SK241024.2

Revision
P1

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OPTION 3: COMPOSITE STEEL/CONCRETE UTILISING BONDEK





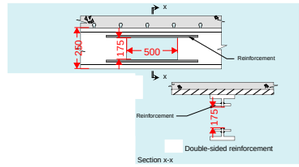
Information Provided for Preliminary Costing and Spatial Planning Purposes.

MEASURED QUANTITIES ARE APPROXIMATE AND FOR INFORMATION ONLY. RATES ARE PROVIDED TO ALLOW FOR HIGH-LEVEL COSTING DURING PLANNING STAGE AND MUST BE INTERPRETED IN THE CONTEXT OF COMPARISON BETWEEN ALTERNATE SCHEMES. ACTUAL QUANTITIES MAY VARY AS DETAILED DESIGN IS DEVELOPED AND WHILST ALL REASONABLE EFFORTS WILL BE UNDERTAKEN TO MAINTAIN AFC REINFORCEMENT +-20% OF THESE QUANTITIES, IT IS NOT POSSIBLE TO GUARANTEE THESE ESTIMATES.

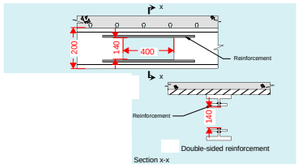
Notes:
1. Bondek Slab to use concrete strength f'c=32MPa
2. Allow for Reinforcement Rate of 65kg/m3 in Composite Slab.
3. Allow for fire rating to all steelwork. Allow for Columns to be clad in Fire-rated board (Fyrcheck or similar). Allow for beams to be coated in Vermiculite fire spray. Fire Protection Strategy to be confirmed and specified by Architect.
4. Architect to advise of limitations on slab depth for acoustic purposes.
5. Allow for shear studs to all beams as shown below
6. Bondek to have BMT 1.0mm
7. For costing purposes allow for Column Sizes of:
-SHS 300x300x12.5 (at bottom 3 storeys)
-SHS 250x250x12.5 (3 to 6 storeys)
-SHS 200x200x10 (6 Storeys and above)
COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.

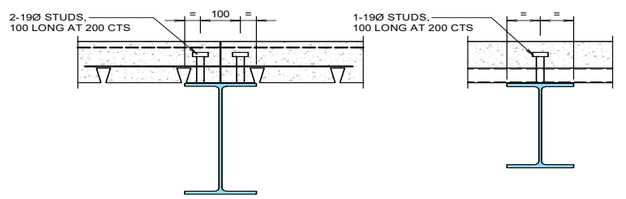
8. Penetrations allowable through Steelwork members as indicated below.
9. ALL MEMBER SIZES SUBJECT TO ONGOING DESIGN DEVELOPMENT AND COORDINATION.
10. Allow for Precambering of all steelwork.

PENETRATION IF 250UB BEAM USED



PENETRATION IF 200UB BEAM USED





TYPICAL SHEAR STUD DETAILS
SCALE 1:10

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Sketch	Date
P1	PRELIMINARY ISSUE	NF	24.10.24

Architect/Client: **HASSELL/UOL**

Engineer: TTW www.ttwengineers.com

Project: **150 DAY STREET**

Sketch Subject: **SRUCTURAL SCHEMES FOR PRELIMINARY COSTING**

Scale : A3: **1:100 (APPROX)**

Sketched: **NF**

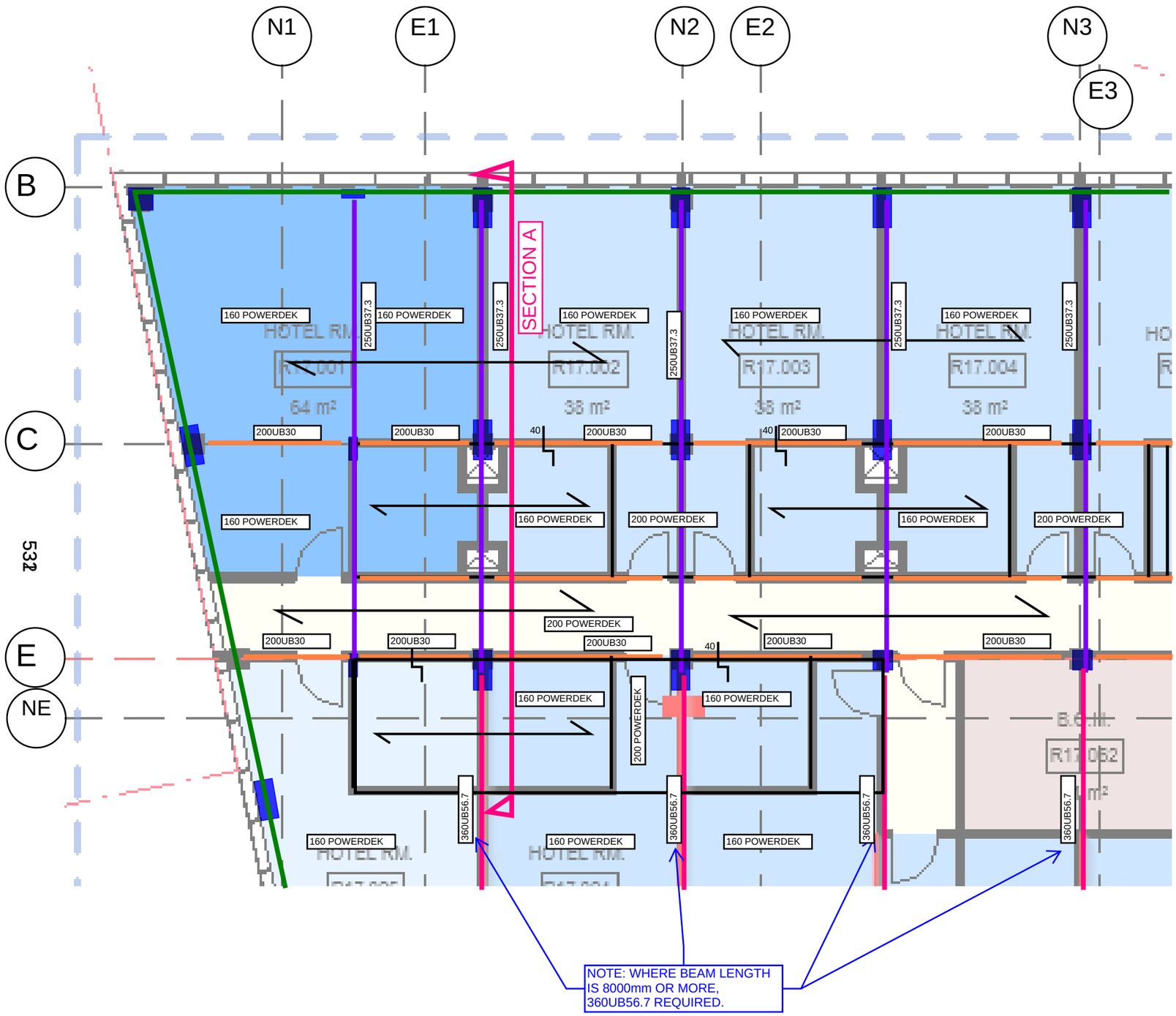
Project No: **221199**

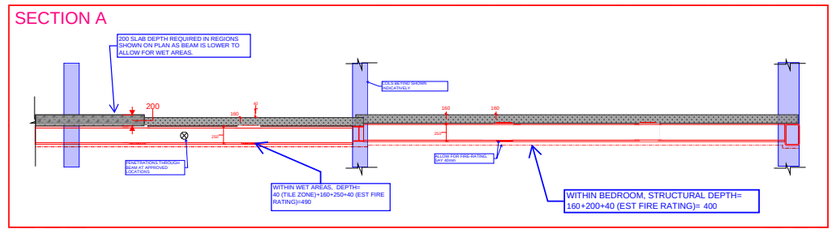
Sketch No: **SK241024.2**

Revision: **P1**

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OPTION 4: COMPOSITE STEEL/CONCRETE UTILISING POWERDEK





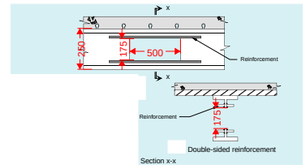
Information Provided for Preliminary Costing and Spatial Planning Purposes.

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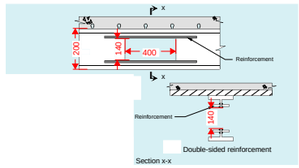
Notes:
1. PowerDek Slab to use concrete strength f'c=32MPa
2. Allow for Reinforcement Rate of 55kg/m3 in Composite Slab.
3. Allow for fire rating to all steelwork. Allow for Columns to be clad in Fire-rated board (Fyrcheck or similar). Allow for beams to be coated in Vermiculite fire spray. Fire Protection Strategy to be confirmed and specified by Architect.
4. Architect to advise of limitations on slab depth for acoustic purposes.
5. Allow for shear studs to all beams as shown below
6. Powerdek specification to be Powerdek100/1.5BMT
7. For costing purposes allow for Column Sizes of:
-SHS 300x300x12.5 (at bottom 3 storeys)
-SHS 250x250x12.5 (3 to 6 storeys)
-SHS 200x200x10 (6 Storeys and above)
COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.

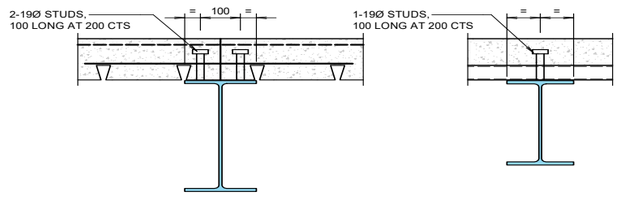
8. Penetrations allowable through Steelwork members as indicated below.
9. ALL MEMBER SIZES SUBJECT TO ONGOING DESIGN DEVELOPMENT AND COORDINATION.
10. Allow for Precambering of all steelwork.

PENETRATION IF 250UB BEAM USED



PENETRATION IF 200UB BEAM USED





PRIMARY BEAM U.N.O (ST1)

SECONDARY BEAM U.N.O (ST2)

TYPICAL SHEAR STUD DETAILS
SCALE 1:10

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Sketch	Date
P1	PRELIMINARY ISSUE	NF	24.10.24

Architect/Client
HASSELL/UOL

Engineer
TTW
www.ttwengineers.com

Project
150 DAY STREET

Sketch Subject
SRUCTURAL SCHEMES FOR PRELIMINARY COSTING

Scale : A3
1:100 (APPROX)

Sketched
NF

Project No Sketch No
221199 SK241024.2

Revision
P1

Appendix B

Additional Storey Structural Schemes

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Hassell

150 DAY ST
STRUCTURE

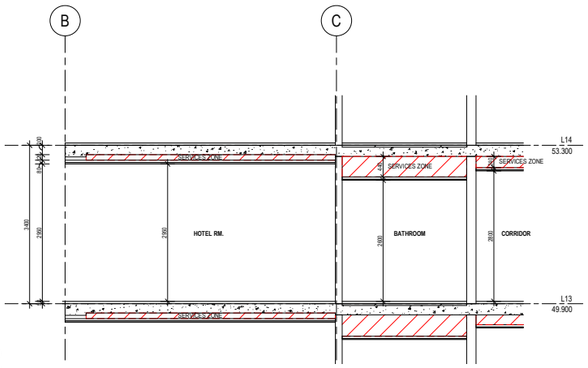
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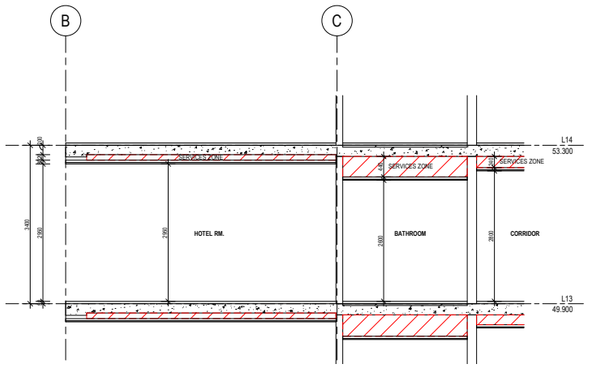
Prepared for
UOL

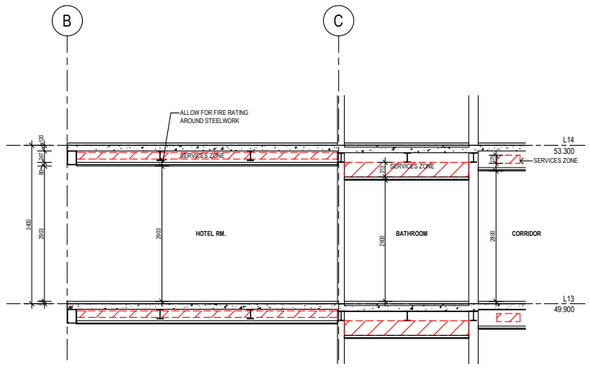
Hassell ©
November, 2024

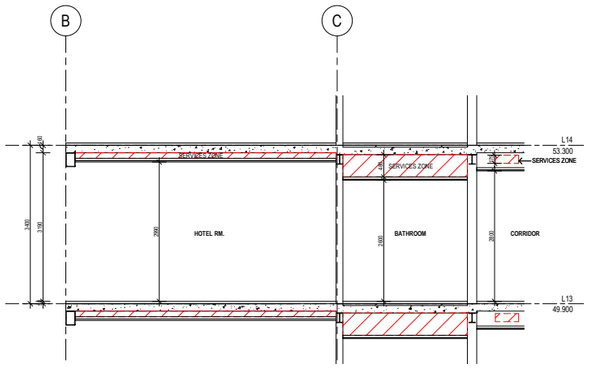
STRUCTURAL SYSTEMS

STRUCTURAL OPTIONS OVERVIEW









OPTION 1:
POST-TENSIONED FLAT PLATE

- Lowest cost
- Familiar system in Sydney
- Reduced embodied carbon (Less reinforcement placement, thin slab, smaller columns)
- Optimised floor to floor height: 2.95m
- Construction programme: Less efficient, Formwork propping restricts fitout to lower floors below

OPTION 2:
CONVENTIONALLY REINFORCED FLAT PLATE

- As per option 01; but
- More material required in reinforcement

OPTION 3:
COMPOSITE STEEL/CONCRETE UTILISING BONDEK

- Construction programme: More efficient - no propping enables fitout to lower floors as structure is installed
- Services coordination required through secondary beams
- Steel frame in the pool environment is not ideal
- Expensive fire rating work
- Lower ceiling heights due to deeper beams

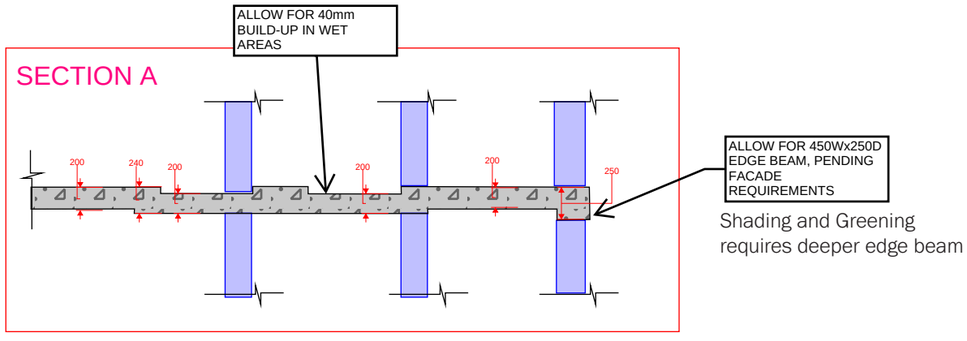
OPTION 4:
COMPOSITE STEEL/CONCRETE UTILISING POWERDEK

- As per option 03; and
- reduced secondary structure due to the increased span of powerdek slab
- Beams within walls have a lower top of steel

Hassell ©

OPTION 1: POST-TENSIONED FLAT PLATE

Floor to ceiling height preferred	**- 2.95m (2.90m if a consistent soffit profile is by the builder)**
Structural grid	**- 4.5m (every hotel room)**
Hotel room wall thickness (impacts area)	**- 260mm due to blade width**
Room Layout	**- columns integrated into walls**
	- Setdowns may result in contractor preference to minimise formwork and build a deeper slab
Embodied carbon	**- Low; However minimal deconstruction option**
Ease/Speed of Construction	**- Construction programme: Less efficient, Formwork propping restricts fitout to lower floors below;**
Required FRL between floors:	**Typical hotel rooms: FRL120**
	Plant: FRL240
	This option: 200mm concrete is FRL120
Acoustic Performance:	**RW 50 or greater for floors is required in a hotel**
	(200mm concrete achieves this value)



Shading and Greening requires deeper edge beam

DESIGN PARAMETERS FOR PRELIMINARY COSTING PURPOSES
Design Loading: SDL=1.5kPa TYP. 2.5kPa in Bathrooms
LL=2.0kPa in Hotel Rooms
LL=4.0kPa in Corridors, Stairs, Landings

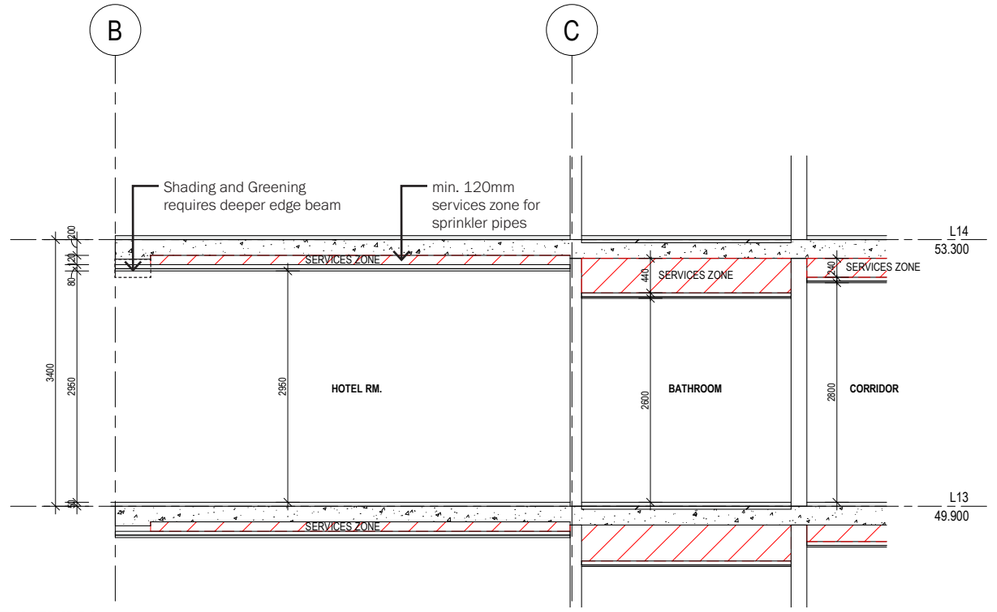
Concrete Strength: f'c=40MPa
Allow for Reinforcement Rates of: 5kg/m2 PT + 65kg/m3 RC
Note: RC rate includes requirement of 15kg/m3 for Diaphragm Reinforcement in accordance with requirements of AS3600:2018

Larger Quantities of Reinforcement will be required at Plant Floors, Function Areas, External Terraces and Rooftops

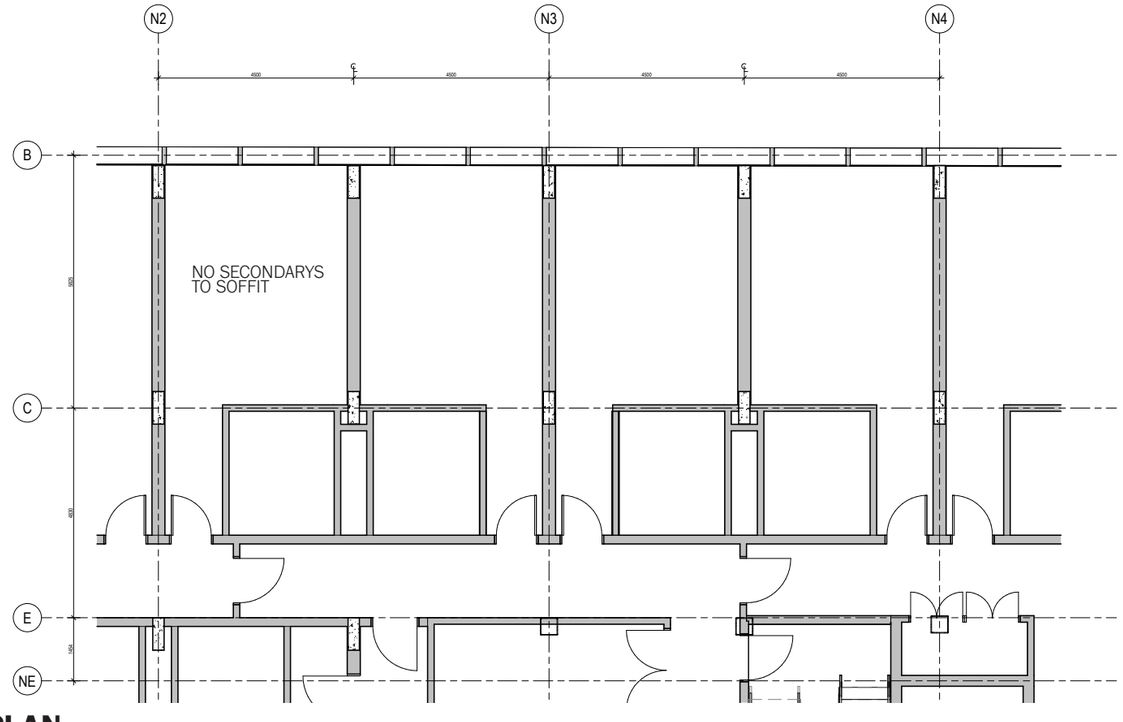
For Preliminary Costing Purposes, Allow for Column Design of Either:

1. 750X260 RECTANGULAR COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
2. 400x400 SQUARE COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
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COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.



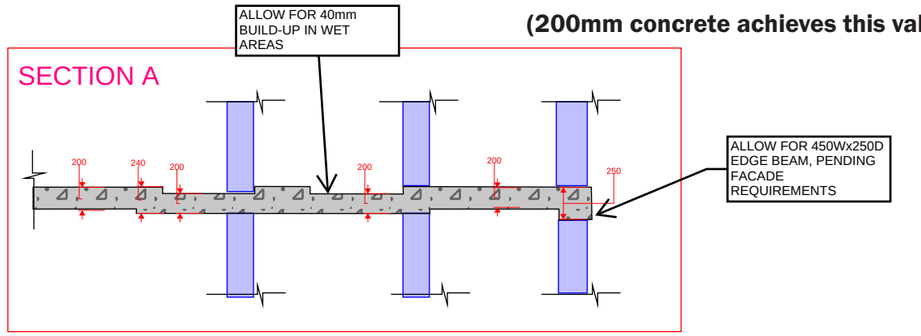
SECTION



PLAN

OPTION 2: CONVENTIONALLY REINFORCED FLAT PLATE

Floor to ceiling height	**- 2.95m (2.9 if a consistent soffit profile is preferred by the builder)**
Structural grid	**- 4.5m (every hotel room)**
Hotel room wall thickness (impacts area)	**- 260mm due to blade width**
Room Layout	**- columns integrated into walls**
	- Setdowns may result in contractor preference to minimise formwork and build a deeper slab
Embodied carbon	**- Low; However minimal deconstruction option**
Ease/Speed of Construction	**- Construction programme: Less efficient, Formwork propping restricts fitout to lower floors below; additional labour and material required for reinforcement**
Required FRL between floors:	**Typical hotel rooms: FRL120**
	Plant: FRL240
	This option: 200mm concrete is FRL120
Acoustic Performance:	**RW 50 or greater for floors is required in a hotel (200mm concrete achieves this value)**

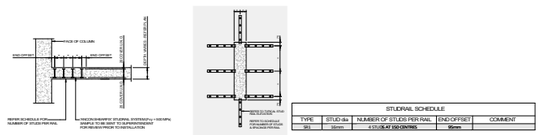


DESIGN PARAMETERS FOR PRELIMINARY COSTING PURPOSES
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LL=2.0kPa in Hotel Rooms
LL=4.0kPa in Corridors, Stairs, Landings

Concrete Strength: f'c=40MPa
Allow for Reinforcement Rates of: 130kg/m3
Note: RC rate includes requirement of 15kg/m3 for Diaphragm Reinforcement in accordance with requirements of AS3600:2018

Larger Quantities of Reinforcement will be required at Plant Floors, Function Areas, External Terraces and Rooftops

Note: Punching Shear Reinforcement will be required at approximately 50% of column locations for 200mm RC Flat Plate.
For costing purposes, allow for Ancon Studrails to indicative detail below.

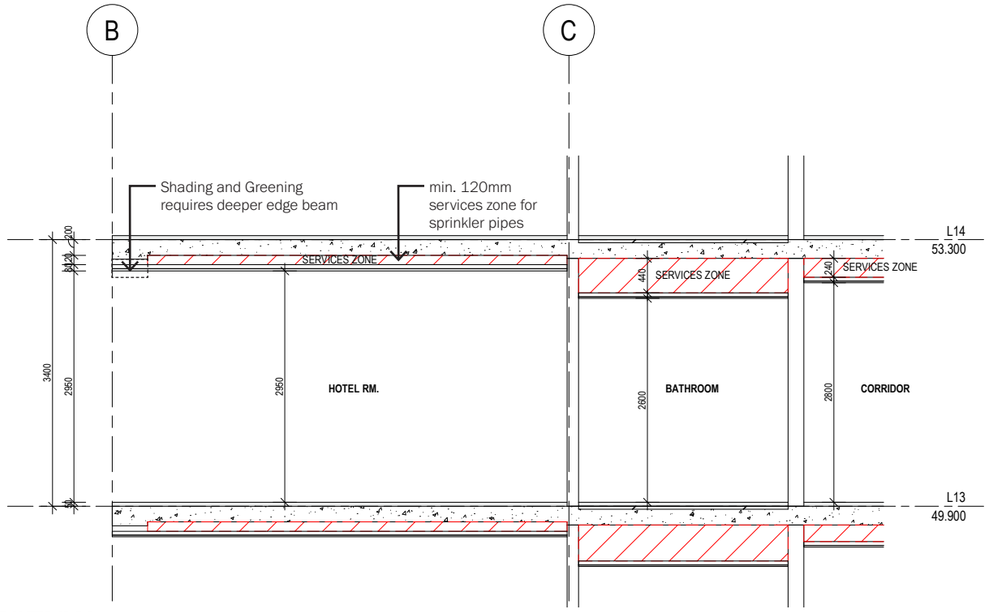


TYPICAL STUDRAIL ELEVATION U/NO

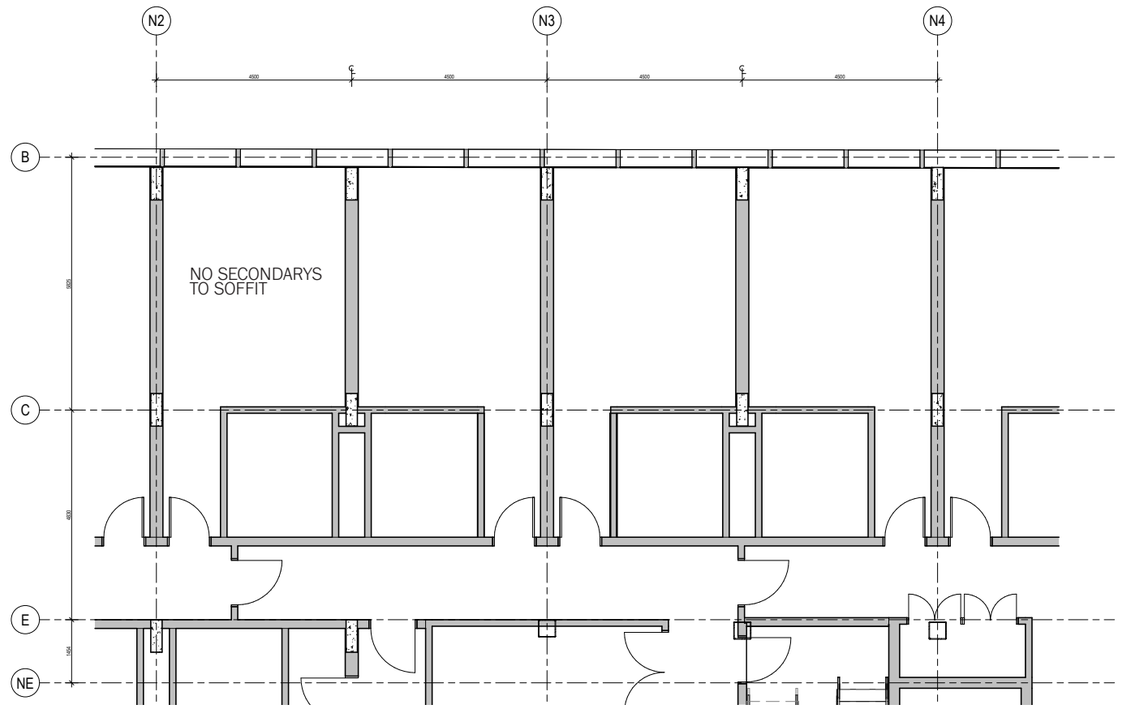
For Preliminary Costing Purposes, Allow for Column Design of Either:

1. 750X260 RECTANGULAR COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
2. 400x400 SQUARE COLUMN. f'c=65MPa. 250kg/m3 REBAR RATE
3. 450 DIA CIRCULAR COLUMN. f'c=65MPa. 240kg/m3 REBAR RATE

COLUMN SIZES WILL BE REFINED AS A FUNCTION OF LOCATION IN PLAN AND HEIGHT OF BUILDING THROUGHOUT DESIGN.



SECTION



PLAN

OPTION 3: COMPOSITE STEEL/CONCRETE UTILISING BONDEK

Floor to ceiling height - 2.9m

Structural grid - 4.5m every hotel room

Hotel room wall thickness (impacts area) - 350mm due to box section

Room Layout

- Head height (can penetrate beams but still deeper)
- Services coordination through beams (particularly in a D&C process)
- Setdown of wet areas means beam is below the slab but then stays consistent at that level
- Steel in the pool environment is an issue and further impacts head height over amenity floors

Embodied carbon - High; Deconstructible

Ease/Speed of Construction

- Speed of construction, minimised propping requirements, can commence fitout below as moving upwardsRequired FRL between floors

Typical hotel rooms:

FRL90

Plant: FRL240

This option: 120mm concrete floor is FRL120

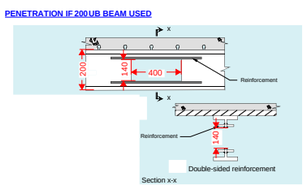
Steelwork needs to be clad or sprayed

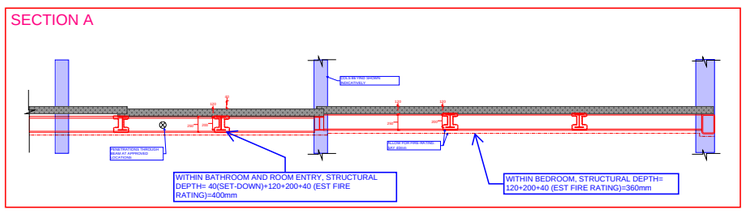
200 columns with fyrechek = 250mm walls
(two layers of 16mm fyrechek + acoustic insulation)

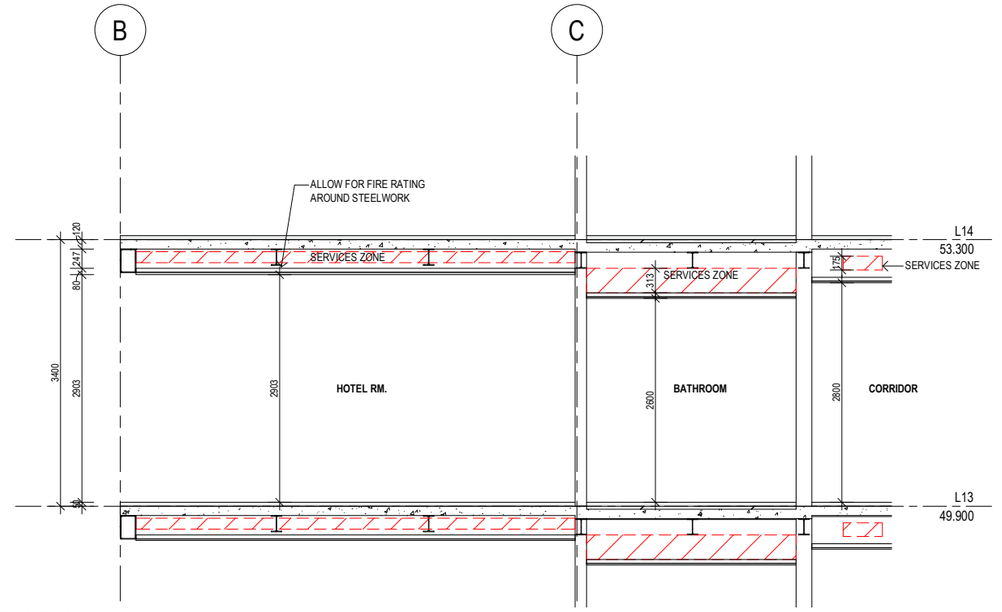
Acoustic Performance:

Floors: RW 50 or greater for floors is required in a hotel - this would not be achieved in this buildup and insulation between beams would be required

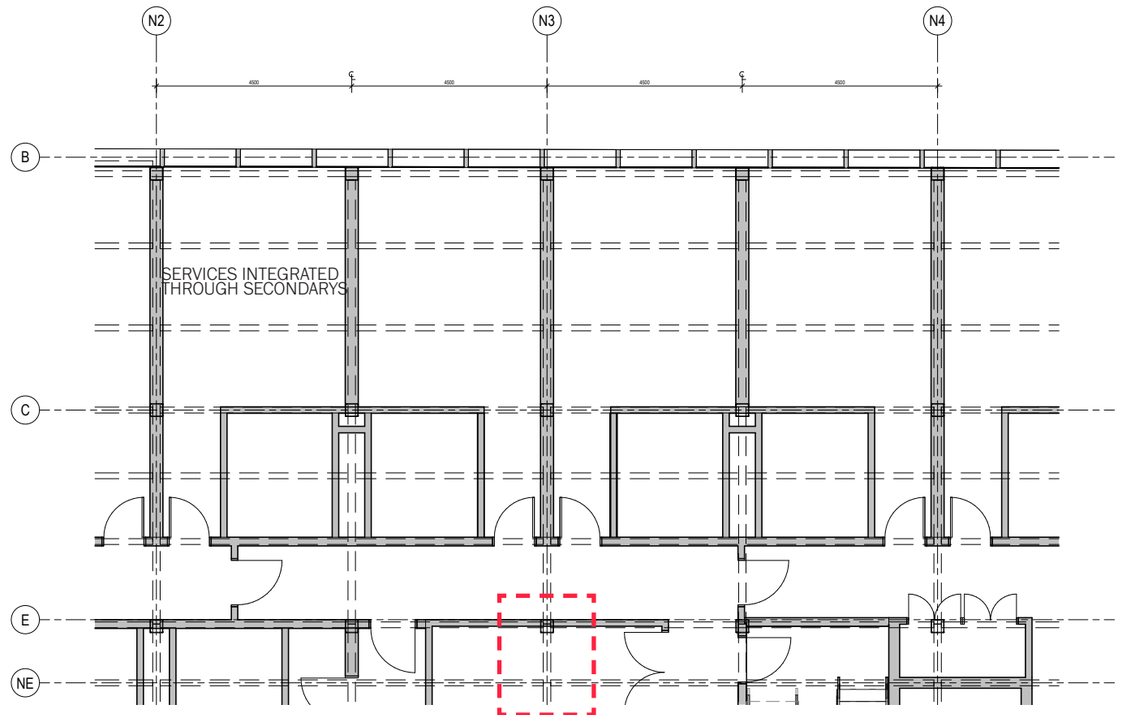
Walls:
RW + CTR 50 or greater;
Typical Build Up (can be hebel or double stud):
Hebel option: 13mm PB, 28-35 Furing Channel (with glasswool ins), 75mm hebel, 35mm air gap, 64stud with ins, 13mm PB = 200
typically allow for 225







SECTION



PLAN

PROBLEM: WHERE NO HOTEL ROOMS, DEEPER BEAM = LIMITS FLEXIBILITY AND CEILING HEIGHTS WHEN NOT FOLLOWING ROOM GRID

Hassell ©

OPTION 4: COMPOSITE STEEL/CONCRETE UTILISING POWERDEK

Floor to ceiling height - 2.95m (concrete slab is deeper than option 3)

Structural grid - 4.5m every hotel room

Hotel room wall thickness (impacts area) - 350mm due to box section

Room Layout

- Head height (can penetrate beams but still deeper)
- Services coordination through beams (particularly in a D&C process)
- Setdown of wet areas means beam is below the slab but then stays consistent at that level
- Steel in the pool environment is an issue and further impacts head height over amenity floors

Embodied carbon - High; Deconstructible
(less secondary structure than the bondek option 3)

Ease/Speed of Construction

- Speed of construction, minimised secondary steel and also minimised propping requirements, can commence fitout below as moving upwardsRequired FRL between floors

Typical hotel rooms:

FRL90

Plant: FRL240

This option: 120mm concrete floor is FRL120

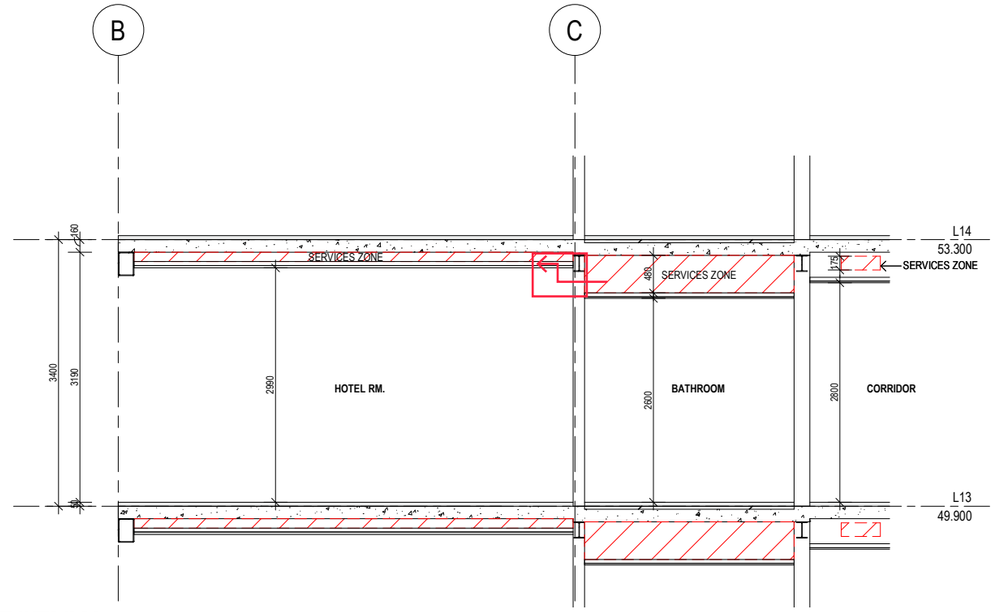
Steelwork needs to be clad or sprayed

200 columns with fyrechek = 250mm walls
(two layers of 16mm fyrechek + acoustic insulation)

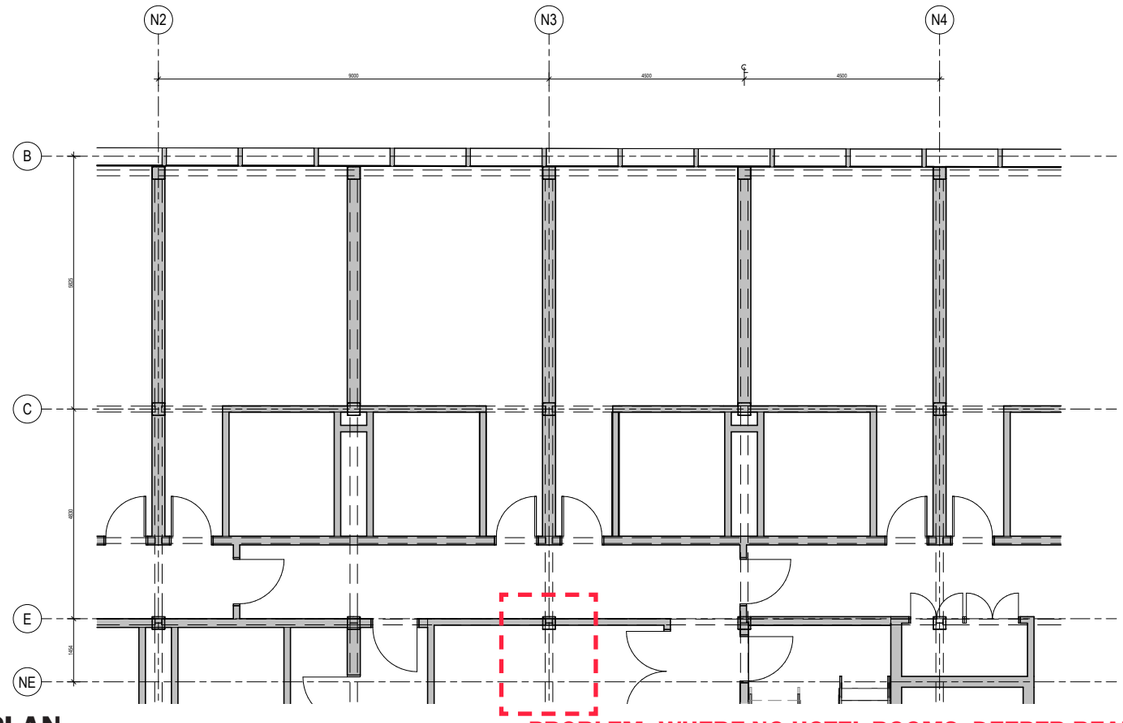
Acoustic Performance:

Floors: RW 50 or greater for floors is required in a hotel - this would not be achieved in this buildup and insulation between beams would be required

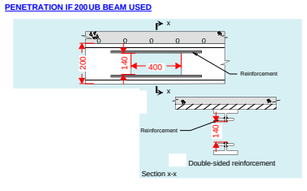
Walls:
RW + CTR 50 or greater;
Typical Build Up (can be hebel or double stud):
Hebel option: 13mm PB, 28-35 Furing Channel (with glasswool ins), 75mm hebel, 35mm air gap, 64stud with ins, 13mm PB = 200
typically allow for 225

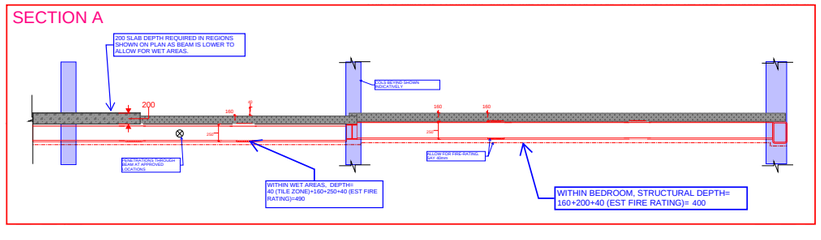


SECTION



PLAN





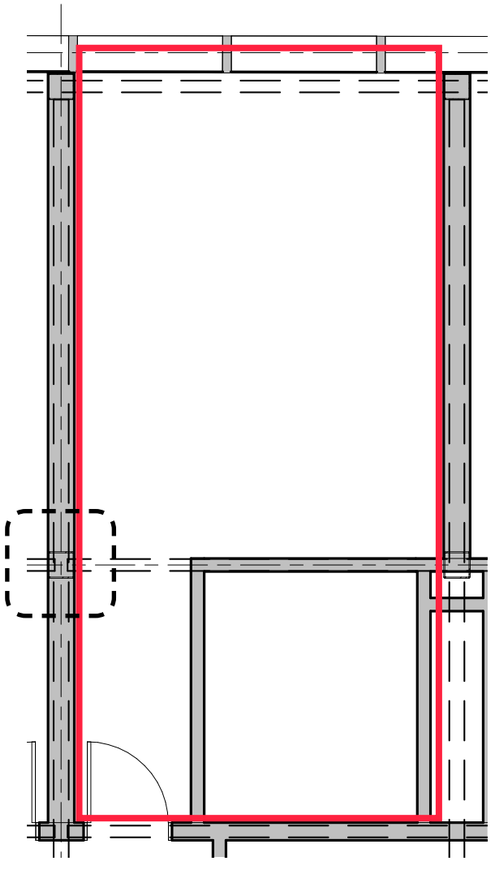
PROBLEM: WHERE NO HOTEL ROOMS, DEEPER BEAM = LIMITS FLEXIBILITY AND CEILING HEIGHTS WHEN NOT FOLLOWING ROOM GRID

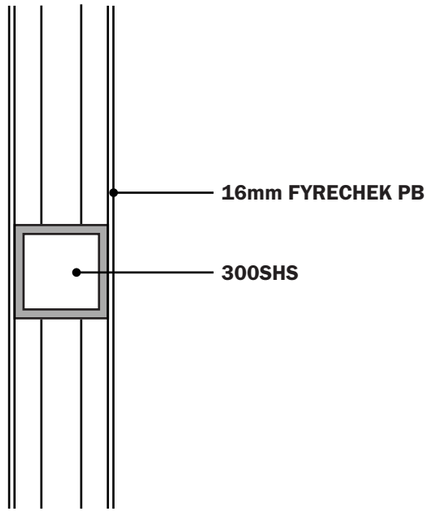
ROOM LAYOUT OPTIONS

Walls Typical Hotel Buildup:

- **RW + CTR 50 or greater**
- **Can be hebel or double stud**
- **Hebel option: 13mm PB, 28-35 Furing Channel (with glasswool ins), 75mm hebel, 35mm air gap, 64stud with ins, 13mm PB = 200**
- **Typically allow for 225**

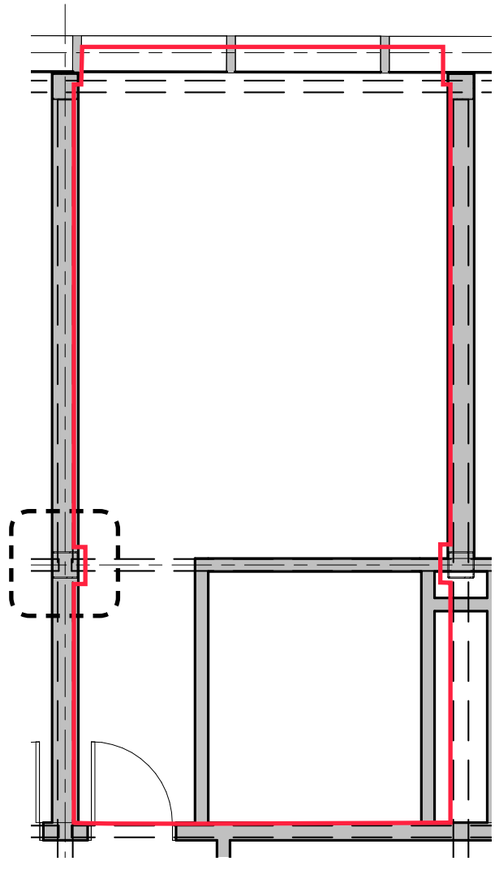
COLUMNS INTEGRATED INTO WALLS

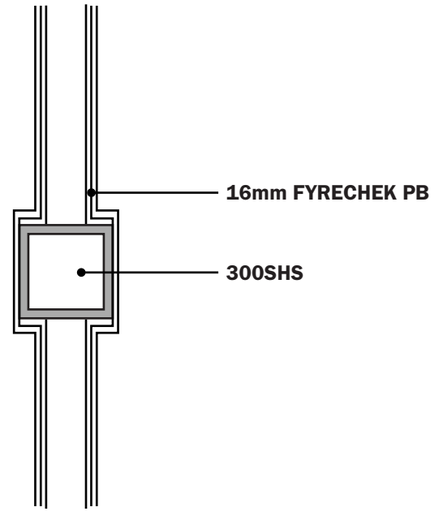




350mm WALL BUILD UP

WALL LOCALISE COLUMNS





250mm WALL BUILD UP



Attachment A8

Pedestrian wind environment study



PEDESTRIAN WIND ENVIRONMENT STUDY

150 DAY STREET, SYDNEY

WJ067-04F02(REV1)- WE REPORT

MARCH 21, 2025

Prepared for:

Success Venture (Darling Harbour) Unit Trust

Level 2, 3 Horwood Place, Parramatta, NSW 2150

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DOCUMENT CONTROL

Date	Revision History	Issued Revision	Prepared By (initials)	Instructed By (initials)	Reviewed & Authorised by (initials)
March 5, 2025	Initial.	0	PM	MM	EV
March 21, 2025	Include preamble + updated results.	1	PM/EV	MM	EV

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EXECUTIVE SUMMARY

This report presents the results of a detailed investigation into the wind environment impact of the 150 Day Street development, located in Sydney. Testing was performed at Windtech's boundary layer wind tunnel facility. The wind tunnel has a 3.0m wide working section and a fetch length of 14m, and measurements were taken from 16 wind directions at 22.5-degree increments. Testing was carried out using a 1:300 detailed scale model of the development, which was fabricated based on the 3D massing model received on December 19, 2024. Additional modifications were made to the massing model, following design meetings with architects Hassell Studio. These modifications are detailed in the body of the report. The effects of nearby buildings and land topography have been accounted for through the use of a proximity model which represents an area with a radius of 375m.

Peak gust and mean wind speeds were measured at selected critical outdoor trafficable locations within and around the subject development. Wind velocity coefficients representing the local wind speeds are derived from the wind tunnel and are combined with a statistical model of the regional wind climate (which accounts for the directional strength and frequency of occurrence of the prevailing regional winds) to provide the equivalent full-scale wind speeds at the site. The wind speed measurements are compared with criteria for pedestrian comfort and safety, based on Gust-Equivalent Mean (GEM) and annual maximum gust winds, respectively.

The model was tested in the wind tunnel without the effect of any forms of wind ameliorating devices such as screens, balustrades, etc., which are not already shown in the architectural drawings. The effect of vegetation was also excluded from the testing, although it is noted that the western edge of the site is heavily vegetated and is expected to enhance comfort levels. The existing site conditions were also tested, for comparison. In-principle treatments have been recommended for any area exposed to strong winds.

The results of the study indicate that wind conditions for all trafficable outdoor locations within and around the development will either satisfy the safety limit/relevant comfort criterion or will be equivalent to/better than the existing site conditions. Hence, it is expected that wind conditions for all outdoor trafficable areas within and around the development will be suitable for their intended uses.

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Appendix A Published Environmental Criteria
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1 INTRODUCTION

1.1 Planning Proposal Summary

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.

- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

1.2 Wind Tunnel Test

A wind tunnel study has been undertaken to assess wind speeds at selected critical outdoor trafficable areas within and around the subject development. The test procedures followed for this wind tunnel study were based on the guidelines set out in the Australasian Wind Engineering Society Quality Assurance Manual (AWES-QAM-1-2019), ASCE 7-16 (Chapter C31), and CTBUH (2013).

A scale model of the development was prepared, including the surrounding buildings and land topography. Testing was performed at Windtech's boundary layer wind tunnel facility. The wind tunnel has a 3.0m wide working section and a fetch length of 14m, and measurements were taken from 16 wind directions at 22.5 degree increments. The wind tunnel was configured to the appropriate boundary layer wind profile for each wind direction. Wind speeds were measured using either Dantec hot-wire probe anemometers or pressure-based wind speed sensors, positioned to monitor wind conditions at critical outdoor trafficable areas of the development.

The model was tested in the wind tunnel without the effect of any forms of wind ameliorating devices such as screens, balustrades, etc., which are not already shown in the architectural drawings. The effect of vegetation was also excluded from the testing, although it is noted that the western edge of the site is heavily vegetated and is expected to enhance comfort levels. The wind speeds measured during testing were combined with a statistical model of the regional wind climate to provide the equivalent full-scale wind speeds at the site. The measured wind speeds were compared against appropriate criteria for pedestrian comfort and safety, and in-principle treatments in form of massing variations have been recommended for any area which was exposed to strong winds. These treatments could be in the form of retaining vegetation that is already proposed for the site, or including additional vegetation, screens, awnings, etc. Note however that, in accordance with the AWES Guidelines (2014), only architectural elements or modifications are used to treat winds which represent an exceedance of the existing wind conditions and exceed the safety limit.

2 WIND TUNNEL MODEL

Wind tunnel testing was carried out using a 1:300 scale model of the development and surroundings. The study model incorporates all necessary architectural features on the façade of the development to ensure an accurate wind flow is achieved around the model and was constructed using a Computer Aided Manufacturing (CAM) process to ensure that a high level of detail and accuracy is achieved. The study model was fabricated based on the 3D massing model received on December 19, 2024. Additional modifications were made to the massing model, following design meetings with architects Hassell Studio - These are summarised below (also refer to Figures 3):

- Inclusion of an 8m chamfer along the Ground Level southern aspect of the development.
- Inclusion of void space along the northern and southern aspect, across Levels 11 and 12.
- The Level 18 & 21 building cut-ins have been removed. These levels are now in line with the standard floor plans either above or below.

The effect of nearby buildings and land topography has been accounted for through the use of a proximity model, which represents a radius of 375m from the development site.

Photographs of the wind tunnel model are presented in Figures 1. Planview images of the various proximity model configurations are provided in Figures 2.



Figure 1a: Photograph of the Wind Tunnel Model (Proposed Scenario, view from the north-west)



Figure 1b: Photograph of the Wind Tunnel Model (Proposed Scenario, view from the south)



Figure 1c: Photograph of the Wind Tunnel Model (Proposed Scenario, view from the east)

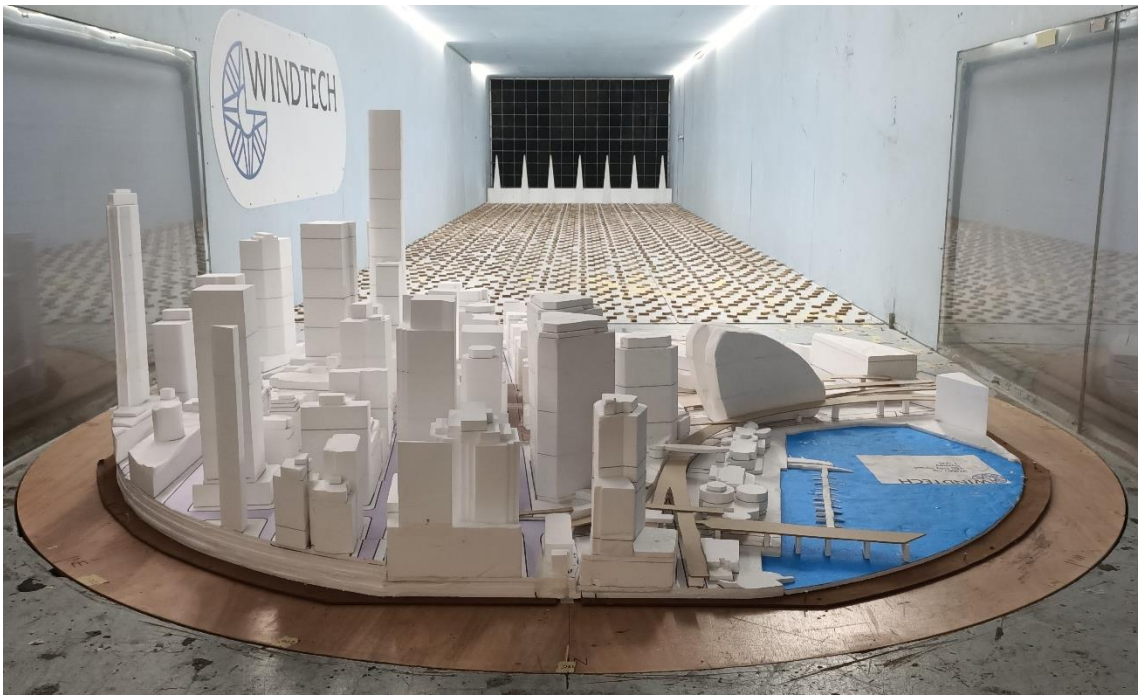


Figure 1d: Photograph of the Wind Tunnel Model (Proposed Scenario, view from the north)



Figure 1e: Photograph of the Wind Tunnel Model (Proposed Scenario, view from the south-west)

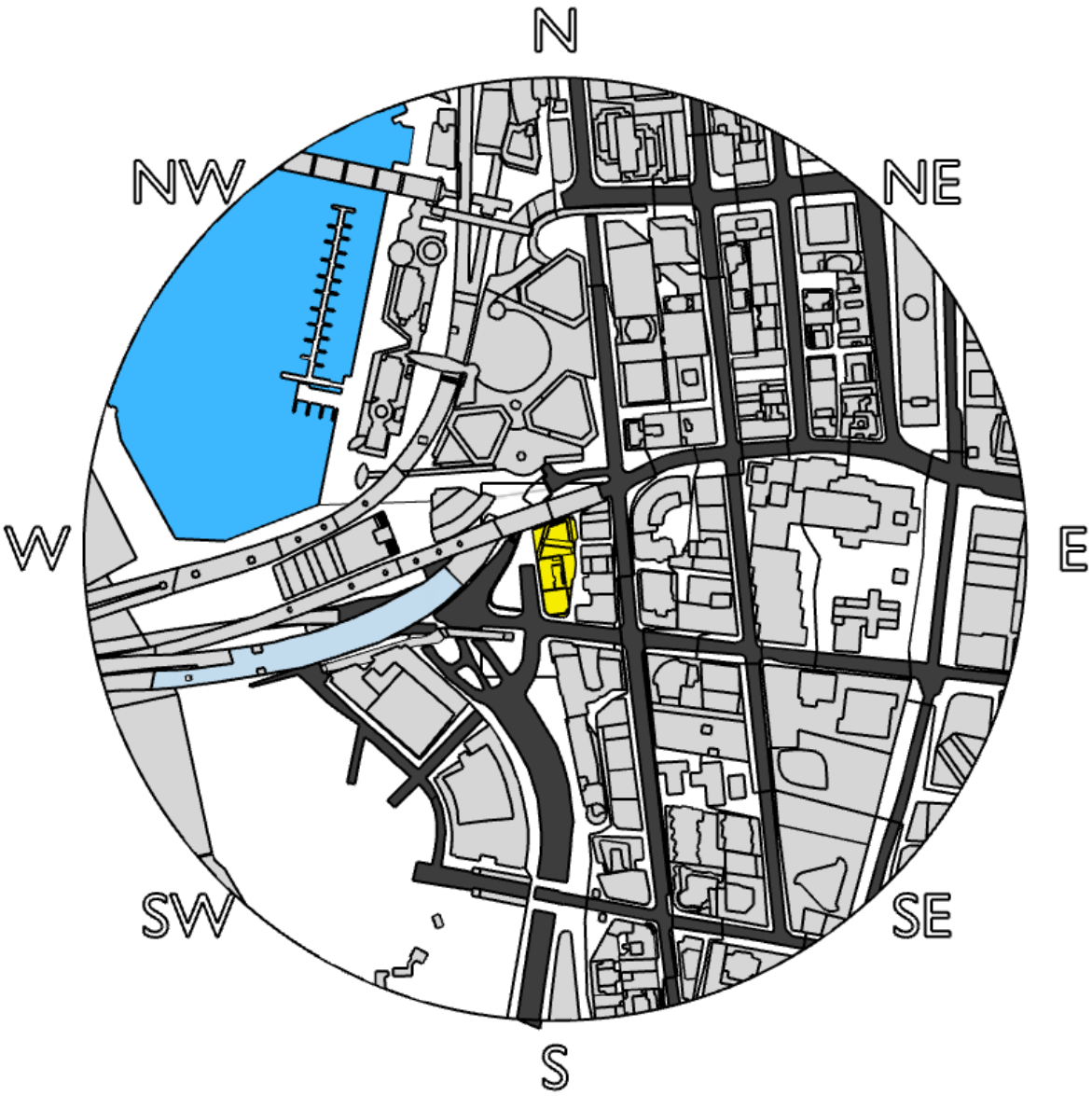


Figure 2a: Proximity Model Plan (Proposed Scenario)

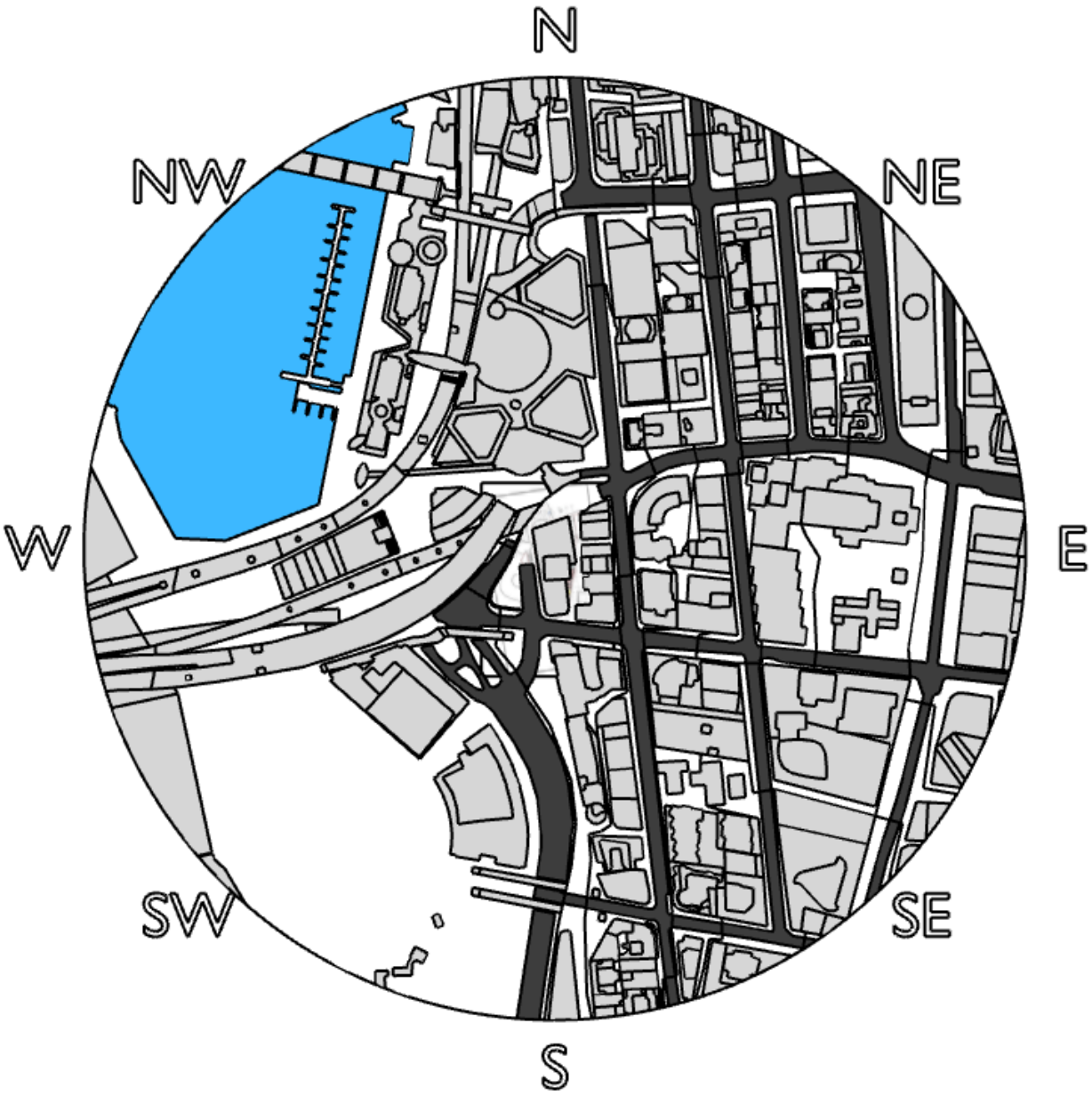


Figure 2b: Proximity Model Plan (Existing Site)

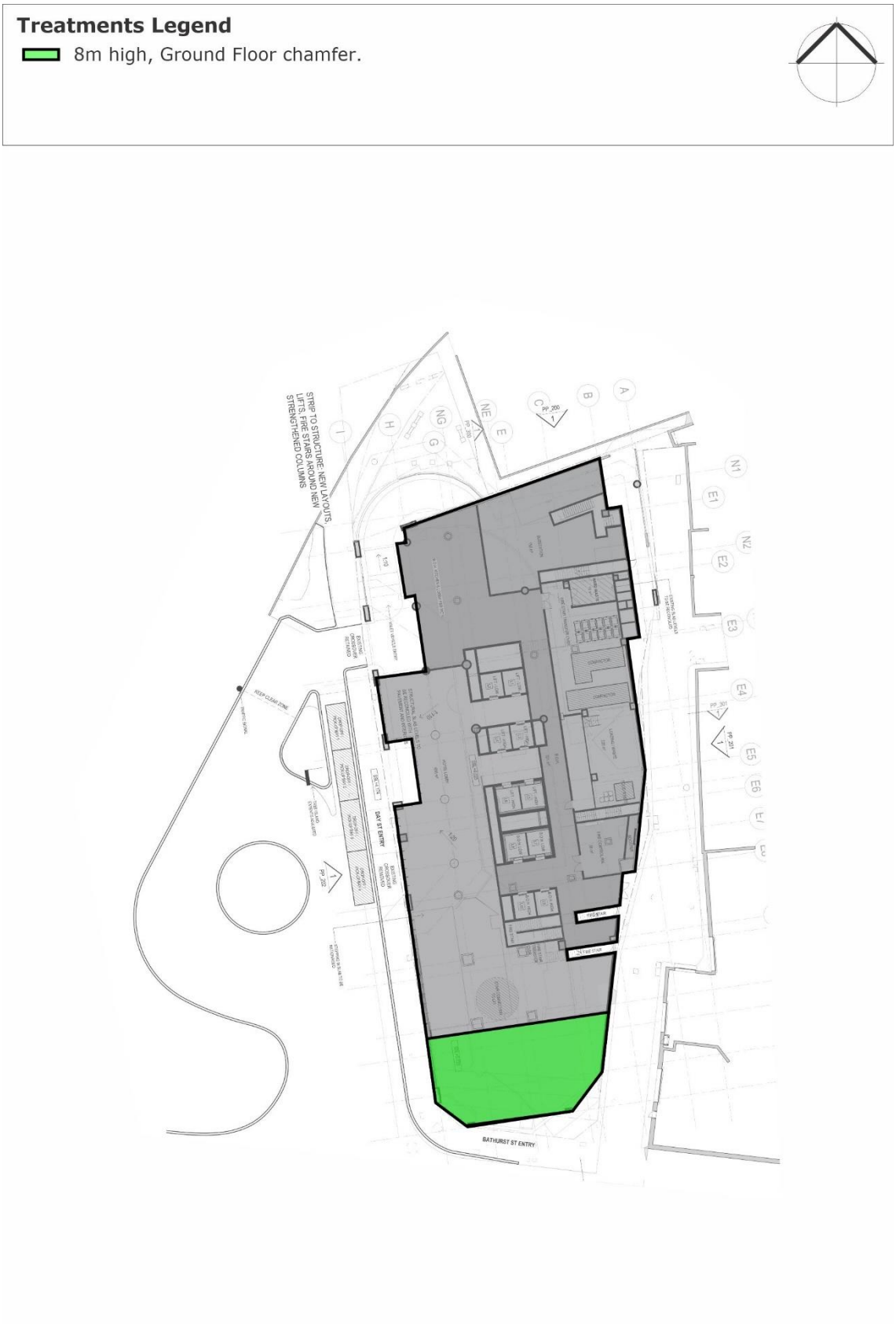


Figure 3a: Further Modifications made to the 3D Massing Model Provided (Ground Level Plan)

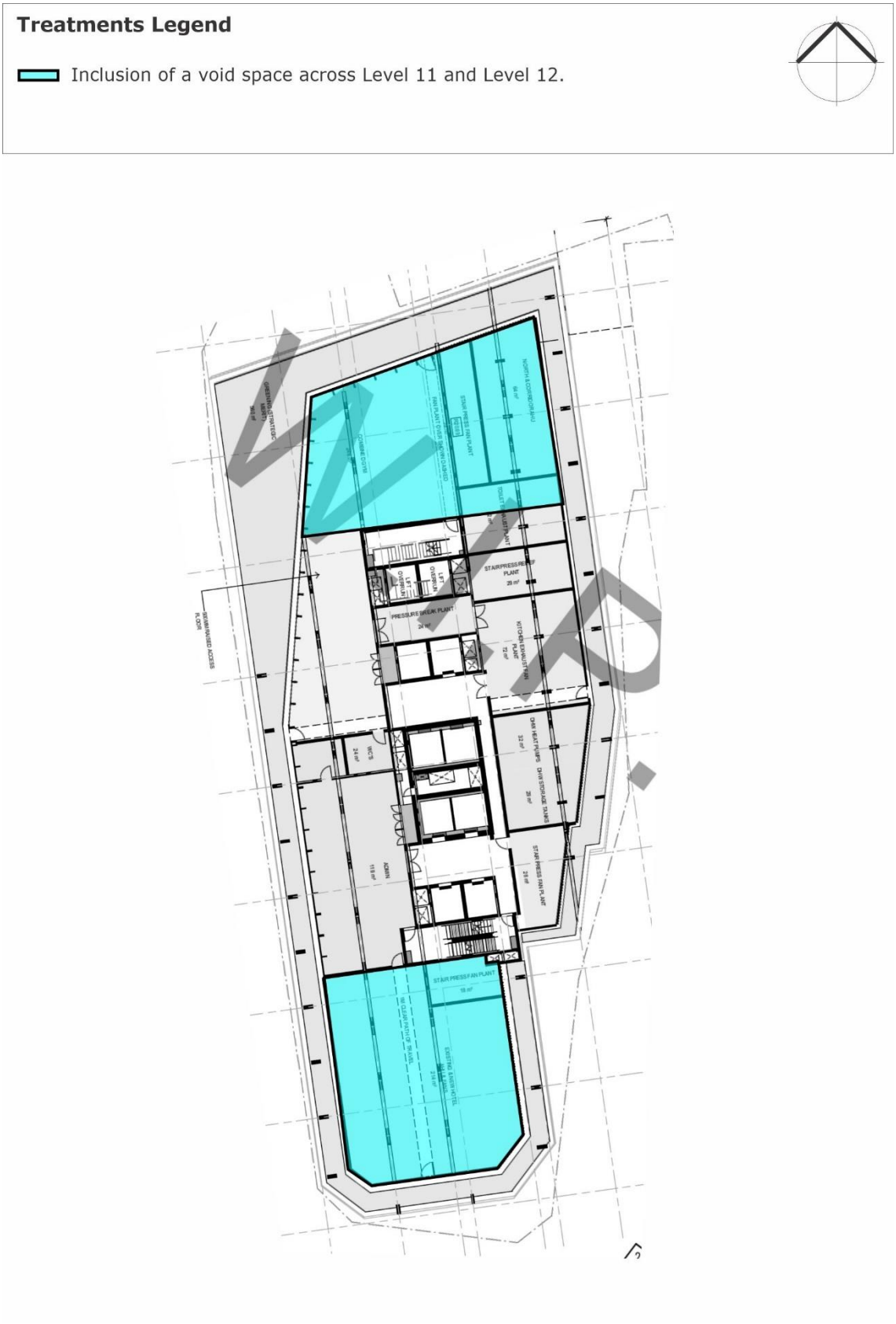


Figure 3b: Further Modifications made to the 3D Massing Model Provided (Levels 11 and 12 Plan)

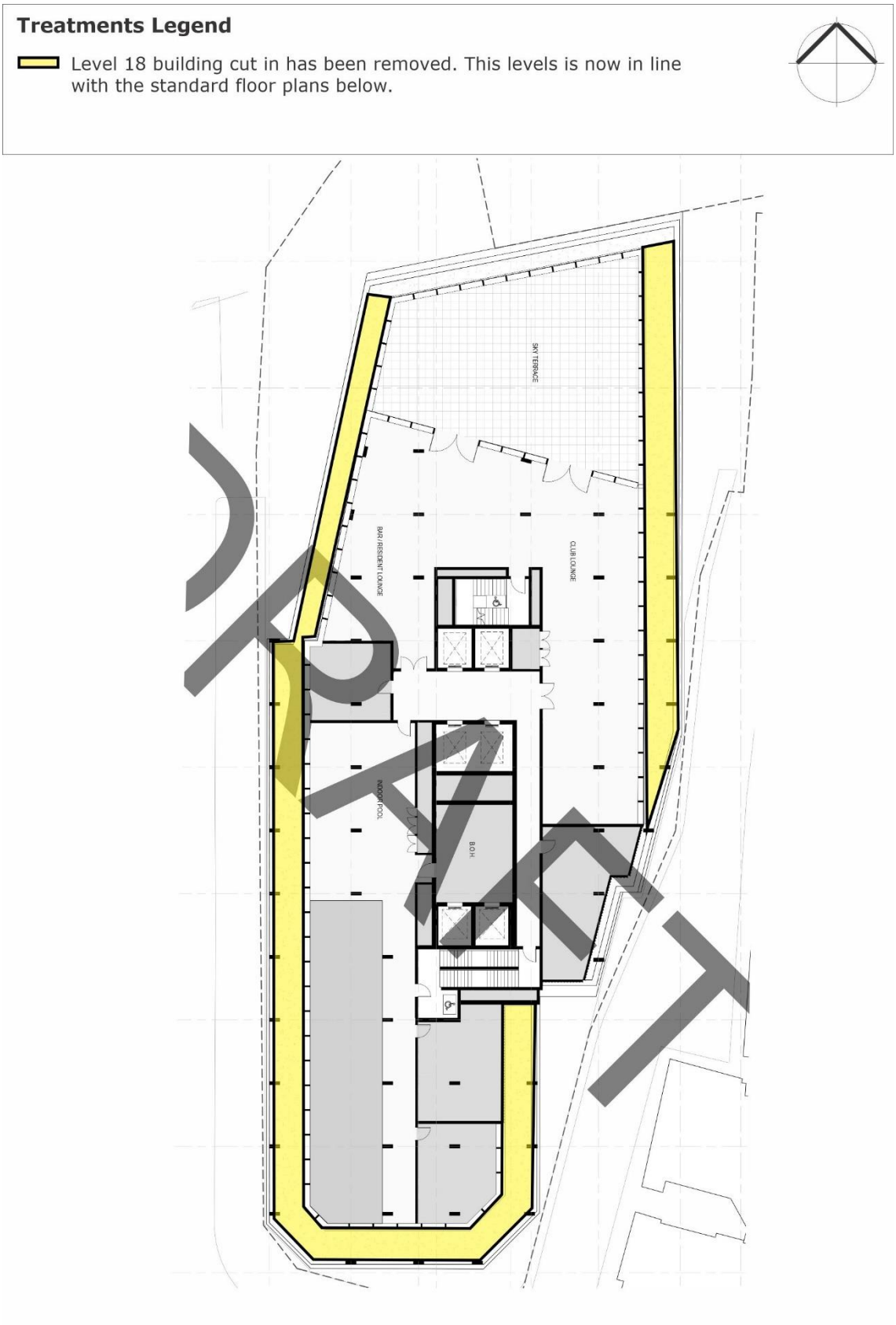


Figure 3c: Further Modifications made to the 3D Massing Model Provided (Level 18 Plan)

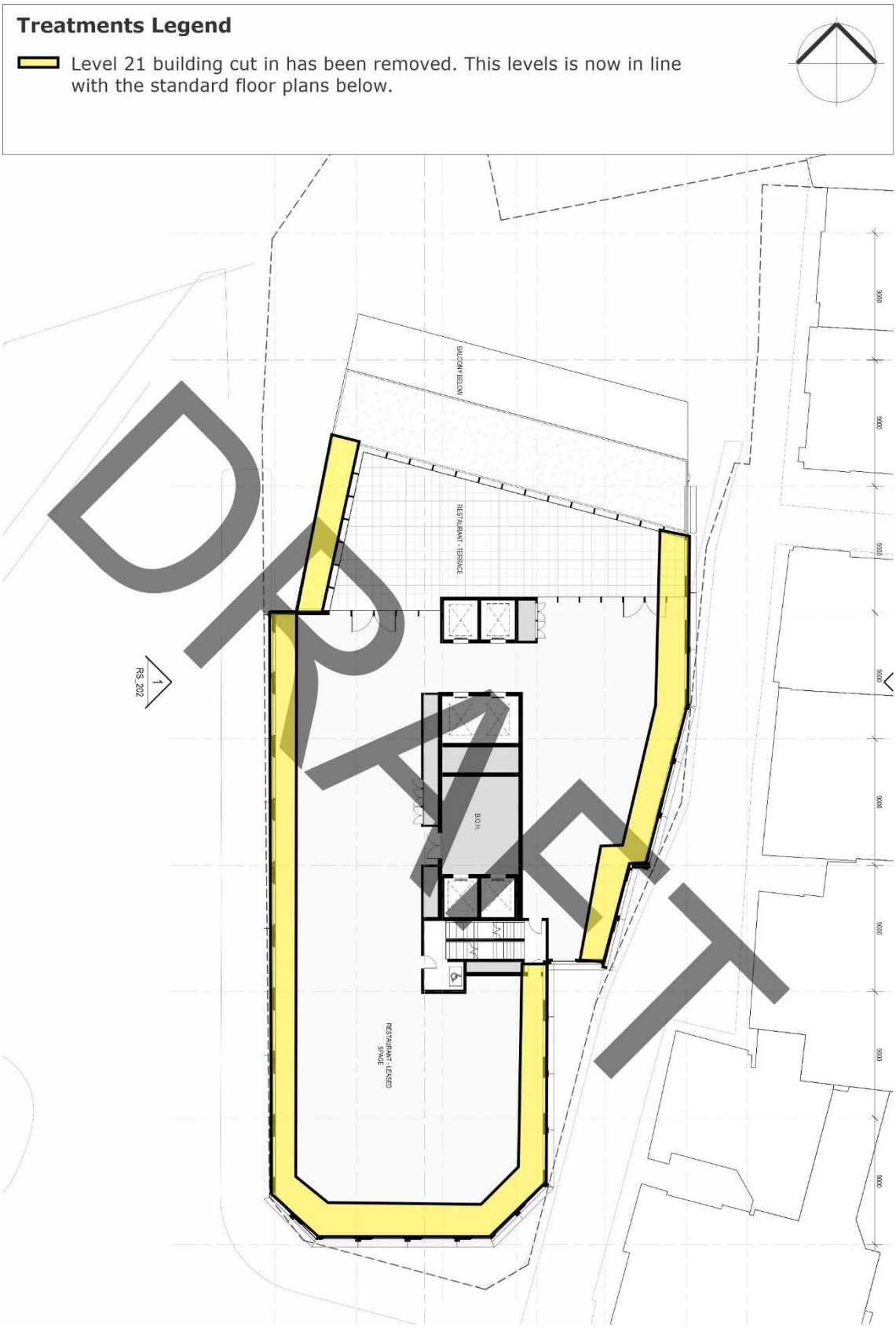


Figure 3d: Further Modifications made to the 3D Massing Model Provided (Level 21 Plan)

3 BOUNDARY LAYER WIND PROFILES AT THE SITE

The roughness of the surface of the earth has the effect of slowing down the wind near the ground. This effect is observed up to the boundary layer height, which can range between 500m to 3km above the earth's surface depending on the roughness of the surface (ie: oceans, open farmland, etc). Within this range the prevailing wind forms a boundary layer wind profile.

Various wind codes and standards and other publications classify various types of boundary layer wind flows depending on the surface roughness z_0. Descriptions of typical boundary layer wind profiles, based on D.M. Deaves and R.I. Harris (1978), are summarised as follows:

- Flat terrain (0.002m < z_0 < 0.003m). Examples include inland water bodies such as lakes, dams, rivers, etc, and the open ocean.
- Semi-open terrain (0.006m < z_0 < 0.01m). Examples include flat deserts and plains.
- Open terrain (0.02m < z_0 < 0.03m). Examples include grassy fields, semi-flat plains, and open farmland (without buildings or trees).
- Semi-suburban/semi-forest terrain (0.06m < z_0 < 0.1m). Examples include farmland with scattered trees and buildings and very low-density suburban areas.
- Suburban/forest terrain (0.2m < z_0 < 0.3m). Examples include suburban areas of towns and areas with dense vegetation such as forests, bushland, etc.
- Semi-urban terrain (0.6m < z_0 < 1.0m). Examples include centres of small cities, industrial parks, etc.
- Urban terrain (2.0m < z_0 < 3.0m). Examples include centres of large cities with many high-rise towers, and also areas with many closely-spaced mid-rise buildings.

The boundary layer wind profile does not change instantly due to changes in the terrain roughness. It can take many kilometres (at least 100km) of a constant surface roughness for the boundary layer wind profile to achieve a state of equilibrium. Hence an analysis of the effect of changes in the upwind terrain roughness is necessary to determine an accurate boundary layer wind profile at the development site location.

The proximity model accounts for the effect of the near field topographic effects as well as the influence of the local built forms. To account for further afield effects, an assessment of the upwind terrain roughness has been undertaken based on the method given in AS/NZS1170.2:2021, using a fetch ranging from 20 to 60 times the study reference height (as per the recommendation by AS/NZS1170.2:2021). An aerial image showing the surrounding terrain is presented in Figure 4 for a range of 2.5km from the edge of the proximity model used for the wind tunnel study. The resulting mean and gust terrain and height multipliers at the site location are presented in Table 1, referenced to the study reference height (which is approximately half the height of the subject development since typically we are most interested in the wind effects at the ground plane). Details of the boundary layer wind profiles at the site are combined with the regional wind model (see Section 4) to determine the site wind speeds.

Table 1: Approaching Boundary Layer Wind Profile Analysis Summary (at the study reference height)

Wind Sector (degrees)	Terrain and Height Multiplier			Turbulence Intensity	Equivalent Terrain Category (AS/NZS1170.2:2021 naming convention)
	$k_{tr,T=1hr}$ (hourly)	$k_{tr,T=10min}$ (10min)	$k_{tr,T=3s}$ (3sec)	I_v	
0	0.81	0.85	1.19	0.154	2.1
30	0.81	0.85	1.19	0.154	2.1
60	0.79	0.83	1.17	0.161	2.2
90	0.71	0.74	1.12	0.195	2.7
120	0.66	0.70	1.09	0.215	3.0
150	0.67	0.71	1.09	0.210	3.0
180	0.68	0.72	1.10	0.207	2.9
210	0.64	0.68	1.07	0.226	3.1
240	0.66	0.70	1.09	0.214	3.0
270	0.74	0.77	1.14	0.182	2.6
300	0.71	0.74	1.12	0.195	2.7
330	0.84	0.88	1.21	0.143	1.8

NOTE: These terrain and height multipliers are to be applied to a basic regional wind speed averaged over 3-seconds. Divide these values by 1.10 for a basic wind speed averaged over 0.2-seconds, 0.69 for a basic wind speed averaged over 10-minutes, or 0.66 for a basic wind speed averaged over 1-hour.

For each of the 16 wind directions tested in this study, the approaching boundary layer wind profiles modelled in the wind tunnel closely matched the profiles listed in Table 1. Plots of the boundary layer wind profiles used for the wind tunnel testing are presented in Appendix E of this report.

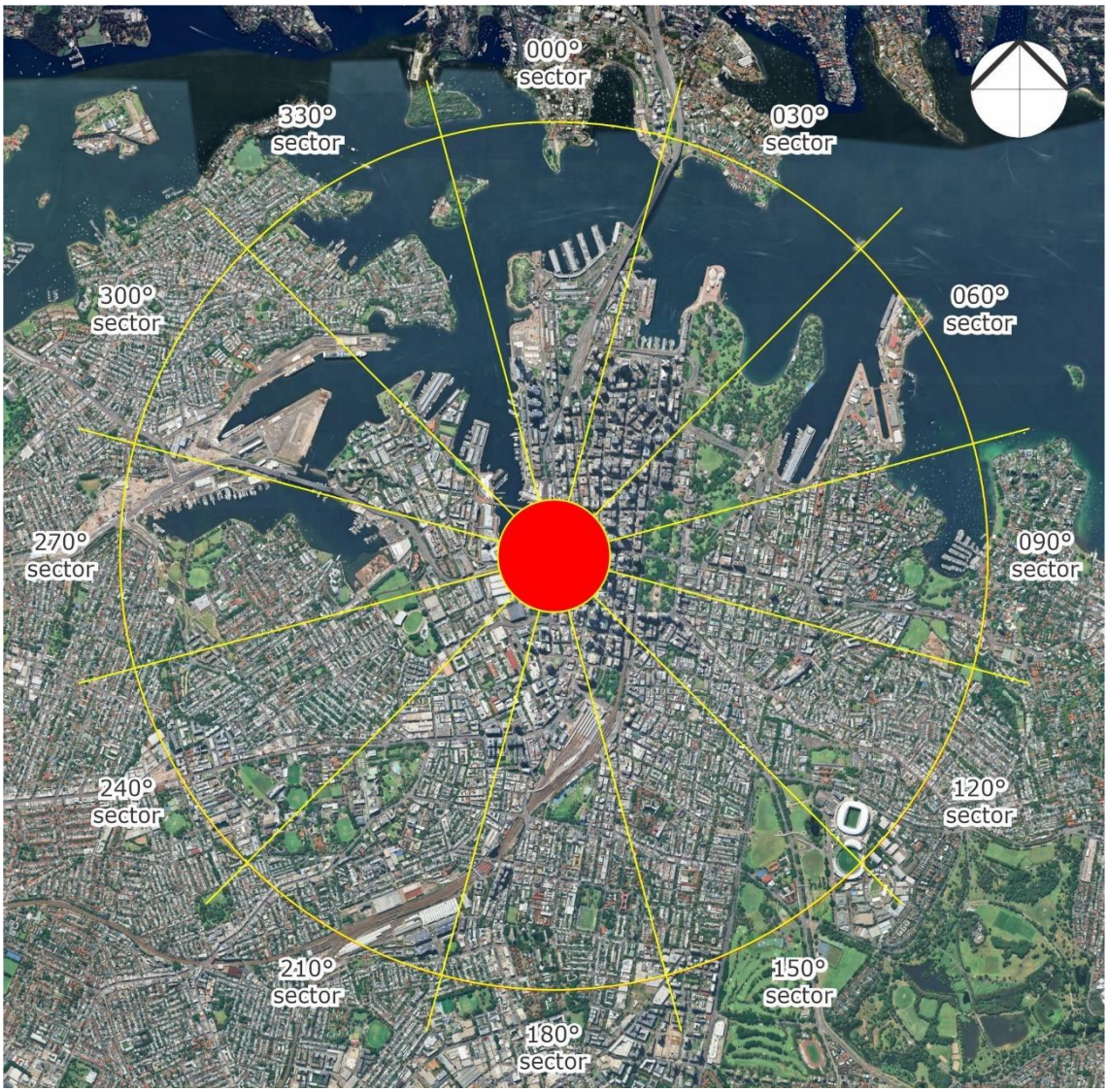


Figure 4: Aerial Image of the Surrounding Terrain (distance of 2.5km from the edge of the proximity model)

4 REGIONAL WIND MODEL

The regional wind model used in this study was determined from an analysis of measured directional mean wind speeds obtained at the meteorological recording station located at Kingsford Smith Airport (Sydney Airport). Data was collected from 1995 to 2016 and corrected so that it represents winds over standard open terrain at a height of 10m above ground for each wind direction. From this analysis, directional probabilities of exceedance and directional wind speeds for the region are determined. The directional wind speeds are summarised in Table 2. The directional wind speeds and corresponding directional frequencies of occurrence are presented in Figure 5.

The data indicates that the southerly winds are by far the most frequent winds for the Sydney region, and are also the strongest. The westerly winds occur most frequently during the winter season for the Sydney region, and although they are typically not as strong as the southerly winds, they are usually a cold wind and hence can be a cause for discomfort for outdoor areas. North-easterly winds occur most frequently occur during the warmer months of the year for the Sydney region, and hence are usually welcomed within outdoor areas since they are typically not as strong as the southerly or westerly winds.

The recurrence intervals examined in this study are for exceedances of 5% (per 90 degree sector) of the pedestrian comfort criteria using Gust-Equivalent Mean (GEM) wind speeds, and annual maximum wind speeds (per 22.5 degree sector) for the pedestrian safety criterion. Note that the 5% probability wind speeds presented in Table 2 are only used for the directional plot presented in Figure 5 and are not used for the integration of the probabilities.

Table 2: Regional Directional Wind Speeds (hourly means, at 10m height in standard open terrain) (m/s)

Wind Direction	5% Exceedance	Annual Maximum
N	5.9	9.9
NNE	9.9	12.9
NE	9.7	12.3
ENE	7.5	10.0
E	6.3	9.3
ESE	6.2	9.1
SE	7.0	10.1
SSE	8.5	12.2
S	10.3	13.9
SSW	10.0	14.1
SW	6.9	11.9
WSW	9.3	13.6
W	9.8	14.4
WNW	8.8	14.3
NW	6.7	12.6
NNW	5.5	10.7

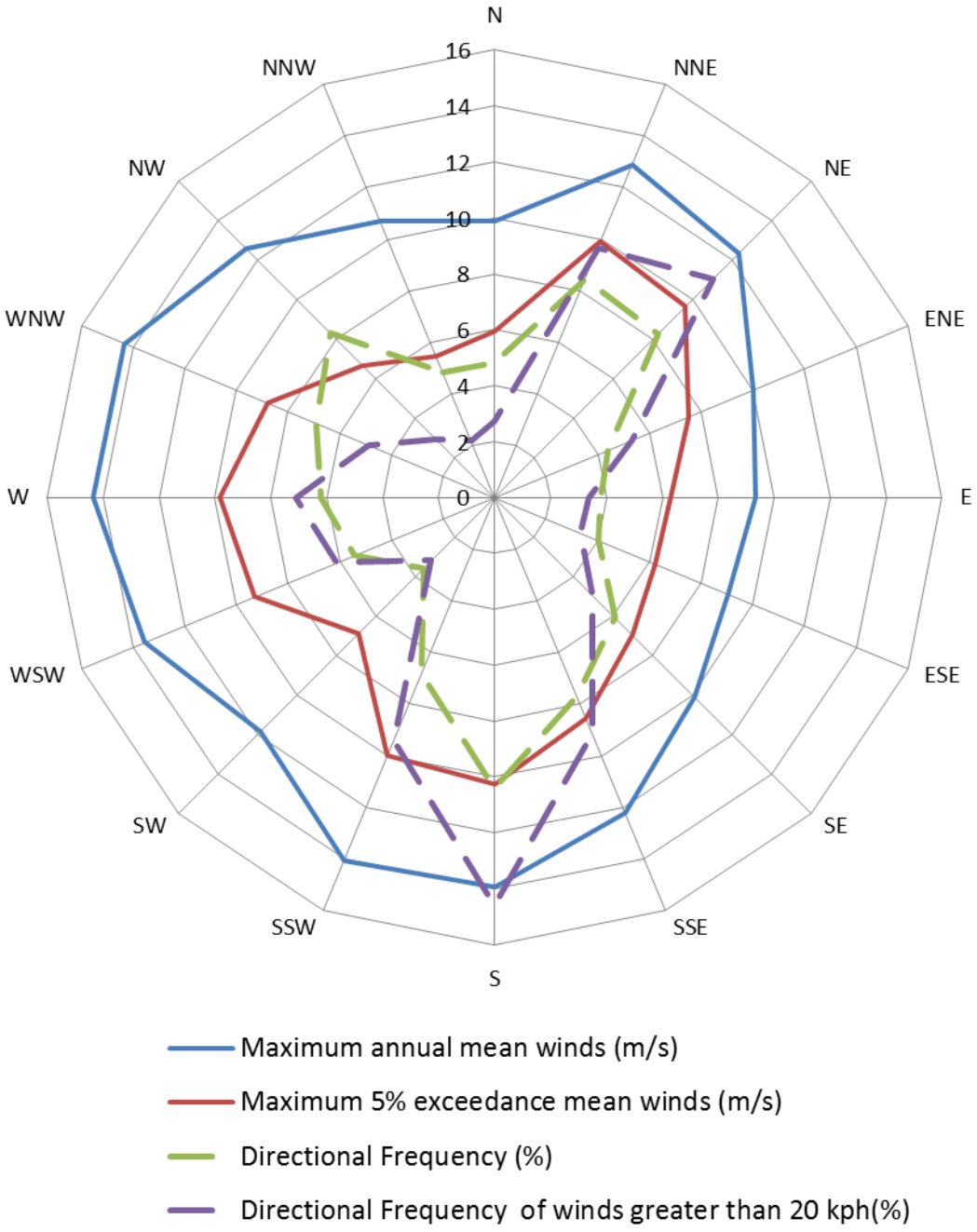


Figure 5: Annual and 5% Exceedance Hourly Mean Wind Speeds, and Frequencies of Occurrence, for the Sydney Region (at 10m height in standard open terrain)

5 PEDESTRIAN WIND COMFORT AND SAFETY

The acceptability of wind conditions for an area is determined by comparing the measured wind speeds against an appropriate criteria. This section outlines how the measured wind speeds were obtained, the criteria considered for the development, as well as the critical trafficable areas that were assessed and their corresponding criteria designation.

5.1 Measured Wind Speeds

Wind speeds were measured using either Dantec hot-wire probe anemometers or pressure-based wind speed sensors, positioned to monitor wind conditions at critical outdoor trafficable areas of the development. The reference mean free-stream wind speed measured in the wind tunnel, which is at a full-scale height of 200m and measured 3m upstream of the study model.

Measurements were acquired for 16 wind directions at 22.5 degree increments using a sample rate of 1,024Hz. The full methodology of determining the wind speed measurements at the site from either the Dantec Hot-wire probe anemometers or pressure-based wind speed sensors is provided in Appendix B. Based on the results of the analysis of the boundary layer wind profiles at the site (see Section 3), and incorporating the regional wind model (see Section 4), the data sampling length of the wind tunnel test for each wind direction corresponds to a full-scale sample length ranging between 30 minutes and 1 hour. Research by A.W. Rofail and K.C.S. Kwok (1991) has shown that, in addition to the mean and standard deviation of the wind being stable for sample lengths of 15 minutes or more (full-scale), the peak value determined using the upcrossing method is stable for sample lengths of 30 minutes or more.

5.2 Wind Speed Criteria Used for This Study

For this study, the measured wind conditions for the various critical outdoor trafficable areas around the subject development are compared against the criteria presented in the Draft Sydney Development Control Plan 2012 - Central Sydney Planning Review Amendment, which supersedes the criteria detailed in the City of Sydney Development Control Plan 2012 (SDCP2012).

For pedestrian comfort, the Draft Sydney DCP 2012 requires that the hourly mean wind speed, or Gust-Equivalent Mean (GEM) wind speed (whichever is greater for each wind direction), must not exceed 8m/s for walking, 6m/s for standing, and 4m/s for sitting. These are based on a 5% probability of exceedance.

For pedestrian safety, the Draft Sydney DCP 2012 defines a safety limit criterion of 24m/s, based on an annual maximum 0.5 second gust wind speed, which applies to all areas.

Furthermore, in accordance with the provisions of the Draft Sydney DCP 2012, the existing conditions for the pedestrian footpaths around the site are also analysed as part of this study to determine the impact of the subject development. If it is found that the existing conditions exceed the relevant criteria, then the target wind speed for that area with the inclusion of the proposed development is to at least match the existing site conditions.

In accordance with the provisions of the Draft Sydney DCP 2012, the wind speed assessment is undertaken for winds occurring between 6am and 10pm (AEST).

A more detailed comparison of published criteria for pedestrian wind comfort and safety is provided in Appendix A.

For this study the measured wind conditions of the selected critical outdoor trafficable areas are compared against two sets of criteria; one for pedestrian safety, and one for pedestrian comfort. The safety criterion is applied to the annual maximum gust winds, and the comfort criteria is applied to Gust Equivalent Mean (GEM) winds. In accordance with ASCE (2003), the GEM wind speed is defined as follows:

$$GEM = max\left(\bar{V}, \frac{\hat{V}}{1.85}\right) \quad (5.1)$$

where:

$\bar{V}$ is the mean wind speed.

$\hat{V}$ is the gust wind speed.

The criteria considered in this study are summarised in Tables 3 and 4 for pedestrian comfort and safety, respectively. The results of the wind tunnel study are presented in the form of directional plots attached in Appendix C of this report. For each study point there is a plot of the annual probability of exceedance of the assigned comfort criteria, and a plot for the annual maximum gust wind speeds using the safety criterion. The velocity coefficients are also presented in the form of directional plots in Appendix D

Table 3: Pedestrian Comfort Criteria (Draft Sydney DCP 2012)

Classification	Description	Maximum 5% Exceedance GEM Wind Speed (m/s)
Standing	Short duration stationary activities (generally less than 1 hour), including window shopping, waiting areas, etc.	6.0
Walking	For pedestrian thoroughfares, private swimming pools, most communal areas, private balconies and terraces, etc.	8.0

Table 4: Pedestrian Safety Criterion (Draft Sydney DCP 2012)

Classification	Description	Annual Maximum Gust Wind Speed (m/s)
Safety	Safety criterion applies to all trafficable areas.	24

5.3 Layout of Study Points

For this study a total of 38 study point locations were selected for analysis in the wind tunnel. This includes the following:

- 16 study points close to the site, along the main entrances, pedestrian footpaths and trafficable areas.
- 22 study points further afield, outside recreational facilities, walkways and bus stops.

The locations of the various study points tested for this study, as well as the target wind speed criteria for the various outdoor trafficable areas of the development, are presented in Figures 6 in the form of marked-up plans. It should be noted that only the most critical outdoor locations of the development have been selected for analysis.



Figure 6a: Study Point Locations and Target Wind Speed Criteria – Close to Site

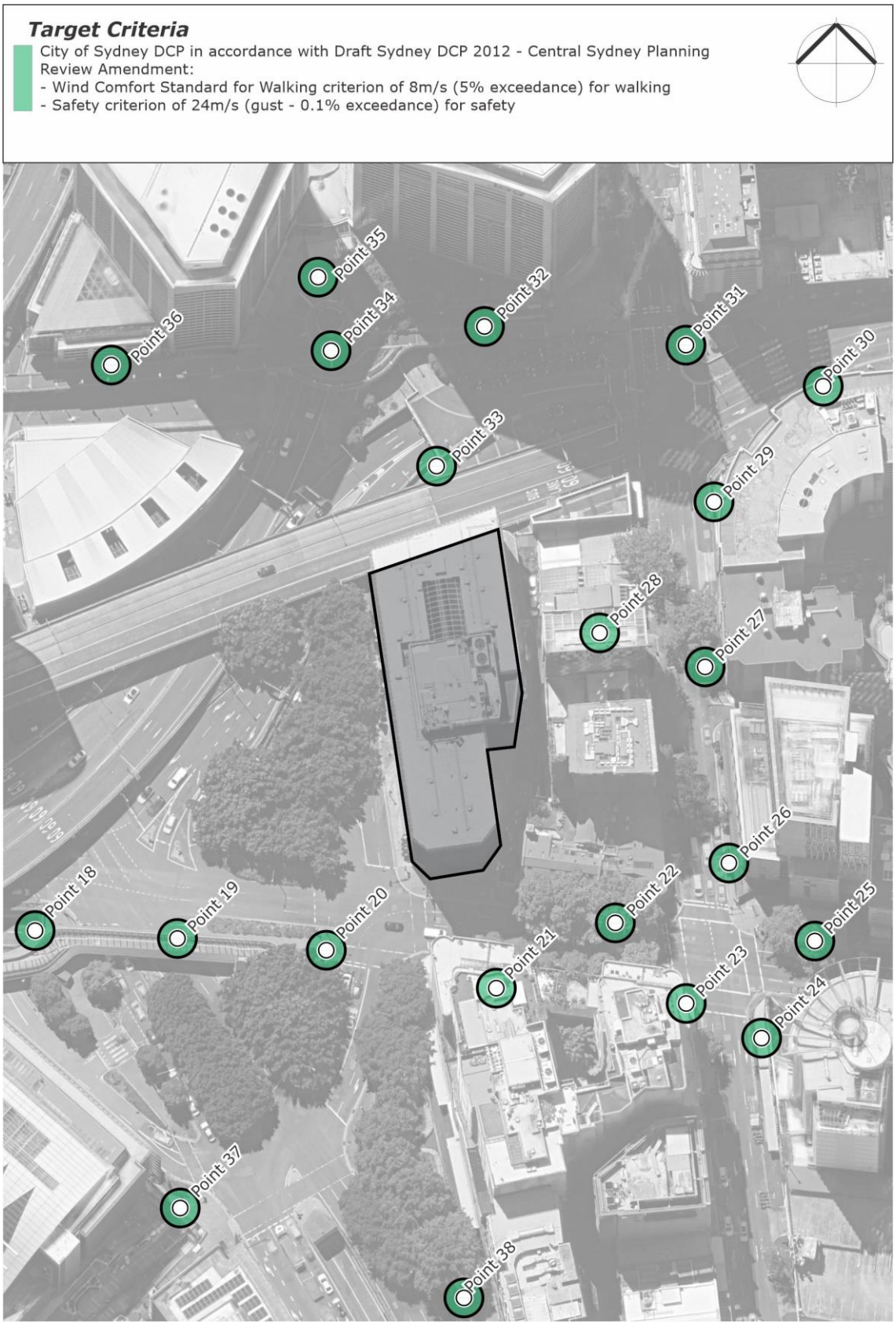


Figure 6b: Study Point Locations and Target Wind Speed Criteria – Further Afield

6 RESULTS AND DISCUSSION

The results of the wind tunnel study are presented in the form of directional plots in Appendix C for all study points locations, summarised in Table 5, and shown on marked-up plans in Figures 7. The velocity coefficients are also presented in the form of directional plots in Appendix D The wind speed criteria that the wind conditions should achieve are also listed in Table 5 for each study point location, as well as in Figures 6.

The results of the study indicate that wind conditions for all trafficable outdoor locations within and around the development will either satisfy the safety limit/relevant comfort criterion or will be equivalent to/better than the existing site conditions. It is recommended that the modifications to the massing (refer to Figures 3) be retained in the final design. Furthermore, the external space that is created by the Ground Level, southern aspect chamfer is to be made non-trafficable. It is noted that the external space is to be populated with landscape elements, which is expected to enhance pedestrian comfort locally at the Ground Level southern corner of the development.

As a general note, the use of loose glass-tops and light-weight sheets or covers (including loose BBQ lids) is not appropriate on high-rise outdoor terraces and balconies. Furthermore, lightweight furniture is not recommended unless it is securely attached to the balcony or terrace floor slab.

With the inclusion of these treatments to the final design, it is expected that wind conditions for all outdoor trafficable areas within and around the development will be suitable for their intended uses.

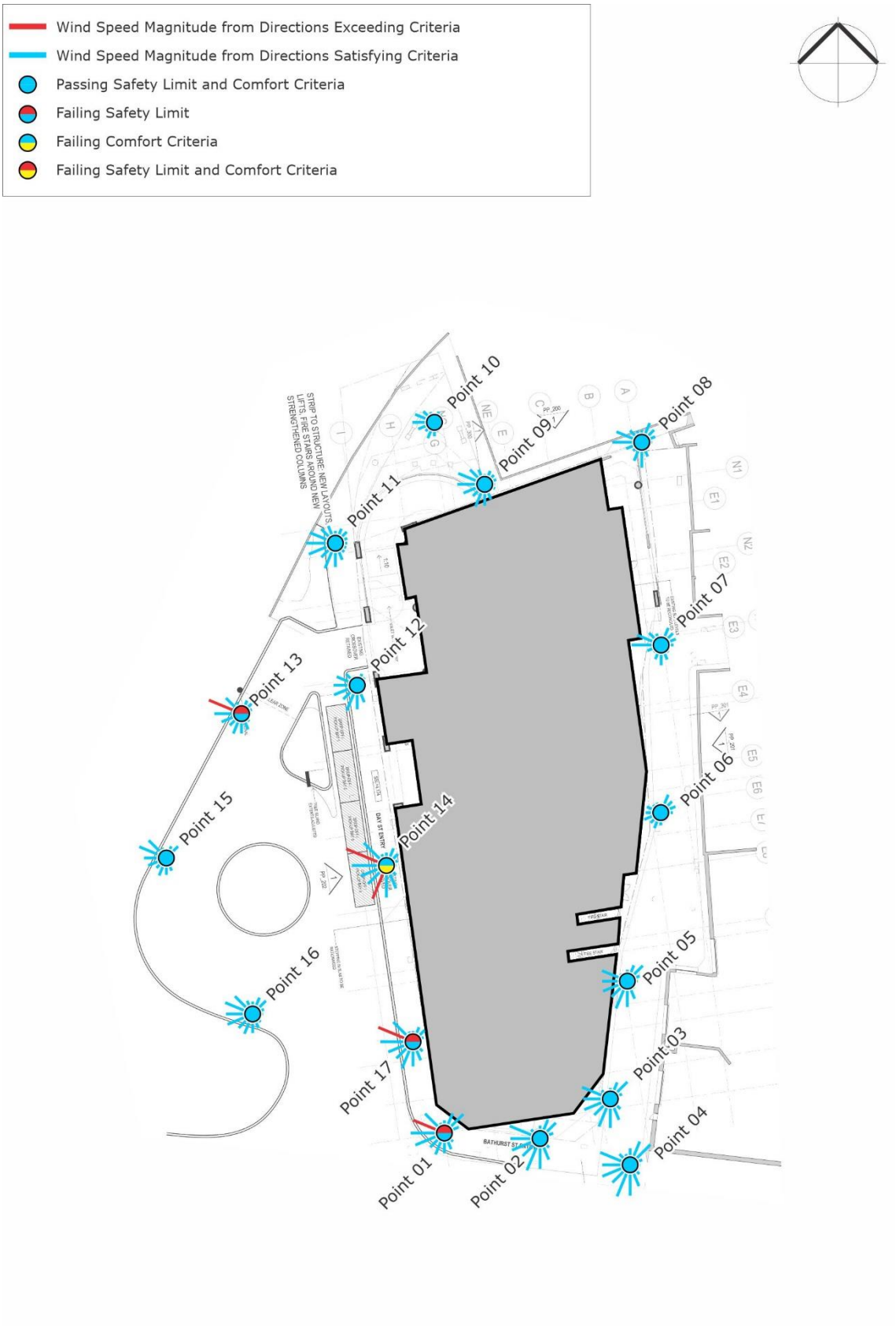


Figure 7a: Wind Tunnel Results – Close to Site
(Existing Site, results shown without treatments applied)

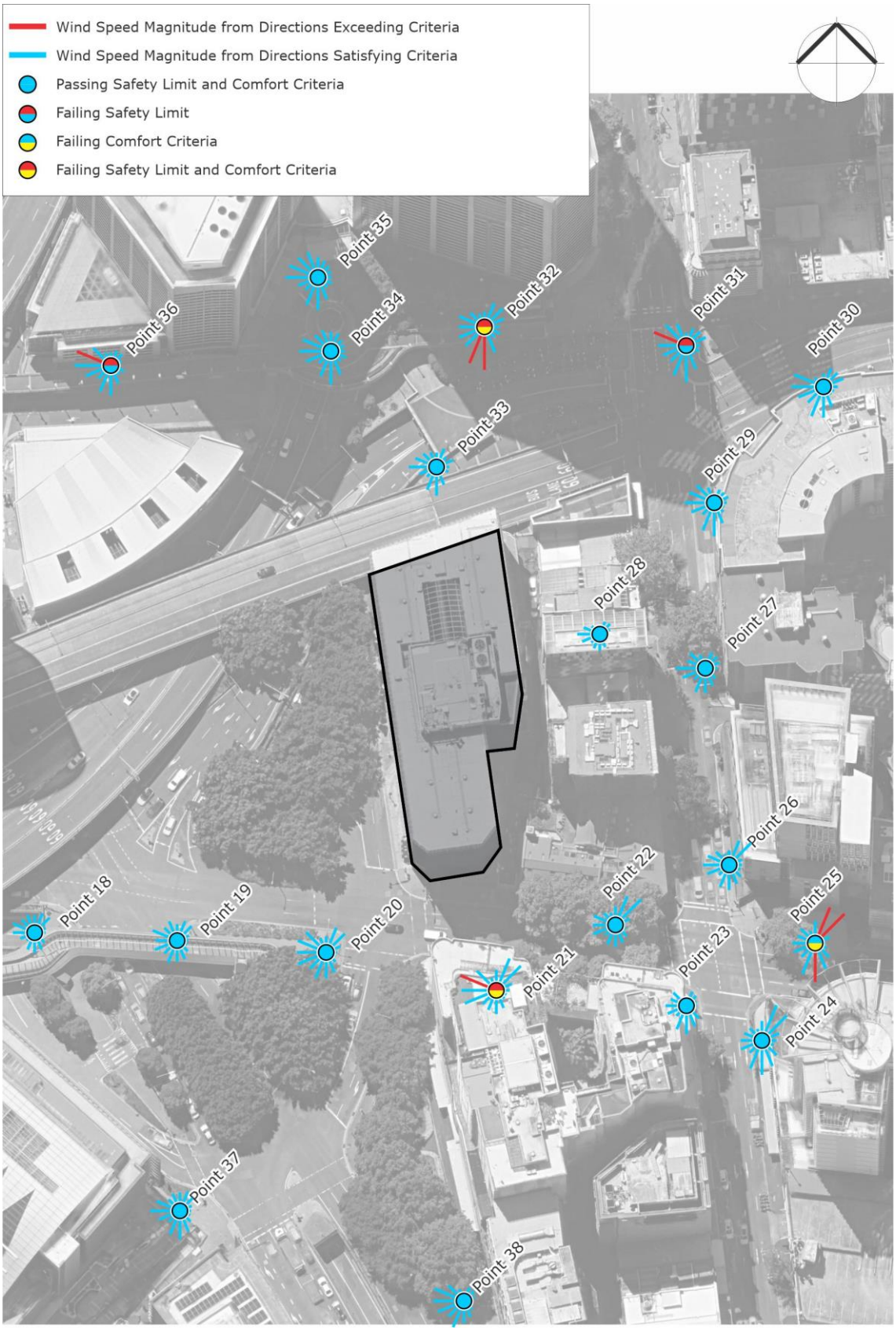


Figure 7b: Wind Tunnel Results – Further Afield
(Existing Site, results shown without treatments applied)

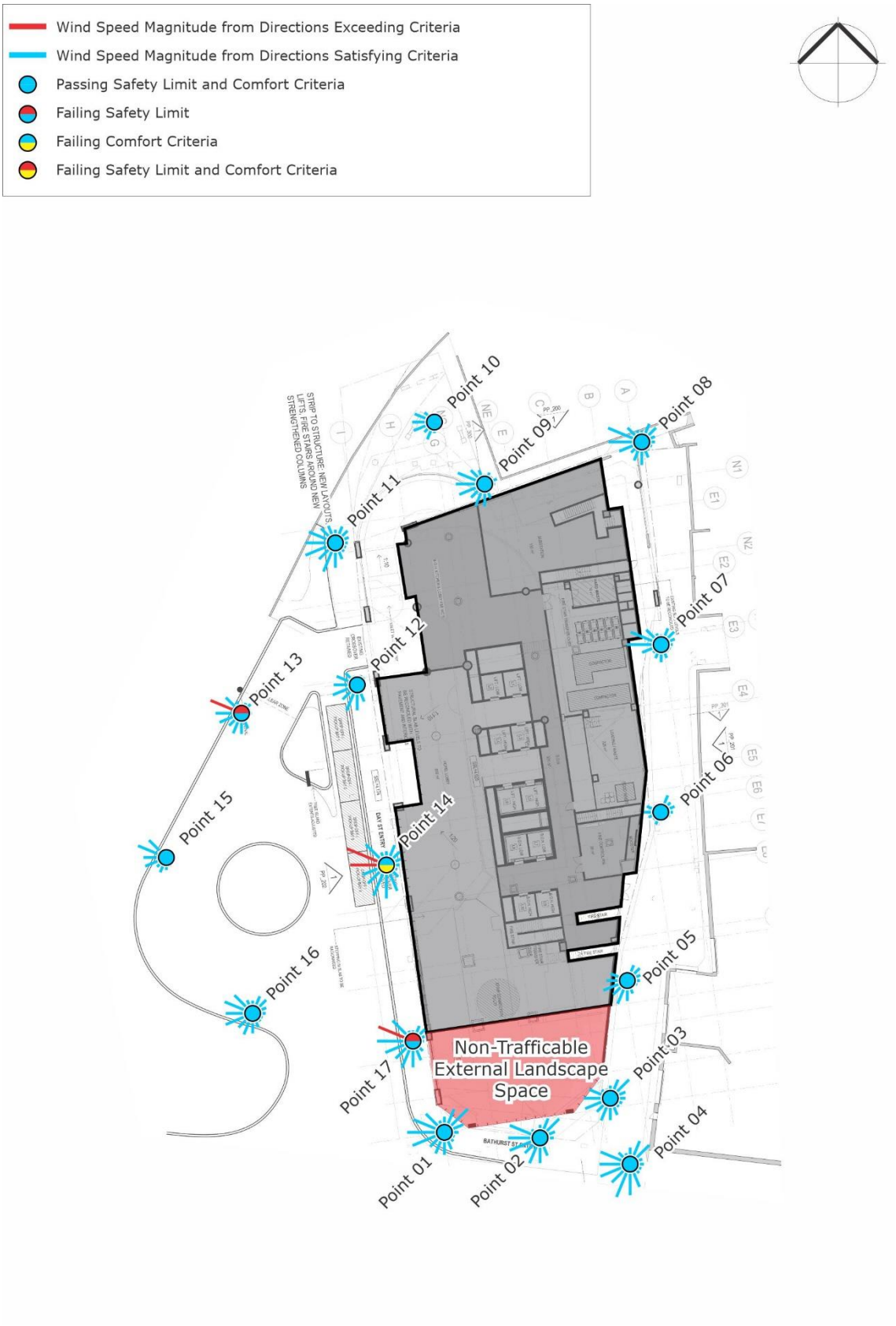


Figure 7c: Wind Tunnel Results – Close to Site
(Proposed Case, results shown without treatments applied)

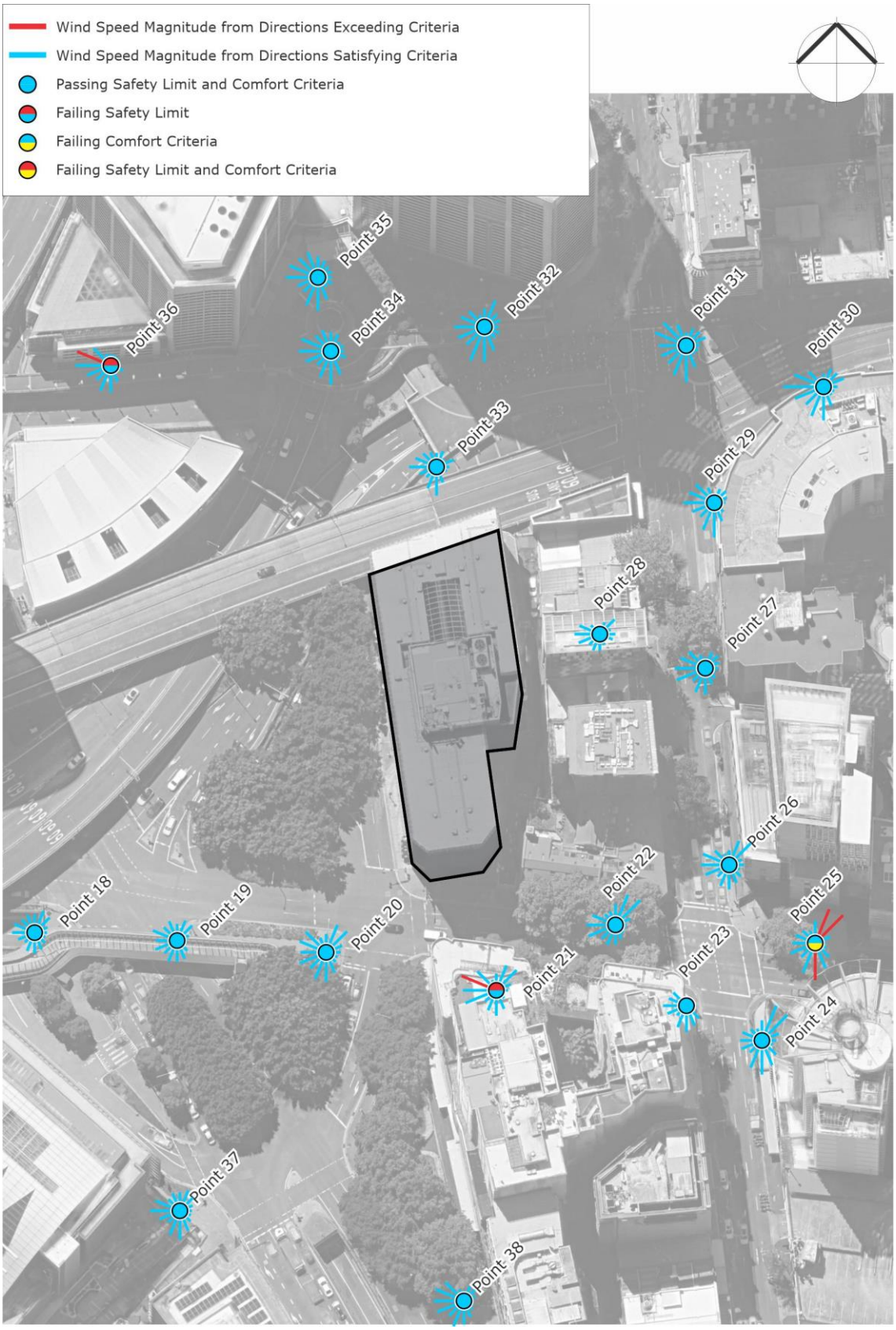


Figure 7d: Wind Tunnel Results – Further Afield
(Proposed Case, results shown without treatments applied)

Table 5: Wind Tunnel Results Summary

Study Point	GEM (5% exceedance)				Annual Gust			Final Result	Description of Treatment
	Criterion (m/s)	Results (%)	Results (m/s)	Grade	Criterion (m/s)	Results (m/s)	Grade		
Point 01	8.0	5%	7.8	Pass	24	24	Pass	Pass	
Existing		3%	7.1	Pass		25	Fail	Fail	
Point 02	8.0	3%	7.0	Pass	24	24	Pass	Pass	
Existing		3%	7.3	Pass		24	Pass	Pass	
Point 03	8.0	1%	5.9	Pass	24	18	Pass	Pass	
Existing		2%	6.7	Pass		23	Pass	Pass	
Point 04	8.0	4%	7.6	Pass	24	24	Pass	Pass	
Existing		3%	7.4	Pass		24	Pass	Pass	
Point 05	8.0	< 1%	5.3	Pass	24	17	Pass	Pass	
Existing		1%	6.3	Pass		20	Pass	Pass	
Point 06	8.0	< 1%	3.6	Pass	24	11	Pass	Pass	
Existing		< 1%	4.0	Pass		11	Pass	Pass	
Point 07	8.0	2%	6.4	Pass	24	21	Pass	Pass	
Existing		1%	5.4	Pass		20	Pass	Pass	
Point 08	8.0	2%	6.6	Pass	24	23	Pass	Pass	
Existing		1%	5.7	Pass		20	Pass	Pass	
Point 09	8.0	1%	6.1	Pass	24	21	Pass	Pass	
Existing		1%	5.8	Pass		21	Pass	Pass	
Point 10	8.0	< 1%	4.6	Pass	24	15	Pass	Pass	
Existing		< 1%	4.3	Pass		15	Pass	Pass	
Point 11	8.0	3%	7.0	Pass	24	21	Pass	Pass	
Existing		2%	6.4	Pass		20	Pass	Pass	
Point 12	8.0	1%	5.9	Pass	24	17	Pass	Pass	
Existing		1%	5.7	Pass		17	Pass	Pass	
Point 13	8.0	1%	5.9	Pass	24	25	Fail	Fail	Better than or equivalent to Existing Conditions.
Existing		2%	6.0	Pass		26	Fail	Fail	
Point 14	6.0	7%	6.2	Fail	24	24	Pass	Fail	Better than or equivalent to Existing Conditions.
Existing		7%	6.3	Fail		24	Pass	Fail	
Point 15	8.0	1%	5.4	Pass	24	22	Pass	Pass	
Existing		1%	5.3	Pass		21	Pass	Pass	
Point 16	8.0	2%	6.3	Pass	24	22	Pass	Pass	
Existing		1%	6.1	Pass		22	Pass	Pass	

Study Point	GEM (5% exceedance)				Annual Gust			Final Result	Description of Treatment
	Criterion (m/s)	Results (%)	Results (m/s)	Grade	Criterion (m/s)	Results (m/s)	Grade		
Point 17	8.0	4%	7.7	Pass	24	27	Fail	Fail	Better than or equivalent to Existing Conditions.
Existing		3%	7.3	Pass		28	Fail	Fail	
Point 18	8.0	< 1%	5.3	Pass	24	16	Pass	Pass	
Existing		< 1%	5.2	Pass		17	Pass	Pass	
Point 19	8.0	1%	5.7	Pass	24	19	Pass	Pass	
Existing		1%	5.7	Pass		19	Pass	Pass	
Point 20	8.0	3%	7.2	Pass	24	24	Pass	Pass	
Existing		3%	7.1	Pass		24	Pass	Pass	
Point 21	8.0	4%	7.5	Pass	24	28	Fail	Fail	Better than or equivalent to Existing Conditions.
Existing		6%	8.1	Fail		29	Fail	Fail	
Point 22	8.0	3%	7.2	Pass	24	19	Pass	Pass	
Existing		2%	7.0	Pass		18	Pass	Pass	
Point 23	8.0	< 1%	5.5	Pass	24	16	Pass	Pass	
Existing		< 1%	5.7	Pass		17	Pass	Pass	
Point 24	8.0	5%	7.8	Pass	24	19	Pass	Pass	
Existing		5%	7.8	Pass		19	Pass	Pass	
Point 25	8.0	7%	8.3	Fail	24	20	Pass	Fail	Better than or equivalent to Existing Conditions.
Existing		9%	8.6	Fail		20	Pass	Fail	
Point 26	8.0	1%	6.5	Pass	24	21	Pass	Pass	
Existing		1%	6.4	Pass		18	Pass	Pass	
Point 27	8.0	2%	6.6	Pass	24	20	Pass	Pass	
Existing		1%	6.0	Pass		19	Pass	Pass	
Point 28	8.0	< 1%	5.0	Pass	24	17	Pass	Pass	
Existing		< 1%	4.2	Pass		15	Pass	Pass	
Point 29	8.0	3%	7.1	Pass	24	21	Pass	Pass	
Existing		2%	7.0	Pass		21	Pass	Pass	
Point 30	8.0	5%	8.0	Pass	24	23	Pass	Pass	
Existing		3%	7.1	Pass		21	Pass	Pass	
Point 31	8.0	5%	7.9	Pass	24	24	Pass	Pass	
Existing		5%	7.8	Pass		25	Fail	Fail	
Point 32	8.0	4%	7.7	Pass	24	23	Pass	Pass	
Existing		8%	8.5	Fail		27	Fail	Fail	
Point 33	8.0	1%	5.9	Pass	24	18	Pass	Pass	
Existing		1%	6.0	Pass		18	Pass	Pass	

Study Point	GEM (5% exceedance)				Annual Gust			Final Result	Description of Treatment
	Criterion (m/s)	Results (%)	Results (m/s)	Grade	Criterion (m/s)	Results (m/s)	Grade		
Point 34	8.0	3%	7.3	Pass	24	23	Pass	Pass	
Existing		3%	7.2	Pass		22	Pass	Pass	
Point 35	8.0	4%	7.5	Pass	24	22	Pass	Pass	
Existing		4%	7.5	Pass		23	Pass	Pass	
Point 36	8.0	3%	7.2	Pass	24	26	Fail	Fail	Better than or equivalent to Existing Conditions.
Existing		4%	7.5	Pass		27	Fail	Fail	
Point 37	8.0	1%	6.4	Pass	24	19	Pass	Pass	
Existing		1%	6.3	Pass		19	Pass	Pass	
Point 38	8.0	2%	6.7	Pass	24	22	Pass	Pass	
Existing		2%	6.7	Pass		23	Pass	Pass	

Note that, for any study points listed in Table 5 with two rows of results data, the second row is for the existing site conditions. The test results shown in Table 5 are without any treatments applied.

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Standards Australia and Standards New Zealand, AS/NZS 1170.2, 2021, "SAA Wind Loading Standard, Part 2: Wind Actions".

APPENDIX A PUBLISHED ENVIRONMENTAL CRITERIA

A.1 Wind Effects on People

The acceptability of wind in an area is dependent upon the use of the area. For example, people walking or window-shopping will tolerate higher wind speeds than those seated at an outdoor restaurant. Quantifying wind comfort has been the subject of much research and many researchers, such as A.G. Davenport, T.V. Lawson, W.H. Melbourne, and A.D. Penwarden, have published criteria for pedestrian comfort for pedestrians in outdoor spaces for various types of activities. This section discusses and compares the various published criteria.

A.2 A.D. Penwarden (1973) Criteria for Mean Wind Speeds

A.D. Penwarden (1973) developed a modified version of the Beaufort scale which describes the effects of various wind intensities on people. Table A.1 presents the modified Beaufort scale. Note that the effects listed in this table refers to wind conditions occurring frequently over the averaging time (a probability of occurrence exceeding 5%). Higher ranges of wind speeds can be tolerated for rarer events.

Table A.1: Summary of Wind Effects on People (A.D. Penwarden, 1973)

Type of Winds	Beaufort Number	Hourly Mean Wind Speed (m/s)	Effects
Calm	0	0 - 0.3	
Calm, light air	1	0.3 - 1.6	No noticeable wind
Light breeze	2	1.6 - 3.4	Wind felt on face
Gentle breeze	3	3.4 - 5.5	Hair is disturbed, clothing flaps, newspapers difficult to read
Moderate breeze	4	5.5 – 8.0	Raises dust, dry soil and loose paper, hair disarranged
Fresh breeze	5	8.0 – 10.8	Force of wind felt on body, danger of stumbling
Strong breeze	6	10.8 – 13.9	Umbrellas used with difficulty, hair blown straight, difficult to walk steadily, wind noise on ears unpleasant
Near gale	7	13.9 – 17.2	Inconvenience felt when walking
Gale	8	17.2 - 20.8	Generally impedes progress, difficulty balancing in gusts
Strong gale	9	20.8 – 24.5	People blown over

A.3 A.G. Davenport (1972) Criteria for Mean Wind Speeds

A.G. Davenport (1972) also determined a set of criteria in terms of the Beaufort scale and for various return periods. Table A.2 presents a summary of the criteria based on a probability of exceedance of 5%.

Table A.2: Criteria by A.G. Davenport (1972)

Classification	Activities	5% exceedance Mean Wind Speed (m/s)
Walking Fast	Acceptable for walking, main public accessways.	7.5 - 10.0
Strolling, Skating	Slow walking, etc.	5.5 - 7.5
Short Exposure Activities	Generally acceptable for walking & short duration stationary activities such as window-shopping, standing or sitting in plazas.	3.5 - 5.5
Long Exposure Activities	Generally acceptable for long duration stationary activities such as in outdoor restaurants & theatres and in parks.	0 - 3.5

A.4 T.V. Lawson (1975) Criteria for Mean Wind Speeds

In 1973, T.V. Lawson, while referring to the Beaufort wind speeds of A.D. Penwarden (1973) (as listed in Table A.1), quoted that a Beaufort 4 wind speed would be acceptable if it is not exceeded for more than 4% of the time, and that a Beaufort 6 wind speed would be unacceptable if it is exceeded more than 2% of the time. Later, in 1975, T.V. Lawson presented a set of criteria very similar to those presented in A.G. Davenport (1972) (as listed in Table A.2). These criteria are presented in Table A.3 and Table A.4 for safety and comfort respectively.

Table A.3: Safety Criteria by T.V. Lawson (1975)

Classification	Activities	Annual Mean Wind Speed (m/s)
Safety (all weather areas)	Accessible by the general public.	0 – 15
Safety (fair weather areas)	Private areas, balconies/terraces, etc.	0 – 20

Table A.4: Comfort Criteria by T.V. Lawson (1975)

Classification	Activities	5% exceedance Mean Wind Speed (m/s)
Business Walking	Objective Walking from A to B.	8 - 10
Pedestrian Walking	Slow walking, etc.	6 - 8
Short Exposure Activities	Pedestrian standing or sitting for short times.	4 – 6
Long Exposure Activities	Pedestrian sitting for a long duration.	0 - 4

A.5 W.H. Melbourne (1978) Criteria for Gust Wind Speeds

W.H. Melbourne (1978) introduced a set of criteria for the assessment of environmental wind conditions that were developed for a temperature range of 10°C to 30°C and for people suitably dressed for outdoor conditions. These criteria are presented in Table A.5, and are based on maximum gust wind speeds with a probability of exceedance of once per year.

Table A.5: Criteria by W.H. Melbourne (1978)

Classification	Activities	Annual Gust Wind Speed (m/s)
Limit for Safety	Completely unacceptable: people likely to get blown over.	23
Marginal	Unacceptable as main public accessways.	16 - 23
Comfortable Walking	Acceptable for walking, main public accessways	13 - 16
Short Exposure Activities	Generally acceptable for walking & short duration stationary activities such as window-shopping, standing or sitting in plazas.	10 - 13
Long Exposure Activities	Generally acceptable for long duration stationary activities such as in outdoor restaurants & theatres and in parks.	0 - 10

A.6 Comparison of the Published Wind Speed Criteria

W.H. Melbourne (1978) presented a comparison of the criteria of various researchers on a probabilistic basis. Figure A.1 presents the results of this comparison, and indicates that the criteria of W.H. Melbourne (1978) are comparatively quite conservative. This conclusion was also observed by A.W. Rofail (2007) when undertaking on-site remedial studies. The results of A.W. Rofail (2007) concluded that the criteria by W.H. Melbourne (1978) generally overstates the wind effects in a typical urban setting due to the assumption of a fixed 15% turbulence intensity for all areas. It was observed in A.W. Rofail (2007) that the 15% turbulence intensity assumption is not real and that the turbulence intensities at 1.5m above ground is at least 20% and in a suburban or urban setting is generally in the range of 30% to 60%.

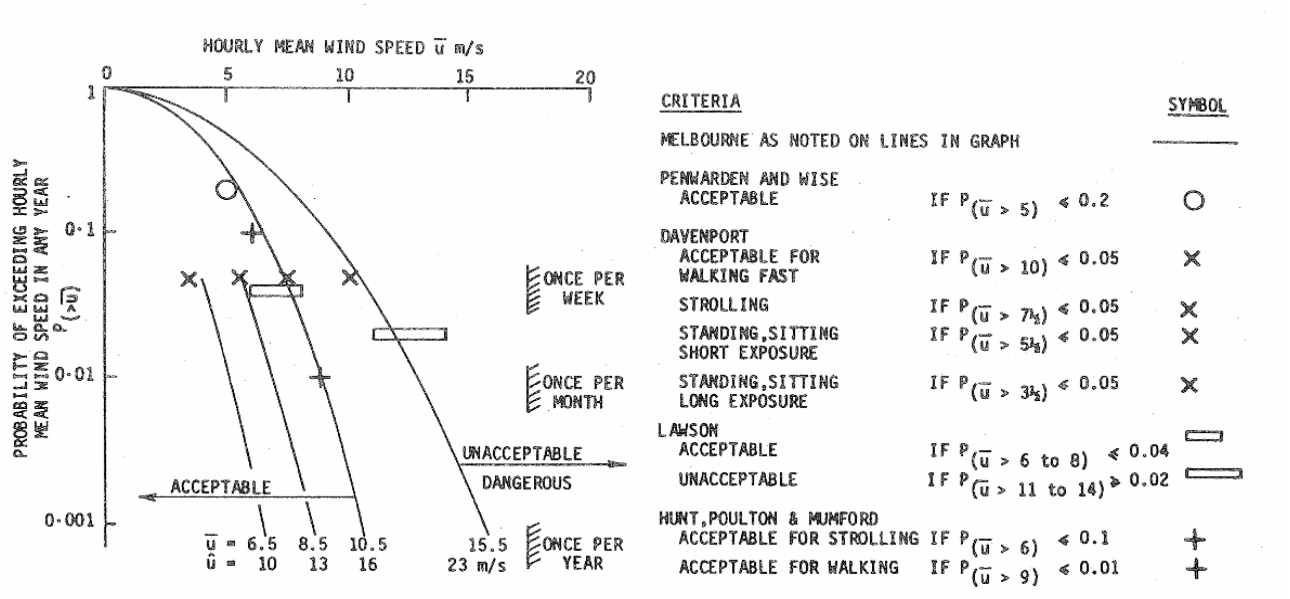


Figure A.1: Comparison of Various Mean and Gust Wind Environment Criteria, assuming 15% turbulence and a Gust Factor of 1.5 (W.H. Melbourne, 1978)

A.7 References relating to Pedestrian Comfort Criteria

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APPENDIX B DATA ACQUISITION

The wind tunnel testing procedures utilised for this study were based on the guidelines set out in the Australasian Wind Engineering Society Quality Assurance Manual (AWES-QAM-1-2019), ASCE 7-16 (Chapter C31), and CTBUH (2013). The wind speed measurements for the wind tunnel study were determined as coefficients using data acquired by either Dantec hot-wire probe anemometers or pressure-based wind speed sensors and converted to full-scale wind speeds using details of the regional wind climate obtained from an analysis of directional wind speed recordings from the local meteorological recording station(s).

B.1 Measurement of the Velocity Coefficients

The study model and proximity model were setup within the wind tunnel which was configured to the appropriate boundary layer profile, and the wind velocity measurements were monitored using either Dantec hot-wire probe anemometers or pressure-based wind speed sensors at selected critical outdoor locations. The wind velocity results presented in this study for each study point are representative of wind at a full-scale height of approximately 1.5m above ground/slab level. In the case of the Dantec hot-wire probe anemometers, the support of the probe is mounted such that the probe wire is vertical as much as possible to ensure that the measured wind speeds are independent of wind direction along the horizontal plane. In addition, care was taken in the alignment of the hot-wire probe wire and in avoiding wall-heating effects.

Wind speed measurements were made in the wind tunnel for the wind directions described within this report. Data was acquired for each wind direction using a sample rate of 1024Hz. The sample length was determined to produce a full-scale sample time that is sufficient for this type of study. In the case of the pressure-based wind speed sensors, the phase lag between the various channels where data is acquired simultaneously is within 10% of a typical pressure cycle, and the signal is low-pass filtered at 500Hz and then digital filtering is applied over this range to provide an unbiased response from the pressure measurement system (A.W. Rofail, 2004).

The mean, gust and standard deviation velocity coefficients were determined from the data acquired in the wind tunnel. The gust velocity coefficients were also derived for each wind direction from by the following relation:

$$\hat{C}_V = \bar{C}_V + g \cdot \sigma_{C_V} \qquad \text{B.1}$$

where:

$\hat{C}_V$ is the gust velocity coefficient.

$\bar{C}_V$ is the mean velocity coefficient.

g is the peak factor, taken as 3.0 for a 3-sec gust and 3.4 for a 0.5-sec gust.

σ_{C_V} is the standard deviation of the velocity coefficient measurement.

In the case of a Dantec hot-wire probe anemometer, the velocity coefficient is obtained as follows:

$$C_V = \frac{C_{V,study}}{C_{V,200m}} \quad \text{B.2}$$

where:

$C_{V,study}$ is the velocity coefficient measurement obtained from the Dantec hot-wire probe anemometer at the study point location.

$C_{V,200m}$ is the velocity coefficient measurement obtained from the Dantec hot-wire probe anemometer at the free-stream reference location at 200m height upwind of the model in the wind tunnel.

However, in the case of the pressure-based wind speed sensors, these are determined from the measured differential mean, standard deviation and maximum pressure coefficients obtained from the wind speed sensor. For this analysis all calculations are performed on the square root of the differential pressure measurements. The velocity coefficient at the pressure-based wind speed sensor location is then calculated as follows:

$$C_V = \frac{\alpha + \beta\sqrt{\Delta p}}{V_{200m}} \quad \text{B.3}$$

where:

C_V is the velocity coefficient measurement at the study point location.

α is a calibration coefficient for the pressure-based wind speed sensor.

β is a calibration coefficient for the pressure-based wind speed sensor.

Δp is the differential pressure obtained from the pressure-based wind speed sensor at the study point location.

V_{200m} is the wind speed at the free-stream reference location of 200m height (full-scale) in the wind tunnel, which is determined directly in the wind tunnel using a pitot static probe.

B.2 Calculation of the Full-Scale Results

The full-scale results determine if the wind conditions at a study location satisfy the designated criteria of that location. More specifically, the full-scale results need to determine the probability of exceedance of a given wind speed at a study location. To determine the probability of exceedance, the measured velocity coefficients were combined with a statistical model of the local wind climate that relates wind speed to a probability of exceedance. Details of the wind climate model are outlined in Section 4 of the main report.

The statistical model of the wind climate includes the impact of wind directionality as any local variations in wind speed or frequency with wind direction. This is important as the wind directions that produce the highest wind speed events for a region may not coincide with the most wind exposed direction at the site.

The methodology adopted for the derivation of the full-scale results for the maximum gust and the GEM wind speeds are outlined in the following sub-sections.

B.3 Maximum Gust Wind Speeds

The full-scale maximum gust wind speed at each study point location is derived from the measured coefficient using the following relationship:

$$V_{study} = V_{ref,RH}\left(\frac{k_{200m,tr,T=1hr}}{k_{RH,tr,T=1hr}}\right)C_V \qquad \text{B.4}$$

where:

V_{study} is the full-scale wind speed at the study point location.

$V_{ref,RH}$ is the full-scale reference wind speed at the study reference height. This value is determined by combining the directional wind speed data for the region (detailed in Section 4) and the upwind terrain and height multipliers for the site (detailed in Section 3).

$k_{200m,tr,T=1hr}$ is the hourly mean terrain and height multiplier at the free-stream reference location of 200m height.

$k_{RH,tr,T=1hr}$ is the hourly mean terrain and height multiplier at the study reference height (Section 3).

C_V is the velocity coefficient, obtained from either Equation B.2 (in the case of Dantec hot-wire probe anemometers) or Equation B.3 (in the case of pressure-based wind speed sensors).

The value of $V_{ref,RH}$ varies with each prevailing wind direction. Wind directions where there is a high probability that a strong wind will occur have a higher directional wind speed than other directions. To determine the directional wind speeds, a probability level must be assigned for each wind direction. These probability levels are set following the approach used in AS/NZS1170.2:2021, which assumes that the major contributions to the combined probability of exceedance of a typical load effect comes from only two 45 degree sectors.

B.4 Maximum Gust-Equivalent Mean Wind Speeds

The contribution to the probability of exceedance of a specified wind speed (ie: the desired wind speed for pedestrian comfort, as per the criteria) was calculated for each wind direction. These contributions are then combined over all wind directions to calculate the total probability of exceedance of the specified wind speed. To calculate the probability of exceedance for a specified wind speed a statistical wind climate model was used to describe the relationship between directional wind speeds and the probability of exceedance. A detailed description of the methodology is given by T.V. Lawson (1980).

The criteria used in this study is referenced to a probability of exceedance of 5% of a specified wind speed.

B.5 References relating to Data Acquisition

American Society of Civil Engineers (ASCE), ASCE-7-16, 2016, "Minimum Design Loads for Buildings and Other Structures".

Australasian Wind Engineering Society, QAM-1, 2019, "Quality Assurance Manual: Wind Engineering Studies of Buildings", edited by Rofail A.W., et al.

Council on Tall Buildings and Urban Habitat (CTBUH), 2013, "Wind tunnel testing of high-rise buildings", CTBUH Technical Guides.

Lawson, T.V., 1980, "Wind Effects on Buildings - Volume 1, Design Applications". Applied Science Publishers Ltd, Ripple Road, Barking, Essex, England.

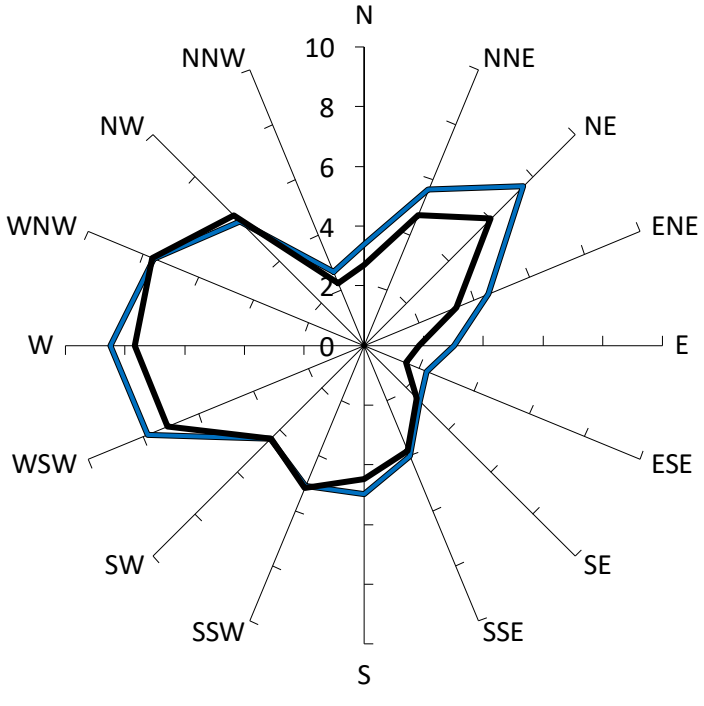
Rofail A.W., Tonin, R., and Hanafi, D., 2004, "Sensitivity of frequency response to type of tubing", Australasian Wind Engineering Workshop, Darwin.

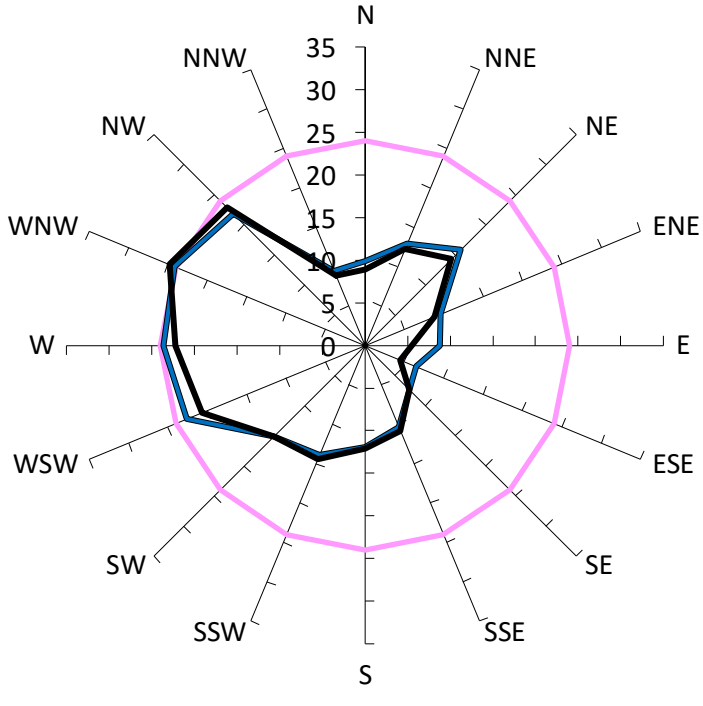
Standards Australia and Standards New Zealand, AS/NZS 1170.2, 2021, "SAA Wind Loading Standard, Part 2: Wind Actions".

APPENDIX C DIRECTIONAL PLOTS OF WIND TUNNEL RESULTS

Results for Point 01

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





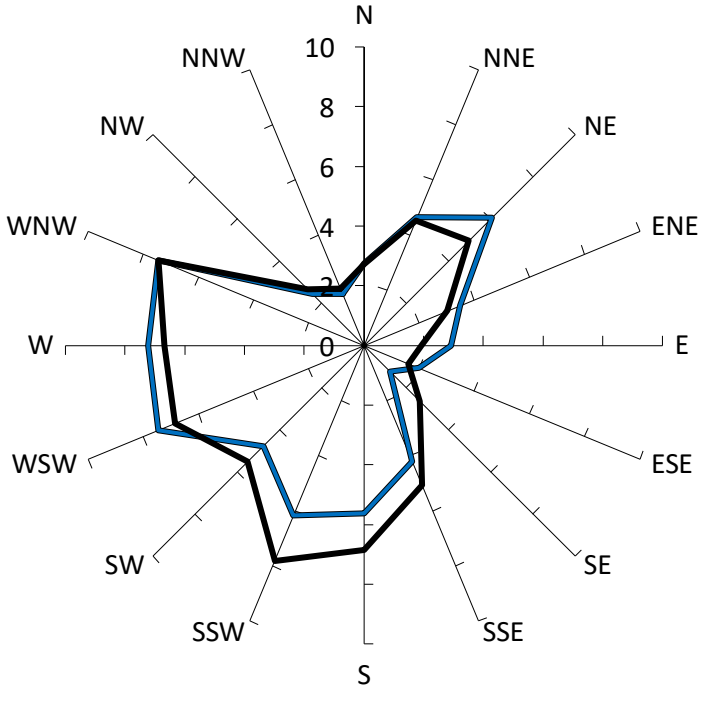
Comfort Criteria: 8m/s with 5% probability of exceedence

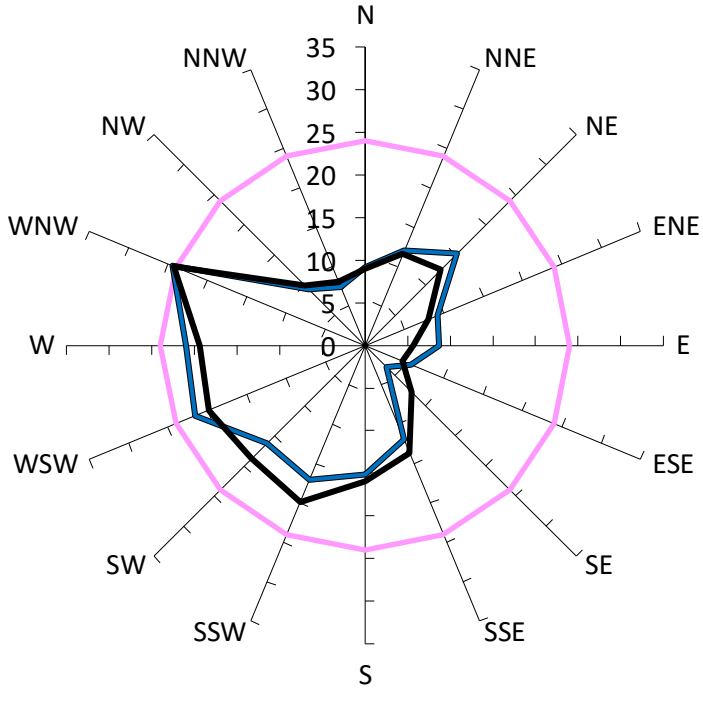
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	5%	24
Existing Site Conditions.	3%	25

Results for Point 02

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





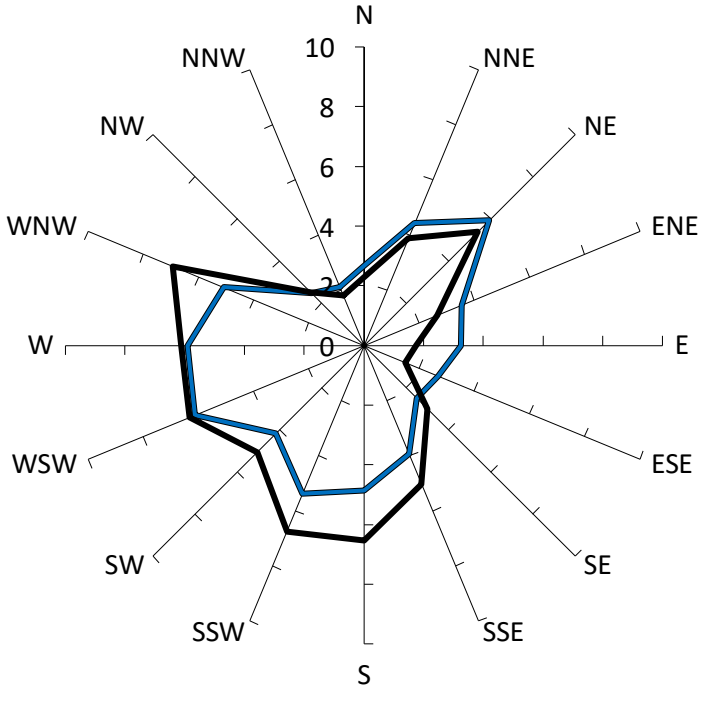
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	3%	24
Existing Site Conditions.	3%	24

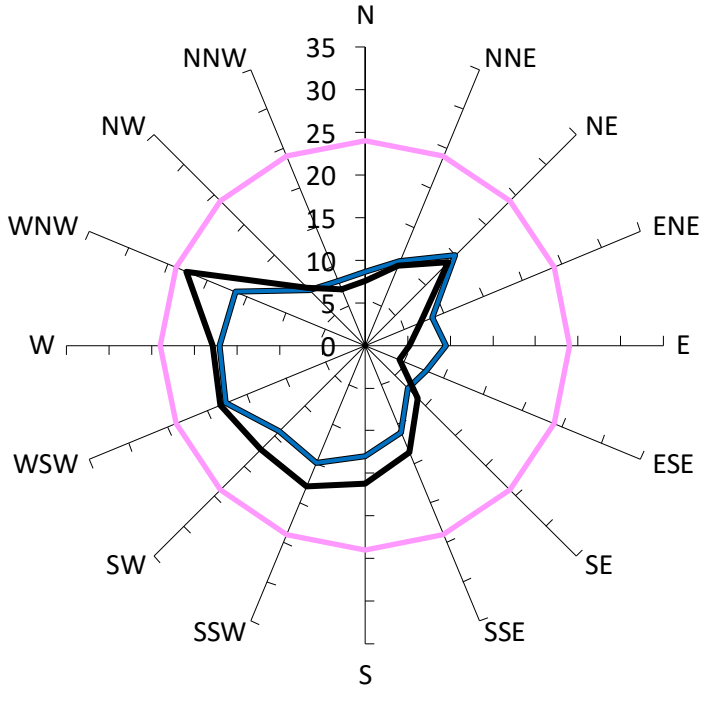
Results for Point 03

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

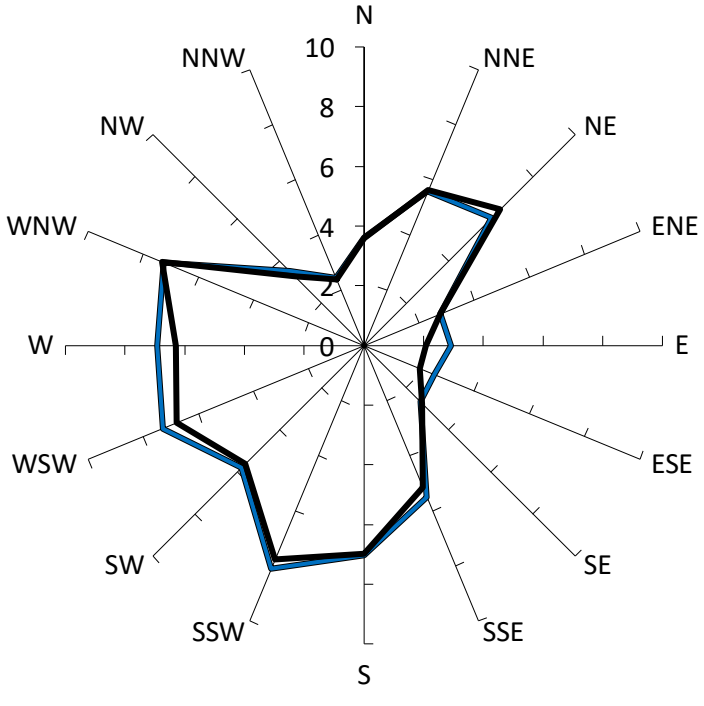


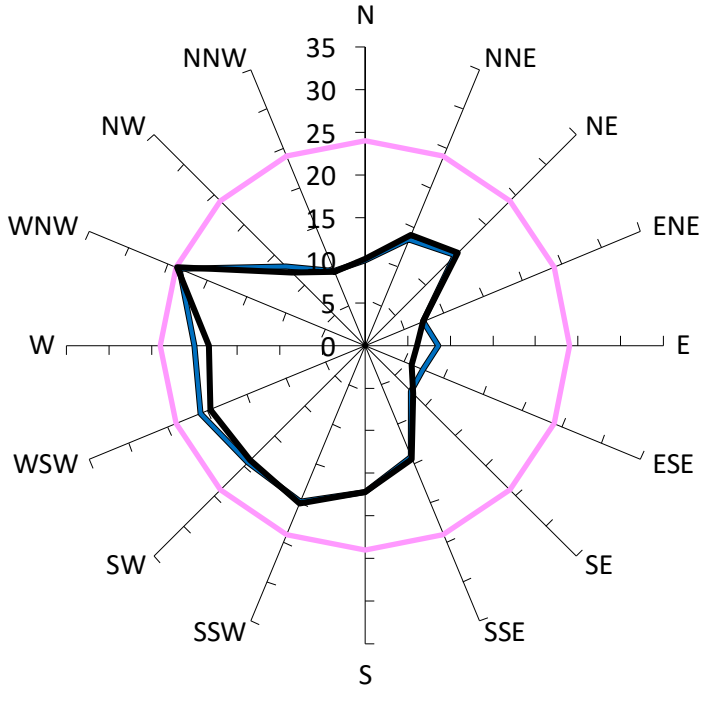
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	18
Existing Site Conditions.	2%	23

Results for Point 04

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





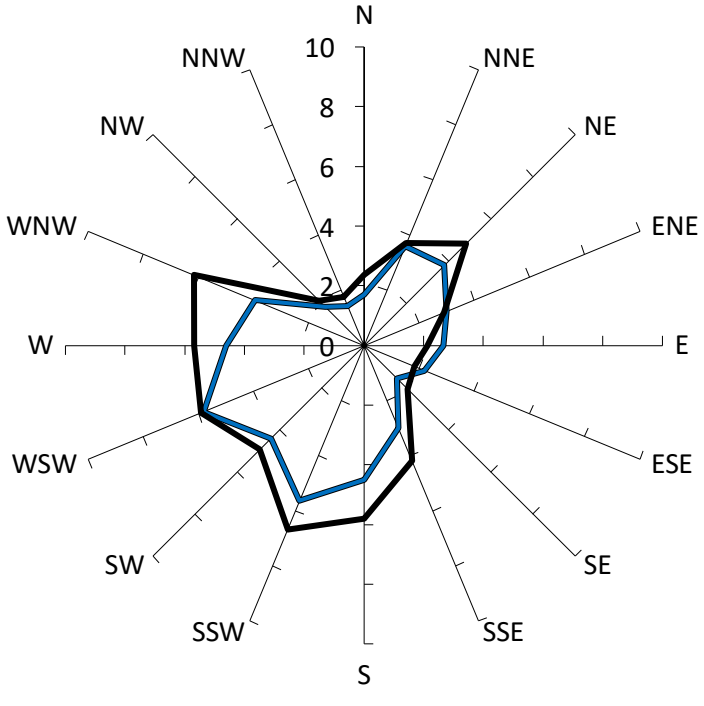
Comfort Criteria: 8m/s with 5% probability of exceedence

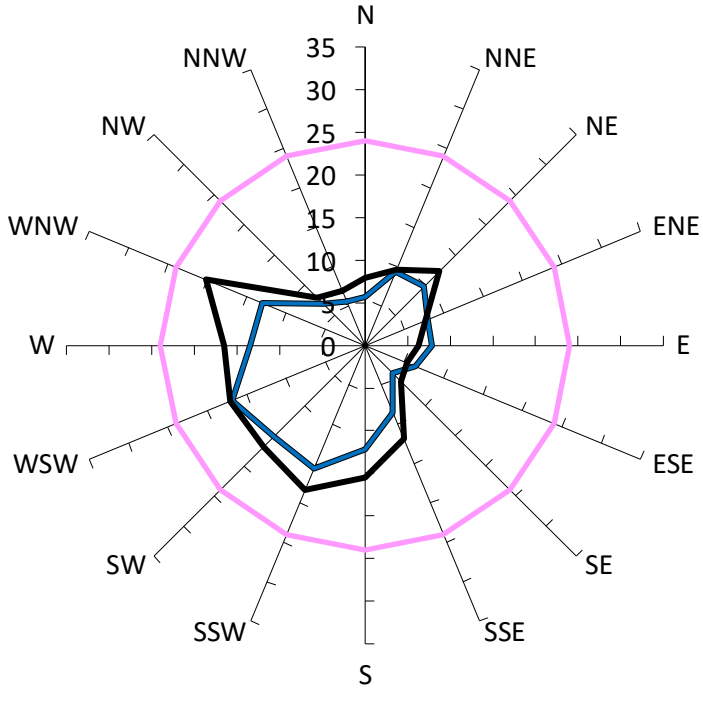
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	4%	24
Existing Site Conditions.	3%	24

Results for Point 05

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





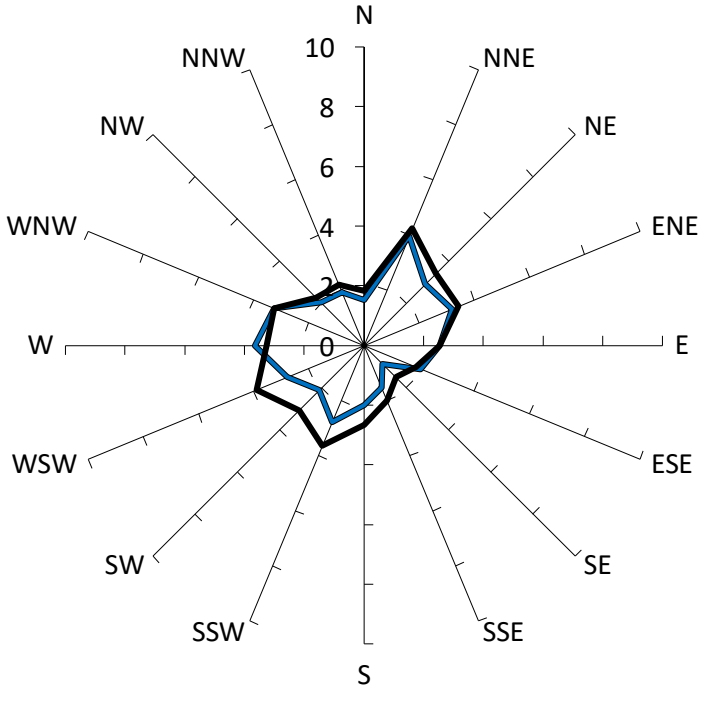
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	< 1%	17
Existing Site Conditions.	1%	20

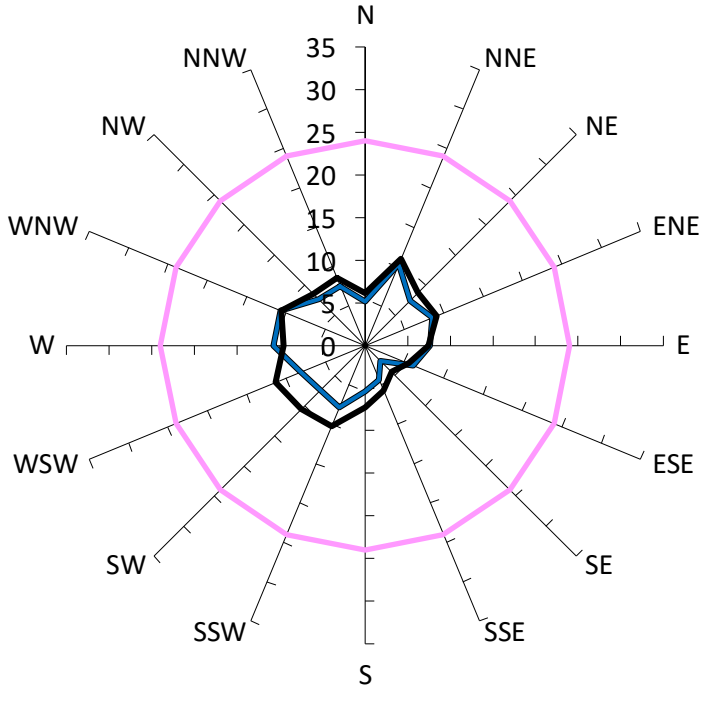
Results for Point 06

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

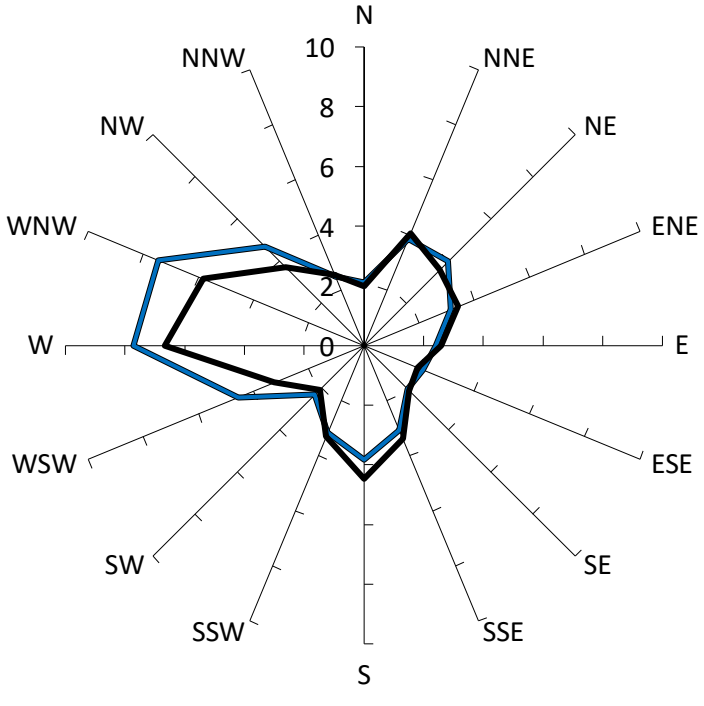


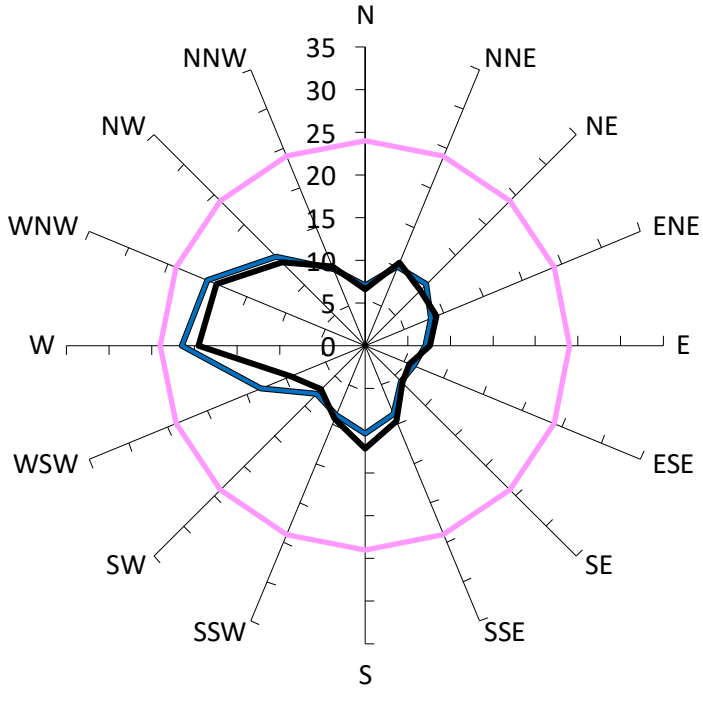
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	< 1%	11
Existing Site Conditions.	< 1%	11

Results for Point 07

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





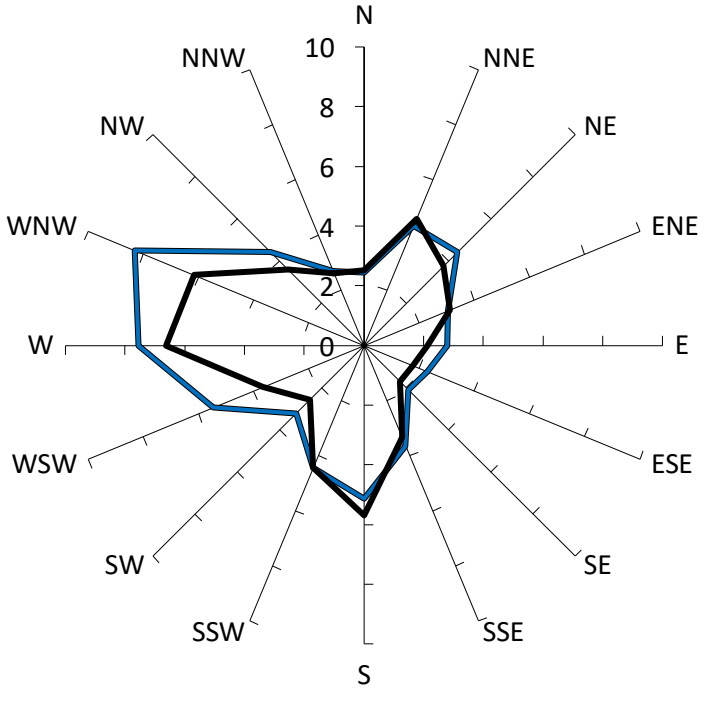
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	2%	21
Existing Site Conditions.	1%	20

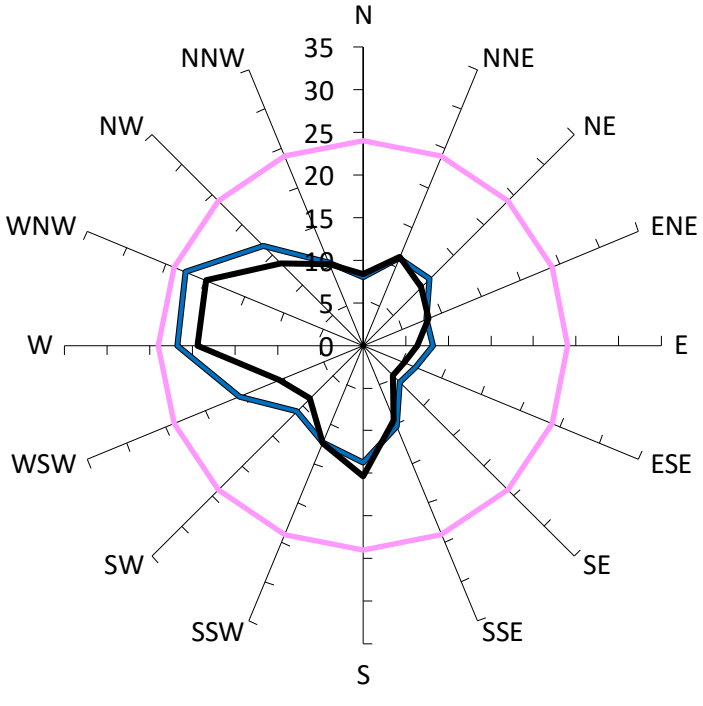
Results for Point 08

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

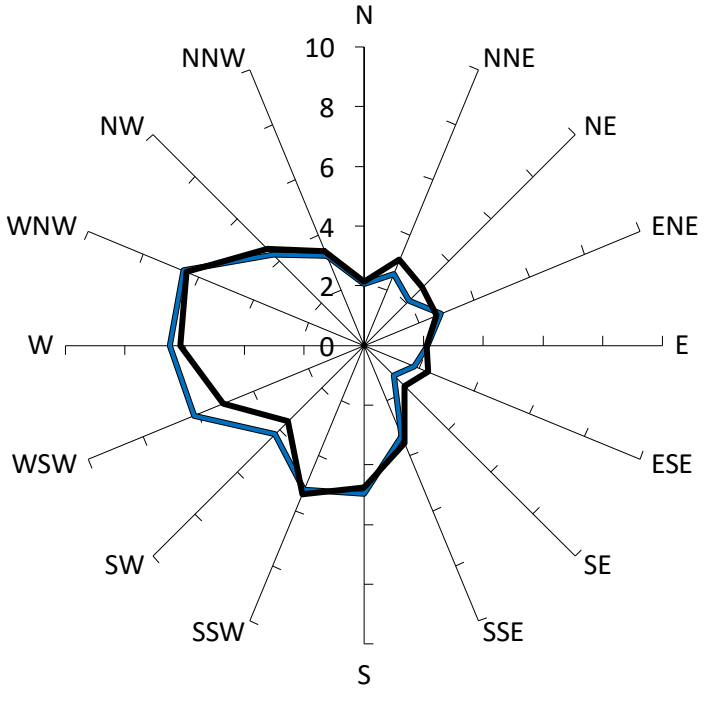


Safety Limit: 24m/s

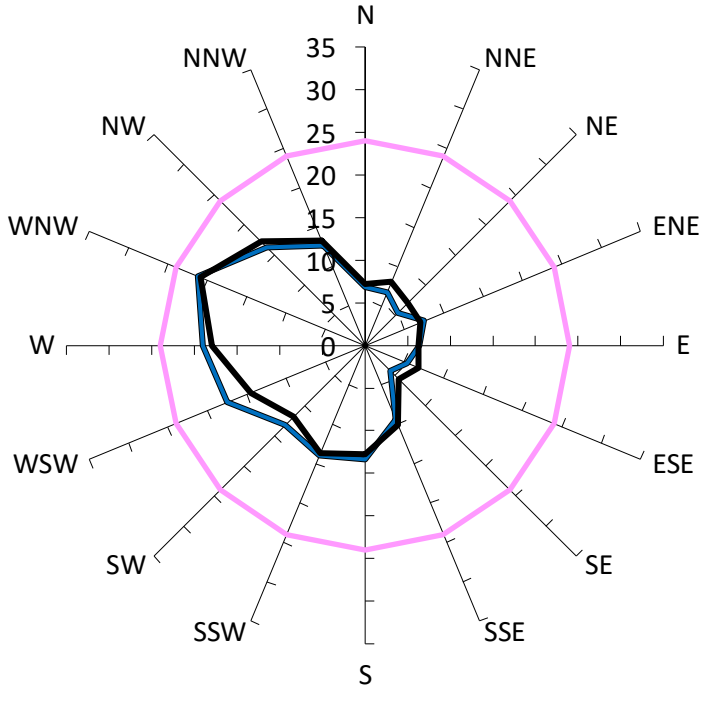
Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	2%	23
Existing Site Conditions.	1%	20

Results for Point 09

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

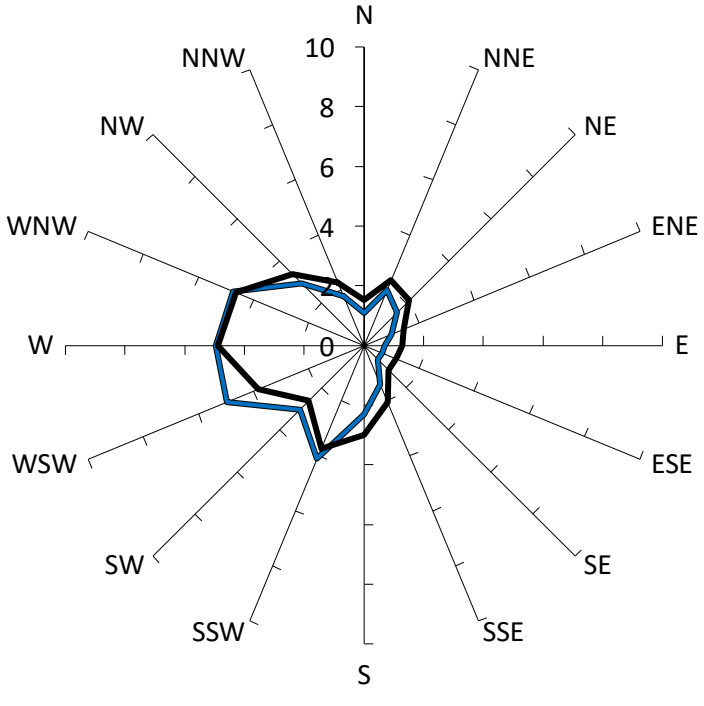


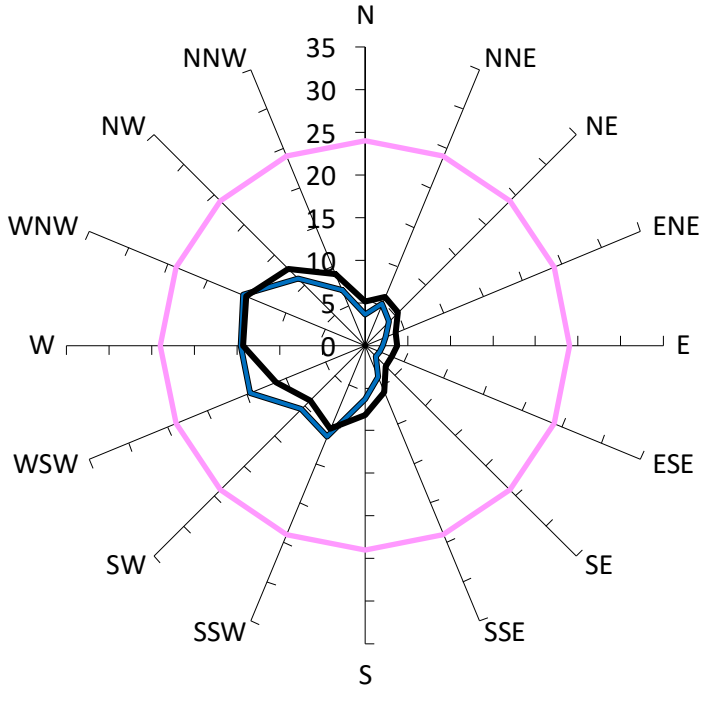
Safety Limit: 24m/s

	Description	GEM Prob of Exceed %	Peak Gust m/s
	Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
	With development "as proposed", no vegetation included.	1%	21
	Existing Site Conditions.	1%	21

Results for Point 10

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





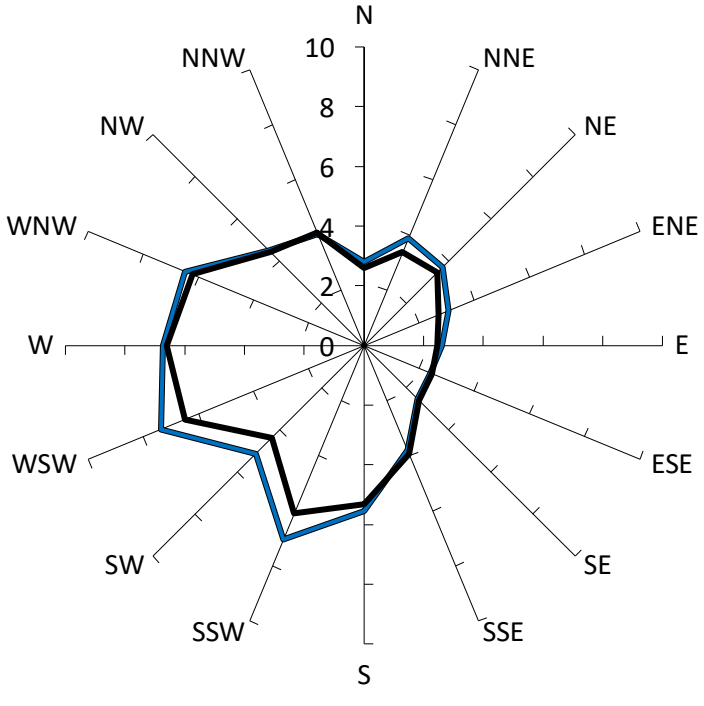
Comfort Criteria: 8m/s with 5% probability of exceedence

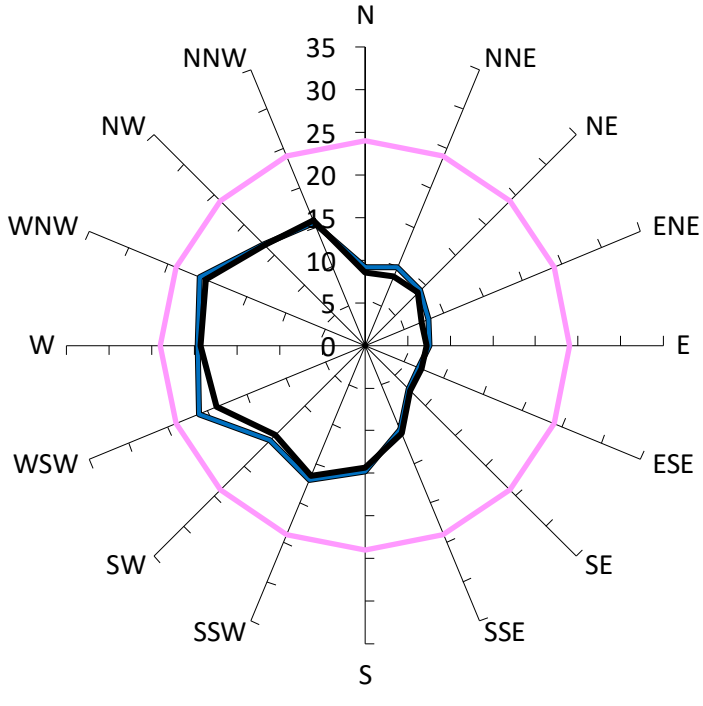
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	< 1%	15
Existing Site Conditions.	< 1%	15

Results for Point 11

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





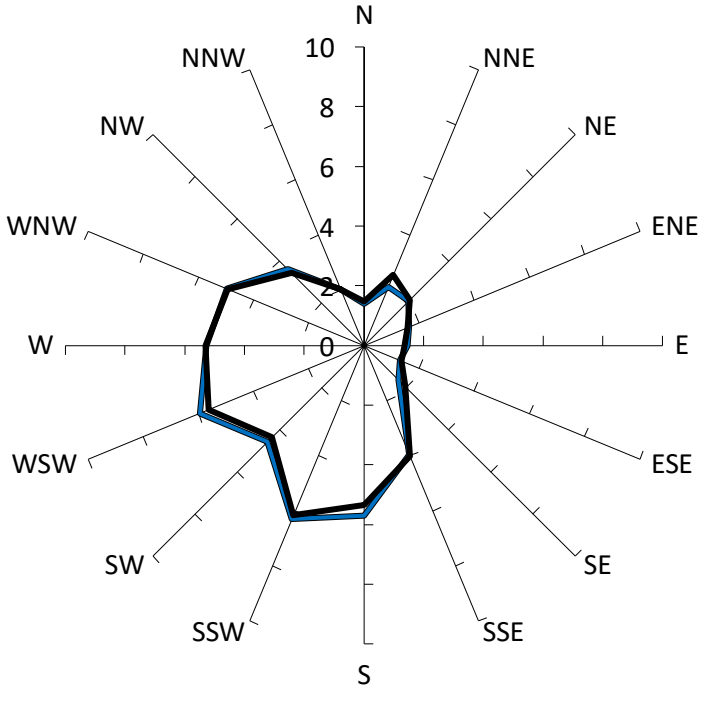
Comfort Criteria: 8m/s with 5% probability of exceedence

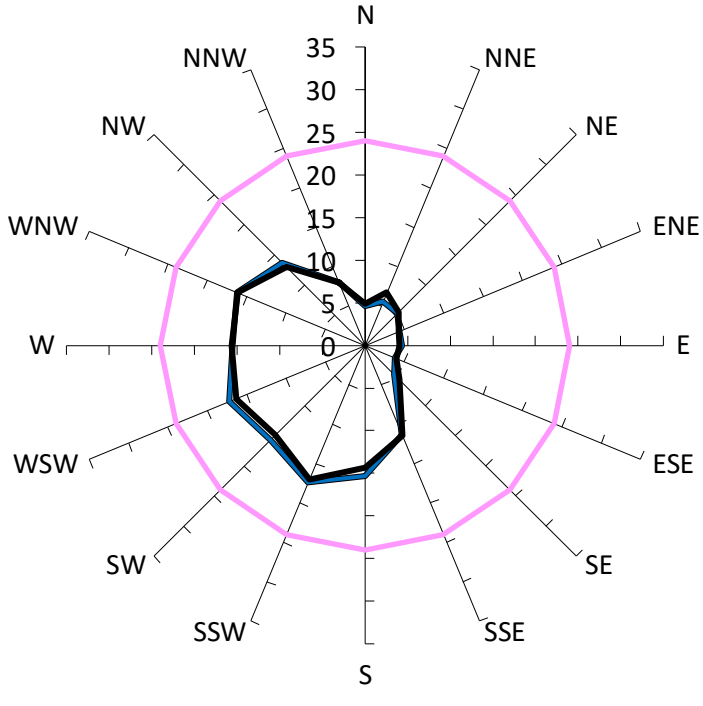
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	3%	21
Existing Site Conditions.	2%	20

Results for Point 12

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





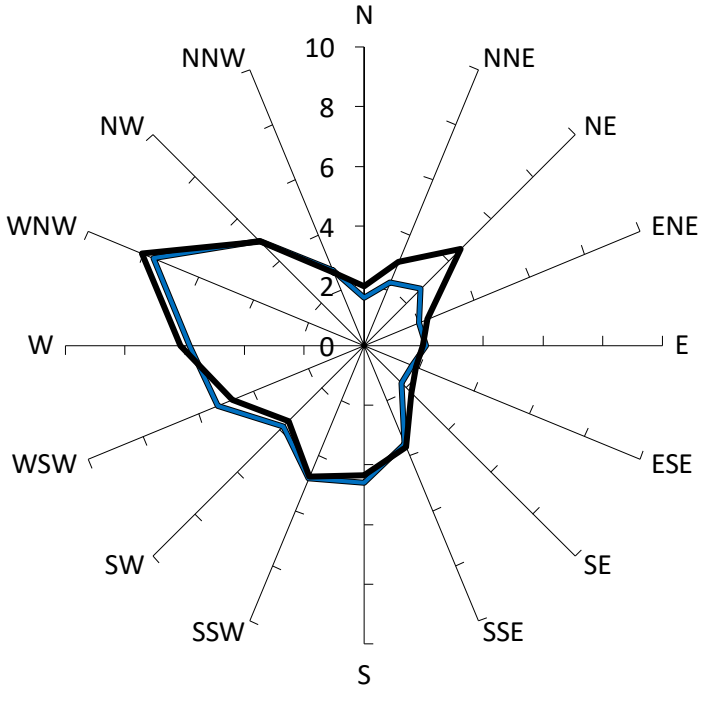
Comfort Criteria: 8m/s with 5% probability of exceedence

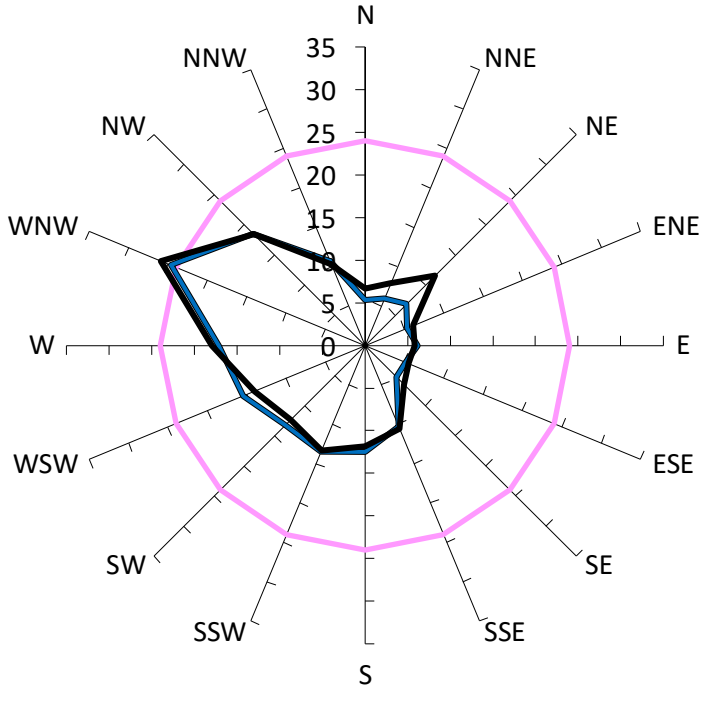
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	17
Existing Site Conditions.	1%	17

Results for Point 13

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





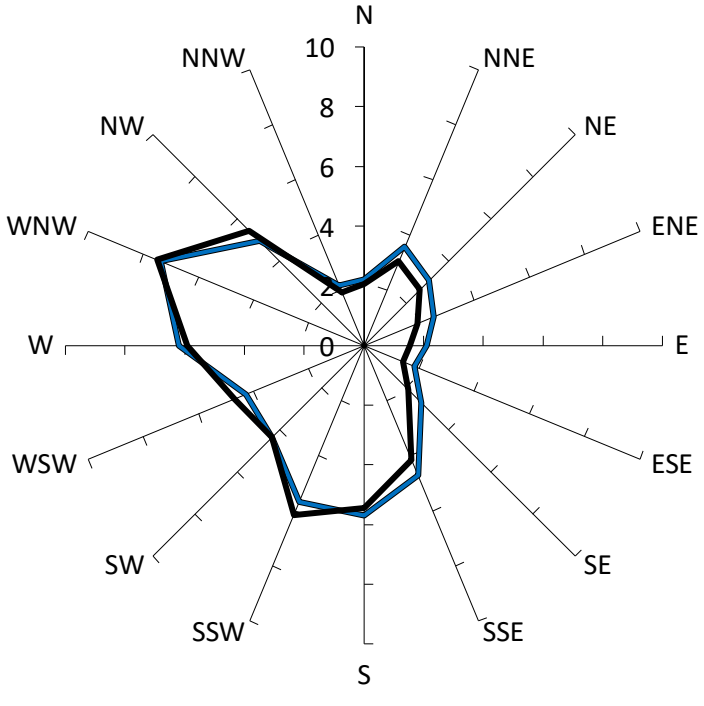
Comfort Criteria: 8m/s with 5% probability of exceedence

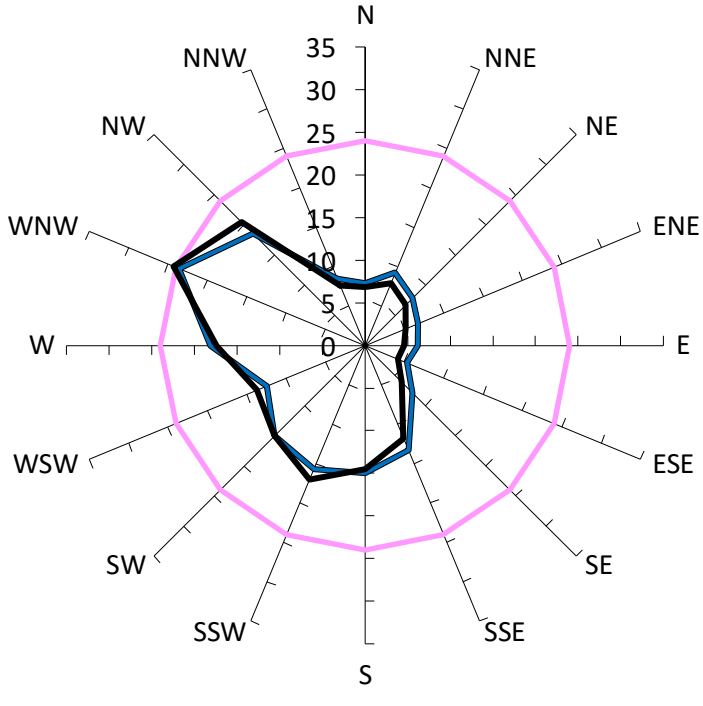
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	25
Existing Site Conditions.	2%	26

Results for Point 14

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





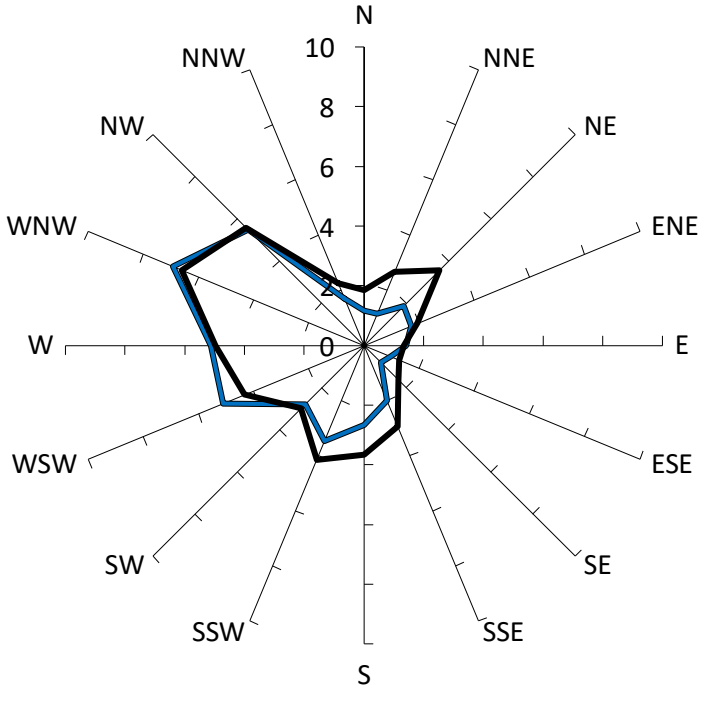
Comfort Criteria: 6m/s with 5% probability of exceedence

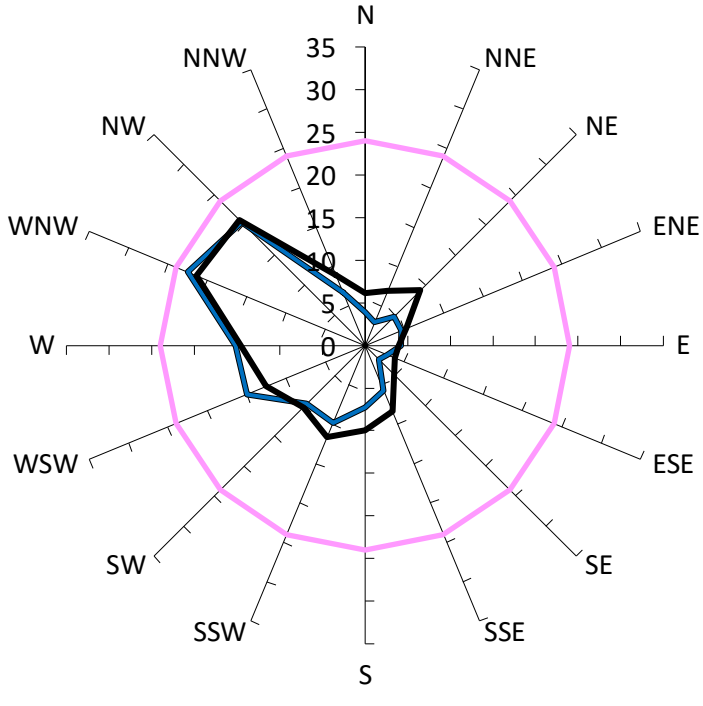
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Standing Criterion (6m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	7%	24
Existing Site Conditions.	7%	24

Results for Point 15

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





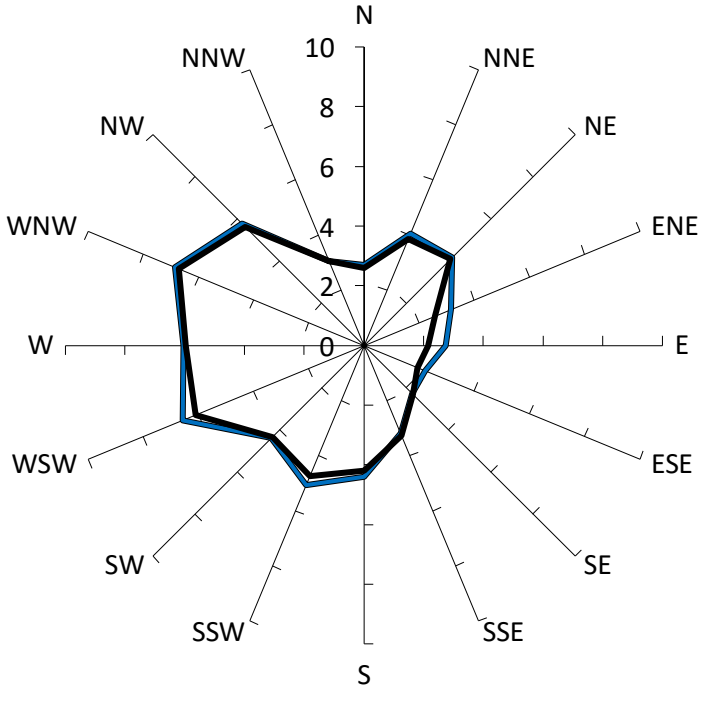
Comfort Criteria: 8m/s with 5% probability of exceedence

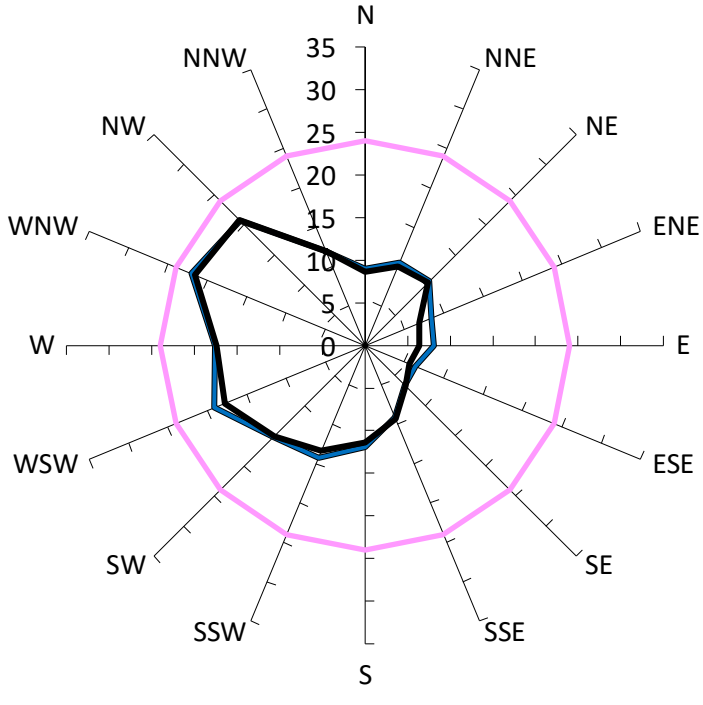
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	22
Existing Site Conditions.	1%	21

Results for Point 16

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





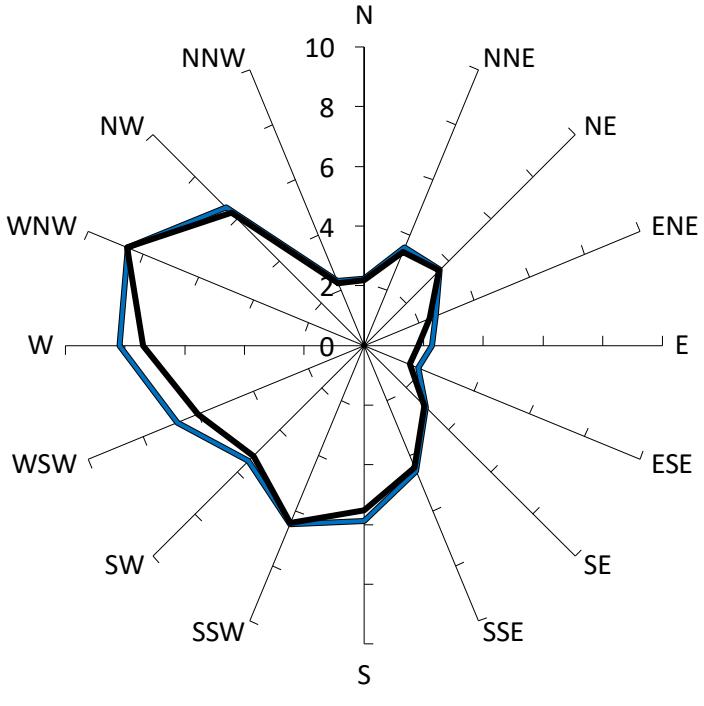
Comfort Criteria: 8m/s with 5% probability of exceedence

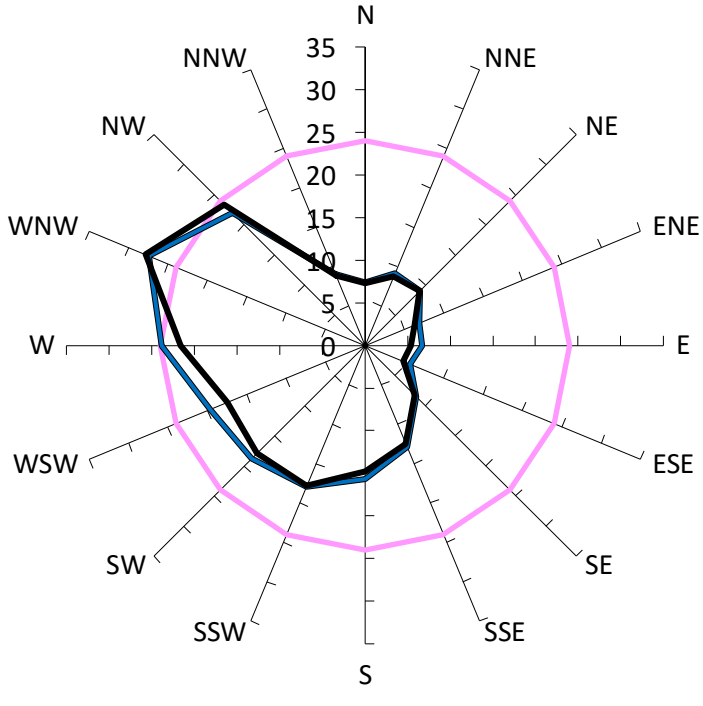
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	2%	22
Existing Site Conditions.	1%	22

Results for Point 17

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





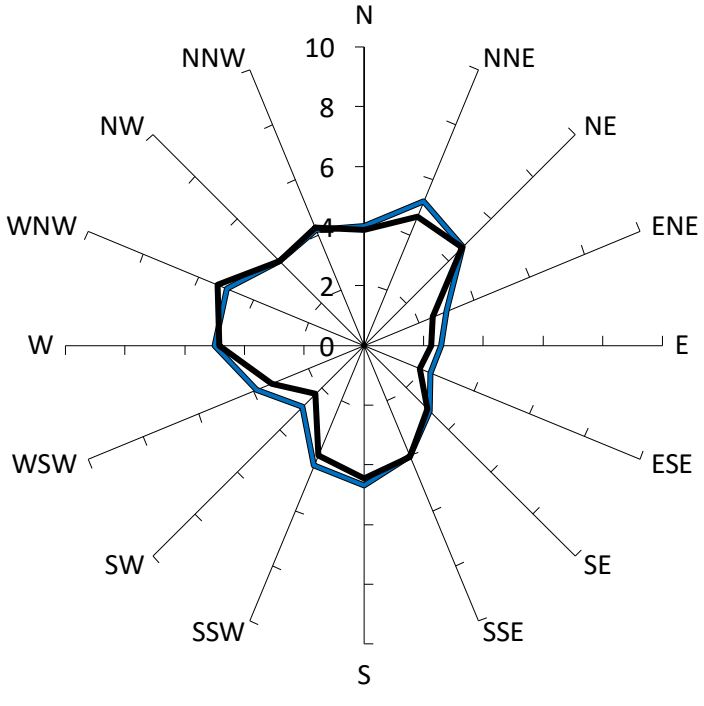
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	4%	27
Existing Site Conditions.	3%	28

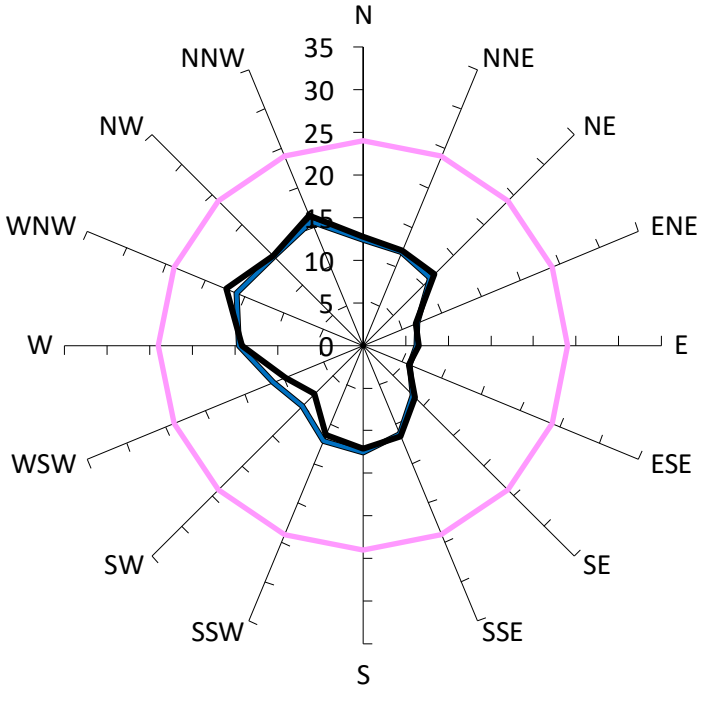
Results for Point 18

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

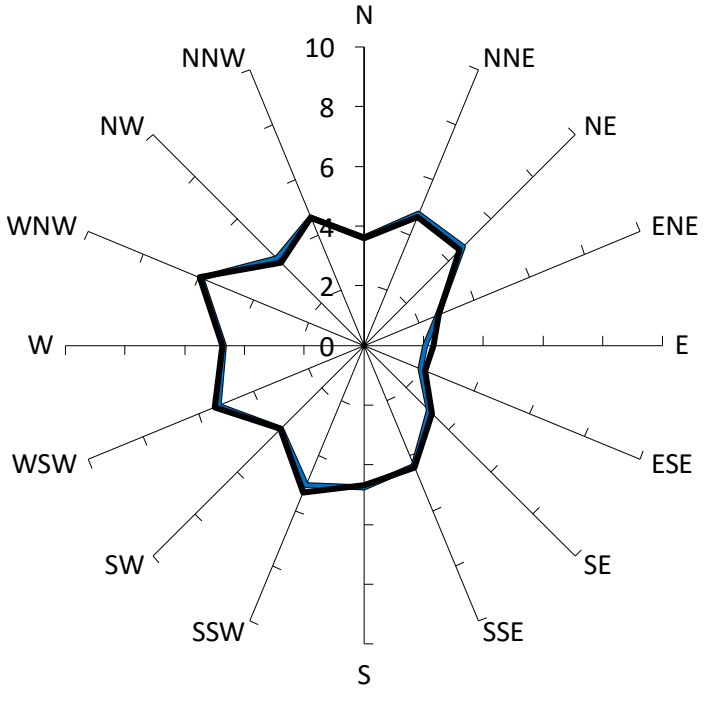


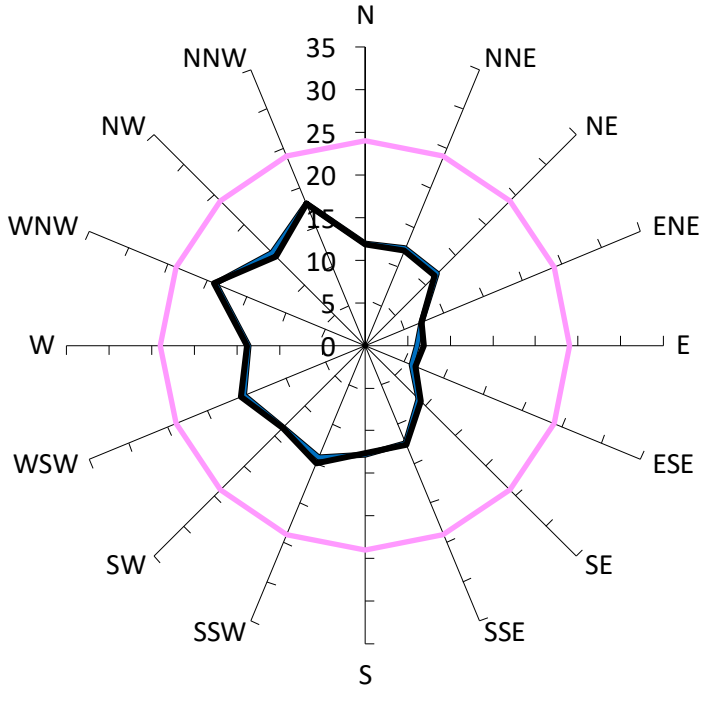
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	< 1%	16
Existing Site Conditions.	< 1%	17

Results for Point 19

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





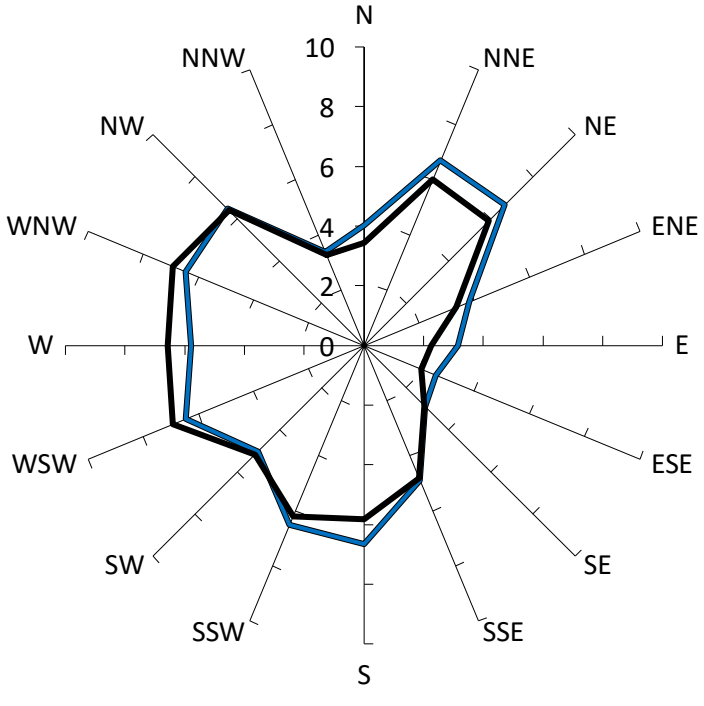
Comfort Criteria: 8m/s with 5% probability of exceedence

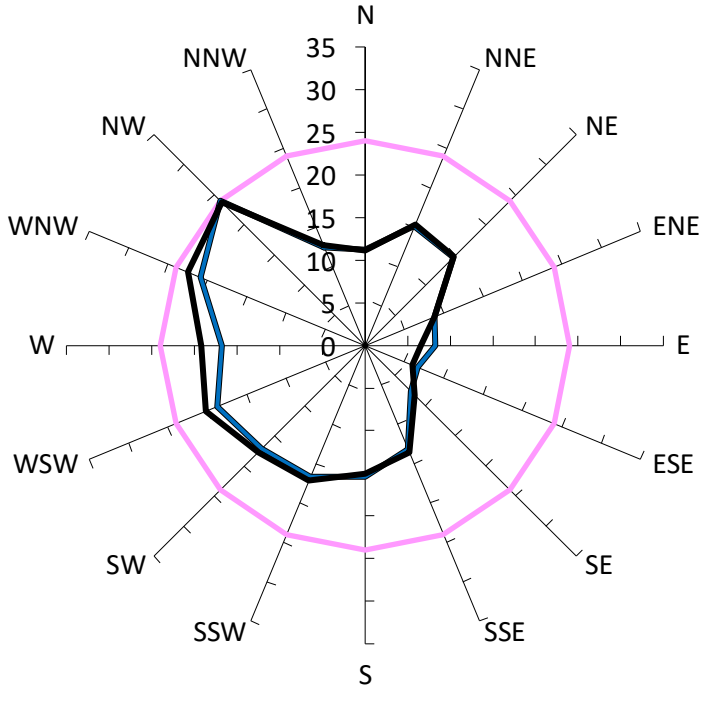
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	19
Existing Site Conditions.	1%	19

Results for Point 20

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





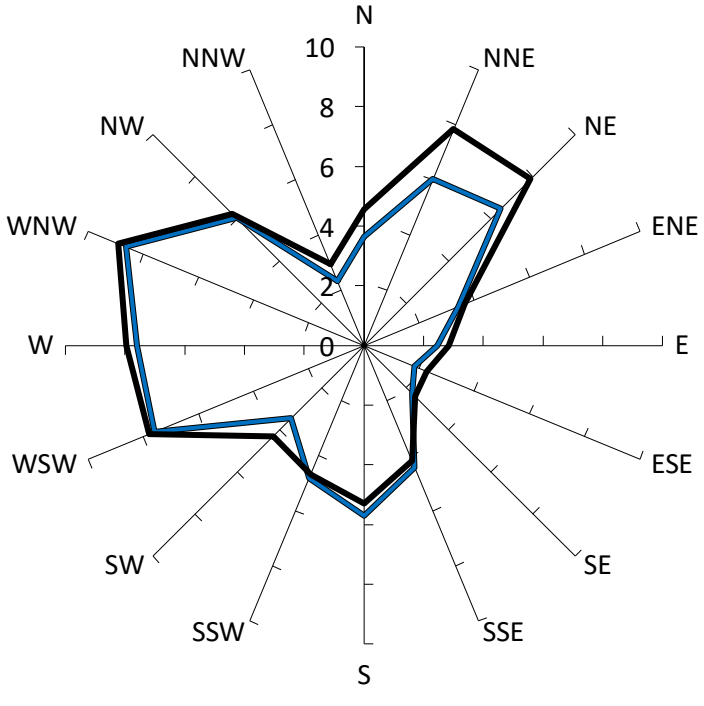
Comfort Criteria: 8m/s with 5% probability of exceedence

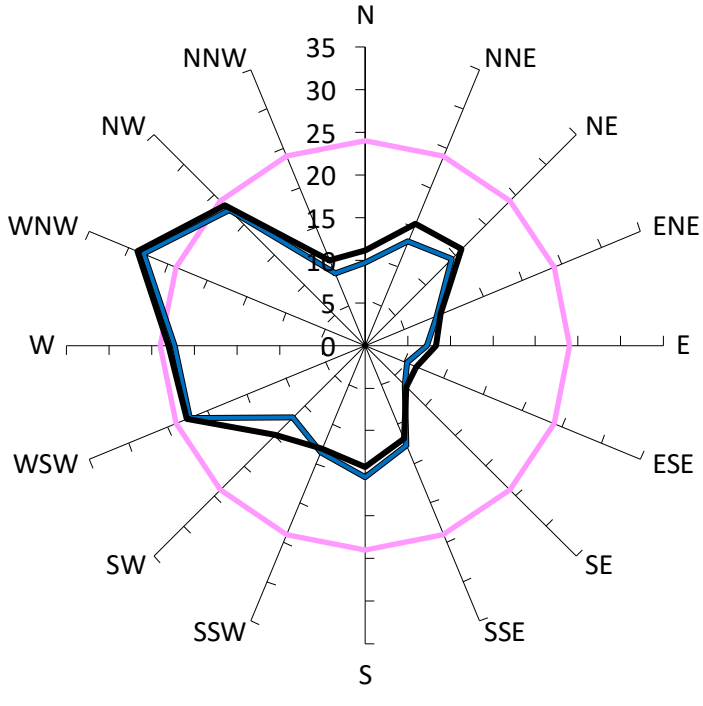
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	3%	24
Existing Site Conditions.	3%	24

Results for Point 21

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





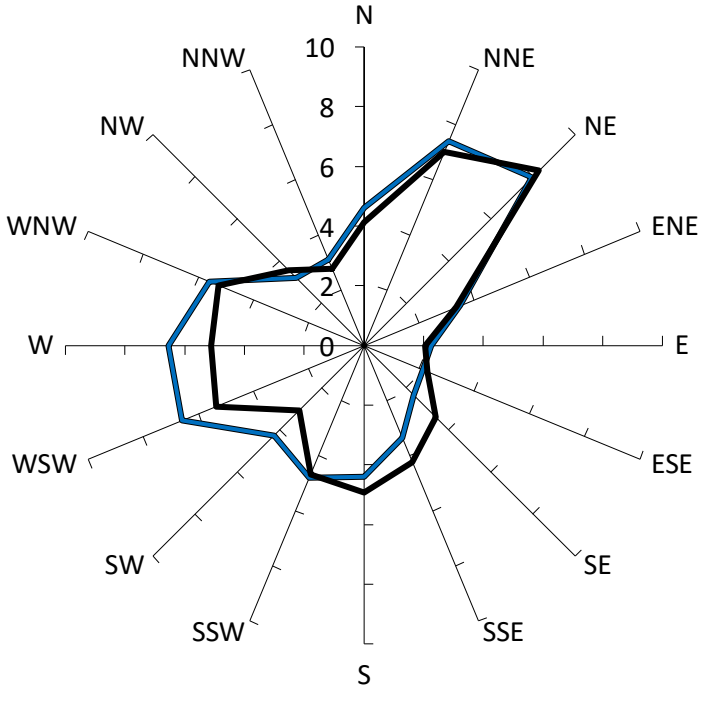
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

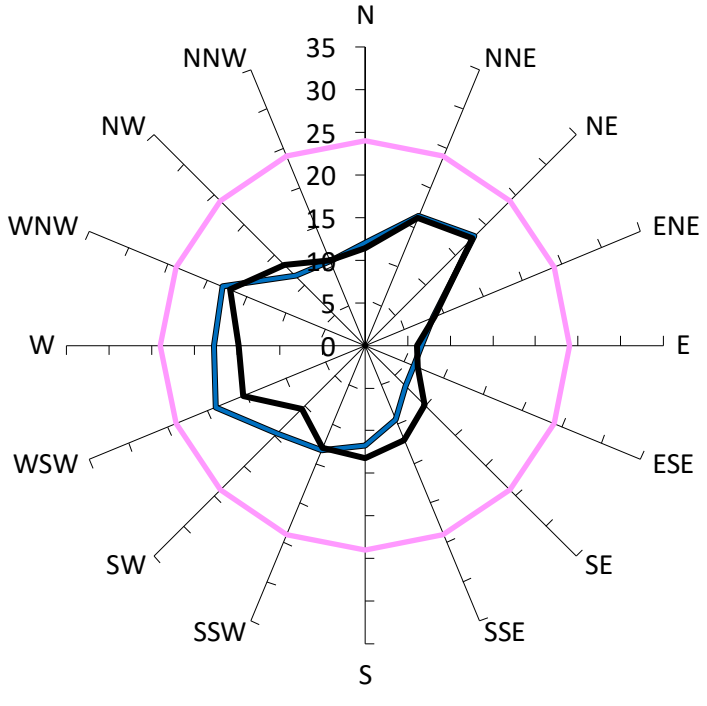
Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	4%	28
Existing Site Conditions.	6%	29

Results for Point 22

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

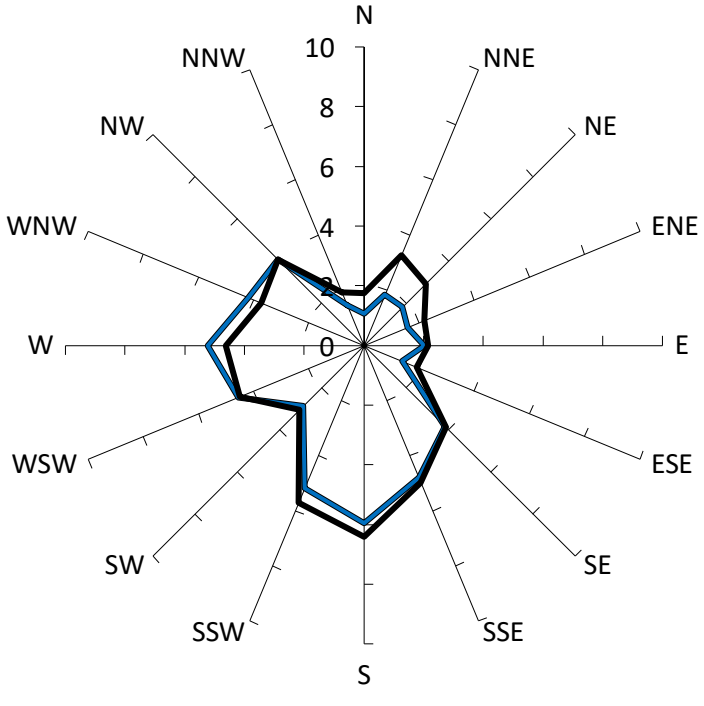


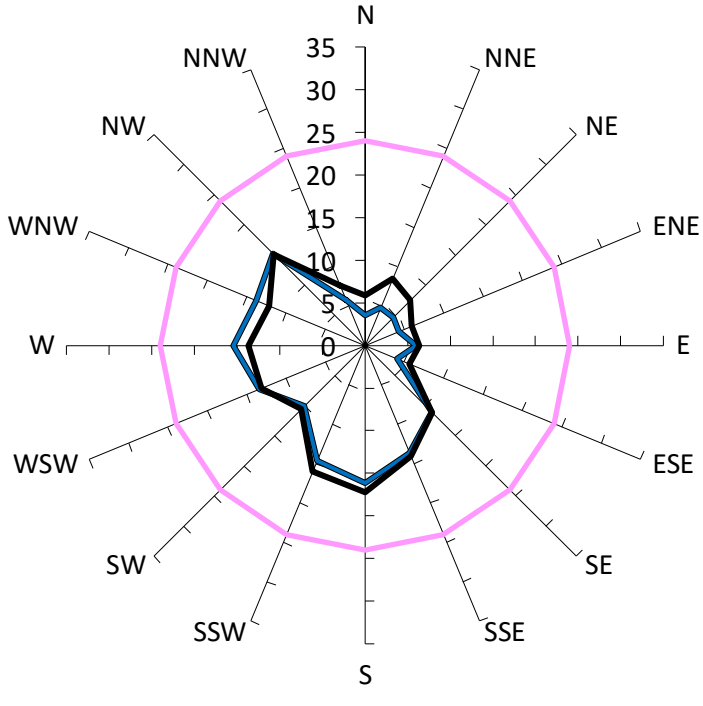
Safety Limit: 24m/s

	Description	GEM Prob of Exceed %	Peak Gust m/s
	Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
	With development "as proposed", no vegetation included.	3%	19
	Existing Site Conditions.	2%	18

Results for Point 23

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





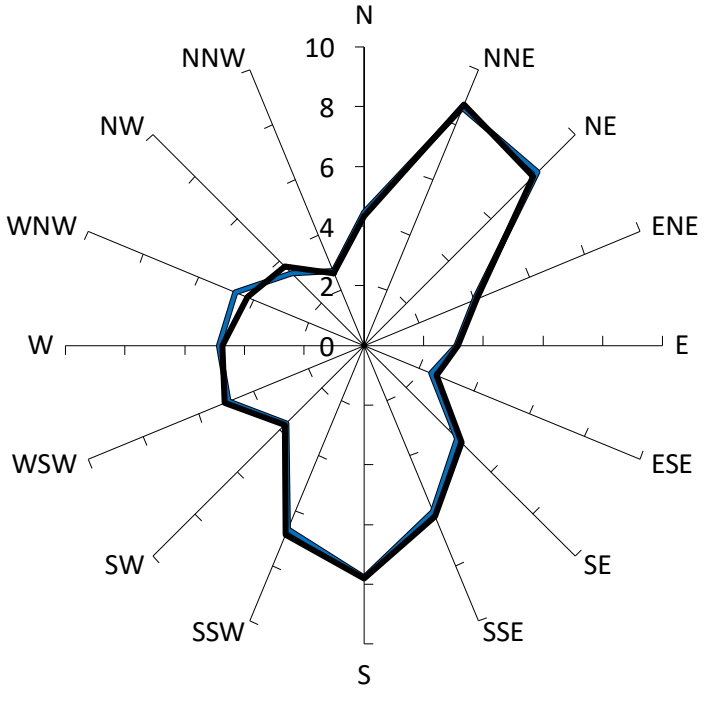
Comfort Criteria: 8m/s with 5% probability of exceedence

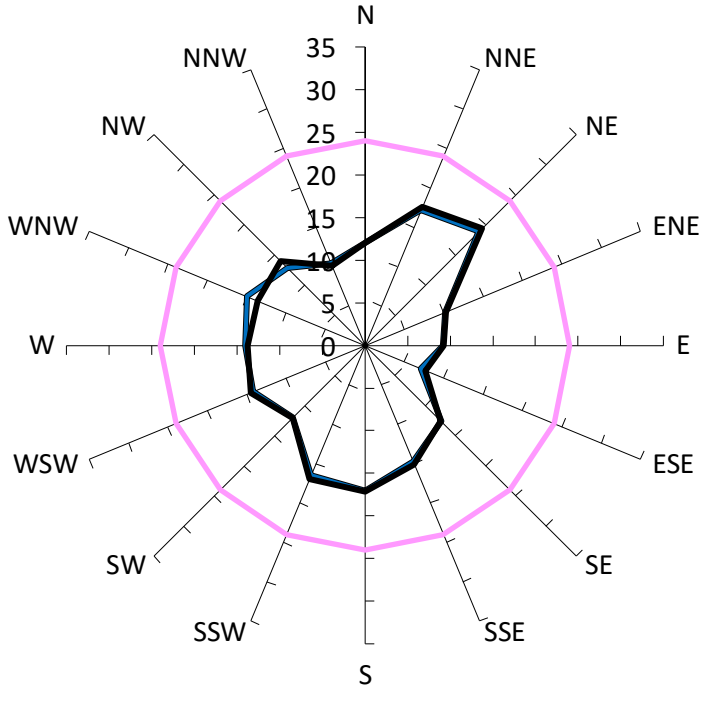
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	< 1%	16
Existing Site Conditions.	< 1%	17

Results for Point 24

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





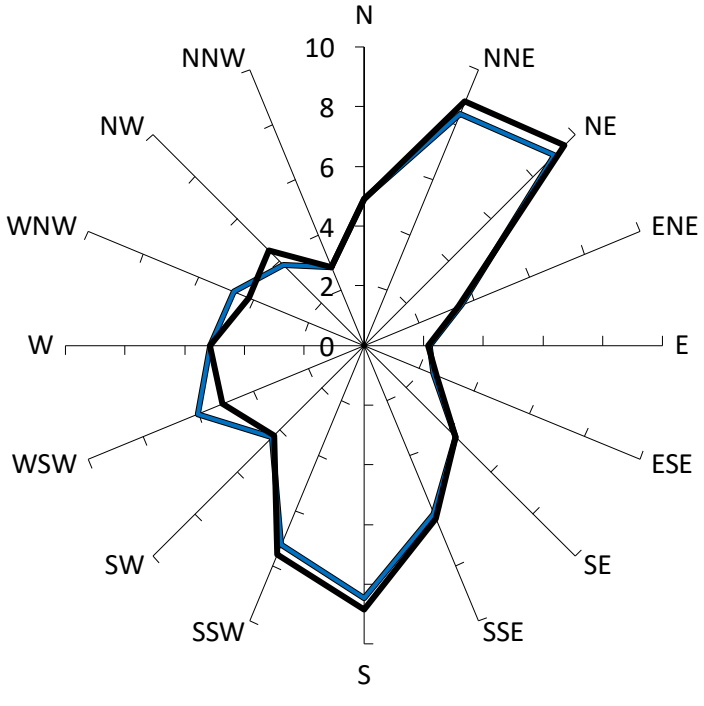
Comfort Criteria: 8m/s with 5% probability of exceedence

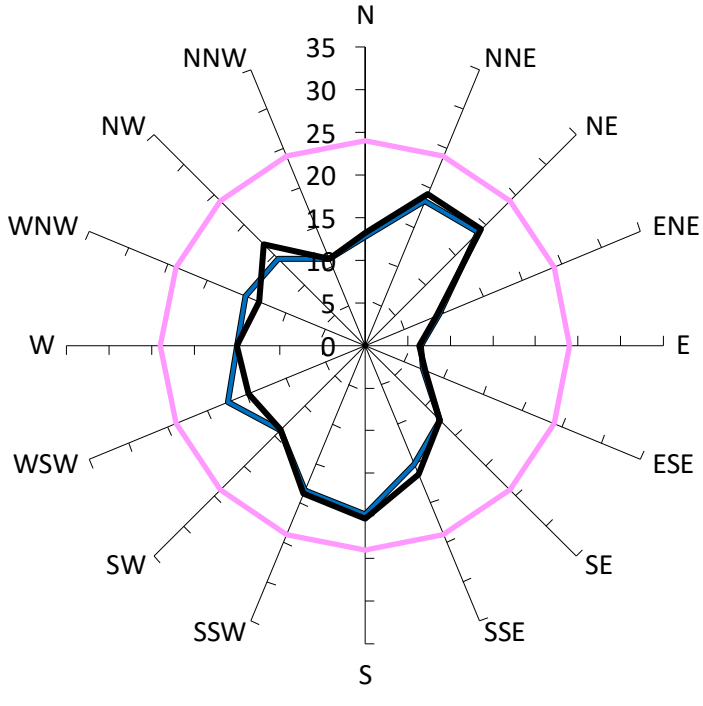
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	5%	19
Existing Site Conditions.	5%	19

Results for Point 25

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





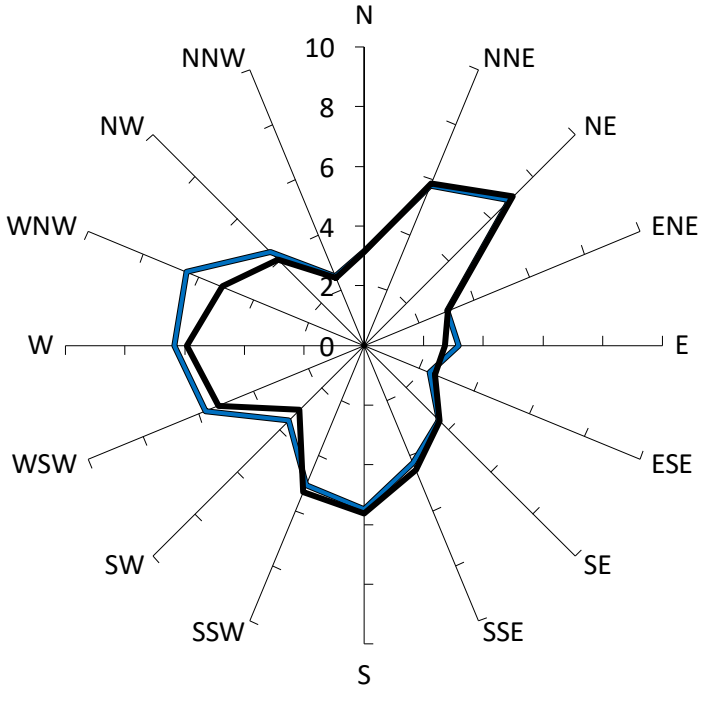
Comfort Criteria: 8m/s with 5% probability of exceedence

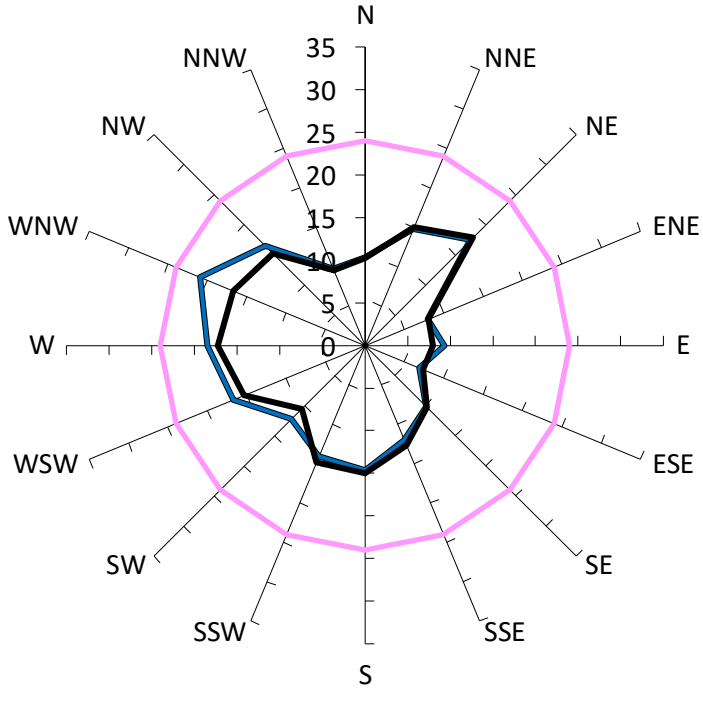
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	7%	20
Existing Site Conditions.	9%	20

Results for Point 26

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





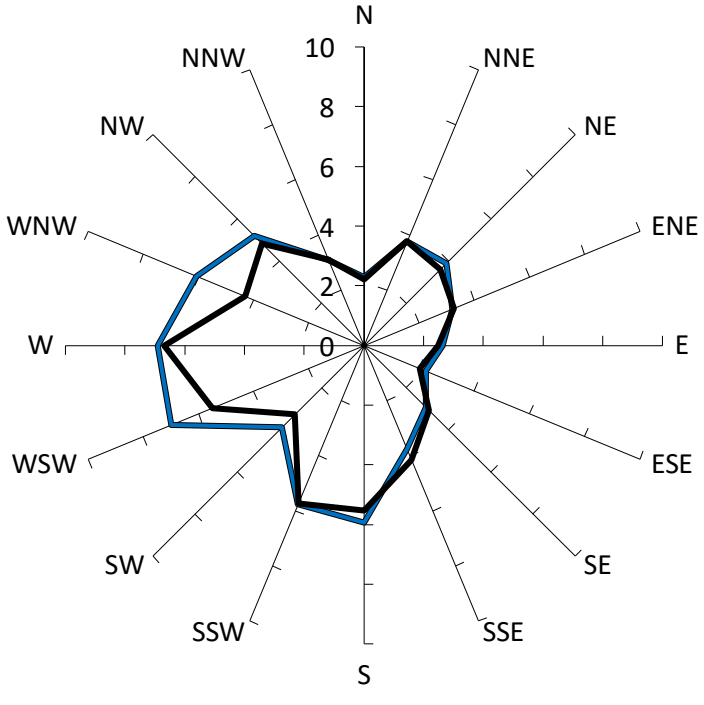
Comfort Criteria: 8m/s with 5% probability of exceedence

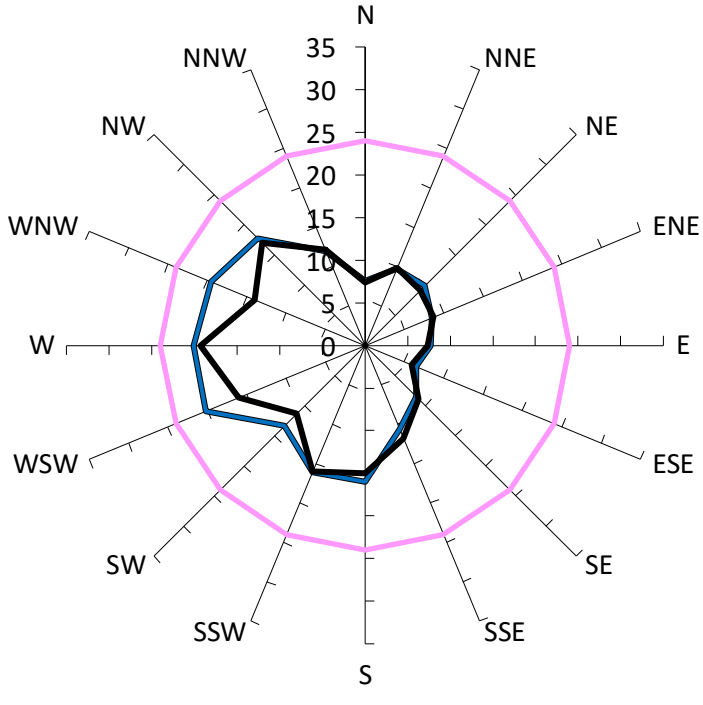
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	21
Existing Site Conditions.	1%	18

Results for Point 27

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





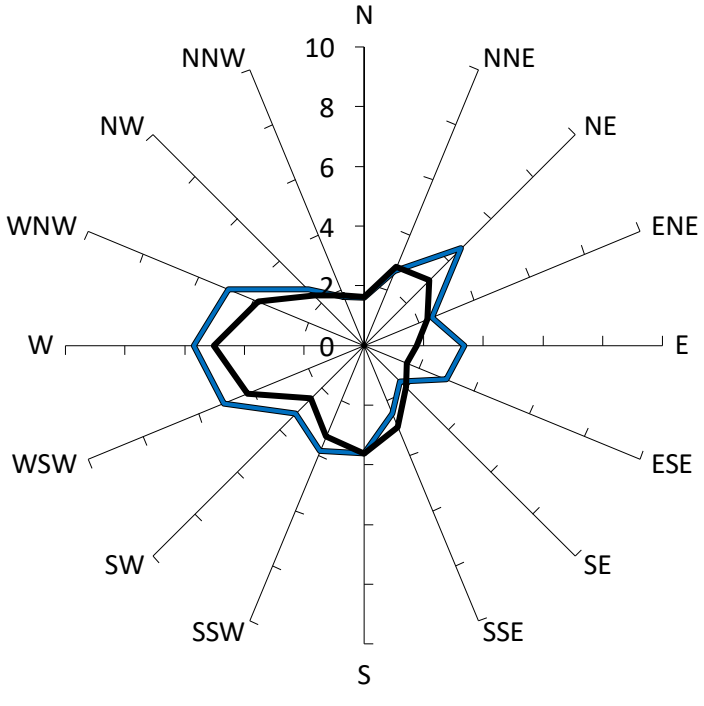
Comfort Criteria: 8m/s with 5% probability of exceedence

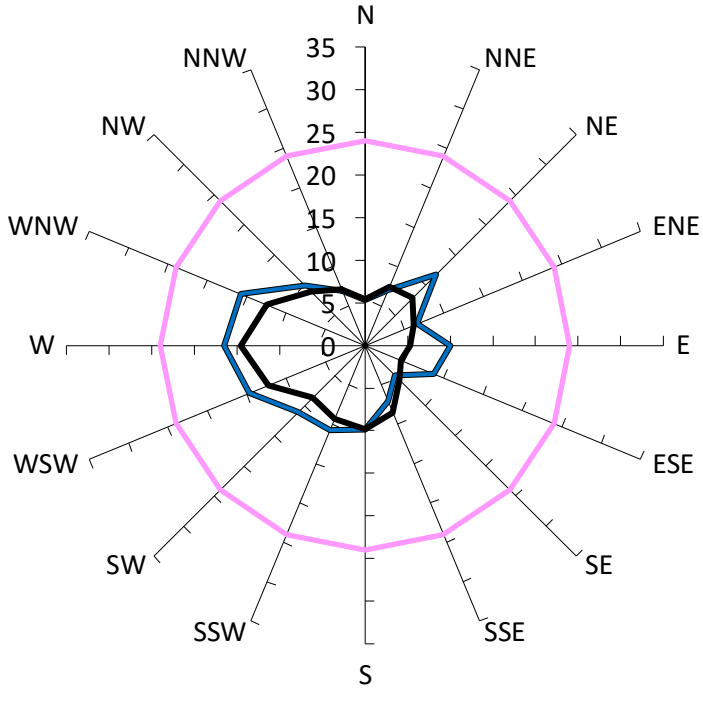
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	2%	20
Existing Site Conditions.	1%	19

Results for Point 28

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





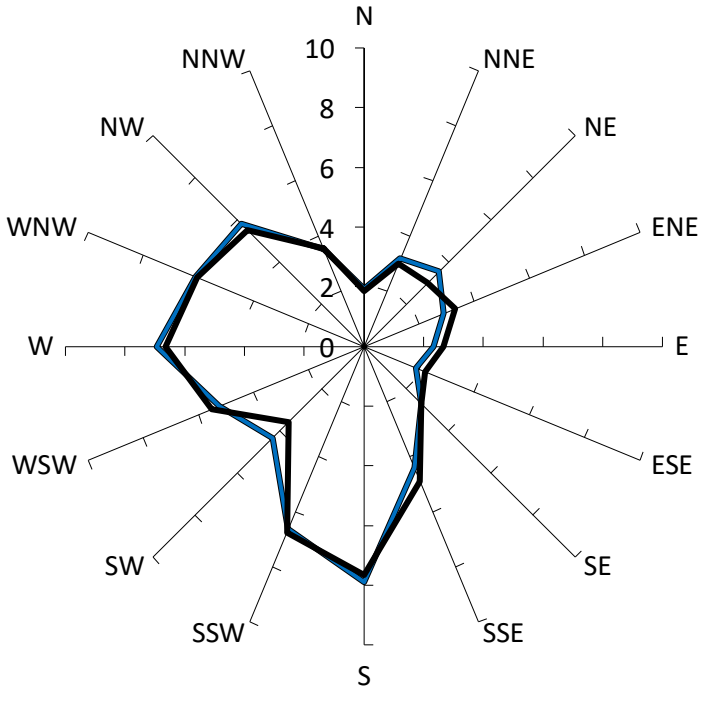
Comfort Criteria: 8m/s with 5% probability of exceedence

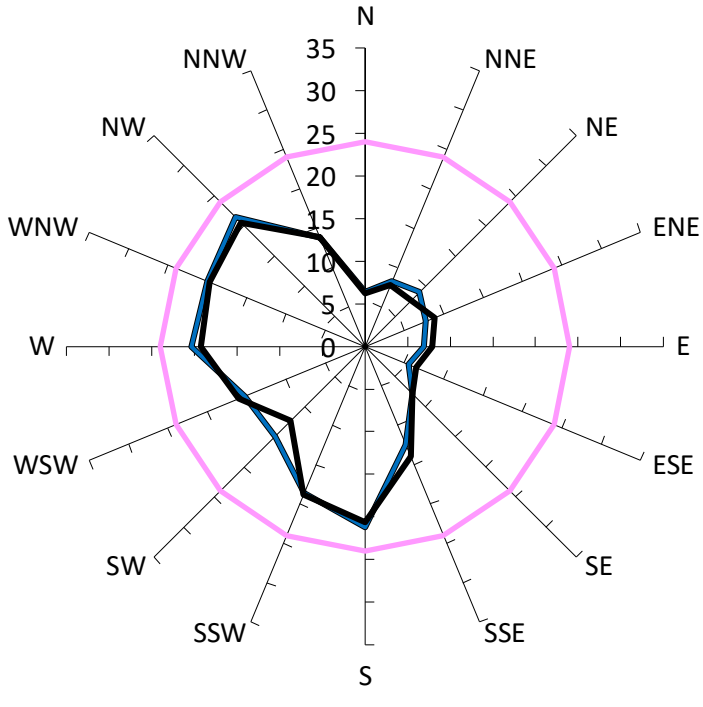
Safety Limit: 24m/s

	Description	GEM Prob of Exceed %	Peak Gust m/s
	Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
	With development "as proposed", no vegetation included.	< 1%	17
	Existing Site Conditions.	< 1%	15

Results for Point 29

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





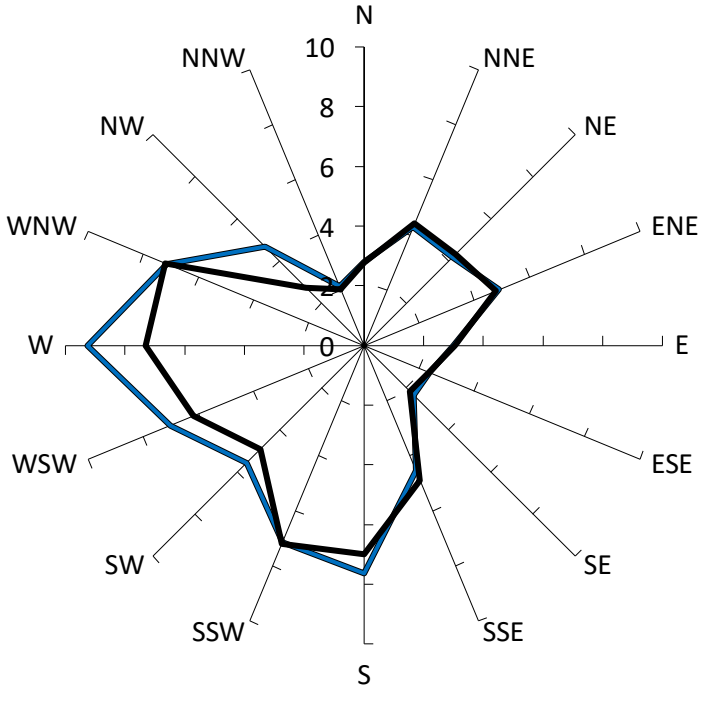
Comfort Criteria: 8m/s with 5% probability of exceedence

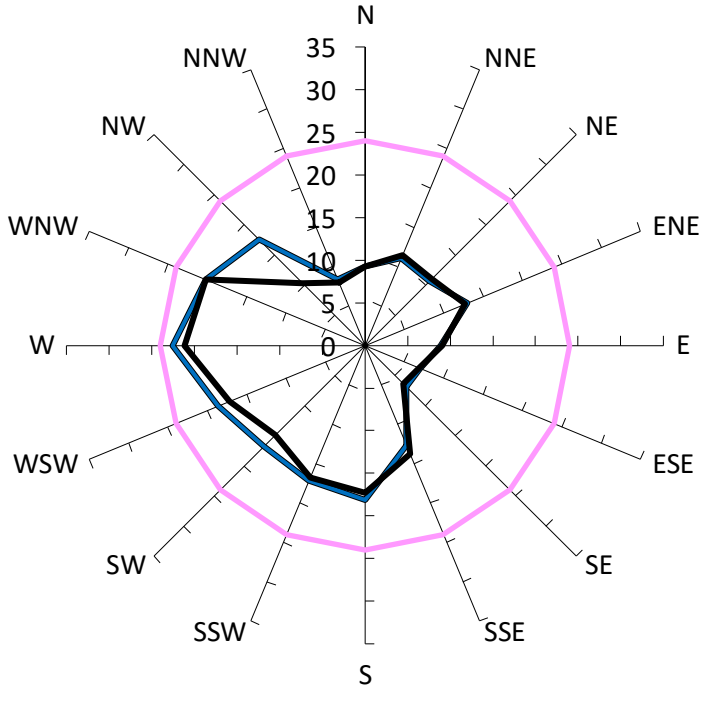
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	3%	21
Existing Site Conditions.	2%	21

Results for Point 30

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





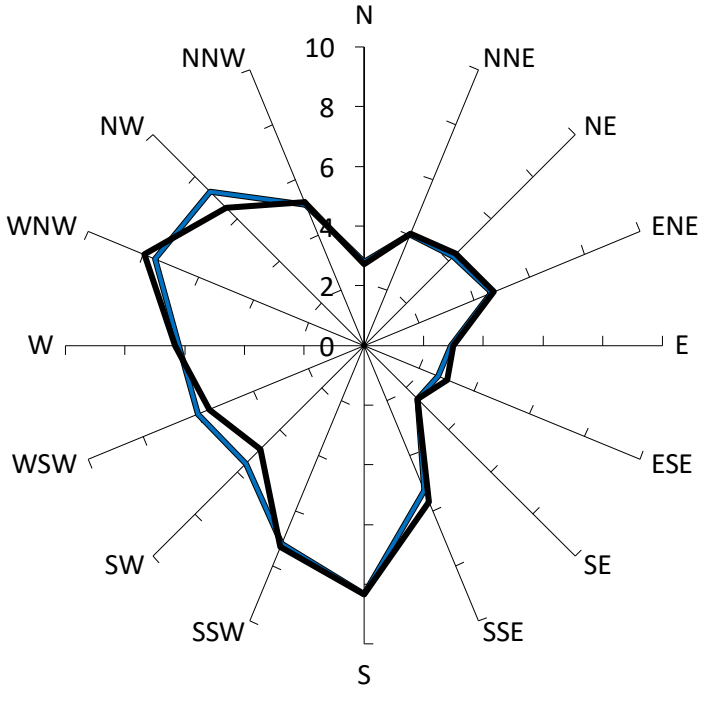
Comfort Criteria: 8m/s with 5% probability of exceedence

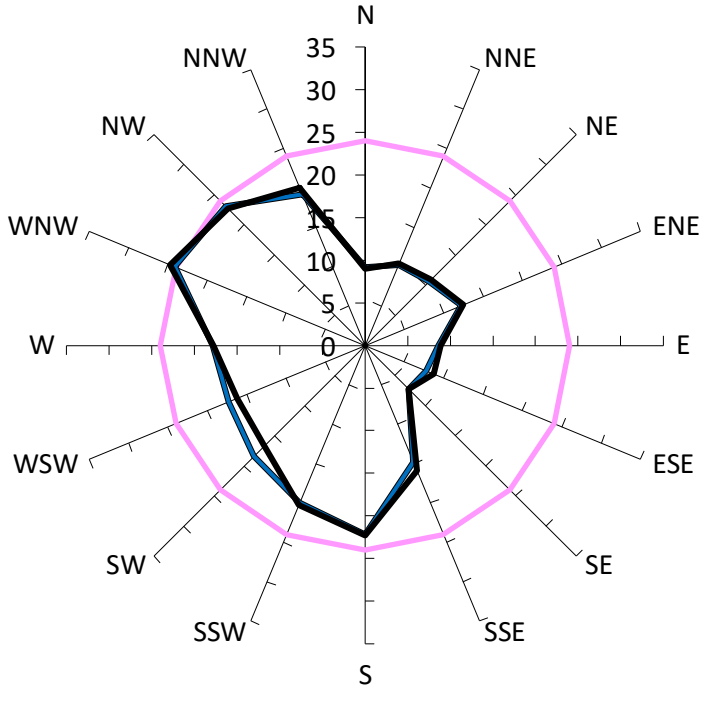
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	5%	23
Existing Site Conditions.	3%	21

Results for Point 31

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





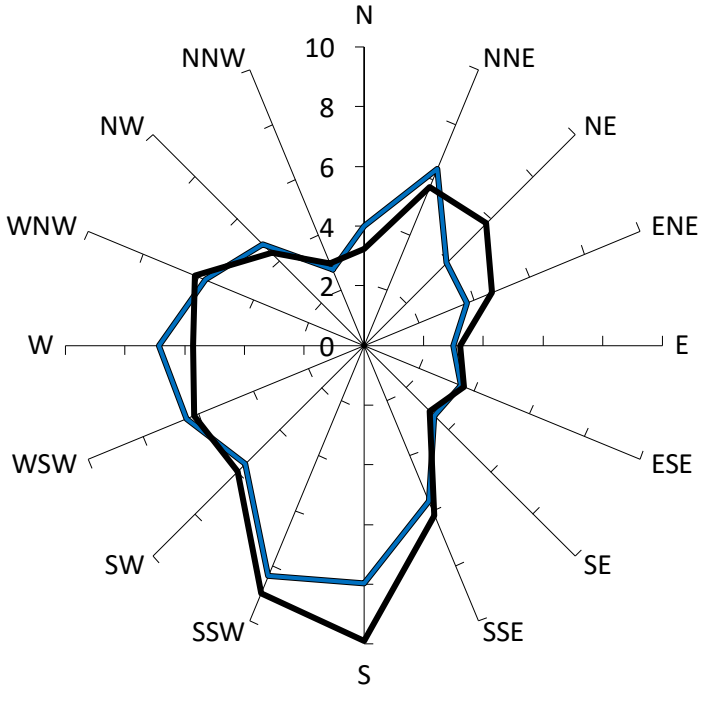
Comfort Criteria: 8m/s with 5% probability of exceedence

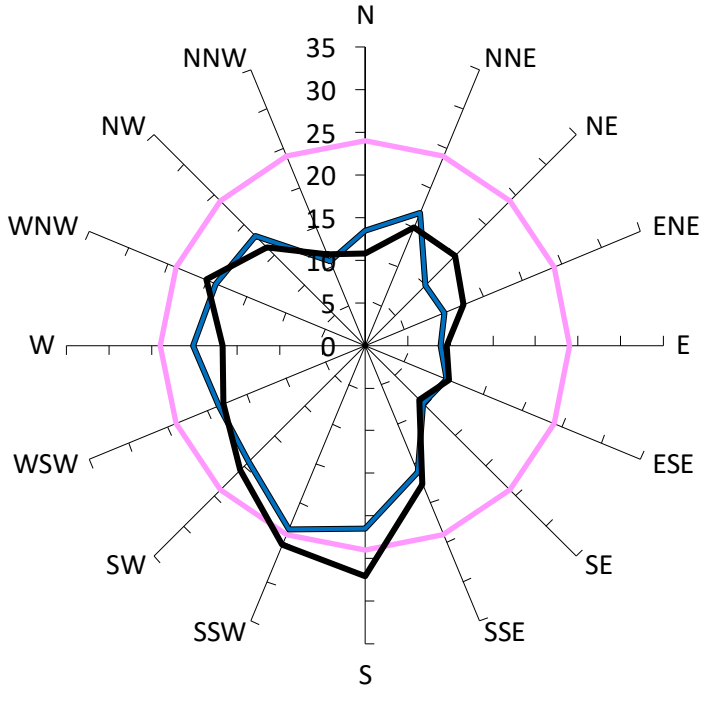
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	5%	24
Existing Site Conditions.	5%	25

Results for Point 32

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





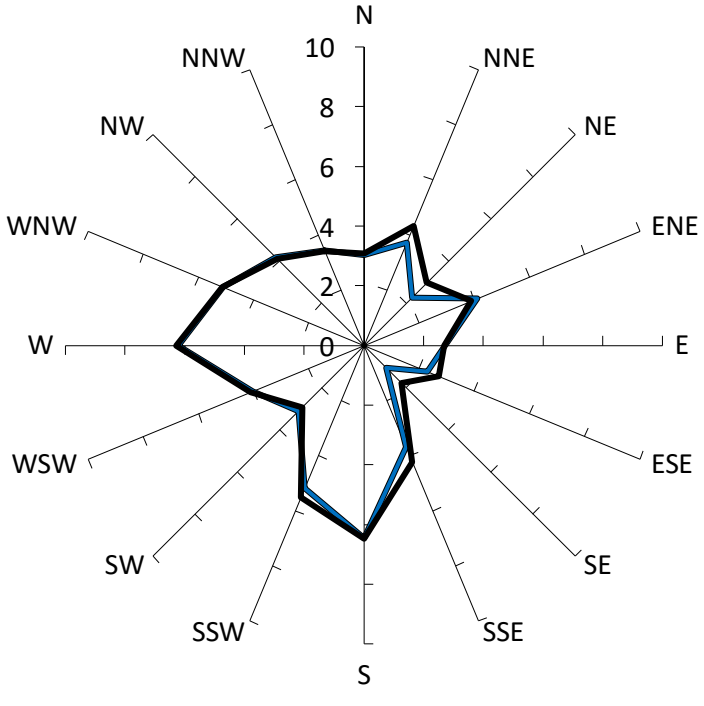
Comfort Criteria: 8m/s with 5% probability of exceedence

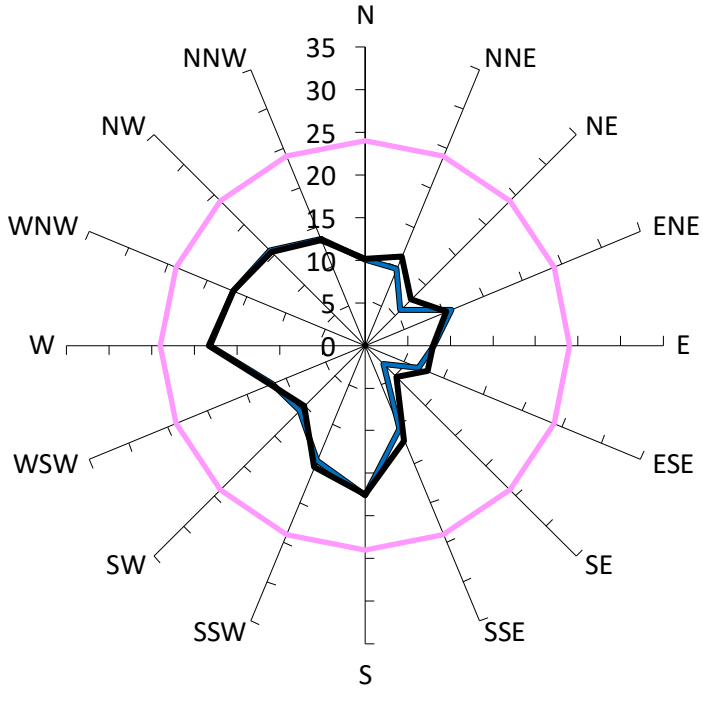
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	4%	23
Existing Site Conditions.	8%	27

Results for Point 33

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





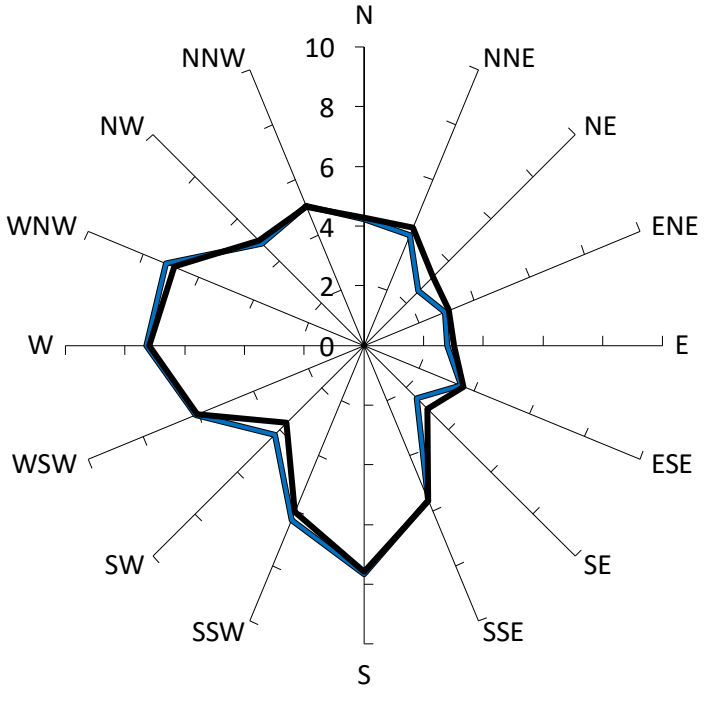
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	18
Existing Site Conditions.	1%	18

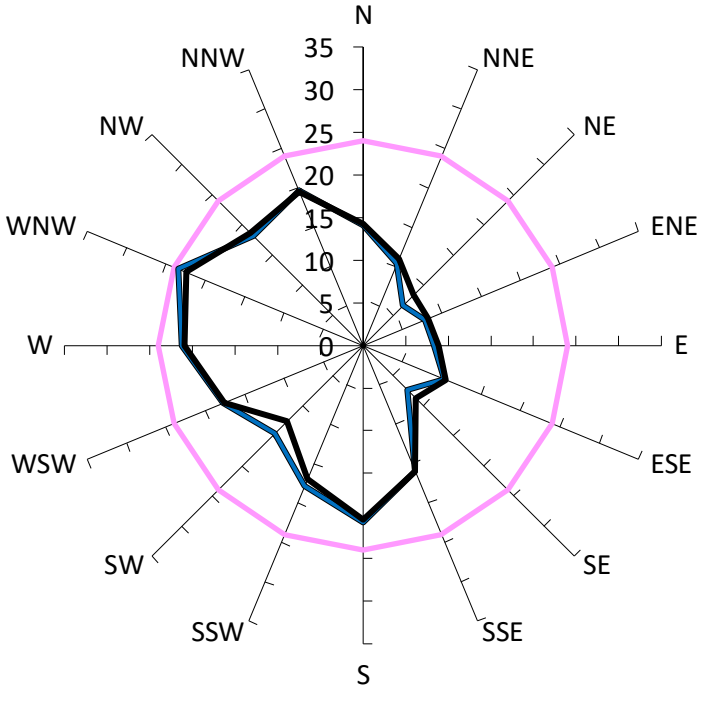
Results for Point 34

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

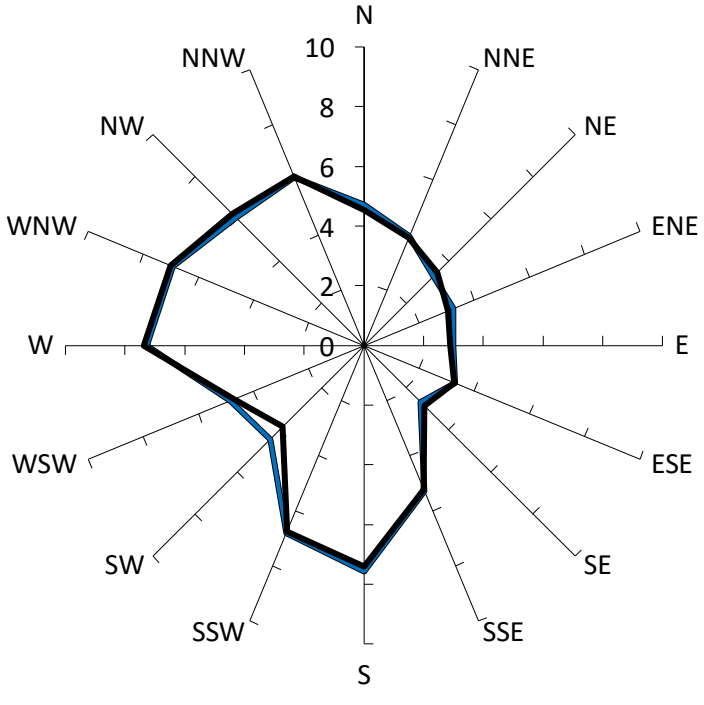


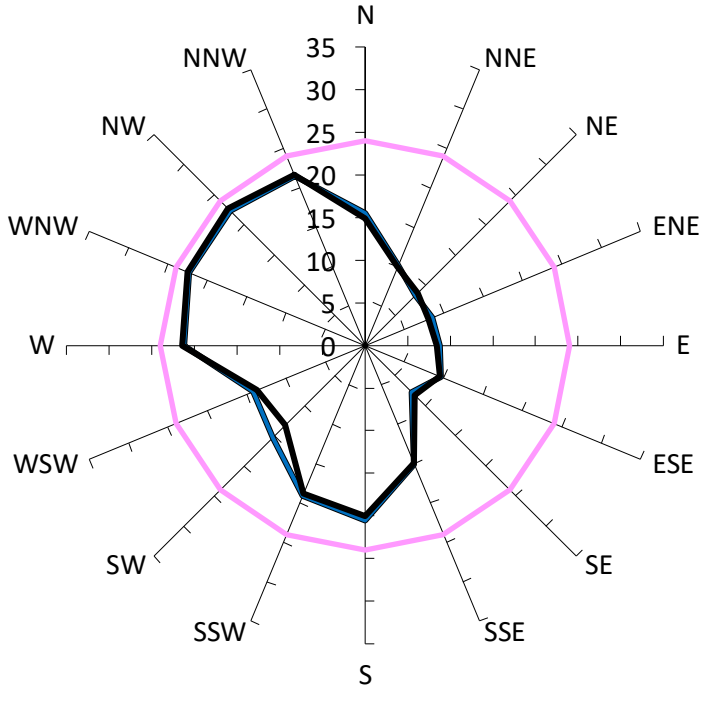
Safety Limit: 24m/s

	Description	GEM Prob of Exceed %	Peak Gust m/s
	Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
	With development "as proposed", no vegetation included.	3%	23
	Existing Site Conditions.	3%	22

Results for Point 35

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





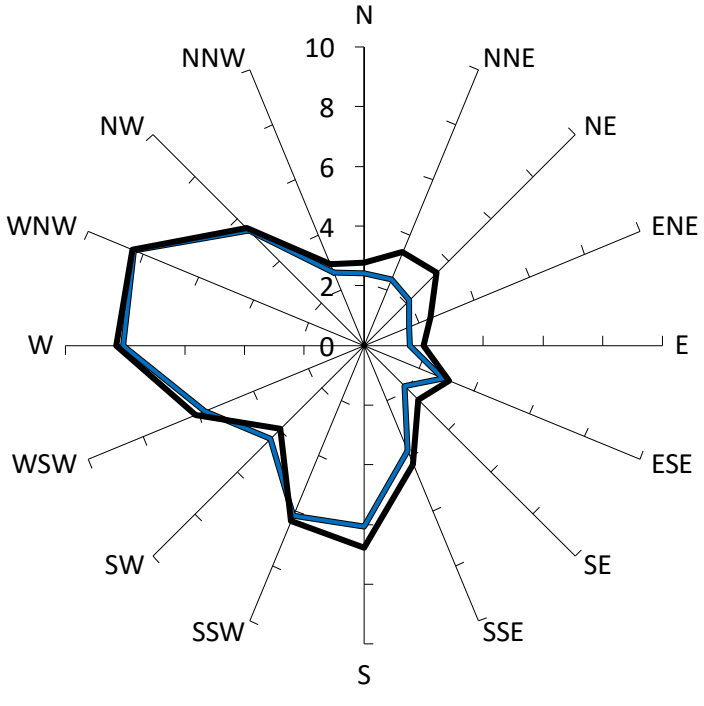
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	4%	22
Existing Site Conditions.	4%	23

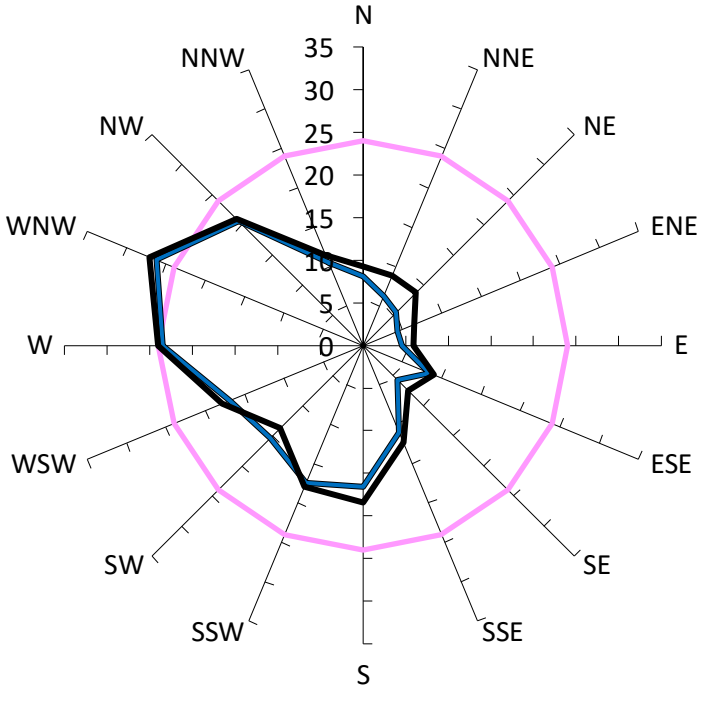
Results for Point 36

Gust Equivalent Mean (m/s)



Comfort Criteria: 8m/s with 5% probability of exceedence

Annual Maximum Gust (m/s)

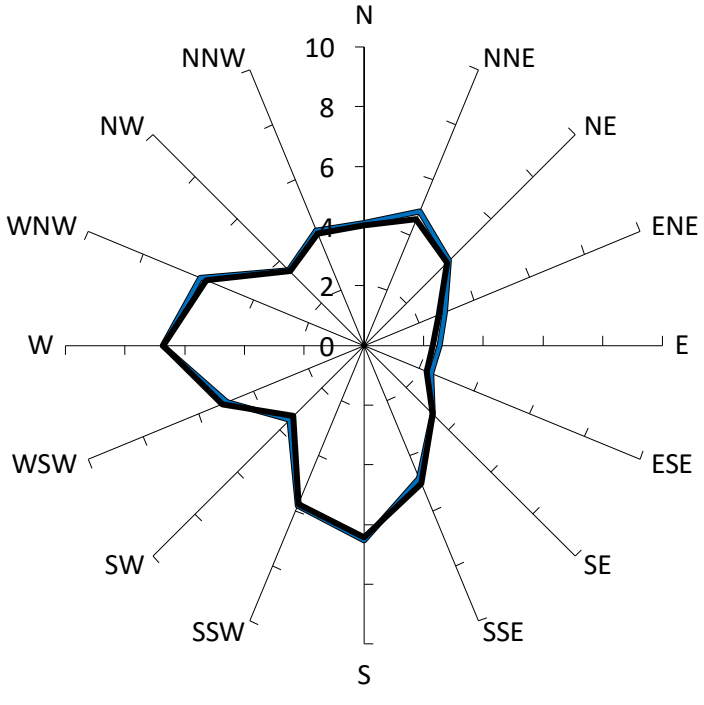


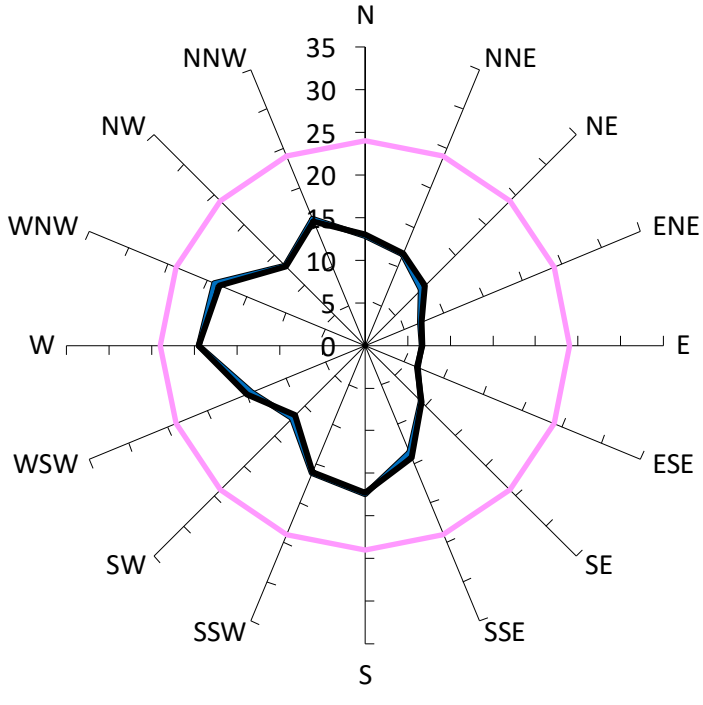
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	3%	26
Existing Site Conditions.	4%	27

Results for Point 37

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





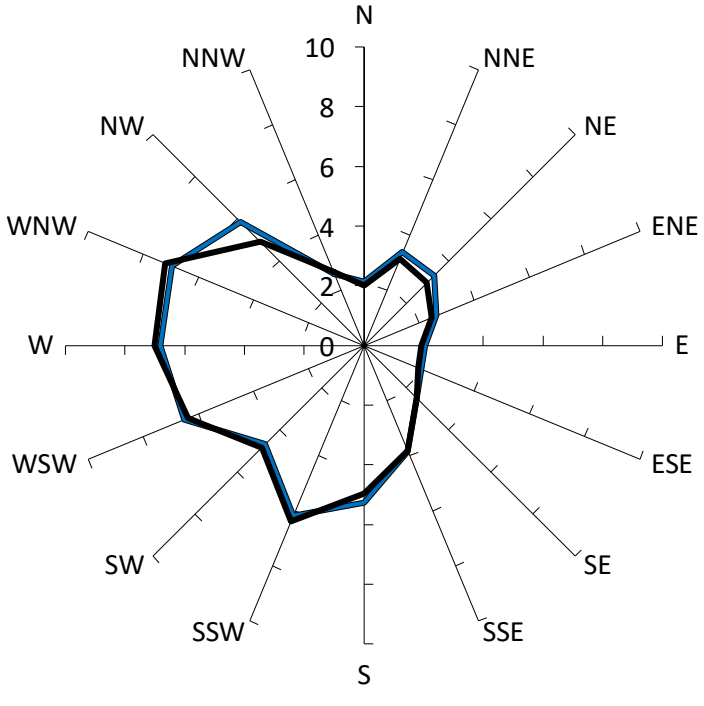
Comfort Criteria: 8m/s with 5% probability of exceedence

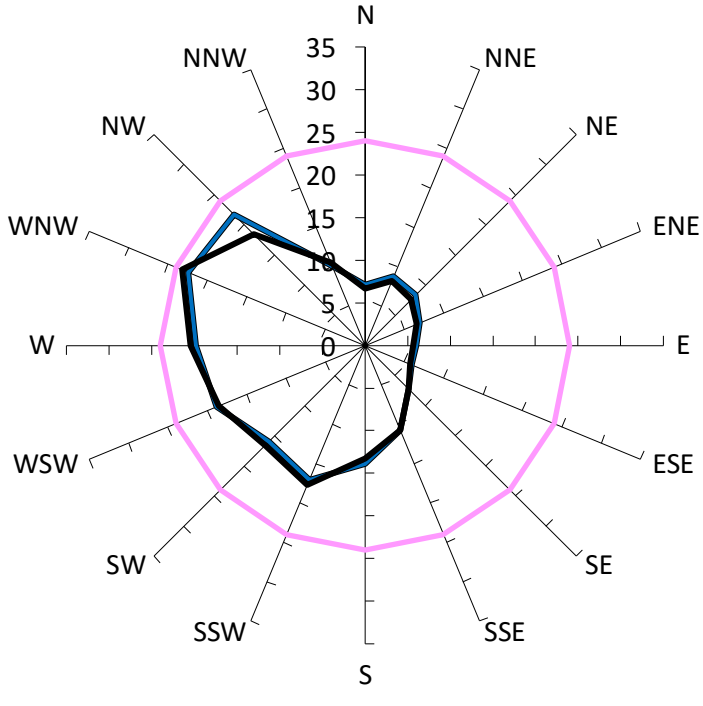
Safety Limit: 24m/s

Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	1%	19
Existing Site Conditions.	1%	19

Results for Point 38

Gust Equivalent Mean (m/s)	Annual Maximum Gust (m/s)





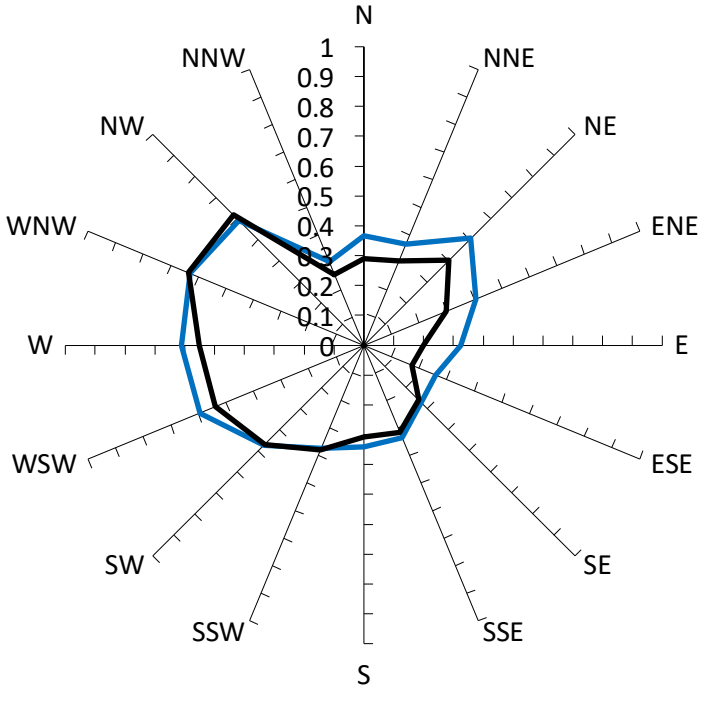
Comfort Criteria: 8m/s with 5% probability of exceedence

Safety Limit: 24m/s

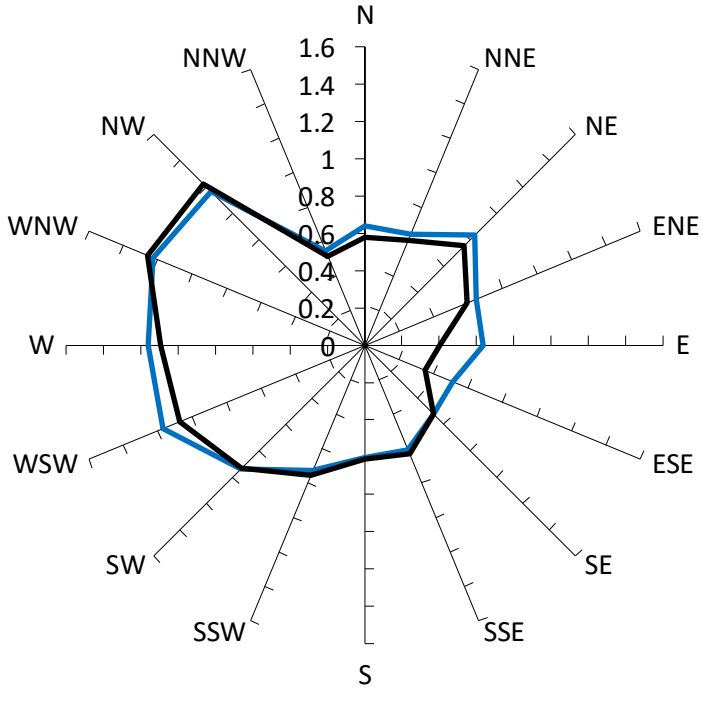
Description	GEM Prob of Exceed %	Peak Gust m/s
Criterion: Wind Comfort Standard for Walking Criterion (8m/s). Safety Limit (24m/s).	5%	24
With development "as proposed", no vegetation included.	2%	22
Existing Site Conditions.	2%	23

APPENDIX D DIRECTIONAL VELOCITY COEFFICIENT PLOTS

Results for Point 01



GEM Velocity Coefficients

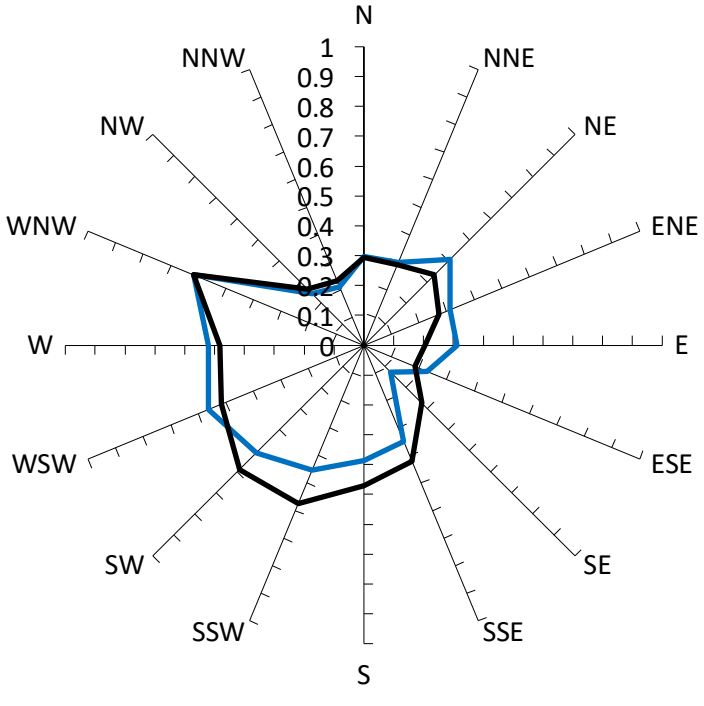


Gust Velocity Coefficients

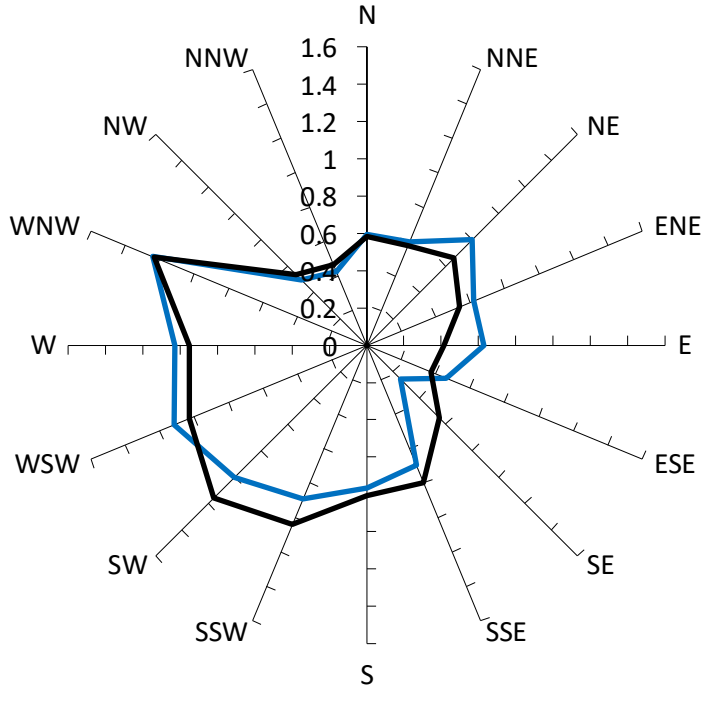
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 02



GEM Velocity Coefficients

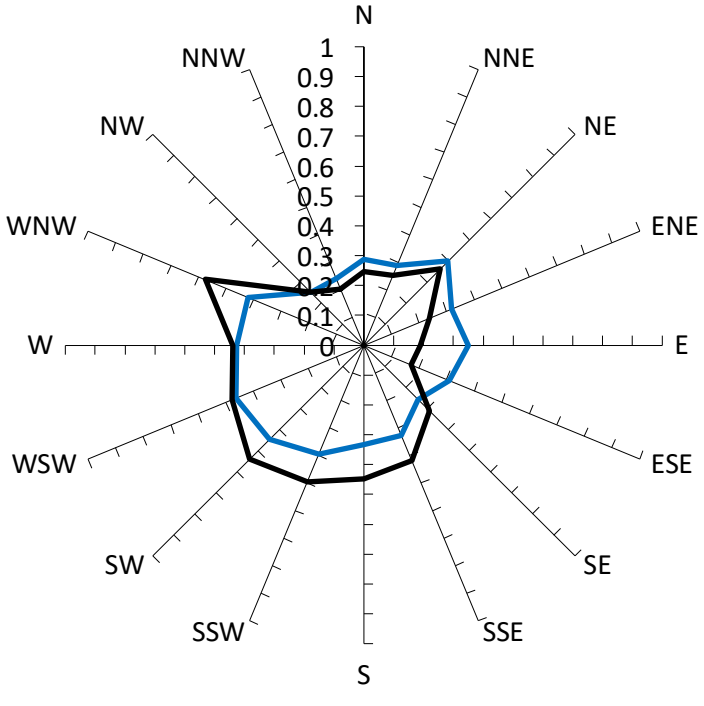


Gust Velocity Coefficients

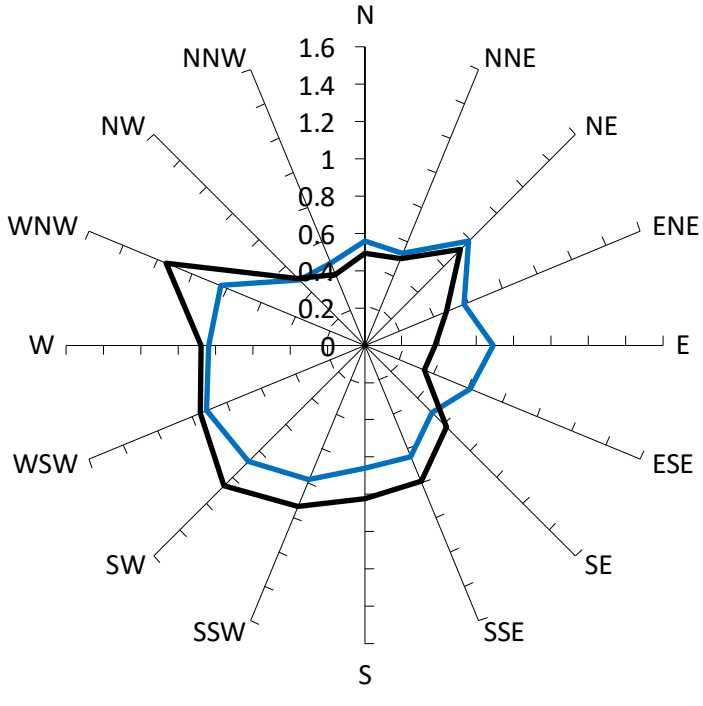
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 03



GEM Velocity Coefficients

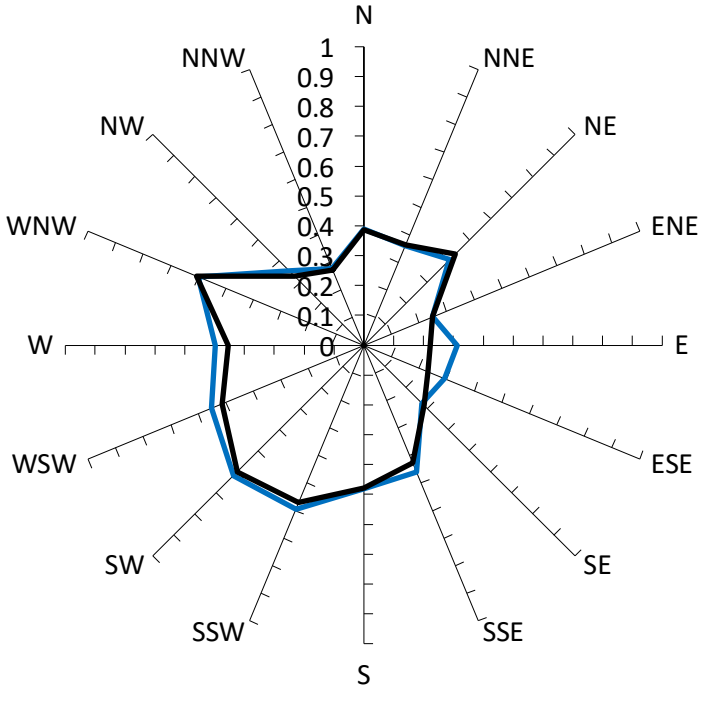


Gust Velocity Coefficients

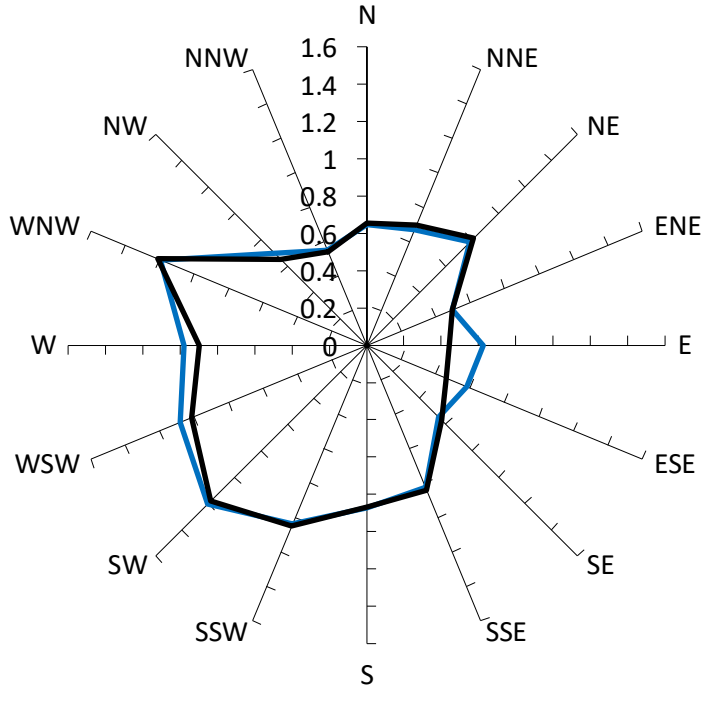
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 04



GEM Velocity Coefficients

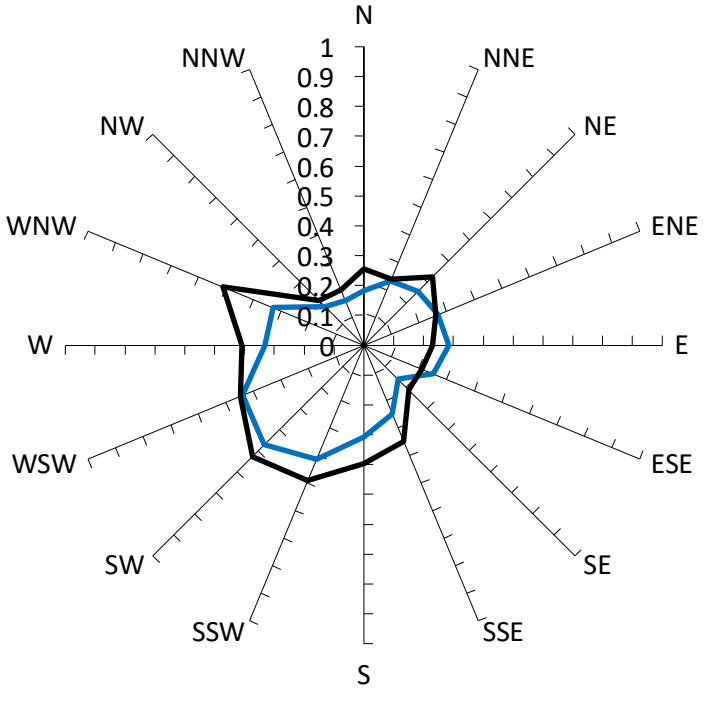


Gust Velocity Coefficients

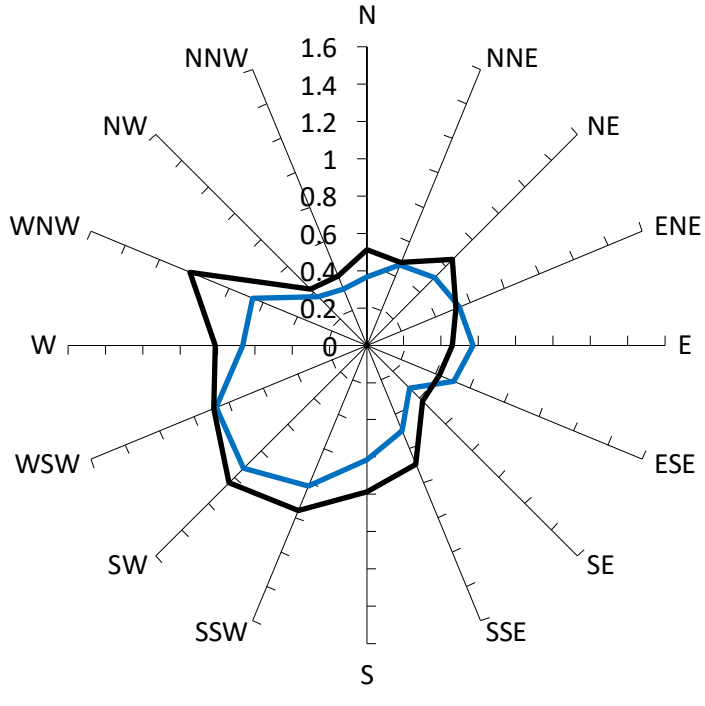
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 05



GEM Velocity Coefficients

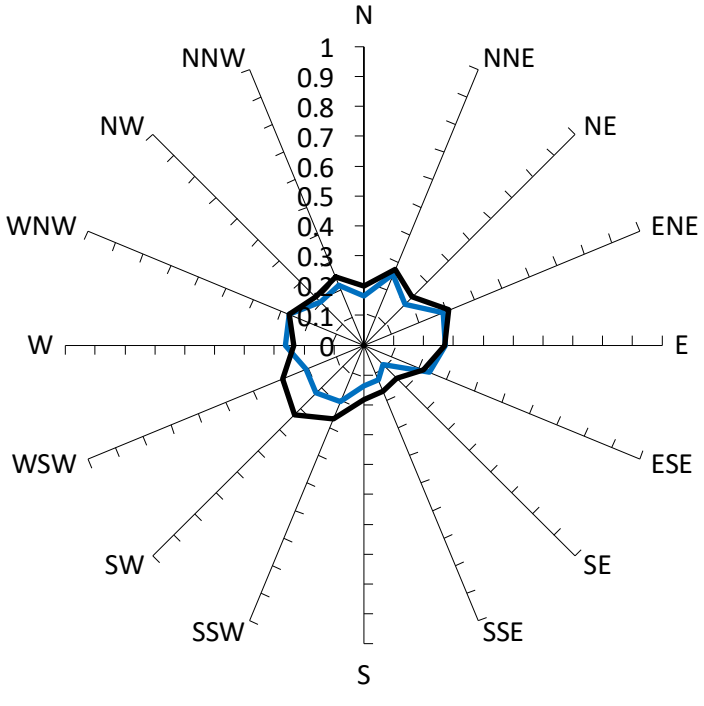


Gust Velocity Coefficients

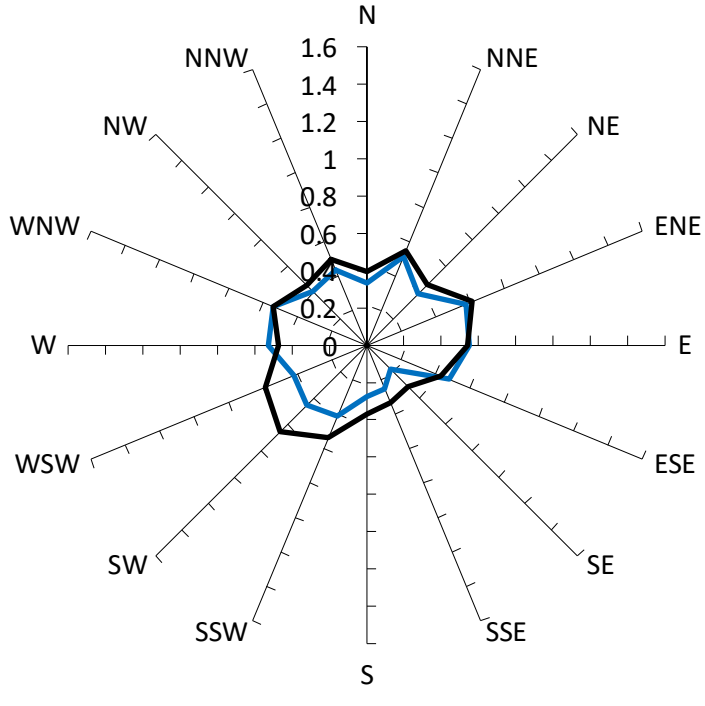
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 06



GEM Velocity Coefficients

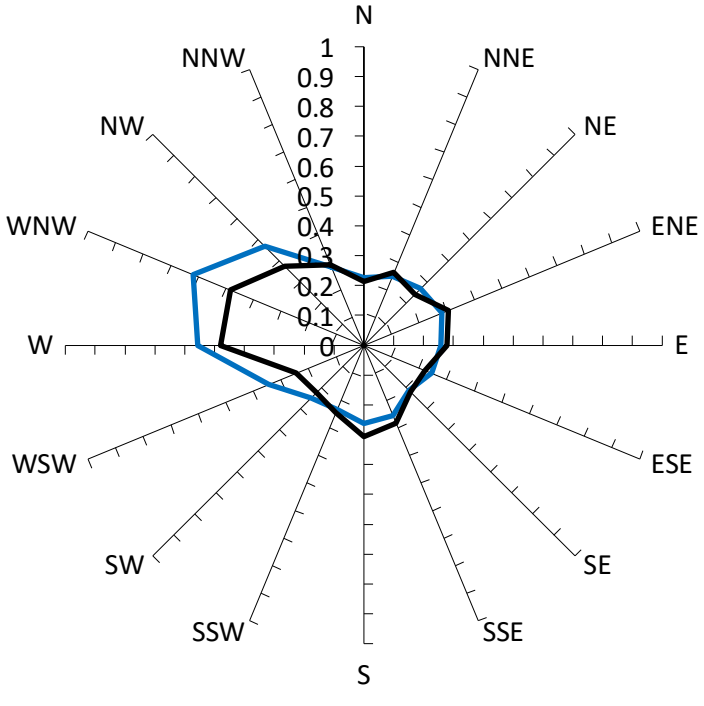


Gust Velocity Coefficients

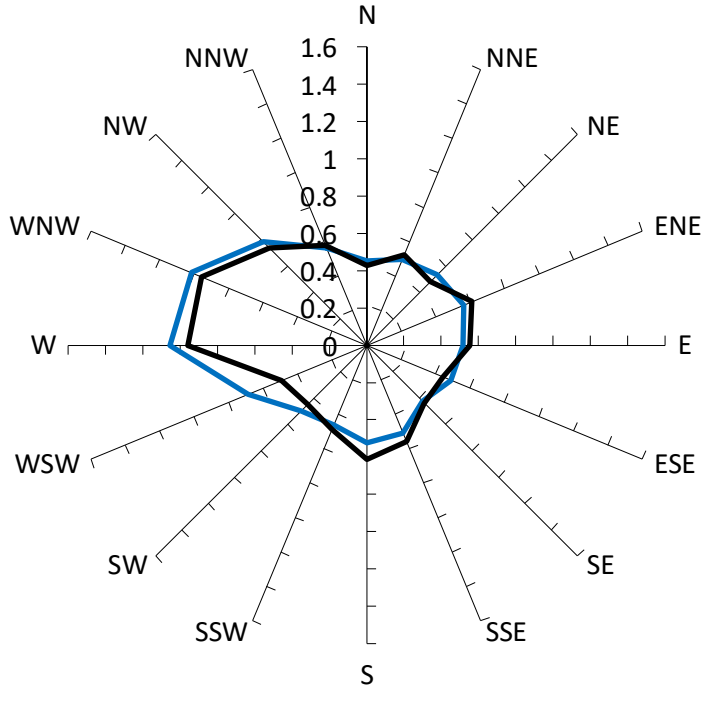
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 07



GEM Velocity Coefficients

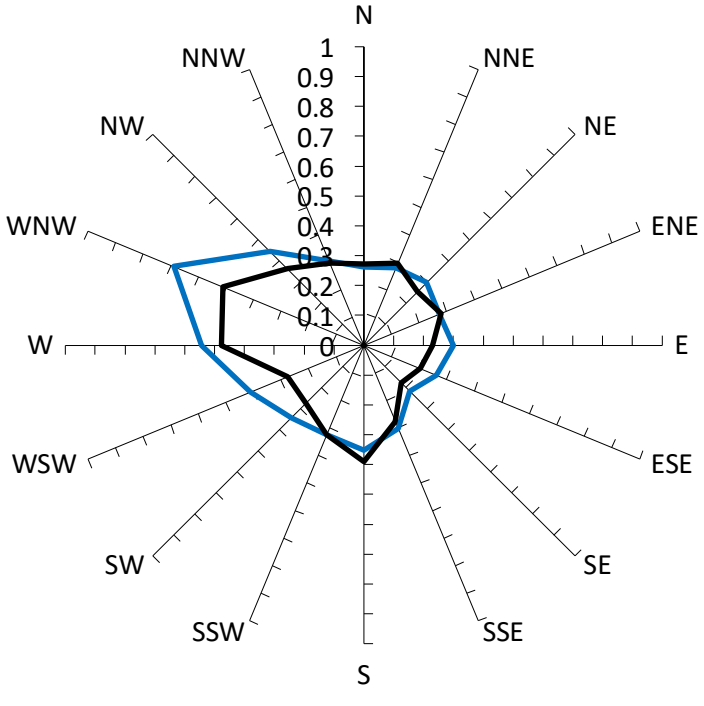


Gust Velocity Coefficients

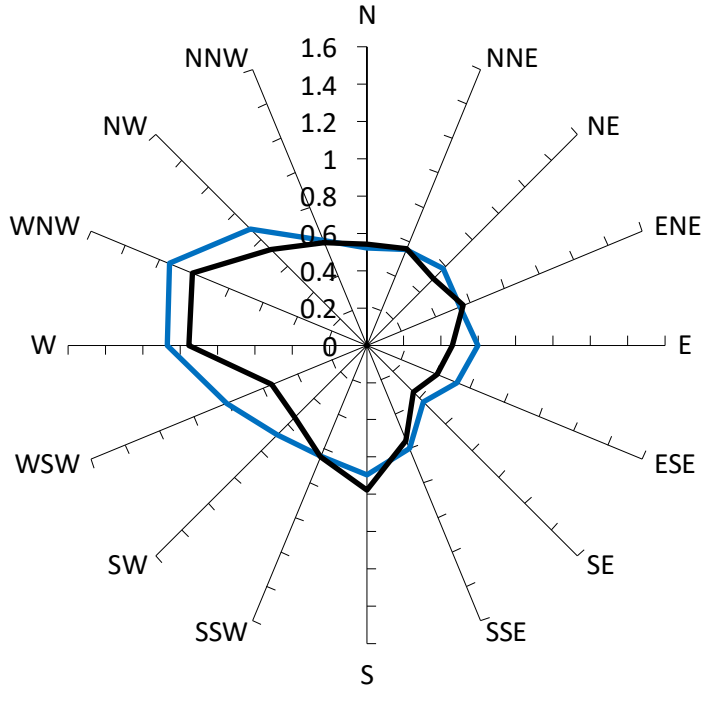
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 08



GEM Velocity Coefficients

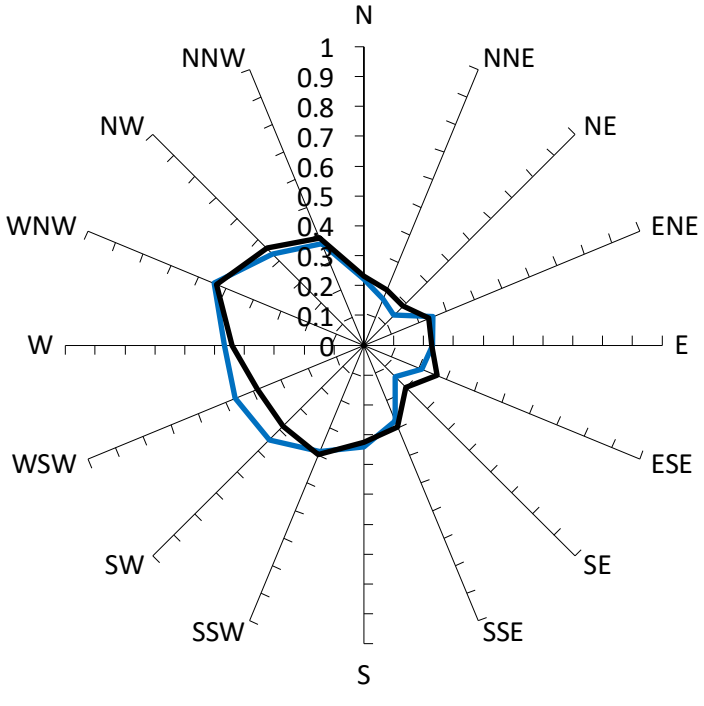


Gust Velocity Coefficients

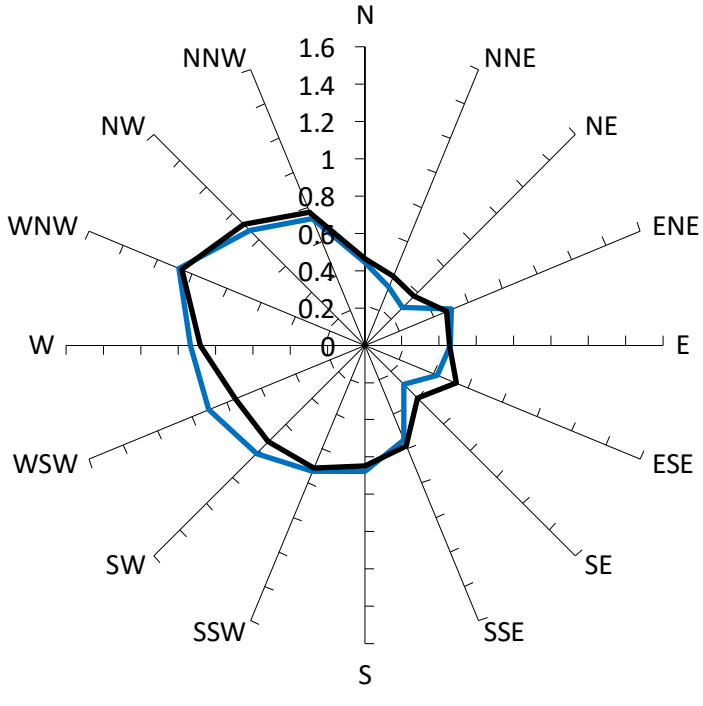
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 09



GEM Velocity Coefficients

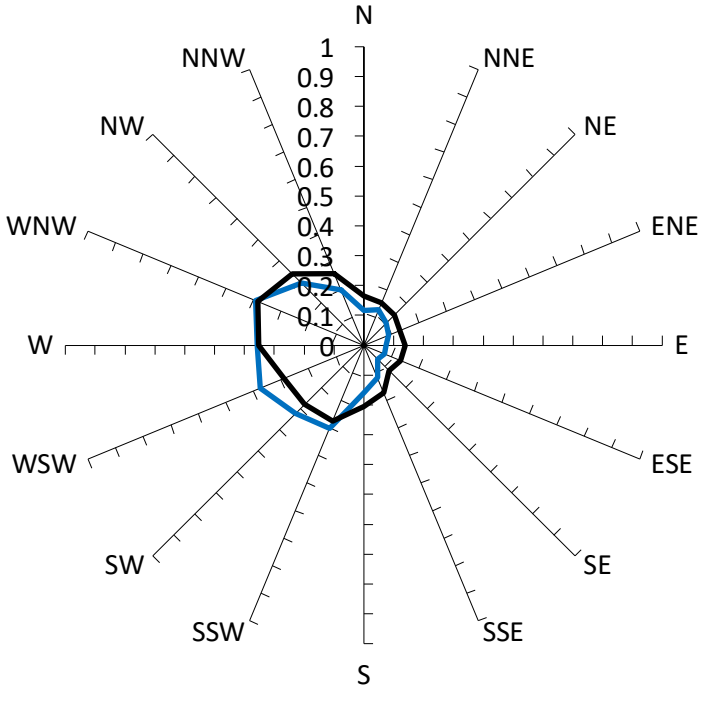


Gust Velocity Coefficients

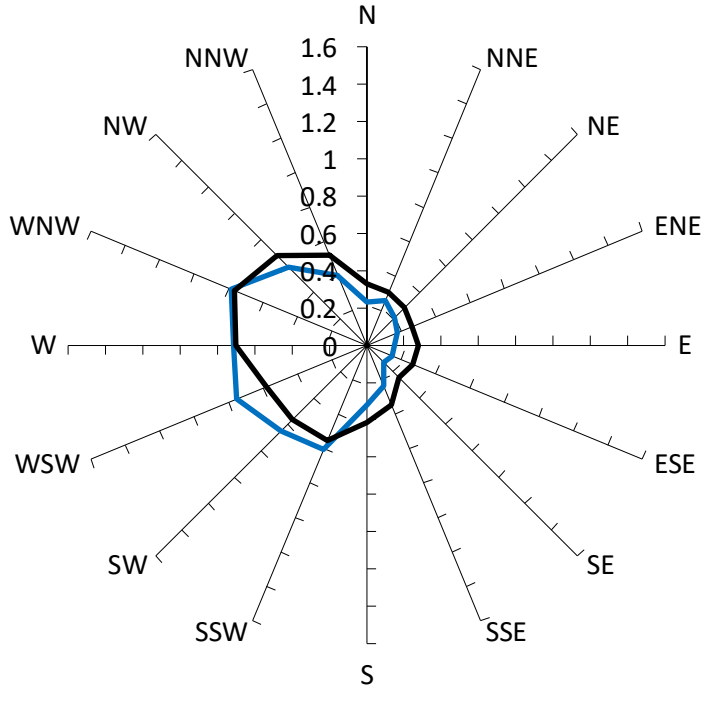
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 10



GEM Velocity Coefficients

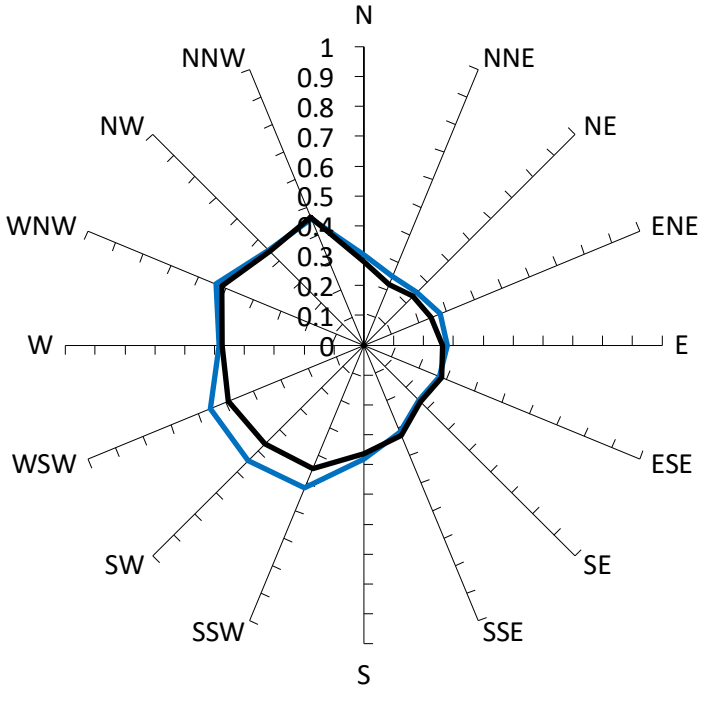


Gust Velocity Coefficients

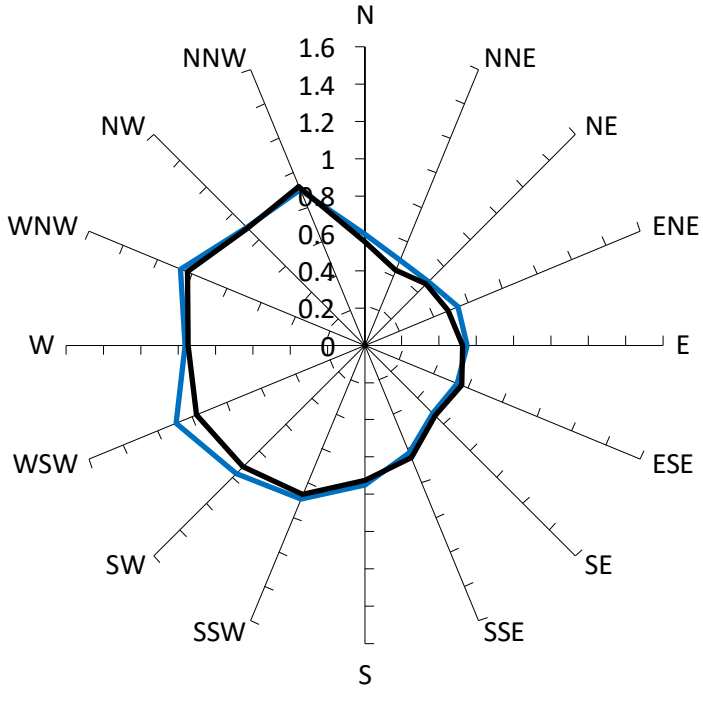
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 11



GEM Velocity Coefficients

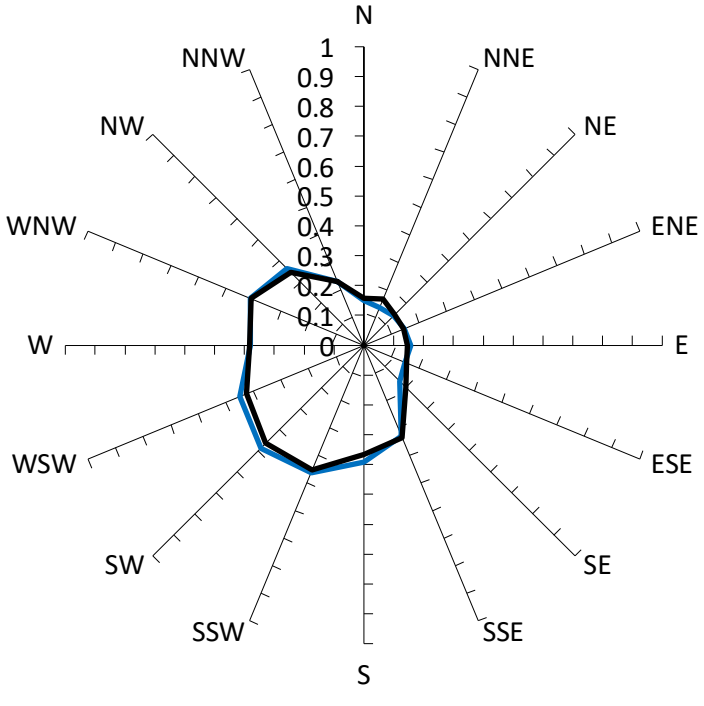


Gust Velocity Coefficients

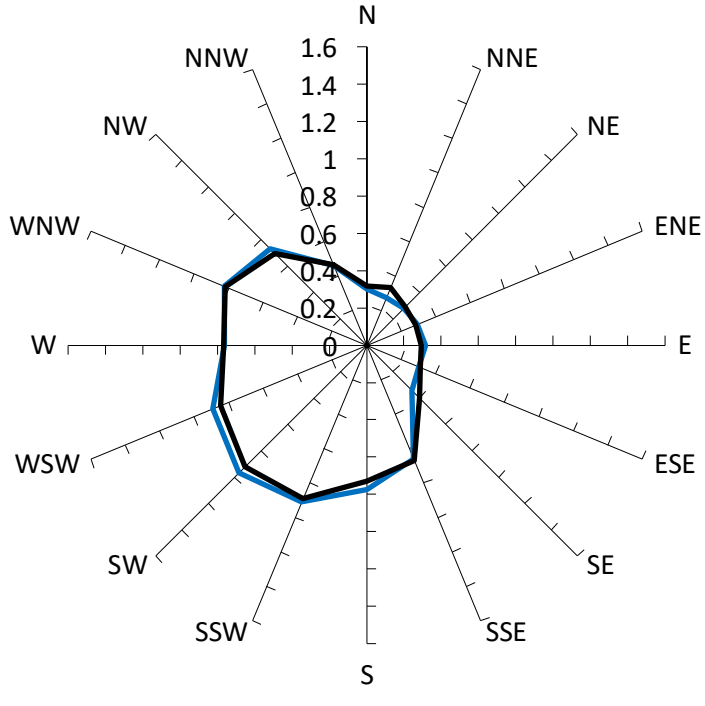
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 12



GEM Velocity Coefficients

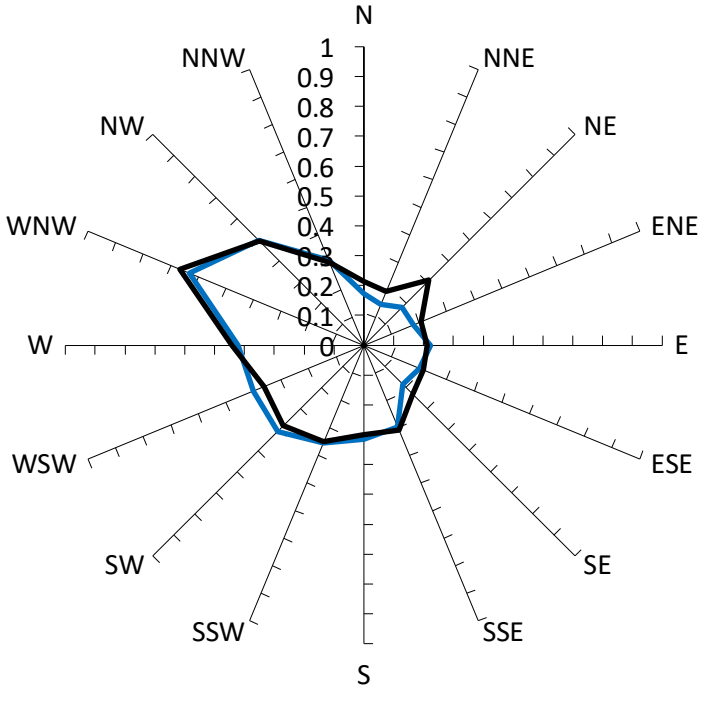


Gust Velocity Coefficients

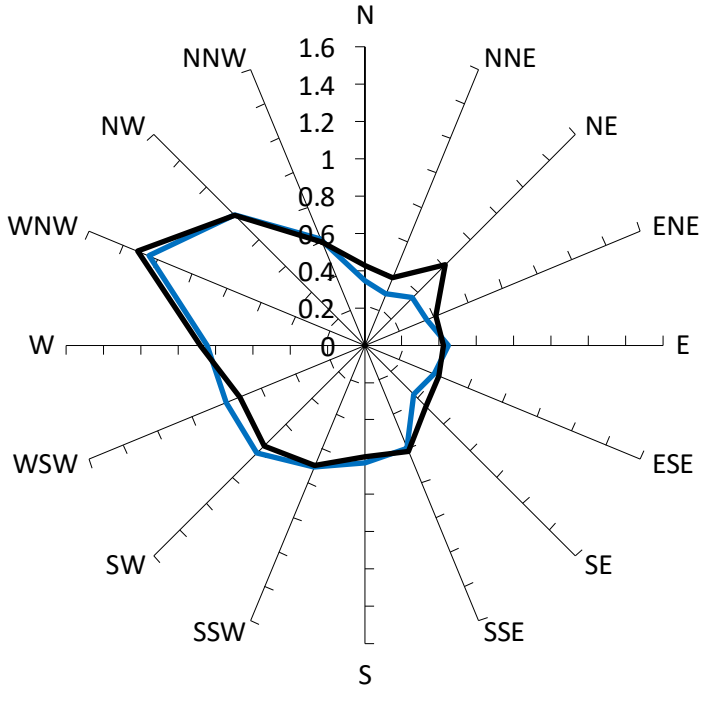
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 13



GEM Velocity Coefficients

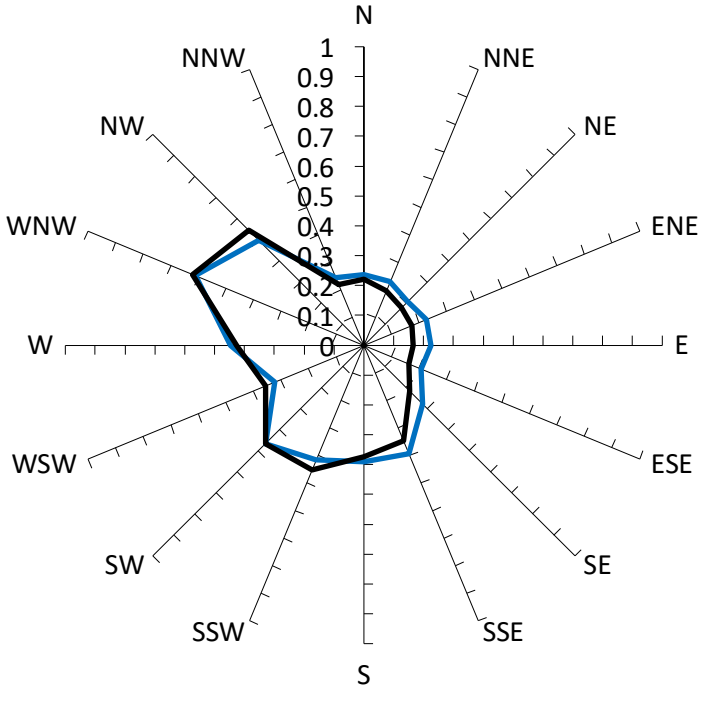


Gust Velocity Coefficients

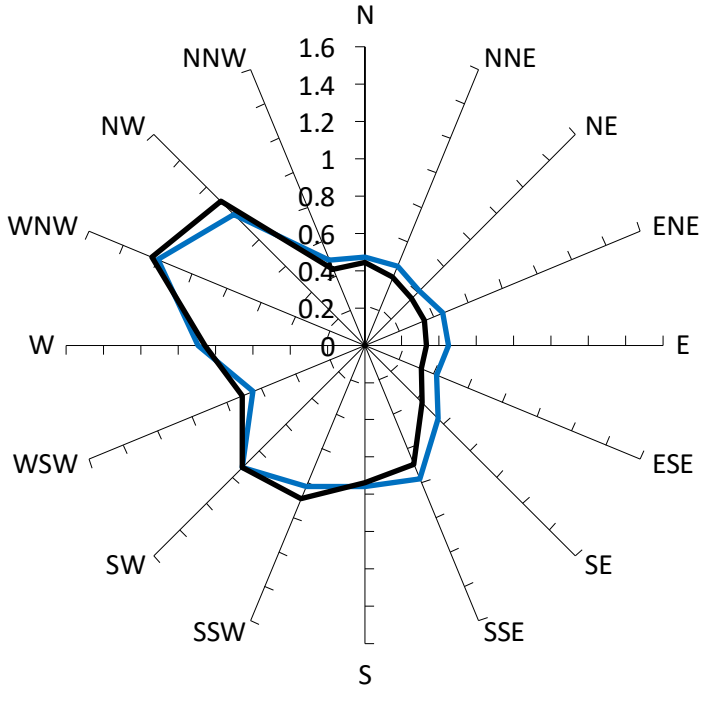
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 14



GEM Velocity Coefficients

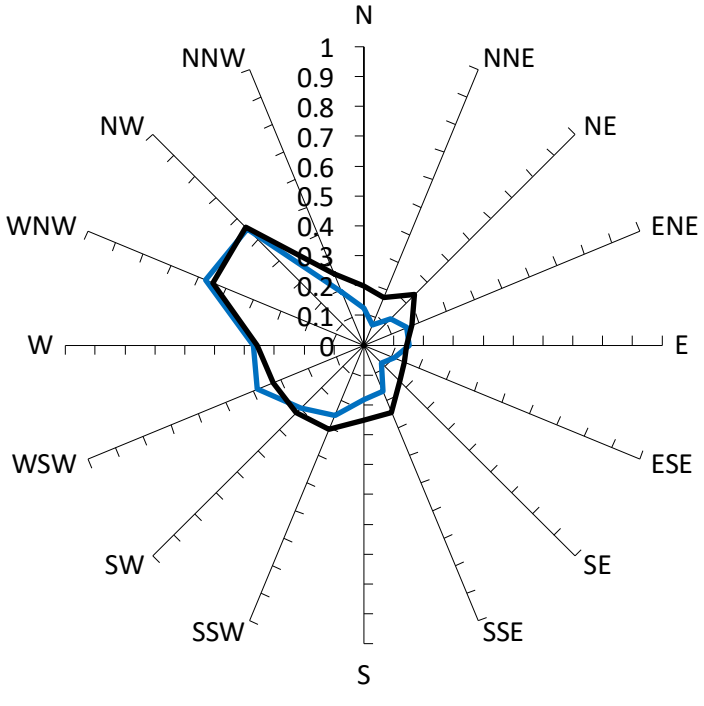


Gust Velocity Coefficients

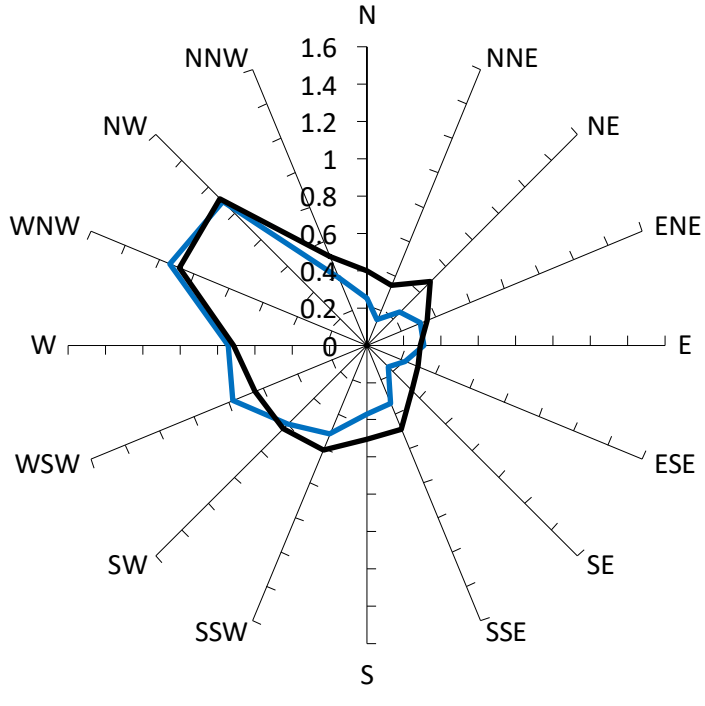
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 15



GEM Velocity Coefficients

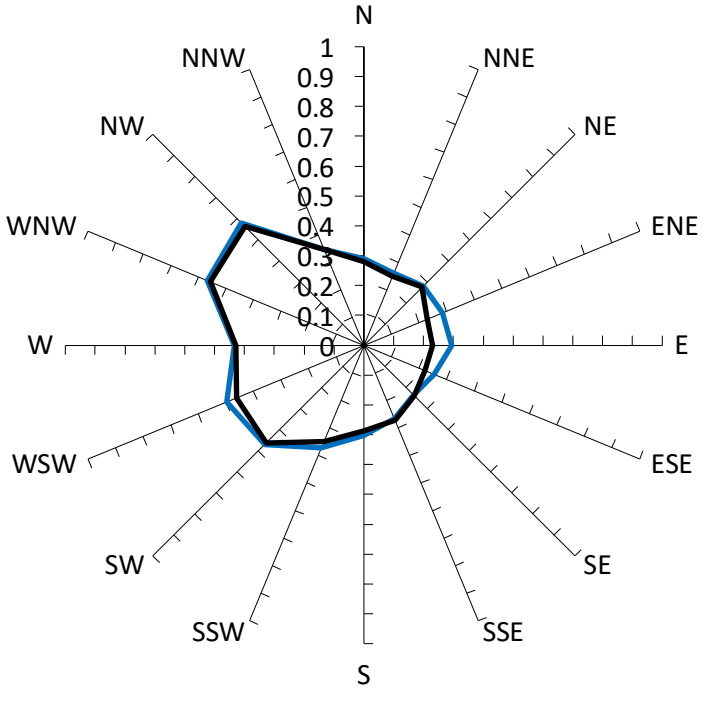


Gust Velocity Coefficients

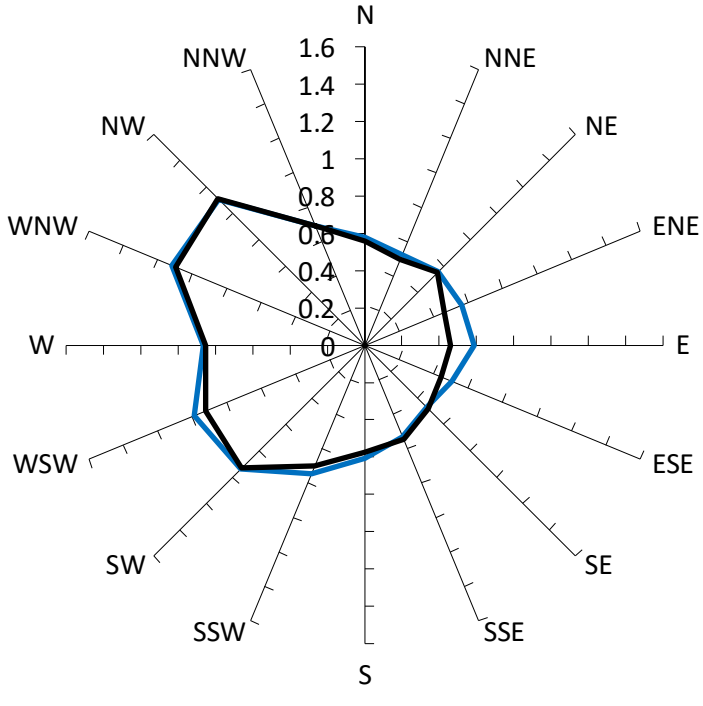
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 16



GEM Velocity Coefficients

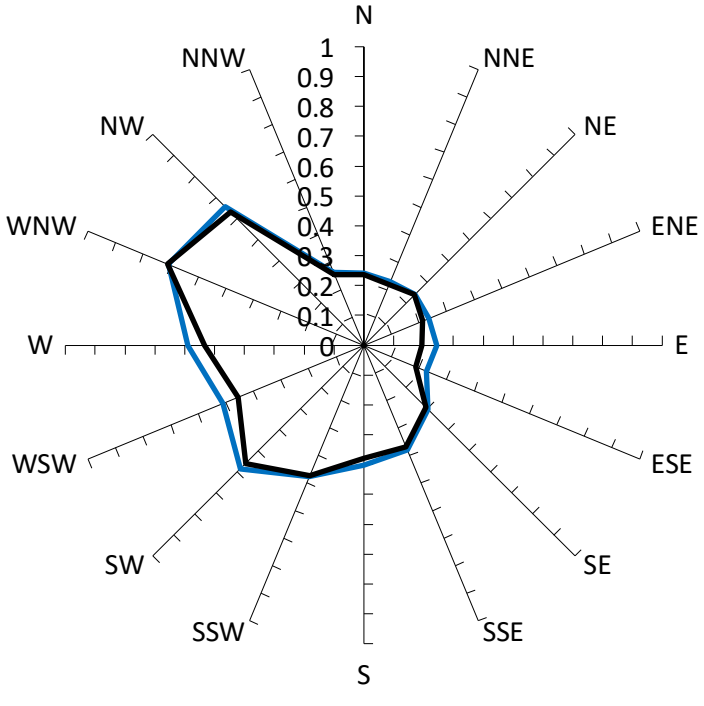


Gust Velocity Coefficients

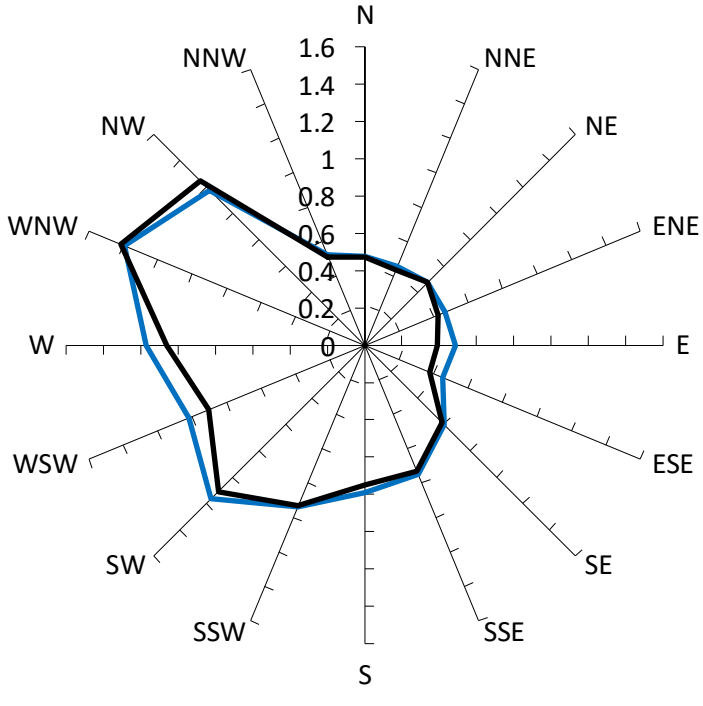
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 17



GEM Velocity Coefficients

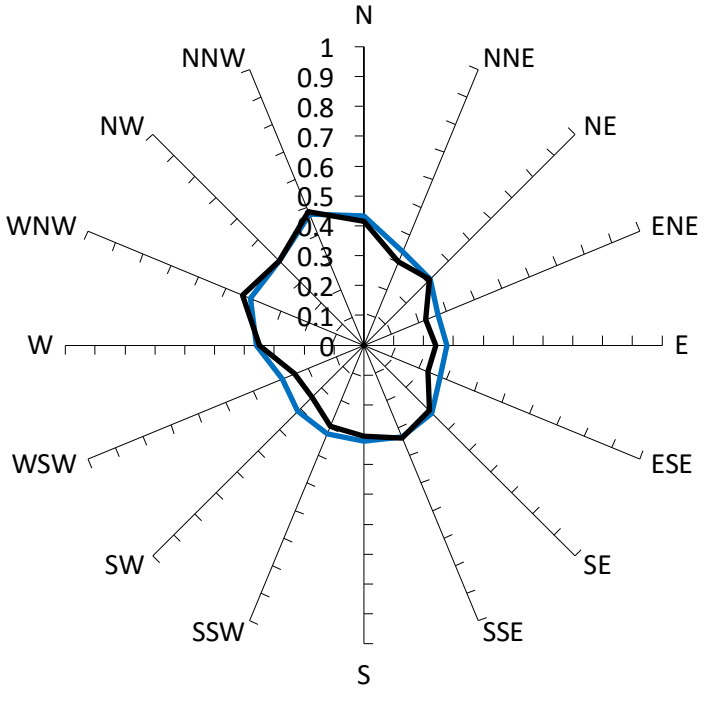


Gust Velocity Coefficients

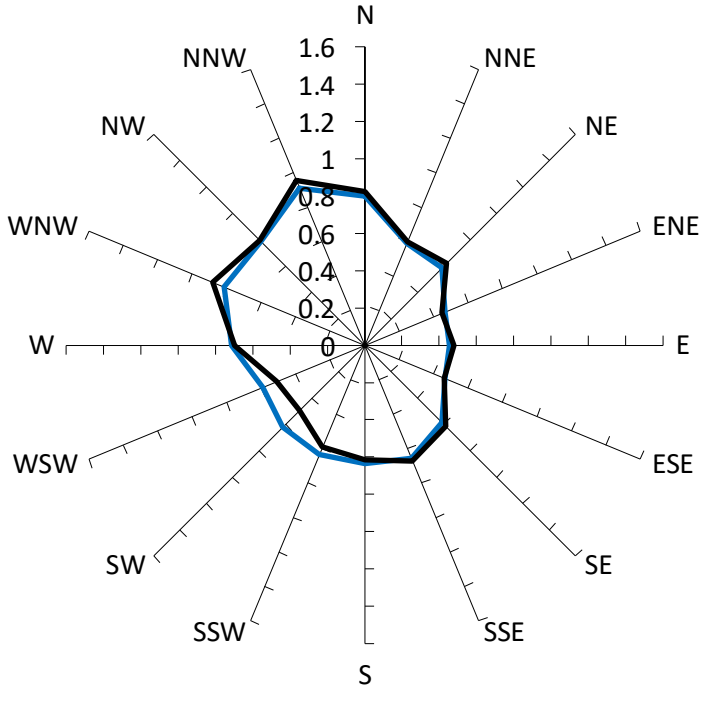
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 18



GEM Velocity Coefficients

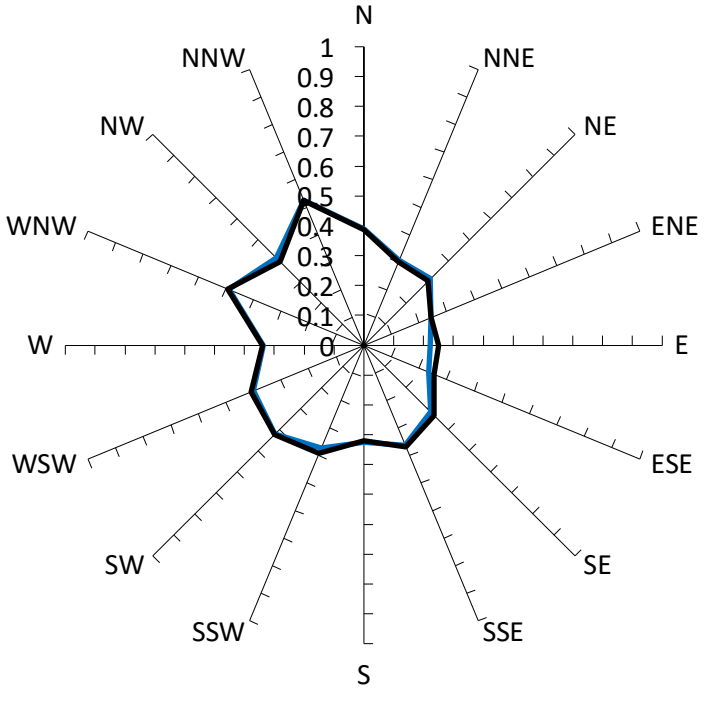


Gust Velocity Coefficients

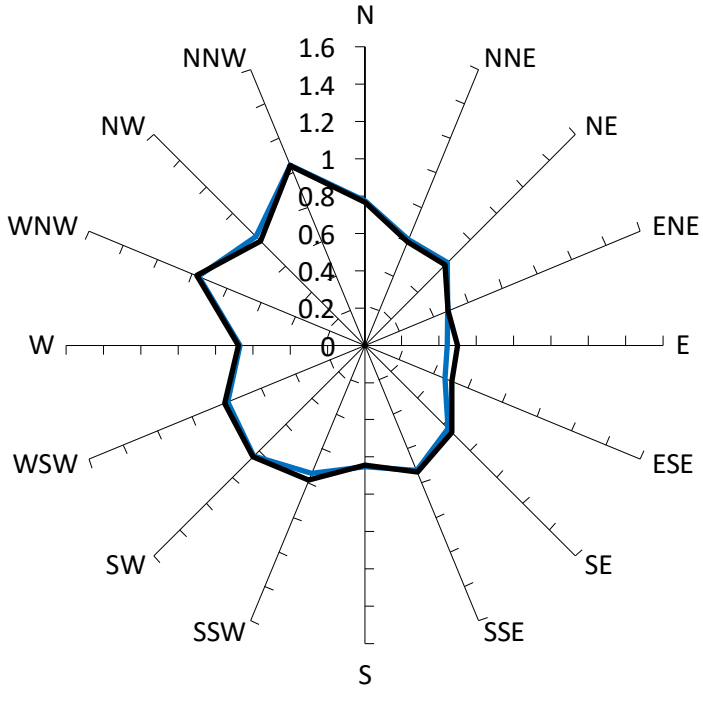
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 19



GEM Velocity Coefficients

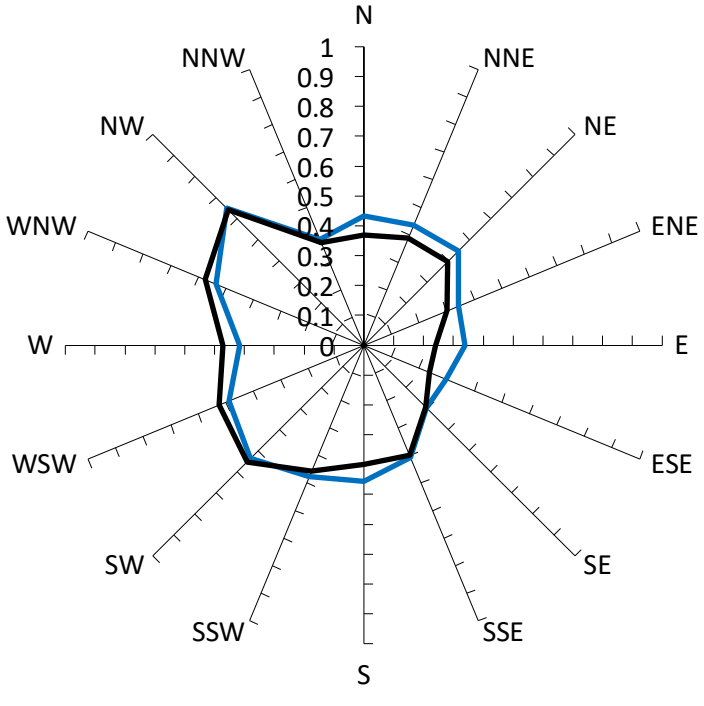


Gust Velocity Coefficients

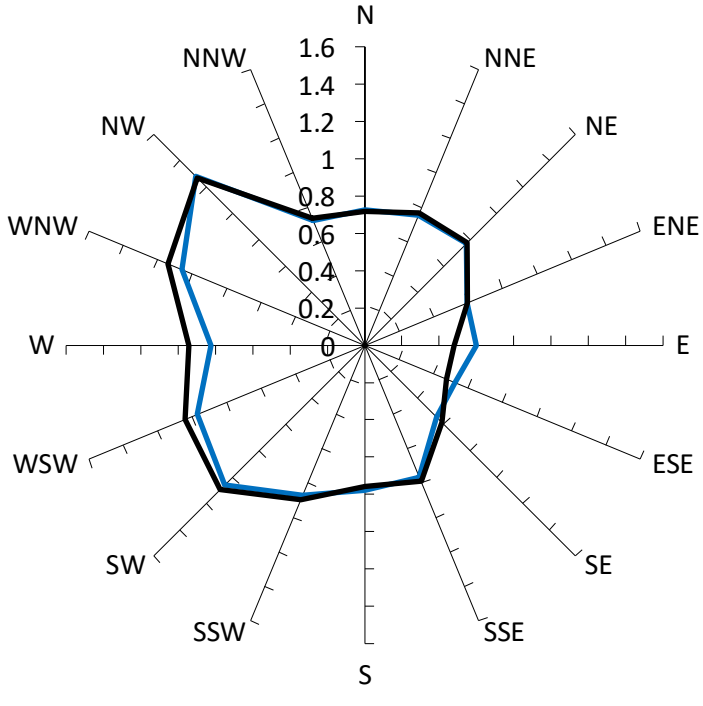
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 20



GEM Velocity Coefficients

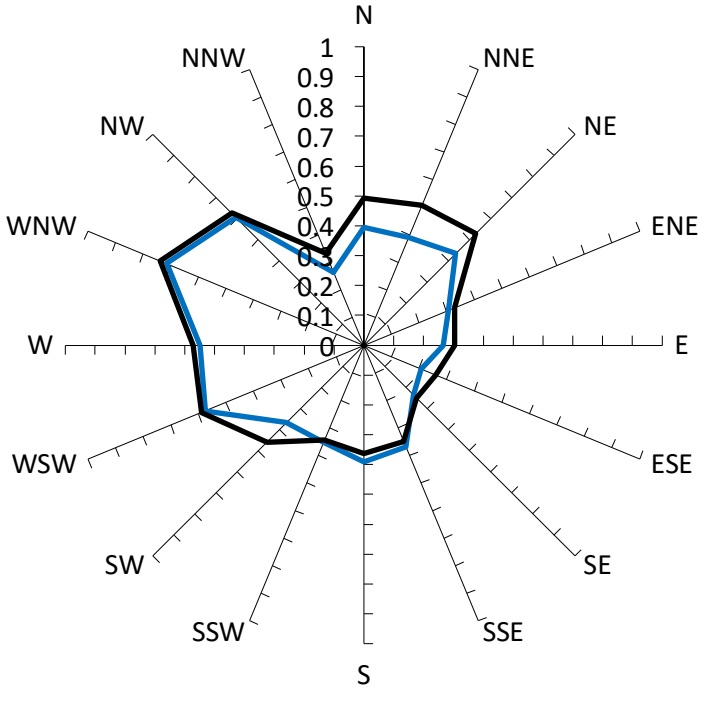


Gust Velocity Coefficients

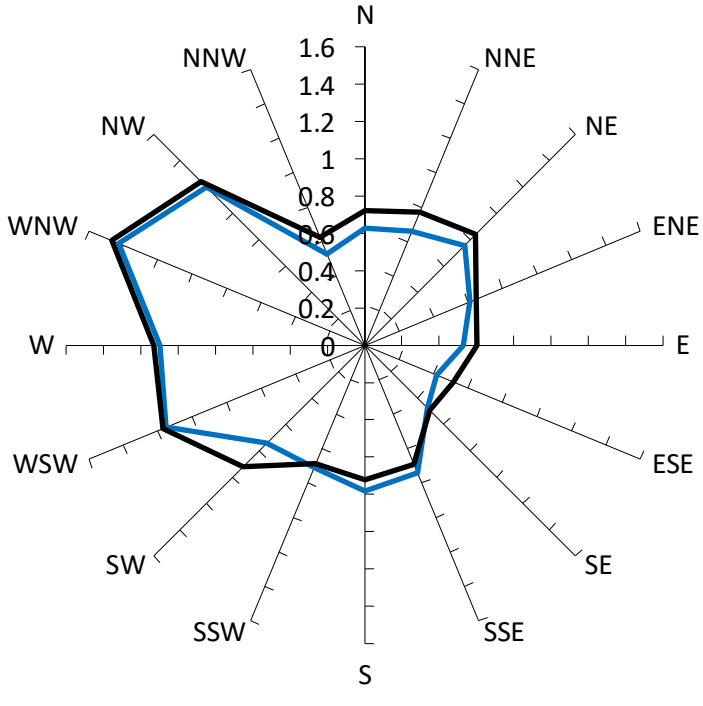
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 21



GEM Velocity Coefficients

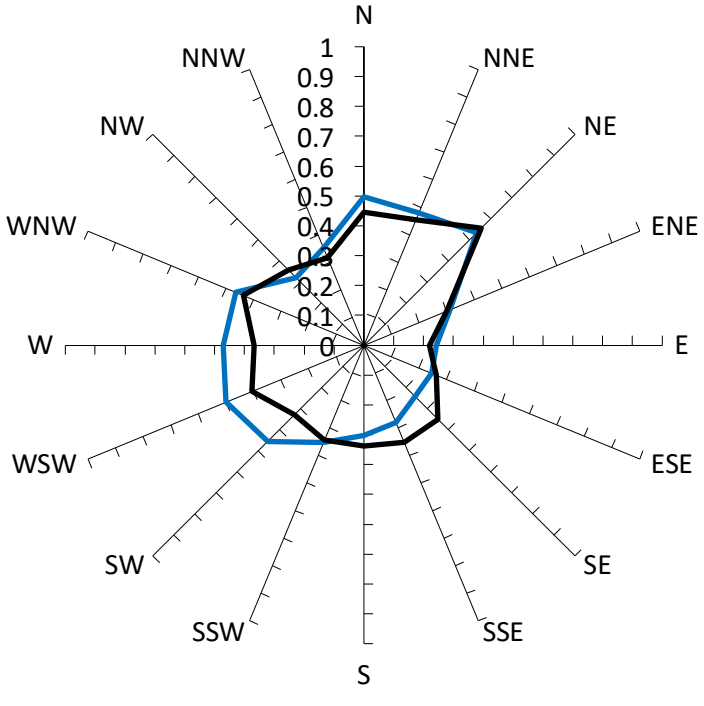


Gust Velocity Coefficients

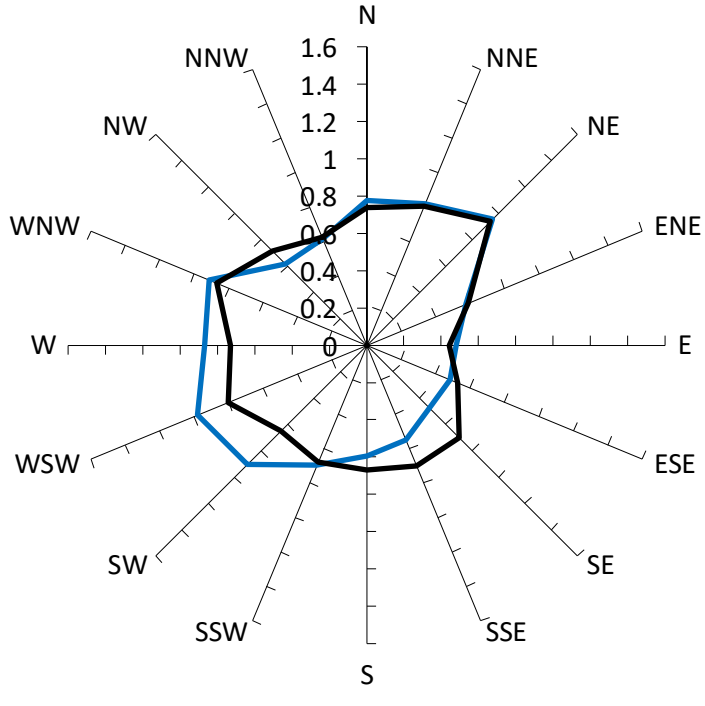
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 22



GEM Velocity Coefficients

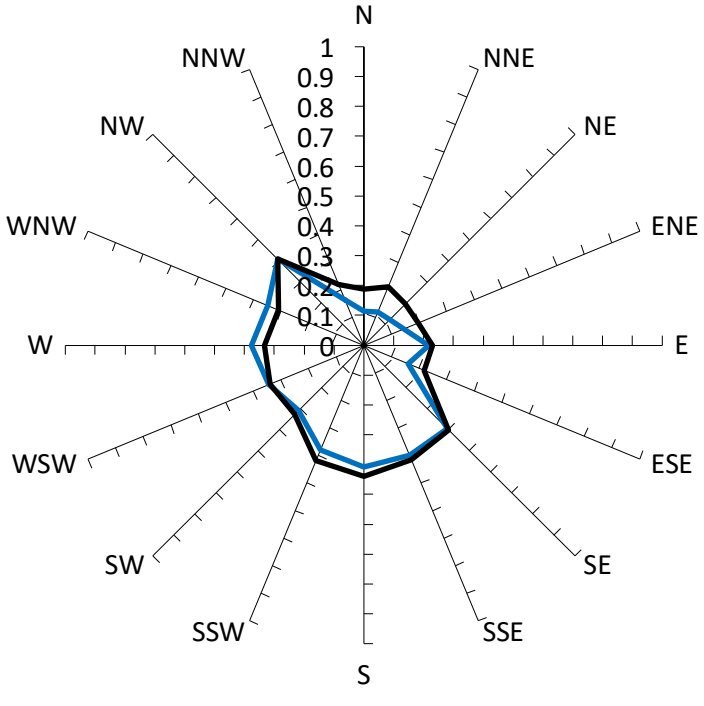


Gust Velocity Coefficients

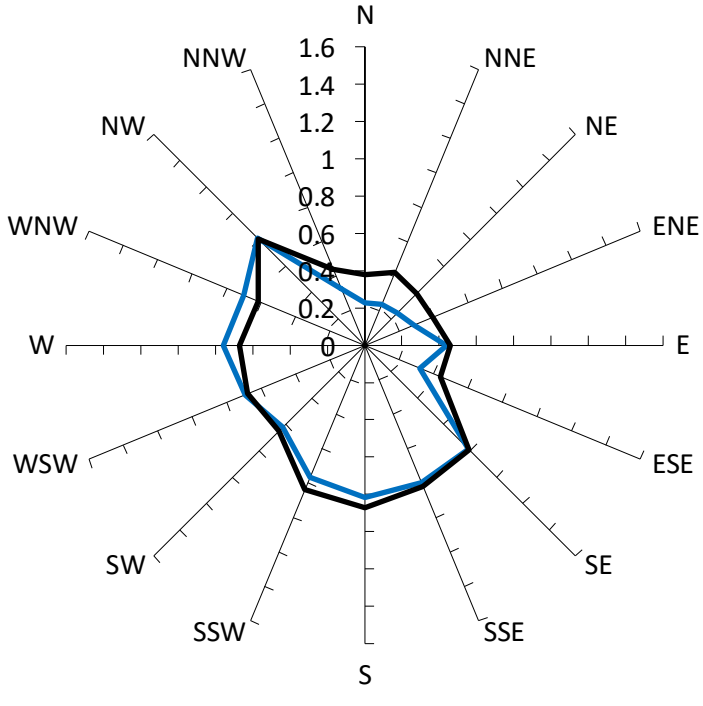
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 23



GEM Velocity Coefficients

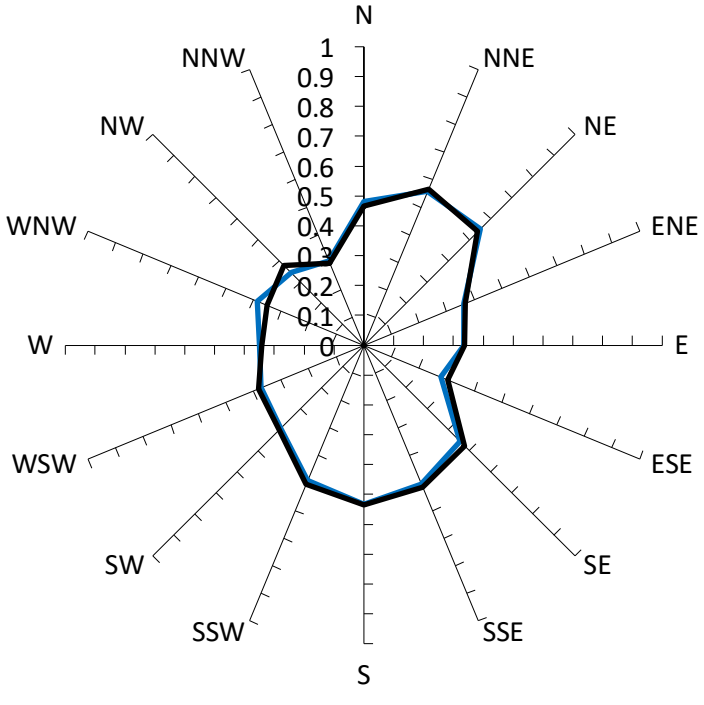


Gust Velocity Coefficients

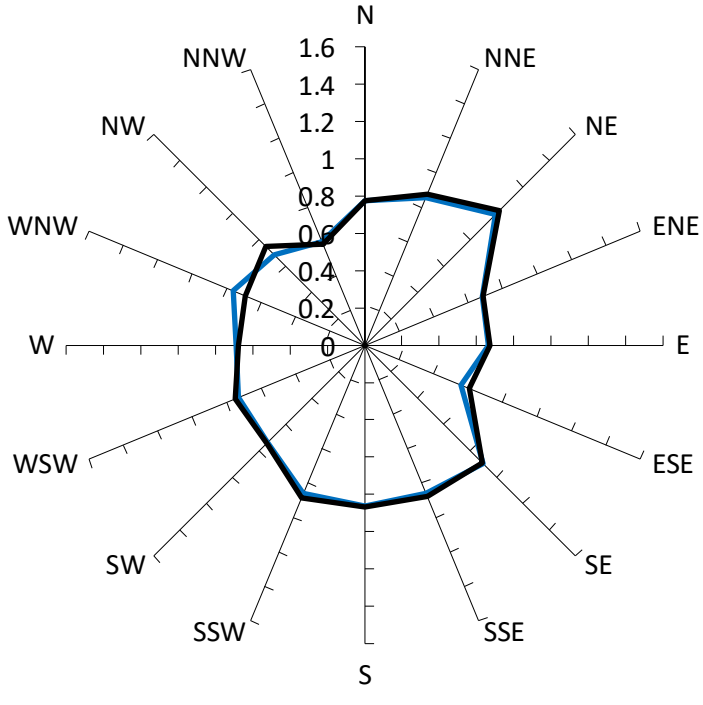
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 24



GEM Velocity Coefficients

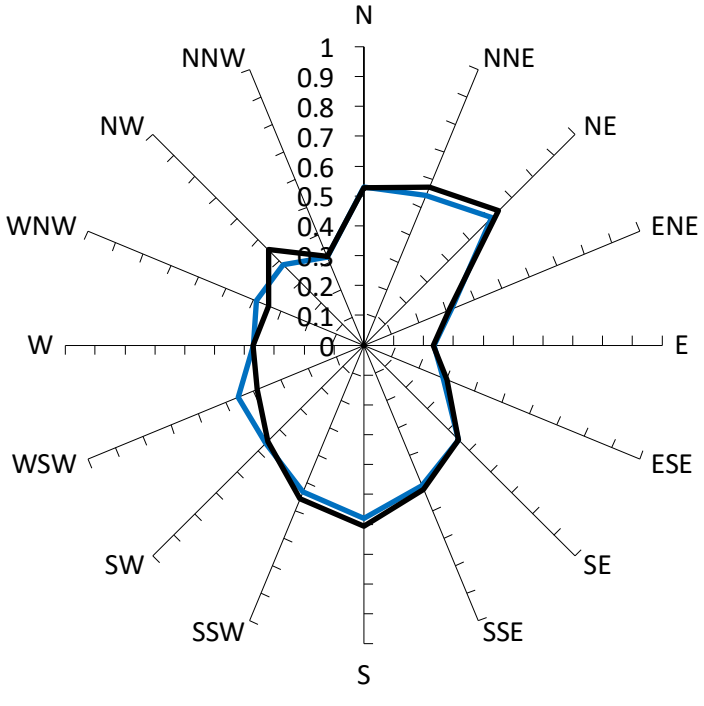


Gust Velocity Coefficients

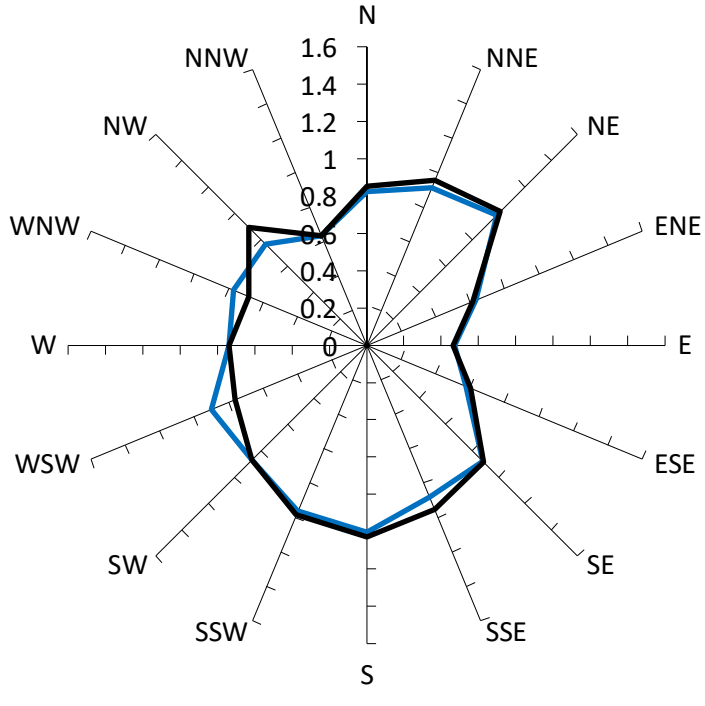
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 25



GEM Velocity Coefficients

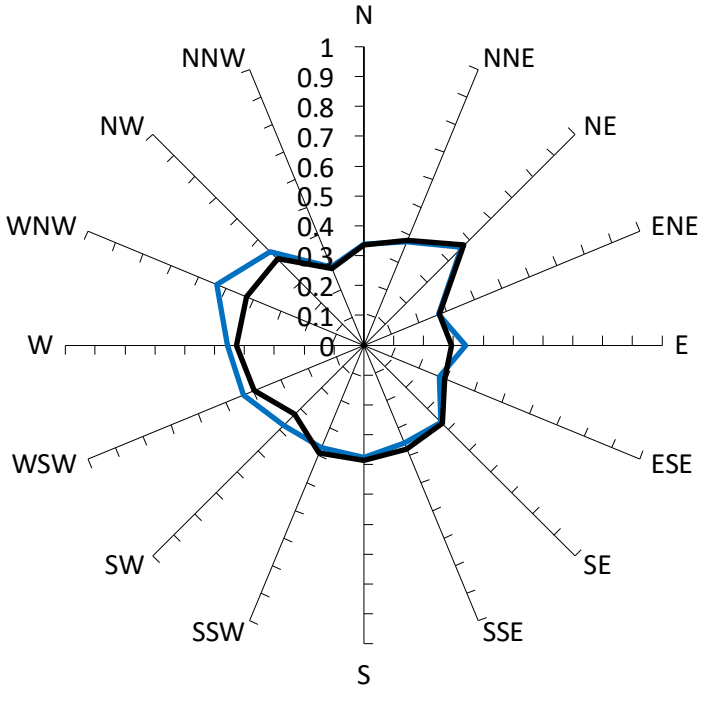


Gust Velocity Coefficients

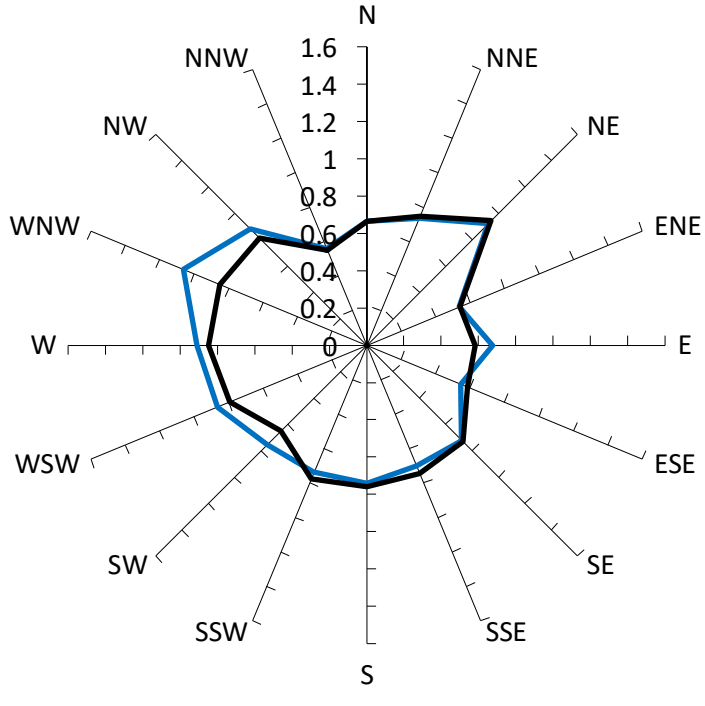
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 26



GEM Velocity Coefficients

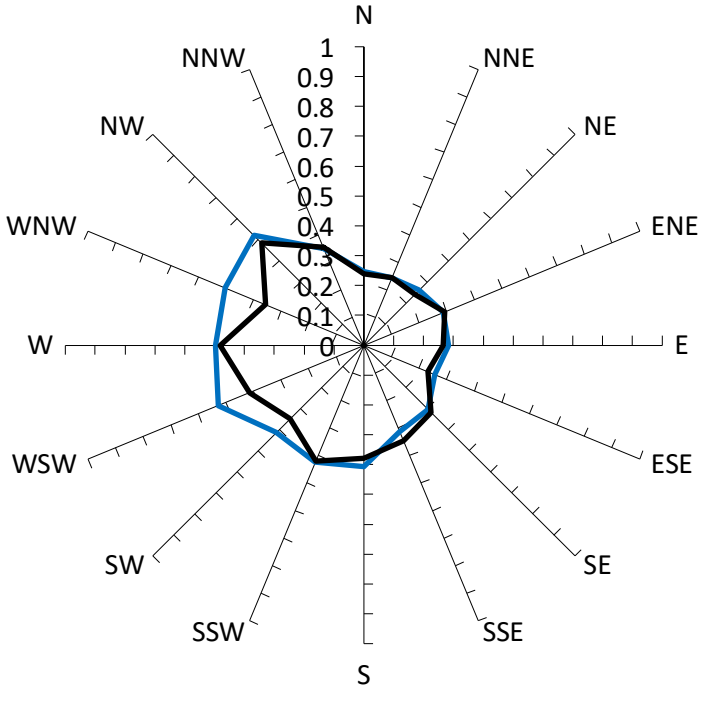


Gust Velocity Coefficients

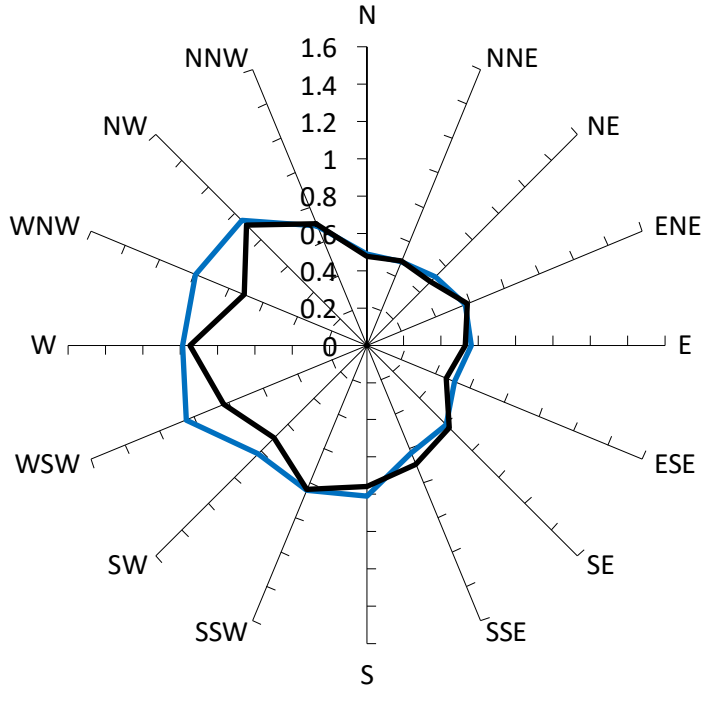
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 27



GEM Velocity Coefficients

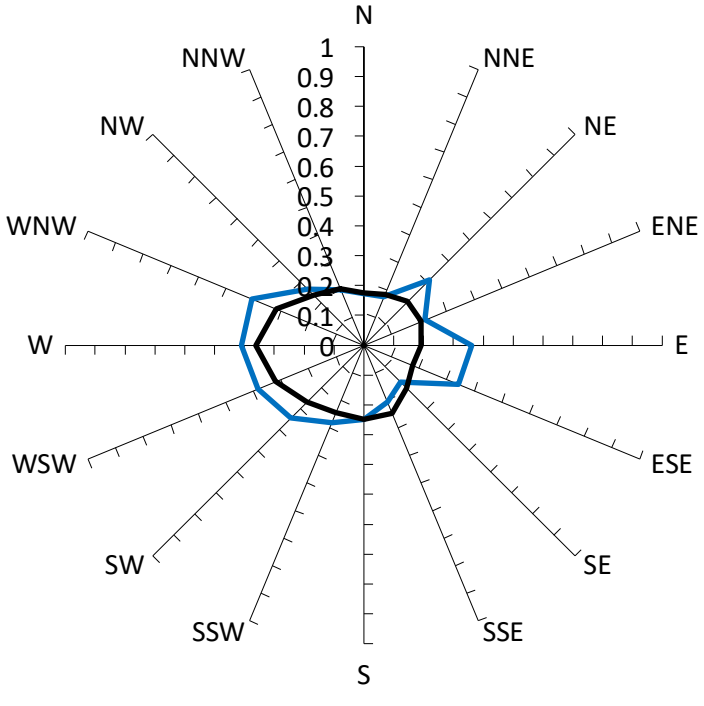


Gust Velocity Coefficients

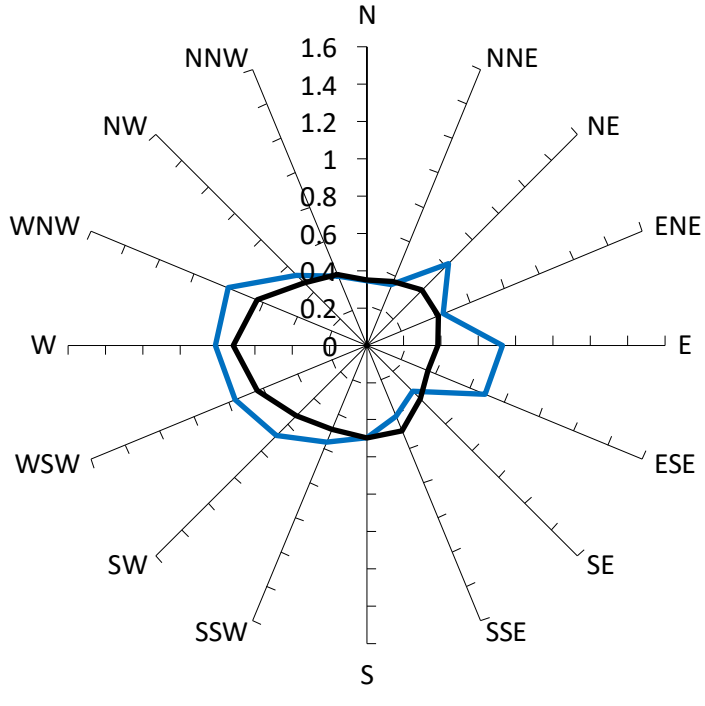
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 28



GEM Velocity Coefficients

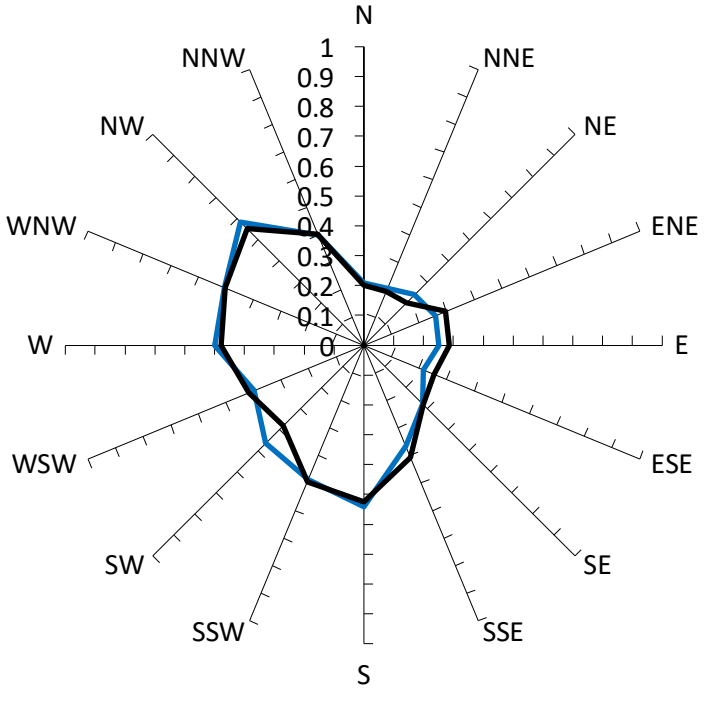


Gust Velocity Coefficients

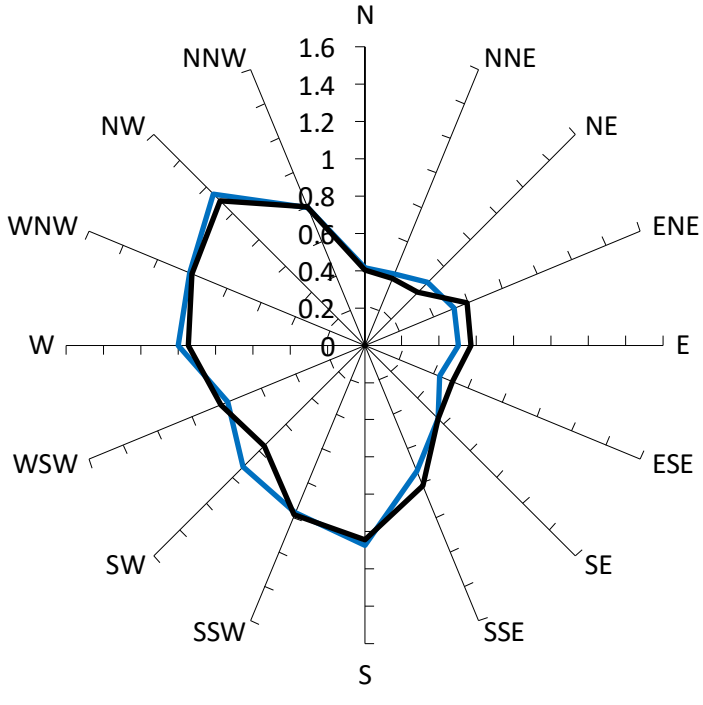
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 29



GEM Velocity Coefficients

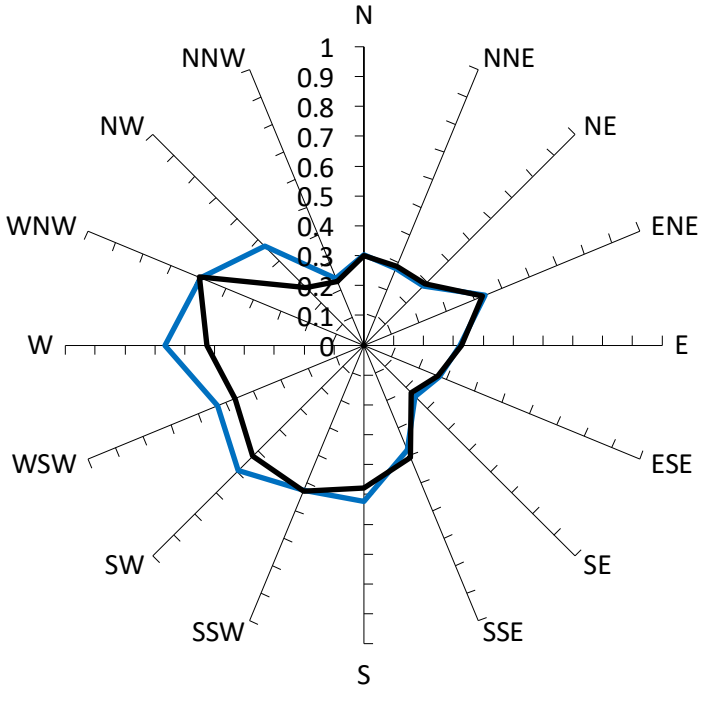


Gust Velocity Coefficients

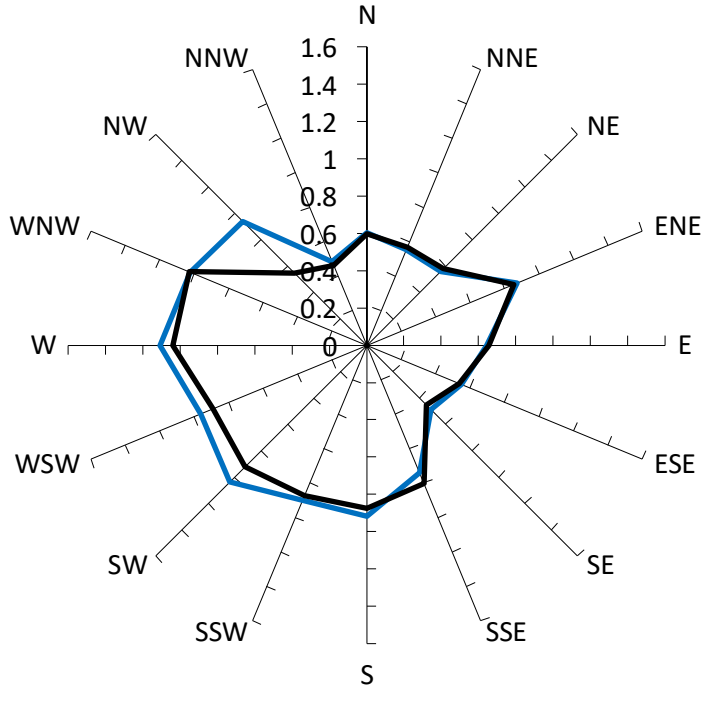
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 30



GEM Velocity Coefficients

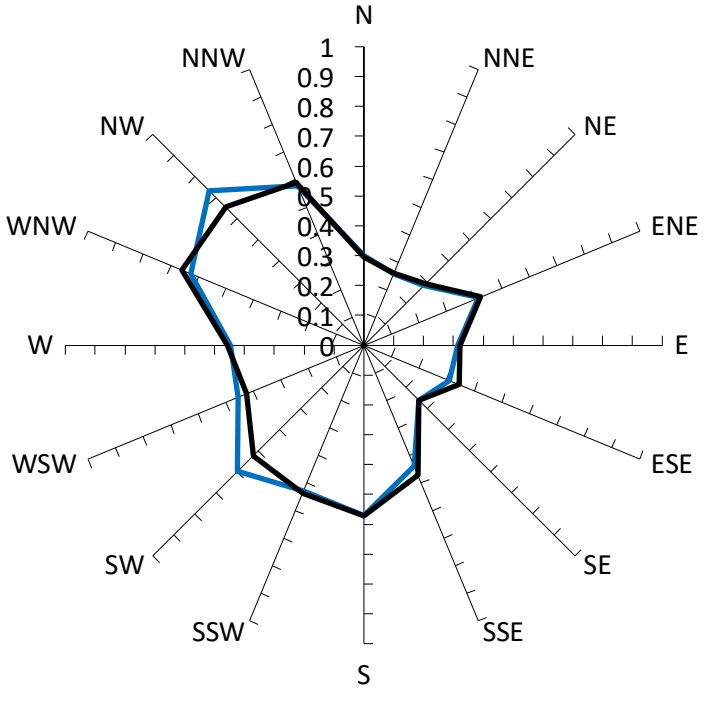


Gust Velocity Coefficients

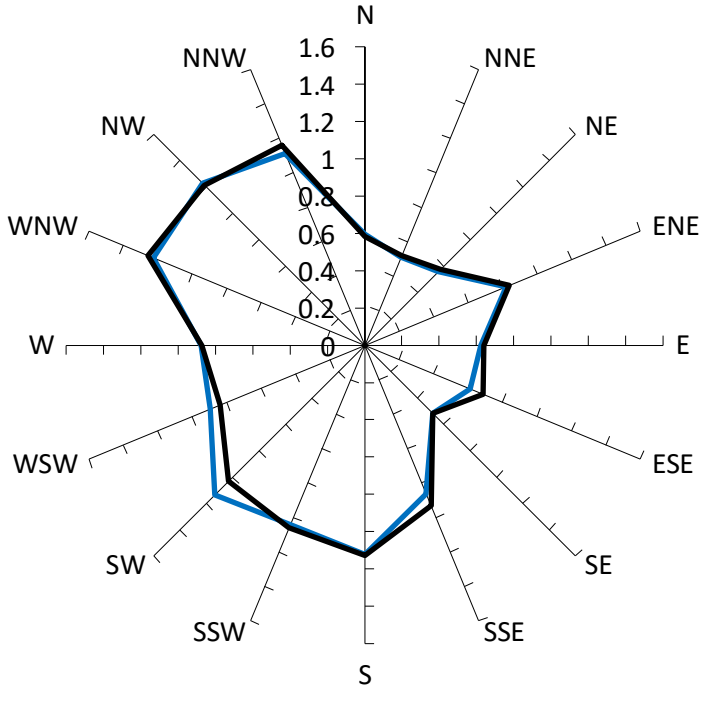
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 31



GEM Velocity Coefficients

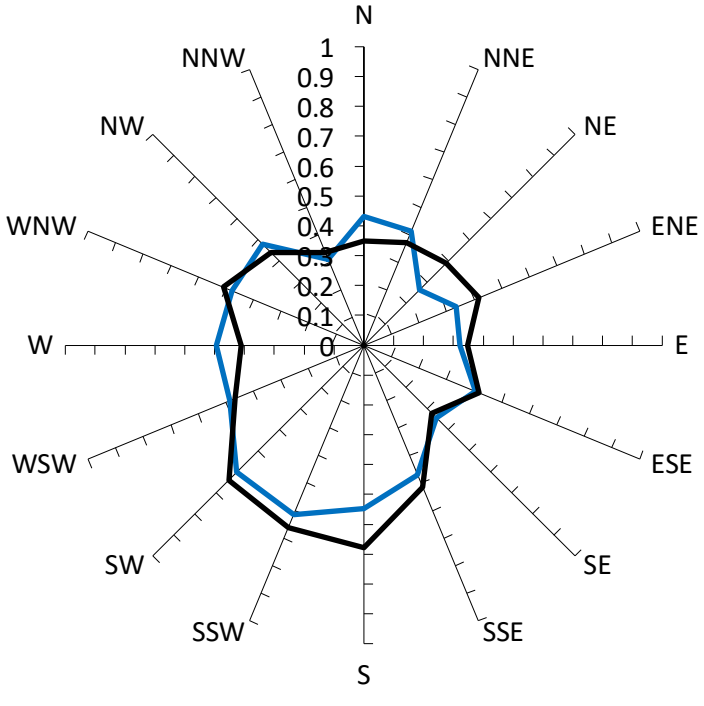


Gust Velocity Coefficients

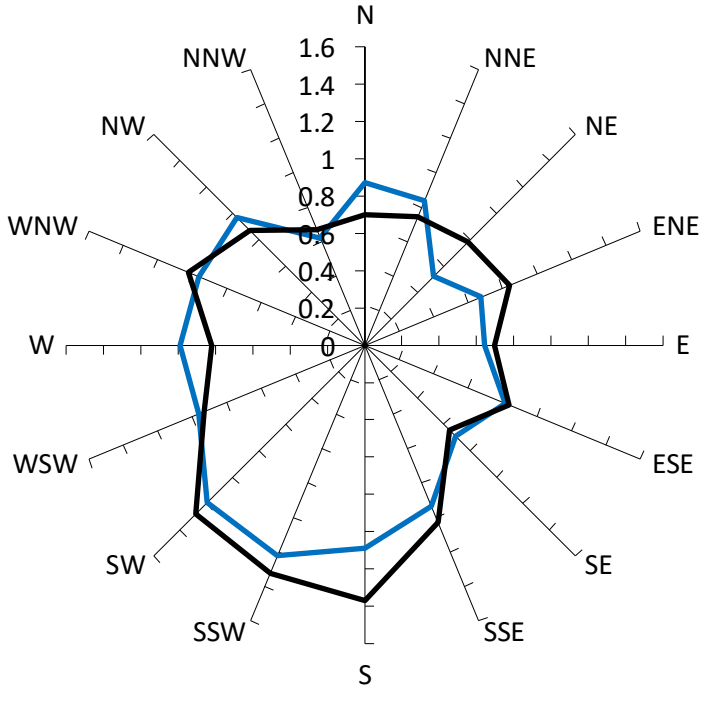
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 32



GEM Velocity Coefficients

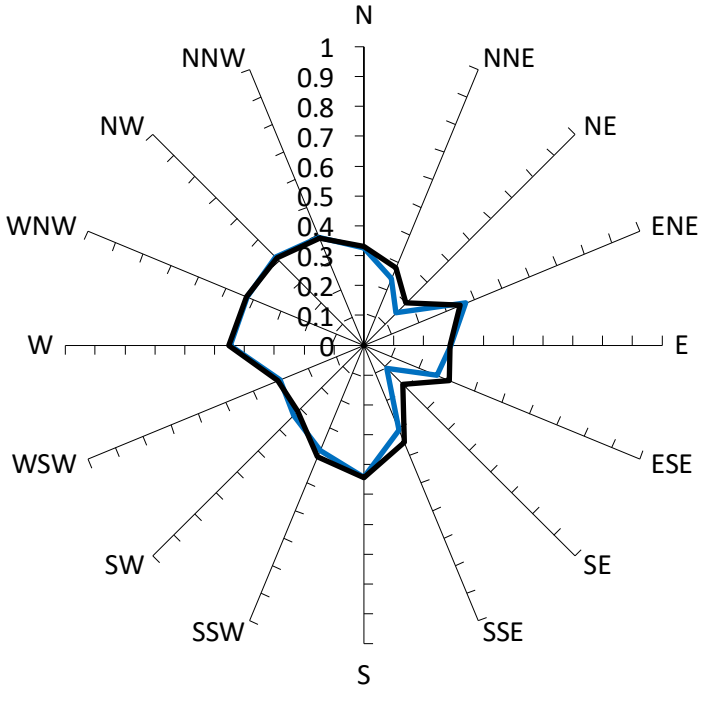


Gust Velocity Coefficients

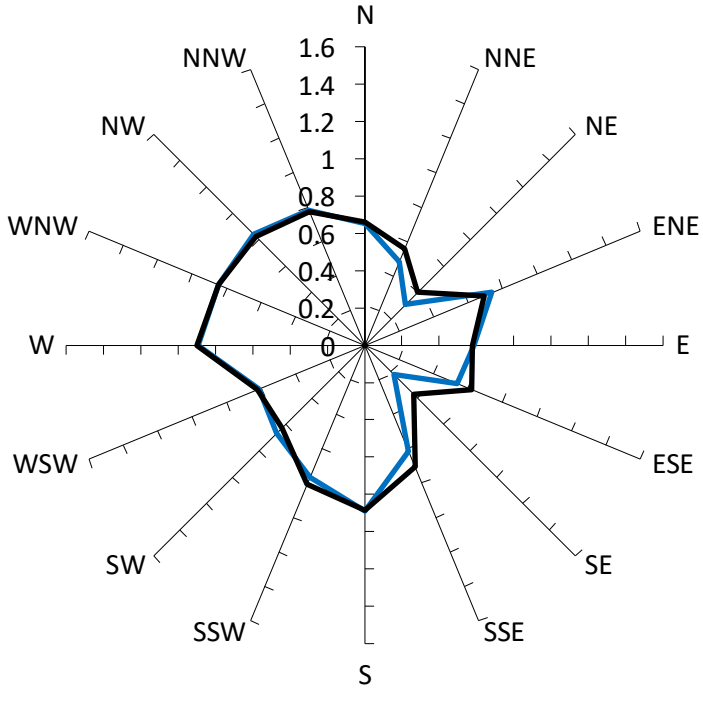
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 33



GEM Velocity Coefficients

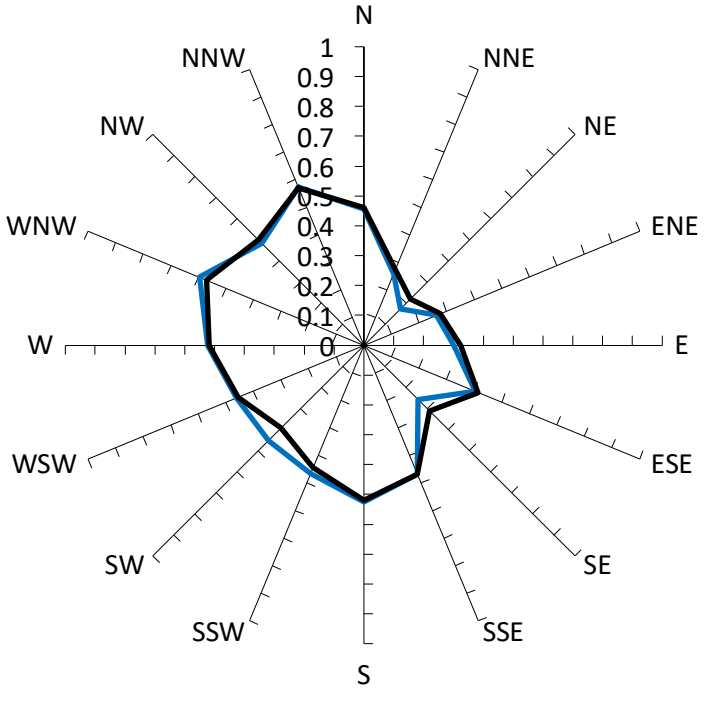


Gust Velocity Coefficients

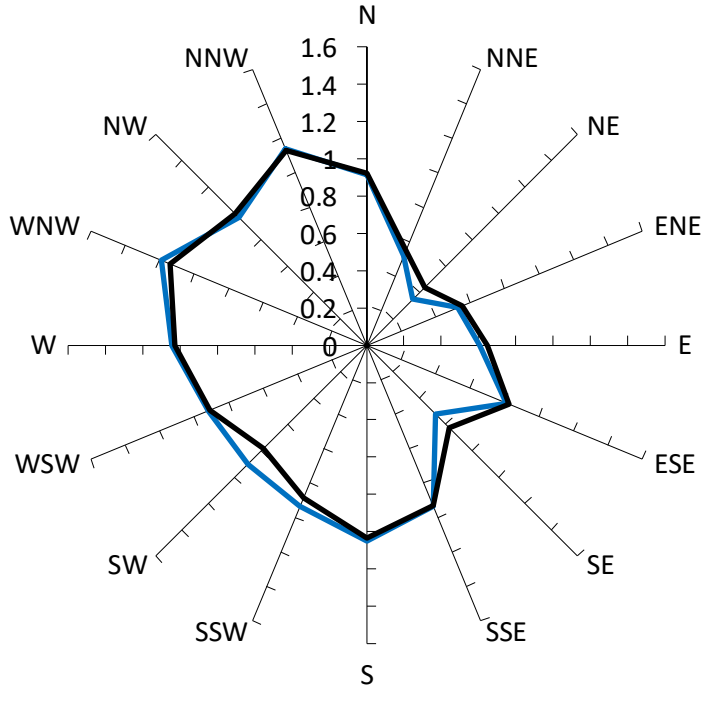
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 34



GEM Velocity Coefficients

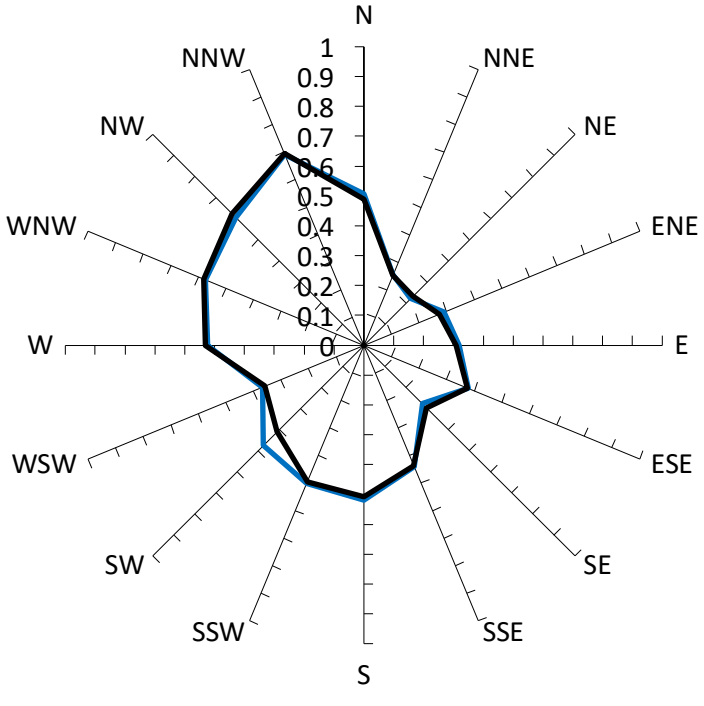


Gust Velocity Coefficients

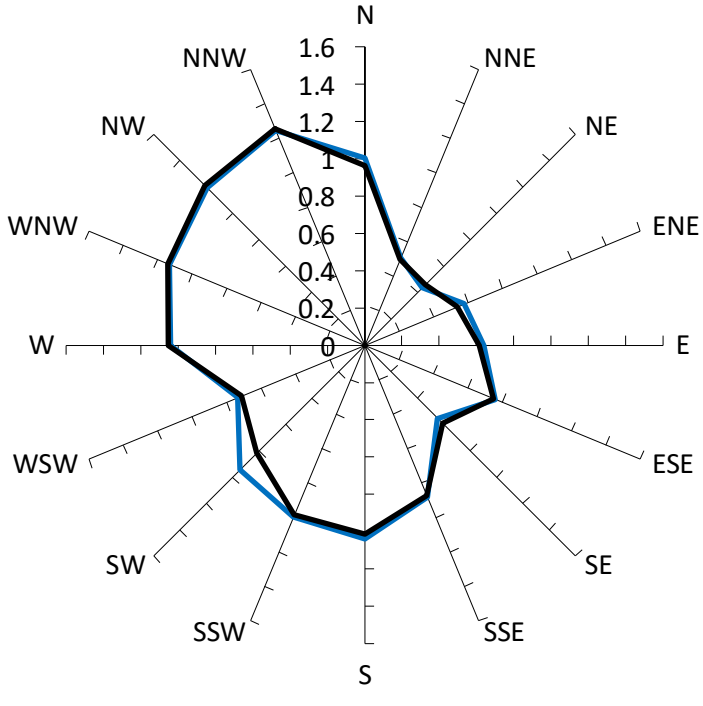
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 35



GEM Velocity Coefficients

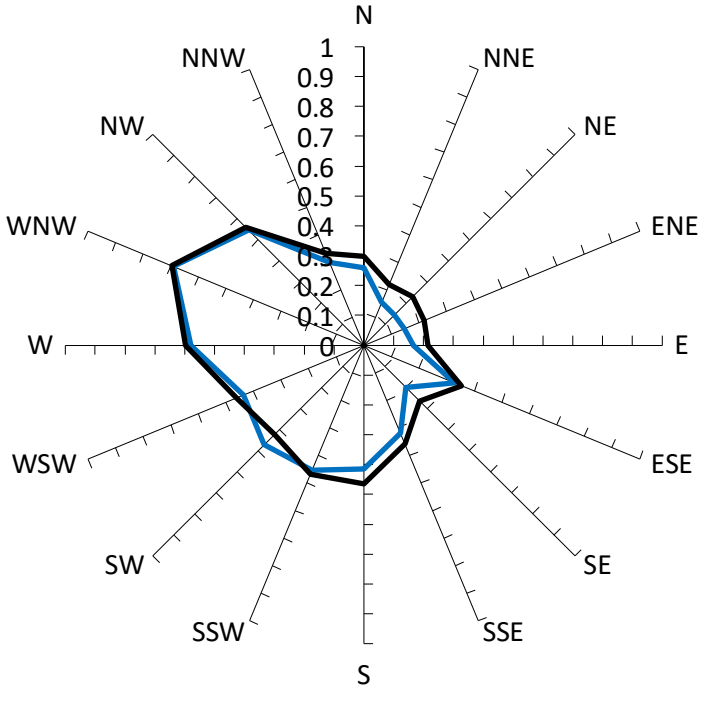


Gust Velocity Coefficients

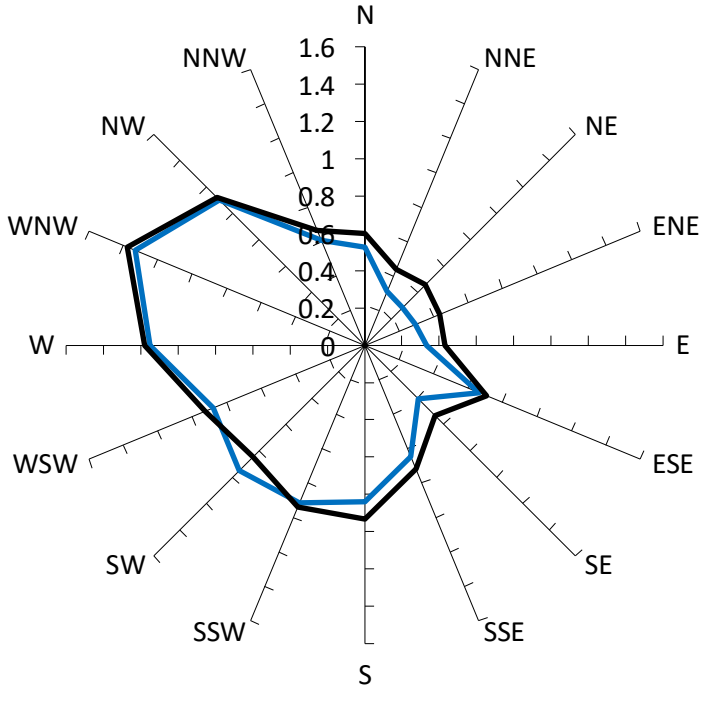
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 36



GEM Velocity Coefficients

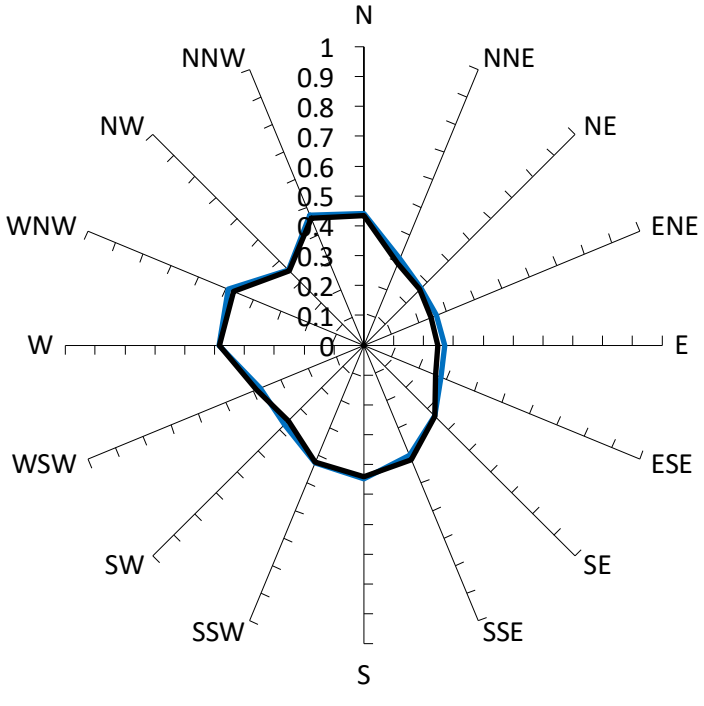


Gust Velocity Coefficients

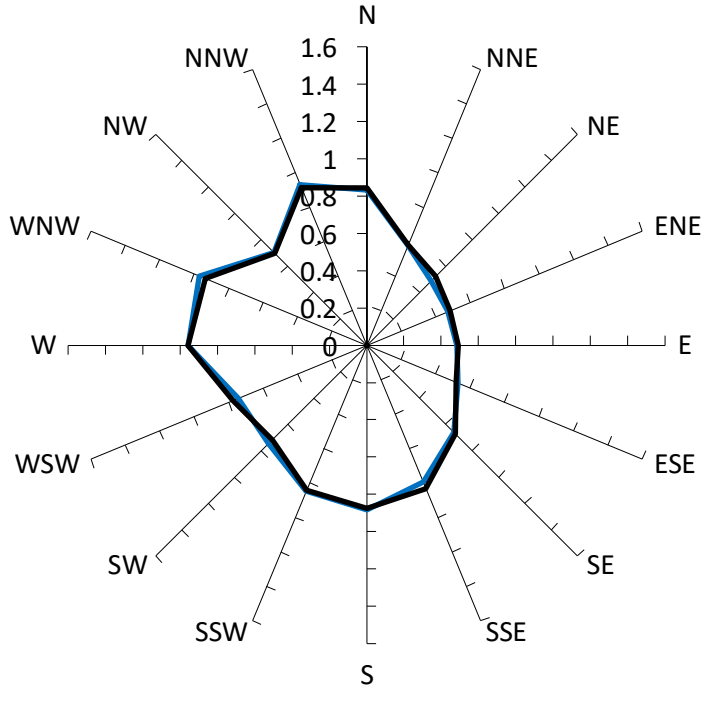
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 37



GEM Velocity Coefficients

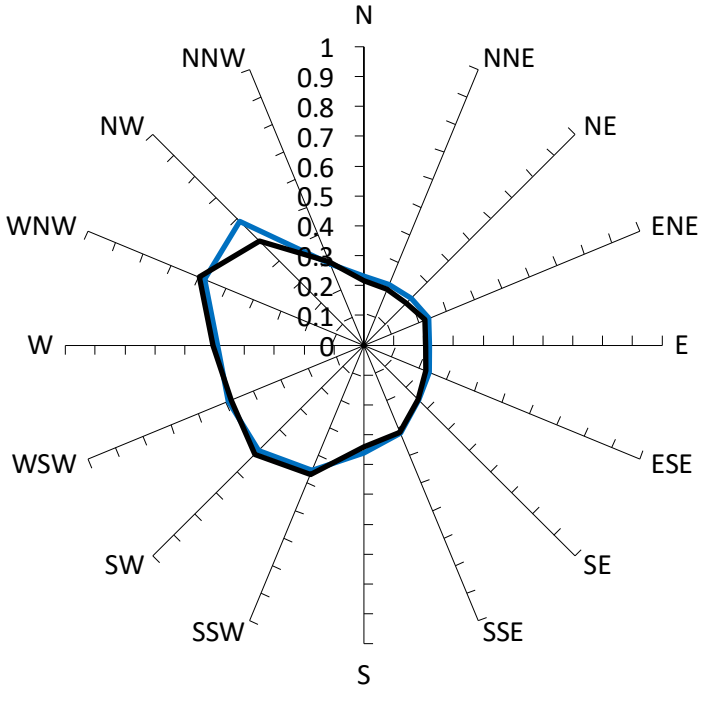


Gust Velocity Coefficients

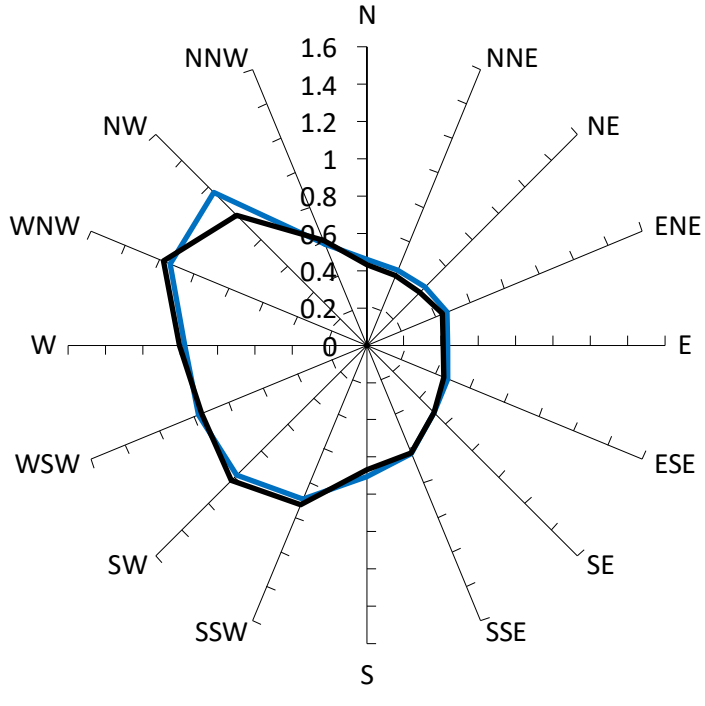
With development "as proposed", no vegetation included.

Existing Site Conditions.

Results for Point 38



GEM Velocity Coefficients

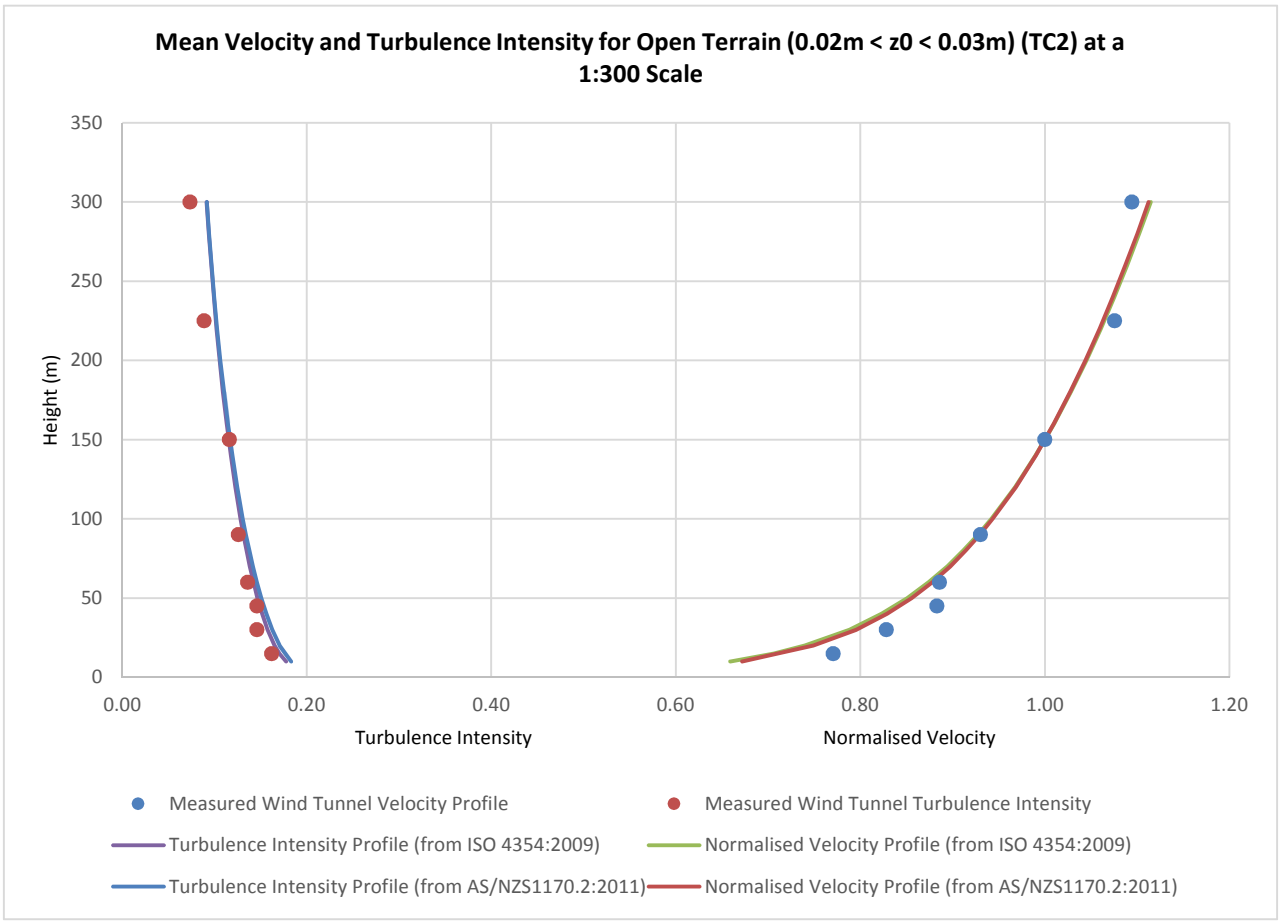


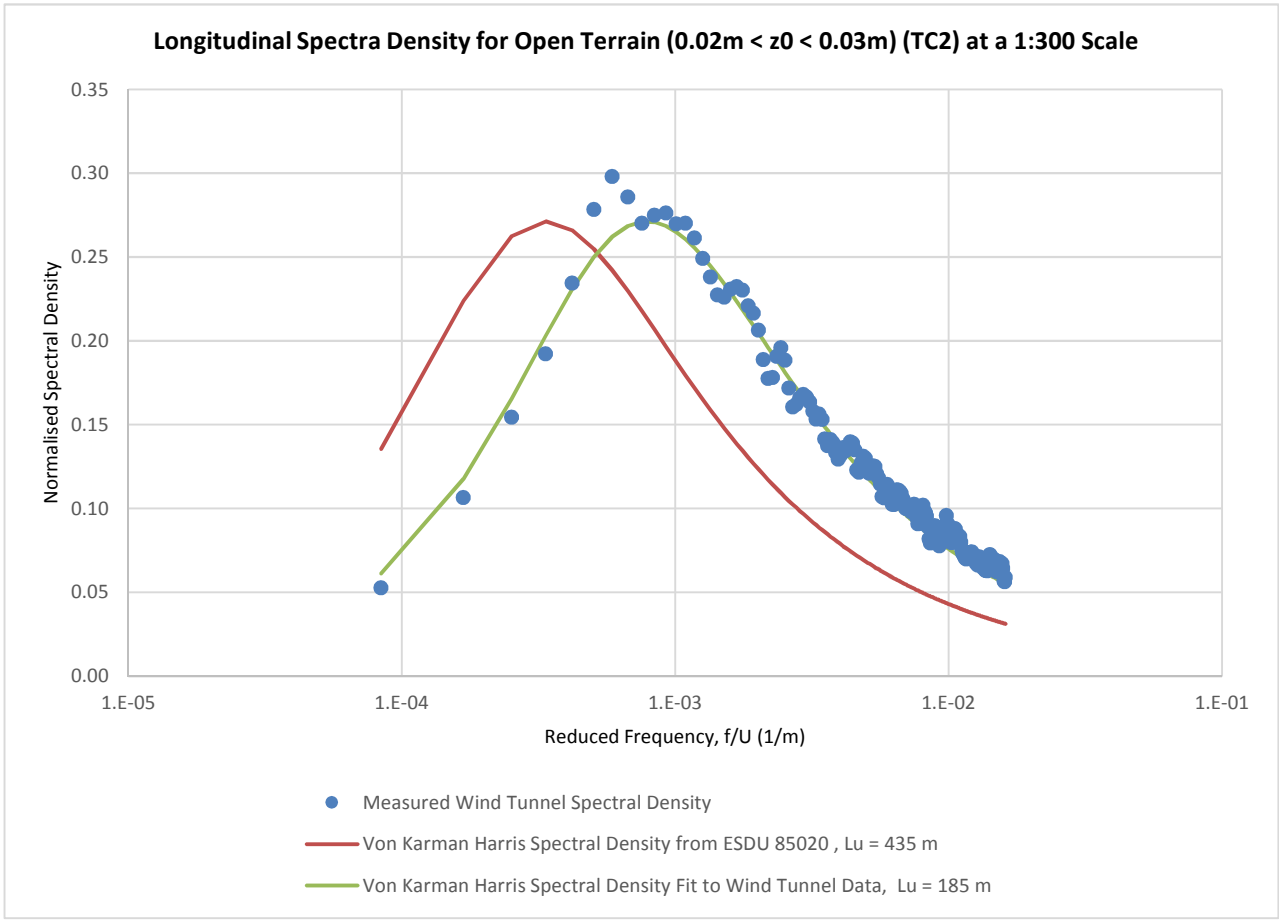
Gust Velocity Coefficients

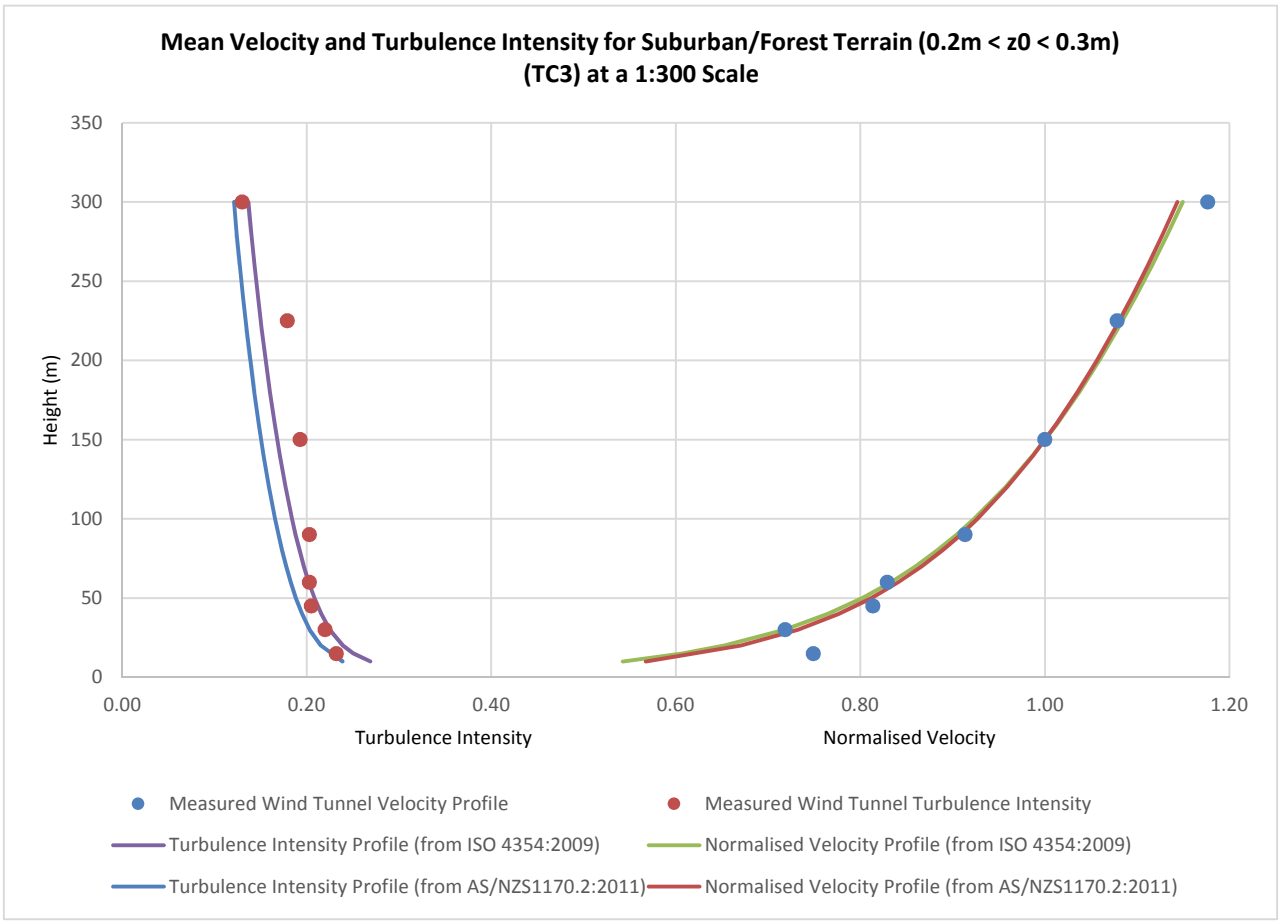
With development "as proposed", no vegetation included.

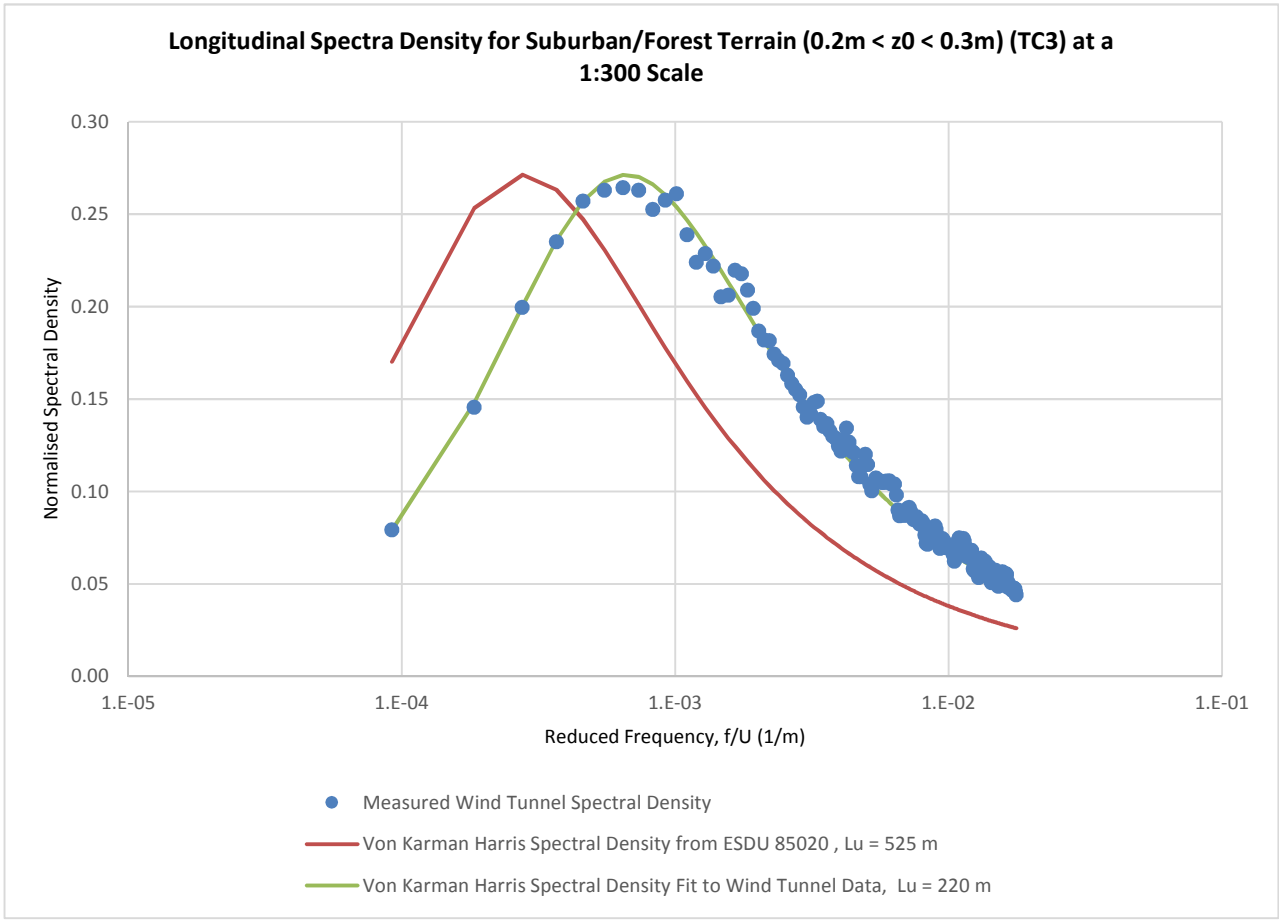
Existing Site Conditions.

APPENDIX E VELOCITY AND TURBULENCE INTENSITY PROFILES


Mean Velocity and Turbulence Intensity for Open Terrain (0.02m < z0 < 0.03m) (TC2) at a 1:300 Scale
Height (m)
350
300
250
200
150
100
50
0
0.00
0.20
0.40
0.60
0.80
1.00
1.20
Turbulence Intensity
Normalised Velocity
Measured Wind Tunnel Velocity Profile
Measured Wind Tunnel Turbulence Intensity
Turbulence Intensity Profile (from ISO 4354:2009)
Normalised Velocity Profile (from ISO 4354:2009)
Turbulence Intensity Profile (from AS/NZS1170.2:2011)
Normalised Velocity Profile (from AS/NZS1170.2:2011)


Longitudinal Spectra Density for Open Terrain (0.02m < z0 < 0.03m) (TC2) at a 1:300 Scale
Normalised Spectral Density
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1.E-05
1.E-04
1.E-03
1.E-02
1.E-01
Reduced Frequency, f/U (1/m)
Measured Wind Tunnel Spectral Density
Von Karman Harris Spectral Density from ESDU 85020 , Lu = 435 m
Von Karman Harris Spectral Density Fit to Wind Tunnel Data, Lu = 185 m


Mean Velocity and Turbulence Intensity for Suburban/Forest Terrain (0.2m < z0 < 0.3m) (TC3) at a 1:300 Scale
Height (m)
350
300
250
200
150
100
50
0
0.00
0.20
0.40
0.60
0.80
1.00
1.20
Turbulence Intensity
Normalised Velocity
Measured Wind Tunnel Velocity Profile
Measured Wind Tunnel Turbulence Intensity
Turbulence Intensity Profile (from ISO 4354:2009)
Normalised Velocity Profile (from ISO 4354:2009)
Turbulence Intensity Profile (from AS/NZS1170.2:2011)
Normalised Velocity Profile (from AS/NZS1170.2:2011)


Longitudinal Spectra Density for Suburban/Forest Terrain (0.2m < z0 < 0.3m) (TC3) at a 1:300 Scale
Normalised Spectral Density
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1.E-05
1.E-04
1.E-03
1.E-02
1.E-01
Reduced Frequency, f/U (1/m)
Measured Wind Tunnel Spectral Density
Von Karman Harris Spectral Density from ESDU 85020 , Lu = 525 m
Von Karman Harris Spectral Density Fit to Wind Tunnel Data, Lu = 220 m

Attachment A9

Sustainability vision and strategy report

Sustainability Vision and Strategy Report

Parkroyal Darling Harbour, 150 Day St Sydney

Revision 02, March 2025

699

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Signed:	JE
Date:	20/03/2025

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Acknowledgment of Country

Atelier Ten acknowledges the Traditional Owners of Country, the Gadigal of the Eora Nation, and we recognise their continuing connections to land, water, skies, and communities.

We are inspired by and learn from their knowledge and stories of Country. Atelier Ten pays respect to Traditional Owners, their cultures, and to Elders past and present.

Executive Summary

This report details a Sustainability Vision and Strategy for the Parkroyal Darling Harbour redevelopment at 150 Day St, Sydney (the project). The report was prepared for UOL Group Limited (UOL) and its subsidiaries Pan Pacific Hotels Group (PPHG) and Parkroyal Hotel in alignment with the City of Sydney's (CoS's) Environmental Sustainable Design (ESD) requirements and broader sustainability objectives. The report covers the concept design stage of the project.

The redevelopment of the Parkroyal Darling Harbour Hotel at 150 Day Street, Sydney, aims to adaptively reuse the existing 2 level basement and 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor. By co-locating two hotels within the same footprint, the project significantly minimises the need for additional hotel-supporting infrastructure that would otherwise be required in a separate location within the city. This approach not only reduces embodied carbon emissions by retaining much of the existing structure but also demonstrates an innovative model for sustainable urban development.

A comprehensive sustainability strategy is central to the project, guided by six sustainability pillars: Innovation, Better Places, Strengthen Community, Emissions Reduction, Operate Efficiently, and Circular Economy. Each pillar will drive specific initiatives to reduce the environmental impact of the project while enhancing its social and economic value. The project will meet the required environmental standards, including achieving a 5 Star Green Star rating, a 4.5 NABERS Energy rating, and materially exceeding Seciton J of the NCC, making it a benchmark for sustainable development in Sydney.

It is recommended that a 5 Star Green Star Buildings v1 pathway be developed to determine the number of points in each category which will be pursued. This pathway should focus on achieving points in the energy and water categories and should include contingency to mitigate the risk of not all points being achieved. Additionally, to meet the first requirement of 4.5 NABERS Energy rating a NABERS Energy Commitment Agreement will need to be signed. Finally, a Design for Environmental Performance (DEP) Template is required to meet the City of Sydney planning requirements.

Findings from several case studies at the conclusion of the report illustrate that 'green luxury' is attainable alongside a sustainable hotel development. These case studies showcase innovative sustainability practices across energy, water, materials, waste, and indoor environments, with an emphasis on reducing carbon emissions, reusing materials, and enhancing operational efficiency. The combination of adaptive reuse, local sourcing, and green technologies exemplifies cutting-edge sustainable design in the hotel industry, resulting in significant operational and financial savings.

NABERS ENERGY

★★★★½☆ Required ★★★★½☆ Targetted

1. Improve facade performance, provide appropriate solar control and insulation
2. Provide appropriate controls for lighting and air-conditioning
3. Choose high-performance chillers
- Investigate benefit of heat recovery on the fresh air supply

INNOVATION

4. Pioneer the retention and adaptive reuse of existing hotel buildings in Sydney
- Implement innovative and sustainable construction technologies
5. Adopt leading circular economy strategies (e.g. existing materials inventory, material passports)
- Lead by example, communicate and promote project success and key learnings

BETTER PLACES

6. Connect to place and Country, led by Traditional Owners
7. Mitigate urban heat island effect through incorporation of urban greening strategies
8. Design rooftop and ground spaces to create opportunities to connect to nature
- High indoor environment quality that promotes thermal and visual comfort
- Improve ecosystem health and biodiversity
- Embed biophilic principles in design

STRENGTHEN COMMUNITY

9. Strengthen community art and culture through the incorporation of public art
- Build operational capacity over time, to ensure the project is resilient
- Consider impacts within the supply chain in construction and operational procurement
10. The project is inclusive to a diverse range of people with different needs

GREEN STAR BUILDINGS V1

★★★★★☆ Required ★★★★★☆ Targetted

- Achieve points across the Responsible, Healthy, Resilient, Positive, Places, People, and Nature categories
- Focus on achieving points in the 'Energy Use' and 'Water Use' categories

EMISSIONS REDUCTION

11. Prepare for an all-electric future by removing existing gas connections
12. Maximise onsite renewable energy generation
- Investigate securing a power purchase agreement to ensure 'green' power supply
- Prioritise the retention of the existing building to reduce embodied carbon
- Optimise design efficiency to minimise absolute material quantities

CIRCULAR ECONOMY

- Maximise reuse of appropriate demolition waste onsite or in the local community
- Recycle existing precast concrete panels by crushing for reuse as aggregate
13. Specify low-carbon and recycled content materials (structure, facade, and finishes)
14. Target a zero waste to landfill approach

OPERATE EFFICIENTLY

- Adopt a systems-thinking approach to building design, construction and lifecycle
- Prioritise passive design principles to minimise operational energy use
15. Improve waste management
- Reduce water use through inclusion of water efficient fixtures
- Train staff to operate in an efficient manner

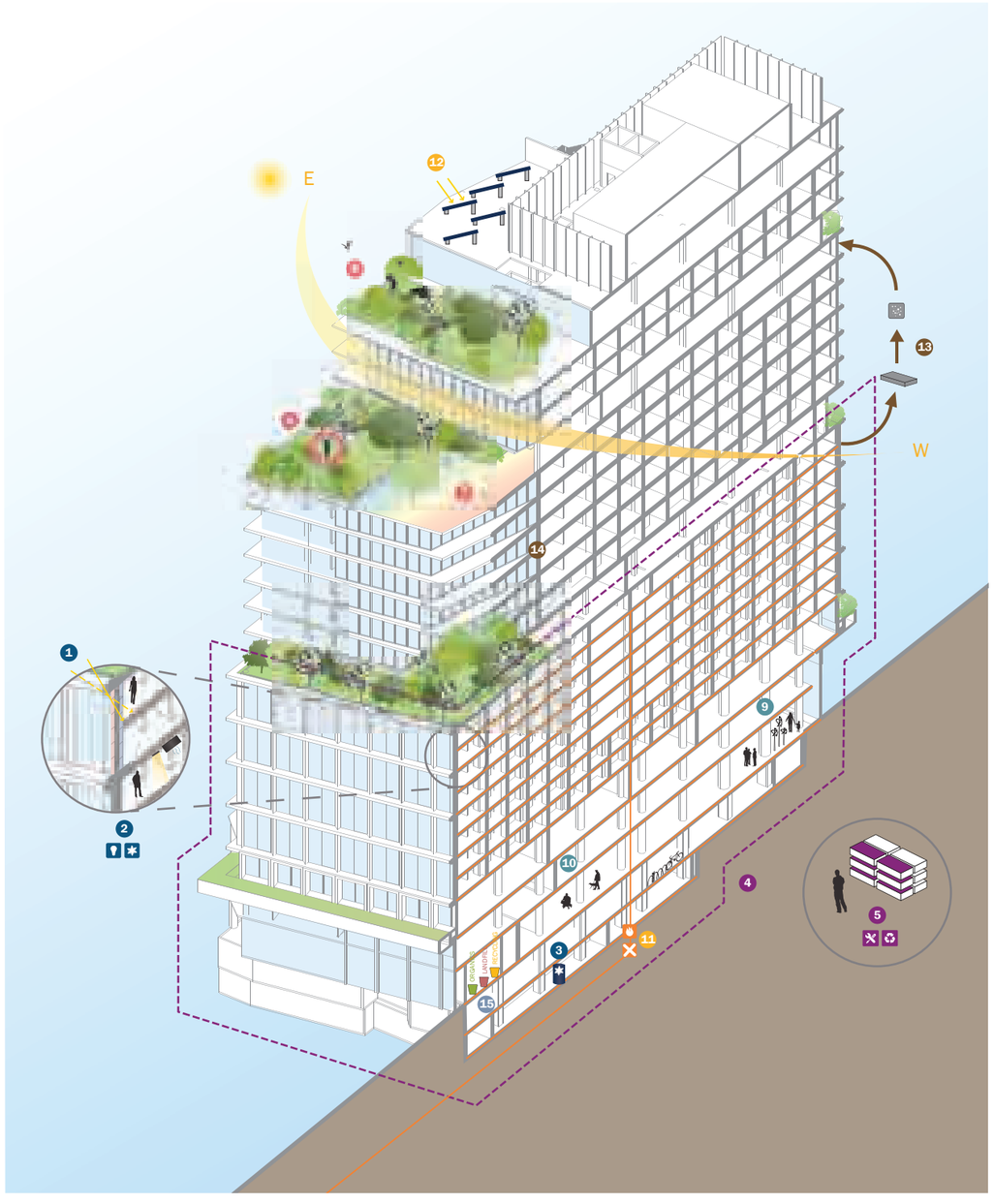


Figure 1.1 150 Day St Sustainability Vision and Strategy snapshot. Source: Atelier Ten

Sustainability Context

1 Introduction

This project will see the adaptive reuse of the existing 2 level basement and 11 storey Parkroyal Darling Harbour Hotel at 150 Day St, Sydney, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor. A key objective of the project is to retain as much of the existing building as possible, reducing embodied carbon emissions of the construction and aligning with the sustainability objectives of the City of Sydney. Thus, the project will demonstrate innovation in the areas of adaptive reuse and retrofit, making a positive contribution to the city's sustainable tourism industry.

1.1 Parkroyal Darling Harbour

Parkroyal Darling Harbour hotel is situated on Day St within close proximity to Darling Harbour and located within Sydney's CBD. The hotel is owned by the Pan Pacific Hotels Group (PPHG) which is a subsidiary of the UOL Group Limited (UOL). The existing building was constructed in 1988 as a 10 storey concrete frame structure with an additional 11th storey steel structure added in 1996. The existing hotel accommodates 335 hotel keys.

The redevelopment of the existing hotel will see the removal of the current 11th storey and addition of 11 new storeys, supported by a transfer structure. The additional storeys will be provided via a direct vertical extension above the existing building, maintaining similar setbacks/ street wall heights as the existing floor levels.

1.2 City of Sydney

The City of Sydney local government authority (LGA) is located in the heart of the city's CBD. The LGA is responsible for the city centre, including more than 30 suburbs and more than 200,000 residents (NSW Government, 2020). The City of Sydney is divided into 30 precincts. The site is located within the Town Hall precinct, which is defined as the area between Liverpool Street to the south, Harbour Street and the Western Distributor to the west to Druitt Street, George Street to King Street in the north, and Elizabeth Street to the east.

A key objective in the development of the city centre public domain plans is to rebalance space allocation of streets to provide more room for people to walk, cycle and stay. The project will help the City of Sydney to deliver this ambition by providing more space for people to stay and enhancing pedestrian connections across the east west axis of the precinct.

1.3 Strategic Vision

The Strategic Vision of the project is to enhance connections between Tumbalong Park to the southwest of the site and the future town hall square, proposed to the east of the site between George St and Pitt St. Therefore, the project will play a key role in activating the city's lanes, enhancing the pedestrian experience and contributing to the fine grain of the city. The project will also be seen as a stepping stone for tourists and guests to Darling Harbour, which is located a mere five minute walk from the site.

Visually, the proposed development will exemplify the 'Sydney experience', with the existing structure mimicking the heavy sandstone base and new construction exemplifying the light forested platforms which typify Sydney's surrounding geology. These forested platforms will serve several purposes, providing green spaces for the amenity of hotel guests, enhancing biodiversity of the local area, and mitigating the effects of the urban heat island (UHI).



Figure 1.1 Illustration of Strategic Vision (Source: Hassell, 2024)

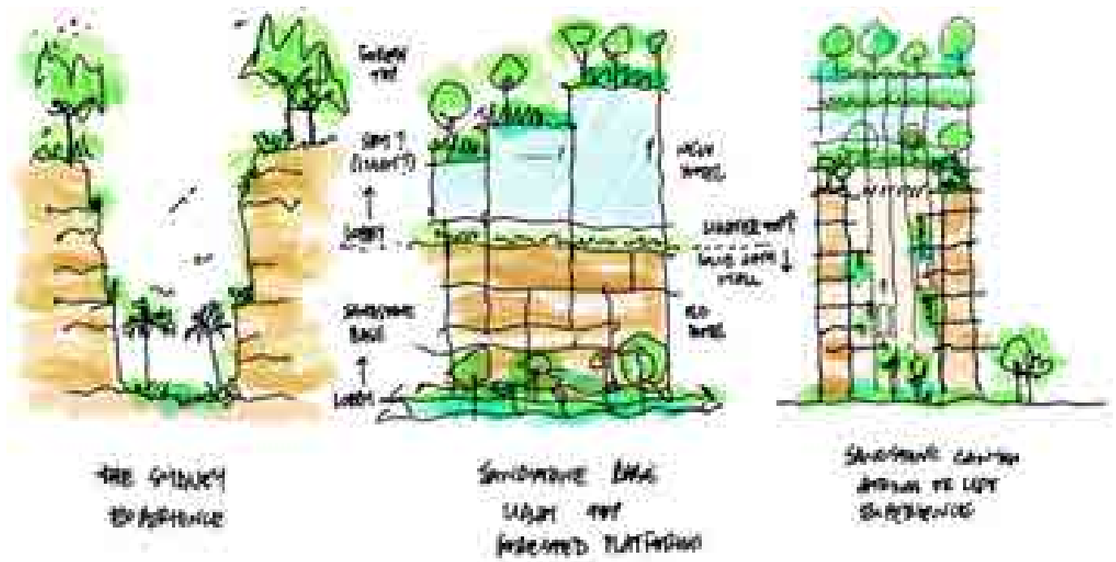


Figure 1.2 Concept Design sketches (Source: Hassell, 2024)

2 Site Context

The site is situated at the heart of Sydney's CBD within the City of Sydney (CoS) Local Government Authority (LGA). The site sits to the west of the future Town Hall square within the CoS's Town Hall Precinct. The site has access to local high quality outdoor amenity spaces for guests with Darling Harbour and Tumbalong park both situated within a five minute walk.

2.1 Key Features

- The site is located within the City of Sydney (CoS's) LGA boundary at the existing Parkroyal Darling Harbour Hotel, 150 Day St, Sydney. The site is located to the west of CoS's Town Hall precinct within 300 m of Darling Harbour and Tumbalong Park, situated to the north west and south west, respectively.
- The site is surrounded by a variety of medium and high density residential uses, including nearby student accommodation to the south and east. A heritage building is located adjacent the site on Bathurst St.
- The site is surrounded by several busy arterial roads, including the Western Distributor and Cross City Tunnel to the north and Harbour St to the west. A portion of the site to the north runs underneath the Western Distributor.
- There are several significant fig trees located within the Day St Site Boundary which are to be retained to maintain the visual green continuum along Harbour St and Day St.
- The site is well connected to public and green transport with the regional bike network on Kent St to the east of the site, and the city's bus network on Druitt St to the north. The nearest light rail station is located a 500 m walk to the east of the site at Town Hall Station.

2.2 Strengths

- Within five minute's walking distance to Darling Harbour and Tumbalong Park - connecting the local community to high quality amenity and green spaces.
- Within close proximity to bus stops.
- Within close proximity to the local retail centre on George St.
- The existing building is structurally sound and is able to be retained, retrofitted, and adaptively reused.
- Water views to Darling Harbour.
- Several established fig trees to the west of the site providing local green space on the ground plane and helping to mitigate the urban heat island effect.
- The site is well situated in the heart of Sydney's CBD within close proximity to the future Town Hall square.

2.3 Opportunities

- Retain the existing building as much as possible to reduce the embodied carbon emissions of the construction.
- Adopt circular design principles to responsibly reuse or recycle parts of the existing building which are no longer needed.
- Deliver an environmentally and socially sustainable hotel that contributes to the sustainable tourism objectives of the City of Sydney.
- Enhance network of footpaths with street furniture, signage and pathways to create an attractive environment for pedestrians and cyclists.
- Increase communal facilities, and active and passive recreation spaces to contribute to increased levels of amenity for guests.
- Resolve and improve public domain in the area, particularly to the north of the site beneath the Western Distributor and to the west of the site adjacent Harbour St.
- Increase canopy and vegetation cover to mitigate the urban heat island (UHI) effect by incorporating green amenity spaces on rooftop areas of the building.
- Nature stewardship - improve biodiversity in the local area by providing green spaces on-site with diverse flora species.
- Include public art installations in the urban realm adjacent the site to align with the City Centre Public Art Plan.
- Opportunity to link the north of the site to the planned local bike network on Druitt St to improve cycling connections.
- Enhance local pedestrian connections, improving the Town Hall Precinct's walk-ability.

2.4 Constraints

- The site and surrounding environment currently sits +6°C to +9°C warmer above baseline due to the effects of urban heat island (NSW Government, 2016).
- The site and surrounding area experiences high wind velocities at the street pavement level which should be mitigated through the building's design.
- The close proximity of the existing building to the site's boundary may limit the amount of facade upgrade work that can be done to achieve thermal performance requirements.
- Minor flooding occurs adjacent the site boundary on Sand St to the east during a 1% Annual Exceedence Probability (AEP) flood event, with significant flooding occurring in the local area due to the proximity of Darling Harbour (City of Sydney, 2016). Therefore, access to the site may be limited during flood events.



Figure 2.1 Summary of Placemaking Improvements (Source: Hassell, 2025)



Figure 2.2 Wider 150 Day St Context (Source: Nearmaps, 2024)



Figure 2.3 Place Context (Source: Hassell, 2024)

3 Policy and Planning Framework

A detailed sustainability blueprint for the project was established from the review of several Policy and Planning Framework documents. These documents were used to distinguish mandatory actions, recommended practises, and aspirational goals, guiding the integration of sustainability across the project life cycle - from master planning to operations, influencing, design, construction, and operations management.

All listed documents share relevance to the project and are organised in a hierarchy based on governance level. This hierarchy is illustrated opposite and is summarised below:

- Global | Broad spectrum of sustainability principles, objectives and compliance guidelines that are applicable on a global level
- State I State-wide targets and compliance guidelines for sustainability, sustainable development, and climate resilience
- Council I Guiding sustainability strategies specific to the local City of Sydney Council



Figure 3.1 Policy and Planning Framework document review hierarchy.

3.1 Transforming Our World: The 2030 Agenda for Sustainable Development, United Nations





In an unprecedented global endeavour, the United Nations established the 2030 Agenda for Sustainable Development, a comprehensive plan aimed at eradicating poverty, ensuring prosperity, and protecting our planet.

Through its 17 Sustainable Development Goals (SDGs), the agenda sets forth a universal call to action to transform our world by addressing a wide range of social, economic, and environmental challenges.

This pivotal agenda outlines a global partnership's ambition to foster a sustainable future for all. It presents 17 SDGs, accompanied by 169 targets, designed to promote prosperity while protecting the environment. The agenda emphasises a balanced approach that integrates the economic, social, and environmental dimensions of sustainable development, aiming to leave no one behind.

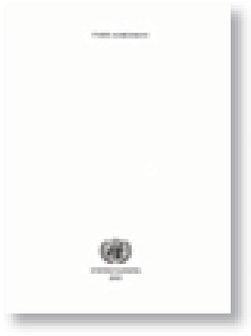
Key Principles, Objectives, or Themes:

- Eradicate poverty in all its forms and dimensions.
- Combat inequality within and among countries.
- Preserve the planet and sustainably manage its natural resources.
- Ensure prosperous and fulfilling lives in harmony with nature.
- Foster peaceful, just, and inclusive societies.
- Strengthen global partnerships to support and achieve the agenda.

Implications for 150 Day St:

- Align operations and development plans with SDGs to contribute to global sustainability efforts.
- Adopt sustainable practices to support ecological balance and resource conservation.
- Engage in community and educational initiatives to promote inclusive and sustainable economic growth.
- Implement strategies for reducing inequalities and ensuring the well-being of all employees and community members.
- Enhance resilience to environmental challenges through adaptive management and climate action.
- Collaborate with local and global partners to advance sustainability goals and share best practices.

3.2 The Paris Agreement, United Nations





In a landmark global endeavour, the Paris Agreement mobilises countries worldwide, including Australia, to combat climate change through ambitious greenhouse gas emissions reductions and efforts to limit global warming to well below 2°C above pre-industrial levels.

It champions global cooperation, adaptation strategies, and the redirection of financial flows towards sustainable, low-emission pathways to secure a resilient future for all.

This pivotal agreement delineates commitments from global nations to mitigate their greenhouse gas emissions, aiming to avert the escalation of global temperatures to perilous levels. It marks a united journey towards sustainable development, recognising the urgency of an expedited response to the climate crisis, with Australia ratifying the agreement to significantly contribute to these global efforts.

Key Principles, Objectives, or Themes:

- Aiming to restrict global warming to well below 2°C, targeting efforts towards 1.5°C.
- Enhancing the capacity of countries to address the impacts of climate change.
- Steering financial flows in favour of low greenhouse gas emissions and climate-resilient development.
- Emphasising the significance of transparency, adaptation, and support in realising these objectives.

Implications for 150 Day St:

- Incorporating sustainable design and construction practices to minimise environmental impact and ensure resilience to climate change, serving as a model for future developments around the central Sydney region. Since UOL are the owner-operators of the project, there is increased incentive to deliver these sustainability ambitions to ensure reduced costs over the long term.
- Contributing to the economic development of central Sydney through creating jobs and enhancing the community's resilience to climate change, in line with Australia's sustainable development goals and commitments under the Paris Agreement.

3.3 Net Zero Plan Stage 1: 2020–2030, NSW Government

The “Net Zero Plan Stage 1: 2020–2030” and the “NSW Net Zero Plan Implementation Update 2022” collectively outline the strategic roadmap and progress towards NSW’s ambitious goal of achieving net-zero emissions by 2050.



The initial plan lays the groundwork with actionable strategies across various sectors, emphasising technological innovation, economic growth, and community empowerment. The 2022 update provides a crucial progress report, showcasing advancements in emissions reduction technologies, enhanced consumer and business engagement, and the NSW Government’s leadership in sustainability efforts.

Key Principles, Objectives, or Themes:

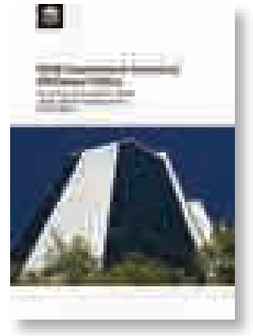
- Accelerated adoption of emissions reduction technologies.
- Empowerment of consumers and businesses towards sustainable decisions.
- Investment in next-generation emissions reduction innovations.
- Demonstrative leadership by the NSW Government in sustainability.

Implications for 150 Day St:

- Adopting and integrating state-of-the-art sustainable technologies for emissions reduction, including the removal of gas connections from site in anticipation of conversion to an all-electric building.
- Engaging in and promoting sustainable practices within the hotel community.
- Exploring investment opportunities in innovative technologies and practices that align with NSW’s net-zero ambitions.
- Leveraging support and initiatives provided by the NSW
- Government to showcase 150 Day St as a model for sustainable hotel re-development within the adaptive reuse space.

3.4 Resource Efficiency Policy, NSW Government

The NSW Government’s Resource Efficiency Policy Document delivers commitments under the NSW Climate Change Policy Framework and the State Infrastructure Strategy to reduce the NSW Government’s operating costs and lead by example in increasing the efficiency of the State’s resource usage.



The policy’s measures, targets and minimum standards drive resource efficiency where significant opportunities for savings have been identified, in the areas of energy, water, waste and clean air. The implementation of the policy will ensure that corporations:

- Meet the challenge of rising costs for energy, water, clean air and waste management
- Use purchasing power to drive down the cost of resource-efficient technologies and services
- Show leadership by incorporating resource efficiency in decision-making.

Implications for 150 Day St:

- The project will need to comply with minimum NABERS Energy ratings for hotels, minimum standards for new electrical appliances and equipment, and minimum standards for new buildings and fit-outs including Green Star.
- The project will need to comply with minimum standards for new water-using appliances, balancing user preferences with water saving targets.
- To help drive growth and innovation in the market, it is recommended that construction materials with recycled content be used and that design specifications for re-use be employed.
- Use of low-VOC materials to be prioritised.
- Expanding the existing site’s capacity without the need to demolish and rebuild a new hotel, helping the City of Sydney to meet it’s need for 40,000 hotel rooms. City hotel rooms are currently at capacity in the city, restricting economic growth.

3.5 Sustainable Buildings SEPP, NSW Government

The policy encourages greater consistency in designing, assessing, and monitoring of the performance of sustainable buildings in NSW.



Sustainable Buildings SEPP (2022) aims to simplify and coordinate a way for planning for and designing sustainable buildings in NSW. A variety of building typologies are covered throughout the policy. The NSW Government has updated the standards throughout the policy and included BASIX.

Key Aims of Policy:

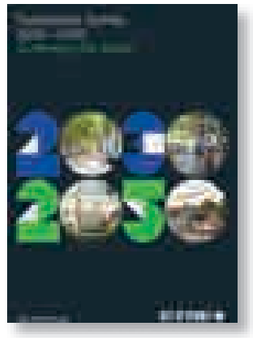
- To encourage the design and delivery of sustainable buildings,
- To ensure consistent assessment of the sustainability of buildings,
- To record accurate data about the sustainability of buildings, to enable improvements to be monitored,
- To monitor the embodied emissions of materials used in construction of buildings,
- To minimise the consumption of energy,
- To reduce greenhouse gas emissions,
- To minimise the consumption of mains-supplied potable water,
- To ensure good thermal performance of buildings.

Implications for 150 Day St:

- Consistently adhere and satisfy Chapter 3 and Chapter 4 Section 3 of SEPP (Sustainable Buildings) 2022.
- Calculate and report on embodied emissions of construction materials
- Adhere and satisfy energy standards and associated offsets for hotel developments
- Adhere and satisfy new water standards for hotel developments
- Demonstrate that the building can operate without use of fossil fuels by 2035

3.6 Sustainable Sydney 2030 - 2050, City of Sydney

This document presents the sustainability vision for the City of Sydney: a sustainable future where everyone does their part to respond to the climate emergency.



The vision was developed through extensive community consultation over several years. Engagement activities included surveys, pop-up events and community workshops with First Peoples of Australia, small businesses and cultural and night-life sectors. 10 directions for 2050, 10 targets to measure progress and 10 ambitious project ideas to bring the vision to life resulted from this engagement.

10 key directions for 2050:

- Good governance and stewardship
- A leading environmental performer
- Public places for all
- Design excellence and sustainable development
- A city for walking, cycling and public transport
- An equitable and inclusive city
- Resilient and diverse communities
- A thriving cultural and creative life
- A transformed and innovative economy
- Housing for all

Implications for 150 Day St:

- Implement greening strategies to cool the local area, helping support well-being, improve amenity, and contributing to the City's 2050 target of overall green cover of 40%
- Reduce potable water use to 170 L per person per day by 2030.
- Prioritise green transport strategies to and from site.
- Electrify the project, generate renewable energy on-site and investigate obtaining a power purchase agreement to support the City in reaching it's target of net zero emissions by 2035

3.7 Making Sydney a Sustainable Destination, City of Sydney

The entertainment and accommodation sector in Sydney is responsible for 47% of commercial waste, 21% of carbon emissions, and 14% of drinking water consumption. This document illustrates the significant opportunity for cost and resource use reduction that can come from putting environmental sustainability first in the sector.



Additionally, an increased focus on the environment in the entertainment and accommodation sector can attract more customers and engage employers, which are key drivers for UOL and Pan Pacific Hotel Group (PPHG). Hence, it is imperative that the project align itself with the recommended key actions in this report to help meet these ambitions.

Key Actions for the sector:

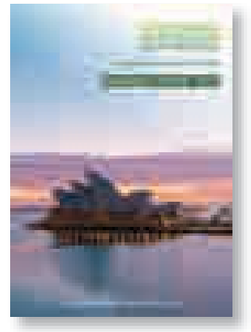
- Use and promote environmental ratings
- Improve waste management
- Make cost-effective retrofits
- Install on-site solar or procure renewable energy
- Connect to recycled water where possible

Implications for 150 Day St:

- Given on-site solar panel restrictions on-site, it is recommended that the procurement of renewable energy be targeted to meet the City of Sydney's net zero emissions targets.
- It is recommended to provide incentives to guests to reduce their environmental impacts.
- It is recommended to install the highest standard WELLS rating water fixtures for water efficiency.
- Provide suitable waste management infrastructure for maximum resource recovery as per the City's Waste Management in New Development Guidelines.

3.8 Sustainable Destination Partnership, Progress Report 2023

The aim of the Sustainable Destination Partnership is to elevate Sydney's reputation as a sustainable destination through increased environmental performance. In 2023, the partnership reduced emissions by 24%, reduced potable water use by 24%, achieved 50% waste diversion from landfill, and increase renewable electricity use to 13% from the 2018 baseline.



In the same year, Sydney achieved its highest ever score in the Global Destination Sustainability Index (GDSI), ranking as the 5th best metropolis globally. In this context, the project is required to reduce energy, waste, and water consumption to ensure that it positively contributes to the City of Sydney's GDSI ranking and sustainability ambitions as outline in the Sustainable Sydney 2030 - 2050 Continuing the Vision document.

Five key Actions:

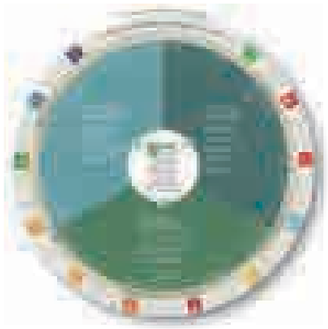
- Implement best practice waste management
- Continue to work towards halving food waste
- Amplify success stories
- Plan and work towards net zero
- Increase uptake of renewable energy

Implications for 150 Day St:

- Implement best practice hotel waste management strategies from construction through to operation phases.
- Investigate on-site or local composting solutions to ensure organic waste is diverted from landfill.
- Encourage hotel users to share their experiences to contribute towards positive sustainability outcomes.
- Investigate implementing renewables on-site and/or striving to obtain a power purchase agreement.

3.9 Sustainability Framework, UOL

The UOL Sustainability Framework is a set of guiding principles that support UOL's Sustainability Vision: Less Carbon, More Life. The Framework underpins UOL's commitment to shape a resilient built environment and contribute towards a clean, green and sustainable future. The Pan Pacific Hotels Group (PPHG), as a subsidiary of UOL, also adheres to this Sustainability Framework.



The Framework is aligned with several UN SDGs in addition to global sustainability standards and certification schemes including the GRI Standards, iEdge SG ESG Indices, Global Sustainable Tourism Council (GSTC), ISO 14002, and NCC Green Mark.

The Framework is divided into three primary themes:

- Environment - Developing Better: Managing Climate Risk and Building Resiliency
- Social - Building Good: Empowering People and Communities
- Governance - Doing Right: Conduct Business Profitably and Responsibly

Implications for 150 Day St:

- The project should focus on improving energy efficiency, water conservation, reducing greenhouse gas (GHG) emissions and waste to meet UOL's environmental sustainability ambitions.
- The project has the opportunity to leverage innovative and sustainable de-construction technologies as part of the project's adaptive reuse / circular economy strategy.
- The project has the opportunity to drive innovation culture across the organisation in alignment with UOL's core values.

3.10 GSTC Industry Criteria, Global Sustainable Tourism Council

The Global Sustainable Tourism Council (GSTC) Industry Criteria document outlines several criteria that are global standards for sustainable travel and tourism. The Criteria have applicability to the entire tourism industry, however, this document focuses specifically on Hotel and Accommodation developments.



Within each GSTC Industry Criteria there are several performance indicators that are designed to provide guidance in measuring compliance with the GSTC Criteria for Hotels and Accommodation. The project, being a Pan Pacific Hotels Group (PPHG) development, will target GSTC certification for hotels, therefore it is essential that these performance indicators and Criteria be adhered to.

The Criteria are organised around four primary themes:

- Effective sustainability planning
- Maximising social and economic benefits for the local community
- Enhancing cultural heritage
- Reducing negative impacts on the environment

Implications for 150 Day St:

- It is recommended that an exercise be undertaken to determine which Criteria are applicable to the project.
- The project should aim to target all performance indicators for each Criteria (where applicable).
- PPHG has expressed interest in improving local community connections through the project, therefore, the Criteria in the 'maximising social and economic benefits for the local community' theme should be a primary focus.
- There are several social sustainability operational impacts that should be considered.

3.11 Shaping a Sustainable Future, UOL



This document is UOL's 11th annual sustainability report for the 2023 fiscal year, covering performance data and related information on UOL's material environmental, social and governance topics.
A 20% reduction in GHG emissions for UOL's commercial and hospitality from the 2019 baseline was reported, demonstrating UOL's commitment to emissions reduction across it's portfolio.

The document is structured around the three pillars of UOL's sustainability vision: environmental, social and governance, and is aligned with the United Nations Sustainable Development Goals. A key achievement for UOL in 2023 was that the group became the first Singapore hospitality group to attain the Global Sustainable Tourism Council (GSTC) Multi Site certification for all hospitality properties in Singapore.

Implications for 150 Day St:

- Adhere to the GRI Standards listed in Appendix C of the document.
- Align operations and management protocol so UOL can meet it's UN SDG Targets and Commitments.
- Requirement to track, monitor and assess energy, GHG emissions, water and waste streams.
- Adhere to UOL's Group Environmental Policy.
- Implement energy efficiency measures, renewable energy on-site, and procurement of renewable energy to assist UOL in meeting their target of reducing 46% of Scope 1 and Scope 2 GHG emissions by 2030.

3.12 Consultant Coordination Report, Hassell



This report outlines 150 Day St to key consultants, providing an overview of the project including, strategic site visit, solar massing studies, adaptive re-use strategy, concept sketches and working plans and sections .

Key findings from the report include that the solar plane may restrict the amount of roof area available for on-site renewable energy generation in the form of a solar PV array, and that there are significant spatial planning restrictions due to existing structure strengthening works.

Strategic site vision:

- Enhance connections of future town hall
- Enhance biodiversity in the area
- The project as a stepping stone to Darling Harbour

Implications for 150 Day St:

- Resolve and improve public domain in the area adjacent the project.
- Power purchase agreement may need to be pursued to meet energy reduction targets if solar plane restricts the amount of renewable energy that can be generated on-site.
- Reduce flooding through inclusion of permeable lanes.
- Include diverse planting species to enhance local biodiversity.
- Improve unsafe wind conditions.
- Adaptively reuse existing structure.
- Reducing on site parking to promote the use of green transport infrastructure.
- Remove existing gas connections and electrifying the building.

3.13 Consultant Workshop, Hassell

This document outlines key project work streams, provides an updated set of proposed drawings and expands on the existing building adaptive re-use approach for 150 Day St.



Key findings from the document include that a views impact assessment is required for the adjacent residential buildings and that a ‘column jacketing’ approach will be used to strengthen the columns of the existing structure.

Implications for 150 Day St:

- Conduct a views impact assessment.
- Upgrading the existing core requires internal demolition works around lift shafts, leading to material re-use opportunities.
- Integration of significant greening to enhance hotel user experience and improve biodiversity on-site.
- Consider material re-use possibilities for existing services which have reached their end of life.

4 Key Priority Areas

The Policy and Planning Framework review highlighted several Key Priority Areas that were used to inform the project's Sustainability Vision and Strategy. Figure 4.1 opposite illustrates the synergies between each of the Key Priority Areas across the City of Sydney, UOL/Pan Pacific Hotels Group, and the 150 Day St Development.

A summary of each area is provided below:

- Emissions reduction | setting clear targets and actionable steps to achieve emissions reduction ambitions.
- Ensuring a sustainable future | take decisive action on key strategies to address the climate emergency.
- Responsible buildings | drive sustainable building practices whilst reducing operational costs.
- Places for all | create an equitable and inclusive community that celebrates cultural history.
- Innovation | embrace innovative processes and design strategies to deliver cutting-edge solutions.
- Ethical governance | drive sustainable economic growth.
- Better buildings | promote green architecture and sustainable building practices to foster a healthier and more sustainable built environment.
- People | create a safe, healthy and inclusive built environment that fosters vibrant and connected communities.
- Circular economy | promote adaptive reuse, retrofitting and other circular economy priorities.
- Reduce embodied carbon | minimise life cycle emissions of materials through sustainable sourcing, efficient design, and use of low-carbon alternatives.
- Better places | foster a strong connection to place and enhance hotel user experience through the inclusion of green and biodiverse spaces.

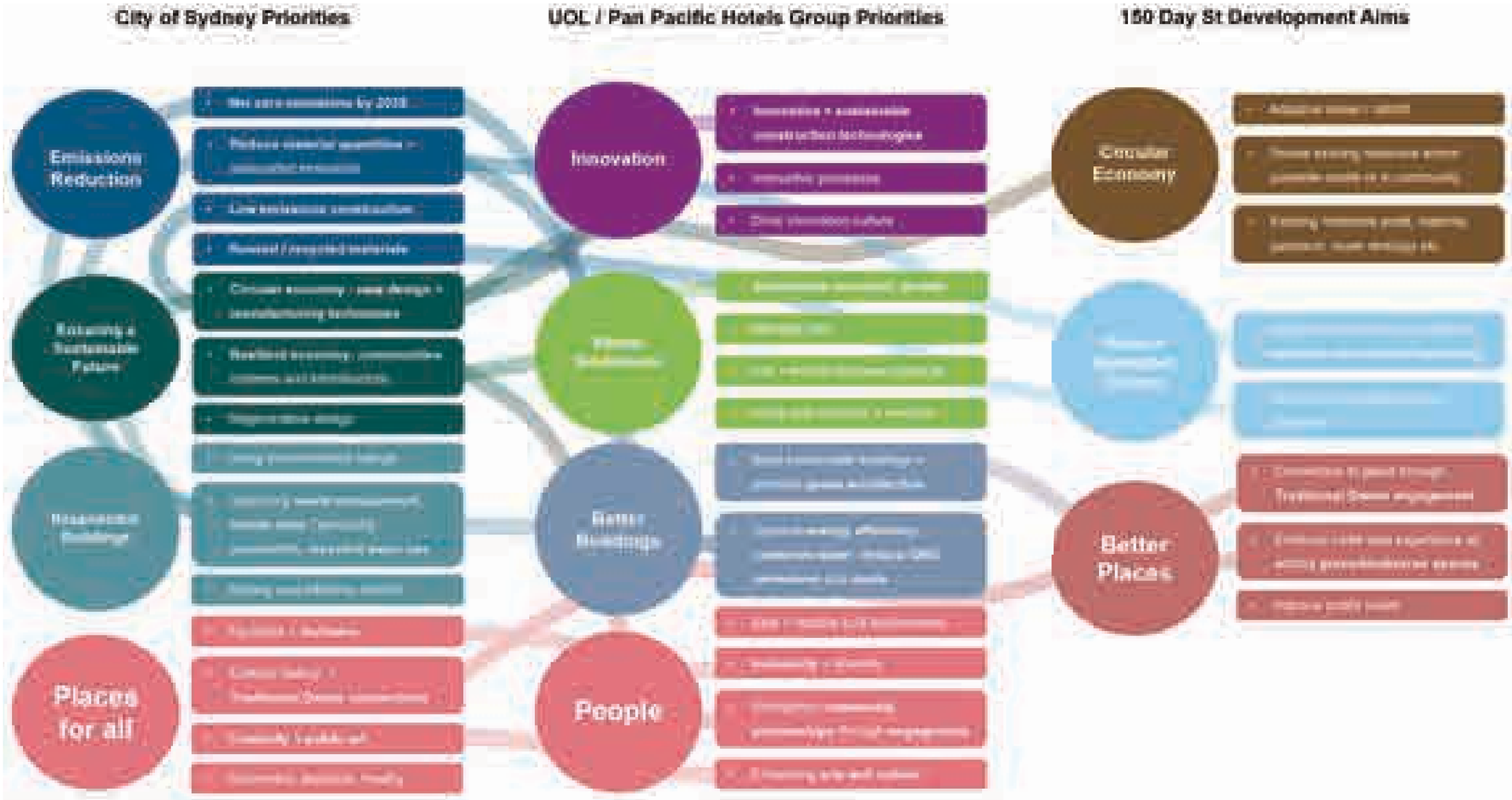


Figure 4.1 Ecology and synergy of sustainability ambitions. Source: Atelier Ten

5 ESD and Planning Requirements

The policy and planning framework review revealed several Environmental Sustainable Design (ESD) and planning requirements set by the City of Sydney which the project needs to meet.

5.1 ESD Requirements

The ESD requirements are listed below:

- 4.5 NABERS Energy rating (or higher)
- 5 Star Green Star Buildings v1 Rating (or higher) with a focus on maximising credit points in energy and water categories.
- Materially exceed Section J of the Building Code of Australia (NCC), demonstrated by engineering consultant's report.

To meet the first requirement of 4.5 NABERS Energy rating a NABERS Energy Commitment Agreement will need to be signed. This is a contract signed by a developer or owner to commit to design, build and commission a building to achieve a specific NABERS energy rating. This contract will incur a fee and will need to be signed and paid early in the design process before the development of a preliminary building energy model. The requirement for the project to achieve a 4.5 NABERS Energy rating applies to the whole project, i.e. both the existing and new buildings.

To meet the second requirement, a 5 Star Green Star Buildings v1 pathway will need to be developed to determine the number of points in each category which will be pursued. This pathway should focus on achieving points in the energy and water categories and should include contingency to mitigate the risk of not all points being achieved. It should be noted that the requirement to materially exceed Section J of the NCC will be met by achieving a 5 Star Green Star Buildings v1 Rating for the project.

5.1 Planning Requirements

Additionally, the project must meet the following planning requirements set by the City of Sydney:

- City of Sydney Design for Environmental Performance (DEP) Template

The DEP Template is a necessary precondition to receiving development consent through the demonstration of design excellence, which incorporates the principles of ecologically sustainable development.



Figure 5.1 Summary of approach to meet ESD Requirements and deliver on the project's Sustainability Vision goals. Source: Atelier Ten

Sustainability Vision and Strategy

6 Sustainability Vision

The Sustainability Vision for 150 Day St was developed from the planning and policy framework review and distillation of key priority areas. The Vision was then refined through a Sustainability Workshop with representatives from UOL and Pan Pacific Hotels Group (PPHG) with the final Vision shown opposite.

6.1 Sustainability Pillars

The Vision comprises six Sustainability Pillars. Each Pillar is listed below, along with it's overarching goal statement:

- Innovation | at it's core, the project will enable the exploration of new solutions at every stage of the project to unlock greater potential and shape a more sustainable Sydney.
  - Better Places |the project will deliver safe, inclusive, diverse, healthy, and biodiverse environments for people and planet, through a careful and considered approach to design.
  - Strengthen Community | the project will adopt regenerative design principles to strengthen and deliver resilient places and communities.
  - Emissions Reduction | the project will implement energy-efficient systems, utilise renewable energy sources, and prioritise the use of sustainable materials and design practices to minimise operational and embodied carbon impacts.
  - Operate Efficiently | the project will prioritise the reduction in consumption of energy, water, and waste through considered design strategies and efficient operations
  - Circular Economy | the project will adopt circular economy principles and foster innovation by testing new solutions across material manufacturing, design, construction, and end of life stages.



Figure 6.1 150 Day St Sustainability Vision. Source: Atelier Ten

The project's Sustainability Strategy is to meet the City of Sydney's ESD requirements at a minimum and focus additional efforts meeting aspirations of the Sustainability Vision. In this way, the ESD requirements underpin the project's Sustainability Vision and additional targets are captured in the Sustainability Strategy.

Several targetable outcomes are listed beneath each ESD requirement and Sustainability Pillar. The project will meet these targetable outcomes through the building's design, construction, and operation to deliver on the Sustainability Vision's goal statement for each Pillar. Figure 6.2 opposite illustrates particular targetable outcomes on a preliminary 3D render of the project to visually demonstrate how they will be achieved.

Innovation | Four targetable outcomes embody this pillar by fostering the exploration of new solutions — such as adaptive reuse, sustainable construction technologies, and circular economy strategies — while showcasing their implementation and success, ultimately unlocking greater potential and advancing a more sustainable Sydney.

Better Places | Six initiatives respond to this pillar by embedding connections to place and Country, urban greening, and biophilic design in the building, while enhancing biodiversity, ecosystem health, and indoor comfort to create inclusive, diverse, and sustainable environments that prioritise the well-being of people and the planet.

Strengthen Community | Four targetable outcomes support this pillar by fostering inclusivity, supporting diverse needs, celebrating local art and culture through public art, building operational resilience, and ensuring responsible supply chains, all guided by regenerative design principles to create stronger, more resilient communities.

Emissions Reduction | Five initiatives respond to this pillar by preparing for an all-electric future, maximizing onsite renewable energy, securing green power supply, prioritizing the retention of existing structures to reduce embodied carbon, and optimizing design efficiency to minimize material use, collectively reducing both operational and embodied carbon impacts.

Operate Efficiently | Five targetable outcomes support this pillar by adopting a systems-thinking approach, prioritizing passive design strategies, improving waste management, reducing water consumption, and training staff to ensure ongoing operational efficiency, all contributing to reduced consumption of energy, water, and waste.

Circular Economy | Four targetable outomces embody this pillar by maximizing the reuse of demolition waste, recycling precast concrete panels, specifying low-carbon and recycled materials, and targeting zero waste to landfill, to drive innovation across material manufacturing, design, construction, and end-of-life processes.

NABERS ENERGY

Required ★★★★½☆ Targetted ★★★★½☆

1. Improve facade performance, provide appropriate solar control and insulation
2. Provide appropriate controls for lighting and air-conditioning
3. Choose high-performance chillers
- Investigate benefit of heat recovery on the fresh air supply

INNOVATION

4. Pioneer the retention and adaptive reuse of existing hotel buildings in Sydney
- Implement innovative and sustainable construction technologies
5. Adopt leading circular economy strategies (e.g. existing materials inventory, material passports)
- Lead by example, communicate and promote project success and key learnings

BETTER PLACES

6. Connect to place and Country, led by Traditional Owners
7. Mitigate urban heat island effect through incorporation of urban greening strategies
8. Design rooftop and ground spaces to create opportunities to connect to nature
- High indoor environment quality that promotes thermal and visual comfort
- Improve ecosystem health and biodiversity
- Embed biophilic principles in design

STRENGTHEN COMMUNITY

9. Strengthen community art and culture through the incorporation of public art
- Build operational capacity over time, to ensure the project is resilient
- Consider impacts within the supply chain in construction and operational procurement
10. The project is inclusive to a diverse range of people with different needs

GREEN STAR BUILDINGS V1

Required ★★★★★☆ Targetted ★★★★★☆

- Achieve points across the Responsible, Healthy, Resilient, Positive, Places, People, and Nature categories
- Focus on achieving points in the 'Energy Use' and 'Water Use' categories

EMISSIONS REDUCTION

11. Prepare for an all-electric future by removing existing gas connections
12. Maximise onsite renewable energy generation
- Investigate securing a power purchase agreement to ensure 'green' power supply
- Prioritise the retention of the existing building to reduce embodied carbon
- Optimise design efficiency to minimise absolute material quantities

CIRCULAR ECONOMY

- Maximise reuse of appropriate demolition waste onsite or in the local community
- Recycle existing precast concrete panels by crushing for reuse as aggregate
13. Specify low-carbon and recycled content materials (structure, facade, and finishes)
14. Target a zero waste to landfill approach

OPERATE EFFICIENTLY

- Adopt a systems-thinking approach to building design, construction and lifecycle
- Prioritise passive design principles to minimise operational energy use
15. Improve waste management
- Reduce water use through inclusion of water efficient fixtures
- Train staff to operate in an efficient manner

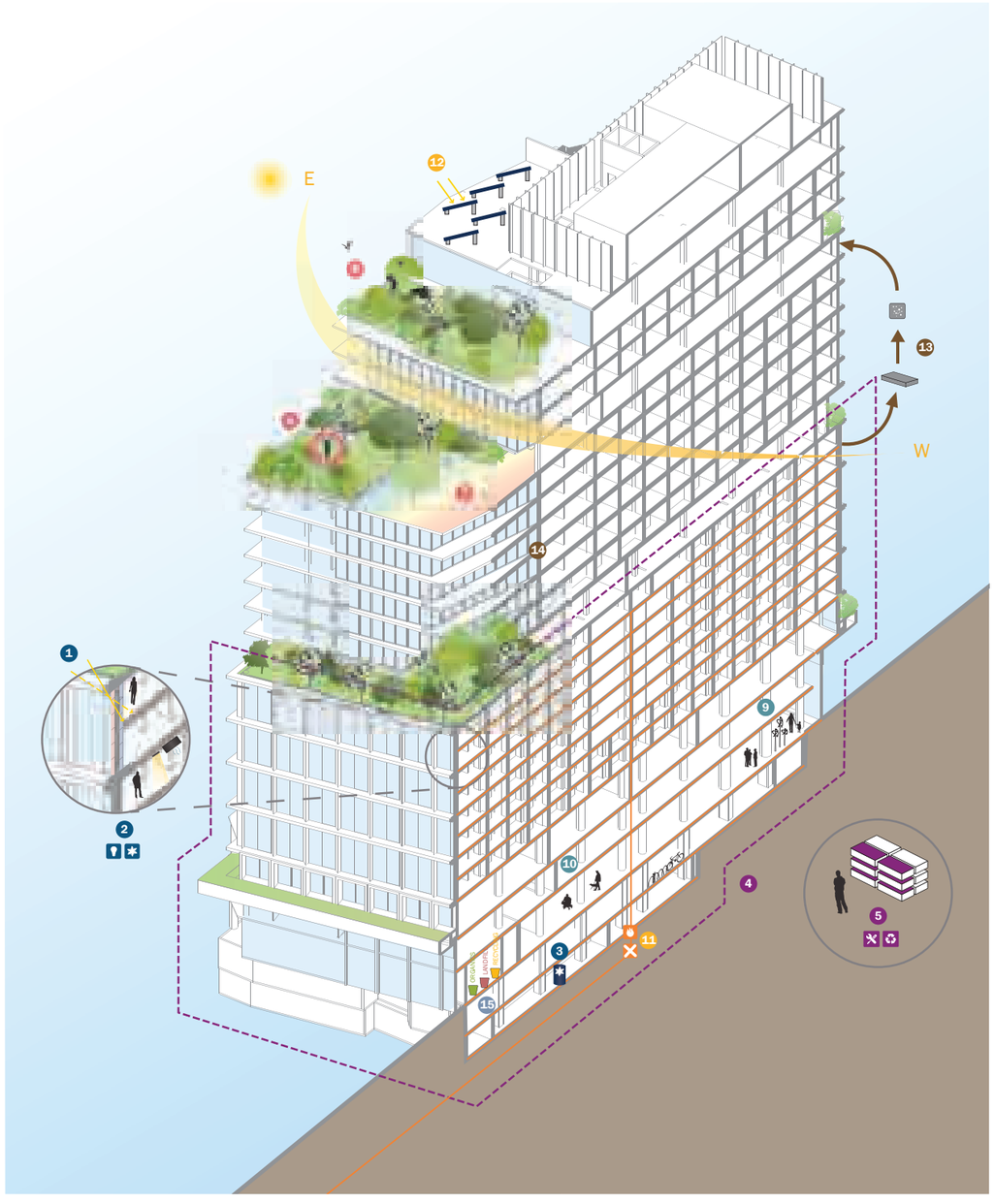


Figure 6.2 150 Day St Sustainability Strategy. Source: Atelier Ten

Assurance and Benchmarking

7 Assurance and Benchmarking Review

It is imperative that the project's sustainability objectives are backed up by an approach to assurance that gives absolute confidence that the claimed outcomes will be achieved.

This requires a framework for assurance that covers the sustainability objectives and provides:

- Independent review
- Transparency of methodology
- Accountability at each phase of the life-cycle

These rating tools are versatile, operating across different scales to drive sustainability outcomes:

- Precinct/Community Scale | At this scale, holistic sustainability tools address a spectrum of interconnected themes. They evaluate the broader environmental, social, and economic impacts of an entire precinct or community, providing a comprehensive view of sustainable development.
- Building Scale | Sustainability assessment tools also operate at the building level, scrutinising aspects such as energy efficiency, materials usage, and indoor environmental quality. These tools ensure that individual buildings align with sustainability goals.
- Interiors Scale | For interior spaces, sustainability criteria focus on factors like indoor air quality, lighting, and ergonomic design. These tools promote healthy and productive indoor environments.
- Operations Scale | Beyond design and construction, these tools extend to the operational phase, ensuring ongoing sustainability performance. They encompass energy consumption, waste management, and maintenance practices, among other aspects.

Using third-party sustainability rating tools for assurance offers a range of benefits, including::

- Credibility | Third-party tools provide an objective assessment of a building's or project's sustainability performance, enhancing its credibility and demonstrating commitment to sustainable practices.
- Standardisation | These tools establish standardised criteria for sustainability, allowing for consistent measurement and comparison across projects, sectors, and regions.
- Market Differentiation | Certification through third-party tools can set a project apart in the market, attracting environmentally conscious clients, tenants, and investors.
- Informed Decision-Making | The assessment process provides comprehensive data and insights, enabling stakeholders to make informed choices for design, construction, and operation.
- Risk Mitigation | Sustainability tools address potential risks related to energy consumption, resource depletion, and regulatory compliance, leading to more resilient projects.
- Cost Savings | Efficient resource usage, reduced energy consumption, and optimised designs often result in lower operational costs over the building's life-cycle.
- Stakeholder Engagement | Certification enhances engagement with stakeholders, including local communities, by demonstrating commitment to environmental responsibility.
- Occupant Well-being | Tools often focus on indoor air quality, lighting, and other factors that directly impact occupants' health and well-being.
- Innovation | Many rating systems encourage innovative approaches to sustainability, fostering the adoption of new technologies and practices.
- Long-Term Value | Sustainable buildings tend to have higher property values due to lower operational costs and market demand for environmentally friendly properties.
- Industry Leadership | Pursuing and achieving certification positions a project or organisation as a leader in sustainable practices within their industry.
- Transparency | Third-party certification promotes transparency by providing clear documentation of a project's sustainability features and performance.
- Positive Reputation | Certification enhances an organisation's reputation as a responsible corporate citizen, which can lead to increased trust and goodwill.

7.1 Required Certifications

The following certifications have been assessed for their viability in delivering the maximum benefit to this project. Below is a brief outline of the assessment made in order to provide further detailed discussion on the best practice certification rating tools deemed applicable and closely aligned to the sustainability initiatives for 150 Day St.

- Green Star Buildings: Standardised Certification process in the Australian market for delivering a Climate Positive building that's fossil fuel free, powered by renewables, highly efficient, built with lower carbon materials and offset with nature.
- NABERS: NABERS measures the energy efficiency, water usage, waste management and indoor environment quality of a building or tenancy and its impact on the environment in operation. By pursuing these targets in operation, reductions in energy and water costs can be achieved.



Figure 7.2 Different Life cycle Phases. Source: Atelier Ten



Figure 7.1 Comparison of Key Sustainability Benchmarking Tools. Source: Atelier Ten

7.2 Green Star

What is it:

- Green Star is an internationally recognised sustainability rating system with a local focus.
- Launched by the Green Building Council of Australia in 2003, Green Star is Australia's only national, voluntary rating system for buildings and communities.

What does it cover:

- Green Star ratings are available for every building type across four Green Star rating tools which provide a means of certification for building design and construction, operation, fit-outs and communities. These tools have been developed by Green Building Council of Australia (GNCC), in close consultation with industry and government.
- Green Star Buildings focus on design and construction of all building types, including office and mixed-use buildings.
- Green Star Interiors focuses on the interior fit-out of a new or existing building.
- Green Star Communities is also available for developers choosing to integrate a holistic sustainable approach to an entire precinct and can be achieved hand-in-hand with Green Star Buildings.
- Green Star Performance is available for the ongoing operations of certified Green Star Buildings, to maintain sustainable achievements over time.

What is its focus:

- Delivering a Climate Positive building in the Australian context that's fossil fuel free, powered by renewables, highly efficient, built with lower carbon materials and offset with nature.

Key issues:

- Green Star Buildings includes the Climate Positive Pathway - a clear set of targets aligned with the IPCC recommendations for Climate Positive Buildings.
- Buildings that meet the Climate Positive Pathway automatically comply with the Climate Bonds Initiative, allowing access to sustainable finance.
- Faster reporting process through alignment with leading frameworks, including the UN Sustainable Development Goals, GRESB, IPCC recommendations and the Task Force for Climate Related Financial Disclosure.



Figure 7.3 Green Star Rating Tools (Source: Green Building Council Australia, 2024)



Figure 7.4 Eight Categories Proposed for New Buildings Tool (Source: Green Building Council Australia, 2019)

7.3 NABERS

What is it:

- NABERS (National Australian Built Environment Rating System) is an national rating system, originating in Australia, that measures the environmental performance of buildings and tenancies.
- Initiated by the Australian government in New South Wales in 1998, it has become a globally recognised tool for comparing the environmental performance of buildings in a relatively standardised way for comparison.

What does it cover:

- NABERS ratings are available for the following building types - offices and tenancies, shopping centres, apartment buildings, public hospitals, hotels, data centres, residential aged-care and retirement living, warehouses and cold stores.
- NABERS Ratings include Energy, Water, Waste, Indoor Environment, Carbon Neutral and Renewable Energy Indicator.
- Whilst NABER Ratings apply to operational buildings, the ratings are used as targets in building design to ensure that mandatory targets for water and energy consumption in certain building categories can be met in operation.
- NatHERS (National House Energy Rating Scheme) is also an initiative of the Australian Government, and designed to reduce greenhouse gas emissions and increase the efficiency of homes by measuring the heating and cooling over the year. This is also a rating that is used as a tool to design for.

What is its focus:

- NABERS measures the energy efficiency, water usage, waste management and indoor environment quality of a building or tenancy and its impact on the environment in operation.

Key issues:

- The Building Energy Efficiency Disclosure Act 2010: Australian government legislation requires owners of office buildings to disclose the energy efficiency of the building to prospective tenants or buyers. Known operationally as the Commercial Building Disclosure (CBD) program, a certified NABERS Energy rating is the main energy efficiency indicator required of building owners
- Various schemes are available for capital funding and rebates such as the ability to take part in energy schemes, such as the ESC in New South Wales.



Figure 7.5 NABERS Rating (Source: NABERS)



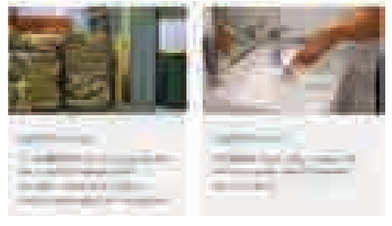


Figure 7.6 NABERS Rating Types (Source: NABERS)

Case Studies

atelier ten

8 Case Studies



8.1 Ace Hotel, Sydney AUS

Architect I Bates Smart
Project size I Unknown
Project Cost I $72 million AUD
Type of build I Retrofit (existing heritage building) and new build
No. rooms I 264

Key sustainability outcomes and their supporting design initiatives:

- **Integrated Design Approach**
  Process by which all design variables that affect eachother are considered together and resolved in an optimal fashion. This holistic approach to design ensure optimal sustainability outcomes for the project.
- **Extensive arts and culture calendar**
  Artist in residence and DJs take over lobby space for exhibitions and performances, providing entertainment for both guests and the general public, strengthening community.
- **Mixed-mode ventilation**
  Building is capable of being operated using natural ventilation when the outdoor conditions are favourable, leading to the significant energy reduction of building services and improve usabilty for guests.

Notable achievements:

- City of Sydney Council - Environmental Performance Standards



8.2 ANMF Hotel, Melbourne AUS

Architect I Bayley Ward
Project size I Unknown
Project Cost I Unknown
Type of build I Retrofit (existing heritage pub) and new construction (hotel)
No. rooms I 29

Key sustainability outcomes and their supporting design initiatives:

- **Embodied carbon savings**
  Cross-laminated timber structure significantly reduces the embodied carbon in the building, compared to a typical concrete structure.
- **Reused timber joinery in Central Club Hotel beneath hotel**
  Salvaged timber from the keg roll and structural beams during demolition now forms joinery an tabletops, narrating a tale of adaptive reuse.
- **90% operation energy savings**
  High-performance building envelope (airtight, thermal insulation, high-performance windows, thermal bridge free construction) and curtain wall system.
- **Improved air quality**
  Controlled mechanical ventilation heat recovery to supply fresh filtered air directly to each guest room.

Notable achievements:

- Passivhaus accreditation of sustainable building design



8.3 Capri Hotel, Brisbane AUS

Architect I Plus Architecture
Project size I Unknown
Project Cost I $44 million AUD
Type of build I Adaptive reuse (office building converted to hotel)
No. rooms I 239

Key sustainability outcomes and their supporting design initiatives:

- **Significant embodied carbon savings from adaptive reuse**
  The original building was an office building which was converted into a hotel, resulting in significant embodied carbon savings, compared to a new construction.
- **58% renewable energy run operations**
  Obtained through a Green Power Purchase agreement
- **Effective waste separation to reduce waste contamination**
  The hotel uses multiple waste streams (paper, plastic, glass and general) to encourage responsible waste management and reduce waste contamination in the different streams.
- **Plastic waste reduction**
  Complimentary water provided in reusable bottles and wall-mounted bathroom supplies further reduce single-use plastics.
- **Digital in-room directories**
  Paper in-room directories replaced with digital versions to reduce waste.

Notable achievements:

- 4.5 Star NABERS Energy rating
- Climate Active Carbon Neutral hotel



8.4 Chadstone Hotel, Malvern East AUS

Architect I Bates Smart
Project size I Unknown
Project Cost I $130 million
Type of build I New build
No. rooms I 250

Key sustainability outcomes and their supporting design initiatives:

- **480 tonnes Greenhouse Gas Emissions saved annually**
- **High-performance building facade**
  Thermally enhanced curtain wall system, anodised aluminium fins
- **Renewable energy generation**
  Extensive rooftop solar photovoltaics (PV) array
- **Healthy indoor environment**
  Low pollutant interior materials and finishes, adequate daylight
- **Efficient fixtures**
  LED lighting with occupancy sensors, water efficient fixtures and fittings, heat recovery ventilation systems
- **Reduced waste from prefabricated systems**
  Integrated structural prefabrication, unitised curtain wall facade system

Notable achievements:

- Green Star Design As Built v1.1 5 Star rated
- 5-Star hotel



8.5 Lanson Place Parliament Gardens, Melbourne AUS

Architect | Conran & Partners, Denton Corker Marshall
Project size | Unknown
Project Cost | $80 million AUD
Type of build | Retrofit (existing heritage Salvation Army printing press building) and new construction (hotel)
No. rooms | 137

Key sustainability outcomes and their supporting design initiatives:

- **Architectural grafting**
  The hotel's design philosophy upcycles existing heritage building by attaching new hotel addition to the old structure, bringing new life to the building through strategic addition and helping to mitigate climate change through reducing embodied carbon emissions.
- **Single use plastics waste reduction**
  Complimentary water provided in reusable bottles, cardboard toiletries packaging, wooden room keys and wall-mounted bathroom supplies further reduce single-use plastics.
- **Extensive artist engagement**
  325 comissioned pieces of art and sculpture inspired by the building's sotried past line the hotel's interior spaces including a 40-metre ceiling installation drawing inspiration from the native Melaleuca paperpark tree and linking to printing press headquarters heritage.

Notable achievements:

- 5 Star Boutique Hotel



8.6 Proximity Hotel, Greensboro North Carolina USA

Architect | Centrepoint Architecture
Project size | 102,000 square feet
Project Cost | $28 million USD
Type of build | New build
No. rooms | 147

Key sustainability outcomes and their supporting design initiatives:

- **39% less energy than a comparable conventional hotel**
  Well insulated building envelope, high-performance facade, operable windows reduce heating and cooling needs
- **33% less water than a comparable conventional hotel**
  Low-flow toilets, waterless urinals, and low-flow faucets. Solar thermal panels provide 60% of the hotel's water heating needs.
- **Estimated $140,000 USD annual utility savings**
  Efficient operations, salvaged material reuse, high energy performance building.
- **46% building materials sourced regionally**
  Bar in restaurant made from salvaged native walnut trees brought down by storm, the majority of furniture for the hotel was made within 18 miles of the site.
- **Local artwork for hotel guest rooms**
  Project artist-in-residence created 500 pieces of art for the guest rooms, working in a temporary studio adjacent to the hotel. This eliminated the need for emissions and waste associated with transporting and packaging the artworks, respectively.

Notable achievements:

- LEED Platinum 'green hotel' sustainability rating
- Four Diamond Rating for luxury hotels

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Attachment A10

View sharing analysis

150 DAY STREET
VIEW SHARING ANALYSIS

PREPARED FOR
UOL GROUP
MARCH 2025
FINAL

URBIS

URBIS STAFF RESPONSIBLE FOR THIS REPORT:

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Project Team:	Nicholas Sisam, Manuel Alvelo
Project Code:	P0043509
Reference:	150 Day Street View Sharing Report
Version:	C
Report Status:	Final
Date:	March 2025

We acknowledge Aboriginal and Torres Strait Islanders as the traditional custodians of all the lands throughout Australia. We recognise and respect the connection to their land, cultural heritage and community, and we pay respects to their Elders past, present and emerging.

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EXECUTIVE SUMMARY

- This view sharing assessment has been prepared by Urbis in relation to a Planning Proposal for 150 Day Street, Sydney (the site).
- The planning proposal for the Park Royal Hotel at 150 Day Street, Sydney, involves an upgrade of the existing hotel and introducing a new hotel above on the same site by increasing the maximum building height to 85m.
- The proposal is located within a highly urbanised location located at the south end of Sydney's CBD, near Darling Harbour which includes built-form of varied height and scale, including similar to the proposal in visual a context that is predominantly characterised by mid-height and taller tower forms
- The area surrounding the site is characterised by a mix of commercial, residential, and hospitality development which includes significant redevelopment, with older buildings being replaced or upgraded to meet the demands of businesses and technology-driven enterprises.
- Without the benefit of inspections at neighbouring dwellings, Urbis analysis relies on computer generated images (CGIs) which show potential views and extent of visual change that would occasion the approval and construction of the proposed development.
- The Central Sydney Planning Strategy recognises that views are subject to change as redevelopment occurs and regulating for maintenance of private views is overly restrictive and complex.
- The view sharing impacts have been considered in the context of the *Tenacity* planning principle, at a high level and without the benefit of view inspections.
- *Tenacity* is the most widely used and referenced planning principle in relation to the assessment of impacts on private views and view sharing.
- In total of the 7 buildings assessed:
  - 2 were found to have minor view impacts
  - 1 had minor-moderate view impacts
  - 1 had moderate view impacts
  - 3 had moderate-severe view impacts.
- The proposal would change the spatial composition for 5 buildings assessed where in some views in a north-westerly direction, the proposed development would alter the composition
- Two of the buildings (views 6 & 7) were rated minor when considered within the wide view composition and therefore not changing the overall spatial composition.
- None of the views to be affected include icons, and the views assessed would not be considered as iconic in Tenacity terms.
- The views affected were not considered to be scenic or highly valued views.
- The proposal is highly compatible in visual terms with its surrounding context.
- For all views considered based on the CGIs, view loss per dwelling is limited in qualitative terms, and the view impact per dwelling based on the information available, is reasonable and acceptable.

01 INTRODUCTION

1.1 PURPOSE OF THE REPORT

The purpose of this view sharing assessment is to understand the visual effects and potential view impacts in neighbouring views, of proposed uplift on the subject site, subsequent to the approval of the planning proposal and construction of new built form.

1.2 SUBJECT SITE

The site is located within the City of Sydney local government area (LGA) with an area of approximately 2,250m². The site is currently occupied by a 10-storey hotel known as the Park Royal Darling Harbour. The site has street frontages to Day Street, Bathurst Street and Sands Street and abuts the Western Distributor to the north.

The existing development on site was erected in the late 1980s and underwent significant modification in the mid-1990s.

1.3 PROJECT DESCRIPTION

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 (the LEP) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:



Figure 1 Site location (Urbis).

- Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
- 490-540 hotel keys with gross floor area of ~30,000m²
- Upgrade existing infrastructure and services (including new lift core),
- New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
- Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.

- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

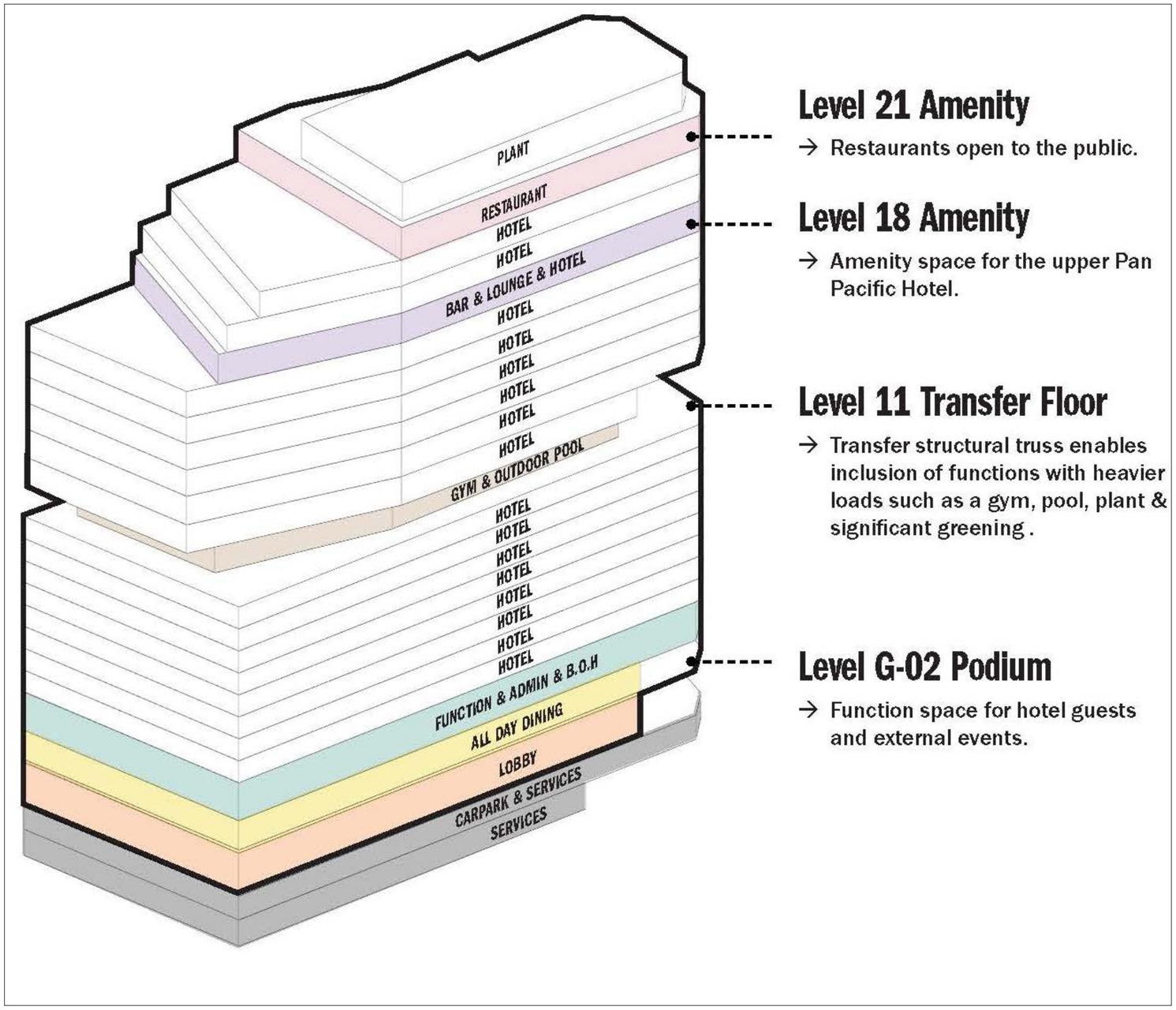


Figure 2 Spatial layout strategy (Hassell March 2025).

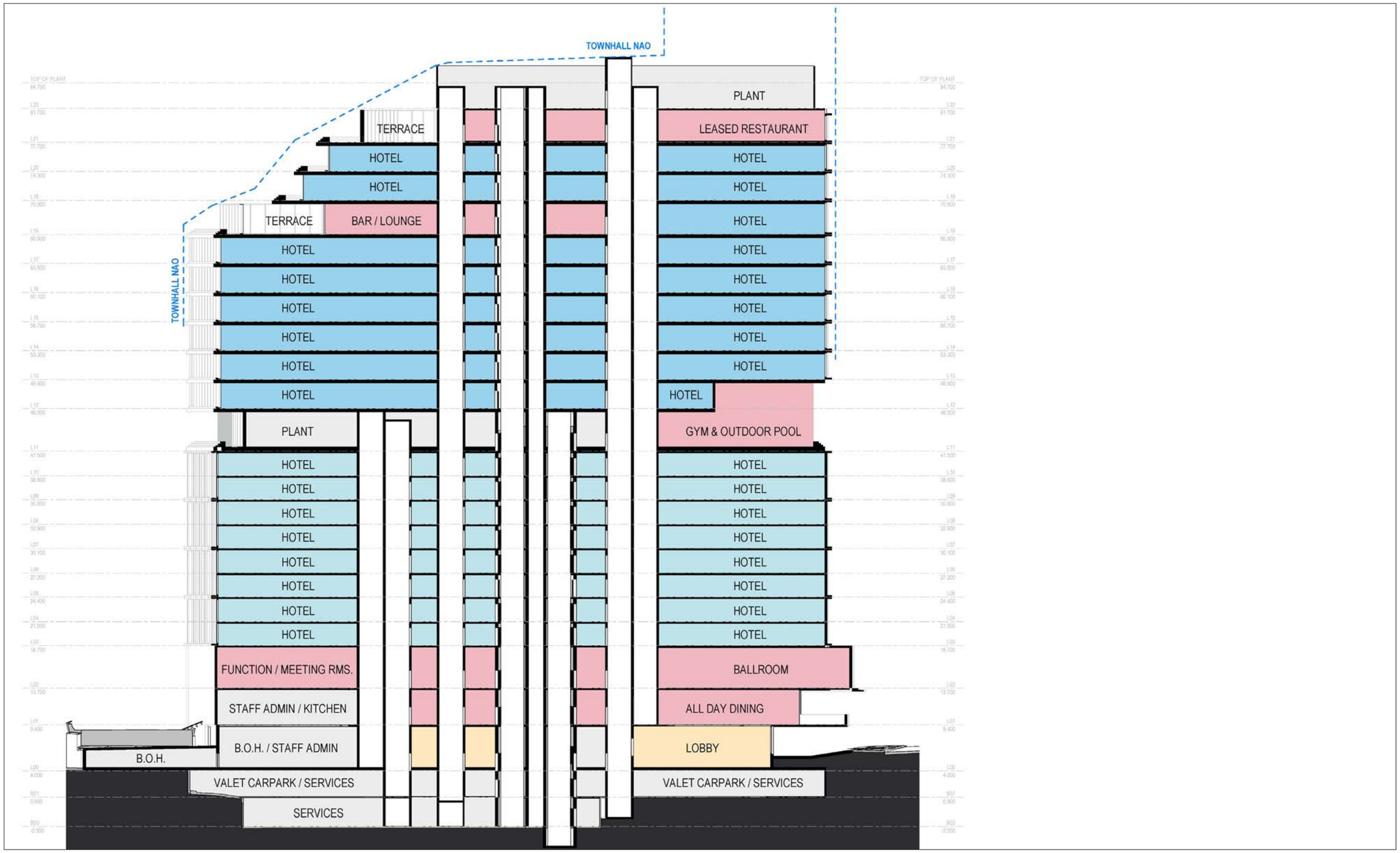


Figure 3 Proposed building cross section (Hassell March 2025).

02 VISUAL CONTEXT & VISUAL CATCHMENT

2.1 SURROUNDING VISUAL CONTEXT

The area surrounding the site is characterised by a mix of commercial, residential, and hospitality development. Many of the buildings in this area are multi-storey office buildings with modern façades. There has been a trend of redevelopment, with older buildings being replaced or upgraded to meet the demands of businesses and technology-driven enterprises. Additionally, there has been a surge in the construction of residential towers, providing high-density living options.

In terms of architecture, buildings around the site often feature high-rise structures that accommodate office spaces, with ground-floor retail areas contributing to the active streetscape. The area is part of a broader trend in Sydney, where old industrial zones and smaller buildings are being replaced or re-imagined to make way for more modern, efficient commercial spaces. The proximity to Darling Harbour and other tourist attractions has spurred the development of numerous hotels and serviced apartments. The ground floors of many buildings in the area are occupied by retail stores, cafés, and restaurants. Day Street itself is a short street that runs parallel to some of Sydney's major thoroughfares, with close proximity to transport links like Town Hall Station.

Public open space includes parks, pedestrian pathways, and cycling routes, as well as upgrades to public transport facilities. The area also benefits from its proximity to cultural and recreational facilities such as the International Convention Centre Sydney (ICC Sydney), the Australian National Maritime Museum, and various entertainment venues.



Figure 5 528 Kent Street.



Figure 6 72 Liverpool Street.

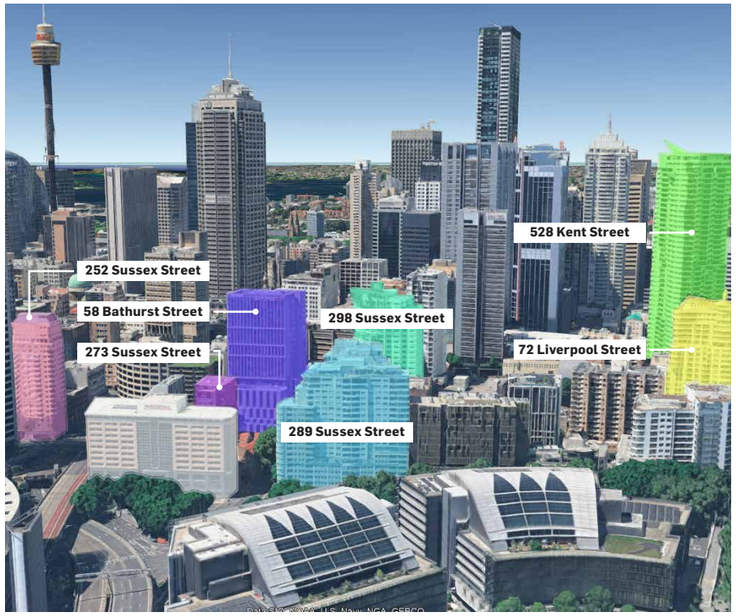


Figure 4 Surrounding built-form visual context.



Figure 7 58 Bathurst Street.

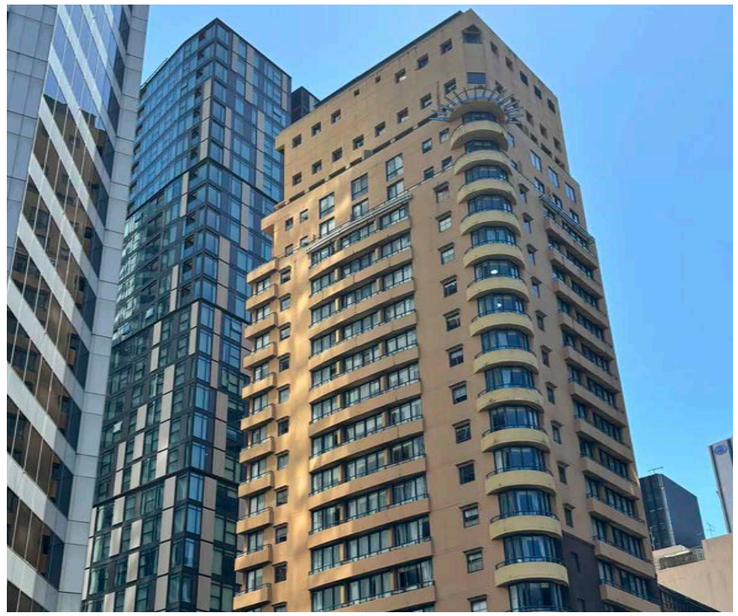


Figure 8 252 Sussex Street.

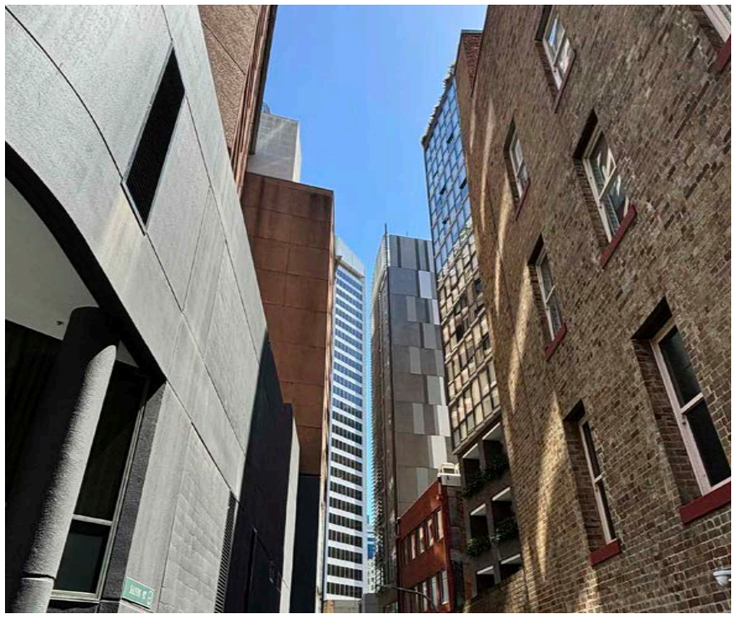


Figure 9 Sands Street and western elevation of 273 Sussex Street.



Figure 10 289 sussex Street.



Figure 11 289 Sussex Street.

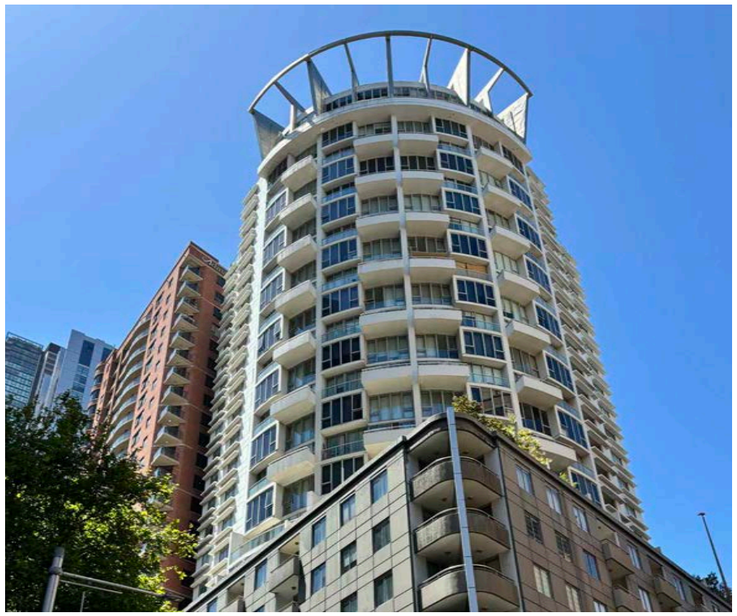


Figure 12 298 Sussex Street.

2.2 INDICATIVE VISUAL CATCHMENT

The potential visual catchment is the theoretical area within which the proposal may be visible. The visibility of any proposed development varies depending on constraints such as the blocking effects of intervening built form, vegetation or topography.

Visibility refers to the extent to which the proposal would be physically visible and identifiable. For example it could be identifiable as a new, novel, contrasting or alternatively as a recognisable but compatible feature.

Visibility in this report refers to the extent of proposed built form that would be visible in addition to the existing building. and may create potential view loss.

The potential visual catchment of the proposed development was initially determined via a desktop review of the site using 3D aerial imagery, maps and client supplied information. Fieldwork observations and Google Earth data across the potential visual catchment have been used to inform the extent of potential external visibility of the proposed built form on the site, from surrounding development (Figure 14).

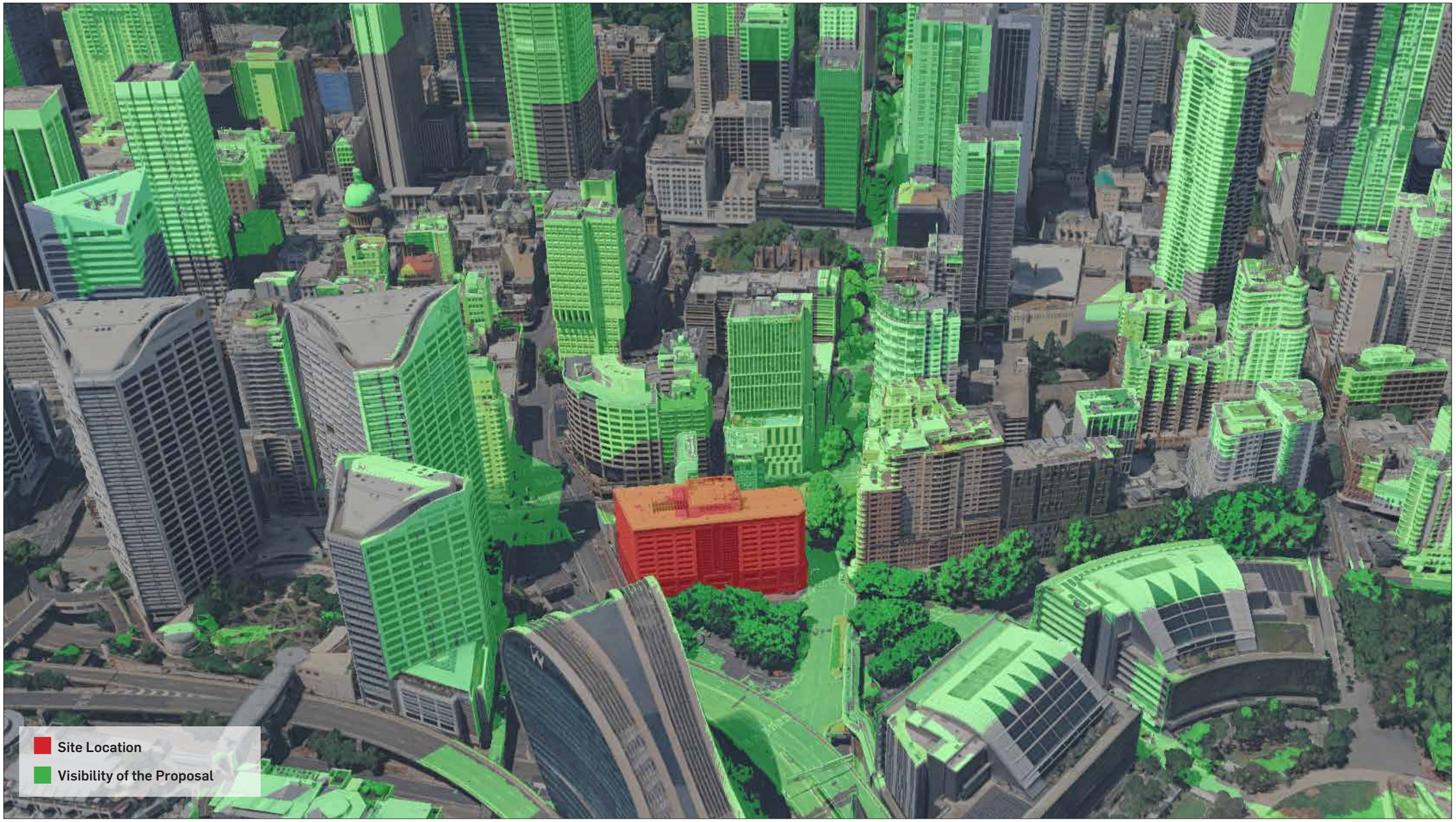


Figure 13 Indicative visual catchment.

03 PLANNING PRINCIPLES

3.1 *TENACITY*

View loss or blocking refers to the extent to which a new built form blocks an existing view or part of the composition of a view that is currently enjoyed. Where a proposed development is likely to adversely affect views from private land, Council may assess the extent of visual change against the Planning Principle established in the Land and Environment Court *Tenacity Consulting v Warringah Council [2004]* NSWLEC 140 (*Tenacity*).

Tenacity is the most widely used and referenced planning principle in relation to the assessment of impacts on private views and view sharing.

The planning principle states that consideration should be given to the causes of the visual impact and whether they are reasonable in the circumstances. As stated in the preamble to the four-step process in *Tenacity*, a development that takes the view away from another may notwithstanding be considered reasonable. This is important because it also means that a severe or devastating level of impact can nevertheless be reasonable.

Tenacity does not clearly distinguish between extent (the quantity) of view loss (and in fact dissuades the use of quantifying view loss) and tends to equate view loss with impact, whereas whether a view lost is significant is a matter of judgement and consideration of various relevant factors.

The fourth step in *Tenacity* refers to the skilful design of the proposed development. This step is only applicable if the proposed development complies with all relevant controls. The so called 'test' is not about whether a design is skilful, in the sense of the architect's expertise in creating a successful architectural design; instead the intent of the fourth step is to look for opportunities within the massing and form of the proposal to minimise the impact on views across the site, whilst maintaining the capacity to reasonably develop the site.

It is important not to conflate the extent of change (quantum of view loss) with the importance of the impact. In this regard we caution the use of photomontage or CGIs which show the extent of view loss in one individual view, given that view loss in isolation, does not equate to an overall view impact for a whole dwelling.

Relevant factors to be considered in Tenacity are;

- Scenic quality, value and predominant character of the composition eg;
- Formal presentation of the dwelling in relation to the site,
- Internal room types and uses for the entire dwelling including consideration of visual effects from all parts of the dwelling and consideration of effects in relation to a whole residential flat building, including dwellings that will be unaffected.
- Ownership of space through/over which a view is gained,
  Remaining view composition,
- The reasonable development potential of site,
- Permissibility and compliance in relation to the built form proposed.

3.2 *SYDNEY DEVELOPMENT CONTROL PLAN 2012*

Section 5 of the Sydney Development Control Plan (DCP) 2012 establishes additional provisions for specific areas in the local government area including Central Sydney and the proposal site.

Section 5.1.2 specifically contemplates development outlook and amenity compliance:

In Central Sydney's dynamic and dense development environment certainty for the protection of private amenities such as sunlight and views cannot be guaranteed. The maintenance of sunlight access and private views to existing development should not unduly restrict the economic performance and economic growth of Central Sydney, where proposed development has demonstrated compliance with Sydney LEP 2012, in relation to height and FSR, and Sydney DCP 2012 Section 5.1.1 Built form controls. This is especially the case for proposed employment related developments that impact on existing residential and serviced apartment developments.

3.3 CITY PLAN 2036: LOCAL STRATEGIC PLANNING STATEMENT

The City of Sydney's City Plan 2036: Local Strategic Planning Statement (LSPS) sets out a 20-year land use vision that aims to balance the need for housing and economic activities while protecting and enhancing local character, heritage, public places and spaces.

Council's LSPS recognises that Central Sydney is the economic powerhouse of the nation and the most economically productive and internationally competitive area in Greater Sydney. It notes that the night time and visitor economy is a key part of Sydney's success. The night time and visitor economy supports the city's global standing in terms of liveability and productivity by providing a diverse social and cultural offering for residents, visitors and workers of all ages.

The LSPS seeks to build upon the economic significance of the CBD and has a key focus on productivity. It recognises that productivity is about enabling jobs and skills growth and a well-connected city to create conditions for a stronger economy. Therefore, job growth remains a key priority.

With respect to views, the LSPS notes that the city has a privileged position on Sydney Harbour with its foreshore and parklands and many important buildings and structures. This creates view corridors with some considered:

- 'Iconic' (e.g. Sydney Opera House and Harbour Bridge);
- 'Significant' (e.g. Town Hall tower viewed from Hyde Park and the Lands Department tower viewed from Sydney Cove);
- 'Important historically' (e.g. view from the signal station on Observatory Hill to the South Head Lighthouse); and
- 'Associated with special places over a long period of time' (e.g. view down Bent Street from the steps of the Mitchell Library).

The LSPS notes that the above-mentioned public views from public places are worthy of conservation.

3.4 CENTRAL SYDNEY PLANNING STRATEGY

The Central Sydney Planning Strategy (CSPS) aims to ensure strong planning for Central Sydney. It outlines how Central Sydney will grow in the future and includes development controls to promote the type of growth and environment for Central Sydney to remain part of one of the world's truly unique and memorable global cities, recognising its role as the State and nation's economic, cultural and social engine. It outlines several key objectives including:

- Prioritise employment growth and increase
- Ensure development responds to context
- Provide for employment growth in new tower clusters
- Move towards a more sustainable city
- Protect, enhance and expand Central Sydney's heritage,
- Reaffirm commitment to design excellence

The CSPS also provides a framework of 10 'key moves' which aim to drive the continued growth and economic success of Sydney and its expansion.

It notes that tourism is one of the fastest growing economic sectors and is a significant contributor to employment opportunities. Many of Sydney's major hotels were developed from the mid to late 1980s. Development activity slowed from 2001 and the global financial crisis held back a recovery in the late 2000s, but strong trading in recent years has led to the planning of new accommodation. The CSPS notes that future demand will be strongest in the three-star category, assuming the conversion of old office building stock in the city centre and changes in the profile and preferences of international visitors. Reflected in high occupancy rates and growth in room rates, it notes that demand for space in the hotel and accommodation sector is strong.

With respect to views, the CSPS articulates that 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. However, it recognises that views are subject to change as redevelopment occurs and regulating for maintenance of private views is overly restrictive and complex. Maintaining existing private views inhibits change and would render Central Sydney uncharacteristically static. Importantly, it notes that there is often no scope available within the confines of planning requirements to adjust the shape of a building in Central Sydney or move its location on the site. The CSPS states that for these buildings, better design to provide a better view is rarely possible.

04 PRIVATE DOMAIN VIEWS

4.1 USE OF COMPUTER GENERATED IMAGES (CGIS)

CGIs are a useful objective visual aid which show the likely view compositions that are available from window openings or adjacent external viewing positions such as balconies. The virtual camera locations cannot represent actual internal views that would be available from inside the dwelling and therefore over-state the potential view available, and in this regard also overstate the extent of visual effects (potential view loss) which may occur.

The CGIs show the 'likely view composition' available from the approximate location and height of a standing viewer from close to each respective window or balcony. In all cases the indicative views shown are from external locations at the façade, either aligned with windows or balconies and at approximately 1.6m above the surveyed floor level.

CGIs are 'constructed views' and do not include 'real world' built features or accurate height and density of vegetation. Urbis rely on the general arrangement of the compositional detail to understand the mid-ground and distant features that would likely be available from the approximate location.

4.2 VIEWS ANALYSIS

Without the benefit of views inspections from dwellings our assessment of potential view loss is based on an analysis of the 3D architectural DA massing model which is depicted in CGIs as a grey mass .

The extent of view loss has been assessed against the *Tenacity* Planning Principle in order to establish an overall view impact for a dwelling / building. Notwithstanding the determination of the view impact in Step 3 of *Tenacity* is subjective, and may vary between practitioners, the application of the *Tenacity* assessment for each dwelling / building has informed our opinion as to the overall view sharing outcome presented in the conclusion.

4.3 ASSESSMENT AGAINST *TENACITY*

The following commentary and assessment is made without the benefit of inspecting views from individual dwellings. In this regard Urbis have made every reasonable effort to understand existing views and resulting changes caused by a built form as proposed if approved and constructed.

The accuracy of the assessment is limited given the level of detail provided in CGI images and the extent of existing baseline information regarding views from dwellings. Notwithstanding, in our opinion, the placement of the proposal in views, the height of view places and the key features in the background composition are sufficiently accurate to be able to guide a high-level assessment against *Tenacity.*

The number and type of potentially affected rooms for each dwelling assessed is unknown. For assessment purposes the view is assumed to be from an external terrace or primary living area which offers the best view available, unrestricted by party walls, or internal structures including walls, or window treatments. In this regard the modelled view represents the 'worst case scenario', or the view where there is the greatest potential for view loss.

4.4 BASE CASE MODEL

The City of Sydney DCP Schedule 11 provides "procedures for demonstrating compliance with variation provisions for setbacks, separations and tapering in Central Sydney."Hassell Architects have produced a Base Case Model which has been included the following CGI's. An overview of how this maximum envelope was generated is as follows:

Step 1 - Maximum envelope that can sit behind the Crowne Plaza without impacting the Town Hall Square.

Step 2 - 25m podium and 8m setbacks as per City of Sydney guidance.

Step 3 - Overlay the existing building (which is taller than the 25m podium guidance).

For further information refer to the *150 Day Street Planning Proposal* report produced by Hassell Architects.

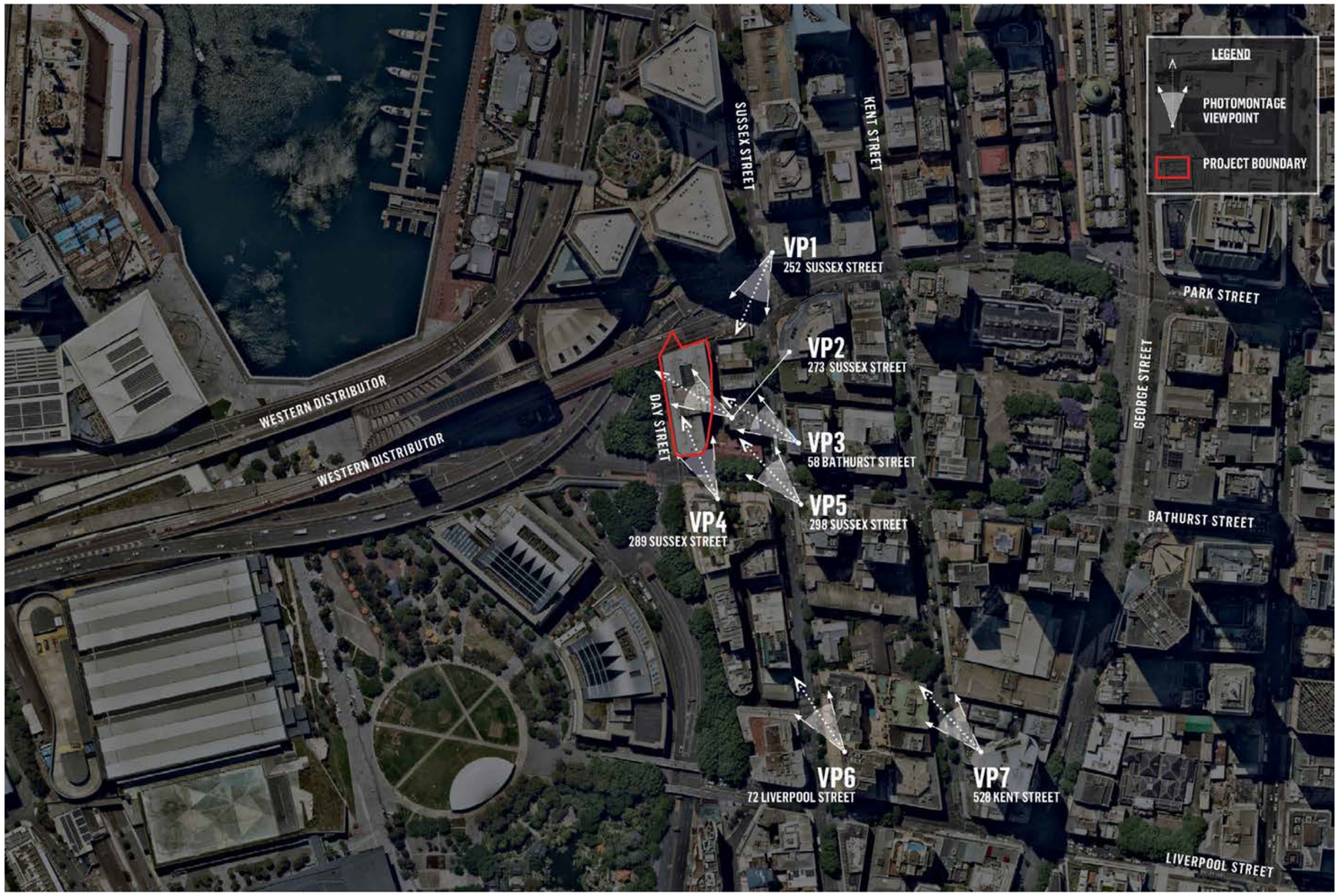


Figure 14 Viewpoint location map.

VIEW 01

252 SUSSEX STREET - SOUTH WEST VIEW

RL: 71.5

EXISTING COMPOSITION OF THE VIEW

The foreground and mid-ground composition is characterised by a mixture of urban built-form development including tower forms of varied height and scale as well as lower height development with large floorplates and significant bulk and scale arranged around Tumbalong Park.

The distant composition includes low and mid-height development amongst tree canopy in Glebe and Broadway.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal introduces new, contemporary development to the foreground composition which blocks views of development around Tumbalong Park and Darling Square.

The proposal blocks a section of the distant composition and extends above the horizon line due to the proximity of the viewpoint to the site.

The proposal does not block views to any unique, scenic or highly valued compositions.

The proposal replaces views of existing urban development with similar development which is visually compatible with what is present in the composition and results in visual change rather than visual impact.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

The built-form outside of the base case compliant setback envelope blocks small sections of existing Sydney CBD development to the left and right of the proposal and does not block views to any highly valued features or compositions.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Minor-moderate

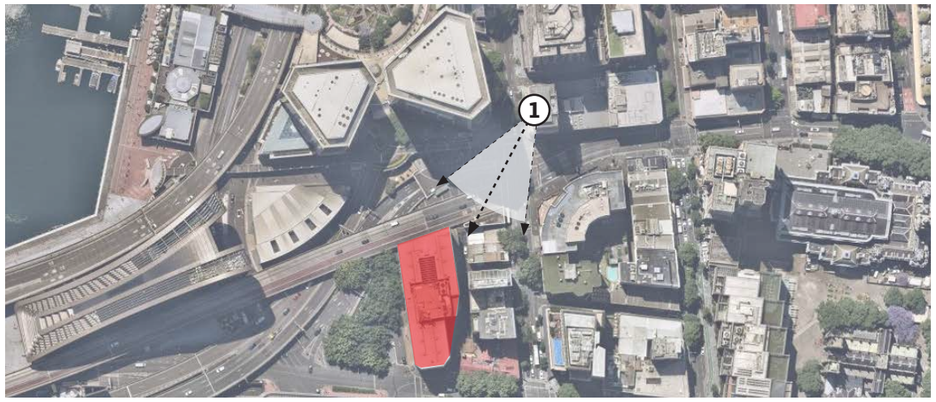


Figure 15 Viewpoint location.



Figure 17 252 Sussex Street.



Figure 16 Viewpoint existing view.

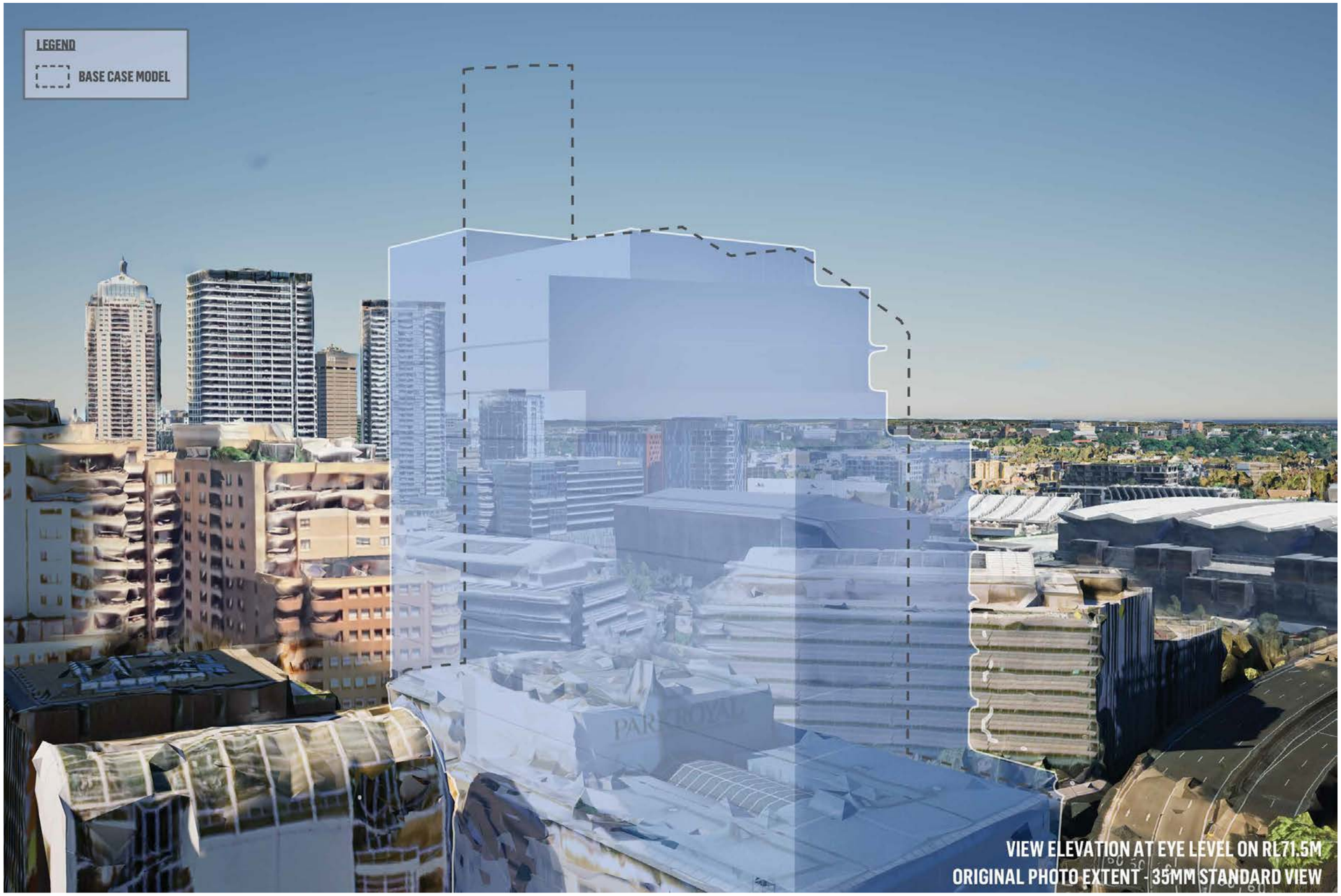


Figure 18 Viewpoint CGI.

VIEW 02

273 SUSSEX STREET - NORTH WEST VIEW

RL: 52.2

EXISTING COMPOSITION OF THE VIEW

The foreground composition is comprised of the existing roof and plant overrun of the Park Royal.

The mid-ground composition includes views of tall urban development around Darling Harbour which creates a narrow view corridor to open sky beyond.

The existing composition does not include views to iconic features or combinations of features which would be considered to have scenic merit or value.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal replaces the existing composition with development which blocks views to the mid-ground and distant compositions to the north-west from the west facing elevation of the top level (one dwelling).

The western elevation of the lower levels of the of the building would not experience any view loss as the existing view from each level is comprised of the eastern elevation of the existing hotel on site (**see Figure 10, pg. 10 and Figure 22 opposite**).

The proposal does not block views to any unique, scenic or highly valued compositions under the *Tenacity* scale of assessment.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Moderate-severe



Figure 19 Viewpoint location.

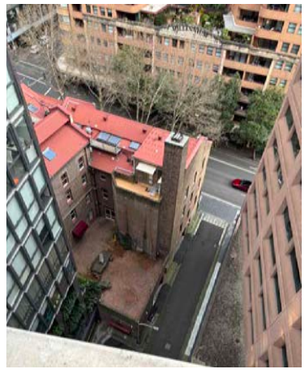


Figure 21 273 Sussex Street western elevation.

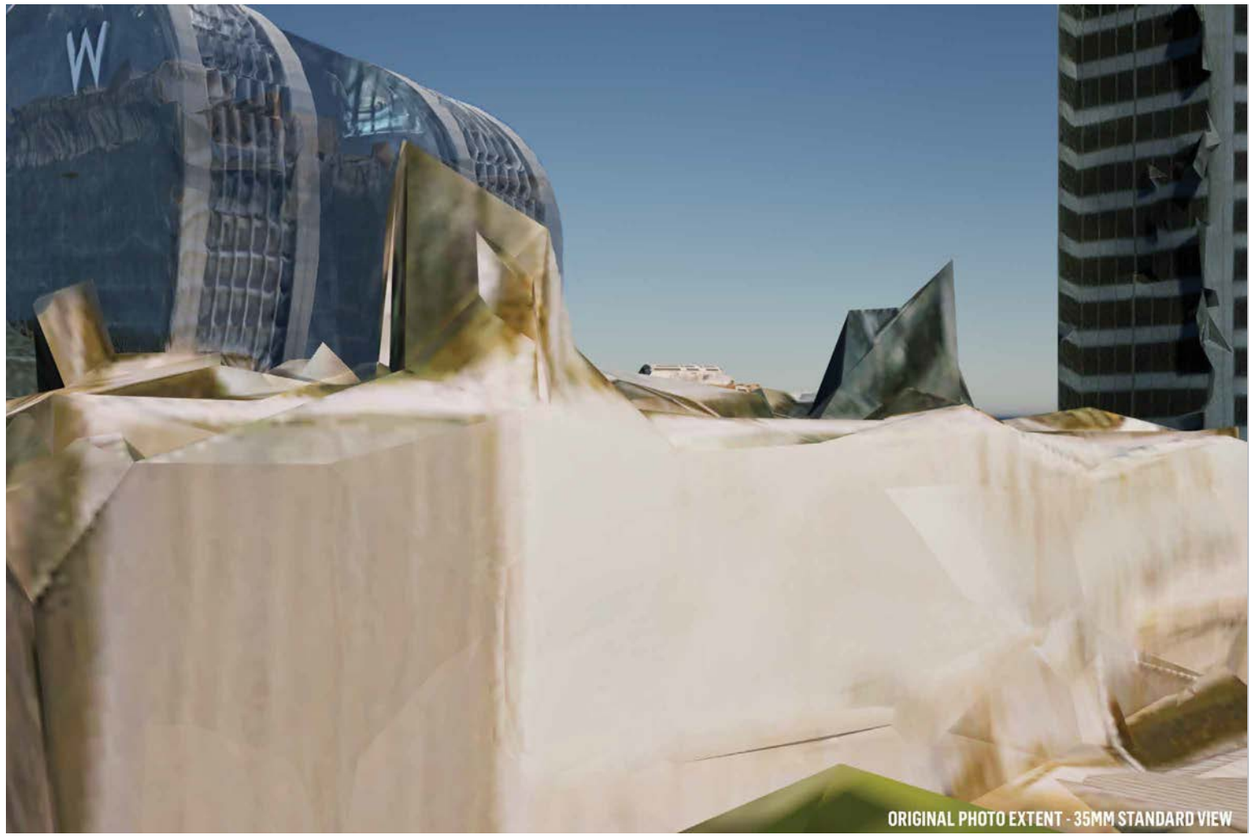


Figure 20 Viewpoint existing view.



Figure 22 Viewpoint CGI.

VIEW 03

58 BATHURST STREET - NORTH WEST VIEW

RL: 89.5

EXISTING COMPOSITION OF THE VIEW

The foreground composition includes the roof of the existing hotel on site and transport infrastructure.

The mid-ground composition includes views of tall urban development around Darling Harbour which creates a view corridor to a section of open water in Darling Harbour and development along the western edge of the Harbour.

Beyond, mid-height development in Pyrmont is visible, with distant residential development and tree canopy beyond.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal introduces new built-form development to the foreground composition which blocks views to the parts of the mid-ground composition including Darling Harbour and built-form surrounding it.

The land-water interface that is blocked by the proposal is of an artificial construction and would not be considered a scenic interface if compared to a natural foreshore.

The proposal blocks a small section of the distant composition to the left of the view but sits below the horizon.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

The built-form outside of the base case compliant setback envelope blocks small sections of existing Sydney CBD development to the left and right of the proposal and does not block views to any highly valued features or compositions.

The built-form outside of the base case compliant setback envelope blocks a small section of neighbouring development to the right of the view and small section of development within Pyrmont. A small section of the W Hotel, Western Distributor and development within Pyrmont is blocked to the left of the view.

The additional built-form outside of the base case model envelope does not block views to any highly valued features or compositions.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Moderate-severe



Figure 23 Viewpoint location.

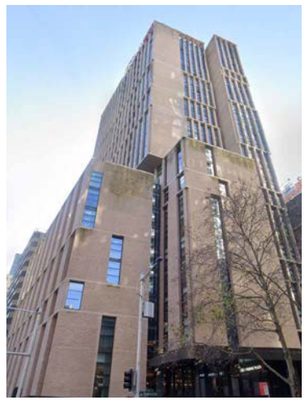


Figure 25 58 Bathurst Street.



Figure 24 Viewpoint existing view.

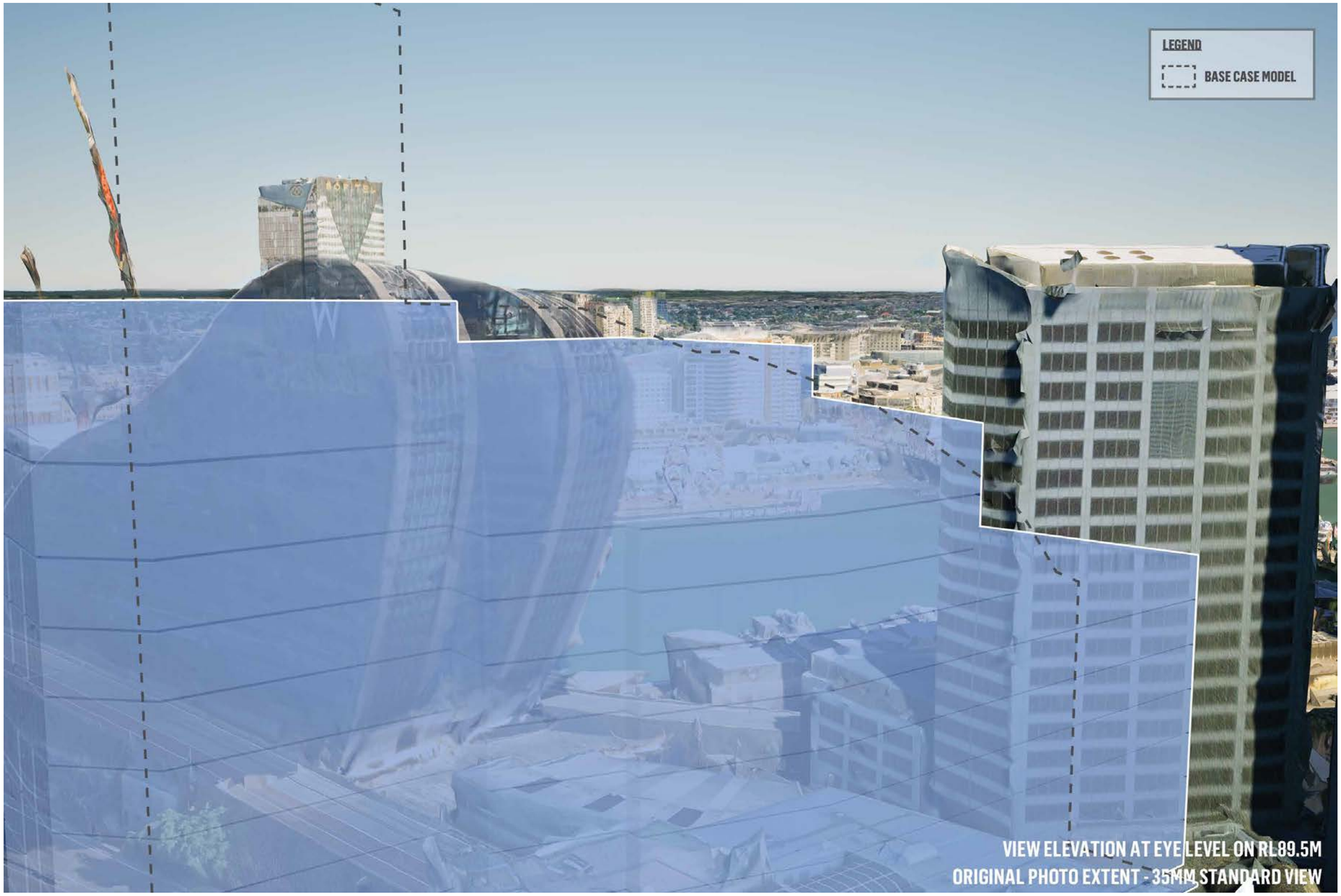


Figure 26 Viewpoint CGI.

VIEW 04

289 SUSSEX STREET - NORTH WEST VIEW

RL: 67.3

EXISTING COMPOSITION OF THE VIEW

The foreground composition includes the roof and plant overrun of the existing hotel on site.

The mid-ground composition includes views of tall urban development around Darling Harbour and Sussex Street which creates a view corridor to a section of open water in Darling Harbour, the State heritage listed 'Pyrmont Bridge' and Australian National Maritime Museum.

A narrow view corridor between tower forms to the centre-right of the view allows for distant views to a section of Sydney Harbour and Balls Head Reserve.

Beyond, mid-height development in Pyrmont is visible, with distant residential development and tree canopy beyond.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal occupies the foreground composition and entirely blocks Tower 1 of 201 Sussex Street and a section of Tower 2.

The proposal blocks a section of the Pyrmont Bridge and Darling Harbour, as well as the narrow view of Sydney Harbour and Balls Head Reserve, as well as a distant section of residential development.

The majority of features blocked in the composition is contemporary development including low hight development in Darling Harbour and tower forms at 201 Sussex Street.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

Due to the oblique nature of the view of the proposal, compositions to the left and right of the development would be unaffected.

The built-form outside of the base case compliant setback envelope blocks a section of neighbouring development to the right of the view. Development outside of the envelope to the centre left blocks a section neighbouring development as well as a section of the Pyrmont Bridge, Darling Harbour and distant residential development, but still maintains views to these items to the left of the view.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Moderate

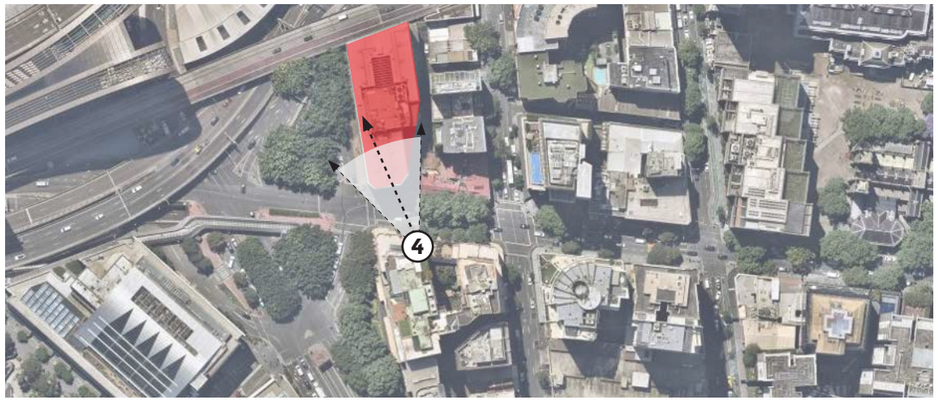


Figure 27 Viewpoint location.



Figure 29 289 Sussex Street.



Figure 28 Viewpoint existing view.

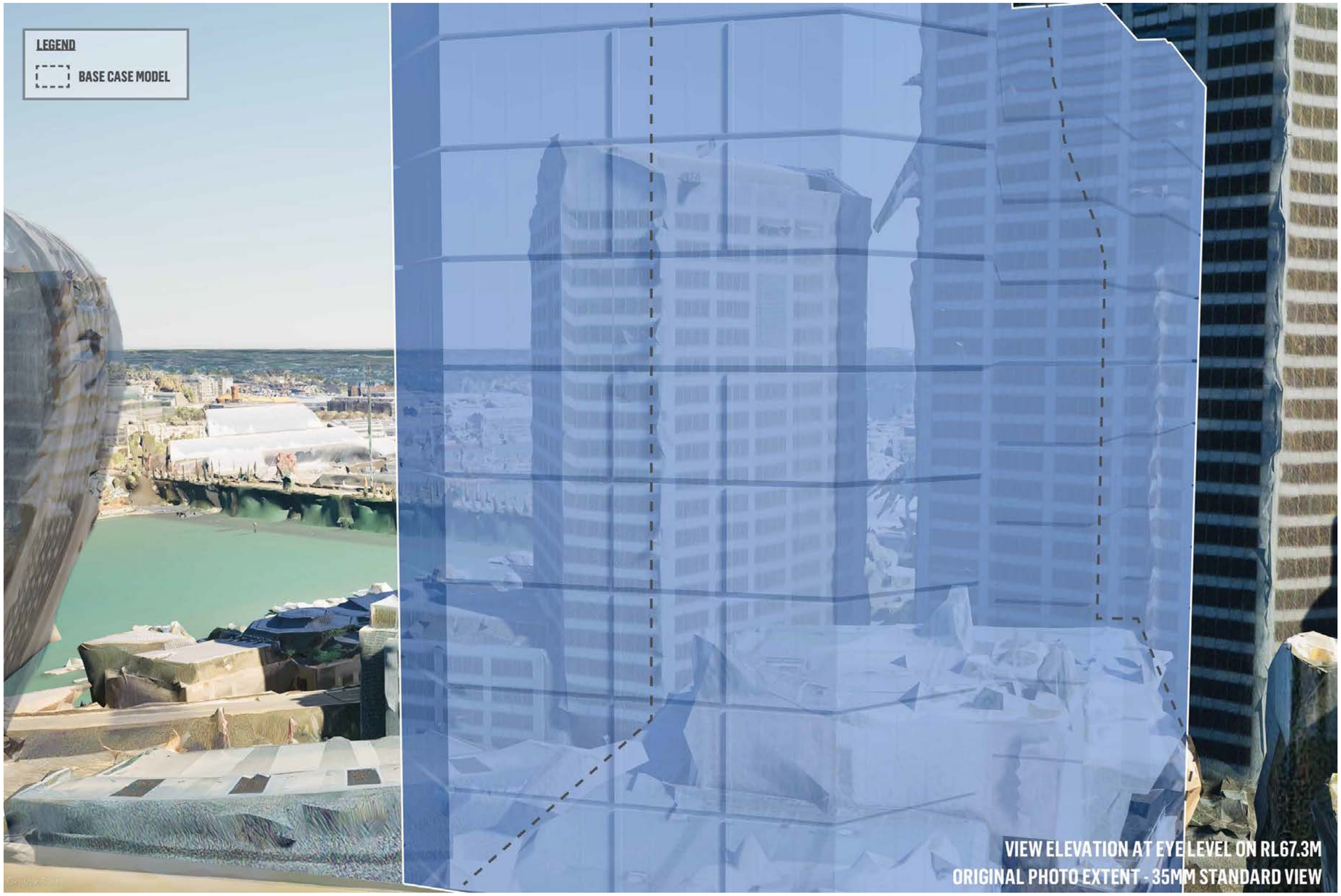


Figure 30 Viewpoint CGI.

VIEW 05

298 SUSSEX STREET - NORTH WEST VIEW

RL: 88.2

EXISTING COMPOSITION OF THE VIEW

The foreground composition includes the roof of the existing hotel on site and transport infrastructure.

The mid-ground composition includes views of tall urban development around Darling Harbour which creates a view corridor to a section of open water in Darling Harbour and development along the western edge of the Harbour, as is a section of the State heritage listed item 'Pyrmont Bridge'.

Beyond, mid-height development in Pyrmont is visible, with distant residential development and tree canopy beyond.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal introduces new development to the foreground composition which blocks views to the parts of the mid-ground composition including Darling Harbour, development surrounding it and the Pyrmont Bridge.

The land-water interface that is blocked by the proposal is of an artificial construction and would not be considered a scenic interface if compared to a natural foreshore.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

The proposal blocks a small section of the distant composition to the left of the view but sits below the horizon.

The built-form outside of the base case compliant setback envelope blocks a section of neighbouring development to the right of the view. Development outside of the envelope to the left blocks a section of the W Hotel and Western Distributor. The additional built-form outside of the base case model envelope does not block views to any highly valued features or compositions.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Moderate-severe



Figure 31 Viewpoint location.



Figure 33 298 Sussex Street.



Figure 32 Viewpoint existing view.



Figure 34 Viewpoint CGI.

VIEW 06

72 LIVERPOOL STREET - NORTH WEST VIEW

RL: 88.7

EXISTING COMPOSITION OF THE VIEW

The foreground and mid-ground composition is characterised by urban development which includes development of varied height and scale ranging from tower forms through to mid-height development which creates a varied urban skyline.

A small section of Darling Harbour, Pyrmont Bridge and development in Pyrmont is visible between commercial development in the mid-ground composition.

Sections of landform and residential development are visible north-west of the Darling Harbour as well as the distant horizon.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

Mid and upper sections of the proposal are visible in the mid-ground composition which blocks views to the existing Tower 1 at 201 Sussex Street and a narrow view of Sydney Harbour Between Tower 1 and 2 at 201 Sussex Street.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

The majority of the composition is unaffected by the proposal and the intrinsic character of the view is maintained.

The built-form outside of the base case compliant setback envelope blocks sections of neighbouring development north of the site but does not block views to any highly valued features or compositions.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Minor

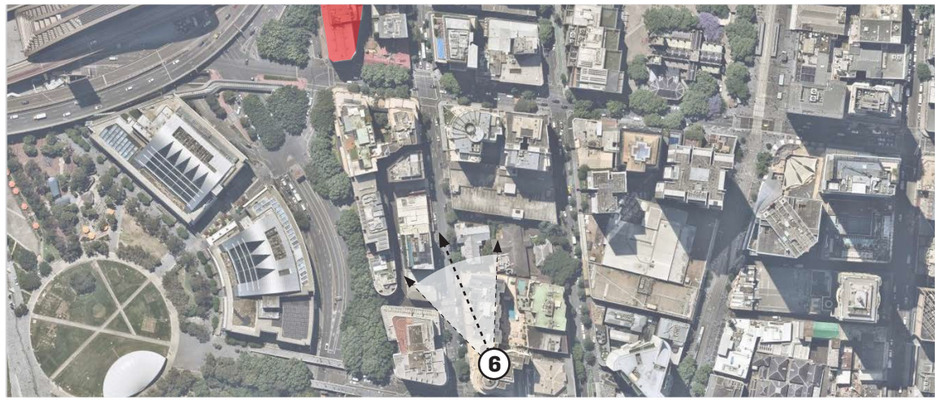


Figure 35 Viewpoint location.



Figure 37 72 Liverpool Street.

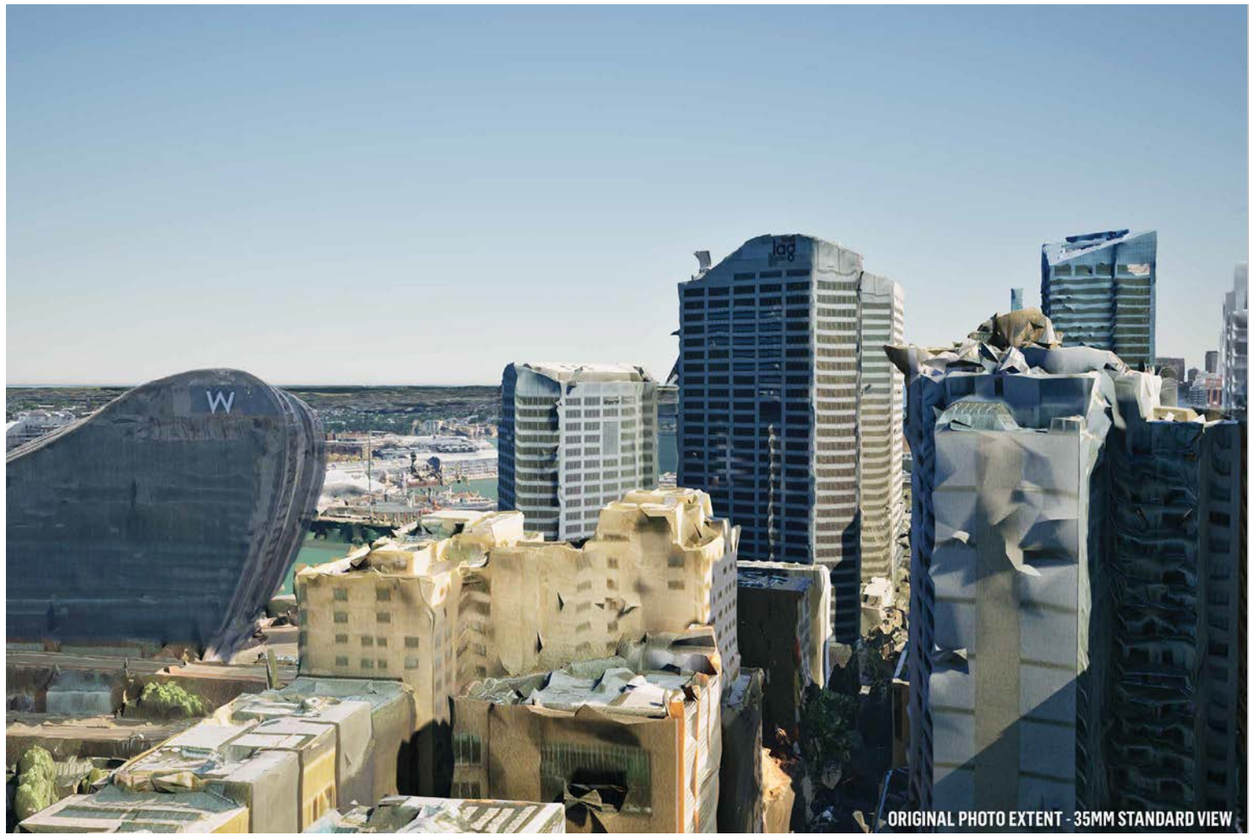


Figure 36 Viewpoint existing view.

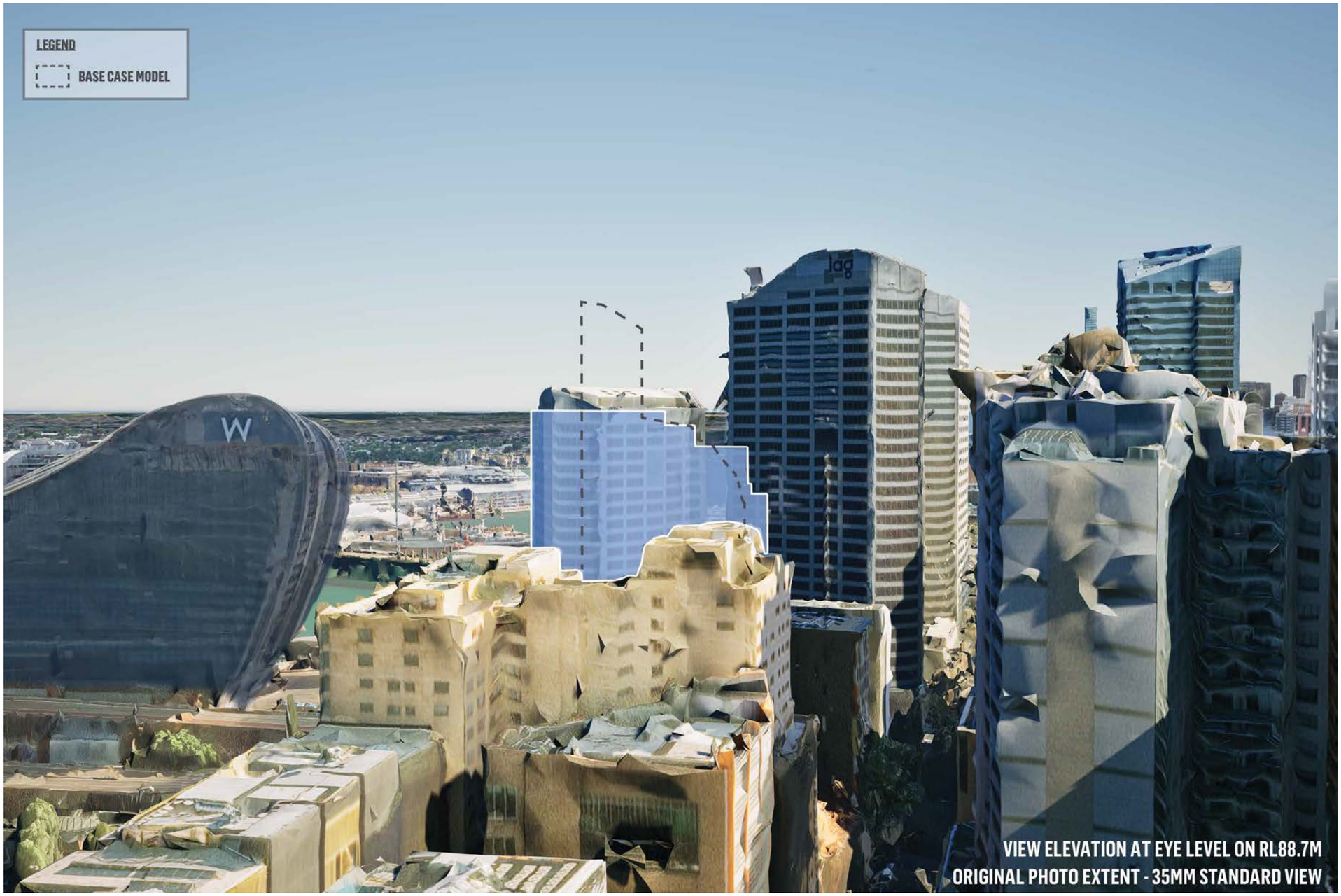


Figure 38 Viewpoint CGI.

VIEW 07

528 KENT STREET - NORTH WEST VIEW

RL: 88.9

EXISTING COMPOSITION OF THE VIEW

The foreground and mid-ground composition is characterised by urban development which includes development of varied height and scale ranging from tower forms through to mid-height development which creates a varied urban skyline.

A small section of Darling Harbour, Pyrmont Bridge and the Australian National Maritime Museum is visible between intervening built-form.

Mid-height development in Pyrmont is visible, as is the ANZAC Bridge to left of the view.

Sections of landform and residential development are visible north-west of the Darling Harbour as well as the distant horizon.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT

The proposal introduces new, contemporary built-form to he mid-ground composition which blocks a small section of Darling Harbour and surrounding development and commercial and residential development in the distance.

The proposal is visible in the context of other development of comparable height, scale and character to those within the immediate and wider visual context.

The majority of the composition is unaffected by the proposal and the intrinsic character of the view is maintained.

The built-form outside of the base case compliant setback envelope blocks sections of development in Pyrmont and distant residential development but does not block views to any highly valued features or compositions.

Note: The currently under construction 48 storey 'Harbourside Residences' located on the previous Harbourside Shopping Centre site will add additional RFB development to composition.

Indicative Rating of View Impact using *Tenacity* scale (Negligible, Minor, Moderate, Severe & Devastating)

Minor



Figure 39 Viewpoint location.



Figure 41 528 Kent Street.



Figure 40 Viewpoint existing view.



Figure 42 Viewpoint CGI.

05 CONCLUSION

5.1 SUMMARY & CONCLUSIONS

- The view sharing impacts have been considered in the context of the *Tenacity* planning principle, at a high level and without the benefit of view inspections.
- In total of the 7 buildings assessed:
  - 2 were found to have minor view impacts
  - 1 had minor-moderate view impacts
  - 1 had moderate view impacts
  - 3 had moderate-severe view impacts.
- The proposal would change the spatial composition for 5 buildings assessed where in some views in a north-westerly direction, the proposed development would alter the composition
- Two of the buildings (views 6 & 7) were rated minor when considered within the wide view composition and therefore not changing the overall spatial composition.
- Potential view impacts are dependant on the view location and its proximity to the proposal, with visual effects and potential impacts decreasing with distance.
- The most affected building at risk of potential view loss is 273 Sussex Street due to its proximity to the subject site.
- The affected views of 273 Sussex Street would likely only be on the top two levels orientated to the west, with all levels below already looking at the existing built-form of the hotel on site. Views to the north, east and south would be unaffected.
- None of the views to be affected include icons, and the views assessed would not be considered as iconic in Tenacity terms.
- The views affected were not considered to be scenic or highly valued views.
- The proposal is located within a highly urbanised location which includes development of varied height and scale, including similar to the proposal.
- The Sydney DCP 2012 contemplates views versus outlooks and that views cannot be guaranteed, and that private views should not unduly restrict the economic performance or growth of Central Sydney.
- The proposal is highly compatible in visual terms with its surrounding context.
- For all views considered based on the CGIs, view loss per dwelling is limited in qualitative terms, and the view impact per dwelling based on the information available, is reasonable and acceptable.

URBIS

150 DAY STREET VIEW SHARING

VISUAL ASSESSMENT | COMPUTER GENERATED IMAGES

PREPARED FOR
MECONE
MARCH 2025

COMPUTER GENERATED IMAGES PREPARED BY:

Urbis, Level 10, 477 Collins Street, MELBOURNE 3000.

DATE PREPARED :

19 March 2025

VISUALISATION ARTIST :

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Bachelor of Planning and Design (Architecture) with over 20 years' experience in 3D visualisation

Manuel Alvelo, Urbis – Visual Technologies Consultant
Bachelor of Architecture and Masters of Urban Planning and Environment

Kim Nguyen, Urbis – Visual Technologies Consultant
Bachelor of Interior Architecture

SOFTWARE USED :

- 3DSMax 2023 (3D Modelling)
- Twinmotion 2024.1 (3D Visualisation)
- AutoCAD 2021 (2D CAD Editing)
- Globalmapper 25.1 (GIS Data Mapping / Processing)
- Photoshop CC 2024 (Photo Editing)

DATA SOURCES :

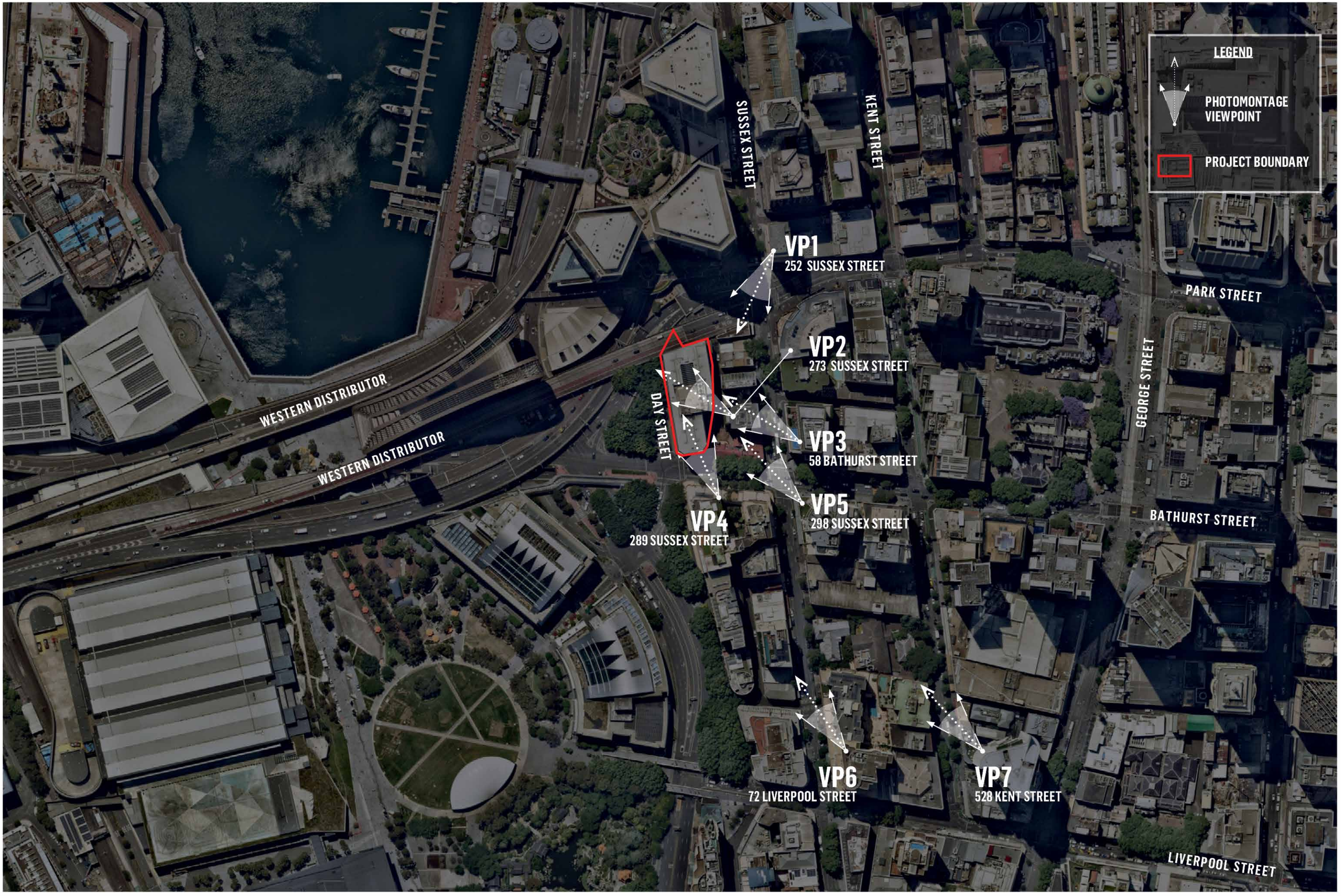
- Aerometrex 3D Models (geo-referenced OBJ) - Sydney 2020-06
- Aerial photography from Nearmap (geo-referenced JPG) - 2024-09-21
- Proposed architectural drawings received from Architect (PDF) - 2024-11-26
- Proposed 3D model received from Architect (Revit) - 2024-11-26
- Proposed 3D base case model received from Architect (DWG) - 2025-01-14

METHODOLOGY :

Photorealistic Computer Generated Images (CGIs) provided on the following pages have been produced with a high degree of accuracy in order to satisfy the intent of the NSWLEC Policy: Use of Photomontages and Visualisation Tools, May 2024 (the Policy) which requires real world imagery to be provided as far as practicable, all data sets used and all digital manipulation in creating the image to be clearly identified.

The process for producing these CGIs is outlined below:

- CGIs have been created in the 3D visualisation software using a virtual camera with a standard focal length equivalent to 50mm. Camera settings replicate a full-frame camera sensor (equivalent to 40° horizontal field-of-view / 46.8° diagonal field-of-view) which is an accepted photographic standard to approximate human vision. Images are shown at an equivalent standing height of 1.60m above a finished floor level (FFL).
- Using independent survey data, geospatially referenced Aerometrex 3D dataset, combined with digital elevation models (DEM) and LiDAR point-clouds, the relevant datasets are validated and combined to form a geo-referenced base 3D model from which additional information, such as proposed architecture and photographic viewpoints can be inserted. Survey data is the primary data source with geo-referenced Aerometrex 3D models, LiDAR point-clouds and DEM then brought in to provide photorealistic context and reference.
- Layers of the proposed development are provided by the architect as digital 3D models and 2D plans. All drawings/models are verified and registered to their correct geo-location before being inserted into the base 3D model.
- Each viewpoint has been established using Aerometrex 3D models and cross-checked with LiDAR point-clouds to extract RLs for floor levels to replicate a view taken at approximately 1.60m above FFL.
- To best represent the Aerometrex 3D data as originally captured, 12:00 midday has been used to minimise any colour casting. All final CGIs have been rendered with the proposed development overlaid using the same settings.



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

PHOTOMONTAGES - VIEW LOCATION MAP

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_MAP
REV: -



ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW

URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP1 LOOKING SSW FROM TERRACE 252 SUSSEX STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_1A
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP1 LOOKING SSW FROM TERRACE 252 SUSSEX STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_1B
REV: -

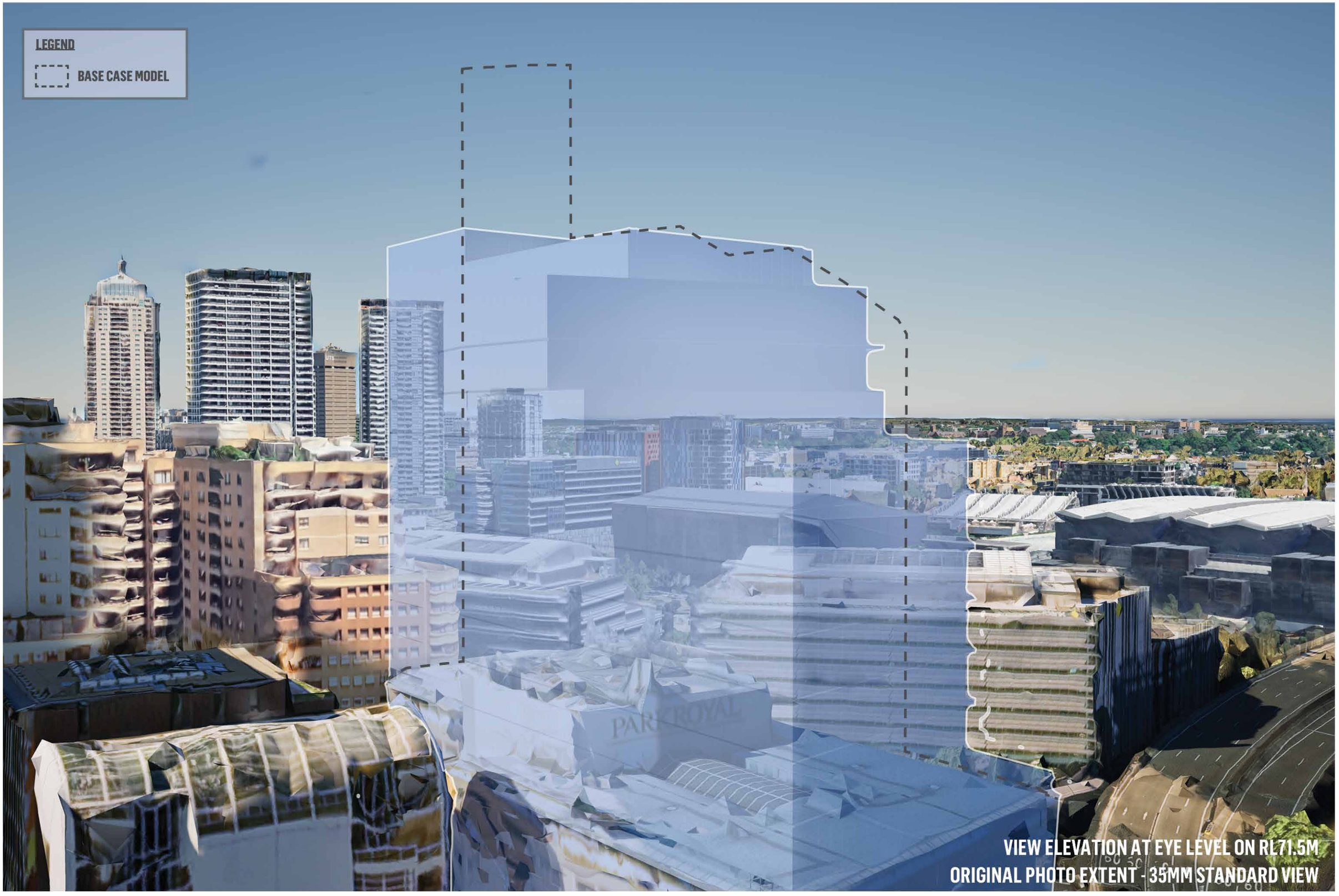


URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP1 LOOKING SSW FROM TERRACE 252 SUSSEX STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_1C
REV: -

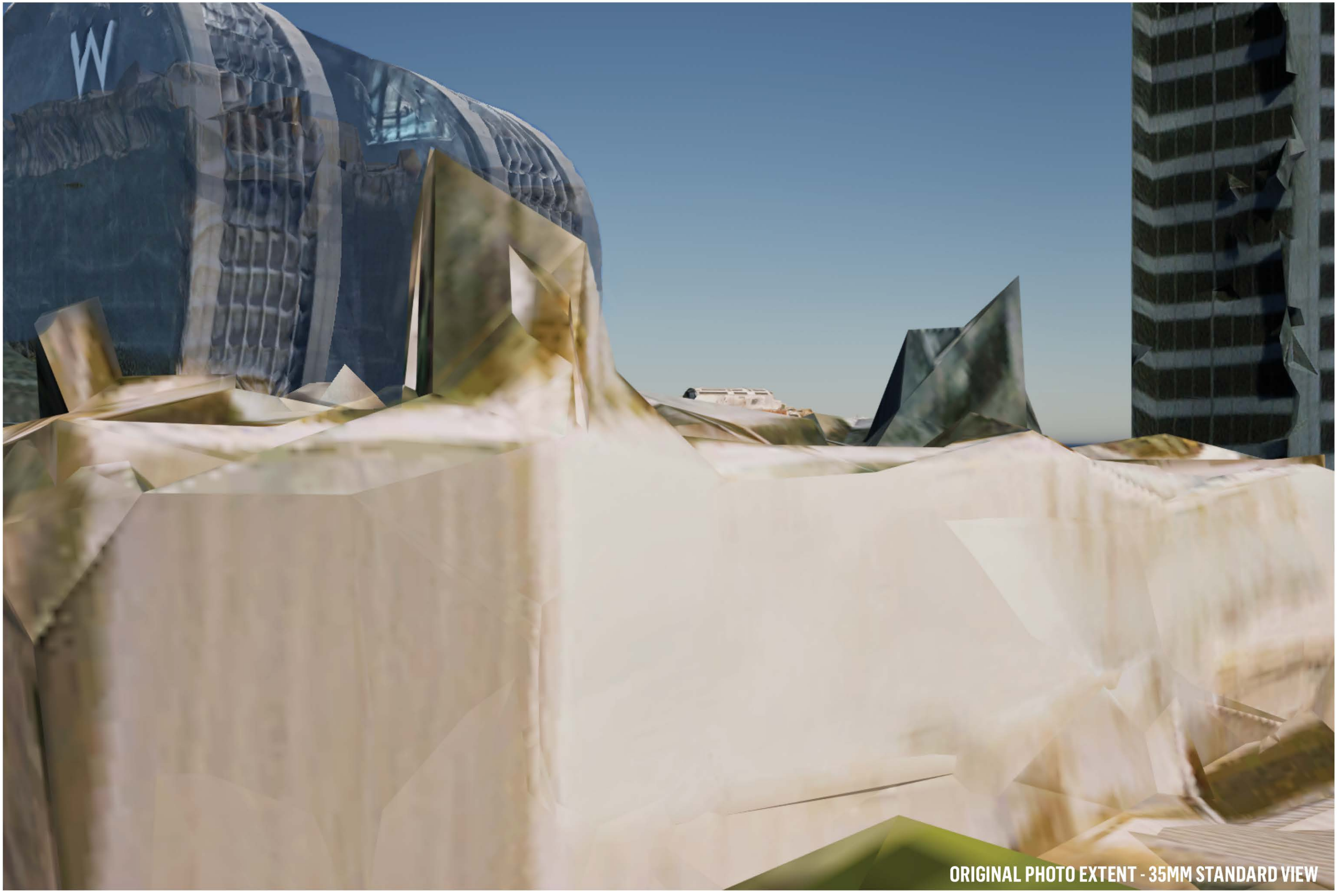


URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP1 LOOKING SSW FROM TERRACE 252 SUSSEX STREET | CGI VIEW PROPOSED MASSING + BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_1D
REV: -



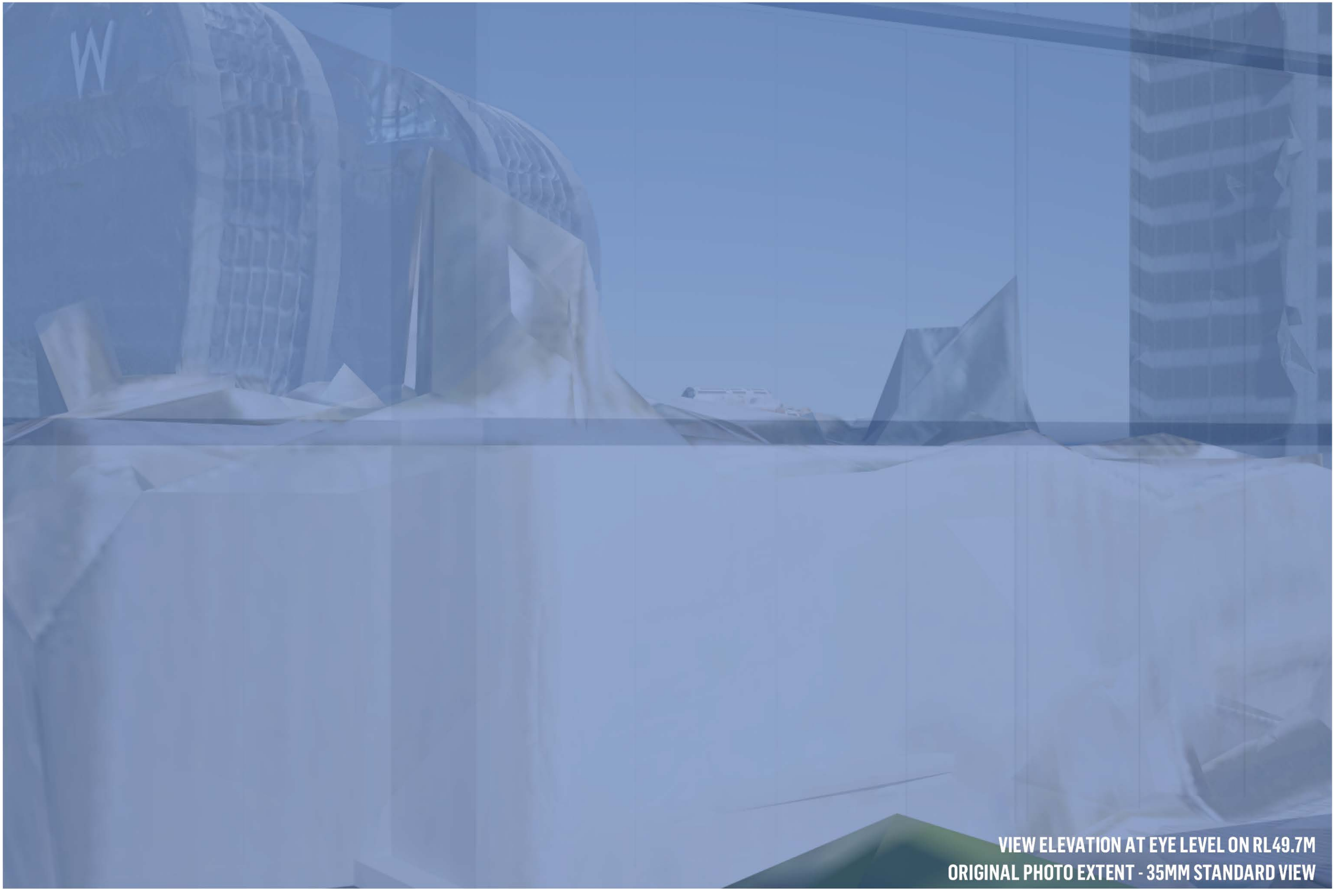
736

URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP2 LOOKING NORTH WEST FROM TERRACE 273 SUSSEX STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_2A
REV: -



VIEW ELEVATION AT EYE LEVEL ON RL49.7M
ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW

URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP2 LOOKING NORTH WEST FROM TERRACE 273 SUSSEX STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_2B
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP2 LOOKING NORTH WEST FROM TERRACE 273 SUSSEX STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_2C
REV: -

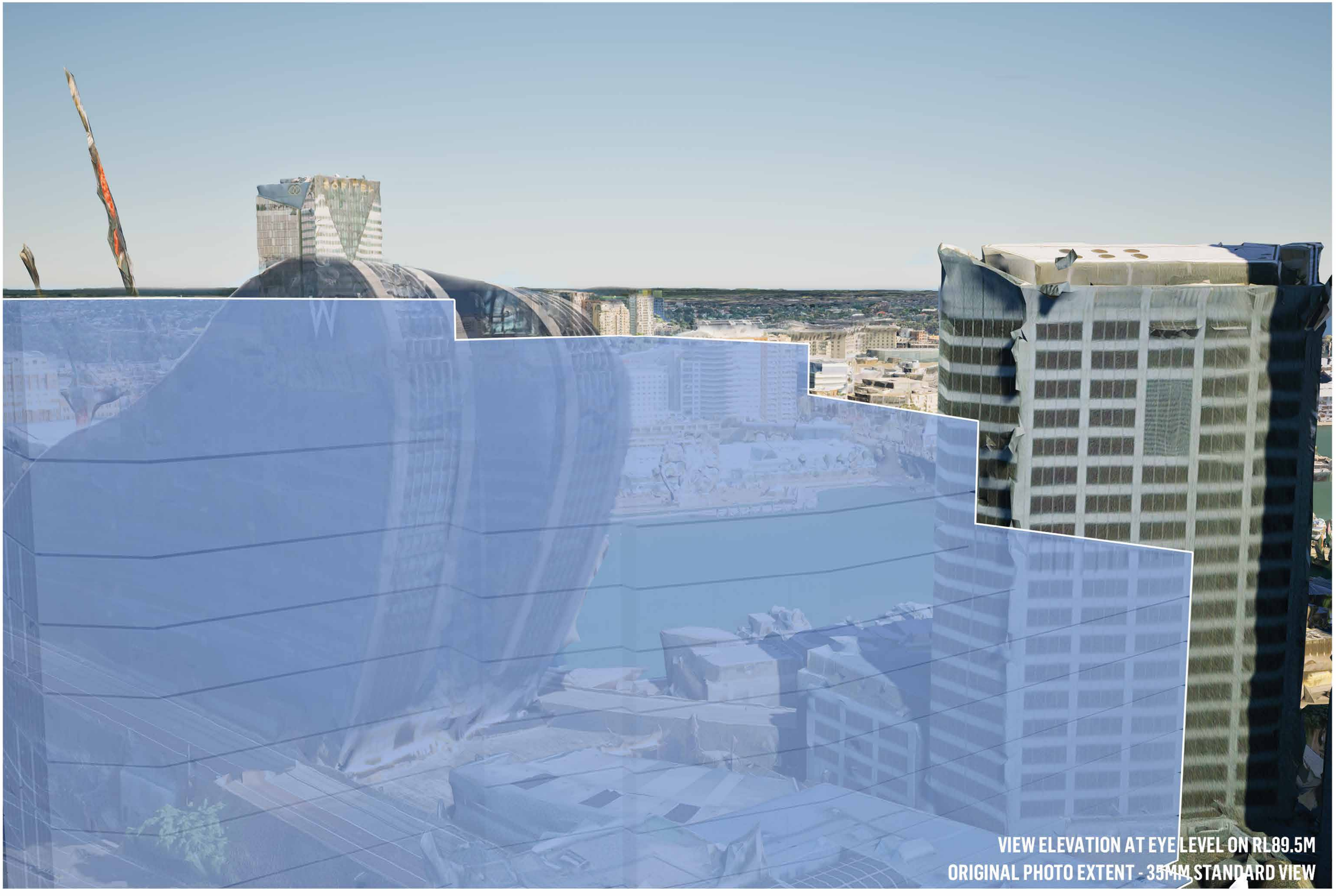


URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP3 LOOKING NORTH WEST FROM TERRACE 58 BATHURST STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
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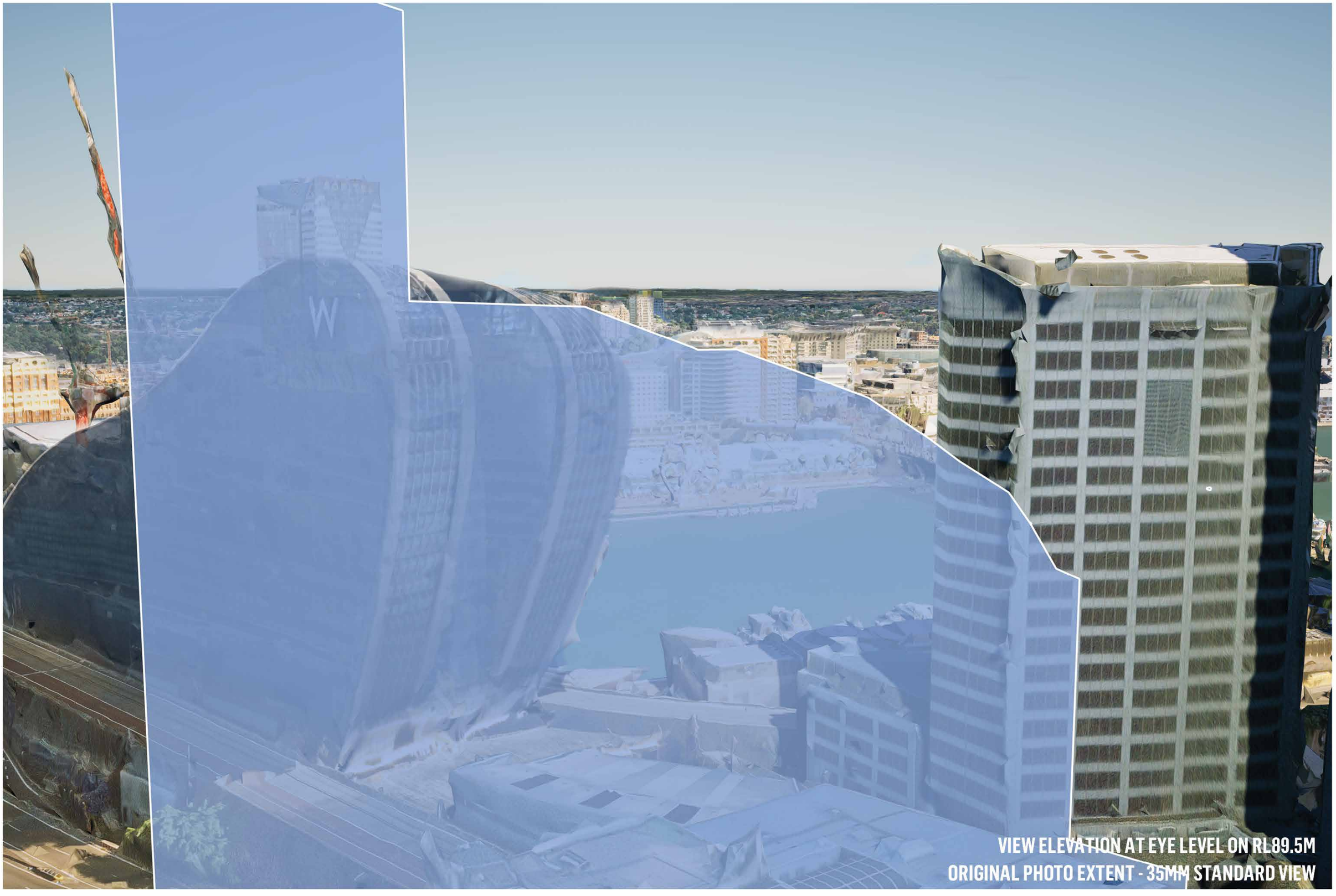


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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP3 LOOKING NORTH WEST FROM TERRACE 58 BATHURST STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
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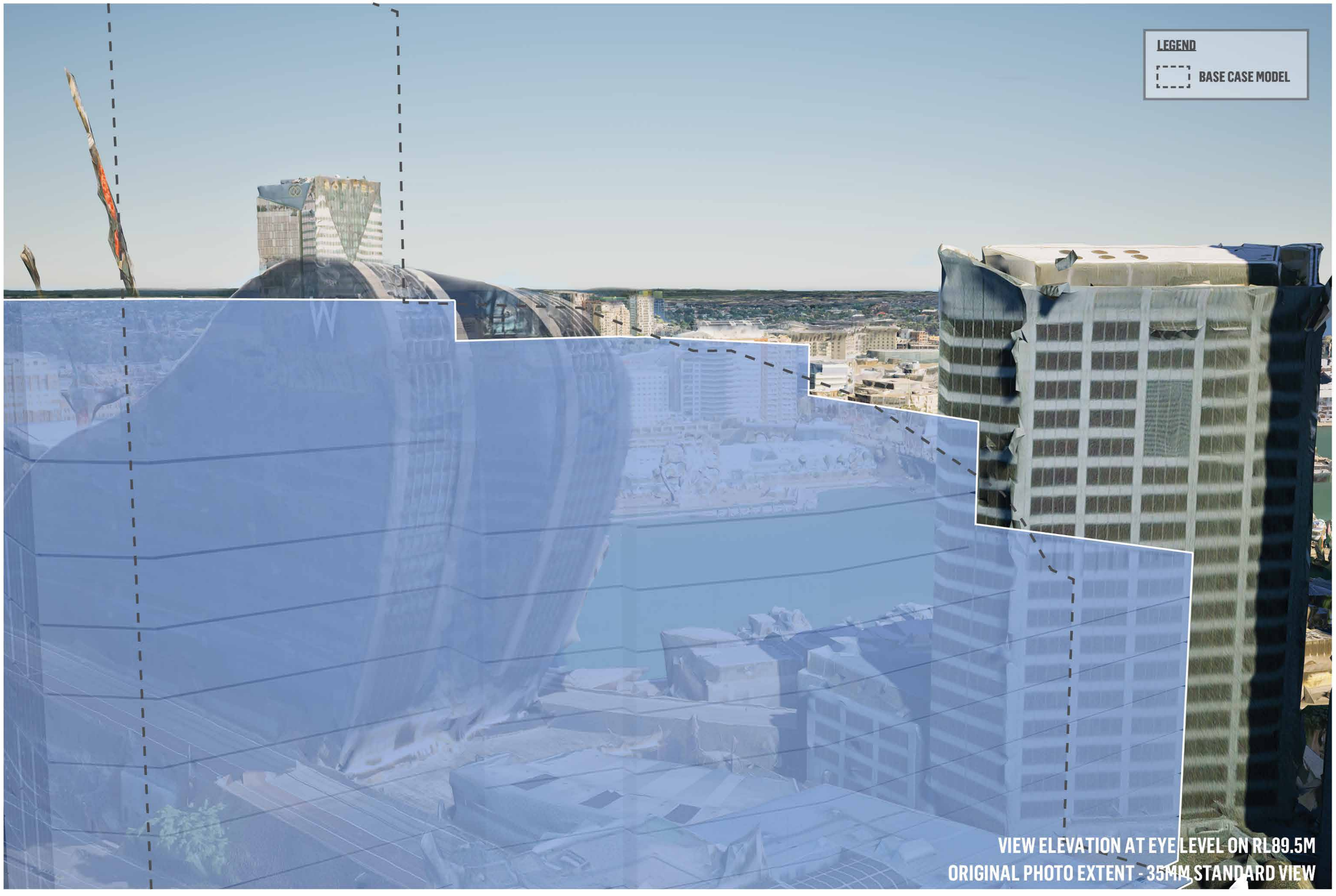


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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP3 LOOKING NORTH WEST FROM TERRACE 58 BATHURST STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_3C
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP3 LOOKING NORTH WEST FROM TERRACE 58 BATHURST STREET | CGI VIEW PROPOSED MASSING + BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_3D
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP4 LOOKING NNW FROM TERRACE 289 SUSSEX STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_4A
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP4 LOOKING NNW FROM TERRACE 289 SUSSEX STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_4B
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP4 LOOKING NNW FROM TERRACE 289 SUSSEX STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_4C
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP4 LOOKING NNW FROM TERRACE 289 SUSSEX STREET | CGI VIEW PROPOSED MASSING + BASE ASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_4D
REV: -

748



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP5 LOOKING NNW FROM TERRACE 298 SUSSEX STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_5A
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP5 LOOKING NNW FROM TERRACE 298 SUSSEX STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_5B
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP5 LOOKING NNW FROM TERRACE 298 SUSSEX STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_5C
REV: -



750

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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP5 LOOKING NNW FROM TERRACE 298 SUSSEX STREET | CGI VIEW PROPOSED MASSING + BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_5D
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP6 LOOKING NNW FROM TERRACE 72 LIVERPOOL STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_6A
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP6 LOOKING NNW FROM TERRACE 72 LIVERPOOL STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_6B
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP6 LOOKING NNW FROM TERRACE 72 LIVERPOOL STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_6C
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP6 LOOKING NNW FROM TERRACE 72 LIVERPOOL STREET | CGI VIEW PROPOSED MASSING + BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_6D
REV: -



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150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP7 LOOKING NNW FROM 58 BATHURST STREET | CGI VIEW EXISTING CONDITIONS

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_7A
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP7 LOOKING NNW FROM 58 BATHURST STREET | CGI VIEW PROPOSED MASSING

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_7B
REV: -



URBIS

150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP7 LOOKING NNW FROM 58 BATHURST STREET | CGI VIEW BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_7C
REV: -

LEGEND

BASE CASE MODEL



URBIS

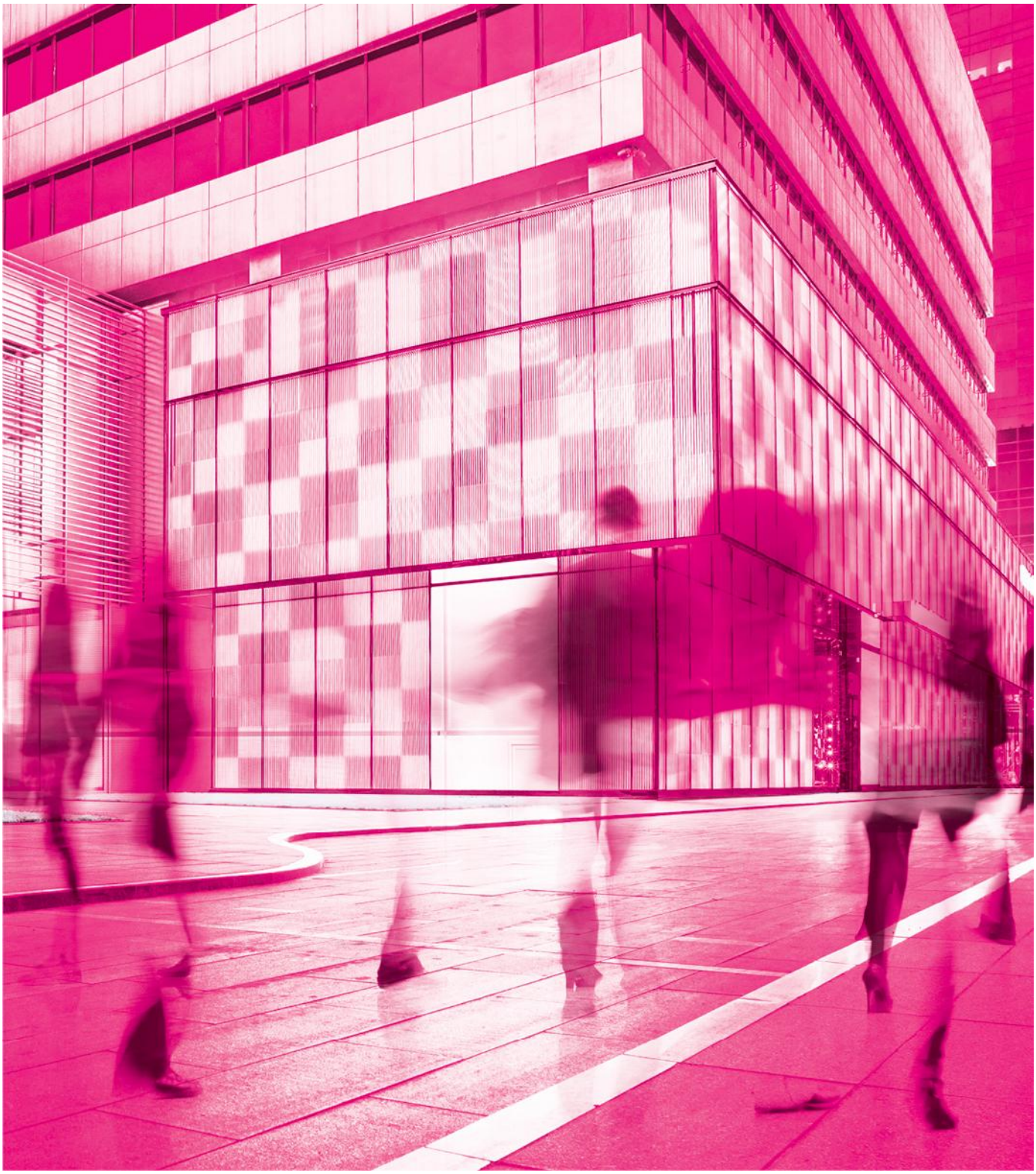
150 DAY STREET VIEW SHARING - VISUAL ASSESSMENT

VP7 LOOKING NNW FROM 58 BATHURST STREET | CGI VIEW PROPOSED MASSING + BASE CASE MODEL

DATE: 2025-03-19
JOB NO: P0056067
DWG NO: VP_7D
REV: -

Attachment A11

Transport impact assessment



Transport Impact Assessment

150 Day Street, Sydney

For UOL Group

28 August 2025

parking;
traffic;
civil design;
wayfinding;

ptc.

Document Control

Issue	Date	Issue Details	Author	Reviewed	For the attention of
1	17/01/2025	Draft	Olivia Lin	Andrew Morse/Dan Palmer	Jack Rixon
2	23/01/2025	Draft	Olivia Lin	Andrew Morse/Dan Palmer	Jack Rixon
3	14/03/2025	Draft	Olivia Lin	Andrew Morse/Dan Palmer	Jack Rixon
4	24/03/2025	Draft	Olivia Lin	Andrew Morse/Dan Palmer	Jack Rixon
5	26/03/2025	Final	Olivia Lin	Andrew Morse/Dan Palmer	Jack Rixon
6	14/072025	Final	Musstafa Abdullah	Dan Palmer	Jack Rixon
7	29/07/2025	Issued	Musstafa Abdulllah	Dan Palmer	Jack Rixon
8	28/08/2025	Survey data updates	Xavier Meurier	Dan Palmer	Jack Rixon

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1. Executive Summary

ptc. has been engaged by UOL Group to prepare a Transport Impact Assessment (TIA) in relation to a Planning Proposal submitted to the City of Sydney for the redevelopment of the Park Royal Hotel at 150 Day Street, Sydney.

The proposal involves increasing the existing hotel from 11 to 22 storeys, providing approximately 204 rooms when suites are accounted for. The hotel is situated on the city side of Darling Harbour with direct access to the local and regional road networks, adjacent to the Western Distributor system.

The existing provision of car parking is within the maximum permitted in accordance with the Sydney Local Environmental Plan (LEP) 2012. Vehicular access and circulation have been assessed and been determined to be suitable. The proposed development does not warrant any additional car parking given the highly accessible CBD location of the site.

The traffic generated by the proposal has been determined and analysed in the context of the surrounding road network, and it has been demonstrated that the proposal will not significantly impact the surrounding road capacity or performance.

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2. Introduction

ptc. has been engaged by UOL Group to prepare a Transport Impact Assessment for the proposed redevelopment of the existing hotel (referred to herein as the site) at 150 Day Street, Sydney. The key objectives of this study include the following:

- Analyse and report the potential traffic impacts on the surrounding road network during weekdays.
- Identify and document capacity upgrade needs for the current and future-year scenarios.
- Review and identify potential capacity issues and constraints around the hotel property.
- Assess the proposed parking provision and, where necessary, provide justification if the provision exceeds or falls short of Council planning control requirements.
- Confirm that the proposed car park, vehicular access and internal circulation arrangements comply with the relevant standards.
- Describe the proposed service vehicle arrangement.

It is worth noting that the city aims to add 40,000 new hotel rooms to support the growing tourism and cultural economy. Expanding room capacity without additional parking can help minimise traffic impacts. The site is uniquely positioned and isolated from neighbouring properties, with primary access from Day Street, ensuring that it will not be subject to cumulative traffic impacts from other developments.

The assessment is based on relevant standards and guidelines, including the Sydney Local Environmental Plan (LEP) 2012, TfNSW Guide to Transport Impact Assessment (2024), Roads and Maritime Services (RMS) Guide to Traffic Generating Developments, Standards Australia, and other relevant Council policies.

The site location is outlined in Figure 1, and the property plan is presented in Figure 2. As shown in Figure 1 and Figure 2, the subject property is located on the city side of Darling Harbour. More specifically, it is situated on the corner bounded by Bathurst Street, Sands Street, Day Street, and the Cross City Tunnel.

The property is irregular in shape and has a total area of approximately 2,000m². It has a primary frontage to Day Street, and a rear aspect to Sands Street, which provides service vehicle access.

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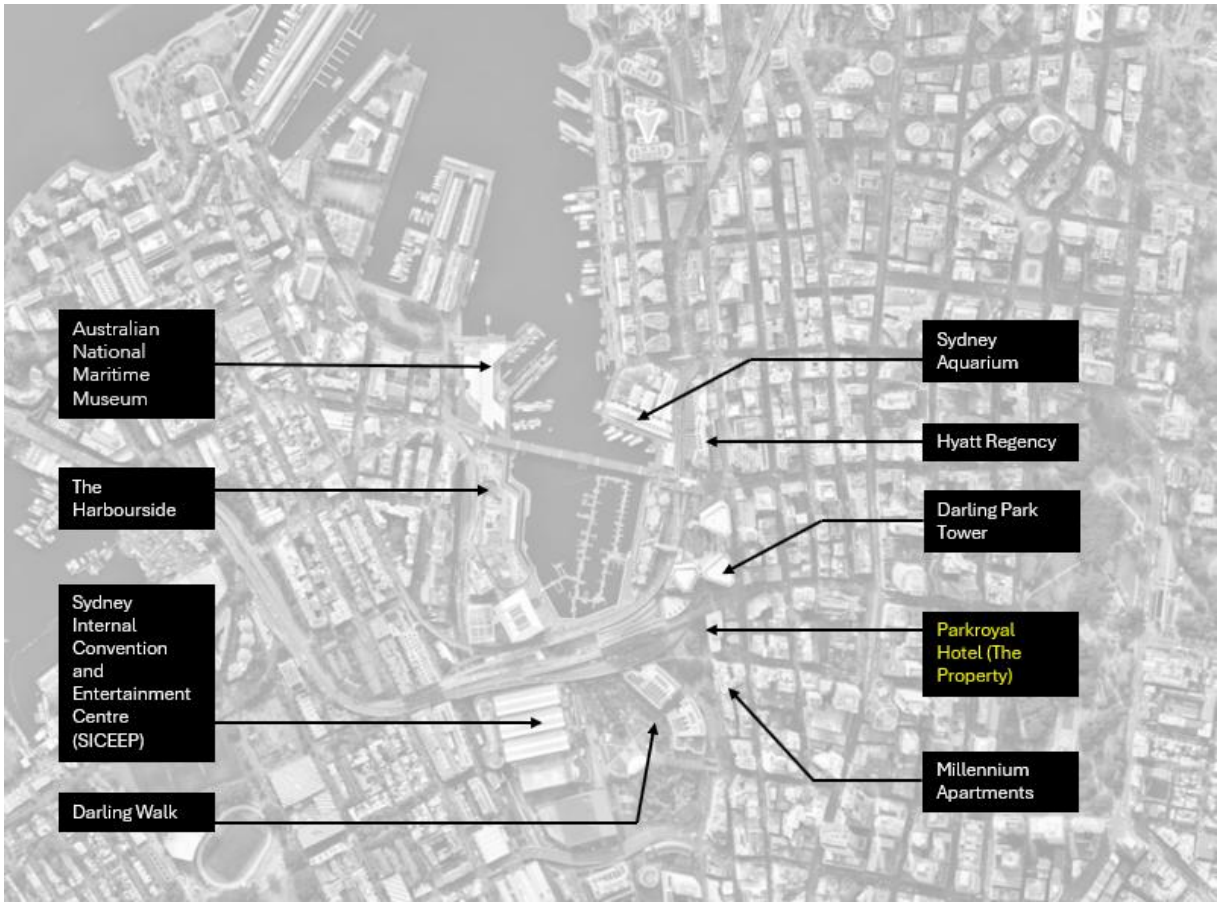


Figure 1: Hotel Location (Source: Nearmap 2024, modified by **ptc.**)

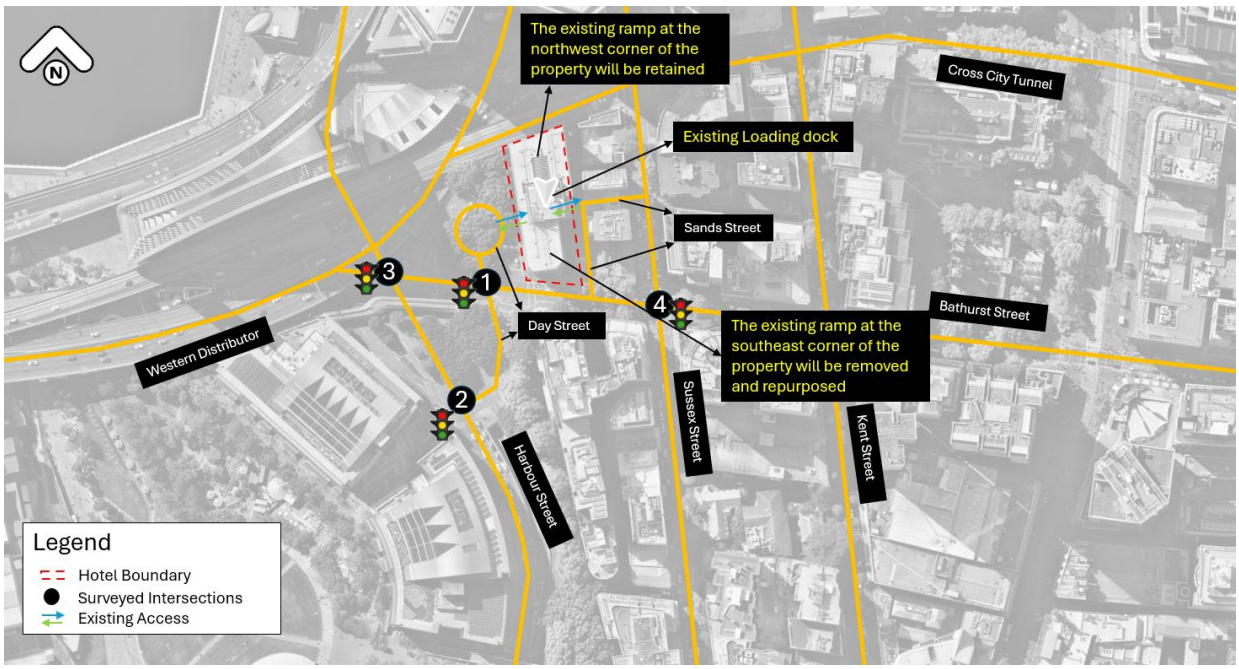


Figure 2 : Property Plan (Source: Nearmap 2024, modified by **ptc.**)

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2.1 Report Structure

This report presents the following considerations in relation to the Transport Impact Assessment of the Proposal:

- **Section 2:** Introduction
- **Section 3:** A description of the project
- **Section 4**: An overview of the land use planning, transport planning and policy framework guiding the precinct planning process
- **Section 5**: A description of the road network serving the property
- **Section 6:** Summary of traffic surveys at key local intersections
- **Section 7:** Determination of the traffic associated with the development proposal and the adequacy of the surrounding road network
- **Section 8:** Assessment of the proposed parking provision in the context of the relevant planning control requirements
- **Section 9:** Assessment of the proposed car park, vehicular access and internal circulation arrangements in relation to compliance with relevant standards and Council policies.
- **Section 10:** Conclusion

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2.2 Land Use Context

With reference to the Land Zoning Map, the property is predominantly within the SP5 – Metropolitan zone, with a portion of the property in the SP2 – Infrastructure zone, as outlined in Figure 3.

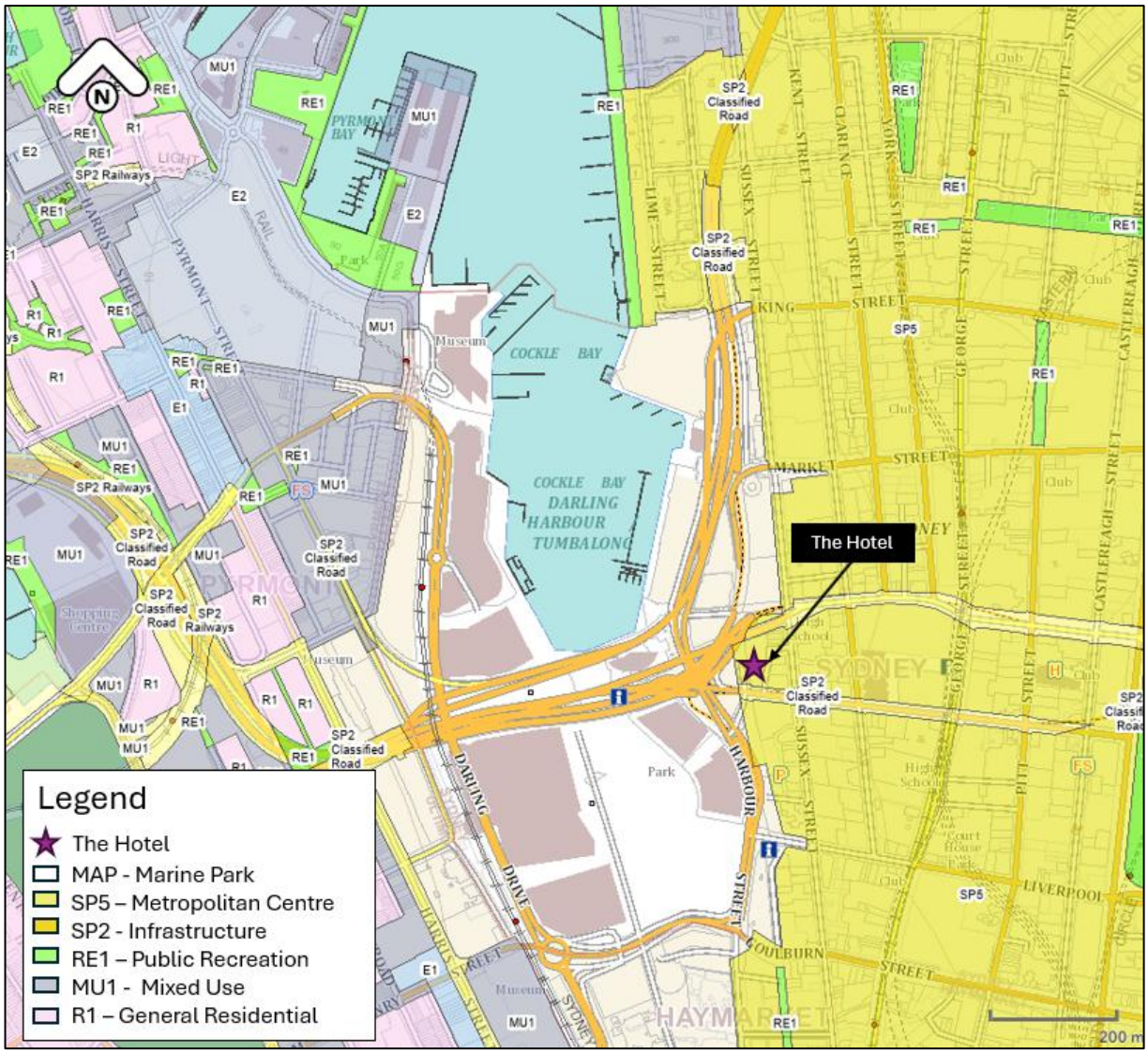


Figure 3 : Land Use Zones (Source: NSW Planning Portal, modified by **ptc.)**

2.3 Development Proposal

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by three key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, aligning with the City of Sydney's sustainability goals. Achieving this vision involves

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expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site-specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme prepared by Hassell. Key elements of the site-specific DCP and reference design include:

- Renovation of an existing 2-level basement and existing 11-storey hotel, with the addition of a new 11-storey hotel above (including a transfer floor between the two structures) and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 stars) and Pan Pacific Hotel (5 stars)
    - 490-540 hotel keys with a gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removing the existing Porte Cochère and exit ramp resulted in a single-vehicle entry/exit ramp from Day Street being used only by the valet.
    - Retention of the existing loading dock on Sands Street, which will continue to accommodate 2 x B99 bays and 3 x SRV bays (including 2 compactors). No road works are required on Sands Street, however operational changes will be implemented through a Loading Dock Management Plan (LDMP).
- Significant greening and landscaping of the western façade.
- Ground floor public domain, public art and landscaping design. An existing exit ramp will be converted to a two-way entry-exit driveway by changing the pavement markings on Day Street.
- The key aspects of the proposal and reference design relevant to this report include:
    - The entry ramp to the basement is to be removed, and the exit ramp will be used to both enter and exit the basement. No public access will be permitted to the basement, parking of cars within the basement will be undertaken by concierge only.
    - New drop-off pick-up bays are proposed in the location of the entry ramp.
    - Existing hotel access from Day Street will be modified to accommodate the new dual-lane entry/exit, as depicted in Figure 5 and Figure 6, and a “Keep Clear” zone will be established at the hotel entry.
- After construction, the total number of staff will be 360, distributed across multiple shifts.

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- In reviewing the ground floor layout, it has been considered that the preferred outcome is the use of on-street parking spaces rather than a Porte Cochère, which provides a better outcome as it reduces vehicles crossing the footpath and can be accommodated given the cul-de-sac nature of the access road.

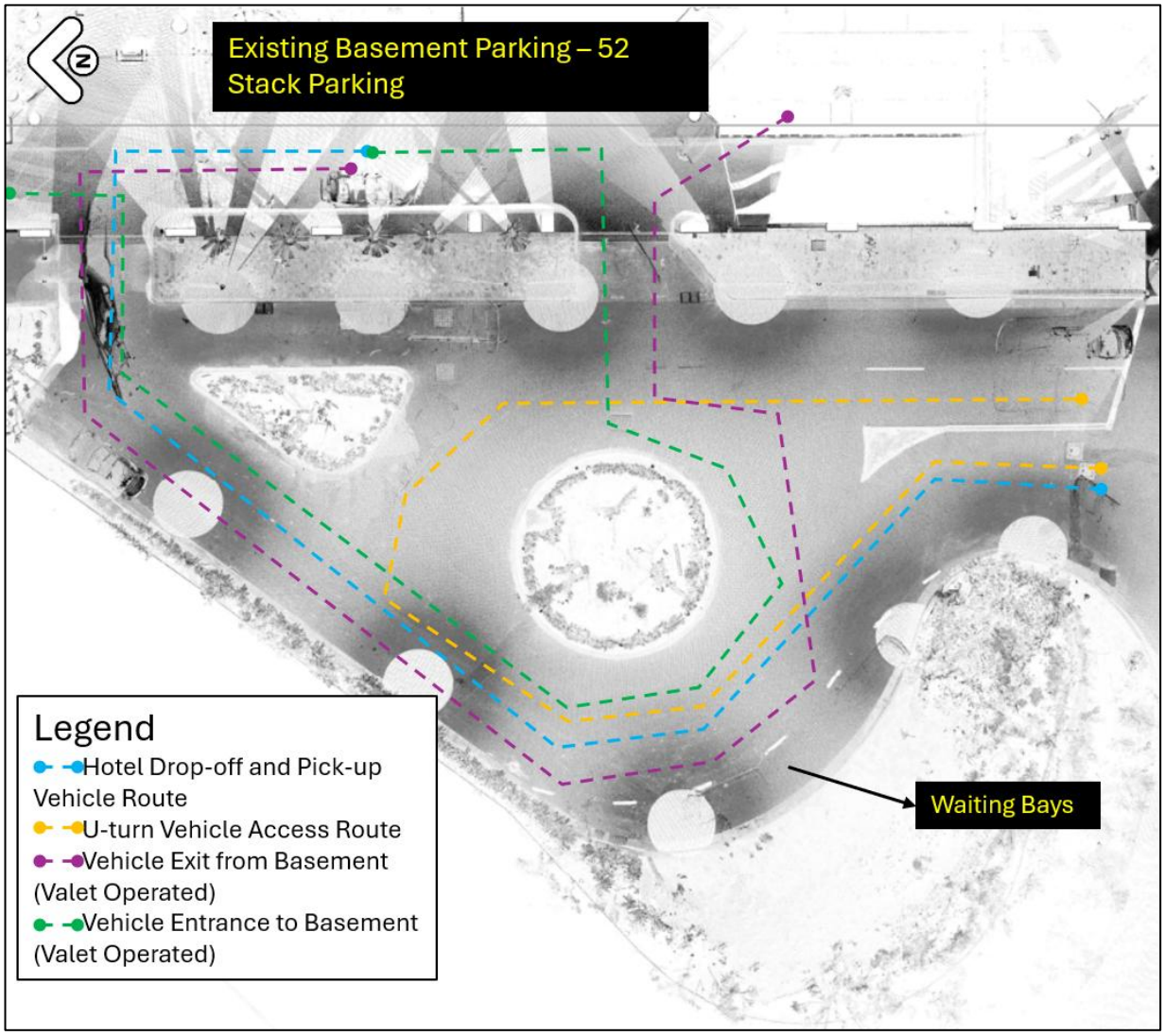


Figure 4: Existing Day Street Entry/Exit Route (Source: Hassell, modified by **ptc**.)

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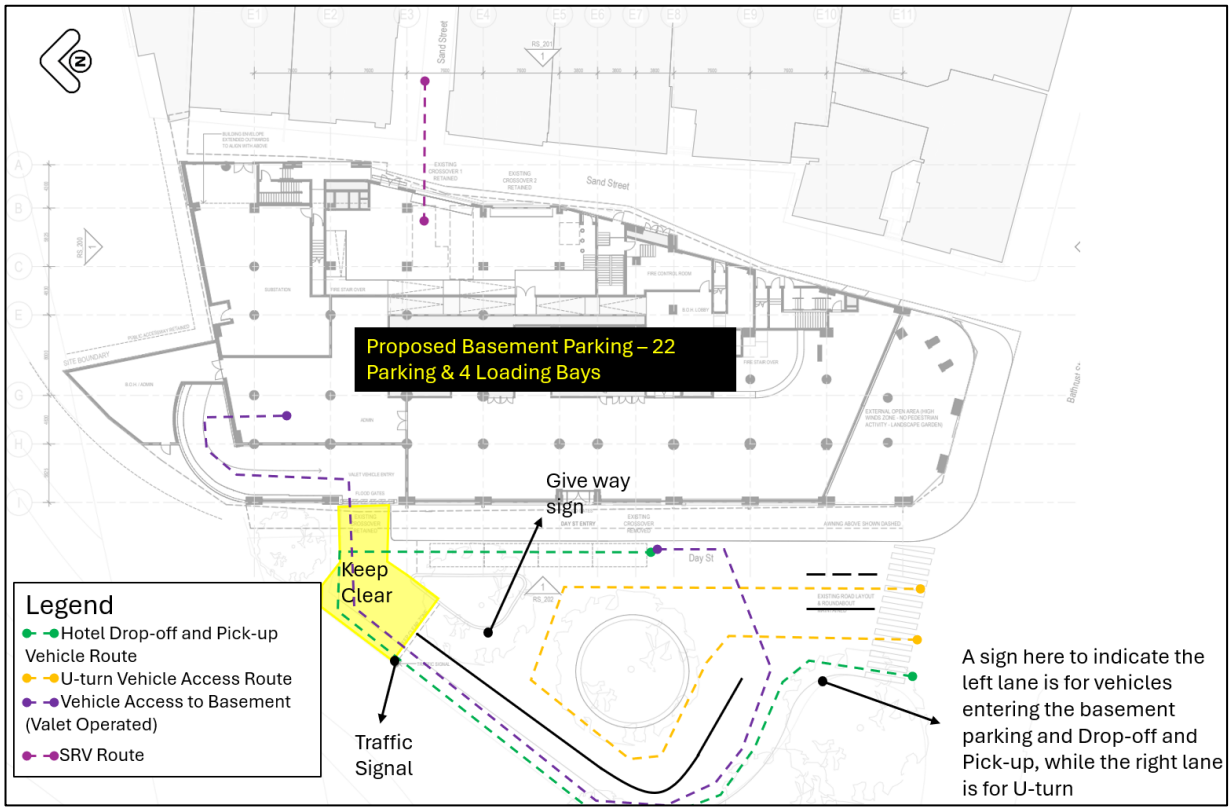


Figure 5: Proposed Vehicle Entry Route (Source: Hassell, modified by **ptc**.)

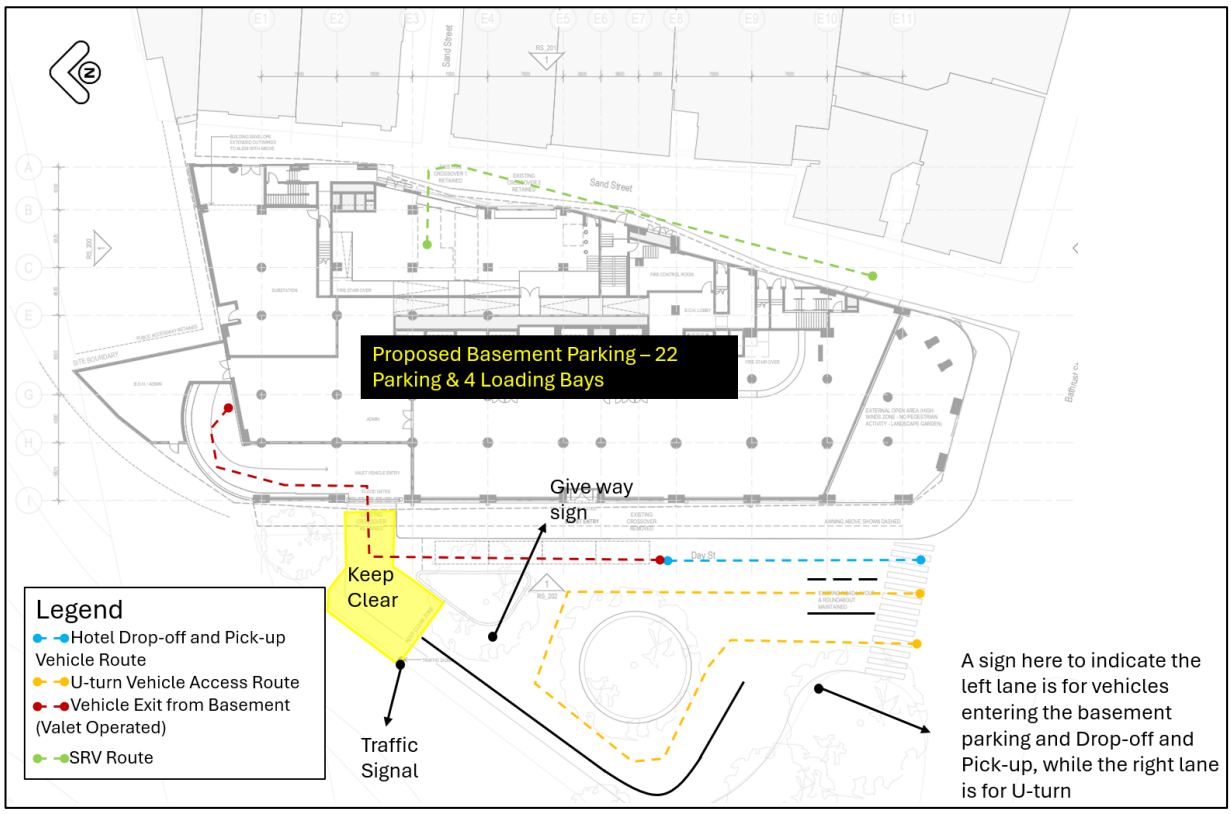


Figure 6: Proposed Vehicle Exit Route (Source: Hassell, modified by ptc.)

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2.4 Key Assumptions

All source data applied in preparing the traffic and transport assessment has been diligently collected and reviewed by **ptc.** However, given the level of detail of the assessment and the reliance on assumptions, the accuracy of modelling predictions will be influenced by unknown or unexpected changes to what has been assumed to occur in the future. **ptc.** has applied the appropriate effort and attention to ensure the completeness and accuracy of the analysis included in this report.

Other key assumptions for this study include the following:

- Nearmap was used for SIDRA base model geometry coding, which is assumed to reflect the current traffic network.
- Surveyed intersection turning counts (2024) have been applied for base-year traffic demand development.
- Surveyed queue length data (2024) has been utilised for base year SIDRA model calibration purposes.
- Surveyed video footage was utilised for the base year SIDRA model delay validation.

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3. Regulatory Context

3.1 Greater Sydney Region Plan

The 'Three-City Metropolis – Greater Sydney Region Plan,' Transport for NSW's (TfNSW) 'Future Transport 2050,' and Infrastructure NSW's 'State Infrastructure Strategy 2018-36' outline a vision for Greater Sydney as a vibrant and sustainable metropolis, integrating the Eastern Harbour City, Central River City, and Western Parkland City.

The plan provides strategic direction for Sydney's productivity, environmental management, and liveability, as well as for the location of housing, employment, infrastructure, and open spaces.

The plan's vision is to maintain Sydney's position as a strong global city and a great place to live. The proposed expansion of the Park Royal Hotel will contribute to accommodate the future demands of a growing urban population.

3.2 Sustainable Sydney 2030-2050

Some of the key transport targets outlined within the City of Sydney's *Sustainable Sydney 2030 Community Strategic Plan 2017-2021* include:

- By 2050, people will be using public transport, walking or cycling, to travel to and from work. This includes 9 out of 10 people working in the city centre and 2 out of 3 people working in the rest of the local area.

These transport mode share targets illustrate the City of Sydney's strong commitment to shifting away from private vehicles to sustainable transport with a greater focus on active travel modes. As the proposed development is ideally located within the heart of the Sydney CBD with a high level of accessibility to public transport and active transport facilities, hotel employees will likely utilise the wide range of active and sustainable modes to travel to and from work, thus further minimising private vehicle trips.

3.3 "A City for Walking" strategy and action plan – continuing the vision 2024

The "A City for Walking" Strategy and Action Plan – Continuing the Vision 2024 outlines a framework to achieve walking outcomes aligned with the Sustainable Sydney 2030-2050 vision. This strategy and action plan identifies the key actions for making our area more walkable, including:

- Collaborating with TfNSW to ensure traffic signal phasing prioritises pedestrians.
- Implementing local traffic management plans to reduce vehicle volume and speed, enhancing pedestrian safety.
- Proactively improving road rules and their enforcement as they relate to pedestrians.
- Reviewing and updating guidelines to enhance walkability.

People in Sydney make the highest number of daily walking trips (an average of 3.4), mainly because they can rely on public transport or walk to work (or other daily activities) instead of driving. The proposed development takes advantage of this trend by reducing basement parking, which will help reduce car use and encourage alternative transportation options like walking. Furthermore, the development plans to include external drop-off and pick-up zones to minimise pedestrian conflicts and improve safety, thus further encouraging walking.

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3.4 Cycling Strategy and Action Plan 2018-2030

Cycling Strategy and Action Plan (TfNSW, 2023) provides a framework for planning and prioritising cycling in Sydney. It aims to grow the number of people cycling for transport by investing in safe, connected networks, better using existing infrastructure and fostering partnerships to develop cycling infrastructure. Key points relevant to the strategy include:

- **Connecting the network** – building a bicycle network to make cycling safer in Sydney.
- **Supporting people to ride** – understanding and addressing barriers to help people start and continue cycling.
- **Supporting businesses** – partnering with employers to encourage employees to cycle.
- **Leadership and advocacy** – sharing our expertise and becoming a positive influence for improving cycling, not just within our own boundaries.

The City of Sydney Council is moving towards a well-connected cycle network to improve accessibility for staff and visitors to the CBD. The development would encourage people to cycle by providing high-quality end-of-trip facilities for employees and visitors.

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4. Existing Transport Facilities

4.1 Road Hierarchy

Roads within New South Wales are categorised in the following two ways:

- By classification (ownership)
- By the function that they perform

4.1.1 Road Classification

Roads are classified (as defined by the *NSW Roads Act 1993*) based on their importance to the movement of people and goods within NSW.

The classification of a road allows TfNSW to exercise authority of all or part of the road. Classified roads include Main Roads, State Highways, Tourist Roads, Secondary Roads, Tollways, Freeways, and Transitways. For management purposes, TfNSW has three administrative classes of roads:

- **State Roads** – Major arterial links through NSW and within major urban areas. They are the principal traffic-carrying roads and are fully controlled and maintained by TfNSW. State Roads include all Tollways, Freeways and Transitways; and all or part of a Main Road, Tourist Road or State Highway.
- **Regional Roads** – Roads of secondary importance between State Roads and Local Roads, which, along with State Roads, provide the main connections to and between smaller towns and perform a sub-arterial function in major urban areas. Regional roads are the responsibility of councils for maintenance funding, through TfNSW funds some maintenance based on traffic and infrastructure. Traffic management on Regional Roads is controlled under the delegations to local government from TfNSW. Regional Roads may own all, or part of a Main Road, Secondary Road, Tourist Road, State Highway, or other roads as determined by TfNSW.
- **Local Roads** – The remainder of the council-controlled roads, Local Roads, are the responsibility of councils for maintenance funding. TfNSW may fund some maintenance and improvements based on specific programs (e.g. urban bus routes road safety programs). Traffic management on Local Roads is controlled under the delegations to local government from TfNSW.

4.1.2 Functional hierarchy

Functional road classification involves the relative balance of the mobility and access functions. TfNSW defines four levels in a typical functional road hierarchy, ranking from high mobility and low accessibility to high accessibility and low mobility. These classes are:

- **Arterial Roads** – generally controlled by TfNSW, typically have no limit in flow and are designed to carry vehicles long distances between regional centres.
- **Sub-Arterial Roads** – can be managed by either TfNSW or the local council. Typically, their operating capacity ranges between 10,000 and 20,000 vehicles per day, and they aim to carry through traffic between specific areas in a sub-region or provide connectivity from arterial road routes (regional links)
- **Collector Roads** – provide connectivity between local roads and the arterial road network and typically carry 2,000 and 10,000 vehicles daily.

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- **Local Roads** – provide direct access to properties and the collector road system and typically carry between 500 and 4,000 vehicles daily.

The hotel is located in the City of Sydney Local Government Area (LGA) and is serviced by a mix of state, regional and local roads, as presented in Figure 7.

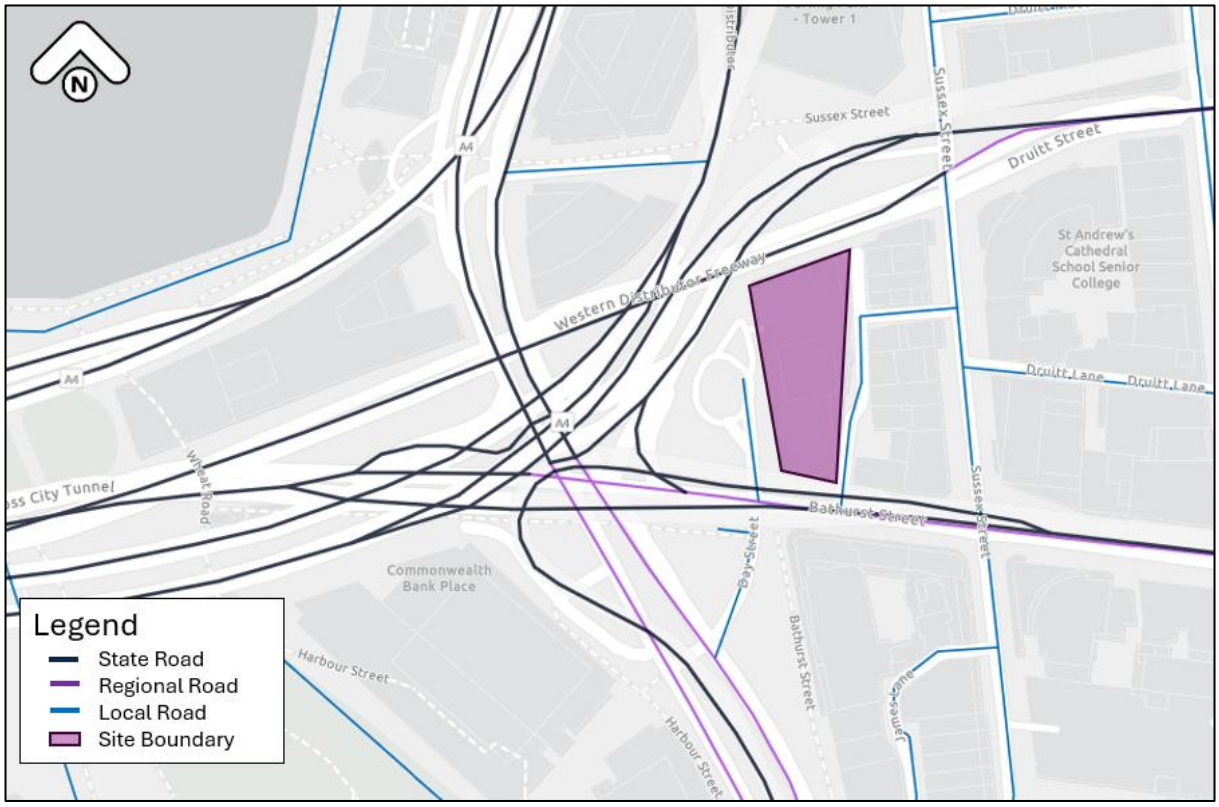


Figure 7: NSW Road Hierarchy (Source: TfNSW NSW Road Network Classifications, modified by **ptc**.)

The following section describes the existing conditions of key road links within the study area. The road network includes the following key road links.

- Bathurst Street
- Harbour Street
- Day Street
- Sands Street
- Sussex Street

4.1.3 Bathurst Street

Bathurst Street, located in the Sydney Central Business District, runs 650 metres in an east-west direction. Its western terminus is at Harbour Street, Darling Harbour, while the eastern terminus is at Elizabeth Street, adjacent to Hyde Park. The key features of Bathurst Street are summarised in Table 1 and Figure 8.

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Table 1 Bathurst Street's Key Features

Bathurst Street	
Road Classification	Regional Road
Alignment	East – West
Number of Lanes	One-way with three lanes from Harbour Street to Day Street. From Day Street to Sussex Street, there are three eastbound lanes and one westbound divided by a double solid line (BB line). Then, from Sussex Street to Kent Street, it is one-way with two lanes.
Carriageway Type	Undivided
Carriageway Width	13 metres
Speed Limit	Varies, 40-50km/h
School Zone	Yes
Parking Controls	In both directions, kerbside parallel parking was provided in some street sections.
Forms Site Frontage	No



Figure 8: Bathurst Street (Source: Google Map Street View, Westbound)

4.1.4 Harbour Street

Harbour Street is a regional road. The key features of Harbour Street can be found in Figure 9.

Table 2 and Figure 9.

Table 2 Harbour Street's Key Features

Harbour Street	
Road Classification	Regional Road
Alignment	North – South
Number of Lanes	Two to three lanes in each direction with medium/Tunnel
Carriageway Type	Divided
Carriageway Width	30 metres
Speed Limit	50km/h
School Zone	No
Parking Controls	No designated parking facilities are provided
Forms Site Frontage	No

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Figure 9: Harbour Street (Source: Google Map Street View, Southbound)

4.1.5 Day Street

Day Street is a local Street. The key features of Day Street can be found in Table 3 and Figure 10.

Table 3 Day Street's Key Features

Day Street	
Road Classification	Local Road
Alignment	North - South
Number of Lanes	One to two lanes in each direction divided by a double solid line (BB line)
Carriageway Type	Undivided
Carriageway Width	13 metres
Speed Limit	50km/h
School Zone	No
Parking Controls	No designated parking facilities are provided
Forms Site Frontage	Yes

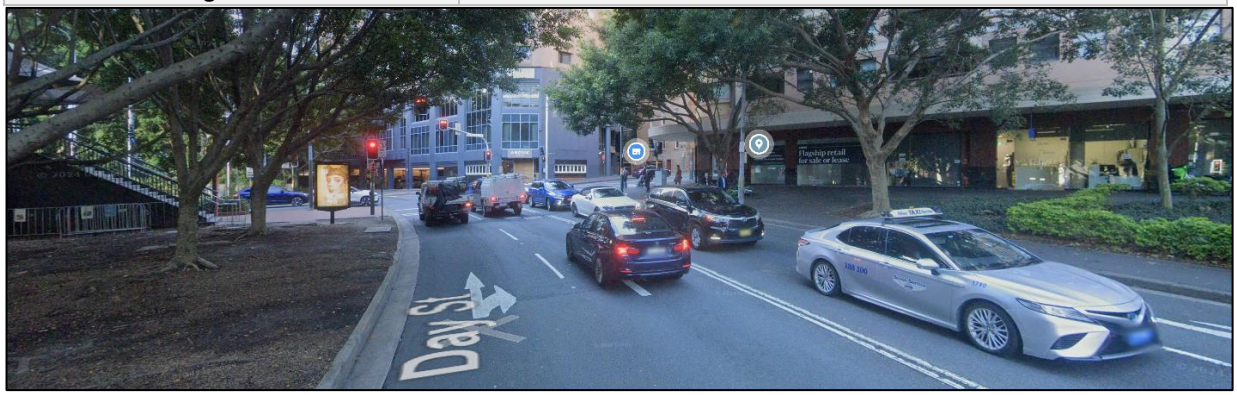


Figure 10: Day Street (Source: Google Map Street View, Northbound)

4.1.6 Sands Street

Sands Street is a local Street. Table 4 and Figure 11 show its key features.

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Table 4 Sands Street's Key Features

Sands Street	
Road Classification	Local Road
Alignment	East – West or North - South
Number of Lanes	One lane (One Way Road)
Carriageway Type	Undivided
Carriageway Width	6.5 metres
Speed Limit	50km/h
School Zone	No
Parking Controls	No designated parking facilities are provided
Forms Site Frontage	Yes

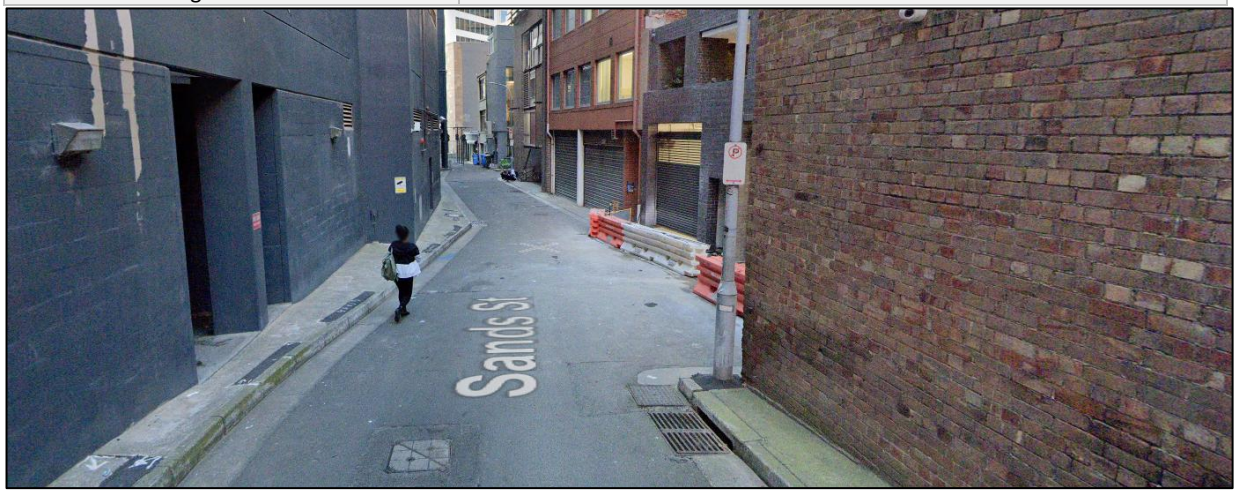


Figure 11: Sands Street (Source: Google Map Street View, Southbound)

4.1.7 Sussex Street

Sussex Street is a local Road. The key features can be found in Table 5 and Figure 12.

Table 5 Sussex Street's Key Features

Sussex Street	
Road Classification	Local Road
Alignment	North- South
Number of Lanes	Two to Four Lanes (One way Road)
Carriageway Type	Undivided
Carriageway Width	11 metres
Speed Limit	50km/h
School Zone	No
Parking Controls	In both directions, kerbside parallel parking was provided in some street sections.
Forms Site Frontage	No

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Figure 12: Sussex Street (Source: Google Map Street View, Southbound)

4.2 Public Transport

The locality has been assessed in the context of available forms of public transport that may be utilised by prospective staff and guests. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggests that a 400 – 800m catchment is a comfortable walking distance. Figure 13 displays the public transport options within a 400-metre radius walking catchment.

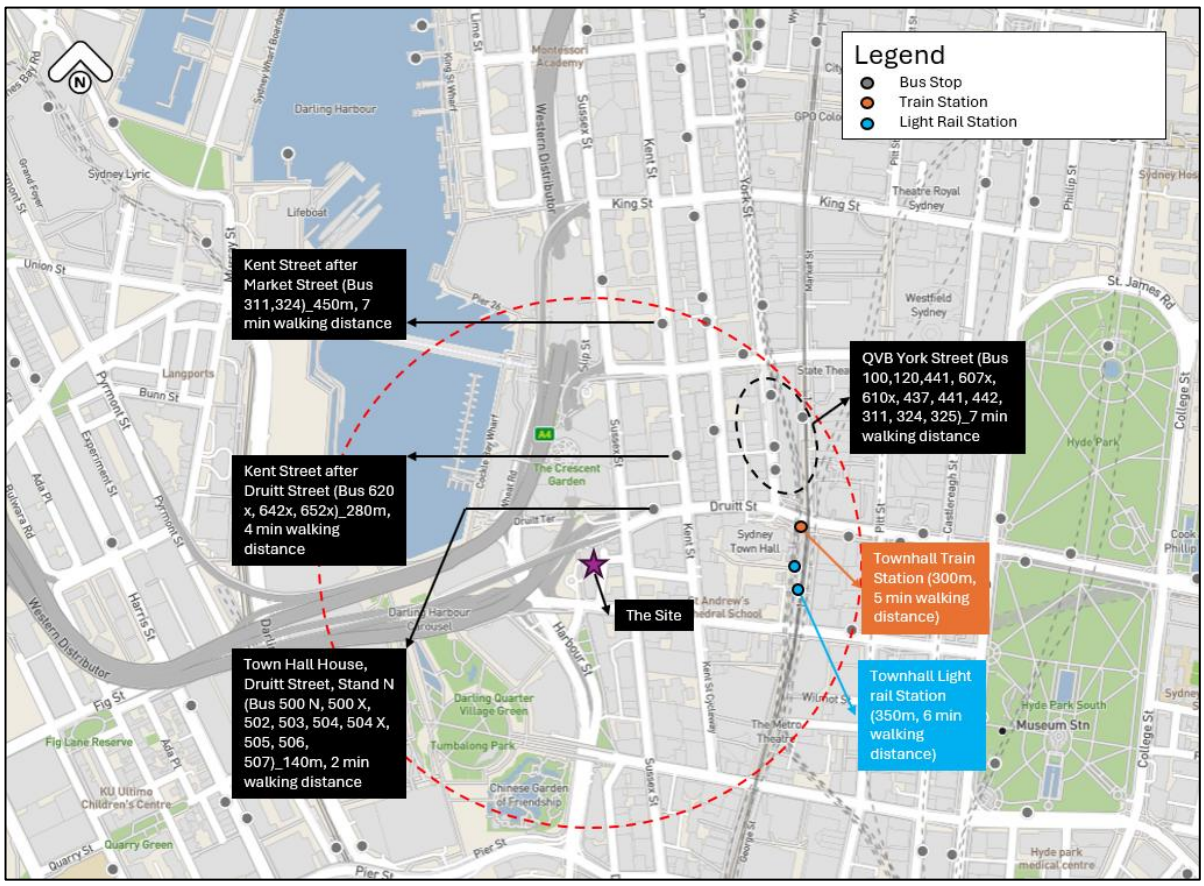


Figure 13: Public Transport options within a 400m radius (Source: Google Maps, modified by **ptc**.)

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Given that the site is located near the Sydney CBD, there are abundant public transport facilities within close proximity, all of which provide high-frequency services throughout each day, including train services, bus routes, ferry and light rail options, as outlined in the following subsections.

4.2.1 Train and Light Rail Services

Town Hall rail station is located within 400 meters of the site. Town Hall rail station provides access to extensive train services connecting to the Sydney Metropolitan area, providing frequent services seven days a week. Additionally, the Museum and St James Stations, Gadigal Metro Station, and the QVB Light Rail are located just outside the 400-metre radius.

A summary of the train and light rail services is presented in Figure 14, Figure 15 and Table 6.

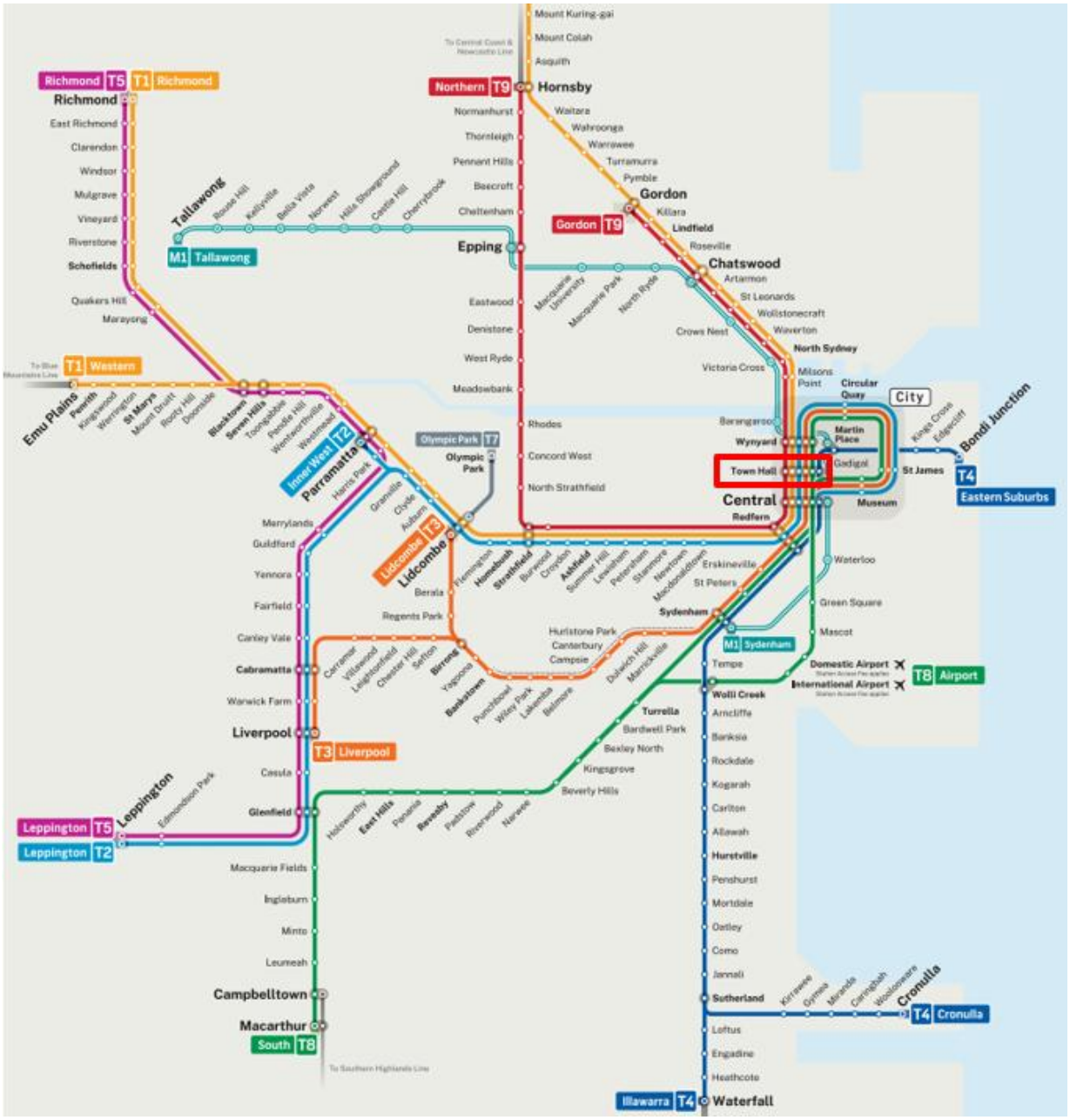


Figure 14: Sydney Trains Network Map (Source: TfNSW Trip Planner, modified by **ptc**.)

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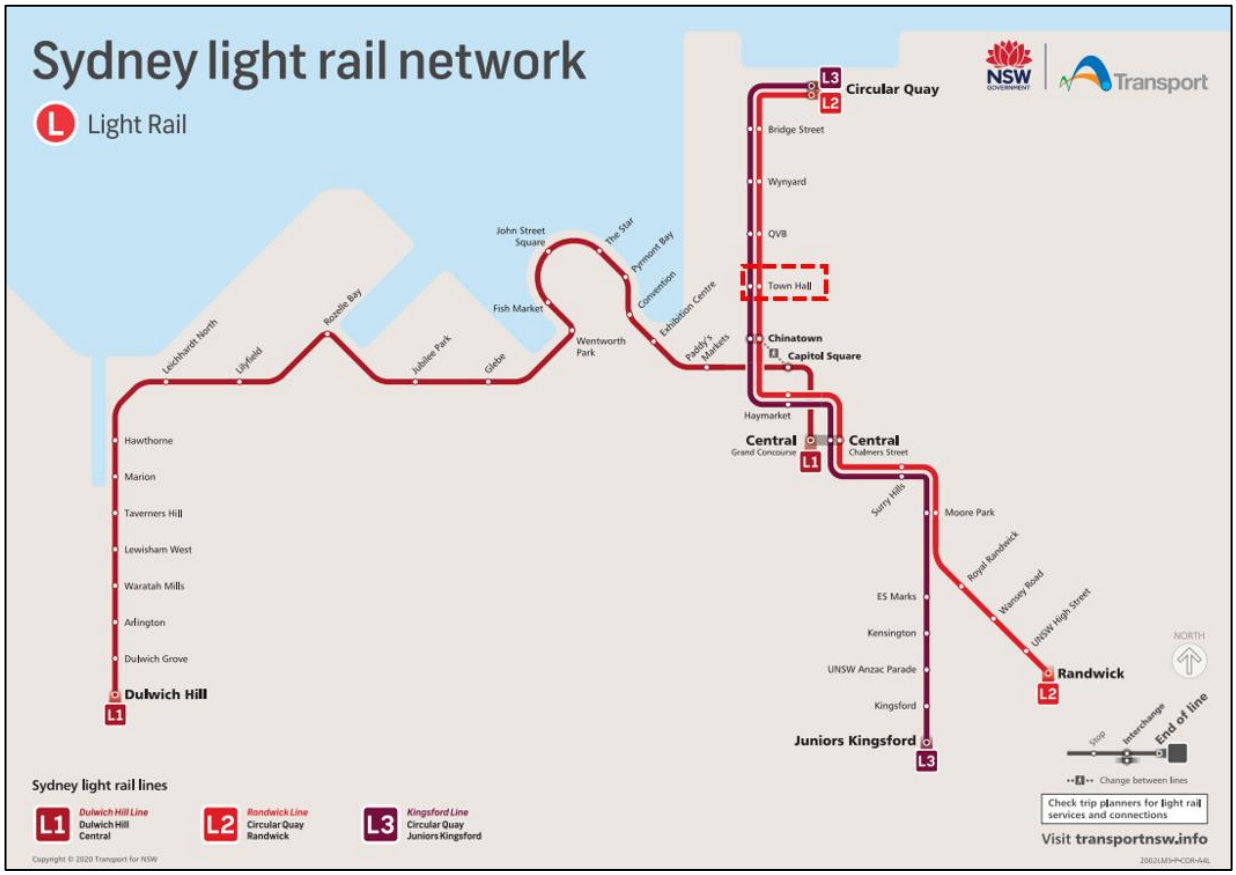


Figure 15: Sydney Light Rail Network Map (Source: TfNSW Trip Planner, modified by **ptc**.)

Table 6 Train Service Summary

Route	**Coverage**	**Operation Summary**	
		Weekdays	Weekends and Public Holidays
T1	City to Berowra via Gordon	Morning peak: every 3-6 minutes Afternoon peak: every 3-6 minutes	Every 5-10 minutes
T2	City to Parramatta or Leppington	Morning peak: every 3-6 minutes Afternoon peak: every 5-8 minutes	Every 5-10 minutes
T3	City to Liverpool or Lidcombe	Morning peak: every 5-10 minutes Afternoon peak: every 7-15 minutes	Every 15 minutes
T4	Bondi Junction to Waterfall or Cronulla	Morning peak: every 3-10 minutes Afternoon peak: every 3-6 minutes	Every 5-10 minutes
T8	City to Macarthur via Airport or Sydenham	Morning peak: every 3-10 minutes Afternoon peak: every 3-10 minutes	Every 20 -50 minutes
T9	Hornsby to North Shore via City	Every 15 minutes	Every 15 minutes

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CCN	Newcastle to Central via Strathfield or Gordon	Morning peak: Every 15-20 minutes Afternoon peak: No stop in Town Hall Station	No stop in Town Hall Station
SCO	Bondi Junction and Central to Bomaderry or Port Kembla	Morning peak: Every 20 - 60 minutes Afternoon peak: Every 30-60 minutes	Every 60 minutes
L2 (Light Rail)	Randwick to Circular Quay	Morning peak: Every 8-13 minutes Afternoon peak: Every 8-13 minutes	Every 15 minutes
L3 (Light Rail)	Circular Quay to Juniors Kingsford	Morning peak: Every 8-12 minutes Afternoon peak: Every 10-12 minutes	Every 15 minutes

4.2.2 Bus Services

Approximately nine bus stops are located within a 400m radius of the site, providing future staff and guests a vast range of options, in terms of both destination and frequency, to travel to and from the site by bus. A summary of available bus routes and frequencies is shown in Figure 16 and Table 7.

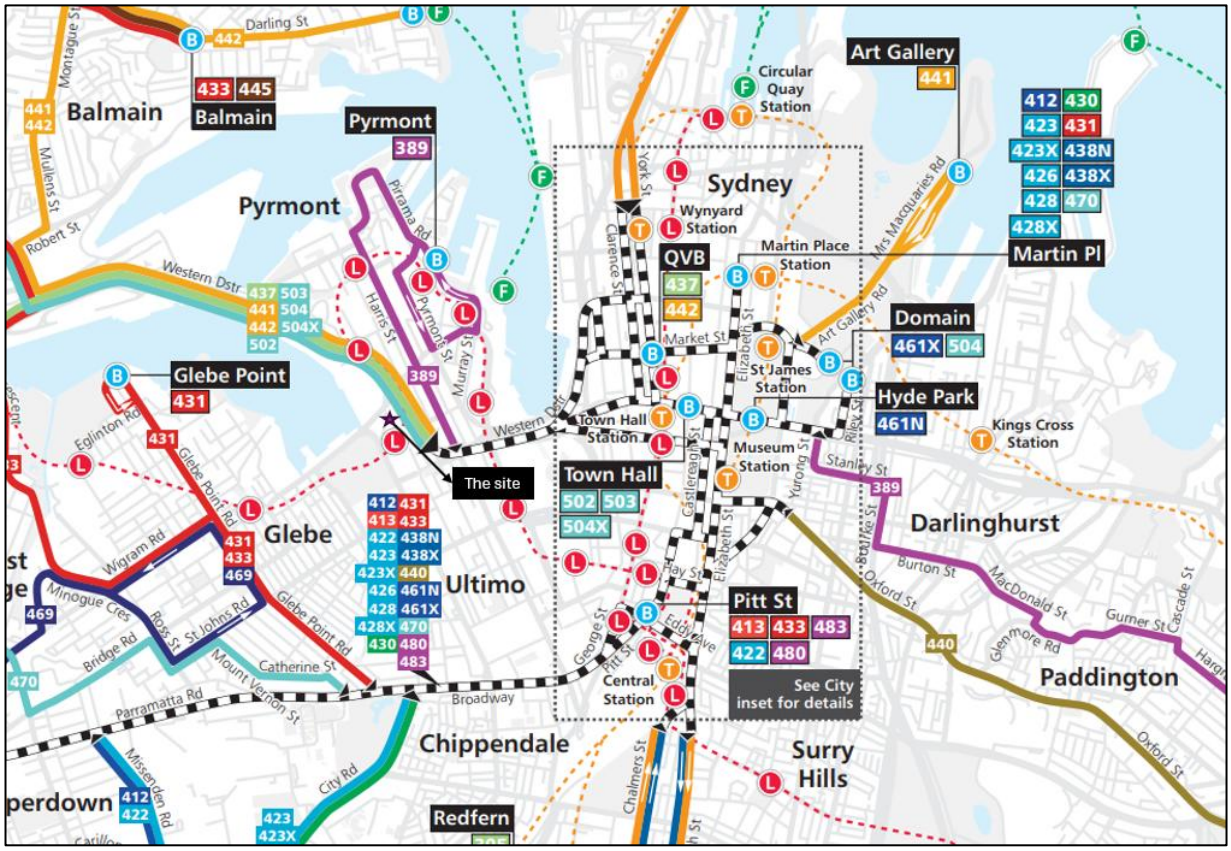


Figure 16: Surrounding Bus Routes (Source: TfNSW Trip Planner, modified by **ptc**.)

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Table 7: Bus Service Summary

Route No.	Coverage	Frequency
311	Central Belmore Park to City Millers Point via Darlinghurst and Potts Point	**Weekdays:** Every 15-30 minutes **Saturdays**: Every 30 minutes **Sunday and public holidays**: Every 30 minutes
620 X	Dural to City Wynyard via Cherrybrook (Express Service)	**Weekdays**: Every 5-15 minutes **Saturdays**: Not in operation **Sunday and public holidays:** Not in operation
642 X	Dural to City Wynyard (Express Service)	**Weekdays:** Every 10-30 minutes **Saturdays**: Not in operation **Sunday and public holidays**: Not in operation
652 X	West Pennant Hills to City Wynyard (Express Service)	**Weekdays**: Every 5-30 minutes **Saturdays**: Not in operation **Sunday and public holidays**: Not in operation
500 N	City Hyde Park to Parramatta via Victoria Road (Night Service)	**Weekdays**: Every 30 minutes **Saturdays**: Every 30 minutes **Sunday and public holidays**: Every 60 minutes
500 X	West Ryde to City Hyde Park via Victoria Road (Night Service)	**Weekdays**: Every 10-15 minutes **Saturdays**: Every 10-20 minutes **Sunday and public holidays**: Every 10 -20 minutes
502	City Town Hall and Drummoyne to Cabarita Wharf	**Weekdays**: Every 9-30 minutes **Saturdays**: Every 20-60 minutes **Sunday and public holidays:** Every 30 minutes
503	City Town Hall to Drummoyne (Loop Service)	8 services per day from Monday to Friday
504	Chiswick to City Domain	**Weekdays**: Every 10-30 minutes **Saturdays**: Every 15-60 minutes **Sunday and public holidays:** Every 15-60 minutes
504 X	City Town Hall to Chiswick (Express Service)	2 services per day from 17:25 pm to 17:49 pm, Monday to Friday
505	City Town Hall to Woolwich	Every 30 minutes from 15:36 pm to 08:55 pm, Monday to Friday
506	Macquarie University to City Domain via East Ryde	**Weekdays**: Every 10-30 minutes **Saturdays**: Every 30 minutes **Sunday and public holidays:** Every 30 minutes
507	City Hyde Park & Gladesville to Meadowbank via Putney	**Weekdays**: Every 10-15 minutes **Saturdays**: Every 60 minutes **Sunday and public holidays:** Every 60 minutes
100	Taronga Zoo to City QVB (Loop Service)	**Weekdays**: Every 5-20 minutes **Saturdays**: Every 10-20 minutes **Sunday and public holidays**: Every 10-20 minutes
120	Chatswood to City QVB (Loop Service)	**Weekdays**: Every 10-20 minutes **Saturdays**: Every 10-20 minutes **Sunday and public holidays**: Every 20 minutes
441	City Art Gallery to Birchgrove via QVB (Loop Service)	**Weekdays**: Every 5-20 minutes **Saturdays**: Every 45 -60 minutes **Sunday and public holidays**: Every 30-60 minutes
607 X	Bella Vista Station to City QVB (Express Service)	**Weekdays**: Every 20-30minutes **Saturdays**: Every 15-30 minutes **Sunday and public holidays**: Every 15-30 minutes
610 X	Castle Hill to City QVB (Express Service)	**Weekdays**: Every 10-30 minutes **Saturdays:** Every 10-30 minutes **Sunday and public holidays**: Every 10-30 minutes
437	Five Dock to City QVB via City West Link	**Weekdays**: Every 15-30 minutes **Saturdays**: Every 20-60 minutes **Sunday and public holidays:** Every 30 minutes

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441	City Art Gallery to Birchgrove via QVB (Loop Service)	**Weekdays**: Every 20-30 minutes **Saturdays:** Every 30 minutes **Sunday and public holidays:** Every 30 minutes
442	City QVB to Balmain East Wharf (Loop Service)	**Weekdays**: Every 5-40 minutes **Saturdays**: Every 10-20 minutes **Sunday and public holidays**: Every 10-15 minutes
311	City Millers Point to Central Belmore Park via Potts Point and Darlinghurst	**Weekdays**: Every 10-30 minutes **Saturdays**: Every 30 minutes **Sunday and public holidays:** Every 30 minutes
324	City Walsh Bay to Watsons Bay via Old South Head Road	**Weekdays:** Every 30 -60 minutes **Saturdays:** Every 30-60 minutes **Sunday and public holidays**: Every 30-60 minutes
325	City Walsh Bay to Watsons Bay via Vaucluse Road	**Weekdays**: Every 30-40minutes **Saturdays:** Every 15-60 minutes **Sunday and public holidays**: Every 40 minutes
389	Pyrmont to Bondi Junction	**Weekdays:** Every 10-30 minutes **Saturdays**: Every 30 minutes **Sunday and public holidays**: Every 20-30 minutes
N10	City Town Hall to Sutherland (Night Service)	**Weekdays**: Every 15-60 minutes from 1:00 am **Saturdays**: Every 15-30 minutes from 1:00 am **Sunday and public holidays**: Every 60 minutes from 1:00 am
N11	City Town Hall to Cronulla (Night Service)	**Weekdays**: Every 60 minutes from 1:30 am **Saturdays:** Every 60 minutes from 1:30 am **Sunday and public holidays**: Every 60 minutes from 1:30 am
N20	City Town Hall to Riverwood via Airport (Night Service)	Every 60 minutes from 1:00 am to 4:00 am
N30	City Town Hall to Macarthur (Night Service)	**Weekdays**: Every 30 minutes from 00:30 am **Saturdays:** Every 30 minutes from 1:30 am **Sunday and public holidays**: Every 60 minutes from 1:00 am
N40	City Town Hall to East Hills (Night Service)	**Weekdays:** Every 30 minutes from 00:10 am **Saturdays:** Every 30 minutes from 00:10 am **Sunday and public holidays:** Every 60 minutes from 00:10 am
N50	City Town Hall to Liverpool via Strathfield (Night Service)	**Weekdays:** Every 30 minutes from 00:04 am **Saturdays:** Every 30 minutes from 00:04 am **Sunday and public holidays:** Every 60 minutes from 00:04 am
N60	City Town Hall to Fairfield via Strathfield (Night Service)	**Weekdays:** Every 30 minutes from 00:40 am **Saturdays**: Every 30 minutes from 00:40 am **Sunday and public holidays:** Every 60 minutes from 00:40 am
N61	City Town Hall to Carlingford via Strathfield (Night Service)	**Weekdays:** Every 60 minutes from 00:30 am **Saturdays:** Every 60 minutes from 00:30 am
N70	City Town Hall to Penrith via Parramatta (Night Service)	**Weekdays:** Every 60 minutes from 00:59 am **Saturdays:** Every 60 minutes from 00:59 am **Sunday and public holidays:** Every 60 minutes 00:59 am
N71	City Town Hall to Richmond via Parramatta (Night Service)	**Weekdays:** Every 60 minutes from 00:29 am **Saturdays:** Every 60 minutes from 00:29 am **Sunday and public holidays:** Every 60 minutes from 00:29 am
N80	City Town Hall to Hornsby via Strathfield (Night Service)	**Weekdays:** Every 60 minutes from 00:54 am **Saturdays:** Every 60 minutes from 1:54 am

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		Sunday and public holidays: Every 60 minutes from 00:54 am
N81	City Town Hall to Parramatta via Sydney Olympic Park (Night Service)	**Weekdays:** Every 60 minutes from 1:24 am **Saturdays:** Every 60 minutes from 1:24 am
N90	City Town Hall to Hornsby via Chatswood (Night Service)	**Weekdays:** Every 60 minutes from 1:40 am **Saturdays:** Every 60 minutes from 1:40 am **Sunday and public holidays:** Every 60 minutes from 1:40 am
N91	City Town Hall to Macquarie Centre (Night Service)	**Weekdays:** Every 60 minutes from 00:40 am **Saturdays:** Every 60 minutes from 00:40 am **Sunday and public holidays:** Every 60 minutes from 00:40 am
N92	City Town Hall to Tallawong via Macquarie Park (Night Service)	**Weekdays:** Every 60 minutes from 1:40 am **Saturdays:** Every 60 minutes from 1:40 am **Sunday and public holidays:** Every 60 minutes from 1:40 am

4.3 Ferry

The hotel is located 1,300 metres from Barangaroo Wharf, beyond a comfortable walking distance of 800 meters, albeit there are opportunities to rest along the route. Alternatively, hotel guests and staff can walk to Town Hall Station to catch the SCO, T8, or T4 train lines, take the L2 or L3 light rail, or board the 333/336 bus to Circular Quay Station. The Circular Quay Station is next to the wharf and access to Parramatta. Figure 17 shows the layout of the ferry service routes.

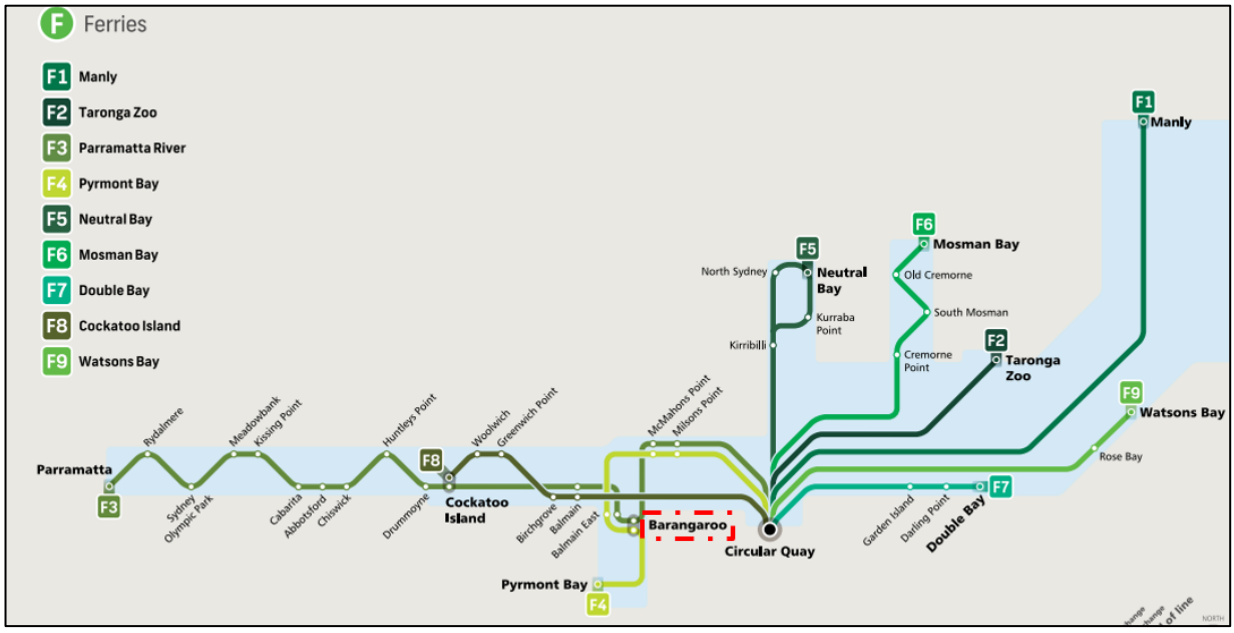


Figure 17: Ferry Service Map (Source: TfNSW Trip Planner, modified by **ptc**.)

In summary, the site is located in a highly accessible location, benefitting from access to high-frequency bus, rail and light rail services, providing a genuine opportunity for staff and guests to travel to and from the site sustainably.

4.4 Car Share

In addition to the public transport options, two car-share facilities are available in the vicinity of the hotel for staff or guests needing to access a vehicle. Figure 18 shows the nearby facilities of GoGet, one of the available car-share providers.

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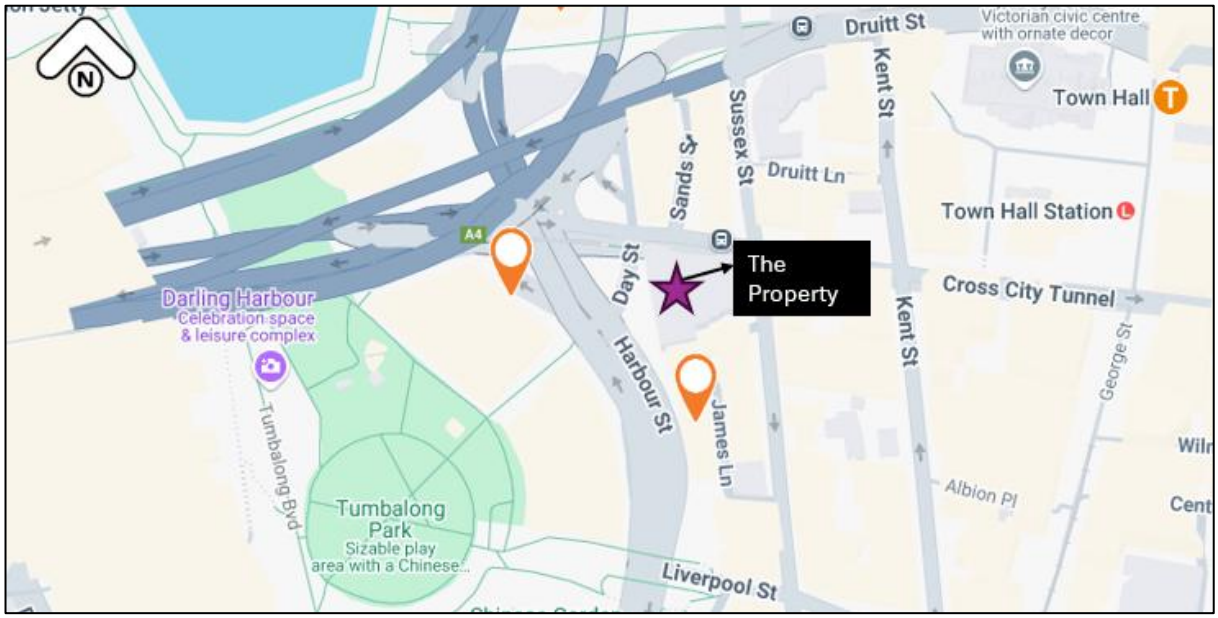


Figure 18: Car Share Facilities in the vicinity of the hotel (Source: GoGet, modified by **ptc**.)

4.5 Active Transport

The site has also been evaluated for active transport options, such as walking and cycling.

Previous developments in the Sydney Central Business District (CBD) have resulted in high pedestrian density and demand in the area. The City of Sydney Council and TfNSW are currently developing planning strategies to help prioritise traffic flow and allocate adequate space to support current and future growth in the CBD. This will help support place-making activities, further stimulating the economic development of the CBD.

Similar to all the footpaths surrounding the site, Bathurst Street experiences significant pedestrian activity. At the signalised intersection of Day Street and Bathurst Street, there are clearly marked signalised pedestrian crossings.

It is anticipated that with the ongoing implementation of the Sydney City Centre Access Strategy (TfNSW, 2013), there will be growth in the demand for bus services and pedestrian activity along the Bathurst Street and Day Street footpaths.

Cycling facilities have also been assessed using the TfNSW Cycleway Finder, as shown in Figure 19. There is limited access to the CBD cycle network. However, the Kent Street cycle lane is available via Bathurst Street (two blocks with no cycle lane).

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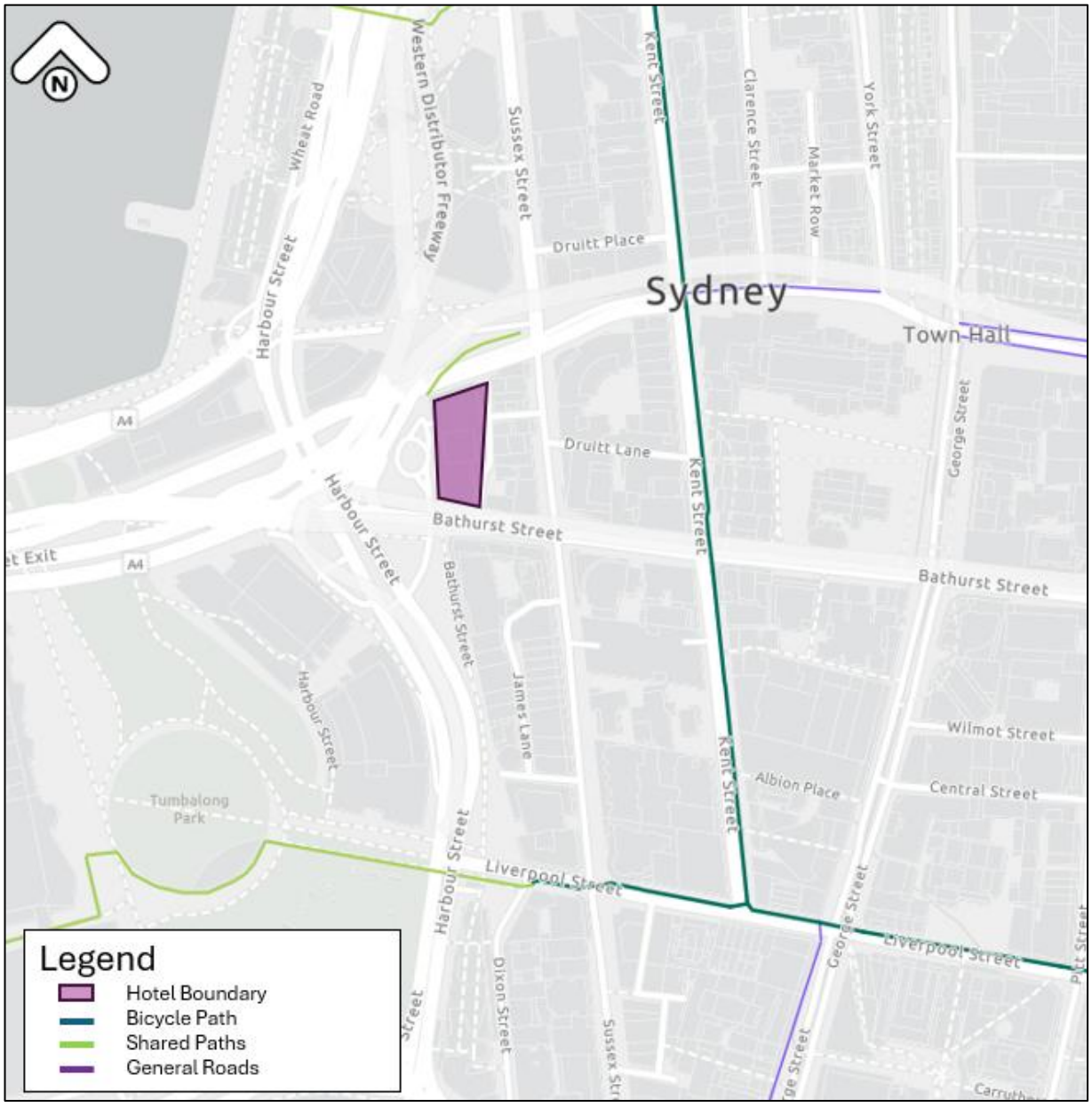


Figure 19: Cycleways - Source: TfNSW Cycleway Finder

Given the surrounding active transport options, staff and hotel guests are expected to be able to make journeys to and from the property with a reduced requirement for private transport.

4.6 Crash Statistics

Crash incident data was collected from road crash statistics published by the NSW Centre for Road Safety and from data provided by transport. The location of these crashes and the corresponding crash severity are shown in Figure 20.

TfNSW provides definitions for assessing the severity of crashes:

- **Non-casualty crash**: A crash in which at least one vehicle is towed away, but there are no person injuries.

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- **Minor crash**: A crash in which at least one person is injured, but there is no hospital admission or emergency department attendance.
- **Moderate crash**: A crash in which at least one person is admitted to a hospital or attends a hospital or emergency department
- **Serious crash**: A crash in which at least one person is admitted to hospital (not an ED-only admission) and is given an injury diagnosis on the same day or day after the crash
- **Fatal crash**: A crash in which at least one person dies within 30 days from injuries sustained in the crash.

Within a 400-metre radius of the site, there were 131 crashes between 2019 and 2023, including an average of 25.8 crashes per year. Ninety incidents (67 per cent) resulted in injuries, including 16 serious ones. One fatality was also reported in 2020. Among these, none of the reported incidents were located at the road area of 150 Day Street.

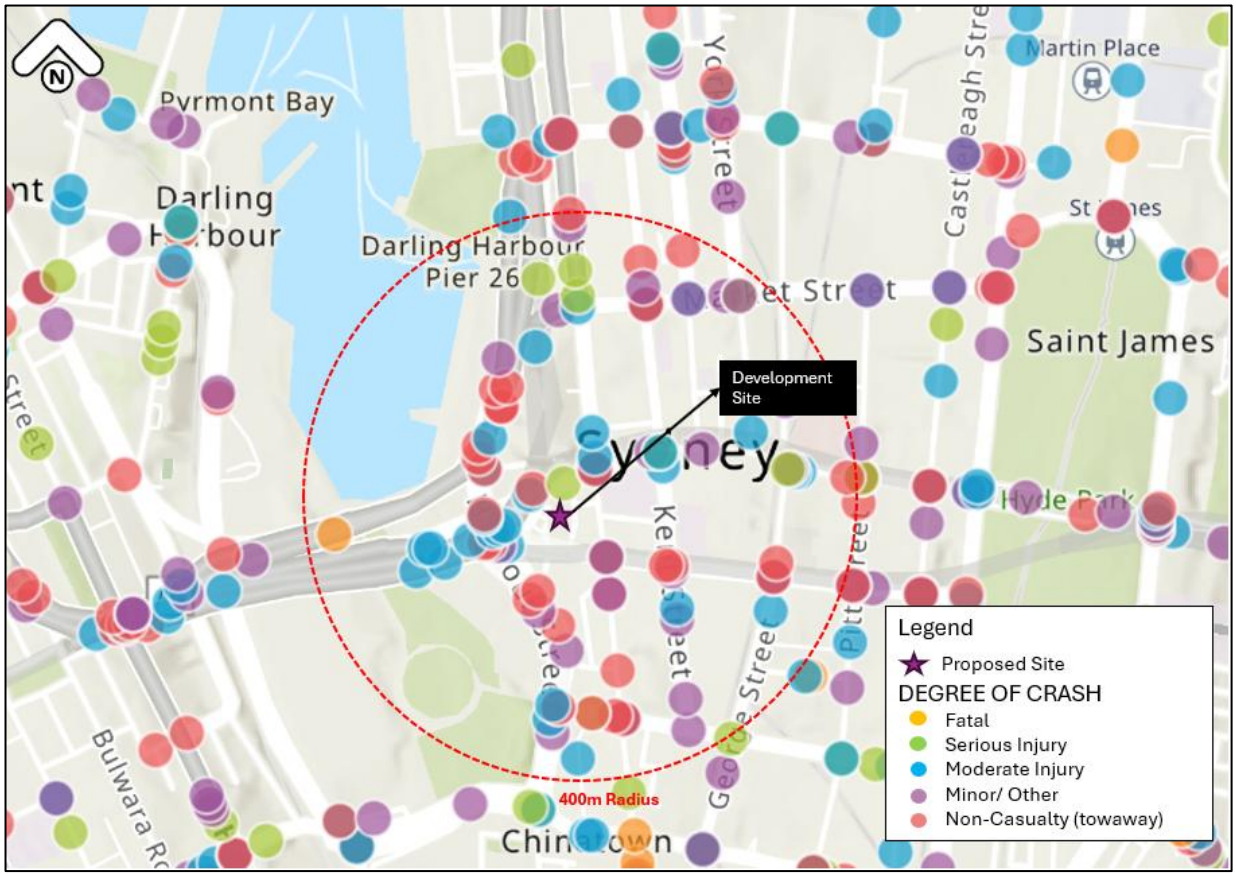


Figure 20: Surrounding Crash Location - Source: Transport for NSW crash map, modified by ptc.

A summary of the crash data is presented in Table 8.

Table 8 Crash Summary

Location	Number of injuries			
	Fatal	Serious	Moderate/ Minor	No injury
2019	0	5	20	8
2020	1	2	9	9
2021	0	4	16	13
2022	0	2	15	8
2023	0	2	13	3
Total	1	16	73	41

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Further analysis of the crash data indicates that rear-end crashes makeup 15 per cent of these crashes. A summary of the road crash categories is provided in Figure 21.

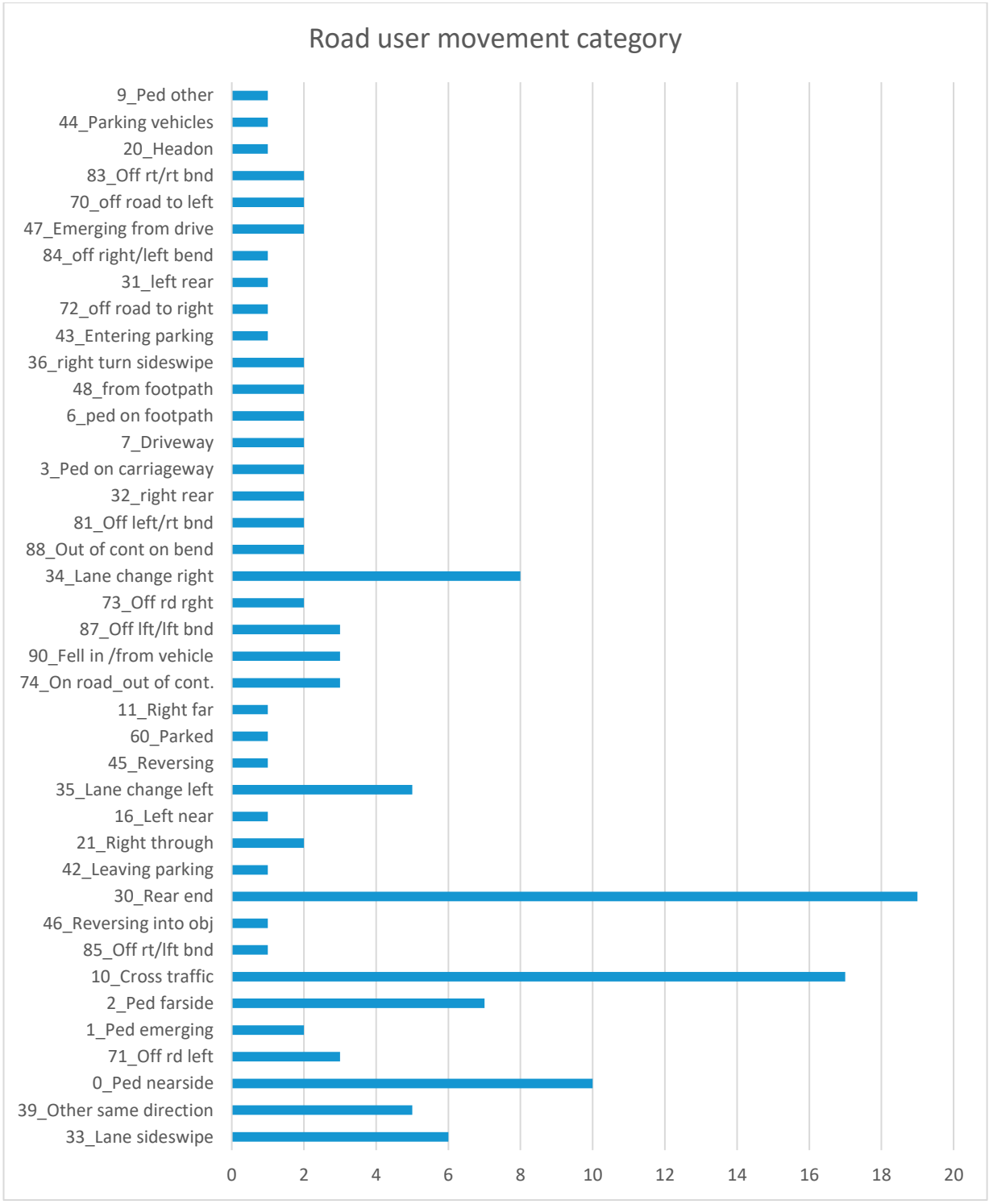


Figure 21: Incident frequency per road crash category (2018-2022) - Source: NSW Road Crash Data 2018-2022

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4.7 Existing travel patterns

4.7.1 Journey to Work Data

The Journey to Work data was collected by the Australian Bureau of Statistics (ABS) to outline the travel characteristics of workers within the City of Sydney LGA based on the Census of Population and Housing conducted in 2016.

The ABS provides information relating to people commuting from their usual place of residence to their place of work. The key residential areas where people travel from on their commute to work within the City of Sydney are illustrated in Figure 22.

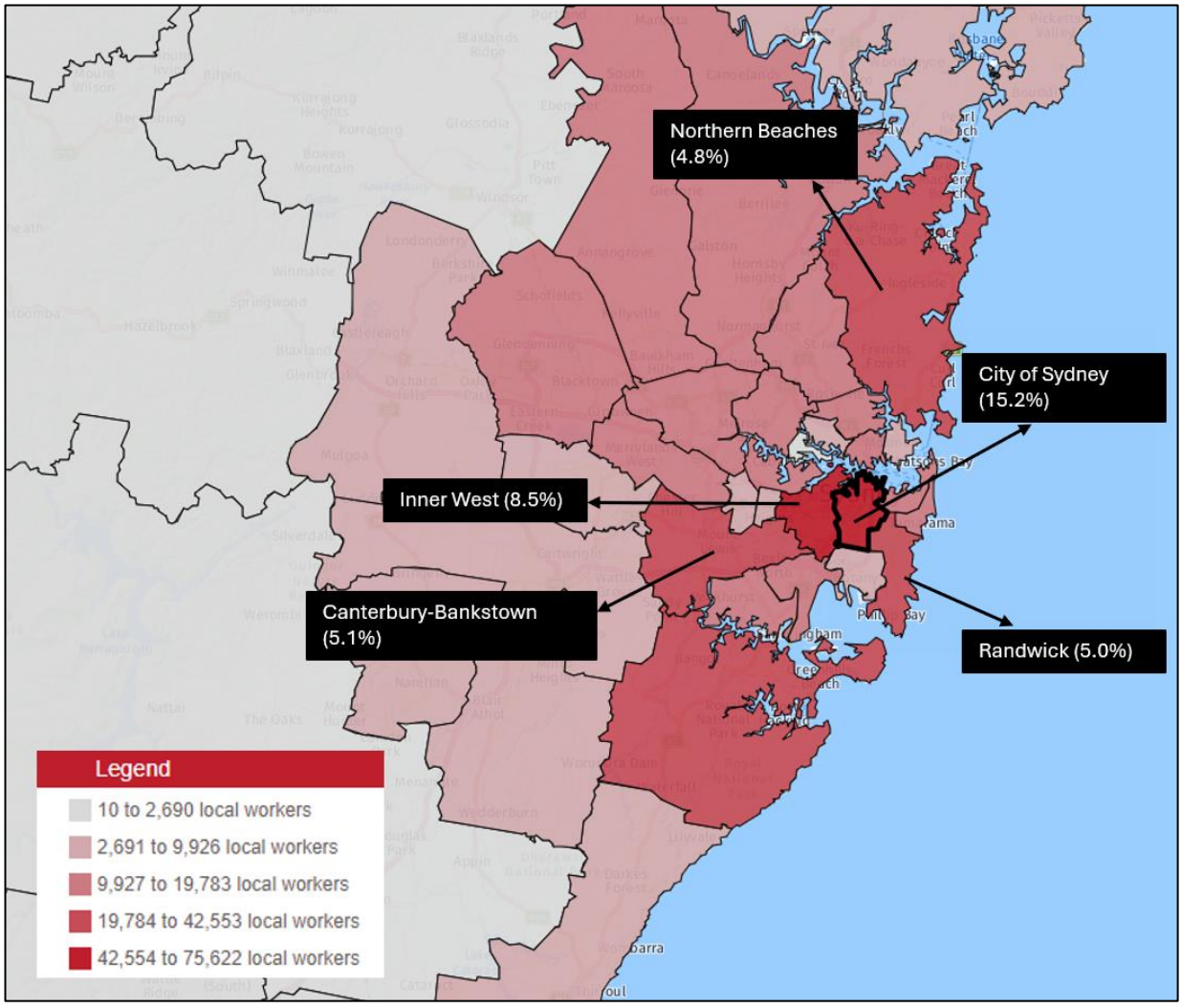


Figure 22: Origin Trip for the City of Sydney (Source: ABS 2016, modified by **ptc**.)

As shown in Figure 22, the top five areas where workers within the City of Sydney usually reside include:

- **City of Sydney** –15.2% of the workforce within the City of Sydney reside within the LGA.
- **Inner West** – comprising 8.5% of the workforce within the City of Sydney.
- **Canterbury-Bankstown** – comprising 5.1% of the workforce within the City of Sydney.
- **Randwick** – comprising 5.0% of the workforce within the City of Sydney; and

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- **Northern Beaches** – comprising 4.8% of the workforce within the City of Sydney.

4.7.2 Method of Travel to Work

There is no on-site vehicle parking available for staff, and parking charges within Sydney are high and steadily increasing; the likelihood of staff choosing to drive to work is minimal. Many staff associated with the development anticipate adopting public transport as their primary mode of travel. The Australian Bureau of Statistics (ABS) provides 'Journey to Work' (JTW) data for the City of Sydney LGA (Refer to Figure 23).

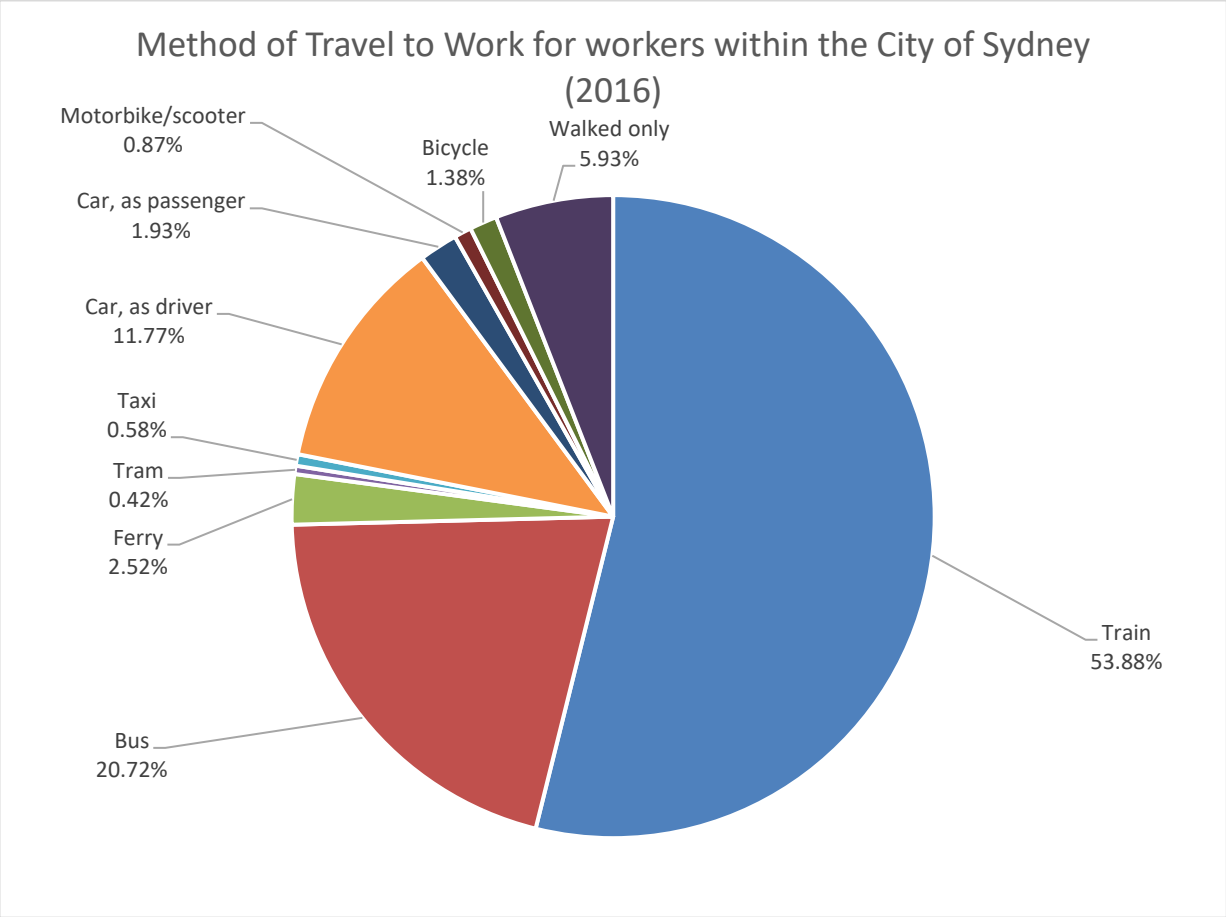


Figure 23: Method of Travel to Work for Workers within the City of Sydney (Source: ABS, 2016)

In 2016, the majority of workers within the City of Sydney travelled to work by train, which accounts for approximately 54% of workers, followed by 21% travelling by bus, 2.5% by ferry and 0.4% by tram/light rail. This results in a public transport mode share of approximately 78%, a significant proportion of the workforce within the City of Sydney. While the data is the most recent to be collected prior to the influence of COVID-19, there is no indication that 'car as driver' has increased as a percentage in recent years, noting that 'work from home' has increased, somewhat reducing the percentage of all other modes.

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5. Traffic Data Input

5.1 Key Assessed Intersections

The following key intersections are located within the vicinity of the hotel, as shown in Table 9 and Figure 24.

Table 9 Key Assessed Intersections

No.	Intersection Name	Intersection Type
1	Day Street/ Bathurst Street	Traffic Signal
2	Bathurst Street/ Harbour Street	Traffic Signal
3	Day Street/ Harbour Street	Traffic Signal
4	Bathurst Street/ Sussex Street	Traffic Signal

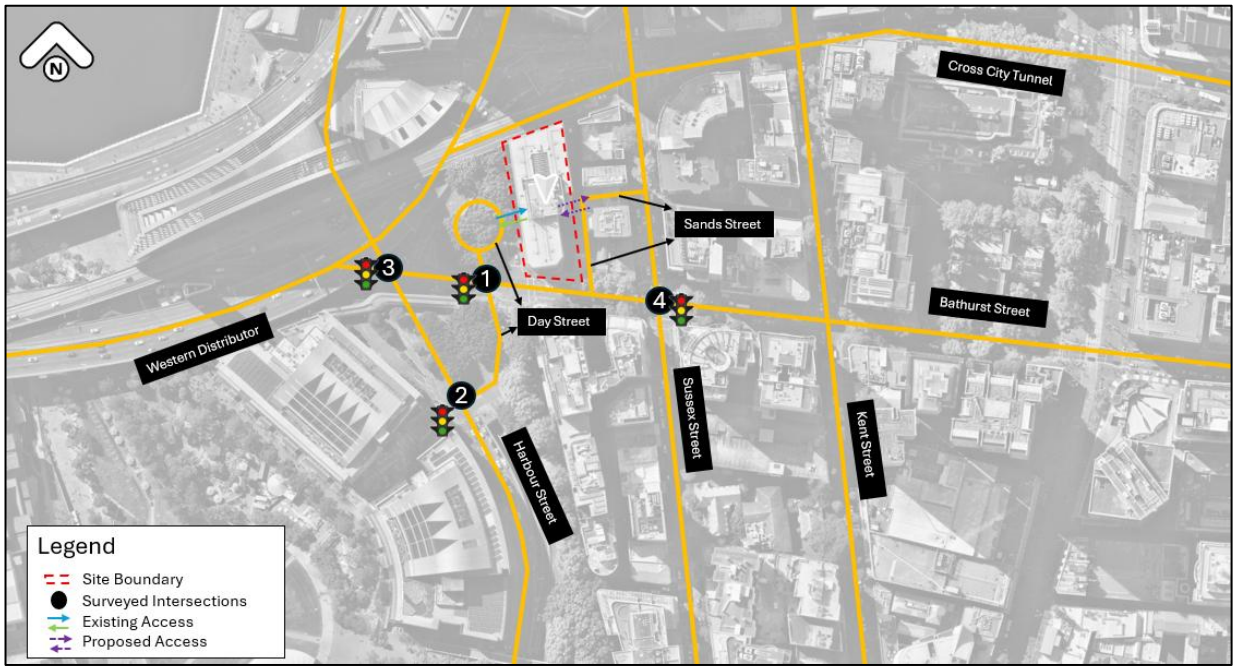


Figure 24: Key Assessed Intersections locations - Source: Nearmap, modified by **ptc.**

5.2 Existing Traffic Volume

5.2.1 Data collection

Traffic data collection was conducted by the *Trans Traffic Survey* on Thursday, 12th December 2024. The surveys included:

- Classification Intersection counts - four (4) intersections (Refer to Table 9)
- Queue length surveys - four (4) intersections (Refer to Table 9)
    - Due to the absence of traffic count data for the south approach at the Day Street/Harbour Street intersection, it is estimated that there are 60 vehicles during the peak one-hour period, averaging one vehicle per minute.

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5.2.2 Classified Intersection Counts and Peak Period Identification

The surveys captured light vehicles, heavy vehicles and pedestrian activity. The surveys were undertaken in 15-minute increments on a weekday between the following times to identify the peak periods:

- Morning Peak Period: 6:00 am-9:00 am
- Afternoon Peak Period 3:00 pm-6:00 pm

The network AM peak hour was identified as 8:15 am to 9:15 am, and the PM peak hour was identified as 16:15 pm to 17:15 pm. Peak hour volumes for each intersection are shown in Figure 25 and Figure 26.

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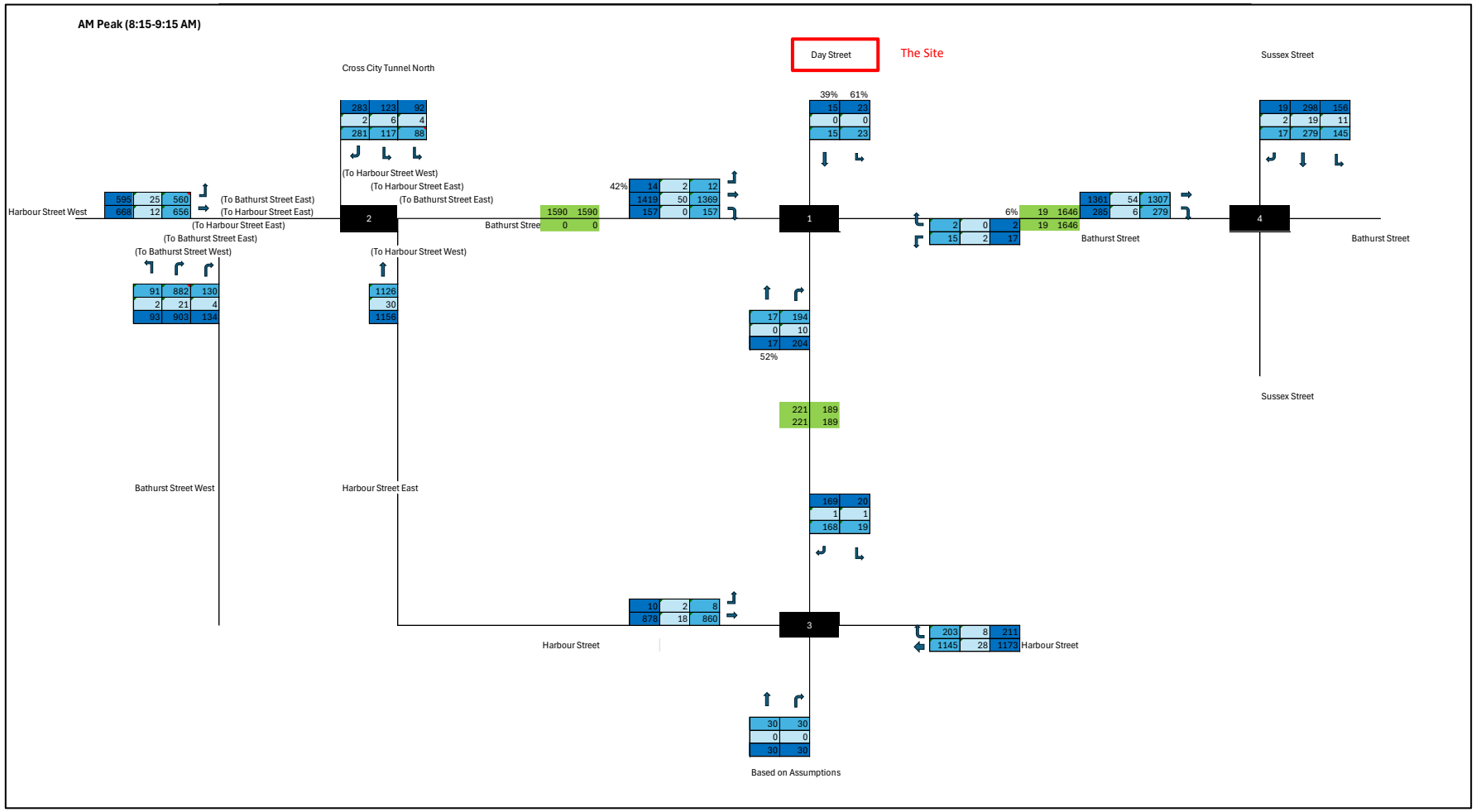


Figure 25: Existing Traffic Volume (AM Peak)

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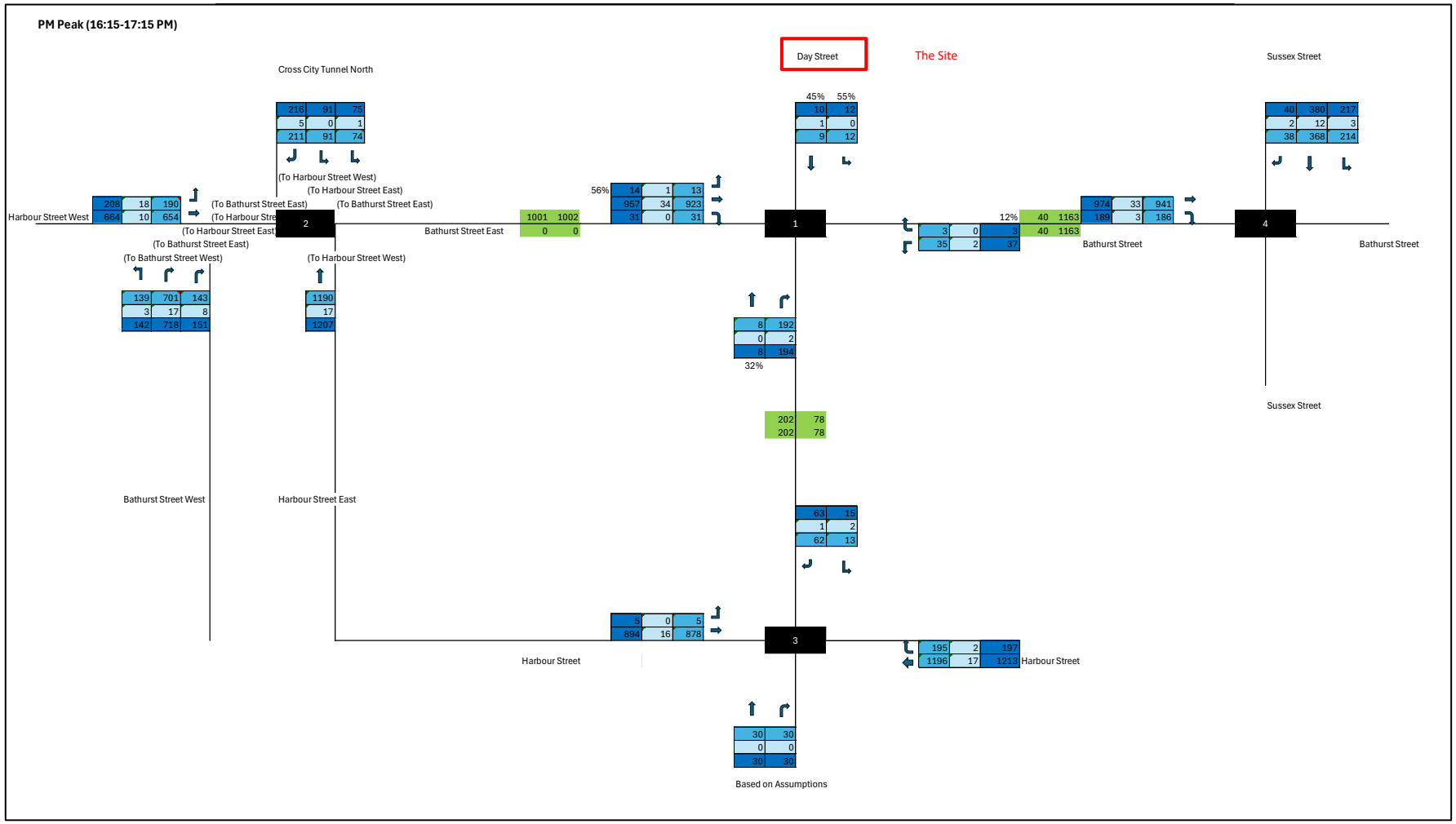


Figure 26: Existing Traffic Volume (PM Peak)

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5.2.3 SCATS signal data

The Sydney Coordinated Adaptive Traffic System (SCATS) manages signal timings, cycle times and offsets for all signalised intersections in NSW. It also collects historical SCATS data, which can be used in traffic modelling to replicate the performance of signalised intersections.

SCATS data was used to inform the signal coding within the SIDRA model. The data provides insights into the cycle time, phase time, and intergreen time incorporated into the model. The following SCATS traffic signal information was obtained from Transport for NSW for the signalised intersections:

- SCATS history files
- TCS graphic plots

Table 10 shows the intersections for which SCATS signal data was provided.

Table 10 Signalised intersections

TCS Number	Intersection
2331	Day Street/ Bathurst Street
247	Bathurst Street/ Harbour Street
2832	Day Street/ Harbour Street
2631	Bathurst Street/ Sussex Street

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6. Traffic Impact Assessment

6.1 Future Traffic Growth

In line with Council's feedback and to align with current traffic modelling practices for the Sydney CBD, a zero-growth scenario has been adopted for all future modelling. This reflects the anticipated mode shift away from private vehicle use, supported by public transport upgrades and strategic land use planning.

This revised approach ensures consistency with the TfNSW Traffic Modelling Guidelines (Feb 2013) and more accurately reflects conditions in the local road network.

6.2 Existing and Proposed Development Trip Generation

The existing hotel accommodates 336 rooms, and the northern section of Day Street serves only the hotel in isolation from any other properties. Based on the traffic survey, the existing vehicle trips on the northern section of Day Street are:

- Morning peak hour vehicle trips: 38 (two-way)
- Evening peak hour vehicle trips: 22 (two-way)

These vehicle trips represent the total number of vehicles accessing the hotel, including staff, guests, etc.

By applying these trip rates based on the existing traffic survey, with a 46:54 inbound-outbound split in the AM and a 53:47 split in the PM, the following vehicle trip generation is calculated:

- 38 vehicle trips per hour during the morning peak period (17 inbound, 21 outbound)
- 22 vehicle trips per hour during the evening peak period (12 inbound, 10 outbound)

There are two methods for calculating the proposed development's trip generation.

- **Method 1** - uses the pro-rata of the existing hotel.
- **Method 2** – applies the room growth rate as the rate for the pick-up and drop-off bays.

6.2.1 **Method 1** - uses the pro-rata of the existing hotel

The ITE Guide is a US-based trip generation study that relies on data collected by the City of San Diego, the San Diego Association of Governments (SANDAG), the Institute of Transportation Engineers (ITE), and other qualified sources. In this manual, a specific generation rate for hotels is provided. A trip generation summary based on the ITE trip generation data is outlined as follows:

- Proposed peak hour vehicle trip rate: 0.42 trips/ room

Additionally, the Guide to Transport Impact Assessment (2024) provides the pro-rata rate for the hotel, which is as follows:

- Proposed AM peak hour vehicle trips: 1.69 trips/100m^2Gross Floor Area
- Proposed PM peak hour vehicle trips: 1.20 trips/100m^2Gross Floor Area

Considering the above rates, the vehicle trips generated by the proposal are anticipated to be lower than those estimated from US-based survey data. This is attributed to a number of site-specific factors, including:

- Idyllic walking catchment for hotel patrons and staff

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Convenient access to multiple modes of public transport, offering a wide range of high-frequency services with coverage across the Greater Sydney Region and major regional cities, along with the increasing popularity of sustainable modes of transportation (e.g., walking, biking, etc.).

- No additional basement parking is provided.

The number of private vehicle trips will ultimately be dictated by the number of off-site parking in proximity to the hotel. In the context of planning, these trips have, to an extent, already been factored into the city's road network as part of the assessment of the car park development themselves.

6.2.2 Method 2 – applies the room growth rate as the rate for the pick-up and drop-off bays (Recommended Method)

With the hotel expansion, the development will be built on top of the existing hotel, providing approximately 204 rooms when suites are accounted for . The ratio of proposed hotel rooms to existing rooms is 1.60:1. As a result, it is reasonable to assume that the proposed pick-up and drop-off trips will follow the same growth rate.

In accordance with Sydney LEP 2012, the development will not include additional basement parking spaces (See Section 7.2). Therefore, vehicle growth will all be generated by additional drop-off and pick-up bay trips. Consequently, the proposed drop-off and pick-up bay trips/vehicle trips on Day Street are shown as follows:

- Proposed Morning peak hour vehicle trips: 61
- Proposed Evening peak hour vehicle trips: 35

By applying these trip rates based on the existing traffic survey, with a 46:54 inbound-outbound split in the AM and a 53:47 split in the PM, the following vehicle trip generation is calculated:

- 61 vehicle trips per hour during the morning peak period (28 inbound, 33 outbound)
- 35 vehicle trips per hour during the evening peak period (19 inbound, 16 outbound)

6.3 Net development trips

When taking into account the existing and proposed traffic generation of the hotel and pick-up and drop-off trips, the net traffic impacts are as follows:

- +23 vehicle trips per hour during the morning peak period (11 inbound, 12 outbound)
- +13 vehicle trips per hour during the evening peak period (7 inbound, 6 outbound)

6.4 Modelling Scenarios

The following scenarios have been assessed in this report (Refer to Table 11).

Table 11 Modelling Scenarios

Scenarios	Description
Existing	The existing road network with the existing traffic volumes, as observed in the traffic survey
Future Do Minimum (10 years)	The existing road network with background traffic growth
Future with development (10 years)	The existing road network with background traffic growth and the proposed development trips

Note: These modelling scenarios have been assessed for the 12th of December 2024 survey data.

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Following discussion and agreement with City of Sydney , SIDRA modelling has been refined for the Day Street / Bathurst Street intersection only, as it directly interfaces with the development access. Other intersections were not recalibrated, as they are not materially impacted by the proposal.

6.5 SIDRA Analysis

6.5.1 Assessment Criteria

A volume analysis was performed using the SIDRA Intersection 9.1, a micro-analytical tool for individual intersection and whole-network modelling. The models are based on the collected traffic survey data. SIDRA provides a number of performance indicators outlined below:

- **Degree of Saturation** – The total usage of the intersection is expressed as a factor of 1, with 1 representing 100% use/saturation. (e.g. 0.8=80% saturation)
- **Average Delay** – The average delay encountered by all vehicles passing through the intersection. It is often important to review the average delay of each approach as a side road could have a long delay time, while the large free-flowing major traffic will provide an overall low average delay.
- **95% Queue Lengths (Q95)** – is defined as the queue length in metres that has only a 5-percent probability of being exceeded during the analysis time period. It transforms the average delay into measurable distance units.
- **Level of Service (LoS)** – This is a categorisation of average delay, intended for simple reference. It is a good indicator of overall performance for individual intersections. The RMS adopts the following bands (Refer to Table 12).

Table 12: Intersection Performance - Levels of Service

Level of Service	Average Delay (secs/vehicle)	Traffic Signals, Roundabout	Give Way & Stop Signs
A	<14	Good operation	
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity. At signals, incidents would cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	>70	Extra capacity required	Extreme delay, major treatment required

Intersections operating at LOS C or better are considered satisfactory. LOS D indicates that the intersection is approaching capacity, and an accident study may be required. LOS E suggests that the intersection is at capacity, and this level of service is generally unsuitable for unsignalized intersections. LOS F indicates that the intersection is failing and requires additional capacity.

6.5.2 Traffic Modelling in Consultation with TfNSW

Following consultation with TfNSW, the SIDRA model has been recalibrated for the Day Street / Bathurst Street intersection, which directly interfaces with the hotel's primary vehicle access point.

The modelling:

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- Ensures all legs of the intersection operate below a Degree of Saturation (DoS) of 1.0, complying with the TfNSW Traffic Modelling Guidelines (Feb 2013).
- Incorporates signal coordination, consistent with existing SCATS phasing.
- Accurately reflects lane configurations and turning movements based on the latest surveyed geometry.
- Other intersections previously modelled (e.g. Harbour Street / Bathurst Street, Day Street / Harbour Street) were not revised, as they are not directly impacted by the development's access or egress.

Table 13: Day Street / Bathurst Street Performance

Scenario	**LOS**		**Average Delay (sec)**		**95th % Queue Length (m)**	
	AM	PM	AM	PM	AM	PM
Existing	A	A	8.7	12.6	46.2	41.2
Existing + Development	A	A	9.1	12.9	46.5	41.4

The updated modelling confirms that the proposed development will not adversely impact the performance of the Day Street / Bathurst Street intersection. The intersection maintains a Level of Service A in both the AM and PM peak periods under existing and future scenarios, reflecting excellent operating conditions with substantial spare capacity. The slight increases in average delay and queue lengths are negligible and remain well within the available road space. Given that this is the only intersection directly affected by the development's vehicle access and egress, no further modelling adjustments are considered necessary.

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7. Parking Provision

7.1 Planning Policy

The proposed development has been assessed against the following planning documents:

- *RMS Guide to Traffic Generating Developments 2002 (RMS Guide)*
- *NSW Planning Guidelines for Walking and Cycling 2004*
- *City of Sydney Development Control Plan 2012*
- *Guide to Transport Impact Assessment_ Technical guidance for transport practitioners (2024)*
- *Sydney Local Environment Plan 2012*

As the proposal provides hotel accommodation in accordance with Division 1 of Chapter 7 of the LEP 2012, the planning proposal complies with the development standards under subsection 7.9(1) of the LEP 2012. Compliance with these standards prevents the consent authority from imposing more stringent parking requirements. The LEP takes precedence over the City of Sydney DCP.

Notwithstanding, the City of Sydney DCP is considered for guidance for accessible parking, which is not explicitly addressed in the LEP or RMS Guide to Traffic Generating Development.

7.2 Hotel Parking Provision

The development proposes an appropriate number of car parking spaces in accordance with the Sydney LEP 2012. The LEP encourages development to have a lower parking supply if there is good access to public transport services, and on this basis, provides a maximum parking rate for visitor accommodation (hotel) land use with no minimum parking requirement.

It is important to note that the increase in traffic generation is primarily attributed to higher volumes of drop-off and pick-up vehicles. Therefore, any changes to the size of the hotel would not impact the findings of the transport assessment.

Additionally, it should be noted that the level of on-site car parking is decreasing as a result of the proposed development, which acknowledges the highly accessible CBD location of the site.

The proposed on-site parking provisions for visitor accommodation (hotel) with the LEP 2012 maximum allowances are shown in Table 14. It should be noted that the on-site car park will be concierge controlled and therefore no public access will be provided to the parking garage.

Table 14 Car Parking Space Provisions

Land Use	Proposed Car Parking Provision	Sydney LEP 2012 Maximum Allowable Car Parking Spaces
Hotel (204 rooms)	26	112

The LEP 2012 sets maximum parking allowances and no minimum requirements for the proposed hotel uses or hotel operations/ deliveries, etc. Thus, providing 26 parking spaces for hotel users complies with the LEP.

7.2.1 Accessible Car Parking Provision

The basement parking is currently valet-operated and will continue as part of the development proposals. According to the City of Sydney DCP, accessible parking is not required in car parks where a valet service is provided and where

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the general public or occupants do not have direct access to the parking spaces. Therefore, no accessible parking is necessary. The drop-off and pick-up bays are designed to allow for accessible access for guests.

7.2.2 Bicycle Parking Provision

As per Section 3.11.3 of the Sydney DCP 2012, the minimum bicycle parking requirement for hotel uses is outlined in Table 15.

In accordance with the DCP, bicycle spaces are to be provided as follows:

- Class 3 bike rails for visitors of any land use.

Table 15 Summary of Minimum Bicycle Parking Provision

Component	Proposed no. of rooms/ employees	DCP Bicycle Parking Rate (min)	Parking Bicycle Provision Requirement (min)	Proposed Bicycle Parking Provision
Staff	360 staff	1 per 4 staff	45	45
Guests	Up to 539 rooms	1 per 20 rooms	27	27
Total			72	72

A total of 72 bicycle parking spaces will be provided in the existing basement. The area is fully managed under a concierge-only model, with no guest or public access. Guests check in their bicycles at the ground floor, and hotel staff secure them in the basement.

7.2.3 End of Trip Facilities (EOTF)

As per Section 3.11.3 of the Sydney DCP 2012, the minimum EOTF requirements for hotel use are outlined in Table 16.

Table 16 Summary of Minimum EOTF Provision

EOTF Type	Required Bike Spaces	Minimum DCP Rate	Minimum EOTF Provision	Proposed EOTF
Personal Lockers	72 total staff bike spaces	1 personal locker for each bike parking space	72 lockers	72
Shower & Change Cubicles		One shower and change cubicle for up to 10 bike parking spaces. Two showers and cubicles for 11 to 20 or more bike parking spaces are provided. Two additional showers and cubicles for each additional 20 bike parking spaces or part thereof.	8 showers and change cubicles	6

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7.2.4 Motorcycle Parking Provision

The City of Sydney Council DCP Schedule 7 specifies the minimum parking rates for motorcycle parking spaces in hotel development. Applying the rate to the proposed development results in the motorcycle parking provision requirements, as detailed in Table 17. As the development is utilising existing parking with no additional car spaces, there is no requirement for motorcycle parking provision.

Table 17 Summary of Minimum Motorcycle Parking Provision

Component	Proposed No. of Car Spaces	DCP Parking Rate (Min)	DCP Parking Minimum	Proposed Parking Provision
All buildings	0	1 space for every 12 car parking spaces	0	0

Note: The existing basement parking has been reduced

7.2.5 Bus and Coach Parking Provision

The DCP 2012 outlines bus and coach parking requirements for hotel developments in Section 7.8.2. It specifies that provisions for tourist coach parking associated with hotels should take into account the availability of off-site coach parking. Where feasible and subject to urban design, heritage, and streetscape considerations, passenger and baggage loading and unloading should be accommodated within the property.

Swept path analysis has been undertaken for a Mercedes Benz Tourismo coach (approximately 12 metres in length), which closely reflects the size of coaches historically observed on Day Street. As shown in Attachment 2, the analysis confirms that coach access to the site via Day Street is technically achievable, with sufficient clearance and turning movement for occasional use.

It is noted that the hotel operator does not anticipate regular coach arrivals. The intended operating model is based on guests arriving via executive-style shuttle buses and smaller vehicles, which are more consistent with the expectations of a 5-star hotel.

7.2.6 Passenger drop-off and pick-up areas Provision

The DCP 2012 outlines the requirements for passenger drop-off and pick-up areas for hotel uses in section 7.8.3. It specifies that for hotels, motels, and serviced apartments:

- 2 car spaces, plus
- 1 bus/coach space per 100 rooms, where the development includes 100 or more rooms.

The proposal enables the provision of four drop-off and pick-up bays. When a minibus arrives, two of these bays can be used for the minibus, while the remaining two car spaces are designated for regular car drop-offs and pick-ups, meeting the DCP requirements. For larger vehicles, such as coaches, please refer to Section 7.2.5.

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7.2.7 Loading Dock Operation

In accordance with Schedule 7, section 8 of the Sydney DCP, the minimum service vehicle parking requirement for hotel uses is outlined in Table 18.

Table 18 City of Sydney Service Vehicle Parking Provision

Land Use Type	Rooms	DCP minimum Service Vehicle Parking Provision	Proposed number of Parking Spaces
Hotel	1 space per 50 hotel rooms, or part thereof, up to 100 hotel rooms; then 1 space per 100 hotel rooms, plus 1 space per 400sqm of reception, lounge, bar and restaurant area GFA, or part thereof, for the first 200 sqm; then 1 space per 8000sqm of reception, lounge, bar and restaurant area GFA thereafter	7	5

In line with the DCP requirements, 7 service vehicle parking spaces are required. However, the TfNSW Urban Freight Forecaster tool was utilised to provide a more practical assessment. This tool is more effective than the DCP for urban logistics, as it uses real-time data, reflects current transportation trends, and offers adaptable freight forecasts. DCPs, in contrast, are based on static guidelines that may not account for recent changes or the complexity of urban freight operations.

Table 19 Service Vehicle Bays Requirement

	No. of spaces suggested	No. of spaces provided
Small (B99, Vans, Utes)	2	2
Medium (SRV, Small Truck)	1	3
Large (MRV, HRV, Large Trucks)	0	0

Note: 2 x SRV bays accommodate waste compactors but are available to other SRVs when not in use.

As outlined in Table 19, The Toolkit recommends:

- 2 x B99 bays
- 1 x SRV bay

The existing loading dock accessed via Sands Street provides:

- 2 x B99 bays
- 3 x SRV bays (including 2 used for waste compactors, which are shared when not in use)

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These provisions exceed the minimum requirement and are considered sufficient to support hotel operations, provided that vehicle access is managed under a Loading Dock Management Plan.

Deliveries to and from the hotel are scheduled at specific times. All hotel deliveries are anticipated to be governed by supply contracts, allowing delivery times to be assigned with an estimated 75% reliability. Most food deliveries occur early in the morning, laundry deliveries are mostly scheduled around midday, and waste collection happens at night.

As a result, hotel deliveries can be planned to occur outside peak commuter periods, helping to avoid congestion and minimise the impact on other hotel users. Therefore, B99, vans and Utes can share the proposed loading dock bay at the rear of the hotel.

The loading dock is located on Sands Street and will be retained in its current form. It accommodates 3 x SRV bays (including 2 bays also used for waste compactors) and 2 x B99 bays. All service vehicle access and egress will occur via Sands Street, which is a one-way road accessed from Sussex Street. Vehicles exit by turning right onto Sands Street and continuing east to Bathurst Street. **No service vehicle bays are proposed within the basement due to a head height constraint of 2.3m**

7.2.8 Loading Dock Survey

Following further consultation with City of Sydney, it was requested that the number and type of service vehicles using the existing Sands Street loading dock be recorded for information purposes only. In response, **ptc**. has commissioned a seven-day video survey of the Sands Street loading dock to establish accurate demand profiles, vehicle types and dwell times.

A detailed traffic survey was commissioned and completed by 360 Traffic Surveys (provided as Attachment 3) to establish the existing operational profile of the Sands Street loading dock. The key parameters of the survey are summarised below:

- Survey Type: Continuous seven-day video survey of the Sands Street loading dock.
- Survey Period: 14/08/25 – 22/08/25
- Survey Duration: 24 hours per day, enabling analysis of peak and off-peak activity.
- Survey Coverage: Vehicle arrivals and departures, dwell times and vehicle classifications.
- Vehicle Classification: Vehicles were categorised in accordance with the Austroads classification system and Council's request, including:
    - Car / Utility
    - Van
    - Small Rigid Vehicle (SRV, ~6.4 m)
    - Medium Rigid Vehicle (MRV, ~8.8–10.2 m)
    - Heavy Rigid Vehicle (HRV, ~12.5 m)
- Delivery Categories: Where distinguishable from video data, vehicles were allocated to delivery categories such as:
    - Waste collection
    - General delivery

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- Courier and parcel services

- Dwell Time Recording: Arrival and departure times for each vehicle were logged to establish dwell time distributions.

The data collected has been analysed to provide hourly, daily and weekly demand profiles, which are presented in the coming section. The following section summarises the outcomes of the seven-day survey of the Sands Street loading dock. Dwell times are also reported.

Table 20 - Daily Vehicle Arrivals by Type (7-Day Survey)

	Car	Waste Truck (SRV / MRV)	SRV/MRV	Van	Total
Monday	1	4	9	6	**20**
Tuesday	0	1	11	6	**18**
Wednesday	0	4	11	9	**24**
Thursday	1	1	12	11	**25**
Friday	1	5	11	8	**25**
Saturday	0	0	8	3	**11**
Sunday	0	0	2	1	**3**
Total	**3**	**15**	**64**	**44**	**126**

Across the seven-day survey, a total of 126 vehicles accessed the Sands Street loading dock, with SRVs / MRVs (64) and vans (44) making up the majority. The busiest days were Thursday and Friday (25 arrivals), while weekend activity dropped significantly. The weekday average was 22 vehicles per day, highlighting consistent midweek demand.

Table 21 – Dwell Times by vehicle class

Vehicle Class	Average (minutes)	85th Percentile (minutes)
Car	11	21
Waste Truck	4	6
SRV/MRV	9	16
Van	6	16

Table 21 confirms that cars have the longest dwell times (average: 11 min; 85th percentile: 21 min), while garbage trucks have the shortest (4 min; 6 min). Trucks and vans share similar upper-range dwell times (16 min), though trucks average longer.

7.2.9 Future Loading Dock Operation

No physical changes to the existing loading dock accessed via Sands Street are proposed; however, a Loading Dock Management Plan (LDMP) will be implemented to support the development proposal to coordinate access and ensure maximum efficiency of the loading dock, avoiding conflicts and supporting efficient operation. An App based approach is now typical (*Veyor* or similar) which includes a centralised booking and scheduling, designated access routes, on-site management, marshalling support, and safety measures such as incident logging. Waste collection and courier

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deliveries will be managed to avoid peak periods, and all drivers will be inducted in site-specific safety protocols. This approach aligns with the TfNSW Last Mile Freight Toolkit for a 540-room hotel.

Swept path analysis demonstrating use of the existing loading dock is provided in Attachment 2. Extensive analysis has been completed to demonstrate that the proposed Compactors (none are on-site currently) can be serviced from within the loading dock without encroaching onto Sands Street. Attachment 2 also contains the vehicle and compactor specification provided by Veolia. Below is a summary of how waste compactors ensure efficiencies rather than bins:

- Compactors compress general waste and cardboard recycling to reduce its overall size and increase density, thus reduces the quantity of bins required and the overall footprint of the bin storage area required within the loading dock.
- Compactors drastically cut down the number of waste and cardboard recycling collection tips required, thus reducing vehicle movements within the loading dock leading to cost savings and increased operational efficiency.
- The contained nature of compactors reduces spills, overflowing bins, odour and vermin, creating a cleaner more hygienic loading dock.
- Compacting waste keeps it out of site, contributing to a cleaner, more organised appearance for the loading dock and surrounding area.

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8. Parking and Access Design Assessment

8.1 Access

8.1.1 Car Park and Access

The proposed hotel extension will not increase the number of basement parking spaces, as the existing basement parking layout will be retained. Therefore, the relevant car parking design parameters were not reviewed. It is worth mentioning that the basement operates under a concierge-only parking model. Hotel staff are solely responsible for parking and retrieving guest vehicles, ensuring controlled internal circulation. No public or self-parking is permitted. Vehicle movements within the stacked bays are managed by staff to avoid interference with the entry ramp or waiting bay. Swept paths confirm uninterrupted access to the basement at all times.

8.1.2 Service Vehicle Access

The existing loading area on Sands Street will be retained in its current layout, accommodating 3 x SRV bays and 2 x B99 bays. As per the request of City of Sydney a 7-day loading dock survey has been completed to assess the current operations. Access will be managed through an LDMP to ensure efficient scheduling and operation.

8.2 Traffic Arrangements

8.2.1 Existing Traffic Arrangement – Valet Parking & Undercroft Porte Cochère

The existing hotel provides a one-way undercroft porte cochère for drop-off and pick-up by taxis, minibuses, and valet services, with 52 double-stacked basement parking spaces available on Level B1.

Hotel guests are required to reserve parking in advance. Upon arrival, they can drive to the porte cochère and hand their car keys to the reception. The valet will park the vehicle in the basement via the northern entrance. When guests wish to retrieve their car, they can inform the reception, and the valet will return the vehicle to the porte cochère from the southern exit of the basement.

This valet service operates self-regulating, meaning guests must use alternative transportation or park elsewhere if reserved parking is unavailable.

8.2.2 Proposed Traffic Arrangements – Valet Parking & External Drop-off and Pick-Up Bays

The hotel will be expanded by eleven levels, providing approximately 204 rooms when suits are accounted for. The basement parking provision will be reduced to 26 spaces. This will assist in reducing the impact of traffic on Day Street.

The expanded hotel will remove the existing Porte Cochère and replace it with four external drop-off and pick-up bays on Day Street. Additionally, the existing single-entry lane will be divided into two lanes: the left lane will be used for valet access to the basement or for hotel guests to enter the drop-off and pick-up bays, while the right lane will be used for U-turns. Of the two exit lanes, the left lane will be used by hotel guests exiting from the drop-off and pick-up bays, and the right lane will be used by vehicles making U-turns.

The proposed development aims to remove a vehicle crossover by consolidating basement access to a single ramp at the existing basement exit ramp to the northwest and providing external drop-off and pick-up bays along Day Street. This approach will prioritise pedestrian safety by reducing conflict points, providing an active frontage along Day Street and further enhancing the public realm.

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After the expansion, hotel guests will still need to reserve parking in advance. Upon arrival, guests will drive to the proposed external drop-off and pick-up bays and hand over their car keys to the front desk. The valet will then park the vehicle in the basement via the northern entrance. When guests wish to retrieve their car, they can notify the front desk, and the valet will bring the vehicle from the basement exit.

A traffic signal will be installed at the basement ramp. The signal at the ground-level entrance will remain green unless a vehicle is attempting to exit the basement, which will trigger the photoelectric (PE) beam. In this case, the basement traffic signal will turn green, and the traffic signal at the ground-level entrance will turn red. After approximately 5-10 seconds, the signals will swap: the ground-level signal will turn green, and the basement signal will turn red. Additionally, inside the basement, vehicles must give way to oncoming traffic.

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9. Summary and Conclusion

The following summarises the key findings of the study:

- The development will provide approximately 204 rooms when suites are accounted for to the existing hotel.
- An assessment of public transport services in the vicinity reveals that the hotel is located in Sydney's CBD, which offers excellent connectivity throughout the broader Sydney region.
- A review of walking and cycling infrastructure indicates that the hotel is highly accessible on foot due to high-quality footpath coverage.
- Service vehicle requirements have been reviewed and clarified in accordance with the TfNSW Last Mile Toolkit and through consultation with City of Sydney. The loading dock will provide 2 B99 bays and 3 SRV bays, managed by a future LDMP. Swept path analysis has confirmed that both the proposed Waste Compactors can be serviced from within the Loading Dock without encroachment onto Sands Street.
- The basement parking will be reduced from 52 to 26 double-stacked parking spaces, as the LEP does not mandate a minimum parking requirement. This reduction aligns with the project's sustainability goals.
- Updated modelling of the Day Street / Bathurst Street intersection confirms that the development will not adversely impact traffic operations. The intersection continues to perform at Level of Service A, with negligible changes in delay or queuing. No further modelling changes are considered necessary.
- An external pick-up and drop-off area with four spaces will be provided in place of the undercroft Porte Cochère, improving the pedestrian environment on Day Street and reducing conflicts with vehicle crossovers.
- As part of the proposed upgrades, a minimum of 72 bicycle parking spaces, 72 personal lockers and eight showers are planned to be provided for the hotel to promote sustainable transportation options better.
- The resultant traffic impact of the proposed development is negligible, and therefore, no mitigation is necessary.
- The adaptive reuse of an existing hotel leads to some efficiencies in relation to servicing and waste, as these will be collated in the back of the house, which has a marginal reduction in heavy vehicle activity.
- A queueing assessment for pick-up and drop-off operations estimates that, with four designated spaces, there is a 95% likelihood of no significant queueing along Day Street.

In conclusion, it has been demonstrated that the proposed development will have a negligible impact on the operation of the local road network. It is being delivered with a range of measures to improve and encourage access by active and sustainable modes, compliant with local and regional policy.

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Attachment 1. SIDRA Results

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MOVEMENT SUMMARY

Site: 2331 [2024 AM Bathurst Street / Day Street (Site Folder: 2024 AM Existing Scenario)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

2024 AM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 125 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Bathurst Street															
4a	L1	All MCs	18	11.8	18	11.8	0.153	52.2	LOS D	1.1	8.3	0.96	0.70	0.96	5.9
6	R2	All MCs	2	0.0	2	0.0	* 0.153	72.2	LOS F	1.1	8.3	0.96	0.70	0.96	6.2
Approach			20	10.5	20	10.5	0.153	54.3	LOS D	1.1	8.3	0.96	0.70	0.96	5.9
North: Day Street															
7	L2	All MCs	24	0.0	24	0.0	0.182	63.6	LOS E	1.4	10.1	0.97	0.71	0.97	5.6
9a	R1	All MCs	16	0.0	16	0.0	0.084	57.8	LOS E	0.9	6.2	0.93	0.68	0.93	5.1
Approach			40	0.0	40	0.0	0.182	61.3	LOS E	1.4	10.1	0.95	0.70	0.95	5.4
West: Bathurst Street															
10	L2	All MCs	15	14.3	15	14.3	0.501	5.8	LOS A	5.9	42.6	0.20	0.19	0.20	20.4
11	T1	All MCs	1494	3.5	1494	3.5	* 0.501	2.8	LOS A	6.4	46.2	0.20	0.22	0.20	35.4
12b	R3	All MCs	165	0.0	165	0.0	0.501	6.4	LOS A	6.0	42.6	0.20	0.33	0.20	18.0
Approach			1674	3.3	1674	3.3	0.501	3.1	LOS A	6.4	46.2	0.20	0.23	0.20	32.7
SouthWest: Day Street															
30a	L1	All MCs	18	0.0	18	0.0	0.654	26.4	LOS B	5.5	39.7	0.78	0.73	0.79	7.1
32a	R1	All MCs	215	4.9	215	4.9	* 0.654	36.4	LOS C	5.6	40.6	0.78	0.73	0.79	8.3
Approach			233	4.5	233	4.5	0.654	35.6	LOS C	5.6	40.6	0.78	0.73	0.79	8.2
All Vehicles			1966	3.4	1966	3.4	0.654	8.7	LOS A	6.4	46.2	0.29	0.31	0.29	21.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Bathurst Street												
P2	Full	364	383	57.6	LOS E	1.3	1.3	0.97	0.97	224.2	200.0	0.89
SouthWest: Day Street												
P8	Full	239	252	57.2	LOS E	0.9	0.9	0.96	0.96	223.9	200.0	0.89
All Pedestrians		603	635	57.4	LOS E	1.3	1.3	0.97	0.97	224.1	200.0	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2024 PM Bathurst Street/ Day Street (Site Folder: 2024 PM Existing Scenario)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

2024 PM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Bathurst Street															
4a	L1	All MCs	39	5.4	39	5.4	0.246	49.5	LOS D	2.2	16.0	0.95	0.73	0.95	6.2
6	R2	All MCs	3	0.0	3	0.0	* 0.246	69.6	LOS E	2.2	16.0	0.95	0.73	0.95	6.5
Approach			42	5.0	42	5.0	0.246	51.0	LOS D	2.2	16.0	0.95	0.73	0.95	6.2
North: Day Street															
7	L2	All MCs	13	0.0	13	0.0	0.091	60.0	LOS E	0.7	4.9	0.95	0.68	0.95	5.8
9a	R1	All MCs	11	10.0	11	10.0	0.059	55.1	LOS D	0.6	4.3	0.92	0.67	0.92	5.4
Approach			23	4.5	23	4.5	0.091	57.8	LOS E	0.7	4.9	0.94	0.68	0.94	5.6
West: Bathurst Street															
10	L2	All MCs	15	7.1	15	7.1	0.328	8.7	LOS A	5.3	37.9	0.29	0.27	0.29	17.2
11	T1	All MCs	1007	3.6	1007	3.6	* 0.328	5.7	LOS A	5.7	41.2	0.29	0.27	0.29	28.1
12b	R3	All MCs	33	0.0	33	0.0	0.328	9.2	LOS A	5.5	39.5	0.29	0.30	0.29	15.9
Approach			1055	3.5	1055	3.5	0.328	5.8	LOS A	5.7	41.2	0.29	0.27	0.29	27.4
SouthWest: Day Street															
30a	L1	All MCs	8	0.0	8	0.0	0.558	24.0	LOS B	4.4	31.1	0.73	0.70	0.73	7.5
32a	R1	All MCs	204	1.0	204	1.0	* 0.558	34.0	LOS C	4.6	32.3	0.73	0.70	0.73	8.7
Approach			213	1.0	213	1.0	0.558	33.6	LOS C	4.6	32.3	0.73	0.70	0.73	8.7
All Vehicles			1333	3.2	1333	3.2	0.558	12.6	LOS A	5.7	41.2	0.39	0.36	0.39	18.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Bathurst Street												
P2	Full	364	383	55.0	LOS E	1.3	1.3	0.97	0.97	221.7	200.0	0.90
SouthWest: Day Street												
P8	Full	239	252	54.7	LOS E	0.8	0.8	0.96	0.96	221.4	200.0	0.90
All Pedestrians		603	635	54.9	LOS E	1.3	1.3	0.96	0.96	221.6	200.0	0.90

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 AM With Development Bathurst Street / Day Street (Site Folder: 2034 AM Future With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

2024 AM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 125 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Bathurst Street															
4a	L1	All MCs	18	11.8	18	11.8	0.186	52.1	LOS D	1.2	8.8	0.97	0.71	0.97	5.8
6	R2	All MCs	3	0.0	3	0.0	* 0.186	72.0	LOS F	1.2	8.8	0.97	0.71	0.97	6.1
Approach			21	10.0	21	10.0	0.186	55.1	LOS D	1.2	8.8	0.97	0.71	0.97	5.9
North: Day Street															
7	L2	All MCs	32	0.0	32	0.0	0.237	64.1	LOS E	1.9	13.2	0.97	0.73	0.97	5.5
9a	R1	All MCs	20	0.0	20	0.0	0.106	58.1	LOS E	1.1	7.9	0.94	0.69	0.94	5.1
Approach			52	0.0	52	0.0	0.237	61.8	LOS E	1.9	13.2	0.96	0.71	0.96	5.4
West: Bathurst Street															
10	L2	All MCs	20	10.5	20	10.5	0.502	5.8	LOS A	5.9	42.8	0.20	0.19	0.20	20.4
11	T1	All MCs	1494	3.5	1494	3.5	* 0.502	2.8	LOS A	6.4	46.5	0.20	0.22	0.20	35.3
12b	R3	All MCs	165	0.0	165	0.0	0.502	6.4	LOS A	6.0	42.9	0.20	0.33	0.20	18.0
Approach			1679	3.3	1679	3.3	0.502	3.2	LOS A	6.4	46.5	0.20	0.23	0.20	32.7
SouthWest: Day Street															
30a	L1	All MCs	24	0.0	24	0.0	0.667	26.9	LOS B	5.7	41.4	0.79	0.73	0.81	7.1
32a	R1	All MCs	215	4.9	215	4.9	* 0.667	36.7	LOS C	5.7	41.8	0.79	0.73	0.80	8.3
Approach			239	4.4	239	4.4	0.667	35.7	LOS C	5.7	41.8	0.79	0.73	0.80	8.2
All Vehicles			1991	3.4	1991	3.4	0.667	9.1	LOS A	6.4	46.5	0.30	0.31	0.30	21.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Bathurst Street												
P2	Full	364	383	57.6	LOS E	1.3	1.3	0.97	0.97	224.2	200.0	0.89
SouthWest: Day Street												
P8	Full	239	252	57.2	LOS E	0.9	0.9	0.96	0.96	223.9	200.0	0.89
All Pedestrians		603	635	57.4	LOS E	1.3	1.3	0.97	0.97	224.1	200.0	0.89

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 PM With Development Bathurst Street / Day Street (Site Folder: 2034 PM Future With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

2024 PM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Bathurst Street															
4a	L1	All MCs	39	5.4	39	5.4	0.271	49.4	LOS D	2.3	16.4	0.96	0.74	0.96	6.1
6	R2	All MCs	4	0.0	4	0.0	* 0.271	69.5	LOS E	2.3	16.4	0.96	0.74	0.96	6.4
Approach			43	4.9	43	4.9	0.271	51.4	LOS D	2.3	16.4	0.96	0.74	0.96	6.2
North: Day Street															
7	L2	All MCs	16	0.0	16	0.0	0.114	60.3	LOS E	0.9	6.2	0.96	0.69	0.96	5.8
9a	R1	All MCs	14	7.7	14	7.7	0.075	55.2	LOS D	0.7	5.5	0.93	0.68	0.93	5.3
Approach			29	3.6	29	3.6	0.114	57.9	LOS E	0.9	6.2	0.94	0.69	0.94	5.6
West: Bathurst Street															
10	L2	All MCs	19	5.6	19	5.6	0.330	8.7	LOS A	5.3	38.1	0.29	0.28	0.29	17.1
11	T1	All MCs	1007	3.6	1007	3.6	* 0.330	5.7	LOS A	5.7	41.4	0.29	0.28	0.29	28.0
12b	R3	All MCs	33	0.0	33	0.0	0.330	9.2	LOS A	5.5	39.7	0.29	0.30	0.29	15.9
Approach			1059	3.5	1059	3.5	0.330	5.8	LOS A	5.7	41.4	0.29	0.28	0.29	27.3
SouthWest: Day Street															
30a	L1	All MCs	11	0.0	11	0.0	0.563	24.1	LOS B	4.5	31.6	0.73	0.70	0.73	7.5
32a	R1	All MCs	204	1.0	204	1.0	* 0.563	34.1	LOS C	4.6	32.7	0.73	0.70	0.73	8.7
Approach			215	1.0	215	1.0	0.563	33.6	LOS C	4.6	32.7	0.73	0.70	0.73	8.7
All Vehicles			1346	3.1	1346	3.1	0.563	12.9	LOS A	5.7	41.4	0.40	0.37	0.40	17.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

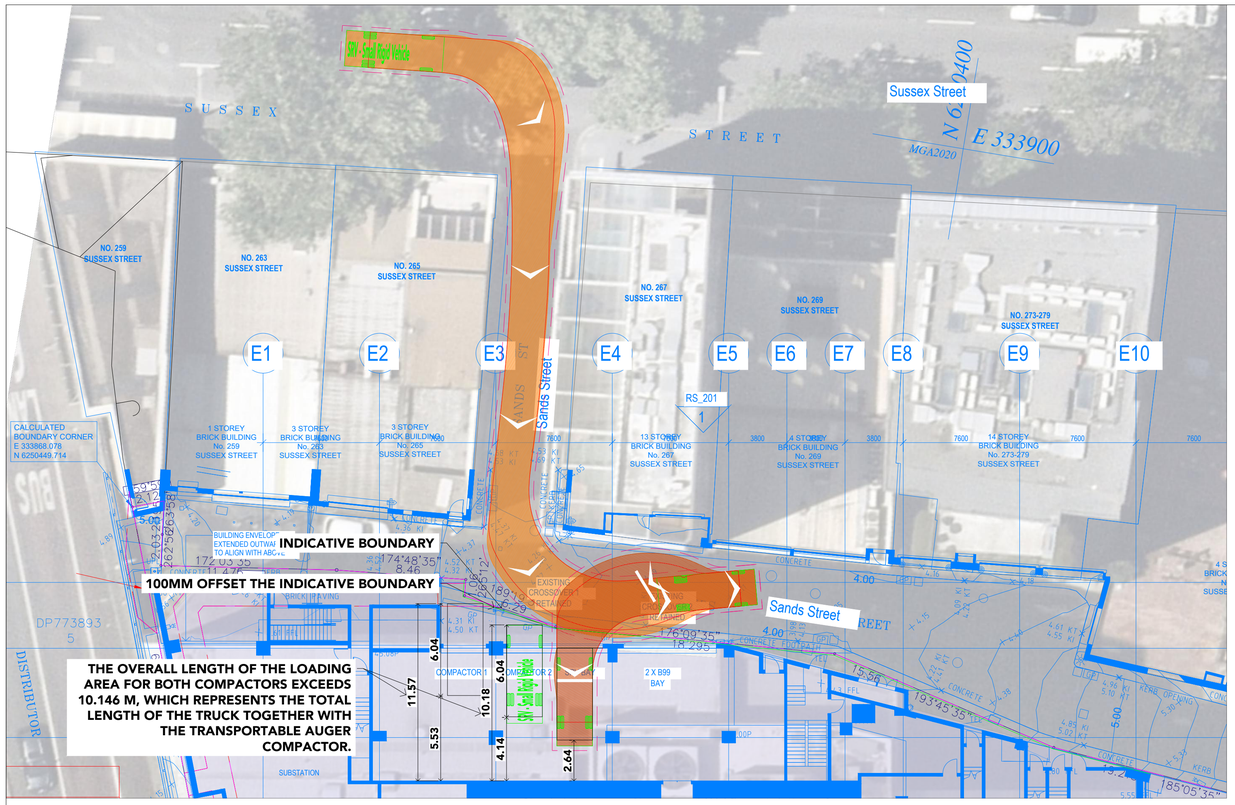
Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Bathurst Street												
P2	Full	364	383	55.0	LOS E	1.3	1.3	0.97	0.97	221.7	200.0	0.90
SouthWest: Day Street												
P8	Full	239	252	54.7	LOS E	0.8	0.8	0.96	0.96	221.4	200.0	0.90
All Pedestrians		603	635	54.9	LOS E	1.3	1.3	0.96	0.96	221.6	200.0	0.90

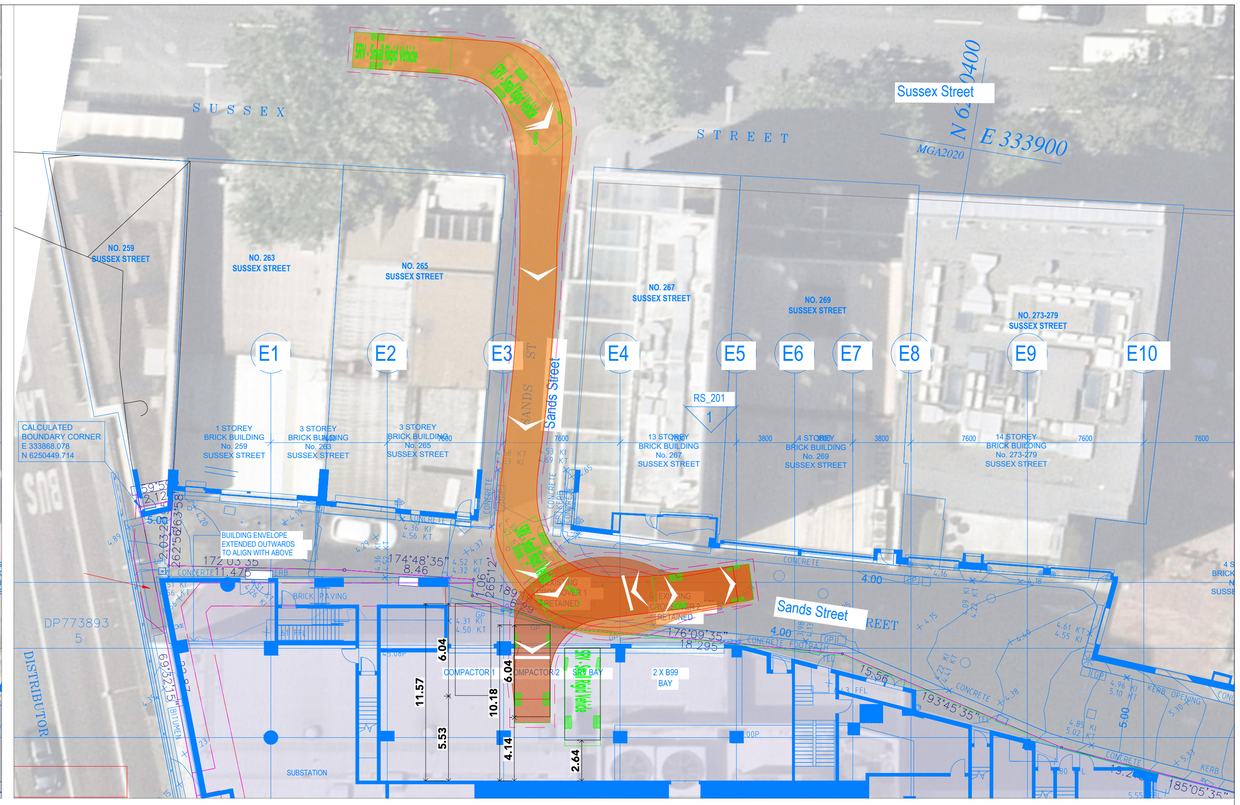
Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

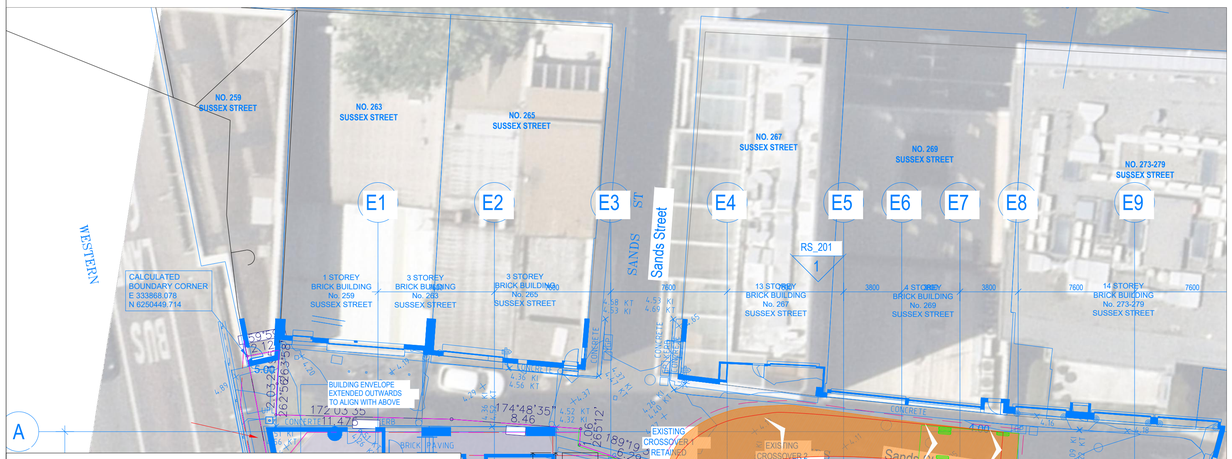
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Attachment 2. Swept Paths

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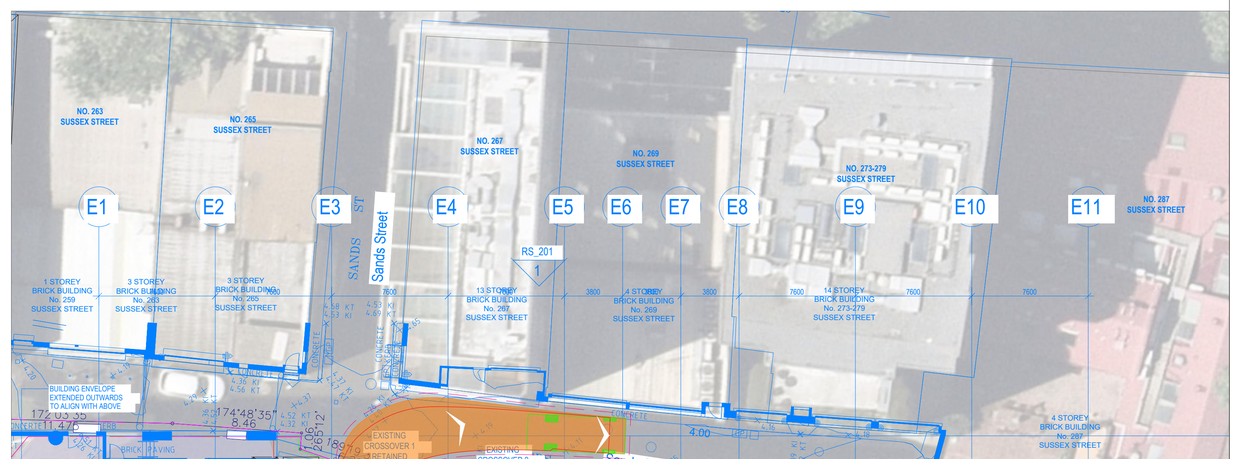






SRV - Small Rigid Vehicle

Overall Length	6.400m
Overall Width	2.330m
Overall Body Height	3.500m
Min Body Ground Clearance	0.398m
Track Width	2.330m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.100m



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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
----	----	----	----	----
----	----	----	----	----
----	----	----	----	----
P4	26/08/25	FOR INFORMATION	MA	DP
P3	07/08/25	FOR INFORMATION	XM	DP
P2	29/07/25	FOR INFORMATION	XM	DP
P1	08/07/25	FOR INFORMATION	XM	DP

DRAWING KEY

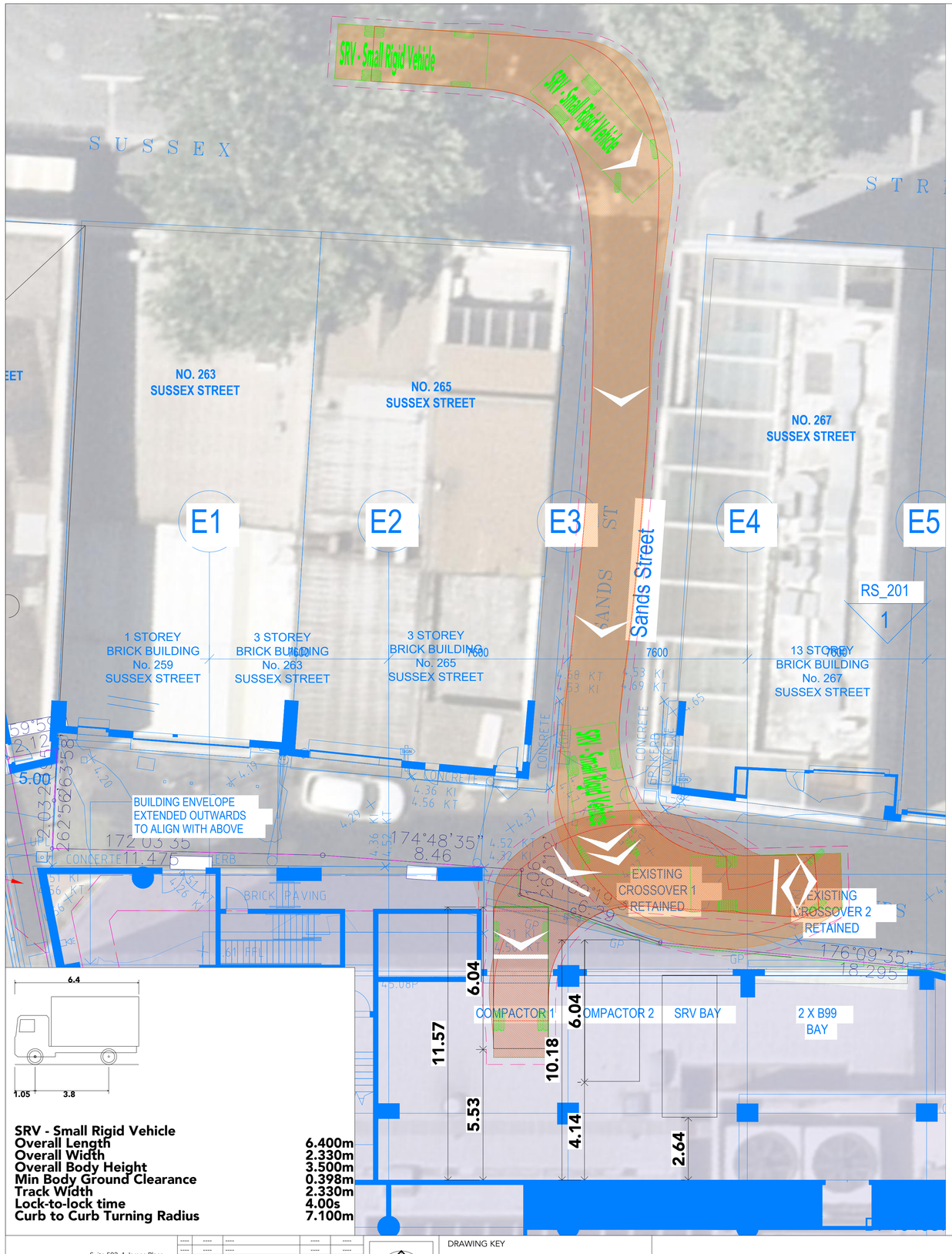
PROJECT
150 DAY STREET, SYDNEY

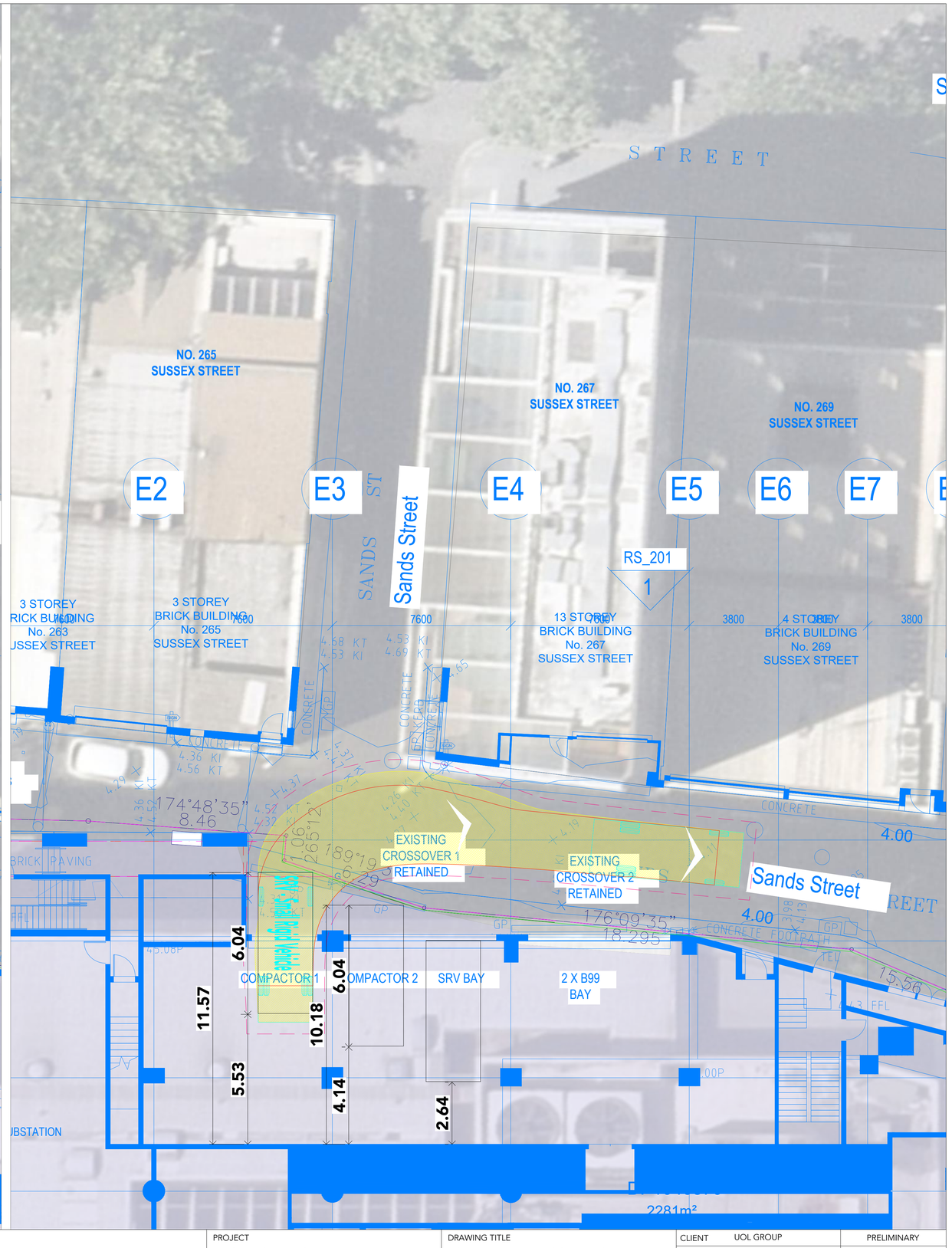
DRAWING TITLE
SWEPT PATH ANALYSIS - SANDS STREET LOADING DOCK

CLIENT	UOL GROUP
DRAWING #	01C-0001
PROJECT #	24-1073
SCALE	1 : 200 @ A3

PRELIMINARY

REV P4





SRV - Small Rigid Vehicle

Overall Length	6.400m
Overall Width	2.330m
Overall Body Height	3.500m
Min Body Ground Clearance	0.398m
Track Width	2.330m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.100m

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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
----	----	----	----	----
----	----	----	----	----
----	----	----	----	----
P4	26/08/25	FOR INFORMATION	MA	DP
P3	07/08/25	FOR INFORMATION	XM	DP
P2	29/07/25	FOR INFORMATION	XM	DP
P1	08/07/25	FOR INFORMATION	XM	DP

DRAWING KEY

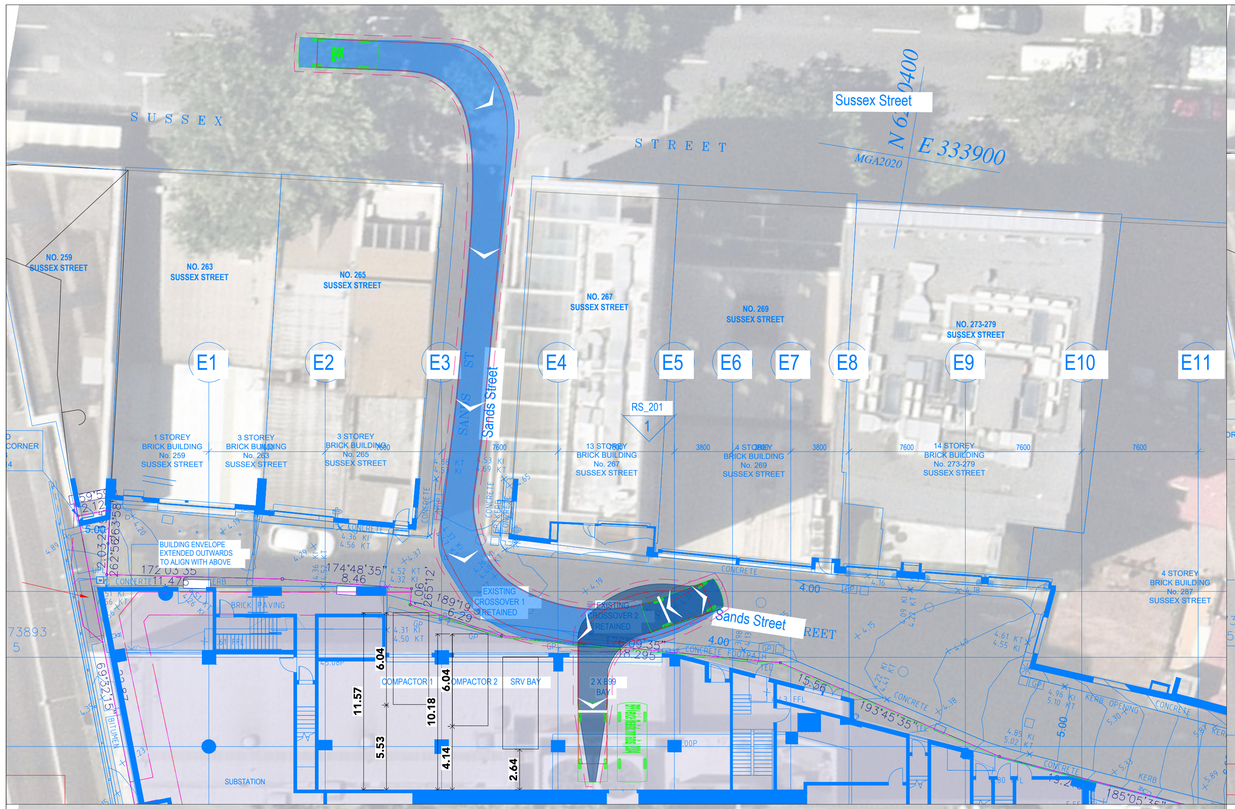
PROJECT
150 DAY STREET, SYDNEY

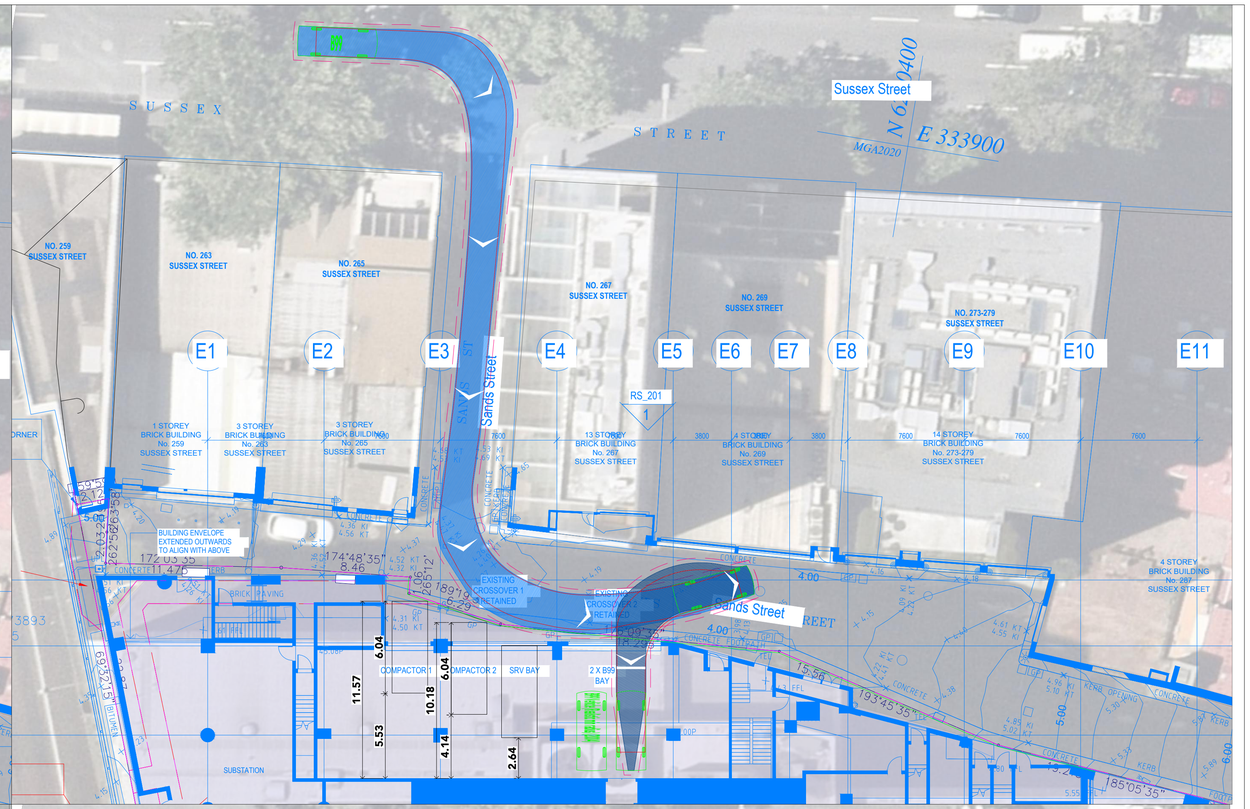
DRAWING TITLE
SWEPT PATH ANALYSIS - SANDS STREET LOADING DOCK

CLIENT	UOL GROUP
DRAWING #	01C-0002
PROJECT #	24-1073
SCALE	1 : 100 @ A3

PRELIMINARY

REV P4







B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
----	----	----	----	----
----	----	----	----	----
----	----	----	----	----
P4	26/08/25	FOR INFORMATION	MA	DP
P3	07/08/25	FOR INFORMATION	XM	DP
P2	29/07/25	FOR INFORMATION	XM	DP
P1	08/07/25	FOR INFORMATION	XM	DP

DRAWING KEY

PROJECT
150 DAY STREET, SYDNEY

DRAWING TITLE
SWEPT PATH ANALYSIS - SANDS STREET LOADING DOCK

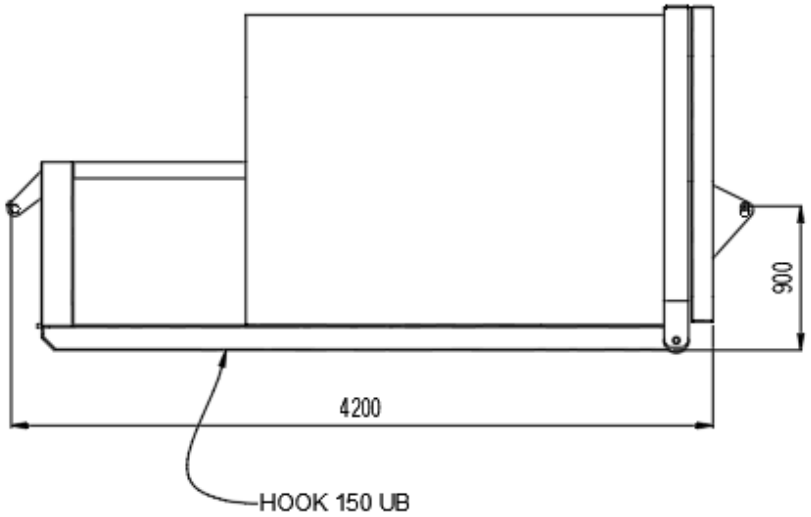
CLIENT	UOL GROUP
DRAWING #	01C-0003
PROJECT #	24-1073
SCALE	1 : 200 @ A3

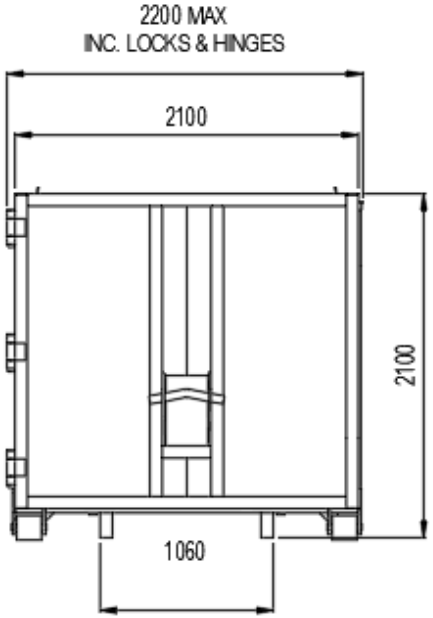
PRELIMINARY

REV P4

AT90-100

10m Transportable AUGER Compactor



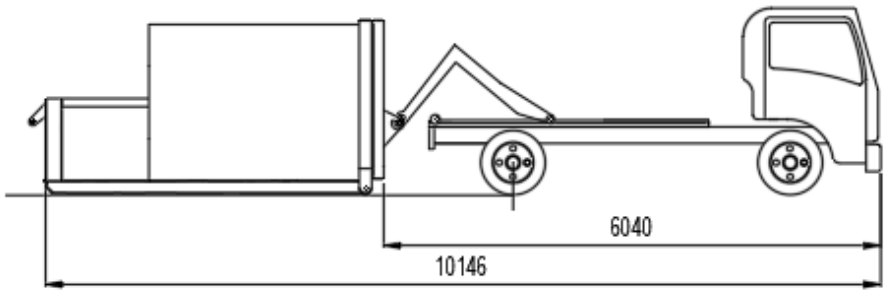


828

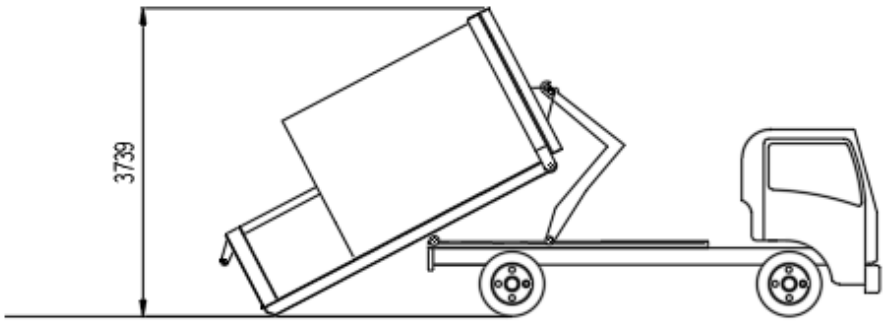
AT90-100

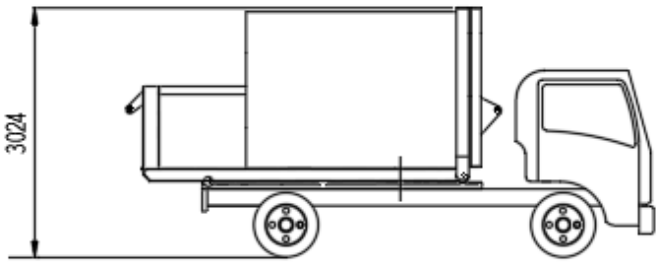
10m Transportable AUGER Compactor

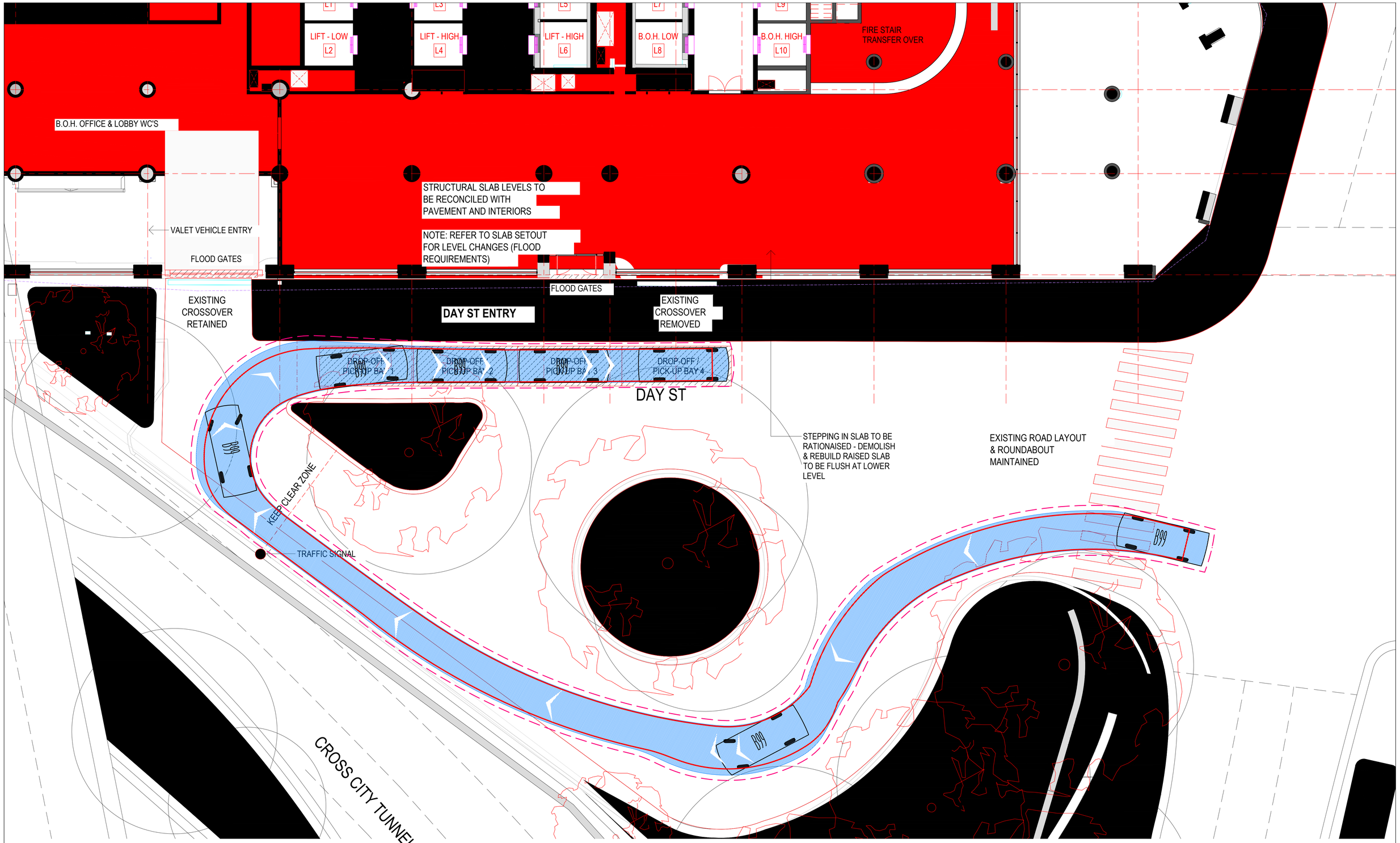
TRUCK WIDTH: 2300 mm
(2800 mm WITH MIRRORS)



828







828

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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
X	****	****	****	****
****	****	****	****	****
****	****	****	****	****
****	****	****	****	****
****	****	****	****	****
****	****	****	****	****
P1	07/08/25	FOR INFORMATION	XM	DP

DRAWING KEY

PROJECT
150 DAY STREET, SYDNEY

DRAWING TITLE
SWEPT PATH ANALYSIS - B99
DROP-OFF / PICK-UP BAYS

CLIENT	UOL GROUP
DRAWING #	01C-0006
PROJECT #	24-1073
SCALE	1 : 100 @ A3

PRELIMINARY

REV P1

SUBSTATION ABOVE

870

TRAFFIC SIGNAL

CARPARK ENTRY & EXIT RAMP (& BICYCLE RAMP)

TRAFFIC SIGNAL

26 CARPARKS (EXISTING PRIVATE VALET PARKING)

MAIN SWITCHROOM 90 m²

FIRE STAIR

GREASE ARRESTORS 38 m²

BDR ROOM TBC 49 m²

CARPARK AIR SUPPLY FAN PLANT 8 m²

FIRESTAIR

PIT

PIT

PIT

PIT

LIFT

LIFT

RISER

B.O.H. LIFT

B.O.H. LIFT

PIT

PIT

B.O.H. LIFTS TO B02 CHANGEROOMS FOR BICYCLE USERS

STORAGE (LAUNDRY/ SHEETS ETC)

SYDNEY WATER EASEMENT BEL

1.6M FCL

1.8M FCL

2.2M FCL

RAMP OVER

4035

EV CHARGING POINT

EV CHARGING POINT

B99

STRIP TO STRUCTURE: NEW LAYOUTS,

SUBSTATION ABOVE

870

TRAFFIC SIGNAL

CARPARK ENTRY & EXIT RAMP (& BICYCLE RAMP)

TRAFFIC SIGNAL

26 CARPARKS (EXISTING PRIVATE VALET PARKING)

MAIN SWITCHROOM 90 m²

FIRE STAIR

GREASE ARRESTORS 38 m²

BDR ROOM TBC 49 m²

CARPARK AIR SUPPLY FAN PLANT 8 m²

FIRESTAIR

PIT

PIT

PIT

PIT

LIFT

LIFT

RISER

B.O.H. LIFT

B.O.H. LIFT

PIT

PIT

B.O.H. LIFTS TO B02 CHANGEROOMS FOR BICYCLE USERS

STORAGE (LAUNDRY/ SHEETS ETC)

SYDNEY WATER EASEMENT BEL

1.6M FCL

1.8M FCL

2.2M FCL

RAMP OVER

4035

EV CHARGING POINT

EV CHARGING POINT

B99

STRIP TO STRUCTURE: NEW LAYOUTS,

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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P2	07/08/25	FOR INFORMATION	XM	DP
P1	08/07/25	FOR INFORMATION	XM	DP

DRAWING KEY

PROJECT
150 DAY STREET, SYDNEY

DRAWING TITLE
SWEPT PATH ANALYSIS - B99

CLIENT	UOL GROUP
DRAWING #	01C-0004
PROJECT #	24-1073
SCALE	1 : 100 @ A1

PRELIMINARY

REV P2

CROSSOVER RETAINED

DAY ST ENTRY

AWNING ABOVE SHOWN DASHED

Day St

EXISTING ROAD LAYOUT & ROUNDABOUT MAINTAINED

RS_202

KEEP CLEAR ZONE

TRAFFIC SIGNAL

DAY STREET

BATHURST STREET

CROSS CITY TUNNEL

Mercedes Benz Tourismo Bus

Overall Length	11.980m
Overall Width	2.550m
Overall Body Height	3.620m
Min Body Ground Clearance	0.499m
Track Width	2.550m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	10.520m

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REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P2	29/07/25	FOR INFORMATION	XM	DP
P1	08/07/25	FOR INFORMATION	XM	DP

DRAWING KEY

PROJECT
150 DAY STREET, SYDNEY

DRAWING TITLE
SWEPT PATH ANALYSIS - 11.9m BUS

CLIENT	UOL GROUP
DRAWING #	01C-0005
PROJECT #	24-1073
SCALE	1 : 100 @ A3

PRELIMINARY

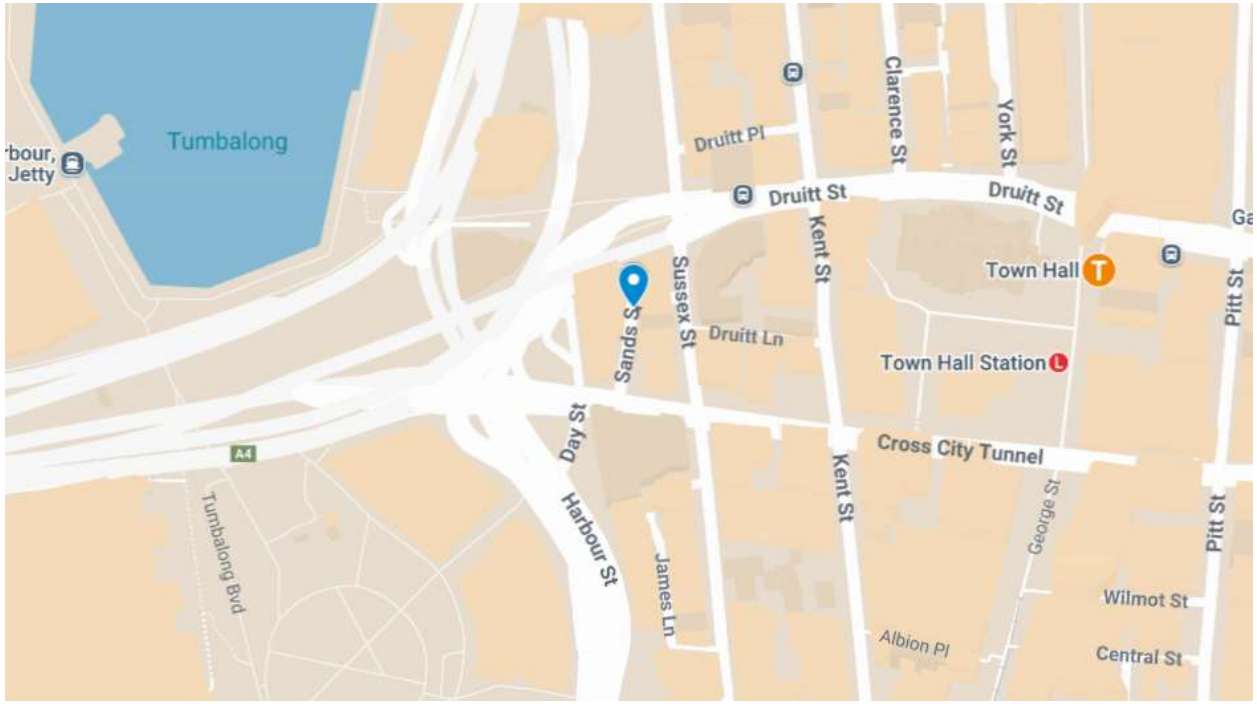
REV P2

Attachment 3. Survey Data

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Client	ptc.
Project No.	25255
Suburb	Sydney CBD
Location	Sands St
Coordinates	-33.87346, 151.20378
Day/Date	Friday, 9 August 2024
Survey Period	11:45 14/08/25 - 6:00 22/08/25
Type	Loading Dock Analysis

360 TRAFFIC • SURVEYS



Unique Vehicle ID	DOS (min)	Datetime ARRIVED	Datetime LEFT	Type of Vehicle
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45884.4222222252_v_4	4	Friday, 15 August 2025 10:04	Friday, 15 August 2025 10:08	Van

Type	Count
Unique Vehicles	129
Car	3
Garbage Truck	16
Truck	66
Van	44

Attachment A12

Flood impact and risk assessment

Flood Impact and Risk Assessment

150 Day Street, Darling Harbour

Prepared for UOL / 26/02/2026

221199 CFAD

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C	04/08/2025	Planning Proposal - RFI	Eirian Crabbe
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APPROVAL

	Approver Signature	
	Name	Eirian Crabbe
	Title	Associate Director

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Flood Definitions (SES - New South Wales State Flood Plan Glossary)

Annual Exceedance Probability (AEP)

The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, if a peak flood level (height) has an AEP of 1%, there is a 1% chance (that is, a one-in-100 chance) of such a level or higher occurring in any one year

PMF (Probable Maximum Flood)

The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of 10^4 to 10^7 (once in 10,000 to 10,000,000 years)

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Executive Summary

This FIRA assesses the flood risk and flood impact associated with Planning Proposal of an increase in height, proposed refurbishment and upgrades to the existing hotel at 150 Day Street, Darling Harbour.

This FIRA has included flood modelling analysis based on Council's adopted Darling Harbour Floodplain Risk Management Study, WMA Water (2018). Updates were made to Council's model following topographical survey and site inspection in and around the development site and provide a better representation of the real world. Flood modelling has assessed the flood behaviour, flood hazard and flood risk associated with the planning proposal.

Flood modelling confirms that there is a trapped low point in Sands Street which provides a source of overland flooding to the east of the building. The solid boundary wall to the west of Day Street prevents overland flow escaping this area and provides a source of overland flooding to the west of the building including the vehicle basement entrance.

A full range of flood events have been modelled including the 20%, 5%, 1% 0.2% and PMF. additional sensitivity testing has been completed that allow for future potential increases in rainfall and sea level associated with climate change.

The existing building is currently flood prone, with existing floor levels below the PMF and 1% AEP flood level. This creates a significant flood risk in the existing situation and would likely require evacuation in a flood event, relying on emergency services and further increasing risk due the high hazard flows in the surrounding streets.

The proposal includes flood mitigation measures of raised threshold floors and building entrance levels, and flood gates/barriers where entrances cannot be raised any higher due to existing building and access constraints. Although the proposal allows for a higher density of development, the proposed flood mitigation measures significantly reduce the flood risk to the building and provide flood protection above the 1% AEP and PMF. The proposal allows for a Shelter-in-Place flood emergency response which significantly reduces the need for reliance on government emergency management during a flood event.

Stormwater improvement and amplification has been tested to attempt to relieve flooding at the trapped low point in Sands Street. However, constraints with the existing stormwater system limits the effectiveness of the stormwater upgrades and fails to alleviate the flood risk to the development site or adjacent properties. Upgrades to the stormwater for flood mitigation purposes have therefore been discounted at this planning proposal stage but may be further explored during the detailed design stage.

There is no impact on flood behaviour associated with the development as the external building extent and external ground levels remain unchanged from existing. The planning proposal significantly reduces flood risk, and reliance on emergency services, whilst providing a more resilient development and meets Council and State flood planning requirements.

A preliminary Flood Emergency Response Plan has been provided within this report which gives a high level strategy for procedures and responses in the event of a significant flood. The primary response is for shelter in place due to the flash flooding nature at the site with limited or no warming time. This strategy for the proposal complies with the DPHI Shelter-in Place guidelines and requirements.

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1. Introduction

TTW (NSW) Pty Ltd has been engaged by UOL to prepare this Flood Impact and Risk Assessment (FIRA) for the proposed development at Park Royal Hotel, located at 150 Day Street, Darling Harbour (the site), within City of Sydney Local Government Area (LGA).

This report outlines the existing constraints of flooding and overland flow paths at the site. The details of this report are based on currently available information and correspondence undertaken at the time of writing.

This FIRA has been prepared to confirm the flood risk and impact of the development to support a Planning Proposal for the increase in height of the existing building and proposed refurbishment and upgrades to the existing hotel. Following Gateway determination, this FIRA has been updated to provide additional information for the site's flood emergency response strategy and preparedness actions that must be undertaken.

1.1 Proposed Development

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

The proposed spatial layout strategy and ground floor layout are shown Figures 1 and 2 respectively.

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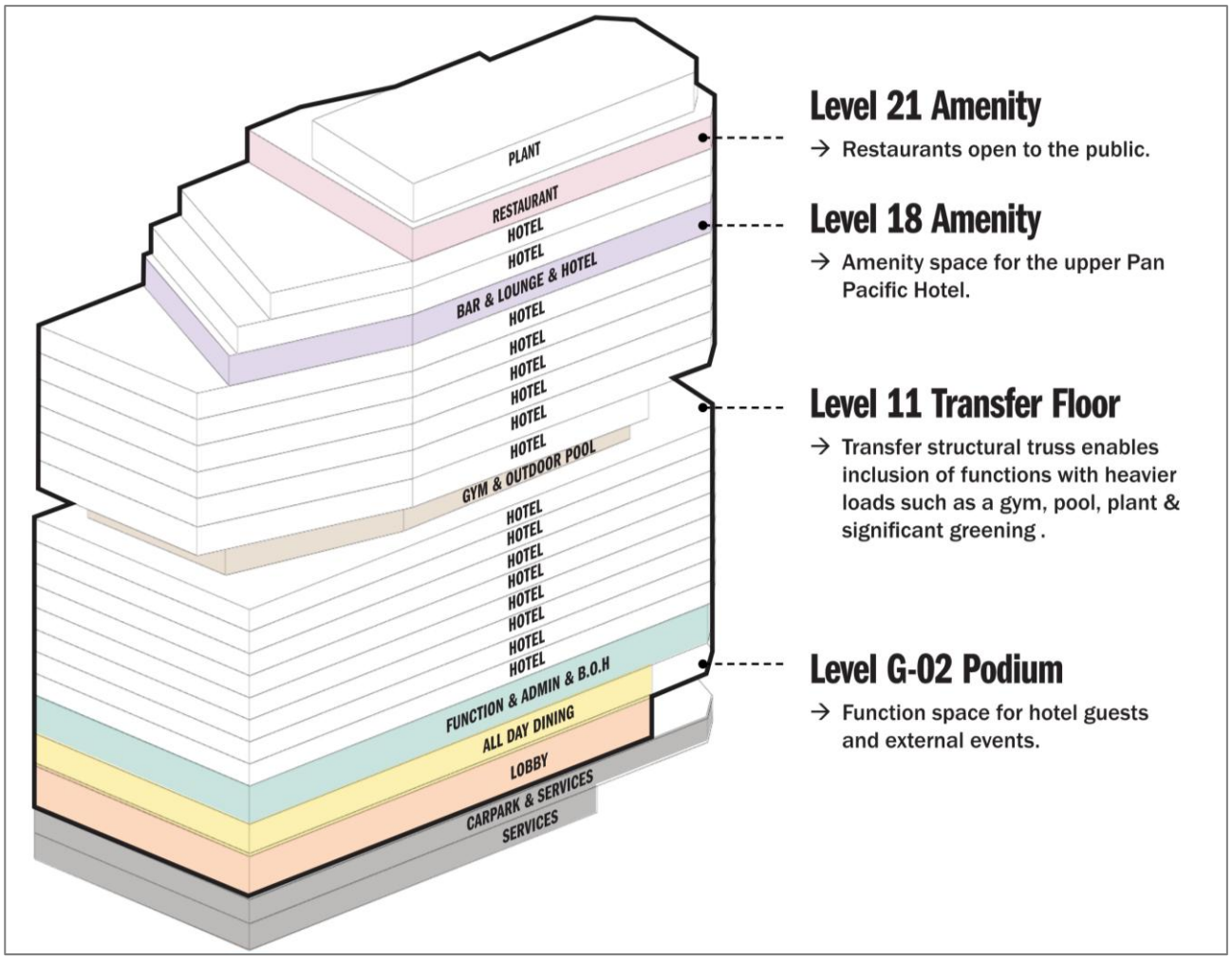


Figure 1: Proposed Spatial Layout Strategy (Source: Hassell).

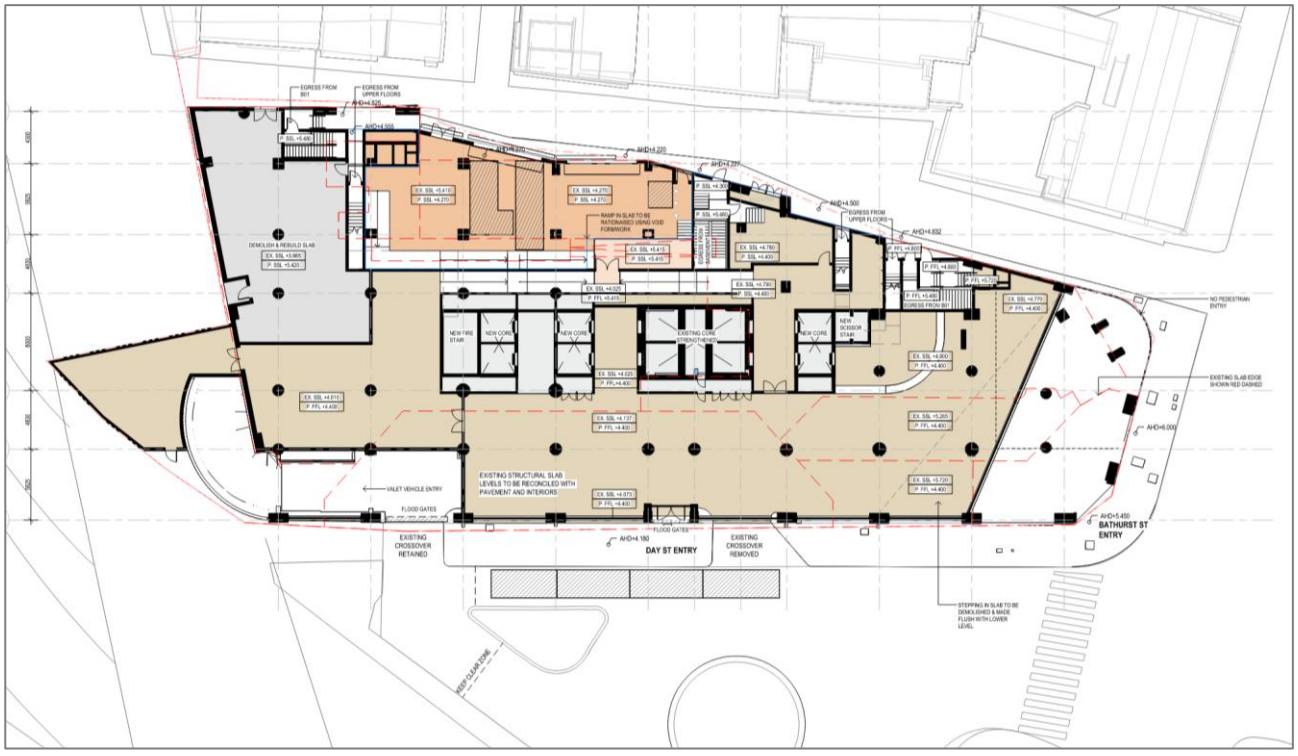


Figure 2: Proposed Ground Floor Layout (Source: Hassell).

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1.2 Flood Planning Requirements

The site is situated within the City of Sydney Local Government Area and is subject to the controls outlined in the Interim Floodplain Management Policy, 2014 (IFMP). As there is no change to the external footprint of the existing building, there will be no change to flood behaviour for this development. This report therefore focusses on flood risk to the building and compliance with flood planning levels.

Section 5 of the IFMP outlines the minimum permissible building floor levels for different land use types. The proposed development is for hotel facilities including the reception, bar areas, and waste areas, regarded as commercial and industrial uses. Table 1 outlines the minimum required floor levels for commercial and industrial land uses.

Table 1: Flood Planning Levels - Interim Floodplain Management Policy (2014)

Land Use	Flood Planning Level
Business	Merits approach presented by the applicant with a minimum of the 1% AEP flood level.
Retail floor levels	Merits approach presented by the applicant with a minimum of the 1% AEP flood level. The proposal must demonstrate a reasonable balance between flood protection and urban design outcomes for street level activation.
Below-ground car parks[1]	1% AEP flood level + 500mm freeboard, or the PMF (whichever is higher)

[1] The below ground garage/car park level applies to all possible ingress points to the car park such as vehicle entrances and exits, ventilation ducts, windows, light wells, lift shaft openings, risers and stairwells.

The site is therefore subject to a minimum Flood Planning Level (FPL) of the 1% AEP level for all business and retail floor levels, with below-ground car parks protected to the higher of the 1% AEP + 500mm freeboard or the PMF.

1.3 Reference Documents

The following documents have been reviewed and referenced in preparing this report:

- Australian Institute of Disaster Resilience (AIDR) Guideline 7-3: Flood Hazard (2017)
- City of Sydney Development Control Plan (2012)
- City of Sydney Interim Floodplain Management Policy (2014)
- City of Sydney Local Environmental Plan (2012)
- NSW Department of Environment and Heritage – Flood Risk Management Guideline LU01, June 2023
- NSW Department of Planning, Housing and Infrastructure – Planning Circular PS 24-001, Update on addressing flood risk in planning decisions, 1st March 2024
- NSW Department of Planning, Industry and Environment – Considering Flooding in Land Use Planning Guideline (2021)
- NSW Floodplain Development Manual, June 2023
- NSW Planning Portal Spatial Viewer (Spatial Collaboration Portal - Map Viewers (nsw.gov.au))
- Darling Harbour Catchment Flood Study, BMT WBM (2014).
- Darling Harbour Floodplain Risk Management Study, WMA Water (2018)

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2. Background

The purpose of this FIRA is to confirm the flood risk and impact of the development to support a Planning Proposal to increase the height of the existing building with additional levels added to the hotel. The existing levels of the hotel to be retained will be upgraded and refurbished. There will be no change to the external extent of the building at the ground floor plane.

2.1 Study Area

The site is located at Lot 20 DP1046870, 150 Day Street, Darling Harbour, NSW 2000, with a total area of approximately 0.25 ha. The current site conditions and surrounding area are presented in figure 3, with the site bounded by Day Street at its western frontage, Druitt Street to the north, Bathurst Street to the south and Sands Street to the east. The site is currently zoned as SP5 – Metropolitan Centre under City of Sydney Local Environment Plan (LEP) 2012 and currently operates as a hotel comprising 11 floors. This zone provides a range of facilities and services, commercial industries and offices. As a hotel, the development is permissible as a tourist and visitor accommodation under the SP5 land zoning.

The site is located at the lower area of the fully urbanised Darling Harbour Catchment, approximately 320m west of Town Hall Station and 150m southeast of Darling Harbour, with close connections to the A4 Western Distributor and the Cross City Tunnel. Other than the harbour There are no natural watercourses in the vicinity of the site, however there is an extensive below ground pit and pipe stormwater network that collect and convey stormwater runoff from the urban catchment to Darling Harbour.

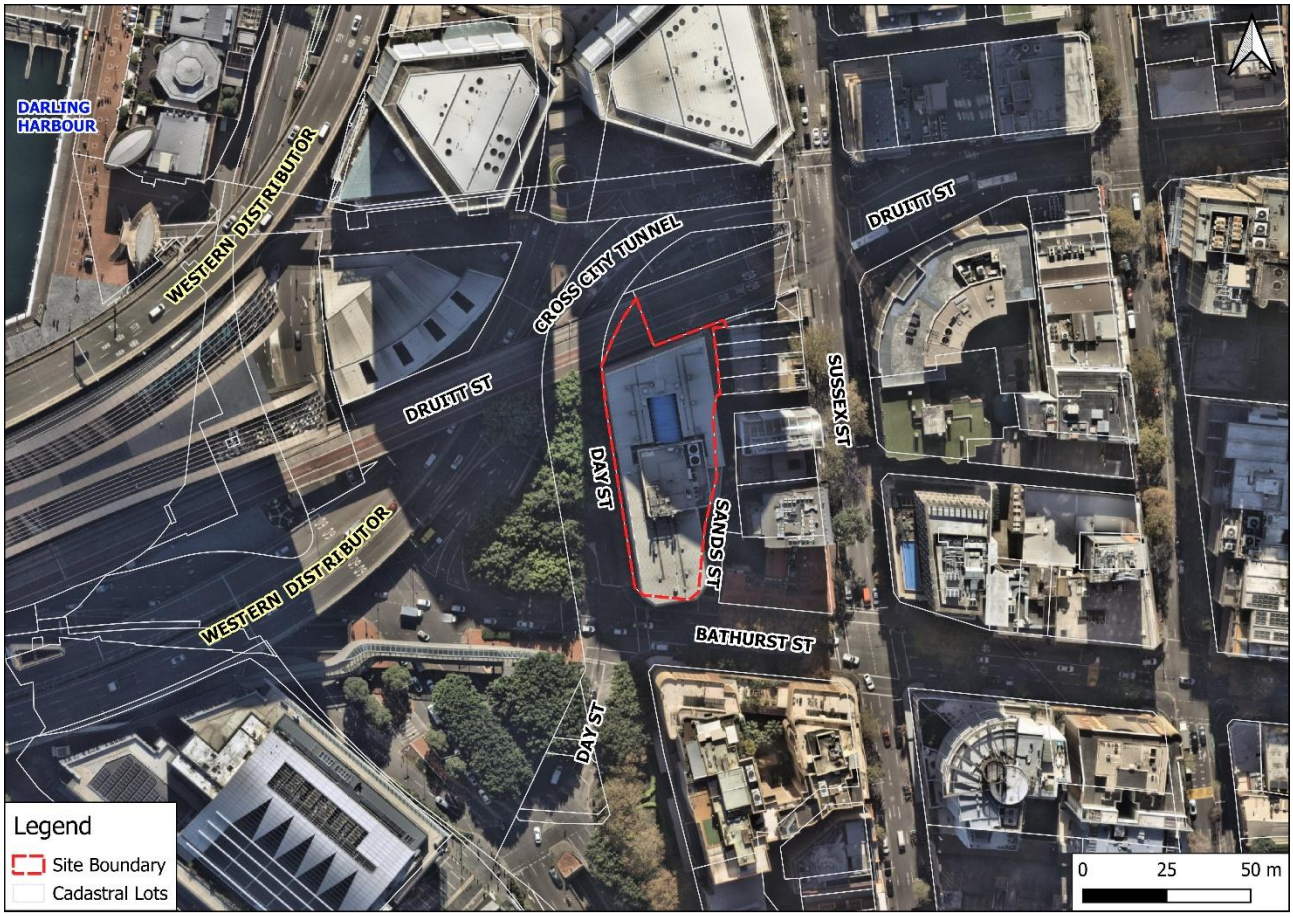


Figure 3: Site Location and Surrounding Area (Source: Nearmap, Dated April 2024).

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2.2 Site Topography

To assess the topography of local area, the latest available elevation data (2020) was obtained from Elevation Information System (ELVIS) at a 1-metre resolution. As presented in the Digital Elevation Model (DEM) in Figure 4, the site is located on the lower plains of the wider Darling Harbour Catchment, with higher elevations to the east beyond Sussex Street reaching more than 20m AHD. The elevation generally falls northwest of the site with proximity to Darling Harbour, falling to around 1m AHD at the harbour.

Within the site itself, there is a prevailing southeast to northwest slope, with a high of 6.5m AHD at the corner of Sands Street and Bathurst Street, falling to a low of 3.7m AHD at the northwest corner of the existing building at a 4% gradient. The site's overall slope is shown in the cross-sectional elevation profile in Figure 5.

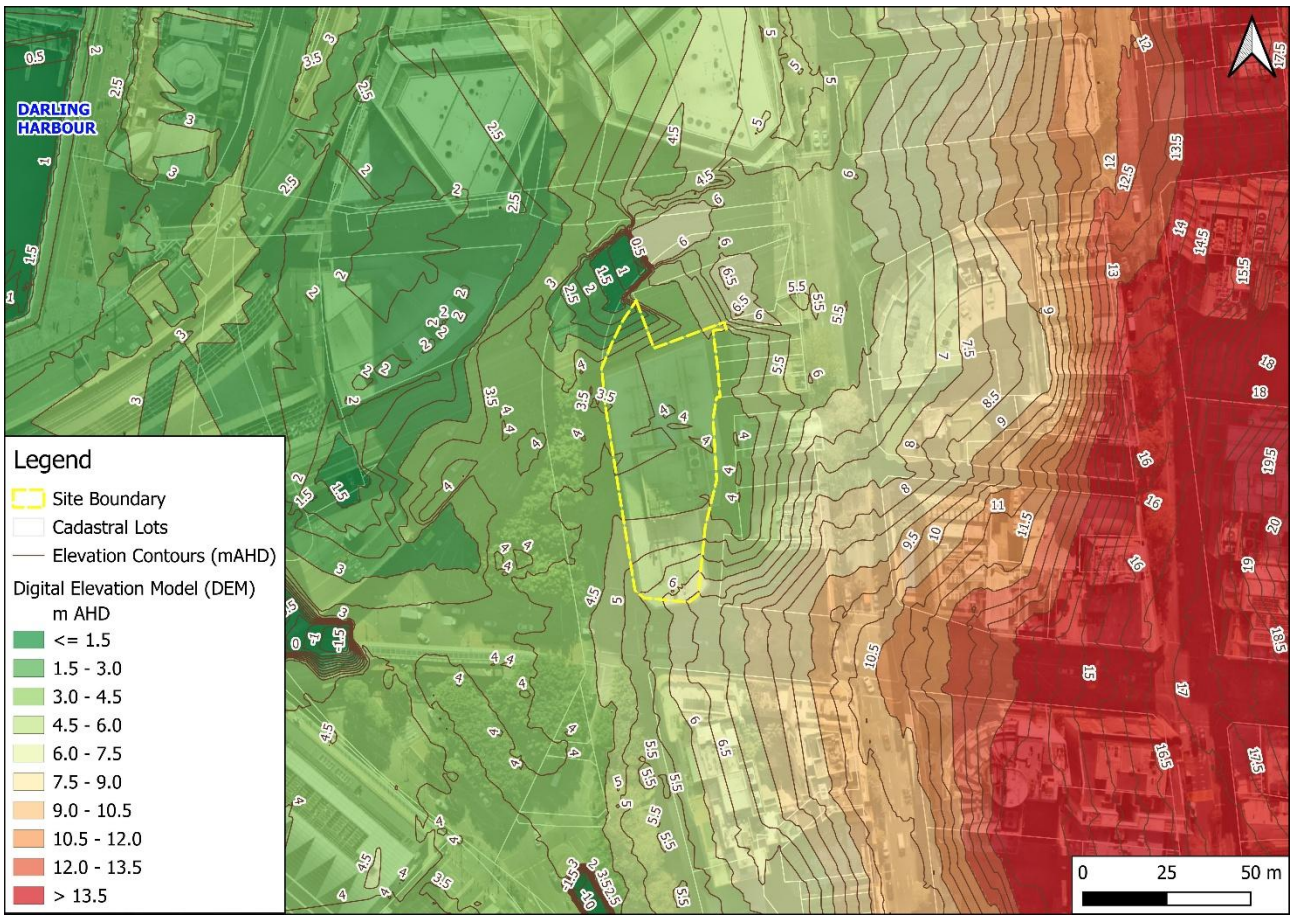


Figure 4: Topography of the Site and Its Surrounding Area Using 2019 And 2020 Lidar Data (Source: ELVIS).

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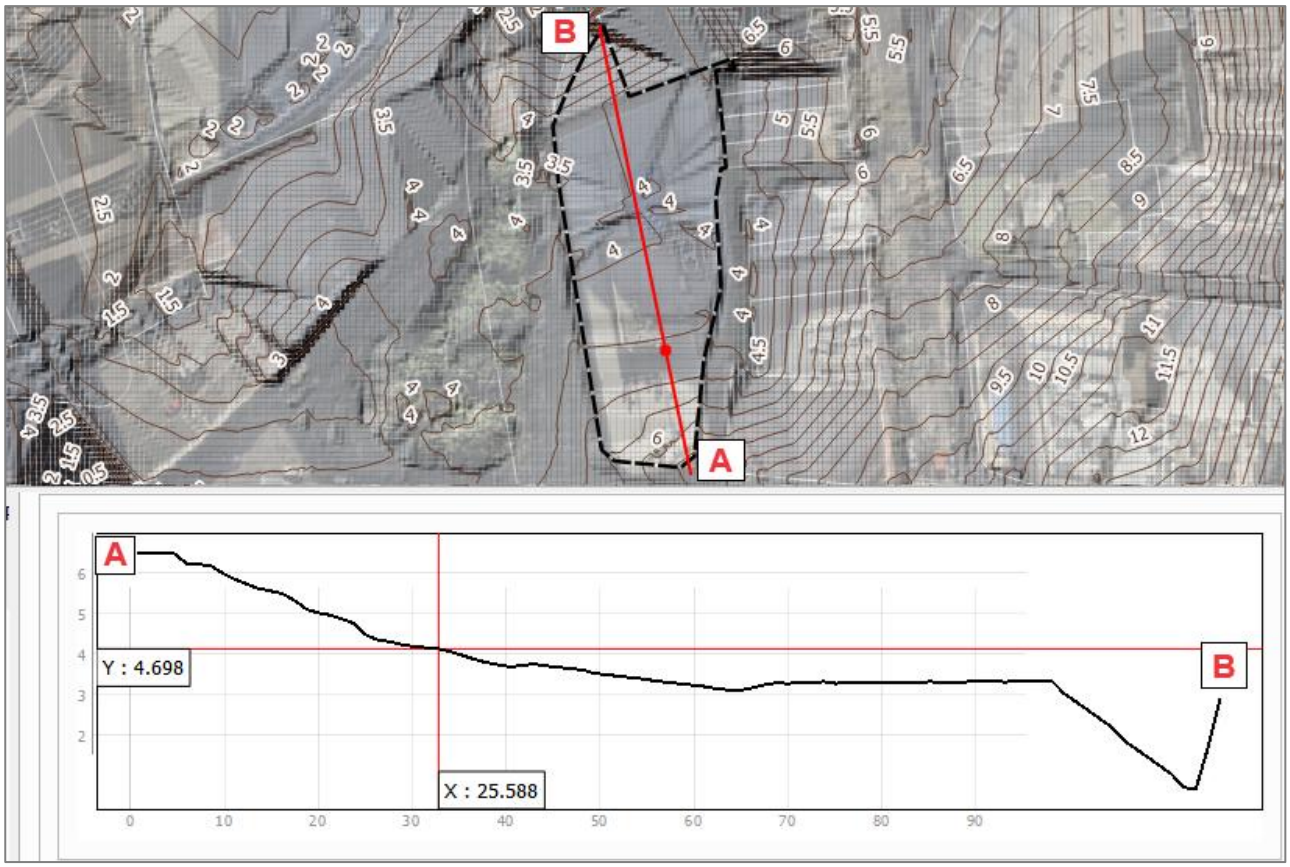


Figure 5: Cross-Sectional Elevation Profile Through The Site From West To East

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3. Existing Flooding

3.1 Darling Harbour Catchment Flood Study, 2014

The latest flood study available for the site and adopted by City of Sydney Council is the Darling Harbour Catchment Flood Study, completed by BMT WBM (2014). As part of the assessment a 1D/2D TUFLOW hydraulic model was established and verified by a calibration/verification process. A rainfall on grid (ROG) hydrology approach was adopted, in which rainfall is applied to each active cell in the 2D mesh. Hydrologic losses and runoff are therefore calculated for each cell and routed through downstream cells to evaluate flood depths and velocities.

The model was used to define the flood behaviour within the Darling Harbour catchment, producing information on flood flows, velocities, levels and extents for a range of flood event magnitudes under existing catchment conditions. The catchment covers an area of about 307 ha and drains into the Sydney Harbour. The study noted that the Darling Harbour catchment is highly urbanised with minimal opportunity for infiltration due to the prevalence of impervious surfaces. Most properties have common walls to neighbours, limiting opportunities for flow to pass between properties and as a result the roads form the primary overland flow paths.

3.2 Darling Harbour Floodplain Risk Management Study, 2018

The latest and most up-to-date source of flood behaviour adopted by City of Sydney Council is the Darling Harbour Floodplain Risk Management Study, completed in 2018 by WMA Water. A full assessment of the existing flood risk in the catchment was carried out, including flood hazard across the catchment, over floor flooding of residential, commercial and industrial properties, road flooding and emergency response during a flood event.

WMA Water made minor updates to the TUFLOW model previously established by BMT WBM for the flood study, including revisions to the dimensions and alignment of the pit and pipe data, which was informed by more recent survey.

TTW obtained the Darling Harbour Floodplain Risk Management Study TUFLOW model and results files from Council for the purpose of this flood assessment. The existing Council flood results were only provided for the 90-minute duration storms, which were generally the critical duration for the catchment as a whole. However, the critical duration storm (that which produced the highest flood levels) at the site location was found to be the 25-minute storm for all events below the PMF, and the 15-minute storm for the PMF.

TTW have used the Council flood model to regenerate the existing council flood maps at a higher resolution scale at the site location. The only change to the model was to use the latest TUFLOW 2023 version, with backward compatibility to pre-2016 to match the existing council model.

Blockage factors of 20% for graded pits and 50% for sag pits are applied to all surface inlet pits within the model as per the original council model and stormwater guidelines.

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3.3 Existing Council Flood Results

The existing Council flood depths and levels surrounding the site in the 1% AEP event and PMF are shown in figures 6 and 7 respectively.

The flood results show that overland flow approaches the east of the site from Sussex Street, along Sands Street. There is a trapped low point in Sands Street where overland flow ponds when it exceeds the capacity of the pit and pipe stormwater system. Relief from this trapped low point is to the north of the site along the public footpath adjacent to, and below the Western Distributor Overpass. Flood depths at the trapped low point in Sands Street are up to 0.73m in the 1% AEP, increasing to 1.05m in the PMF event.

Overland continues north of the site and enters to the north west of the site at Day Street and continue to flow north and west toward the cross city tunnel exit. Flood depths are shown to be negligible with generally less than 0.05m depth in both the 1% AEP and PMF events.

Overland flow from the south and west is also conveyed along Bathurst Street which bypass the site to the south. These flows are minimal, less than 100mm in the 1% AEP) and less than 250mm in the PMF.

Flood levels are highest to the southeast boundary, reaching 6.55m AHD in the 1% AEP and 6.64m AHD in the PMF at the corner of Bathurst and Sands Street. Flood depths along the west of the site are negligible at less than 0.05m depth in both the 1% AEP and PMF events, likely a result of the ROG modelling method. Flooding is more significant to the east of the development along Sands Street.

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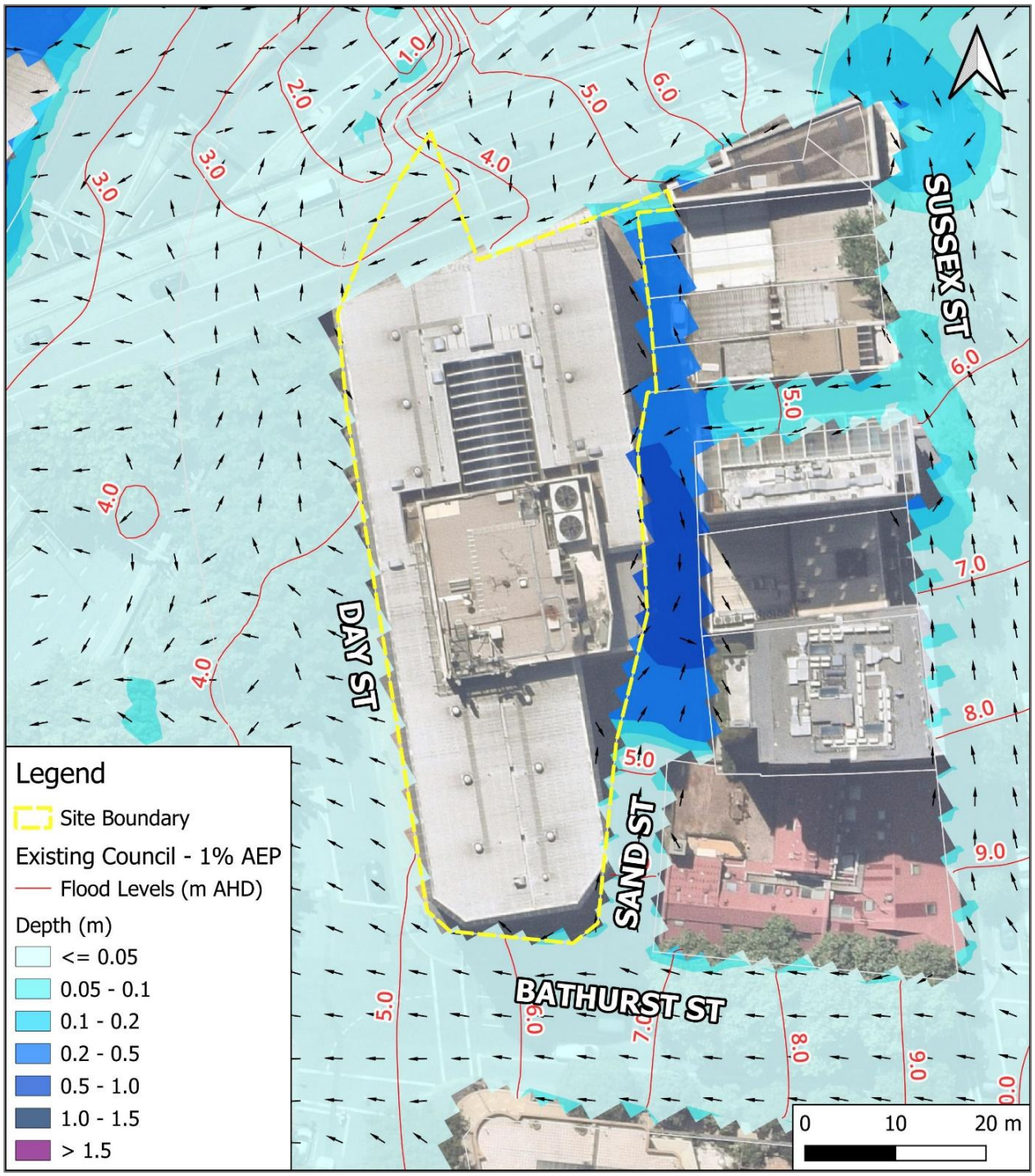


Figure 6: Existing Council 1% AEP Flood Depths and Levels

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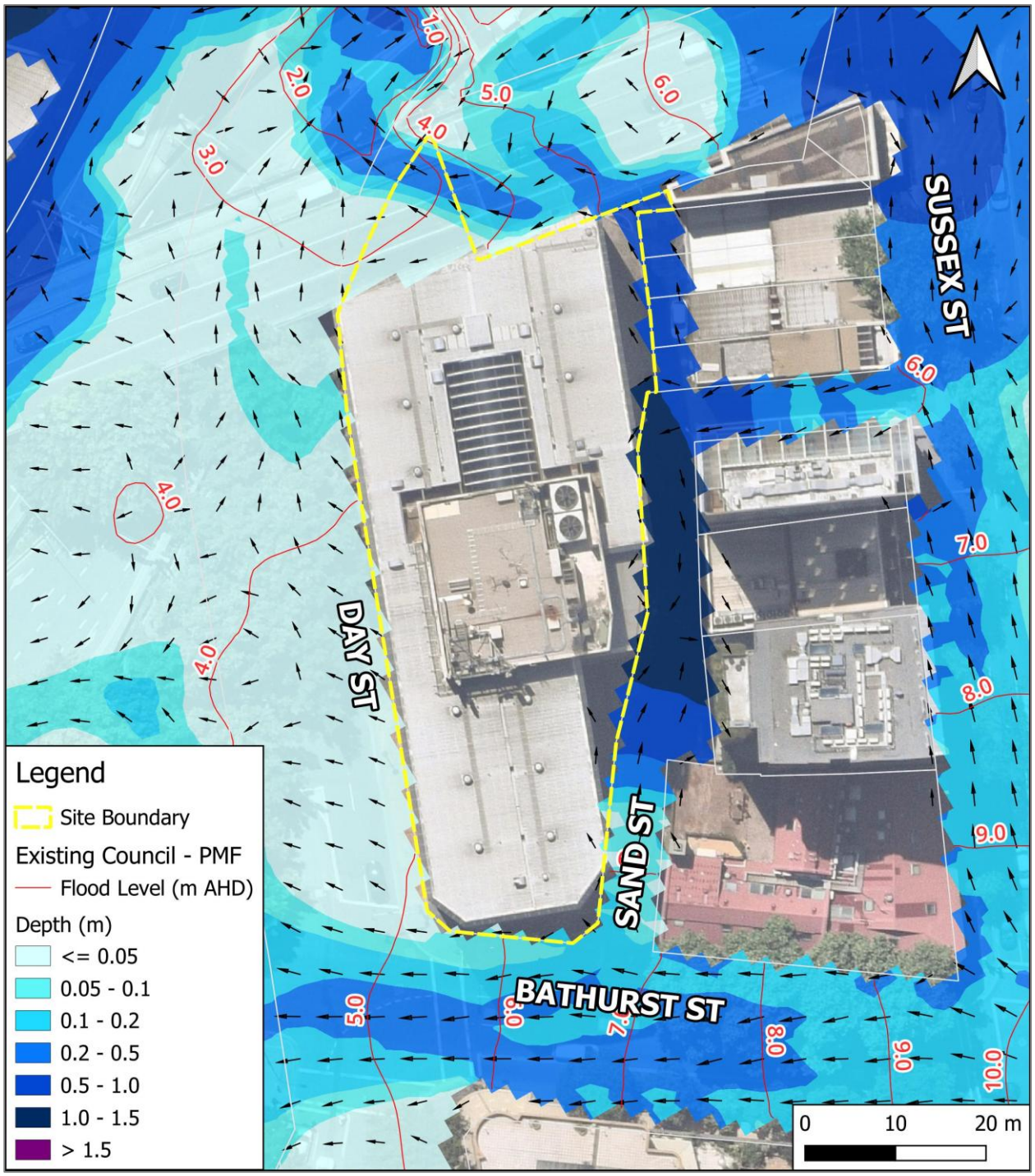


Figure 7: Existing Council PMF Depths and Levels

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3.4 Updates to the Existing Council Model

Following a review of the council model, site inspection and detailed topographical survey of the site, it was found that there are some inaccuracies at the detailed site level in the Council flood model. The existing council model was therefore updated to incorporate the following changes to make the model a more accurate representation of the real-world situation.

- Topographical survey was used to update the DTM in the model
- Building extents were updated based on topographic survey
- Minor amendments to the stormwater network were made based on topographic survey
- Western Boundary Wall Adjacent to Cross City Tunnel was included in the model:

There is an existing solid concrete wall that runs along the western boundary of the site, adjacent to the Cross City Tunnel. Site inspection and survey shows that this wall is over 2m high and would prevent overland flow passing from Day Street onto the Cross City tunnel. Overland flow would effectively pond behind this wall until it reached an overflow level on Bathurst Street. This wall is included in the updated existing model as solid 2m wall. A site inspection photo and survey extent of the wall are shown in figures 8 and 9 respectively.



Figure 8: Site Inspection Photo of Solid Wall along Western Boundary of Day Street

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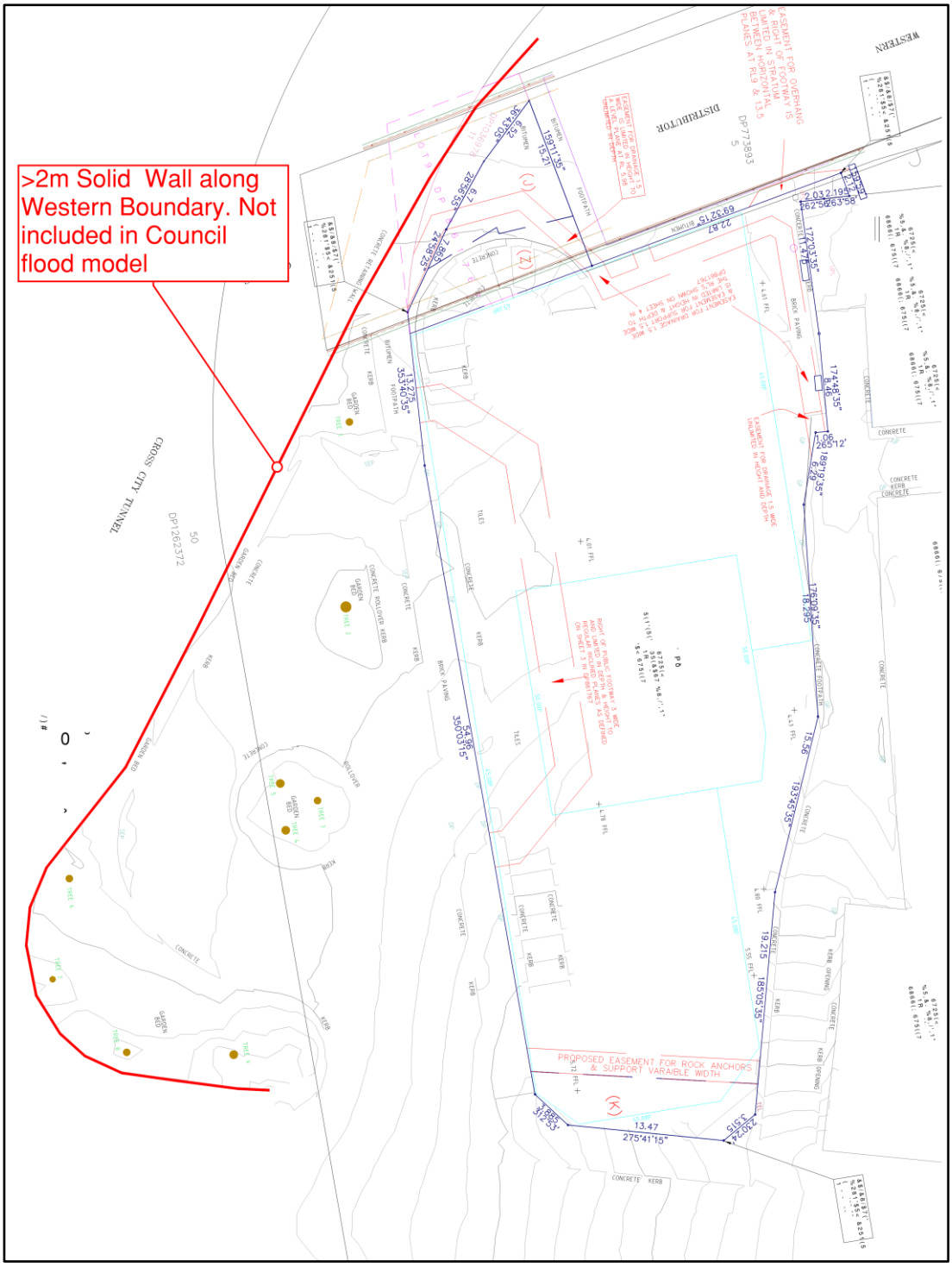


Figure 9: Topographical Survey of Solid Wall Along Western Boundary of Day Street

- Pedestrian Paths adjacent to and below the Western Distributor were included in the model:

Site Inspection confirmed that there are pedestrian paths to the north of the on-ramp of the Western Distributor from Sussex Street and also along the south of the on-ramp from Sands Street. These pedestrian paths join beneath the elevated section of the Western Distributor and connect to Day Street to the northwest of the existing hotel building. These paths were not modelled accurately in the Council model and would effectively provide an overland flow path from Sussex Street and the trapped low point in Sands Street. Images of the pedestrian paths are shown in figure 10.

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Figure 10: The Pedestrian Paths Adjacent To And Below The Western Distributor on-ramp (Google Maps). Top image is south of the on-ramp, middle image is north of the on-ramp, bottom image is where the paths meet at Day Street.

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3.5 Updated Existing Flood Results

The updated model provided slightly different flood results in the 1% AEP and more significant differences in the PMF. The main changes were the blockage of flows from Day Street to the north and west onto the Cross City Tunnel due to the solid boundary wall. Other changes were due to changes in DTM levels using the topographical survey and better representation of the overland flow paths adjacent to the Western Distributor.

A comparison of the Existing Council flood results and the updated Existing flood results are shown in Table 2. The sample points for comparison are taken at the low point of Day Street (point A) and the trapped low point in Sands Street (Point B) as shown in Figure 11.

The updated existing 1% AEP and PMF flood depths and levels are shown in Figures 12 and 13, respectively.

Table 2: 'Council Existing' and 'Updated Existing' Flood Levels and Depths, along with Existing FFL's

Sample Point	1% AEP		PMF	
	Council Existing	Updated Existing	Council Existing	Updated Existing
A - Day Street Flood Level	3.73m	3.78m	3.80m	4.64m
A - Day Street Flood Depth	0.02m	0.29m	0.09m	1.15m
B - Sands Street Flood Level	4.68m	4.58m	5.28m	5.41m
B - Sands Street Flood Depth	0.46m	0.35m	1.06m	1.18m

Building Entry Point	Existing Floor Level
Day Street – Basement Ramp Exit	**3.77m**
Day Street – Lobby	**4.01m**
Sands Street - Loading Dock	**4.27m**

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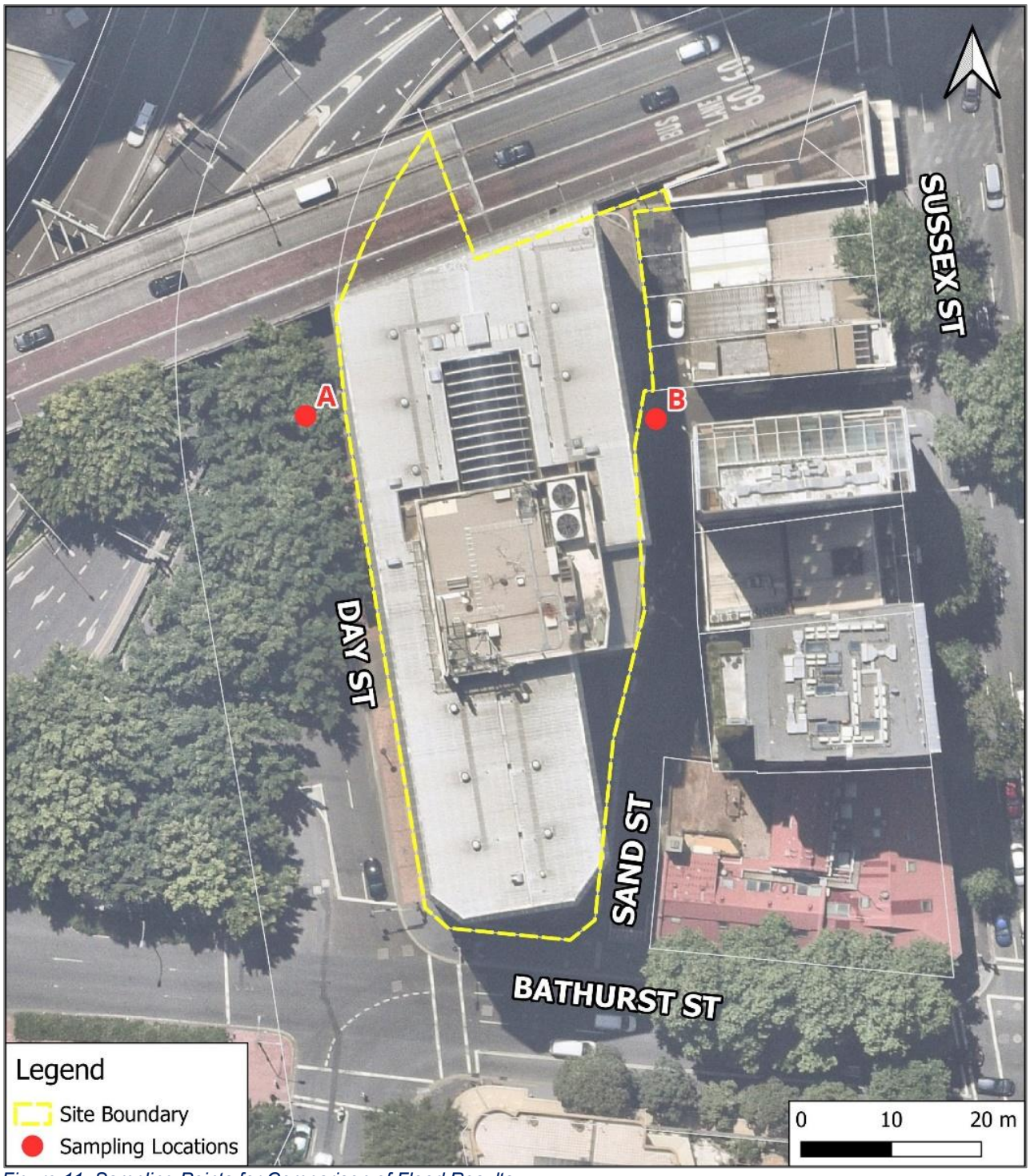


Figure 11: Sampling Points for Comparison of Flood Results

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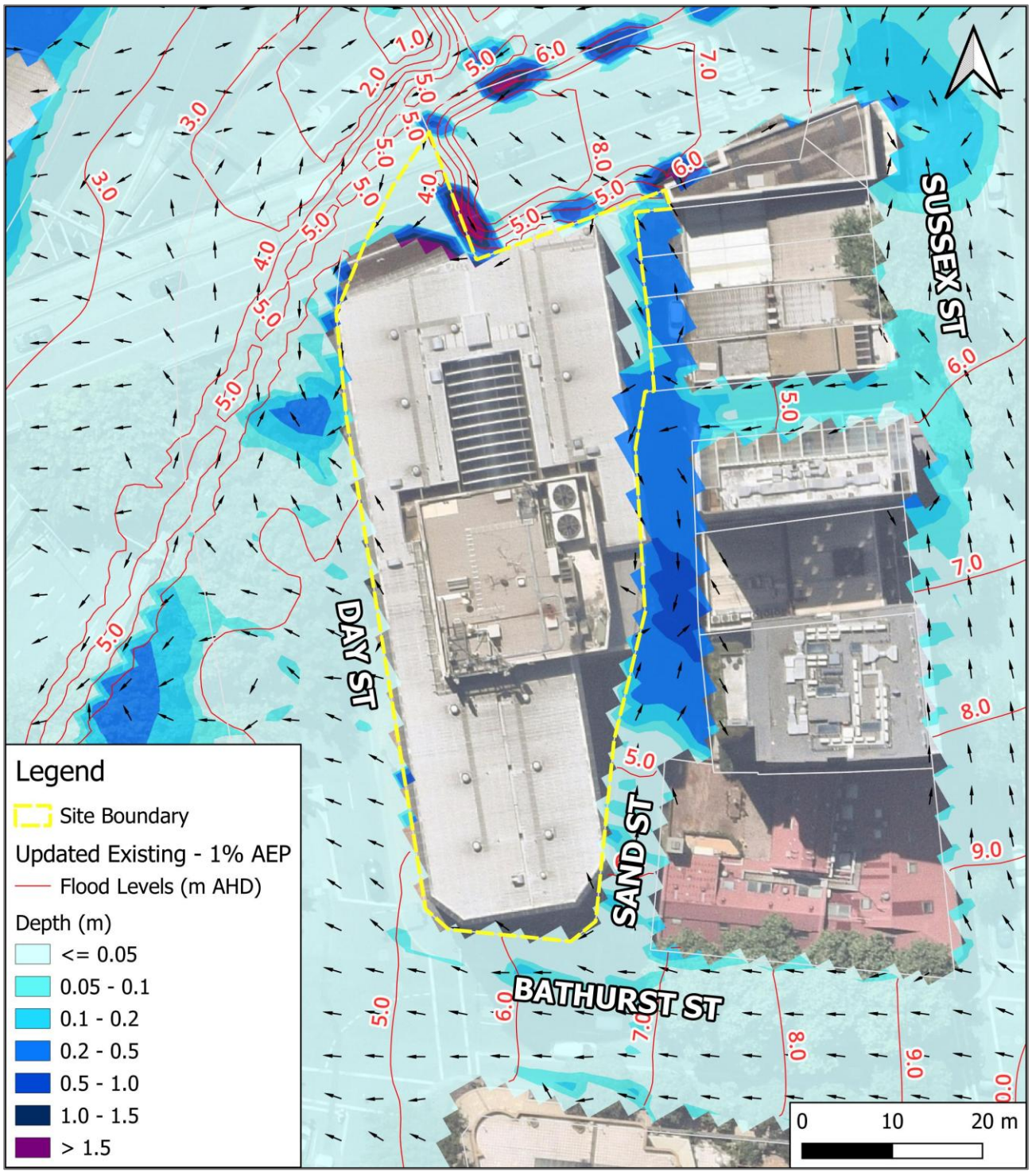


Figure 12: Updated Existing 1% AEP Flood Depths and Levels

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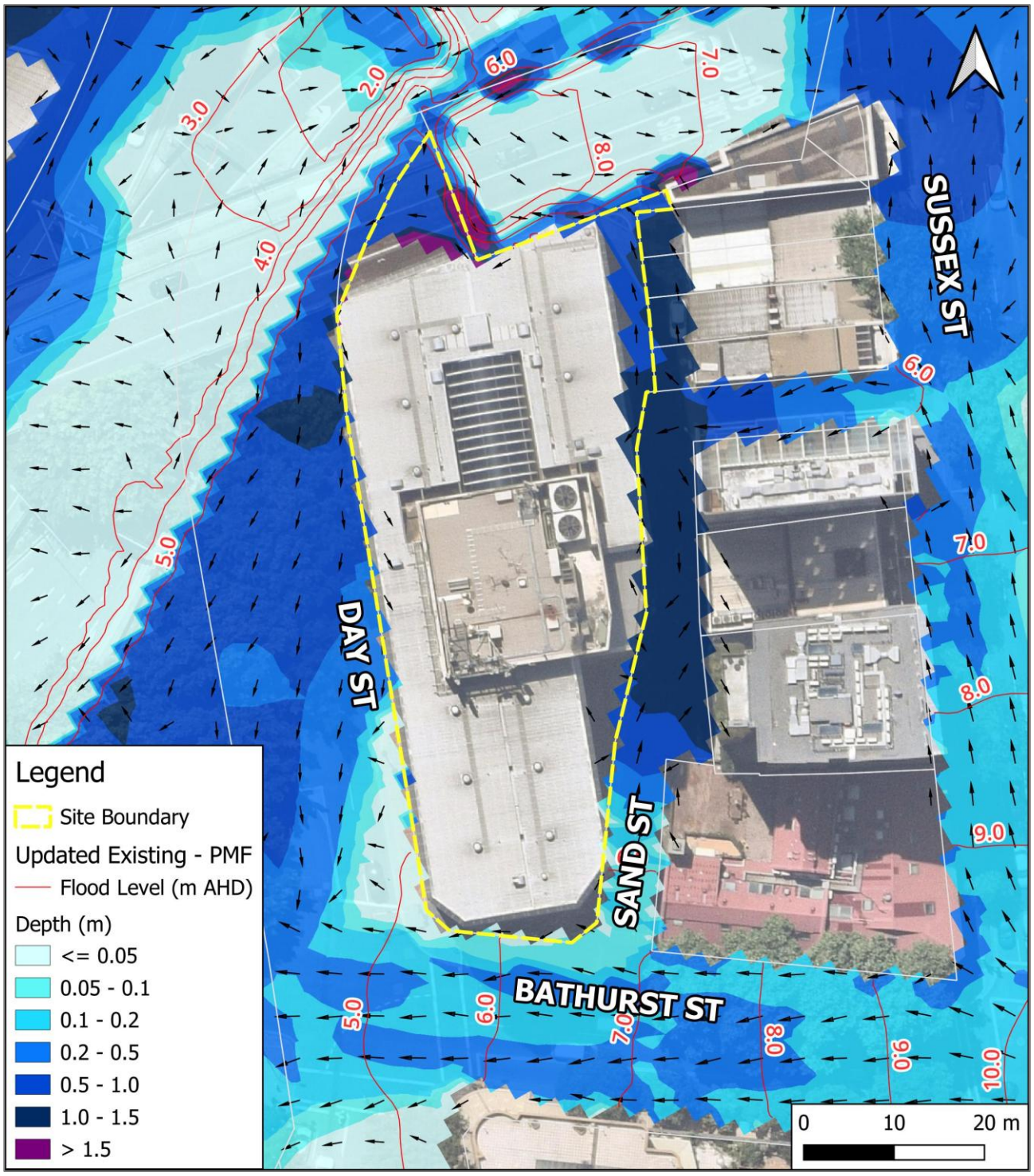


Figure 13: Updated Existing PMF Depths and Levels

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3.6 Flood Hazard Assessment

The relative vulnerability of the community to flood hazard has been assessed by using the flood hazard vulnerability curves set out in 'Handbook 7 – Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia' of the Australian Disaster Resilience Handbook Collection (2017).

These curves assess the vulnerability of people, vehicles and buildings to flooding based on the velocity and depth of flood flows. The flood hazard categories are outlined in Figure 14, ranging from a level of H1 (generally safe for people, vehicles and buildings) to H6 (unsafe for vehicles and people, with all buildings considered vulnerable to failure). Table 3 outlines the threshold limits for each hazard category.

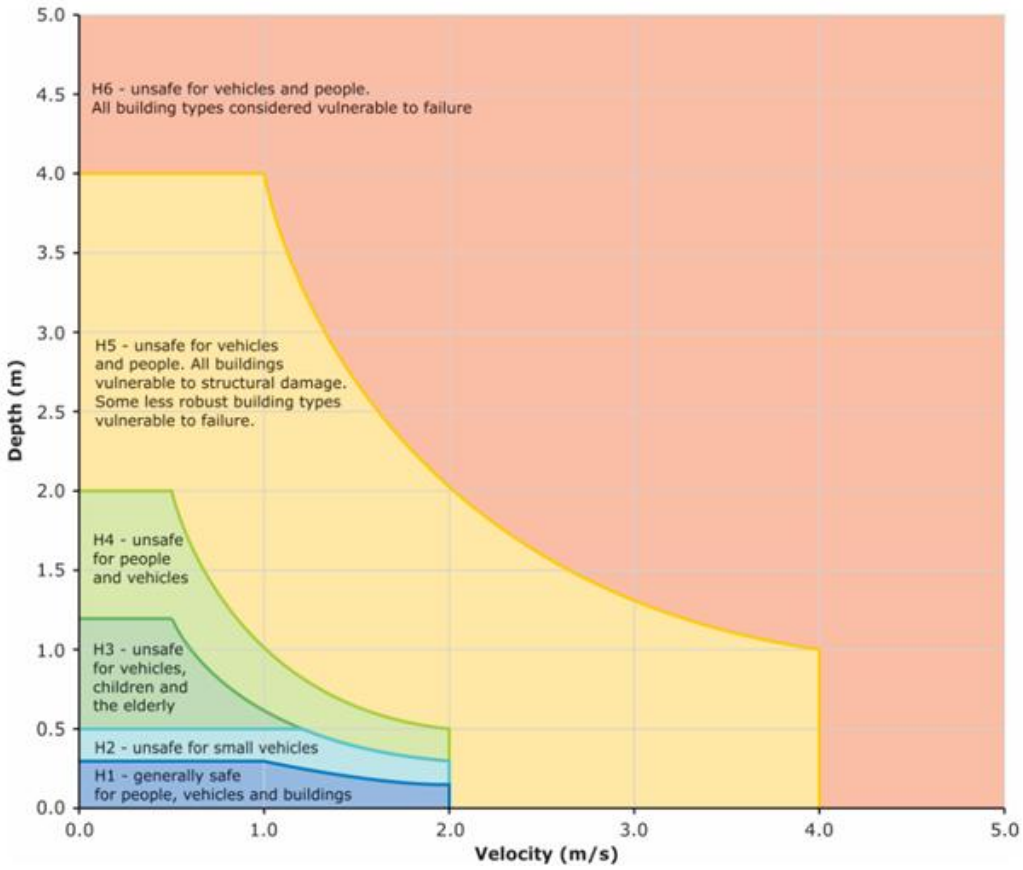


Figure 14: Flood Hazard Vulnerability Curve (NSW DPE Flood Risk Management Guide FB03)

Table 3: Hazard Vulnerability Threshold Limits

Hazard	Description	Classification Limit (m2/s)	Limiting still water depth (D) (m)	Limiting velocity (V) (m/s)
H1	Generally safe for people, vehicles and buildings	D x V ≤ 0.3	0.3	2.0
H2	Unsafe for small vehicles	D x V ≤ 0.6	0.5	2.0
H3	Unsafe for vehicles, children and the elderly	D x V ≤ 0.6	1.2	2.0
H4	Unsafe for people and vehicles	D x V ≤ 1.0	2.0	2.0
H5	Unsafe for people and vehicles. All buildings vulnerable to structural damage.	D x V ≤ 4.0	4.0	4.0
H6	Unsafe for people and vehicles. All building types considered vulnerable to failure.	D x V > 4.0	–	–

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Flood Hazard for the 1% AEP and PMF for the updated existing model are shown in Figures 15 and 16, respectively. The flood hazard is generally low H1-H2 around the site in the 1% AEP except for the trapped low point in Sands Street with H3 hazard associated with the increased flood depth. There are isolated areas of up to H5 hazard where water is trapped at the edges of buildings/structures or flows over steep terrain due to the model resolution.

Flood hazard is higher in the PMF with greater flow depths and velocities around the site. Flood hazard up to H3 is show in Day Street to the west and up to H5 within the pedestrian paths to the north. Flood hazard is H4 in the trapped low point but up to H5/H6 in the steeper sections of Sand Street to the east and Bathurst Street to the south, associated with higher flow velocities.

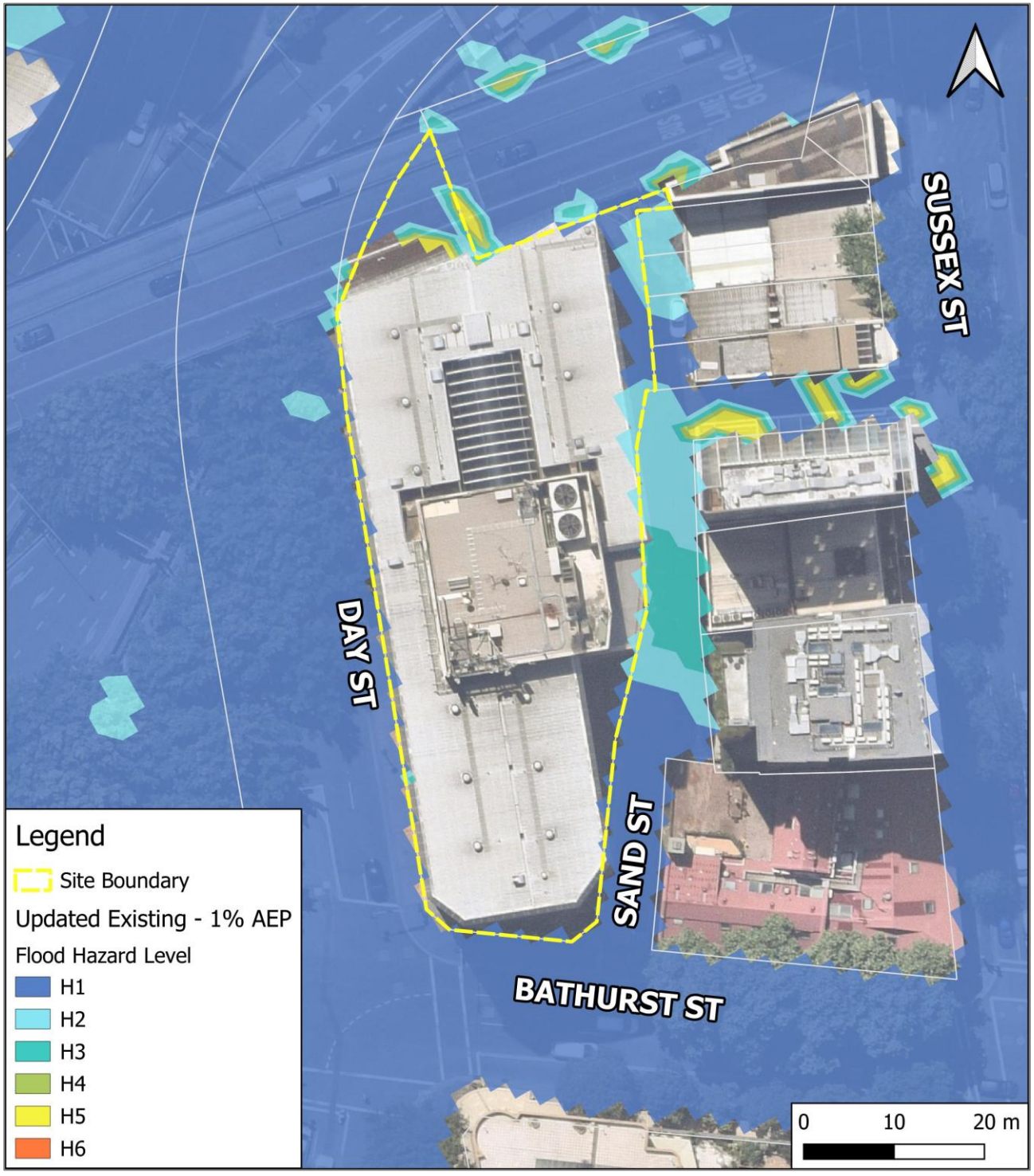


Figure 15: Updated Existing 1% AEP Flood Hazard

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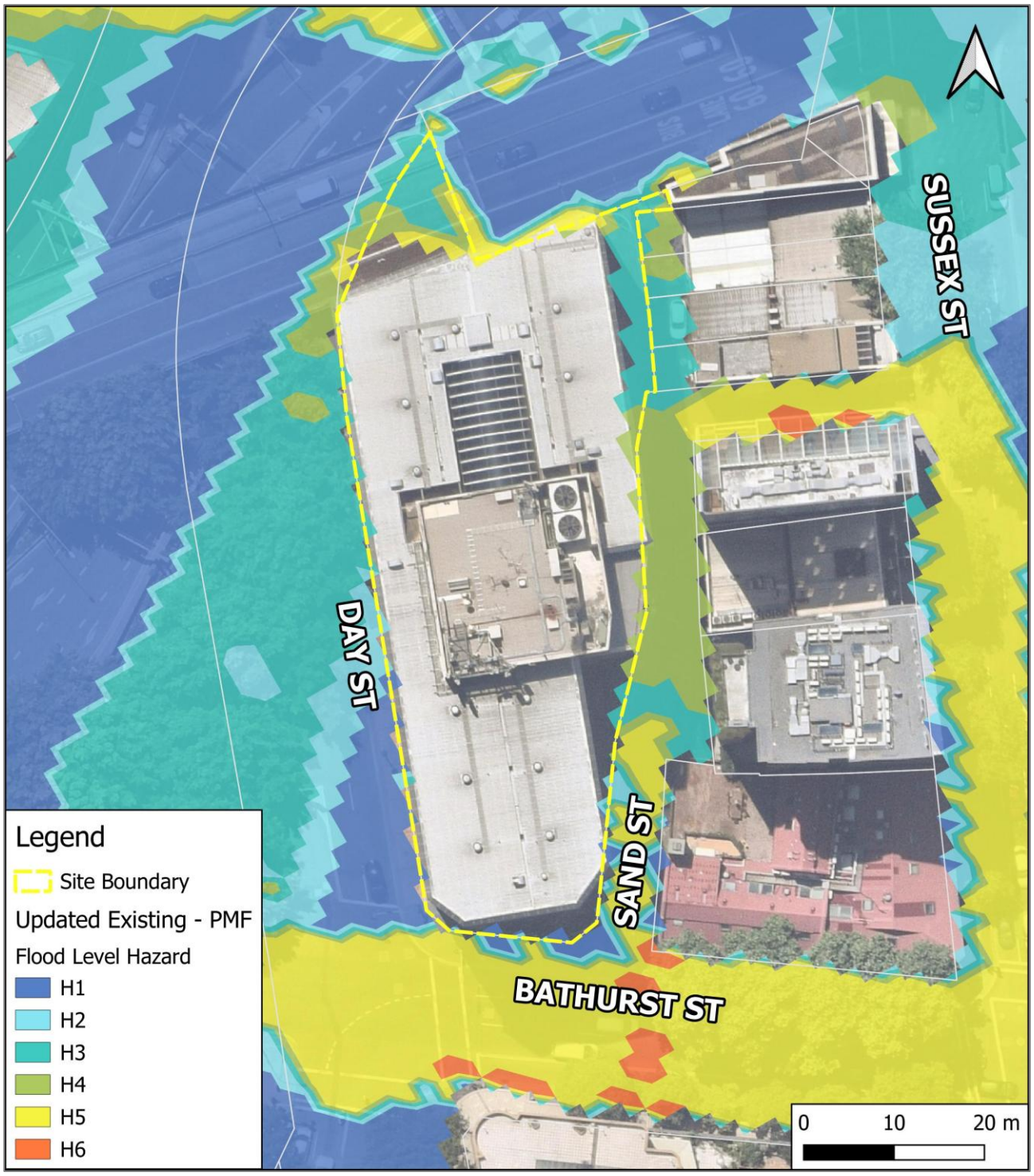


Figure 16: Updated Existing PMF Hazard

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3.7 Additional Storm Events

The updated flood model was also run for additional flood events to understand the flood behaviour across a range of flood events. A summary of the flood depths and levels for the 20%, 5% 1%, 0.2% and PMF and is included in table 4, with flood maps of all events included in Appendix A. Refer to Figure 11 for sampling point locations.

Table 4: Comparison of Updated Existing Flood Levels and Depths Across a Range of Flood Events

Sample Point	20% AEP	5% AEP	1% AEP	0.2% AEP	PMF
A - Day Street Flood Level	3.58	3.64	3.78	3.97	4.64
A - Day Street Flood Depth	0.09	0.15	0.29	0.48	1.15
B - Sands Street Flood Level	4.31	4.40	4.58	4.75	5.41
B - Sands Street Flood Depth	0.08	0.17	0.35	0.52	1.18

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4. Climate Change Sensitivity

The the Darling Harbour Catchment Flood Study (BMT WBM 2014) included sensitivity assessment of flooding associated with potential impacts of climate change.

The potential impacts of climate change for this site are increased rainfall and increase sea level. The impacts on rainfall allow for increased peak rainfall volume (and intensity) in the 1% AEP event by 10%, 20% and by 30% increases. The 10% (RCP4.5 equivalent) increase in rainfall can generally be used as a proxy for the 0.5% AEP flood event.

The impacts of sea level rise allow for an increase in the downstream tailwater level at Darling Harbour by +0.4m representing the sea level in 2050 and by +0.9m representing the sea level in 2100.

These climate change factors were adopted for the updated existing scenario and a summary of the results, including the 1% AEP flood levels and depths for reference, are shown in table 5, 6 and 7.

The overall impact of climate change with the worst-case scenario of +30% increase in rainfall and +0.9m sea level rise produces an increase in flood level of 340mm in Day Street, and 250mm in Sands Street which is within typical freeboard requirements (+500mm above the 1% AEP) and well below PMF levels.

Table 5: Comparison of 1% AEP With Increased Rainfall Due To Climate Change

Sample Point	1% AEP	+10% rainfall	+20% rainfall	+30% rainfall
A - Day Street Flood Level	3.78	3.88	3.96	4.02
A - Day Street Flood Depth	0.29	0.39	0.47	0.53
B - Sands Street Flood Level	4.58	4.67	4.74	4.80
B - Sands Street Flood Depth	0.35	0.44	0.51	0.57

Table 6: Comparison Of 1% AEP With Increased Sea Level Rise Due To Climate Change

Sample Point	1% AEP	2050 Sea level (+0.4m)	2100 Sea level (+0.9m)
A - Day Street Flood Level	3.78	3.80	3.93
A - Day Street Flood Depth	0.29	0.31	0.44
B - Sands Street Flood Level	4.58	4.61	4.65
B - Sands Street Flood Depth	0.35	0.38	0.42

Table 7: Worst Case Climate Change +30% increase in rainfall and 2100 Sea level

Sample Point	1% AEP	1% AEP +30% rainfall + 2100 Sea level (+0.9m)
A - Day Street Flood Level	3.78	4.12
A - Day Street Flood Depth	0.29	0.63
B - Sands Street Flood Level	4.58	4.84
B - Sands Street Flood Depth	0.35	0.61

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5. Post Development Analysis

As there is no change to the existing building extent at the ground floor plane, there will be no change in flood behaviour compared with the existing scenario. As such there is no flood impact associated with the development. The proposed development will implement raised thresholds and flood protection to satisfy flood planning controls in accordance with Council's Interim Floodplain Management Policy and the development will therefore have a lower flood risk than the existing building. This is discussed further in the section 6.

The use of flood barriers is only acceptable within City of Sydney LGA when all other options have been explored. Due to the adaptive reuse of the existing building, limitation on space constraints, active frontage requirements and gradient constraints, there is no opportunity to raise floor levels higher than those that are currently proposed. An Architectural statement on adaptive reuse and limitations is included in Appendix 2.

An assessment has also been made to try and reduce flood levels at the trapped low point of Sand Street by increased stormwater capacity to prevent flooding to the loading dock. This is detailed in the following section.

5.1 Loading Dock - Stormwater Flood Mitigation Assessment

The trapped low point at Sands Street provides a source of flooding to the existing loading docks. Overland flow approaches this area from Sussex Street and begins to pond when the flow exceeds the capacity of the stormwater pits and/or the pipe network. Ponding continues until it reaches a crest level at the northern extent of Sands Street and then continues to flow along the pedestrian path to the north of the building toward Day Street. The existing flood model shows that the existing loading dock floor level (4.27m) is below the 20%, 5%, 1% and PMF as shown below.

In addition, there are several loading dock entrances to adjacent properties along Sand Street as shown in Figure 17.

	Floor Level	20% AEP	5% AEP	1% AEP	0.2% AEP	PMF
Sands Street Flood Level	4.27m	4.31	4.40	4.58	4.75	5.41
Sands Street Flood Depth		0.08	0.17	0.35	0.52	1.18



Figure 17: Existing Loading Dock Entry Levels along Sands Street

The CoS flood planning level for loading docks is the 1% AEP flood level and therefore the existing (and proposed) loading docks along Sands Street do not comply.

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An architectural review of constraints has been completed for the proposed loading dock which confirms that:

- Moving the loading docks is not possible due to vehicle turning space required.
- Raising the loading dock is not possible due to the limited space, gradient compliance and tie into existing road levels of Sands Street
- Raising Sands Street low point is not possible due to existing adjacent properties and loading dock entrances

An assessment has also been completed to upgrade the stormwater in Sands Street to provide higher capacity to try and reduce the flood level below the loading dock entrance. The stormwater upgrades are limited by the existing 600mm that runs through the basement easement of the existing building and across Day Street and offsite west below the Cross City Tunnel exit ramp. A further constraint is the existing invert levels of the 600mm pipe which are approximately RL1.15m and below the tidal tailwater level in Darling Harbour of RL1.38m for the 1% AEP event. This means that the existing 600mm pipe leaving the site has an effective reduced capacity of 65%.

The following stormwater options were reviewed and assessed and are shown in Figure 18, with results shown in Figure 19.

- Upgrading the existing 600mm pipe within the easement through the basement, to either 2x 600mm pipes, a 750mm dia pipe, or a 600x900mm box culvert.
- Upgrading the pits and pipes around the Sands Street trapped low point and Loading docks, with twice the capacity of the existing pits and upsizing pipes from 225mm up to 600mm.
- Large capacity surcharge pit to allow the additional flows from Sands Street to discharge as overland flow to Day Street.
- Making a direct connection to the existing trunk stormwater 1500mm diameter pipe that runs under the western distributor overpass and Cross City Tunnel exit – this option was discounted due to extremely limited space under the overpass and deep excavation could undermine adjacent structural supports of the Cross City Tunnel retaining wall and overpass abutments. Furthermore, the 1500mm pipe diameter has an invert even lower of approximately RL 0.5m and also has limited capacity due to the tidal downstream water levels.

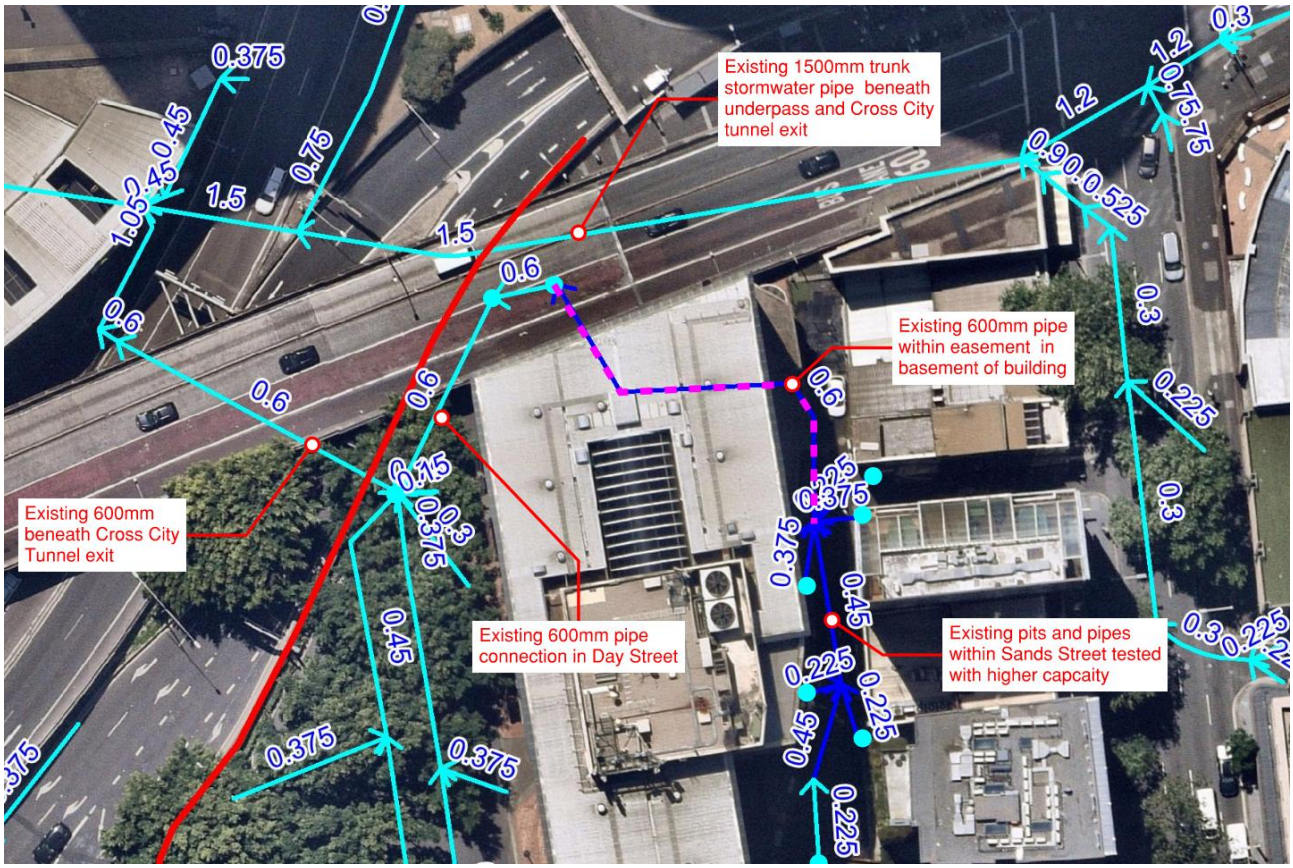


Figure 18: Existing Stormwater Tested for Flood Mitigation

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The following table summarises the impact of the different stormwater upgrades. The biggest reduction in flood levels is from a 900x600mm box culvert with up to 600mm pipes connecting additional large capacity pits around Sands Street. However, the flood levels for this scenario are not reduced below the loading dock level in the % AEP and also remains above the adjacent loading dock levels even in the 5% AEP.

Due to the high cost, large disruption and no significant improvement in flood risk provided by stormwater upgrades, it is not recommended to include the upgrades to the stormwater for flood mitigation to reduce flood levels within Sands Street. It is therefore proposed to protect the loading dock from flooding through the use of a flood barrier as detailed in Section 5.2. However, stormwater upgrades may be further explored during the detailed design stage.

1% AEP Flood Level	Loading Dock Floor Level	Existing Scenario	Twin 600mm pipes	900x600mm culvert	750mm pipe
Loading Dock Flood Level	4.27m	4.58	4.33	4.35	4.45
Loading Dock Flood Depth		0.35	0.11	0.13	0.23

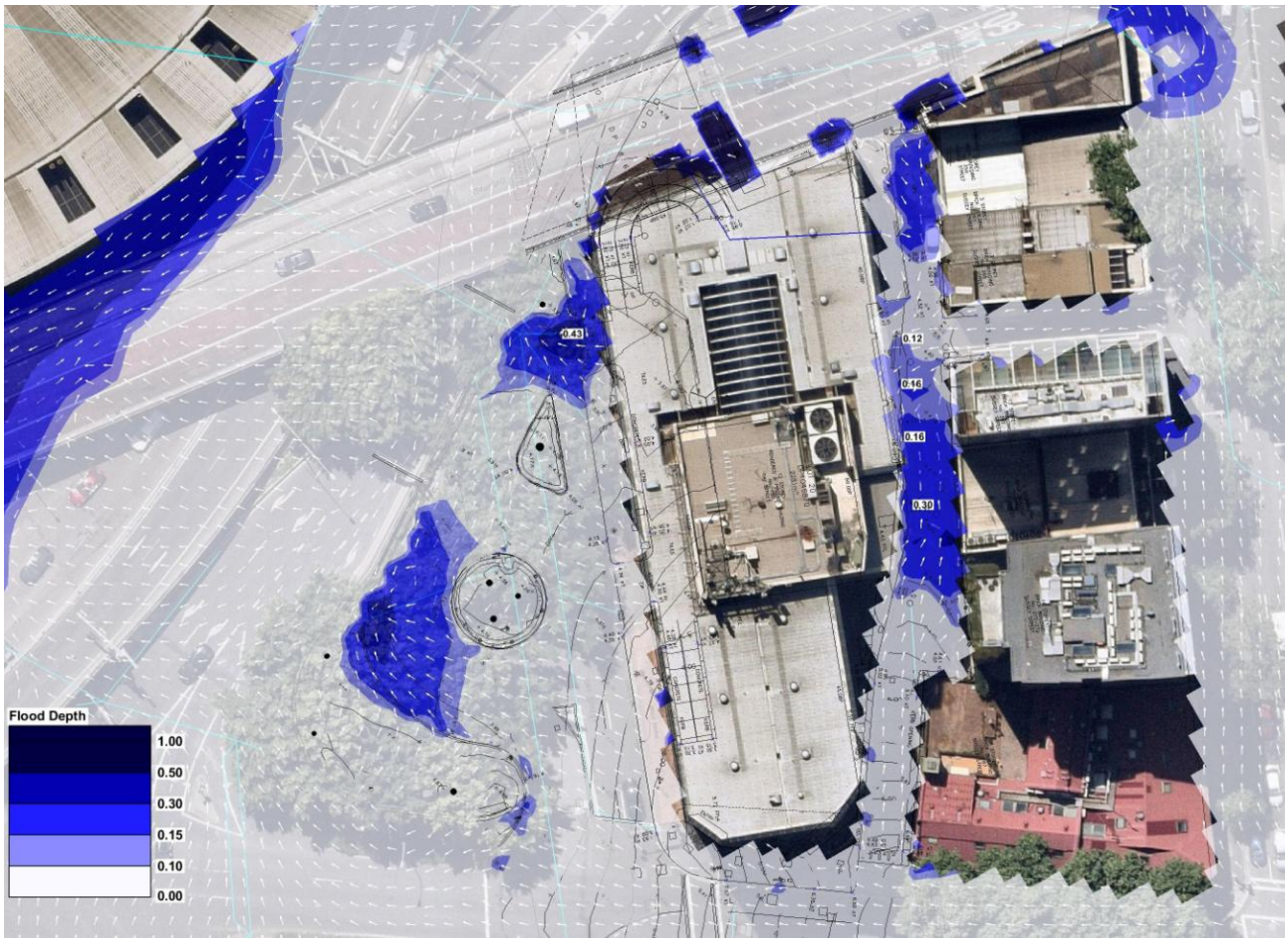


Figure 19: Flood Depths With Upgraded 900x600 Culvert And Double Pit Capacity In Sands Street

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5.2 Loading Dock – Flood Barrier

Due to the limited options available for raising or moving the loading dock, or lowering the flood level in Sands Street it is proposed that the loading docks are protected from flooding using flood barriers in the form of automated roller shutter doors. These can be fully automated and will have their own independent power supply. An example of the roller shutter door is shown in figure 20.



Features

A range of activation options is available:
- Push button
- Full automation via sensors
- Remotely via mobile phone

Operation powered via 24V battery independent from the mains power supply.

Alarm(s)s and strobe(s) warning system included.

Design

Sleek design for architectural applications.

Stainless steel framing with aluminium panels for rust resistance.

Proprietary design which can suit each project's flood protection height requirements and opening widths. Available spans range from 1200mm to 7000mm.

Motor box and panel housing can be exposed or above ceiling.

Operation

Early warning alarm system initiated using flood sensor pit. Powered via 24V battery independent from the mains power supply.

System deployment via overhead box.

Maintenance

Periodic maintenance is required, and system testing is completed using Control Panel functionality.

Quality

A proprietary product with a proven track record in Taiwan, Asia, Europe and Australia.

Documentation

Full set of barrier drawings including coordination drawing and Operation and Maintenance Manual issued for each project.

Figure 20: Flood Roller Shutter Example (Flooding Solutions Pty Ltd)

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6. Flood Planning Compliance

As outlined in Section 1.2, the Council's IFMP specifies the requirements for different types of development and the associated flood planning controls. Since the proposed development does not impact flood behaviour, the primary planning control relates to the Flood Planning Levels, as shown in Table 1. Where an external entrance to the building provides internal access to basement levels, the applicable flood planning level is the higher of the 1% AEP or the PMF, due to the potential for basement floodwater ingress. For all other habitable areas without such ingress points to the basement, the applicable Flood Planning Level is the 1% AEP for commercial/business use.

Figure 21 and Table 8 provide an assessment of the ground floor layout, identifying potential floodwater ingress points and raised thresholds to ensure compliance with Flood Planning Requirements. It should be noted that this assessment excludes building access points that lead to stairways connecting to upper levels above the PMF. Where flood depths are less than 50 mm on the road adjacent to an entrance, this is considered minor stormwater flow resulting from the rainfall-on-grid method, not classified as flooding, and therefore does not require compliance with the Flood Planning Level.

Due to the reuse of the existing building at ground floor, requirement for DDA compliance and direct street activation, there are instances where the internal floor level does not comply with the Flood Planning Level:

- **The loading dock off Sands Street:**
  Due to constraints associated with the existing loading dock (refer to Section 5.1 and 5.2), a raised floor level cannot be achieved and flood barriers will be installed along the entrances to protect against inundation for all flood events including the PMF.

- **Pedestrian Entrance Lobby off Day Street:**
  The Entrance Lobby needs to be flush for DDA requirements and cannot currently be raised to the FPL. However, a concealed automatic flood gate is proposed at this entrance. The flood gate is raised by the hydraulic pressure of flood water itself and does not require human intervention and is therefore considered passive. This entrance is not affected by flooding in the 1% AEP (<50mm) and therefore the flood gate only should only be implemented for the extremely rare PMF.

- **Vehicle Basement Entrance off Day Street:**
  The vehicle entrance to the basement be flush with the external road and there is insufficient internal space or headroom for the existing ramp to be raised or lengthened to provide a crest above the FPL. However, a concealed automatic flood gate is proposed at this vehicle entrance. The flood gate is raised by the hydraulic pressure of flood water itself and does not require human intervention and is therefore considered passive.

Note that the option of raised floor levels and thresholds without the requirement for flood gates will be reviewed and investigated in more depth during the more detailed Development Approval stage.

This assessment confirms that the proposed development complies with the required Flood Planning Levels and will improve flood risk to the development compared with the existing hotel building. There is no impact on flood behaviour associated with the development and the proposal therefore meets Council's Interim Floodplain Management Policy and associated flood planning requirements.

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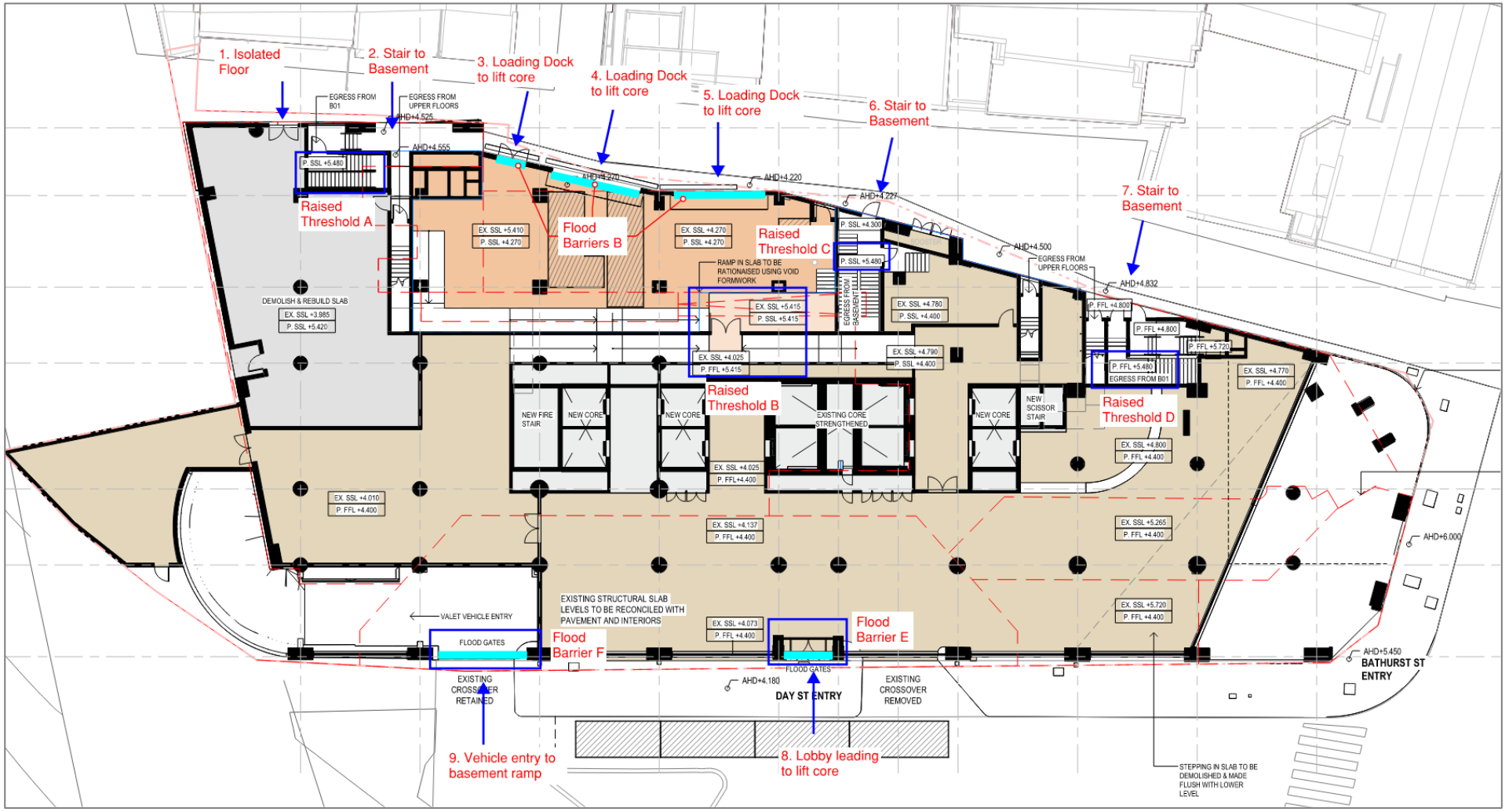


Figure 21: Flood Planning Levels Compliance

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Table 8: Flood Planning Levels Compliance

Flood Ingress Point	1% AEP flood level	PMF level	Basement Entry	Flood Planning Level	Proposed Floor Level	Raised Threshold Type	Raised Threshold Level	FPL Met
1. Isolated floor	4.58	5.41	No	**4.58**	5.42	Floor level	**5.42**	YES
2. Stair to basement	4.58	5.41	Yes	**5.41**	5.48	Raised stair at A	**5.48**	YES
3. Loading Dock to lift core	4.58	5.41	Yes	**5.41**	4.27	Flood barrier and raised internal floor at B	**5.42**	YES
4. Loading Dock to lift core	4.58	5.41	Yes	**5.41**	4.27	Flood barrier and raised internal floor at B	**5.42**	YES
5. Loading Dock to lift core	4.58	5.41	Yes	**5.41**	4.27	Flood barrier and raised internal floor at B	**5.42**	YES
6. Stair to basement	4.58	5.41	Yes	**5.41**	5.48	Raised stair at C	**5.48**	YES
7. Stair to basement	4.85	5.43	Yes	**5.43**	5.48	Raised stair at D	**5.48**	YES
8. Entrance to lift core	<50mm deep	4.64	Yes	**4.64**	4.40	Flood barrier at E	**4.65**	YES
9. Vehicle entry	3.78	4.64	Yes	**4.64**	3.70	Flood barrier at F	**4.65**	YES

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7. Flood Emergency Management Plan

It is important that users of the site are aware of any potential flood risks and that procedures are in place to ensure personal safety. This section provides preliminary recommendations to ensure that in the event of a flood, risk to personal safety is appropriately managed. The plan provides strategic advice that needs to be implemented as part of the site's construction and on-going operation.

This Flood Emergency Management plan will need to be updated as part of the detailed design stage and reflect any changes to the development proposal or flood behaviour.

7.1 Flood Behaviour and Risks on Site

Flood modelling confirms that there is a trapped low point in Sands Street which provides a source of overland flooding to the east of the building. The solid boundary wall to the west of Day Street prevents overland flow escaping this area and provides a source of overland flooding to the west of the building.

As a result, flood depths peak at approximately 1.6m west of the site, with a peak hazard rating of H3. Bathurst Street, the main access road in and out of the site, reaches H5 hazard in the PMF. Mapping of the peak flood hazard categorisation in the wider area during the critical PMF storm event is shown in Figure 22.

7.2 Flood Inundation Times

The Darling Harbour Catchment Floodplain Risk Management Study (FRMS) notes that the majority of flooding within the Darling Harbour catchment is characterised by overland flow, with no mainstream flooding and only a small area of tidal influence near Darling Harbour. The critical storm duration is between 1-2 hours across most of the catchment, and 15-minutes for the site. As such, there is very little warning time prior to the onset of a flood event, although floodwaters in the roadways quickly recede.

Table 9 accesses the time to inundation and recession time in three PMF events of varying duration. The 15-minute storm is critical in terms of inundation time, with less than 5 minutes before flood hazard levels reach H5 (unsafe for people and vehicles, all buildings vulnerable to structural damage) along Bathurst Street.

Longer duration runs have been reviewed to determine the maximum potential isolation time at the site. In the six-hour duration PMF event, flows adjacent to the basement entrance are unsafe for small vehicles for a total period of approximately 4 hours and 30 minutes. However, the site is not entirely isolated in this event, given that Bathurst Street and the lobby entrance remains accessible for the duration of this storm, with only minor low hazard (H1) flows adjacent to the main entry.

Table 9: Time to inundation and recession at the site in PMF storm

PMF Storm Duration	Time to Inundation	Recession Time
15 minutes	< 5 minutes until flooding along Bathurst St reaches H5 hazard, prohibiting access to and from the vehicular entryway. < 10 minutes until flooding adjacent to the entry lobby and basement ramp reaches H3 hazard.	**Bathurst Street returns to H1 hazard less than 20 minutes after the onset of the storm**. However, access to and egress from the site is restricted due to ponding of H3 hazard at the basement entry and adjacent car park. While this recedes, there is still ponding of H3 hazard at the basement ramp two hours after the onset of the storm. Flows immediately adjacent to the lobby entrance reduce to **below 50mm depth after 35 minutes** the onset of the storm, with vehicular pickup available from this point onto Bathurst Street, which is flood-free by the time the lobby entry becomes accessible.

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2 hours	< 15 minutes until flows adjacent to the basement entry become unsafe for small vehicles (H2 hazard level). < 35 minutes until flows with hazard classification of H2 reach the lobby entrance	Ponding across the west of the site begins to recede 1 hour after the onset of the storm. The lobby entrance is impacted by **H2 flows for a total of 30 minutes.** The vehicular entry to the basement returns to trafficable conditions 2 hours and 20 minutes after the onset of the storm.
6 hours	< 35 minutes until flows across Sand Street (the eastern frontage of the site) reach H3 hazard. < 45 minutes until floodwaters adjacent to the basement ramp reach H2 hazard, unsafe for small vehicles.	Floodwaters begin to recede 2 hours and 20 minutes after the onset of the storm. Flows adjacent to the basement entrance return to low (H1) hazard conditions 5 hours and 10 minutes after the onset of the storm, with a total “out of action” period of approximately 4 hours and 30 minutes. However, the **overall risk to the site is lower, with flows adjacent to the lobby entry categorised as low (H1) hazard for the duration of this storm**. Flows across Bathurst Street are similarly low hazard, with depths below 50mm across this road.

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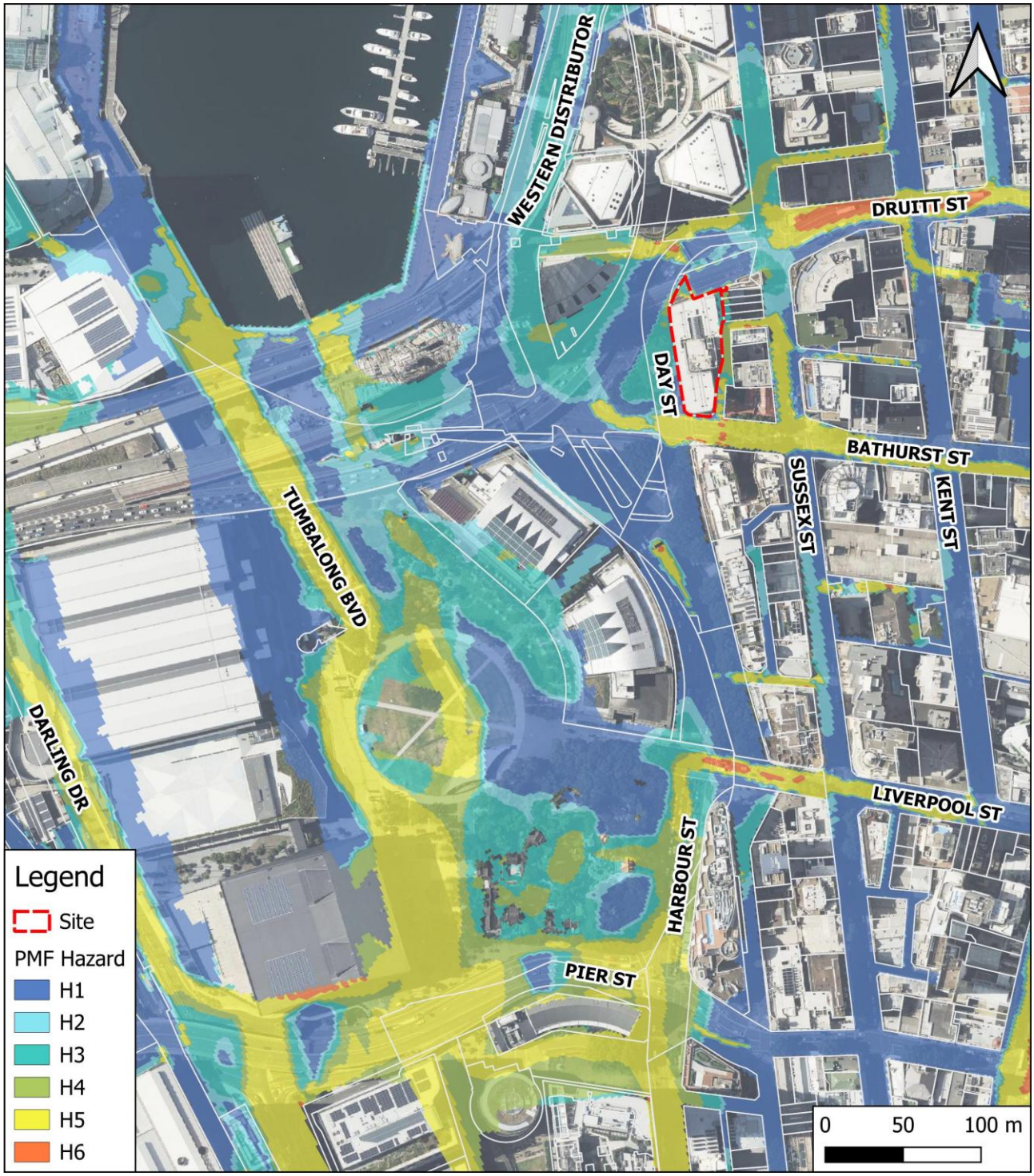


Figure 22: Peak PMF hazards at the site and wider site area in the critical duration 15-minute storm

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7.3 Flood Response Strategy: Shelter-in-Place

While there is often advanced warning time of extreme rainfall events such as those endured in a 1% AEP-PMF event, this cannot be relied upon. Flash flood events are usually characterised by minimal warning times, and pre-emptive closure of the site cannot be accomplished.

The Darling Harbour FRMS, prepared by WMAwater and adopted by City of Sydney Council in 2016, outlines floodplain management issues in the Darling Harbour Catchment and contains flood emergency response arrangements. The FRMS acknowledges that the short interval of time between the onset of the storm and the peak of the storm **does not allow sufficient time to evacuate residents and workers from their properties**. It states that in these situations, evacuation is generally not recommended as it is likely to be hurried and uncoordinated, which can expose evacuees to a hazardous situation. The FRMS similarly notes that any warning provided would be for immediate safety precautions such as temporary refuge (if available nearby or onsite), raising of items off the ground and accounting for people on site.

The Darling Harbour FRMS, adopted by CoS, concludes that "**the preferred response to flooding in flash flooding catchments is for people to remain within the property, preferably above the ground floor level**".

Shelter-in-place (SIP) guidance published by the NSW Department of Planning, Housing and Infrastructure (DPHI) in January 2025 provides considerations that can inform whether SIP is an appropriate response strategy in a flash flood environment, alongside design considerations that should be met. Table 10 outlines the varying factors that must be considered when proposing SIP, and how this site meets the recommendations.

Table 10: DPHI SIP Guidelines

SIP Guideline	Response
Initial assessment	
1. Does shelter in place align with existing emergency management strategies for the area, as determined through the flood risk management process and by the NSW SES?	Pre-emptive evacuation of a site is recommended when there is advanced warning of a major storm event, which is consistent with the flood response strategy discussed in the City of Sydney Local Flood Emergency Sub Plan (Section 5.8.3 of the sub plan). However, the main flood mechanism impacting the immediate area around the site is flash flooding via overland flow. Flash flood events are characterised by minimal warning times and therefore there is unlikely to be sufficient warning time available to achieve evacuation at the site. The Darling Harbour FRMS, prepared by WMAwater and adopted by City of Sydney Council concludes that "the preferred response to flooding in flash flooding catchments is for people to remain within the property, preferably above the ground floor level". SIP therefore does align with existing guidance adopted by CoS.
2. Has evacuation off-site (the primary emergency management strategy) been investigated and determined to be unachievable?	The FRMS acknowledges that the short interval of time between the onset of the storm and the peak of the storm "does not allow sufficient time to evacuate residents and workers from their properties". It states that in these situations, evacuation is generally not recommended as it is likely to be hurried and uncoordinated, which can expose evacuees to a hazardous situation. With less than five minutes from the onset of the shorter duration (15-minute) PMF storm until inundation of the

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	adjoining roads of the proposed site (refer Table 9), there is little warning time to implement evacuation off-site. As evident in Figure 22, there is no way in or out of the site that does not go through hazardous waters during the critical duration PMF event. NSW SES state that evacuation of a site must not require people to drive or walk through flood water. It is therefore recommended that the site is prepared for a shelter-in-place strategy.
3. Does the development include medical centres, emergency service and community facilities, and sensitive and hazardous land uses, some of which may not be suitable for shelter in place?	N/A
4. Shelter in place for greenfield development is not supported	N/A
5. Whether there is existing government developed flood warning systems that give advanced detailed forecasts of flash flooding to allow sufficient time to evacuate to the proposed refuge locations[2] [2] Flash flood warning systems are not failsafe and should not be the only mechanism to get people to shelter in place.	There is less than five minutes from the onset of the 15-minute PMF storm until H5 inundation of the Bathurst Street access point. While there are flood warnings issued by the Bureau of Meteorology and the Australian Warning System, the flash nature of flooding at the site (and the inherently limited warning time associated with this type of flooding) limits the capacity of NSW SES to issue flood notifications and action statements with sufficient lead time. Warnings from the Australian Warning System (AWS) (including severe storm warnings and thunderstorm warnings) may not be available or occur with advanced warning.
6. Can the community effectively be informed of the risks associated with the emergency management strategy?	A PA system should be considered whereby site users can be quickly informed of any shelter-in-place procedures. Contact details for guests of the hotel should also be used to send email and SMS notifications.
Following satisfaction of the above, the following must be assessed:	
7. Detailed assessment of evacuation off-site (the primary emergency management strategy) to determine that evacuation off-site is not achievable	With less than five minutes from the onset of the 15-minute PMF storm until inundation of the adjoining roads for the proposed site (refer Table 9), there is little warning time to implement evacuation off-site. As evident in Figure 22, there is no way in or out of the site that does not go through hazardous waters during the critical duration PMF event. NSW SES state that evacuation of a site must not require people to drive or walk through flood water. It is therefore recommended that the site is prepared for a shelter-in-place strategy.
8. The flood behaviour at the site, with consideration of climate change and assessment of the potential maximum duration of isolation up to and including the PMF to identify that:	Consideration of climate change has been made in Section 4 of this report. Duration of isolation in the PMF event has been assessed in Table 9. a) Section 3 of this FERP outlines the flood behaviour at the site, which is derived from flash flooding only.

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a) flash flooding is the only flood risk present at the site, whether it be from overland flooding, local creek or riverine flooding, and b) the flooding occurs within less than 6 hours from the commencement of causative rain and the duration of shelter in place due to isolation by floodwaters is less than 12 hours from the commencement of rainfall, and c) the development is not subject to high hazard flooding (e.g. floodways, high hazard H5 or H6 areas) or surrounding roadways are not subject to high hazard flooding.[3] [3] Flood Risk Management Guideline FB03 Flood Hazard, DCCEEW, 2023.	b) There is less than five minutes from the onset of the 15-minute PMF storm until inundation of Bathurst St, the only vehicular access point for the site. The duration of flooding on the roads is short due to the flash nature of flooding in the area, although ponding within the site persists due to the solid boundary wall to the west of Day Street which prevents overland flow escaping this area. The basement entry to the site is isolated for approximately 4 hours 30 minutes in the 6-hour PMF storm event, while the lobby entrance is isolated for a maximum duration of 35 minutes in the 15-minute PMF event. c) Bathurst Street to the south of the site is impacted by H5 hazard in the critical 15-minute PMF event. Despite this, it is deemed more hazardous to attempt to evacuate the site once a severe storm event has already commenced, as this would involve moving vulnerable site users from safe refuge into roads of high hazard.
9. How shelter in place will be: a) used as part of the site's emergency management response, including actions before, during and after sheltering in place, and b) communicated to occupants and visitors of the building and how this communication will be maintained for the life of the development.	a) Section 7.7 of this FERP outlines how SIP will be implemented at the site, including actions before, during and after. b) Section 7.6 outlines how this will be communicated to the site users and how this will be maintained.
10. a) An understanding of the secondary risks and how the proponent proposes they will be managed is outlined in the FIRA. Secondary risks include medical emergencies, building fire, health and wellbeing. b) Table 12 of EM01 should be used to consider whether the risks could be effectively managed.	a) Secondary emergencies are considered in Section 7.3.1. b) Table 12 of the EM01 notes that a risk management consideration is limiting exposure of people to floodwaters. The EM01 document suggests that this can be aided by providing sufficient readily accessible habitable areas above the PMF to cater for potential occupants, clients, and visitors. With 21 levels, there is adequate space across the Park Royal Hotel in which site users can shelter, making the site safe for refuge. Table 12 of the EM01 also notes that to reduce human behaviour risks, "*Where facilities, such as businesses, schools and childcare centres have site emergency plans that consider flooding these plans should by regularly exercised similar to building fire evacuation drills.*" Table 12 also states "*Consider developing a PA system to communicate evacuation directions and safety messages to the population in the lead-up to and during a flood to assist in improving the safety of the community*."

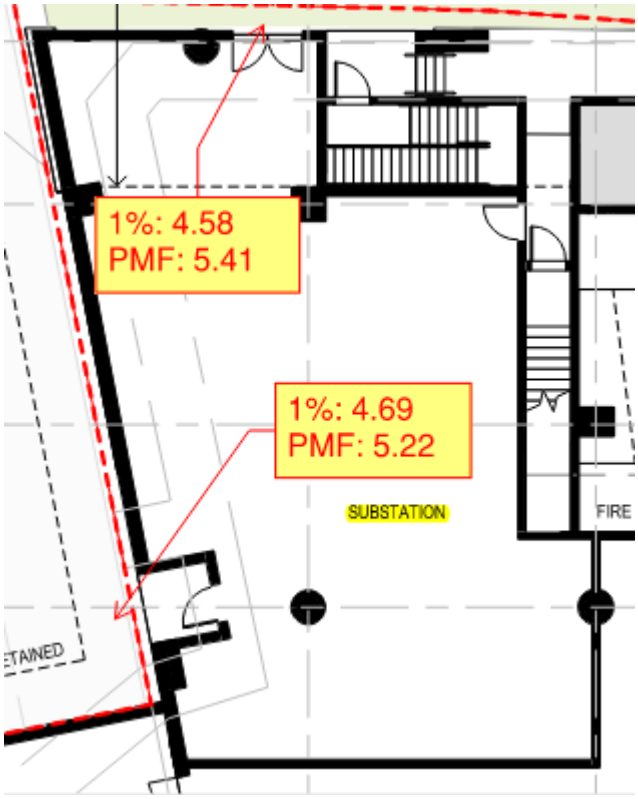
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Design criteria for consideration	
i. the floor level of the shelter in place part of the development be above the PMF, and	Guests of the hotels will be able to shelter in their rooms, which are located on Level 3 and above, elevated well above the PMF. Flood gates are proposed to prevent above-floor inundation of the site at the ground floor, with considerable shared space for staff and visitors without hotel rooms to safely shelter in.
ii. structural soundness for conditions in a PMF event, considering flood and debris forces, be verified by a suitably qualified structural engineer, and	A structural engineers report is required to verify that buildings are designed with flood compatible building materials for conditions in a PMF event.
iii. area and access to the area does not rely on access to electricity, is self-directing, and have clearly marked internal access for all people on site, including consideration of access for potential occupants and/or visitors	Access and clearly marked internal access will be achieved.
iv. protection from weather and appropriate heating and cooling	As a site offering hotel facilities, this will be achieved.
v. access to personal hygiene facilities such as a toilet	As a site offering hotel facilities, this will be achieved.
vi. a minimum floor space of 2 m² per person	Overall, the site will provide refuge space well over 2sqm per person with various communal spaces across the site for refuge, including function rooms and dining areas. The proposed development has 529 hotel keys for prospective guests. In a shelter-in-place protocol, all guests should be directed to their hotel rooms. There is to be 360 staff members, although this is distributed per shift (i.e. only 180 staff members per shift). The proposed development has over 2500m² of shared communal space for shelter, leaving capacity for more than 1250 people (staff and any temporary site visitors) to shelter.

Communal spaces to shelter

Level	Name	Area (m^2)	
L00	F&B CAFE / BAR KITCHEN	483	
L01	ALL DAY DINING	450	
L01	STAFF DINING	145	
L02	BALLROOM	508	
L02	BALLROOM	25	
L02	BALLROOM / FUNCTION ROOM LOBBY	218	
L02	FUNCTION ROOMS	270	
L11	GYM	94	
L18	BAR / RESIDENT LOUNGE	126	
L18	CLUB LOUNGE	203	
	total:	2522	m^2
	capacity to shelter ($2m^2$ per person):	1261	people

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		Therefore, the proposed development has more than enough communal space for staff and visitors without a hotel room to shelter in. There is also a restaurant (leased space) proposed on Level 21 with a GFA of 885 m². This has a capacity for approximately 442 people to shelter.
vii.	items for self-sufficiency that are stored, maintained and are regularly updated in an accessible location above the PMF, including sufficient drinking water and food for occupants, fire extinguishers, radios and torches with spare batteries, and a first aid kit with an automated external defibrillator (AED)	Section 7.6.3 outlines this recommendation. A Flood Emergency Kit should be prepared and regularly checked to ensure that supplies are sufficient and in working condition, alongside items for self-sufficiency. This Emergency Kit should be stored in a waterproof container – for the site, this may be in the B.O.H lobbies.
viii.	centralised communal shelters may be considered but must be freely accessible internally at all times and externally accessible during events	This won't be required. There will also be communal spaces available to refuge including function rooms, and dining areas etc in addition to the residents' hotel rooms.
ix.	access is provided to onsite systems that generate power of the shelter in place location during and after the event for a full range of flood events up to the PMF	The substation is to be located inside the building on the ground floor level at the northwest. With a proposed SSL of 5.420, the room is set above the maximum adjacent PMF level at this location (5.41m AHD), as indicated below. The onsite systems generating power is therefore protected beyond the PMF event. 
x.	detail how these requirements will be maintained and enforced for the life of the development.	Flood Emergency Response Plans are 'living documents' which need to be regularly reviewed once the site is operational to ensure they remain appropriate to address

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	the risk to the site, can be practically implemented, and consider changing information and lessons learnt from any floods since the last review. It is recommended that the FERP is reviewed following staff changes, flood drills as well as flood events to ensure that the details remain relevant.

During shelter-in-place protocols, all site users must be directed to evacuate the basement levels. Although the basement is protected to the PMF by flood gates, remaining below ground level during a major flood event is considered hazardous, and access to the basement must therefore be restricted. Figure 23 shows the locations of the stairwells that any basement occupants must use to internally evacuate. Accessible egress for mobility-impaired users is available via the central and northern stairwells.

Site users must then return to their individual hotel rooms if they are a guest or proceed to one of the shared communal areas identified in Table 11 (shared dining areas, ballrooms, function rooms, gym, lounge rooms, etc). The Site Manager is responsible for ensuring the basement is cleared, and that remaining site users are safely directed to the designated refuge areas.

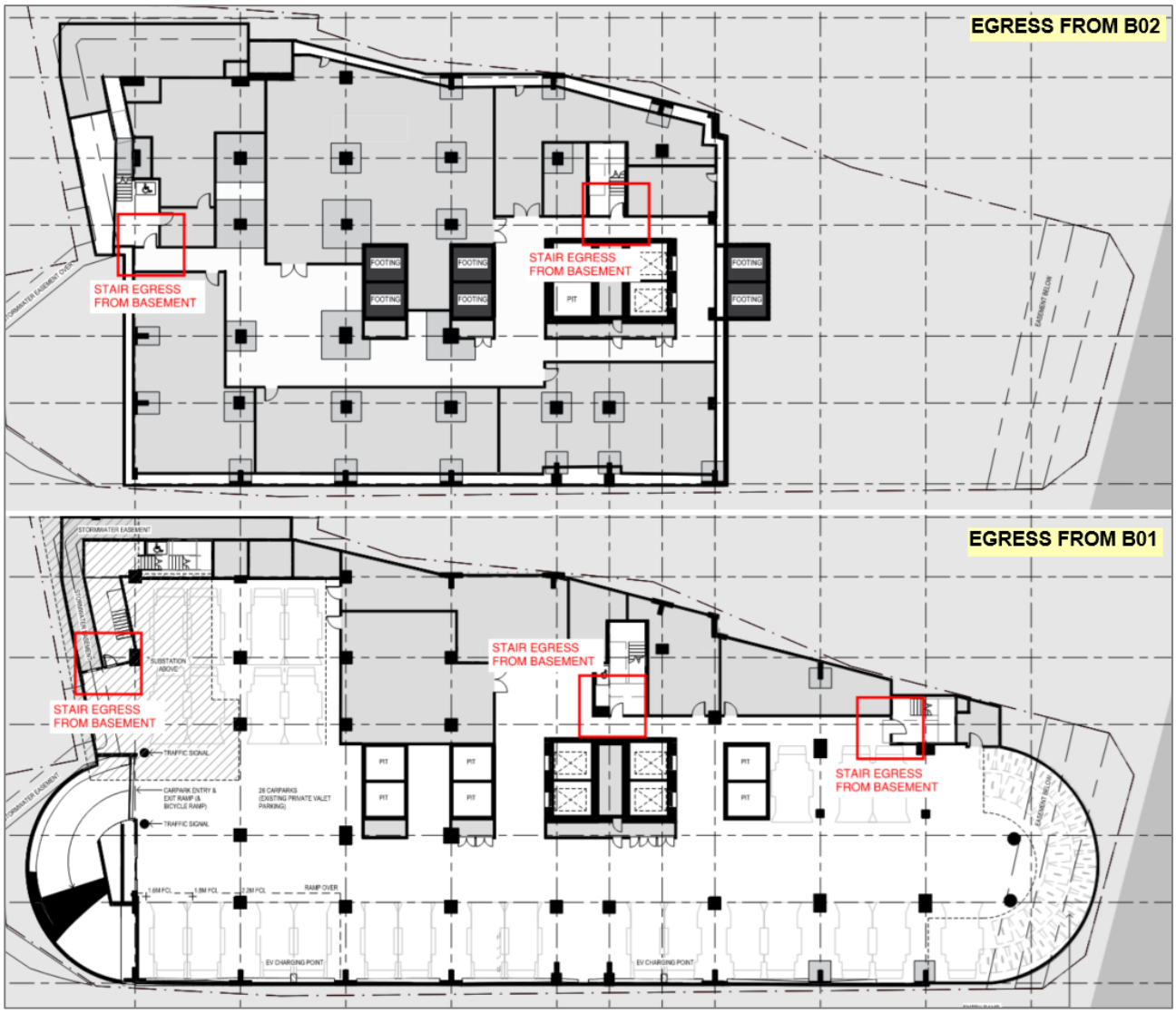


Figure 23: Internal evacuation route for any basement occupants during a shelter-in-place protocol

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Table 11: Communal spaces available for refuge of site visitors without guest rooms/staff

Level	Room Description	Area (m²)
L00	F&B Cafe / Bar Kitchen	483
L01	All Day Dining	450
L01	Staff Dining	145
L02	Ballroom	508
L02	Ballroom	25
L02	Ballroom / Function Room Lobby	218
L02	Function Rooms	270
L11	Gym	94
L18	Bar / Resident Lounge	126
L18	Club Lounge	203

Guests of the leased restaurant on Level 21 should remain within the restaurant dining area and be advised not to leave the premises until it is announced that the SIP protocol is complete.

7.3.1 Secondary Emergency

Although shelter-in-place is the emergency response strategy if a severe flash flood event begins without sufficient warning, any decision to shelter-in-place must be accompanied by alternative plans in the event of a secondary emergency (e.g. medical or fire).

The following items should be considered to ensure sufficient preparedness in the event of a secondary emergency:

FIRE:

- Ensure adequate access to fire extinguishers and internal fire suppression systems (e.g. sprinklers).
- Check that they are not reliant on mains pressure that may fail.

MEDICAL:

- Designate trained personnel and maintain a flood-resilient first aid station with supplies sufficient for prolonged isolation.
- Nominate a safe, elevated, easily accessible area for care of injured or ill persons until external assistance can arrive.
- Consider evacuation aids including stretchers, wheelchairs, or other aids for internal transfer if

POWER:

- Install and maintain flood-resilient generators or battery systems for critical power (lighting, communications, medical equipment)

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7.4 Flood Warnings and Notifications

7.4.1 Bureau of Meteorology

Severe weather and thunderstorm warnings are issued by the Bureau of Meteorology (BoM). These warnings are continually updated with descriptions of the likely conditions, including predicted severe rainfall. Flood warnings are issued by the BoM when flooding is occurring or is expected to occur in an area however this is for mainstream flooding and would not cover the flash flooding at this site. These warnings are distributed by BoM to government, emergency services and the community, including local SES, and are available on the BoM website.

- A ***Severe Weather Warning*** is issued by the BoM when severe weather is occurring or expected to develop, that is the direct consequence of a thunderstorm. For broad severe weather such as east coast lows or vigorous cold fronts, Severe Weather Warnings are aimed to be issued 24-36 hours ahead of the expected onset. This warning time may be reduced particularly for more localised severe weather. Once a severe weather warning is issued it is routinely updated every six hours until the threat has passed but may be updated more frequently for rapidly evolving situations.

- *A* ***Severe Thunderstorm Warning*** is issued by the BoM whenever there is sufficient meteorological evidence to suggest that severe thunderstorm development is likely, or when a severe thunderstorm has been directly reported or observed. Regional warnings are provided for one or more forecast areas and aim to give 3 hours warning before thunderstorms develop. Detailed thunderstorm warnings are provided for capital cities (including this site) and aim to give 60 minutes warning before severe thunderstorms develop. Warnings are updated routinely every 30-60 minutes until the threat has passed or more frequently if required.

7.4.2 NSW SES Australian Warning System

NSW SES has recently implemented the Australian Warning System (AWS) which replaces their previous evacuation orders and warnings system. The AWS is a new national approach to information and 'Calls to Actions' for hazards including storms and flooding. The system uses a nationally consistent set of icons, with three warning levels: Advice, Watch and Act, and Emergency Warning. The storm warnings are described in Figure 24.



Figure 24: Australian Warning System - Three Warning Levels

The NSW SES utilises a range of sources to build detailed flood intelligence within local communities, including information from flood studies and historical flood data. As part of the transition to the Australian Warning System, the NSW SES has increased flexibility to tailor warnings at the community level, based on the expected consequences of severe weather events.

The Site Manager is responsible for monitoring information from the AWS. The NSW SES has also developed an all-hazards warning platform, Hazard Watch, to provide an additional channel for communities to access important warning information.

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Each warning has three components:

1) **Location and hazard**: The location and the type of hazard impacting the community.
2) **Action statement**: For each warning level there are a range of action statements to guide protective action by the community. These statements evolve as the warning levels increase in severity. Statements range from 'prepare now' and 'monitor conditions' at the Advice level, to 'stay indoors' at the Watch and Act level, to 'seek shelter now' in the Emergency Warning level. As the situation changes and the threat is reduced, the level of warning will decrease accordingly.
3) **The warning level**: The severity of the natural hazard event based on the consequence to the community.

As the site is affected by flash flooding, little to no warning time is likely to be available, with Severe Storm Warnings and Severe Thunderstorm Warnings likely to be the only warnings available.

It is also important to acknowledge that neither the NSW SES nor the Bureau of Meteorology can provide special individual flood warning services for each affected property or business. The more specific the warning requirement for individuals and sites becomes, the more difficult it is for the NSW SES to deliver warnings in the short time frames that often apply. Hotel operators must be weather aware and act early on publicly broadcast severe weather and thunderstorm warnings.

7.4.3 Triggers

The nature of flash flooding at the site (and the inherently limited warning time) limits the capacity of NSW SES to issue flood notifications and action statements with sufficient lead time. It is important to note that the warnings outlined above may not be available or occur with advanced warning.

To ensure adequate response time, alternative triggers should be monitored including BOM Severe Weather and Thunderstorm Warnings, media updates via local radio stations and social media. While the Site Manager is responsible for monitoring information from the BOM website and AWS, NSW SES recommend that all site users (namely, all staff members and wardens) refer to the HazardWatch website and the Hazards Near Me app.

The commencement of a shelter-in-place protocol is triggered by the activation of the flood gates, which will only activate in rare events greater than the 1% AEP. The flood gates can include an audio and visual warning which will alert site management of the flood hazard presented to the site and to begin SIP protocols. SIP protocols should also be triggered in the event of an NSW SES red 'EMERGENCY' warning, or where significant ponding is observed in the forecourt area.

7.4.4 Emergency Signals

The site should have a Public Announcement (PA) system that can be used by the Site Manager to inform all staff and site users of the shelter-in-place response strategy in the event of a flood emergency. This ensures that staff with key responsibilities in the Plan can begin to fulfil their duties without delay.

A PA system (or similar) should be used alongside SMS and email updates to staff and site visitors to inform them of any severe weather or flood warnings covering the site.

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7.5 Flood Response Team

7.5.1 Staff Responsibilities

In the event of a severe flood, various staff members will be responsible for specific tasks as detailed in Table 12. Before the site is in operation, these roles must be delegated to specific staff members.

Table 12: Staff Flood Responsibilities

Role	Responsibilities
Site Manager	- Monitor flood warnings and notifications from BoM and AWS - Monitor BoM weather in the area of the site - Inform staff of flood risk - Coordinate flood SIP drills - During a SIP protocol, ensure there are no site users within the basement. - Co-ordinate the movement of any site users without a guest room to the communal refuge spaces identified in Table 11.
First Aid Officer	- Coordinate assistance for less able staff members or visitors - Prepare a Flood Emergency Kit that includes a portable radio, torch, spare batteries, first aid materials, emergency contact numbers, candles, waterproof matches, waterproof bags and required medications
Staff	- Check visitor log so all site users can be accounted for - Report missing site visitors to Site Manager - Assist in co-ordinating the movement of site visitors to communal refuge spaces

7.5.2 Key Contact Details

In the event of a severe flood, key telephone numbers applicable to the site have been listed in Table 13 below.

Table 13: Key Contact Numbers

IMPORTANT TELEPHONE NUMBERS	
Site Manager	tba
Safety/First Aid Officer	tba
External Contacts	
Police/Ambulance (for life-threatening emergencies)	000
NSW State Emergency Services (SES)	132 500
Fire & Rescue NSW – City of Sydney Fire Station	02 9493 1001
Day Street Police Station	02 9265 6499
St Vincent's Hospital	02 8382 1111

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7.6 Preparation for Flood Response

7.6.1 Education and Signage

As part of flood event preparedness, all staff will be informed of the flood risks affecting the site and the flood response procedures (including their roles and responsibilities) through site briefings, training, and appropriate signage. Relevant information will also be communicated to visitors where necessary.

Implementation of the shelter-in-place strategy should encompass similar protocols within the hotel's broader Emergency Response Plan for other lockdown-type situations (i.e. security threats, civil disturbance, etc) where controlled-movement responses are necessitated. The proposed flood procedures build on these protocols while incorporating additional measures to address flood-specific risks, prolonged duration, and occupant welfare requirements.

Flood awareness and emergency response procedures will form part of the mandatory site induction that all staff must complete prior to commencing work. Refresher briefings and training should be undertaken periodically to ensure staff remain familiar with procedures and response expectations.

Given the site's nominated shelter-in-place response during flood events, staff education will specifically include training on the activation and implementation of this strategy. This will cover recognising when SIP protocols are to begin (i.e. following activation of flood barriers), directing occupants to designated refuge areas and managing building access and services during isolation. Training will also address guest welfare management during extended shelter periods, including assistance for vulnerable occupants and provision of essential supplies.

A copy of this Flood Emergency Response Plan (FERP), including emergency response procedures, will be made available in communal areas throughout the site and within the main administration office, so it is readily accessible during an emergency. This FERP must be reviewed regularly by the Site Manager, and additionally following any staff restructure, significant operational change, or flood event, to ensure it remains current, accurate, and effective.

7.6.2 Flood Drills

It is recommended that flood drills be held by staff annually to ensure all staff workers are familiar with the sound of the alert and their subsequent flood response actions. It is the responsibility of the Site Manager to ensure that evacuation drills are organised and that any issues with these drills are attended to, and if necessary, rerun.

These drills are required to test the suitability of the plan, identify gaps and to provide staff the opportunity to put into practice their specific responsibilities. If issues arise, this plan should be reviewed and updated. The Site Manager will also ensure that all site drills are recorded in an appropriate records book and any non-conformities reported and responded to.

7.6.3 Flood Emergency Kit

A Flood Emergency Kit should be prepared prior to a flood event taking place and regularly checked to ensure that supplies within the kit are sufficient and in working condition. This check could occur after the evacuation drill takes place to provide a regular schedule. The Kit should include (at a minimum):

- Radio with spare batteries;
- Torch with spare batteries;
- First aid kit and other medicines;
- Candles and waterproof matches;
- Waterproof bags;
- A copy of the Site Emergency Management Plan; and
- Emergency contact numbers.

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This Emergency Kit should be stored in a waterproof container, and it is the responsibility of the Site Manager and First Aid Officer to make sure that this kit is maintained and available during an emergency.

The NSW Shelter-in-place guideline recommends items for self-sufficiency that are stored, maintained and are regularly updated in an accessible location, including sufficient drinking water and food for occupants, fire extinguishers, radios and torches with spare batteries, and a first aid kit with an automated external defibrillator (AED).

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7.7 Flood Response Actions

The flood response actions are outlined in Table 14.

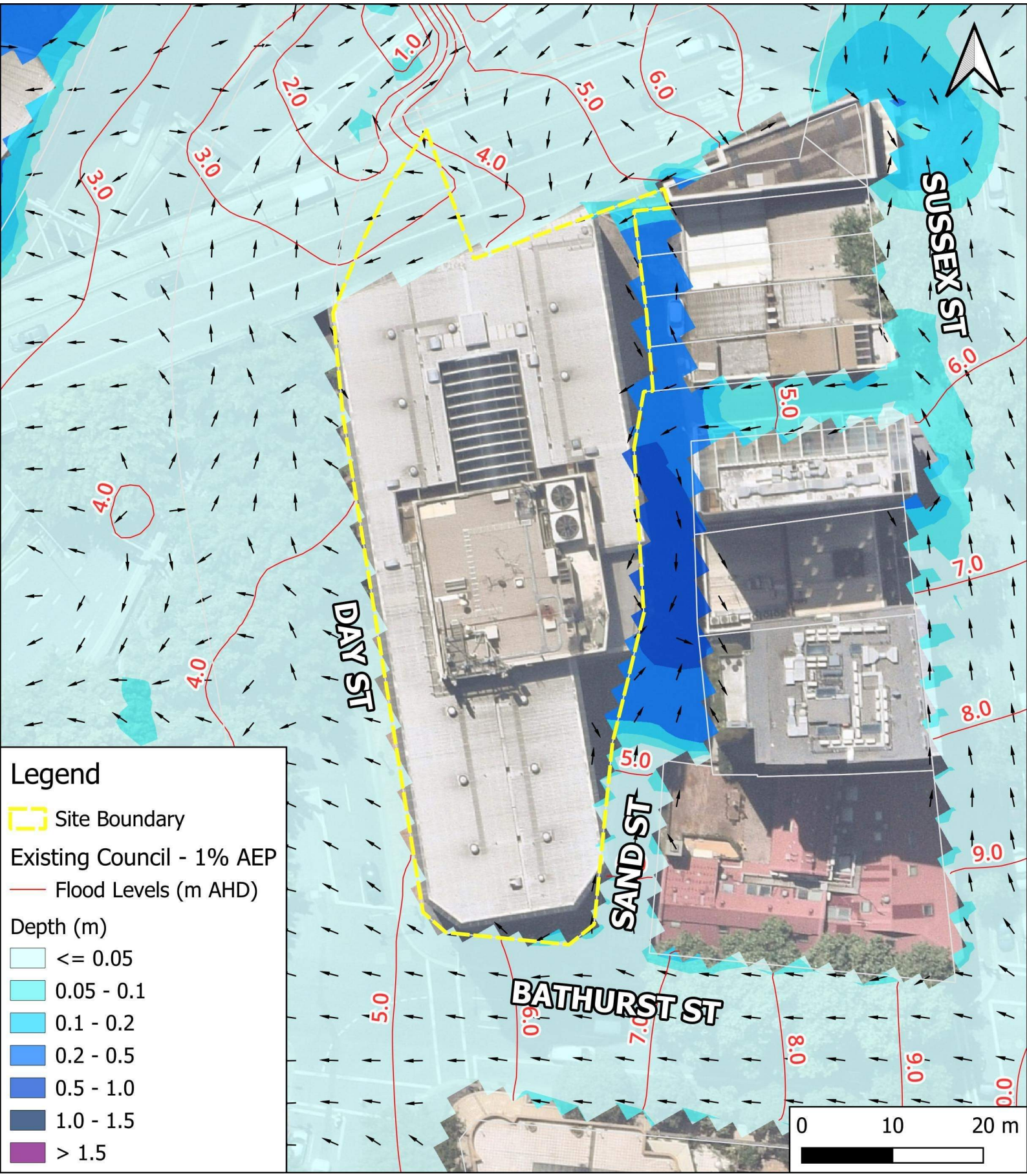
Table 14: Flood Response Actions

Flood Emergency Response Plan	
Flood Warning and Notification Procedures	**Evacuation and Refuge Protocols**
1) BoM issues a **SEVERE THUNDERSTORM WARNING** or NSW SES issue a yellow "**ADVICE**" warning or amber "**WATCH AND ACT"**  or Flash flooding is reported in the media / via visual observation	If the flood event is not anticipated to impact the site (either directly or indirectly), the **Site Manager** is to continue hourly check-ins and postpone high risk activities (e.g. unnecessary deliveries etc.). The following actions must be undertaken by the Site Manager: 1) Notify all staff and any anticipated site users of the flood watch via SMS and email and confirm availability of relevant staff to assist with emergency actions if required. 2) Ensure the emergency kit is ready to use. 3) Listen to the local radio station for updates on forecasted flood heights and timings. Monitor updates on social media and NSW SES platform Hazard Watch. 4) Ensure staff are familiar with their responsibilities.
2) Flood barriers are activated or NSW SES issue a red "**EMERGENCY**" warning 	If flood event is anticipated to impact the site, the **Site Manager** must undertake the following actions: • **For life-threatening emergencies phone 000 immediately.** • An alert and warning message should be broadcast over the PA system confirming a significant flood event, notifying all site users to begin **shelter-in-place** procedures. • All hotel guests should be directed to shelter within their rooms. • Any temporary site visitors (or guests not yet assigned a room) must be directed to refuge in the communal spaces designated for shelter (Table 11) • Site Manager to ensure there are no site users within the basement. Basement is to be cleared and access restricted. • Send SMS to staff and where possible, any anticipated site users, advising them of SIP strategy and asking them not to travel to site. • Staff must check any available registers to ensure site users are accounted for where possible. • The **Site Manager** is to follow any action statements provided via the AWS. **NOTE: Avoid driving or walking through floodwaters. These are the main causes of death during flooding.**
3) Visual observation shows flood is receding or the alert has been downgraded by the relevant authorities and any flood event that occurred has passed.	• The **Site Manager** is to confirm floodwater has subsided below the ground level and that there is no ponding within the site. • Flooded areas are to remain off limits until ponding has cleared. Site is to be inspected by the **Site Manager** if required. Once it has been confirmed that the water level has reduced to a suitable level, and if determined safe, the **Site Manager** may announce that site users no longer need to shelter-in-place.

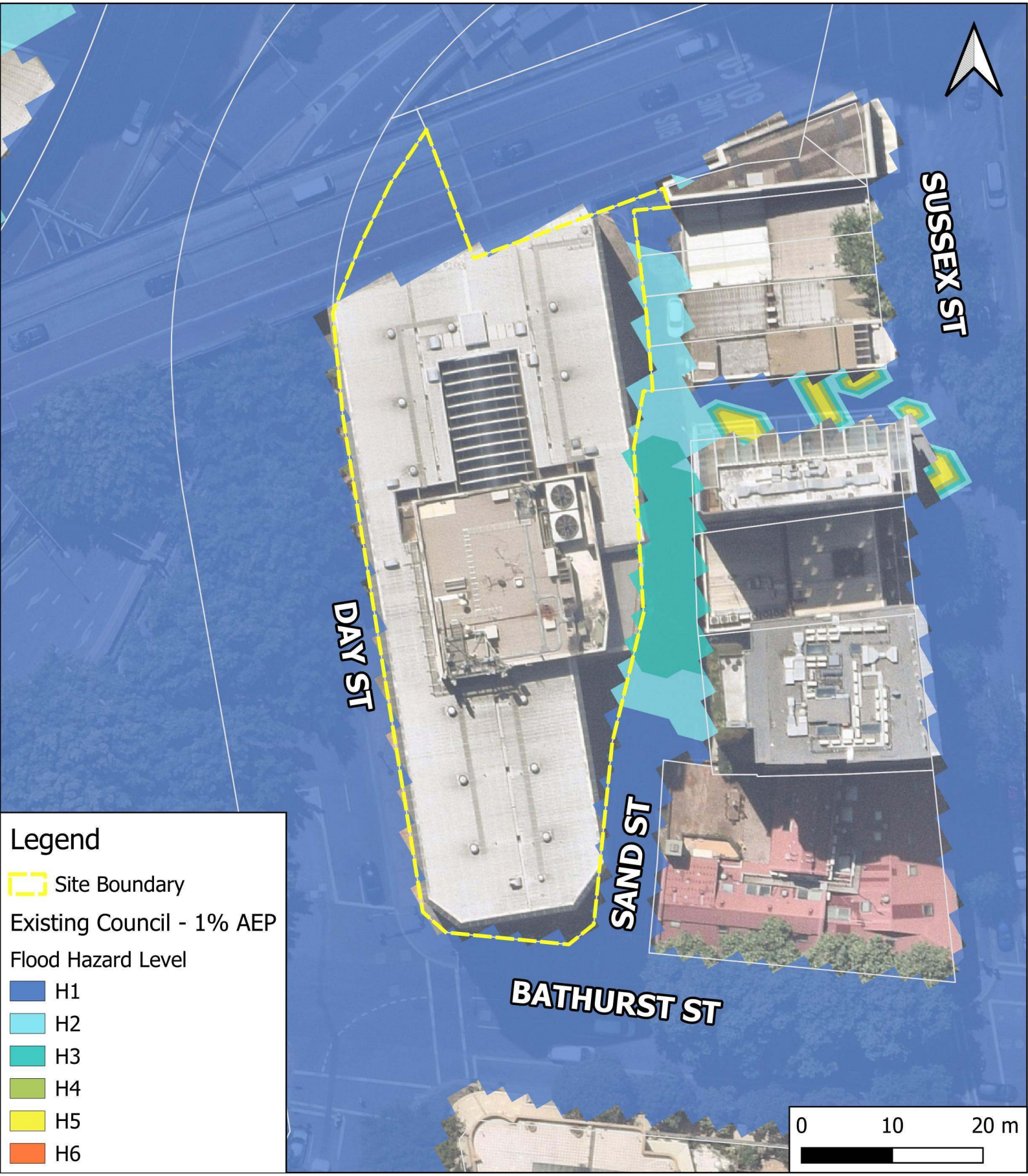
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Appendix 1
Flood Maps

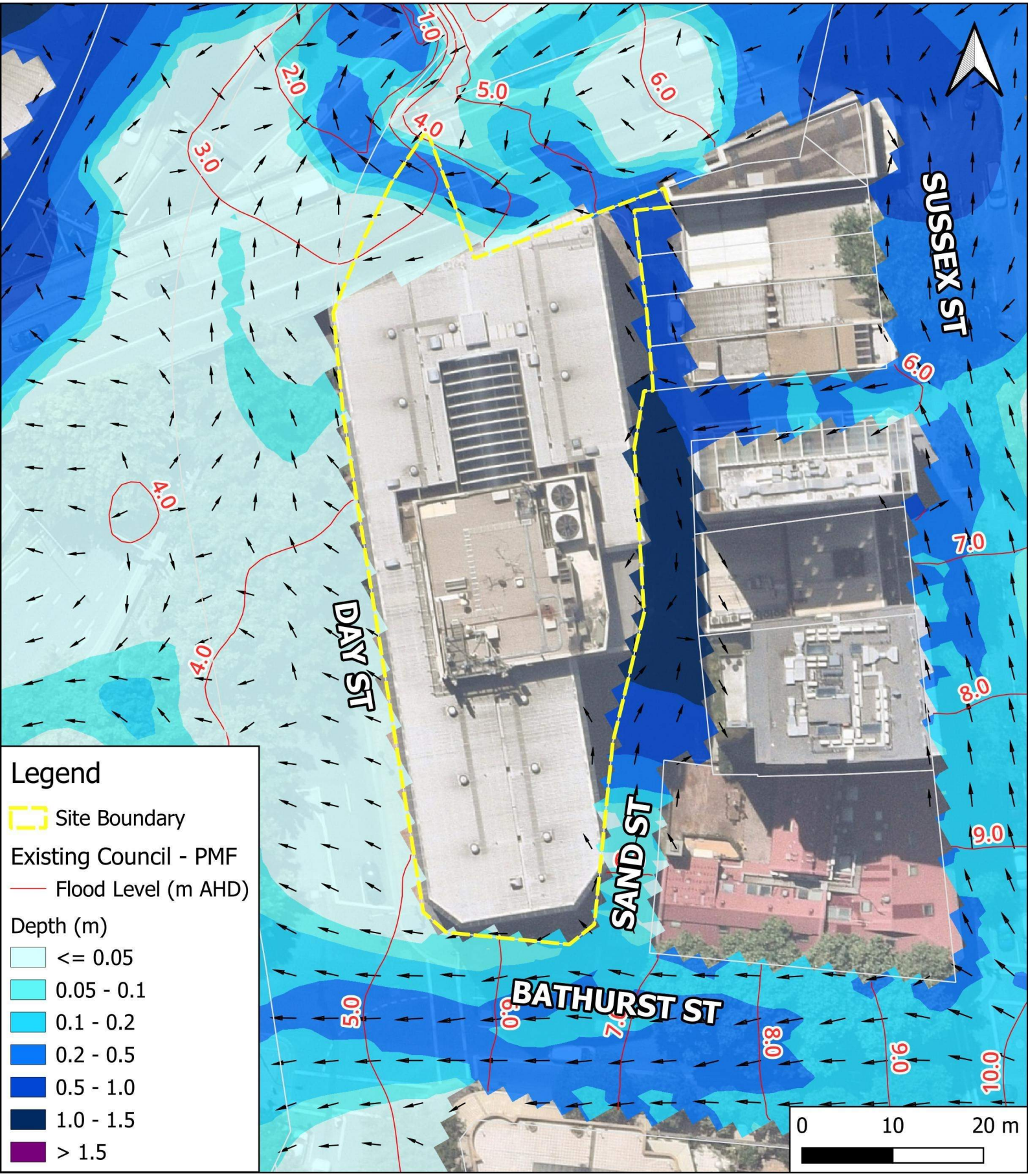
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Site Boundary
Existing Council - 1% AEP
Flood Levels (m AHD)
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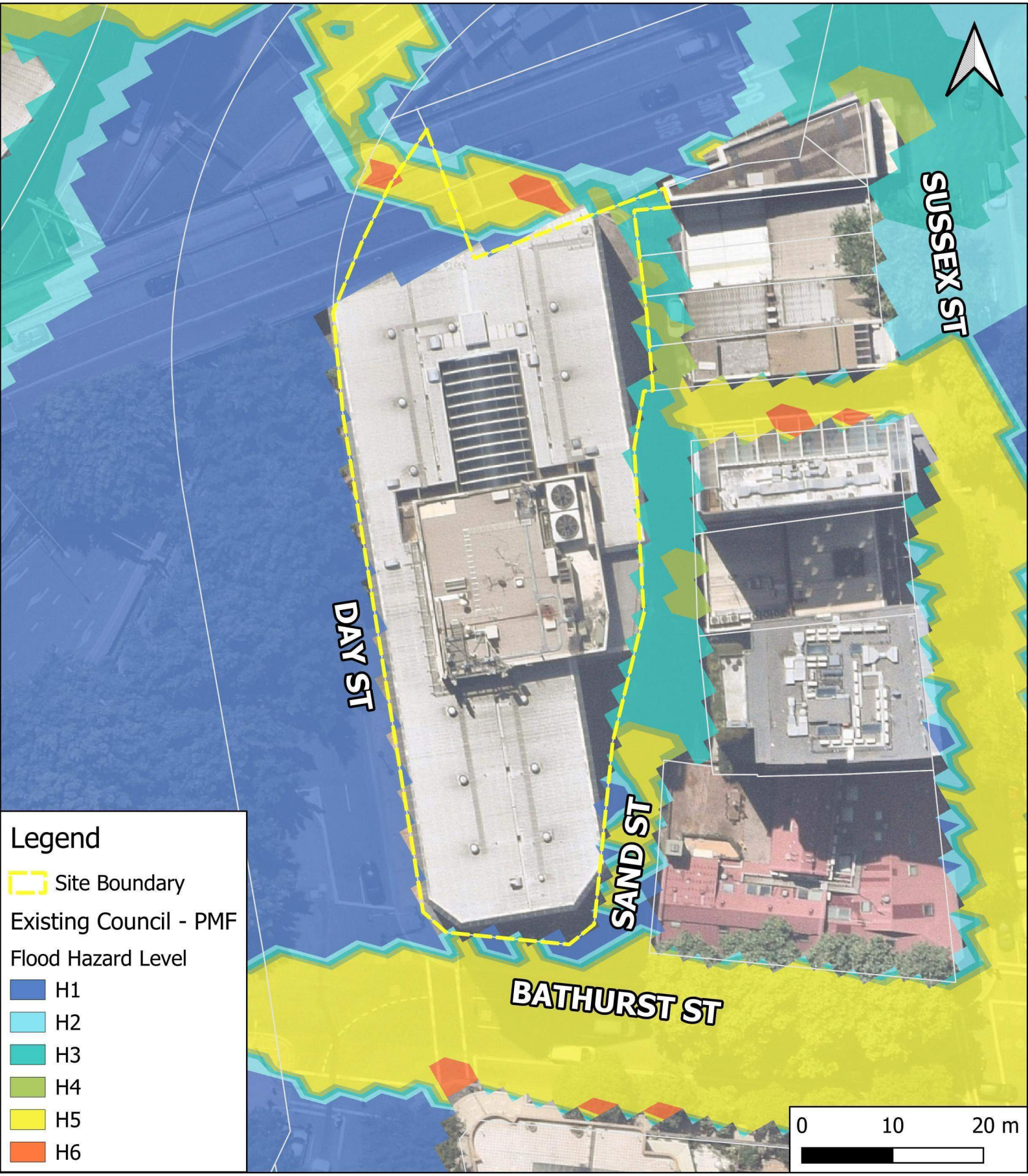
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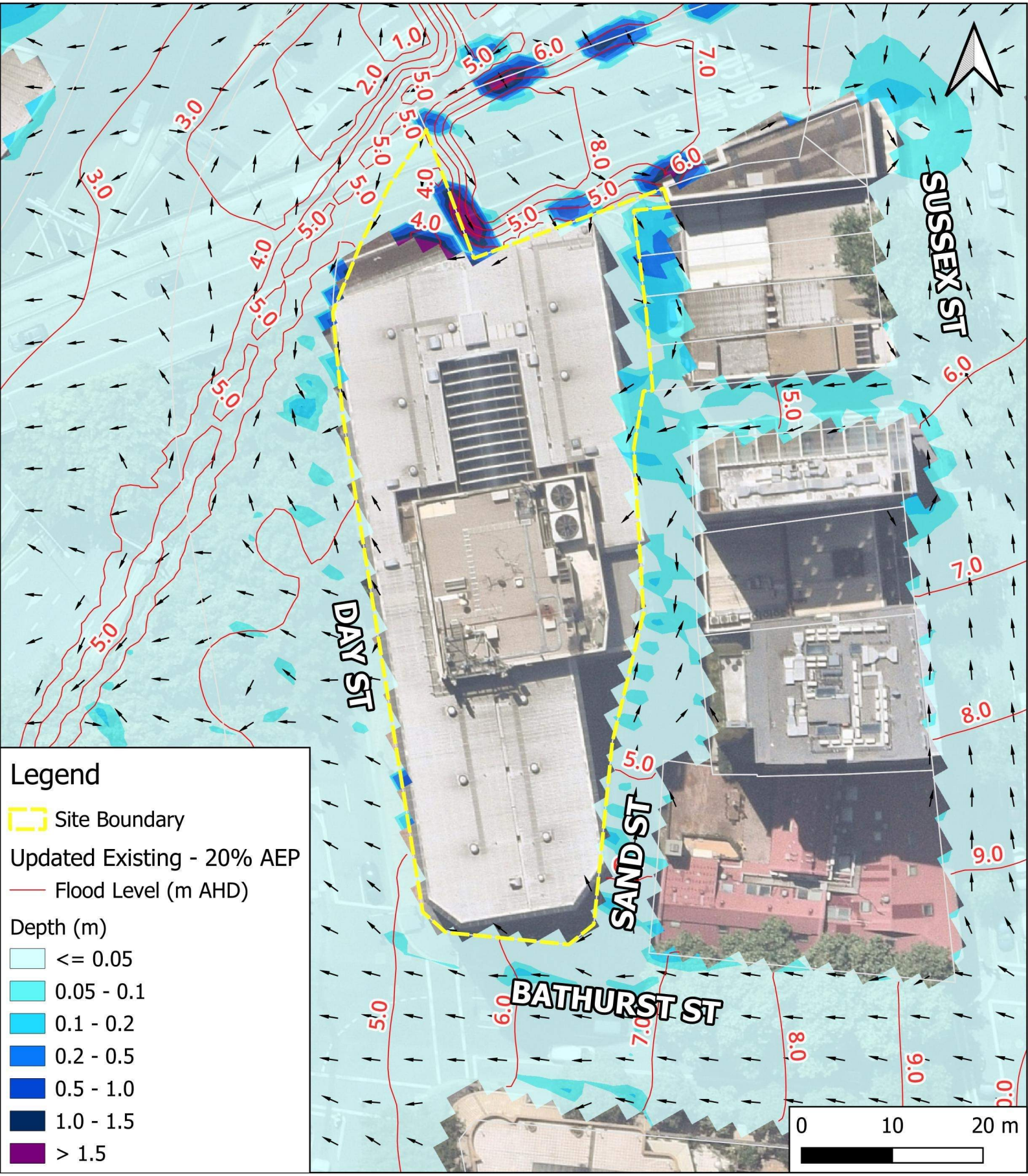
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Depth (m)
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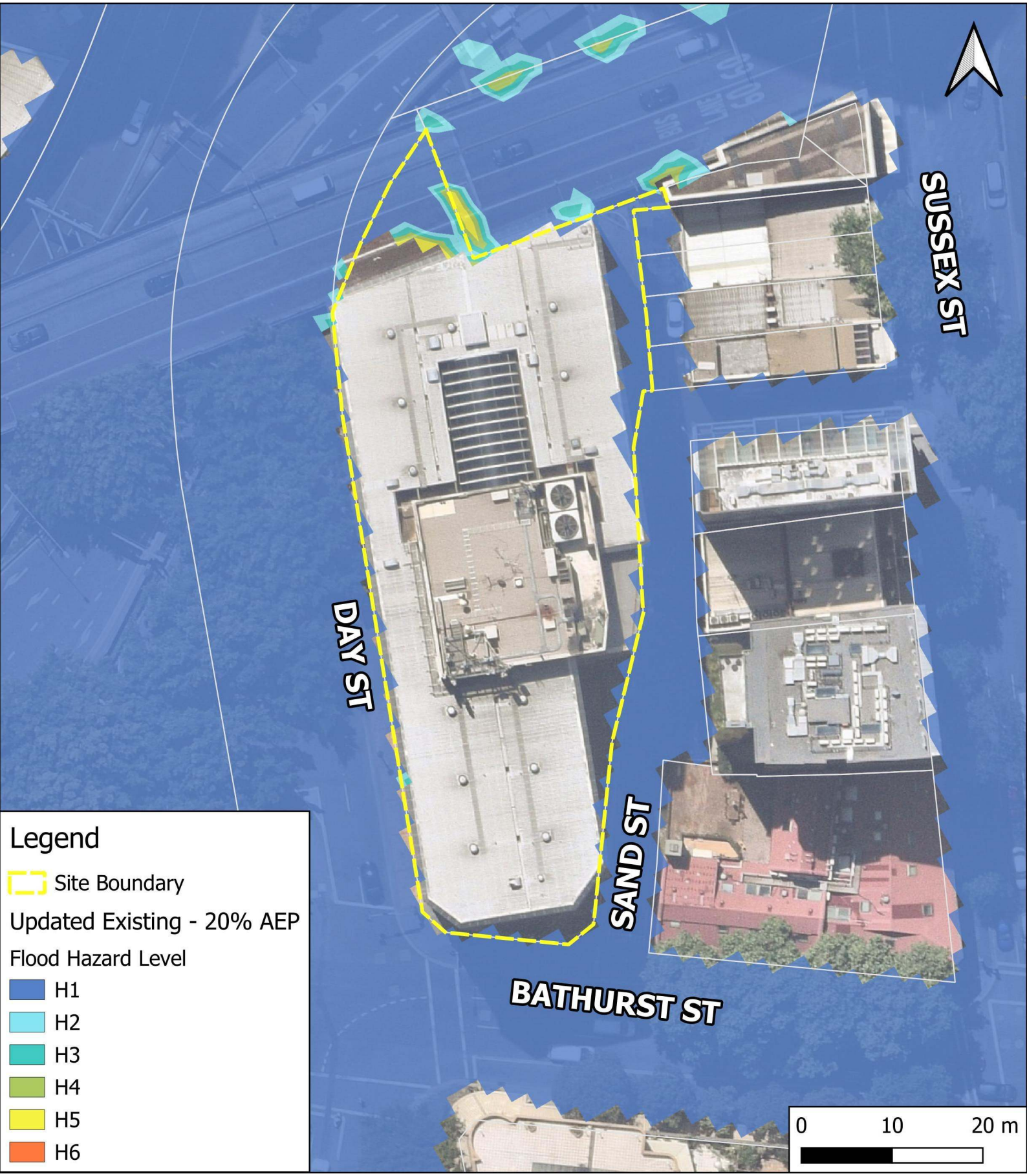
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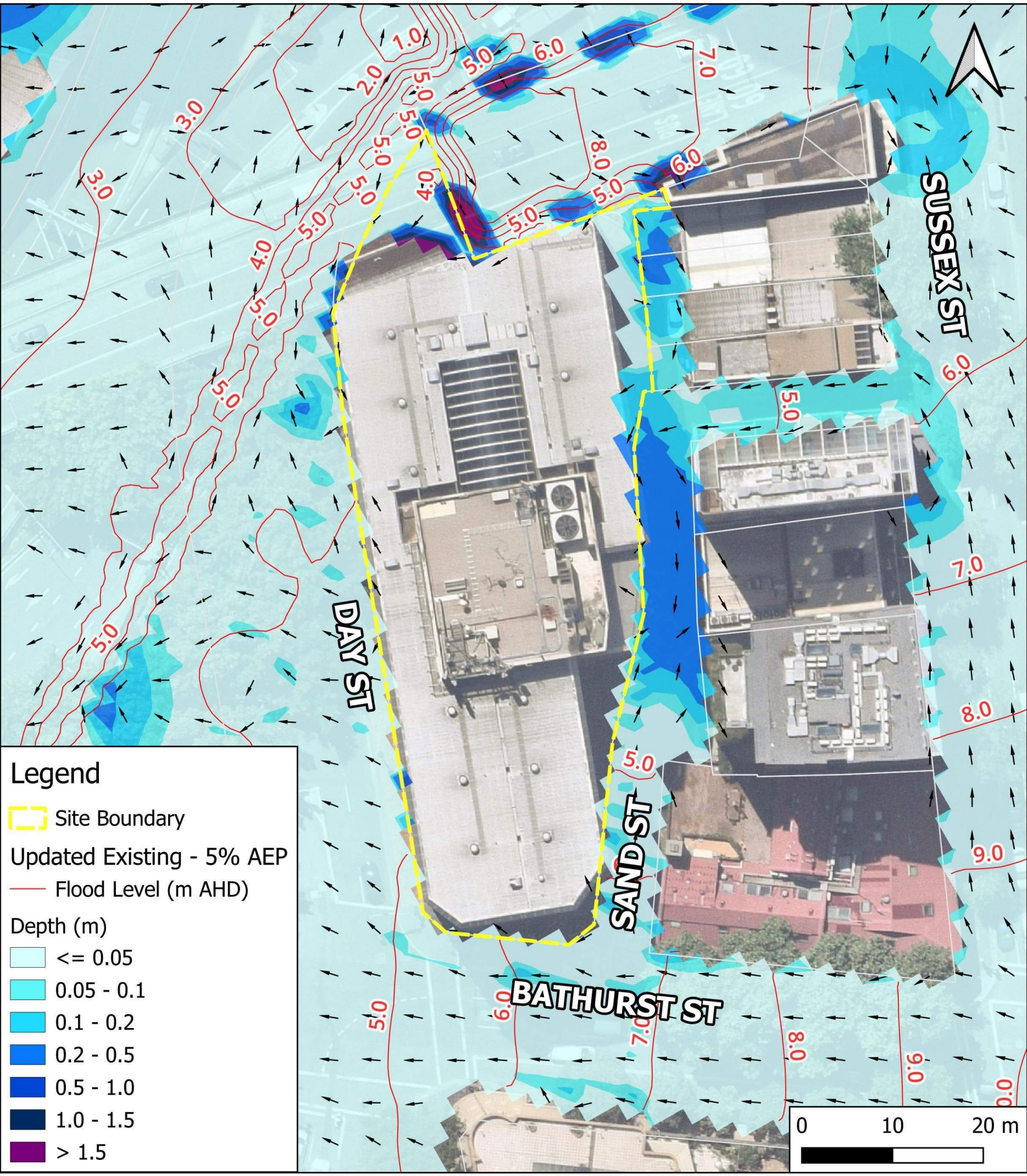
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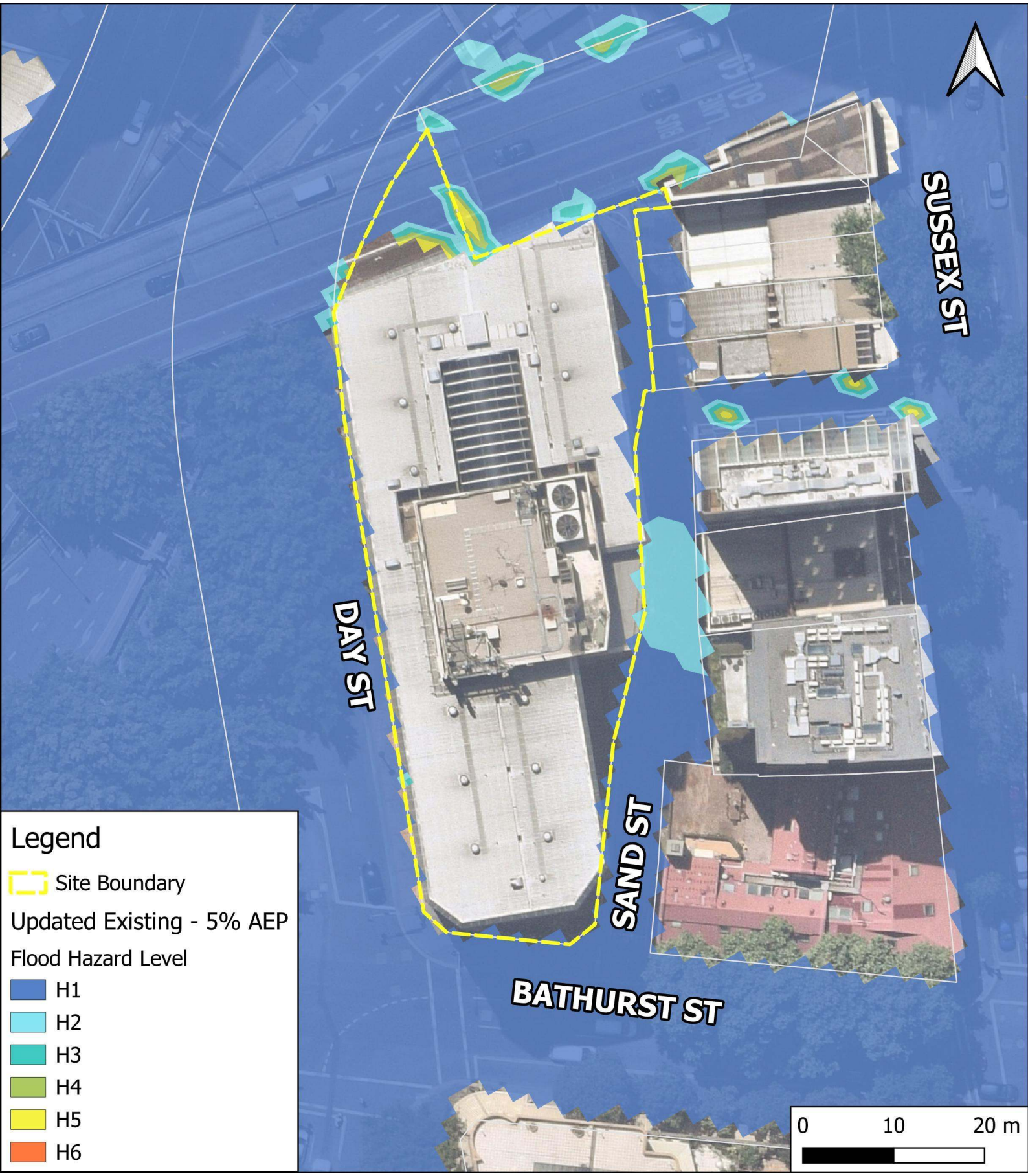
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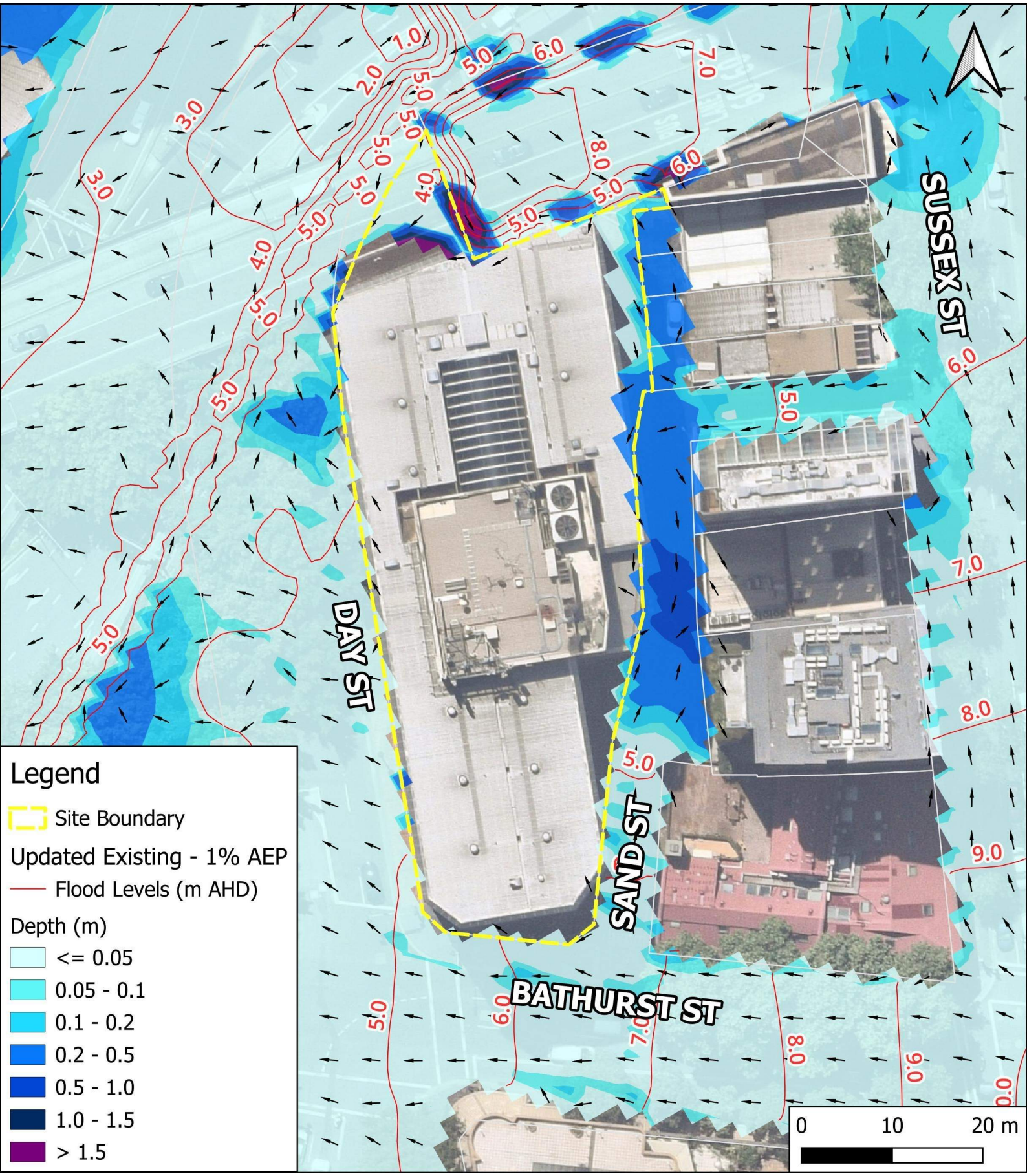
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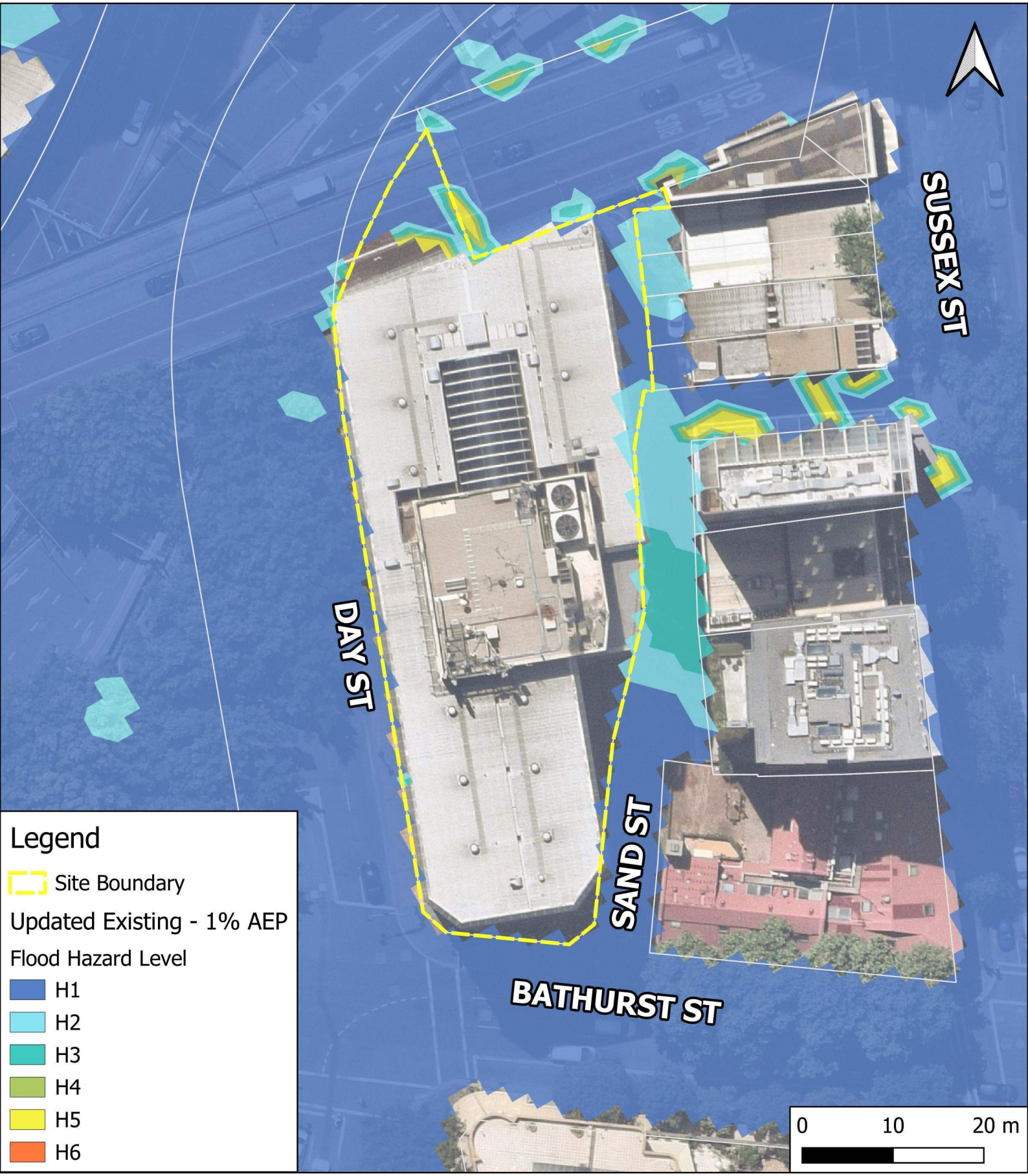
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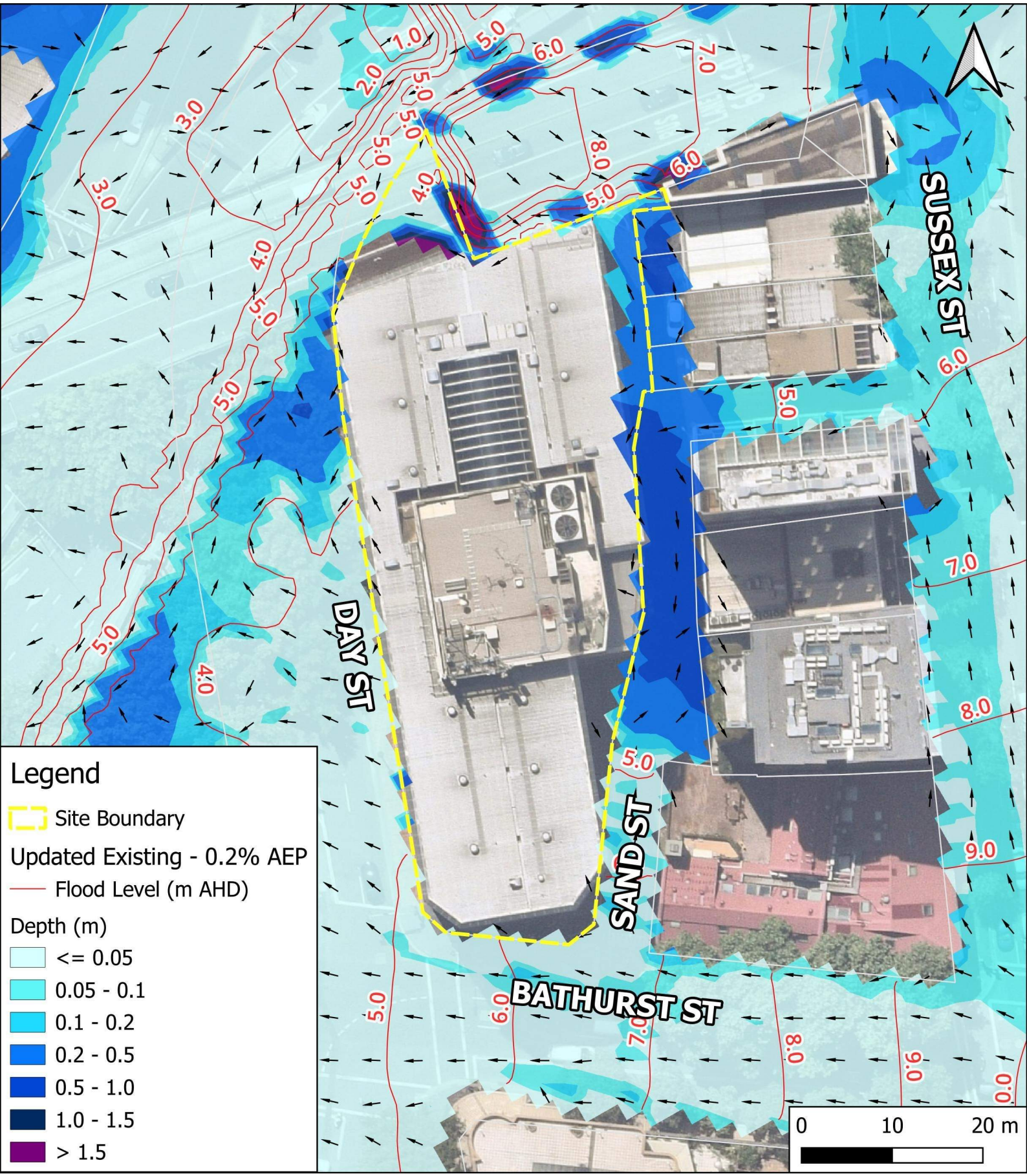
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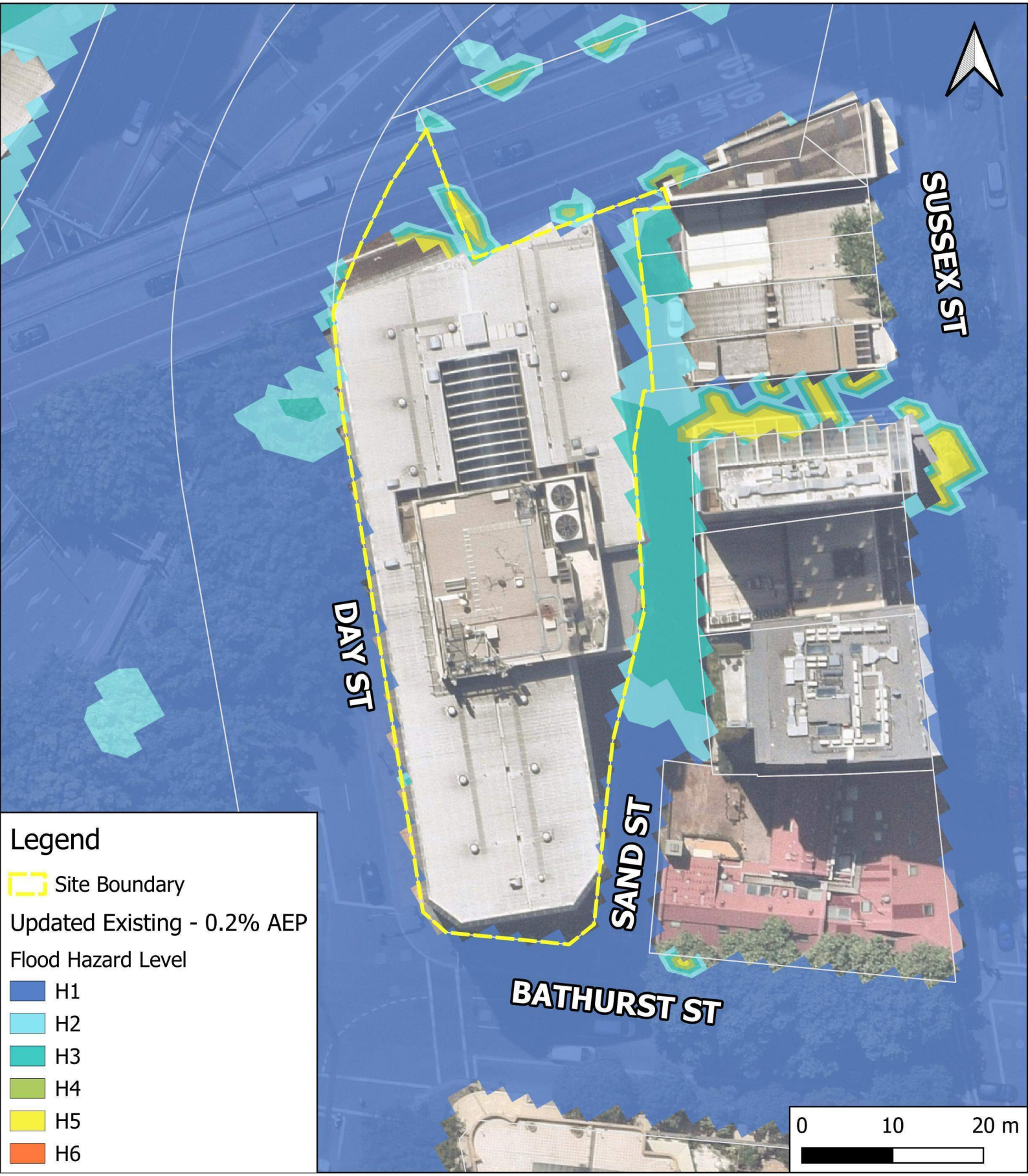
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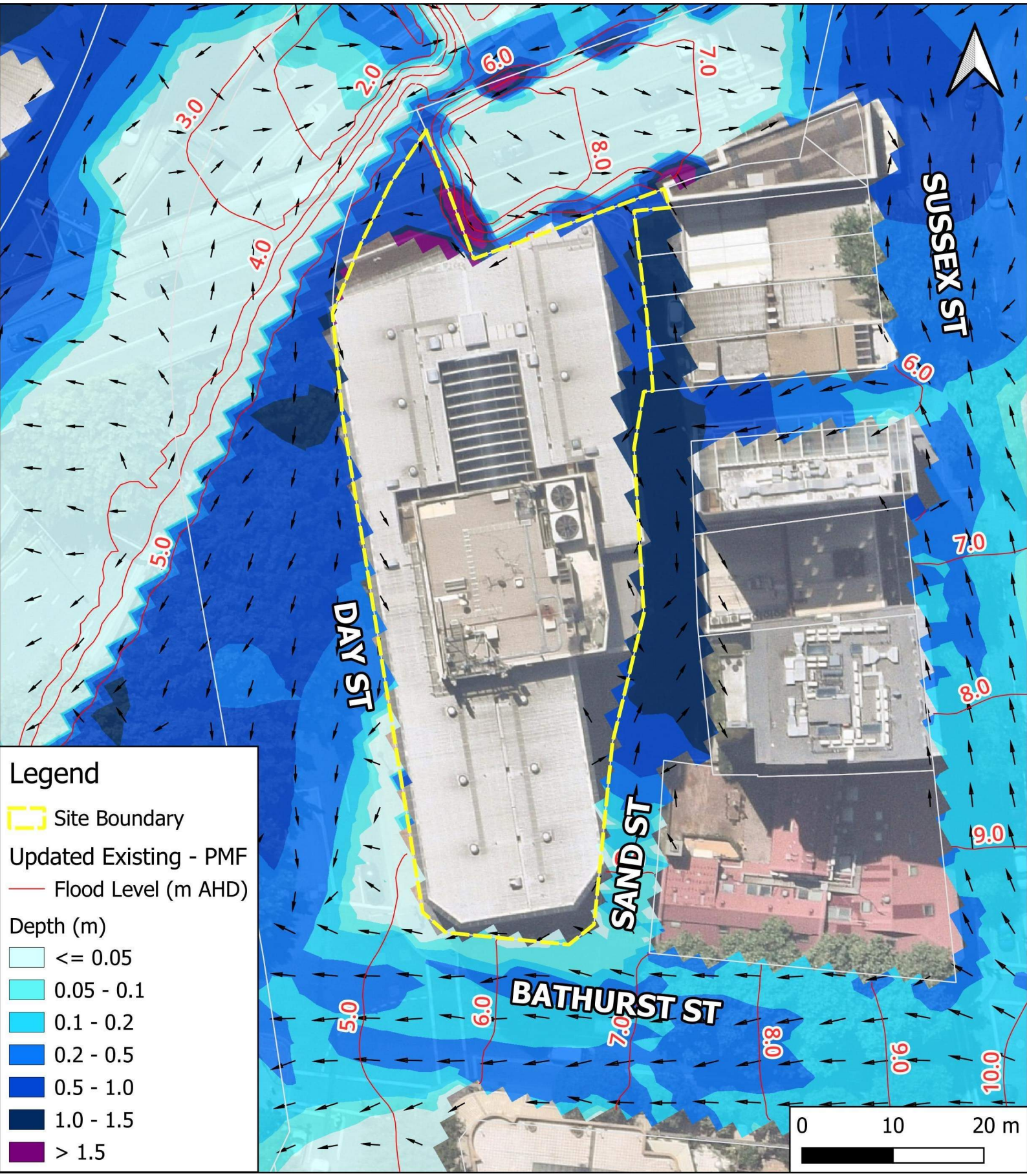
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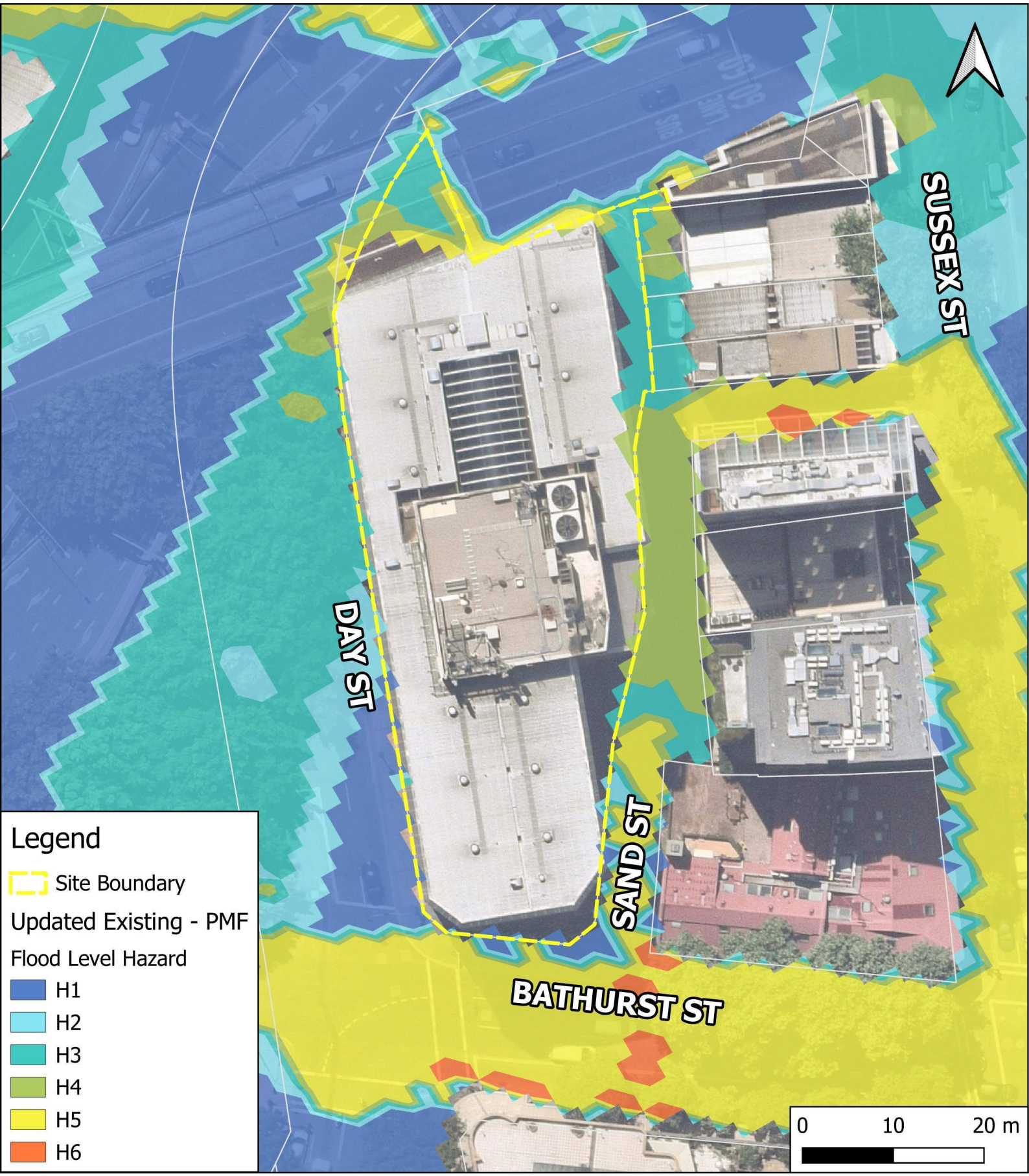
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Site Boundary
Updated Existing - 0.2% AEP
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Updated Existing - PMF
Flood Level Hazard
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Appendix 2
Constraints and Adaptive Reuse Statement

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Proposal for Adaptive Reuse development of a Flood-Affected Site at 150 Day Street, Sydney

Introduction

As Sydney continues to grow as a global city, the efficient use of scarce inner-urban land becomes increasingly critical. Flood-affected sites, when redeveloped intelligently, can make a significant contribution to the city's economic, social, and urban vitality. This proposal supports an increase in hotel room yield and loading capacity for a flood-affected site at 150 Day Street, advocating for increased density and active ground-level frontages. It demonstrates how resilient, adaptive, and future-facing design can enable sustainable urban development, even in challenging conditions. It is important to note that this proposal looks at co-locating two hotels at the one site, rather than hotels at two separate sites, thus enabling an overall reduction in densification impacts to the city (such as reduced loading and traffic impacts, reduced waste generation etc).

Justification for Increased Density

1. Strategic Land Use and Urban Optimization

The subject site is located in a high-value central area where underutilisation undermines Sydney's broader goals of compact, transit-oriented growth. Co-locating two hotel operations on this site achieves a more efficient land use model, significantly boosting the site's contribution to Sydney's tourism economy and urban vibrancy.
Increased hotel room yield delivers a more sustainable, inner-urban accommodation model, avoiding the emissions and sprawl associated with distributed development on the city's outskirts.

2. Efficient Logistics and Shared Infrastructure

The co-location of two hotels enables efficient back-of-house operations and enhanced loading capacity. Urban hotels typically generate substantial volumes of waste, linen, and food logistics. The proposal centralises these functions, reducing reliance on surrounding streets and easing congestion, which in turn enhances the public realm. Rather than duplicating logistics infrastructure across two separate sites, this approach streamlines servicing and minimises the cumulative urban impact of hotel-related operations.

3. Resilience Through Adaptive Design

Increased density does not necessarily imply increased risk. When underpinned by robust flood mitigation strategies, intensified land use can proceed safely. This building was constructed over 30 years ago, and thus the proposed refurbishment significantly upgrades its flood resilience. By embedding adaptability into the design, the development can thrive within its environmental context rather than retreating from it.

Urban Design: Active Frontages over Impenetrable Facades

1. Public Realm and Street Activation

Active frontages are essential to achieving high-quality urban design outcomes. They encourage street-level engagement, promote pedestrian safety through passive surveillance, and contribute to a lively, walkable environment. These characteristics align strongly with Sydney's place-based planning and urban design principles.
Conversely, impermeable facades create visual and functional dead zones, diminishing the pedestrian experience and undermining place-making initiatives, particularly in high-traffic inner-city locations.

2. Economic and Social Benefits

Ground-level activation through cafes, retail, and hotel lobbies drives foot traffic, supports local business ecosystems, and enhances guest experience. These uses directly benefit hotel operations while also fostering Sydney's night-time economy and social cohesion through diverse, mixed-use interactions.

3. Adaptive Design vs. Defensive Architecture

Flood risk does not necessitate permanent disengagement from the street. Adaptive design—incorporating flood-resistant materials, flexible floor levels, and barrier systems—allows for continued civic interface even in challenging flood environments. This design philosophy aligns with Sydney's goals for inclusivity, resilience, and adaptability in the face of climate change.

Flood Level Management and Site Constraints at 150 Day Street

1. Flood Planning Context

The site is subject to flooding, with the existing ground floor Finished Floor Level (FFL) and basement entries located below the 1% Annual Exceedance Probability (AEP) flood level. Due to structural constraints and the adaptive reuse nature of the project, raising the FFL to the Council of Sydney's (COS) flood planning level is not feasible. Instead,

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the redevelopment employs a suite of mitigation measures that significantly improve upon the site's current performance.
Notably, the proposed works will not adversely affect flood behaviour or pose risks to neighbouring properties. Post-development flood modelling confirms the efficacy of the adopted mitigation strategy.

2. Site-Specific Mitigation Measures

a. Ground Floor Active Frontages

The Day Street frontage, although below the 1% AEP level, will remain active. Proposed measures include:

- Use of flood-resistant materials within tenancies below the flood level.
- Installation of flood-proof doors at all ground-level entry and exit points.
- Automated, internally hinged flood barriers and flood-rated windows capable of withstanding hydrostatic pressure.
- Reconfiguration of fire stairs to enable safe egress during flood events.

These measures allow for a transparent, open ground floor experience while ensuring safety and compliance.

b. Basement Risk Management

The proposal eliminates one of the existing basement ramps along Day Street, which currently presents a high flood hazard. This ramp will be replaced with internal space and active frontage, reducing risk and increasing amenity.
The remaining basement entry ramp will be equipped with a top-down automated flood barrier to prevent water ingress.
Additionally:

- No hazardous materials will be stored in flood-prone areas.
- Emergency management protocols will guide occupants to upper floors during extreme events.

c. Flood-Compatible Construction

Throughout the building, the following flood-resilient specifications will be implemented:
Raised power outlets and waterproof conduits below the flood planning level.
Galvanised or stainless steel hardware, with hinges featuring removable pins.
Use of solid concrete finishes in areas susceptible to inundation (e.g., Sands Street loading dock).
Designated storage areas for hazardous materials above the flood level.
These features ensure both safety and longevity for all flood-affected spaces.

Conclusion

Flood-affected land within Sydney’s urban core should not be excluded from contributing to the city’s future. Through intelligent, adaptive design, it is possible to deliver increased hotel yield and efficient logistics infrastructure while enhancing urban vibrancy. Active ground-level frontages should be preserved—not sacrificed—by adopting innovative flood mitigation techniques such as deployable barriers.
This approach supports Sydney’s objectives of sustainable density, resilient infrastructure, and inclusive place-making. The proposed redevelopment at 150 Day Street demonstrates how strategic adaptation can unlock the potential of constrained sites, balancing growth with long-term environmental resilience.

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Image: The ramp that will be removed and become internal space with active frontage to day street:



DCP Extracts:

3.2.3 Active frontages

A diverse range of activities should be provided at street level to reinforce the vitality and liveliness of the public domain.

Active frontages to streets are encouraged so activities within buildings can positively contribute to the public domain. Such uses include retail, customer service areas, cafes and restaurants, and other uses that involve pedestrian interest and interaction. Outdoor dining areas may also contribute to active street frontages in appropriate circumstances.

A well designed street frontage is important for pedestrian amenity and includes attractive building entries, window displays, display cases, artworks, well detailed architecture, facade modulation, clear glazed windows, and recessed visually permeable security screens.

Objectives

(a) Ensure ground floor frontages are pedestrian oriented and of high design quality to add vitality to streets.

(b) Provide fine grain tenancy frontages at ground level to street frontages.

(c) Provide continuity of ground floor shops along streets and lanes within Central Sydney and other identified locations.

(d) Allow for active frontages in other non-identified locations to contribute to the amenity of the streetscape.

(e) Encourage frequent building entries that face and open towards the street.

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Provisions

(1) Active frontages are to be provided in the locations nominated on the *Active frontages map*.

(2) Active frontages are to contribute to the liveliness and vitality of streets by:

(a) maximising entries and display windows to shops and/or food and drink premises or other uses, customer service areas and activities which provide pedestrian interest and interaction. Generally, active frontages on the ground floor of a property boundary are to be provided in accordance with Table 3.1 Ground floor active frontages;

(b) minimising blank walls (with no windows or doors), fire escapes, service doors, plant and equipment hatches;

(c) providing elements of visual interest, such as display cases, or creative use of materials where fire escapes, service doors and equipment hatches cannot be avoided.

(d) in Central Sydney, providing three floors of retail (basement, ground and first floor) in the blocks bounded by George, Market, King and Castlereagh Streets as shown in Figure 3.7 *Central Sydney retail core*. Where this is not practicable, the design of new buildings should enable the conversion of these floors to retail at a later stage; and

(e) providing a high standard of finish and appropriate level of architectural detail for shopfronts.

(3) Generally, a minimum of 70% of the ground floor frontage is to be transparent glazing with a predominantly unobstructed view from the adjacent footpath to at least a depth of 6m within the building.

(4) Generally, foyer spaces are not to occupy more than 20% of a street frontage of a building in Central Sydney and no more than 8m of a street frontage elsewhere.

(5) Active frontages are to be designed with the ground floor level at the same level as the footpath.

(6) Driveways and service entries are not permitted on active frontages, unless there is no alternative.

(7) Enclosed glazed shopfronts are preferred to open shopfronts, except for food and drink premises which are encouraged to provide open shopfronts.

(8) Security grilles may only be fitted internally behind the shopfront and are to be fully retractable and at least 50% transparent when closed.

(9) Through-site links or arcades are to have a clear width of 3-6m and a minimum clear height of 1.5 times the width or 6m, whichever is greater.

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6 Flood Compatible Materials

Where required for development, the following materials are to be applied. Materials not listed may be accepted by Council subject to certification of the suitability of the material of the manufacturer.

Component	Flood Compatible Material
Flooring and Sub-floor	▪ Concrete slab-on-ground monolith construction ▪ Suspended reinforced concrete slab
Wall Structure	▪ Solid brickwork, blockwork, reinforced concrete or mass concrete
Wall and Ceiling Linings	▪ Fibro-cement board ▪ Brick, face or glazed ▪ Clay tile glazed in waterproof mortar ▪ Concrete ▪ Concrete block ▪ Steel with waterproof applications ▪ Stone, natural solid or veneer, waterproof grout ▪ Glass blocks ▪ Glass ▪ Plastic sheeting or wall with waterproof adhesive
Roof Structure	▪ Reinforced concrete construction ▪ Galvanised metal construction
Doors	▪ Solid panel with water proof adhesives ▪ Flush door with marine ply filled with closed cell foam ▪ Painted metal construction ▪ Aluminium or galvanised steel frame
Insulation	▪ Closed cell solid insulation ▪ Plastic/polystyrene boards
Windows	▪ Aluminium frame with stainless steel rollers or similar corrosion and water resistant material.
Nails, Bolts, Hinges and Fittings	▪ Brass, nylon or stainless steel ▪ Removable pin hinges ▪ Hot dipped galvanised steel wire nails or similar
Main Power Supply	▪ Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, shall be located above the designated flood planning level. Means shall be available to easily disconnect the dwelling from the main power supply.
Wiring	▪ All wiring, power outlets, switches, etc., should be located above the designated flood planning level. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. This will not be applicable for below-ground car parks where the car park complies with flood planning level requirements. ▪ Earth leakage circuit-breakers (core balance relays) or Residual Current Devices (RCD) must be installed. ▪ Only submersible type splices should be used below maximum flood level. ▪ All conduits located below the relevant designated flood level should be so installed that they will be self-draining if subjected to flooding.
Electrical Equipment	▪ All equipment installed below or partially below the designated flood planning level should be capable of disconnection by a single plug and socket assembly.

Sydney2030/Green/Global/Connected
CITY OF SYDNEY

Attachment A13

Statement of heritage impact

STATEMENT OF HERITAGE IMPACT



Planning Proposal

No. 150 Day Street, Sydney

March 2025 | J7101_01

Weir Phillips Heritage

Level 19, 100 William Street Woolloomooloo NSW 2011
Phone: (02) 8076 5317

0 EXECUTIVE SUMMARY

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves an expansion of the existing core and egress upgrades to service new floors over the existing hotel, the employment of a 'strip to structure' approach from the ground to Level 02, and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 (the LEP) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.2:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Retention and adaptive redevelopment of existing 11 storey hotel and 2 levels of basement and new 11 storey extension (including transfer level plus plant) of new hotel space resulting:
  - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
  - 490-540 hotel keys with gross floor area of ~30,000m2
  - Upgrade existing infrastructure and services (including new lift core),
  - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool.
  - Removal existing exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

It is also supported by a Letter of Offer to enter into a Voluntary Planning Agreement (VPA) with Council to cater for the increased infrastructure demand generated by the proposed uplift.

The site is located within City of Sydney Council Local Government area. The principal environmental planning instrument for the site is the *Sydney Local Environmental Plan 2012* (*LEP 2012*). The site is not listed as a heritage item nor located in a Conservation Area as identified by Schedule 5, Parts 1 and 2 of the *LEP 2012*. The site is, however, located in

the vicinity of heritage items listed by this Schedule 5 Part 1 of the LEP, including *Former warehouse 'The Vintage Building'* (I1964) which is directly opposite the site across Sands Street. The site is also further removed from other heritage items as well as items listed on the State Heritage Register under the *NSW Heritage Act 1977*.

The proposed changes to the planning controls will have some visual impact on "The Vintage Building." However, the existing Park Royal Hotel already serves as a dominant backdrop to this heritage item. At Sands Street, the current interface features a vertical wall exceeding the height of the three and part four-storey heritage structure. Such relationships are common in the CBD, where heritage items are often located next to much taller modern buildings.

The proposed height increase will result in the new tower being more prominent in the background of "The Vintage Building" compared to the current structure. However, the additional height will have only a minor visual impact due to the prominence of the existing hotel, as illustrated in Section 3.1. The existing podium's alignment and height will remain unchanged, with the additional height limited to the upper portion of the building. 3D images produced by Hassell highlight that, while the future building will be taller, the views towards "The Vintage Building" will remain largely unaffected, as the podium form and alignment are preserved.

The potential future uplift on site made feasible by the change to the height controls will enable the construction of a larger tower on site that will be visible from several heritage items in the vicinity. These items including the Pyrmont Bridge, Chinese Friendship Garden and St Andrews Cathedral (during winter months). These items are already within a distinctly urban, commercial area. Given the scale of the proposed development in the immediate vicinity the new tower will read as one of many contemporary towers that form the CBD skyline. The indicative building envelope has been designed to slot neatly into the CBD skyline which will form the backdrop to these items.

The buildings on site are not considered to be of heritage significance, either through the assessment of City of Sydney Council or by the authors of this statement.

The concept design by Hassell successfully establishes a future built form that achieves a cohesive architectural connection with the surrounding heritage context. It ensures the preservation of the historical character and setting of nearby items while accommodating modern development. The Planning Proposal aligns with the Council's vision for a vibrant and dynamic city centre, enhancing connectivity and activation at the CBD edges adjoining Darling Harbour.

Report Preparation	
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First Issue Draft	13.01.25	AM	JP
Second Issue Final	15.01.25	AM	AM
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Cover Image: The site from the intersection of Day Street and Bathurst Street.
Weir Phillips Heritage.

We acknowledge that the land on which we live, learn and work as the traditional country of the Gadigal people of the Eora Nation. We acknowledge these traditional owners of this land and acknowledge their living cultures and the unique roles they have played in maintaining life, language, and culture in this region. We pay respect to their Elders past, present and future and all Aboriginal people.

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1 INTRODUCTION

1.1 Preamble

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves an expansion of the existing core and egress upgrades to service new floors over the existing hotel, the employment of a 'strip to structure' approach from the ground to Level 02, and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 (the LEP) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.2:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Retention and adaptive redevelopment of existing 11 storey hotel and 2 levels of basement and new 11 storey extension (including transfer level plus plant) of new hotel space resulting:
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  - Removal existing exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

It is also supported by a Letter of Offer to enter into a Voluntary Planning Agreement (VPA) with Council to cater for the increased infrastructure demand generated by the proposed uplift.

The site is located within City of Sydney Council Local Government area. The principal environmental planning instrument for the site is the *Sydney Local Environmental Plan*

2012 (*LEP 2012*). The site is not listed as a heritage item nor located in a Conservation Area as identified by Schedule 5, Parts 1 and 2 of the *LEP 2012*. The site is, however, located in the vicinity of heritage items listed by this Schedule 5 Part 1 of the LEP, including *Former warehouse 'The Vintage Building'* (I1964) which is directly opposite the site across Sands Street. The site is also further removed from other heritage items as well as items listed on the State Heritage Register under the *NSW Heritage Act 1977*.

Under Part 5.10 of the *LEP 2012*:

> *(4) Effect of proposed development on heritage significance*
>
> *The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).*
>
> *(5) Heritage assessment*
>
> *The consent authority may, before granting consent to any development:*
>
> *(a) on land on which a heritage item is located, or*
>
> *(b) on land that is within a heritage conservation area, or*
>
> *(c) on land that is within the vicinity of land referred to in paragraph (a) or (b),*
>
> *require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.*

In order to assess the potential impacts of the proposed changes to the planning controls on heritage items, a heritage management document must be submitted with the Planning Proposal. The appropriate heritage management document, in this instance, is a SoHI; and this document is submitted in satisfaction of this requirement.

This statement has been prepared at the request of the owner of the site, UOL Group Limited, and accompanies plans prepared by Hassell.

1.2 Methodology

A site visit was carried out in January 2025. Unless otherwise stated, all photographs of the site were taken by the authors at this time.

This assessment has been prepared with reference to the *NSW Heritage Manual* update *Statements of Heritage Impact* (2023) and with reference to the Council planning controls listed under Section 7.2.

1.3 Limitations

An assessment of significance to Heritage NSW standards were not provided with regards to the site given it has no statutory heritage listings. An assessment of archaeological potential and archaeological significance, Aboriginal or historical, is outside the scope of this SoHI.

2 SITE DESCRIPTION

2.1 Site Location

The site at No. 150 Day Street, Sydney, legally described as Lot 20 DP1046870, is located within the City of Sydney local government area (LGA) with a site area of approximately 2,250m^2. It is currently occupied by a 11-storey hotel building known as the PARK ROYAL Darling Harbour Hotel.

It has street frontages to Day Street, Bathurst Street and Sands Street. The site also abuts the Western Distributor to the north. The site is located 350m west of Town Hall Station and 240m south-east of Darling. Park. Refer to Figure 1.



Figure 1: Site location. The subject site is outlined in red.
SIX Maps, 2024; overlay by WPH



Figure 2: An aerial photograph over the site and the surrounding area.
Nearmap 2025; annotations by WPH

2.1.1 *150 Day Street*

The site at 150 Day Street, Sydney is an eleven (11) storey with two (2) level basement hotel building constructed c.1989. The hotel is built to the lot boundaries with a three-story podium and tower set back above at Bathurst Street. The primary pedestrian access to the hotel is via a Porte Cochere access via Day Street. The site has a secondary service access via Sands Street. There is a disused corner entry and portico at the intersection of Bathurst and Sands Street.

No part of the site is heritage listed.

See Figure 3 to Figure 7.



Figure 3: Looking north east towards the site from the Harbour Street and Bathurst Street intersection. The red arrow indicates the adjoining heritage item.



Figure 4: View of the southern Bathurst Street elevation of the site.



Figure 5: The Sands Street laneway which forms the eastern boundary of the site. The Vintage Building is on the left (east) of this image.



Figure 6: The site as viewed from the intersection of Sussex and Druitt Streets.



Figure 7: View from the Darling Harbour pedestrian link looking southeast towards the item.

2.2 The Surrounding Area

The site is located at the south western edge of the Sydney Central Business District within a diverse and dense mix of retail, commercial and residential buildings of varying height and architectural styles. Figure 8 illustrates the immediate surrounding area.

The site overlooks Darling Harbour, and Tumbalong Park. The immediate setting to the northwest of the site is dominated by the Western Distributor and approaches. The three Darling Park Towers are located to the north of the site on the opposite side of Druitt Street. These are the tallest buildings in the immediate area. See Figure 9 to Figure 12.

To the south of the site is the Millenium Towers (built 1998) which are a mixed used, largely residential tower of twenty-two stories. This building is also built to the property boundaries and has a similar materiality to the subject site.

To the east of the site are several buildings of differing scale and uses. The rears of these buildings share Sands Lane service laneway with the subject site. The closest heritage listed site is the Former warehouse "The Vintage Building" (I1964) is a four-storey structure featuring polychrome face brick, timber-framed windows, and a corrugated steel roof, with facades fronting both Bathurst, Sussex and Sands Streets. Much of the original internal structure remains intact, serving as permanent formwork for new concrete slab floors. The building's interior has undergone significant modifications, including extensive partitioning. To the north of the heritage item at 275 Sussex Street is a mixed use fourteen (14) storey tower which was completed in 2016.

To the west of the site is the Western Distributor expressway which is dominated by the new “Ribbon” building which was completed in 2022. To the south west is Tumbalong Park and the Chinese Friendship Garden.



Figure 8: Location Plan of the site in the wider area.
NearMap 2024; annotations by WPH



Figure 9: View towards the site from the Darling Harbour Pedestrian Overpass. This shows the scale of the surrounding buildings.

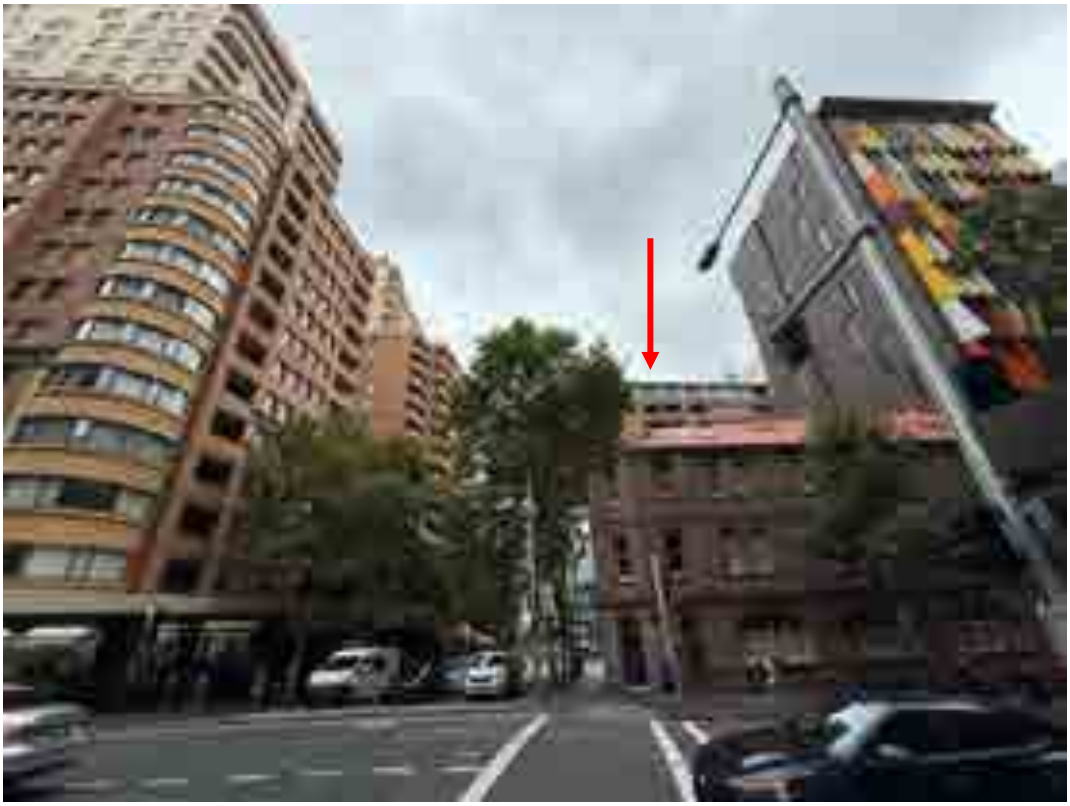


Figure 10: Looking towards the site from Sussex Street. The heritage listed warehouse is visible in the foreground.



Figure 11: The W Hotel (the Ribbon Building) to the north of the site.



Figure 12: View towards the site from the intersection of Sussex Street and Druitt Street outside the Darling Harbour towers.

3 SIGNIFICANCE

3.1 Summary of Statutory Heritage Listings for the Site

For the following, refer to Table 1 which provides a summary of the statutory heritage listings for the site.

Table 1: Summary of statutory heritage listings.

Listing Type	Item Name and Details	Item No
Listed on the State Heritage Register under the *Heritage Act 1977* (NSW).	N/A	N/A
In the vicinity of items on the State Heritage Register under the *Heritage Act 1977* (NSW).	Yes. Chinese Garden of Friendship (visible)	SHR No: 02017
Listed as an item of local heritage significance by Schedule 5 Part 1 of the *Sydney LEP 2012*.	No.	N/A
Located within the vicinity of local heritage items by Schedule 5 Part 1 of the *Sydney LEP 2012*.	Yes. Former warehouse 'The Vintage Building' Commercial building 'RCA House'	I1964 I1834
Located within a heritage conservation area by Schedule 5 Part 2 of the *Sydney LEP 2012*.	No.	N/A
Located within the vicinity of a heritage conservation area by Schedule 5 Part 2 of the *Sydney LEP 2012*.	No.	N/A

For the following, refer to Figure 13 which provides a detail of a heritage map from the NSW Planning Portal. In this plan, local heritage items are coloured brown and numbered. The site is indicated by the red arrow.



Figure 13: Detail, heritage map showing heritage items in relation to the subject site. The site is indicated by the red arrow.
NSW Planning Portal; overlay by WPH
Local Heritage Items – Coloured brown and numbered
State Heritage Items – Hatched blue and numbered

3.1.1 *'The Vintage Building'*

The" Vintage Building", originally granted to James Wilshire in 1838, saw its first building constructed sometime between 1882, when it was listed as a timber yard, and 1893, when council records noted it as "built prior to 1894." By 1897, the structure was a four-storey brick and slate flour mill owned by Aitken & Scott, flour millers. Between 1915 and 1922, it housed Mungo Scott Ltd, Millers. In 1923, Bernard Seppelt & Sons, Wine & Spirit Merchants, took over the building, using it as their Sydney office and warehouse until 1974. In 1979, the building was converted into residential apartments, later transitioning to commercial use in the late 1980s.

The NSW State Heritage Inventory provides the following Statement of Significance for the site:

> *The Vintage is of historical significance as a good example of a simple inner-city warehouse dating from the late nineteenth century. It provides physical evidence of the redevelopment of this part of Sydney with large-scale warehouses during that period.*

All significant fabric remains in good to excellent condition. Work in 1980 identified and took care to retain the character of the building.[1]

This statement is adopted for the purposes of this assessment.

NSW State Heritage Inventory provides the following description for the site.

The Vintage is a three storey polychrome face brick building with timber windows and a corrugated steel roof, which has facades to Bathurst and Sussex Streets. Internally much of the original structure remains and has been used as permanent formwork for new concrete slab floors. The building has also been extensively partitioned internally.[2]

This statement is adopted for the purposes of this assessment.

Figure 14 illustrates this item in 1979 showing the lower scale of this section of the CBD by comparison the photograph in Figure 15 taken from a similar position illustrates the much higher density in the immediate context of this item.



Figure 14: View of B Seppelt & Sons, Sussex Street Sydney, 1979 (01/01/1979 - 31/12/1979), [A-00008039]. City of Sydney Archives, accessed 08 Jan 2025, https://archives.cityofsydney.nsw.gov.au/nodes/view/568684

The subject site aligns with the western boundary of the item along Sands Street. There is a significant scale disparity between the hotel and the item which is particularly evident from Bathurst Street and Sands Street. The subject, along with the adjoining larger

[1] Heritage NSW (2025) Former Warehouse Including Interiors, State Heritage Inventory No. 2424140. Available at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2424140 (Accessed: 13 January 2025).

[2] Ibid.

buildings generally dwarf the three storey former warehouse. This is typical of most heritage items in the CBD. The subject site is generally visible in the background of the item from key vantage points at Sussex Streets and at the intersection of Bathurst Street. On approach from the east from George Street the building is less visible behind the item. On approach from the west the subject site forms the boundary to the CBD and is the most dominant element in the view corridor, with the item appearing as secondary from this vantage point.

See Figure 15 to Figure 19.



Figure 15: Looking north west from the intersection of Bathurst and Sussex Streets



Figure 16: View of the site from the opposite site of Sussex Street.



Figure 17: Looking south along Sands Street showing the site (right) and the item (left). This image illustrates the existing zero boundary setback and scale disparity.



Figure 18: View towards Sands Street from Bathurst Street showing the scale disparity between the buildings.



Figure 19: The corner entry of the hotel when operational with heritage item to the right in 1996, [A-00032043]. City of Sydney Archives, accessed 08 Jan 2025, https://archives.cityofsydney.nsw.gov.au/nodes/view/594250

3.1.2 *Former "Universal Film Manufacturing Co" Warehouse Including Interior and Yard*

The NSW State Heritage Inventory provides the following Statement of Significance for the site:

> *RCA House is located on the corner of Kent Street and Druitt Lane. The three storey facade is designed in the Inter-War Stripped Classical Style. As a building erected for the Universal Film Manufacturing Co by an old-established firm of ironmongers and machinery importers, this building is historically significant for its reflection of the new investment opportunities provided by the emergence of the film industry in Australia. The building is aesthetically significant as an outstanding example of a relatively intact original commercial exterior of high quality design with outstanding potential to continue in its present state. The exterior detailing is of high quality and is particularly noted for its use of coloured reinforced concrete decorative panels with film motifs.*[3]

This statement is adopted for the purposes of this assessment.

This item is located on the next city block to the east of the subject site. See Figure 20. The building has its primary orientation to Kent Street, with a secondary elevation to Druitt Lane. The site is visible looking east down Druitt Lane as a background building element set behind other buildings. See Figure 21



Figure 20: The primary elevation of the item from Kent Street.

[3] Heritage NSW (2025) Former "Universal Film Manufacturing Co" Warehouse Including Interior and Yard, State Heritage Inventory No. 2424176, Available at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2424176 (Accessed: 13 January 2025).



Figure 21: View looking west down Druitt Lane towards the subject site where it is part visible behind other buildings.

3.2 Heritage items further removed with distant views towards the site

For the following, in the vicinity has been determined with reference to physical separation, existing and potential view corridors and the nature of the proposed new works.

Place ID		Name and Description	Address	Visual relationship
National or Commonwealth heritage items, within 200m of the subject site				
LEP no.	**SHR no.**			
Local and State Heritage items within 100m of subject site				
n/a	02017	Chinese Garden of Friendship	Pier Street, Cnr Harbour St, Darling Harbour	The existing tower it is part visible from the centre of the site above the walls of the Garden. It i visible at a distance with other towers along Harbour Street mor prominent. See Figure 24.
n/a	01618	Pyrmont Bridge	Darling Harbour	The site is visible from the Pyrmont Bridge to the south east. It appears as part of the

Place ID		Name and Description	Address	Visual relationship
National or Commonwealth heritage items, within 200m of the subject site				
LEP no.	**SHR no.**			
Local and State Heritage items within 100m of subject site				
				general CBD skyline. See Figure 25.
I1793	01708	St Andrew's Anglican Cathedral and Chapter House	1440 George Street Sydney	Part visible (during winter months) when viewed from outside the site at Bathurst Street looking west. Appears as part of the general cityscape. See Figure 26.

3.1 View Corridors

Due to the position of the site on the western fringe of the Sydney CBD it is visible from several heritage listed vantage points such as the Pyrmont Bridge and from within part of the Chinese Friendship Gardens. Where visible it appears as part of the general high density setting, albeit smaller in scale than many buildings in the immediate vicinity.

See Figure 22 to Figure 26.



Figure 22: An aerial photograph indicating the position of distant heritage items that are visible from the site.



Figure 23: View from Tumbalong Park towards the site. Although not heritage listed is part of the general setting of the item.



Figure 24: View from within the Chinese Friendship Gardens towards the site (indicated by the red arrow)



Figure 25: View from the Pyrmont Bridge looking south west towards the site. The site is indicated by the red arrow.



Figure 26: Looking west down Bathurst Street towards the site. The red arrow indicates the partially visible though trees. During the summer months this view is obscured by trees.

4 HERITAGE IMPACT ASSESSMENT

4.1 Scope of Works

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves an expansion of the existing core and egress upgrades to service new floors over the existing hotel, the employment of a 'strip to structure' approach from the ground to Level 02, and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.2:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Retention and adaptive redevelopment of existing 11 storey hotel and 2 levels of basement and new 11 storey extension (including transfer level plus plant) of new hotel space resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool.
    - Removal existing exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

It is also supported by a Letter of Offer to enter into a Voluntary Planning Agreement (**VPA**) with Council to cater for the increased infrastructure demand generated by the proposed uplift.

4.2 Method of Assessment

The following is a merit-based assessment. It does not consider compliance or otherwise with numerical controls unless non-compliance will result in an adverse heritage impact. Refer to the planning documents that accompany this application.

The proposal is assessed by consideration of:

- The relevant controls of the *Sydney LEP 2012*.
- The objectives and controls for new works to and in the vicinity of heritage items as per Part 3 of the *Sydney DCP 2012*.

with an understanding of the requirements for Heritage Impact Statements provided by the Heritage NSW publication Statements of Heritage Impact (2023 update); and

5 EFFECT OF WORK

5.1 Effect of work on site

The changes sought by the Planning Proposal, to facilitate the future uplift on the site will result in significant change to the existing building. The subject site is not a heritage item, nor part of a heritage conservation area. The buildings on site are not considered to be of heritage significance, either through the assessment of City of Sydney Council or by the authors of this statement. Therefore, these changes will have no impact on the significance of the locality. A future Detailed DA will address any changes to the Ground plane and podium which could have a potential impact on the setting of “The Vintage Building”.

5.2 Impact on the 'The Vintage Building'

The proposed changes to the planning controls to facilitate additional development on the site will have some visual impact on "The Vintage Building." However, the existing Park Royal Hotel already serves as a dominant backdrop to this heritage item and is proposed to be retained, with minimal changes to the existing podium.. At Sands Street, the current interface forms a sheer vertical wall that exceeds the height of the three-storey and part four storey heritage structure. While this interface is dominating, such relationships are common in the CBD, where heritage items are often significantly smaller in scale compared to modern buildings.

Despite these challenges, "The Vintage Building" retains its visual prominence within the streetscape. Its location on the prominent corner of Bathurst and Sussex Streets, combined with its large site area, prevents nearby structures from overwhelming it. Additionally, the topography of the western end of Bathurst Street, which slopes downward toward Darling Harbour, further enhances the building's visibility and prominence in the streetscape.

The proposed LEP amendments sought by the proponent to increase the height of the hotel will appear in the background behind the item more prominently than the current building on site. However, given the prominence of the existing hotel from key vantage points indicated in Section 3.1 above, the potential future uplift will only have a minor additional visual impact on the building. The existing podium arrangement and height of the building will remain unchanged with the uplift only envisaged from the upper portion of the building. The below 3D images produced by Hassell Architects, indicate the existing and proposed uplift on site. The images demonstrate, that although the envisaged future

building will be larger, the views towards the item remain largely unchanged because the podium alignment and form are retained.

Existing and proposed views (3D by Hassell)	Comment
	**Figure 27: The existing view towards the item from the intersection of Bathurst and Sussex Streets. It shows that the existing building and those surround it already dominate its setting.**
	**Figure 28: The indicative building envelope behind the item. This building is larger but it does not affect the appreciation and setting of the item beyond the existing context.**
	**Figure 29: The existing view from outside the Darling Harbour pedestrian overpass. This view demonstrates the only views towards the item are along Bathurst Street with the existing hotel being the dominant foreground element.**



Figure 30: Indicative building envelope demonstrating that although the height of the building will increase the views toward the item will remain unchanged.

The proposed changes will also facilitate the active glazed frontage at the corner of Bathurst Street and Sands Street, with further laneway activation (subject to future DA) to soften the interface between the new sites. This will generate increased interaction with the site and appreciation of its architectural character.

The future envelope will result in no additional overshadowing of the building as made under the current circumstances. Presently, the site is already overshadowed by the other high-density development the vicinity, located further to the north of the site. Therefore, there will be no additional overshadowing of the site.

5.3 Effect of work on heritage items in the vicinity.

The potential future uplift on the site made feasible by the change to the height controls will enable the construction of a larger tower that will be visible from several heritage items in the vicinity. These items including the Pyrmont Bridge, Chinese Friendship Garden and St Andrews Cathedral (during winter months).

These items are already within a distinctly urban, commercial area. Given the scale of the proposed development in the immediate vicinity the new tower will read as one of many contemporary towers that form the CBD skyline. The indicative building envelope has been designed to slot neatly into the CBD skyline which will form the backdrop to these items.

- The proposal will not introduce a built form that compromises the ability to appreciate the historical importance of these items.
- The proposal will not introduce a built form that obstructs recognised significant views to or from the items.
- The proposal will introduce a built form that aligns with the ongoing development pattern in the surrounding area.

Beyond the items discussed above, the Planning Proposal that will facilitate the future construction of a larger tower on site will have an acceptable impact on other heritage items in the vicinity.

5.4 Assessment against Section 5.10 of the Sydney LEP 2012

Sydney LEP 2012	Response
(1) Objectives The objectives of this clause are as follows— *(a) to conserve the environmental heritage of the City of Sydney,* *(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,* *(c) to conserve archaeological sites,* *(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.*	The changes to the LEP 2012 sought by the Planning Proposal will have a limited impact on heritage items in the vicinity. The setting of the closest item, the Vintage Building, will change as a larger built form will be introduced. As demonstrated above, the item already exists in a high-density setting, and due to its form and position at the intersection of Bathurst and Sussex Street exists comfortably in this context. An increase in height of the existing building will therefore not impact the setting of the item beyond the existing context. Views towards the item will remain unchanged as a result of the planning proposal as the existing podium form will remain. The site is not a known site of Aboriginal Significance, however, the indicative built form of a higher tower will be designed with Connecting With Country Design Principles to better integrate the site with is Country, particularly at the ground plane and surrounding public domain.
(2) Requirement for consent Development consent is required for any of the following— *(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—* *(i) a heritage item,* *(ii) an Aboriginal object,* *(iii) a building, work, relic or tree within a heritage conservation area,* *(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is*	Development consent is sought via the City of Sydney as the works seek to amend the LEP via a planning proposal.

Sydney LEP 2012	Response
specified in Schedule 5 in relation to the item, *(c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,* *(d) disturbing or excavating an Aboriginal place of heritage significance,* *(e) erecting a building on land—* *(i) on which a heritage item is located or that is within a heritage conservation area, or* *(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,* *(f) subdividing land—* *(i) on which a heritage item is located or that is within a heritage conservation area, or* *(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*	
(3) When consent not required However, development consent under this clause is not required if— *(a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development—*	n/a – consent is required.

Sydney LEP 2012	Response
(i) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or archaeological site or a building, work, relic, tree or place within the heritage conservation area, and *(ii) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or* *(b) the development is in a cemetery or burial ground and the proposed development—* *(i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and* *(ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to an Aboriginal place of heritage significance, or* *(c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or* *(d) the development is exempt development.*	
(4) Effect of proposed development on heritage significance The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the	This report, a Statement of Heritage Impact, considers the effect of the proposed LEP amendments on the heritage items in the vicinity of the site. A heritage conservation management plan is not considered a necessary document to accompany the application.

Sydney LEP 2012	Response
proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).	
(5) Heritage assessment The consent authority may, before granting consent to any development— *(a) on land on which a heritage item is located, or* *(b) on land that is within a heritage conservation area, or* *(c) on land that is within the vicinity of land referred to in paragraph (a) or (b),* *require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.*	This report, a Statement of Heritage Impact, considers the effect of the proposed LEP amendments on the heritage items in the vicinity of the site.
(6) Heritage conservation management plans The consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.	A heritage conservation management plan is not considered a necessary document as no part of the site is heritage listed. The heritage listed building comes under separate ownership.
(7) Archaeological sites The consent authority must, before granting consent under this clause to the carrying out of	n/a The site has no known archaeological potential due to the existing basement on site. If a detailed development application requires further

Sydney LEP 2012	Response
development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the Heritage Act 1977 applies)— *(a) notify the Heritage Council of its intention to grant consent, and* *(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.*	intervention to the Ground Plane then an archaeological assessment should be undertaken.
(8) Aboriginal places of heritage significance The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance— *(a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and* *(b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.*	As above.
(9) Demolition of nominated State heritage items The consent authority must, before granting consent under this clause for the demolition of a nominated State heritage item—	N/A no demolition is proposed.

Sydney LEP 2012	Response
(a) notify the Heritage Council about the application, and *(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.*	
(10) Conservation incentives *The consent authority may grant consent to development for any purpose of a building that is a heritage item or of the land on which such a building is erected, or for any purpose on an Aboriginal place of heritage significance, even though development for that purpose would otherwise not be allowed by this Plan, if the consent authority is satisfied that—* *(a) the conservation of the heritage item or Aboriginal place of heritage significance is facilitated by the granting of consent, and* *(b) the proposed development is in accordance with a heritage management document that has been approved by the consent authority, and* *(c) the consent to the proposed development would require that all necessary conservation work identified in the heritage management document is carried out, and* *(d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, or the heritage significance of the Aboriginal place of heritage significance, and* *(e) the proposed development would not have any significant*	n/a This site is not eligible for Conservation Incentives as no part of the site is heritage listed.

Sydney LEP 2012	Response
adverse effect on the amenity of the surrounding area.	

5.5 Assessment against Section 3.9.5 of the Sydney DCP 2012 (Site Specific DCP)

Sydney DCP 2012 Control	Response
(3) Alterations and additions to buildings and structures and new development of sites in the vicinity of a heritage item are to be designed to respect and complement the heritage item in terms of the: *(a) building envelope;* *(b) proportions;* *(c) materials, colours and finishes; and (d) building and street alignment.*	The proposed changes sought by the planning proposal will not result in any physical changes to the site. However, the indicative building envelopes envisaged by Hassell indicate that the podium form of the existing hotel will remain unchanged. This means that views and the general ground plane setting will remain as existing and contribute no additional impact. The detailed DA addressing the future larger addition onsite will address proportions and materiality.
(4) Development in the vicinity of a heritage item is to minimise the impact on the setting of the item by: *(a) providing an adequate area around the building to allow interpretation of the heritage item;* *(b) retaining original or significant landscaping (including plantings with direct links or association with the heritage item);* *(c) protecting, where possible and allowing the interpretation of archaeological features; and* *(d) Retaining and respecting significant views to and from the heritage item.*	a) The proposed changes in the planning proposal will not lead to any additional encroachment on "The Vintage Building." The existing hotel and its setbacks are intended to be retained and integrated as part of the base for a taller building, subject to a future DA. b) There is no change to original or significant landscaping within the immediate context of the heritage item c) n/a d) Sections 5.1, and 5.2 above assess the impact on significant views toward items in the vicinity to have an acceptable heritage impact.

6 SUMMARY

The planning proposal relating to the site at 150 Day Street, Sydney aims to amend the Sydney LEP 2012 by introducing a site-specific clause to allow a maximum building height of 85 metres, a floor space ratio of 13.2:1 for hotel-related uses, and restrict the site to employment or hotel purposes, excluding residential accommodation or serviced apartments.

With regard to nearby heritage items and the assessment of heritage impacts set out above, the Planning Proposal is considered acceptable for the following reasons:

- The potential impact of a larger building within the limits sought by the proposal (and described by its reference design) will not cause any significant impact to the heritage significance of nearby heritage items.

- Historic views from, *the Vintage Building* will not be further blocked, impeded or unreasonably disrupted; the proposed building envelope will read as a in keeping with current and future development of the Sydney CBD. This is reinforced by the accompanying 3D views showing photomontages of the proposed building envelope on site.

- No significant view corridors to or from the items identified in Section 3.2 will be blocked, impeded or unreasonably disrupted. Views from the site are not considered to have heritage significance.

- The proposal offers a future opportunity to activate the intrusive and inactive ground plane at Bathurst and Sands Street which forms the closest interface to *the Vintage Building*.

- Changes to the controls will still facilitate a tower which will require the major alteration to the building on site. The buildings on site are not considered to be of heritage significance, either through the assessment of City of Sydney Council or by the authors of this statement.

The concept design by Hassell successfully establishes a future built form that achieves a cohesive architectural connection with the surrounding heritage context. It ensures the preservation of the historical character and setting of nearby items while accommodating modern development. The Planning Proposal aligns with the Council's vision for a vibrant and dynamic city centre, enhancing connectivity and activation at the CBD edges adjoining Darling Harbour.

7 REFERENCES AND DEFINITIONS

7.1 Definitions

Term	Meaning
Consent authority	The person or body with whose approval that act, matter or thing may be done or without whose approval that act, matter or thing may not be done.
Conservation	Conservation means all the processes of looking after a place so as to retain its cultural significance (as defined in *The Burra Charter*).
Development	The erection of a building, carrying out work, use of or subdivision of land.
Heritage significance	Term used in the assessment and understanding of heritage items that have significance in relation to their historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value.
Moveable heritage	A moveable object that is not a relic.
National Construction Code	A code that sets minimum requirements for design, construction and performance of buildings, as well as plumbing and drainage systems throughout Australia.
Relic	Any deposit, artefact, object or material evidence that is of state or local heritage significance.
Setting	The area around an item, which may include the visual catchment.
State Heritage Inventory	An online database containing heritage items and conservation areas on statutory lists in NSW. This includes the State Heritage Register and local government items.
State Heritage Register	The NSW State Heritage Register. A list of places and items of importance to the people of NSW. Only places of state heritage significance are listed on the State Heritage Register. The State Heritage Register protects these items and their significance.
State Heritage Register item	A term to describe a heritage item that is of state heritage significance and is listed on the State Heritage Register.

7.2 Documentary Evidence

7.2.1 *General References*

7.2.1.1 Guidelines

Australia ICOMOS Inc (2013a) 'The Burra Charter: the Australia ICOMOS charter for places of cultural significance', Australian ICOMOS (International Council on Monuments and Sites) Inc, Burwood, accessed 9 June 2023.

Australia ICOMOS Inc (2013b) 'Burra Charter article 22 — new work', practice note, Australian ICOMOS (International Council on Monuments and Sites) Inc, Burwood, accessed 9 June 2023.

Heritage NSW (2019) Subdivision and NSW State Heritage Register items policy and procedure, Heritage NSW, NSW Government, accessed 9 June 2023.

Heritage NSW (2020) Material threshold policy, Department of Planning, Industry and Environment, NSW Government, accessed 9 June 2023.

DPE (Department of Planning and Environment) (2023) Assessing heritage significance, DPE, NSW Government, accessed 9 June 2023.

7.2.1.2 Heritage Inventory Sheets

Heritage NSW (2025) Former Warehouse Including Interiors, State Heritage Inventory No. 2424140. Available at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2424140 (Accessed: 13 January 2025).

Heritage NSW (2025) Former "Universal Film Manufacturing Co" Warehouse Including Interior and Yard, State Heritage Inventory No. 2424176, Available at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=2424176 (Accessed: 13 January

7.2.1.3 Other imagery

City of Sydney Archives *View of B Seppelt & Sons, Sussex Street Sydney, 1979 (01/01/1979 - 31/12/1979),* [A-00008039]., Accessed 13 Jan 2025, https://archives.cityofsydney.nsw.gov.au/nodes/view/568684

City of Sydney Archives, *Opportunity Sites Review (01/04/1996), [A-00032043].* accessed 13 Jan 2025, https://archives.cityofsydney.nsw.gov.au/nodes/view/594250

7.2.1.4 Planning Documents

- *NSW Heritage Act 1977.*
- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Sydney Local Environmental Plan (LEP) 2012.*
- Sydney Development Control Plan (DCP) 2012

Attachment A14

Air quality assessment

Air Quality Assessment

150 Day Street, Sydney

Mecone Group Pty Ltd

Level 12, 179 Elizabeth Street
Sydney NSW 2000

Prepared by:

SLR Consulting Australia

SLR Project No.: 610.032206.00001

21 March 2025

Revision: 2.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
2.0	21 March 2025	Kate Barker	A Naghizadeh	A Naghizadeh
1.0	31 January 2025	Kate Barker	A Naghizadeh	A Naghizadeh

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Mecone Group Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

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Appendix A Selection of Meteorological Year

1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) was commissioned by Mecone Group Pty Ltd (the Client) to prepare an Air Quality Assessment (AQA) for the proposed development at 150 Day Street, Sydney, NSW (the Project). The location of the Project site, as well as nearby air quality monitoring and meteorological monitoring sites, is shown in **Figure 1**.

The aim of this report is to address air quality requirements of the Sydney Local Environmental Plan 2012 (the LEP) and the Sydney Development Control Plan 2012 (the DCP) in relation to development near the Cross City Tunnel ventilation stack (CCT Stack).

This AQA report has been prepared with reference to the New South Wales Environment Protection Authority (EPA) document The Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA 2022).

Figure 1 Project Location



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The content within this document may be based on third party data. SLR Consulting Australia Pty Ltd does not guarantee the accuracy of such information.

Project Number:	610.032206
Location:	Sydney, NSW
Source:	Nearmap
Projection:	GDA2020/MGA Zone 56
Date:	08/01/2025

Mecone Pty Ltd

150 Day Street, Sydney
Air Quality Impact Assessment

Site Location

2.0 Project Overview

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the Project site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

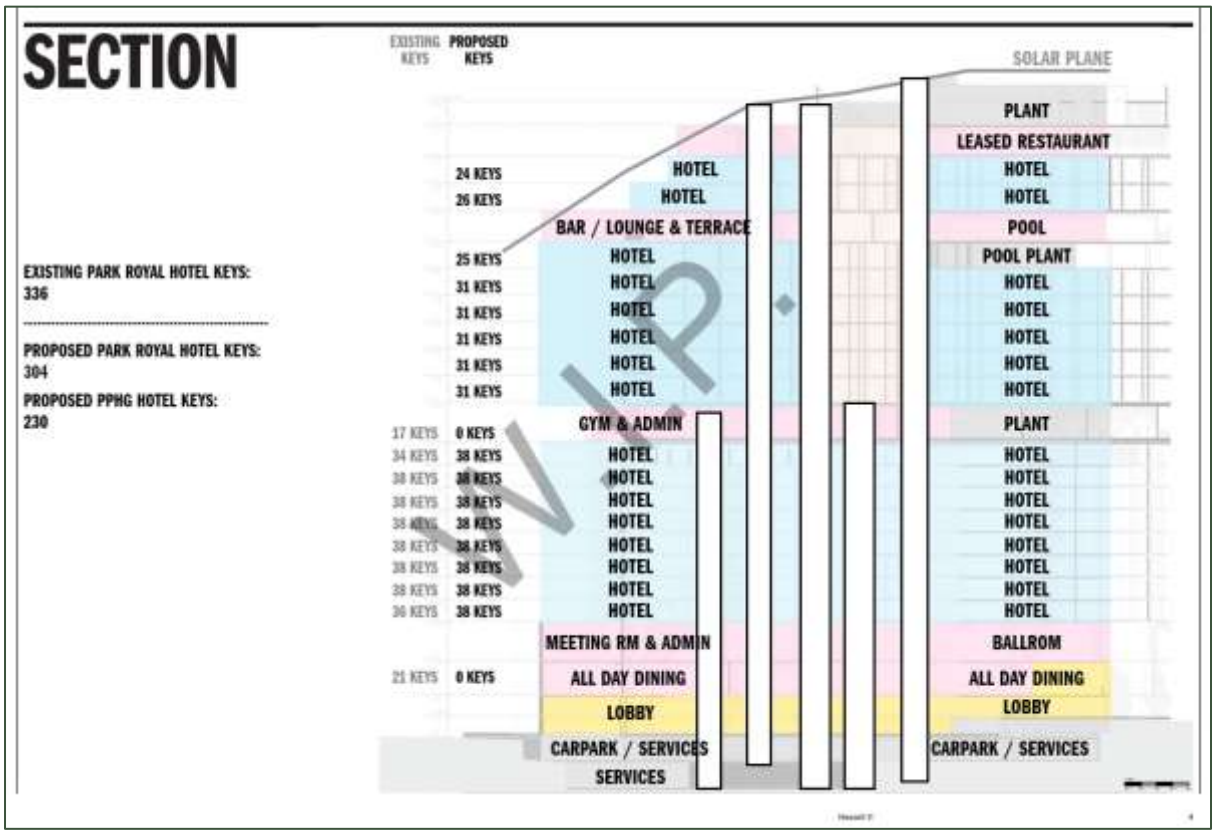
- Allow a maximum building height of 85 metres,
- Permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- Restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western facade.

Figure 2 illustrates a cross section of the Project Building.

Figure 2 Proposed Building Cross Section[1]



[1] Source: Hassell December 2024

3.0 Planning Instruments

3.1 Sydney Local Environmental Plan 2012

Clause 7.24 of the LEP, states the following in reference to developments near the CCT Stack:

> *"(1) This clause applies to land identified on the Locality and Site Identification Map as "Land Affected by Cross City Tunnel Ventilation Stack".*
>
> *(2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
>
> *(a) the proposed development will not adversely affect the dispersal of emissions from the Cross City Tunnel ventilation stack, and*
>
> *(b) persons using the proposed development will not be unduly affected by those emissions."*

The Project building is located within the area identified as 'land affected by the CCT Stack'.

3.2 Sydney Development Control Plan 2012

Section 3.13.2 of the DCP states the following in reference to development near the CCT Stack:

> *"3.13.2 Air quality for development near the Cross City Tunnel*
>
> *Objective*
>
> *(a) Ensure potential air quality impacts from the Cross City Tunnel plume of emissions are considered in the assessment of a development.*
>
> *Definitions*
>
> *Sensitive receptor means a location where people are likely to work or reside and may include a dwelling, school, hospital, office or public recreational area. An air quality impact assessment should also consider the location of known or likely future sensitive receptors.*
>
> *Provisions*
>
> *(1) These following provisions apply to development that:*
>
> *(a) has a building height relative to distance from the Cross City Tunnel ventilation stack as nominated in Table 3.6 Development near the Cross City Tunnel ventilation stack;*
>
> *(b) may, in the opinion of the consent authority, have an adverse impact on air quality of any sensitive receptor, including neighbouring buildings and/or any area open to air due to the developments potential to disperse the plume of emissions from the Cross City Tunnel ventilation stack; or*
>
> *(c) may be adversely impacted in terms of the effect of the emissions from the Cross City Tunnel ventilation stack on occupants of the development.*
>
> *(2) The consent authority is to consider:*
>
> (a) the impact of the development on the occupants of other existing and future development and people using a place open to

the public due to the potential of the development to disperse the plume of emissions from the Cross City Tunnel ventilation stack;

(b) the likely impact of emissions from the Cross City Tunnel ventilation stack on occupants of the proposed development;

(c) whether the concentration of emissions at any sensitive receptor exceeds the Air Quality Goal of 246 µg/m^3 of NO_2 due to emissions from the Cross City Tunnel;

(d) an Air Quality Impact Assessment Report which:

(i) has been prepared by a suitably qualified person in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, published by the Department of Environment and Climate Change in 2005 and any relevant Council guideline or the Air Quality Assessment Process – Cross City Tunnel: Protocol to Address Provisions of Condition of Approval 247 (Roads and Traffic Authority 11 February 2008); and

(ii) identifies the predicted concentration of Nitrous Oxide at all sensitive receptors; and

(iii) includes an assessment of the matters outlined in sub -clauses (a) through to (c).

Table 3.7: Development near the Cross City Tunnel Ventilation Stack

Distance of development from Cross City Tunnel ventilation stack in metres	Height of proposed development above ground level Proposed building height in metres
0 – 50	greater than 25
50 – 100	greater than 30
100 – 150	greater than 40
150 – 200	greater than 50
200 – 250	greater than 60
250 – 300	greater than 70
300 – 400	greater than 90
400 – 500	greater than 100

”

The Project Building is located approximately 170 m from the CCT Stack with an approximate height of 81.7 m. This is above the height requirements for the assessment provisions listed in Table 3.7 of the DCP.

While Section 3.13.2 (2c) of the DCP does not specify an averaging period for the specified NO_2 Air Quality Goal, and does not explicitly specify whether the predicted incremental or cumulative concentrations are to be compared against this criteria, in line with the Approved Methods, SLR has adopted a 164 µg/m^3 criterion (rather than the less stringent 246 µg/m^3 outlined in the DCP) for predicted cumulative 1-hour average impacts. Additionally, SLR has assessed cumulative annual average NO_2 concentrations at the Project site against the relevant criterion set out in the Approved Methods (31 µg/m^3).

4.0 Project Setting

4.1 Local Topography

Topography is important in air quality studies as local atmospheric dispersion can be influenced by night-time katabatic (downhill) drainage flows from elevated terrain or channelling effects in valleys or gullies.

A three-dimensional representation of the region is given in **Figure 3**. The topography of the area within the illustrated area ranges from an approximate elevation of -5 m to 55 m Australian Height Datum (AHD). The Project site is reasonably flat and there are no significant topographical features between the Project site and the CCT Stack. An expanded view of the topography surrounding the Project site is provided in **Figure 4** which shows the variations in features near the meteorological and air quality monitoring stations referenced in **Section 4.2** and **Section 4.4**.

Figure 3 Topography of Area Surrounding the Project Site

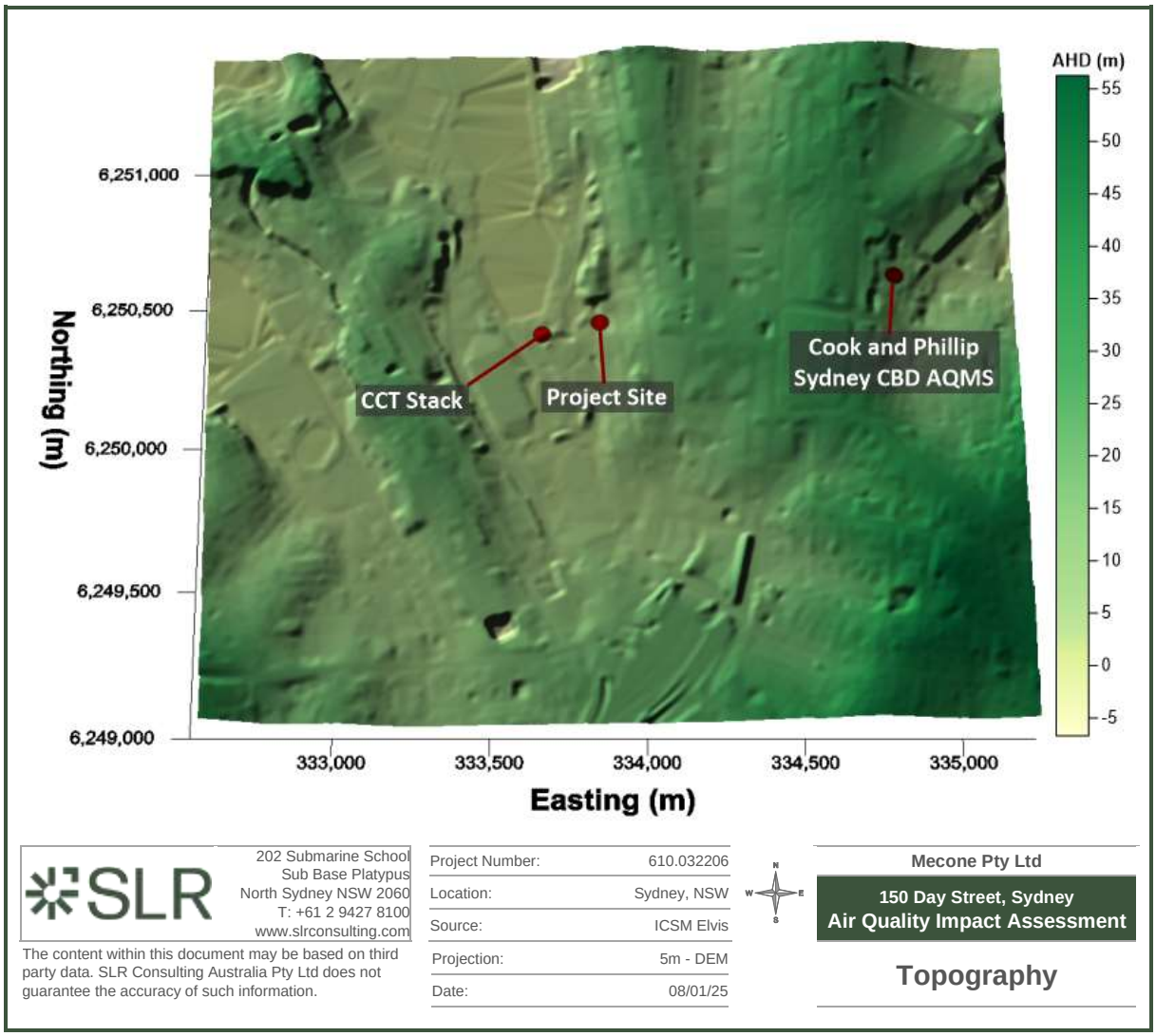
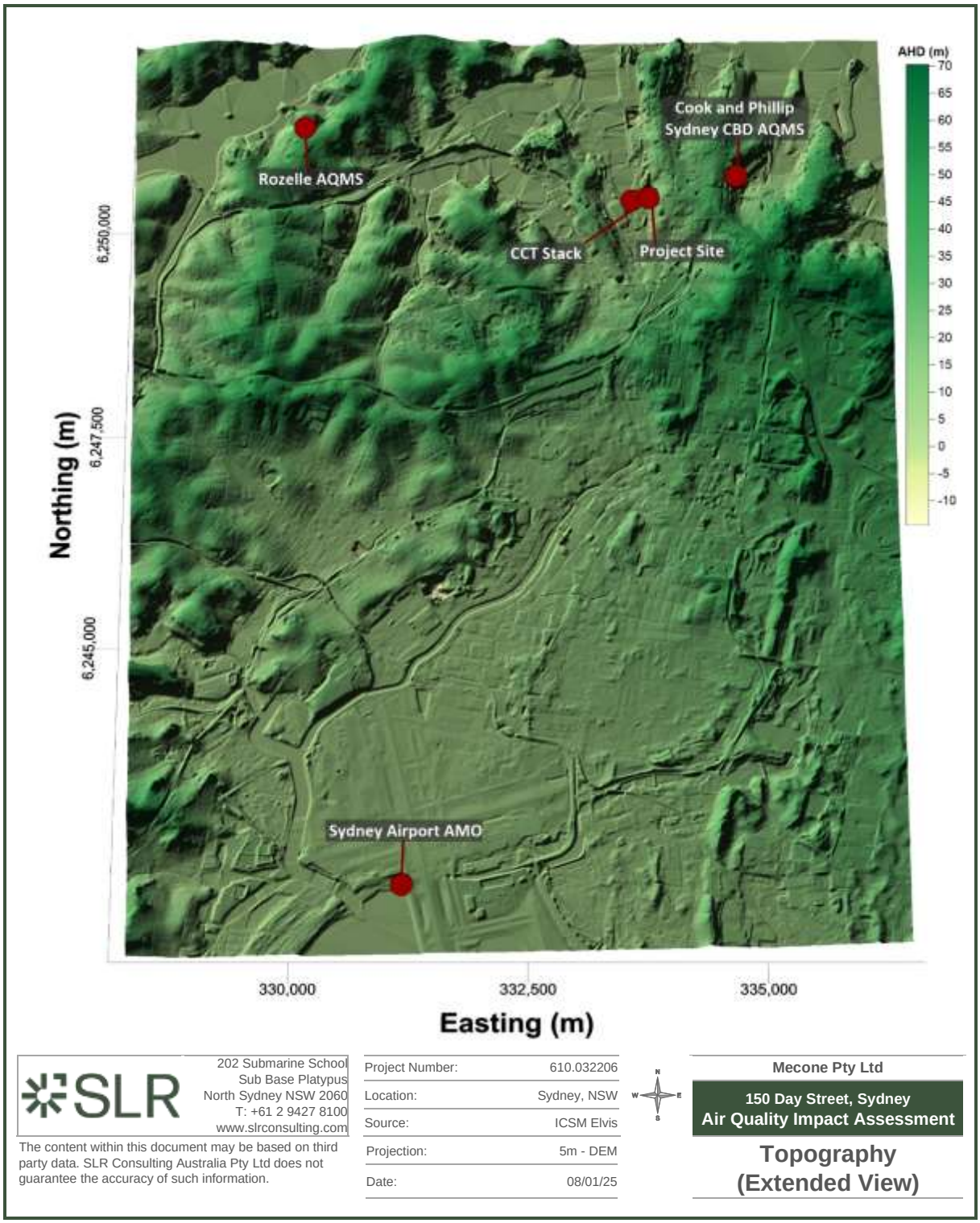


Figure 4 Topography of Area Surrounding the Project Site



4.2 Climate and Meteorology

The Bureau of Meteorology (BoM) maintains and publishes data from weather stations across Australia. The closest such station recording long term wind speed and wind direction data is the Sydney Airport Aeronautical Meteorological Observer (Sydney Airport AMO)

(Station ID 66037), located approximately 8.5 kilometres (km) south-southwest of the Project. It is likely that there will be variability between meteorological wind conditions (specifically wind speed and direction) at the Project site and the Sydney Airport AMO due to the variations in the terrain and land cover surrounding each location. To account for this, site specific meteorological modelling had been performed (**Section 5.1**). The observational data from the Sydney Airport AMO is detailed below to describe the general conditions for the region. Sydney Airport AMO has data available for the following parameters:

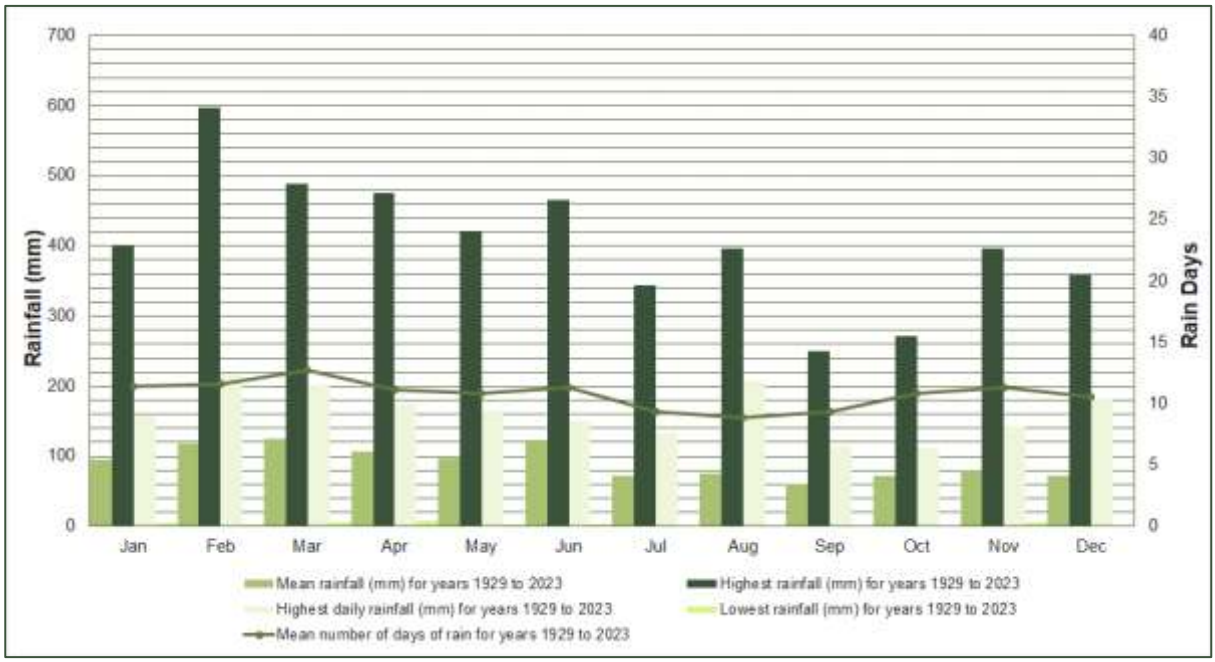
- Temperature (°C)
- Rainfall (mm)
- Relative humidity (%)
- Wind speed (m/s) and wind direction (degrees).

A review of the long-term data collected by this station is provided in the following sections.

4.2.1 Rainfall

Rainfall statistics for Sydney Airport AMO for the years 1929 to 2023 are summarised in **Figure 5**. The mean annual rainfall is 1,093 millimetres (mm). The average monthly rainfall is highest in summer with the highest average monthly rainfall of 124.7 mm/month in February and an average of 13 rain days. The lowest average rainfall is 59.8 mm/month in September, with an average of 9 days of rain. The highest monthly rainfall recorded over the time period examined was 596.9 mm recorded in February 1956. The maximum daily rainfall of 216.2 mm was recorded on 3rd February 1990.

Figure 5 Monthly Rainfall Data for Sydney Airport AWS (1929 – 2023)

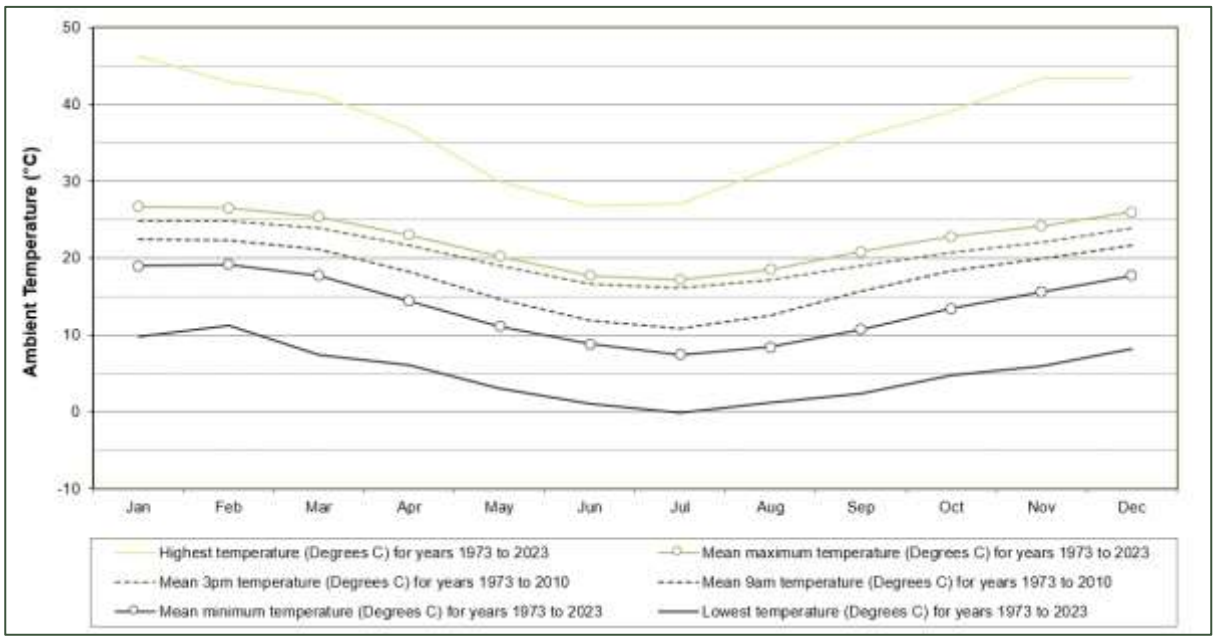


4.2.2 Temperature

Long-term temperature statistics for the Sydney Airport AMO are summarised in **Figure 6**. Mean maximum temperatures range from 17.2°C in winter to 26.7°C in summer, while mean

minimum temperatures range from 7.4°C in winter to around 19°C in summer. Maximum temperatures above 45°C and minimum temperatures below 10°C have been recorded.

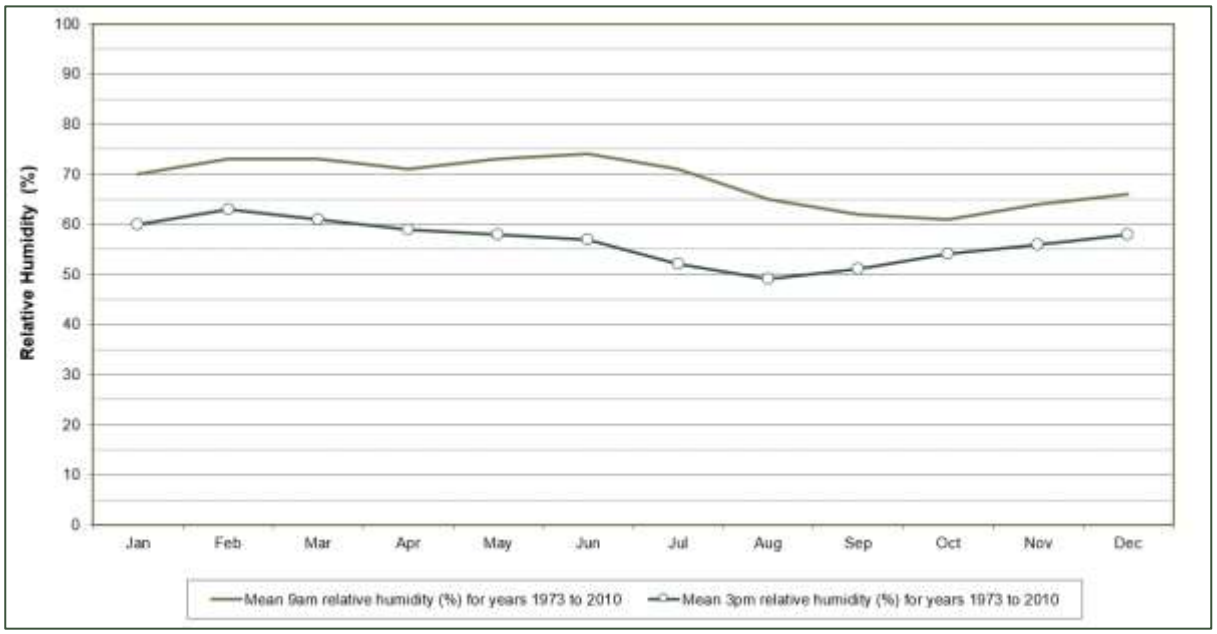
Figure 6 Long Term Temperature Data for Sydney Airport AMO



4.2.3 Relative Humidity

Long-term humidity statistics (9 am and 3 pm monthly averages) for the Sydney Airport AMO are summarised in **Figure 7**. Morning humidity levels range from an average of around 61% in mid-spring to around 74% in winter. Afternoon humidity levels are lower, at around 63% in late summer and dropping to a low of 49% in late winter.

Figure 7 Long Term Humidity Data for Sydney Airport AMO



4.2.4 Wind

Local wind speed and direction influence the dispersion of air pollutants. Wind speed determines both the distance of downwind transport and the rate of dilution as a result of 'plume' stretching. Wind direction, and the variability in wind direction, determines the general path pollutants will follow and the extent of crosswind spreading. Surface roughness (characterised by features such as the topography of the land and the presence of buildings, structures and trees) will also influence dispersion.

Annual and seasonal wind roses for the past five years, 2019 to 2023, compiled from data recorded by the Sydney Airport AMO are presented in **Figure 8**. Wind roses show the frequency of occurrence of winds by direction and strength. The bars correspond to the 16 compass points (degrees from North). The bar at the top of each wind rose diagram represents winds blowing from the north (i.e. northerly winds), and so on. The length of the bar represents the frequency of occurrence of winds from that direction, and the widths of the bar sections correspond to wind speed categories, the narrowest representing the lightest winds. Thus, it is possible to visualise how often winds of a certain direction and strength occur over a long period, either for all hours of the day, or for particular periods during the day. There are times when the wind is calm (defined as being from zero to 0.5 metres/second), and the percentage of the time that winds are calm are shown as a note on the wind rose. **Table 1** outlines the wind scale used to describe the wind speed.

Table 1 Wind Scale Descriptions

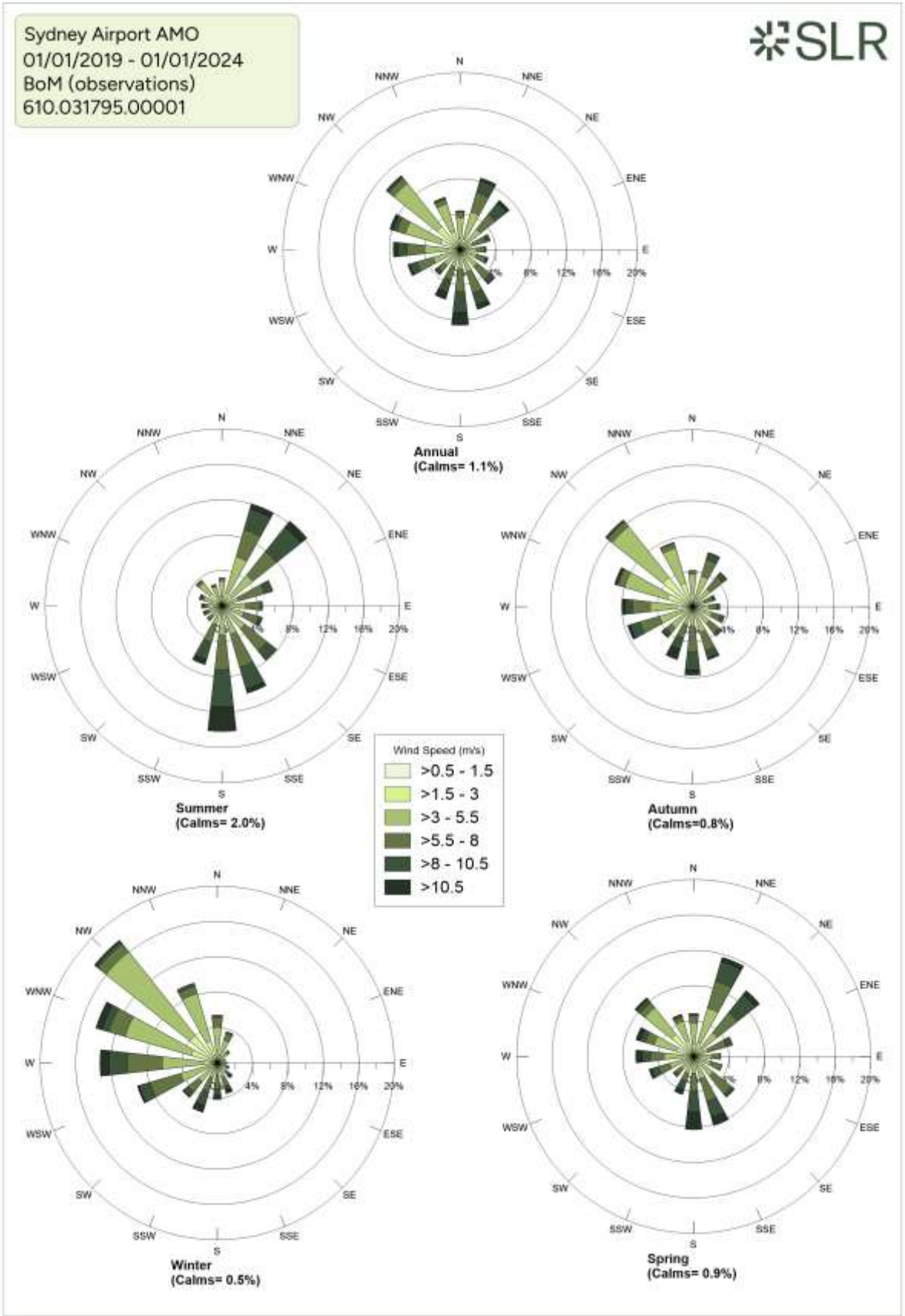
Description	km/h	m/s	Description on land
Calm	0-1.8	0-0.5	Smoke rises vertically
Light air	1.8-5.5	0.5-1.5	Smoke drift indicates wind direction
Light breeze	5.4-10.8	1.5-3	Wind felt on face, leaves rustle, light flags extended, ordinary vanes moved by wind
Gentle breeze	10.8-19.8	3-5.5	Leaves and small twigs in constant motion; light flags extended.
Moderate winds	19.8-28.8	5.5-8.0	Raises dust and loose paper, small branches are moved
Fresh winds	28.8-37.8	8.0-10.5	Small trees in leaf begin to sway, crested wavelets form on inland waters
Strong winds	>37.8	>10.5	Large branches in motion, whistling heard in telephone wires; umbrellas used with difficulty

The annual wind rose indicates the winds in the area blow from all directions with a higher frequency of winds from the northwest, south, and north-northeast. Calm wind conditions were recorded to occur 1.1% of the time throughout the investigated period. The average seasonal wind roses for the year 2018-2023 indicate that:

- In summer, winds range generally evenly from light breeze to strong winds are mostly between and blow predominantly from the south to southeast and northeast/north-northeast, with very few winds from other directions. Calms were recorded approximately 2% of the time during the summer months.
- In autumn, winds range from light breeze to strong winds with a higher frequency of gentle breeze winds than summer. Winds blow predominantly from the northwest and other western directions, with low frequency of winds from northern and southern directions and very little winds from the east. Calms were recorded approximately 0.8% of the time during autumn.
- In winter, winds range from light breeze to strong winds with a higher frequency of gentle breeze winds than autumn. Winds blow predominantly from the northwest with a high frequency of winds ranging from north-northwest to west-southwest with very few winds blowing from any other direction. Calms were recorded approximately 0.5% of the time during the winter months.
- In spring, winds range generally evenly from light breeze to strong winds are mostly between and blow predominantly from the north-northeast and northeast, south/south-southeast and northwest to west-southwest, with very few winds from other directions. Calms were recorded approximately 0.9% of the time during spring.

As identified in **Section 2.0** The Project is located approximately 170 m east of the CCT Stack.. Annual winds from the west quadrant blowing air emissions from the CCT Stack towards the Project Building occur less than 25% of the time.

Figure 8 Average Annual and Seasonal Wind Roses (Sydney Airport AMO - 2019-2023)



4.3 Surrounding Land Use

Under the LEP, the Project site and all the land immediately surrounding the Project site is zoned SP5 (Metropolitan Centre). The Western Distributer is located to the north of the Project site followed by the Cross City Tunnel exit, then commercial offices. To the east of the Project site is Sands Street followed by commercial offices with ground floor retail premises. To the south of the Project site is Bathurst Street followed by more commercial offices with ground floor retail premises. To the west is Day Street, followed by IMAX Sydney, W Sydney hotel, the Darling Quarter Shopping Mall, followed by the Darling Harbour including many tourist attractions such as celebration spaces, the ICC Sydney, restaurants, and Tumbalong Park Chinese Gardens.

4.4 Background Air Quality

Air quality monitoring is performed by the Climate and Atmospheric Science Branch of the Department of Climate Change, Energy, the Environment, and Water (DCCEEW) at a number of air quality monitoring stations (AQMS) across NSW.

The closest AQMS to the Project site is the Cook and Phillip AQMS, located 900 m to the east. The Cook and Phillip (also called Sydney CBD) AQMS was commissioned in 2019 and is located at the north-western corner of Cook and Phillip Park. The station measures air quality in the Sydney Central Business District at an elevation of 26 m. It is part of the Sydney East air quality monitoring region.

The next closest AQMS to the Project site is the Rozelle AQMS, located 3.8 km to the west-northwest of the Project site. The Rozelle AQMS station was commissioned in 1978 and is located on the grounds of Rozelle Hospital, off Balmain Road, Rozelle. It is situated in a residential area in the Parramatta River valley at an elevation of 22 m. It is also part of the Sydney East air quality monitoring region.

As the Project Building has a number of elevated floors, the upper levels of the Project Building are not anticipated to experience the same ambient pollution concentrations as the lower levels which are in proximity to the CBD roads. It is anticipated that the Cook and Philps AQMS data is representative of ambient concentrations the bottom levels of the Project Building, however use of this data for the upper levels of the Project Building may significantly overrepresent the impacts of road traffic at higher elevations. To appropriately represent the anticipated lower ambient pollution concentrations at the upper levels of the Project Building, Rozelle AQMS data is also presented. The Rozelle AQMS is still within the Sydney East air quality monitoring region and therefore will still be reasonably representative of Sydney East regional ambient concentrations but with fewer major roads in proximity. Levels up to and including the top of Level 11 will use Cook and Phillip AQMS data, and higher levels will use Rozelle AQMS data .

4.4.1 Cook and Phillip AQMS

Cook and Phillip AQMS monitors the following air pollutants:

- Particulate matter less than 10 µm in diameter (PM_{10}).
- Particulate matter less than 2.5 µm in diameter ($PM_{2.5}$).
- Nitrogen dioxide (NO_2).
- Carbon monoxide (CO).
- Sulphur dioxide (SO_2).

Air pollutant data recorded by the Cook and Phillip AQMS were obtained for the calendar years 2019 – 2023. The data are summarised in **Table 2** (red font indicates an exceedance of the relevant criterion followed by the number of exceedances in brackets for averaging periods other than annual), and presented graphically in **Figure 9** to **Figure 13**.

Table 2 shows that exceedances of the 24-hour average PM_{10} criterion were recorded by the Cook and Phillip AQMS in 2019-2020 and 2023, and exceedances of the 24-hour average and $PM_{2.5}$ criteria were recorded in all years except 2022.

A review of the available compliance monitoring reports indicates that the PM_{10} and $PM_{2.5}$ exceedances were primarily due to either:

- exceptional events such as bushfire emergencies, dust storms and hazard reduction burns, (NSW DPIE 2019), or
- non-exceptional events such as local-scale or regional-scale dust emissions, and local woodfire usage (NSW DPIE 2020.

The high number of exceedances recorded in 2019 were due to bushfire smoke that affected Sydney and the surrounding areas for a significant number of days in late 2019 and early 2020 (the 'Black Summer' bushfire event).

The annual average PM_{10} and $PM_{2.5}$ criterion were not exceeded during the five years reviewed.

Exceedances of the 1-hour average NO_2 criterion were recorded in 2019. The annual average NO_2 criterion was not exceeded during the five years reviewed.

Ambient concentrations of the gaseous pollutants CO and SO_2 were all below the relevant criteria for all years investigated.

Three exceedances of the 24-hour average PM_{10} and $PM_{2.5}$ criterion were recorded in 2023. The NEPM compliance report for 2023 has not been published at the time of this assessment, but a review of the available data shows that the exceedances occurred during mid-September, when air quality impacts from large hazard reduction burns were reported across Sydney. [2]

Table 2 Summary of Cook and Phillip AQMS Data (2019 - 2023)

Pollutant	PM_{10}		$PM_{2.5}$		NO_2		CO		SO_2	
Averaging Period	**Maximum 24-hour**	**Annual**	**Maximum 24-hour**	**Annual**	**Maximum 1-hour**	**Annual**	**Maximum 1-hour**	**Maximum 8-hour**	**Maximum 1-hour**	**Annual**
Units	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**µg/m³**	**mg/m³**	**mg/m³**	**µg/m³**	**µg/m³**
2019	116.8 (13)	7.4	96.5 (19)	3.8	225.5 (2)	24.0	5.5	2.3	51.5	8.6
2020	130.8 (4)	13.6	112.5 (7)	6.8	94.3	26.3	4.4	3.5	54.3	8.6
2021	36.9	11.3	29.5 (1)	5.4	96.4	24.5	3.0	0.9	45.8	8.6
2022	24.5	9.5	14.0	4.1	82.0	23.0	1.0	0.5	37.2	11.4
2023	67.4 (2)	12.9	58.8 (4)	6.3	116.9	25.6	0.0	0.0	0.0	0.0
Criterion	**50**	**25**	**25**	**8**	**164**	**31**	**30**	**10**	**215**	**57**

2 Exceedances of the 24-hour average $PM_{2.5}$ criteria occur on 11th, 12th, 14th September 2023. '*Sydney smoke: air quality among worst in world due to hazard-reduction burns'* | Bushfires | The Guardian.' https://www.theguardian.com/australia-news/2023/sep/14/sydney-air-quality-smoke-haze-today-back-burning-schedule-hazard-reduction-burns, Accessed 4 April 2024.

Figure 9 24-Hour Average PM_{10} Concentrations at Cook and Phillip AQMS (2019 - 2023)

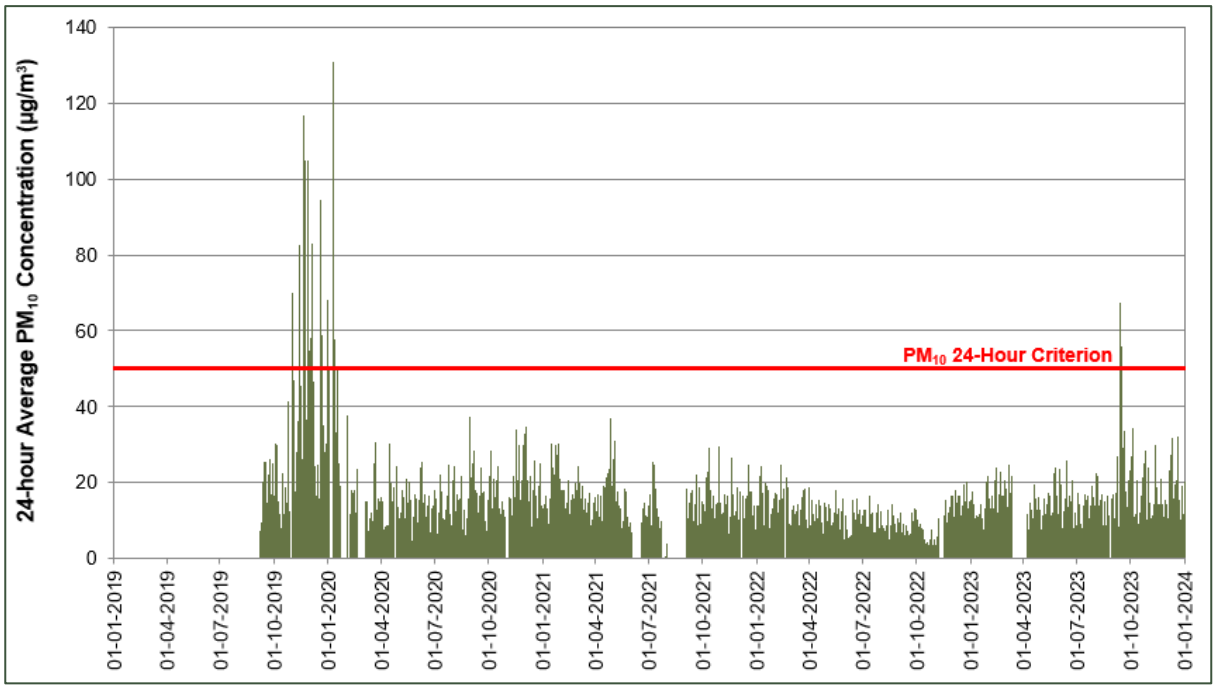
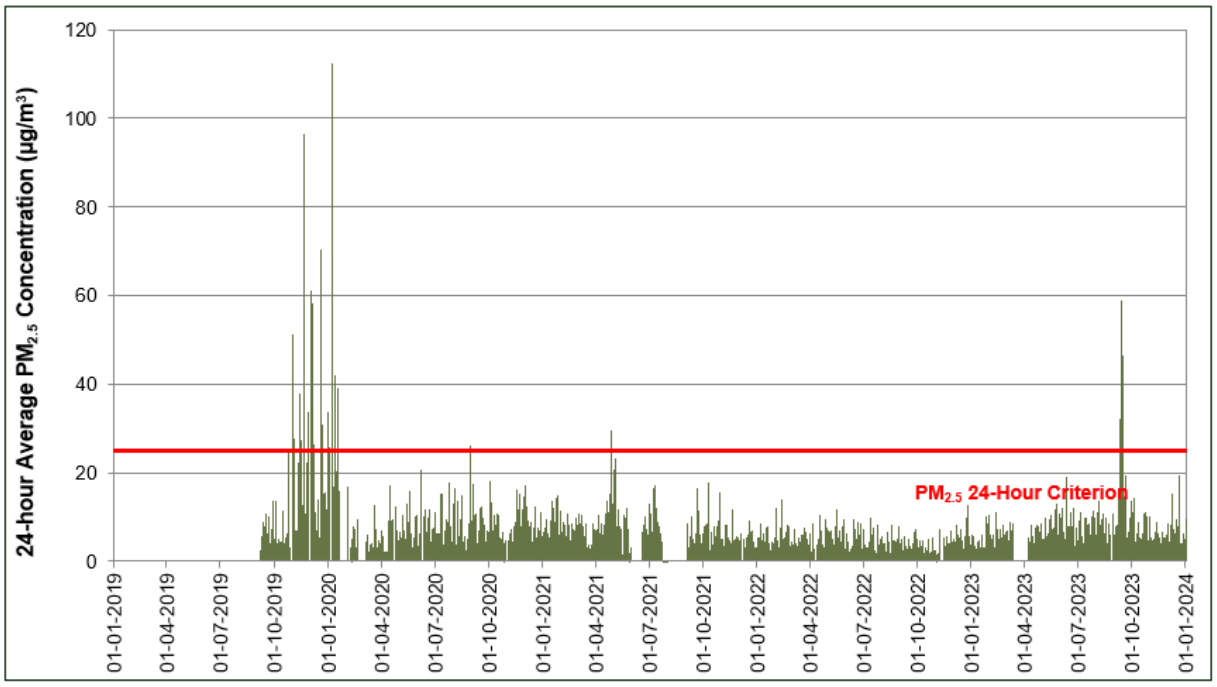


Figure 10 24-Hour Average $PM_{2.5}$ Concentrations at Cook and Phillip AQMS (2019 - 2023)



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Figure 11 1-Hour Average NO_2 Concentrations at Cook and Phillip AQMS (2019 - 2023)

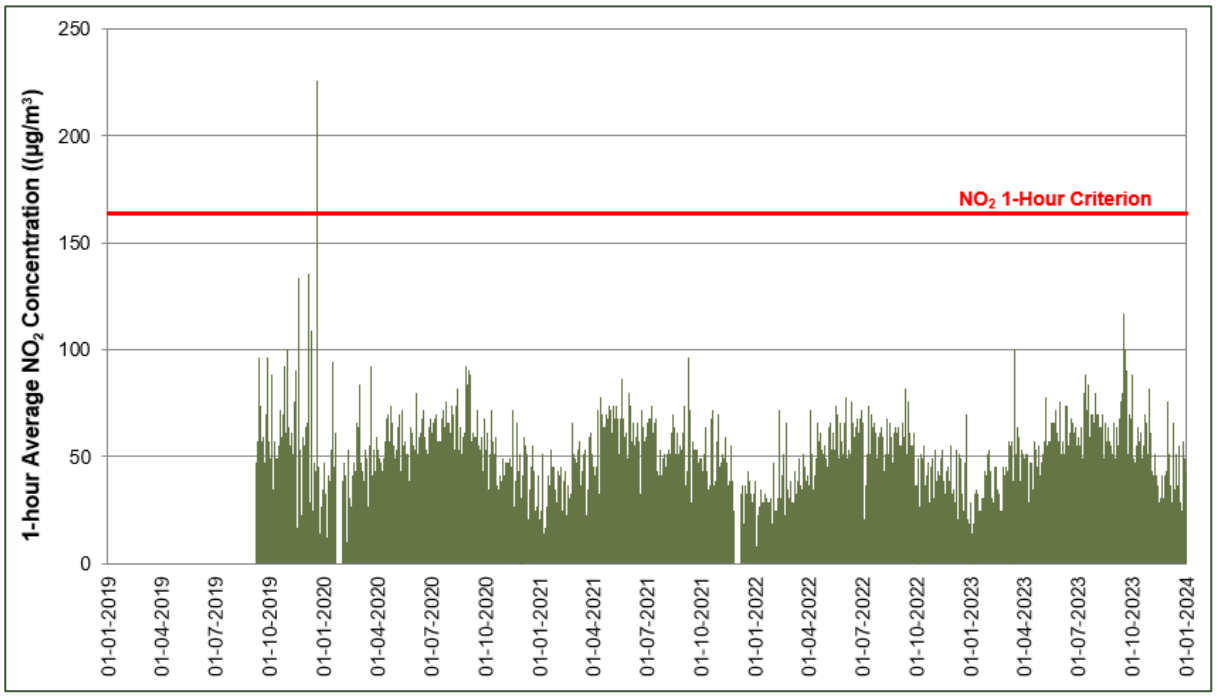


Figure 12 1-Hour Average CO Concentrations at Cook and Phillip AQMS (2019 - 2023)

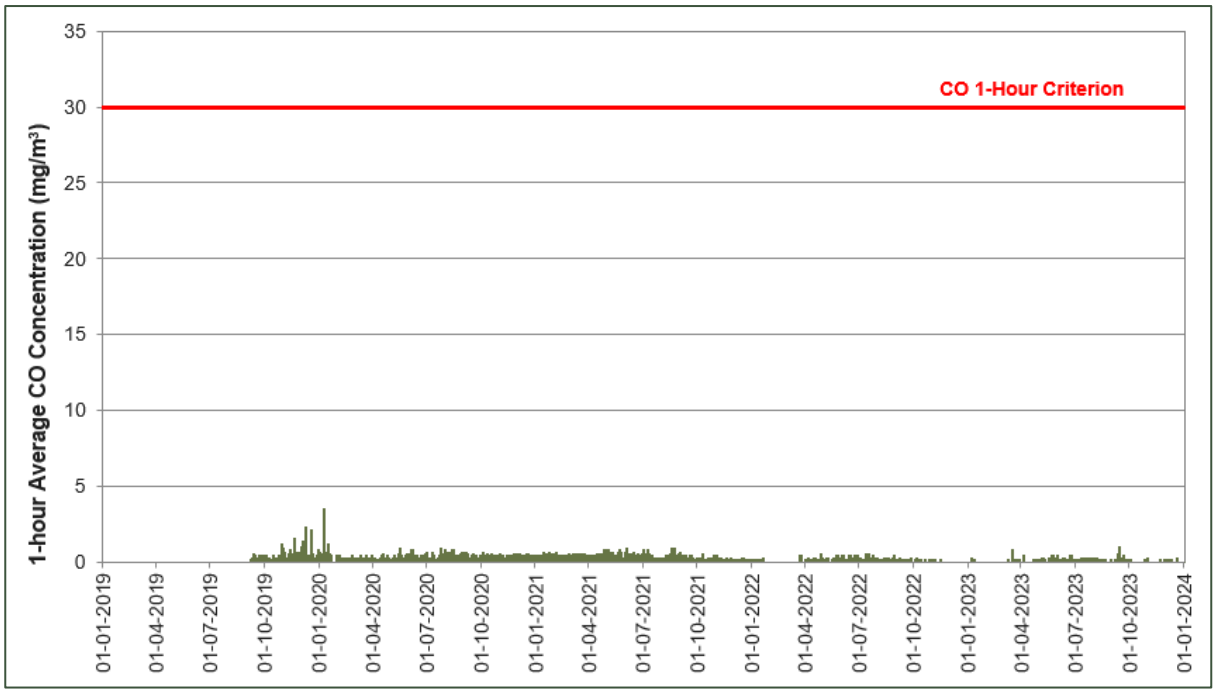
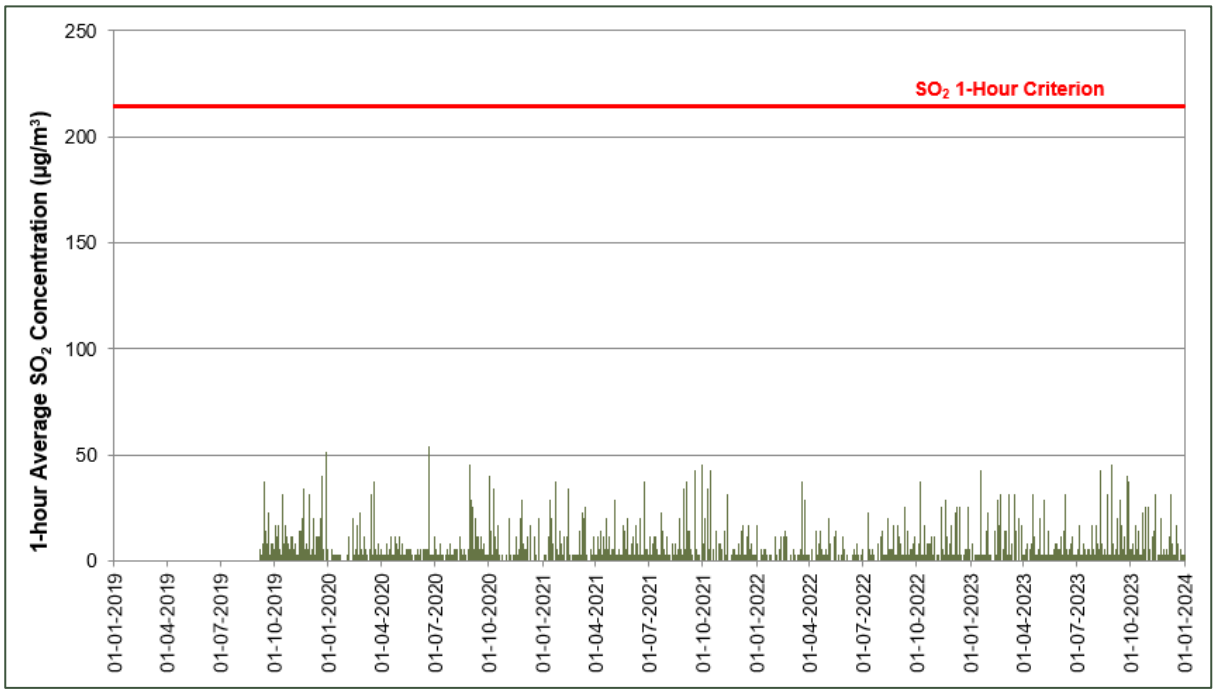


Figure 13 1-Hour Average SO_2 Concentrations at Cook and Phillip AQMS (2019 - 2023)



4.4.2 Rozelle AQMS

Rozelle AQMS monitors the following air pollutants:

- Particulate matter less than 10 µm in diameter (PM_{10}).
- Particulate matter less than 2.5 µm in diameter ($PM_{2.5}$).
- Nitrogen dioxide (NO_2).
- Carbon monoxide (CO).
- Sulphur dioxide (SO_2).

Air pollutant data recorded by the Rozelle AQMS were obtained for the calendar years 2019 – 2023. The data are summarised in **Table 3** (red font indicates an exceedance of the relevant criterion followed by the number of exceedances in brackets for averaging periods other than annual), and presented graphically in **Figure 14** to **Figure 18**.

Table 3 shows that exceedances of the 24-hour average PM_{10} criterion were recorded by the Rozelle AQMS in three years, 2019-2021, and exceedances of the 24-hour average and $PM_{2.5}$ criteria were recorded in all years except 2022.

A review of the available compliance monitoring reports indicates that the PM_{10} and $PM_{2.5}$ exceedances were primarily due to exceptional events such as bushfire emergencies, dust storms and hazard reduction burns (NSW DPIE 2019) (NSW DPIE 2020) (NSW DPE 2021). The high number of exceedances recorded in 2019 were due to the 'Black Summer' bushfire event.

Exceedances of the annual average $PM_{2.5}$ criterion were recorded in 2019. The annual average PM_{10} criterion was not exceeded during the five years reviewed.

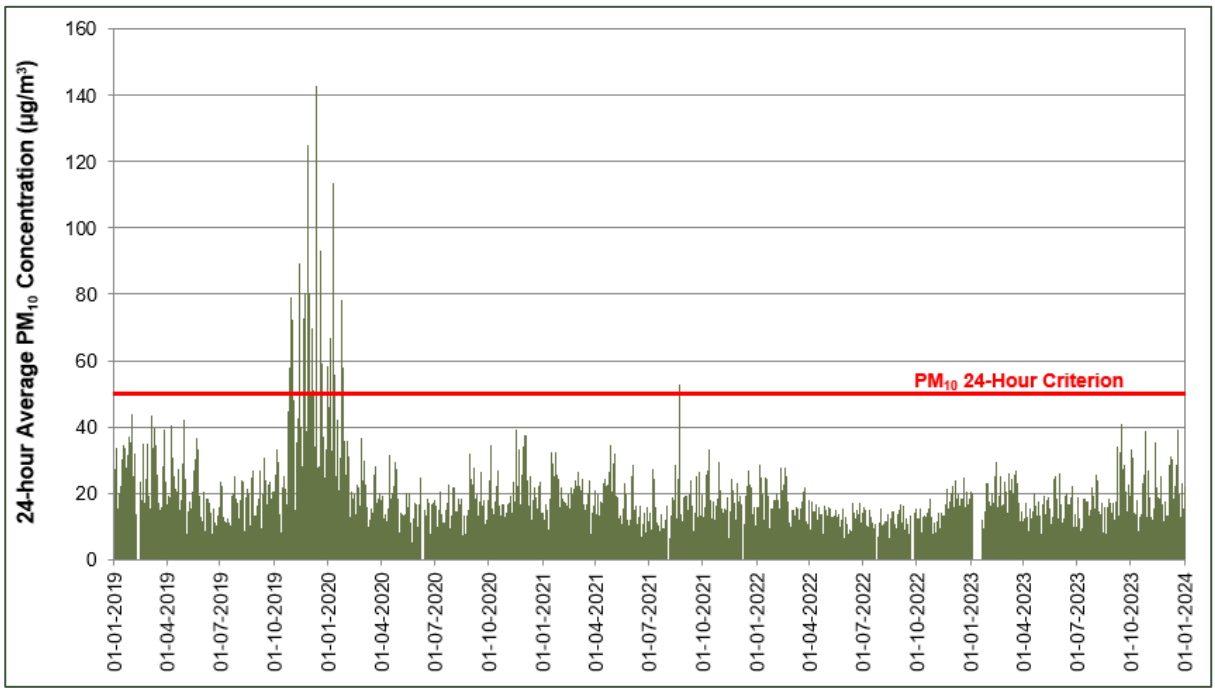
Ambient concentrations of the gaseous pollutants NO_2, CO and SO_2 were all below the relevant criteria for all years investigated.

Three exceedances of the 24-hour average $PM_{2.5}$ criterion were recorded in 2023. The NEPM compliance report for 2023 has not been published at the time of this assessment, but a review of the available data shows that the exceedances occurred during mid-September, when air quality impacts from large hazard reduction burns were reported across Sydney. [3]

Table 3 Summary of Rozelle AQMS Data (2019 - 2023)

Pollutant	PM_{10}		$PM_{2.5}$		NO_2		CO		SO_2	
Averaging Period	Maximum 24-hour	Annual	Maximum 24-hour	Annual	Maximum 1-hour	Annual	Maximum 1-hour	Maximum 8-hour	Maximum 1-hour	Annual
Units	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	mg/m³	mg/m³	µg/m³	µg/m³
2019	142.7 (18)	21.9	101.8 (21)	9.9	184.5 (1)	19.5	6.5	2.8	91.5	14.3
2020	113.5 (7)	17.7	87.3 (8)	7.4	88.2	16.8	4.1	3.3	45.8	8.6
2021	52.6 (1)	15.3	61.7 (3)	6.2	71.8	14.6	1.9	1.6	57.2	11.4
2022	28.5	12.2	12.7	4.5	63.6	11.7	1.9	1.0	82.9	11.4
2023	40.9	14.9	35.4 (3)	6.0	86.1	15.9	1.4	0.9	68.6	8.4
Criterion	**50**	**25**	**25**	**8**	**164**	**31**	**30**	**10**	**286**	**57**

Figure 14 24-Hour Average PM_{10} Concentrations at Rozelle AQMS (2019 - 2023)



3 Exceedances of the 24-hour average $PM_{2.5}$ criteria occur on 11th, 12th, 14th September 2023. '*Sydney smoke: air quality among worst in world due to hazard-reduction burns'* | Bushfires | The Guardian.' https://www.theguardian.com/australia-news/2023/sep/14/sydney-air-quality-smoke-haze-today-back-burning-schedule-hazard-reduction-burns, Accessed 4 April 2024.

Figure 15 24-Hour Average $PM_{2.5}$ Concentrations at Rozelle AQMS (2019 - 2023)

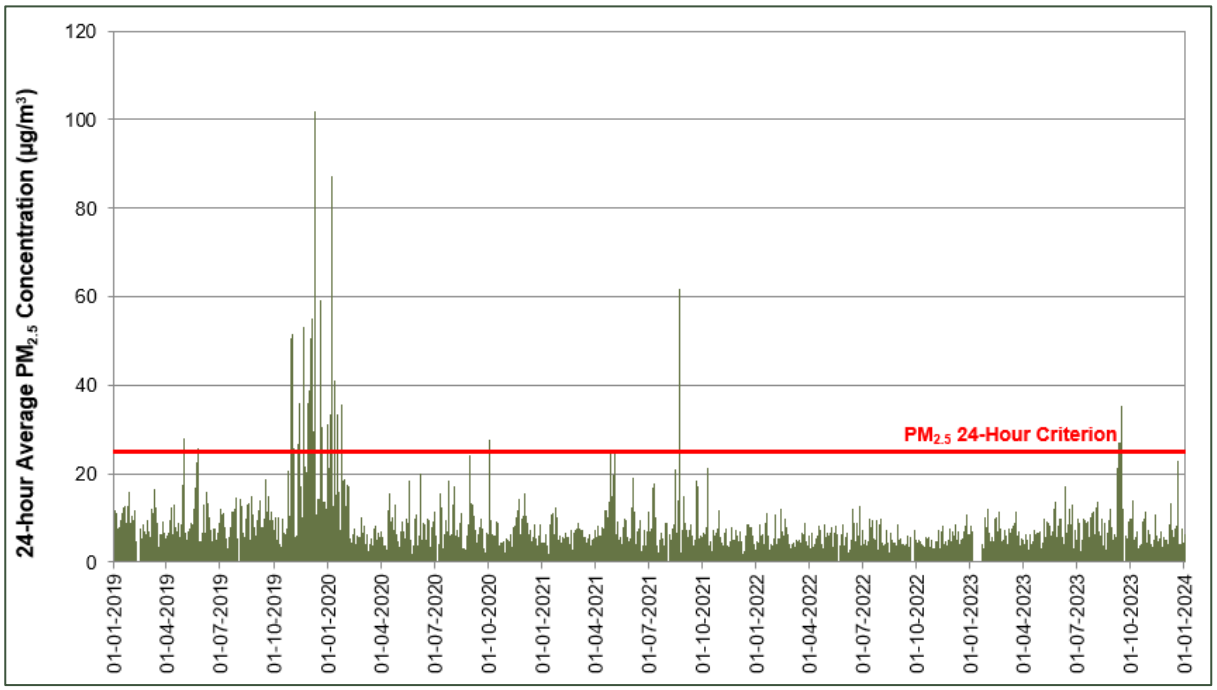


Figure 16 1-Hour Average NO_2 Concentrations at Rozelle AQMS (2019 - 2023)

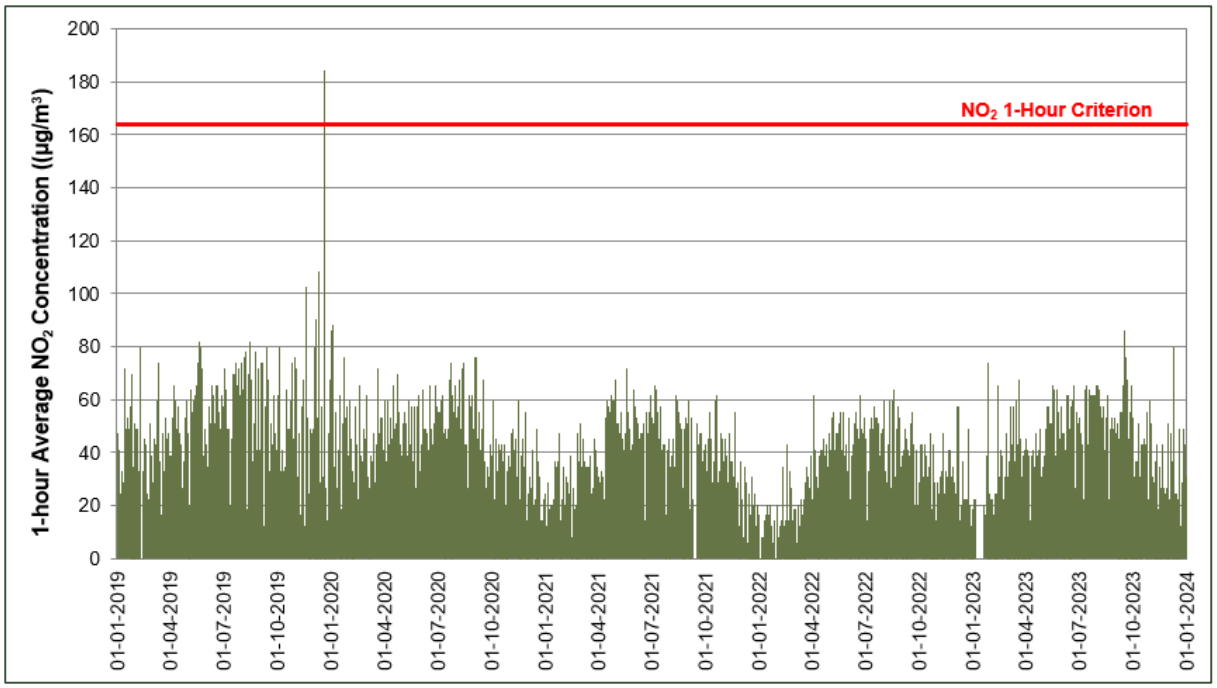


Figure 17 1-Hour Average CO Concentrations at Rozelle AQMS (2019 - 2023)

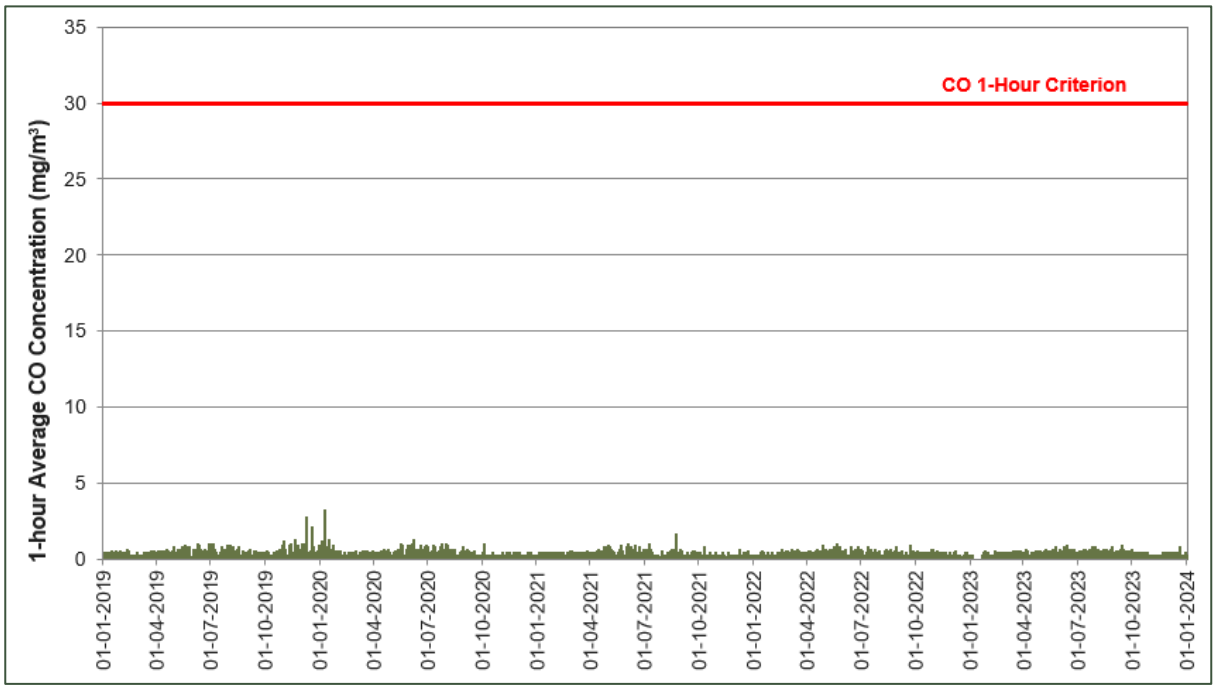
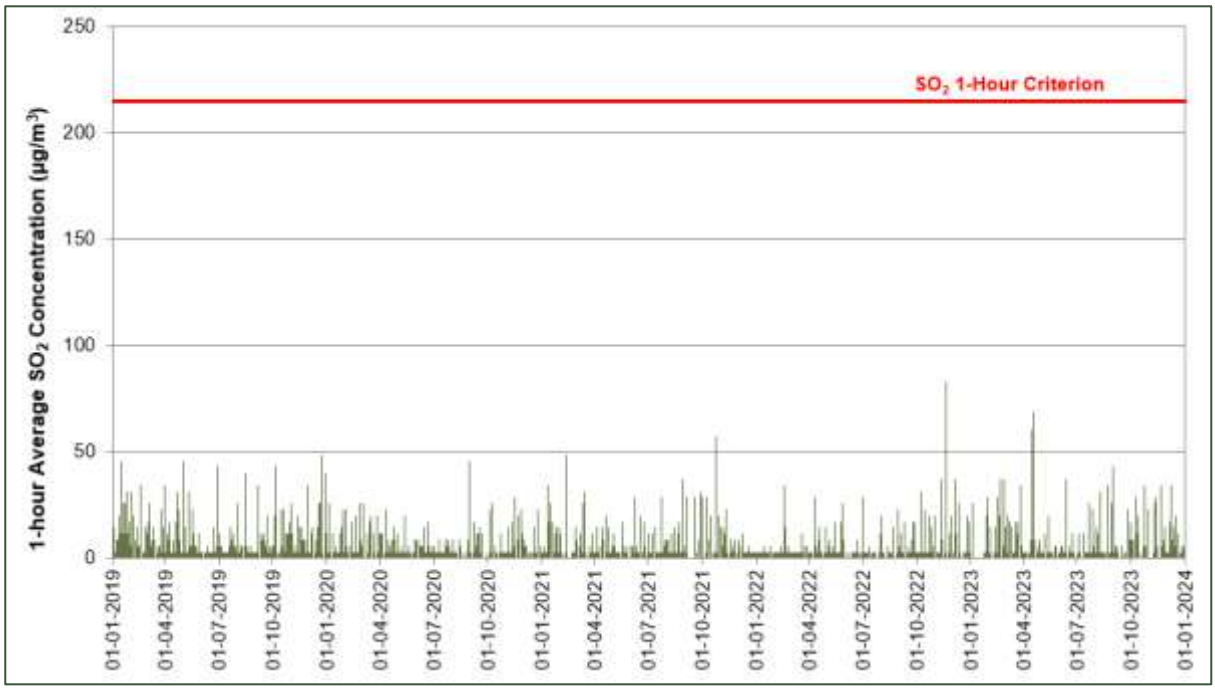


Figure 18 1-Hour Average SO_2 Concentrations at Rozelle AQMS (2019 - 2023)



5.0 Assessment Methodology

Emissions from the CCT Stack were modelled using the GRAMM/GRAL modelling system to predict the incremental impact of these emissions across a modelling domain that covered the CCT Stack and the Project site with sufficient buffer. The modelling was undertaken for two scenarios; namely the existing scenario and the proposed scenario including the Project Building at 150 Day Street. Regional air quality monitoring data available from the DCCEEW ambient monitoring network (see **Section 4.4**) were then used to assess the potential cumulative concentrations of NO_2 that future occupants of the Project site would potentially be exposed to, and to assess compliance against relevant air quality criteria (refer **Section 3.2**). In order to assess the potential change in dispersion of pollutants due to the Project, the incremental NO_X predictions for the two modelling scenarios were compared.

As outlined in **Section 1.0**, the aim of this report is to address Clause 3.13.2 of the DCP. Given the DCP only specifies an Air Quality Goal for NO_2 (refer to **Section 4.4**, atmospheric pollutants emitted from the CCT Stack other than NO_2 have not been assessed for the purpose of this AQA.

5.1 Meteorological Modelling

To provide the meteorological data required by GRAL, information is needed on the prevailing wind regime, mixing depth and atmospheric stability and other parameters such as ambient temperature and relative humidity. In the absence of any site-specific observed meteorological data, a site-representative meteorological dataset was compiled using the CSIRO model TAPM model and the GRAMM meteorological processor.

5.1.1 Selection of the Meteorological year

In order to determine a representative meteorological year for use in dispersion modelling, five years of meteorological data (2019-2023) from the closest meteorological monitoring station with detailed hourly data available (Sydney Airport AWS) were analysed against the five-year average meteorological conditions. Specifically, the following parameters were analysed:

- frequency and distribution of the predominant wind directions
- hourly wind speeds observed
- hourly temperature

Based on this analysis, it was concluded that the year 2023 were most representative of the last five years of meteorological conditions experienced at the Project site. A detailed analysis is presented in **Appendix A**.

5.1.2 TAPM

The TAPM prognostic model, developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) was used to generate site representative data required for GRAMM modelling as outlined below.

TAPM predicts wind speed and direction, temperature, pressure, water vapour, cloud, rainwater and turbulence. The program allows the user to generate synthetic observations by referencing databases (covering terrain, vegetation and soil type, sea surface temperature

and synoptic scale meteorological analyses) which are subsequently used in the model input to generate one full year of hourly meteorological observations at user-defined levels within the atmosphere.

Additionally, TAPM may assimilate actual local wind observations so that they can optionally be included in a model solution. The wind speed and direction observations are used to realign the predicted solution towards the observation values. Available observed meteorological data from a number of BoM in the region were incorporated into the TAPM setup. **Table 4** details the parameters used in the TAPM meteorological modelling for this assessment.

Table 4 Meteorological Parameters used for the AQIA – TAPM

Parameter	Value
Modelling Period	1 January 2023 to 31 December 2023
Centre of analysis	332,750mE 6,250,232 mS (UTM Coordinates)
Number of grid points	35 × 35 × 35
Number of grids (spacing)	4 (30 km, 10 km, 3 km, 1 km)
Data assimilation	Canterbury Racecourse AWS (Station # 66194) Sydney Olympic Park AWS (Station # 66212) Sydney Airport AWS (Station # 66037) Terry Hills AWS (Station # 66059) Manly (North Head) AWS (Station # 66197)
Terrain	AUSLIG 9 second DEM

5.1.3 GRAMM

The GRAMM domain was defined so that it covered the CCT Stack and the Project site, with a sufficient buffer zone. Topographical data used in GRAMM were sourced from the Geoscience Australia database that has corrected Shuttle Radar Topography Mission (SRTM) topography data for Australia with a 1 arc second (approximately 30 m) spacing. The land use data for the modelling domain was defined by CORINE land use categories using aerial imagery.

The site-representative predicted meteorological data extracted from the inner domain output from the TAPM model was used as input to the GRAMM model. **Table 5** details the parameters used in the GRAMM model.

Table 5 GRAMM Meteorological Parameters

Parameter	Value
Number of wind speed classes	10
Wind speed classes (m/s)	0-0.5, 0.5-1.0, 1.0-2.0, 2.0-3.0, 3.0-4.0, 4.0-5.0, 5.0-6.0, 6.0-7.0, 7.0-8.0, >8.0
Number of wind direction sectors	36

Parameter	Value
Number of classified weather situations	1063
Horizontal grid resolution (m)	100
Vertical thickness of first layer (m)	10
Number of vertical layers	15
Vertical stretching factor	1.40
Relative top layer height	3,874
Maximum time step (s)	10
Modelling time	3,600
Relaxation velocity	0.10
Relaxation scalars	0.10

5.2 Meteorological Data Used in Model

5.2.1 Wind speed and Direction

A summary of the annual wind behaviour predicted by TAPM, extracted at a location near the Project site is presented as wind roses in **Figure 19**.

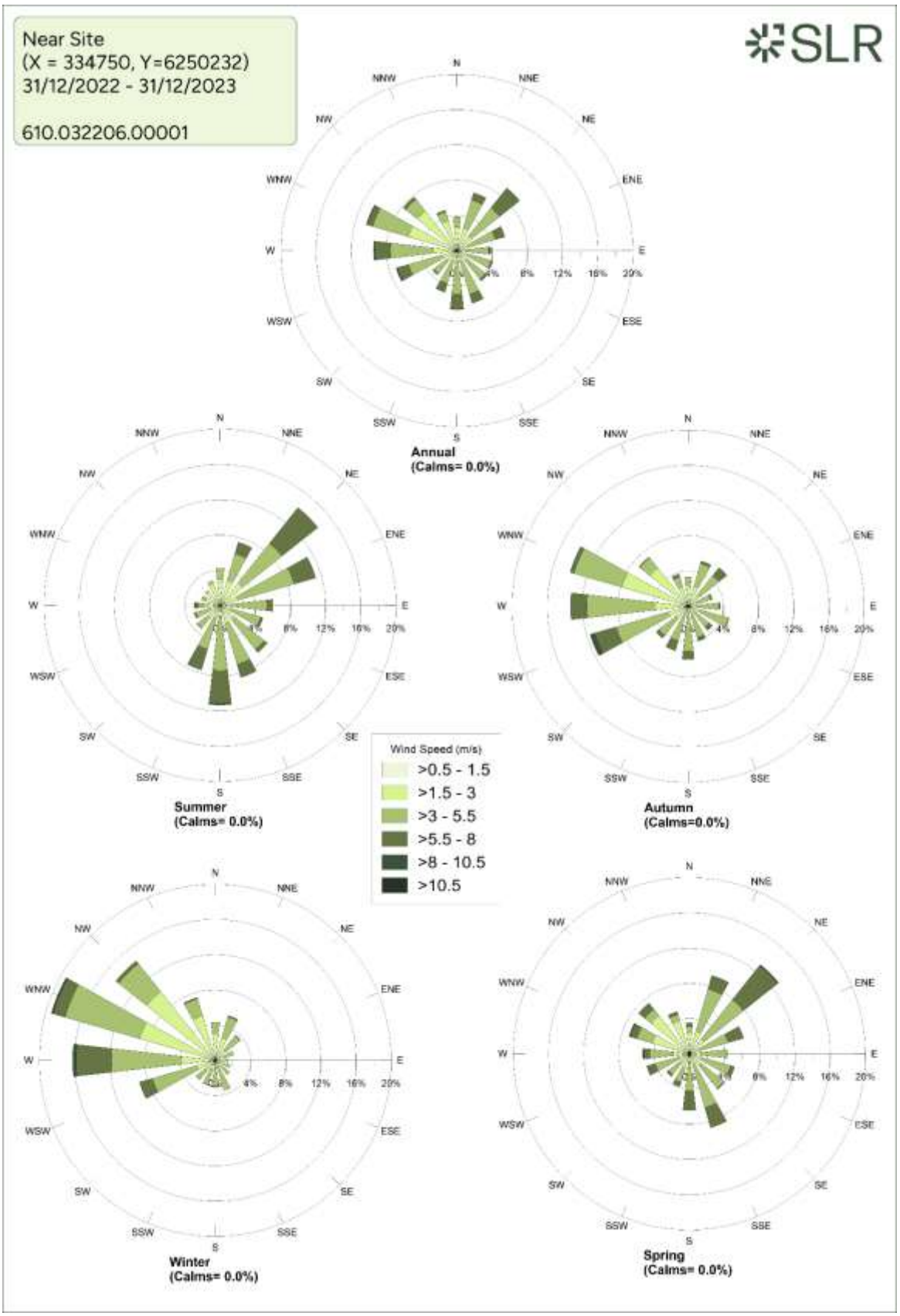
Figure 19 indicates that winds predicted at the Project site are predominantly between 3.5 m/s and 8 m/s. Calm wind conditions were predicted to occur 0% of the time throughout the modelling period.

The seasonal wind roses indicate that:

- In summer, winds are predominantly from the northeast and south, with very low frequency of winds from the west.
- In winter and autumn, winds are predominantly from the west-northwest, with very low frequency of winds from other directions. This trend is more exaggerated in winter.
- In spring, winds are predominantly from the northeast, with low frequency of winds from the southeast and northwest.

It is noted that the wind conditions predicted by the model at other areas within the modelling domain may vary from the wind roses presented in **Figure 19** for one point within the Project site, and within GRAL the dispersion of pollutants from each source within the model will reflect the local conditions.

Figure 19 Predicted Seasonal Wind Roses near Project Site (TAPM predictions, 2023)



5.2.2 Atmospheric Stability

Atmospheric stability refers to the tendency of the atmosphere to resist or enhance vertical motion. The Pasquill-Gifford-Turner (PGT) assignment scheme identifies six stability classes, A to F, to categorise the degree of atmospheric stability as follows:

- A = Extremely unstable conditions
- B = Moderately unstable conditions
- C = Slightly unstable conditions
- D = Neutral conditions
- E = Slightly stable conditions
- F = Moderately stable conditions

The meteorological conditions defining each PGT stability class are shown in Table 6.

Table 6 Meteorological Conditions Defining PGT Stability Classes

Surface wind speed (m/s)	Daytime insolation			Night-time conditions	
	Strong	Moderate		Strong	Moderate
< 2	A	A - B	< 2	A	A - B
2 - 3	A - B	B	2 - 3	A - B	B
3 - 5	B	B - C	3 - 5	B	B - C
5 - 6	C	C - D	5 - 6	C	C - D
> 6	C	D	> 6	C	D

Source: (NOAA 2018)

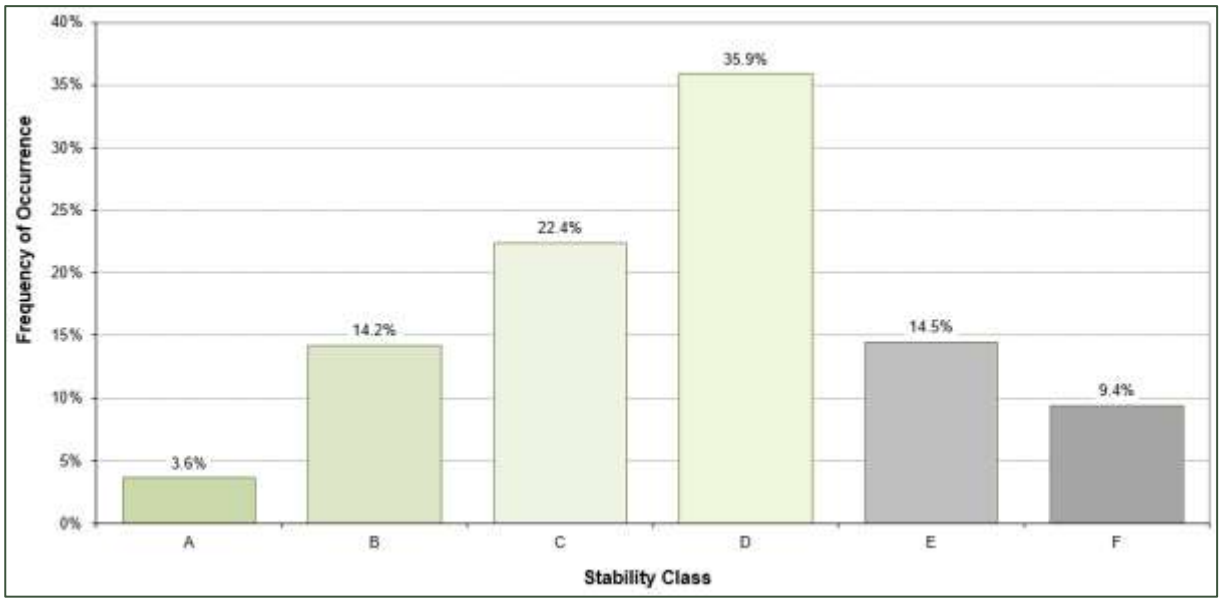
Notes:

1. Strong insolation corresponds to sunny midday in midsummer in England; slight insolation to similar conditions in midwinter.
2. Night refers to the period from 1 hour before sunset to 1 hour after sunrise.
3. The neutral category D should also be used, regardless of wind speed, for overcast conditions during day or night and for any sky conditions during the hour preceding or following night as defined above.

The frequency of each stability class predicted by TAPM during the modelling period, extracted at a location within the Project Site is presented in **Figure 13**.

The results indicate a high frequency of conditions typical to Stability Classes D. Stability Class D is indicative of neutral conditions, conducive to a moderate level of pollutant dispersion due to mechanical mixing.

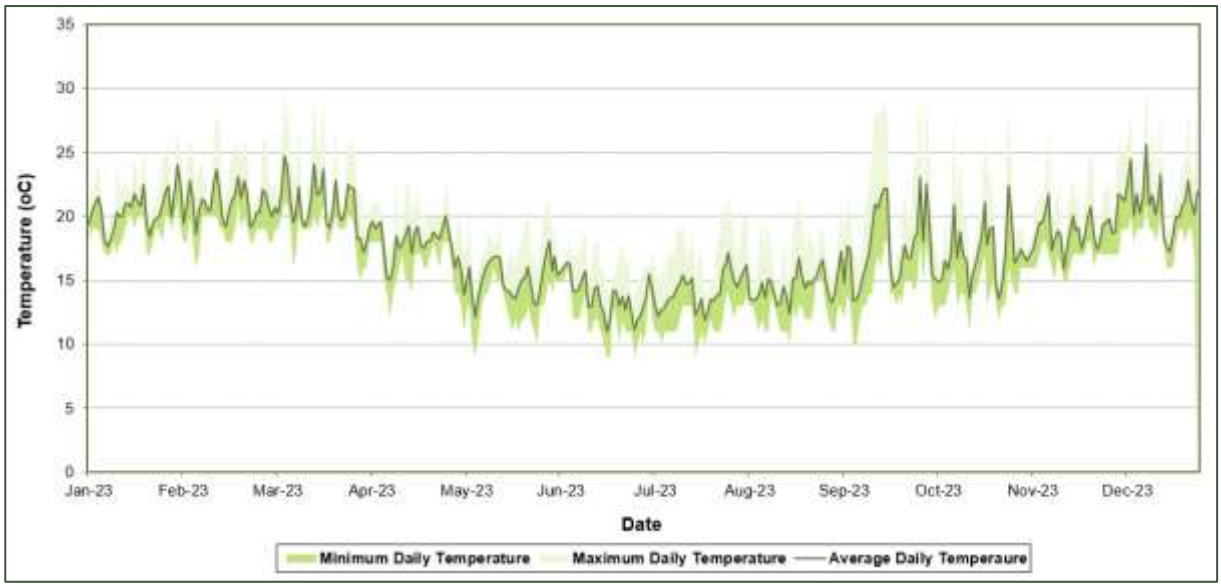
Figure 20 Predicted Stability Class Frequencies at the Project Site (TAPM predictions, 2023)



5.2.3 Temperature

The modelled temperature variations as predicted at the Project Site during the year 2023 are illustrated in **Figure 21**. The maximum temperature (31°C) was predicted on 14 December 2023 and the minimum temperature (9°C) was predicted on 19 July 2023.

Figure 21 Predicted Temperatures at the Project Site (TAPM predictions, 2023)

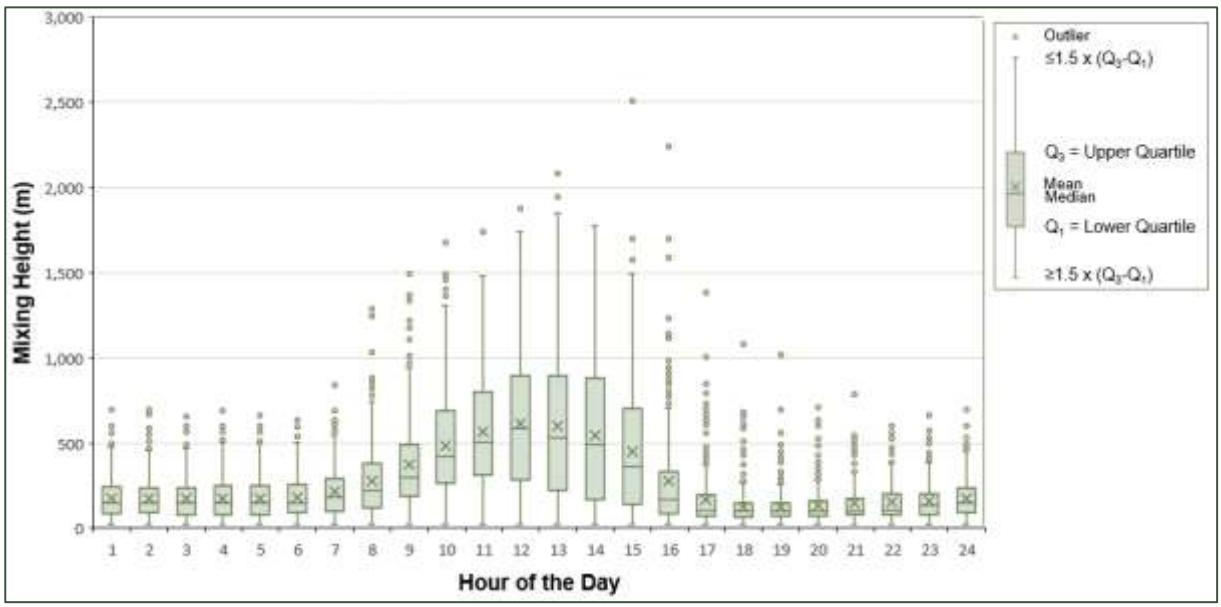


5.2.4 Mixing Heights

Diurnal variations in maximum and average mixing heights predicted by TAPM at the Project site during the 2023 modelling period are illustrated in **Figure 22**.

As would be expected, an increase in mixing height during the morning is apparent, arising due to the onset of vertical mixing following sunrise. Maximum mixing heights occur in the mid to late afternoon, due to the dissipation of ground based temperature inversions and growth of the convective mixing layer.

Figure 22 Predicted Mixing Heights at the Site (CALMET predictions, 2023)



5.3 Dispersion Model

5.3.1 Model Selection

The GRAL modelling system was selected for dispersion modelling of the CCT Stack emissions due to its ability to take account of the localised effects of buildings and obstacles. Like the US-EPA CALPUFF model, GRAL is suitable for regulatory applications, can utilise a full year of meteorological data and has the ability to handle low-wind-speed conditions.

GRAMM/GRAL is a coupled Eulerian (GRAMM, Graz Mesoscale Model wind fields) and Lagrangian (microphysics Graz Lagrangian Model) model, developed by the Graz University of Technology, Austria. It is designed to solve the sources accurately and to compute concentrations with a very high resolution in complex topographic and building configurations.

The Eulerian model GRAMM solves the conservation equations for mass, enthalpy, momentum and humidity. The surface energy balance is calculated in a surface module of GRAMM, where several different land use categories are used to define the surface roughness, the albedo, the emissivity, the soil moisture content, the specific heat capacity of the soil and the heat transfer coefficient.

The Lagrangian model GRAL uses 3D meteorological data generated by GRAMM and computes steady state concentration fields for classified meteorological conditions using 3-7 stability classes, 36 wind direction classes and several wind speed classes to reduce the computational time. Typically, 500-600 bins of meteorological scenarios are required to characterise the dispersion situations that may occur at a given site within a year. Each of the steady-state concentration fields is stored as a separate file. Based on these results, the concentration fields for the annual mean value, maximum daily mean value and maximum

value are calculated using a post-processing routine. In this way, the annual average, maximum daily mean, or maximum concentration for defined periods can be computed rapidly. The pseudo time series of concentration field can be obtained by taking the corresponding time series of classified meteorological situations of a certain period and multiplying each concentration field corresponding to certain hours of that period with some emission modulation factors.

5.3.2 Accuracy of Modelling

All atmospheric dispersion models, including GRAL, represent a simplification of the many complex processes involved in the dispersion of pollutants in the atmosphere. To obtain good quality results it is important that the most appropriate model is used and the quality of the input data (meteorological, terrain, source characteristics) is adequate.

The main sources of uncertainty in dispersion models, and their effects, are discussed below.

- Oversimplification of physics: This can lead to both under-prediction and over-prediction of ground level pollutant concentrations. Uncertainties are greater in Gaussian plume models as they do not include the effects of non-steady-state meteorology (i.e., spatially- and temporally-varying meteorology).
- Uncertainties in emission rates: Ground level concentrations are proportional to the pollutant emission rate. In addition, most modelling studies assume constant worst case emission levels or are based on the results of a small number of stack tests, however operations (and thus emissions) are often quite variable. Accurate measurement of emission rates and source parameters requires continuous monitoring.
- Uncertainties in source parameters: Plume rise is affected by source dimensions, temperature and exit velocity. Inaccuracies in these values will contribute to uncertainties in the predicted height of the plume centreline and thus ground level pollutant concentrations.
- Uncertainties in wind direction and wind speed: Wind direction affects the direction of plume travel, while wind speed affects plume rise and dilution of plume. Uncertainties in these parameters can result in errors in the predicted distance from the source of the plume impact, and magnitude of that impact. In addition, aloft wind directions commonly differ from surface wind directions. The preference to use rugged meteorological instruments to reduce maintenance requirements also means that light winds are often not well characterised.
- Uncertainties in mixing height: If the plume elevation reaches 80% or more of the mixing height, more interaction will occur, and it becomes increasingly important to properly characterise the depth of the mixed layer as well as the strength of the upper air inversion.
- Uncertainties in temperature: Ambient temperature affects plume buoyancy, so inaccuracies in the temperature data can result in potential errors in the predicted distance from the source of the plume impact, and magnitude of that impact.
- Uncertainties in stability estimates: Gaussian plume models use estimates of stability class, and 3D models use explicit vertical profiles of temperature and wind (which are used directly or indirectly to estimate stability class for Gaussian models). In either case, uncertainties in these parameters can cause either under-prediction or over-prediction of ground level concentrations.

The US EPA makes the following statement in its Modelling Guideline (US EPA, 2005) on the relative accuracy of models:



"Models are more reliable for estimating longer time-averaged concentrations than for estimating short-term concentrations at specific locations; and the models are reasonably reliable in estimating the magnitude of highest concentrations occurring sometime, somewhere within an area. For example, errors in highest estimated concentrations of ±10 to 40% are found to be typical, i.e., certainly well within the often quoted factor-of-two accuracy that has long been recognised for these models. However estimates of concentrations that occur at a specific time and site, are poorly correlated with actually observed concentrations and are much less reliable."

To maximise the accuracy of the model predictions, this AQIA utilises the GRAL dispersion model in prognostic mode, enabling the representation of dynamic effects due to local topography such as obstacle-influenced air flows, and accommodating complex topography with a high horizontal resolution. The meteorological dataset was compiled using observations from nearby automatic weather stations and a five-year period of meteorological data was reviewed to ensure that the year selected for use in the modelling is representative of long-term meteorological conditions.

5.3.3 Dispersion Model Configuration

The GRAL model was set up for two scenarios to investigate the dispersion of emissions from the CCT Stack with and without the Project in place. The CCT Stack was represented by an elevated point source. The Project Building, as well as existing buildings and structures that may affect the dispersion of pollutants through channelling and blocking effects, were included in the modelling. Outlines of these buildings are illustrated in **Figure 23** and the heights for all existing buildings were derived using high resolution Light Detection and Ranging (LIDAR) data.

For both scenarios modelled, the GRAL model was set up to predict concentrations across a 1,020 m by 1,030 m domain based on a Cartesian grid of points with an equal spacing of 2 m in the x and y directions. This results in 262,650 grid locations across the domain.

In addition to the grid receptors discussed above, for the modelling scenario with the Project Building in place, a total of 1,045 discrete receptors were distributed across the facade of the Project Building (see **Figure 24**) to predict the incremental impact of emissions from the CCT Stack on pollutant concentrations at various locations at the Project site. The time series of hourly average pollutant concentrations predicted by GRAL for these discrete receptor locations were then added to contemporaneous background time series data for the same period as the meteorological data used in the modelling to allow an assessment of potential cumulative impacts.

Table 7 details the parameters used in GRAL for this assessment.

Table 7 Parameters used in GRAL for the AQA

Parameter	Value
General	
Dispersion time	3,600 seconds
Particles per second	100
Obstacles	Prognostic GRAL
Concentration Grids	
Horizontal concentration grid resolution	2.0 m
Vertical dimension of concentration layers	2.0 m
Number of horizontal slices	7 (1.0 m, 6.0 m, 16 m, 26 m, 36 m, 66 m and 80 m)
Internal flow field grid	
Horizontal grid resolution	2.0 m
Vertical thickness of first layer	2.0 m
Vertical stretching factor	1.01
Number of cells in Z direction	40

Figure 23 Modelled Buildings



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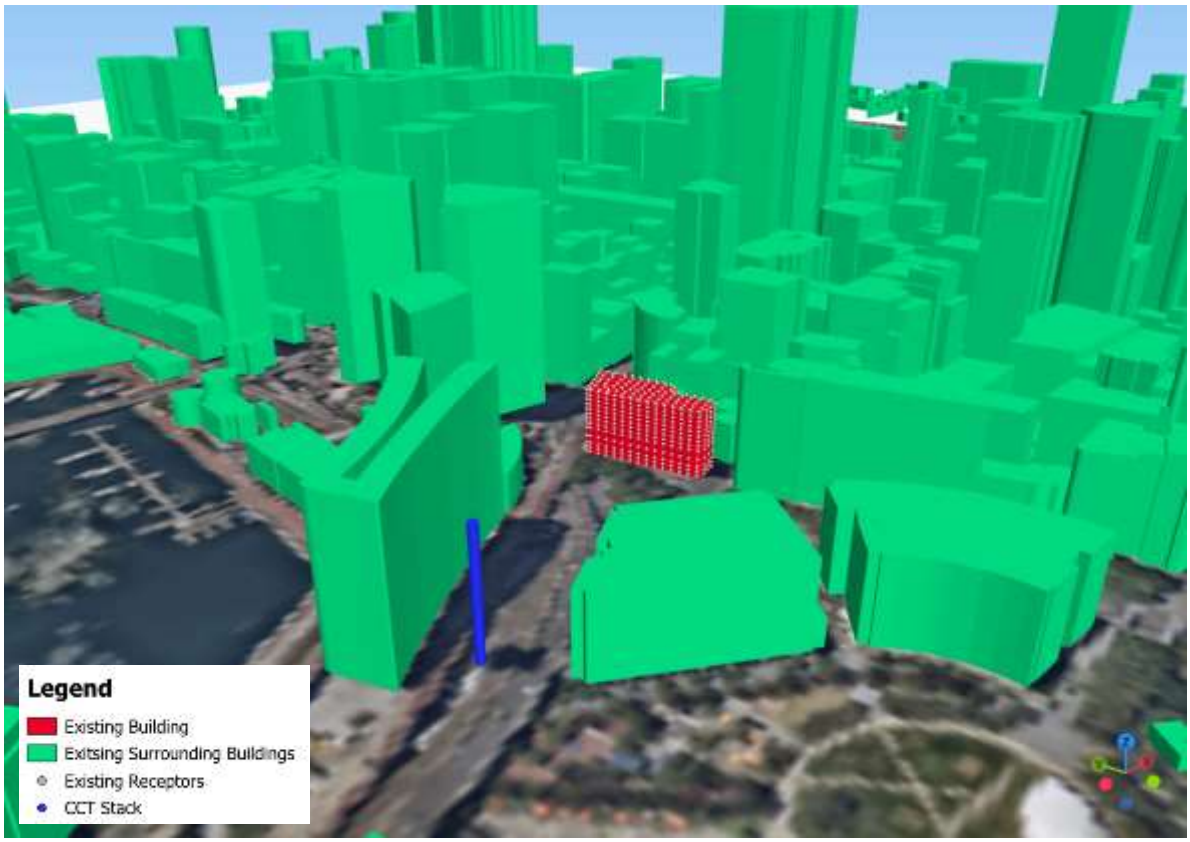
Project Number:	610.032206
Location:	Sydney, NSW
Source:	
Projection:	WGS 84 / UTM zone 56S`
Date:	08/01/2025

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Modelled Buildings

Figure 24 Modelled Existing Discrete Receptors



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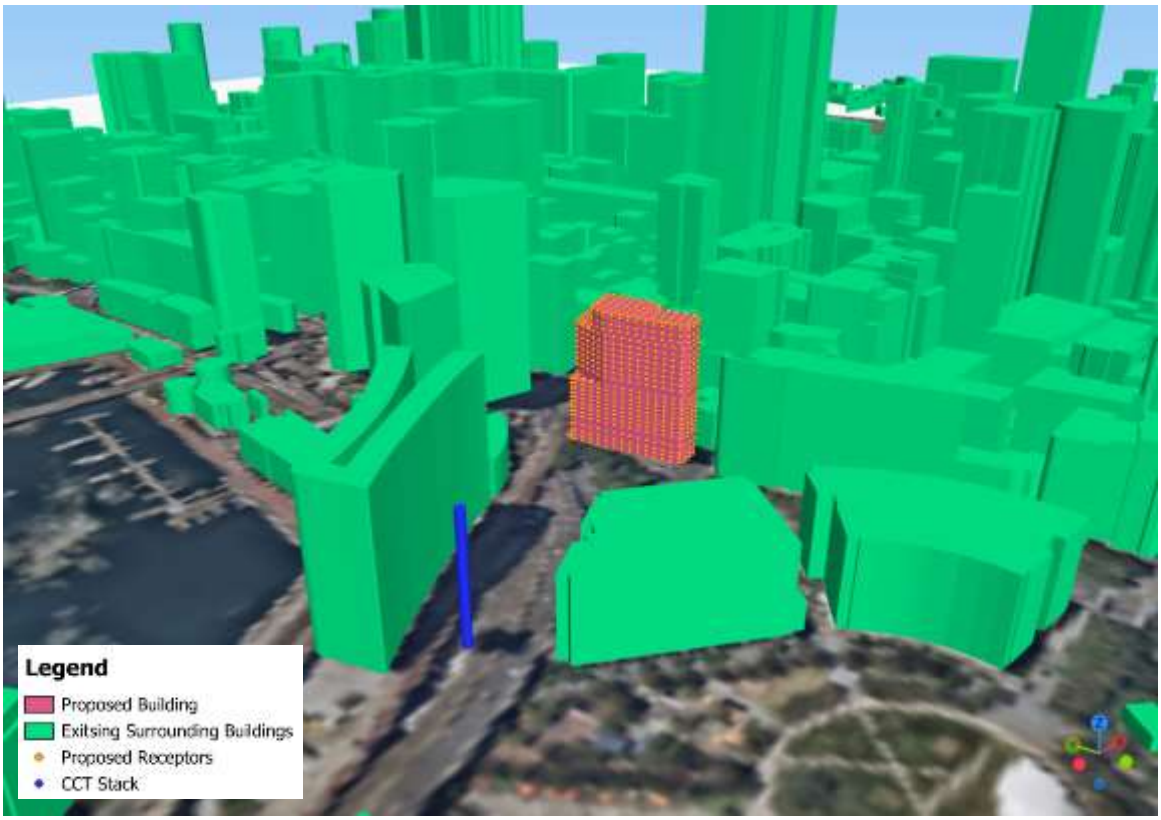
Project Number:	610.032206
Location:	Sydney, NSW
Source:	
Projection:	
Date:	08/01/2025

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Air Quality Impact Assessment

Discrete Receptors

Figure 25 Modelled Proposed Discrete Receptors



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Project Number:	610.032206
Location:	Sydney, NSW
Source:	
Projection:	
Date:	08/01/2025

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150 Day Street, Sydney
Air Quality Impact Assessment

Discrete Receptors

Table 8 Modelled Discrete Receptors

Building Level	Height Relative to Ground	Receptor Height	Number of Modelled Existing Receptors	Number of Modelled Proposed Receptors
L00	0	1	40	40
L00 MEZ	2.7	3.7	40	40
L01	5.4	6.4	40	40
L02	9.7	10.7	40	40
L03	14.7	15.7	40	40
L04	17.5	18.5	40	40
L05	20.4	21.4	40	40
L06	23.2	24.2	40	40
L07	26.1	27.1	40	40
L08	28.9	29.9	40	40
L09	31.8	32.8	40	40
L10	34.6	35.6	40	40
L11	37.5	38.5	40	40
L11 Top	37.5	38.5	73	4
L12	42.5	43.5	-	39
L13	45.9	46.9	-	39
L14	49.3	50.3	-	39
L15	52.7	53.7	-	39
L16	56.1	57.1	-	39
L17	59.5	60.5	-	39
L18	62.9	63.9	-	39
L19	66.9	67.9	-	39
L19 Top	66.9	67.9	-	9
L20	70.3	71.3	-	35
L21	73.7	74.7	-	35
L22	77.7	78.7	-	35
Roof	80.7	80.7	-	35
Roof Top	80.7	80.7	-	60

5.3.4 NOx to NO2 conversion

In atmospheric chemistry, NO_X generally refers to the total concentration of nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colourless and odourless gas that does not significantly affect human health. However, NO emitted from the source oxidises to NO_2 in the presence of ozone (O_3) and sunlight as it travels further from the source. NO_2 can have significant

health effects including damage to the respiratory tract and increased susceptibility to respiratory infections and asthma.

The rate of oxidation depends on a number of parameters including the ambient O_3 concentration. The following methods can be applied to take account the oxidation of NO to NO_2 in estimating downwind NO_2 concentrations at receptor locations.

Method 1 – 100% Conversion

This method is usually used as a screening level assessment and assumes 100% conversion of NO to NO_2 before the plume arrives at the receptor location. Use of this method can significantly over-predict NO_2 concentrations at nearfield receptors.

Method 2 – Ambient Ozone Limiting Method (OLM)

This method assumes that all the available ozone in the atmosphere will react with NO in the plume until either all the O_3 or all the NO is used up. NO_2 concentrations can be estimated by this method using the following equation:

$[NO_2]total = \{0.1 \times [NO_X]pred\} + MIN\{(0.9) \times [NO_X]pred \text{ or } (46/48) \times [O_3]bkgd\} + [NO_2]bkgd$

Given the relatively close proximity of the Project site to the CCT Stack, the use of Method 1 (100% conversion) is not appropriate therefore Method 2 has been adopted. This modelling approach is deemed conservative as it assumes that the atmospheric reaction is instantaneous. In reality, the reaction takes place over a number of hours. This provides conservative assessment for near field locations at short transport durations from source.

Method 2 has been adopted using O_3 data from the Cook and Phillips and the Rozelle AQMS. Levels up to and including the top of Level 11 will use Cook and Phillip AQMS data, and higher levels will use Rozelle AQMS data as described in **Section 4.4**.

5.3.5 Source Characteristics and Emission Rates

GRAL requires a range of inputs to describe the emissions to air as a result of the operation of the CCT Stack.

Potential air emissions and relevant stack parameters for the CCT Stack were estimated based available monitoring reports and the emission concentration limits specified in the CCT the Conditions of Approval established by the NSW Government (NSW Department of Planning 2002) and an Environment Protection Licence issued by NSW EPA (NSW EPA 2021). A review of the most recent NO_X emission testing data available on the Linkt website[4] was conducted for this assessment (the operators of the CCT) found that actual emissions from the CCT Stack are on between 0.5% to 15% (on average 5.4%) of the specified concentration limits[5]. The review of the available NO_X emission testing data also shows that, as expected, the emission concentrations are significantly lower during the night time and generally only elevated during the morning and afternoon peaks.

It is understood that the currentl monitoring for the CCT Stack is conducted by Norditech Pty Ltd. It was noted on review of the most recent available data that it is not hard entered into the downloadable files, and that the available files for download are considered “live” excel documents with active links to external spreadsheets owned by Norditech Pty Ltd that are not available online. Therefore SLR does not consider this data source verifiable. In addition, the

[4] https://www.linkt.com.au/sydney/using-toll-roads/about-sydney-toll-roads/cross-city-tunnel/tunnel-air-quality

[5] Average taken from November 2024 data available on the Linkt website..

available Stack Emissions Monitoring Report available for download in PDF format prepared by Norditech Pty Ltd do not provide measurements of data critical to determine emissions, such as stack temperature, or exhaust velocity, although these are reportedly measured.

As such, SLR took the last available data from the Linkt website which include these parameters. This was the NATA accredited monitoring data from 2020 titled “Cross City Tunnel Ventilation Stack Emission Monitoring - Quarter No.2 2019-2020” (SEMA 2020).

Table 9 presents a summary of stack parameters and emission rates for the CCT Stack. Estimation of emission rates based on concentration limits is a very conservative approach.

The modelling conducted for this study, conservatively assumes constant emissions at the specified limits for every hour of the year. It is noted that the use of this approach is likely to significantly overestimate the annual average downwind air pollutant concentrations.

Table 9 Stack Parameters and Emission Rates – Generator

Parameter	Data	Unit	Reference/Base
Temperature	25	°C	Cross City Tunnel Ventilation Stack Emission Monitoring - Quarter No.2 2019-2020 (SEMA 2020)
Stack height	65	m	CCT the Conditions of Approval (NSW Department of Planning 2002)
Exhaust gas velocity	10	m/s	Cross City Tunnel Ventilation Stack Emission Monitoring - Quarter No.2 2019-2020 (SEMA 2020)
Stack Equivalent Duct Diameter	4.6	m	Cross City Tunnel Ventilation Stack Emission Monitoring - Quarter No.2 2019-2020 (SEMA 2020)
NOx emission rate	10	kg/hr	Calculated using the total NOX 1-hr concentration limit of 19 mg/m3 (NSW Department of Planning 2002), exhaust gas velocity of 10 m/s and stack equivalent duct diameter of 4.6 m

6.0 Assessment of Impacts

6.1 Impact of the CCT Stack on the Project

The maximum incremental and cumulative 1-hour and annual average NO_2 concentrations predicted at various elevations along the facade of the proposed Project Building are presented in **Table 10**. These NO_2 concentrations were derived from the NO_X concentrations predicted by the modelling using the Ozone Limiting Method and contemporaneous hourly-varying 1-hour average ozone concentration data from the Cook and Phillips and the Rozelle AQMSs, as described in **Section 4.4**.

Figure 26 illustrates the maximum incremental 1-hour average NO_2 concentrations predicted at various elevations within the modelling domain, while **Figure 27** illustrates the incremental annual average concentrations.

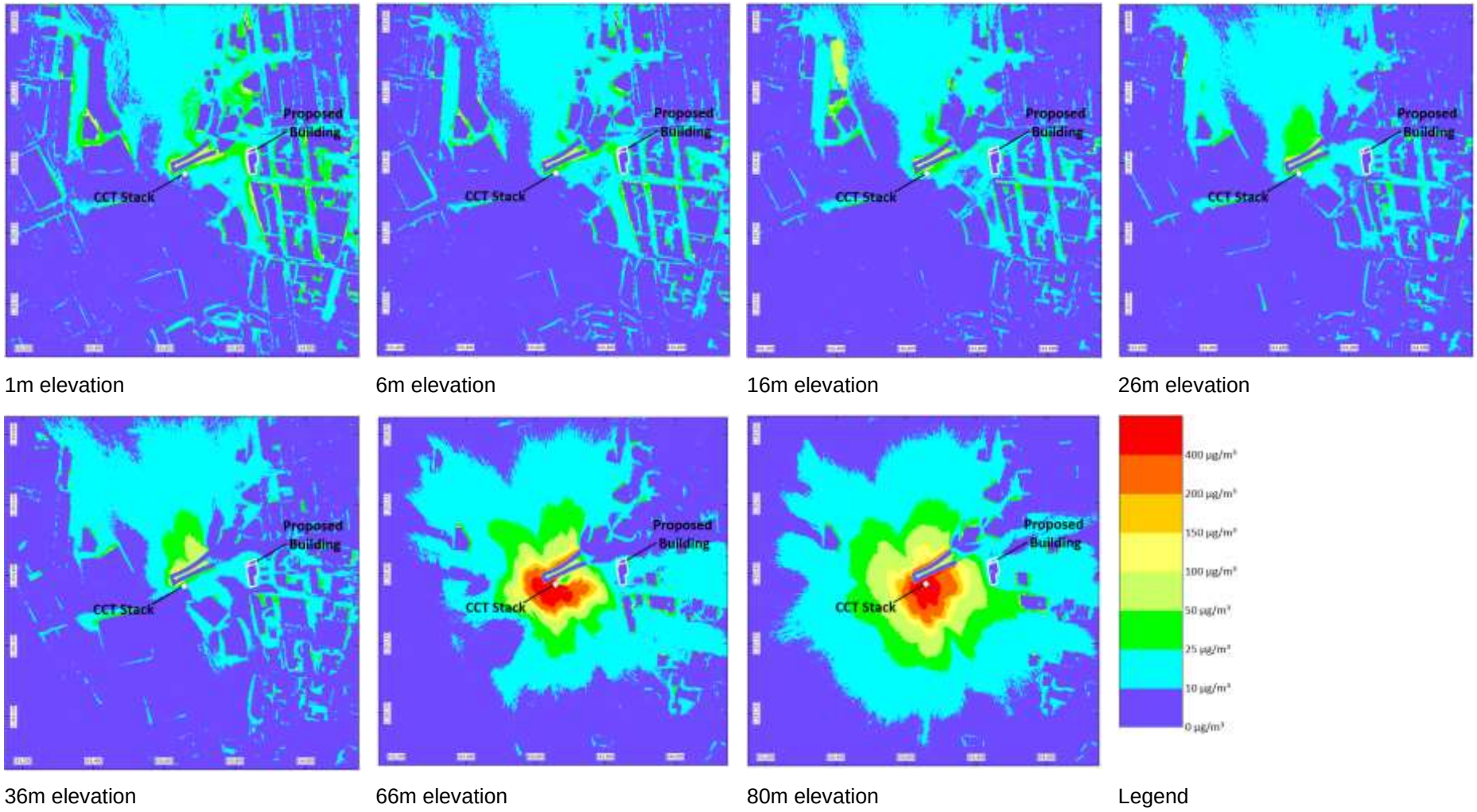
The predicted 1-hour and annual average NO_2 concentrations are in compliance with the relevant criteria at all locations modelled along the building facade.

Table 10 Predicted NO_2 Concentrations

Building Level	Height Relative to Ground	Maximum Incremental Concentrations (µg/m³)		Maximum Cumulative Concentrations (µg/m³)	
		1-Hour Average	Annual Average	1-Hour Average	Annual Average
L00	1	99	3	127	29
L00 MEZ	3.7	106	3	134	29
L01	6.4	99	3	124	29
L02	10.7	89	3	122	29
L03	15.7	83	4	128	30
L04	18.5	81	4	128	30
L05	21.4	78	4	128	30
L06	24.2	77	4	129	30
L07	27.1	77	4	128	30
L08	29.9	75	4	128	30
L09	32.8	74	4	128	30
L10	35.6	74	4	129	30
L11	38.5	70	4	128	30
L11 Top	38.5	28	1	115	27
L12	43.5	90	5	97	21
L13	46.9	92	5	99	21
L14	50.3	89	5	95	21
L15	53.7	92	5	92	21
L16	57.1	81	5	95	21

Building Level	Height Relative to Ground	Maximum Incremental Concentrations (µg/m³)		Maximum Cumulative Concentrations (µg/m³)	
		1-Hour Average	Annual Average	1-Hour Average	Annual Average
L17	60.5	92	4	92	20
L18	63.9	94	4	94	20
L19	67.9	81	7	96	23
L19 Top	67.9	97	8	99	24
L20	71.3	82	4	96	20
L21	74.7	77	4	100	20
L22	78.7	106	8	110	24
Roof	80.7	65	4	88	20
Roof Top	80.7	75	4	95	20
Criteria				164	31

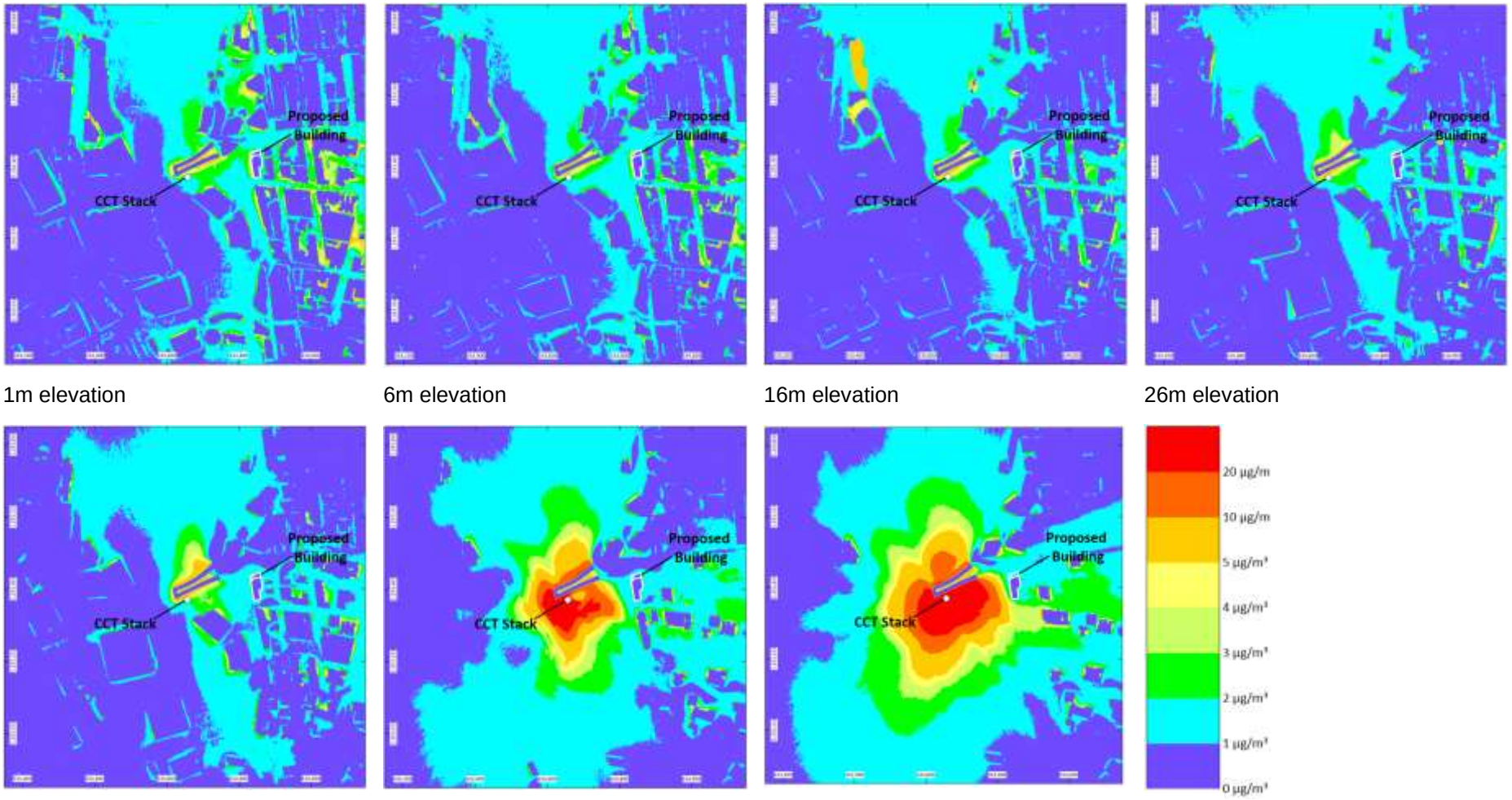
Figure 26 Maximum Predicted Incremental 1-Hour Average NO_X Concentrations



1m elevation | 6m elevation | 16m elevation | 26m elevation

36m elevation | 66m elevation | 80m elevation | Legend

Figure 27 Predicted Incremental Annual Average NO_X Concentrations



1m elevation | 6m elevation | 16m elevation | 26m elevation

36m elevation | 66m elevation | 80m elevation | Legend

6.2 Impact of the Project on the CCT Stack Emissions Dispersion

To determine the potential impact the proposed Project Building could have on the dispersion of emissions from the CCT Stack, the changes in incremental NO_X concentrations across the modelling domain were calculated. This was done by deducting the grid receptor (all 262,650 receptors, refer **Section 5.3.3**) concentrations predicted by the model for the proposed scenario (i.e. the scenario with the proposed Project Building in place) from the grid receptor concentrations predicted by the model for the existing scenario. The results were then analysed to assess the range of change across the domain and the georeferenced outputs were plotted to visualise the locations with the most significant change.

Table 11 presents the changes in incremental NO_X concentrations predicted across the modelling domain at various elevations with the Project. It is noted that due to uncertainties associated in modelling and the presence of outliers in the calculated dataset, the 1st percentile (representative of the maximum reduction in NOX concentration predicted across the domain due to the Project), 99th percentile (representative of the maximum increase in NO_X concentration predicted across the domain, and median (median change in NO_X concentrations predicted across the domain) have been presented in **Table 11** instead of the absolute minimum, absolute maximum and average as these metrics are less influenced by any potential outliers. As shown in **Table 11**, changes in 1-hour average and annual average NO_X concentrations for all elevations modelled are relatively insignificant.

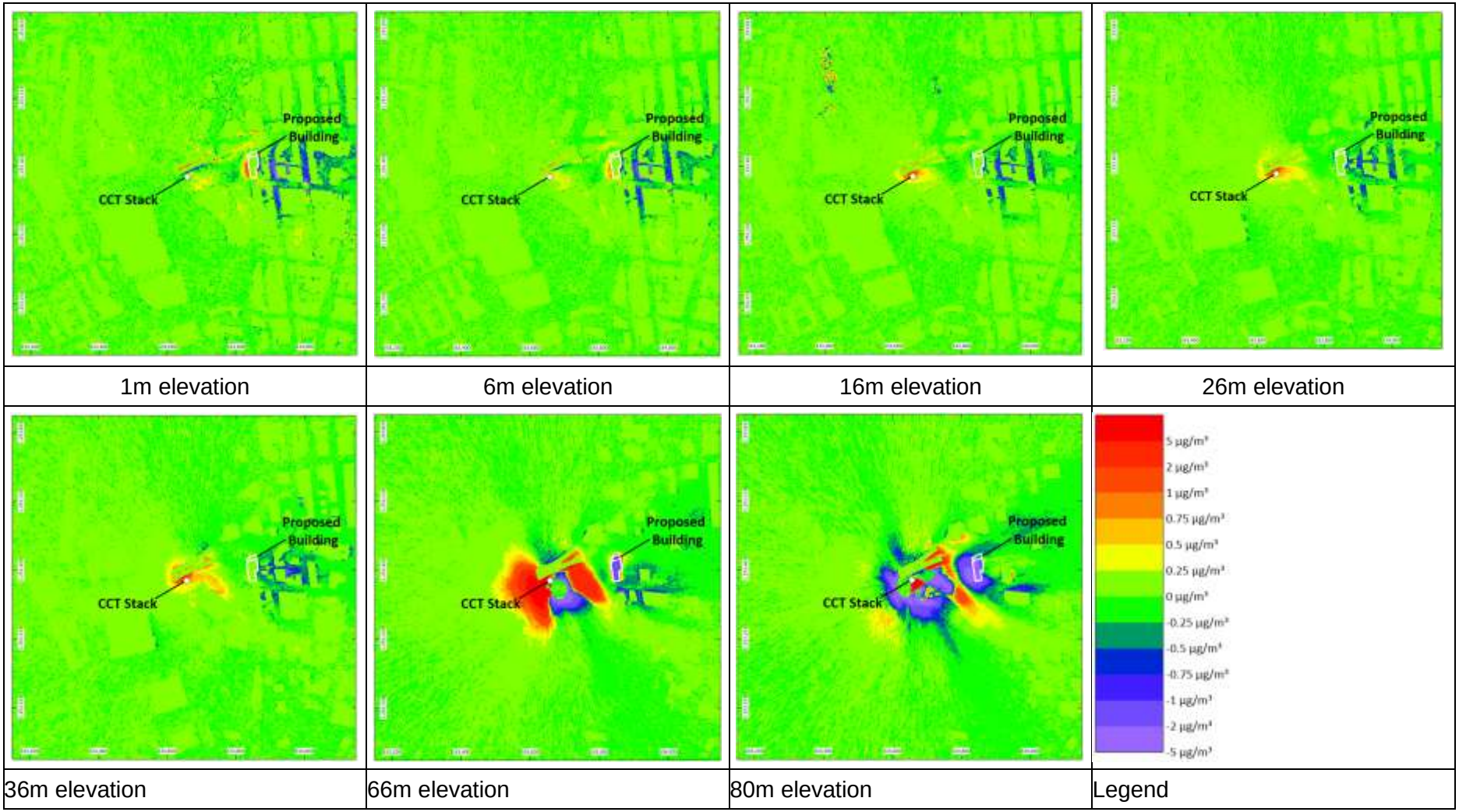
Figure 28 and **Figure 29** illustrate the predicted changes in NO_X concentrations predicted across the modelling domain (maximum and minimum rather than 1st percentile and 99th percentile due to post-processing limitations for the number of data points). As illustrated in **Figure 28** and **Figure 29**, the greatest changes in concentrations are predicted at locations very close to the source where the incremental NO_X concentrations are very high (refer to **Figure 26** and **Figure 27**). This means the change in $\mu g/m^3$ is actually a small percentage of the predicted impact. SLR estimates that for locations with the highest change in predicted NO_X concentrations, the percentage change in incremental NO_X impact is less than 5%. This is considered to be within the uncertainties associated with dispersion modelling (refer **Section 5.3.2**). Further, as outlined in **Section 5.3.4**, NO gas (which does not significantly affect human health) oxidises to NO_2 (which could significantly affect human health) as it travels further from the source and oxidises. Given the greatest changes in NO_X concentrations are predicted at locations very close to the source, a significant proportion of the predicted NO_X is likely to be NO with a relatively small proportion of NO_2.

Based on the above, the impact of the proposed Project Building on the dispersion of emissions from the CCT Stack is considered to be negligible.

Table 11 Predicted Changes in 1-hour Average and Annual Average Incremental NO_X Concentrations due to the Project

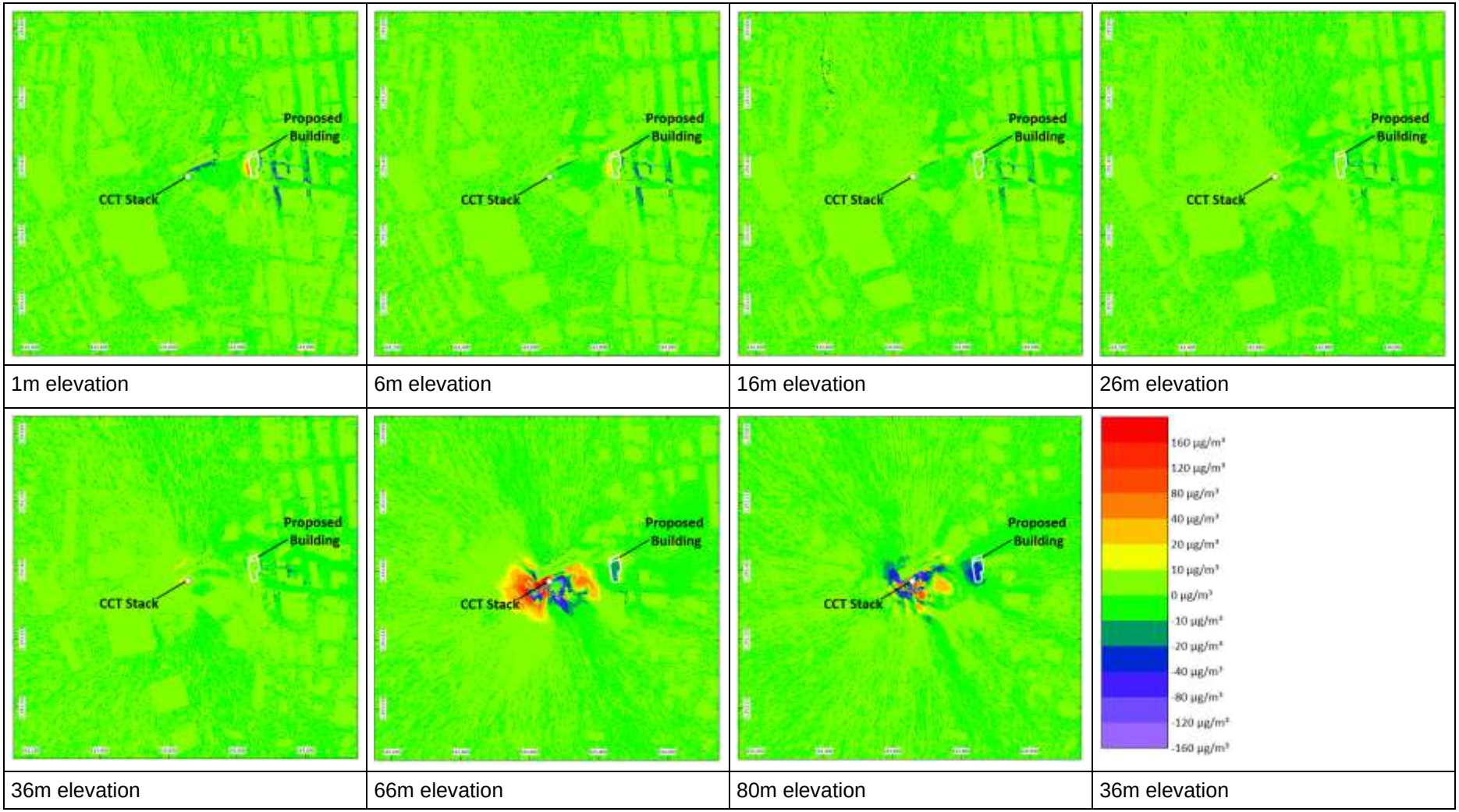
Elevation	1-Hour Average NO_X Difference (µg/m³)			Annual Average NO_X Difference (µg/m³)		
	1st Percentile	Median	99th Percentile	1st Percentile	Median	99th Percentile
1 m	-8.7	0.00	8.0	-0.51	0.000	0.39
6 m	-5.9	0.00	5.6	-0.38	0.000	0.28
16 m	-5.4	0.00	5.2	-0.34	0.000	0.29
26 m	-4.5	0.00	4.5	-0.31	0.000	0.28
36 m	-4.3	0.00	4.5	-0.32	0.000	0.34
66 m	-9.9	0.04	29	-0.66	0.003	3.0
80 m	-12	0.00	8.6	-2.5	0.000	0.50

Figure 28 Predicted Incremental Annual Average NO_X Concentrations - Difference



1000

Figure 29 Predicted Incremental 1 hour Average NOX Concentrations



1m elevation	6m elevation	16m elevation	26m elevation
36m elevation	66m elevation	80m elevation	36m elevation

1002

7.0 Conclusions

The dispersion of NO_X from the CCT Stack was modelled using the GRAMM/GRAL model and a 1-year site-representative meteorological dataset. The modelling was undertaken for two scenarios (ie the existing scenario and a proposed scenario that included the proposed Project Building). The incremental NO_X concentrations predicted by the modelling for the proposed scenario were converted to NO_2 using background O_3 and NO_2 pollutant concentrations measured at the Cook and Phillip and the Rozelle AQMSs. The change in the incremental impacts predicted by the model for the two scenarios was analysed to assess the potential impact of the Project on the dispersion of pollutants for the CCT Stack.

The modelling undertaken for the purpose of this study conservatively assumed that the CCT Stack will constantly emit NO_X at the concentration limit specified by the CCT Conditions of Approval (NSW Department of Planning 2002). In reality, emissions from the CCT Stack are significantly lower (on average 5% of the limit), even during peak traffic conditions.

The results of the modelling showed that the predicted cumulative NO_2 concentrations at all elevations modelled along the proposed building facades are below the relevant air quality criteria. Therefore, people using the Project Building would not be adversely impacted by these emissions.

The comparison of the change in the incremental NO_X impacts predicted by the model for the existing and proposed scenarios showed that the proposed Project Building design would not significantly affect the dispersion of emissions from the CCT Stack.

Given the above, it is concluded that air quality issues do not pose a constraint for the Project.

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9.0 Feedback

At SLR, we are committed to delivering professional quality service to our clients. We are constantly looking for ways to improve the quality of our deliverables and our service to our clients. Client feedback is a valuable tool in helping us prioritise services and resources according to our client needs.

To achieve this, your feedback on the team's performance, deliverables and service are valuable and SLR welcome all feedback via https://www.slrconsulting.com/en/feedback. We recognise the value of your time and we will make a $10 donation to our Charity Partner - Lifeline, for every completed form.

Appendix A Selection of Meteorological Year

Air Quality Assessment

150 Day Street, Sydney

Mecone Group Pty Ltd

SLR Project No.: 610.032206.00001

21 March 2025

Once emitted to atmosphere, emissions will:

- Rise according to the momentum and buoyancy of the emission at the discharge point relative to the prevailing atmospheric conditions
- Be adverted from the source according to the strength and direction of the wind at the height which the plume has risen in the atmosphere
- Be diluted due to mixing with the ambient air, according to the intensity of turbulence
- (Potentially) be chemically transformed and/or depleted by deposition processes.

Dispersion is the combined effect of these processes.

Dispersion modelling is used as a tool to simulate the air quality effects of specific emission sources, given the meteorology typical for a local area together with the expected emissions. Selection of a year when the meteorological data is atypical means that the resultant predictions may not appropriately represent the most likely air quality impacts. Therefore, in dispersion modelling, one of the key considerations is the representative nature of the meteorological data used.

The year of meteorological data used for the dispersion modelling was selected by reviewing the most recent five years of historical surface observations at Sydney Airport AMO (2019 to 2023 inclusive) to determine the year that is most representative of average conditions. Wind direction, wind speed and ambient temperature were compared to averages for the region to determine the most representative year. Data collected from 2019 to 2023 is summarised in **Figure A1** to **Figure A4**. Examination of the data indicates the following:

- **Figure A1** indicates relatively similar wind roses for all years analysed, the years 2021 and 2023 has the highest frequency of winds from the western quadrant, with the year 2020 having the lowest.
- **Figure A2** indicates all years are relatively similar to long term, the year 2023 has the lowest frequency of months with wind speed above the five-average and 2022 has the highest frequency of months with wind speed above the five-average.
- **Figure A3** shows that the year 2020 had the highest frequency of months with calms conditions above the five-year average and 2023 had the lowest frequency of months with calms conditions above the five-year average (with no clams recorded for January).
- **Figure A4** shows that temperatures are relatively similar for all five years analysed.

The years 2019 and 2020 are eliminated for selection purposes due to the high number of bushfires during those years.

The year 2022 also has fewer winds from the northwestern quadrant so may under attribute impacts from the stack.

The year 2021 and 2023 are ultimately considered. Calms frequency in both years are both below to the five-year average which may underpredict impacts in calms conditions. The year 2021 had higher frequency of months with wind speed above the five-average which may increase dispersion.

Therefore, the year 2023 was selected for use in meteorological/dispersion modelling.

Figure A1 Frequency of Winds at Sydney Airport AMO for 2019 to 2023

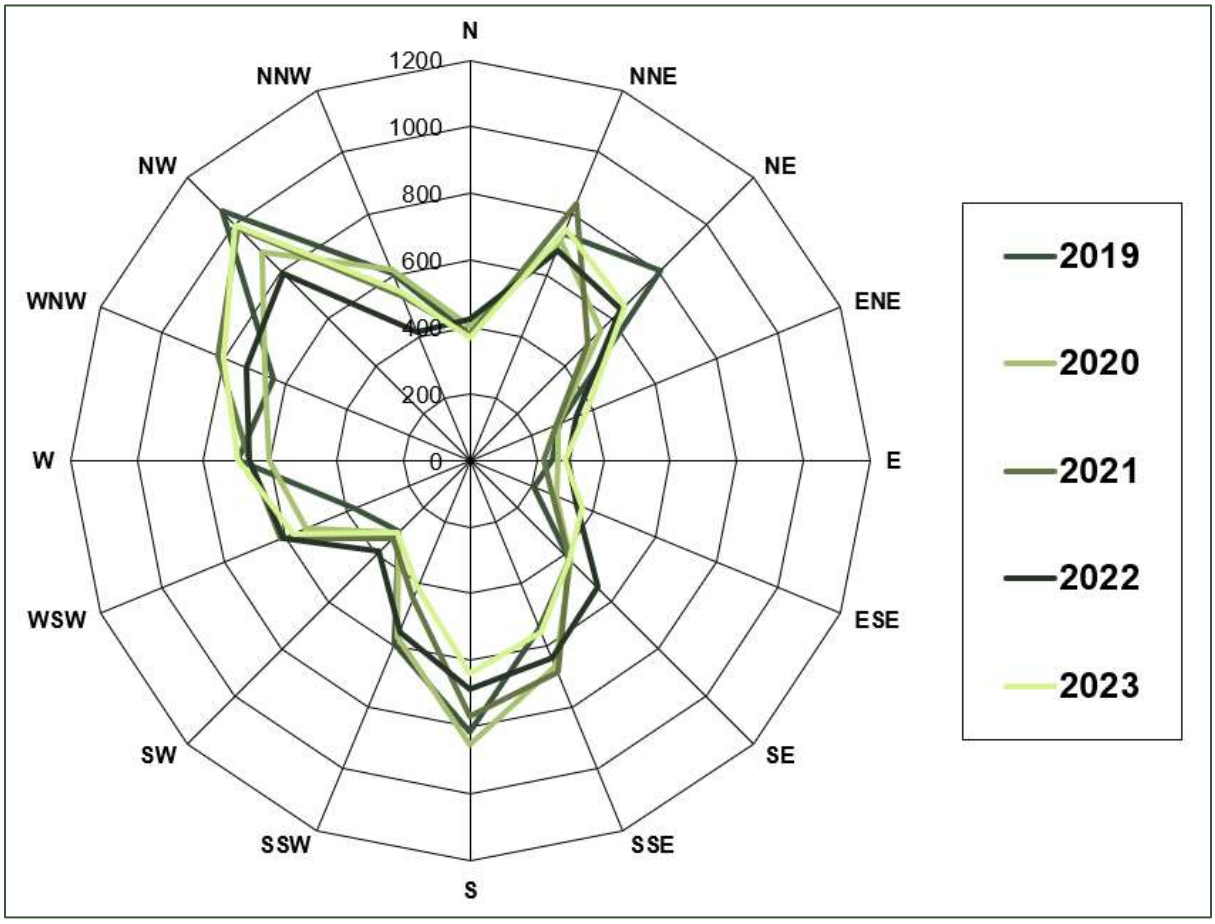


Figure A2 Monthly Average Wind Speed at Sydney Airport AMO for 2019 to 2023

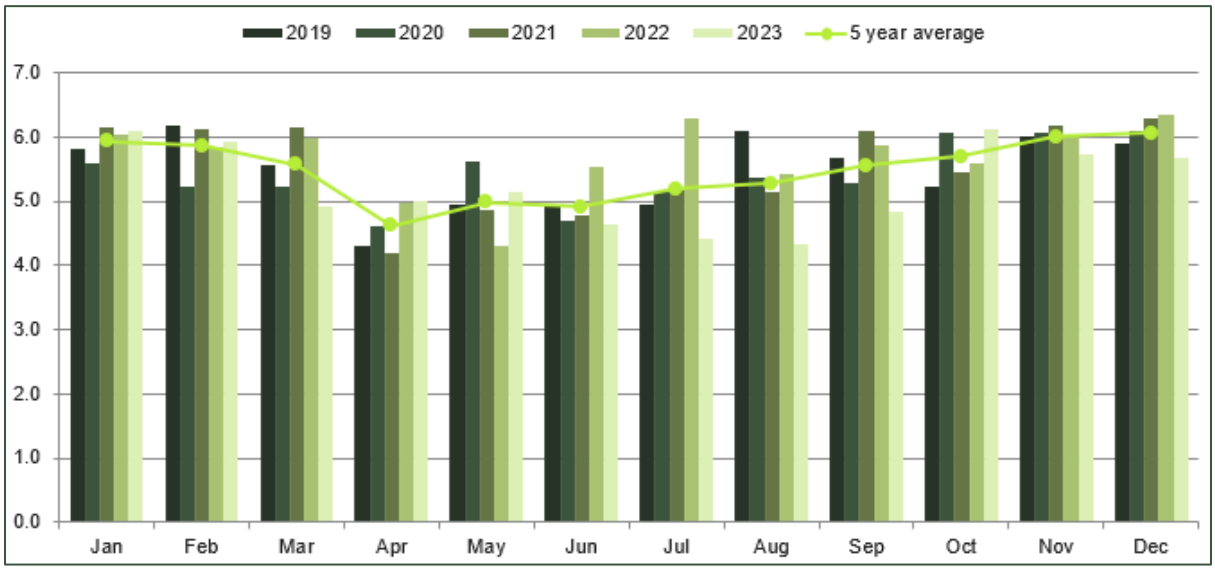


Figure A3 Monthly Calms Frequency at Sydney Airport AMO for 2019 – 2023

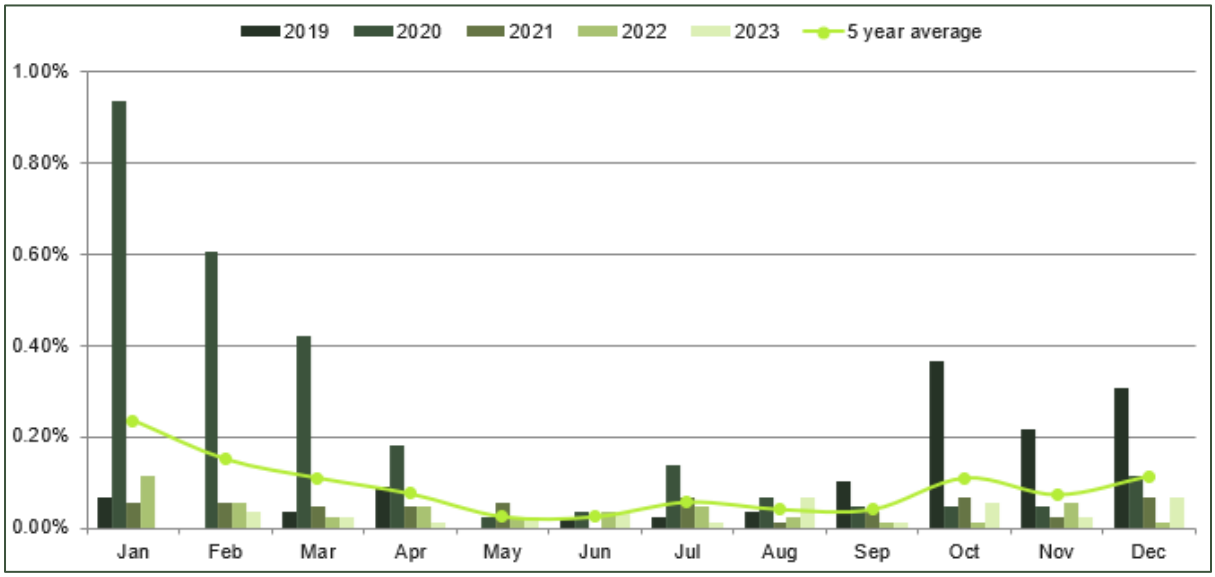
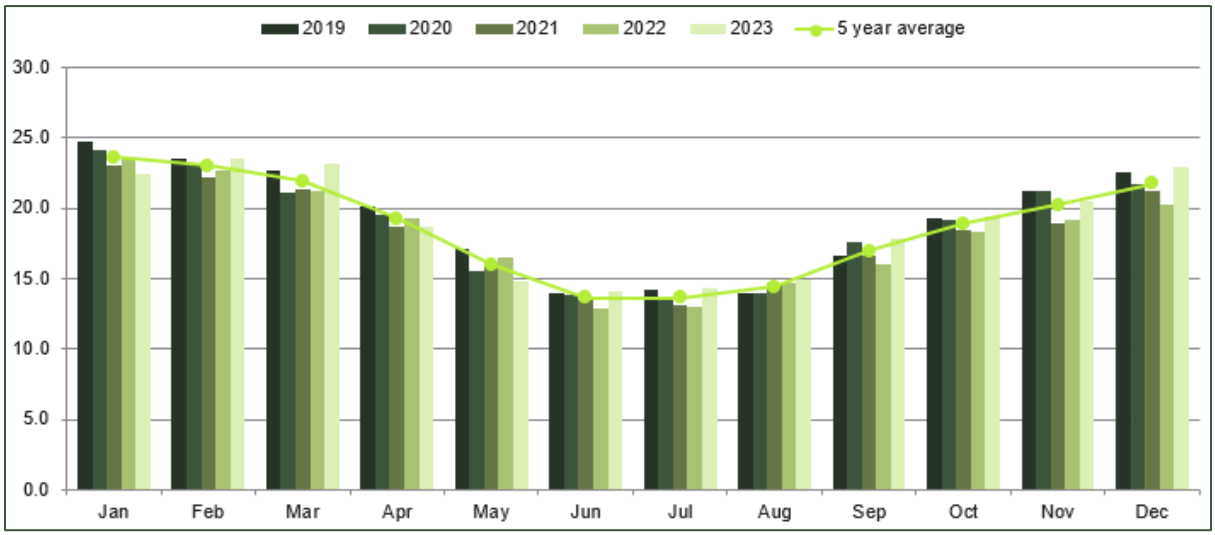
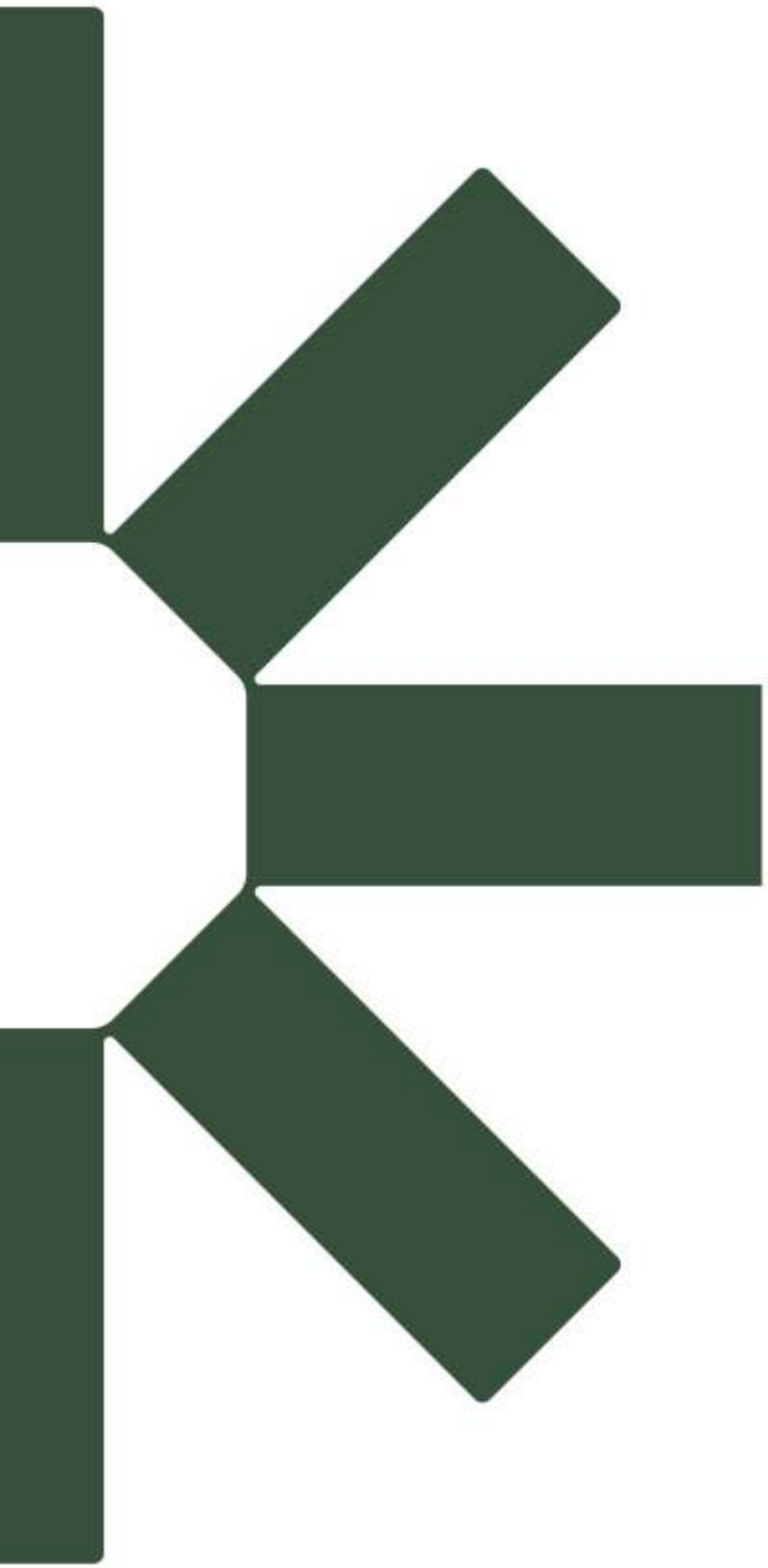


Figure A4 Monthly Average Temperature at Sydney Airport AMO for 2019 – 2023





Making Sustainability Happen

Attachment A15

Noise impact assessment

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150 Day Street, Sydney

Noise Impact Assessment

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Document Title	Noise Impact Assessment
Attention To	Success Venture (Darling Harbour) Unit Trust

Revision	Date	Document Reference	Prepared By	Checked By	Approved By
0	17/01/2025	20241067.1/1701A/R0/WY	WY		WY
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1 INTRODUCTION

This report has been prepared to assess noise impacts associated with the proposed development located at 150 Day Street, Sydney

Impacts assessed include:

- Noise intrusion from traffic on nearby public roads.
- Noise emissions criteria for mechanical plant.

The subject site and local context are indicated in Figure 4-1.

The report has been prepared for the sole purpose of a planning proposal and should not be used or relied on for any other purpose.

2 REFERENCED DOCUMENTS

2.1.1 Background Information Used

This assessment has been conducting using the Hassell architectural drawings for planning proposal submission (Project No. 16185, Revision B, dated 21st March 2025).

2.1.2 Guidelines

The following planning instruments and guidelines have been used in the assessment:

- City of Sydney (**CoS**) Council *Development Control Plan* (**DCP**) 2012.
- Australian and New Zealand AS/NZS 2107:2016 Recommended design sound levels and reverberation times for building interiors.
- NSW Department of Planning (**DoP**) Development near Rail Corridors or Busy Roads – Interim Guideline (**DNRCBR**) 2008.
- NSW EPA *Noise Policy for Industry* (**NPfI**) October 2017.

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3 ABBREVIATIONS AND DEFINITIONS

The following abbreviations and definitions are used in this noise impact assessment.

dB	Decibels – unit for the measurement of sound
dB(A)	A-weighted decibels. Unit of measurement for broadband sound with the A-frequency weighting applied to approximate human loudness perception to sounds of different pitch.
L_{eq}	Energy, time averaged sound level
L_{max}	Maximum sound pressure level, fast response
L_{90}	Sound level exceeded for 90% of the measurement period
R_w	Frequency weighted sound reduction index.
NRC	Average absorption co-efficient for the octave bands with centre frequencies of 250Hz to 2 kHz inclusive.
Day*	The period from 7am to 6pm (Monday to Saturday) and 8am to 6pm (Sundays and public holidays).
Evening*	Refers to the period from 6pm to 10pm.
Night*	The period from 10 pm to 7 am (Monday to Saturday), and 10pm to 8am (Sundays and public holidays).
Project Trigger Level	Target noise levels for a particular noise-generating facility.
Assessment Background Level (ABL)	Background noise level representative of a single period.
Rating Background Level (RBL)	The overall, single-figure background level representing each assessment period (day/evening/night) over the whole monitoring period. (Calculated in accordance with NPfI unless noted otherwise)

* Unless nominated otherwise.

4 SITE DESCRIPTION AND THE PROPOSAL

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- Allow a maximum building height of 85 metres,
- Permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- Restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

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4.1 SENSITIVE RECEIVERS

Onsite acoustic investigation has been carried out by this office regarding the surrounding acoustic environment, these have been detailed below:

- Residential properties located to the east and south of the site.
- Visitor accommodation properties located to the west and north east of the site.
- Commercial development surrounding the site with an industrial development to the west.
- Harbour Street, Bathurst Street, Druitt Street onramp to Anzac Bridge and the Western Distributor as major traffic noise sources.

The following table lists the nearest/potentially most impacted sensitive receivers surrounding the site. An aerial photo of the site indicating nearby noise sensitive receivers and measurement locations is presented in Figure 4-1.

Table 4-1 – Sensitive Receivers

Receiver (Refer Figure 1)	Receiver Type	Comment
R1	Residential	Residential receiver to the east at 267 Sussex Street
R2	Residential	Residential receiver to the east at 273-279 Sussex Street
R3	Residential	Residential receivers to the south of the site at 289-295 Sussex Street and 158-166 Day Street
R4	Visitor Accommodation	Visitor Accommodation receiver to the west (W Hotel) at 31 Wheat Road
R5	Visitor Accommodation	Visitor Accommodation receivers to the north east at 234-258 Sussex Street
R6	Residential	Residential receivers above Crowne Plaza (visitor accommodation) to the east at 58 Bathurst Street
C1	Commercial	Commercial receivers to the east along Sussex Street
C2	Commercial	
C3	Commercial	
C4	Commercial	Commercial receivers to the south west along Harbour Street
C5	Commercial	Commercial receivers to the north across Druitt Street
C6	Commercial	Commercial receivers to the north east across Druitt Street
C7	Commercial	Commercial receivers to the far east across Sussex Street
C8	Commercial	Commercial receivers to the far south east along Sussex Street
I1	Industrial	AusGrid power station at 1 Blackwattle Place

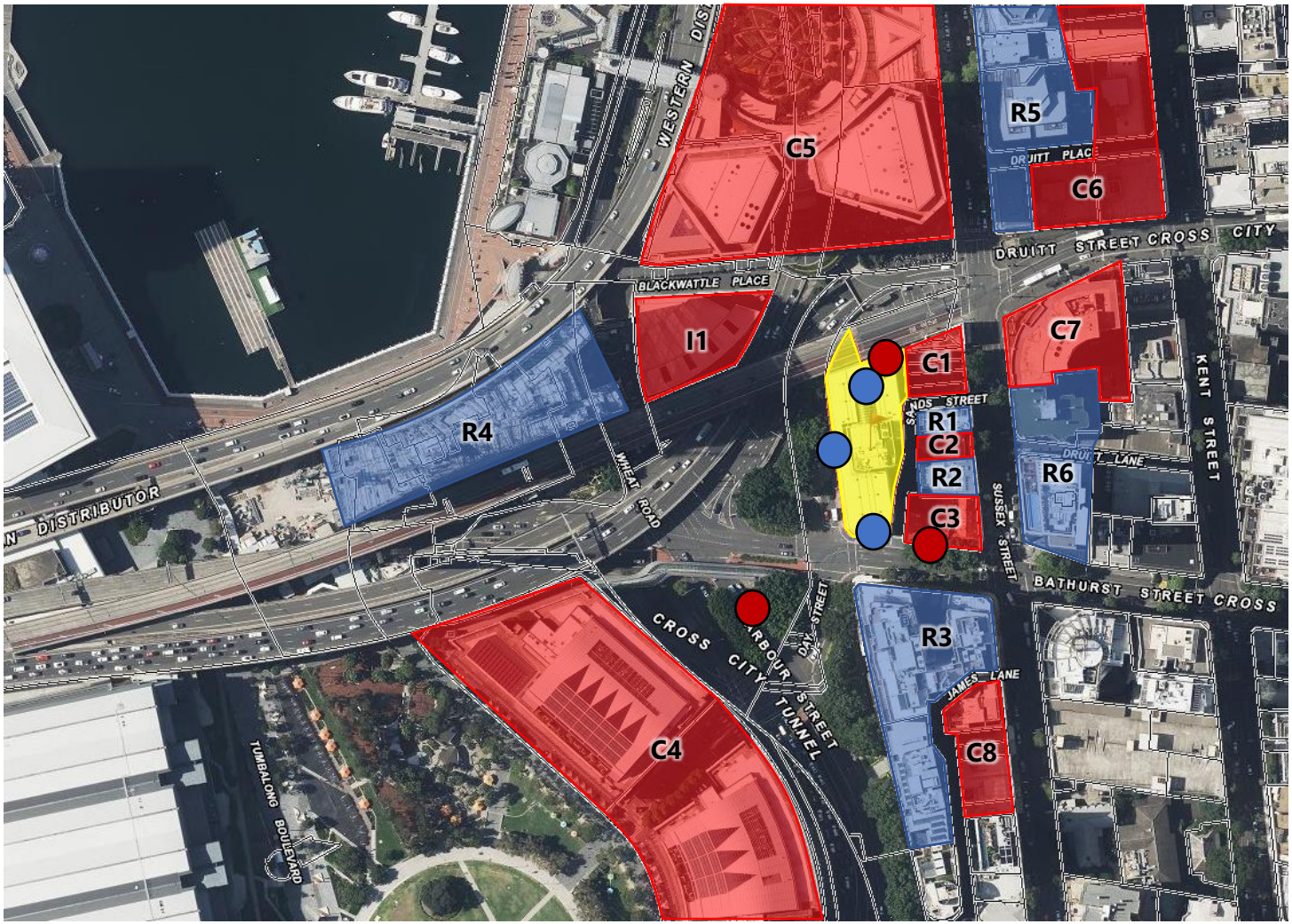


Figure 4-1 – Site Plan Showing Local Context (Source: SixMaps)

Project Site

Residential & Hotel Receivers

Commercial & Industrial Receivers

Unattended Noise Monitoring

Attended Noise Measurements

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5 EXTERNAL NOISE INTRUSION ASSESSMENT

Site investigation indicates that the major external noise sources around the site are from traffic movements along Harbour Street, Bathurst Street, Druitt Street onramp to Anzac Bridge and the Western Distributor.

Acoustic treatments for noise intrusion will be subject to further design development at later stages pending final constructions. Complying constructions below are for authority approval purposes only and not to be used as specific façade consent requirements. Finalised façade requirements will be reviewed at construction certification (**CC**) Stage.

5.1 NOISE INTRUSION CRITERIA

A noise intrusion assessment has been conducted based on the requirements of the following acoustic noise criteria and standards:

- City of Sydney (**CoS**) Council *Development Control Plan* (**DCP**) 2012.
- Australian and New Zealand AS/NZS 2107:2016 *Recommended design sound levels and reverberation times for building interiors.*

5.1.1 CoS DCP 2012

Section 4.4.8 of the DCP relates to objectives and provisions for visitor accommodation, however no specific noise controls are provided in this section.

AL also notes that the SEPPT&I 2021 also does not provide specific requirements for hotel development. Therefore, internal noise requirements will be assessed with reference to AS/NZS 2107:2016.

5.1.2 Australian and New Zealand AS/NZS 2107:2016 *Recommended design sound levels and reverberation times for building interiors*

Australian Standard AS 2107:2016: *Recommended design sound levels and reverberation times for building interiors* specifies allowable internal noise levels for internal spaces within various building types. AS 2107:2016, gives the following maximum internal noise levels for relevant areas of the proposed building.

Table 5-1 – Recommended Design Sound Level

Space /Activity Type	Recommended Maximum Design Sound Level dB(A) L_{eq}
Hotel Sleeping Areas (Major Roads)	35-40 dB(A)$L_{eq(10pm-7am)}$
Hotel Foyers and Recreation Areas	45-50 dB(A) $L_{eq(anytime)}$
Hotel Washrooms and Toilets	45-55 dB(A) $L_{eq(anytime)}$
Hotel Bars and Lounges	< 50 dB(A) $L_{eq(anytime)}$
Kitchen, Laundry and Maintenance Areas	< 55 dB(A) $L_{eq(anytime)}$
Restaurants	40-50 dB(A) $L_{eq(anytime)}$

5.2 ADOPTED PROJECT SPECIFIC CRITERIA

The internal noise criteria adopted for each internal space is therefore summarised below based on the relevant State, Council and Australian Standard requirements.

Table 5-2 – Adopted Internal Noise Levels

Space /Activity Type	Adopted Internal Sound Level dB(A) L_{eq}
Hotel Sleeping Areas (Major Roads)	35 dB(A) $L_{eq(10pm-7am)}$
Hotel Foyers and Recreation Areas	50 dB(A) $L_{eq(anytime)}$
Hotel Washrooms and Toilets	50 dB(A) $L_{eq(anytime)}$
Hotel Bars and Lounges	50 dB(A) $L_{eq(anytime)}$
Kitchen, Laundry and Maintenance Areas	55 dB(A) $L_{eq(anytime)}$
Restaurants	50 dB(A) $L_{eq(anytime)}$

5.3 COMPLYING CONSTRUCTIONS

Assessment of façade requirements to achieve required indoor noise levels has been undertaken. Dimensions of spaces, setbacks from roadways, window openings and floor areas have been used.

Noise levels around the site have been predicted using the SoundPLAN computer model. The model is able to predict façade noise levels, taking into account the factors indicated above.

The model:

- Has been calibrated for each noise source using the relevant measured noise levels, with any long-term change in noise level applied.
- Includes a digitised geo-map of the proposed building and any nearby structures that may affect noise levels at the site.
- ISO 9613-2:1996 "Acoustics – Attenuation of Sound During Propagation Outdoors – Part 2: General Method of Calculation" noise propagation standard was adopted.

The modelling assumptions include:

- Noise source heights:
    - Heavy vehicles engines at 1m height above roadway.
    - Passenger cars and light commercial vehicles at 0.5m above the roadway.
- Heavy vehicle composition of 10% based on conservative estimate.
- Data obtained from Geoscape for the surrounding land, roadways and existing built form.

SoundPLAN modelling outputs are provided in the appendices. SoundPLAN "façade noise maps" do not include a façade reflection allowance, and therefore do not require correction.

The modelling indicates that mitigation of noise impacts is needed to achieve compliance with the nominated assessment criteria. Complying mitigation is provided in the sections below.

Note: Façade constructions are to be reviewed at CC stage based on construction drawings pending final façade design. The below constructions are provided for authority approval purposes only.

5.3.1 Glazed Façade (Windows and Doors)

The following constructions will comply with the project noise objectives. Aluminium framed/sliding glass doors and windows will be satisfactory provided they meet the following criteria. All external windows and doors listed are required to be fitted with Q-lon type acoustic seals. (**Mohair Seals are unacceptable**).

Thicker glazing may be required for structural, safety or other purposes. Where it is required to use thicker glazing than scheduled, this will also be acoustically acceptable. The recommended external glazing design to mitigate potential noise impacts are detailed in Table 5-3.

Table 5-3 – Complying Glazing Construction

Room	Glazing Thickness	Acoustic Seals
Western facing hotel rooms including associated corner rooms	6mm Toughened/ 100mm airgap/ 10.38mm Laminated	Yes
Northern facing hotel rooms including northeastern corner rooms	12.5mm Vlam Hush **or** 8mm Toughened/ 12mm airgap/ 13.52mm Laminated IGU	Yes
Southern facing hotel rooms including southeastern corner rooms	10.38mm Laminated **or** 10mm Toughened/ 12mm airgap/ 6.38mm Laminated IGU	Yes
Eastern facing hotel rooms	6.38mm Laminated **or** 6mm Toughened/ 12mm airgap/ 6.38mm Laminated IGU	Yes
All Other Glazed Elements (Toilets, Restaurants, Foyers, etc.)	6.38mm Laminated **or** 6mm Toughened/ 12mm airgap/ 6.38mm Laminated IGU	Yes

It is recommended that only window systems having test results indicating compliance with the required ratings obtained in a certified laboratory be used where windows with acoustic seals have been recommended.

In addition to complying with the minimum scheduled glazing thickness, the R_w rating of the glazing fitted into open-able frames and fixed into the building opening should not be lower than the values listed in Table 5-4 for all areas. Where nominated, this will require the use of acoustic seals around the full perimeter of open-able frames and the frame will need to be sealed into the building opening using a flexible sealant.

Table 5-4 – Minimum R_w of Glazing Assembly (with Acoustic Seals)

Glazing Assembly	Minimum R_w of Installed Window
6mm Toughened/ 100mm airgap/ 10.38mm Laminated	45
8mm Toughened/ 12mm airgap/ 13.52mm Laminated IGU	42
12.5mm Vlam Hush	40
10mm Toughened/ 12mm airgap/ 6.38mm Laminated IGU	40
10.38mm Laminated	35
6mm Toughened/ 12mm airgap/ 6.38mm Laminated IGU	35
6.38mm Laminated	31

Note: Façade constructions to be reviewed at CC stage based on construction drawings, pending final façade design.

5.3.2 External Wall Construction

External wall construction will be constructed from concrete and masonry elements, therefore; acoustic upgrading is not required. Any lightweight façade construction shall provide a minimum acoustic performance of R_w 50.

There should not be vents on the internal skin of external walls. In the event that any penetrations are required through the external skin, an acoustic sealant should be used to minimise all gaps.

5.3.3 Entry Doors

All doors shall have glazing thicknesses equal to those recommended in Section 5.3.1 and are to have Raven RP10 to the top and sides and Raven RP38 to the underside of a swing door.

Note that mohair seals in windows and doors <u>are not acceptable</u> where acoustic seals are required.

5.3.4 External Roof/Ceiling Construction

External roof construction will be constructed from concrete elements, therefore; acoustic upgrading is not required. In the event that any penetrations are required through the external skin, an acoustic sealant should be used to minimise all gaps.

5.3.5 Ventilation and Air Conditioning

AS2107 relies on the external façade being closed to provide the required noise reduction through the façade. Whilst they do not provide guidance on acceptable tolerances for a 'windows open' level, and noting that this is not strictly required, with respect to natural ventilation of a dwelling, NSW Planning guidelines allow internal noise levels to be up to 10 dB(A) higher than the specified criterion with windows and doors to a dwelling open.

Based on the above, all hotel rooms are recommended to be provided with alternative ventilation such as air condition systems to maintain adequate ventilation with windows closed.

Any supplementary ventilation system proposed to be installed should be acoustically designed to ensure that the acoustic performance of the acoustic treatments outlined above is not reduced and does not exceed external noise emission criteria to nearby properties.

6 SITE OPERATIONAL NOISE EMISSIONS ASSESSMENT

6.1 ENVIRONMENTAL NOISE AND VIBRATION SOURCES

The following significant noise and vibration sources have been identified as requiring assessment:

- Internal activities and process equipment and plant. This includes:
    - Gym on Level 11
    - Lounge/ bar on Level 18
    - Leased restaurant on Level 21
- External activities and external process equipment and plant. This includes:
    - An outdoor pool on Level 11
    - Associated outdoor terrace of the lounge/bar on Level 18
    - Associated outdoor terrace of the leased restaurant on Level 21
- Air conditioning and ventilation plant.

6.2 NOISE ASSESSMENT CRITERIA FOR ON-SITE NOISE SOURCES

Criteria to assess noise emissions from the operation of the proposed development have been developed using the NSW EPA *Noise Policy for Industry* (**NPI**) 2017. This policy was primarily developed to assess noise impacts from industrial development, however, can also be adapted to assess other types of development such as commercial buildings and air conditioning plant.

For each receiver type:

- Receivers have been grouped into "catchments". These are receivers that have been assessed as having similar characteristics (receiver type and ambient noise level). These are shown in Figure 4-1.
- For each catchment, representative noise assessment trigger levels have been determined based on NPI guidelines. The trigger levels have been adopted in this assessment as criteria. These will be used to indicate whether additional mitigation is needed to manage noise emissions.
- For each catchment, noise emissions have been assessed to the most impacted receiver. This means that impacts at all other receivers within that catchment will be less. Compliance at the most impacted receiver will therefore also result in compliance at all other receivers within the catchment.

For residential receivers, three criteria are assessed:

- Intrusive assessment – that is, how audible is the emitted noise compared to ambient, background noise). Criteria are determined relative to the measured rating background noise level.
- Amenity assessment – that is, how loud is the absolute level of industrial noise, including cumulative noise from other industrial sources. The NPI nominates appropriate amenity noise levels depending on the receiver type and prevailing noise environment/zoning.
- Maximum Noise assessment – will high-level, short-term noise events cause adversely impact sleep at night? Trigger levels are determined relative to the measured night rating background and assessed outside rooms where sleep is likely to occur.

For residential receivers, noise emissions are assessed against the trigger levels to determine the likely extent of impacts. The lower of the relevant intrusiveness and amenity trigger levels are adopted. Noise emissions lower than the trigger levels indicate there is no adverse impact. A maximum noise level assessment is separately undertaken if night time emissions occur.

For other receiver types, only an "amenity" assessment is required.

Appendix A summarises the results of ambient noise monitoring. Appendix B provides the derivation of NPfI trigger levels for each of the receivers. These are summarised in the following table.

Table 6-1 – Project Specific Trigger Levels

Location/ Receiver Type	Time	RBL dB(A) L_{90}	Trigger Noise Level (dB(A) $L_{eq,15min}$)		
			Intrusiveness	Amenity	Max Event
Residential **R1**, **R2** & **R3**	Day	64*	69	**58**	N/A
	Evening	62*	67	**48**	N/A
	Night	57*	62	**43**	**62 L_{eq}** **72 L_{max}**
Commercial **C1-C8**	When in Use	N/A	N/A	**63**	N/A
Industrial **I1**	When in Use	N/A	N/A	**68**	N/A

*Lowest measured RBL's from unattended noise monitoring on site.

The project noise trigger levels are bolded above.

6.3 NOISE FROM GENERAL SITE OPERATIONS

Typically, surrounding local receivers are most affected by external noise emissions and not internal noise breakout, given that noise from usage of internal spaces such as the gym, lounge/ bar and leased restaurant can be adequately controlled through the enclosed façade. This is considered low acoustic risk of noise impact and manageable through acoustic selection of façade treatments, however detailed noise emissions assessments shall be carried out by the operator for specific use cases for any leased tenancies. The areas that are most likely to cause noise impact to neighbouring receivers are the outdoor spaces such as the pool on Level 11 and terraces on Levels 18 and 21.

The location the outdoor terraces on Levels 18 and 21 are much higher than those of local residential receivers. It is noted that licensed premises are governed by Liquor & Gaming NSW (**L&GNSW**) and the new Vibrancy Reforms, not the NPI. A preliminary assessment can still be conducted of these spaces to ascertain if there is a concern with noise impact on local residents.

Preliminary assessment of the outdoor terraces with up to 50 patrons at each terrace with 1 in 2 patrons speaking at a raised voice in the external space (66 dB(A) @ 1m L_{eq} per the AAAC *Licensed Premises Noise Assessment Technical Guideline* V2 2020 (Cushing et al)) yields a façade noise level at **R1** of under 40dB(A) at the most affected façade externally. This predicted noise level is lower than the measured background noise levels for the area and within historic noise emissions objectives adopted by L&GNSW. A detailed review can be conducted when operational conditions of each space are finalised.

Preliminary assessment of the outdoor pool area with up to 50 patrons at the outdoor pool area with 1 in 2 patrons speaking at a raised voice in the external space (66 dB(A) @ 1m L_{eq} per the AAAC *Licensed Premises Noise Assessment Technical Guideline* V2 2020 (Cushing et al)) yields a façade noise level at **R2** of under 50dB(A) at the most affected façade externally. This predicted noise level is over 10dB(A) lower than the measured background noise levels for the area. A detailed review can be conducted when operational conditions of each space are finalised.

AL is therefore of the opinion that the proposed configurations are considered low acoustic risk and are acoustically acceptable. Specific requirements of any operator (such as extended hours operation or external amplified music) are to be reviewed via a detailed noise emissions assessment.

6.4 NOISE FROM MECHANICAL PLANT WITHIN PROPOSED SITE GENERALLY

Detailed plant selection and location has not been undertaken at this stage. Satisfactory levels will be achievable through appropriate plant selection, location and if necessary, standard acoustic treatments such as duct lining, acoustic silencers and enclosures. Noise emissions from all mechanical services to the closest residential and commercial receivers should comply with the requirements of the NSW EPA *Noise Policy for Industry* 2017 as summarised in Section 6.2.

Detailed acoustic review should be undertaken at CC stage to determine acoustic treatments to control noise emissions to satisfactory levels. Indicative treatments to be reviewed and/ or iterated at CC stage are shown below.

Preliminary Mechanical Treatment Advice:

- Condenser plant equipment: No indicative location of condenser plant is currently shown. Night time operational speeds shall be restricted with a night mode card (Daikin RXYMQ or similar).
- Major fans (typically with a sound power over 80dB(A) such as kitchen exhaust, major toilet exhaust and major carpark exhaust/supply/ relief air fans) may require acoustic treatment if located externally near sensitive receivers. It is recommended that axial (as opposed to roof mounted fans) are to be used as this will enable acoustic treatment to be incorporated within ductwork running to atmosphere and with attenuators if necessary. Indicatively a 1d unpodded attenuator with 2m of 50mm internally lined ductwork.
- Eastern facing plant rooms on Level 11 will require additional treatment to ensure noise emissions to **R1** and **R2** are adequately treated. Similarly, southern facing plantrooms on Level 11 may require additional treatment to minimise noise to **R3**. This can be achieved with silencers and lined ducting for fans or acoustic louvres for plant items that cannot incorporate individual treatment.
- Rooftop plant items may require barriers or acoustic louvres pending final mechanical plant selections.
- Cumulative assessment of both plant noise with other noise sources is recommended when conducting acoustic design of plant items.

Compliance with EPA acoustic criteria (as set out in Section 6.2) will be achievable provided that detailed acoustic review of plant items is undertaken once plant is selected, and acoustic treatments similar to those outlined above are adopted.

7 CONCLUSION

This report summarises the potential noise impact assessment undertaken for the proposed development.

Provided that the complying design recommendations presented in Section 5.3 are adopted, the development will comply with the acoustic requirements of the following documents:

- City of Sydney (**CoS**) Council *Development Control Plan* (**DCP**) 2012.
- Australian and New Zealand AS/NZS 2107:2016 Recommended design sound levels and reverberation times for building interiors.
- NSW Department of Planning (**DoP**) Development near Rail Corridors or Busy Roads – Interim Guideline (**DNRCBR**) 2008.
- NSW EPA *Noise Policy for Industry* (**NPfI**) October 2017.

External noise emissions criteria have been established in this report. In principle advice has been provided for mechanical plant that is to be iterated in later development stages.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,



Acoustic Logic Pty Ltd
Weber Yeh

APPENDIX A AMBIENT NOISE MONITORING

This appendix summarises the ambient noise data measured near the subject site, and the calculated noise level descriptors adopted to characterise the existing noise environment.

Monitoring has been undertaken to provide the following ambient data:

- Background noise levels at the surrounding residential properties.
- Traffic noise levels.
- Noise generated by adjacent land uses.

A.1 NOISE DESCRIPTORS

Ambient noise constantly varies in level from moment to moment, so it is not possible to accurately determine prevailing noise conditions by measuring a single, instantaneous noise level.

To quantify ambient noise, a 15-minute measurement interval is typically utilised. Noise levels are monitored on a continuous basis over this period, and statistical and integrating techniques are used to characterise the noise being measured.

The principal measurement parameters are:

L_{eq} - represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the measurement period. L_{eq} is important in the assessment of noise impact as it closely corresponds with how humans perceive the loudness of steady state and quasi-steady state noise sources (such as traffic noise).

L_{90} – This is commonly used as a measure of the background noise level as it represents the noise level heard in the quieter periods during the measurement interval. The L_{90} parameter is used to set noise emission criteria for potentially intrusive noise sources since the disturbance caused by a noise source will depend on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the L_{90} level.

L_{10} is used in some guidelines to measure noise produced by an intrusive noise source since it represents the average of the loudest noise levels produced at the source. Typically, this is used to assess noise from licenced venues.

L_{max} is the highest noise level produced during a noise event and is typically used to assess sleep arousal impacts from short term noise events during the night. It is also used to assess internal noise levels resulting from aircraft noise and ground vibration induced noise from railways.

L_1 is sometimes used in place of L_{max} to represent a typical noise level from a number of high-level, short-term noise events.

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A.2 UNATTENDED LONG TERM NOISE MONITORING

A.2.1 Equipment Used

Unattended noise monitoring was conducted using the following equipment:

- Rion NL-42 (Type 2)
- Svan calibrator SV 338

Monitoring was continuous, with statistical noise levels recorded at 15-minute intervals throughout the monitoring period. Measurements were taken on "A" frequency weighting and fast time response, unless noted otherwise.

All monitoring equipment used retains current calibration - either manufacturers' calibration or NATA certified calibration. The monitors were field calibrated at the beginning and the end of the measurement with no significant drift in calibration noted.

A.2.2 Location Monitored

The location monitored is indicated in Figure A-1. Photographs of the monitoring locations are provided below.

A.2.3 Weather Affected and Extraneous/ Outlying Data

Periods affected by adverse weather conditions (as defined by Fact Sheet B) are indicated on the following data graphs and have been excluded from the assessment. Weather data was obtained from records provided by the Bureau of Meteorology for the following station:

As the Bureau of Meteorology wind data is typically obtained at an exposed location at 10m above ground level, and the monitoring locations were at the current roof level of the building in moderately sheltered locations such as from other buildings. A wind multiplying factor of 0.67 has been applied to the BOM data to estimate the wind speed at the microphone location.

Wind speed data was obtained from Fort Denison AWS. Rain fall data was obtained from Observatory Hill AWS.

Multiple time periods were identified as likely to contain significant periods of non-representative data and have been excluded from the assessment.

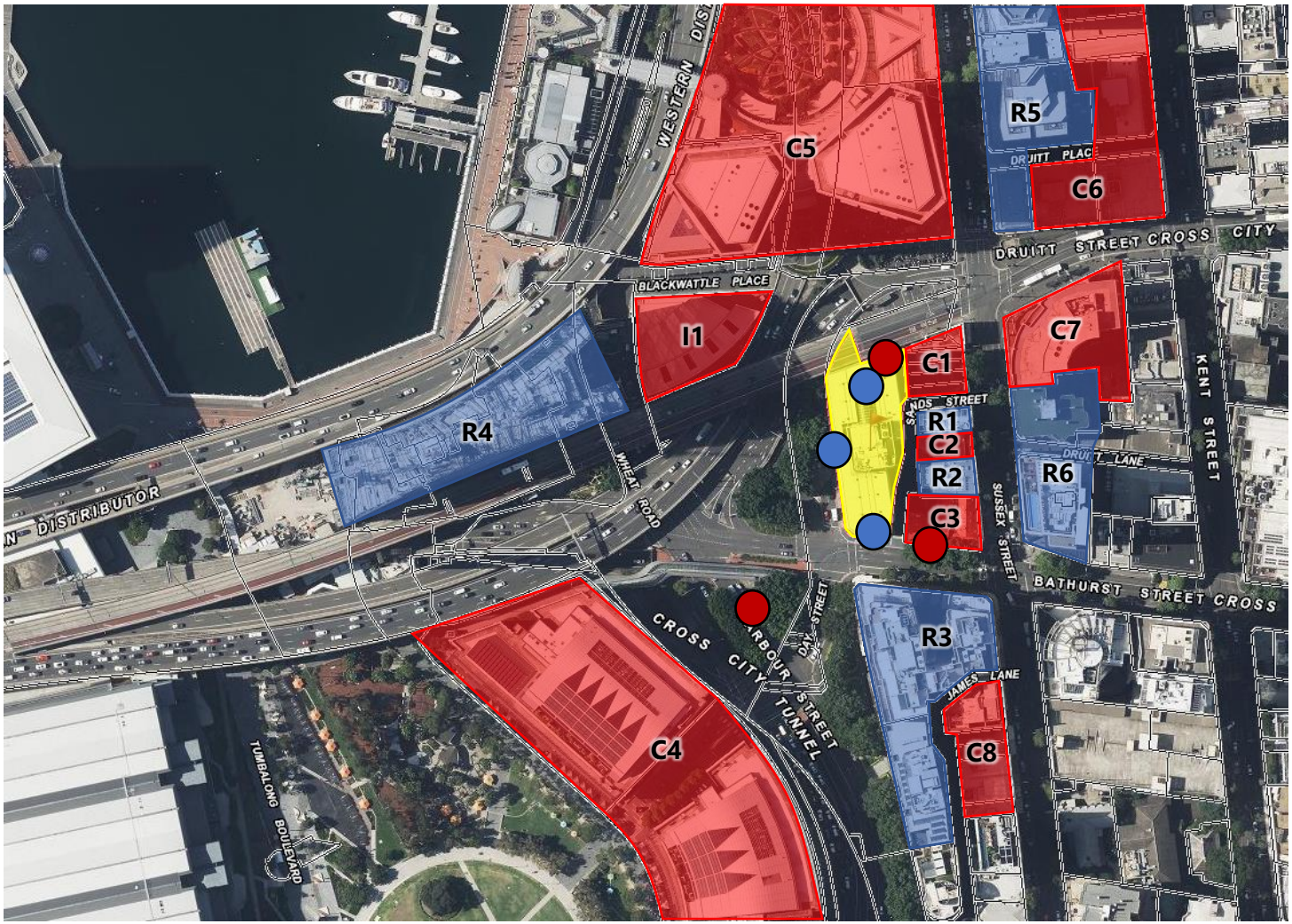


Figure A-1 – Site Plan Showing Local Context (Source: SixMaps)

Project Site

Residential & Hotel Receivers

Commercial & Industrial Receivers

Unattended Noise Monitoring

Attended Noise Measurements

1020



Figure A-2 – Northern Noise Monitor Location

1032



Figure A-3 – Southern Noise Monitor Location



Figure A-4 – Western Noise Monitor Location

A.3 CALCULATION OF REPRESENTATIVE AMBIENT NOISE LEVELS

The ambient, assessment and rating background levels have been determined from the unattended, long-term noise monitoring data based on the methodology in the Noise Policy for Industry Fact Sheet B.

A.4 RATING BACKGROUND NOISE LEVELS

The following table summarises the assessment background noise levels (ABL) for each location. Note that where no ABL is indicated, this is because that period was significantly affected by adverse weather or other extraneous noise.

In accordance with the NPfI:

- If the calculated evening rating background noise level is higher than the day level, the day rating background noise level has been adopted for the evening period.
- If the calculated night rating background noise level is higher than the evening level, the evening rating background noise level has been adopted for the evening period.
- If the calculated day rating background noise level was less than 35 dB(A), a "default" background of 35 dB(A) has been adopted.
- If the calculated evening or night rating background noise level was less than 30 dB(A), a "default" background of 30 dB(A) has been adopted.
- Where monitoring was conducted within 3m of a significant sound reflecting surface, 2.5 dB(A) has been subtracted from the calculated rating background to account for an increase in noise from reflections.

Table A-1 – Assessment Background Noise Levels – Northern Noise Monitor

Location	Date		ABL		
			Day	Evening	Night
Northern side of roof of 150 Day Street	Friday	4/10/2024	-	64	58*
	Saturday	5/10/2024	64	63	58
	Sunday	6/10/2024	63	63	57
	Monday	7/10/2024	63	60	56*
	Tuesday	8/10/2024	65	61	55
	Wednesday	9/10/2024	65	62	56
	Thursday	10/10/2024	65	63	57
	Friday	11/10/2024	66	64	59
	Saturday	12/10/2024	65	65	60
	Sunday	13/10/2024	64	62	57
	Monday	14/10/2024	66	62	59
	Tuesday	15/10/2024	-	-	-
	Calculated RBL		**65**	**63**	**57**
	Adopted RBL		**65**	**63**	**57**

*Weather affected data removed from calculation.

Table A-2 – Assessment Background Noise Levels – Southern Noise Monitor

Location	Date		ABL		
			Day	Evening	Night
Northern side of roof of 150 Day Street	Friday	4/10/2024	-	63	58*
	Saturday	5/10/2024	63	63	58
	Sunday	6/10/2024	62	62	58
	Monday	7/10/2024	62	61	55*
	Tuesday	8/10/2024	64	61	56
	Wednesday	9/10/2024	65	61	56
	Thursday	10/10/2024	64	62	57
	Friday	11/10/2024	65	63	58
	Saturday	12/10/2024	64	63	59
	Sunday	13/10/2024	63	61	56
	Monday	14/10/2024	64	61	57
	Tuesday	15/10/2024	-	-	-
	Calculated RBL		**64**	**62**	**57**
	Adopted RBL		**64**	**62**	**57**

*Weather affected data removed from calculation.

Table A-3 – Assessment Background Noise Levels – Western Noise Monitor

Location	Date		ABL		
			Day	Evening	Night
Northern side of roof of 150 Day Street	Friday	4/10/2024	-	65	58*
	Saturday	5/10/2024	65	65	59
	Sunday	6/10/2024	64	64	58
	Monday	7/10/2024	64	62	54*
	Tuesday	8/10/2024	68	63	55
	Wednesday	9/10/2024	68	63	55
	Thursday	10/10/2024	67	64	56
	Friday	11/10/2024	68	66	60
	Saturday	12/10/2024	67	66	60
	Sunday	13/10/2024	65	64	56
	Monday	14/10/2024	67	63	58
	Tuesday	15/10/2024	-	-	-
	Calculated RBL		**67**	**64**	**58**
	Adopted RBL		**67**	**64**	**58**

*Weather affected data removed from calculation.

A.5 AMBIENT NOISE LEVELS

The data for the day, evening and night periods have been processed to determine the ambient noise levels at the monitoring locations for each period.

The $L_{eq,15hr}$ (day period, 7am to 10pm) and $L_{eq,9hr}$ (night period, 10pm to 7am) ambient noise level descriptors adopted in the NSW *Road Noise Policy* 2011 guideline have been calculated from the data and are summarised in the following table.

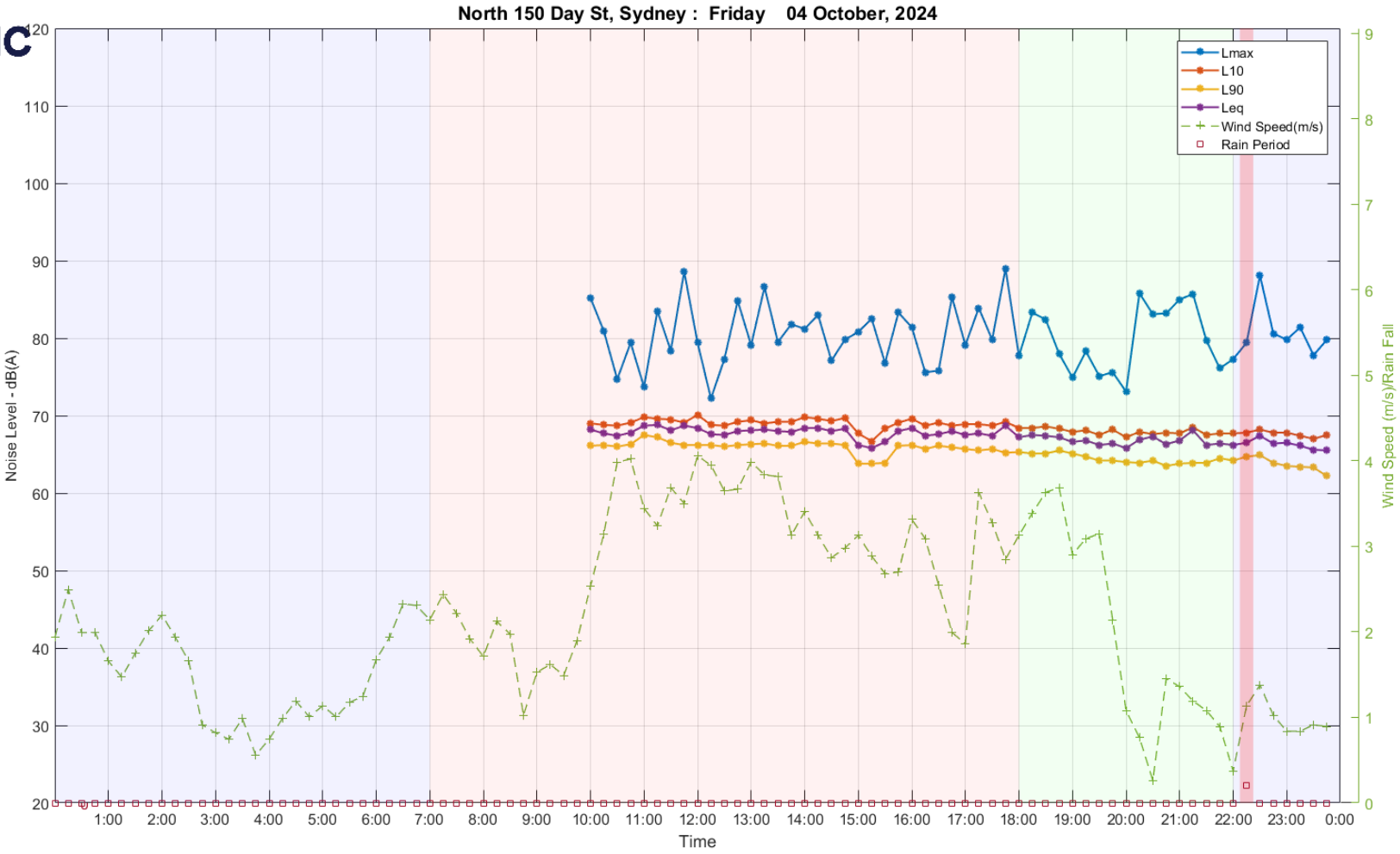
Table A-4 – RNP Ambient Noise

Location	Ambient Noise Level (dB(A) $L_{eq,period}$)*	
	Day (7am to 10pm)	Night (10pm to 7am)
Northern Noise Monitor on roof of 150 Day Street	68	64
Southern Noise Monitor on roof of 150 Day Street	74	63
Western Noise Monitor on roof of 150 Day Street	75	66
Druitt Street Balcony on Level 2 of 150 Day Street approximately 4m from the onramp kerb	70 $L_{eq(15min)}$	-
Bathurst Street approximately 3m from the kerb	71 $L_{eq(15min)}$	-
Harbour Street approximately 3m from the kerb	75 $L_{eq(15min)}$	-

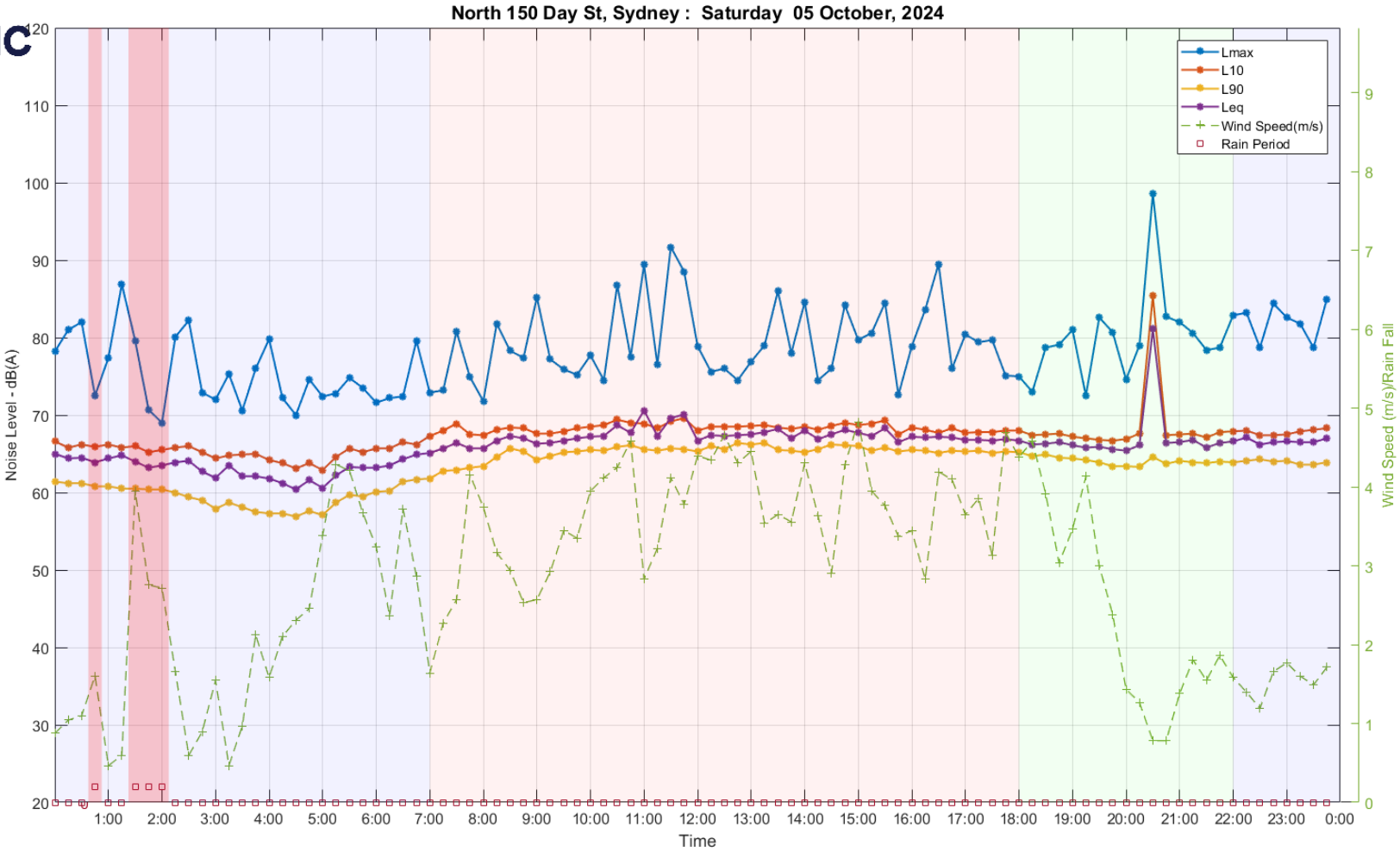
It is noted that all unattended noise monitors were affected by local mechanical plant, therefore façade noise levels were calibrated to the attended measurements conducted at ground level around the site. Day night noise level differences from the unattended noise monitoring were used to predict night time façade noise levels.

A.6 UNATTENDED MONITORING DATA GRAPHS

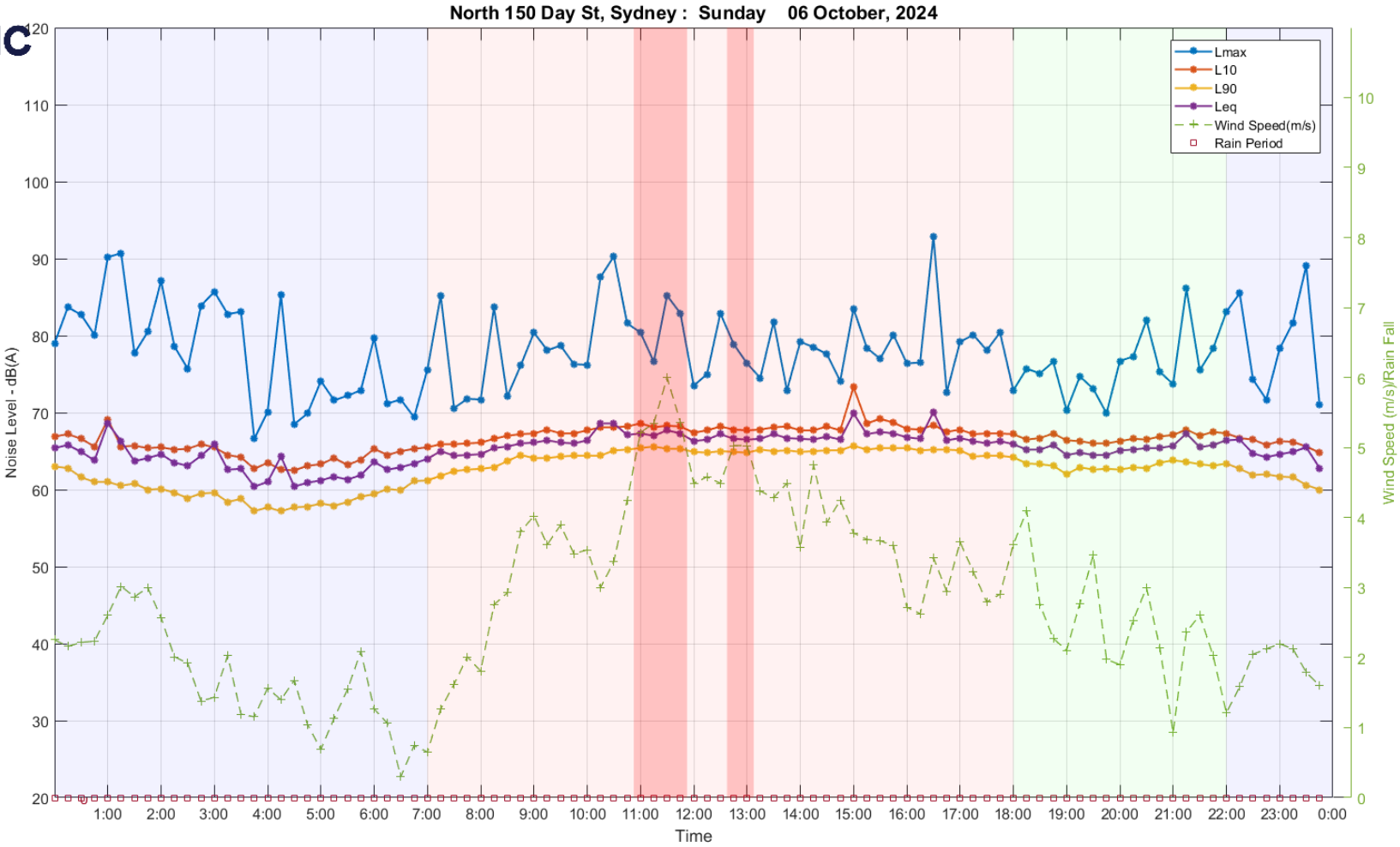
A.6.1 NORTHERN FAÇADE



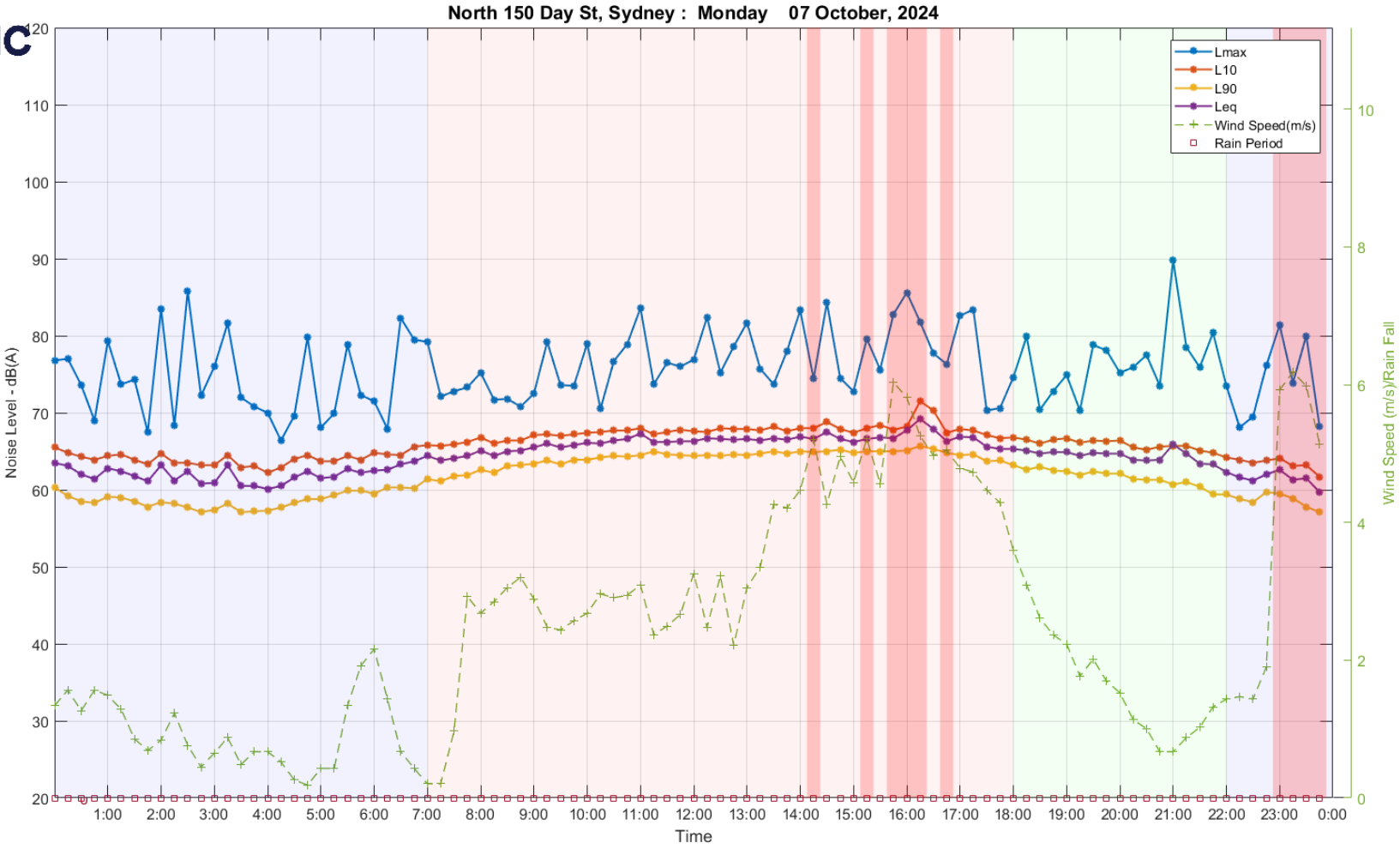
1038


North 150 Day St, Sydney : Saturday 05 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
70
60
50
40
30
20
9
8
7
6
5
4
3
2
1
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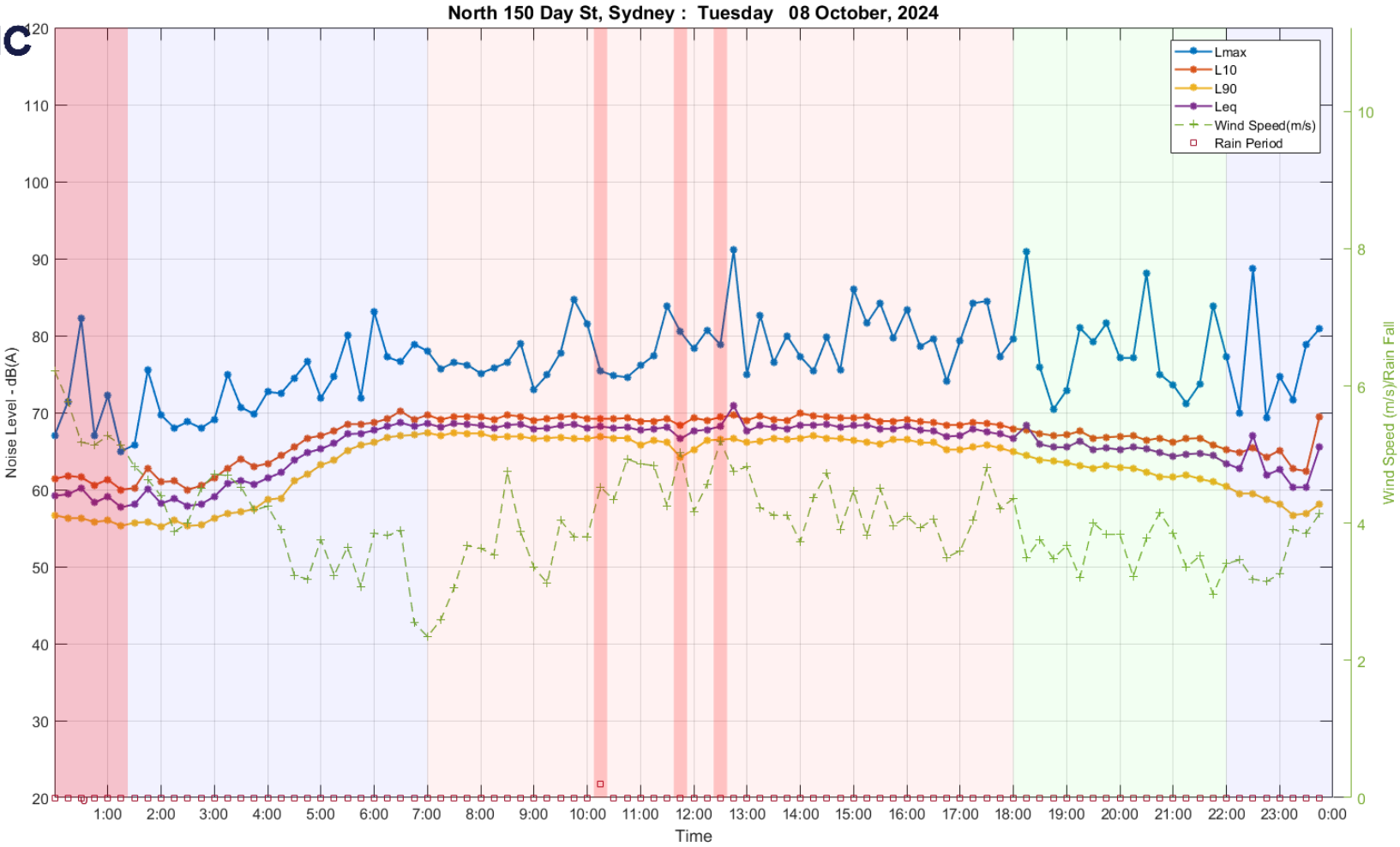
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North 150 Day St, Sydney : Sunday 06 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
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23:00
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1038


North 150 Day St, Sydney : Monday 07 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
70
60
50
40
30
20
10
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6
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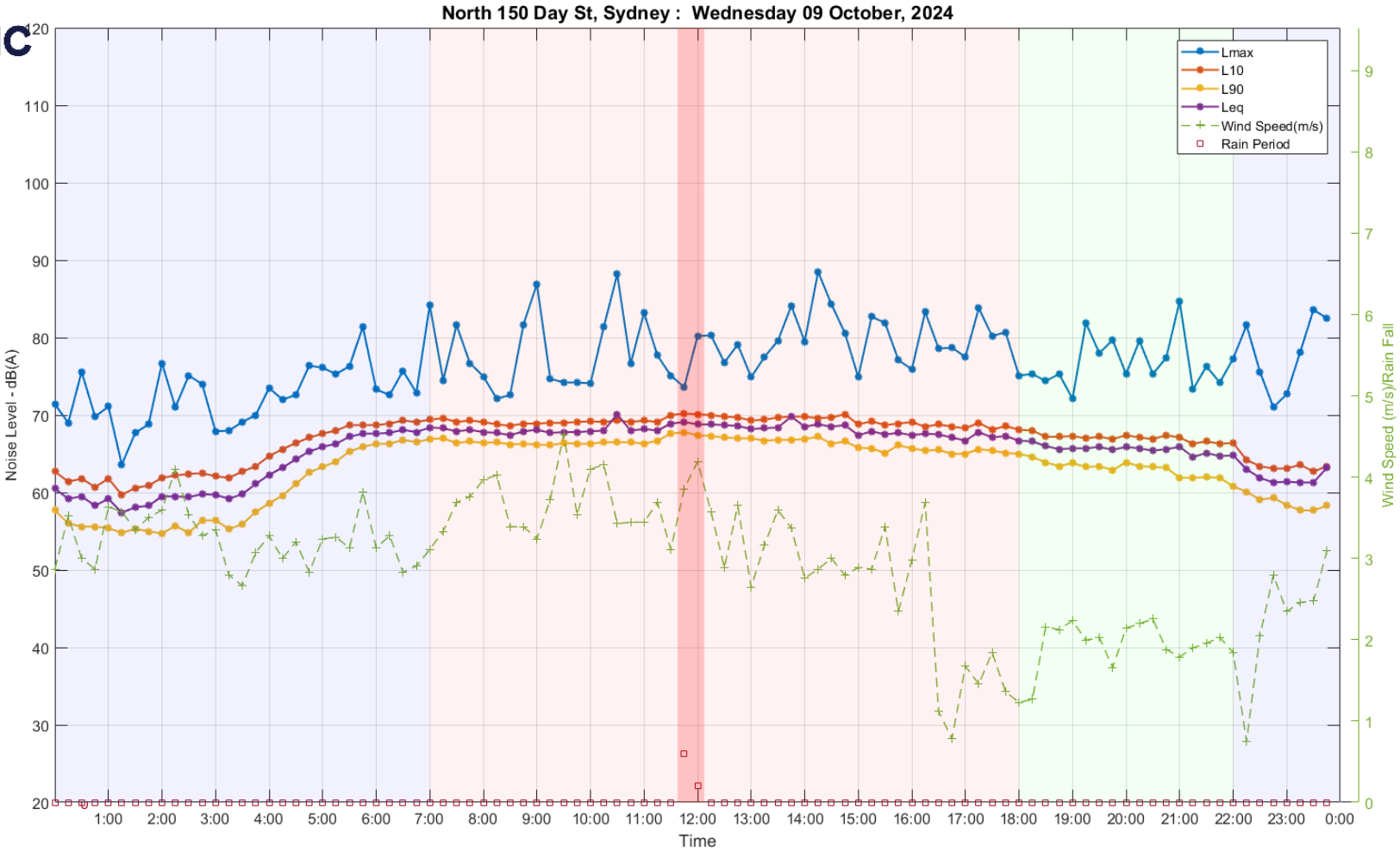
1000


North 150 Day St, Sydney : Tuesday 08 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
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20
10
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1040

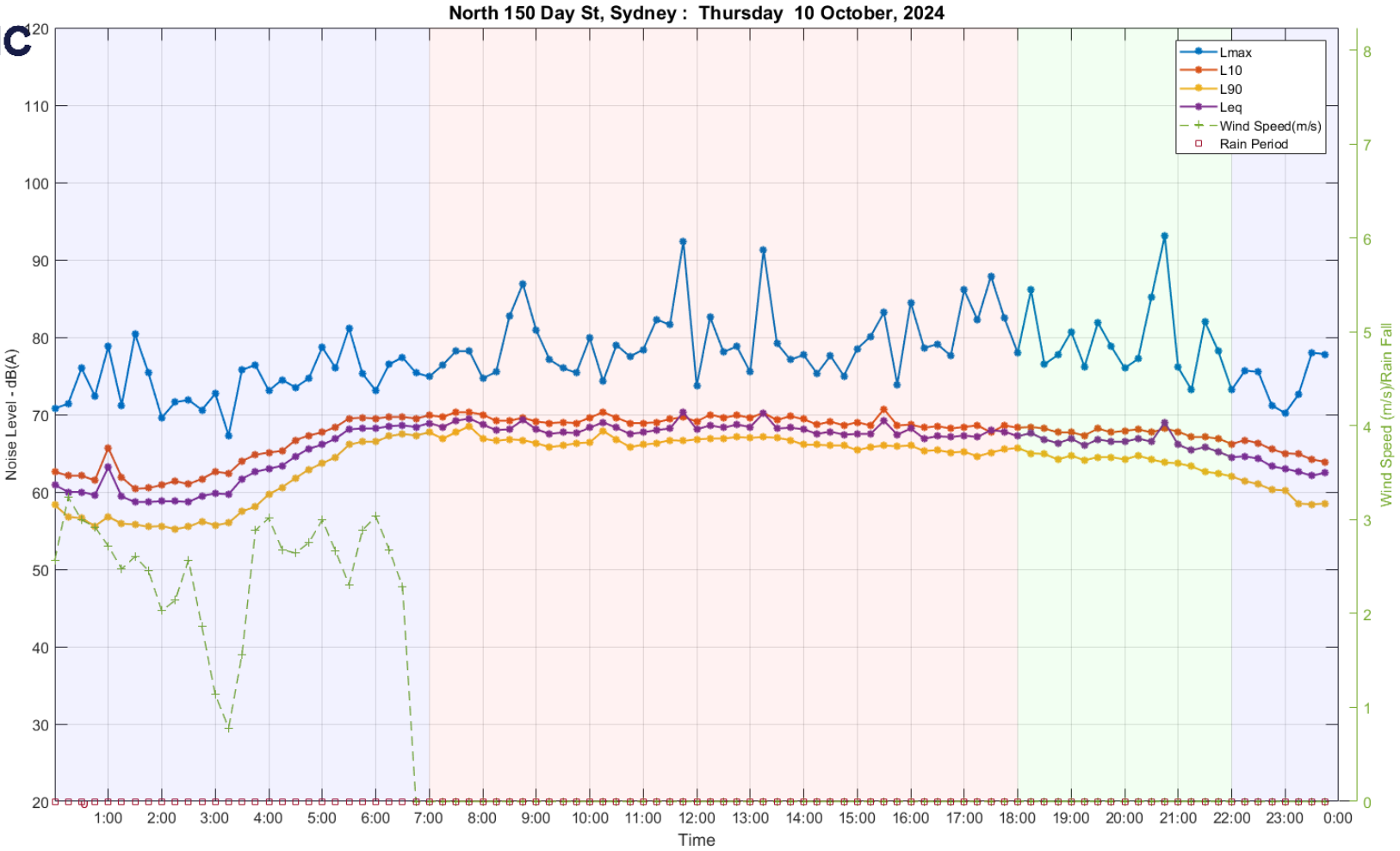
ACOUSTIC LOGIC

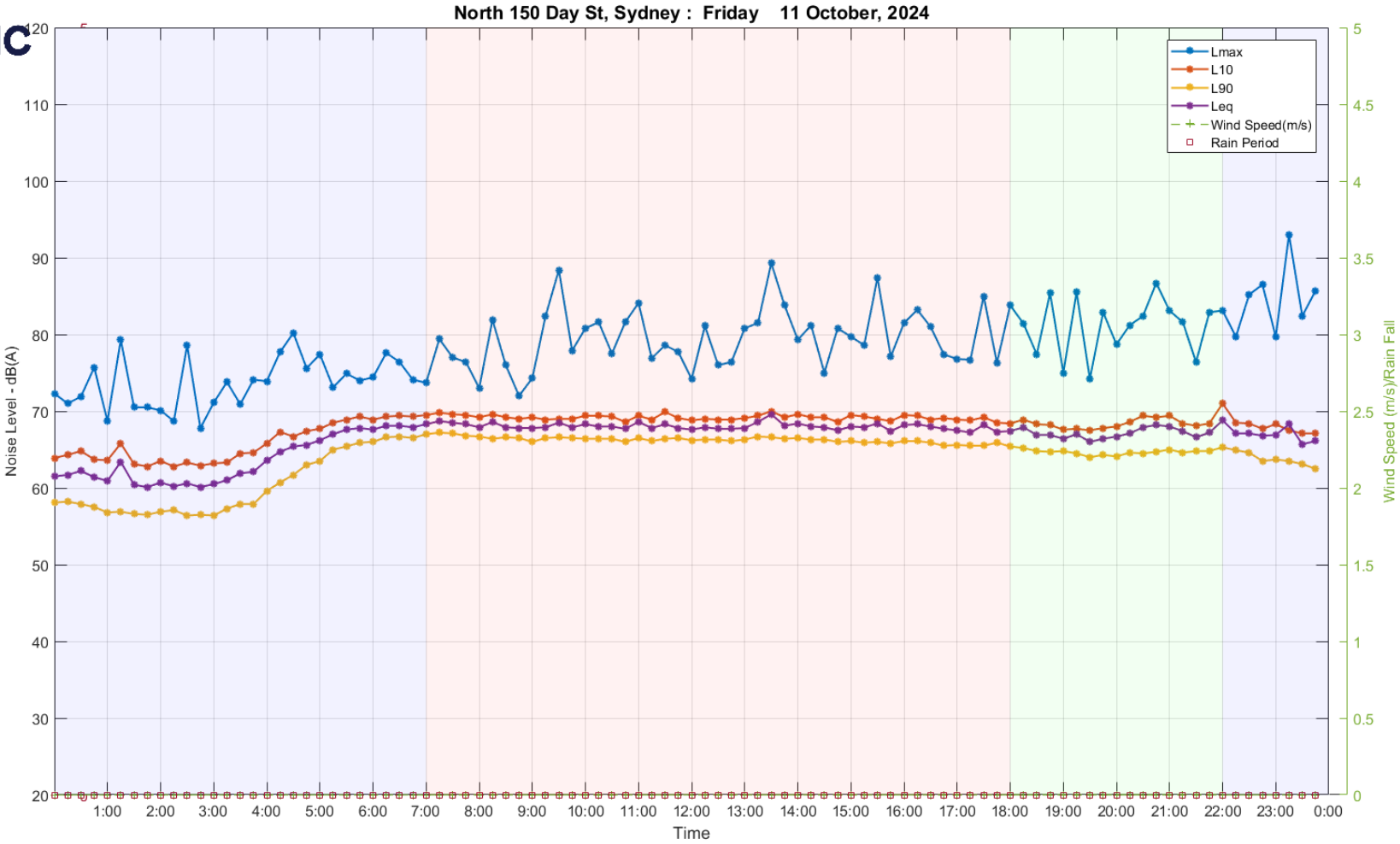
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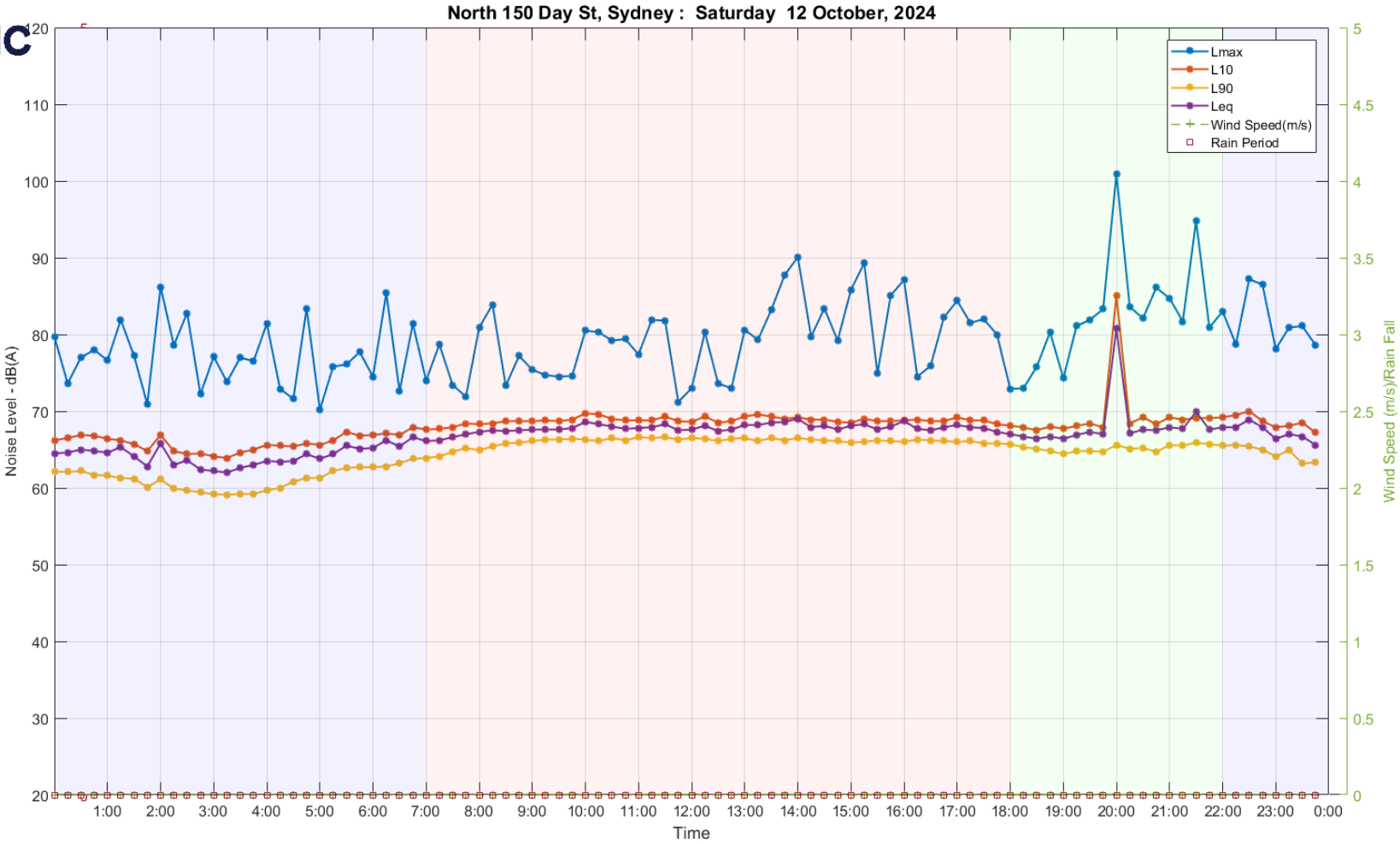


ACOUSTIC LOGIC

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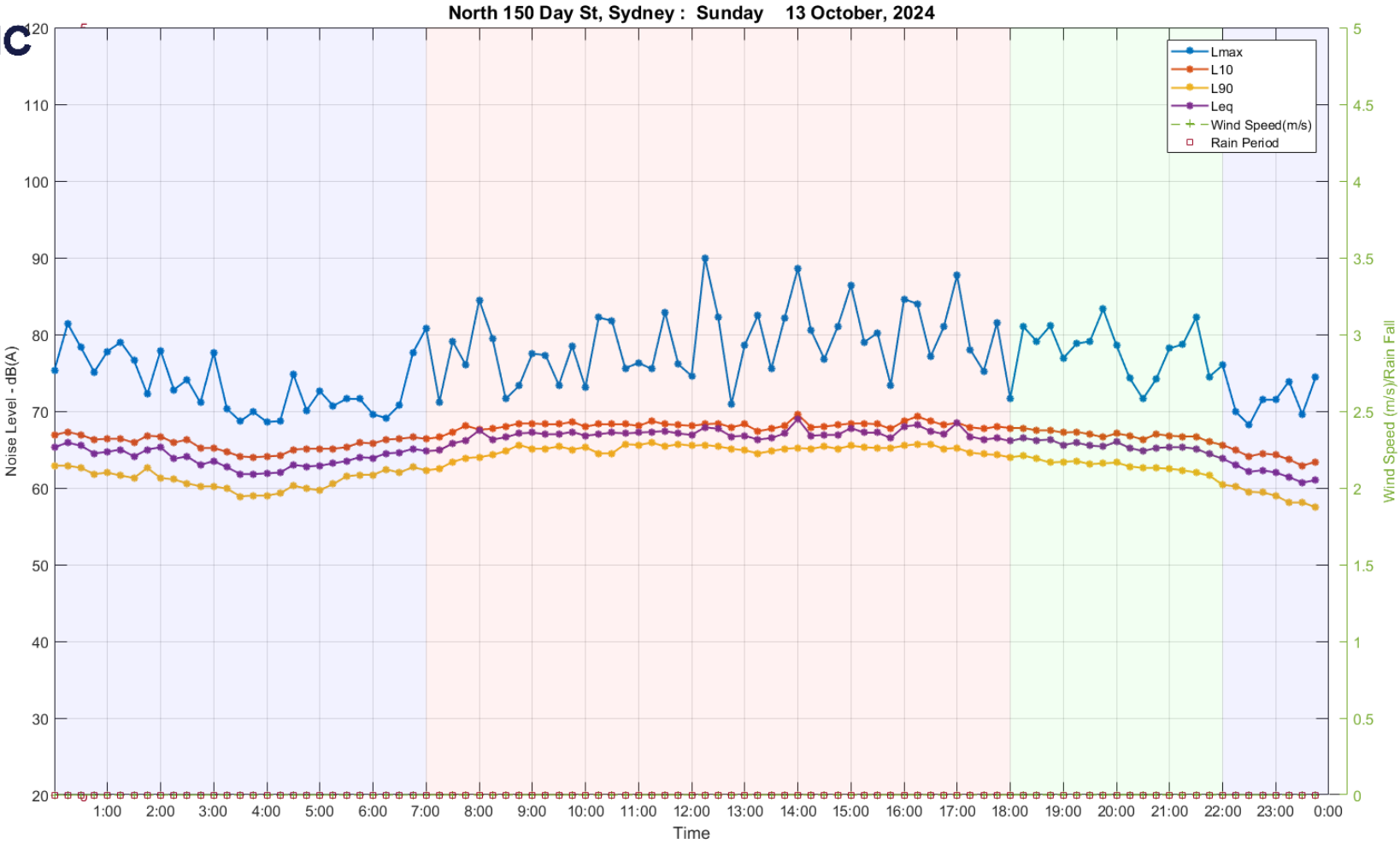


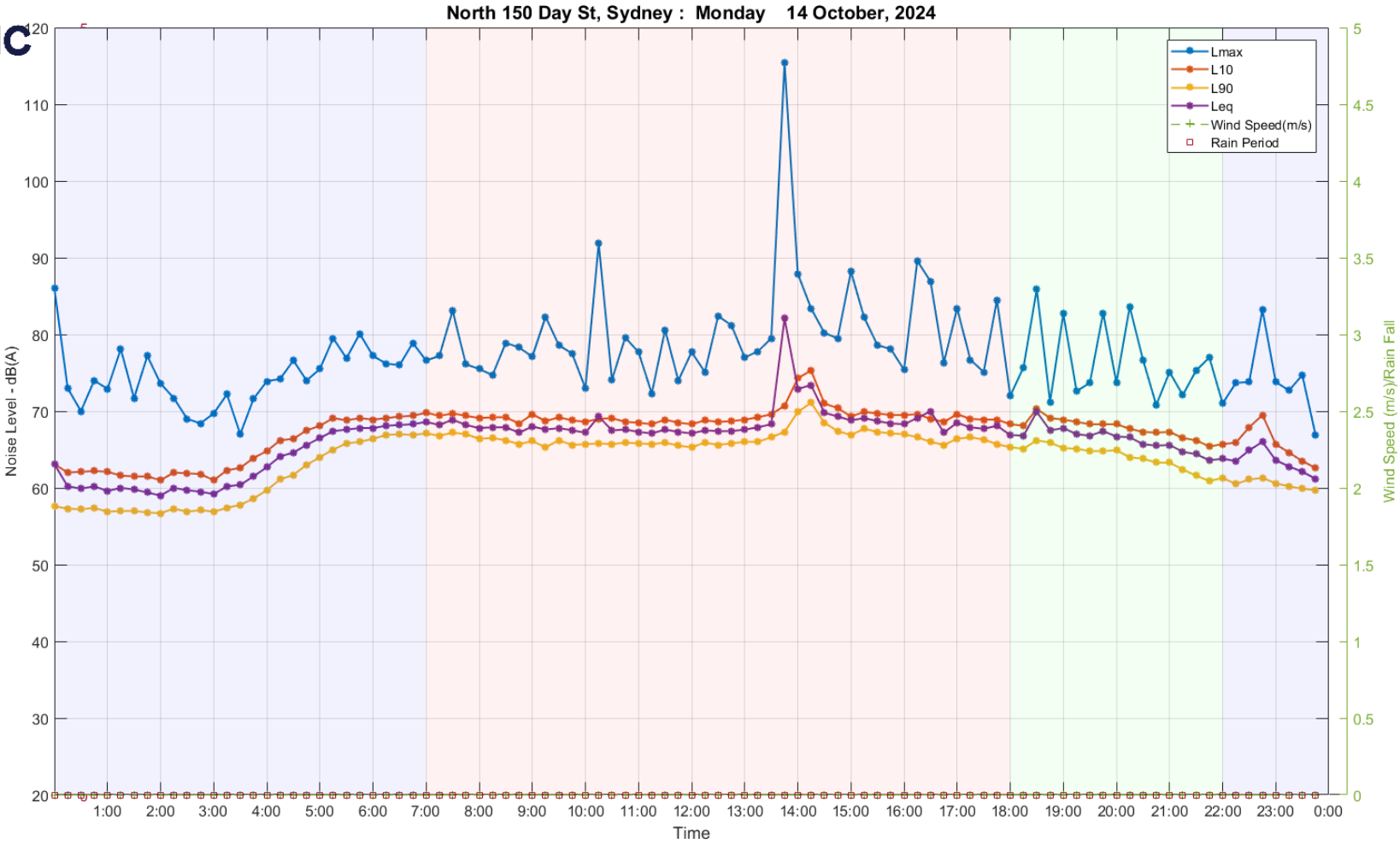

North 150 Day St, Sydney : Friday 11 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
70
60
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40
30
20
5
4.5
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2
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21:00
22:00
23:00
0:00


North 150 Day St, Sydney : Saturday 12 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
70
60
50
40
30
20
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1:00
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ACOUSTIC LOGIC

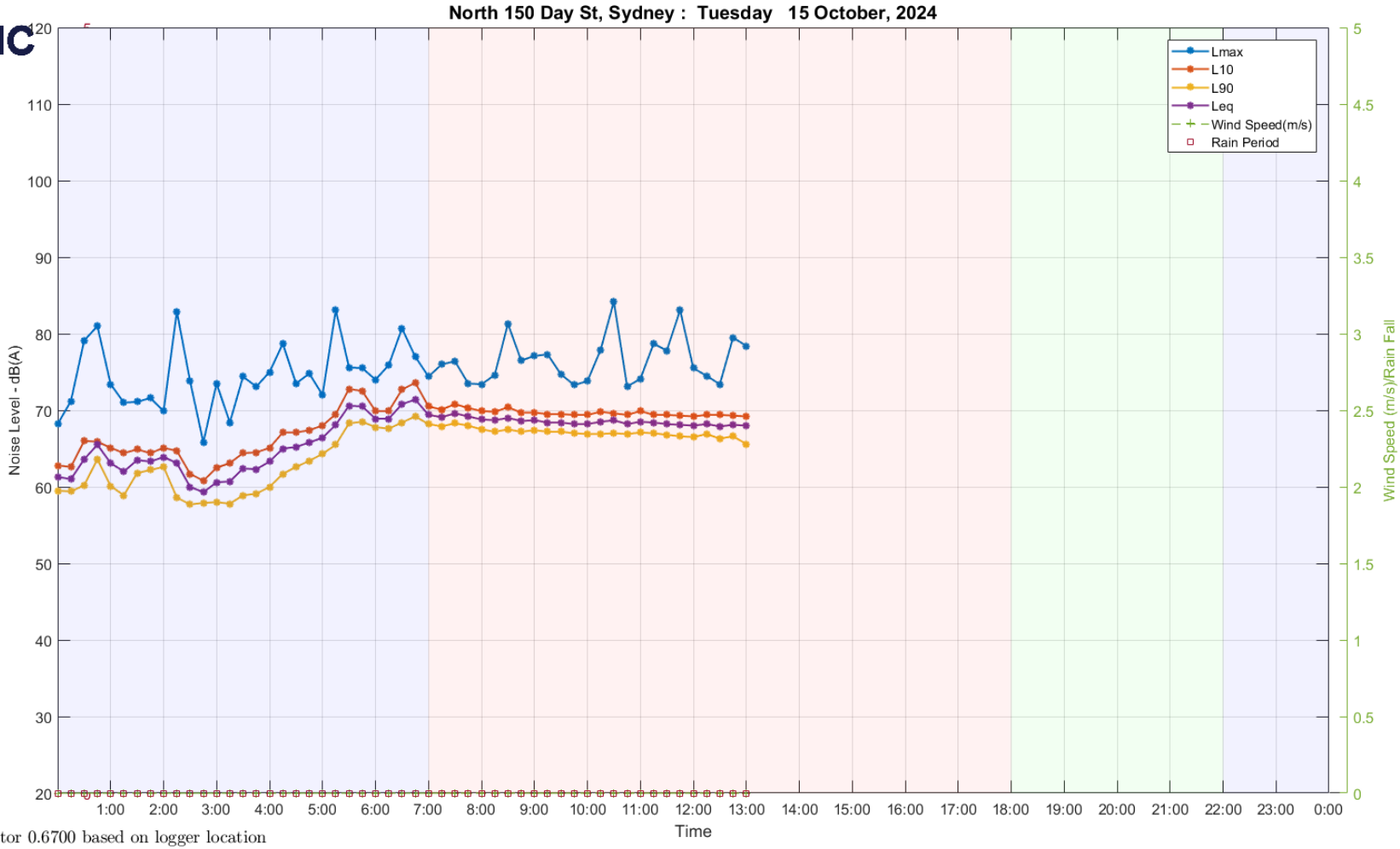
1046




North 150 Day St, Sydney : Monday 14 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
100
90
80
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40
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20
5
4.5
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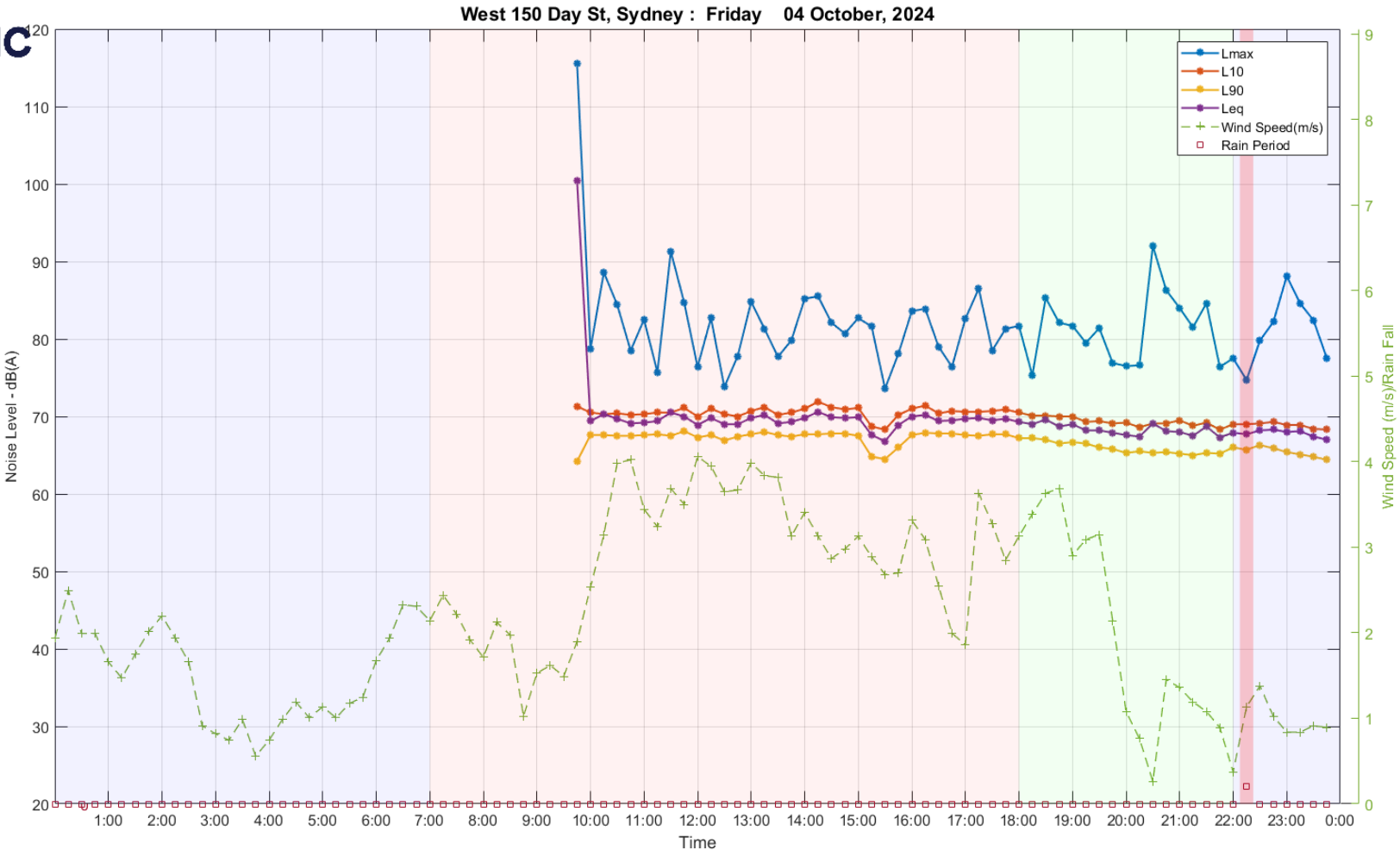
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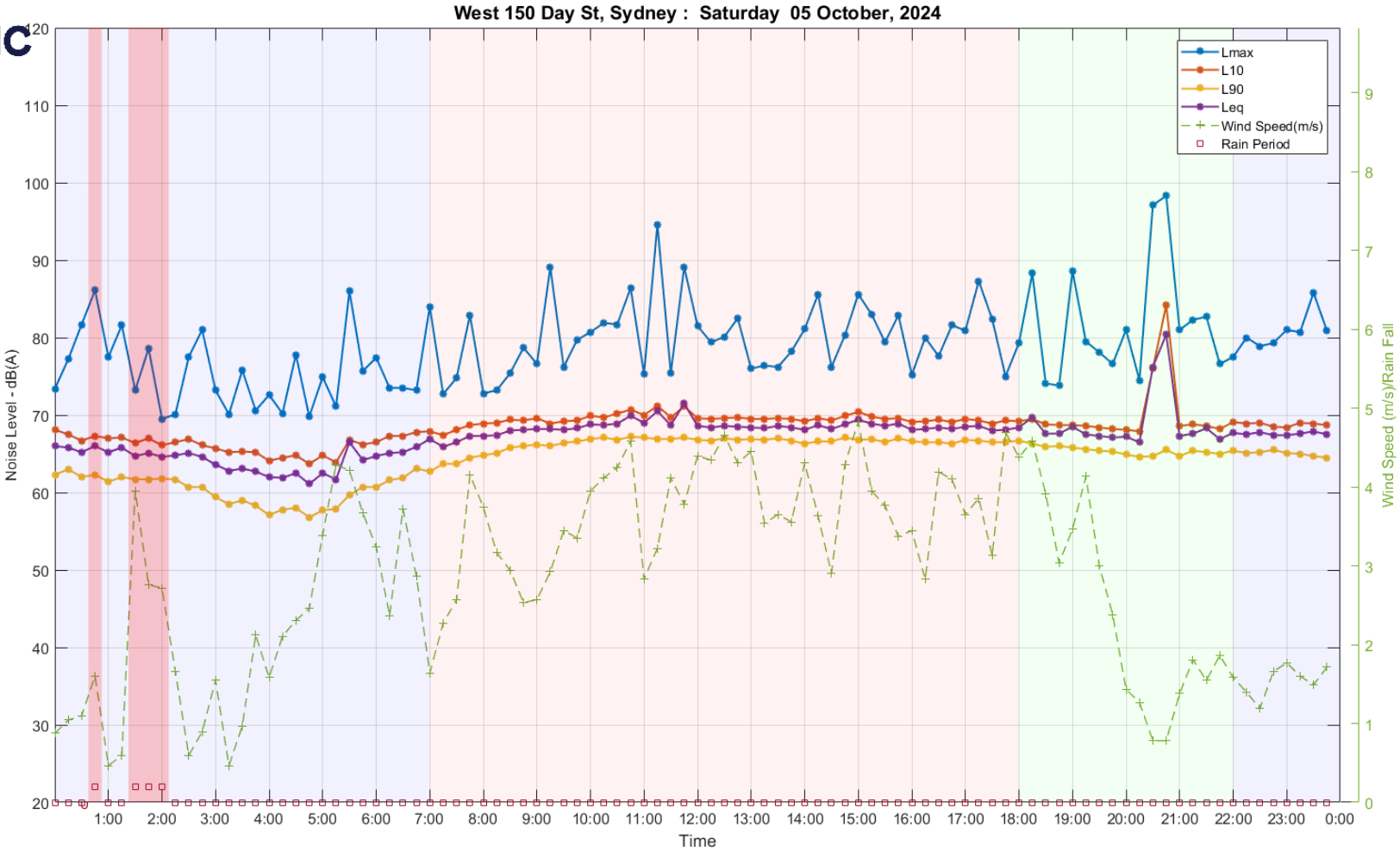


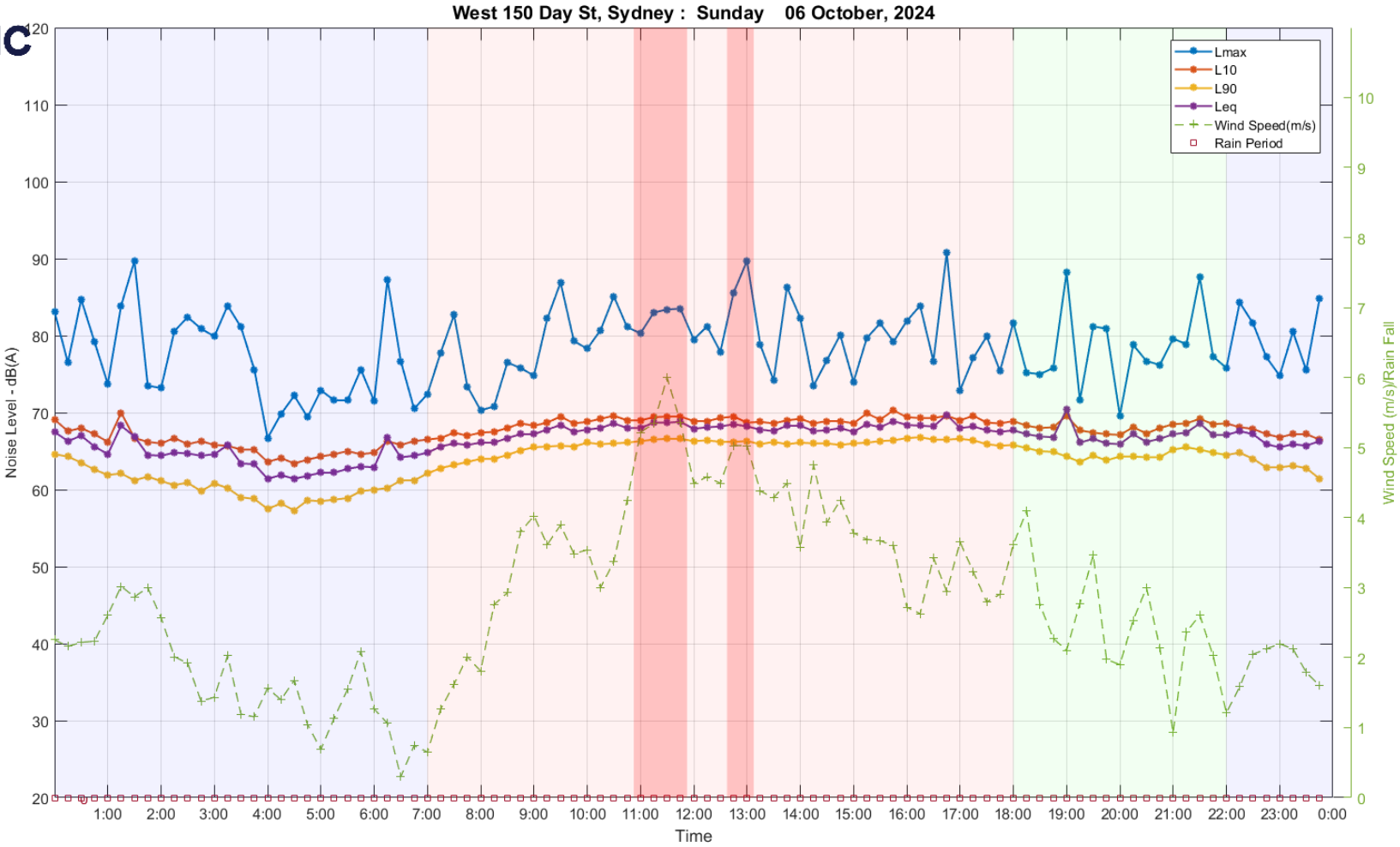
Wind Speed is corrected using factor 0.6700 based on logger location

A.6.2 WESTERN FAÇADE

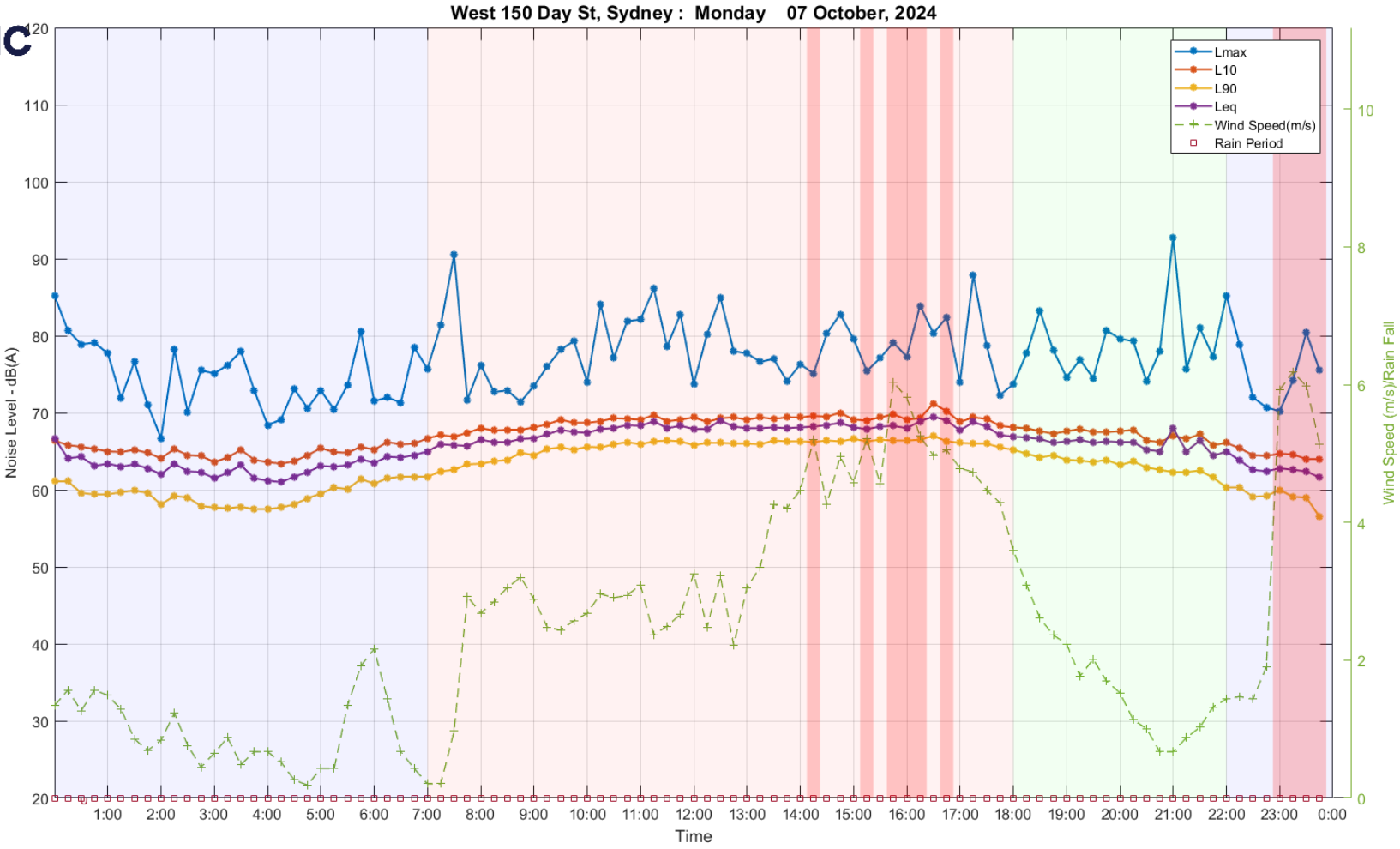


1049


West 150 Day St, Sydney : Saturday 05 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
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West 150 Day St, Sydney : Sunday 06 October, 2024
Lmax
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L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
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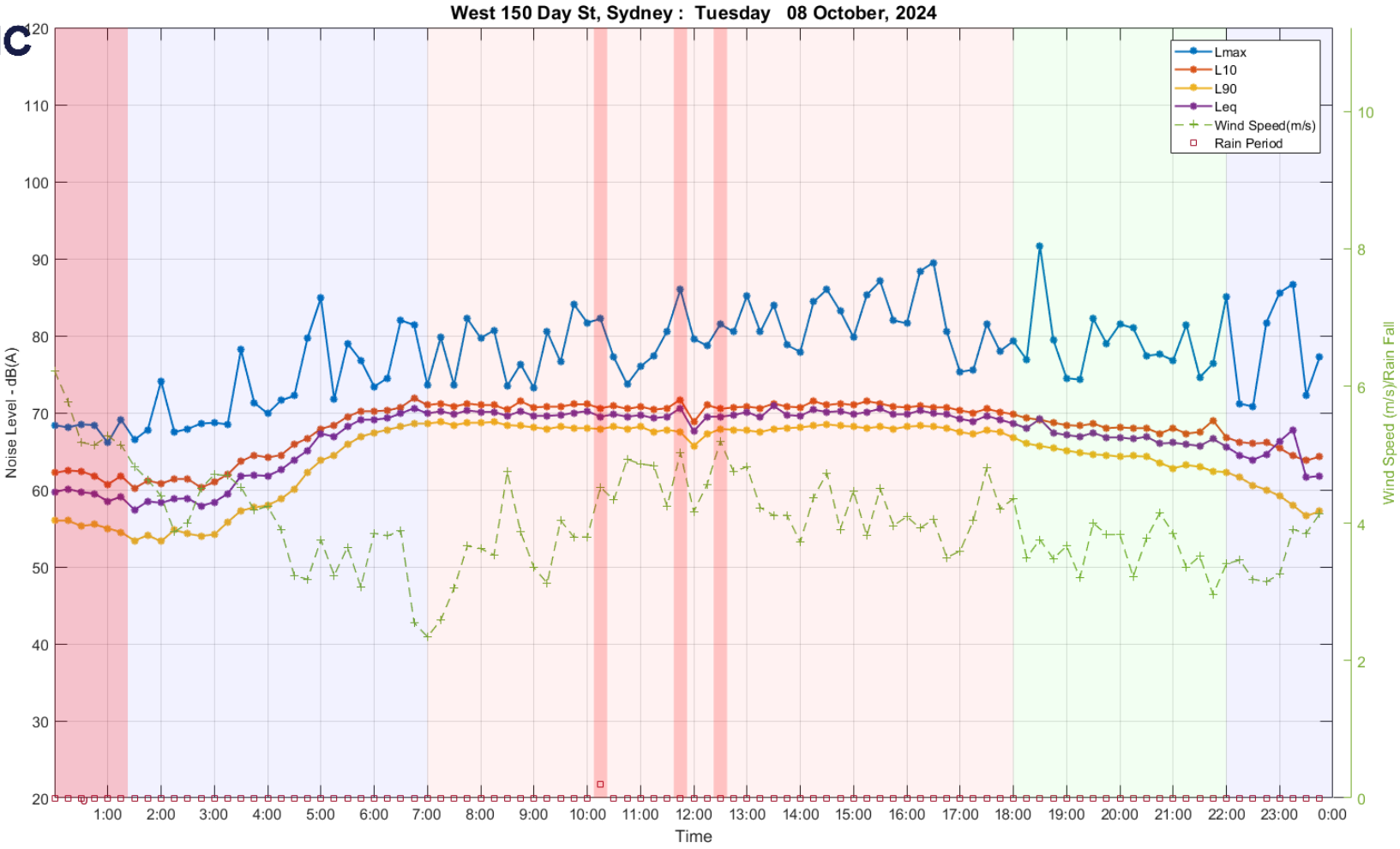
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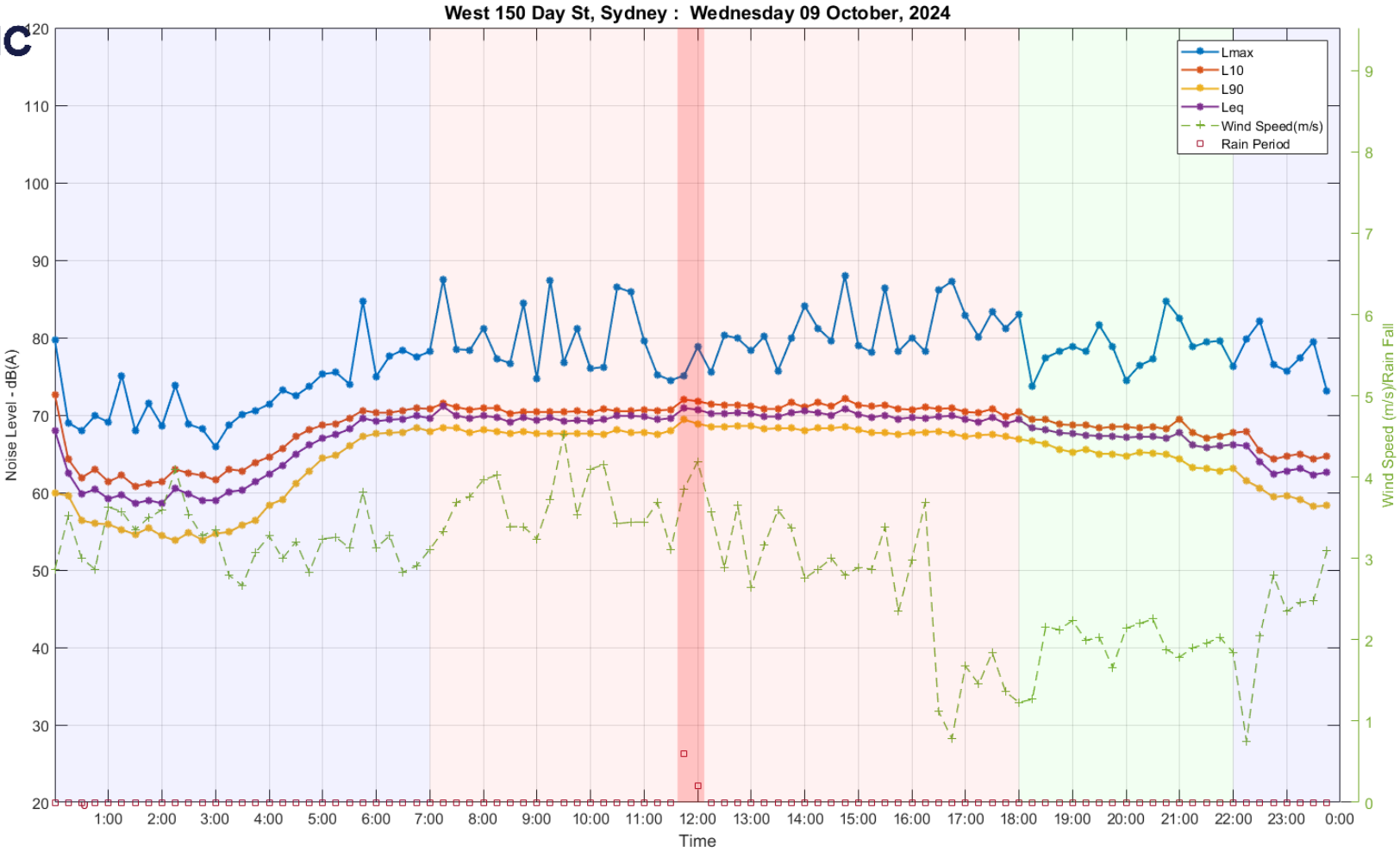

West 150 Day St, Sydney : Monday 07 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
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1052

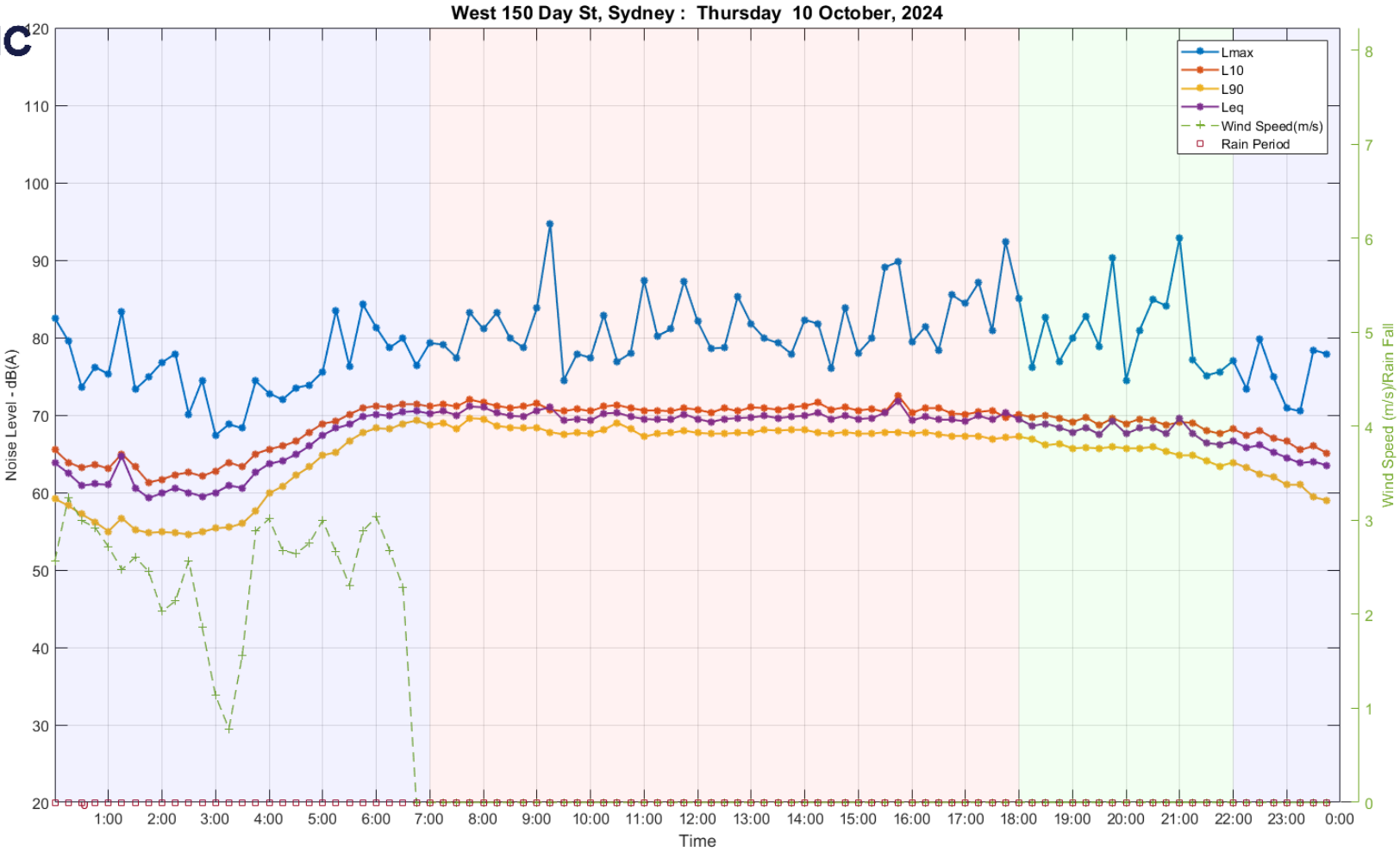
ACOUSTIC LOGIC

1053




West 150 Day St, Sydney : Wednesday 09 October, 2024
Lmax
L10
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Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
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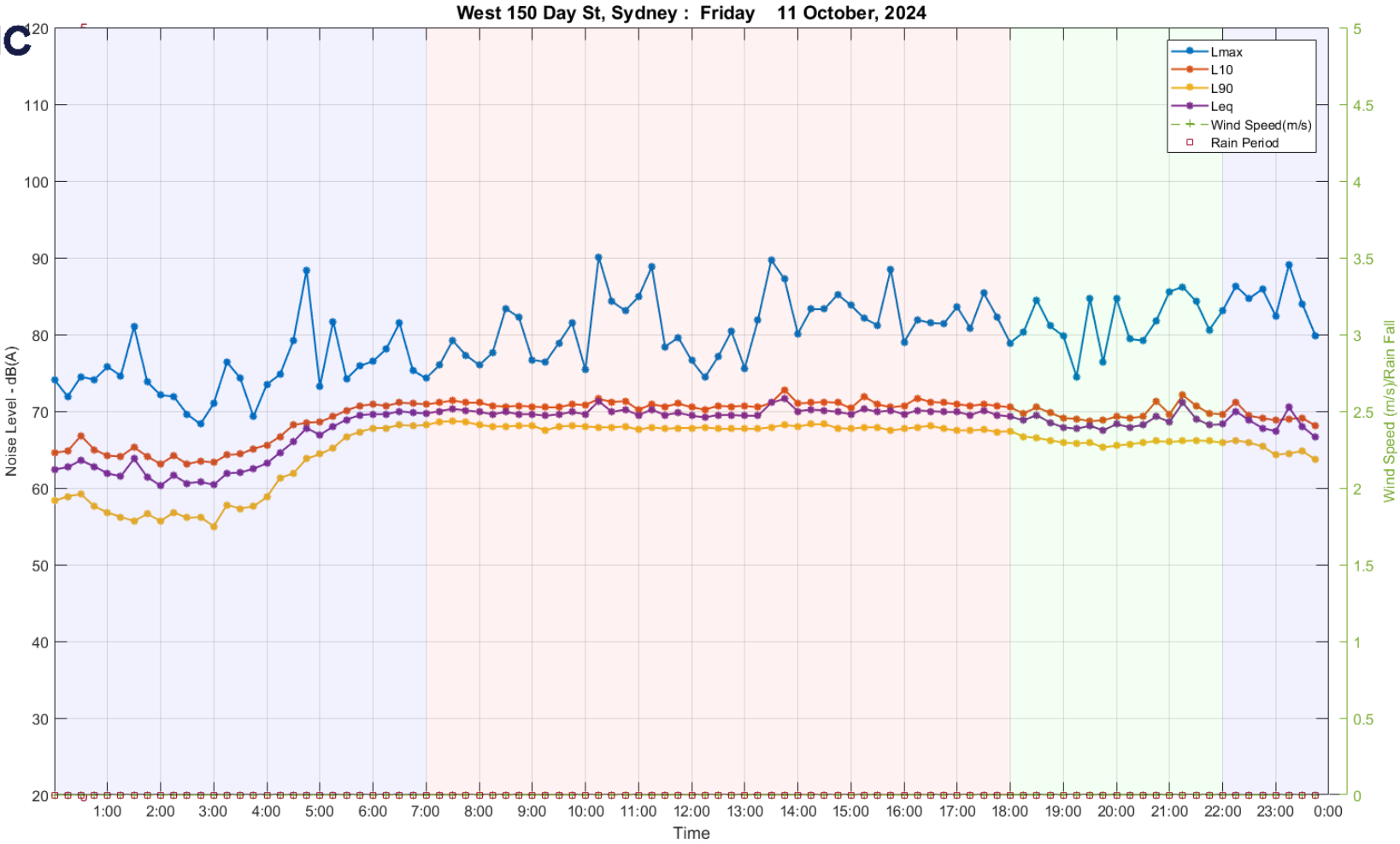
105a


West 150 Day St, Sydney : Thursday 10 October, 2024
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
120
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100
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105a

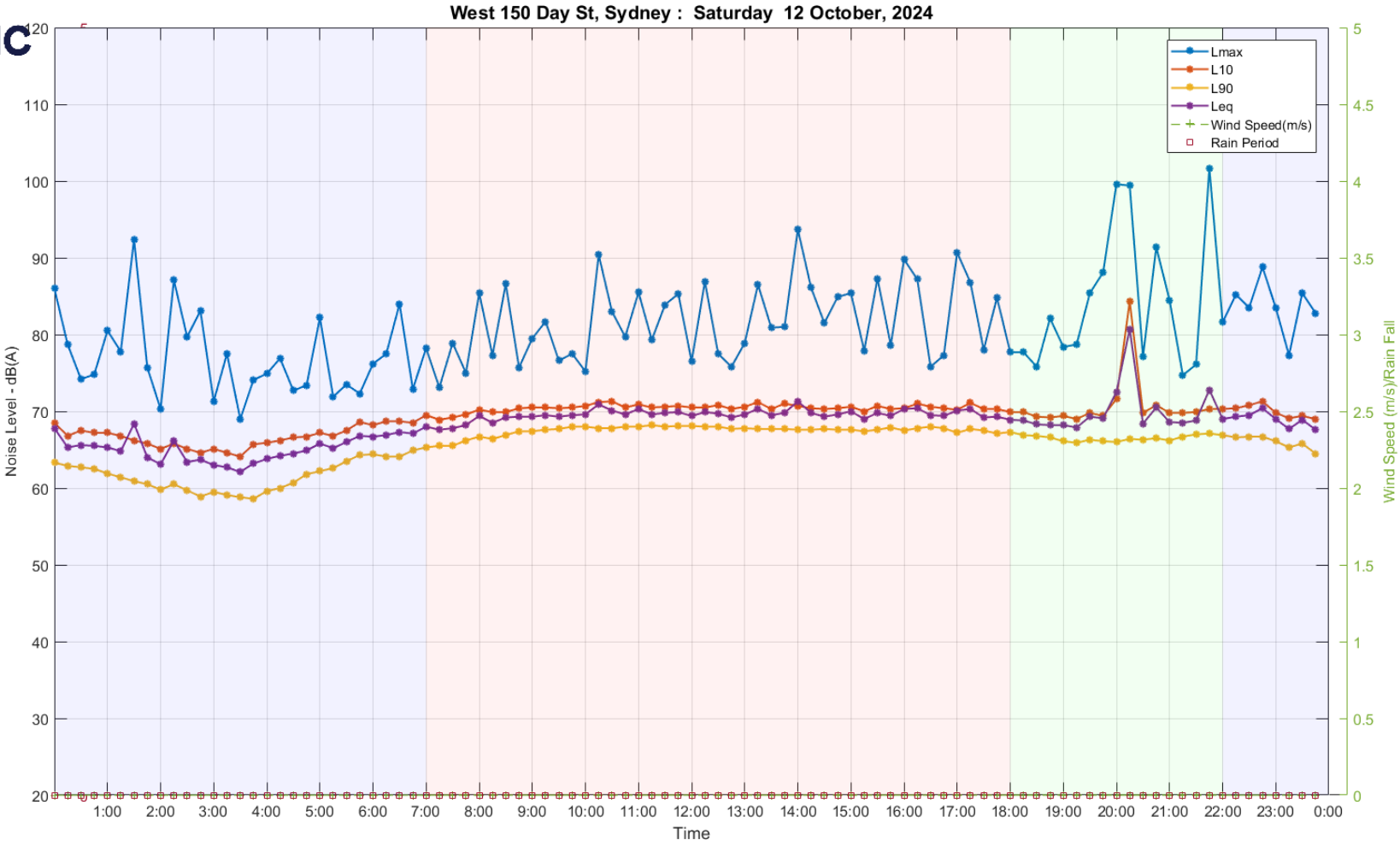
ACOUSTIC LOGIC

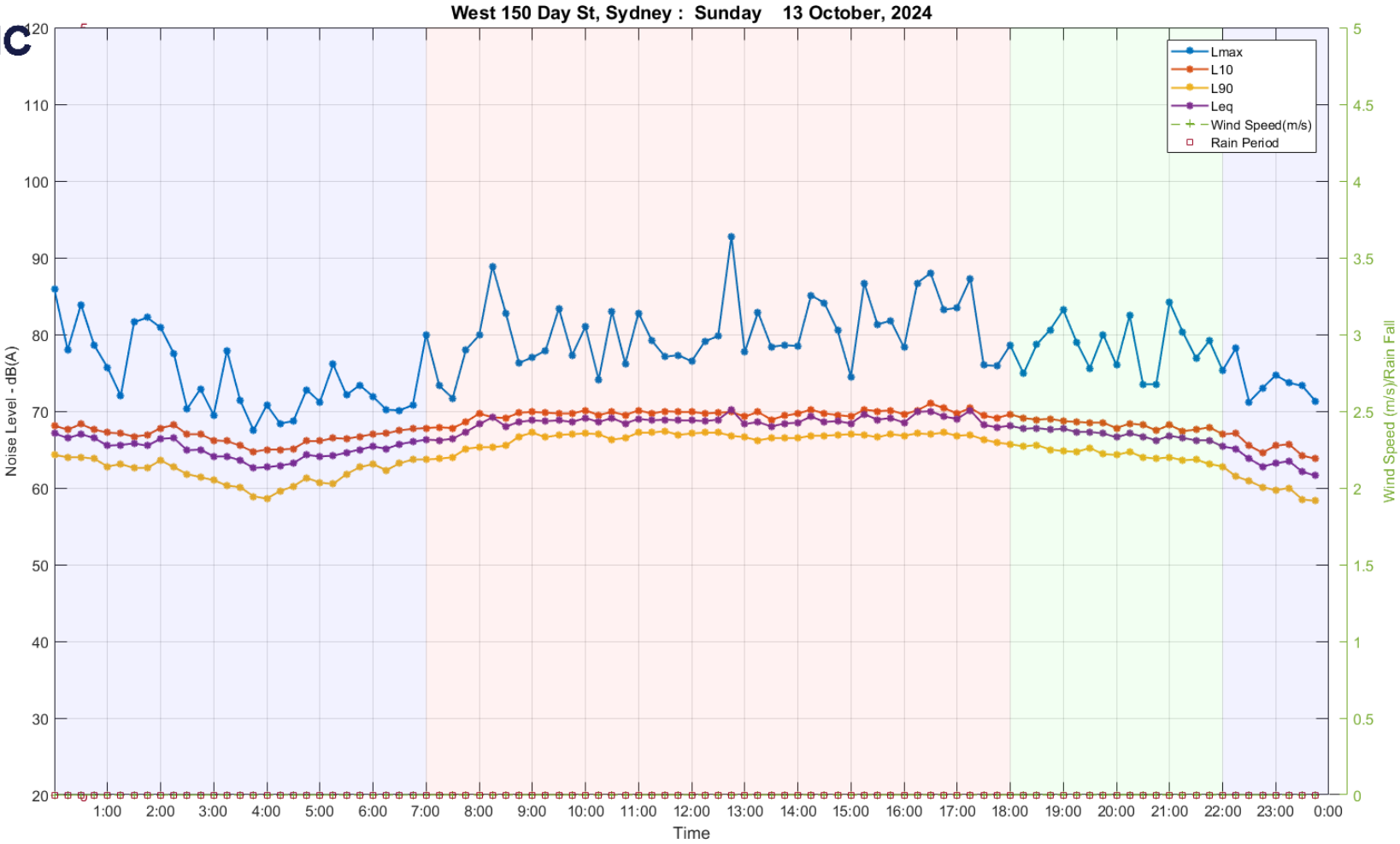
1056



ACOUSTIC LOGIC

105@

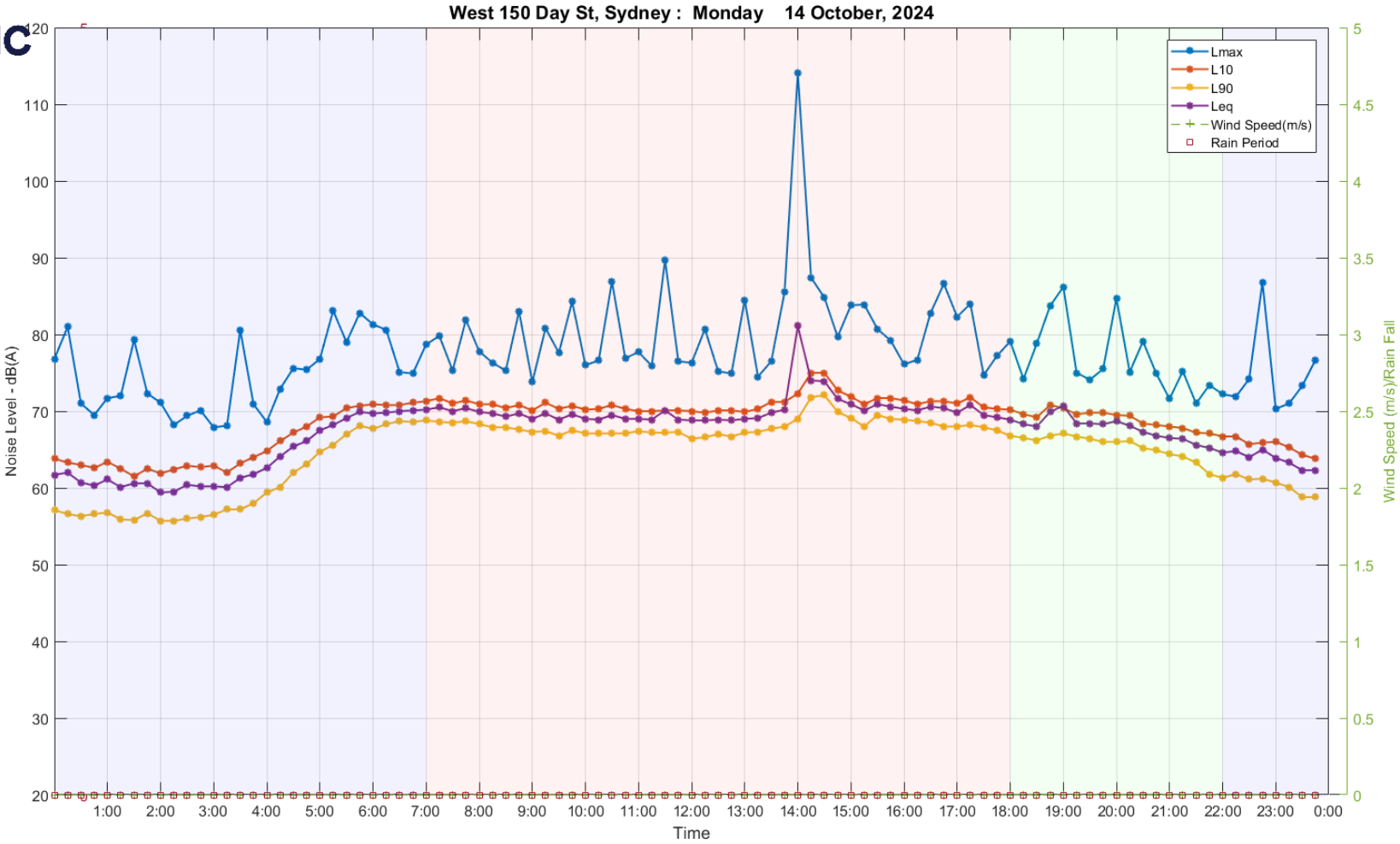


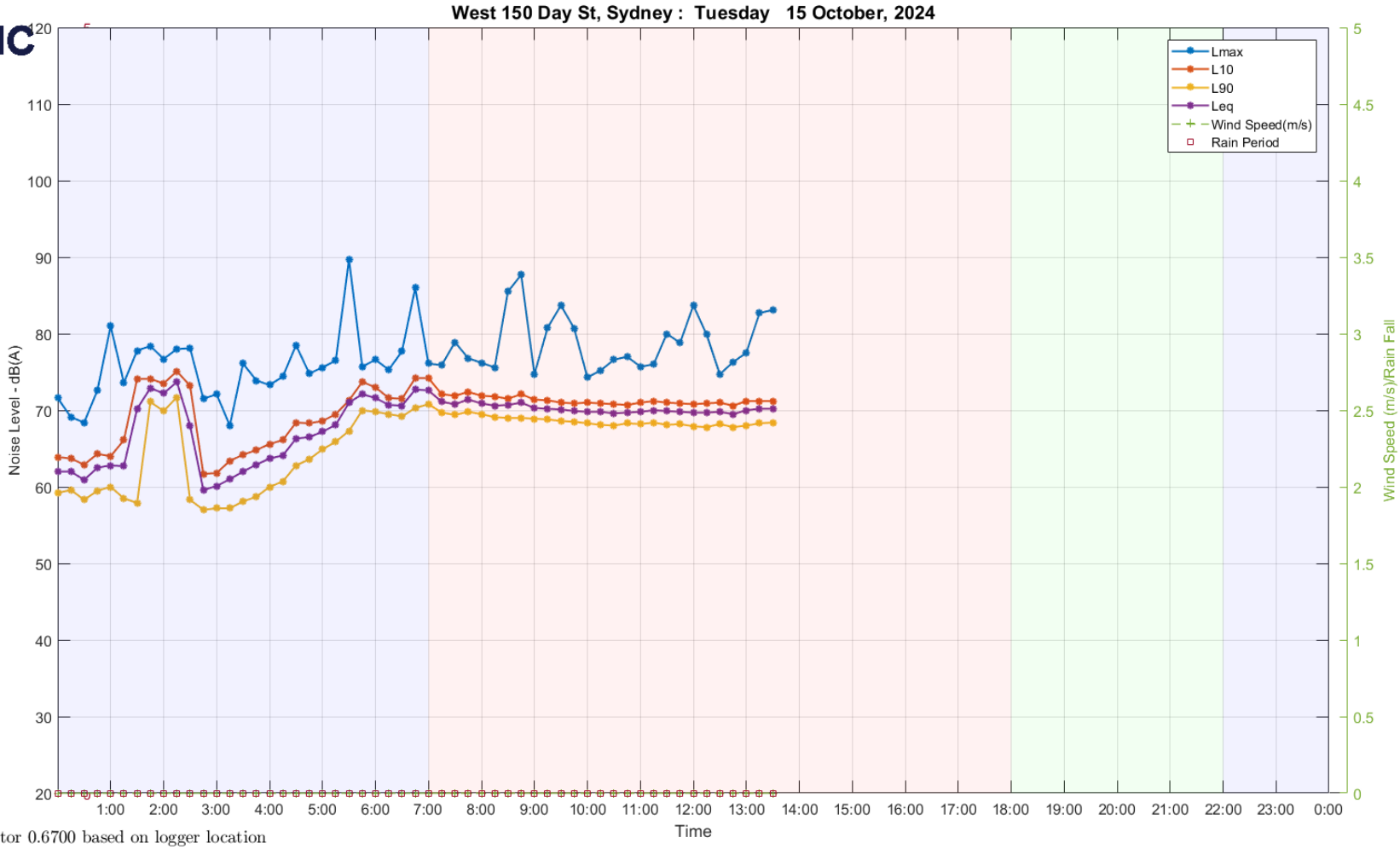

West 150 Day St, Sydney : Sunday 13 October, 2024
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
120
110
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105B

ACOUSTIC LOGIC

1058

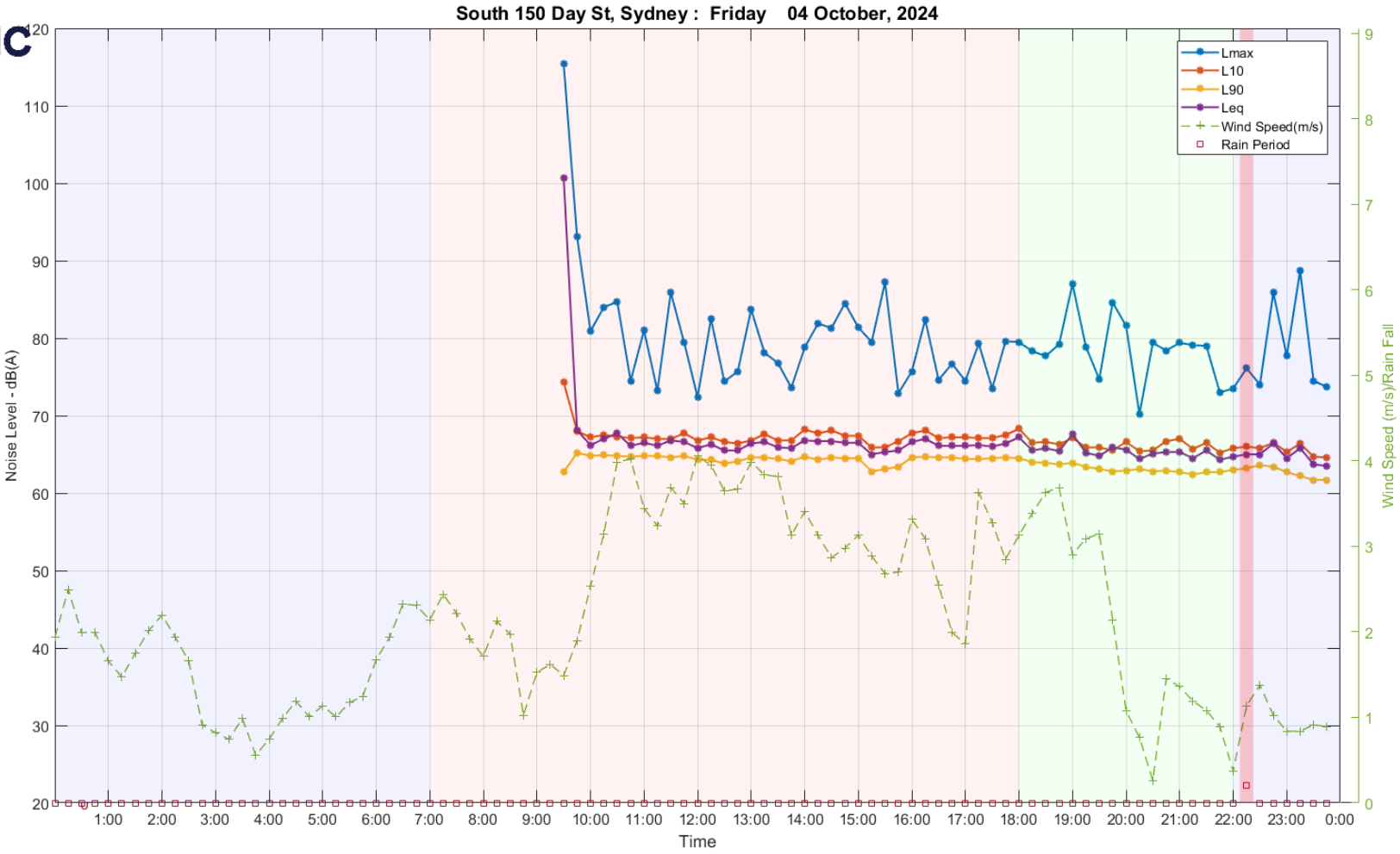




Wind Speed is corrected using factor 0.6700 based on logger location

1060

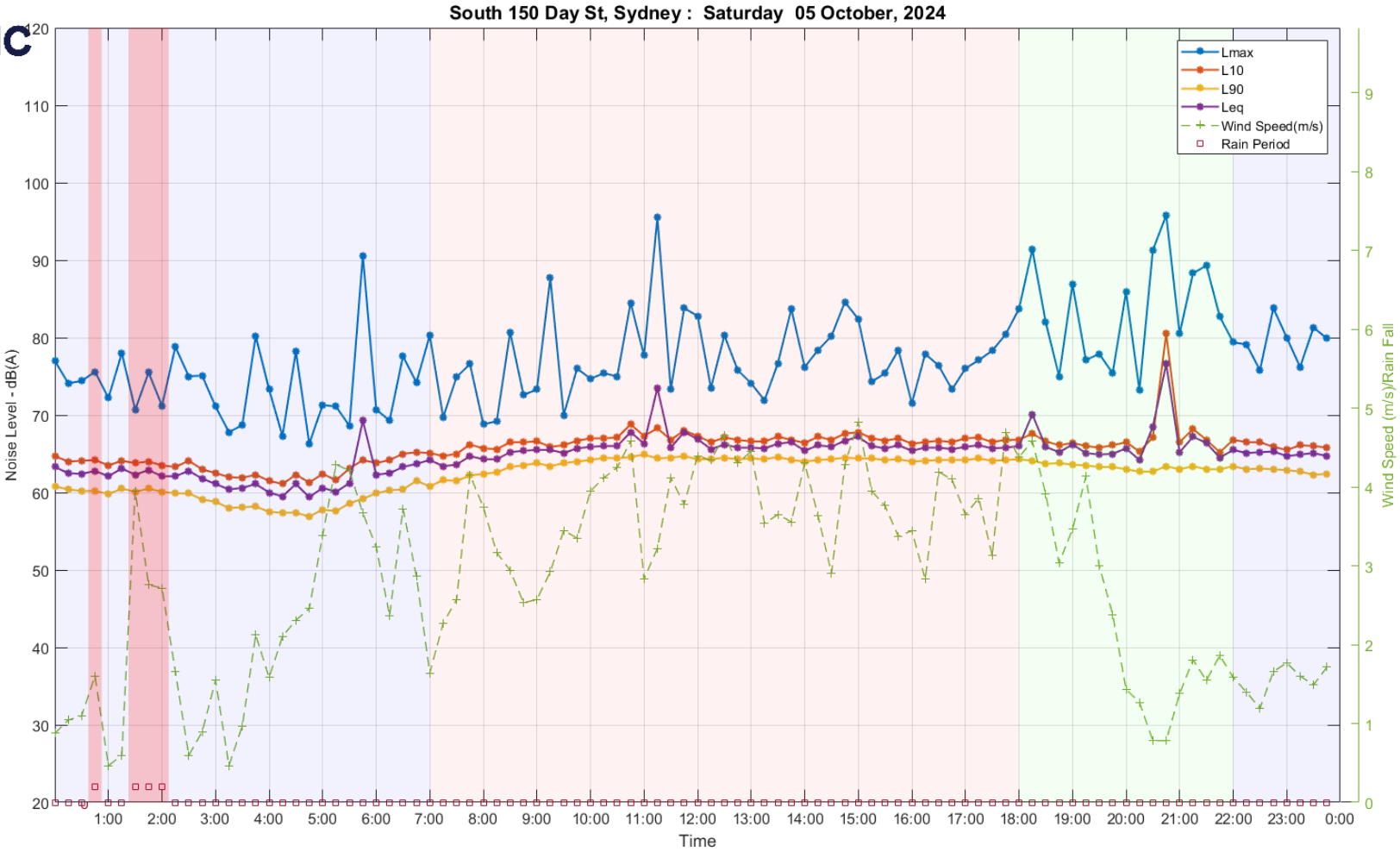
A.6.3 SOUTHERN FAÇADE

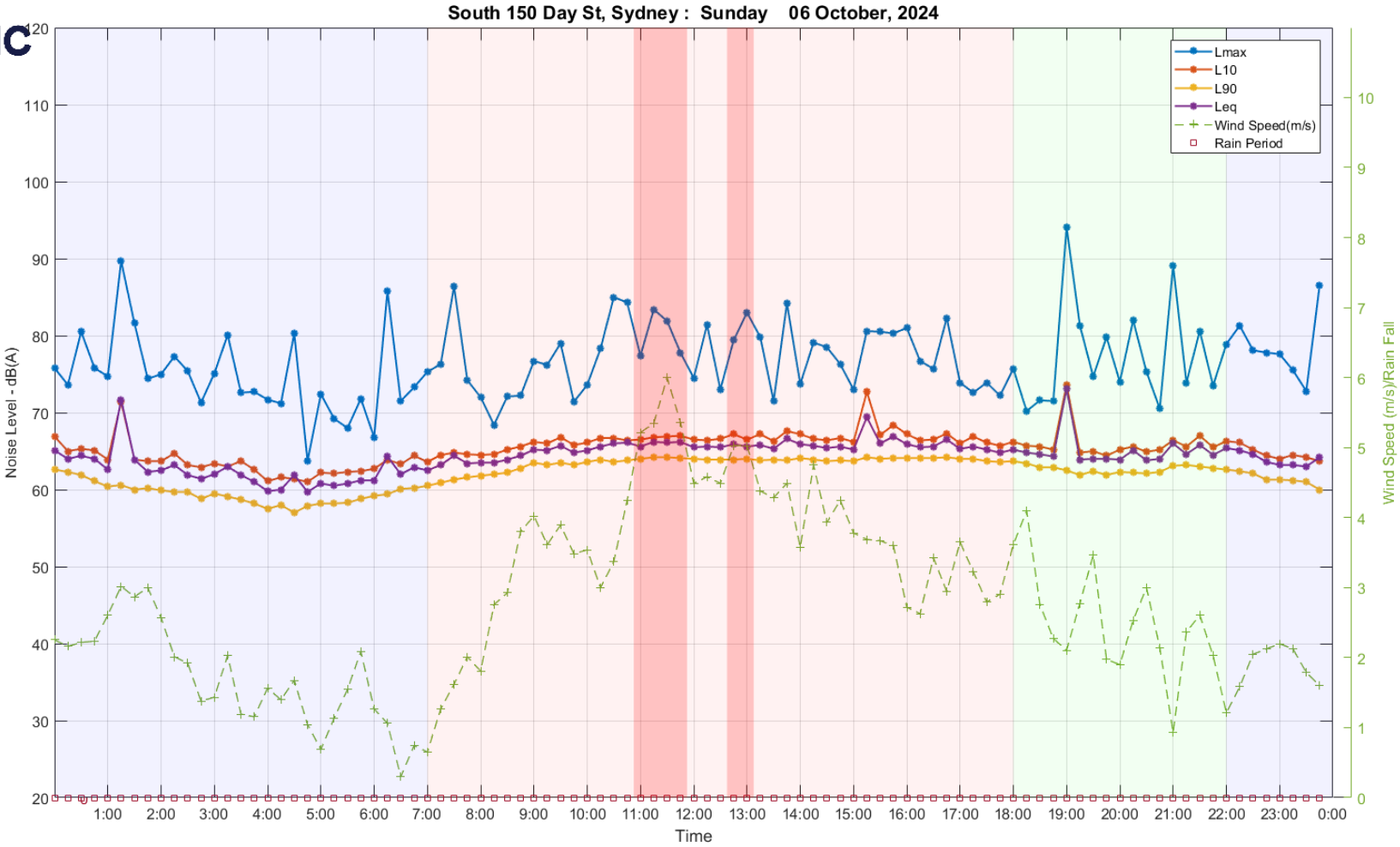


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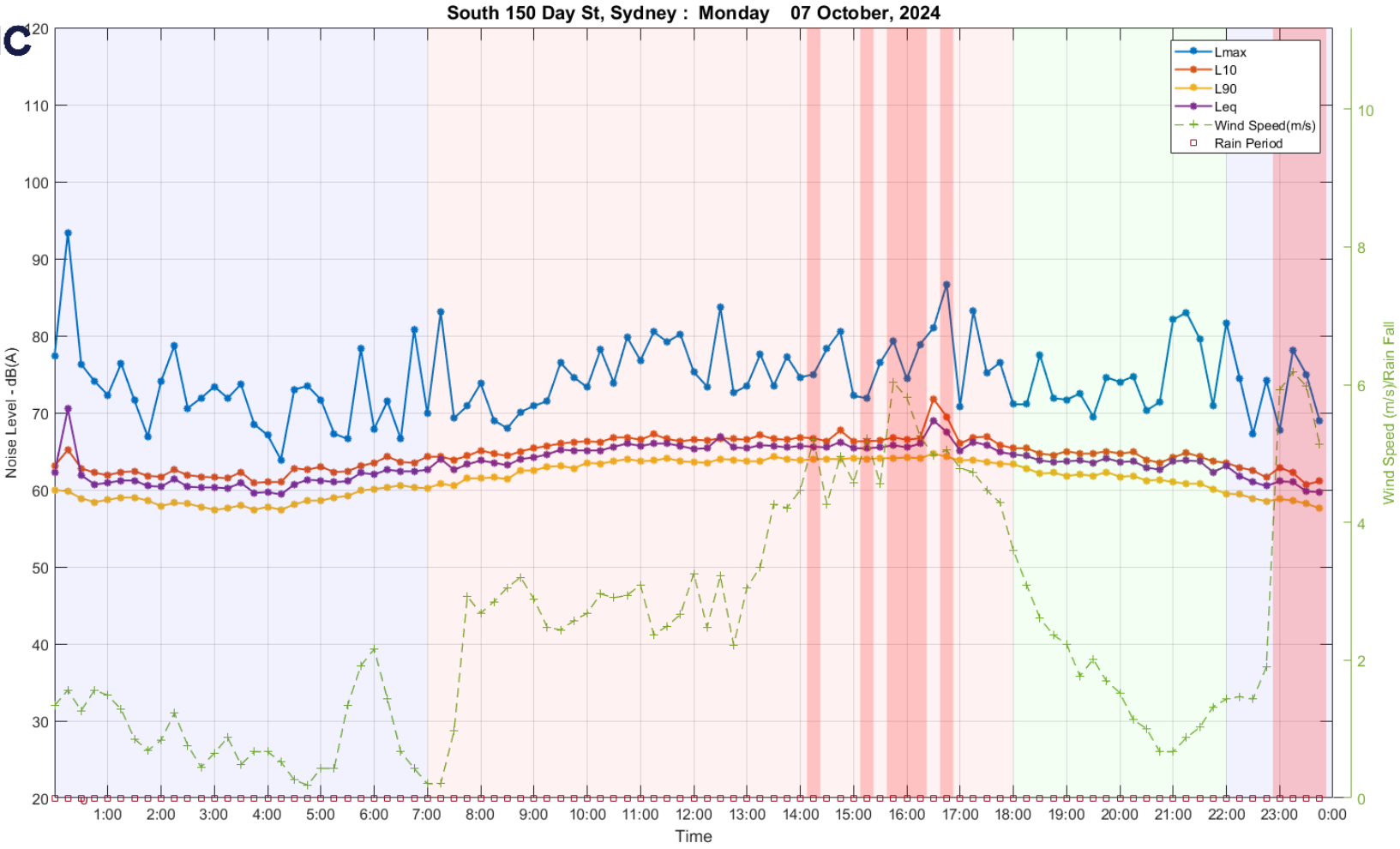
ACOUSTIC LOGIC

1062



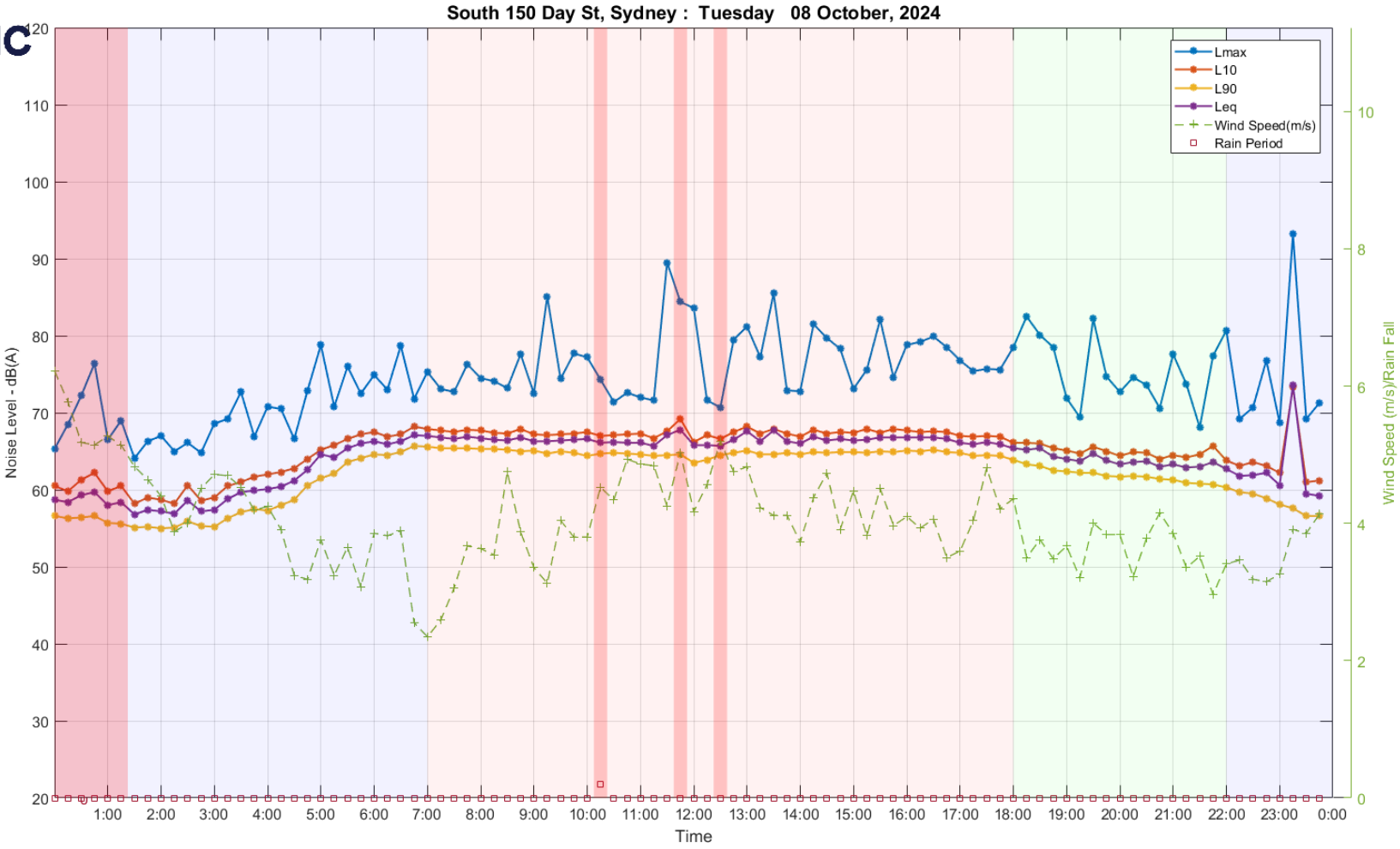

South 150 Day St, Sydney : Sunday 06 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
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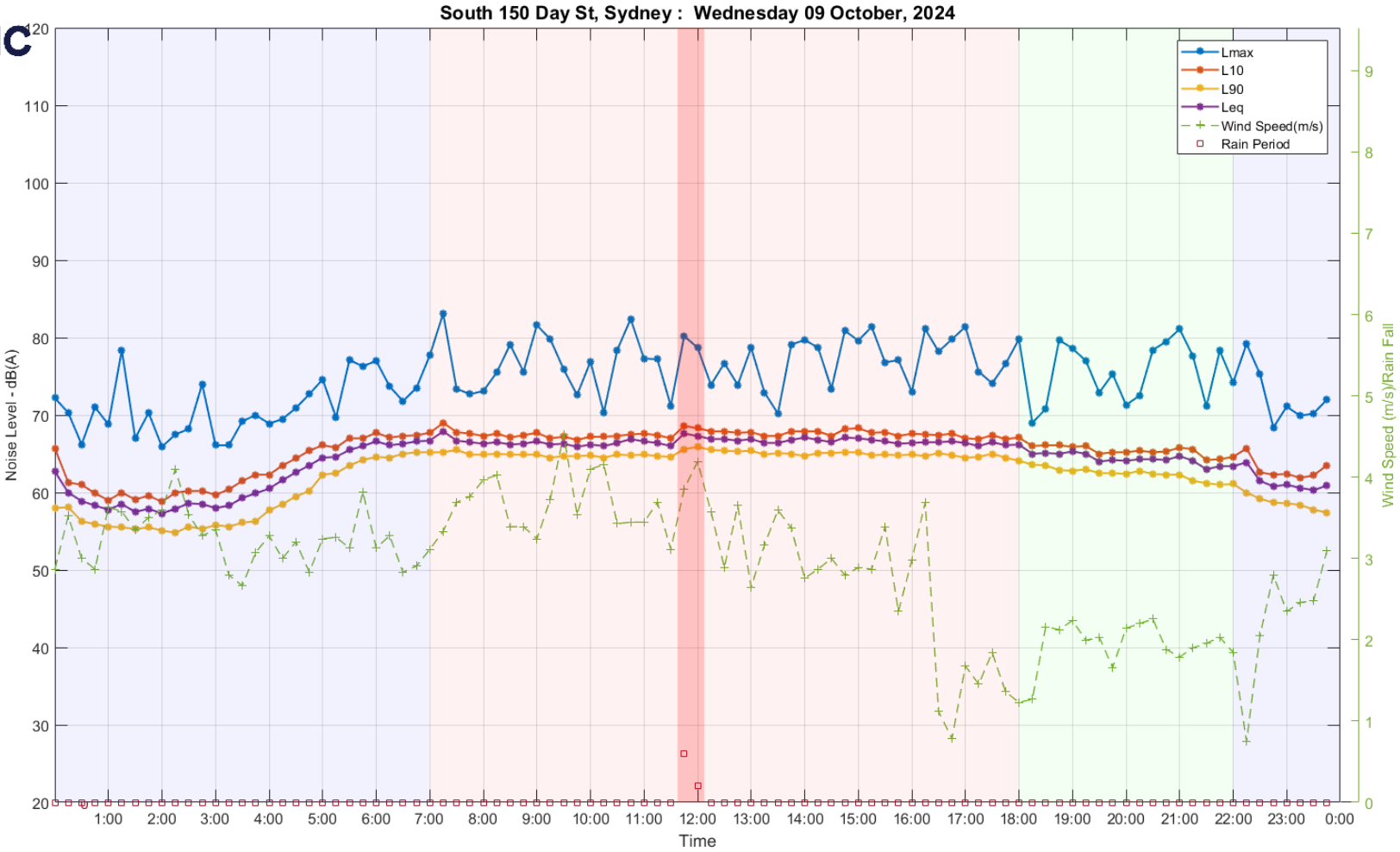
1063


South 150 Day St, Sydney : Monday 07 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
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ACOUSTIC LOGIC

1068

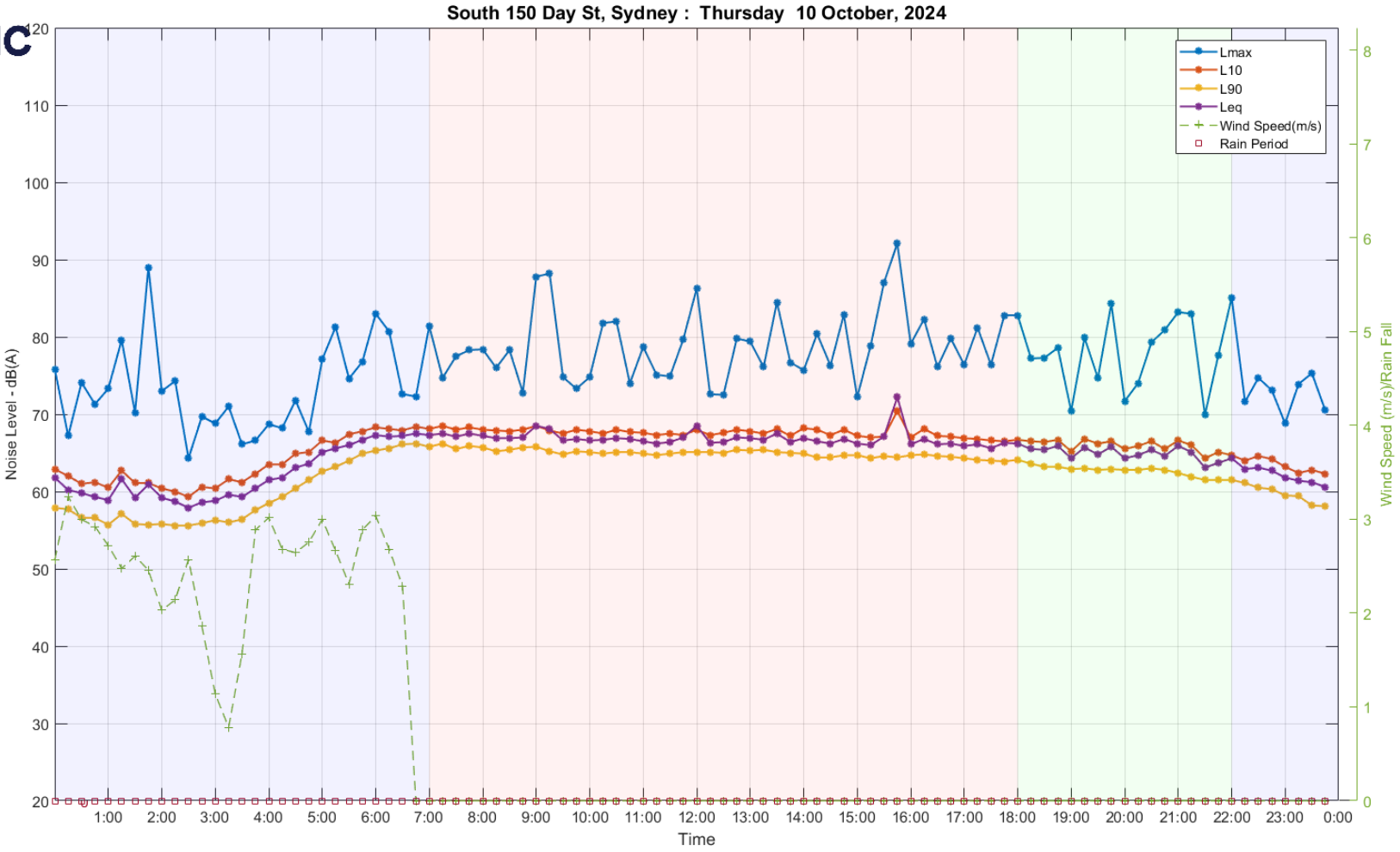


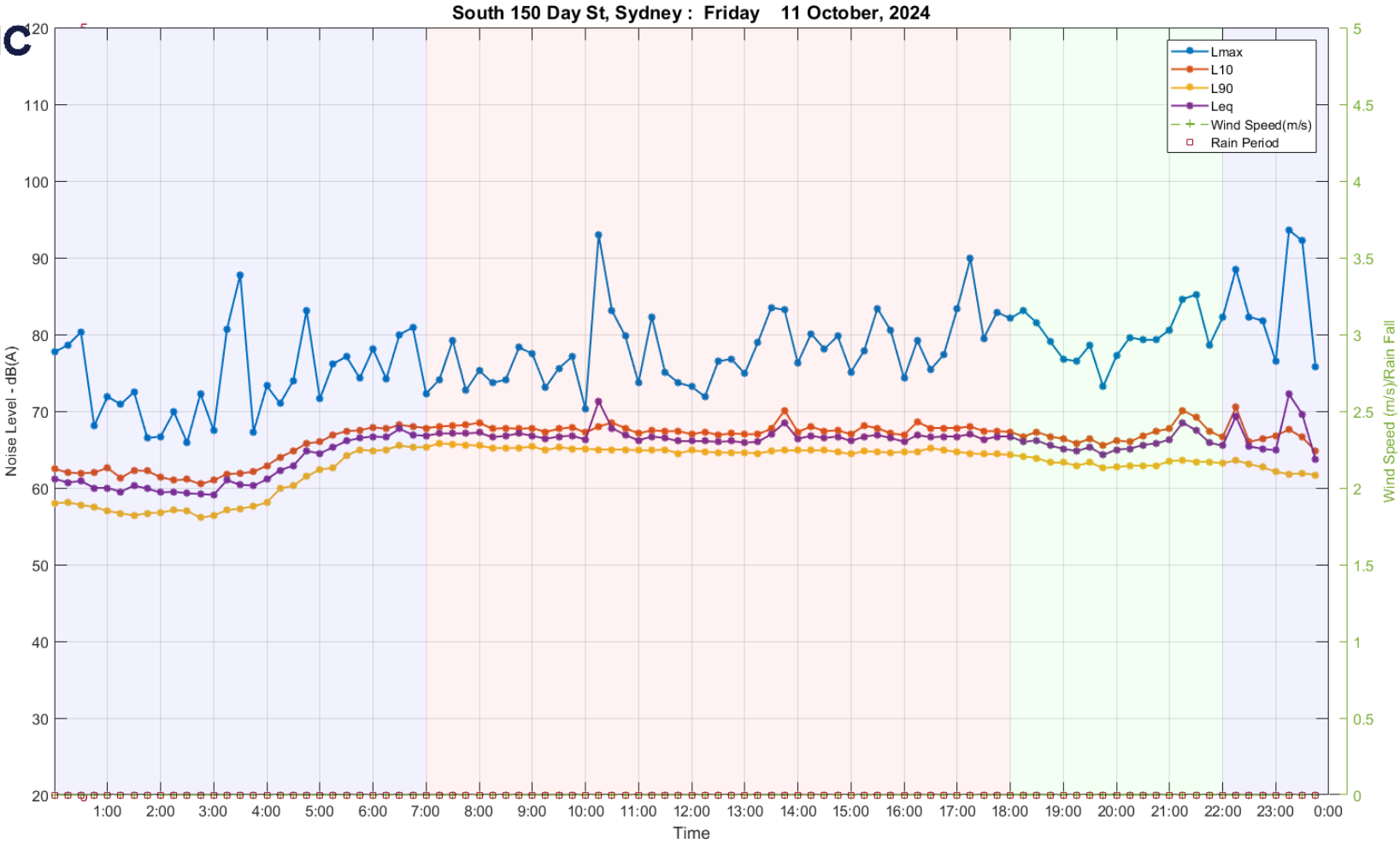

South 150 Day St, Sydney : Wednesday 09 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
110
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1066

ACOUSTIC LOGIC

1068

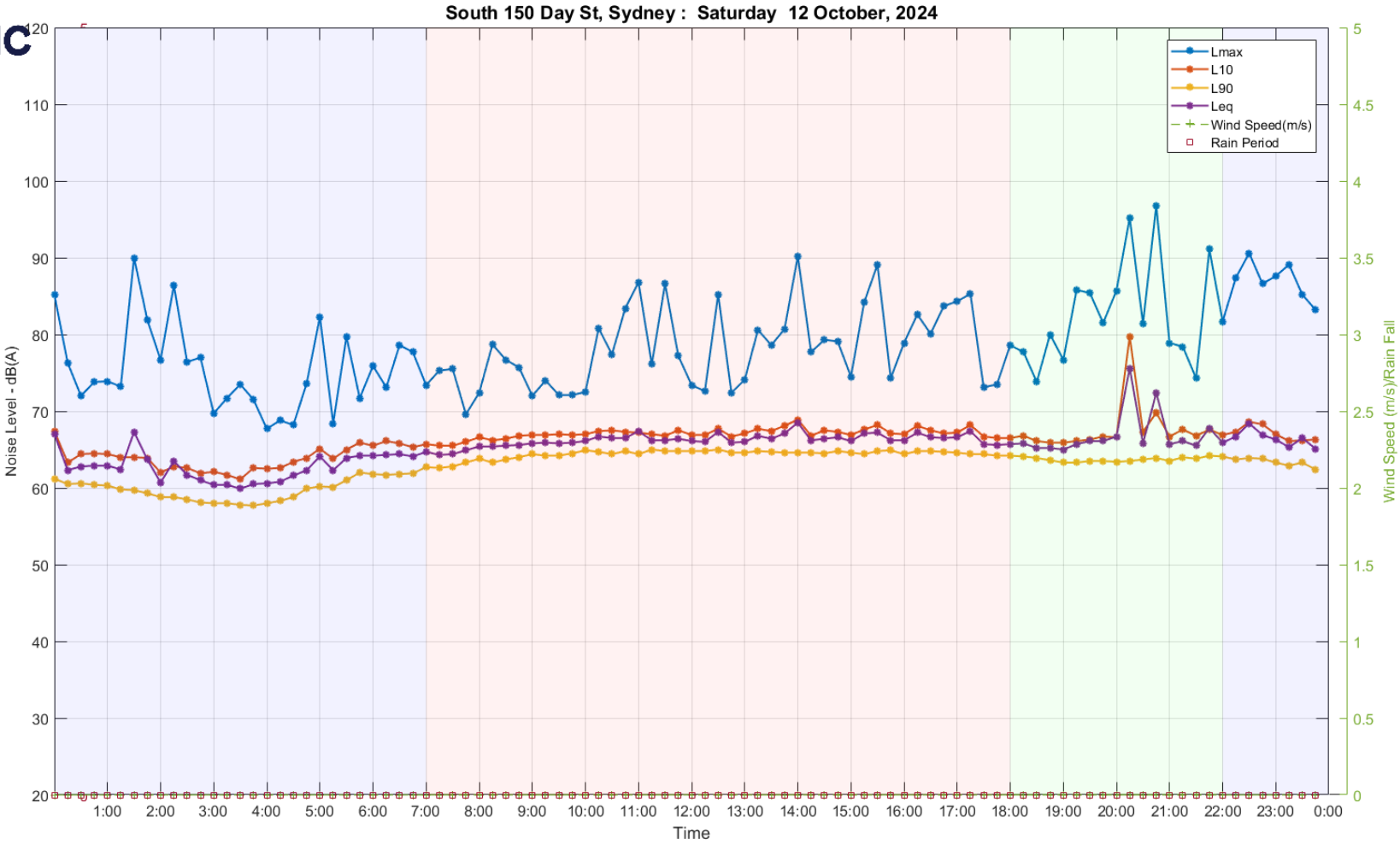


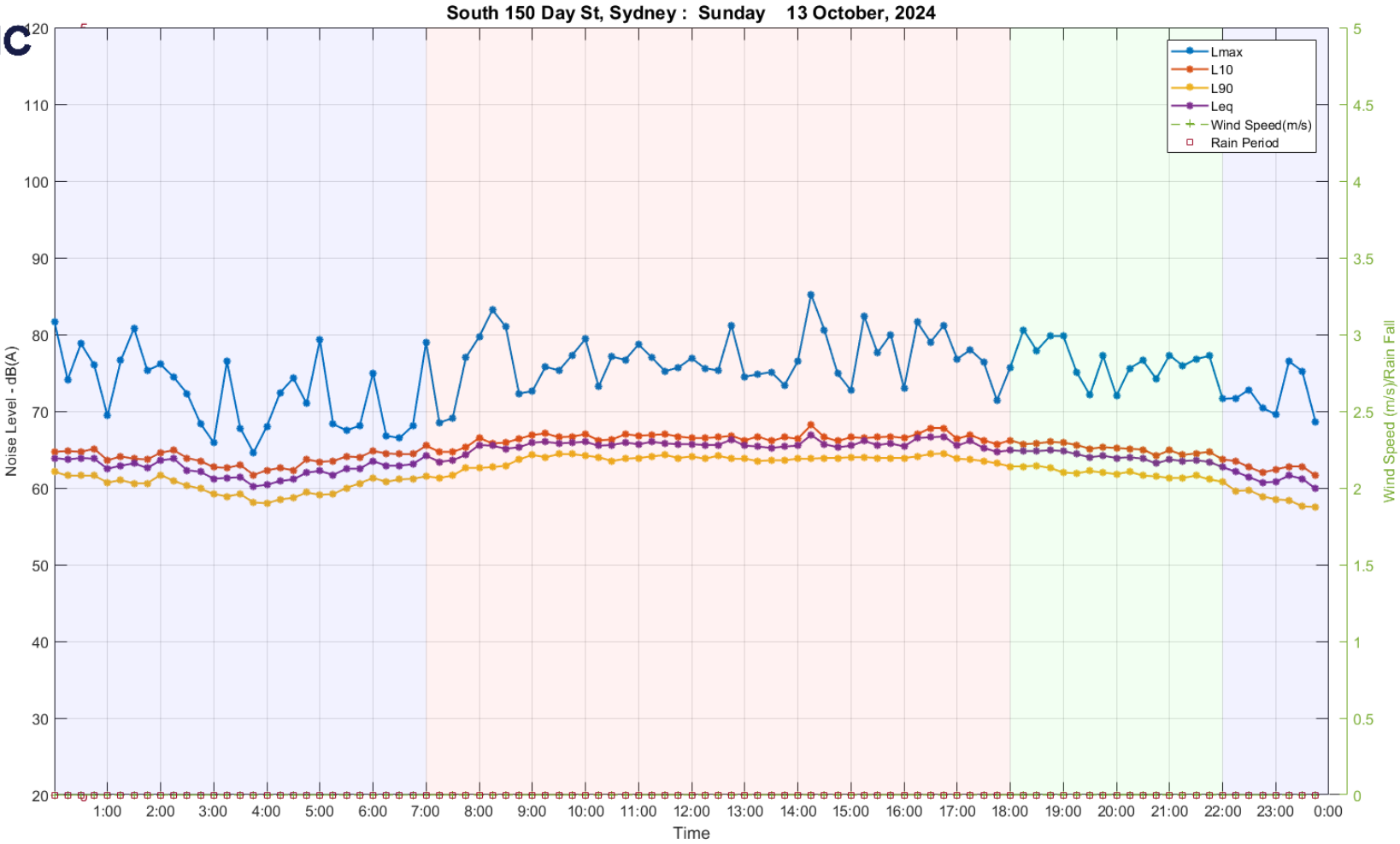

South 150 Day St, Sydney : Friday 11 October, 2024
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
120
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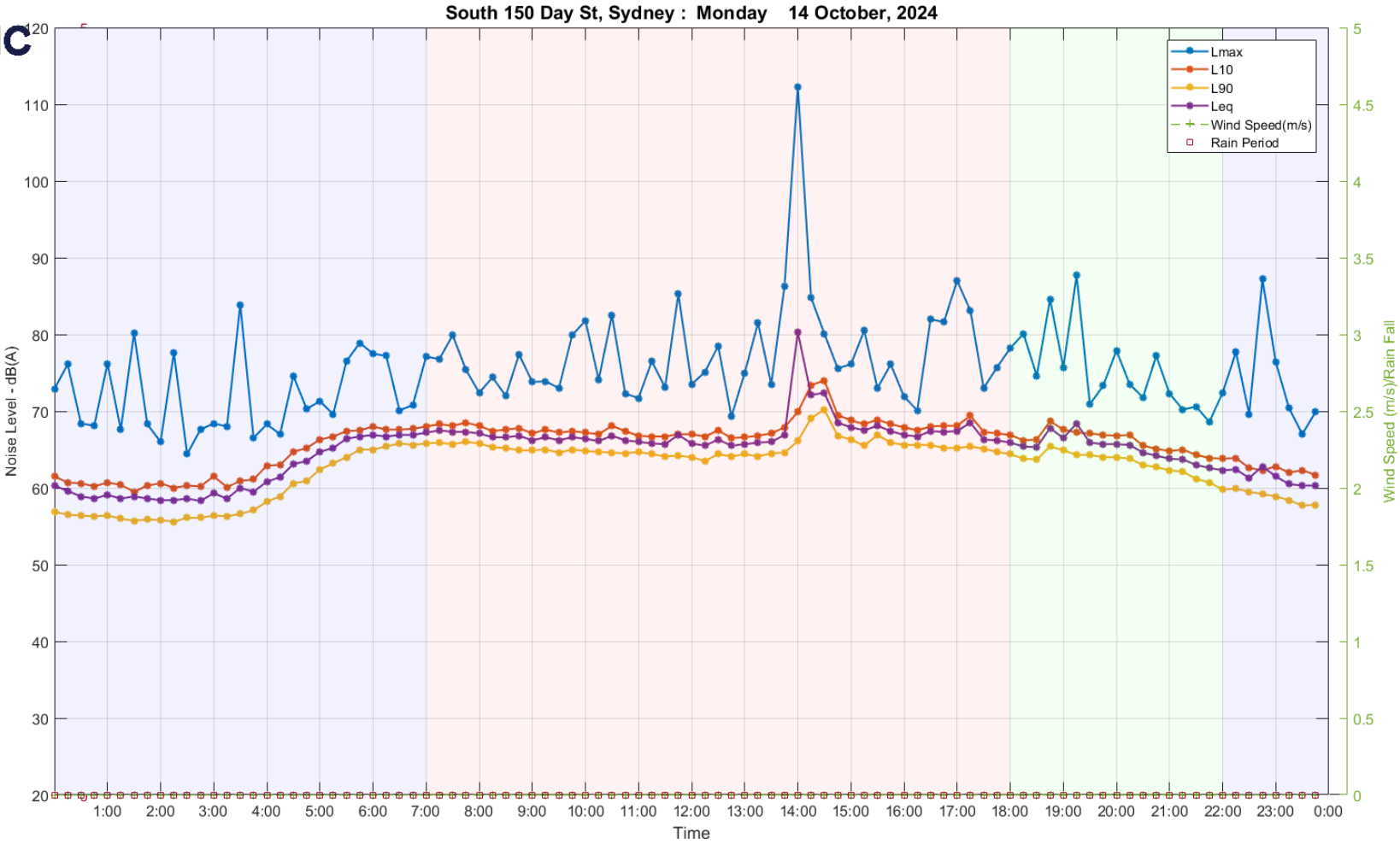
1068

ACOUSTIC LOGIC

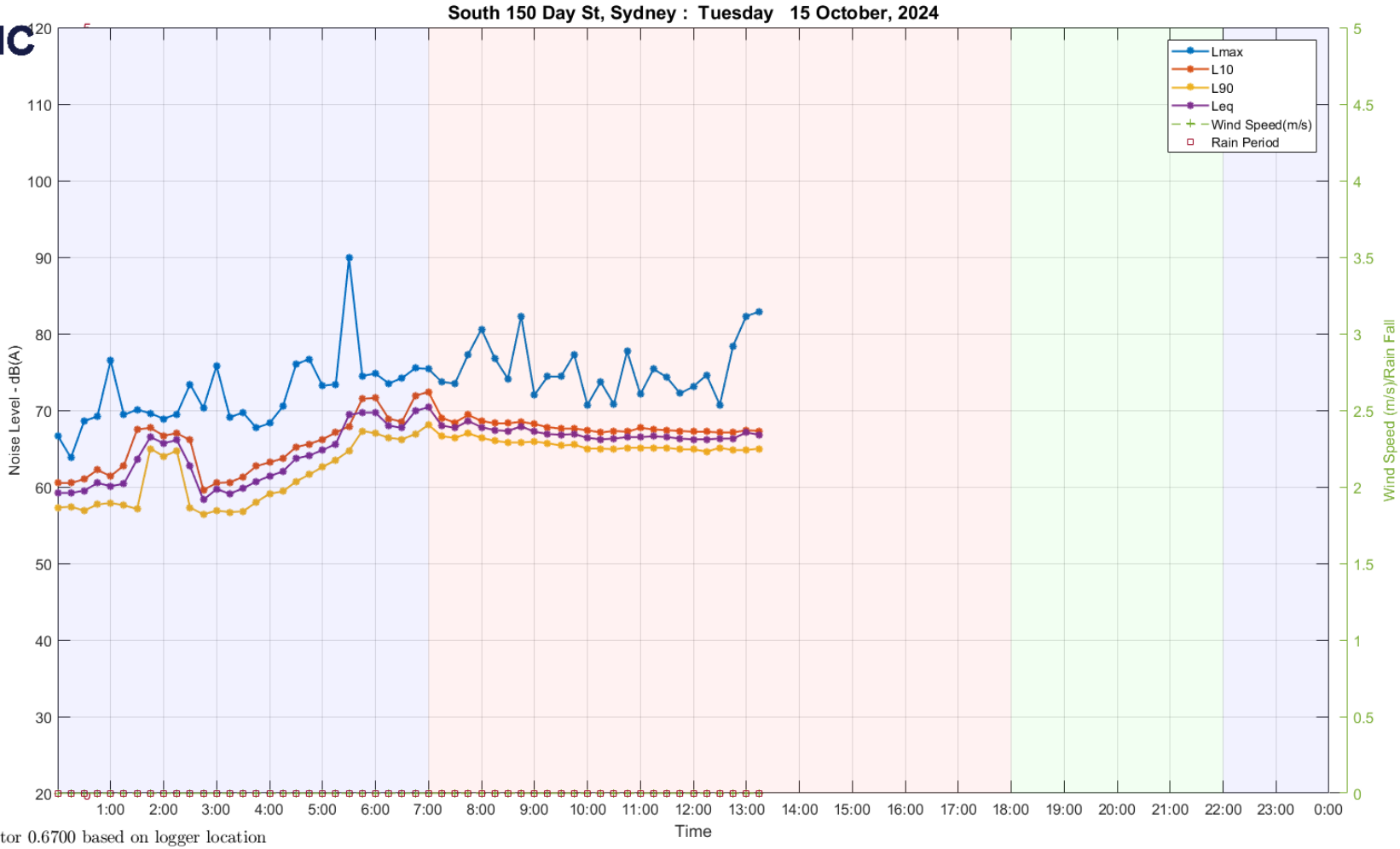
1068




South 150 Day St, Sydney : Sunday 13 October, 2024
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
120
110
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South 150 Day St, Sydney : Monday 14 October, 2024
Noise Level - dB(A)
Wind Speed (m/s)/Rain Fall
Time
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
120
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Wind Speed is corrected using factor 0.6700 based on logger location

1072

APPENDIX B EPA NOISE POLICY FOR INDUSTRY TRIGGER LEVELS

Project specific assessment trigger levels have been determined for each noise source applying at the identified potentially most impacted receivers.

B.1 NPFI TRIGGER LEVELS

The NPfI requires noise impacts at residential receivers to be assessed in 3 ways:

- Whether the emitted noise is unreasonably loud relative to ambient background noise. (which the EPA calls the "intrusiveness" trigger level).
- Whether the noise emitted is unreasonably loud in an absolute sense, and consistent with surrounding land use and environment. ("amenity" trigger level)
- For night noise emissions, whether discrete noise events are likely to adversely impact sleep ("maximum noise level" trigger levels).

For other receiver types only the amenity trigger level is relevant.

B.1.1 Intrusiveness

The $L_{eq,15min}$ descriptor is used for the intrusiveness trigger level, and is set at a level that is 5dB(A) above the rating background noise level.

B.1.2 Amenity

Table 2.2 of the NPfI (repeated below) sets out acceptable noise levels for various receiver types.

There are 3 categories of residential receivers - rural, suburban, urban. The nearest residential receivers to the subject site are categorised as "urban" receivers. Categories for non-residential uses are also indicated in the table.

The NPfI typically requires project amenity noise levels to be calculated in the following manner:

$$L_{Aeq,15min} = \textit{Recommended Amenity Noise Level} - 5\ dB(A) + 3\ dB(A)$$

NPfI Table 2.2: Amenity Noise Levels			
Receiver	***Noise Amenity Area***	***Time of Day***	***Recommended Amenity Noise Level L_{Aeq}***
Residential	*Rural*	*Day*	*50*
		Evening	*45*
		Night	*40*
	Suburban	*Day*	*55*
		Evening	*45*
		Night	*40*
	Urban	*Day*	*60*
		Evening	*50*
		Night	*45*
Hotels motels caretakers' quarters holiday accommodation permanent resident caravan parks	*See column 4*	*See column 4*	*5 dB(A) above the recommended amenity noise level for a residence for the relevant noise amenity area and time of day*
School classroom – internal	*All*	*Noisiest 1-hour period when in use*	*35 (see notes for table)*
Hospital ward internal external	*All* *All*	*Noisiest 1-hour* *Noisiest 1-hour*	*35* *50*
Place of worship – internal	*All*	*When in use*	*40*
Area specifically reserved for passive recreation (e.g. national park)	*All*	*When in use*	*50*
Active recreation area (e.g. school playground golf course)	*All*	*When in use*	*55*
Commercial premises	*All*	*When in use*	*65*
Industrial premises	*All*	*When in use*	*70*
Industrial interface (applicable only to residential noise amenity areas)	*All*	*All*	*Add 5 dB(A) to recommended noise amenity area*

Notes: The recommended amenity noise levels refer only to noise from industrial sources. However, they refer to noise from all such sources at the receiver location, and not only noise due to a specific project under consideration. The levels represent outdoor levels except where otherwise stated.

Types of receivers are defined as follows:

- rural residential – see Table 2.3
- suburban residential – see Table 2.3
- urban residential – see Table 2.3
- industrial interface – an area that is in close proximity to existing industrial premises and that extends out to a point where the existing industrial noise from the source has fallen by 5 dB or an area defined in a planning instrument. Beyond this region the amenity noise level for the applicable category applies. This category may be used only for existing situations (further explanation on how this category applies is outlined in Section 2.7)
- commercial – commercial activities being undertaken in a planning zone that allows commercial land uses
- industrial – an area defined as an industrial zone on a local environment plan; for isolated residences within an industrial zone the industrial amenity level would usually apply.

Time of day is defined as follows:

- day – the period from 7 am to 6 pm Monday to Saturday or 8 am to 6 pm on Sundays and public holidays
- evening – the period from 6 pm to 10 pm
- night – the remaining periods.

(These periods may be varied where appropriate, for example, see A3 in Fact Sheet A.)

In the case where existing schools are affected by noise from existing industrial noise sources, the acceptable L_{Aeq} noise level may be increased to 40 dB $L_{Aeq(1hr)}$.

B.1.3 Noise Characteristic Modifying Factors

Where applicable, the emitted intrusive noise level should be modified (increased or decreased) to account for characteristics such as tonality, low frequency, duration, etc according to NPfI Fact Sheet C.

B.1.4 Maximum Noise Level Assessment

The purpose of this assessment is to identify whether discrete, night time noise events have the potential to produce adverse sleep impacts.

Section 2.5 of NPfI recommends the following procedure to assess the potential for adverse sleep disturbance.

Where the subject development/ premises night -time noise levels at a residential location exceed:

- $L_{eq(15min)}$ 40 dB(A) or the prevailing RBL (L_{90}) plus 5 dB, whichever is the greater, and/or
- L_{max} 52 dB(A) or the prevailing RBL (L_{90}) plus 15 dB, whichever is the greater,

a detailed maximum noise level event assessment should be undertaken.

The detailed assessment should cover the maximum noise level, the extent to which the maximum noise level exceeds the rating background noise level, and the number of times this happens during the night-time period. Some guidance on possible impact is contained in the review of research results in the NSW Road Noise Policy.

Other factors that may be important in assessing the extent of impacts on sleep include:

- how often high noise events will occur
- the distribution of likely events across the night-time period and the existing ambient maximum events in the absence of the subject development
- whether there are times of day when there is a clear change in the noise environment (such as during early-morning shoulder periods)
- current scientific literature available at the time of the assessment regarding the impact of maximum noise level events at night.

For the research on sleep disturbance to date it can be concluded that:

- Maximum internal noise levels below 50-55dB(A) are unlikely to awaken people from sleep.
- One to two noise events per night with maximum internal noise levels of 65-70dB(A) are not likely to affect health and wellbeing significantly.

Maximum noise level event assessments should be based on the L_{AFmax} descriptor on an event basis under 'fast' time response. The detailed assessment should consider all feasible and reasonable noise mitigation measures with a goal of achieving the above trigger levels.

1075

B.2 PROJECT SPECIFIC TRIGGER LEVELS

The following table summarises the trigger levels applying at each of the identified "most impacted" receivers. These have been determined based on the NPfI methodology described above and the measured rating background noise levels.

The trigger levels in bold indicate the most stringent trigger level at each location.

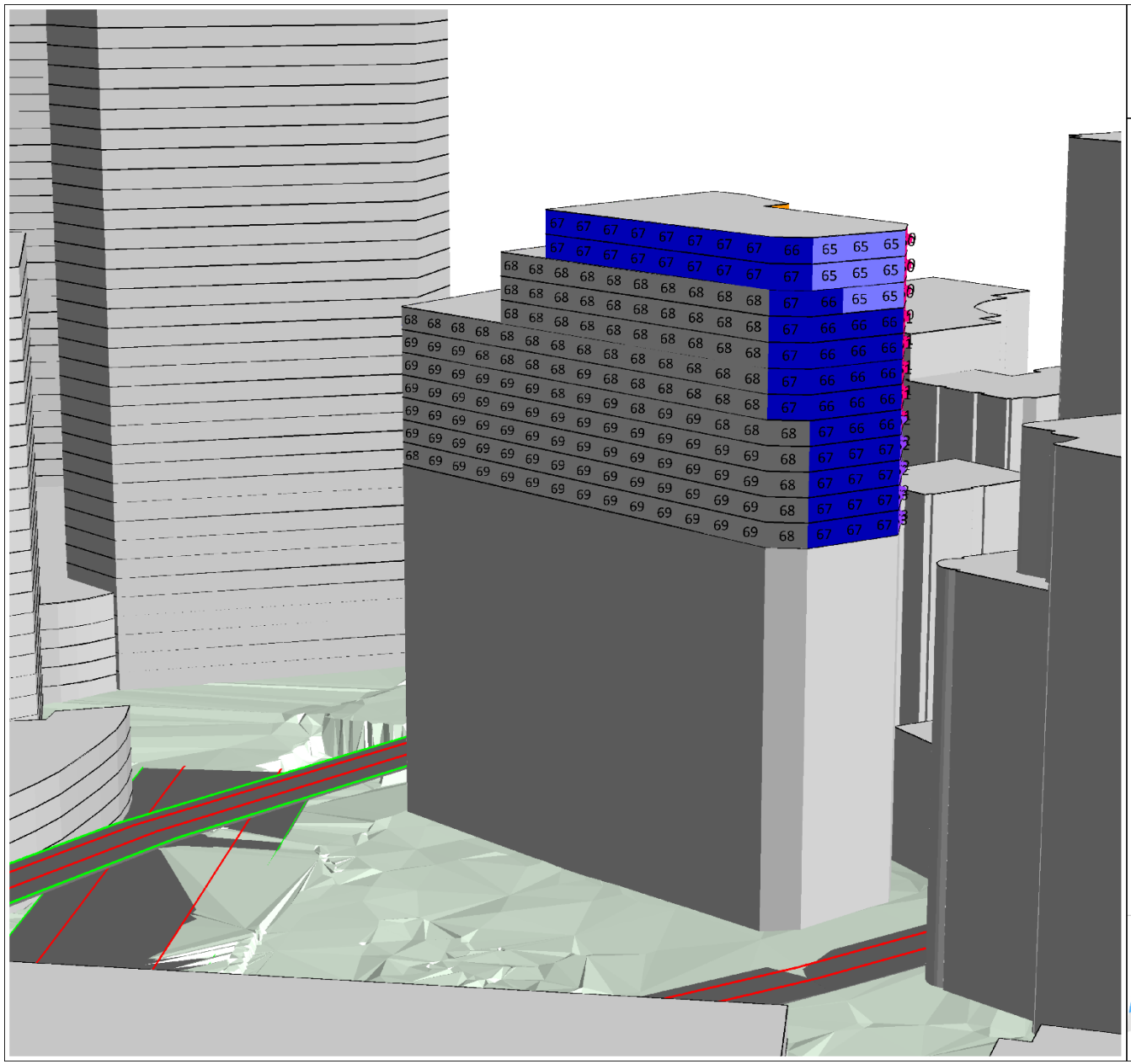
Table B-1 – Project Specific Trigger Levels

Location/ Receiver Type	Time	RBL dB(A) L_{90}	Trigger Noise Level (dB(A) $L_{eq,15min}$)		
			Intrusiveness	Amenity	Max Event
Residential **R1**, **R2** & **R3**	Day	64*	69	**58**	N/A
	Evening	62*	67	**48**	N/A
	Night	57*	62	**43**	**62 L_{eq}** **72 L_{max}**
Commercial **C1-C8**	When in Use	N/A	N/A	**63**	N/A
Industrial **I1**	When in Use	N/A	N/A	**68**	N/A

*Lowest measured RBL's from unattended noise monitoring on site.

The project noise trigger levels are bolded above.

APPENDIX C SOUNDPLAN NOISE MODELLING



150 Day Street, Sydney

Traffic Noise Prediction

Daytime

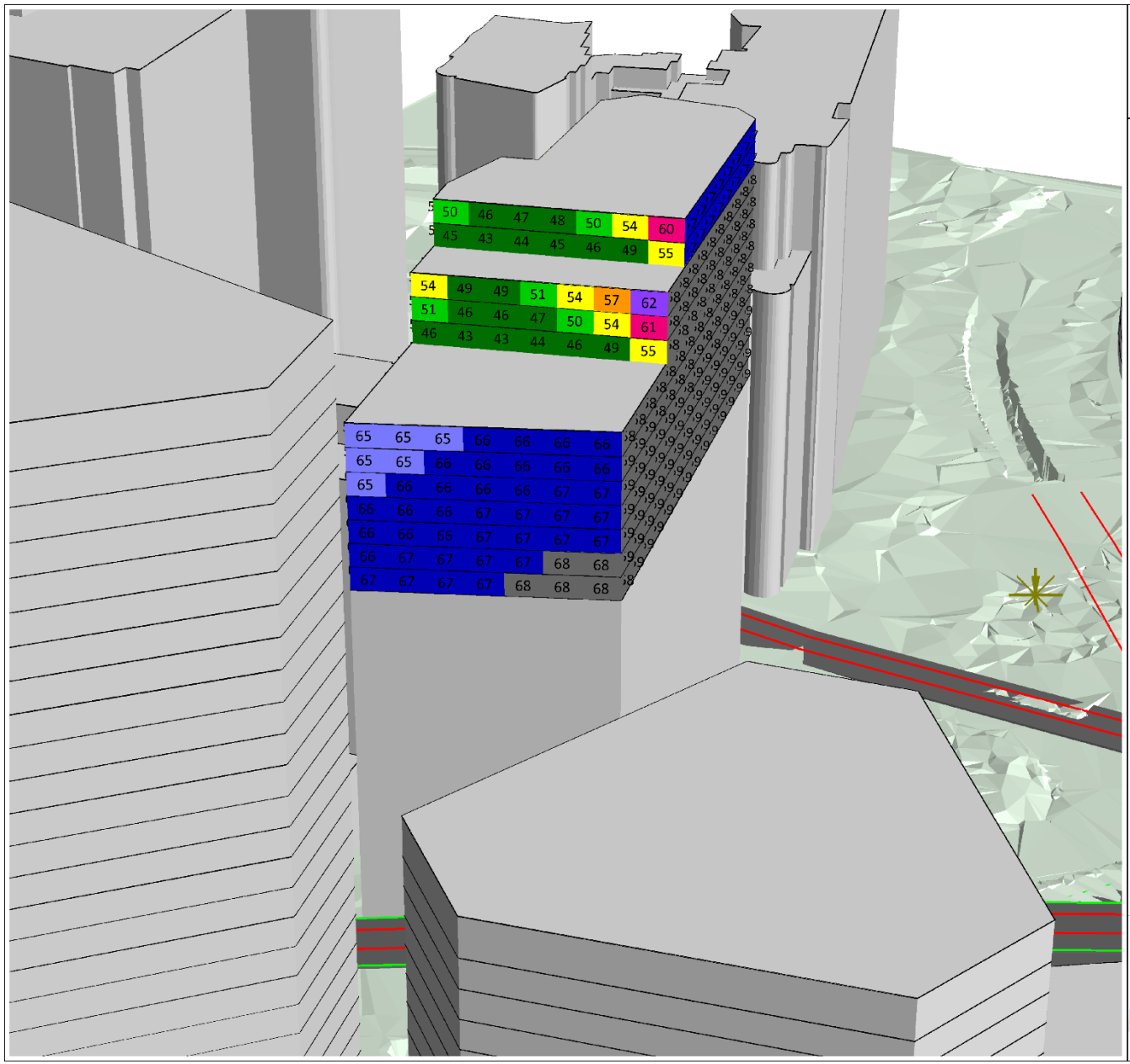
Prepared by: P. Feng
Date: 18/12/2024

Noise Level
L_{eq}
in dB(A)

	< 50
	50 - 52
	52 - 54
	54 - 56
	56 - 58
	58 - 60
	60 - 62
	62 - 64
	64 - 66
	66 - 68
	68 - 70
	>= 70

ACOUSTIC LOGIC

1078



150 Day Street, Sydney

Traffic Noise Prediction

Daytime

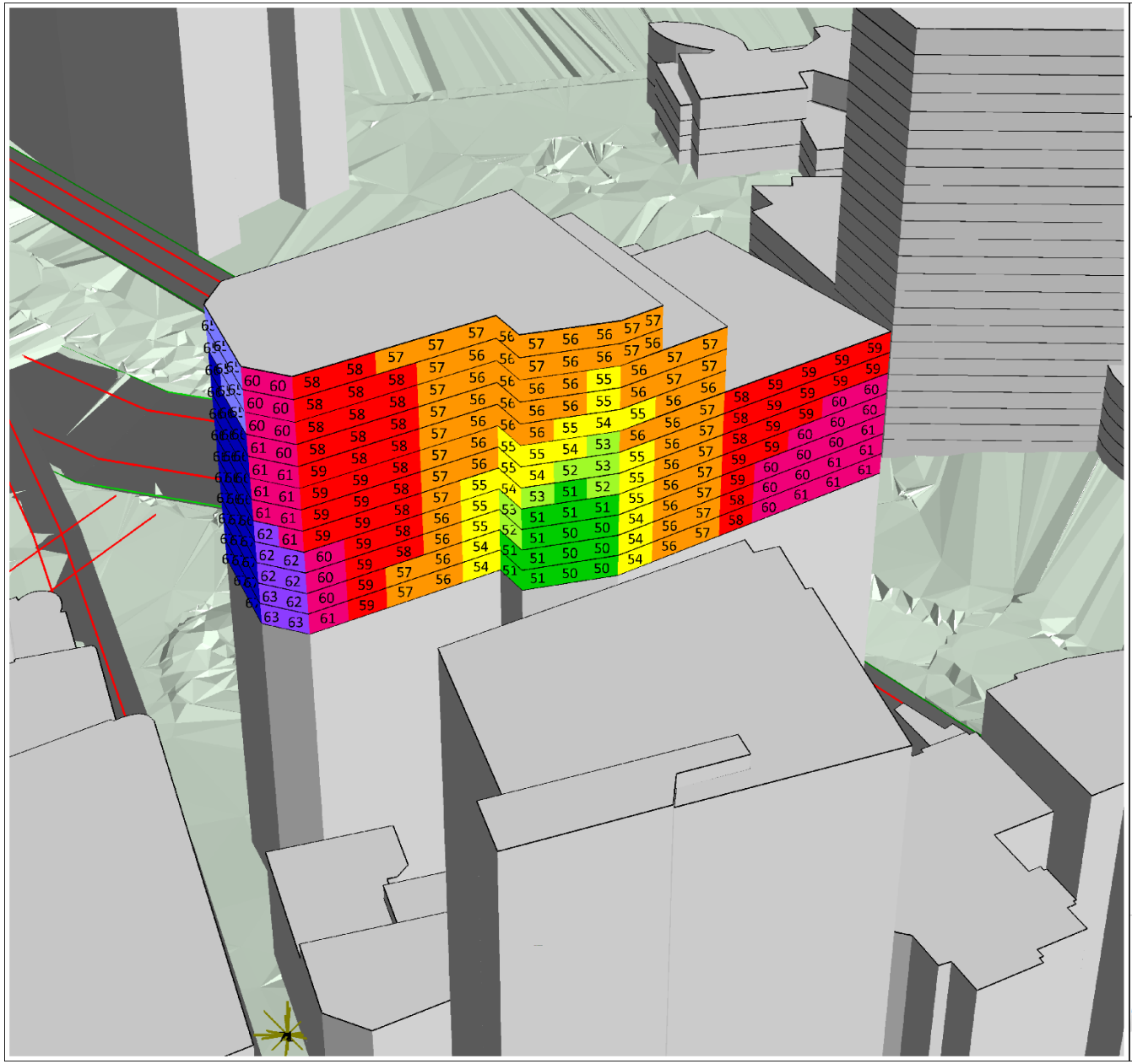
Prepared by: P. Feng
Date: 18/12/2024

Noise Level
L_{eq}
in dB(A)

	< 50
	50 - 52
	52 - 54
	54 - 56
	56 - 58
	58 - 60
	60 - 62
	62 - 64
	64 - 66
	66 - 68
	68 - 70
	>= 70

ACOUSTIC LOGIC

1078



150 Day Street, Sydney

Traffic Noise Prediction

Daytime

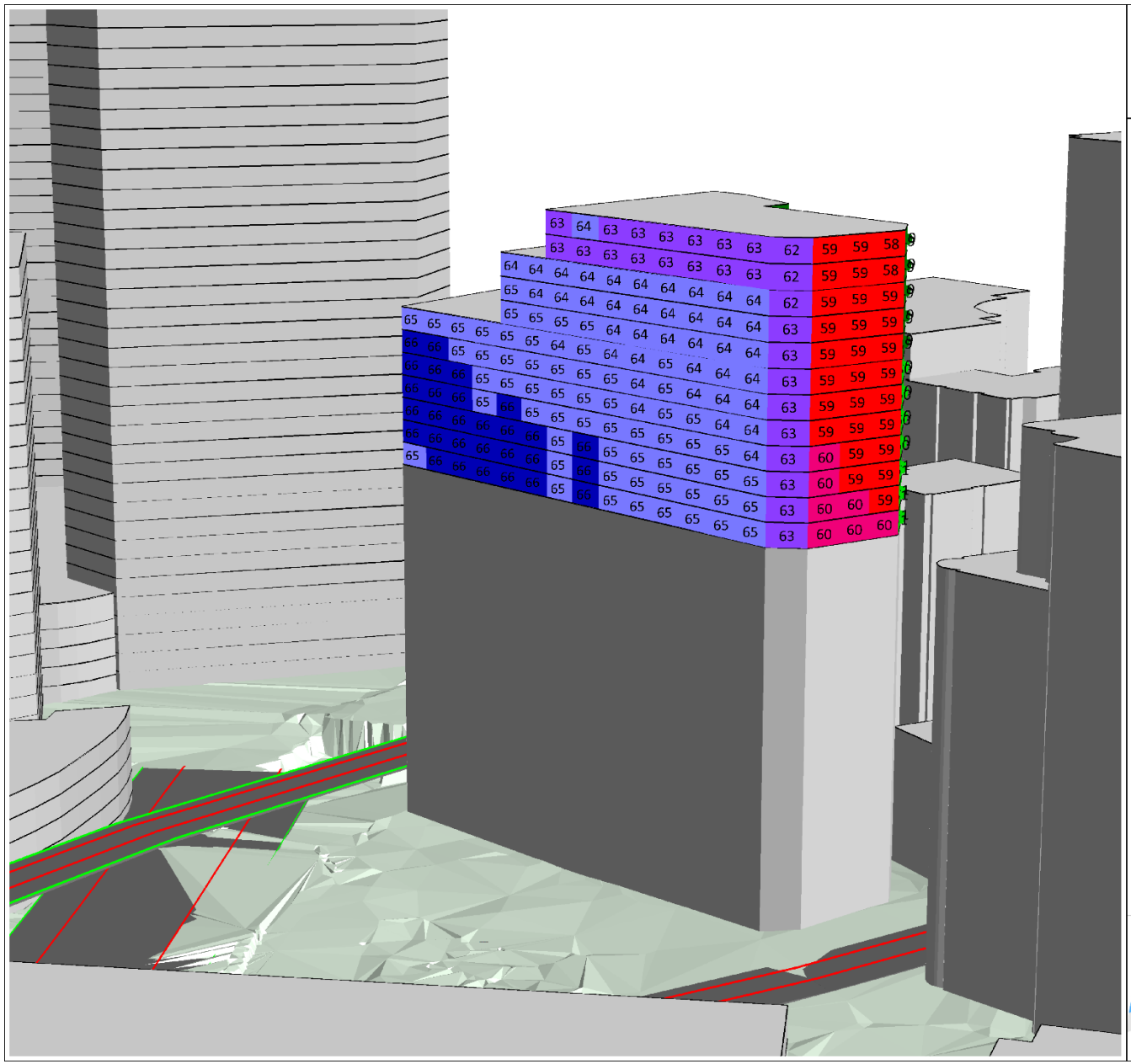
Prepared by: P. Feng
Date: 18/12/2024

Noise Level
L_{eq}
in dB(A)

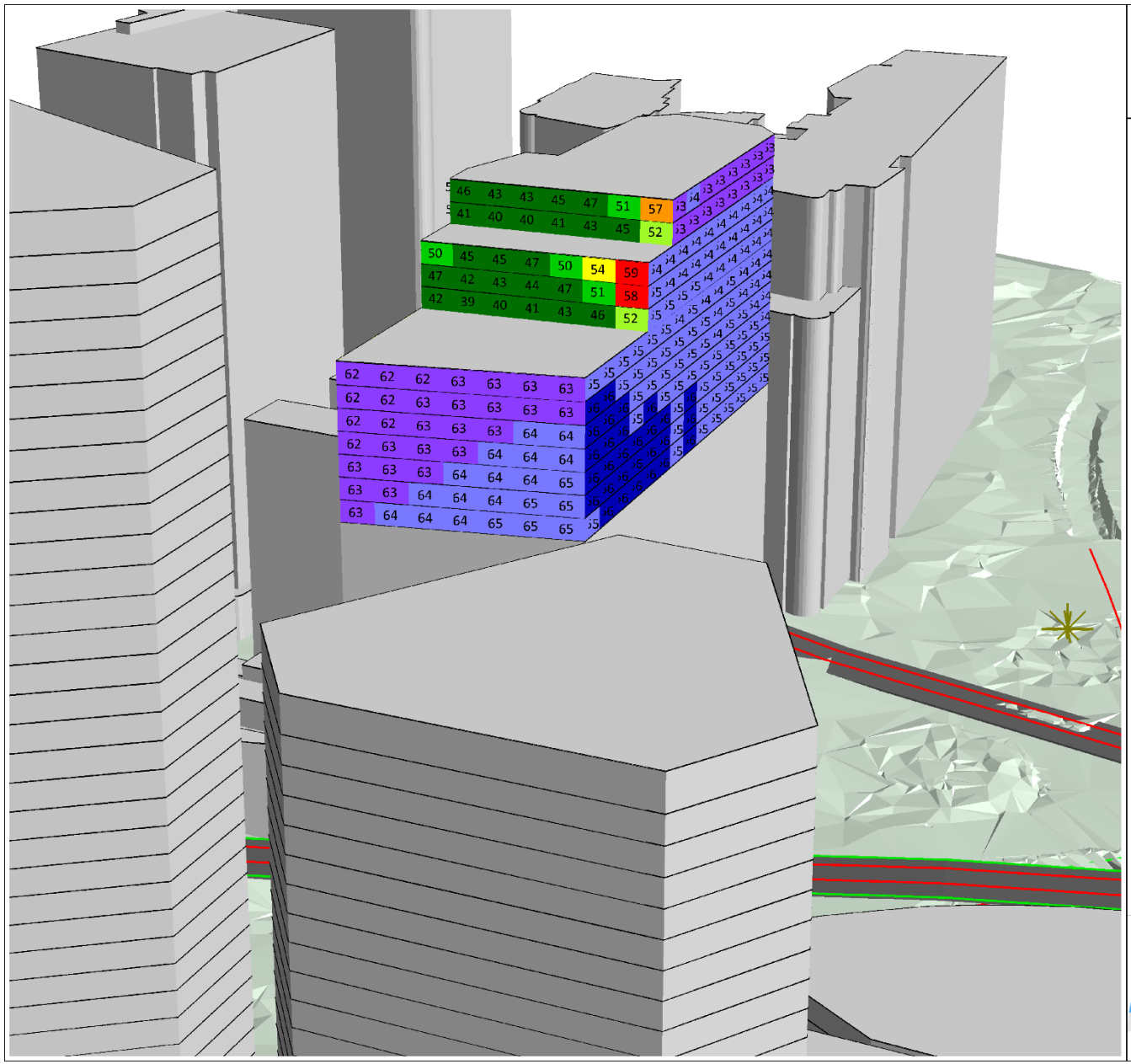
< 50
50 - 52
52 - 54
54 - 56
56 - 58
58 - 60
60 - 62
62 - 64
64 - 66
66 - 68
68 - 70
>= 70

ACOUSTIC LOGIC

1080


63 64 63 63 63 63 63 63 62 59 59 58
63 63 63 63 63 63 63 63 62 59 59 58
64 64 64 64 64 64 64 64 64 62 59 59 59
65 64 64 64 64 64 64 64 64 64 63 59 59 59
65 65 65 65 64 64 64 64 64 64 64 63 59 59 59
66 66 65 65 65 65 64 65 64 64 64 63 59 59 59
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65 66 66 66 66 66 65 66 65 65 65 65 65 65 63 60 59 59
65 66 65 65 65 65 65 65 65 63 60 60 59
63 60 60 60
150 Day Street, Sydney
Traffic Noise Prediction
Nighttime
Prepared by: P. Feng
Date: 18/12/2024
Noise Level
Leq
in dB(A)
< 50
50 - 52
52 - 54
54 - 56
56 - 58
58 - 60
60 - 62
62 - 64
64 - 66
66 - 68
68 - 70
>= 70
ACOUSTIC LOGIC

1080



150 Day Street, Sydney

Traffic Noise Prediction

Nighttime

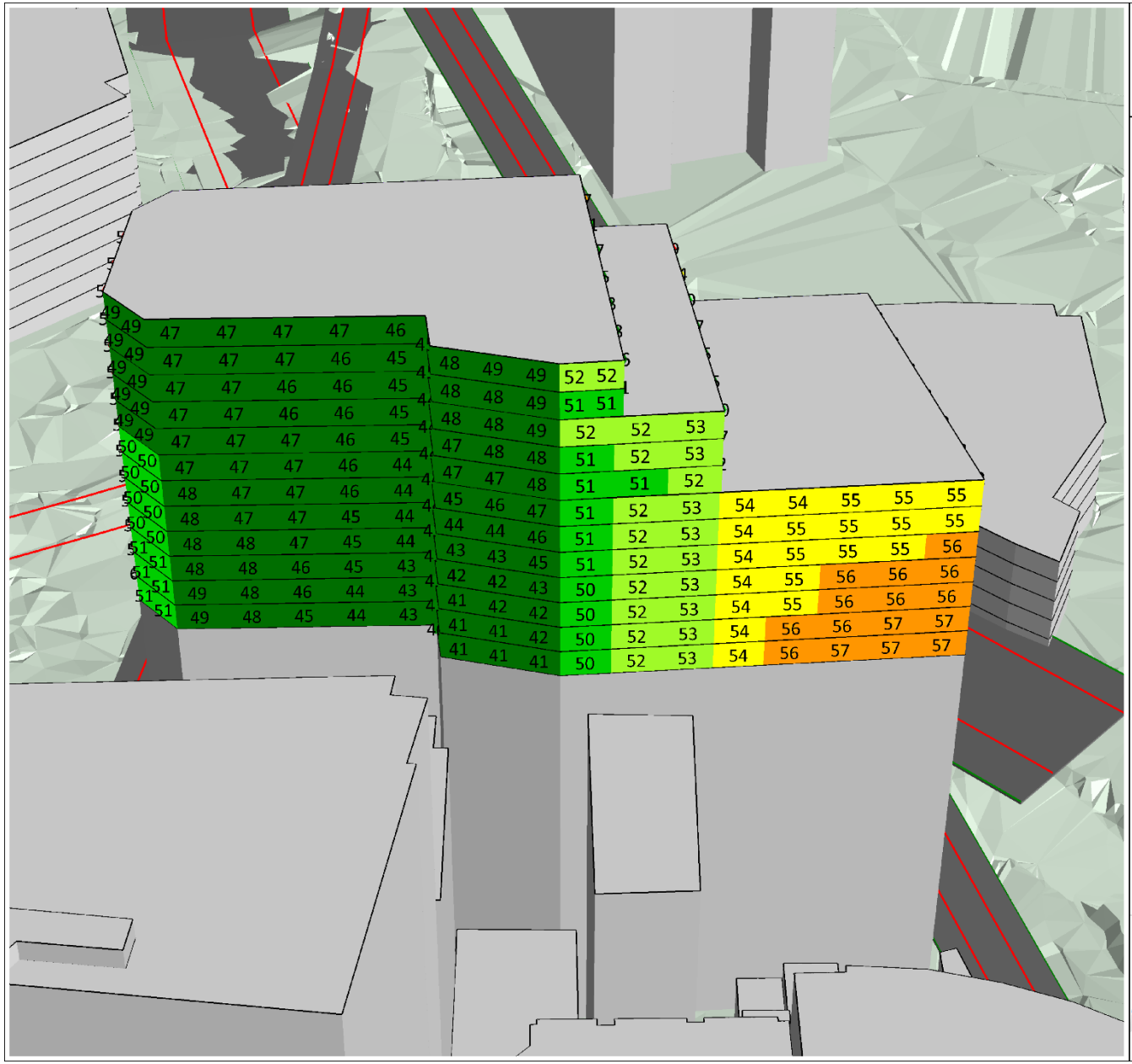
Prepared by: P. Feng
Date: 18/12/2024

Noise Level
L_{eq}
in dB(A)

	< 50
	50 - 52
	52 - 54
	54 - 56
	56 - 58
	58 - 60
	60 - 62
	62 - 64
	64 - 66
	66 - 68
	68 - 70
	>= 70

ACOUSTIC LOGIC

1082


150 Day Street, Sydney
Traffic Noise Prediction
Nighttime
Prepared by: P. Feng
Date: 18/12/2024
Noise Level
L_{eq}
in dB(A)
< 50
50 - 52
52 - 54
54 - 56
56 - 58
58 - 60
60 - 62
62 - 64
64 - 66
66 - 68
68 - 70
>= 70
ACOUSTIC LOGIC

1083

Attachment A16

Infrastructure report

Infrastructure Report

230655 PARK ROYAL

Client:
UOL

Revision:
C

Date:
24/03/2025

REPORT INFORMATION

Project	Park Royal
Title	Infrastructure Report
Client	UOL
Revision	C
Revision Date	24/03/20255
Prepared By	LCI Consultants Sydney Office Level 5, 73 Miller Street North Sydney, NSW 2060
ABN / ACN	92 124 107 973 / 124 107 973
Author	MMc, VD, OR

REVISION SCHEDULE

Revision	Date	Issue Name	Author	Authorised
A	10.12.2024	FOR DA SUBMISSION	LCI	VD
B	13.12.2024	DA SUBMISSION	LCI	VD
C	24.03.2025	DA SUBMISSION	LCI	VD

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1.2 The Site 4

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2.1 Potable Cold Water 6

3 Sewer Service 7

4 Gas Service 9

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5.2 Proposed 11

6 Information and Communication Technology 12

1 Introduction

1.1 Purpose

This infrastructure report has been prepared on behalf of Lehr Consultants International (Australia) Pty Ltd (LCI) in support of a planning proposal for 150 Day street, Park Royal Hotel.

1.2 The Site

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of RL 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).

- Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.

- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

The subject site is depicted in below.



Aerial Map of Subject Site

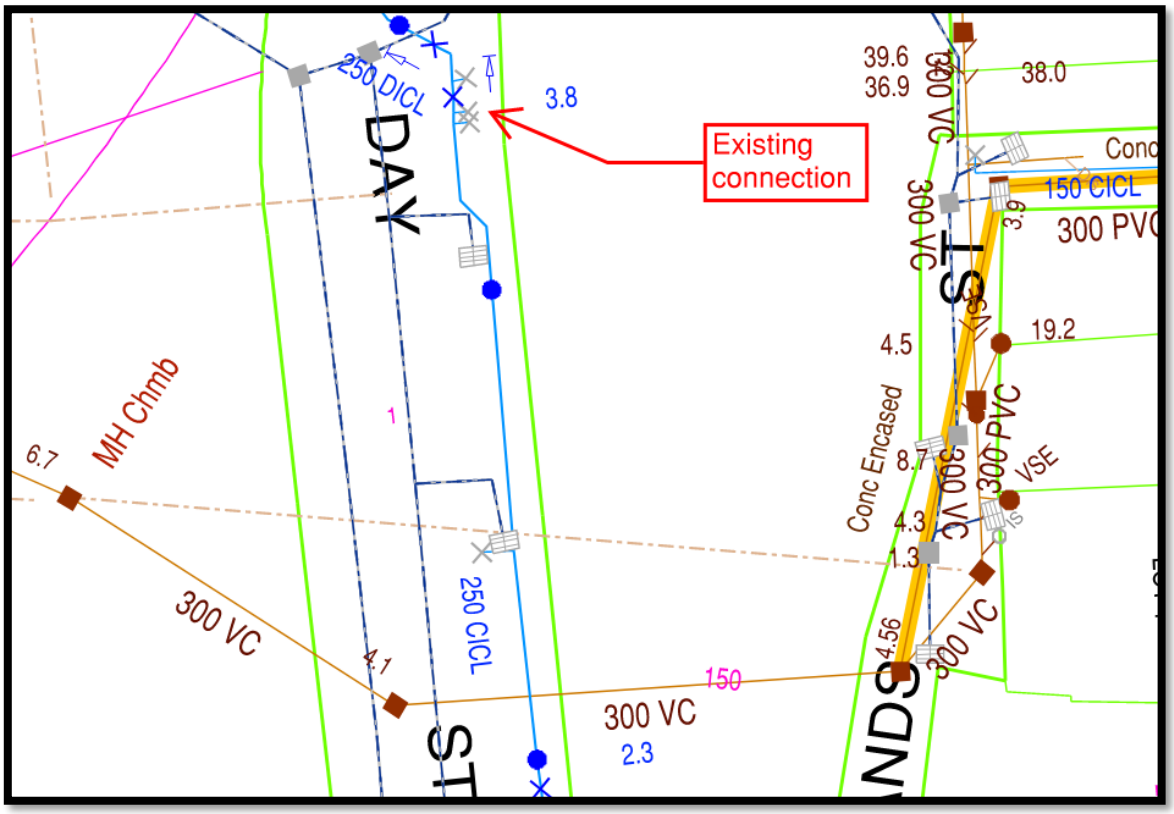
2 Water Supply

2.1 Potable Cold Water

The site 150 Day Street, Sydney is serviced for potable and fire water from an existing 250mm water main located in Day Street owned and operated by Sydney Water Corporation.

Preliminary calculations indicate that the flow rates required for the future development water services are 7L/s for potable water and 40L/s for fire services. The development has designed in a “day tank” for the potable water service to allow for water mains outages, breaks and isolations. This tank will allow for reduced flow rates. The fire service design has allowed for a combined fire water tank. This is a DTS (deemed to satisfy) solution for a combined fire hydrant and fire sprinkler system.

A pressure and flow statement has not yet been obtained from Sydney Water however annual testing from encombent fire service contractors indicates that 500kpa is available through the main at 20L/s.



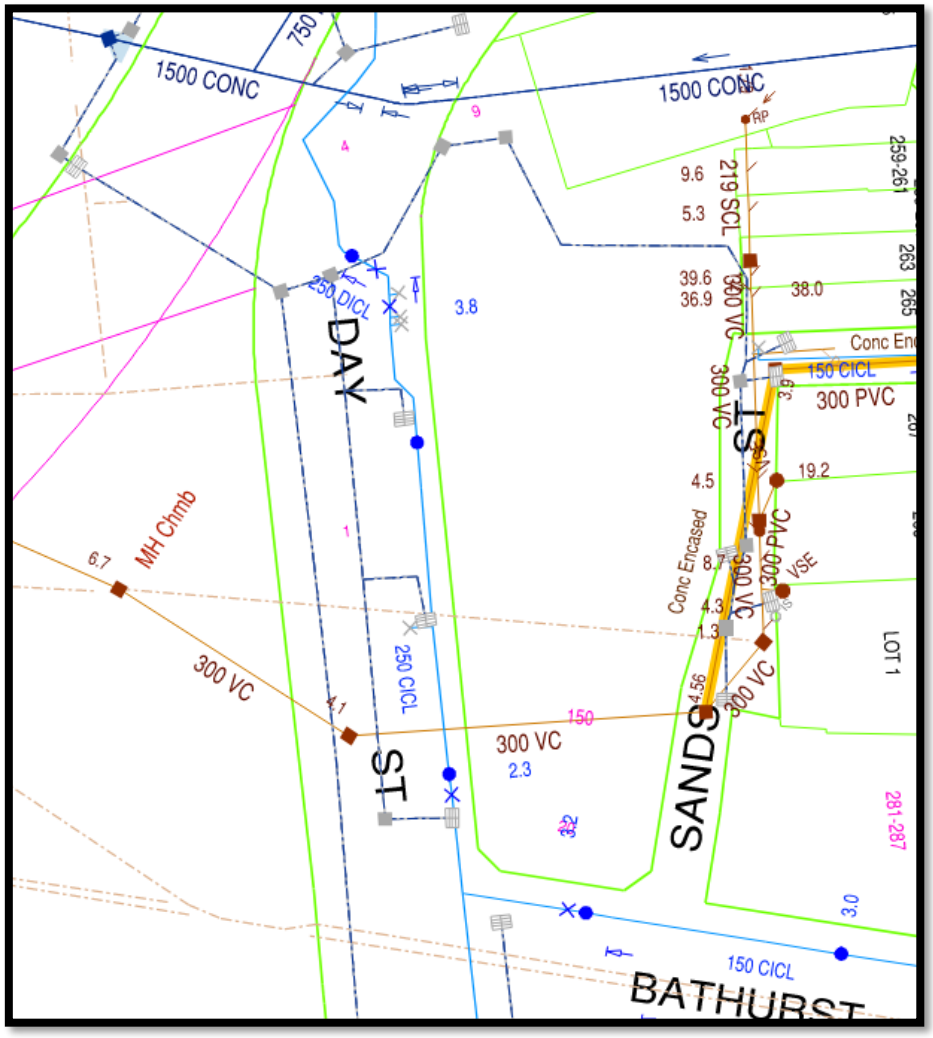
Existing Water and Fire Connections

Proposed designs are feasible and can be supplied from the existing water mains. Further development and pricing in detailed design, however no upgrades are expected to the existing water main.

3 Sewer Service

The site is serviced for sewer by an existing Gravity Sewer Main on the eastern side of the site in Sands Street, the existing sanitary drainage from site reticulates to this main. The sewer main is owned and operated by Sydney Water Corporation.

The existing sewer main reticulates from Druitt street and Druitt Lane down Sussex through Sands Street, under the existing building (within an existing easement) across Day street and down towards Tumbalong Park. Upstream of 150 Day street, the sewer main captures the lots between Druitt and Bathurst street and up to Kent street.



Sydney Water Corporation Sewer Main

Preliminary calculations of the proposed 150 Day street development indicate 3,400 Fixture units. 3,400 fixture units equals a DN225 sewer connection in accordance with AS3500.2 Sanitary Plumbing and Drainage. The existing sewer connection to the Sands Street main is DN225. See snapshot (highlight yellow) below from AS3500.2 Sanitary Plumbing and Drainage. The existing sewer main at DN300 is sized differently than property services, allowing for greater diversity of use. However when we look at the lots serviced by the existing sewer main we can see the building capacities are around four times that of 150 Day street. Using AS500.2 as a guide we can see that

if the same calculation was carried out over the upstream buildings the sewer main has the capacity to cater for the proposed development (See highlight below in pink). Further confirmation will be confirmed by Sydney Water Corporation during the Development Aplication phase of the design.

MAXIMUM FIXTURE UNIT LOADING FOR VENTED DRAINS

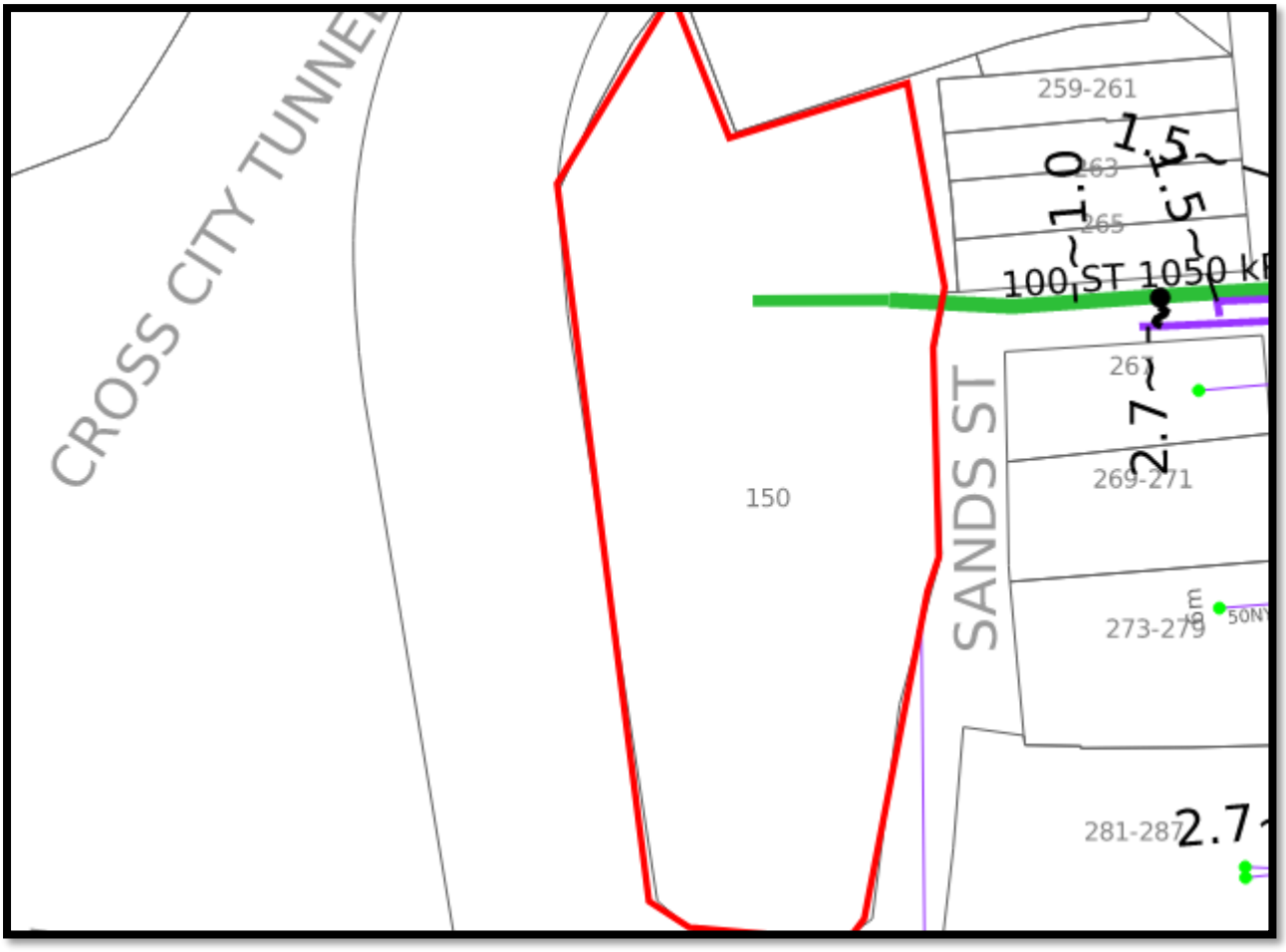
Grade, %	Nominal size of drain, DN						
	65 (Note 1)	80	100	125	150	225	300
5.00	60	215	515	1 450	2 920	11 900	26 900
3.35	36	140	345	1 040	2 200	9 490	21 800
2.50	25	100	255	815	1 790	8 060	18 700
2.00	×	76	205	665	1 510	7 090	16 600
1.65	×	61	165	560	1 310	6 370	15 000
1.45	×	(50)	(140)	485	1 160	5 810	13 900
1.25	×	(42)	(120)	425	1 040	5 360	12 900
1.10	×	×	×	(380)	935	4 970	12 100
1.00	×	×	×	(340)	855	4 500	11 400
0.85	×	×	×	×	(725)	3 850	10 300
0.65	×	×	×	×	(595)	3 250	9 090
0.50	×	×	×	×	×	×	7 720
0.40	×	×	×	×	×	×	6 780

AS3500.2 Sanitary Plumbing and Drainage sizing table

No upgrade to the sewer infrastructure is required for the proposed development.

4 Gas Service

The existing site is serviced for natural gas from a DN200 1,050kpa main located in Sands Street. The existing building uses natural gas for heated water generation , space heating and commercial cooking. The proposed base building development and hotel operators will not be using natural gas for heated water generation, space heating or cooking with kitchens.



Jemena City South Gas Mains Map

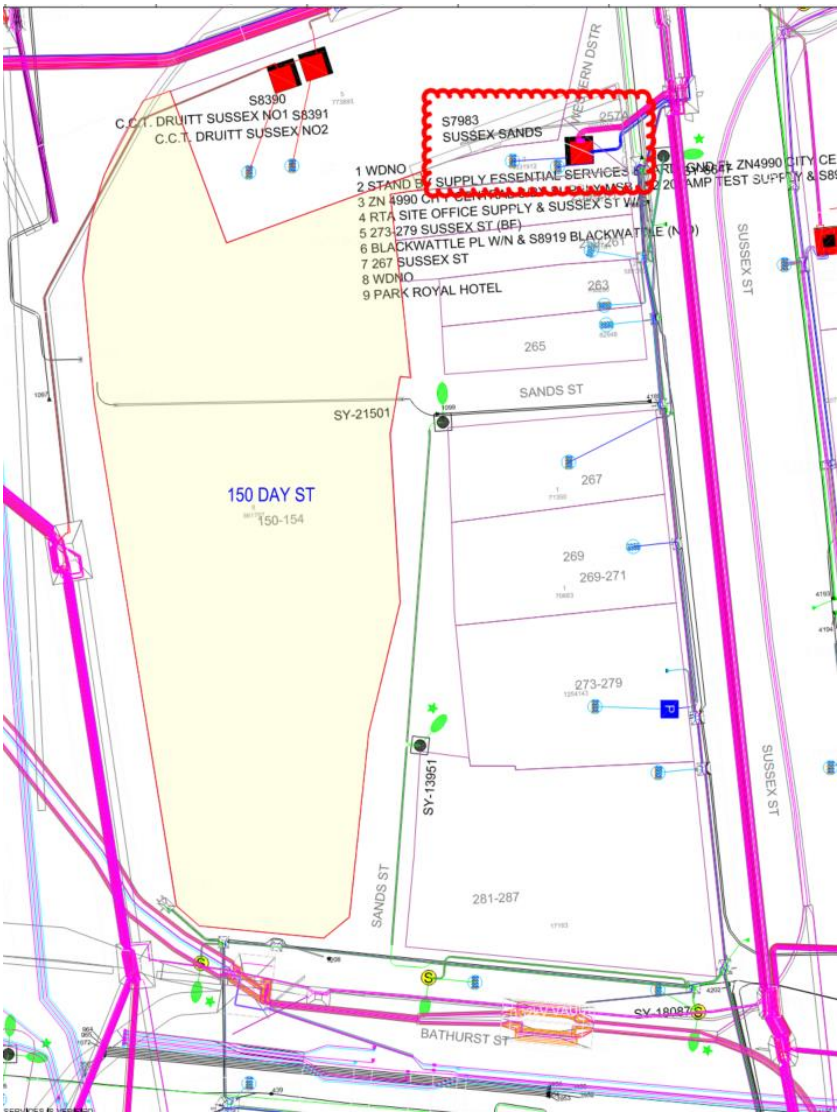
5 Electrical

5.1 Existing

The proposed development site is within the authority of the Ausgrid network, with existing Ausgrid electrical assets adjacent to the site boundary.

There are currently two (2) existing Ausgrid chamber substations to the north and one (1) chamber substation north east of the development. The existing development is currently fed from LV direct distributor No.9 from substation SUSSEX SANDS S.7983.

Refer to the below figure for the locations of the Ausgrid assets and substation SUSSEX SANDS S.7983 (clouded red).

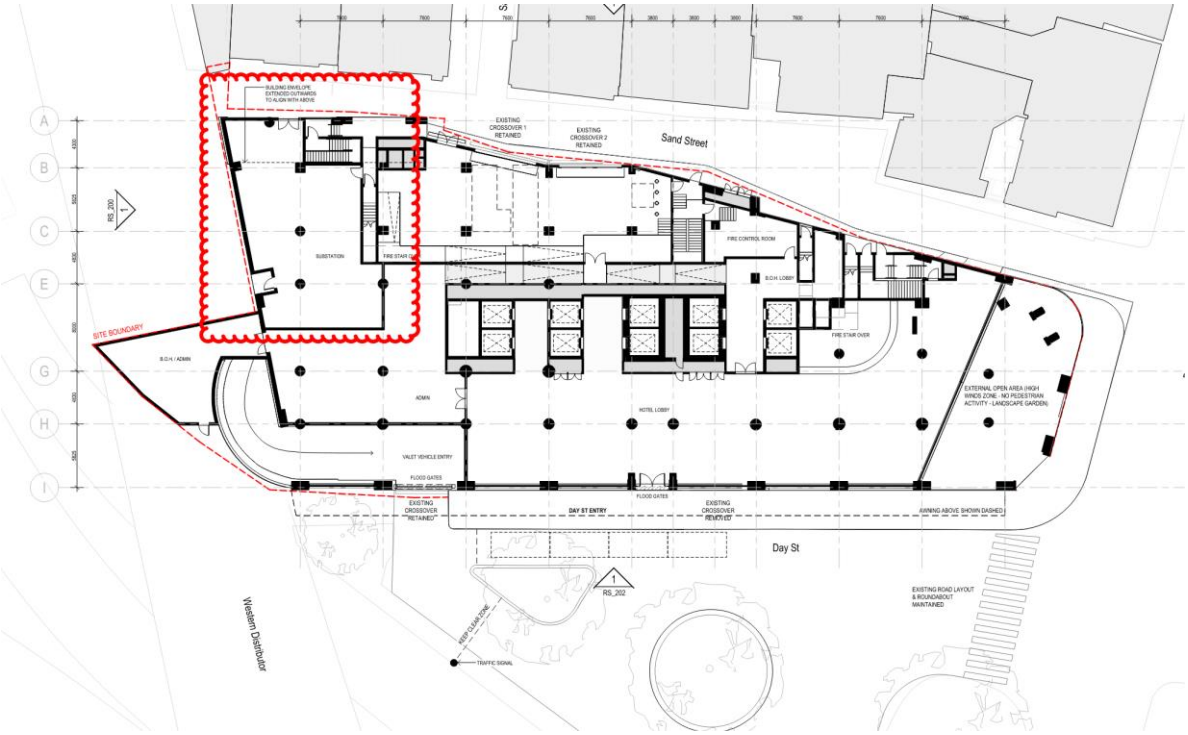


Location of Ausgrid Assets.

5.2 Proposed

Preliminary max demand calculations forecasts the site consumption to be in the order of 3.3 MW. It is assumed all existing surrounding substations do not have the electrical capacity for the development.

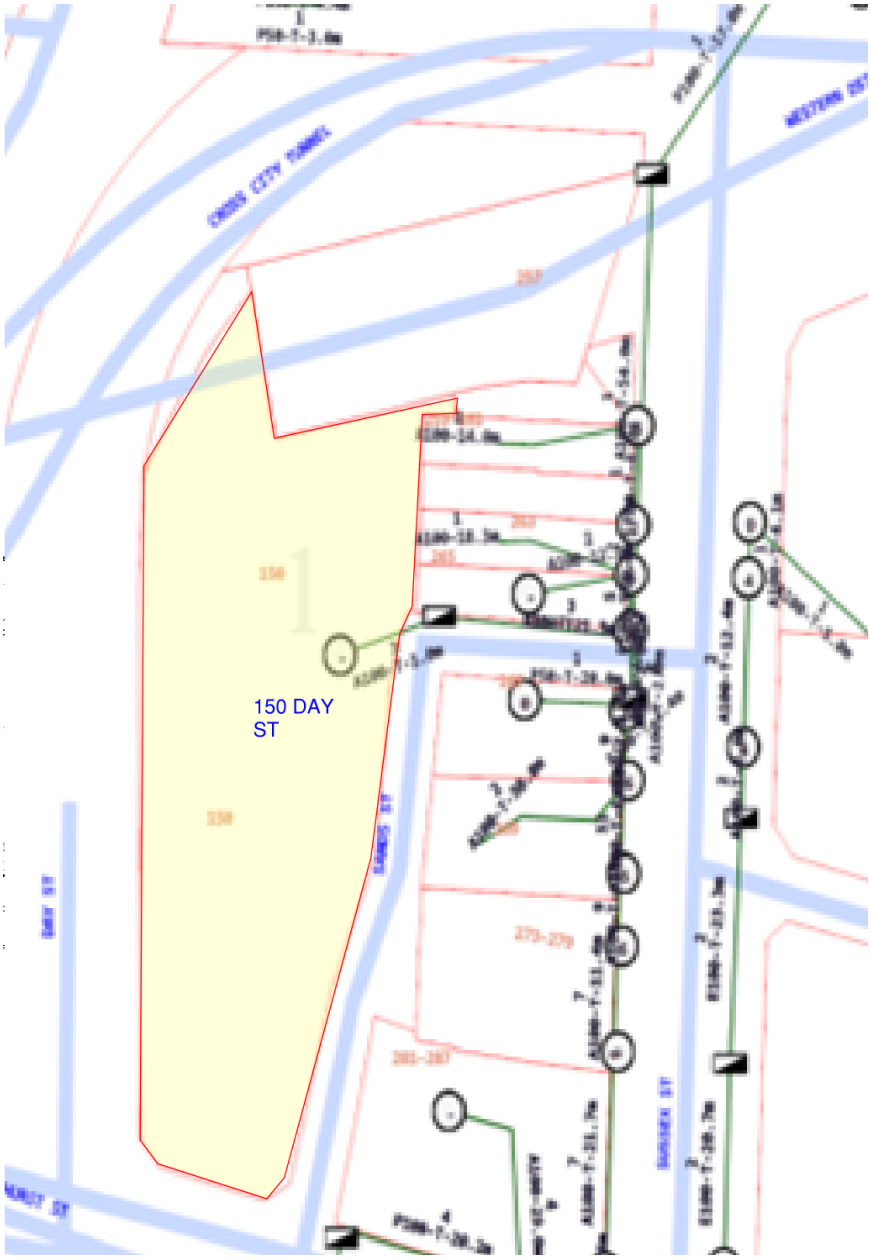
It is proposed that the development will be supplied via a dedicated Ausgrid triplex substation arrangement located on ground level, north east of the site. Incoming cables will be entering the development from Sands Street



Location of Proposed Ausgrid Triplex Substation

6 Information and Communication Technology

The development currently has a NBN connection from Sands Street, with an unknown quantity of fibre connections from other telco providers as well terminating into an MDF room. It is proposed that this MDF room will be retained and connection is maintained including any existing NBN equipment on site be relocated to the new Telcommunication Room in Basement 1 of the development.



NBN Existing Connection (BYDA Map)

Lehr Consultants International (Australia) Pty Ltd (ABN 92 124 107 973) is the evolution of a firm which began in 1969. Challenging the standard approach to Building Services engineering, LCI offers traditional and innovative consulting services worldwide, as well as access to cutting edge technological thought, applications and proprietary systems.

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PERTH
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Perth WA 6000
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ADELAIDE
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Adelaide, SA, 5000
P: (08) 7078 8896

Attachment A17

Report on preliminary site (contamination) investigation

Report on Preliminary Site (Contamination) Investigation

Park Royal Hotel Redevelopment

150 Day Street, Sydney, NSW

Prepared for Mecone C/- UOL Group Limited

Project 231572.01

25 March 2025

Douglas Partners Pty Ltd
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Document History

Details

Project No.	231572.01
Document Title	Report on Preliminary Site (Contamination) Investigation
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Report Prepared For	Mecone C/- UOL Group Limited
Filename	231572.01.R.001.Rev2

Status and Review

Status	Prepared by	Reviewed by	Date issued
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Revision 1	Irha Riaz	Nerilee Edwards	29 November 2024
Revision 2	Irha Riaz	Nerilee Edwards	25 March 2025

Distribution of Copies

Status	Issued to
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Revision 1	Mecone C/- UOL Group Limited
Revision 2	Mecone C/- UOL Group Limited

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

Signature	Date
Author	25 March 2025
Reviewer	25 March 2025

Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

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Report on Preliminary Site (Contamination) Investigation
Park Royal Hotel Redevelopment
150 Day Street, Sydney, NSW

1. Introduction

1.1 Overview

Douglas Partners Pty Ltd (Douglas) has been engaged by Jack Rixon of Mecone C/- UOL Group Limited to prepare this Preliminary Site (Contamination) Investigation (PSI) undertaken for the Park Royal Hotel Redevelopment for the site at 150 Day Street, Sydney, NSW (referred to as 'the site'). The site is shown on Drawing 1, Appendix A.

The investigation was undertaken in accordance with Douglas' proposal 231572.00.P.001.Rev0 dated 2 September 2024.

The objective of the PSI is to assess the potential for contamination at the site based on past and present land uses and to comment on the need for further investigation and / or management with regard to contamination issues for the proposed development. It is understood that the report will be used to support a development application for the proposed development.

The following key guidelines were consulted in the preparation of this report:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013); and
- NSW EPA *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020).

This report must be read in conjunction with all appendices including the notes provided in Appendix B. The fieldwork for this PSI was undertaken concurrently with a geotechnical investigation reported separately.

1.2 Proposed development

It is understood that the proposed redevelopment includes extending the existing 11-storey building with an additional 11 storeys plus a rooftop plant room, whilst maintaining similar setbacks to the existing structure. The proposed redevelopment aims to retain as much of the existing structure as possible. As part of the redevelopment, loads on existing footings will increase and may double at some locations.

Key elements of the site-specific development control plan and reference design include (as provided by the client):

- '*Renovation of existing 2-level basement and existing 11-storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:*
  - *Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star).*
  - *490-540 hotel keys with gross floor area of ~30,000 m^2.*

- *Upgrade existing infrastructure and services (including new lift core).*
- *New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).*
- *Removal existing Porte Cochere and exit ramp resulting in single vehicle entry / exit ramp from Day Street to be used by valet only.*

- *Ground floor public domain, public art and landscaping design; and*
- *Significant greening and landscaping of western façade*.

As part of this redevelopment, it is expected that the existing building footings will need to be strengthened where loads are increased beyond their existing allowable bearing capacity. Localised excavation may also be required for new footings, lift pits and services. It is understood that no bulk excavation is proposed.

2. Scope of work

The scope of work comprised:

- A review of information provided by the client, including:
  - Documents and plans supplied as part of the brief package;
  - Information on the site's current and former use(s); and
  - Details of the proposed development.
- A review of geological, topographic, soil, acid sulfate soil and hydrogeological published information to assess and document the site's environmental setting;
- A review of readily available site history, including:
  - Historical and recent aerial photographs;
  - Historical title deeds to identify previous owners that may indicate potentially contaminating activities;
  - NSW EPA public registers for notices and licences issued under the Contaminated Land Management Act 1997 (CLM Act) and the Protection of the Environment Operations Act 1997 (POEO Act);
  - SafeWork NSW records for schedule 11 hazardous chemicals stored on the premises;
  - Section 10.7 (2) and (5) Planning Certificates; and
  - Council records.
- Conducted a site walkover to observe signs or indicators of potential contamination;
- Sampling from six geotechnical boreholes, and three soil vapour pins; and
- Preparation of this report.

3. Site information

Site address	150 Day Street, Sydney, NSW, 2000
Legal description	Lot 20 Deposited Plan 1046870
Approximate area	3272 m^2 (provided by client)
Zoning	Zone SP5 – Metropolitan Centre
Local council area	City of Sydney
Current use	Commercial – Park Royal Hotel



Figure 1: Site location and boundary

4. Environmental setting

4.1 Topography

The site is relatively flat, with a slight fall of about 3 meters from the south-east corner towards the north-west, leading toward Darling Harbour. The site elevation is approximately 5 meters AHD (Australian Height Datum).

4.2 Site geology and soil landscape

Reference to the Geoscience NSW Seamless Geology data indicates that the site is underlain by Hawkesbury Sandstone, a Triassic age medium to coarse grained quartz sandstone unit with minor shale and laminite bands or lenses. Rock is anticipated to be at shallow depth. The site is also underlain by a fault line.

It is also noted that approximately 50 m to 100 m to the north and west of the site, the geology is mapped as 'Anthropogenic deposits - reclaimed estuarine areas', described as 'natural surface elevation raised by placement of fill over former estuarine swamps and subaqueous estuarine margins (supratidal to subtidal zone); estuarine banks and islands formed from dredge spoil'.

Reference to the Sydney 1:100,000 scale Soil Landscape Series sheet indicates that the site is mapped as comprising erosional soils of the Gymea landscape, which typically comprises shallow to moderately deep yellow earths and earthy sands, shallow siliceous sands and localised podzolic soils and yellow podzolic sands on shale lenses.

4.3 Acid sulfate soils

Reference to the NSW Department of Environment and Climate Change 1:25 000 Acid Sulfate Soil Risk Mapping indicates that the site is site is located in an area of disturbed terrain. Sediments in Cockle Bay located approximately 160 m north-west of the site are mapped as having a high probability of acid sulfate soils occurrence.

4.4 Surface water and groundwater

The closest surface water body is Cockle Bay which is located approximately 160 m north-west of the site. Based on topographic contours, groundwater underlying the site is expected to flow toward Cockle Bay, part of Sydney Harbour.

Based on the site and surrounding topography, it is anticipated that surface water (including roof runoff) would be intercepted by the stormwater collection system, and ultimately discharge into Cockle Bay, located approximately 160 m north-west of the site.

A search of the publicly available registered groundwater bore database indicated that there are twelve registered groundwater bores within 1 km of the site; the five closest ones are as summarised in Table 1.

Table 1: Summary of available information from nearby registered groundwater bores

Bore ID, authorised purpose, completion year and status	Location relative to site	Final depth (m)	Standing water level (m bgl)
GW109085 Monitoring bore 2008 Unknown	830 m north	5.68	Unknown
GW109086 Monitoring bore 2008 Unknown	830 m north	5.68	Unknown
GW109087 Monitoring bore 2008 Unknown	830 m north	8.5	Unknown
GW111331 Monitoring bore 2010 Equipped	1000 m west	6.0	Unknown
GW111330 Monitoring bore 2010 Equipped	1000 m west	4.0	Unknown

No potential beneficial uses of groundwater were identified or expected given the urban setting and proximity to Sydney Harbour.

5. Site history

5.1 Historical aerial photography

Several historical aerial photographs were obtained from public databases. Extracts of the aerial photographs are included in Appendix C1. A summary of key features observed for the site and surrounding land is presented in Table 2.

Table 2: Summary of historical aerial photographs

Year	Site	Surrounding land use
1930 and 1943	The site appears to be occupied by large buildings, possibly commercial / industrial in use.	The surrounding area consisted of a mix of possibly commercial / industrial buildings.

Year	Site	Surrounding land use
	The central portion of the site may not have been built upon.	Industrial wharves (Cockle Bay Wharf) were present to the west of site and extended further south than the current alignment of Cockle Bay. Rail yards can be seen to the west and southwest of site, possibly servicing the wharves.
1951	The site appears to be mostly unchanged when compared to the 1943 image, with an additional building located in the centre of the site.	The land use of the surrounding areas appears to be similar to the 1943 historical aerial.
1961	The site appears to be mostly unchanged when compared to the 1951 image. Additional modifications were apparent in the central portion of the site, with apparent storage or vehicle parking on the roof, indicating changes to the roof, or entire building, in this area.	The land use of the surrounding areas appears to be similar to the 1951 historical aerial. There appears to be a newly built road which runs next to Cockle Bay Wharf.
1978	The building in the northern part of the site appears to have demolished and replaced by a ground level car park. No storage or parking was obvious on the roof in the southern portion of the site.	Buildings immediately north and northeast of site appear to have been demolished. Major earthworks can be observed to the immediate west of the site including active construction of the Western Distributor.
1982	The site appears to be mostly unchanged when compared to the 1978 image. The car park in the northern portion of the site appears to be paved.	The newly built Western Distributor ramps can be observed to the west of the site. Some of the large buildings located to the north-west and south-west of the site, under and adjacent to the Western Distributor, had been demolished and replaced with parkland / soft landscaping. Some minor active construction can be seen to the east of the site.
1991	The site appears to have undergone redevelopment. The previous buildings appear to have been replaced by a new commercial building (Park Royal Hotel). There appears to be an overpass stretching above	The surrounding development and construction appear to be completed, with the Darling Quarter, Sydney Convention & Exhibition Centre and Tumbalong Park present. Minor changes had occurred to the surroundings roads.

Year	Site	Surrounding land use
	Day Street to the west from the hotel. The site appears to be similar to its current configuration.	The previous industrial wharves had been removed from Cockle Bay, and the bay was generally consistent with its current configuration.
2000	The site appears to be mostly unchanged when compared to the 1991 image. The overpass above Day Street had been demolished.	There was a new road and roundabout to the immediate west of the site. There were new commercial buildings present to the south of the site. Some construction work / roadworks was occurring to the south-west of the site. To the north of the site a high-rise commercial building had been built. A new boat mooring had been constructed in Cockle Bay.
2014	The site appears to be mostly unchanged when compared to the 2000 image.	The land use in the surrounding areas appear to have been similar to the 2000 image, with the exception of increased commercial development.
2020	The site appears to be mostly unchanged when compared to the 2014 image.	An active construction site was present to the east of the site (W Hotel site).
2024	The site appears to be mostly unchanged when compared to the 2020 image.	The W Hotel buildings appear to be complete. Land use in the remaining surrounding areas appear to be mostly unchanged.

5.2 **Title deeds**

A historical title deeds search was used to obtain ownership and occupancy information including company names and the occupations of individuals. The title information can assist in the identification of previous land uses and can, therefore, assist in establishing whether there were potentially contaminating activities occurring at the site. The results of the title deed search are provided in Appendix C2.

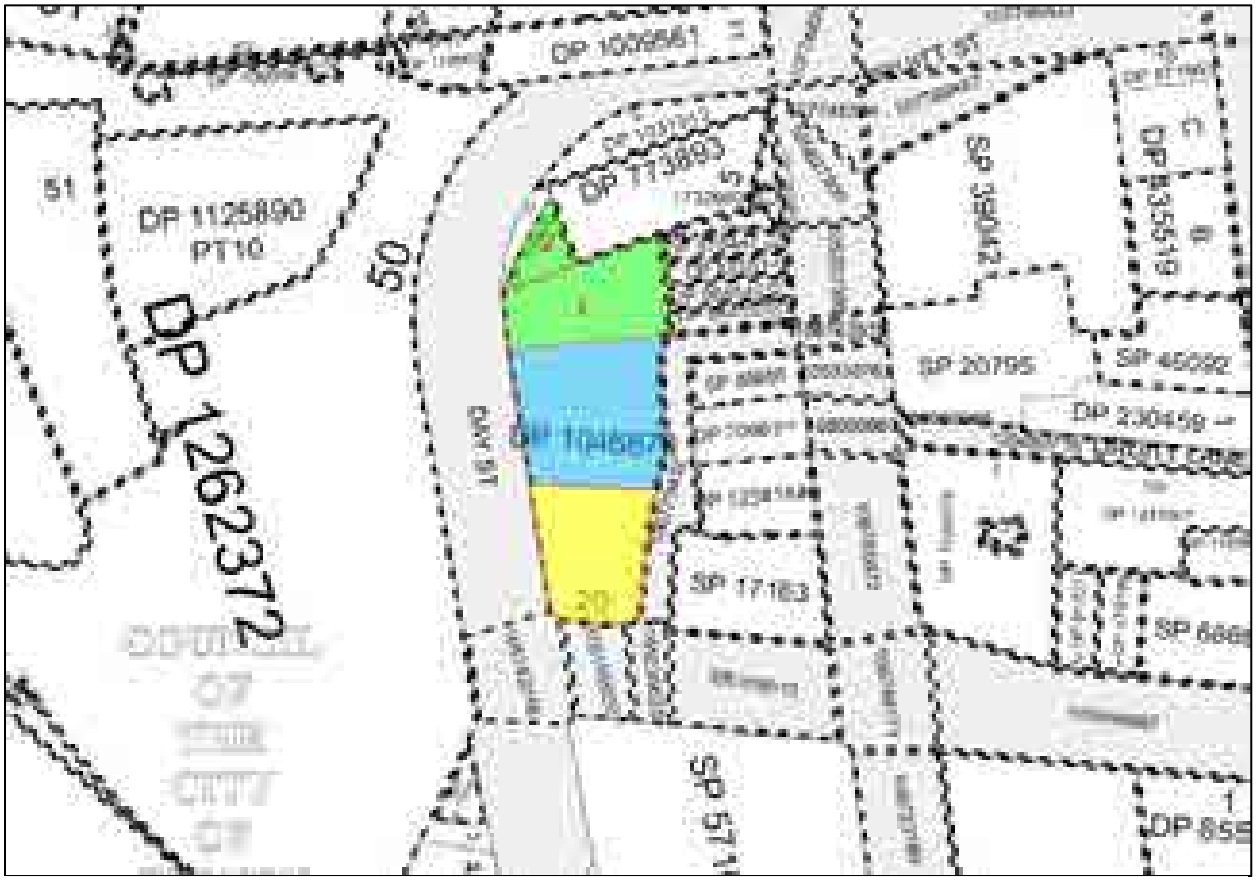


Figure 2: Cadastral records parts map

The title deed records indicate that the site previously comprised four land parcels, as per Figure 2. A summary of the title deeds and possible land uses (with reference to the aerial photographs and other historical searches) is presented in Table 3 - 6. The title deed search results included a survey plan from 1988 which recorded '3-storey brick office' on the blue and yellow shaded parts of the site, as per Figure 2.

Table 3: Historical title deeds (as regards to the part shaded yellow on Figure 2)

Date of acquisition and term held	Registered proprietor(s) / occupations	Inferred land use
03.12.1925 (1925-1926)	The Municipal Council of Sydney	Commercial
08.03.1926 (1926-1936)	John Sands Limited	Games / printing company
13.03.1936 (1936-1979)	Geo. H Martin & Co. Pty Limited	Commercial

Date of acquisition and term held	Registered proprietor(s) / occupations	Inferred land use	
06.12.1979 (1979=1982)	Bruttso Pty Limited	Commercial	
31.08.1982 (1982-1988)		Tabma Properties Pty Limited	Commercial (possibly offices for timber manufacturing company, noting survey plan showing office building on this part of the site as above)
02.12.1988 (1988-1994)		Skydane Pty Limited	Commercial (possibly shops and takeaway)
12.01.1994 (1994 to date)		Success Venture Pty Limited	Commercial (Park Royal Hotel)

Table 4: Historical title deeds (as regards to the part shaded green and numbered 1 on Figure 2)

Date of acquisition and term held	Registered proprietor(s) / occupations	Inferred land use
16.05.1923 (1923-1968)	John Sands Limited	Games / printing company
06.09.1968 (1968-1996)	The Commissioner for Main Roads Now Roads & Traffic Authority of New South Wales	Road reserve / construction
06.09.1996 (1996 to date)	Success Venture Pty Limited	Commercial (Park Royal Hotel)

Table 5: Historical title deeds (as regards to the part shaded green and numbered 2 on Figure 2)

Date of acquisition and term held	Registered proprietor(s) / occupations	Inferred land use
16.05.1923 (1923-1968)	John Sands Limited	Games / printing company
06.09.1968 (1968-1988)	The Commissioner for Main Roads Now Roads & Traffic Authority of New South Wales	Road reserve / construction
22.07.1988 (1988-1994)	Skydane Pty Limited	Commercial (shops / takeaway)
12.01.1994 (1996 to date)	Success Venture Pty Limited	Commercial (Park Royal Hotel)

Table 6: Historical title deeds (as regards to the part shaded blue on Figure 2)

Date of acquisition and term held	Registered proprietor(s) / occupations	Inferred land use
17.01.1923 (1923-1968)	John Sands Limited	Games / printing company
28.06.1968 (1968-1988)	The Commissioner for Main Roads Now Roads & Traffic Authority of New South Wales	Road reserve / construction
22.07.1988 (1988-1994)	Skydane Pty Limited	Commercial (possibly shops / takeaway)
12.01.1994 (1994 to date)	Success Venture Pty Limited	Commercial (Park Royal Hotel)

5.3 Public registers and planning records

EPA Notices available under Section 58 of the Contaminated Land Management Act (CLM Act) Database searched 8 October 2024	There were no records of notices for the site or any other properties within the suburb of Sydney.
Sites notified to EPA under Section 60 of the CLM Act Database searched 19 November 2024	The site was not listed as a notified contaminated site. However, the following property within the vicinity of the site was listed as notified contaminated site: • Interpro House (OSP 46581) - 447 Kent Street, Sydney located 200 m north-east - Regulation not required under CLM Act. However, this is not considered to be of significant concern as regulation for these properties was not required under the CLM Act.
Licences listed under Section 308 of the Protection of the Environment Operations Act 1997 (POEO Act) Database searched 19 November 2024	There were no licenses issues for the site or any neighbouring properties in the vicinity of the site.

PFAS Investigation Sites listed on the EPA website	The site was not listed or adjacent to a site listed under: • NSW EPA PFAS Investigation Program; • Defence PFAS Investigation Program; • Defence PFAS Management Program; and • Airservices Australia National PFAS Management Program.
SafeWork NSW	A search of the records held by SafeWork NSW did not locate any records pertaining to the site. The search result is attached in Appendix C3.
Planning Certificate(s)	The planning certificate for the site (dated 22 November 2024) indicates that the council is not aware of the land being affected by any matters as prescribed by Section 59 (2) of the Contaminated Land Management Act 1997 and Contaminated Land Management Act 2008. The planning certificate is attached in Appendix C4.
Council Records	Council records were made available to Douglas through an informal Government Information Public Access Act (GIPAA) process. Review of the available online records indicated that several development proposals and approvals have been made at the site. The applications were mainly related to the commercial hotel use comprising internal layout changes, signage changes, internal fit out to suites, refurbishments, office alternations and so on. No records were found relating to environmental matters.

5.4 Site history integrity assessment

The information used to establish the history of the site was sourced from reputable and reliable reference documents, many of which were official records held by Government departments / agencies. The databases maintained by various Government agencies potentially can contain high quality information, but some of these do not contain any data at all.

In particular, aerial photographs can provide high quality information that is generally independent of memory or documentation. They are only available at intervals of several years, so some gaps exist in the information from this source. The observed site features are open to different interpretations and can be affected by the time of day and / or year at which they were taken, as well as specific events, such as flooding. Care has been taken to consider different possible interpretations of aerial photographs and to consider them in conjunction with other lines of evidence.

5.5 Summary of site history

Information on historical aerial photographs and historical leases suggest the site was used as a hotel since at least 1991 and acquired by the current owner in 1994. Previously, the land was owned by multiple owners and was used for commercial / industrial purposes since at least 1930, potentially including printing, timber manufacturing, retail and / or distribution or offices associated with companies involved in these activities. It is also noted that parts of the site were owned by Roads & Traffic Authority of New South Wales from the 1960s to the 1980s, prior to its

redevelopment into Park Royal Hotel, possibly as road reserve. No contamination was identified on site and adjacent properties in EPA regulatory notices search.

6. Site walkover

A site walkover was undertaken by an environmental scientist on 30 August 2024. The site topography was consistent with that described in Section 4.1. The site layout appears to be consistent with the 1991 aerial photograph. The following key site features pertinent to the PSI were observed (refer to photographs in Appendix D).

At the time of the site walkover, the building was occupied by the Park Royal Hotel. Ground level to level 10 were used as the hotel lobby, amenities and guest rooms and suites, with a rooftop plant room. The general façade of the building is shown in Photograph 1, Appendix D.

There were two basement levels; the lower ground level was used as a car park and the lower basement was used as staff amenities, offices, laundry and other services.

A sprinkler tank / pump room was located on the lower basement level and contained an above-ground diesel tank (Photograph 2). The tank was elevated above the ground, and no signs of staining were observed on the floor around the tank. Site personnel confirmed that the on-site laundry was not used for dry-cleaning and all dry-cleaning was done off-site. Some cleaning chemicals were stored within the laundry area (Photographs 3 and 4). The lower basement also comprised an engineering room used for storage of tools, a work bench and some chemical storage (Photograph 5). The stored chemicals were noted to be in small containers, with no indicators of leaks / spills.

A grease trap was located on the lower ground level (Photograph 6).

Douglas was also advised that above-ground diesel tanks were present in roof top plant room(s). However, these areas were not accessed during the site inspection.

An asbestos building register was not available on-site. However, given the age of the building some hazardous building materials may be present.

7. Preliminary conceptual site model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying how the site became contaminated and how potential receptors may be exposed to contamination either in the present or the future i.e. it enables an assessment of the potential source – pathway – receptor linkages (complete pathways).

Based on the current investigation, the following potential sources of contamination and associated contaminants of potential concern (CoPC) have been identified and summarised in Table 7.

Table 7: Summary of potential sources

Potential sources and associated CoPC
On site sources
S1: Fill: Associated with levelling and demolition of former buildings on the site CoPC include metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), organochlorine pesticides (OCP), phenols and asbestos **S2:** Above-ground diesel storage tanks CoPC include metal, TRH, BTEX, PAH, volatile organic compounds (VOC), phenols **S3:** Current and former land use: commercial use, including hotel, offices and potential warehousing / distribution and / or printing or manufacture of games (noting current basement levels may have been excavated following previous potential manufacturing uses) CoPC include metal, TRH, BTEX, VOC, OCP **S4:** Current and Former buildings CoPC include asbestos, synthetic mineral fibres (SMF), lead (in paint) and PCB

The following potential human and environmental receptors, along with relevant potential pathways, have been identified and summarised in Table 8. Note terrestrial ecology is not considered to be a receptor for the site given the site is fully paved with basement levels.

Table 8: Summary of potential receptors and pathways

Potential human receptors
HR1: Current users [commercial] **HR2:** Construction and maintenance workers **HR3:** End users [commercial] **HR4**: Adjacent site users [commercial / residential]
Potential environmental receptors
ER1: Surface water [Darling harbour] **ER2:** Groundwater
Potential pathways to human receptors
HP1: Ingestion and dermal contact **HP2:** Inhalation of dust and / or vapours
Potential pathways to environmental receptors
EP1: Surface water run-off **EP2:** Leaching of contaminants and vertical migration into groundwater **EP3:** Lateral migration of groundwater providing base flow to water bodies

7.1 Summary of potentially complete exposure pathways

A 'source–pathway–receptor' approach has been used to assess the potential risks of harm being caused to human or environmental receptors from contamination sources on or in the vicinity of the site, via exposure pathways (potential complete pathways). The possible pathways between the above sources (S1 to S4) and receptors are provided in below Table 9.

Table 9: Summary of potentially complete exposure pathways

Source and CoPC	Exposure pathway	Receptor	Risk management action
S1: Fill: metals, PFAS, TRH, BTEX, PAH, PCB, OCP, phenols and asbestos **S2:** Aboveground diesel storage tank: metals, TRH, BTEX, PAH, phenols and VOC **S3**: Current and former land use: metals, TRH, BTEX, PAH, and VOC	**HP1:** Ingestion and dermal contact **HP2:** Inhalation of dust and / or vapours	**HR1:** Current users [Commercial] **HR2:** Construction and maintenance workers **HR3:** End users [Commercial]	An intrusive investigation is recommended to assess possible contamination including testing of the soils. Depending on the results of the soil investigation, further investigation (e.g. of groundwater) may be required.
	HP2: Inhalation of dust and / or vapours	**HR4:** Adjacent site users [commercial / residential]	
	EP1: Surface water run-off **EP3:** Lateral migration of groundwater providing base flow to water bodies	**ER1:** Surface water	
	EP2: Leaching of contaminants and vertical migration into groundwater	**ER2:** Groundwater	
S4: Former and current buildings: asbestos, synthetic mineral fibres (SMF), lead (in paint) and PCB	**HP1:** Ingestion and dermal contact **HP2:** Inhalation of dust and / or vapours	**HR1:** Current users [Commercial] **HR2:** Construction and maintenance workers **HR3:** End users [commercial] **HR4:** Adjacent site users [commercial]	A hazardous building materials survey is recommended prior to any demolition works.

8. Sampling and analysis plan

8.1 Data quality objectives

The sampling plan was devised with reference to the seven-step data quality objectives (DQO) process, which is provided in Appendix B, Schedule B2, NEPC (2013). The data quality objective process is outlined in Appendix E.

8.2 Soil sampling and analysis rationale

Based on the CSM and data quality objectives (DQO), the following sampling rationale was adopted.

Opportunistic samples were collected from six geotechnical boreholes, with collection of samples at regular intervals, changes in strata or upon signs of contamination, extending a minimum of 0.5 m into natural soils. Borehole locations are shown on Drawing D.002, Appendix A. It is noted that the geotechnical boreholes were targeted footings and may not be representative of the general subsurface conditions across the site.

Representative samples from five locations (S01 / BH101, BH102, BH103, BH105 and BH106) were selected to provide general coverage and analysed for CoPC as mentioned in the SAC (Section 7). However, it is noted that while VOC and asbestos were identified CoPC, samples were not analysed for these contaminants as limited to no fill was encountered during the investigation, and the sample recovery method not being considered reliable for VOC (due to the high level of disturbance in core recovery). Three soil vapour pins were installed to target the above ground diesel tank to screen for VOC.

The general sampling methods are described in the field work methodology, included in Appendix G.

8.3 Soil vapour sampling and analysis rationale

In order to assess the risk of sub-slab soil vapour at the site and evaluate whether historical or current land uses (including the storage of diesel) have impacted the site, three soil vapor pins SV1 to SV3 were installed and field screened for VOC by using a PID. The locations were selected based on the following rational:

- SV1 was positioned to target a pump room with an above ground diesel storage tank identified during site walkover; and
- SV2 and SV3 were positioned down-gradient of the pump room for general site coverage.

The locations of SV1 TO SV3 are shown on Drawing D.002, Appendix A.

The general sampling methods are described in the field work methodology, included in Appendix G.

9. Site assessment criteria

The site assessment criteria (SAC) applied in the current investigation are informed by the CSM (Section 7) which identified human receptors to potential contamination on the site. Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1 of NEPC (2013).

The investigation and screening levels applied in the current investigation comprise levels adopted for a generic commercial land use scenario. The derivation of the SAC is in Appendix F, and the adopted SAC are listed on the summary analytical results tables in Appendix I.

10. Results

10.1 Field work results

The borehole logs for this assessment are provided in Appendix H. The logs recorded the following general sub-surface profile:

Concrete	160 mm to 430 mm thick concrete slab from surface level. Sometimes including a thin layer of gravel, sand or clay fill which separated the concrete slab from the possible footings.
Possible Footings	Possible concrete footings were encountered below the concrete slab at: BH101 - 0.43 m to 1.4 m BH102 – 0.43 m to 1.48 m BH103 – 0.2 m to 1.52 m BH104 – 0.25 m to 1.33 m BH105 – 0.29 m to 1.43 m BH106 – 0.28 m to 1.65 m
Hawkesbury Sandstone	Generally ranging from medium to high strength, moderately weathered to fresh rock, fractured to slightly fractured sandstone encountered below the concrete footings at depths of between 1.33 m to 1.65 m to the maximum investigation depth of 4.94 m. BH105 and BH106 was drilled within or in close proximity to the expected alignment of the fault zone crossing through the site. BH106 encountered low strength, with very low, medium and high strength band, highly to moderately weathered, highly fractured to fragmented sandstone. BH105 encountered sandstone comparable to other areas of the site with a zone of distinctly weathered low to medium strength sandstone at 3.4 m.

It is noted that little to no fill materials were found in the boreholes, and as such, natural rock was sampled for site characterisation from borehole locations BH102, BH103 and BH106. Fill material was sampled from BH101 and BH105.

No visual or olfactory evidence (e.g. staining, odours, free phase product) was observed during the investigations to suggest the presence of contamination within the soils at the site.

The PID screening recorded values of less than 1 ppm suggesting the absence, or very low concentrations, of VOC in the samples tested.

The PID screening of all three soil vapor pins recorded values of less than 1 ppm suggesting the absence, or very low concentrations, of VOC in the sub-slab soil.

No free groundwater was observed during drilling of boreholes, noting the use of drilling fluids precluded groundwater observations. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

10.2 Laboratory analytical results

The results of laboratory analysis are summarised in the following tables in Appendix I:

- Table 1: Summary of results of soil analysis.

The laboratory certificate of analysis together with the chain of custody and sample receipt information is provided in Appendix J.

10.3 Data quality assurance and quality control

The data quality assurance and quality control (QA / QC) results are provided in Appendix E. Based on the results of the field QA and field and laboratory QC, and evaluation against the data quality indicators (DQI) it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

11. Discussion

The analytical results for TRH, BTEX, phenols, OCP, OPP, and PCB in all samples tested were below the laboratory practical quantitation limit (PQL) and the SAC. The analytical results for metals and some PAH were above the PQL, but below the SAC in one or more of the samples tested.

The PID screening of all three soil vapor pins recorded values of less than 1 ppm, which is not considered to be representative of the presence of significant concentration of volatile vapours in the sub slab horizon.

12. Conclusions and recommendations

No change in land use is included in the proposed development. The proposed redevelopment includes extending the existing 11-storey hotel building an additional 11 storeys. The proposed redevelopment aims to retain as much of the existing structure as possible to reduce the embodied carbon emissions of the construction and to align with the sustainability objectives of the City of Sydney council.

No bulk excavation is expected as part of the redevelopment. However, excavation is expected to be required for lift pits, footing expansions and services. It is noted that final architectural or engineering plans were not available at the time of reporting.

The investigation comprised a desktop study and a limited scope of opportunistic soil investigation from boreholes drilled to assess current footings. The site history shows that the site has been used for commercial / industrial purposes since the 1930s before being developed into a hotel in the 1980s and 1990s.

Limited fill was identified in the boreholes (no fill was recorded at BH102, BH103 and BH106), although it is noted that this may not be representative of conditions away from the current footings. Samples were tested from the fill (two samples) and from the natural sandstone (three samples). The concentration of contaminants in all analysed soil / rock samples were below the adopted SAC.

Based on the results of this PSI, it is considered that the site can be made suitable, from a contamination perspective, under the proposed development subject to the following recommendations:

- Additional soil vapour sampling within the lower basement to assess potential risk of VOC / diesel contamination impacting air quality in the building. If results record potentially significant VOC or TRH in soil vapour, further assessment (including of groundwater) should be undertaken in accordance with the recommendation of the Environmental Consultant;
- If there is any change in land use, or significant excavation, proposed further assessment of soils may be warranted;
- Development of an Unexpected Finds Protocol (UFP) that must remain in place during future civil and construction works to enable identification and management of contamination; and
- Undertaking a hazardous building materials survey of the current buildings within the site to assess the presence or otherwise of hazardous building materials prior to redevelopment. Identified hazardous building materials are then to be appropriately managed in accordance with applicable legislation.

It is also recommended that waste classification assessment will be required for any excess fill or natural soils / rock arising from the proposed redevelopment that may require offsite disposal.

13. References

CRC CARE. (2017). *Risk-based Management and Remediation Guidance for Benzo(a)pyrene*. Technical Report no. 39: Cooperative Research Centre for Contamination Assessment and Remediation of the Environment.

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

NSW EPA. (2020). *Guidelines for Consultants Reporting on Contaminated Land*. Contaminated Land Guidelines: NSW Environment Protection Authority.

NSW EPA. (2022). *Contaminated Sites, Sampling Design Guidelines*. NSW Environment Protection Authority.

14. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report (or services) for this project at 150 Day Street, Sydney, NSW in line with Douglas' proposal dated 2 September 2024 and acceptance received from Jack Rixon of Mecone C/- UOL Group Limited. The work was carried out under Douglas' Engagement Terms. This report is provided for the exclusive use of Mecone C/- UOL Group Limited for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report, Douglas has necessarily relied upon information provided by the client and / or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and / or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and / or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the environmental components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

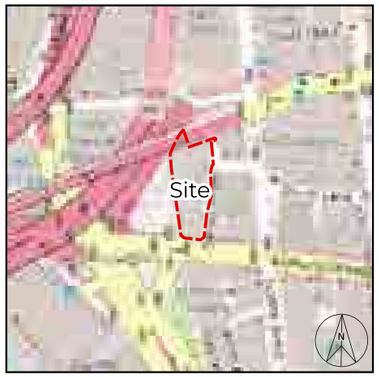
This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Appendix A

Drawings





SITE LOCATION

1123

LEGEND

Site Boundary

0 10 20 30 40 50 m

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56, adapted from aerial imagery from Metro Map.
2. Site boundary is approximate only.

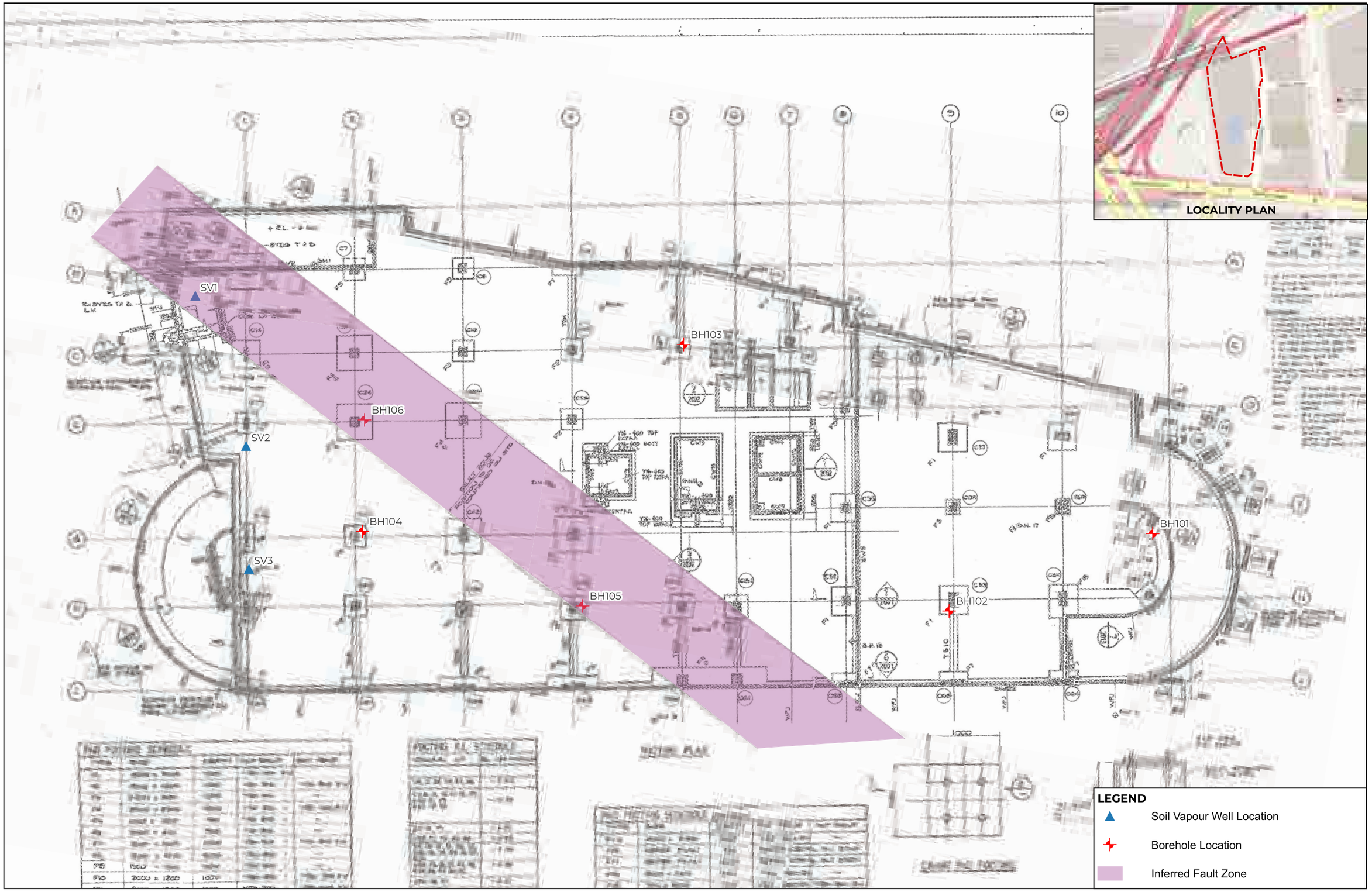
Douglas PARTNERS

CLIENT: UOL Group Limited		
OFFICE: Sydney	DRAWN BY: IR	
SCALE: 1:500 @A3	DATE: 25.October.2024	

TITLE: **Site Location and Boundary**
Park Royal Hotel Redevelopment
150 Day Sreet, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	1
REVISION:	0



REV	DESCRIPTION/COMMENT	DATE	DRAWN BY
0	INITIAL ISSUE	26.11.2024	EC

SCALE: 0 3 6 9 12 m
1:250 @ A3

Douglas
OFFICE: SYDNEY
96-98 Hermitage Rd, West Ryde NSW 2114
(02)9809 0666

CLIENT:
UOL Group Limited

NOTE:
1: Base Survey Plan from Media Five Architects, Reference S2000, Revision G (Dated 20.10.1989)

COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 56

PROJECT NAME:
Proposed Hotel Upgrade

PROJECT ADDRESS:
150 Day Street, Sydney

DRAWING TITLE:
Footing Location Plan

PROJECT NO: **231572.01**
DRAWING NO: **1**
REVISION: **0**

1123

Hassell

150 DAY STREET CONSULTANT WORKSHOP

112

016185
Day Street

Prepared for
UOL

Hassell ©
NOVEMBER 2024

PROPOSED DRAWINGS

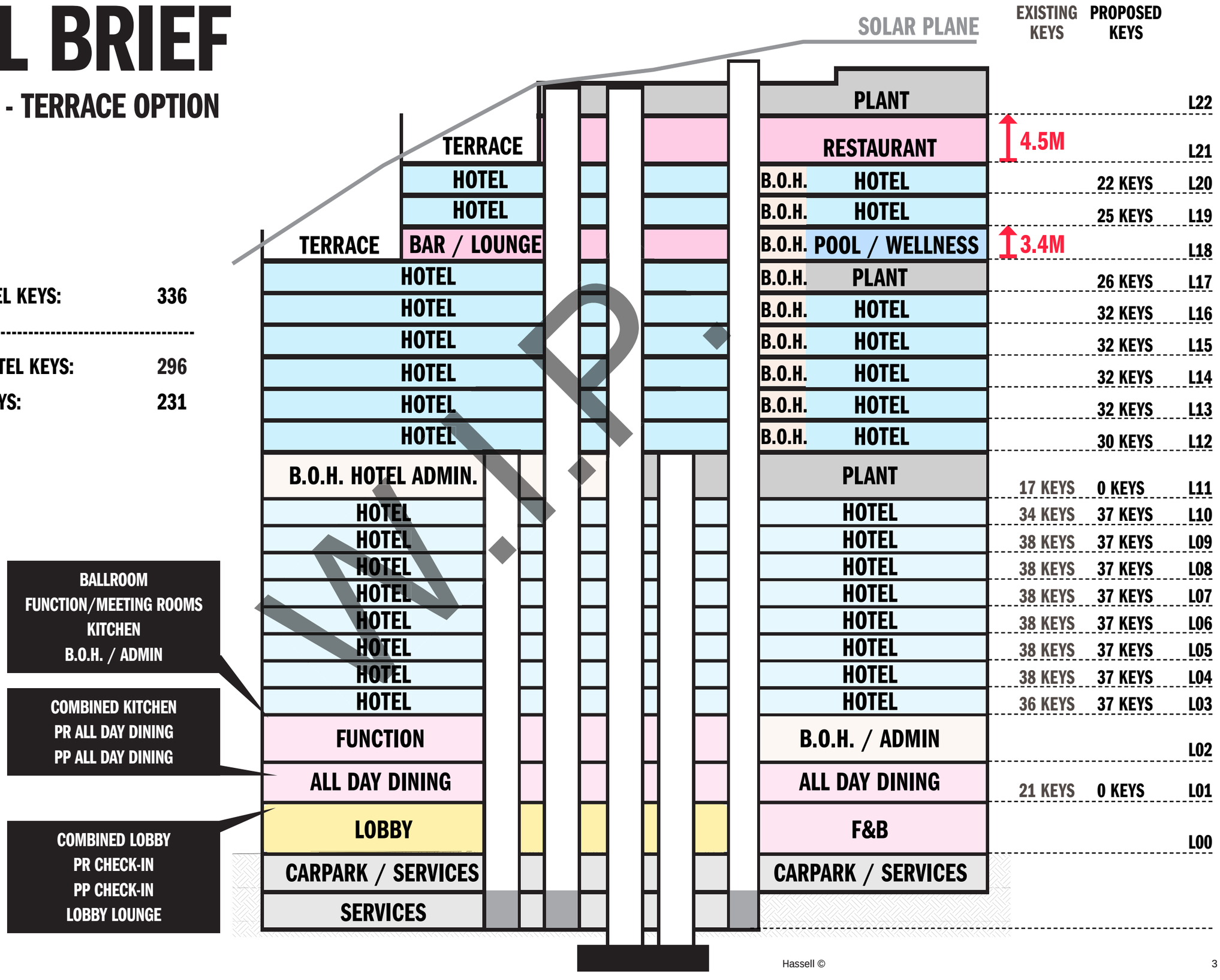
DRAFT - WIP

1126

SPATIAL BRIEF

CONCEPT SECTION - TERRACE OPTION

EXISTING PARK ROYAL HOTEL KEYS:	336
PROPOSED PARK ROYAL HOTEL KEYS:	296
PROPOSED PPHG HOTEL KEYS:	231



WIP

1:125

EXISTING

B02 PLAN - BASEMENT



1128

0 HOTEL KEYS

EXISTING HOTEL

B01 PLAN - CARPARK



STRIP TO STRUCTURE: NEW LAYOUTS, LIFTS, FIRE STAIRS AROUND NEW STRENGTHENED COLUMNS

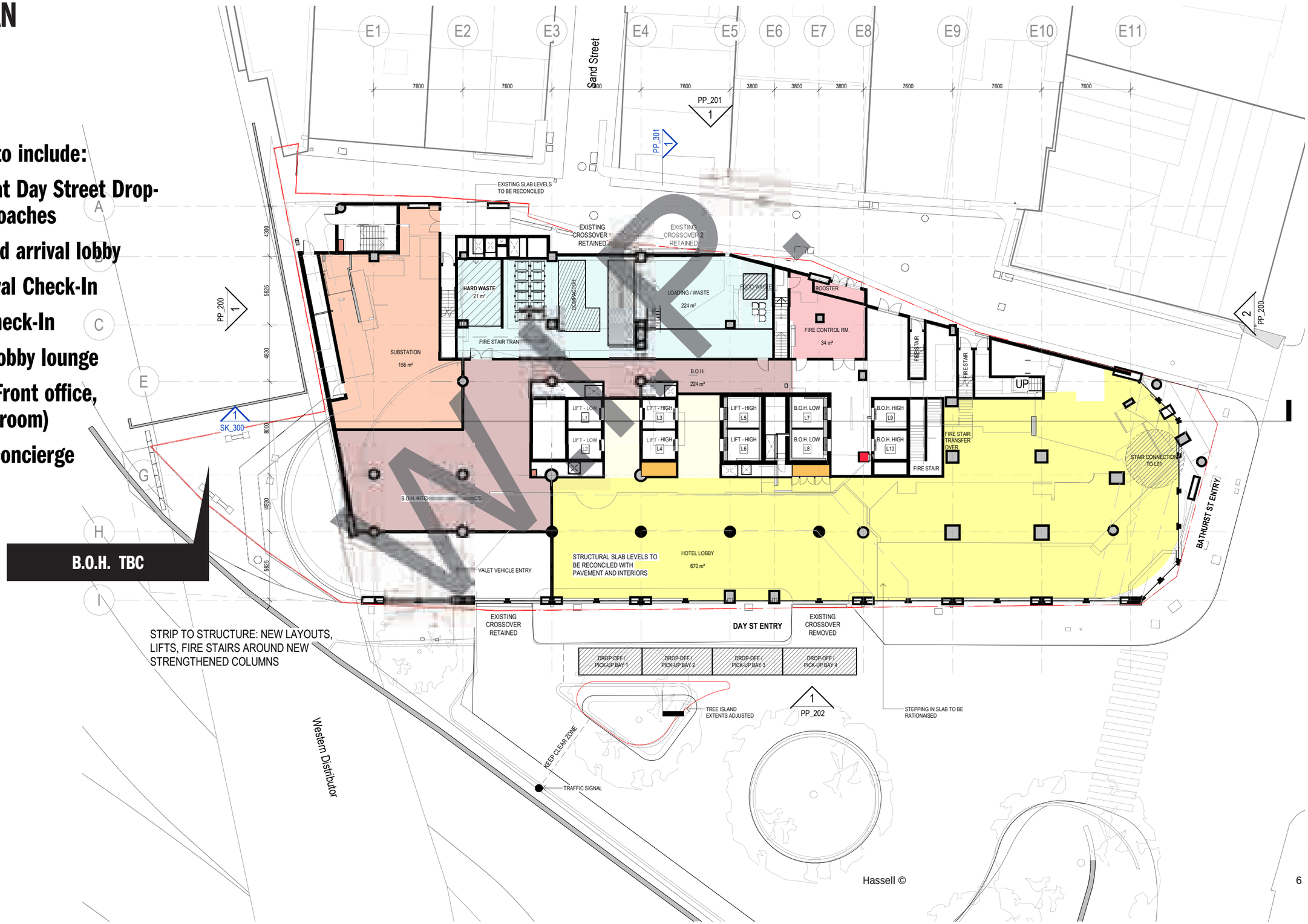
1120

0 HOTEL KEYS

EXISTING HOTEL

LEVEL G PLAN

- **Level 0 Brief to include:**
  - **Canopy at Day Street Drop-Off for coaches**
  - **Combined arrival lobby**
  - **Park Royal Check-In**
  - **PPHG Check-In**
  - **Shared lobby lounge**
  - **B.O.H. (Front office, luggage room)**
  - **Shared concierge**



1120

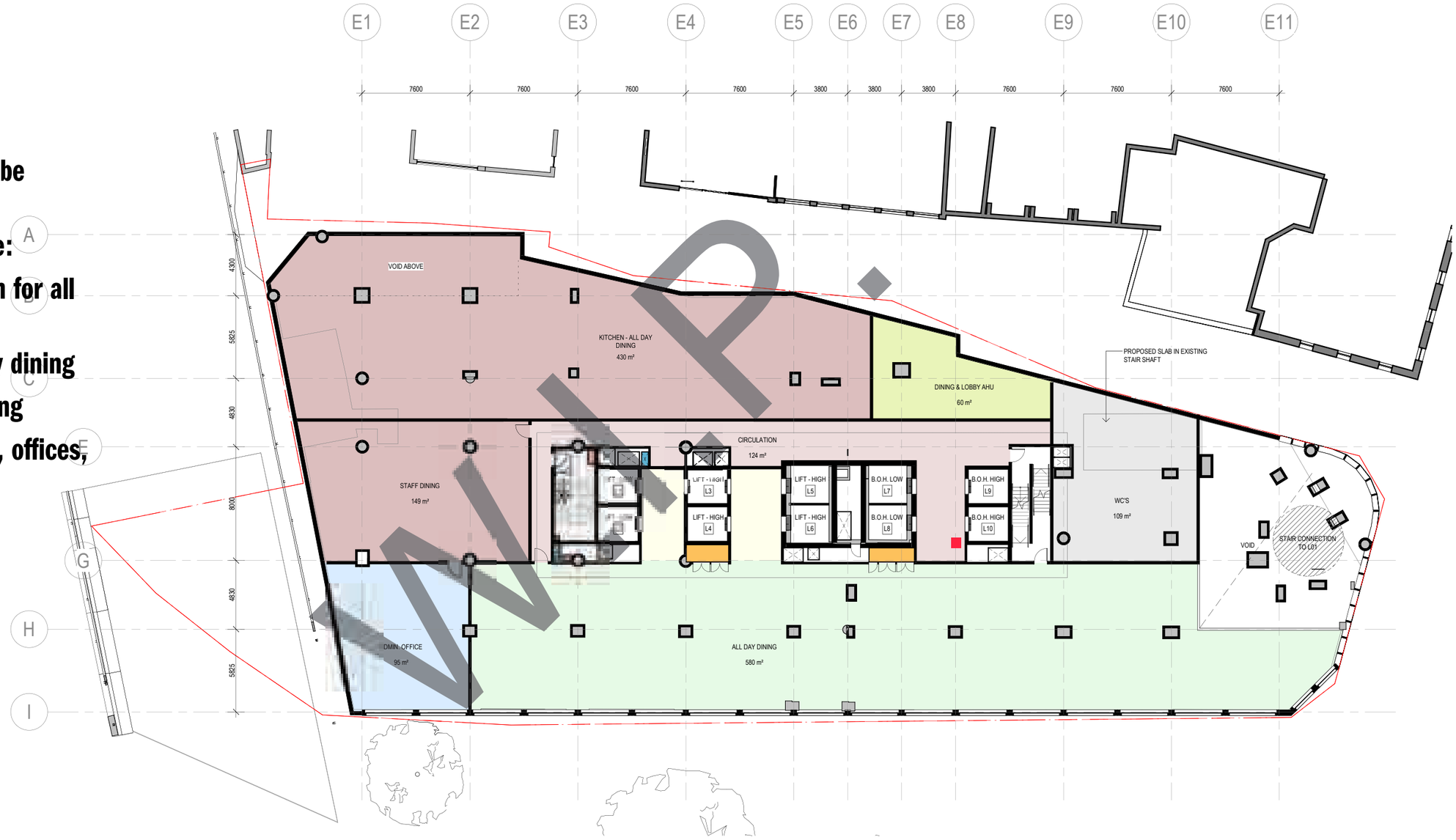
0 HOTEL KEYS

Hassell ©

EXISTING HOTEL

LEVEL 01 PLAN

- **Typical hotel rooms to be demolished.**
- **Level 1 Brief to include:**
  - **Combined kitchen for all day dining**
  - **Park Royal all day dining**
  - **PPHG all day dining**
  - **B.O.H. (coldroom, offices, etc)**



0 HOTEL KEYS

Hassell ©

EXISTING HOTEL

LEVEL 02 PLAN

- **Level 2 Brief - Function Facilities to include:**
  - **Ballroom**
  - **Function room**
  - **Meeting rooms**
  - **Ballroom kitchen**
  - **B.O.H. (Coldroom) / admin office**



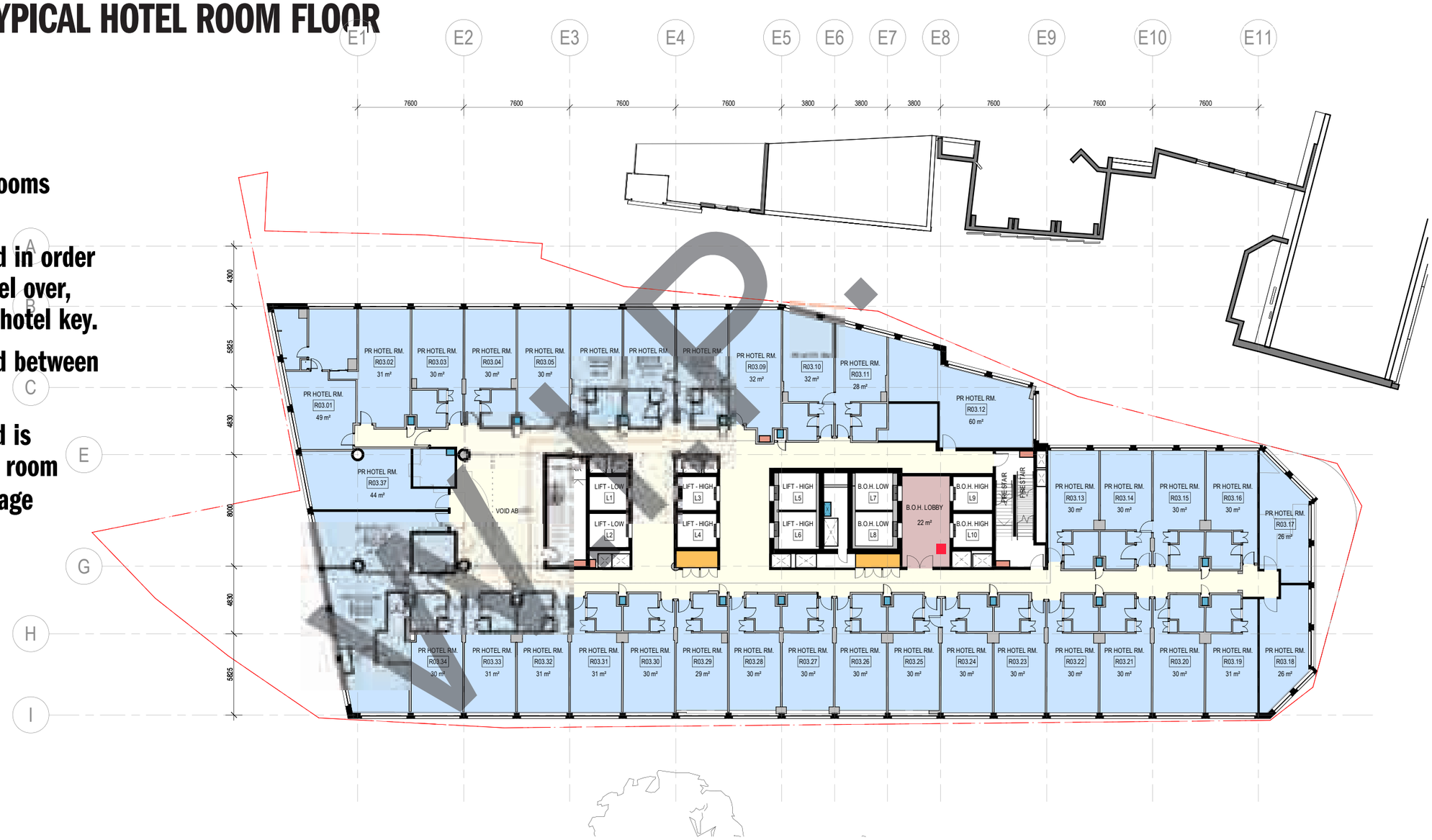
0 HOTEL KEYS

1132

EXISTING HOTEL

LEVEL 03 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

EXISTING HOTEL

LEVEL 04 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

Hassell ©

EXISTING HOTEL

LEVEL 05 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

EXISTING HOTEL

LEVEL 06 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**

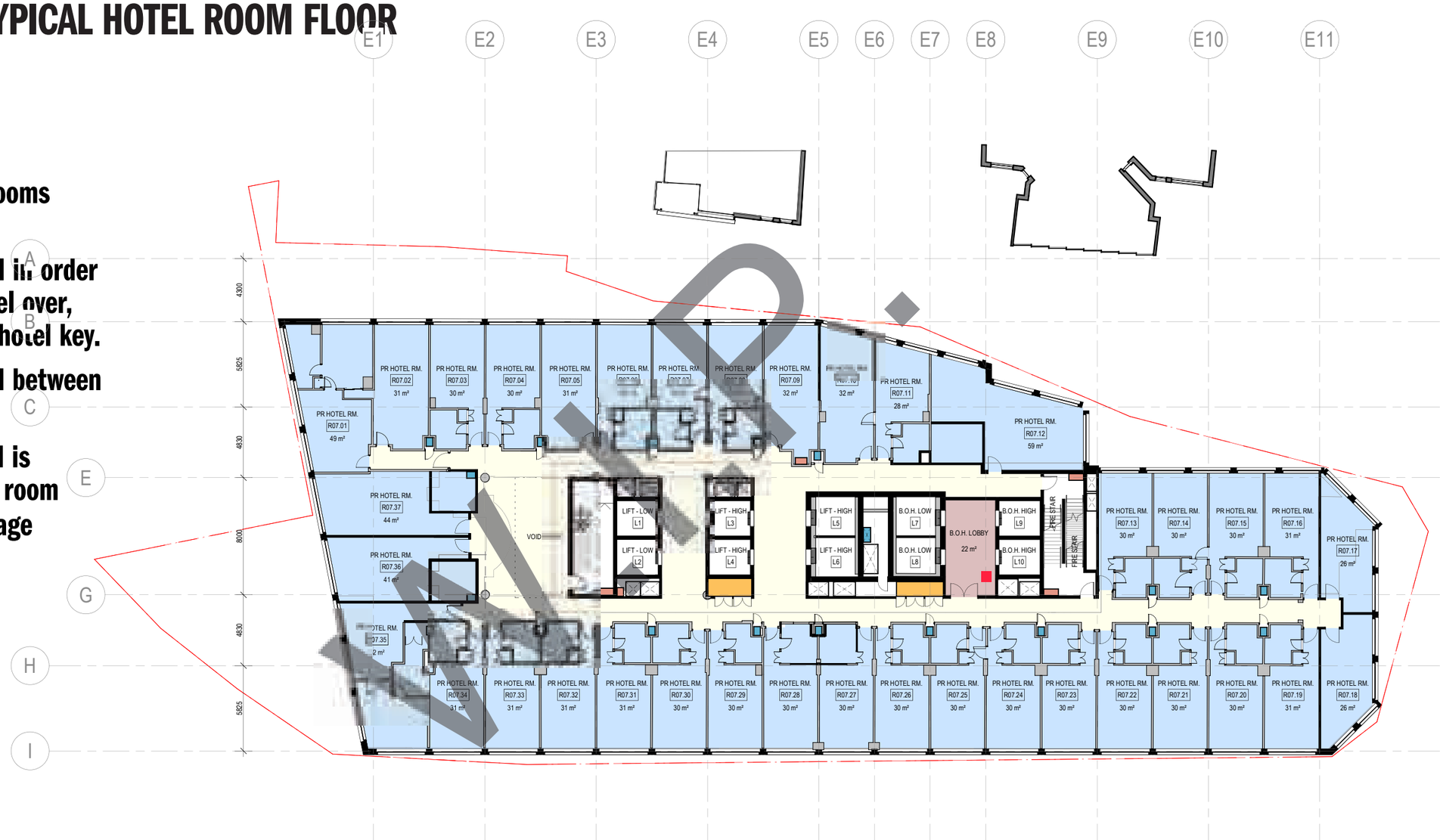


37 HOTEL KEYS

EXISTING HOTEL

LEVEL 07 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

EXISTING HOTEL

LEVEL 08 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

EXISTING HOTEL

LEVEL 09 PLAN - TYPICAL HOTEL ROOM FLOOR

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



37 HOTEL KEYS

EXISTING HOTEL

LEVEL 10 PLAN

- **Majority of the hotel rooms have been retained.**
- **A new core is proposed in order to service the new hotel over, removing one existing hotel key.**
- **Service lifts are shared between both hotel offers**
- **Existing structural grid is retained and therefore room size is 31 sqm on average**



Existing bar / club lounge removed and replaced with new hotel rooms

37 HOTEL KEYS

NEW HOTEL

LEVEL 11 PLAN - TRANSFER FLOOR

- **Existing hotel rooms removed for transfer floor.**



1140

0 HOTEL KEYS

NEW HOTEL

LEVEL 12 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**



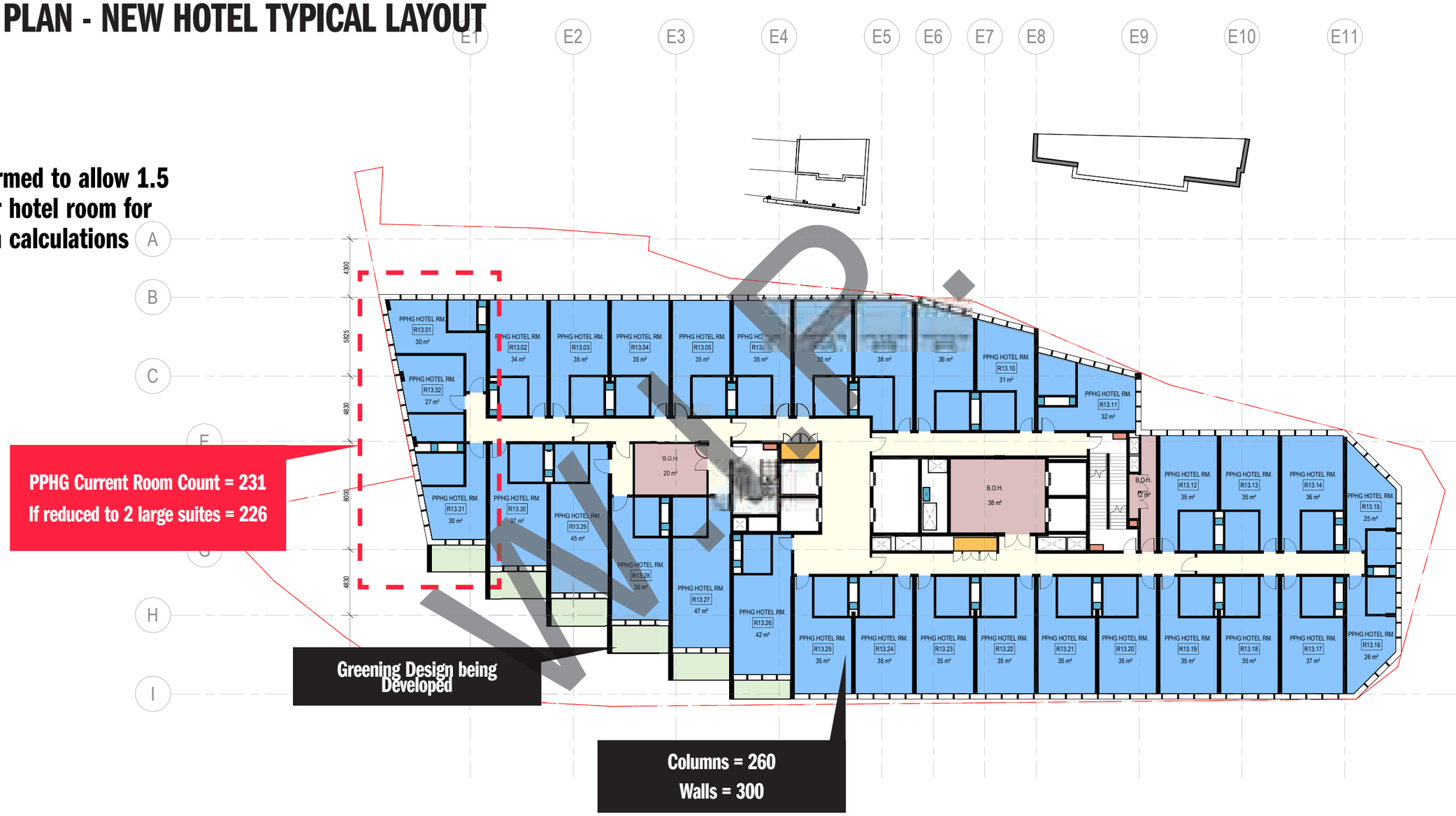
30 HOTEL KEYS

Hassell ©

NEW HOTEL

LEVEL 13 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**



32 HOTEL KEYS

Hassell ©

NEW HOTEL

LEVEL 14 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**



32 HOTEL KEYS

NEW HOTEL

LEVEL 15 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**



32 HOTEL KEYS

NEW HOTEL

LEVEL 16 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**



PPHG Current Room Count = 231
If reduced to 2 large suites = 226

Greening Design being Developed

Columns = 260
Walls = 300

32 HOTEL KEYS

Hassell ©

NEW HOTEL

LEVEL 17 PLAN - NEW HOTEL TYPICAL LAYOUT

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**
- **Rooms to south removed for Services & Pool above**

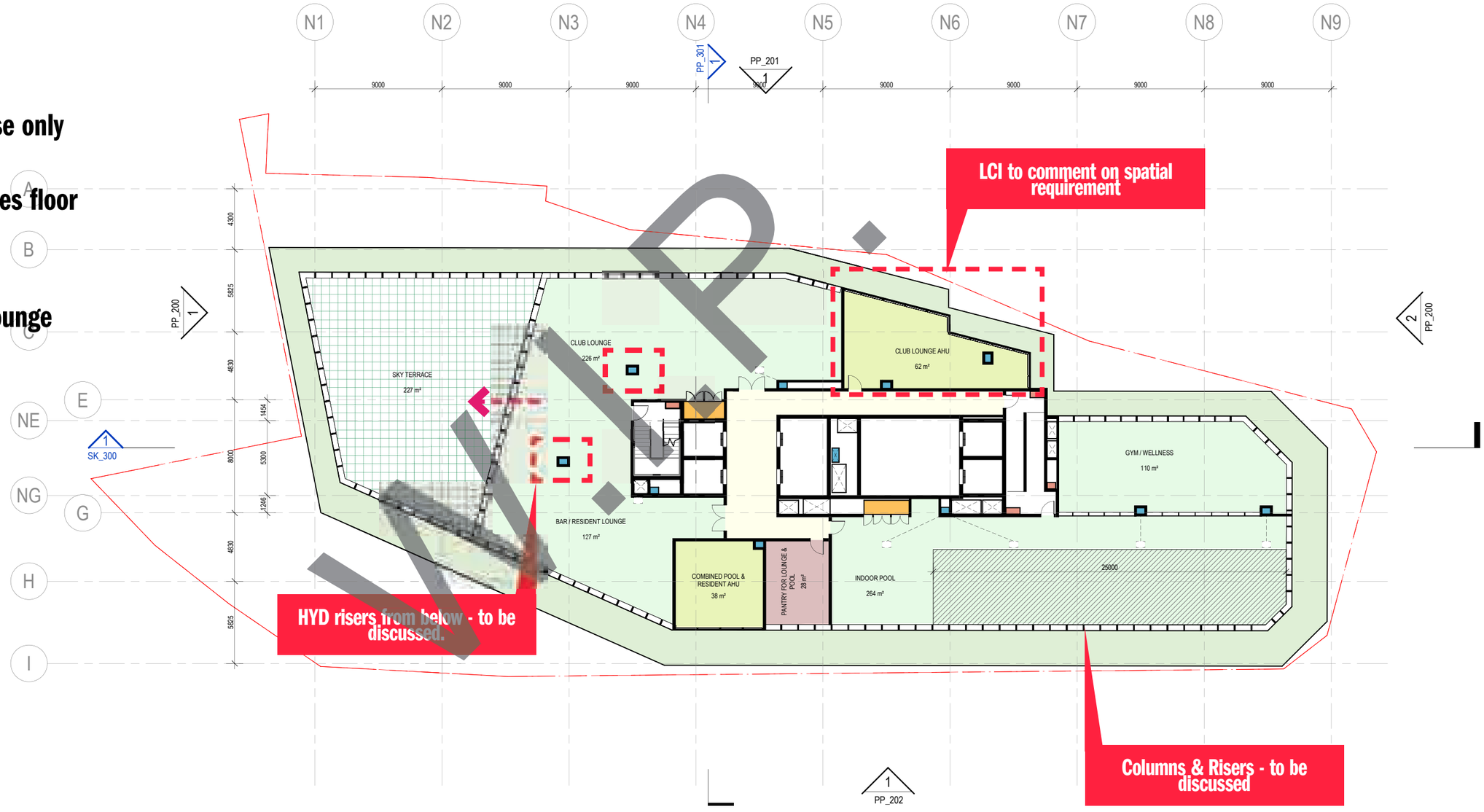


26 HOTEL KEYS

NEW HOTEL

LEVEL 18 PLAN - TERRACE

- **Level 18 is for hotel use only (existing population)**
- **Level 18 PPHG amenities floor to include:**
  - **Club lounge**
  - **Bar / Resident lounge**
  - **Gym**
  - **Pool**

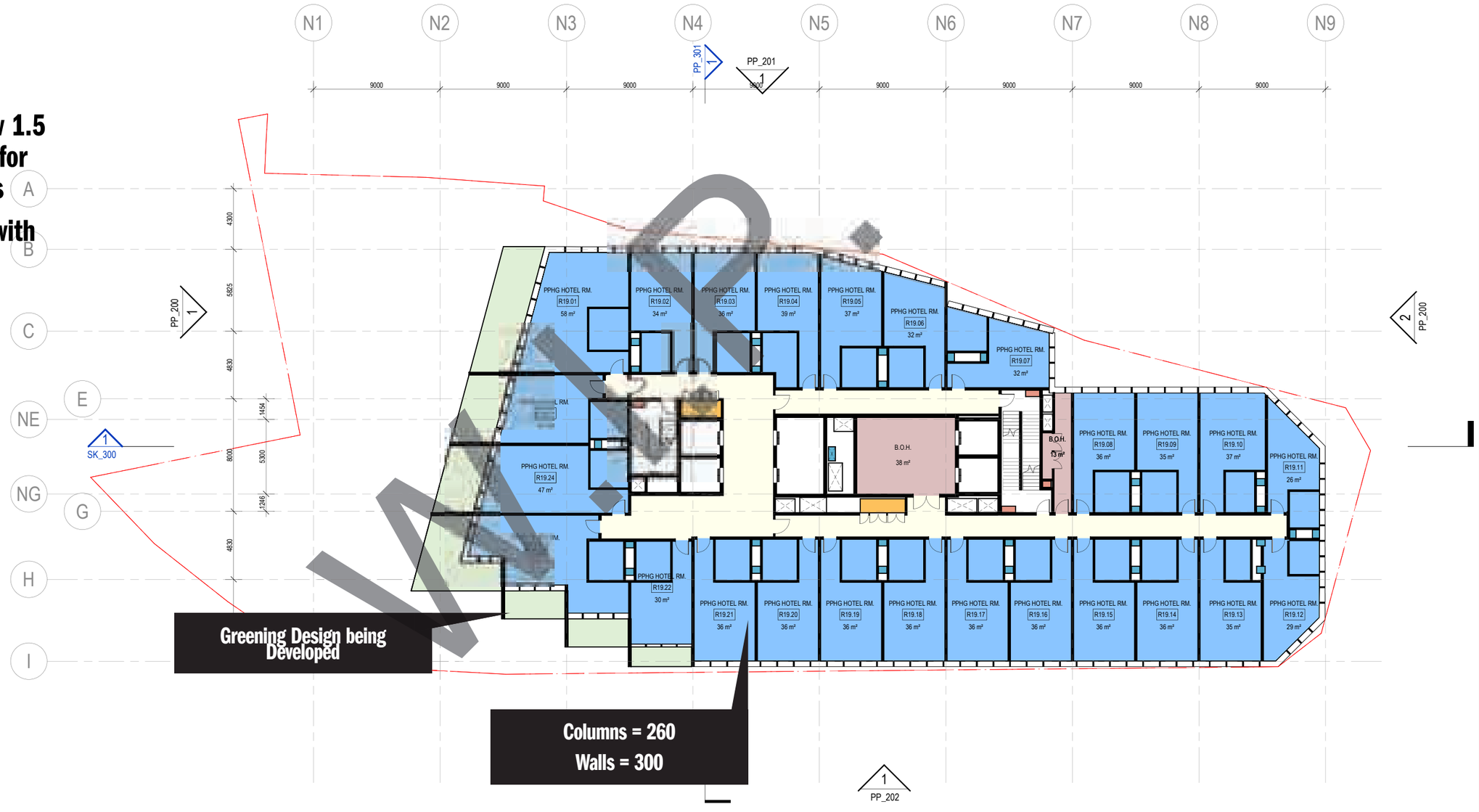


0 HOTEL KEYS

NEW HOTEL

LEVEL 19 PLAN

- **UOL confirmed to allow 1.5 people per hotel room for population calculations**
- **Hotel Room keys TBC with heights of F&B below**



25 HOTEL KEYS

Hassell ©

NEW HOTEL

LEVEL 20 PLAN

- **Hotel Room keys TBC with heights of F&B below**

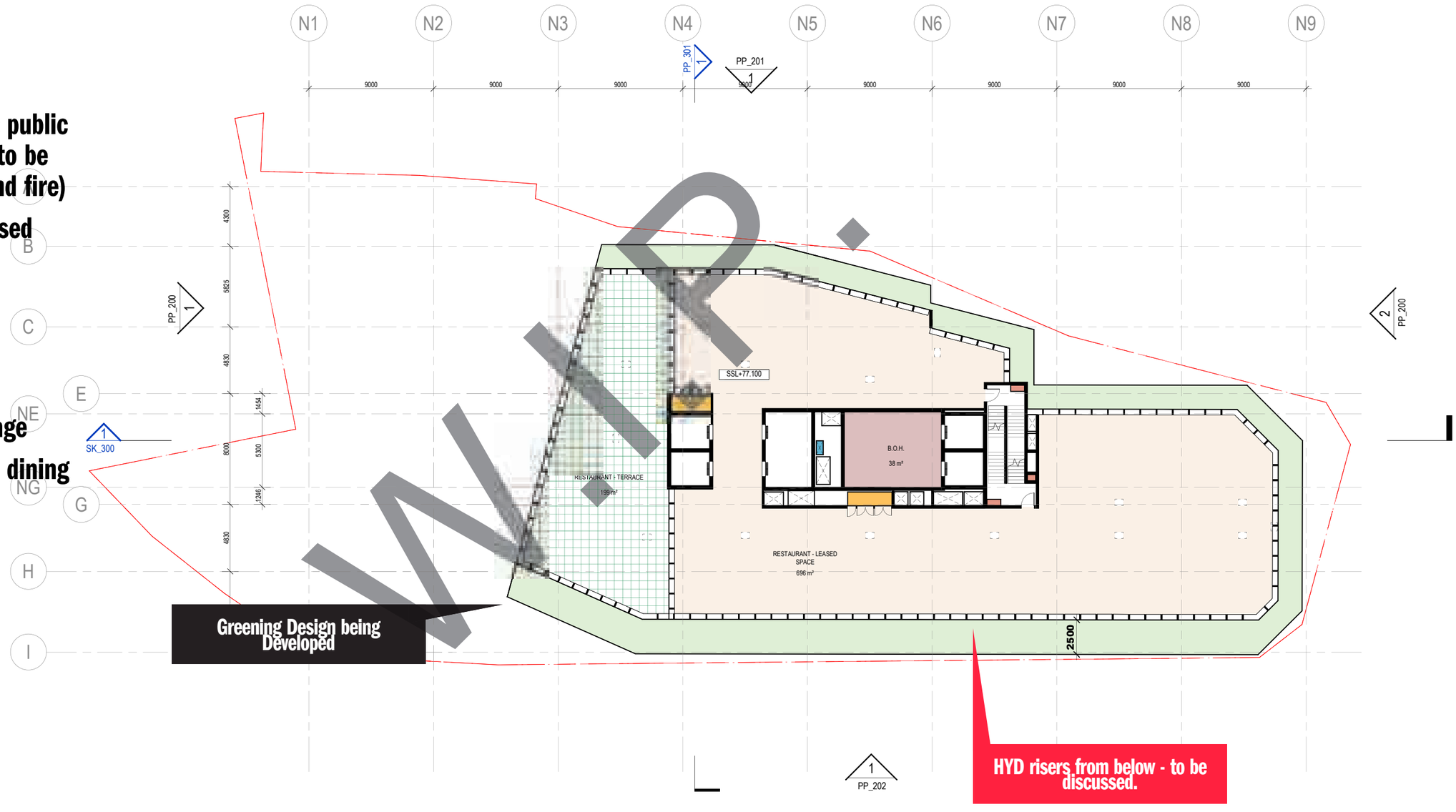


22 HOTEL KEYS

NEW HOTEL

LEVEL 21 PLAN

- **Level 21 to service the public (additional population to be allowed for in lifting and fire)**
- **Level 21 to include leased tenancy:**
  - **Restaurant**
  - **Kitchen**
  - **Toilets**
  - **Coldroom / Storage**
  - **Indoor / Outdoor dining**



1150

0 HOTEL KEYS

Hassell ©

NEW HOTEL

LEVEL 22 PLAN

- **Level 21 to service the public (additional population to be allowed for in lifting and fire)**
- **Level 21 to include leased tenancy:**
  - **Restaurant**
  - **Kitchen**
  - **Toilets**
  - **Coldroom / Storage**
  - **Indoor / Outdoor dining**



w.i.p.

1152

0 HOTEL KEYS

3D VIEWS

L11

View To North / City



1158

L18



L18



P.

1156

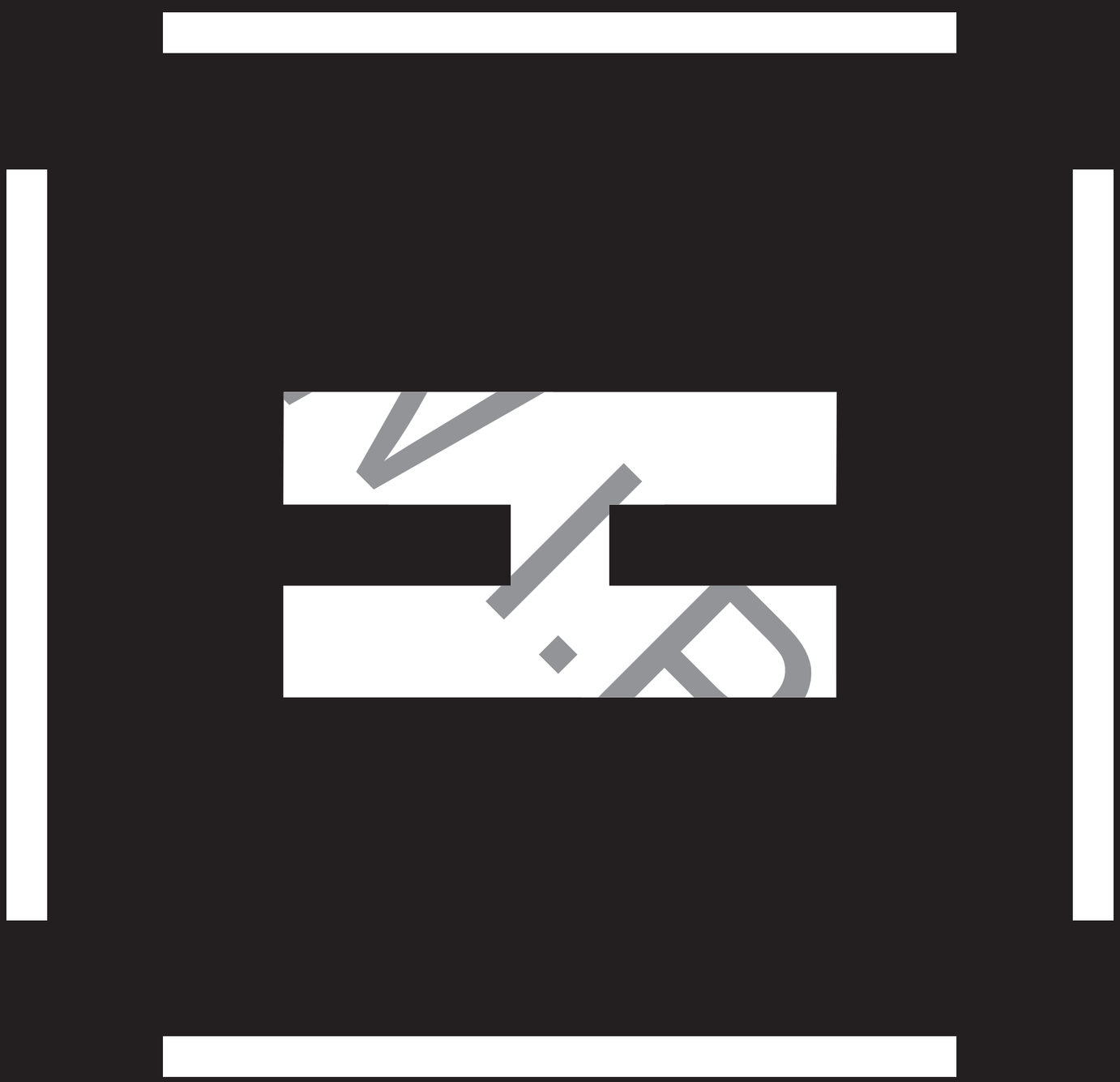
L21



1150

L21





Appendix B

About this Report

About this Report

November 2023

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

continued next page

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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Appendix C

Site History Information:

Appendix C1

Historical Aerial Photographs

1169

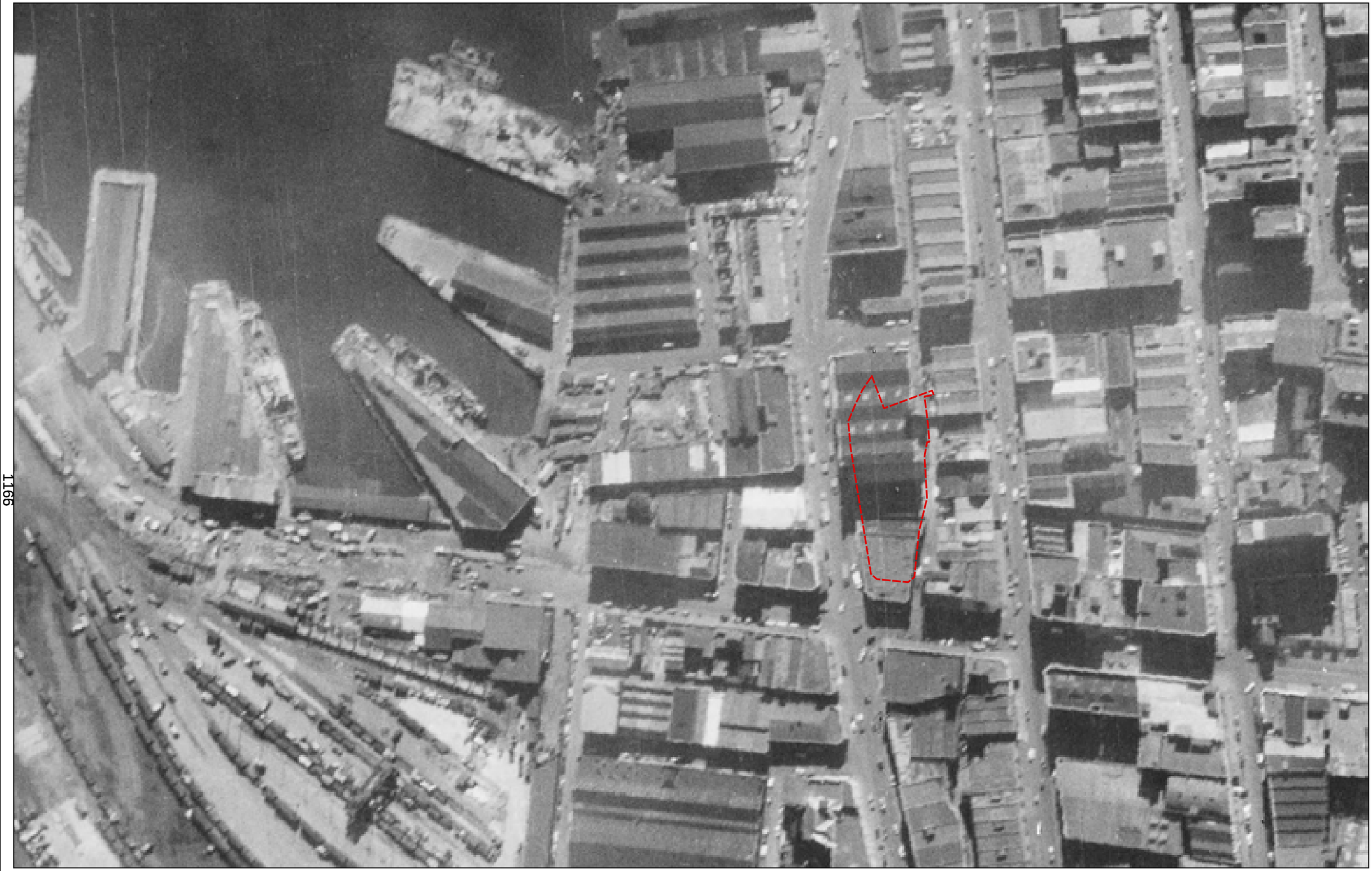
Douglas PARTNERS

CLIENT: UOL Group Limited		
OFFICE: Sydney	DRAWN BY: IR	
SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 1943**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	A
REVISION:	0



1166

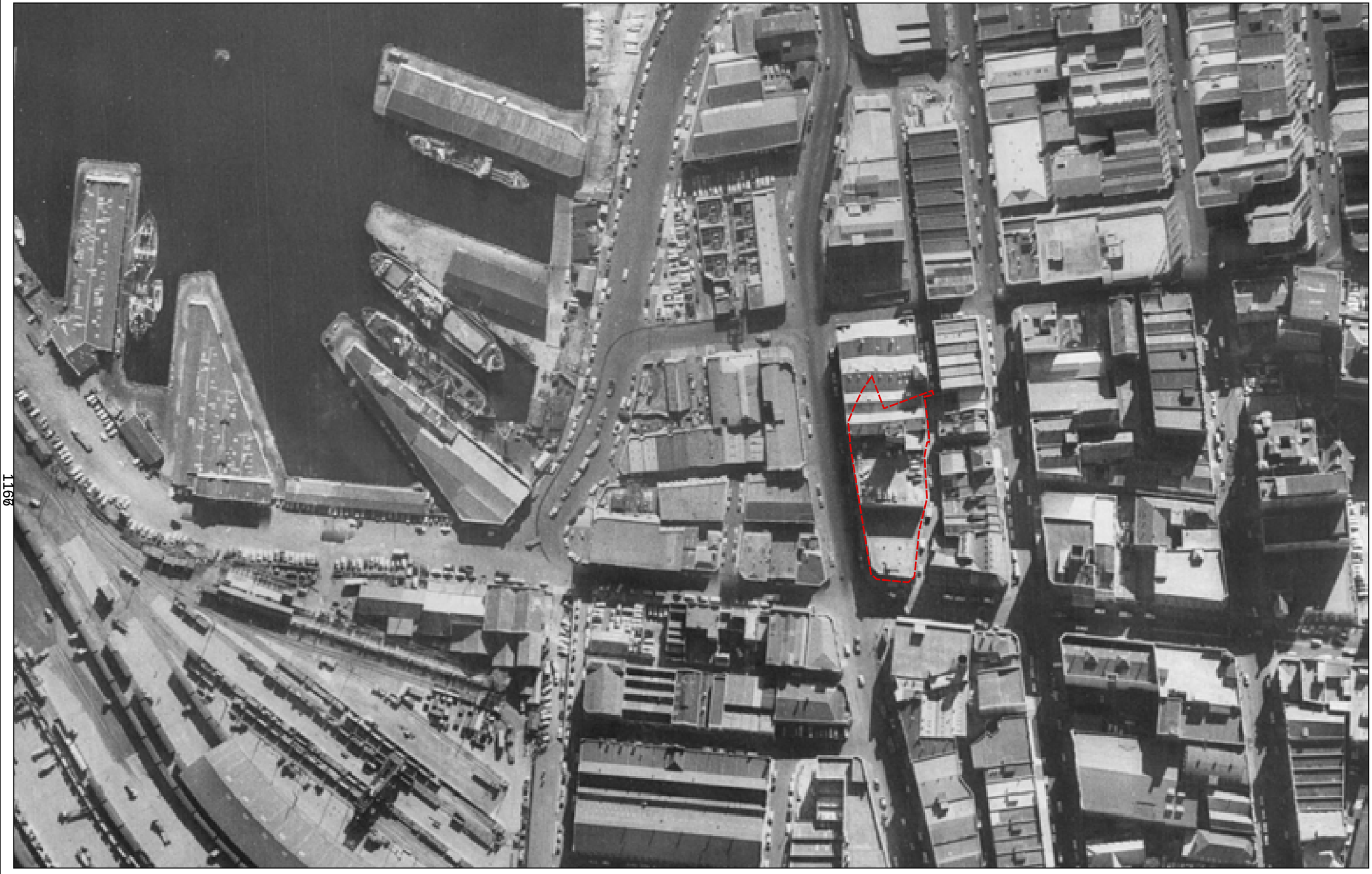
Douglas PARTNERS

CLIENT: UOL Group Limited		
OFFICE: Sydney	DRAWN BY: IR	
SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 1951**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	B
REVISION:	0



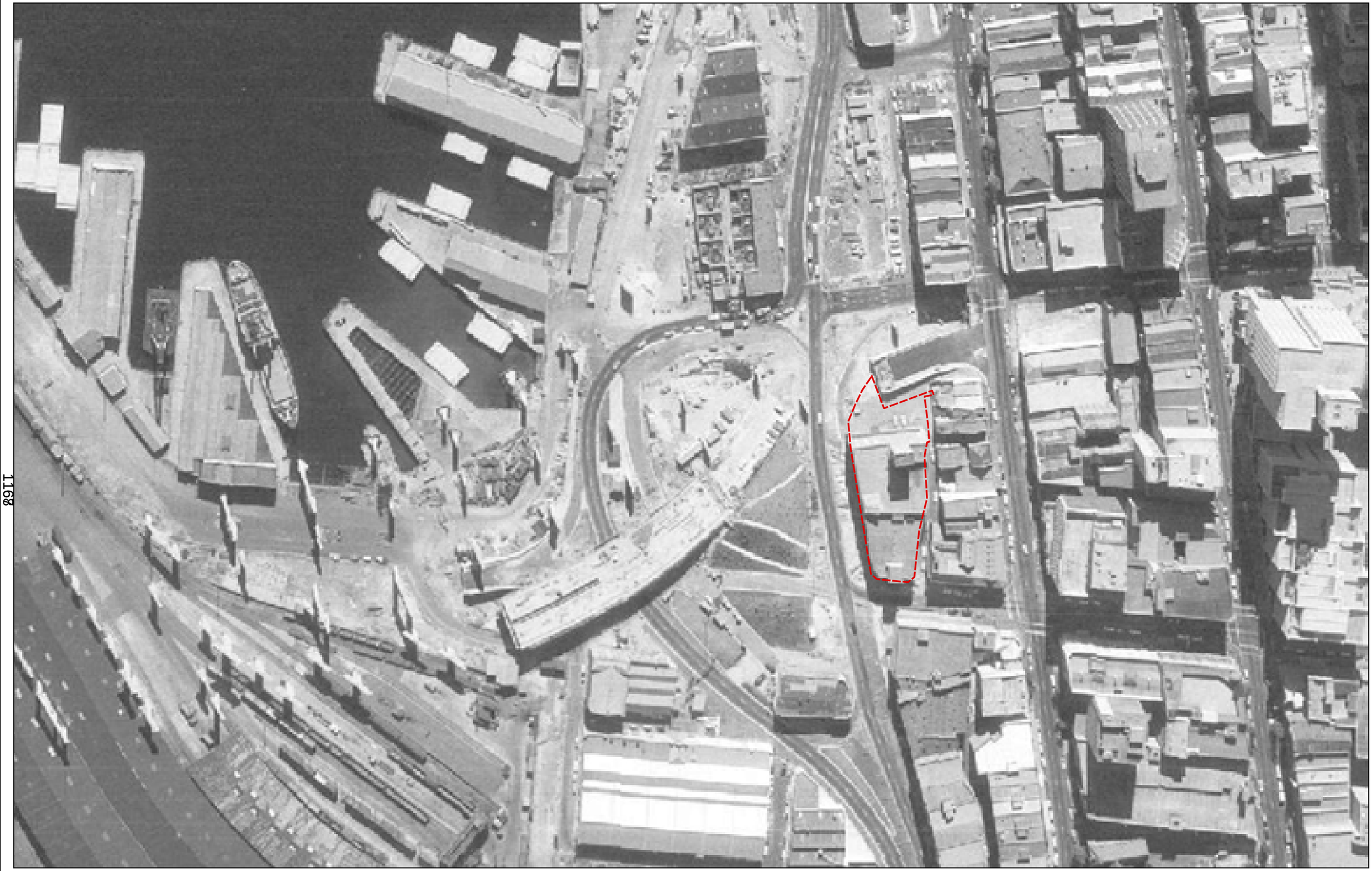
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Douglas PARTNERS	CLIENT: UOL Group Limited		
	OFFICE: Sydney	DRAWN BY: IR	
	SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 1961**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	C
REVISION:	0



1168

Douglas PARTNERS	CLIENT: UOL Group Limited		TITLE: **Historical Aerial Imagery 1978** **Park Royal Hotel Redevelopment** **150 Day Street, Sydney NSW**
	OFFICE: Sydney	DRAWN BY: IR	
	SCALE: 1:1500 @A3	DATE: 25.October.2024	

N

PROJECT:	231572.01
DRAWING No:	D
REVISION:	0



1169

Douglas PARTNERS	CLIENT: UOL Group Limited		
	OFFICE: Sydney	DRAWN BY: IR	
	SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 1982**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	E
REVISION:	0



1100

Douglas PARTNERS	CLIENT: UOL Group Limited	TITLE: **Historical Aerial Imagery 1991**	PROJECT: 231572.01
	OFFICE: Sydney / DRAWN BY: IR	**Park Royal Hotel Redevelopment**	DRAWING No: F
	SCALE: 1:1500 @A3 / DATE: 25.October.2024	**150 Day Street, Sydney NSW**	REVISION: 0

DP.QGIS.A3LandscapeDrawingLayout.Rev3 - P:\231572.00 - SYDNEY, 150 Day Street\7.0 Drawings\7.3 QGIS\231572.00 - SYDNEY, 150 Day Street.qgz



1170

Douglas PARTNERS

CLIENT: UOL Group Limited		
OFFICE: Sydney	DRAWN BY: IR	
SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 2000**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	G
REVISION:	0

1172

Douglas PARTNERS

CLIENT: UOL Group Limited		
OFFICE: Sydney	DRAWN BY: IR	
SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 2014**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	I
REVISION:	0

1173

Douglas PARTNERS	CLIENT: UOL Group Limited		TITLE: **Historical Aerial Imagery 2020** **Park Royal Hotel Redevelopment** **150 Day Street, Sydney NSW**
	OFFICE: Sydney	DRAWN BY: IR	
	SCALE: 1:1500 @A3	DATE: 25.October.2024	

N

PROJECT:	231572.01
DRAWING No:	J
REVISION:	0



117@3

Douglas PARTNERS	CLIENT: UOL Group Limited		
	OFFICE: Sydney	DRAWN BY: IR	
	SCALE: 1:1500 @A3	DATE: 25.October.2024	

TITLE: **Historical Aerial Imagery 2024**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

N

PROJECT:	231572.01
DRAWING No:	K
REVISION:	0



1179

Douglas PARTNERS

CLIENT: UOL Group Limited	
OFFICE: Sydney	DRAWN BY: RF
SCALE: 1:500 @A3	DATE: 25 October 2024

TITLE: **Historical Aerial Imagery 1982**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

PROJECT	231572.01
DRAWING No	E
REVISION	0



Douglas PARTNERS

CLIENT:	
OFFICE: Sydney	DRAWN BY:
SCALE: 1:500 @A3	DATE: 25 October 2024

TITLE: **Historical Aerial Imagery 2000**
Park Royal Hotel Redevelopment
150 Day Street, Sydney NSW

PROJECT	
DRAWING No	
REVISION	0

Appendix C2

Historical Title Deeds

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Re: - 150 Day Street, Sydney

Description: - Lot 20 D.P. 1046870

As regards the part tinted yellow on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
03.12.1925 (1925 to 1926)	The Municipal Council of Sydney	Volume 3807 Folio 132
08.03.1926 (1926 to 1936)	John Sands Limited	Volume 3807 Folio 132
13.03.1936 (1936 to 1979)	Geo. H. Martin & Co. Limited Now Geo. H. Martin & Co. Pty Limited	Volume 3807 Folio 132
06.12.1979 (1979 to 1982)	Bruttso Pty Limited	Volume 3807 Folio 132
31.08.1982 (1982 to 1988)	Tabma Properties Pty Limited	Volume 3807 Folio 132
02.12.1988 (1988 to 1994)	Skydane Pty Limited	Volume 3807 Folio 132 Now 1/76514
12.01.1994 (1994 to date)	# Success Venture Pty Limited	1/76514 Then 8/861767 1/1031912 10/1036978 Now 20/1046870

# Denotes Current Registered Proprietor

As regards the part tinted green and numbered (1) on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
16.05.1923 (1923 to 1968)	John Sands Limited	Volume 3453 Folio 215
06.09.1968 (1968 to 1996)	The Commissioner for Main Roads Now Roads & Traffic Authority of New South Wales	Volume 3453 Folio 215 Then 3/773893 Now 8/861767

Continued over.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Continued as regards the part tinted green and numbered (1) on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
06.09.1996 (1996 to date)	# Success Venture Pty Limited	8/861767 Then 1/1031912 10/1036978 Now 20/1046870

# Denotes Current Registered Proprietor

As regards the part tinted green and numbered (2) on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
16.05.1923 (1923 to 1968)	John Sands Limited	Volume 3453 Folio 215
06.09.1968 (1968 to 1988)	The Commissioner for Main Roads	Volume 3453 Folio 215 Now 2/773893
22.07.1988 (1988 to 1994)	Skydane Pty Limited	2/773893
12.01.1994 (1994 to date)	# Success Venture Pty Limited	2/773893 Then 8/861767 1/1031912 10/1036978 Now 20/1046870

# Denotes Current Registered Proprietor

As regards the part tinted blue on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
17.01.1923 (1923 to 1968)	John Sands Limited	Book 1289 No. 6385 (Mortgage)
28.06.1968 (1968 to	The Commissioner for Main Roads	Book 2890 No. 826 Now 2/773893
22.07.1988 (1988 to 1994)	Skydane Pty Limited	2/773893

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Continued as regards the part tinted blue on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
12.01.1994 (1994 to date)	# Success Venture Pty Limited	2/773893 Then 8/861767 1/1031912 10/1036978 Now 20/1046870

# Denotes Current Registered Proprietor

Leases, excluding premises: -

- Various leases affecting the land tinted yellow were found from 28th May 1992 to 1st July 1992, now expired or surrendered – not investigated.
- Various leases affecting the land tinted green and numbered 2 were found from 6th September 1988 to 12th January 1994, now expired or surrendered – not investigated.
- 13.07.2017 (AM 545406) now expired – not investigated.

Easements: -

- 27.08.1996 (D.P. 861767) Easement for Drainage 1.5 wide and Easement for Support 1.5 wide.
- 27.08.1996 (D.P. 861767) Right of Public Footway 3. Wide.
- 27.08.1996 (D.P. 861767) Easement for Drainage 1.5 wide (Designated E).
- 27.08.1996 (D.P. 861767) Easement for Drainage 1.5 wide (Designated D).
- 02.05.2003 (9450438) Easement for Rock Anchors and support variable width.
- 25.01.2006 (D.P. 1092390) Easement for Electricity purposes variable width.

Yours Sincerely
Mark Groll
9 October 2024

Cadastral Records Enquiry Report : Lot 20 DP 1046870

Locality : SYDNEY
Parish : ST ANDREW
LGA : SYDNEY
County : CUMBERLAND



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This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Copy of Plan 11182 registered on 19/07/2011 at 11:11:11 a.m. / Page 1 of 2
A Certificate of Title Registered Electronically / Plan Certified Correct / Plan Type: Deposited / Plan Act: Land Titles Act / Plan Status: Registered
11182
Produced by LANDATA®, Land Victoria, timestamp 19/07/2011 11:11 Page 1 of 2

PLAN FORM 32 To be used in conjunction with Plan Form 2 WARNING: ERASING OR ALTERING ANY LEAD TO PENALTY

DP 77833

SECTION T

SECTION S-S

DAY STREET

Plan Drawing not to scale if this sheet

Certificate of the Registrar-General /Land Titles Act / Part 2 by Authority Byelaw

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
9/10/2024 1:15PM

[redacted]

First Title(s): SEE PRIOR TITLE(S)

[redacted]

Recorded	Number	Type of Instrument	C.T. Issue
2/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
31/8/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
3/12/1991	E101021	CAVEAT	
[redacted]			EDITION 1
			EDITION 2
15/10/1993	I673980	REQUEST	
15/10/1993	I673981	REQUEST	EDITION 3
12/1/1994	I886657	WITHDRAWAL OF CAVEAT	
[redacted]			EDITION 4
13/1/1994	I886662	MORTGAGE	EDITION 5
20/8/1996	DP861767	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

150 Day Street, Sydney... PRINTED ON 9/10/2024

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Received: 09/10/2024 13:15:53

Req:R204691 /Doc:DL I886660 /Rev:09 Apr 2010 /NSW LRS /Pgs:ALL /Prt:09 Oct 2024 13:16 /Seq:1 of 1
Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

I 886660 H

B

TRANSFER BY MORTGAGEE UNDER POWER OF SALE

REAL PROPERTY ACT, 1900
(See instructions for Completion on back of form)

TP

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifiers 1/765114 2/773893	WHOLE	Darling Harbour Sydney

D

TRANSFEROR
TRICONTINENTAL CORPORATION LIMITED ACN 008 416 297

OFFICE USE ONLY
N

The abovenamed TRANSFEROR being the registered proprietor of MORTGAGE No. Y392953
dated 12th May in 89, from the MORTGAGOR, Skydane Pty Limited
ACN 003 283 074

MORTGAGOR

Hereby acknowledges receipt of the consideration of $ 50,000,000
and as mortgagee under the abovementioned mortgage transfers to transferee all power of sale in relation to the land above described to the abovenamed TRANSFEREE.

TRANSFEREE
SUCCESS VENTURE PTY LIMITED ACN 060 569 539
c/- Level 38, MLC Centre, 19-29 Martin Place, Sydney

OFFICE USE ONLY
S
OF M Y392953

as joint tenants/tenants in common

ENCUMBRANCES
subject to the following FROM ENCUMBRANCES: 1.
2. 3.

DATE OF TRANSFER 26th OCTOBER, 1993

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF TRICONTINENTAL CORPORATION LIMITED WAS AFFIXED IN ACCORDANCE WITH ITS ARTICLES OF ASSOCIATION IN THE PRESENCE OF:

THE COMMON SEAL OF TRICONTINENTAL CORPORATION LIMITED

J Ansley
Director/Secretary

Director/Secretary

11109 340 04 00/03/94 $2.00

Signed in my presence by the transferee who is personally known to me

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

BRIAN McFADYEN
SOLICITOR, SYDNEY
8/10/93

LODGED BY
LEGALITIES PTY. LIMITED
DX 725 SYDNEY
PH. 221 8886
605m

Delivery Box Number MEMM:LR

Stamp Duty
Checked
Yes
No

REGISTERED - -19

Registrar General

CT OTHER

Herewith.
In R.G.O. with
Produced by

off

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
9/10/2024 2:04PM

[redacted]

First Title(s): OLD SYSTEM
[redacted]

Recorded	Number	Type of Instrument	C.T. Issue
1/6/1988	DP773893	DEPOSITED PLAN	FOLIO CREATED CT NOT ISSUED
20/8/1996	DP861767	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

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Received: 09/10/2024 14:04:52

Req:R207091 /Doc:PA 060558 PA /Rev:01-May-2003 /NSW LRS /Pgs:ALL /Prt:09-Oct-2024 16:37 /Seq:1 of 3
© Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

RP 76

PA 060558 E

RESUMPTION APPLICATION

Section 31A (2) Real Property Act, 1900

RA 1 of —

$ 65V

DESCRIPTION OF LAND
Note (a)

Lot No.	Plan No.	Location
2 ∅	773893	Ph: St. Andrew Co: Cumberland

DESCRIPTION OF EASEMENT
Note (b)

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
	WHOLE	

∅ A. Lot 2.

APPLICANT
Note (c)

COMMISSIONER FOR MAIN ROADS.

GAZETTAL
Note (d)

(the abovenamed Applicant) in consequence of the resumption notified in Government Gazette dated 11th March 1988 folio 1596, a true copy whereof is attached hereto, hereby applies to the Registrar General

EASEMENT
Note (e)

(i) for the issue of a certificate of title in favour of the applicant.

(ii) ~~for the recording of an easement for~~

to resumed on the folio(s) of the Register, described in the above schedule.

Note (f)

And I Hugh King Roberts, State Crown Solicitor hereby certify that

Note (c)

(1) I am authorised to make the within application;

(2) the said land has not been divested from the applicant the Commissioner for Main Roads and no estate or interest therein has been created in favour of any other person;

(3) the said land is not under the provisions of the Real Property Act, 1900, and no sale, lease or other transaction affecting it is intended to be completed prior to the issue of the folio of the Register; and

(4) this application is correct for the purposes of the Real Property Act, 1900.

(Copy of Gazette notification)

See Annexure Hereto

Dated SYDNEY this 23rd day of March 19 88

Signed in my presence

EXECUTION
Note (g)

by the said Hugh King Roberts, State Crown Solicitor by John Anthony Mahoney, State Crown Solicitor's Office, who is personally known to me:

Signature of witness

H. K. ROBERTS
State Crown Solicitor
per

Signature

S. Anne Clark, State Crown Solicitor's

Name of Witness (BLOCK LETTERS)

88/715 C25:DMcO

TO BE COMPLETED BY LODGING PARTY
Notes (h) and (i)

		LOCATION OF DOCUMENTS			DELIVERY DIRECTIONS
Passed	LODGED BY STATE CROWN SOLICITORS OFFICE 300 OXFORD BUILDING 241 CREDIT UNION HOUSE, SYDNEY. 2000 DX 19 PHONE: 238-7406 Delivery Box Number 813E	CT	OTHER	Herewith	
Checked				In R.G.O. with	
				Produced by	

Req:R207091 /Doc:PA 060558 PA /Rev:01-May-2003 /NSW LRS /Pgs:ALL /Prt:09-Oct-2024 16:37 /Seq:2 of 3
© Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

ANNEXURE TO RESUMPTION APPLICATION DATED 22.MAR1988
by State Crown Solicitor

STATE ROADS ACT 1986—PUBLIC WORKS ACT 1912

NOTIFICATION OF APPROPRIATION OF LAND AND DECLARATION OF PUBLIC ROAD AT DARLING HARBOUR IN THE CITY OF SYDNEY

IT is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that in pursuance of the State Roads Act 1986, the land described in Schedules 1 and 2 hereunder in respect of so much of the said land as is Crown land is hereby appropriated, and in respect of so much of the said land as is private property is hereby resumed, under the Public Works Act 1912, for the purposes of the State Roads Act 1986, and that all the said land is hereby vested in The Commissioner for Main Roads; AND further, that the land described in Schedule 1 is hereby declared a public road and placed under the control of the Council of the City of Sydney.

Dated at Sydney, this ninth day of March, 1988.

J. A. ROWLAND, Governor.

By His Excellency's Command,

SCHEDULE 1

All those pieces or parcels of land situate in the City of Sydney, Parish of St Andrew and County of Cumberland, being part of the land comprised within Certificate of Title, volume 3453, folio 215, and shown as lot 6 in Deposited Plan 773893; and part of the land comprised within Certificate of Title, volume 7634, folio 156, and volume 8050, folios 242 to 245 inclusive, and shown as lot 7 in Deposited Plan 773893.

Deposited Plan 773893 is also numbered 5101 412 SS 0005 at the Department of Main Roads. The land is in the possession of the Commissioner for Main Roads.

LOTS 6 AND 7 PUBLIC ROAD

SCHEDULE 2

[redacted]

WHOLE (SEE ERRATUM BELOW)

LOT 2

STATE ROADS ACT 1986—PUBLIC WORKS ACT 1912

ERRATUM

IN the notification published in Government Gazette No. 52 of 11th March, 1988, on page 1596 under the heading of "Notification of Appropriation of Land and Declaration of Public Road at Darling Harbour in the City of Sydney" Schedule 2 should be corrected on the second line by substituting the words "the whole" in lieu of the word "part", such that the land resumed is the whole of the land in Deed of Conveyance No. 826, Book 2390.

TERRY SHEAHAN, Minister for Transport.

(D.M.R. Papers F4/412.1438) (4056)

H. K. REA
State Crown Solicitor
per

Authorised Officer: _____

Witness: _____

Req:R207091 /Doc:PA 060558 PA /Rev:01-May-2003 /NSW LRS /Pgs:ALL /Prt:09-Oct-2024 16:37 /Seq:3 of 3
© Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

RP 16

For use where the land and/or easement is not under the provisions of the Real Property Act, 1900.

INSTRUCTIONS FOR COMPLETION

Use this form where the land resumed is not under the Real Property Act, 1900.

Typewriting and handwriting should be clear, legible and in permanent non-copying ink.

Alterations are not to be made by erasure: the words rejected are to be ruled through and initialled by the authorised officer.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the authorised officer and attesting witness.

The following instructions relate to the side notes on the form.

(a) (i) The lot and plan number or portion
(ii) Insert the locality shown on the plan, e.g. at Chatham. If the locality is not shown, insert the Parish and County, e.g. Pa. Litmore Co. Rous.

(b) (i) Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant of the servient tenement
(ii) Insert the locality shown on the Certificate of Title/Crown Grant
(iii) A resumption application may not be made for the creation of a folio of the Register for an easement alone (see section 31A (2B) of the Real Property Act, 1900).

(c) State the name of the authority in which the land is vested.

(d) Show date and folio number of Gazette notification

(e) (i) Rule through if not applicable.
(ii) State the nature of the easement (see e.g. section 181A of the Conveyancing Act, 1919) and delete inappropriate words

(f) Name of authorised officer.

(g) EXECUTION—The certificate of correctness under the Real Property Act, 1900 must be signed by an authorised officer of the applicant. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

(h) Insert the name, postal address, Document Exchange reference, telephone number and Delivery Box number of the lodging party.

(i) If any documents is lodged with the application, record in DOCUMENTS LODGED panel.

(j) Insert a copy of the Gazette notification. If the space provided is insufficient for this purpose, use an annexure sheet (identified as such) of the same size and quality paper as this form.

OFFICE USE ONLY

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME

SECOND SCHEDULE & OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTIFN TYPE	(G) DEALING NUMBER	(H) DETAILS

SD506-3074 D. WEST, GOVERNMENT PRINTER

Req:R207091 /Doc:PA 060558 PA /Rev:01-May-2003 /NSW LRS /Pgs:ALL /Prt:09-Oct-2024 16:37 /Seq:2 of 3
© Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

ANNEXURE TO RESUMPTION APPLICATION DATED 22.MAR1988
by State Crown Solicitor

[redacted]

[redacted]

[redacted]

NOTIFICATION OF APPROPRIATION OF LAND AND DECLARATION OF PUBLIC ROAD AT DARLING HARBOUR IN THE CITY OF SYDNEY

IT is hereby notified and declared by His Excellency the Governor, [redacted] in pursuance [redacted] Schedules 1 and 2 hereunder in respect of so much of the said land as is Crown land is hereby appropriated, and in respect of so much of the said land as is private property is hereby resumed, under the Public Works Act 1912, for the purposes of the State Roads Act 1986, and that all the said land is hereby vested in The Commissioner for Main Roads; AND further, that the land described in Schedule 1 is hereby declared a public road and placed under the control of the Council of the City of Sydney.

Dated at Sydney, this ninth day of March, 1988.

J. A. ROWLAND, Governor.

By His Excellency's Command,

[redacted]

SCHEDULE 1

[redacted] Sydney, [redacted] of the land comprised within Certificate of Title, volume 3453, folio 215, and shown as lot 6 in Deposited Plan 773893; and part of the land comprised within Certificate of Title, volume 7634, folio 156, and volume 8050, folios 242 to 245 inclusive, and shown as lot 7 in Deposited Plan 773893.

Deposited Plan 773893 is also numbered 5101 412 SS 0005 at the Department of Main Roads. The land is in the possession of the Commissioner for Main Roads.

LOTS 6 AND 7 PUBLIC ROAD

SCHEDULE 2

All that piece or parcel of land situate in the City of Sydney, Parish of St Andrew and County of Cumberland, being [part] of the land in Deed of Conveyance No. 826, Book 2890, and part of the land in Certificates of Title, volume 3453, folio 215, volume 7634, folio 156, volume 8050, folios 242 and 243, and shown as lot 2 in Deposited Plan 773893. Deposited Plan 773893 is also numbered 5101 412 SS 0005 at the Department of Main Roads. The land is in the possession of the Commissioner for Main Roads.

WHOLE [SEE ERRATUM] ABOVE

LOT 2

STATE ROADS ACT 1986—PUBLIC WORKS ACT 1912

ERRATUM

IN the notification published in Government Gazette No. 52 of 11th March, 1988, on page 1596 under the heading of "Notification of Appropriation of Land and Declaration of Public Road at Darling Harbour in the City of Sydney" Schedule 2 should be corrected on the second line by substituting the words "the whole" in lieu of the word "part", such that the land resumed is the whole of the land in Deed of Conveyance No. 826, Book 2890.

TERRY SHEAHAN, Minister for Transport.

(D.M.R. Papers F4/412.1438) (4056)

[redacted] H. K. Ro[illegible]
State Crown Solicitor
per

Authorised Officer: _____

Witness: _____

Req:R207024 /Doc:DL X707266 /Rev:07 Sep 2010 /NSW LRS /Pgs:ALL /Prt:09 Oct 2024 16:33 /Seq:1 of 1
Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

AP 13 STAMP DUTY

[redacted]

NEW SOUTH WALES 1988 P18 DEPARTMENT OF FINANCE STAMP $1100 DUTY

X707266

TRANSFER

REAL PROPERTY ACT, 1900

T 15 / 12 X

$ 39

R1/2

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 2/773893	WHOLE	at Sydney

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

THE COMMISSIONER FOR MAIN ROADS

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $9,100,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

SKYDANE PTY. LIMITED of 12th Floor, 32 Bridge Street, Sydney

OFFICE USE ONLY

S

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3 .....

DATE 6 July 1988

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferee who is personally known to me

..... Signature of Witness

..... Name of Witness (BLOCK LETTERS)

..... Address and occupation of Witness

SIGNED BY THE COMMISSIONER FOR MAIN ROADS by his delegate W. McL. CABLE in the presence of T. Mae

T. MAE
TIU MAE
SOLICITOR
SYDNEY

..... Signature of delegate

EXECUTED PURSUANT TO DELEGATION BOOK 3694 NO 480

Note (g)

Signed in my presence by the transferee who is personally known to me

..... Signature of Witness

..... Name of Witness (BLOCK LETTERS)

..... Address and occupation of Witness

..... Signature of Transferee's Solicitor

PAULINE MARGARET MALONEY

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY

24J COMMONWEALTH BANK OF AUSTRALIA BRANCH SECURITIES PITT STREET & MARTIN PLACE SYDNEY. PHONE 233-0155 D.X. 1020 SYDNEY 24J

Delivery Box Number 24J

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19
EAS		
Signed	Extra Fee	22 JUL 1988

Secondary Directions

Delivery Directions

1190

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

9/10/2024 2:03PM

[redacted]

First Title(s): OLD SYSTEM
[redacted]L 156
VOL 8050 FOLS 242-243

Recorded	Number	Type of Instrument	C.T. Issue
27/4/1988	PA60558	PRIMARY APPLICATION	FOLIO CREATED EDITION 1
[redacted]			
23/6/1988	X541294	REQUEST	EDITION 2
22/7/1988	X707266	TRANSFER	
22/7/1988	X707267	MORTGAGE	EDITION 3
22/8/1988	X782943	CAVEAT	
6/9/1988	X807032	LEASE	EDITION 4
14/6/1989	Y392951	DISCHARGE OF MORTGAGE	
14/6/1989	Y392953	MORTGAGE	EDITION 5
2/8/1989	Y488896	SURRENDER OF LEASE	EDITION 6
27/2/1992	E285615	CAVEAT	
28/5/1992	E490671	LEASE	EDITION 7
1/7/1992	E549129	LEASE	EDITION 8
15/3/1993	I185886	CAVEAT	
15/10/1993	I673980	REQUEST	
15/10/1993	I673981	REQUEST	EDITION 9
12/1/1994	I886658	WITHDRAWAL OF CAVEAT	
12/1/1994	I886659	WITHDRAWAL OF CAVEAT	
12/1/1994	I886660	TRANSFER BY MORTGAGEE UNDER POWER OF SALE	
12/1/1994	I886661	LEASE	EDITION 10
13/1/1994	I886662	MORTGAGE	EDITION 11
20/8/1996	DP861767	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

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Received: 09/10/2024 14:03:40

Req:R204723 /Doc:DL 2379060 /Rev:05-Feb-2010 /NSW LRS /Pgs:ALL /Prt:09-Oct-2024 13:20 /Seq:1 of 1
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97-01T (1) LTO Licence No. 27C/0042/95

TRANSFER

Real Property Act 1900

2379060 M

Office of State Revenue use only

$12 - 00

(A) **LAND TRANSFERRED**
Show no more than 20 References to Title.
If appropriate, specify the share transferred.

Those parts of Lot 8 formerly comprised within 3/773893 and 7/773893 in D.P. 861767

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
27C	Freehill Hollingdale & Page Solicitors DX 364 Sydney ph: 225 5000 REFERENCE (max. 15 characters): BJMcF:DCK:31D

(C) **TRANSFEROR** Roads & Traffic Authority of New South Wales

(D) acknowledges receipt of the consideration of the grant of certain easements by the Transferee and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) Subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T

Success Venture Pty Limited ACN 060 569 539

(G) **TENANCY**: Not applicable

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. **DATED** .....

Signed in my presence by the Transferor who is personally known to me.

Signature of Witness

TREVOR GILLETT

Name of Witness (BLOCK LETTERS)

260 ELIZABETH ST SURRY HILLS

Address of Witness

Signature of Transferor

EXECUTED BY THE MANAGER PROPERTY ASSETS PURSUANT TO DELEGATIONS BOOK 4008 No. 809 AND BOOK 4117 No. 182

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

Signature of Transferee's solicitor

(Danielle Kelly)

☞ INSTRUCTIONS FOR FILLING OUT THIS FORM ARE GIVEN AT THE BACK

CHECKED BY (office use only)

FHPSYDCD\SLT000013\95340005.7

CT 11864

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
8/10/2024 9:58AM

[redacted]

First Title(s): OLD SYSTEM
[redacted] 2-3/773893

Recorded	Number	Type of Instrument	C.T. Issue
27/8/1996	DP861767	DEPOSITED PLAN	FOLIO CREATED EDITION 1
6/9/1996	2379060	TRANSFER	EDITION 2
6/8/2001	DP1031912	DEPOSITED PLAN	
8/8/2001	7729569	REQUEST	
9/10/2001	7844194	REQUEST	FOLIO CANCELLED

*** END OF SEARCH ***

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150 Day Street, Sydney ... PRINTED ON 8/10/2024

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Received: 08/10/2024 09:58:40

Req:R194464 /Doc:DL 8702128 /Rev:09-Aug-2002 /NSW LRS /Pgs:ALL /Prt:08-Oct-2024 09:58 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:150 Day Street? Sydney

8702128G

Form: 01T
Release: 2
www.lpi.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

28-08-2002 0001015217-001
pages to the top left-hand corner.
SECTION 31AA LEGI-TRANSFER
NO DUTY PAYABLE

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY Office of State Revenue use only

(A) **TORRENS TITLE** Lot 11 DP 1036978 PART 1/1031912

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
	COLEMAN & GREIG SOLICITORS 169 Y Reference:	T TW (Sheriff)

(C) **TRANSFEROR** SUCCESS VENTURE PTY LIMITED ABN 78 060 569 539

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 79,200.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** ROADS AND TRAFFIC AUTHORITY OF NEW SOUTH WALES

(I) **TENANCY:**

(J) **DATE** 17th June 2002

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: SUCCESS VENTURE PTY LIMITED A.B.N 78 060 569 539
Authority:

Signature of authorised person:
Name of authorised person:
Office held: DIRECTOR - C.S NG

Signature of authorised person:
Name of authorised person:
Office held: DIRECTOR - PAUL HO

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: ANNE MacKINNON ~~CLAS OLAF LINBERG~~
Signatory's capacity: transferees' solicitor

Page 1 of 1 number additional pages sequentially

All handwriting must be in block capitals.

Land and Property Information NSW.

Not for Issue

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
8/10/2024 9:58AM

[redacted]

First Title(s): OLD SYSTEM
[redacted]

Recorded	Number	Type of Instrument	C.T. Issue
6/8/2001	DP1031912	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
9/10/2001	7844194	REQUEST	FOLIO CREATED CT NOT ISSUED
21/12/2001	DP1036978	DEPOSITED PLAN	
8/2/2002	8247724	REQUEST	
6/3/2002	8411976	DEPARTMENTAL DEALING	
22/5/2002	8618692	DEPARTMENTAL DEALING	
5/8/2002	8702127	DISCHARGE OF MORTGAGE	
5/8/2002	8702128	TRANSFER	FOLIO CANCELLED

*** END OF SEARCH ***

150 Day Street, Sydney ... PRINTED ON 8/10/2024

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Received: 08/10/2024 09:58:23

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
8/10/2024 9:57AM

[redacted]

First Title(s): OLD SYSTEM
[redacted]

Recorded	Number	Type of Instrument	C.T. Issue
21/12/2001	DP1036978	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
[redacted]			FOLIO CREATED EDITION 1
11/11/2002	DP1046870	DEPOSITED PLAN	
[redacted]			
14/3/2003	9449042	DEPARTMENTAL DEALING	
[redacted]ST			FOLIO CANCELLED

*** END OF SEARCH ***

[redacted]

[redacted]

150 Day Street, Sydney ... PRINTED ON 8/10/2024

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Received: 08/10/2024 09:57:59

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

[redacted]

SEARCH DATE
8/10/2024 9:57AM

FOLIO: 20/1046870

First Title(s): OLD SYSTEM
Prior Title(s): 10/1036978

Recorded	Number	Type of Instrument	C.T. Issue
11/11/2002	DP1046870	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
2/5/2003	9450438	REQUEST	FOLIO CREATED CT NOT ISSUED
3/8/2005	AB670918	DEPARTMENTAL DEALING	EDITION 1
25/1/2006	DP1092390	DEPOSITED PLAN	EDITION 2
24/4/2007	DP1110512	DEPOSITED PLAN	
13/7/2017	AM545406	LEASE	EDITION 3

1 [redacted]

*** END OF SEARCH ***

[redacted]

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Received: 08/10/2024 09:57:44

Appendix C3

SafeWork Response

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 20/1046870

SEARCH DATE	TIME	EDITION NO	DATE
8/10/2024	9:57 AM	7	6/5/2024

LAND

LOT 20 IN DEPOSITED PLAN 1046870
AT DARLING HARBOUR
LOCAL GOVERNMENT AREA SYDNEY
PARISH OF ST ANDREW COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1046870

FIRST SCHEDULE

SUCCESS VENTURE PTY LIMITED

SECOND SCHEDULE (10 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 X541294 RESTRICTION(S) ON THE USE OF LAND AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 DP861767 EASEMENT FOR DRAINAGE 1.5 WIDE AND EASEMENT FOR SUPPORT 1.5 WIDE AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP861767 RIGHT OF PUBLIC FOOTWAY 3.0 WIDE AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP861767 EASEMENT FOR DRAINAGE 1.5 WIDE AFFECTING THE PART SHOWN DESIGNATED 'E' IN THE TITLE DIAGRAM
6 DP861767 EASEMENT FOR DRAINAGE 1.5 WIDE AFFECTING THE PART DESIGNATED 'D' IN THE TITLE DIAGRAM
7 THE LAND ABOVE DESCRIBED IS LIMITED IN STRATUM IN THE MANNER DESCRIBED IN DP1036978
8 9450438 EASEMENT FOR ROCK ANCHORS AND SUPPORT VARIABLE WIDTH AFFECTING THE PART DESIGNATED (R) IN THE TITLE DIAGRAM
9 DP1092390 EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1092390
10 AR737419 LEASE TO WAVECONN PTY LTD (SEE AT832503) PART FOLIO IDENTIFIER 201,046870, BEING AREA SHOWN HATCHED BLACK ON THE PLAN ANNEXED AND MARKED 'B'. EXPIRES: 2/10/2026.

NOTATIONS

DP1110512 NOTE: PROPOSED EASEMENT

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

150 Day Street, Sydney PRINTED ON 8/10/2024

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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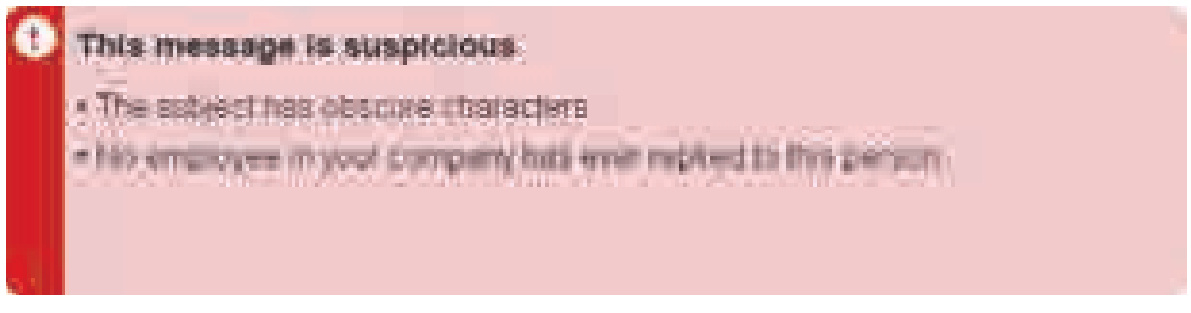
Received: 08/10/2024 09:57:08

Appendix C4

Section 10.7 Planning Certificate

Jelica Ljubic

From: Licensing <licensing@safework.nsw.gov.au>
Sent: Friday, 25 October 2024 2:18 PM
To: Irha Riaz
Subject: SafeWork NSW: 01027642 –Site Search application – Result not found [thread::oiC3DiLjcVKulWnsw1jUW3w::]



Security Classification: Sensitive Personal
Please do not amend the subject line of this email

Dear Irha

Re: Site Search for Schedule 11 Hazardous Chemicals on premises
Application – Result not found

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW on 8 October 2024 for the following site: 150 Day Street, SYDNEY, NSW, 2000.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: 01027642

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards
May

May Neill
Licensing Representative| Safework Licensing
Safework NSW
p 13 10 50 |
e may.neill@customerservice.nsw.gov.au | www.customerservice.nsw.gov.au
Level 3, 32 Mann Street, Gosford, NSW 2250

150 Day St, SYDNEY - TaxInvoice.pdf

thread::oiC3DiLjcVKulWnsw1jUW3w::

CITY OF SYDNEY

City of Sydney
Town Hall House
456 Kent Street
Sydney NSW 2000

+61 2 9265 9333
council@cityofsydney.nsw.gov.au
GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

MECONE NSW PTY LIMITED
12/179 Elizabeth St
SYDNEY NSW 2000

PLANNING CERTIFICATE

Under Section 10.7 of the Environmental Planning and Assessment Act, 1979

Applicant:	MECONE NSW PTY LIMITED
Your reference:	
Address of property:	150 Day Street , SYDNEY NSW 2000
Owner:	SUCCESS VENTURE PTY LTD
Description of land:	Lot 20 DP 1046870
Certificate No.:	2024309419
Certificate Date:	22/11/24
Receipt No:	APC-186582
Fee:	$168.00
Paid:	21/11/24

Title information and description of land are provided from data supplied by the Valuer General and shown where available.

Issuing Officer
per **Monica Barone**
Chief Executive Officer

CERTIFICATE ENQUIRIES:
Ph: 9265 9333

PLANNING CERTIFICATE UNDER SECTION 10.7 (2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2021, CLAUSES (1) - (2).

DEVELOPMENT CONTROLS

The following information must be read in conjunction with and subject to all other provisions of the environmental planning instruments specified in this certificate.

ZONING

Zone SP2 Infrastructure (Sydney Local Environmental Plan 2012)

1 Objectives of zone

• To provide for infrastructure and related uses.

• To prevent development that is not compatible with or that may detract from the provision of infrastructure.

2 Permitted without consent

Nil

3 Permitted with consent

Horticulture; Roads; Water storage facilities; Water treatment facilities; The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose.

4 Prohibited

Any development not specified in item 2 or 3

Zone SP5 Metropolitan Centre (Sydney Local Environmental Plan 2012)

1 Objectives of zone

• To recognise and provide for the pre-eminent role of business, office, retail, entertainment and tourist premises in Australia's participation in the global economy.
• To provide opportunities for an intensity of land uses commensurate with Sydney's global status.
• To permit a diversity of compatible land uses that are characteristic of Sydney's global status and that serve the workforce, visitors and wider community.
• To encourage the use of alternatives to private motor vehicles, including public transport, walking and cycling.
• To promote land uses with active street frontages within podiums that contribute to the character of the street.
• To promote the efficient and orderly development of land in a compact urban centre.

• To promote a diversity of commercial opportunities varying in size, type and function, including new cultural, social and community facilities.
• To recognise the important role that central Sydney's public spaces, streets and amenity play in a global city.
• To promote the primary role of the zone as a centre for employment and permit residential accommodation and serviced apartments where the accommodation complements employment-generating land uses.

2 Permitted without consent
Nil

3 Permitted with consent
Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Information and education facilities; Oyster aquaculture; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Tank-based aquaculture; Tourist and visitor accommodation; Any other development not specified in item 2 or 4

4 Prohibited
Pond-based aquaculture

PROPOSED ZONING

Draft Zone B8 Metropolitan Centre - Planning Proposal (Sydney Local Environmental Plan 2012)

1 Objectives of zone

• To recognise and provide for the pre-eminent role of business, office, retail, entertainment and tourist premises in Australia's participation in the global economy.

• To provide opportunities for an intensity of land uses commensurate with Sydney's global status.

• To permit a diversity of compatible land uses characteristic of Sydney's global status and that serve the workforce, visitors and wider community.

• To encourage the use of alternatives to private motor vehicles such as public transport, walking or cycling.

• To promote uses with active street frontages within podiums that contribute to the vitality, life and existing character of the street.

• To promote the efficient and orderly development of land in a compact urban centre.

• To promote a diversity of commercial opportunities varying in size, type and function, including new cultural, social and community facilities.

• To recognise and reinforce the important role that Central Sydney's public spaces, streets and their amenity play in a global city.

• Promote the primary role of the zone as a centre for employment and permit residential and serviced apartment accommodation where they complement employment generating uses.

2 Permitted without consent

Nil

3 Permitted with consent

Child care centres; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Information and education facilities; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Tourist and visitor accommodation; Any other development not specified in item 2 or 4

4 Prohibited

Nil

LOCAL PLANNING CONTROLS

Sydney Local Environmental Plan 2012 (as amended) – Published 14 December 2012 NSW Legislation Website.

Sydney Development Control Plan 2012 (as amended) - (commenced 14.12.2012)

Planning Proposal: Amendment of Sydney Local Environmental Plan 2012 – Dwelling Retention

The objective of this planning proposal is to amend Sydney LEP 2012 to minimise the loss of housing diversity through the redevelopment of existing dwellings. It will be applied across the City by introducing a 'Local Provision' in Part 6 of Sydney Local Environmental Plan 2012.

HERITAGE

State Heritage Register (Amendment To Heritage Act, 1977 Gazetted 2/4/99)

This property may be identified as being of state heritage significance, and entered on the State Heritage Register.

To confirm whether the site is listed under the Heritage Act 1977 a Section 167 Certificate should be obtained from the NSW Heritage Office by contacting the NSW Heritage office on (02) 9873 8500 for an application from or by downloading the application form from www.heritage.nsw.gov.au

STATE PLANNING INSTRUMENTS

Full copies of State Environmental Planning Policies are available online at www.planning.nsw.gov.au.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

This Policy Streamlines assessment processes for development that complies with specified development standards. The policy provides exempt and complying development codes that have State-wide application, identifying, in the General Exempt Development Code, types of development that are of minimal environmental impact that may be carried out without the need for development consent; and, in the General Housing Code, types of complying development that may be carried out in accordance with a complying development certificate as defined in the Environmental Planning and Assessment Act 1979.

State Environmental Planning Policy (Housing) 2021

The principles of this Policy are as follows:

(a) enabling the development of diverse housing types, including purpose-built rental housing,

(b) encouraging the development of housing that will meet the needs of more vulnerable members of the community, including very low to moderate income households, seniors and people with a disability,

(c) ensuring new housing development provides residents with a reasonable level of amenity,

(d) promoting the planning and delivery of housing in locations where it will make good use of existing and planned infrastructure and services,

(e) minimising adverse climate and environmental impacts of new housing development,

(f) reinforcing the importance of designing housing in a way that reflects and enhances its locality,

(g) supporting short-term rental accommodation as a home-sharing activity and contributor to local economies, while managing the social and environmental impacts from this use,

(h) mitigating the loss of existing affordable rental housing.

State Environmental Planning Policy (Planning Systems) 2021

- identifies State or regionally significant development, State significant Infrastructure, and critical State significant infrastructure.
- provides for consideration of development delivery plans by local Aboriginal land councils in planning assessment.
- allows the Planning Secretary to elect to be the concurrence authority for certain development that requires concurrence under nominated State environmental planning policies.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

This SEPP contains:

- planning rules and controls for the clearing of native vegetation in NSW on land zoned for urban and environmental purposes that is not linked to a development application.
- the land use planning and assessment framework for koala habitat.
- provisions which establish a consistent and co-ordinated approach to environmental planning and assessment along the River Murray.
- provisions seeking to protect and preserve bushland within public open space zones and reservations.
- provisions which aim to prohibit canal estate development.
- provisions to support the water quality objectives for the Sydney drinking water catchment.
- provisions to protect the environment of the Hawkesbury-Nepean River system.
- provisions to manage and improve environmental outcomes for Sydney Harbour and its tributaries.
- provisions to manage and promote integrated catchment management policies along the Georges River and its tributaries.

- provisions which seek to protect, conserve and manage the World Heritage listed Willandra Lakes property.

State Environmental Planning Policy (Resilience and Hazards) 2021

This SEPP contains planning provisions:

- for land use planning within the coastal zone, in a manner consistent with the objects of the Coastal Management Act 2016.
- to manage hazardous and offensive development.
- which provides a state-wide planning framework for the remediation of contaminated land and to minimise the risk of harm.

State Environmental Planning Policy (Transport and Infrastructure) 2021

This SEPP contains planning provisions:

- for infrastructure in NSW, such as hospitals, roads, railways, emergency services, water supply and electricity delivery.
- for child-care centres, schools, TAFEs and Universities.
- planning controls and reserves land for the protection of three corridors (North South Rail Line, South West Rail Link extension and Western Sydney Freight Line).
- the land use planning and assessment framework for appropriate development at Port Kembla, Port Botany and Port of Newcastle.

State Environmental Planning Policy (Industry and Employment) 2021

This SEPP contains planning provisions:

- applying to employment land in western Sydney.
- for advertising and signage in NSW.

State Environmental Planning Policy (Resources and Energy) 2021

This SEPP contains planning provisions:

- for the assessment and development of mining, petroleum production and extractive material resource proposals in NSW.
- which aim to facilitate the development of extractive resources in proximity to the population of the Sydney Metropolitan Area by identifying land which contains extractive material of regional significance.

State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021

This SEPP contains planning provisions for precinct planning, which is a form of strategic planning applied to a specified geographic area. The precincts in this SEPP are located in the Eastern Harbour City. This city is based the strategic planning

vision of the 'three cities' regions identified in the Greater Sydney Region Plan – A Metropolis of Three Cities.

State Environmental Planning Policy (Sustainable Buildings) 2022

Encourages the design and delivery of more sustainable buildings across NSW. It sets sustainability standards for residential and non-residential development and starts the process of measuring and reporting on the embodied emissions of construction materials.

The standards for energy use that apply to large commercial development contained in the SEPP do not apply to land in the City of Sydney LGA except to the extent the development relates to prescribed serviced apartments.

OTHER MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - E. P. & A. REGULATION, 2021. SECTIONS (3) - (22)

(3) Contribution plans

The following Contributions Plans apply to properties within the City of Sydney local government area. Contributions plans marked **YES** may apply to this property:

▪ Central Sydney Development Contributions Plan 2020 – in operation 26th November 2021	**YES**
▪ City of Sydney Development Contributions Plan 2015 – in operation 1st July 2016	**NO**
▪ Redfern Waterloo Authority Affordable Housing Contributions Plan – in operation 16th May 2007	**NO**

Notes:

- An affordable housing contribution may be payable as part of a development application or planning proposal under The City of Sydney Affordable Housing Program (Program) – Adopted 26 June 2023.

- The subject land is within the Greater Sydney region to which the Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 applies. Housing and Productivity Contributions may be payable to the NSW Government for certain new development. Details of these contributions are available here: https://www.planning.nsw.gov.au/policy-and-legislation/infrastructure/infrastructure-funding/improving-the-infrastructure-contributions-system#housing-and-productivity-contribution. Inquiries can be directed to the NSW Government through this email address: hpc.enquiry@planning.nsw.gov.au

(4) Complying Development

(1) If the land is land on which complying development may be carried out under each of the complying development under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. because of that Policy, clause 1.17A (1) (c) to (e), (2), (3) or (4), 1.18(1)(c3) or 1.19.

(2) If complying development may not be carried out on that land because of 1 of those clauses, the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(4) If the complying development codes are varied, under that Policy, clause 1.12, in relation to the land.

Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of complying development. Council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

Housing Code, Industrial and Business Buildings Code and Low Rise Housing Diversity Code

Complying development **may not** be carried out on the land under the Housing Code, the Commercial and Industrial (New Buildings and Additions) and the Low Rise Housing Diversity Code if because of the provisions of clause 1.17A, 1.18(1)(c3) & 1.19 (Land-based requirements for exempt and complying development) any of the following statements are **YES.**

▪ Clause 1.19(5)d. Land that is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997. (Applies only to the Industrial and Business Buildings) Code.	**NO**
▪ Clause 1.17A(d). Has been identified as a property that comprises, or on which there is, an item that is listed on the State Heritage Register under the *Heritage Act 1977* or that is subject to an interim heritage order under the *Heritage Act 1977*.	NO
▪ Clause 1.17A(d) & 1.18(1)(c3). Has been identified as a property that comprises, or on which there is, a heritage item or draft heritage item.	**NO**
▪ Clause 1.17A(c). Has been identified as being within a wilderness area (identified under the *Wilderness Act 1987*.	**NO**
▪ Clause 1.17A(e) & 1.19(1)e or 1.19(5)f. Has been identified as land that is within an environmentally sensitive area or by an environmental planning instrument as being within a buffer area, a river front area, an ecologically sensitive area, environmentally sensitive land or a protected area	**NO**
▪ Clause 1.19(1)a.or 1.19(5)a Has been identified as being within a heritage conservation area or a draft heritage conservation area.	**NO**
▪ Clause 1.19(1)b or 1.19(5)b. Has been identified as being land that is reserved for a public purpose in an environmental planning instrument.	**NO**
▪ Clause 1.19(1)c or 1.19(5)c. Has been identified as being on an Acid Sulfate Soils Map as being Class 1 or Class 2.	**YES**
▪ Clause 1.19(1)d or 1.19(5)e. Has been identified as land that is subject to a biobanking agreement under part 7A of the threatened Species Conservation Act 1995 or a property vegetation plan under the Native Vegetation Act 2003.	**NO**
▪ Clause 1.19(1)f or 1.19(5)g. Has been identified by an environmental planning instrument, a development control plan or a policy adopted by the Council as being or affected by a coastline hazard, a coastal hazard or a coastal erosion hazard.	**NO**
▪ Clause 1.19(1)g or 1.19(5)h. Has been identified as being land in a foreshore area.	**NO**
▪ Clause 1.19(1)h. Has been identified as land that is in the 25 ANEF contour or a higher ANEF contour. (Applies to the Housing Code & Low Rise Housing Diversity Code)	**NO**
▪ Clause 1.19(1)j or 1.19(5)i. Has been identified as unsewered land within a drinking water catchment.	**NO**
▪ Clause 1.19(1)i. Has been identified as land that is declared to be a special area under the Sydney Water Catchment Management Act 1998.	**NO**

Housing Alterations Code

Complying development under the Housing Alterations Code **may** be carried out on the land.

Industrial and Business Alterations Code

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

Subdivisions Code

Complying development under the Subdivisions Code **may** be carried out on the land.

Rural Housing Code

The Rural Housing Code does not apply to this Local Government Area.

General Development Code

Complying development under the General Development Code **may** be carried out on the land.

Demolition Code

Complying development under the Demolition Code **may** be carried out on the land.

(5) Exempt Development

(1) If the land is land on which exempt development may be carried out under each of the exempt development under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. because of that Policy, clause 1.16(1)(b1)-(d) or 1.16A.

(2) If exempt development may not be carried out on that land because of 1 of those clauses, the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(4) If the exempt development codes are varied, under that Policy, clause 1.12, in relation to the land.

Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of exempt development. Council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

All Exempt and Complying Development Codes

Exempt development under each of the exempt development codes **may** be carried out on the land.

(6) Affected building notices and building product rectification orders

(1)

(a) The land to which the certificate relates is not subject to any affected building notice of which Council is aware.

(b) The land to which the certificate relates is not subject to any building product rectification order of which Council is aware and has not been fully complied with.

(c) The land to which the certificate relates is not subject to any notice of intention to make a building product rectification order of which Council is aware and is outstanding.

(2) In this clause:

affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

(7) Land reserved for acquisition

No environmental planning instrument, or proposed environmental planning instrument applying to the land, provides for the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

(8) Road Widening and/or Road Realignment affected by (a) Division 2 of Part 3 of the Roads act 1993 or (c) any resolution of council or other authority.

This land **is not** affected by road widening and/or road realignment under section 25 of the Roads Act, 1993 and/or resolution of Council or any other authority.

(8) Road Widening and/or Road Realignment Affected by (b) any environmental planning instrument.

This land **is not** affected by any road widening or road realignment under any planning instrument.

(9) Flood related development controls information.

(1) If the land or part of the land is within the flood planning area and subject to flood related development controls.

YES

(2) If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.

YES

(3) In this section:

flood planning area has the same meaning as in the Floodplain Development Manual.

Floodplain Development Manual means the *Flood Risk Management Manual* (ISBN 978-1-923076-17-4) published 30 June 2023 by the NSW Government.

probable maximum flood has the same meaning as in the Floodplain Development Manual.

(10) Council and other public authorities policies on hazard risk restrictions:

(a) The land **is not** affected by a policy adopted by the Council that that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk; and

(b) The land **is not** affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to on planning certificate issued by Council, that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk.

(11) Bush fire prone land

The land has not been identified as Bush fire prone land.

(12) Loose-fill asbestos insulation

Not Applicable.

(13) Mine Subsidence District

This land has not been proclaimed to be a mine subsidence district within the meaning of section 15 of the mine subsidence compensation act, 2017.

(14) Paper subdivision information

Not Applicable.

(15) Property vegetation plans

Not Applicable.

(16) Biodiversity stewardship sites

Not Applicable.

(17) Biodiversity certified land

The land has not been certified as biodiversity certified land.

(18) Orders under Trees (Disputes Between Neighbours) Act 2006

Council has not been notified of an order which as been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

(19) Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

In relation to a coastal council: The owner (or any previous owner) of the land has not consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

Note. “Existing coastal protection works” are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before 1 January 2011.

(20) Western Sydney Aerotropolis

Not Applicable.

(21) Development consent conditions for seniors housing

State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 applies to the land, any conditions of a development consent granted after 11 October 2007 in relation to the land that are of the kind set out in that Policy, section 88(2).

(22) Site compatibility certificates and development conditions for affordable rental housing

(1) The land to which the certificate relates is not subject to a current site compatibility certificate under *State Environmental Planning Policy (Housing) 2021*, and is not subject to a former site compatibility certificate, of which the council is aware, in relation to proposed development on the land.

(2) *State Environmental Planning Policy (Housing) 2021*, Chapter 2, Part 2, Division 1 or 5 does not apply to the land which the certificate relates.

(3) The land to which the certificate relates is not subject to any conditions of development consent in relation to land of a kind referred to in *State Environmental Planning Policy (Affordable Rental Housing) 2009*, clause 17(1) or 38(1).

(4) In this section:

former site compatibility certificate means a site compatibility certificate issued under *State Environmental Planning Policy (Affordable Rental Housing) 2009*

(23) Water or sewerage services

Water or sewerage services are not provided to the land under the Water Industry Competition Act 2006

Note—

A public water utility may not be the provider of some or all of the services to the land. If a water or sewerage service is provided to the land by a licensee under the *Water Industry Competition Act 2006*, a contract for the service will be deemed to have been entered into between the licensee and the owner of the land. A register relating to approvals and licences necessary for the provision of water or sewerage services under the *Water Industry Competition Act 2006* is maintained by the Independent Pricing and Regulatory Tribunal and provides information about the areas serviced, or to be serviced, under that Act. Purchasers should check the register to understand who will service the property. Outstanding charges for water or sewerage services provided under the *Water Industry Competition Act 2006* become the responsibility of the purchaser.

Note. The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) The land to which the certificate relates **is not** declared to be **significantly contaminated land** within the meaning of that act as at the date when the certificate is issued.

(b) The land to which the certificate relates **is not** subject to a **management order** within the meaning of that act as at the date when the certificate is issued.

(c) The land to which the certificate relates **is not** the subject of an **approved voluntary management proposal** within the meaning of that act at the date the certificate is issued.

(d) The land to which the certificate relates **is not** the subject of an **ongoing maintenance order** within the meaning of that act as at the date when the certificate is issued.

(e) As at the date when the certificate is issued, Council **has not** identified that a **site audit statement** within the meaning of that act has been received in respect of the land the subject of the certificate.

PLANNING CERTIFICATE SECTION 10.7 (2) INFORMATION:

Information provided in accordance with planning certificate section 10.7 (2) has been taken from council's records and advice from other authorities but council disclaims all liability for any omission or inaccuracy in the information. Specific inquiry should be made where doubt exists.

PLANNING CERTIFICATE UNDER SECTION 10.7 (5) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

PLANNING CERTIFICATE SECTION 10.7 (5) ADVICE is current as at 12:00 noon two working days prior to the date of issue of this certificate. The following matters have been considered & details provided where information exists: easements in favour of council; parking permit scheme; heritage floor space restrictions; low-rental residential building; foreshore building line; tree preservation order.

Easement for right of footway purposes 3m wide DP 1046870 registered 11/11/2002.

Easement for drainage purposes 1.5m wide DP 1046870 registered 11/11/2002.

Contaminated Land Potential:

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this section 10.7 certificate to confirm that the land has not been used for a purpose which would be likely to have contaminated the land. Parties should make their own enquiries as to whether the land may be contaminated.

Hazard Risk Restriction:

Some City of Sydney Local Environmental Plans incorporate Acid Sulfate soil maps.

Development on the land identified in those maps should have regard to the acid sulfate soil clause within the relevant Local Environmental Plan.

Construction Noise and View Loss Advice:

Intending purchasers are advised that the subject property may be affected by construction noise and loss or diminution of views as a result of surrounding development.

Outstanding Notice & Order information

In relation to this property, there **is not** an outstanding Order or Notice of Intention to issue an Order relating to Fire Safety (being an Order or Notice of Intention to issue an Order under Part 2 of Schedule 5 of the Environmental Planning and Assessment Act, 1979). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.In relation to this property, there **is not** an outstanding Order or Notice of Intention to issue an Order (being an Order or Notice of Intention to issue an Order of a type other than relating to fire safety). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.

Neighbourhood Parking Policy

The City of Sydney co-ordinates a Resident Permit Parking Scheme and a Visitor Permit Parking scheme. This property may be restricted from participating in either scheme. Eligibility may change after the date of this certificate, as parking supply and other traffic demands change. For more information contact Council's call centre on 9265 9333.

ADVICE FROM OTHER BODIES

Sydney Ports Corporation Advice

Some land in the City of Sydney located in the vicinity of the White Bay, Glebe Island and Darling Harbour ports may be affected by noise from port operations.

Advice provided in accordance with planning certificate section 10.7 (5) is supplied in good faith. Council accepts no liability for the validity of the advice given. (see section 10.7 (6) of the Environmental Planning and Assessment Act, 1979).

Appendix D

Site Photographs

Planning certificate section 10.7 (2), local planning controls are available are available online at www.cityofsydney.nsw.gov.au

General Enquiries:
Telephone: 02 9265 9333

Town Hall House
Level 2
Town Hall House
456 Kent Street
Sydney
9am – 5pm Monday - Friday

State planning controls are available online at www.legislation.nsw.gov.au

Where planning certificate section 10.7 (5) matters are supplied, complete details are available by writing to:

Chief Executive Officer
City of Sydney
G.P.O. Box 1591
Sydney NSW 2000

End of Document



Photograph 1 Building facade, facing south



Photograph 2 Above-ground diesel tank within sprinkler / pump room

Douglas PARTNERS	**Site Photographs**	PROJECT:	231572.01
	Proposed Redevelopment	PLATE No:	1
	150 Day Street, Sydney	REV:	0
	CLIENT	Mecone C/- UOL Group Limited	



Photograph 3 Laundry room, lower basement level



Photograph 4 Cleaning chemical storage, laundry room

Douglas PARTNERS	**Site Photographs**	PROJECT:	231572.01
	Proposed Redevelopment	PLATE No:	2
	150 Day Street, Sydney	REV:	0
	CLIENT	Mecone C/- UOL Group Limited	

Appendix E

Data Quality Objectives, Quality Assurance and Quality Control

1. Data quality objectives

The PSI has been devised broadly in accordance with the seven-step data quality objectives (DQO) process which is provided in Appendix B, Schedule B2 of NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).

Table 1: Data quality objectives

Step	Summary
1: State the problem	The objective of the investigation is to assess the potential for contamination at the site with respect to the proposed land use. The report is being undertaken as the site is to be redeveloped. A preliminary conceptual site model (CSM) has been prepared (Section 7) for the proposed development. The project team consisted of experienced environmental engineers and scientists working in the roles of Project Principal, Project Reviewer, Project Manager and field staff.
2: Identify the decisions / goal of the study	The site history has identified possible contaminating previous uses which are identified in the CSM (Section 7). The CSM identifies the associated contaminants of potential concern (CoPC) and the likely impacted media. The site assessment criteria (SAC) for each of the CoPC are detailed in Appendix F. The decision is to establish whether or not the results fall below the SAC. On this basis, an assessment of the site's suitability from a contamination perspective will be derived and a decision made on whether (or not) further assessment and / or remediation will be required.
3: Identify the information inputs	Inputs will be the analytical results for the CoPC (identified in the CSM, Section 7) from NATA accredited laboratories and methods, where possible. The SAC for each of the CoPC are detailed in Appendix F. A photoionisation detector (PID) will be used on-site to screen soils for VOC. PID readings will be used to inform sample selection for laboratory analysis.
4: Define the study boundaries	The lateral boundaries of the investigation area are shown on Drawing 1, Appendix A. The vertical boundaries are to the extent of contamination impact as determined from the site history assessment and site observations. The assessment is limited to the timeframe over which the field works were undertaken. Constraints to the assessment are identified and discussed in the conclusions of the report, Section 15.
5: Develop the analytical approach (or decision rule)	The decision rule is to compare all analytical results with the SAC (Appendix F, based on NEPC (2013)). Where guideline values are absent, other sources of guideline values accepted by NEPC (2013) shall be adopted where possible. Where a sample result exceeds the adopted criterion, a further site-specific assessment will be made as to the risk posed by the presence of that contaminant(s).

Step	Summary
	Initial comparisons will be with individual results then, where required and appropriate, summary statistics (including mean, standard deviation and 95% upper confidence limit (UCL) of the arithmetic mean (95% UCL)) to assess potential risks posed by the site contamination. Quality control results are to be assessed according to their relative percent difference (RPD) values. For field duplicate sand laboratory results, RPD values should generally be below 30%. The field and laboratory quality assurance assessment is included in Appendix E.
6: Specify the performance or acceptance criteria	Baseline condition: Contaminants at the exceed the human health and environmental SAC and pose a potentially unacceptable risk to receptors (null hypothesis). Alternative condition: Contaminants at the site comply with the human health and environmental SAC and as such, do not pose a potentially unacceptable risk to receptors (alternative hypothesis). Unless conclusive information from the collected data is sufficient to reject the null hypothesis, it is assumed that the baseline condition is true.
7: Optimise the design for obtaining data	As the purpose of the investigation is to assess the contamination status of the site, the sampling program is reliant on professional judgement to identify and sample the potentially affected areas. Further details regarding the proposed sampling plan are presented in Section 8.

2. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

1. Field and laboratory data quality assurance and quality control

The field and laboratory data quality assurance and quality control (QA / QC) procedures and results are summarised in the following Table 1. Reference should be made to the field work methodology and the laboratory results / certificates of analysis for further details. The relative percentage difference (RPD) results are included at the end of this appendix.

Table 1: Field and laboratory quality control

Item	Evaluation / acceptance criteria	Compliance
Analytical laboratories used	NATA accreditation	C
Holding times	Various based on type of analysis	C
Intra-laboratory replicates	10% of primary samples; <30% RPD	C PC
Laboratory / Reagent Blanks	1 per batch; <PQL	C
Laboratory Duplicate	1 per lab batch; As laboratory certificate	C
Matrix Spikes	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Surrogate Spikes	All organics analysis; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Control Samples	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Standard Operating Procedures (SOP)	Adopting SOP for all aspects of the sampling field work	C

Notes:
C = compliance; PC = partial compliance; NC = non-compliance

The RPD results were all within the acceptable range, with the exception of zinc as indicated in Table QA1 (results in bold). The exceedances are not, however, considered to be of concern given that the actual differences in the concentrations of the replicate pairs was low.

In summary, the QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

2. Data quality indicators

The reliability of field procedures and analytical results was assessed against the following data quality indicators (DQI) as outlined in NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013):

- Completeness: a measure of the amount of usable data from a data collection activity;

- Comparability: the confidence (qualitative) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness: the confidence (qualitative) of data representativeness of media present on-site;
- Precision: a measure of variability or reproducibility of data; and
- Accuracy: a measure of closeness of the data to the 'true' value.

Table 2: Data quality indicators

Data quality indicator	Method(s) of achievement
Completeness	Preparation of borehole logs, sample location plan and chain of custody records.
	Laboratory sample receipt information received confirming receipt of samples intact and appropriateness of the chain of custody.
	Samples analysed for contaminants of potential concern (COPC) identified in the conceptual site model (CSM).
	Completion of chain of custody (COC) documentation.
	NATA accredited laboratory results certificates provided by the laboratory.
	Satisfactory frequency and results for field and laboratory quality control (QC) samples as discussed in Section 1.
Comparability	Using appropriate techniques for sample recovery, storage and transportation, which were the same for the duration of the project.
	Experienced sampler(s) used.
	Use of NATA registered laboratories, with test methods the same or similar between laboratories.
	Satisfactory results for field and laboratory QC samples.
Representativeness	Target media sampled.
	Sample numbers recovered and analysed are considered to be representative of the target media and complying with DQO.
	Samples were extracted and analysed within holding times.
	Samples were analysed in accordance with the COC.
Precision	Field staff followed standard operating procedures.
	Acceptable RPD between original samples and replicates.
	Satisfactory results for all other field and laboratory QC samples.
Accuracy	Field staff followed standard operating procedures.
	Satisfactory results for all field and laboratory QC samples.

Based on the above, it is considered that the DQI have been complied with.

3. Conclusion

Based on the results of the field QA and field and laboratory QC, and evaluation against the DQI it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

4. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix F

Site Assessment Criteria

1. Introduction

1.1 Guidelines

The following key guidelines were consulted for deriving the site assessment criteria (SAC):

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).

1.2 General

The SAC applied in the current investigation are informed by the CSM which identified human and environmental receptors to potential contamination at the site. Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1 of NEPC (2013).

The following inputs are relevant to the selection and/or derivation of the SAC:

- Land use: commercial (hotel):
  - Corresponding to land use category 'D', commercial / industrial such as shops, offices, factories and industrial sites.
- Soil type: sand (adopted as a screen for sandstone).

2. Soils

2.1 Health investigation and screening levels

The generic health investigation levels (HIL) and health screening levels (HSL) are considered to be appropriate for the assessment of human health risk via all relevant pathways of exposure associated with contamination at the site. The adopted soil HIL and HSL for the contaminants of concern are in Table 1 and Table 2.

Table 1: Health investigation levels (mg/kg)

Contaminant	HIL-D
Metals	
Arsenic	3000
Cadmium	900
Chromium (VI)	3600
Copper	240 000
Lead	1500
Mercury (inorganic)	730
Nickel	6000
Zinc	400 000

Contaminant	HIL-D
PAH	
B(a)P TEQ	40
Total PAH	4000
Phenols	
Phenol	240 000
OCP	
DDT+DDE+DDD	3600
Aldrin and dieldrin	45
Chlordane	530
Endosulfan	2000
Endrin	100
Heptachlor	50
HCB	80
Methoxychlor	2500
OPP	
Chlorpyrifos	2000
PCB	
PCB	7

Table 2: Health screening levels (mg/kg)

Contaminant	HSL-D
SAND	**0 m to <1 m**
Benzene	3
Toluene	NL
Ethylbenzene	NL
Xylenes	230
Naphthalene	NL
TRH F1	260
TRH F2	NL

Notes: TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene
The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would results in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'

The HSL for direct contact derived from CRC CARE (2011) are in Table .

Table 3: Health screening levels for direct contact (mg/kg)

Contaminant	DC HSL-D	DC HSL-IMW
Benzene	430	1100
Toluene	99 000	120 000
Ethylbenzene	27 000	85 000
Xylenes	81 000	130 000
Naphthalene	11 000	29 000
TRH F1	26 000	82 000
TRH F2	20 000	62 000
TRH F3	27 000	85 000
TRH F4	38 000	120 000

Notes: TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene
IMW intrusive maintenance worker

2.2 Management limits

In addition to appropriate consideration and application of the HSL, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosion hazards; and
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services.

The adopted management limits are in Table 4.

Table 4: Management limits (mg/kg)

Contaminant	Soil type	ML-D
TRH F1	Coarse	700
TRH F2	Coarse	1000
TRH F3	Coarse	3500
TRH F4	Coarse	10 000

Notes: TRH F1 is TRH C_6-C_{10} including BTEX
TRH F2 is TRH >C_{10}-C_{16} including naphthalene

3. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM].* Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix G

Fieldwork Methodology

1. Guidelines

The following key guidelines were consulted for the field work methodology:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).

2. Soil sampling

Soil sampling is carried out in accordance with Douglas' standard operating procedures. The general sampling and sample management procedures comprise:

- Collect soil samples directly from the core barrel at regular intervals, changes in strata or upon signs of contamination;
- Transfer samples in laboratory-prepared glass jars with Teflon lined lids by hand, capping immediately and minimising headspace within the sample jar;
- Collect replicate samples in zip-lock bags for photoionisation detector (PID) screening;
- Wear a new disposable nitrile glove for each sample point thereby minimising potential for cross-contamination;
- Collect 10% replicate samples for quality control (QC) purposes;
- Label sample containers with individual and unique identification details, including project number, sample location and sample depth (where applicable);
- Place samples into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

2.1 Field testing

Field testing is carried out in accordance with Douglas' standard operating procedures. The general sampling and sample management procedures comprise:

- Calibrate the PID with isobutylene gas at 100 ppm and with fresh air prior to commencement of each successive day's field work;
- Allow the headspace in the PID zip-lock bag samples to equilibrate; and
- Screen using the PID.

3. Soil vapour installation and screening

Vapour pin installation comprises the following steps:

- Drilling of a 38 mm pilot hole into the pavement to a depth of approximately 50 mm using a rotary hammer drill and masonry bit;
- Drilling of a second hole with a diameter of 16 mm to fully penetrate the pavement (approximately 150 mm);

- A pre-fabricated stainless-steel vapour pin with a silicon sleeve (with an outer diameter approximately 20 mm) was inserted into the drilled hole and then drive into the pavement using a hammer. The silicon sleeve holds the pin in place. No glues, cements or other binding products are applied to the installation;
- Place a plastic cap on the inlet to the pin and screw a stainless-steel cap into place;
- Allow the pins to sit for approximately 60 minutes to equilibrate to ambient conditions before purging; and
- Using a photoionisation detector (PID) to insert into the inlet of the pin to record the volatile organic compounds (VOC) readings.

4. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix H

Field Logs



Photograph 5 Chemical storage within engineering room



Photograph 6 Grease arrestors, lower ground level

Douglas PARTNERS	**Site Photographs**	PROJECT:	231572.01
	Proposed Redevelopment	PLATE No:	3
	150 Day Street, Sydney	REV:	0
	CLIENT	Mecone C/- UOL Group Limited	

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333851.5, N:6250375.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
18/10/24 No free groundwater observed whilst augering		0.33	CONCRETE.		NA						100	-								
		0.43	FILL / GRAVEL: dark grey; sub-angular; poorly graded.		FILL						100	-								
	-1	1	CONCRETE; (possible footing).		NA						89	0						1		
		1.40						SW	1.40	H				1.40m: , Unless otherwise stated below, all defects are bedding dipping 0° -10°						
		1.51	SANDSTONE: pale grey with red-brown and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone						1.65	H									PLT	PL(A)=1.3MPa
		1.65							1.75	H									PLT	PL(A)=0.86MPa
	-2	2						SW		M to H	100	78						2	PLT	PL(A)=0.70MPa
																UCS	2.30		PLT	PL(A)=0.62MPa
									2.68	H									PLT	PL(A)=1.3MPa
		2.92							2.92											
	-3	3	SANDSTONE: pale grey with orange staining; indistinct and distinct bedding at 0-10°. Hawkesbury Sandstone						3.00		100	51		3.37m: CZ, 60mm				3	PLT	PL(A)=0.41MPa
														3.70m: JT, 45°, PR, RF 3.75m: CZ, 60mm						
	-4	4						FR		M								4	PLT	PL(A)=0.70MPa
											100	100							PLT	PL(A)=0.60MPa
														4.86m: JT, 70°, PR, TI, RF					PLT	PL(A)=0.41MPa
		5	Borehole discontinued at 4.92m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.33m, DT (64mmØ) to 4.92m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: JC
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333851.5, N:6250375.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1



0.43-4.92 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:49

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333843.0, N:6250388.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	ROCK RECOVERY (%)	ROCK RQD	ROCK FRACTURE SPACING (m)	ROCK DEFECTS & REMARKS	SAMPLE SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	SAMPLE DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
18/10/24 No free groundwater observed whilst augering	-1	0.43	CONCRETE.		NA															
			CONCRETE; (possible footing).		NA						100	0								
		1.48	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone					SW	1.48					1.40m: , Unless otherwise stated below, all defects are bedding dipping at 0°-10° 1.48m: JT, 80-90°, IR, VNR, RF					PLT	PL(A)=0.59MPa
	-2	2							1.63	M								1	PLT	PL(A)=0.93MPa
								FR	2.00	H	86	56							PLT	PL(A)=1.3MPa
		2.17	SANDSTONE: pale brown; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone						2.27										PLT	PL(A)=1.5MPa
		2.27							2.41										PLT	PL(A)=1.1MPa
		2.41																	PLT	PL(A)=1.8MPa
		2.68	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone															2		
	-3	3																3		
								FR		H	100	69							PLT	PL(A)=2.3MPa
		3.64	SANDSTONE: pale brown; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone															4	PLT	PL(A)=1.0MPa
	-4	4.00	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone													UCS		4.27	PLT	PL(A)=1.0MPa
		5	Borehole discontinued at 4.71m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.43m, DT (64mmØ) to 4.71m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: JC
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333843.0, N:6250388.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1



0.43-4.71 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:52

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333858.2, N:6250409.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
26/10/24 No free groundwater observed whilst augering	-5	0.16	CONCRETE.		NA						100	-						0.16		
		0.20	FILL / CLAY: pale brown, yellow; mesh material.													ES		0.20		
			CONCRETE; (possible footing).																	
		1			NA						100	-						1		
	-6	1.52	SANDSTONE: fine to coarse grained, distinct and indistinct cross-bedding, 0 to 10°, slightly fractured. Hawkesbury Sandstone						1.52					1.30m, unless otherwise stated, all defects are bedded and dipping 0-10°					PLT	PL(A)=1.4MPa
		2						SW						1.62m: B, 0-10°, PR, RF 1.67m: JT, 50-60°, PR, VNR, RF 1.75m: CZ, 30mm, RF 1.87m: B, 10°, PR, RF 1.91m: JT, 70-80°, IR, VNR, RF				2	PLT	PL(A)=1.7MPa
								SW to MW	2.25		100	68		2.22m: B, 0-10°, PR, RF 2.27m: B, 0-10°, PR, RF 2.32m: JT, HE 2.41m: JT, 60-70°, PR, VNR, RF 2.69m: B, 0-10°, PR, RF						
	-7	3							2.53	H				2.89m: B, 0-10°, PR, RF					PLT	PL(A)=1.3MPa
								SW								UCS		3.00		
											100	80								
		4	Borehole discontinued at 4.00m depth. Target depth reached.											3.82m: B, 0-10°, PR, RF 3.91m: B, 0-10°, PR, RF 3.94m: CZ, 10mm					PLT PLT	PL(A)=0.49MPa PL(A)=1.8MPa
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.16m, DT (64mmØ) to 4.0m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: RDS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333858.2, N:6250409.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



0.20-4.00 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:54

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333842.2, N:6250429.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH104
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
19/10/24 No free groundwater observed whilst augering	-5	0.25	CONCRETE.		NA						100	-						1		
		1	CONCRETE; (possible footing).		NA						100	-		1.10m: , unless otherwise stated, all defects are bedded and dipping 0-10°						
		1.33	SANDSTONE: grey, pale grey and orange, fine to medium grained. Hawkesbury Sandstone						1.33	M	100	27		1.41m: B, 0°, PR, CN, RF		UCS		1.39		
	-6	2							1.80		100	100		1.66m: B, 5°, PR, CT Clay, RF				2	PLT	PL(A)=0.51MPa
								SW						2.28m: B, 0°, PR, CN, RF						
	-7	3								H	100	100		2.51m: JT, 30°, PR, SN Fe, RF				3	PLT	PL(A)=1.6MPa
		4	Borehole discontinued at 4.00m depth. Target depth reached.											3.52m: B, 10°, PR, CN, RF						
														3.67m: B, 5°, PR, CN, RF					PLT	PL(A)=1.4MPa
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.25m, DT (64mmØ) to 4.0m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: LS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333842.2, N:6250429.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH104
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1



0.25-4.00 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:57

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	ROCK RECOVERY (%)	ROCK RQD	ROCK FRACTURE SPACING (m)	ROCK DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
26/10/24 No free groundwater observed whilst augering	-5	0.20	CONCRETE.		NA						100	-		0.00m: , unless otherwise stated below all defects are bedding planar dipping at 0-10°		D/ES		0.22		
		0.22	FILL / CLAY: pale yellow, pale brown; unknown material mesh; unusual odour.																	
			CONCRETE; (possible footing).		NA						100	-								
		1																1		
		1.43	SANDSTONE: pale brown-yellow, fine to coarse grained, distinct and indistinct bedding , 0 to 10°. Hawkesbury Sandstone						1.43	H	100	71		1.43-1.54m: JT x4, HE					PLT	PL(A)=1.2MPa
																UCS		1.59		
	-6	2									100	100						2	PLT	PL(A)=1.1MPa
									2.20					2.35m: B, 0-10°, PR, RF						
								SW			100	85		2.37-2.85m: JT x4, HE						
										M										
	-7	3												2.50m: B, 0-10°, PR, RF 2.60m: B, 0-10°, PR, RF 2.78m: B, 0-10°, PR, RF				3	PLT	PL(A)=0.56MPa
									3.40	L to M				3.37m: JT, 40-50°, PR, Clay, RF						
		3.55	CORE LOSS					DW			73	70		3.51m: CS, 40mm						
		3.76	AS ABOVE					DW	3.76	M									PLT	PL(A)=0.45MPa
		4	Borehole discontinued at 3.88m depth. Target depth reached.																PLT	PL(A)=0.65MPa
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.20m, DT (64mmØ) to 3.88m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: RDS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



0.22-3.88 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:34:00

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333849.6, N:6250430.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH106
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
19/10/24 No free groundwater observed whilst augering	-5	0.28	CONCRETE.		NA						100	-						1		
			CONCRETE; (possible footing).								100	100								
		1			NA															
		1.65						MW	1.65	L	91	89		1.68m: JT, 45°, UN, CN, RF						
		1.71																		
		1.78	SANDSTONE: grey, orange-brown and red-brown, fine to medium grained. Hawkesbury Sandstone						1.78											
	-6	2	CORE LOSS					MW		VL to L								2	PLT	PL(A)=0.09MPa
			AS ABOVE						2.00										PLT	PL(A)=0.08MPa
														2.00-2.15m: JT, 0-20°, UN, SN Fe, RF						
														2.21-2.30m: JT, 45°, PR, SN Fe, RF						
														2.26-2.40m: JT, 80°, PR, SN Fe, RF						
														2.53-2.60m: JT, 45°, PR, SN Fe, RF						
								HW		L	100	29								
														2.76-2.81m: JT, 30°, PR, SN Fe, RF						
	-7	3												2.95m: FG, 50mm				3		
														3.00-3.05m: JT, 30°, PR, SN Fe, RF						
														3.08-3.16m: FG, 80 mm						
														3.16m: JT, 80°, UN, SN Fe						
									3.38											
								MW		H									PLT	PL(A)=1.4MPa
									3.50											
														3.63-3.75m: JT, 0-45°, PR, SN Fe, RF						
								HW		L	100	30		3.75-3.85m: FG, 100mm						
	-8	4												3.85-4.20m: JT, 80 -90°, PR, Fe				4		
									4.20											
														4.28m: B, 0°, PR, SN Fe, RF		UCS		4.29		
								MW		M				4.46m: B, 5°, UN, SN Fe, RF					PLT	PL(A)=0.67MPa
											100	49		4.58- 4.63m: JT, 30°, PR, SN Fe, RF						
									4.77					4.66m: JT, 30°, SN Fe, RF						
								HW		L				4.80m: FG, 70mm						
		4.87	CORE LOSS																	
		5	Borehole discontinued at 4.94m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.29, DT (64mmØ) to 4.94m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: LS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333849.6, N:6250430.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH106
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1



0.28-4.00 m depth



4.00-4.94 m depth

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BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333851.5, N:6250375.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
18/10/24 No free groundwater observed whilst augering		0.33	CONCRETE.		NA						100	-								
		0.43	FILL / GRAVEL: dark grey; sub-angular; poorly graded.		FILL						100	-								
	-1	1	CONCRETE; (possible footing).		NA						89	0						1		
		1.40						SW	1.40	H				1.40m: , Unless otherwise stated below, all defects are bedding dipping 0° -10°						
		1.51	SANDSTONE: pale grey with red-brown and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone						1.65	H									PLT	PL(A)=1.3MPa
		1.65							1.75	H									PLT	PL(A)=0.86MPa
	-2	2						SW		M to H	100	78						2	PLT	PL(A)=0.70MPa
																UCS	2.30		PLT	PL(A)=0.62MPa
									2.68	H									PLT	PL(A)=1.3MPa
		2.92							2.92											
	-3	3	SANDSTONE: pale grey with orange staining; indistinct and distinct bedding at 0-10°. Hawkesbury Sandstone						3.00		100	51		3.37m: CZ, 60mm				3	PLT	PL(A)=0.41MPa
														3.70m: JT, 45°, PR, RF 3.75m: CZ, 60mm						
	-4	4						FR		M									PLT	PL(A)=0.70MPa
											100	100						4	PLT	PL(A)=0.60MPa
														4.86m: JT, 70°, PR, TI, RF					PLT	PL(A)=0.41MPa
		5	Borehole discontinued at 4.92m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.33m, DT (64mmØ) to 4.92m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: JC
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333851.5, N:6250375.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1



0.43-4.92 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:49

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333843.0, N:6250388.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	ROCK RECOVERY (%)	ROCK RQD	ROCK FRACTURE SPACING (m)	ROCK DEFECTS & REMARKS	SAMPLE SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	SAMPLE DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
18/10/24 No free groundwater observed whilst augering	-1	0.43	CONCRETE.		NA															
			CONCRETE; (possible footing).		NA						100	0								
		1.48	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone					SW	1.48 1.63	M				1.40m: , Unless otherwise stated below, all defects are bedding dipping at 0°-10° 1.48m: JT, 80-90°, IR, VNR, RF					PLT	PL(A)=0.59MPa
	-2	2						FR	2.00	H	86	56						2	PLT	PL(A)=0.93MPa
		2.17 2.27 2.41	SANDSTONE: pale brown; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone						2.27 2.41										PLT	PL(A)=1.3MPa
		2.68	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone																PLT	PL(A)=1.5MPa
	-3	3																3	PLT	PL(A)=1.1MPa
								FR		H									PLT	PL(A)=1.8MPa
		3.64	SANDSTONE: pale brown; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone								100	69							PLT	PL(A)=2.3MPa
	-4	4.00	SANDSTONE: pale grey and orange staining; indistinct and distinct cross-bedding at 0-10°. Hawkesbury Sandstone													UCS		4	PLT	PL(A)=1.0MPa
																		4.27	PLT	PL(A)=1.0MPa
		5	Borehole discontinued at 4.71m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.43m, DT (64mmØ) to 4.71m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: JC
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: 0.0 AHD
COORDINATE: E:333843.0, N:6250388.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102
PROJECT No: 231572.00
DATE: 18/10/24
SHEET: 1 of 1



0.43-4.71 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:52

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333858.2, N:6250409.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
26/10/24 No free groundwater observed whilst augering	-5	0.16	CONCRETE.		NA						100	-						0.16		
		0.20	FILL / CLAY: pale brown, yellow; mesh material.													ES		0.20		
			CONCRETE; (possible footing).																	
		1			NA						100	-						1		
	-6	1.52	SANDSTONE: fine to coarse grained, distinct and indistinct cross-bedding, 0 to 10°, slightly fractured. Hawkesbury Sandstone						1.52					1.30m, unless otherwise stated, all defects are bedded and dipping 0-10°					PLT	PL(A)=1.4MPa
		2						SW						1.62m: B, 0-10°, PR, RF 1.67m: JT, 50-60°, PR, VNR, RF 1.75m: CZ, 30mm, RF 1.87m: B, 10°, PR, RF 1.91m: JT, 70-80°, IR, VNR, RF				2	PLT	PL(A)=1.7MPa
								SW to MW	2.25		100	68		2.22m: B, 0-10°, PR, RF 2.27m: B, 0-10°, PR, RF 2.32m: JT, HE 2.41m: JT, 60-70°, PR, VNR, RF 2.69m: B, 0-10°, PR, RF						
	-7	3							2.53	H				2.89m: B, 0-10°, PR, RF					PLT	PL(A)=1.3MPa
								SW								UCS		3.00		
											100	80								
		4												3.82m: B, 0-10°, PR, RF 3.91m: B, 0-10°, PR, RF 3.94m: CZ, 10mm					PLT PLT	PL(A)=0.49MPa PL(A)=1.8MPa
			Borehole discontinued at 4.00m depth. Target depth reached.																	
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.16m, DT (64mmØ) to 4.0m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: RDS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333858.2, N:6250409.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



0.20-4.00 m depth

Generated with CORE-GS by Geroc - Combined Log - 22/11/2024 09:33:54

BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333842.2, N:6250429.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH104
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
19/10/24 No free groundwater observed whilst augering	-5	0.25	CONCRETE.		NA						100	-						1		
		1	CONCRETE; (possible footing).		NA						100	-		1.10m: , unless otherwise stated, all defects are bedded and dipping 0-10°						
		1.33	SANDSTONE: grey, pale grey and orange, fine to medium grained. Hawkesbury Sandstone						1.33	M	100	27		1.41m: B, 0°, PR, CN, RF		UCS		1.39	PLT	PL(A)=0.51MPa
	-6	2							1.80		100	100		1.66m: B, 5°, PR, CT Clay, RF 2.28m: B, 0°, PR, CN, RF				2		
	-7	3						SW		H	100	100		2.51m: JT, 30°, PR, SN Fe, RF 3.52m: B, 10°, PR, CN, RF 3.67m: B, 5°, PR, CN, RF				3	PLT PLT	PL(A)=1.6MPa PL(A)=1.4MPa
		4	Borehole discontinued at 4.00m depth. Target depth reached.																	
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.25m, DT (64mmØ) to 4.0m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: LS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333842.2, N:6250429.4
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH104
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1



mesh: would be better consistent between logs (bh103 doesn't say unknown, and calls it mesh material)

odour: is it unnatural odour (this would be a better description than unusual)

0.25-4.00 m depth

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BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
26/10/24 No free groundwater observed whilst augering	-5	0.20	CONCRETE.		NA						100	-		0.00m: , unless otherwise stated below all defects are bedding planar dipping at 0-10°		D/ES		0.22		
		0.22	FILL / CLAY: pale yellow, pale brown; unknown material mesh; unusual odour.																	
			CONCRETE; (possible footing).		NA						100	-								
	-5	1																1		
		1.43	SANDSTONE: pale brown-yellow, fine to coarse grained, distinct and indistinct bedding , 0 to 10°. Hawkesbury Sandstone						1.43	H	100	71		1.43-1.54m: JT x4, HE		UCS		1.59	PLT	PL(A)=1.2MPa
	-6	2									100	100						2	PLT	PL(A)=1.1MPa
								SW	2.20					2.35m: B, 0-10°, PR, RF						
											100	85		2.37-2.85m: JT x4, HE						
										M										
	-7	3												2.50m: B, 0-10°, PR, RF 2.60m: B, 0-10°, PR, RF 2.78m: B, 0-10°, PR, RF				3	PLT	PL(A)=0.56MPa
									3.40	L to M				3.37m: JT, 40-50°, PR, Clay, RF						
								DW			73	70		3.51m: CS, 40mm						
		3.55	CORE LOSS																	
		3.76	AS ABOVE					DW	3.76	M									PLT	PL(A)=0.45MPa
																			PLT	PL(A)=0.65MPa
		4	Borehole discontinued at 3.88m depth. Target depth reached.																	
		5																		

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.20m, DT (64mmØ) to 3.88m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: RDS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



0.22-3.88 m depth

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BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333849.6, N:6250430.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH106
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	SOIL ORIGIN(#)	SOIL CONSIS.(*) DENSITY.(*)	SOIL MOISTURE	ROCK WEATH.	ROCK DEPTH (m)	ROCK STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING TEST TYPE	TESTING RESULTS AND REMARKS
19/10/24 No free groundwater observed whilst augering	-5	0.28	CONCRETE.		NA						100	-								
		1	CONCRETE; (possible footing).		NA						100	100						1		
		1.65						MW	1.65	L	91	89		1.68m: JT, 45°, UN, CN, RF						
		1.71																		
	-6	1.78	SANDSTONE: grey, orange-brown and red-brown, fine to medium grained. Hawkesbury Sandstone					MW	1.78	VL to L									PLT	PL(A)=0.09MPa
		2	CORE LOSS						2.00									2	PLT	PL(A)=0.08MPa
			AS ABOVE											2.00-2.15m: JT, 0-20°, UN, SN Fe, RF						
														2.21-2.30m: JT, 45°, PR, SN Fe, RF						
														2.26-2.40m: JT, 80°, PR, SN Fe, RF						
														2.53-2.60m: JT, 45°, PR, SN Fe, RF						
								HW		L	100	29		2.76-2.81m: JT, 30°, PR, SN Fe, RF						
	-7	3												2.95m: FG, 50mm				3		
														3.00-3.05m: JT, 30°, PR, SN Fe, RF						
														3.08-3.16m: FG, 80 mm						
														3.16m: JT, 80°, UN, SN Fe						
								MW	3.38	H									PLT	PL(A)=1.4MPa
									3.50											
								HW		L	100	30		3.63-3.75m: JT, 0-45°, PR, SN Fe, RF						
	-8	4												3.75-3.85m: FG, 100mm				4		
														3.85-4.20m: JT, 80 -90°, PR, Fe						
									4.20											
								MW		M	100	49		4.28m: B, 0°, PR, SN Fe, RF		UCS		4.29		
														4.46m: B, 5°, UN, SN Fe, RF					PLT	PL(A)=0.67MPa
														4.58- 4.63m: JT, 30°, PR, SN Fe, RF						
														4.66m: JT, 30°, SN Fe, RF						
		4.87						HW	4.77	L				4.80m: FG, 70mm						
		5	CORE LOSS																	
			Borehole discontinued at 4.94m depth. Target depth reached.																	

NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.29, DT (64mmØ) to 4.94m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: LS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

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CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333849.6, N:6250430.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH106
PROJECT No: 231572.00
DATE: 19/10/24
SHEET: 1 of 1



0.28-4.00 m depth



4.00-4.94 m depth

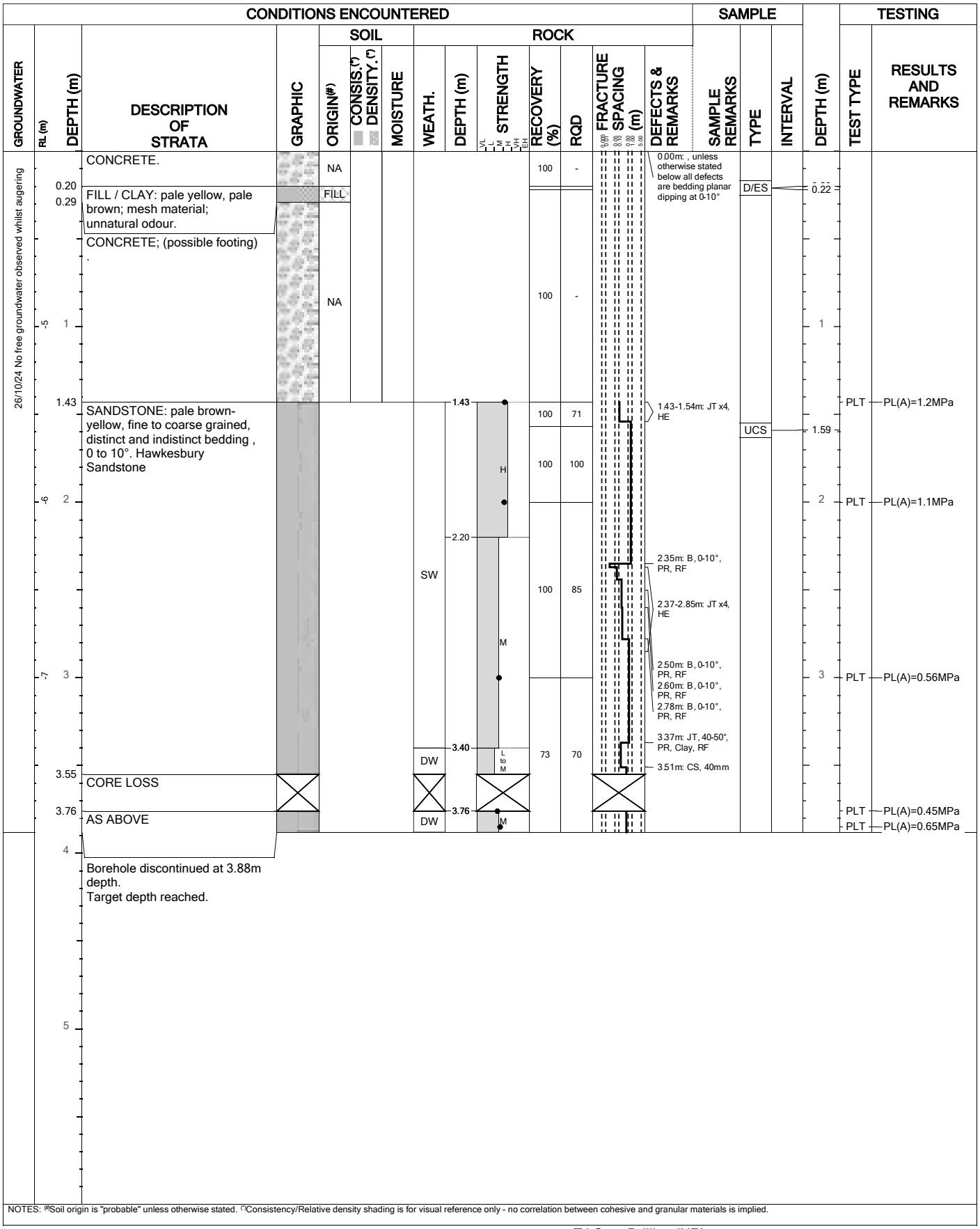
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BOREHOLE LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



NOTES: (#)Soil origin is "probable" unless otherwise stated. (*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Concrete Coring Equipment
METHOD: DT (125mmØ) to 0.20m, DT (64mmØ) to 3.88m
REMARKS:

OPERATOR: TJ Core Drilling (NR)

LOGGED: RDS
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Combined Log

Terminology, Symbols and Abbreviations

November 2023

Introduction to Terminology, Symbols and Abbreviations

Douglas Partners' reports, investigation logs, and other correspondence may use terminology which has quantitative or qualitative connotations. To remove ambiguity or uncertainty surrounding the use of such terms, the following sets of notes pages may be attached Douglas Partners' reports, depending on the work performed and conditions encountered:

- Soil Descriptions;
- Rock Descriptions; and
- Sampling, insitu testing, and drilling methodologies

In addition to these pages, the following notes generally apply to most documents.

Abbreviation Codes

Site conditions may also be presented in a number of different formats, such as investigation logs, field mapping, or as a written summary. In some of these formats textual or symbolic terminology may be presented using textual abbreviation codes or graphic symbols, and, where commonly used, these are listed alongside the terminology definition. For ease of identification in these note pages, textual codes are presented in these notes in the following style XW. Code usage conforms with the following guidelines:

- Textual codes are case insensitive, although herein they are generally presented in upper case; and
- Textual codes are contextual (i.e. the same or similar combinations of characters may be used in different contexts with different meanings (for example `PL` is used for plastic limit in the context of soil moisture condition, as well as in `PL(A)` for point load test result in the testing results column)).

Data Integrity Codes

Subsurface investigation data recorded by Douglas Partners is generally managed in a highly structured database environment, where records "span" between a top and bottom depth interval. Depth interval "gaps" between records are considered to introduce ambiguity, and, where appropriate, our practice guidelines may require contiguous data sets. Recording meaningful data is not always appropriate (for example assigning a "strength" to a concrete pavement) and the following codes may be used to maintain contiguity in such circumstances.

Term	Description	Abbreviation Code
Core loss	No core recovery	KL
Unknown	Information was not available to allow classification of the property. For example, when auguring in loose, saturated sand auger cuttings may not be returned.	UK
No data	Information required to allow classification of the property was not available. For example if drilling is commenced from the base of a hole predrilled by others	ND
Not Applicable	Derivation of the properties not appropriate or beyond the scope of the investigation. For example providing a description of the strength of a concrete pavement	NA

Graphic Symbols

Douglas Partners' logs contain a "graphic" column which provides a pictorial representation of the basic composition of the material. The symbols used are directly representing the material name stated in the adjacent "Description of Strata" column, and as such no specific graphic symbology legend has been provided in these notes.

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Soil Descriptions

Terminology
Symbols
Abbreviations

March 2024

Introduction

All materials which are not considered to be "in-situ rock" are described in general accordance with the soil description model of AS 1726-2017 Part 6.1.3, and can be broken down into the following description structure:



The "classification" comprises a two character "group symbol" providing a general summary of dominant soil characteristics. The "name" summarises the particle sizes within the soil which most influence its behaviour. The detailed description presents more information about composition, condition, structure, and origin of the soil.

Classification, naming and description of soils require the relative proportion of particles of different sizes within the whole soil mixture to be considered.

Particle size designation and Behaviour Model

Solid particles within a soil are differentiated on the basis of size.

The engineering behaviour properties of a soil can subsequently be modelled to be either "fine grained" (also known as "cohesive" behaviour) or "coarse grained" ("non cohesive" behaviour), depending on the relative proportion of fine or coarse fractions in the soil mixture.

Particle Size Designation	Particle Size (mm)	Behaviour Model	
		Behaviour	Approximate Dry Mass
Boulder	>200	Excluded from particle behaviour model as "oversize"	
Cobble	63 - 200		
Gravel[1]	2.36 - 63	Coarse	>65%
Sand[1]	0.075 - 2.36		
Silt	0.002 - 0.075	Fine	>35%
Clay	<0.002		

[1] – refer grain size subdivision descriptions below

The behaviour model boundaries defined above are not precise, and the material behaviour should be assumed from the name given to the material (which considers the particle fraction which dominates the behaviour, refer "component proportions" below), rather than strict observance of the proportions of particle sizes. For example, if a material is named a "Sandy CLAY", this is indicative that the material exhibits fine grained behaviour, even if the dry mass of coarse grained material may exceed 65%.

Component proportions

The relative proportion of the dry mass of each particle size fraction is assessed to be a "primary", "secondary", or "minor" component of the soil mixture, depending on its influence over the soil behaviour.

Component Proportion Designation	Definition[1]	Relative Proportion	
		In Fine Grained Soil	In Coarse Grained Soil
Primary	The component (particle size designation, refer above) which dominates the engineering behaviour of the soil	The clay/silt component with the greater proportion	The sand/gravel component with the greater proportion
Secondary	Any component which is not the primary, but is significant to the engineering properties of the soil	Any component with greater than 30% proportion	Any granular component with greater than 30%; or Any fine component with greater than 12%
Minor[2]	Present in the soil, but not significant to its engineering properties	All other components	All other components

[1] As defined in AS1726-2017 6.1.4.4

[2] In the detailed material description, minor components are split into two further sub-categories. Refer "identification of minor components" below.

Composite Materials

In certain situations, a lithology description may describe more than one material, for example, collectively describing a layer of interbedded sand and clay. In such a scenario, the two materials would be described independently, with the names preceded or followed by a statement describing the arrangement by which the materials co-exist. For example, "INTERBEDDED Silty CLAY AND SAND".

Soil Descriptions

Classification

The soil classification comprises a two character group symbol. The first character identifies the primary component. The second character identifies either the grading or presence of fines in a coarse grained soil, or the plasticity in a fine grained soil. Refer AS1726-2017 6.1.6 for further clarification.

Soil Name

For most soils, the name is derived with the primary component included as the noun (in upper case), preceded by any secondary components stated in an adjective form. In this way, the soil name also describes the general composition and indicates the dominant behaviour of the material.

Component [1]	Prominence in Soil Name
Primary	Noun (eg "CLAY")
Secondary	Adjective modifier (eg "Sandy")
Minor	No influence

[1] – for determination of component proportions, refer component proportions on previous page

For materials which cannot be disaggregated, or which are not comprised of rock or mineral fragments, the names "ORGANIC MATTER" or "ARTIFICIAL MATERIAL" may be used, in accordance with AS1726-2017 Table 14.

Commercial or colloquial names are not used for the soil name where a component derived name is possible (for example "Gravelly SAND" rather than "CRACKER DUST").

Materials of "fill" or "topsoil" origin are generally assigned a name derived from the primary/secondary component (where appropriate). In log descriptions this is preceded by uppercase "FILL" or "TOPSOIL". Origin uncertainty is indicated in the description by the characters (?), with the degree of uncertainty described (using the terms "probably" or "possibly" in the origin column, or at the end of the description).

Identification of minor components

Minor components are identified in the soil description immediately following the soil name. The minor component fraction is usually preceded with a term indicating the relative proportion of the component.

Minor Component Proportion Term	Relative Proportion	
	In Fine Grained Soil	In Coarse Grained Soil
With	All fractions: 15-30%	Clay/silt: 5-12% sand/gravel: 15-30%
Trace	All fractions: 0-15%	Clay/silt: 0-5% sand/gravel: 0-15%

The terms "with" and "trace" generally apply only to gravel or fine particle fractions. Where cobbles/boulders are encountered in minor proportions (generally less than about 12%) the term "occasional" may be used. This term describes the sporadic distribution of the material within the confines of the investigation excavation only, and there may be considerable variation in proportion over a wider area which is difficult to factually characterise due to the relative size of the particles and the investigation methods.

Soil Composition

Plasticity

Descriptive Term	Laboratory liquid limit range	
	Silt	Clay
Non-plastic materials	Not applicable	Not applicable
Low plasticity	≤50	≤35
Medium plasticity	Not applicable	>35 and ≤50
High plasticity	>50	>50

Note, Plasticity descriptions generally describe the plasticity behaviour of the whole of the fine grained soil, not individual fine grained fractions.

Grain Size

Type		Particle size (mm)
Gravel	Coarse	19 - 63
	Medium	6.7 - 19
	Fine	2.36 – 6.7
Sand	Coarse	0.6 - 2.36
	Medium	0.21 - 0.6
	Fine	0.075 - 0.21

Grading

Grading Term	Particle size (mm)
Well	A good representation of all particle sizes
Poorly	An excess or deficiency of particular sizes within the specified range
Uniformly	Essentially of one size
Gap	A deficiency of a particular size or size range within the total range

Note, AS1726-2017 provides terminology for additional attributes not listed here.

Soil Condition

Moisture

The moisture condition of soils is assessed relative to the plastic limit for fine grained soils, while for coarse grained soils it is assessed based on the appearance and feel of the material. The moisture condition of a material is considered to be independent of stratigraphy (although commonly these are related), and this data is presented in its own column on logs.

Applicability	Term	Tactile Assessment	Abbreviation code
Fine	Dry of plastic limit	Hard and friable or powdery	w<PL
	Near plastic limit	Can be moulded	w=PL
	Wet of plastic limit	Water residue remains on hands when handling	w>PL
	Near liquid limit	"oozes" when agitated	w=LL
	Wet of liquid limit	"oozes"	w>LL
Coarse	Dry	Non-cohesive and free running	D
	Moist	Feels cool, darkened in colour, particles may stick together	M
	Wet	Feels cool, darkened in colour, particles may stick together, free water forms when handling	W

The abbreviation code NDF, meaning "not-assessable due to drilling fluid use" may also be used.

Note, observations relating to free ground water or drilling fluids are provided independent of soil moisture condition.

Consistency/Density/Compaction/Cementation/Extremely Weathered Material

These concepts give an indication of how the material may respond to applied forces (when considered in conjunction with other attributes of the soil). This behaviour can vary independent of the composition of the material, and on logs these are described in an independent column and are generally mutually exclusive (i.e it is inappropriate to describe both consistency and compaction at the same time). The method by which the behaviour is described depends on the behaviour model and other characteristics of the soil as follows:

- In fine grained soils, the "consistency" describes the ease with which the soil can be remoulded, and is generally correlated against the materials undrained shear strength;
- In granular materials, the relative density describes how tightly packed the particles are, and is generally correlated against the density index;
- In anthropogenically modified materials, the compaction of the material is described qualitatively;
- In cemented soils (both natural and anthropogenic), the cemented "strength" is described qualitatively, relative to the difficulty with which the material is disaggregated; and
- In soils of extremely weathered material origin, the engineering behaviour may be governed by relic rock features, and expected behaviour needs to be assessed based the overall material description.

Quantitative engineering performance of these materials may be determined by laboratory testing or estimated by correlated field tests (for example penetration or shear vane testing). In some cases, performance may be assessed by tactile or other subjective methods, in which case investigation logs will show the estimated value enclosed in round brackets, for example (VS).

Consistency (fine grained soils)

Consistency Term	Tactile Assessment	Undrained Shear Strength (kPa)	Abbreviation Code
Very soft	Extrudes between fingers when squeezed	<12	VS
Soft	Mouldable with light finger pressure	>12 - ≤25	S
Firm	Mouldable with strong finger pressure	>25 - ≤50	F
Stiff	Cannot be moulded by fingers	>50 - ≤100	St
Very stiff	Indented by thumbnail	>100 - ≤200	VSt
Hard	Indented by thumbnail with difficulty	>200	H
Friable	Easily crumbled or broken into small pieces by hand	-	Fr

Relative Density (coarse grained soils)

Relative Density Term	Density Index	Abbreviation Code
Very loose	<15	VL
Loose	>15 - ≤35	L
Medium dense	>35 - ≤65	MD
Dense	>65 - ≤85	D
Very dense	>85	VD

Note, tactile assessment of relative density is difficult, and generally requires penetration testing, hence a tactile assessment guide is not provided.

Compaction (anthropogenically modified soil)

Compaction Term	Abbreviation Code
Well compacted	WC
Poorly compacted	PC
Moderately compacted	MC
Variably compacted	VC

Cementation (natural and anthropogenic)

Cementation Term	Abbreviation Code
Moderately cemented	MOD
Weakly cemented	WEK

Extremely Weathered Material

AS1726-2017 considers weathered material to be soil if the unconfined compressive strength is less than 0.6 MPa (i.e. less than very low strength rock). These materials may be identified as "extremely weathered material" in reports and by the abbreviation code XWM on log sheets. This identification is not correlated to any specific qualitative or quantitative behaviour, and the engineering properties of this material must therefore be assessed according to engineering principles with reference to any relic rock structure, fabric, or texture described in the description.

Soil Origin

Term	Description	Abbreviation Code
Residual	Derived from in-situ weathering of the underlying rock	RS
Extremely weathered material	Formed from in-situ weathering of geological formations. Has strength of less than 'very low' as per as1726 but retains the structure or fabric of the parent rock.	XWM
Alluvial	Deposited by streams and rivers	ALV
Fluvial	Deposited by channel fill and overbank (natural levee, crevasse splay or flood basin)	FLV
Estuarine	Deposited in coastal estuaries	EST
Marine	Deposited in a marine environment	MAR
Lacustrine	Deposited in freshwater lakes	LAC
Aeolian	Carried and deposited by wind	AEO
Colluvial	Soil and rock debris transported down slopes by gravity	COL
Slopewash	Thin layers of soil and rock debris gradually and slowly deposited by gravity and possibly water	SW
Topsoil	Mantle of surface soil, often with high levels of organic material	TOP
Fill	Any material which has been moved by man	FILL
Littoral	Deposited on the lake or seashore	LIT
Unidentifiable	Not able to be identified	UID

Cobbles and Boulders

The presence of particles considered to be "oversize" may be described using one of the following strategies:

- Oversize encountered in a minor proportion (when considered relative to the wider area) are noted in the soil description; or
- Where a significant proportion of oversize is encountered, the cobbles/boulders are described independent of the soil description, in a similar manner to composite soils (described above) but qualified with "MIXTURE OF".

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Rock Strength

Rock strength is defined by the unconfined compressive strength, and it refers to the strength of the rock substance and not the strength of the overall rock mass, which may be considerably weaker due to defects.

The Point Load Strength Index $I_{s(50)}$ is commonly used to provide an estimate of the rock strength and site specific correlations should be developed to allow UCS values to be determined. The point load strength test procedure is described by Australian Standard AS4133.4.1-2007. The terms used to describe rock strength are as follows:

Strength Term	Unconfined Compressive Strength (MPa)	Point Load Index[1] $I_{s(50)}$ MPa	Abbreviation Code
Very low	0.6 - 2	0.03 - 0.1	VL
Low	2 - 6	0.1 - 0.3	L
Medium	6 - 20	0.3 - 1.0	M
High	20 - 60	1 - 3	H
Very high	60 - 200	3 - 10	VH
Extremely high	>200	>10	EH

[1] Rock strength classification is based on UCS. The UCS to $I_{s(50)}$ ratio varies significantly for different rock types and specific ratios may be required for each site. The point load Index ranges shown above are as suggested in AS1726 and should not be relied upon without supporting evidence.

The following abbreviation codes are used for soil layers or seams of material "within rock" but for which the equivalent UCS strength is less than 0.6 MPa.

Scenario	Abbreviation Code
The material encountered has an equivalent UCS strength of less than 0.6 MPa, and therefore is considered to be soil (as per Note 1 of Table 20 of AS 1726-2017). The properties of the material encountered over this interval are described in the "Description of Strata" and soil properties columns.	SOIL
The material encountered has an equivalent UCS strength of less than 0.6 MPa, and therefore is considered to be soil (as per Note 1 of Table 20 of AS 1726-2017). The prominence of the material is such that it can be considered to be a seam (as defined in Table 22 of AS1726-2017) and the properties of the material are described in the defect column.	SEAM

Degree of Weathering

The degree of weathering of rock is classified as follows:

Weathering Term	Description	Abbreviation Code
Residual Soil[1]	Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.	RS
Extremely weathered[1]	Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible	XW
Highly weathered	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching or may be decreased due to deposition of weathering products in pores.	HW
Moderately weathered	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable but shows little or no change of strength from fresh rock.	MW
Slightly weathered	Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.	SW
Fresh	No signs of decomposition or staining.	FR
Note: If HW and MW cannot be differentiated use DW (see below)		
Distinctly weathered	Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching or may be decreased due to deposition of weathered products in pores.	DW

[1] The parent rock type, of which the residual/extremely weathered material is a derivative, will be stated in the description (where discernible).

Degree of Alteration

The degree of alteration of the rock material (physical or chemical changes caused by hot gasses or liquids at depth) is classified as follows:

Term	Description	Abbreviation Code
Extremely altered	Material is altered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.	XA
Highly altered	The whole of the rock material is discoloured, usually by staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is changed by alteration. Some primary minerals are altered to clay minerals. Porosity may be increased by leaching or may be decreased due to precipitation of secondary materials in pores.	HA
Moderately altered	The whole of the rock material is discoloured, usually by staining or bleaching to the extent that the colour of the original rock is not recognisable but shows little or no change of strength from fresh rock.	MA
Slightly altered	Rock is slightly discoloured but shows little or no change of strength from fresh rock	SA
Note: If HA and MA cannot be differentiated use DA (see below)		
Distinctly altered	Rock strength usually changed by alteration. The rock may be highly discoloured, usually by staining or bleaching. Porosity may be increased by leaching or may be decreased due to precipitation of secondary minerals in pores.	DA

Degree of Fracturing

The following descriptive classification apply to the spacing of natural occurring fractures in the rock mass. It includes bedding plane partings, joints and other defects, but excludes drilling breaks. These terms are generally not required on investigation logs where fracture spacing is presented as a histogram, and where used are presented in an unabbreviated format.

Term	Description
Fragmented	Fragments of <20 mm
Highly Fractured	Core lengths of 20-40 mm with occasional fragments
Fractured	Core lengths of 30-100 mm with occasional shorter and longer sections
Slightly Fractured	Core lengths of 300 mm or longer with occasional sections of 100-300 mm
Unbroken	Core contains very few fractures

Rock Quality Designation

The quality of the cored rock can be measured using the Rock Quality Designation (RQD) index, defined as:

$$\text{RQD \%} = \frac{\text{cumulative length of 'sound' core sections > 100 mm long}}{\text{total drilled length of section being assessed}}$$

where 'sound' rock is assessed to be rock of low strength or stronger. The RQD applies only to natural fractures. If the core is broken by drilling or handling (i.e., drilling breaks) then the broken pieces are fitted back together and are not included in the calculation of RQD.

Stratification Spacing

These terms may be used to describe the spacing of bedding partings in sedimentary rocks. Where used, these terms are generally presented in an unabbreviated format

Term	Separation of Stratification Planes
Thinly laminated	< 6 mm
Laminated	6 mm to 20 mm
Very thinly bedded	20 mm to 60 mm
Thinly bedded	60 mm to 0.2 m
Medium bedded	0.2 m to 0.6 m
Thickly bedded	0.6 m to 2 m
Very thickly bedded	> 2 m

Defect Descriptions

Defect Type

Term	Abbreviation Code
Bedding plane	B
Cleavage	CL
Crushed seam	CS
Crushed zone	CZ
Drilling break	DB
Decomposed seam	DS
Drill lift	DL
Extremely Weathered seam	EW
Fault	F
Fracture	FC
Fragmented	FG
Handling break	HB
Infilled seam	IS
Joint	JT
Lamination	LAM
Shear seam	SS
Shear zone	SZ
Vein	VN
Mechanical break	MB
Parting	P
Sheared Surface	S

Rock Defect Orientation

Term	Abbreviation Code
Horizontal	H
Vertical	V
Sub-horizontal	SH
Sub-vertical	SV

Rock Defect Coating

Term	Abbreviation Code
Clean	CN
Coating	CT
Healed	HE
Infilled	INF
Stained	SN
Tight	TI
Veneer	VNR

Rock Defect Infill

Term	Abbreviation Code
Calcite	CA
Carbonaceous	CBS
Clay	CLAY
Iron oxide	FE
Manganese	MN
Pyrite	Py
Secondary material	MS
Silt	M
Quartz	Qz
Unidentified material	MU

Rock Defect Shape/Planarity

Term	Abbreviation Code
Curved	CU
Discontinuous	DIS
Irregular	IR
Planar	PR
Stepped	ST
Undulating	UN

Rock Defect Roughness

Term	Abbreviation Code
Polished	PO
Rough	RF
Smooth	SM
Slickensided	SL
Very rough	VR

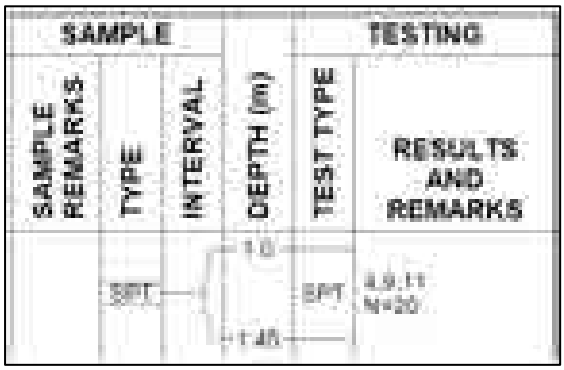
Defect Orientation

The inclination of defects is always measured from the perpendicular to the core axis.

intentionally blank

Sampling and Testing

A record of samples retained, and field testing performed is usually shown on a Douglas Partners' log with samples appearing to the left of a depth scale, and selected field and laboratory testing (including results, where relevant) appearing to the right of the scale, as illustrated below:



Sampling

The type or intended purpose for which a sample was taken is indicated by the following abbreviation codes.

Sample Type	Code
Auger sample	A
Acid Sulfate sample	ASS
Bulk sample	B
Core sample	C
Disturbed sample	D
Environmental sample	ES
Driven Tube sample	DT
Gas sample	G
Piston sample	P
Sample from SPT test	SPT
Undisturbed tube sample	U[1]
Water sample	W
Material Sample	MT
Core sample for unconfined compressive strength testing	UCS

[1] – numeric suffixes indicate tube diameter/width in mm

The above codes only indicate that a sample was retained, and not that testing was scheduled or performed.

Field and Laboratory Testing

A record that field and laboratory testing was performed is indicated by the following abbreviation codes.

Test Type	Code
Pocket penetrometer (kPa)	PP
Photo ionisation detector (ppm)	PID
Standard Penetration Test x/y =*x* blows for *y* mm penetration HB = hammer bouncing HW = fell under weight of hammer	SPT
Shear vane (kPa)	V
Unconfined compressive strength, (MPa)	UCS
Point load test, (MPa), axial (A), diametric (D), irregular (I)	PLT(_)
Dynamic cone penetrometer, followed by blow count penetration increment in mm (cone tip, generally in accordance with AS1289.6.3.2)	DCP9/150
Perth sand penetrometer, followed by blow count penetration increment in mm (flat tip, generally in accordance with AS1289.6.3.3)	PSP/150
Dynamic probe super heavy, followed by blow count penetration increment in mm	DPSH/100

Groundwater Observations

	water seepage/inflow
	water seepage/outflow
	standing or observed water level
NFGWO	no free groundwater observed
OBS	observations obscured by drilling fluids

Drilling or Excavation Methods/Tools

The drilling/excavation methods used to perform the investigation may be shown either in a dedicated column down the left-hand edge of the log, or stated in the log footer. In some circumstances abbreviation codes may be used.

Method	Abbreviation Code
Direct Push	DP
Solid flight auger. Suffixes: /T = tungsten carbide tip, /V = v-shaped tip	AD[1]
Air Track	AT
Diatube	DT[1]
Hand auger	HA[1]
Hand tools (unspecified)	HAND
Existing exposure	X
Hollow flight auger	HSA[1]
HQ coring	HQ3
HMLC series coring	HMLC
NMLC series coring	NMLC
NQ coring	NQ3
PQ coring	PQ3
Predrilled	PD
Push tube	PT[1]
Ripping tyne/ripper	R
Rock roller	RR[1]
Rock breaker/hydraulic hammer	EH
Sonic drilling	SON[1]
Mud/blade bucket	MB[1]
Toothed bucket	TB[1]
Vibrocore	VC[1]
Vacuum excavation	VE
Wash bore (unspecified bit type)	WB[1]

[1] – numeric suffixes indicate tool diameter/width in mm

Appendix I

Summary Results Table

Table 1: Summary of Laboratory Results

				Priority metals								Priority PAH				PAH																				Priority TRH				BTEX				Phenol	Priority OCP														Priority OPP		PCB
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(g,h,i)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Phenolics	DDT+DDE+DDD [c]	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	All other OCP	Chlorpyriphos	All other OPP	Total PCB
			PQL	4	0.4	1	1	1	0.1	1	1	1	0.05	0.5	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	25	50	100	100	0.2	0.5	1	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth	Sample type	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
S01	0.32 - 0.35 m	Fill / gravel	18/10/2024	<4	<0.4	<1	**36**	**2**	<0.1	**5**	**29**	<1	<0.05	<0.5	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<PQL	<PQL	<0.1	<0.1
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	260	NL	-	-	3	NL	NL	230	660	3,600	45	530	2,000	100	50	80	2,500	100	-	2,000	-	7
BH102	1.5 - 1.6 m	Sandstone	18/10/2024	<4	<0.4	**2**	**1**	<1	<0.1	<1	**22**	<1	<0.05	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	370	NL	-	-	3	NL	NL	NL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH103	1.5 - 1.6 m	Sandstone	26/10/2024	<4	<0.4	**7**	**4**	**2**	<0.1	<1	**3**	<1	<0.05	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	370	NL	-	-	3	NL	NL	NL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH106	1.8 - 1.9 m	Sandstone	19/10/2024	<4	<0.4	**5**	**2**	**3**	<0.1	**1**	**9**	<1	<0.05	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	370	NL	-	-	3	NL	NL	NL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD1	1.8 - 1.9 m	Sandstone	19/10/2024	<4	<0.4	**4**	**2**	**4**	<0.1	**1**	**6**	<1	<0.05	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	260	NL	-	-	3	NL	NL	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH105	0.28 - 0.29 m	Fill / bentonite / clay	26/10/2024	**10**	<0.4	**3**	**13**	**38**	<0.1	**6**	**68**	<1	<0.05	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<PQL	<0.1	<PQL	<0.1
				3,000	900	3,600	240,000	1,500	730	6,000	400,000	NL	-	40	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	260	NL	-	-	3	NL	NL	230	660	3,600	45	530	2,000	100	50	80	2,500	100	-	2,000	-	7

Lab result

HIL/HSL value

HIL/HSL exceedance ML exceedance ML and HIL/HSL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2020 (PFAS only))
HSL (vapour intrusion)	HSL-D (NEPC, 2013)

Appendix J

Laboratory Certificate of Analysis, Chain of Custody Documentation, Sample Receipt Advice

CORE PHOTO LOG

CLIENT: UOL Group Limited
PROJECT: Proposed Hotel Upgrade
LOCATION: 150 Day Street, Syd, NSW 2000

SURFACE LEVEL: -4.0 AHD
COORDINATE: E:333839.7, N:6250412.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH105
PROJECT No: 231572.00
DATE: 26/10/24
SHEET: 1 of 1



0.22-3.88 m depth

Generated with CORE-GS by Geroc - Combined Log - 26/11/2024 3:50:59 PM

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		364982-1	364982-3	364982-4	364982-7	364982-8
Your Reference	UNITS	S01	BH102	BH103	BH106	BH105
Depth		0.32-0.35	1.5-1.6	1.5-1.6	1.8-1.9	0.28-0.29
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Date analysed	-	04/11/2024	04/11/2024	04/11/2024	04/11/2024	04/11/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	110	110	111	102	82

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		364982-9
Your Reference	UNITS	BD1
Depth		-
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	04/11/2024
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	108

svTRH (C10-C40) in Soil						
Our Reference		364982-1	364982-3	364982-4	364982-7	364982-8
Your Reference	UNITS	S01	BH102	BH103	BH106	BH105
Depth		0.32-0.35	1.5-1.6	1.5-1.6	1.8-1.9	0.28-0.29
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Date analysed	-	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	85	83	83	85	89

svTRH (C10-C40) in Soil		
Our Reference		364982-9
Your Reference	UNITS	BD1
Depth		-
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	82

PAHs in Soil						
Our Reference		364982-1	364982-3	364982-4	364982-7	364982-8
Your Reference	UNITS	S01	BH102	BH103	BH106	BH105
Depth		0.32-0.35	1.5-1.6	1.5-1.6	1.8-1.9	0.28-0.29
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Date analysed	-	30/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.1	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	99	107	106	105	116

PAHs in Soil		
Our Reference		364982-9
Your Reference	UNITS	BD1
Depth		-
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	113

Organochlorine Pesticides in soil			
Our Reference		364982-1	364982-8
Your Reference	UNITS	S01	BH105
Depth		0.32-0.35	0.28-0.29
Type of sample		Soil	Soil
Date extracted	-	30/10/2024	30/10/2024
Date analysed	-	30/10/2024	31/10/2024
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	101	121

Organophosphorus Pesticides in Soil			
Our Reference		364982-1	364982-8
Your Reference	UNITS	S01	BH105
Depth		0.32-0.35	0.28-0.29
Type of sample		Soil	Soil
Date extracted	-	30/10/2024	30/10/2024
Date analysed	-	30/10/2024	31/10/2024
Dichlorvos	mg/kg	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	101	121

PCBs in Soil			
Our Reference		364982-1	364982-8
Your Reference	UNITS	S01	BH105
Depth		0.32-0.35	0.28-0.29
Type of sample		Soil	Soil
Date extracted	-	30/10/2024	30/10/2024
Date analysed	-	30/10/2024	31/10/2024
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	94	108

Misc Soil - Inorg			
Our Reference		364982-1	364982-8
Your Reference	UNITS	S01	BH105
Depth		0.32-0.35	0.28-0.29
Type of sample		Soil	Soil
Date prepared	-	30/10/2024	30/10/2024
Date analysed	-	31/10/2024	31/10/2024
Total Phenolics (as Phenol)	mg/kg	<5	<5

Acid Extractable metals in soil						
Our Reference		364982-1	364982-3	364982-4	364982-7	364982-8
Your Reference	UNITS	S01	BH102	BH103	BH106	BH105
Depth		0.32-0.35	1.5-1.6	1.5-1.6	1.8-1.9	0.28-0.29
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Date analysed	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Arsenic	mg/kg	<4	<4	<4	<4	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	<1	2	7	5	3
Copper	mg/kg	36	1	4	2	13
Lead	mg/kg	2	<1	2	3	38
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	<1	<1	1	6
Zinc	mg/kg	29	22	3	9	68

Acid Extractable metals in soil		
Our Reference		364982-9
Your Reference	UNITS	BD1
Depth		-
Type of sample		Soil
Date prepared	-	30/10/2024
Date analysed	-	30/10/2024
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	4
Copper	mg/kg	2
Lead	mg/kg	4
Mercury	mg/kg	<0.1
Nickel	mg/kg	1
Zinc	mg/kg	6

Moisture						
Our Reference		364982-1	364982-3	364982-4	364982-7	364982-8
Your Reference	UNITS	S01	BH102	BH103	BH106	BH105
Depth		0.32-0.35	1.5-1.6	1.5-1.6	1.8-1.9	0.28-0.29
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/10/2024	30/10/2024	30/10/2024	30/10/2024	30/10/2024
Date analysed	-	31/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
Moisture	%	2.1	6.6	6.1	4.7	49

Moisture		
Our Reference		364982-9
Your Reference	UNITS	BD1
Depth		-
Type of sample		Soil
Date prepared	-	30/10/2024
Date analysed	-	31/10/2024
Moisture	%	9.6

Metals from Leaching Fluid pH 2.9 or 5		
Our Reference		364982-1
Your Reference	UNITS	S01
Depth		0.32-0.35
Type of sample		Soil
Date extracted	-	01/11/2024
Date analysed	-	01/11/2024
pH of soil for fluid# determ.	pH units	8.8
pH of soil TCLP (after HCl)	pH units	1.6
Extraction fluid used		1
pH of final Leachate	pH units	4.9
Arsenic	mg/L	<0.05
Cadmium	mg/L	<0.01
Chromium	mg/L	<0.01
Copper	mg/L	0.13
Lead	mg/L	<0.03
Mercury	mg/L	<0.0005
Nickel	mg/L	<0.02
Zinc	mg/L	<0.02

PAHs in TCLP (USEPA 1311)		
Our Reference		364982-1
Your Reference	UNITS	S01
Depth		0.32-0.35
Type of sample		Soil
Date extracted	-	01/11/2024
Date analysed	-	01/11/2024
Naphthalene in TCLP	mg/L	<0.0001
Acenaphthylene in TCLP	mg/L	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001
Fluorene in TCLP	mg/L	<0.0001
Phenanthrene in TCLP	mg/L	<0.0001
Anthracene in TCLP	mg/L	<0.0001
Fluoranthene in TCLP	mg/L	<0.0001
Pyrene in TCLP	mg/L	<0.0001
Benzo(a)anthracene in TCLP	mg/L	<0.0001
Chrysene in TCLP	mg/L	<0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001
Total +ve PAH's	mg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	108

Method ID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of various metals by ICP-AES following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-021	Determination of Mercury by Cold Vapour AAS following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Leachates are extracted with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			04/11/2024	[NT]	[NT]	[NT]	[NT]	04/11/2024	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	106	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	99	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	96	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	88	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	80	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	99	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	97	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	97	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	97	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	121	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	111	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			01/11/2024	[NT]	[NT]	[NT]	[NT]	01/11/2024	[NT]
Date analysed	-			01/11/2024	[NT]	[NT]	[NT]	[NT]	01/11/2024	[NT]
Cadmium	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	112	[NT]
Chromium	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	109	[NT]
Copper	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	115	[NT]
Lead	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	108	[NT]
Mercury	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	113	[NT]
Nickel	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	105	[NT]
Zinc	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	110	[NT]

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			01/11/2024	[NT]	[NT]	[NT]	[NT]	01/11/2024	[NT]
Date analysed	-			01/11/2024	[NT]	[NT]	[NT]	[NT]	01/11/2024	[NT]
Naphthalene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	87	[NT]
Acenaphthylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	76	[NT]
Fluorene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Phenanthrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	77	[NT]
Anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	77	[NT]
Pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	71	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.0002	Org-022/025	<0.0002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	76	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	80	[NT]	[NT]	[NT]	[NT]	78	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

COC: 24/10/24 1123

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	231572.01	**Suburb:**	Sydney	**To:**	Envirolab Services
Project Manager:	Joel James-Hall	**Order Number:**		**Sampler:** JC	12 Ashley St, Chatswood NSW 2067
Email:	irha.riaz@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.cor
Prior Storage:	☑ Fridge ☐ Freezer ☑ Esky ☐ Shelf	**Do samples contain 'potential' HBM?**		☐ No ☐ Yes	(If YES, then handle, transport and store in accordance with: FPM HAZID)

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8	Combo 3	TCLP metals and PAH								Notes/ Preservation/ Additional Requirements
1	S01	0.32	0.35		S	G	x		x								
2	BH101	1.4	1.5		S	G											hold
3	BH102	1.5	1.6		S	G		x									
4	BH103	1.5	1.6		S	G		x									
5	BH104	1.5	1.6		S	G											hold
6	BH105	1.5	1.6		S	G											hold
7	BH106	1.8	1.9		S	G		x									
8	BH106	0.28	0.29		S	G	x										
9	BD1							x									

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 364982
Date Received: 29/10/24
Time Received: 1200
Received by: KC
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Metals to analyse:			**LAB RECEIPT**
Number of samples in container:	**Transported to laboratory by:**		**Lab Ref. No:** 364982
Send results to:	Douglas Partners Pty Ltd		**Received by:** KC
Address:	96 Hermitage Road, West Ryde NSW 211	**Phone:** (02) 9809 0666	**Date & Time:** 29/10/24 1200
Relinquished by:	**Date:**	**Signed:**	**Signed:** KC

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 364982

Client Details

Client	Douglas Partners Pty Ltd
Attention	Irha Riaz
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**231572.01 Sydney**
Number of Samples	9 Soil
Date samples received	29/10/2024
Date completed instructions received	29/10/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	05/11/2024
Date of Issue	26/11/2024
Reissue Details	This report replaces R00 created on 05/11/2024 due to: Sample ID Amended (Client Request)

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Liam Timmins, Organics Supervisor
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

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SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Irha Riaz

Sample Login Details

Your reference	231572.01 Sydney
Envirolab Reference	364982
Date Sample Received	29/10/2024
Date Instructions Received	29/10/2024
Date Results Expected to be Reported	05/11/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	9 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Misc Soil - Inorg	Acid Extractable metalsin soil	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	PAHs in TCLP (USEPA 1311)	On Hold
S01-0.32-0.35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BH101-1.4-1.5																						✓
BH102-1.5-1.6	✓	✓	✓					✓														
BH103-1.5-1.6	✓	✓	✓					✓														
BH104-1.5-1.6																						✓
BH105-1.5-1.6																						✓
BH106-1.8-1.9	✓	✓	✓					✓														
BH106-0.28-0.29	✓	✓	✓	✓	✓	✓	✓	✓														
BD1	✓	✓	✓					✓														

1308

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Attachment A18

Report on desktop geotechnical assessment

Douglas PARTNERS

GROUNDED EXPERTISE

Report on Desktop Geotechnical Assessment

Park Royal Hotel Redevelopment

150 Day Street, Sydney, NSW

Prepared for UOL Group Limited

Project 231572.00

19 March 2025

Douglas Partners Pty Ltd
ABN 75 053 980 117
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(02) 9809 0666

Document History

Details

Project No.	231572.00
Document Title	Report on Desktop Geotechnical Assessment
Site Address	150 Day Street, Sydney, NSW
Report Prepared For	UOL Group Limited
Filename	231572.00.R.001.Rev1

Status and Review

Status	Prepared by	Reviewed by	Date issued
Revision 0	James Connaughton	Scott Easton	18 November 2024
Revision 1	Alex Gibson	Scott Easton	19 March 2025

Distribution of Copies

Status	Issued to
Revision 0	Lim Sheng Yang, UOL Group Limited
Revision 1	Lim Sheng Yang, UOL Group Limited

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

Signature	Date
Author	19 March 2025
Reviewer	19 March 2025

FS604853

Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

Douglas PARTNERS | GROUNDED EXPERTISE

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Appendix A: About This Report

Appendix B: Provided Drawings

Report on Desktop Geotechnical Assessment
Park Royal Hotel Redevelopment
150 Day Street, Sydney, NSW

1. Introduction

This report prepared by Douglas Partners Pty Ltd (Douglas) presents the results of a desktop geotechnical assessment undertaken for the proposed Park Royal Hotel redevelopment at 150 Day Street, Sydney, NSW (the site). The assessment was undertaken in accordance with Douglas' proposal 231572.00.P.001.Rev0 dated 2 September 2024.

It is understood that the proposed redevelopment includes extending the existing 10-storey building with an additional 11 storeys plus plant, whilst maintaining similar setbacks to the existing structure. The proposed redevelopment aims to retain as much of the existing structure as possible. As part of the redevelopment, loads on existing footings will increase and may be double at some locations.

The purpose of this desktop assessment is to provide preliminary information on subsurface soil, rock and groundwater conditions to support the submission of a Planning Proposal, and to provide preliminary information for the design of the proposed redevelopment.

The assessment involved a review of previous investigations undertaken by Douglas at the site during the development of Day Street Hotel (now Park Royal Hotel), in 1988. A summary of findings from neighbouring sites is also provided in this report, together with preliminary comments relating to design and construction practice.

This report must be read in conjunction with all appendices including the notes provided in Appendix B.

2. Site Description

The site is located at 150 Day Street within the Council of the City of Sydney local government area. The site is comprised of one allotment, legally described as Lot 20 in DP 1046870. The existing development comprises a 11-storey hotel building with a 2-level basement below the building footprint.

The site lot has a combined area of approximately 2,250 m^2 and is irregular in shape, bounded by Day Street to the west, Bathurst Street to the south, and Sands Street to the east. Additionally, located to the north of the site is the Druitt Street Western Distributor on-ramp, and the exit of the westbound Cross City Tunnel. The south of the site is further enclosed by the eastbound Cross City Tunnel under Bathurst Street. The existing building has frontages of approximately 70 m to Day Street and 18 m to Bathurst Street.

The site topography is relatively flat, located at approximately 5 m AHD. Surface levels across the site fall away from the south-eastern corner with a maximum fall of around 3 m towards the north-west, in the direction of Darling Harbour.

A site aerial plan is provided in Figure 1, detailing the site location.



Figure 1: Location of Subject site

3. Published data

3.1 Geological landscape

Reference to the Sydney 1:100 000 Geological Map Sheet indicates that the site is underlain by Hawkesbury Sandstone, a Triassic age medium to coarse grained quartz sandstone unit with minor shale and laminite bands or lenses. Rock is anticipated to be at a shallow depth.

In its fresh condition, Hawkesbury Sandstone is typically light to mid grey in colour, has massive and cross-bedded facies and strength properties typically in the medium and high strength range. The formation normally has near-horizontal bedding partings spaced from less than 1 m to well over 3 m in places, and is typically cut by the following two sets of steeply dipping joints:

- Set 1 (NNE): Strike 020° - 035° / Dip 70° - 90° E and W; and
- Set 2 (ESE): Strike 110° - 130° / Dip 70° - 90° N and S

Reference to Sydney CBD fault zones map (Pells, Braybrooke & Och, 2004), indicates the site is located within the G.P.O Fault zone. The fault zone extends from the north-east of the subject site to the south-west. Weaker rock and a higher degree of fracturing within the rock mass is expected in the fault zone. An extract from the geological map overlain by 2 m (AHD) contours is shown in Figure 2.

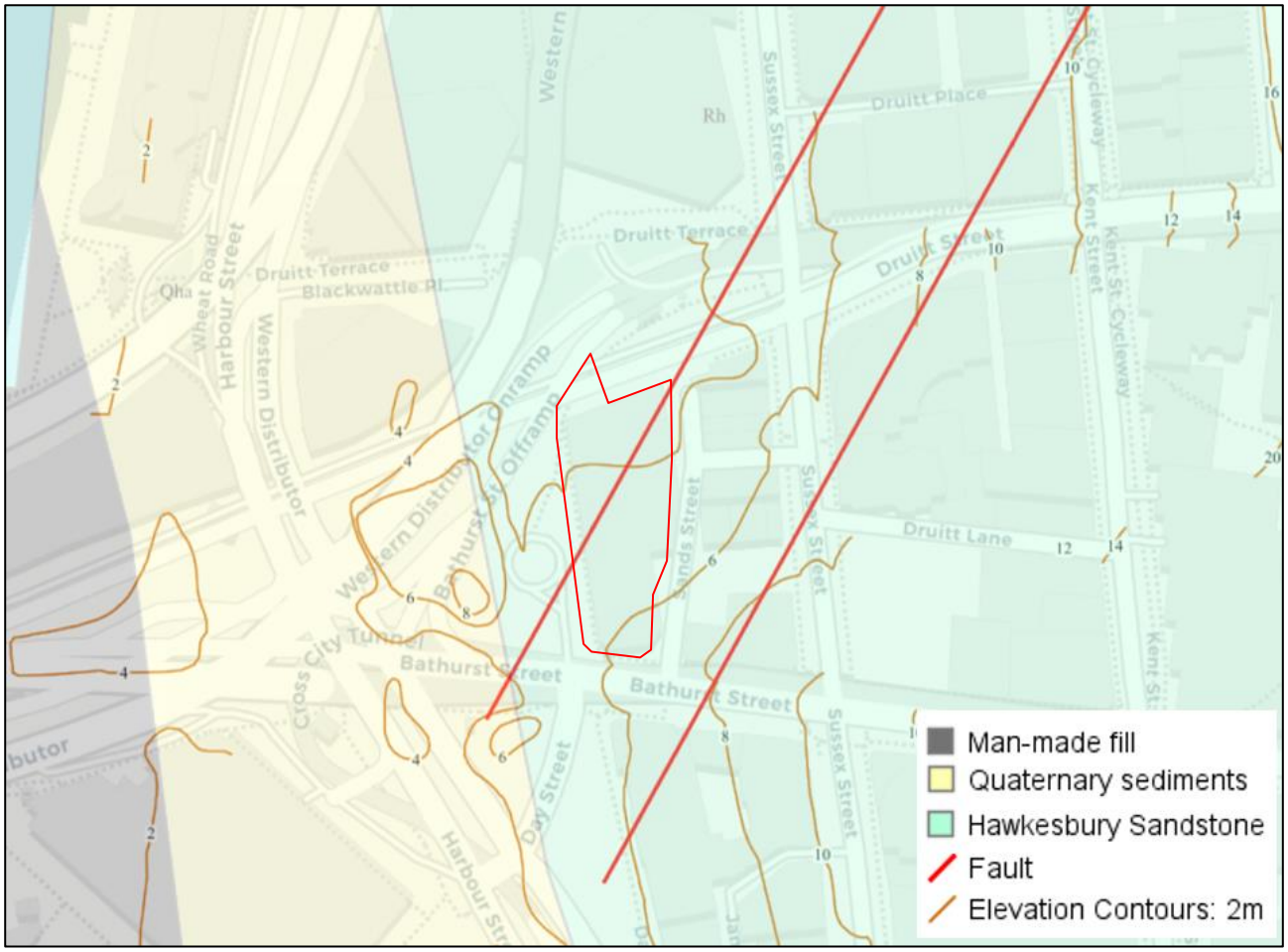


Figure 2: Subject site geology detailing GPO fault zone

3.2 Acid Sulphate soils

Reference to the NSW 1:25,000 Acid Sulphate Soil Risk Mapping, prepared by NSW Department of Environment and Climate Change, indicates the area is in low lying, disturbed terrain where there is the potential for Acid Sulphate Soils to occur. An area of high probability of Acid Sulphate soil occurrence is mapped within Darling Harbour approximately 160 m northwest of the site.

4. Previous Investigations

A number of investigations have been undertaken at the site and surrounds. The reports associated with these investigations have been reviewed as part of this desktop geotechnical assessment and are summarised below.

4.1 Previous Investigation on Site

- *DP Project No. 10878, (May 1988):* Douglas undertook geotechnical investigations for the development of Day Street Hotel (currently Park Royal Hotel) to inform structural design and to provide construction advice for the current hotel development. Six geotechnical boreholes (BH1 – 6) were drilled to depths of 5.3 – 16.3 m below ground level.

  The boreholes generally encountered fill and natural stiff sandy clays below thin asphalt and concrete pavement layers to depths of between 2.6 m and 5.6 m. Extremely weathered and very low to low strength sandstone was encountered in most borehole locations below the soil layers. Medium strength (of better) sandstone was typically encountered at depths of between 3.0 m and 9.3 m. Two boreholes (BH1 and BH5) were noted to encounter highly fractured and fragmented rock of highly variable strength. These bores were inferred to be within the fault effected zone running through and adjacent to the site.

  Groundwater was noted within five of the boreholes at depths of between 1.9 m and 3.0 m below ground level.

- *DP Project No. 10878/1, (Nov 1988):* A subsequent investigation was undertaken to further define the location of the G.P.O Fault Zone within the site. Eleven additional boreholes (BH7 – 17) were drilled to depth of between 9.8 – 20 m.

  The boreholes generally encountered fill below thin asphalt and concrete pavement layers to depths of between 0.9 m and 4.0 m. Thin layers of natural soil, less than 0.5 m thick, where noted below the fill in two boreholes only. Extremely weathered and very low to low strength sandstone was encountered in borehole locations BH7, BH12, BH14 and BH17 below the soil layers. Medium strength (of better) sandstone was typically encountered below depths of between 2.1 m and 7.0 m. Two boreholes (BH8 and BH12) were noted to encounter highly fractured and fragmented rock of highly variable strength. These bores were inferred to be within the fault effected zone running through the site. Based on the additional boreholes the approximate position of the GPO fault zone was inferred to be about 7 m wide and striking 030° across from the northeast corner to about the mid-point of the western boundary.

  Groundwater was noted within two of the additional boreholes at depths of between 1.7 m and 3.1 m below ground level.

- *DP Project No. 10878/2, (Nov 1989):* Footing inspections were conducted by Douglas during construction. Detailed inspection records are no longer held, however a summary letter of the inspections remains on file. The summary letter states that 14 inspections were completed. Spoon testing during the inspections confirmed that the founding material was generally considered to be Class III sandstone, suitable for the design allowable bearing pressure of 3,500 kPa, in the areas outside of the fault zone. Within the highly fractured and jointed material within the fault zone observed from the northeast to southwest corner of the excavation, the rock was classified as Class IV sandstone suitable for the design allowable bearing pressure of 1,500 kPa.

4.2 Nearby investigations

Historic investigations have occurred in the vicinity of and adjacent to the proposed development. These investigations are summarised in Table 1.

Table 1: Summary of nearby investigations

DP Job. No.	Year	Location	Work Description
10420	1987	Corner of Bathurst and Day Street	3 test pits excavated to depths 1.0 – 1.5 m, for pedestrian link bridge.
23776	1996	Bathurst Street, Sussex Street and Day Street	3 bore holes, ground investigation for residential multistorey unit developments.
85060.00	2015	273 – 279 Sussex Street	1 borehole, and desktop review. For 14 storey building + 4 basement levels.
85060.02	2017	273 – 279 Sussex Street	Site inspection, rock face mapping.
85146.01	2017	286 Sussex Street	Rock face mapping, inclinometer monitoring.

5. Geotechnical Model

Based upon the available data, the subsurface profile at the subject site is expected to include the following:

Table 2: Summary of Geotechnical Model

Unit	Description
Unit 1: Fill	Fill including sand, gravel, clay, bricks, concrete, sandstone boulders and organic soils, encountered to depth of between 1 m to 5 m below ground level.
Unit 2: Natural Soils	Encountered below the fill at depths of between 2.5 m to 5.5 m below ground level in some locations and typically comprising stiff sandy clays.
Unit 3: Extremeley Weathered and Very Low to Low Strength Sandstone	Highly weathered, very low to low strength sandstone with some extremely weathered zones encountered to depths of between 2.1 to 9.3 m below ground level.
Unit 4: Medium Strength (or better) Sandstone	Moderately weathered, medium strength (or better) sandstone

The extent of weathering and fracturing in the sandstone is expected to vary significantly in the vicinity of the G.P.O fault zone which crosses the site. In areas outside the estimated extent of the fault zone, the sandstone is generally noted to exhibit a higher degree of fracturing and an increased number of steeply oriented or subvertical joints, than typically seen in Hawkesbury Sandstone.

Groundwater levels were measured during the 1988 investigation in boreholes 1-4, 6, 8, and 16, at depths of 1.2 to 3.2 m below ground level. However, groundwater levels can vary seasonally and in the long term, due to climatic effects and following prolonged periods of rainfall. It will also vary due to local factors, such as changes to drainage conditions and subsequent nearby developments.

Table 3 provides a summary of the ground conditions and groundwater levels encountered in the previous investigation at the subject site in 1988.

The approximate borehole locations and position of the fault zone are indicated on the attached foundation plan included in Appendix B, which was provided by the Structural Engineer for the project (TTW).

Table 3: Summary of Depth/Level to Top of Strata (Depth: m, RL: m AHD)

Bore	Surface RL	Unit 1: Fill		Unit 2: Natural Soil		Unit 3: Very Low to Low Strength Sandstone		Unit 4: Medium Strength (or better) Sandstone		Base of Borehole		Ground Water Level	
		Depth	RL	Depth	RL	Depth	RL	Depth	RL	Depth	RL	Depth	RL
BH1**	4.3*	0.1	4.2	2.5	1.8	5.6**	-1.3**	9.3**	-5.0**	16.3	-15.8	2.9	1.4
BH2	3.7*	0.0	3.7	NE	NE	4.8	-1.1	NE	NE	5.3	-5.4	1.9	1.8
BH3	4.2*	0.2	4.0	3.7	0.5	4.3	-0.1	5.4	-1.2	13.0	-12.6	3.0	1.2
BH4	5.1*	0.0	5.1	2.7	2.4	NE	NE	3.0	2.1	8.5	-7.2	2.3	2.8
BH5**	6.5*	0.5	6.0	NE	NE	2.2**	4.3**	7.8**	-1.3**	12.9	-10.2	NE	NE
BH6	4.1*	0.3	3.8	1.2	2.9	2.6	1.5	5.9	-1.8	8.5	-8.2	2.6	1.5
BH7	3.7	0.3	3.4	NE	NE	3.7	0.0	5.2	-1.5	10.0	-6.3	NE	NE
BH8**	3.7	0.4	3.3	3.0	0.7	NE	NE	3.4**	0.3**	10.0	-6.3	5.4	1.7
BH9	3.7	0.2	3.5	NE	NE	NE	NE	2.3	1.4	10.1	-6.4	NE	NE
BH10	3.7	0.2	3.5	NE	NE	NE	NE	4.0	-0.3	10.5	-6.8	NE	NE
BH11	3.7	0.4	3.3	NE	NE	NE	NE	3.2	0.5	10.2	-6.5	NE	NE
BH12**	3.7	0.2	3.5	3.5	0.2	4.0**	-0.3**	5.2**	-1.5**	9.8	-6.1	NE	NE
BH13	5.1	0.3	4.7	NE	NE	NE	NE	3.3	1.8	20.0	-14.9	NE	NE
BH14	5.1	0.2	4.9	NE	NE	0.9	4.2	2.1	3.0	10.0	-4.9	NE	NE
BH15	5.1	0.2	5.0	NE	NE	NE	NE	3.9	1.2	10.0	-4.9	NE	NE
BH16	5.1	0.2	4.9	NE	NE	NE	NE	2.4	2.7	10.0	-4.9	1.9	3.1
BH17	5.0	0.2	4.9	NE	NE	3.7	1.3	3.3	1.8	10.0	-5.0	NE	NE

Notes: * Arbitrary site datum adopted during original investigation. Level calculated based on strata and groundwater RLs provided in subsequent report which referenced a provided survey plan.

** Rock significantly affected by fault zone and includes highly fractured and jointed rock of variable strength.

6. Proposed development

It is understood that the proposed development of the site includes the expansion of the existing 11-storey hotel building with an additional 11-storeys. This includes the retention of as much of the existing structure as possible in order to reduce the embodied carbon emissions of the construction and to align with the sustainability objectives of the City of Sydney council. The existing building setbacks will also be maintained, as the new structure will be utilizing the existing perimeter columns.

As part of this redevelopment, it is expected that some of the existing building footings will need to be strengthened where loads are increased beyond their existing allowable bearing capacity. Localised excavation may also be required for new footings, lift pits and services.

7. Geotechnical Considerations

Preliminary comments on earthworks, excavations, groundwater, and suitable footing types are provided in the following sections. These comments may need to be reviewed after more detailed plans of the proposed development have been confirmed.

7.1 Geotechnical issues

The primary geotechnical issues that should be considered for the proposed development are:

- Due to the presence of the G.P.O Fault zone, which runs from the northeast to the southwest of the site, areas of lower strength rock and a high degree of fracturing occurs within the rock mass. As a result, a reduced bearing pressure of 1,500 kPa was adopted for foundations within the fault zone. Outside of the fault zone, fracturing and discontinuities in the rock mass limit the allowable bearing pressure to 3,500 kPa.
- To accommodate the expected two-fold increase in bearing pressure, the footings of the existing building will need to be assessed and strengthened.
- Groundwater levels were measured during the 1988 investigation at depths between 1.9 m to 5.4 m below ground level. These levels can vary seasonally and long-term due to climatic conditions, prolonged rainfall, and local factors such as drainage changes and nearby developments. Localised excavations within the existing basement levels (such as lift pits) may need to consider the possible presence of groundwater within the design.

7.2 Excavation Conditions

Excavation through fill, natural soil, and very low-strength sandstone (Units 1, 2 and some of Unit 3) can typically be readily achieved with conventional earthmoving equipment. However, excavating low to medium-strength (or stronger) sandstone will likely require rock hammers for effective removal.

The excavation of trenches or any other localised excavations should not be undertaken within the zone of influence of any existing building footings (or other structures). The zone of influence for rock can be determined by drawing an (imaginary) 45° line (i.e., 1H:1V) from the base of the excavation back to the ground surface. Any footing or structures bearing above this line could be considered to be within the zone of influence of the excavation. The zone of influence for soils is shallower and possibly 2H:1V depending on soil type and surcharge loads and should be assessed

on a case by case basis. The depth and founding conditions of any footings (or other sensitive structures) within the zone of influence of any proposed excavation should be confirmed prior to excavation. Footings and structures within the zone of influence of proposed excavation may require underpinning or temporarily support during excavation.

7.3 Vibration

During excavations in rock, it will be necessary to use appropriate methods and equipment to keep ground vibrations at adjacent buildings and structures within acceptable limits. The level of acceptable vibration is dependent on various factors including the type of structure (e.g., reinforced concrete or brick structures etc.), its structural condition, the frequency range of vibrations produced by the construction equipment, the natural frequency of the structure and the vibration transmitting medium.

Ground vibration can be strongly perceptible to humans at levels above 2.5 mm/s vector sum peak particle velocity (VSPPV). This is generally much lower than the vibration levels required to cause structural damage to buildings. The Australian Standard (AS 2670.2, 1990) "Evaluation of human exposure to whole-body vibrations – continuous and shock induced vibrations in buildings (1-80 Hz)" indicates an acceptable day time limit of 8 mm/s VSPPV (vector sum peak particle velocity) for human comfort. This value may need to be reduced if there any sensitive structures or equipment nearby.

Based on the experience of Douglas and with reference to AS 2670, it is suggested that a maximum VSPPV of 8 mm/s (applicable at the foundation level of existing buildings) be provisionally adopted for this site for both architectural and human comfort considerations.

As the magnitude of vibration transmission is site specific, it is recommended that a vibration trial be undertaken at the commencement of rock excavation. The trial may indicate that smaller or different types of excavation equipment should be used for bulk (or detailed) excavation purposes. Enquiries should also be made in regard to the (vibration) sensitivity of the neighbouring buildings, housed equipment or any existing utilities on or around the site.

7.4 Excavation support

7.4.1 Batter slope

Vertical excavations in fill, soil and rock up to low strength (Units 1 to 3) are not expected to be stable and are required to have both temporary and permanent support. Rock significantly affected by faulting is also not expected to be stable due to the variable strength characteristics and high degree of fracturing and will also require support.

Where space permits, temporary batters of 1.5(H):1(V) could be used for excavations up to a maximum depth of 2 m within fill and natural soils above the water table.

Temporary batters for excavations in very low to low strength sandstone (or fault effected sandstone) should be maintained at no steeper than 0.75(H):1(V), or at 1(H):1(V) (or flatter) if permanent. Permanent batters will require shotcrete protection or similar.

Excavations in sandstone of medium (or greater) strength away from existing footings can be cut vertically provided there are no adversely orientated discontinuities. All unsupported excavations in rock should be progressively inspected by a geotechnical engineer or engineering geologist at each 1.5 m drop in excavation for the presence of adversely orientated discontinuities.

Where batters cannot be accommodated, some form of shoring or retaining support will be required.

7.4.2 Shoring

For the support of trenches or other smaller excavations, trench boxes or similar propped support systems could be used and could be designed on the basis of the preliminary parameters outlined in Table 4.

It is suggested that design of shoring with one row of props be based on a triangular earth pressure distribution using the earth pressure coefficients provided in Table 4. For walls where two or more rows of props are used, the shoring can be designed using a rectangular or trapezoidal earth pressure distribution. 'Active' earth pressure coefficient (Ka) values may be used where some movement is acceptable. 'At rest' earth pressure coefficient (Ko) values should be used where the wall movement needs to be reduced.

Table 4: Recommended Preliminary Design Parameters for Shoring

Material	Unit Weight (kN/m^3)	Earth Pressure Coefficient		
		Active (K_a)	At Rest (K_o)	Passive (K_p)
Unit 1 & 2: Fill / Natural Soil	20	0.4	0.6	-
Unit 3: Very Low to low strength sandstone	22	0.2	0.25	400 kPa
Unit 4: Medium strength (or better) sandstone	22	0[1]	0[1]	6000 kPa[1]

Notes: [1] Subject to inspection for the presence of adversely orientated discontinuities by geotechnical engineer or engineering geologist

Any significantly fault effected rock should be treated as Unit 3 material regardless of apparent rock strength due to the high degree of jointing and fractures likely to be present.

7.5 Rock bolts and anchors

Pre-stressed ground anchors and rockbolts (support elements) can be used to laterally support unstable rock masses (or shoring walls, if required). These support elements should be bonded into the stronger material, inclined as required, but preferably not steeper than 30° below the horizontal. The use of permanent anchors would require careful attention to corrosion protection including full column grouting and the use of an internal corrugated sheath over the full length of the anchor. A detailed specification would need to be prepared for the installation and stressing of permanent anchors.

Anchors/rockbolts used to support shoring walls should be bonded behind a line drawn up at 45° from the base of the proposed excavation.

The preliminary design of temporary and permanent ground anchors/rockbolts may be carried out using the allowable bond stresses given in Table 5 below.

Table 5: Recommended Preliminary Bond Stresses for Ground Anchor and Rockbolt Design

Material Description	Allowable Bond Stress (kPa)
Unit 3: Very Low to Low Strength Rock	75
Unit 4: Medium strength (or better) sandstone	350

The values adopted in the design should be confirmed by pull-out tests, carried out prior to installation of support elements, which may also justify slightly higher values. Ultimately, it is the anchoring contractor's responsibility to ensure that the correct design values (specific to the support system and method of installation) are used and that the support element holes are carefully cleaned prior to grouting.

After the ground anchors have been installed, it is recommended that they are tested to 125% of their nominal working load. Where stress relief or further unavoidable movement of the shoring is expected, it is recommended that the anchors are locked-off at a lower value (say, 70% of the Working load), as required to accommodate the additional movement and subsequent increase in stress in the anchors, due to stress relief, swelling of clayey soils and other factors. Checks should be carried out to confirm that the load in the anchors is maintained and that significant losses due to creep or other causes do not occur.

Care should be exercised to ensure that anchors are installed progressively during excavation and stressed prior to excavation of the next 'drop', to ensure that stability is maintained at all times.

It should be noted that permission from adjacent property owners will be required, prior to installing rockbolts/anchors below their land. Due consideration should also be given to buried services and any excavations nearby. TfNSW, Cross City Tunnel, Sydney Water and other service providers may require assessment on the effects that rockbolts and anchors may have on their assets.

7.5.1 Existing Shoring System

It is understood that the existing shoring system and basement depth is to be maintained as part of the redevelopment. It should be noted that modification of the existing basement retention system, if required, will need to consider the impact on neighbouring structures and services, such as TfNSW infrastructure, Sydney Water Assets and the Cross City Tunnel.

If such modifications are required, impact assessments should be undertaken to estimate the effect on neighbouring structures. Similarly, modification to the basement depth or retention system should also consider the effect such modification may have on groundwater inflow into the basement.

7.6 Foundations

Given the large magnitude of the increased load expected for the addition of 11 storeys to the existing building, the strengthening of existing footings or construction of additional footings is likely to be necessary. Footing strengthening could comprise locally increasing the size of existing footings to increase the foundation area.

New footings could also be constructed to carry the additional load. However, this will require an increase in load-bearing columns within the hotel, potentially leading to significant changes in the hotel layout.

Based on the desktop assessment, it is understood that the existing building footings were designed to bear on material suitable allowable bearing capacity of 3,500 kPa outside the fault zone and 1,500 kPa within the fault zone. Reference to Douglas letter (10878/2, dated November 1989) suggests that the footing excavations encountered material suitable for the design allowable bearing capacity during construction.

For preliminary design purposes, footings or footing strengthening could be designed based on the parameters provided in Table 6 below.

Table 6: Preliminary foundation design parameters

Material	Allowable Bearing Capacity (kPa)	Allowable Shaft Adhesion (kPa)	Ultimate Bearing Capacity (kPa)	Ultimate Shaft Adhesion (kPa)	Youngs Modulus E (MPa)
Unit 3: Very Low to Low Strength Sandstone	1,000	75	3,000	150	100
Unit 4: Medium Strength Sandstone	3,500	350	20,000	800	350
Low Strength Sandstone / Unit 4 Rock in the Fault Zone	1,500	100	4,000	250	150

Notes: 1. Classification system based on "Foundation on Sandstone and Shale in the Sydney Region, by Pells, Mostyn & Walker (1998)"

2. Ultimate values occur at large settlements, typically >5% minimum footing dimension

For footings proportioned on the basis of the allowable bearing capacities within Table 6, settlements would be expected to be less than 1% of the minimum footing dimension, with differential settlements between footings bearing upon the same material expected to be half this value.

It is expected that the majority of settlement of the existing footings will have already occurred under the existing building loads. For both new footings and areas of footing strengthening, some differential settlements may occur relative to the existing footings which have already experienced loading. The additional settlement of footings under increased loading and the potential for differential settlement between new and existing footings should be considered within the design.

All footing excavations should be inspected by a geotechnical engineer to confirm that foundation conditions are suitable for the adopted design parameters.

Precise survey monitoring of columns subject to load increases of more than 20% should be carried out progressively to confirm settlements and footing performance is in line with the design assumptions. This should include baseline readings prior to load increases.

8. Recommendations for Further Investigation

Existing footings that need to support additional loads should be assessed to confirm their capacity and the suitability of the underlying foundation material for the required load. Such investigation can also be used to inform the design of footing strengthening that may be required. A preliminary assessment of a number of footings is currently underway and will be reported separately.

Assessment of the possible increased settlement below the existing or strengthened footings should also be completed once detailed information is available about the increased loading and foundation design.

All new foundation excavations or foundation strengthening should be inspected by a geotechnical engineer to confirm the suitability of the material for the design allowable bearing capacity. In addition, any unsupported excavations within rock should be inspected and geologically mapped by a geotechnical engineer/engineering geologist for the presence of adversely oriented discontinuities which may form unstable wedges.

9. References

AS 2670.2. (1990). *Evaluation of Human Exposure to whole-body vibration, Part 2: Continuous and shock-induced vibrations in buildings (1 to 80 Hz).* Standards Australia.

Pells, P. J., Mostyn, G., & Walker, B. F. (1998). Foundations on Sandstone and Shale in the Sydney Region. *Australian Geomechanics, No 33 Part 3*, 17-29.

10. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report for this project at 150 Day Street, Sydney, NSW in line with Douglas' proposal dated 2 September 2024 and acceptance received from Jack Rixon of UOL Group Limited dated 18/09/2024. The work was carried out under

Douglas' Engagement Terms. This report is provided for the exclusive use of UOL Group Limited for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the geotechnical components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Appendix A

About This Report

Appendix B

Provided Drawings

Attachment A19

Report on footing investigation

Douglas PARTNERS

GROUNDED EXPERTISE

Report on Footing Investigation

Park Royal Hotel Redevelopment

150 Day Street, Sydney, NSW

Prepared for UOL Group Limited

Project 231572.00

19 March 2025

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Document History

Details

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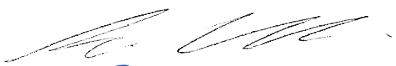
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Revision 0	James Connaughton	Luke James-Hall	2 December 2024
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Status	Issued to
Revision 0	Lim Sheng Yang, UOL Group Limited
Revision 1	Lim Sheng Yang, UOL Group Limited

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

Signature	Date
Author 	19 March 2025
Reviewer 	19 March 2025

FS604853

Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

Douglas PARTNERS | GROUNDED EXPERTISE

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Appendix D: Laboratory Testing

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Report on Footing Investigation
Park Royal Hotel Redevelopment
150 Day Street, Sydney, NSW

1. Introduction

This report prepared by Douglas Partners Pty Ltd (Douglas) presents the results of a footing investigation undertaken for the proposed Park Royal Hotel redevelopment at 150 Day Street, Sydney, NSW (the site). The assessment was undertaken in accordance with Douglas' proposal 231572.00.P.001.Rev0 dated 2 September 2024.

It is understood that the proposed redevelopment includes extending the existing 11-storey building with an additional 11 storeys plus plant, whilst maintaining similar setbacks to the existing structure. The proposed redevelopment aims to retain as much of the existing structure as possible. As part of the redevelopment, loads on existing footings will increase and may double at some locations.

The aim of the investigation is to provide an assessment of the foundation conditions below the existing building footings and to provide information for the design of the proposed redevelopment to support the submission of a Planning Proposal.

A geotechnical desktop report (231572.00.R.001.Rev1 , dated 19/03/2025) has been prepared for this project, it is recommended that this is read in conjunction with this report.

This report must be read with all appendices including the notes provided in Appendix A.

2. Site Description

The site at 150 Day Street is located within the City of Sydney local government area and consists of a single lot, Lot 20 in DP 1046870. The property spans approximately 2,250 m^2 and is irregularly shaped. It is bounded by Day Street to the west, Bathurst Street to the south, and Sands Street to the east, with the Druitt Street Western Distributor on-ramp and the westbound Cross City Tunnel exit to the north. The southern part of the site is also adjacent to the eastbound Cross City Tunnel under Bathurst Street.

The existing development on the site is a 10-storey hotel with a two-level basement. The building has frontages of about 70 meters to Day Street and 18 meters to Bathurst Street. The site is relatively flat, with a slight fall of about 3 meters from the south-east corner towards the north-west, leading toward Darling Harbour. The site elevation is approximately 5 meters AHD (Australian Height Datum).

3. Geology

Reference to the Sydney 1:100 000 Geological Map Sheet indicates that the site is underlain by Hawkesbury Sandstone, a Triassic age medium to coarse grained quartz sandstone unit with minor shale and laminite bands or lenses. Rock is anticipated to be at a shallow depth.

In its fresh condition, Hawkesbury Sandstone is typically light to mid grey in colour, has massive and cross-bedded facies and strength properties typically in the medium and high strength range. The formation normally has near-horizontal bedding partings spaced from less than 1 m to well over 3 m in places, and is typically cut by the following two sets of steeply dipping joints:

- Set 1 (NNE): Strike 020° - 035° / Dip 70° - 90° E and W; and
- Set 2 (ESE): Strike 110° - 130° / Dip 70° - 90° N and S

Reference to Sydney CBD fault zones map (Pells, Braybrooke & Och, 2004), indicates that the site is located within the G.P.O Fault zone. The fault zone extends from the north-east of the subject site to the south-west. Weaker rock and a higher degree of fracturing within the rock mass is expected in the fault zone. An extract from the geological map overlain by 2 m (AHD) contours is shown in Figure 1.

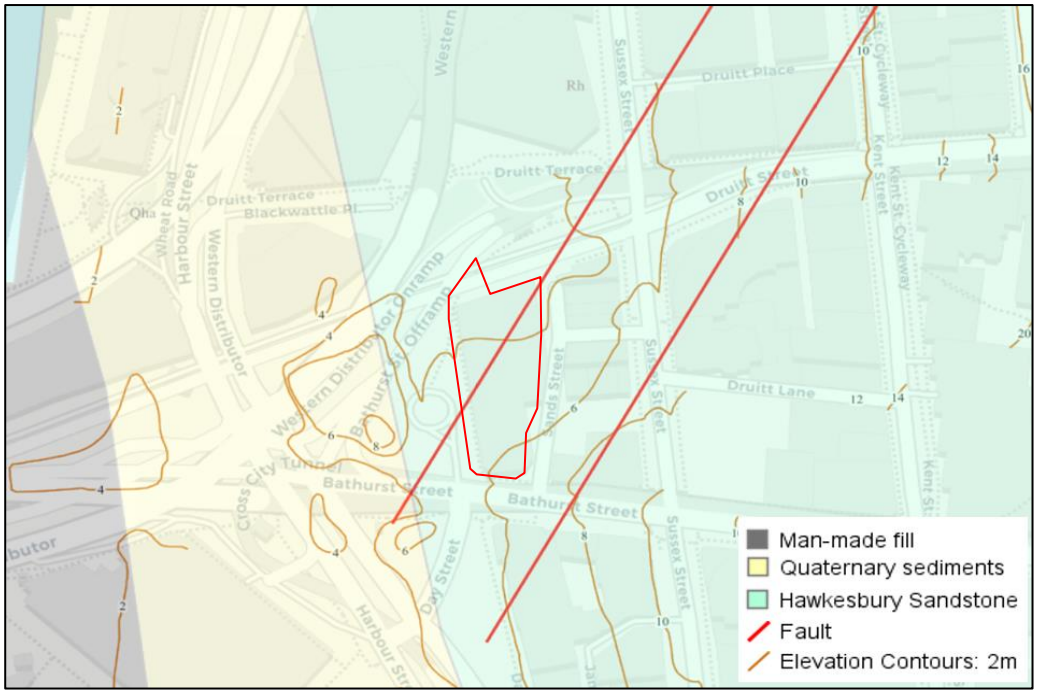


Figure 1: Subject site geology detailing GPO fault zone

4. Field work

4.1 Field work methods

The footing investigation involved the drilling of boreholes numbered BH101 to BH106 within basement level 1 (BH101 and BH102) and basement level 2 (BH103-BH106) of the existing building. The borehole locations are shown in Drawing 1 in Appendix B.

Before drilling, the borehole locations were checked for underground services using an electromagnetic scanner and ground-penetrating radar. Drilling took place over three days: 18 and 19 October, and 26 October 2024. The work was supervised by a geotechnical engineer, who was responsible for logging, photographing, sampling, and conducting strength tests on the recovered rock core at regular intervals using a point load strength index (Is(50)) testing machine.

Each borehole was initially drilled through the floor slab using a single tube, 125 mm diameter core barrel (concrete diatube) to depths of between 0.2 m – 0.43 m. Upon encountering the underlying inferred footing, the borehole was extended through the footing and into the underlying bedrock using a single tube, 64 mm diameter core barrel (concrete diatube) to recover 54 mm diameter core samples. All boreholes were drilled to target depths ranging from 3.88 m to 4.94 m below the floor slabs. It is noted that the use of a single tube core barrel can result in the recovered core being more fractured and eroded as a result of the sample spinning (as opposed to a triple tube core barrel whereby the drilled core is retained in a split and not allowed to rotate).

Following the drilling, spoon testing was undertaken which involves 'feeling' the sidewalls of the open core holes in an attempt to identify defects. The depth to and thickness of defects is recorded. These results then are compared against the borehole log and core photo to assess whether defects were drilling induced (as discussed above relating to single tube core barrels) and whether actual defects are tight or open.

Further, a camera was inserted down each of the open holes with the main purpose to inspect and assess the interface between the footing base and the top of rock.

At completion, the boreholes were reinstated with high-strength concrete through the rock and footing interface. At the slab level, all boreholes were repaired with quick-set concrete.

4.2 **Fieldwork Results**

Detailed descriptions of the conditions encountered within each borehole are provided within the borehole logs presented within Appendix C.

A summary of the soil and rock encountered is provided below:

Concrete 160 mm to 430 mm thick concrete slab from surface level. At some locations (BH101, BH103 and BH105) a thin layer of gravel, sand or clay fill separated the concrete slab from the possible footing.

Possible Footings Possible concrete footings were encountered below the concrete slab at the following depths below the slab surface:

- BH101 - 0.43 m to 1.4 m
- BH102 – 0.43 m to 1.48 m
- BH103 – 0.2 m to 1.52 m
- BH104 – 0.25 m to 1.33 mBH105 – 0.22 m to 1.43 m
- BH106 – 0.28 m to 1.65 m

Hawkesbury Sandstone

Generally ranging from medium to high strength, moderately weathered to fresh rock, fractured to slightly fractured sandstone encountered below the concrete footings at depths of between 1.33 m to 1.65 m to the maximum investigation depth of 4.94 m.

BH105 and BH106 was drilled within or in close proximity to the expected alignment of the fault zone crossing through the site. BH106 encountered low strength, with very low, medium and high strength band, highly to moderately weathered, highly fractured to fragmented sandstone. BH105 encountered sandstone comparable to other areas of the site with a zone of distinctly weathered low to medium strength sandstone at 3.4 m depth.

5. Laboratory testing

5.1 Point Load Strength Testing

Samples of the rock core recovered from boreholes BH101 to BH106 were tested to determine the Point Load Strength Index ($Is_{(50)}$) values. The results of the testing are shown on the borehole logs at the appropriate depths.

The measured $Is_{(50)}$ values for the rock below the footings ranged from 0.08 MPa to 2.3 MPa, corresponding to a range of strength classifications between borehole locations from very low to high strength.

5.2 Unconfined Compressive Strength Testing (UCS)

Six sample selected from each of the core recovered below footings were taken for UCS testing, including measurement of Yong's modulus and Poisson's ratio. The laboratory test reports are provided in Appendix D and are summarised in Table 1 below.

Table 1: Summary of UCS Test Results

Borehole	Depth (m)	Unconfined Compressive Strength (UCS) (MPa)	Modulus (GPa)		Poisson's Ratio		Moisture Content (%)
			Secant	Tangent	Secant	Tangent	
BH101	2.30 – 2.44	21	2.7	6.4	0.14	0.17	7.4
BH102	4.27 – 4.50	27	3.8	8.4	0.11	0.13	7.1
BH103	3.00 – 3.48	31	6.9	12	0.10	0.12	7.0
BH104	1.39 – 1.59	27	4.2	8.9	0.11	0.12	6.3
BH105	1.59 – 2.00	34	7.7	15	0.35[2]	0.38[2]	6.4
BH106	4.29 – 4.46	16	2.3[1]	3.5[1]	0.4[2]	0.47[2]	6.1

Notes: [1] Values noted to be higher than typical for rock of this strength and should be used with caution

[2] Values outside the expected range and should be disregarded

6. Comments

6.1 Foundations

6.1.1 Existing Footings

The footings were not directly exposed during the investigation, therefore the depth and thickness of the footings has been interpreted based upon the examination of cold-joints within the concrete core. Within boreholes BH101, BH103 & BH105 the footings are inferred to begin below a thin fill layer. The footing plan dimensions were not confirmed during investigation, and they have been referenced from the provided footing plan (Drawing Ref: S2001, S2001, dated May 1989) which is included in Appendix E.

Footing thicknesses measured at the test locations ranged between 0.97 m and 1.37 m. footing dimensions have been inferred from the provided as being square pads with of equal lengths and widths of either 1.5 m, 2.0 m or 2.5 m.

Based on the provided drawings, it is understood that the existing footings were designed to bear upon material suitable for 3,500 kPa across the site, with footings founded within the indicated position of the fault zone, designed for a reduced bearing capacity of 1,500 kPa. Reference to a previous inspection report (Douglas Report: 10878/2, dated November 1989) indicates that the footings were inspected during construction and achieved their design bearing pressure. The details of the previous investigation and inspection at the site are described within the Desktop Geotechnical report for the project (Douglas Report: 231572.00.R.001.Rev0, dated November 2024)

6.1.2 Bearing Capacity

Based on a review of the borehole logs and the laboratory results, the allowable bearing capacity of the founding rock below the investigated footings has been assessed using a combination of the rock strength and the defects present, the results of which are given in Table 2 below.

Table 2: Bearing Capacity Assessment of Investigated Foundations

Borehole	Footing Thickness (mm)	Depth to Footing Base Below Slab Level (mm)	Footing Dimension from provided drawing (m)	Founding Material	Allowable Bearing Capacity (kPa)
BH101	970	1070	1.5 x 1.5	Medium to high strength sandstone over medium strength sandstone	5000
BH102	1050	1050	2.0 x 2.0	Medium and high strength sandstone	5000
BH103	1320	1360	1.5 x 1.5	High strength sandstone	5000
BH104	1080	1080	1.5 x 1.5	Medium to high strength sandstone over high strength sandstone	5000
BH105	1210	1230	1.5 x 1.5	Medium and high strength sandstone with some low strength bands at depth	5000
BH106	1370	1370	2.5 x 2.5	Low strength sandstone with very low medium and high strength bands	1500

Notes: The additional settlement that may occur under increased loading should be considered by the designers. The allowable bearing pressures given above assume settlement of up to 1% of the footing width may occur under the applied pressures. Some settlement will have already occurred under the existing loading. It is also noted that for footings bearing upon material of differing strengths, there is potential for differential settlement between footings. Douglas can provide further review and advice on settlements if required.

1330

The bearing stratum encountered beneath the boreholes was checked with spoon testing and in boreholes BH101, BH103 to BH106, downhole camera footage was taken to investigate footing contact with rock. Overall, good contact between the footings and rock was observed. In areas where shallow core loss occurred beneath the footing, spoon testing or visual inspection generally indicated variation in rock conditions (i.e. fractured rock and possible lower strength rock bands), however, weathered soil strength seams were not detected. These areas have been taken into consideration for the assessment of bearing capacity.

Boreholes BH101 to BH105 all encountered material assessed to have a higher bearing capacity than considered in the original design, whilst BH106 observed conditions consistent with the design allowable bearing capacity adopted within the fault zone.

6.2 General

Given the potential for variability in the foundation conditions it is recommended that any footings that are to be subject to increased loading are individually investigated to confirm the bearing capacity of the foundation material. Assessment of foundation conditions of the existing footings on an individual basis may also provide opportunities to adopt higher bearing capacities which could reduce the need for footing strengthening, subject to the existing and proposed increased loading conditions.

Within proximity of the G.P.O fault zone a higher degree of variability, weathering and weaker material is anticipated, in line with the conditions considered within the original design. The presence of this material should be carefully considered in the design with regard to settlement and differential settlement of footings under increased load where footings are potentially bearing on material of differing strengths.

It is recommended that a detailed monitoring plan be developed for the redevelopment works, prior to any additional loading of the existing columns. The plan should include detailed survey monitoring of any columns where load increases of more than 10% are proposed and / or locations where settlement is considered a higher risk due to either expected foundation conditions or residual uncertainty around foundation conditions.

7. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report (or services) for this project at 150 Day Street, Sydney, NSW in line with Douglas' proposal dated 2 September 2024 and acceptance received from Lim Sheng Yang of UOL Group Limited dated 18/09/2024. The work was carried out under Douglas' Engagement Terms. This report is provided for the exclusive use of UOL Group Limited for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other sites, or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and / or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and / or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and / or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the geotechnical components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

This report provides specialist advice only and no part of it is considered a Regulated Design under the Design and Building Practitioner Act 2020 (NSW).

Appendix A

About This Report

Appendix B

Drawings

Appendix C

Fieldwork

Appendix D

Laboratory Testing

Appendix E

Provided Drawings

Attachment A20

Civil engineering preliminary review

Civil Engineering Preliminary Review

150 Day Street, Darling Harbour

Prepared for UOL / 27th November 2024

221199

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Level 6, 73 Miller Street, North Sydney NSW 2060

Your Partner in Engineering

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1.0 Executive Summary

This report has been prepared by Taylor Thomson Whitting (TTW) for UOL in relation to the Park Royal Hotel located at 150 Day Street, Darling Harbour (Allotment DP1046870).

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

The document will cover the below items as part of an initial review of the existing and proposed site:

- Existing site conditions BYDA constraints
- Stormwater design parameters
- Public Domain constraints
- Survey requirements
- Geotechnical Investigation requirements

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2.0 BYDA Findings

2.1 Site Location



Figure 2-1: Site location

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2.2 NBN Co

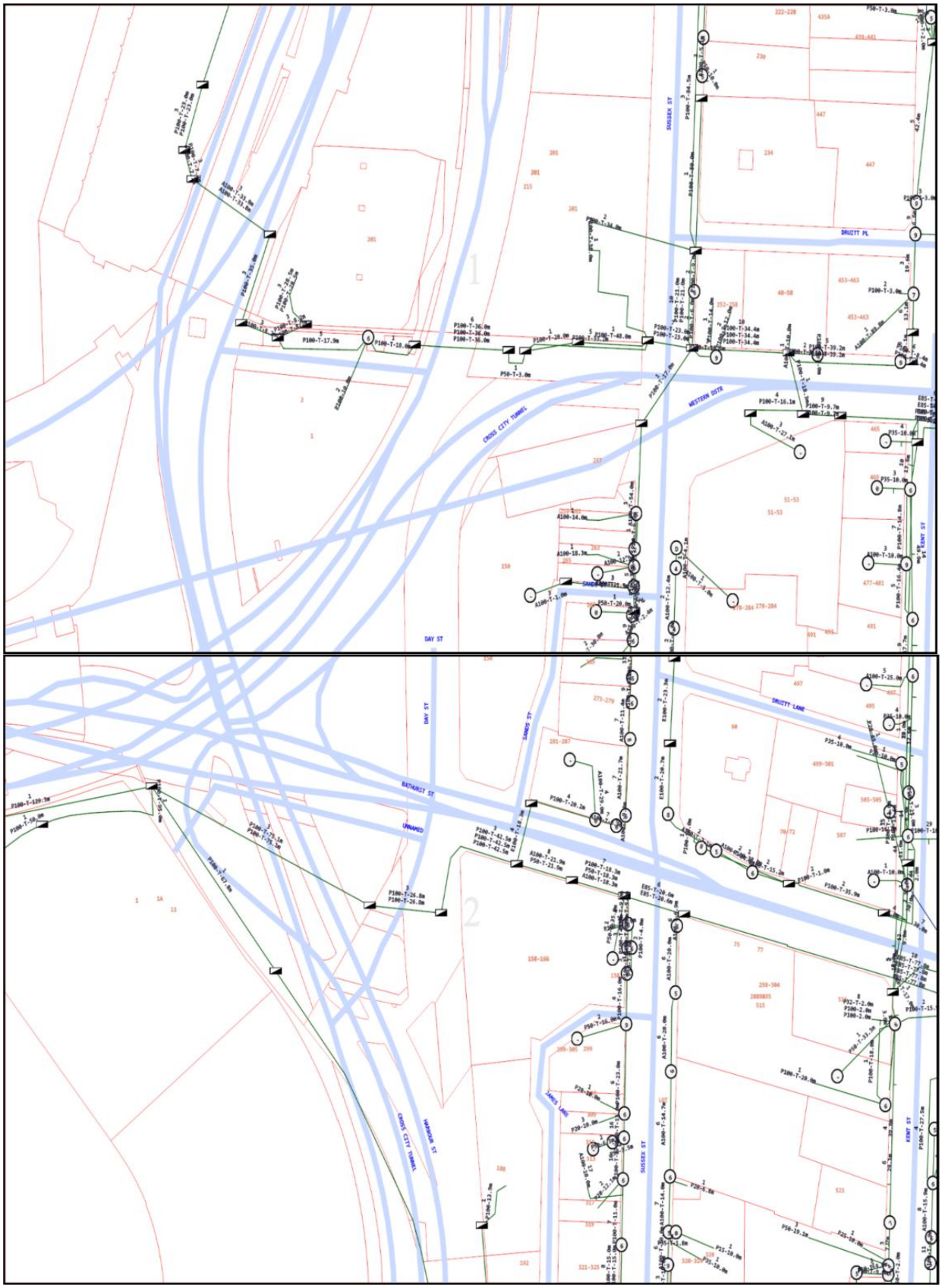


Figure 2-2: NBN Co BYDA Results

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2.3 Ausgrid

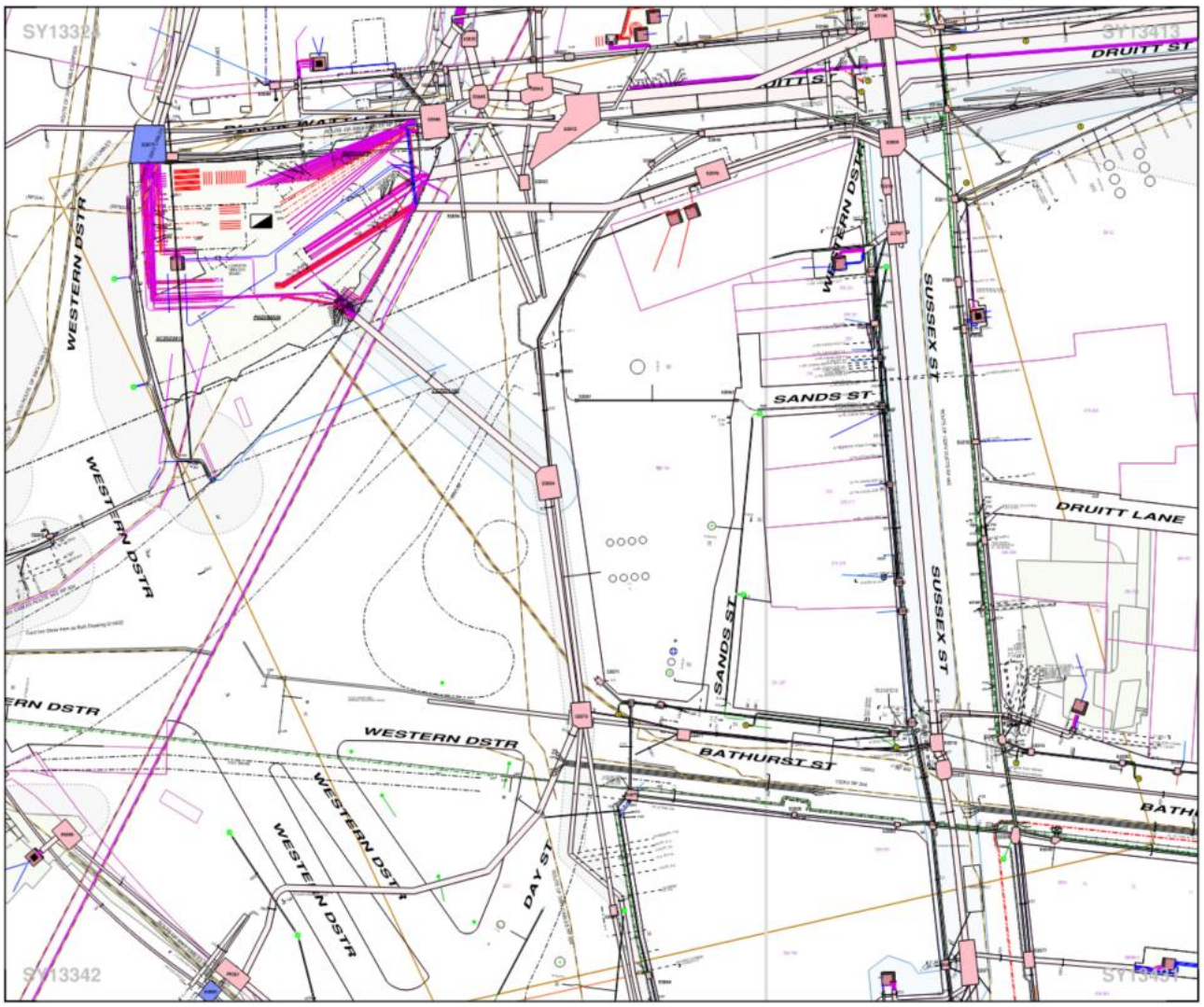


Figure 2-3: Ausgrid BYDA Results

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2.4 Sydney Water

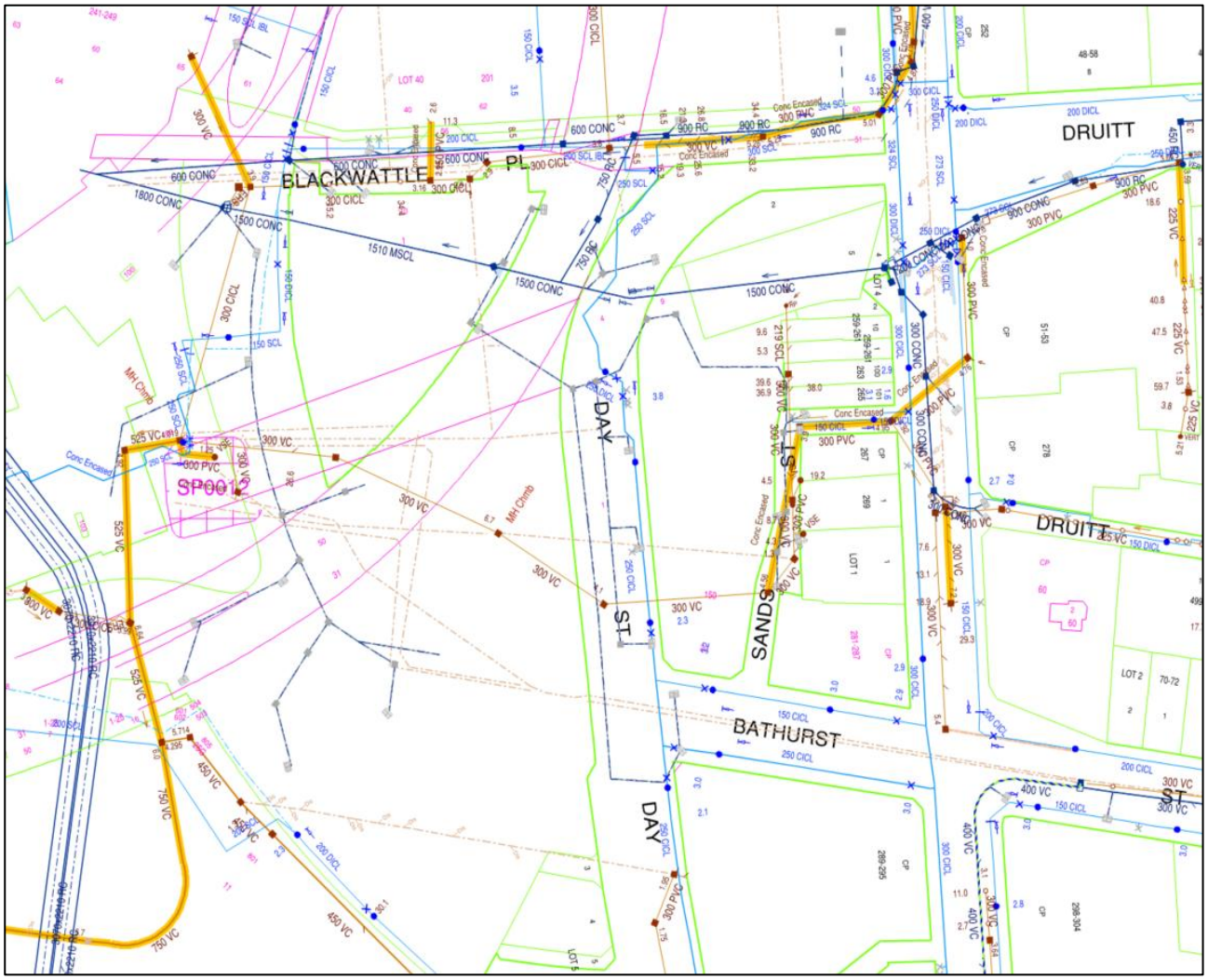


Figure 2-4: Ausgrid BYDA Results

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2.5 Jemena (Gas)

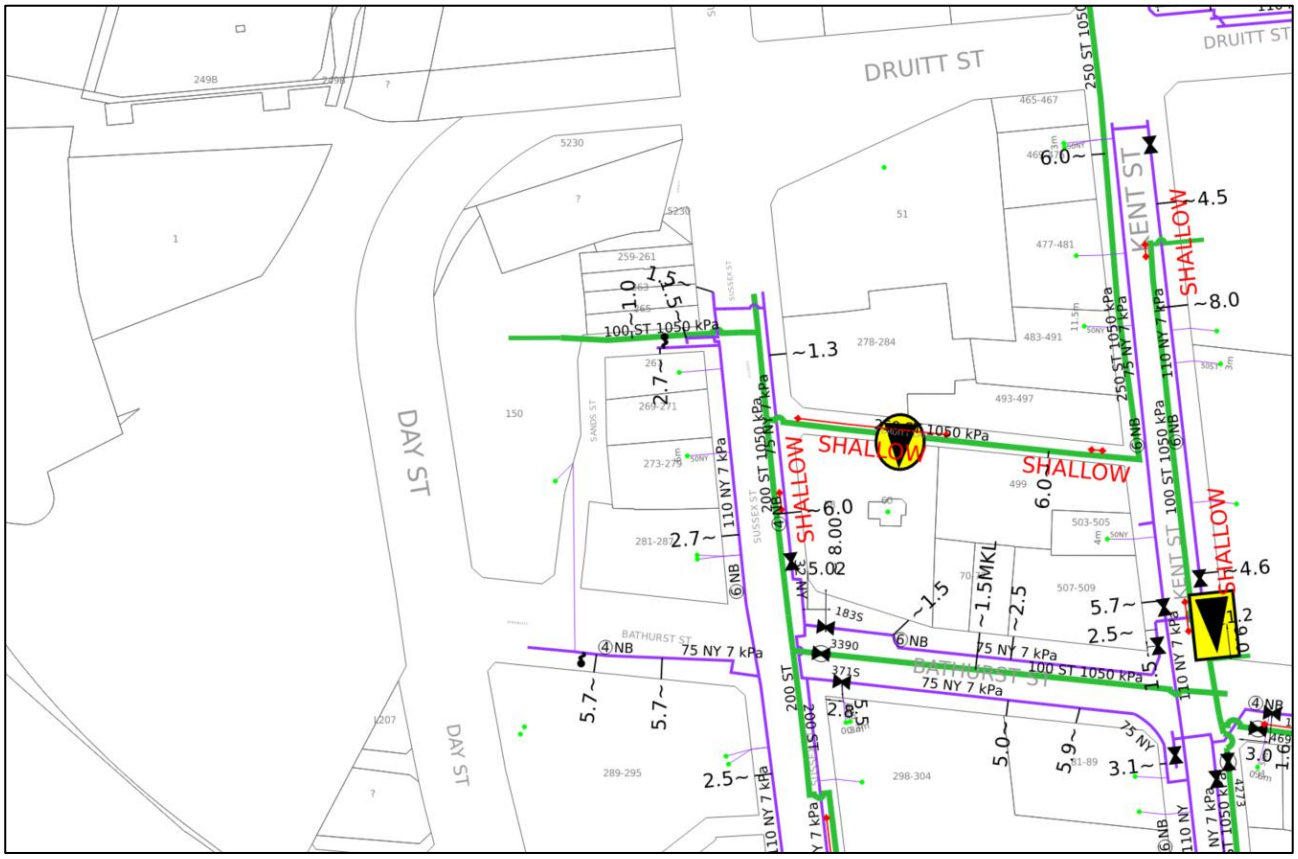


Figure 2-5: Jemena BYDA Results

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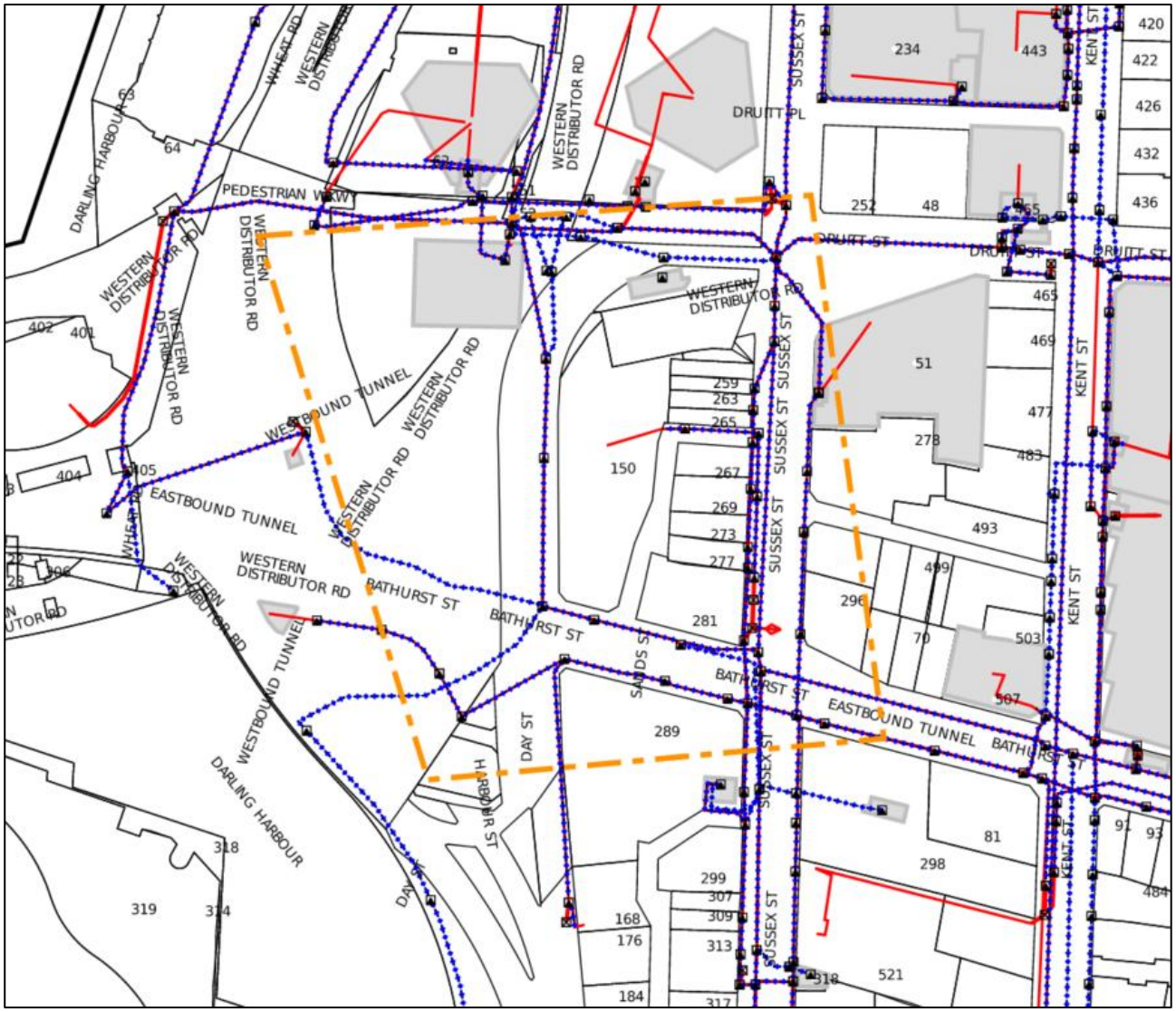
2.6 City of Sydney



Figure 2-6: City of Sydney BYDA Results

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2.7 Optus


DARLING HARBOUR
WESTERN DISTRIBUTOR RD
WESTBOUND TUNNEL
EASTBOUND TUNNEL
BATHURST ST
SUSSEX ST
DRUITT ST
KENT ST
DAY ST
HARBOUR ST
PEDESTRIAN WAY
WHEAT RD
SUSSEX ST
SUSSEX ST
SUSSEX ST

2.8 Transport for NSW

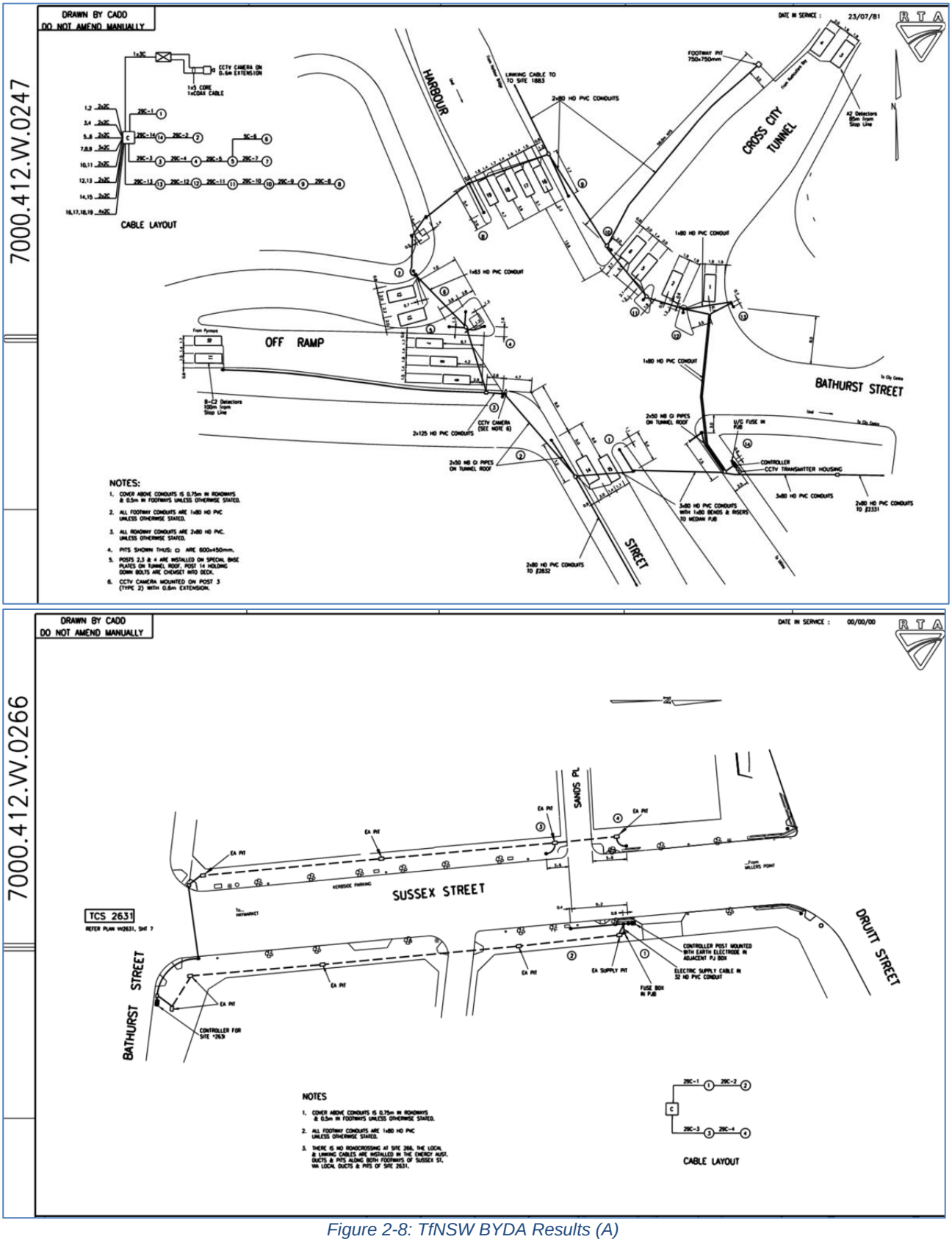


Figure 2-8: TfNSW BYDA Results (A)

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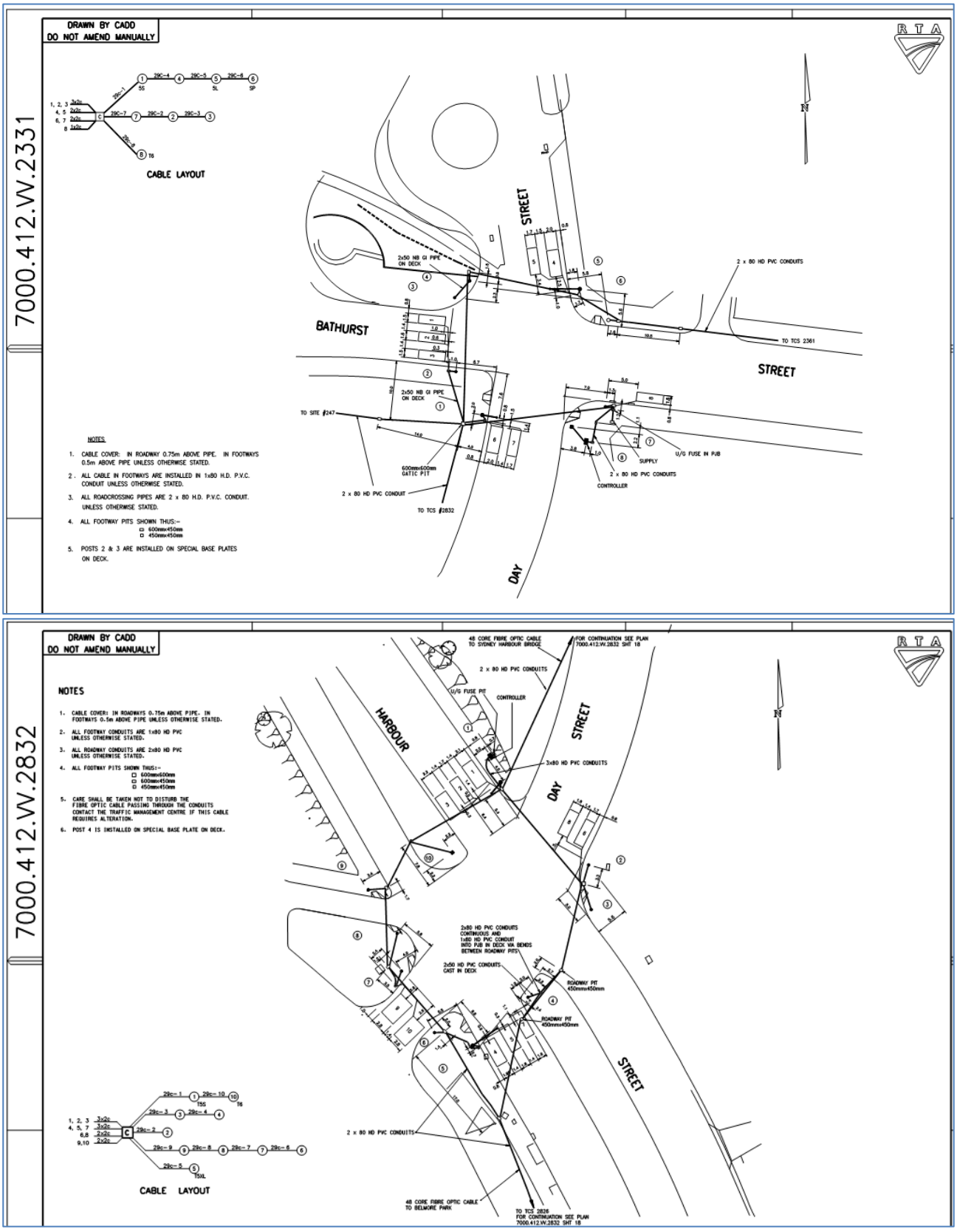


Figure 2-9: TfNSW BYDA Results (B)

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2.9 Sydney Trains Central

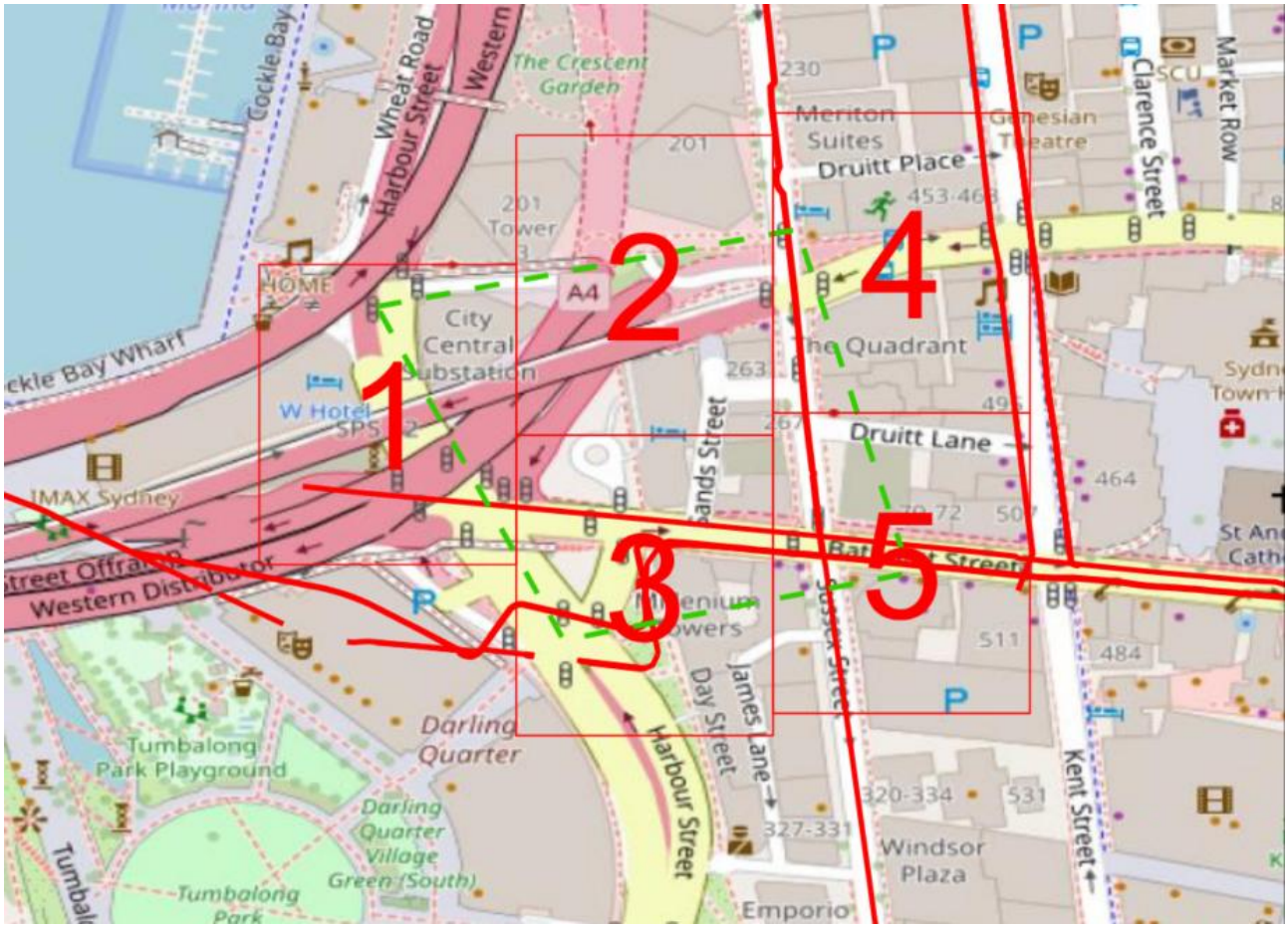


Figure 2-10: Sydney Trains BYDA Results

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2.10 TPG

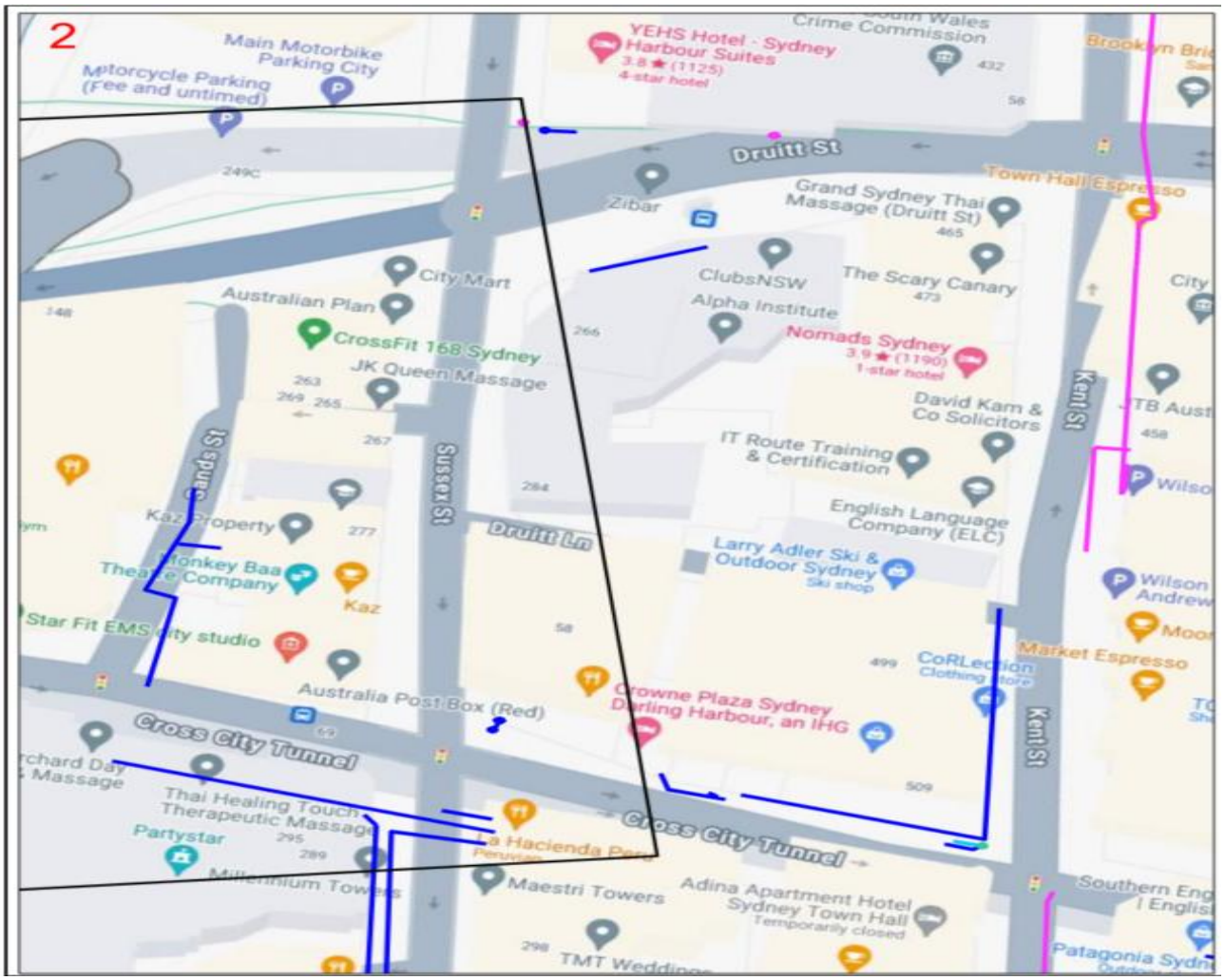


Figure 2-11: TPG BYDA Results

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2.11 Telstra

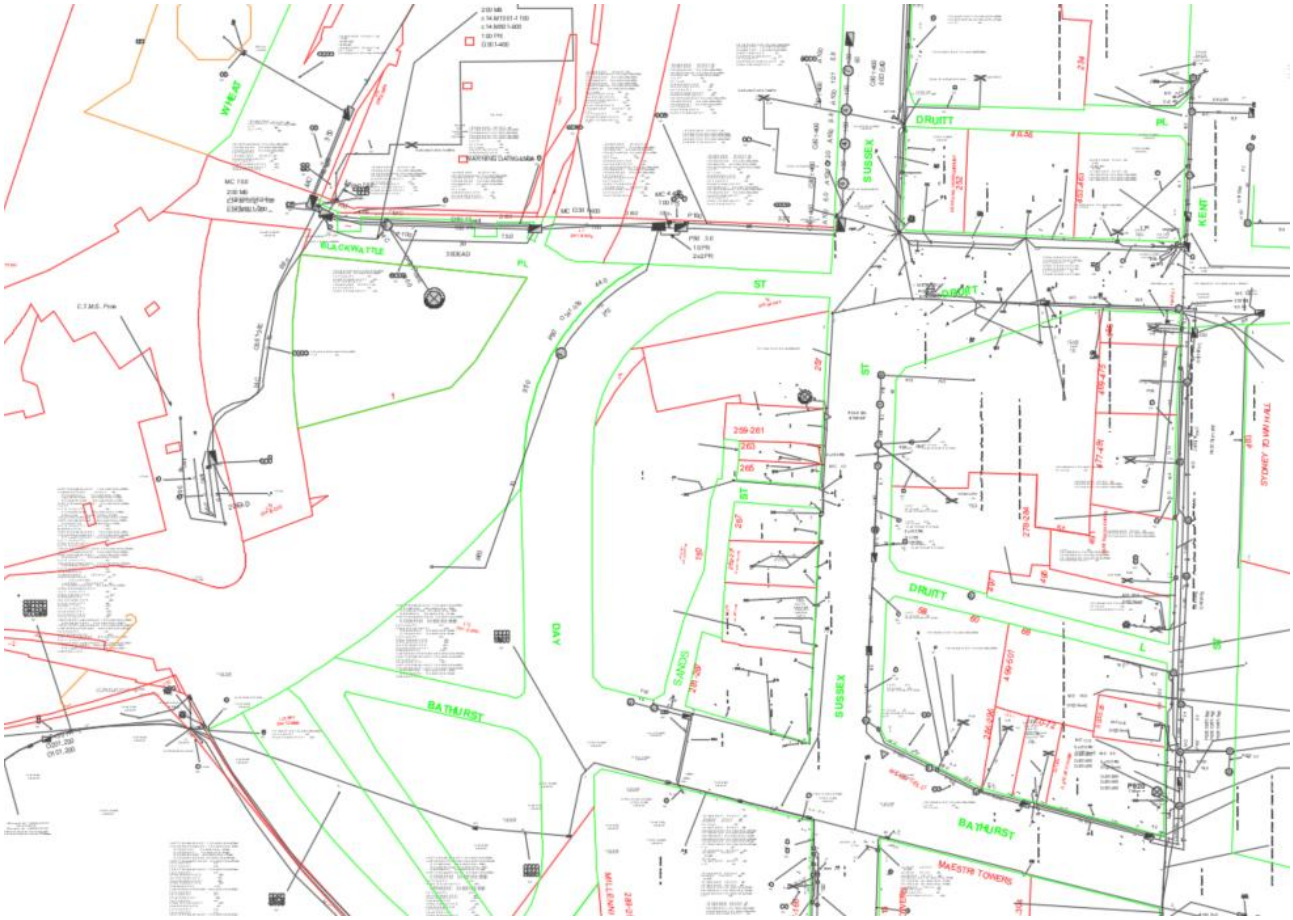


Figure 2-12: Telstra BYDA Results

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3.0 Stormwater Quantity

The site's total area is approximately 2281m^2 (0.228ha) and does not have an existing On Site Detention tank within its structure.

As the site's location sits within Sydney Water's 'City Area 30 Catchment', and the runoff will be discharged into their assets, Sydney Water will dictate the OSD requirements. Initial correspondence from Sydney Water indicates that there is no need for any OSD required for any development located at 150 Day St.

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4.0 Stormwater Quality

As set out in the City of Sydney's DCP, there is a requirement for water quality measures to be installed to ensure that the post development site runoff will exhibit reduced pollutants in alignment with the below extract.

3.7.3 Stormwater quality

(1) Development of a site greater than 1,000sqm must undertake a stormwater quality assessment to demonstrate that the development will achieve the post-development pollutant load standards indicated below:

(a) reduce the baseline annual pollutant load for litter and vegetation larger than 5mm by 90%;

(b) reduce the baseline annual pollutant load for total suspended solids by 85%;

(c) reduce the baseline annual pollutant load for total phosphorous by 65%; and

(d) reduce the baseline annual pollutant load for total nitrogen by 45%.

Figure 4-1: City of Sydney Stormwater Quality Requirements

Given the substantive adaptive reuse of the base building, it is proposed that the typical water quality targets be omitted from the final design requirements. The design intent of the current proposal includes expansive greenspaces to be installed on the hotel's new rooftop areas, this will drastically improve the quality of water runoff compared with the existing state of the building.

In the event that this dispensation is not granted for the project, a comprehensive analysis of the final site layout will be undertaken. This process will incorporate WSUD features into the modelling via the software package MUSIC for review by relevant stakeholders.

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5.0 Public Domain

Under the current refurbishment proposal, there are a series of upgraded elements being offered to the City of Sydney as part of the design.

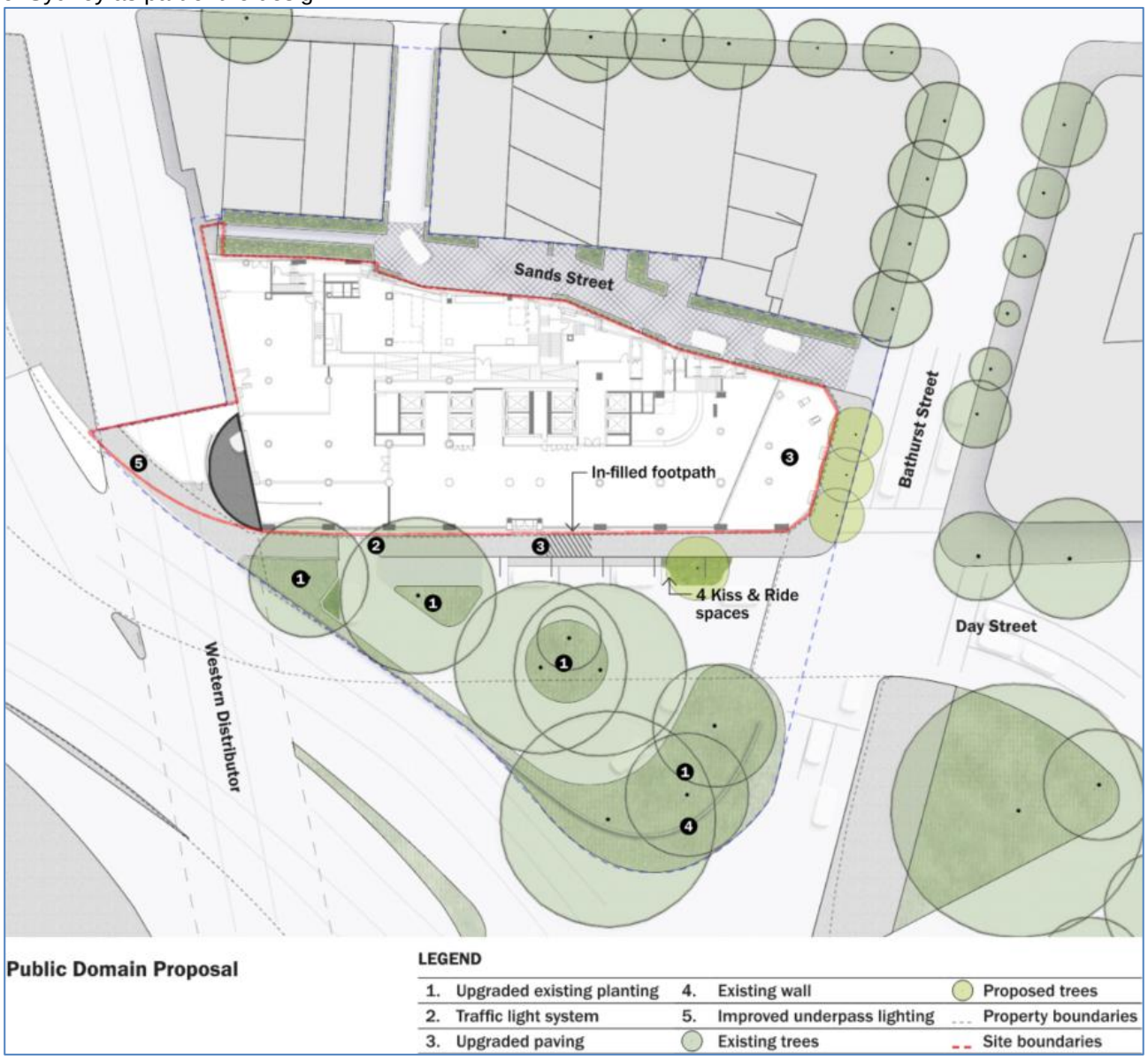


Figure 5-1: Extract from the current Aspect 'Landscape and Public Realm' presentation

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5.1 Upgrade proposals

As above in Figure 5-1, TTW note the existing soft landscaping adjacent to the Hotel's pedestrian and vehicular access via Day Street is intended to be replanted and refurbished to maximise the aesthetic of the public domain and improve acoustic buffering.



Figure 5-2: Sand Street Excerpt from Google Maps

On the eastern side of the hotel, along Sand Street, the design intent aims at improving the public amenity and reducing the potential flood risk of the roadway's sag points.

As shown in Figure 5-2, the existing public domain is rather prohibitive to public access and does not offer any green space within the corridor. Figure 5-1 highlights that, in addition to proposed planting bed installation, the existing building frontage along Bathurst Street will be pushed back to the north. This will create a wider corridor along Bathurst Street between Sands Street and Day Street. Such a proposal will drastically improve public access and improve vehicle sight lines at either intersection.

Further, the proposal to install permeable paving along Sands Street will provide a much-needed improvement to the current flood risk threatening this portion of land. As outlined in TTW's Flood Due Diligence Report, some areas of the Sand Street sag points (pictured in Figure 5-2 above) are expected to experience flood depths of greater than 500mm in the 1% AEP storm event.

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The key benefit of permeable pavement construction is the controlled release of water leading to peak flow reduction. Permeable paving incorporates a sub-base layer made of permeable materials, such as gravel or crushed stone. This layer temporarily attenuates water during heavy rainfall events and gradually releases it into the ground or drainage systems, reducing the likelihood of sudden surges in runoff. By allowing water to infiltrate the pavement substrata, the system diminishes the volume of water that flows across the surface and into stormwater drainage inlets. This slows down the rate at which water reaches downstream waterways, reducing peak flowrates and preventing the rapid accumulation of water that causes flooding.

As the development progresses, there are a handful of considerations which are being worked through:

- Location and depth of any existing utilities which may clash with current design proposals.
- Existing pavement subgrade permeability.
- Vehicle loading requirements.
- Compliance with CoS roadway design standards.

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6.0 Survey Requirements

To date, a full topographic survey has been compiled by Woolpert for the external areas surrounding the existing hotel. This will be used as the basis for the continued development of the public domain design.

In order to further validate these public domain refurbishments and any future proposals that may arise as the design develops, a comprehensive utilities survey will be undertaken. The purpose of the survey is to highlight any potential hidden constraints which might impact upon the final design of the works (current design intent shown on Figure 5-1 and explored further in Section 5).

6.1 Existing Utilities

TTW propose an existing utilities survey be undertaken in the area highlighted in Figure 6-1 below.

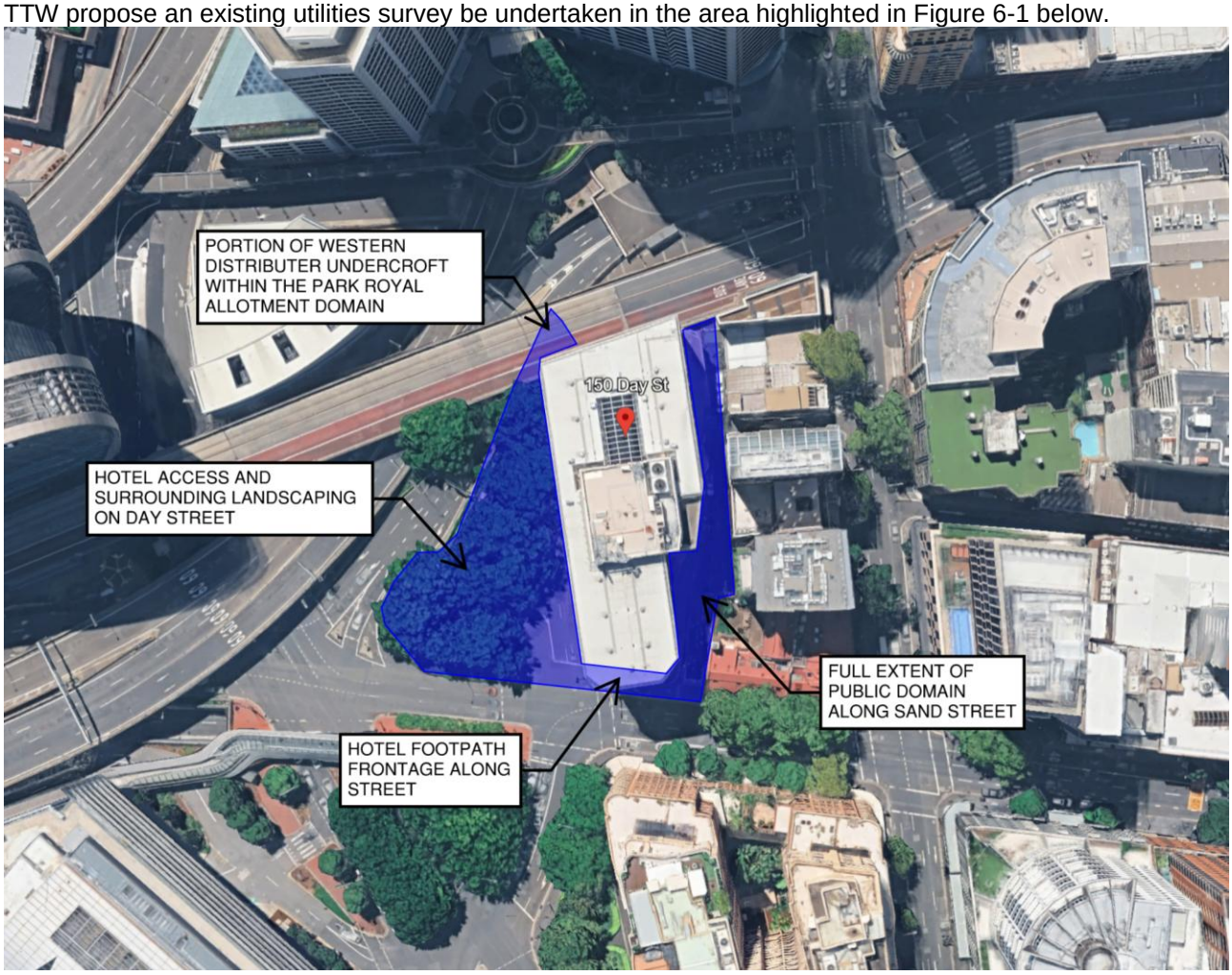


Figure 6-1: Proposed Extent of External Survey

This survey is to confirm the location, extents, sizes, and levels of existing infrastructure. Deliverables to include pit maps of all stormwater chambers. This will allow for the more detailed design of the site stormwater discharge as well as the avoidance of service clashes in the pavement upgrade works.

TTW recommend a review of any proposed survey brief is undertaken prior to the investigation being undertaken on site.

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7.0 Geotechnical Investigation Requirements

In conjunction with the Douglas Partner's report (231572.00.R.002.Rev0), it is suggested that elements of this investigation are expanded to the areas highlighted in Figure 6-1.

The purpose of this expanded investigation zone is to verify and provide clarity on the existing pavement subgrade properties including composition, CBR design values, and compaction levels.

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Attachment A21

Civil engineering preliminary review

Existing Building Services Condition Report

230655 PARK ROYAL HOTEL REDEVELOPMENT

Client:
UOL

Revision:
C

Date:
24/03/2025

REPORT INFORMATION

Project	Park Royal Hotel Redevelopment
Title	Existing Building Services Condition Report
Client	UOL
Revision	C
Revision Date	24/03/2024
Prepared By	LCI Consultants Sydney Office Level 5, 73 Miller Street North Sydney, NSW 2060
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REVISION SCHEDULE

Revision	Date	Issue Name	Author	Authorised
A	16/09/2024	For Client Review	AC, AT, VD, MR	ATR
B	16/12/2024	FOR DA SUBMISSION	AC, AT, VD, MR	VD
C	24/03/2025	FOR DA SUBMISSION	AC, AT, VD, MR	VD

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1 Executive Summary

LCI have been engaged to provide documentation for the preparation of a Development Application for the proposed redevelopment of the Park Royal Hotel on 150 Day Street, Sydney. As part of the documentation process, LCI has undertaken a review of the existing building services at the site to determine the viability of maintaining and re-using the existing services for the new capital works.

The findings from the review are as summarised below:

Asset	Service	Recommendations
Life Safety/ Smoke Hazard Management Fans	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme
On-floor Air Handling Plant	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme
Central Plant Distributive Pumps	Mechanical	Replace for final new architectural scheme to meet new increased demand
Central Chiller Plant	Mechanical	Maintain and recommission for final works
Carpark Ventilation	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme
Hotel Room Fan Coil Units	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme
Central Atrium AHU	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme
Secondary Plant Distributive Pumps	Mechanical	Replace for final new architectural scheme
Central Cooling Tower Plant	Mechanical	Replace for final new architectural scheme to meet new increased demand
Condenser Water Pipework	Mechanical	Conduct pipe ultrasonic scans of existing condenser water pipework to determine suitability of re-use. Maintain or replace according to findings of testing. Replace main condenser water pipework to meet new increased demand and to suit new architectural scheme.
Chilled Water Pipework	Mechanical	Conduct pipe ultrasonic scans of existing chilled water pipework for new hotel rooms to determine suitability of re-use. Maintain or replace according to findings of testing. Bolster insulation accordingly to meet latest NCC standards Replace main chilled water pipework to meet new increased demand and to suit new architectural scheme.
Mechanical Electrical Wiring	Mechanical	Replace to meet latest NCC Standards and to suit new architectural scheme

Asset	Service	Recommendations
Main Switchboard	Electrical	Replace to meet latest NCC Standards and to meet new increased demand
Power Factor Correction Units	Electrical	Replace due to equipment being end-of -life
House and Services Distribution Boards	Electrical	Replace to meet latest NCC Standards and to meet new increased demand
Main Communications	Communications	Retain, clean room and finish internally to latest standards requirements
Communication Racks (Building)	Communications	Retain, clean room and finish internally to latest standards requirements
Communication Racks (Floor)	Communications	Increase room requirements to meet latest demands
Sanitary Drainage and sewer stack riser pipework	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Sewer Holding Well	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Grease Arrestors	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Potable Water Pumps	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Potable Water Tanks	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Potable Water Pipework	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Domestic Hot Water Plant	Hydraulics	Replace with heat pumps to meet latest NCC Standards and to meet new increased demand
Hot Water Pipework	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Hot Water Temperature Control Devices	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Gas Services	Hydraulics	Replace to meet latest NCC Standards, City of Sydney Guidelines and to meet new increased demand
Stormwater drainage and downpipes	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Stormwater Holding Well	Hydraulics	Replace to meet latest NCC Standards and to meet new increased demand
Hydrant Supply	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand

Asset	Service	Recommendations
Hydrant Water Storage Tank	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Booster Assembly	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Hydrant Pumps	Wet Fire	Replace to meet latest NCC Standards and to meet new increased demand
Hydrant landing Valves	Wet Fire	Relocate within fire egress stairs on each level within building. Alternatively, develop a performance solution to address maintaining the current hydrant locations outside the fire stairs.
Sprinkler Water Storage Tank	Wet Fire	Survey effective capacity of the existing sprinkler tank to confirm size.
Range Pipes	Wet Fire	Replace to meet latest NCC Standards
Fire Sprinkler Pumps	Wet Fire	Replace to meet new increased demand
Fire Hose Reel	Wet Fire	Replaced existing fire hose reels with new fire hose reels that incorporate a 36m hose. Develop a performance solution to remove all hose reels from all Class 5 areas of the building.
Dry Fire Cabling	Dry Fire	Replace to meet latest NCC Standards
Smoke Detectors	Dry Fire	Replace to meet latest NCC Standards
Fire Indicator Panel	Dry Fire	Replace with newer model
Fire Functional Control Panel	Dry Fire	Replace with newer model
EWIS Cabling	EWIS	Replace to meet latest NCC Standards
EWIS Speakers, Phones	EWIS	Replace to meet latest NCC Standards
Guest Lift 1,2.3	Vertical Transportation	Maintain usage for future scheme. Adequate design life until 2033.
Service Lift 4,5	Vertical Transportation	Complete replacement of these lifts with larger lift cars to suit the latest architectural scheme

2 Introduction

2.1 Scope

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (**the site**), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the *Sydney Local Environmental Plan 2012* (the **LEP**) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of RL 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (**DCP**) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 490-540 hotel keys with gross floor area of ~30,000m^2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

As part of the documentation process, LCI has undertaken a review of the existing building services at the site to determine the viability of maintaining and re-using the existing services for the new capital works. The scope of this report is to provide a condition assessment of the existing services and recommendations on whether these assets are to be repurposed as part of the capital works.

The key consideration for the redevelopment planning works are the following minimum sustainability targets as stipulated by the City of Sydney:

- 4.5 Star NABERS Energy and Water
- 5 Star Green Star Rating

The report therefore shall consider the suitability of re-using the existing plant with a future strategy of meeting the above requirements accordingly.

The scope of the building services is limited to:

- Mechanical Services
- Electrical Services including communications
- Hydraulic Services
- Fire Services
- Vertical transport
- Fire Safety Engineering

The scope of the review does not include:

- Refrigeration plant

The review was carried out by the following:

- Desktop review of the existing drawings provided
- Site inspection 05/09/2024. Site inspection was visual and non-intrusive only. Assets not inspected but evaluated are nominated by exception.

3 Mechanical Services

3.1 Existing Mechanical Services - Overview

The mechanical services serving each functional space at the Park Royal hotel can be summarised as follows:

Area	Level	Ventilation	Cooling	Heating	Life Safety
Staff BOH	Basement	- Fresh air via risers from Level G under ceiling void - Exhaust as required by code	Chilled Water FCU serving floor	Electrical heating element in FCU	Nil - Stair Press omitted from stairs that access this area
Carpark	Upper Basement	- 2 off carpark supply air fans Outside air drawn from Level G under ceiling void - Natural ventilation by virtue of perforated garage screen door - Carpark exhaust fan no longer runs during normal operation	Not required	Not required	Carpark exhaust fan enabled during fire mode
Lobby and Kitchen BOH	Ground	- Fresh air via risers from Level G under ceiling void - Exhaust as required by code	Chilled water FCU serving floor.	Electrical heating element in FCU	Atrium smoke exhaust fans and smoke relief louvre
Hotel Rooms, Meeting Rooms	Level 1	Fresh air via outside air louvres on façade (close to motorway)	Condenser water packaged units		Atrium smoke exhaust fans and smoke relief louvre
Banquet Hall and Functions	Level R	Fresh air via outside air louvres on facade	Chilled water FCU serving meeting rooms. Chilled water in ceiling void plantroom serving banquet hall	Electrical heating elements in FCU	- Stair pressurisation fan for southern fire stairs - Atrium smoke exhaust fans and smoke relief louvre
Hotel Rooms	Levels 2-9	Fresh air via centralised fans and AHUs from Level 10	Corridors served by atrium AHU. Chilled water FCUs serving each hotel room	Electrical heating elements in FCU	Atrium smoke exhaust fans and smoke relief louvre
Hotel Rooms	Level 10	Fresh air via outside air louvres on facade	3 off Chilled water FCUs serving corridors Chilled water FCUs serving each hotel room	Electrical heating elements in FCU	

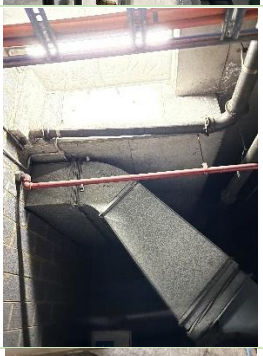
3.2 Economic Life of Equipment

The economic life of the equipment has been assessed based on the estimates in the AIRAH Technical Handbook and a visual inspection on site with consideration for contributing factors that may increase or reduce the this life. The relevant line items from the AIRAH Technical Handbook are listed below:

Equipment	Economic Life (years)
Air Handling Unit	20 to 25
Automatic controls and instrumentation	20 to 25
Cooling towers	10 to 15
Fans	15 to 20
Pipework and valves	20 to 25
Pumps	20 to 25

3.3 Equipment and Asset List

Equipment	Image(s)	Condition	NCC Risk	NABERS 4.5 Risk	Greenstar 5 Star Risk	Recommendation
Fire Pump Room Fan		Poor	High No Makeup	N/A	N/A	Replace in new architectural scheme
Computer Room A/C Unit		Good	Low	N/A	N/A	Reuse likely more costly than new units
Ground Floor FCU		Poor	High VSDs required	High VSDs required Metering required	High Increased OA Required	Replace in new architectural scheme
Water Cooled Chillers		Good	Medium Increased efficiency may be required. Pressure rating of vessels not high enough	Medium Increased efficiency may be required	High High GWP refrigerant used	Keep in use for interim works. Replace for final scheme

Equipment	Image(s)	Condition	NCC Risk	NABERS 4.5 Risk	Greenstar 5 Star Risk	Recommendation
Chilled Water Pumps		**Poor**	**High**	**High**	**High**	Understood to be replaced in 5 months time. Hold off replacement until new capital works.
Condenser Water Pumps		**Fair**	**High**	**High**	**High**	Understood to be replaced in 5 months time. Hold off replacement until new capital works.
Carpark Supply fans		**Poor**	**High** No CO monitoring	**High** No control beyond timers	N/A	Replace in new architectural scheme
Carpark Exhaust fans		**Poor**	**High** No CO monitoring	**High** No control beyond timers	N/A	Replace in new architectural scheme
Misc Comms Room AC Units		**Good**	**Low**	N/A	N/A	Reuse likely more costly than new units

Equipment	Image(s)	Condition	NCC Risk	NABERS 4.5 Risk	Greenstar 5 Star Risk	Recommendation
Ground floor AHU	Not viewed due to poor access		**High** Low access space	**High** No control beyond timers	**High** Increased OA Required	Replace in new architectural scheme
Misc Ground floor exhaust fans	Not viewed due to poor access		**High** VSD Required	**High** No control beyond timers	N/A	Replace in new architectural scheme
Level 1 PACs		**Poor**	**Medium** Increased efficiency may be required	**High** No control beyond timers	**High** Increased OA Required	Replace in new architectural scheme
Level R AHUs		**Poor**	**Medium** Increased efficiency may be required	**High** No control beyond timers	**High** Increased OA Required	Replace in new architectural scheme
Level R Stair Press Fan		**Poor**	**High** Update to latest mech life safety standard	N/A	N/A	Replace in new architectural scheme
Levels 2-9 Hotel Room FCUs	Not viewed due to poor access		**High** Section J efficiency to be updated	**High** No control beyond timers	**High** Increased OA Required	Replace in new architectural scheme
Atrium AHU	Not viewed as operational and required to be shut down to view		**Medium** Increased efficiency may be required	**High** No control beyond timers	**High** Increased OA Required	Not required in new architectural scheme

Equipment	Image(s)	Condition	NCC Risk	NABERS 4.5 Risk	Greenstar 5 Star Risk	Recommendation
Level 10 Corridor FCUs		**Good**	**Low**	**High** No control beyond timers	**High** Increased OA Required	Replace in new architectural scheme
Supplementary Condenser Water Pumps		**Fair**	**Medium** Increased efficiency may be required	**High** No control beyond timers	N/A	Replace in new architectural scheme (was part of a late retrofit) or remove if no longer required.
Smoke exhaust fans		**Fair**	**High** Update to latest mech life safety standards	N/A	N/A	Not required in new architectural scheme
Rooftop Stair press fans		**Fair**	**High** Update to latest mech life safety standards	N/A	N/A	Not required and replaced to suit new architectural scheme
Cooling Towers		**Poor**	**Medium** Increased efficiency may be required	**Medium** Less water use may be required	N/A	Replace to suit new architectural scheme – location not suitable for transfer floor as it needs exposure to outside

3.4 Mechanical Services Infrastructure

Infrastructure	Image and General Condition	Re-use Considerations
Chilled water pipework	Fair to Poor 	- Must re-evaluate pipe sizing based on updated heat loads in detailed design - Pipe conditions and extent of corrosion cannot be determined from visual inspection and will require ultrasonic non-intrusive testing for re-use evaluation. - Insulation provided required to be updated to latest NCC - Pressure class to be evaluated. Depending on final plant arrangement, can be sufficient.
Condenser water pipework	Good to Fair 	- Must re-evaluate pipe sizing based on updated heat loads in detailed design - Pressure class to be evaluated. Depending on final plant arrangement, can be sufficient. - Pipe conditions and extent of corrosion cannot be determined from visual inspection and will require ultrasonic non-intrusive testing for re-use evaluation
Mechanical Electrical	Fair to Poor 	- Requires detailed analysis if conduits sufficient for new plant loads - Requires upgrade to the latest wiring and electrical standards - Boards are at the end of economic life - Low probability of re-use

4 Electrical Services

4.1 Existing Electrical Services – Overview

The electrical services plantrooms at the Park Royal hotel can be summarised as follows:

Level	Plantroom	Comment
Building Distributor Room	Lower Basement	- The room houses 5 x racks which contain all the servers for hotel operations
MDF Room	Upper Basement	- Main incoming telco services terminate in this room. Current providers are NBN, Pipe Networks
Main Switchroom	Upper Basement	- Houses 1 x Main switchboard for the building and distributes power to rest of the hotel
FDR	On all levels	-Typical 45 RU rack provided on every level to distribute the communications services
Distribution Boards, Electrical Risers	On all levels	-Typical risers on all levels, houses cables, teed off boxes and distribution boards
Roof	Services mounted on roof for DAS and PAYTV	-Antenna located on the roof for DAS system currently owned by Vodafone -Antenna located on the roof for Foxtel and FTA TV system

4.2 Economic Life of Equipment

The economic life of the equipment has been assessed based on a visual inspection on site with consideration for contributing factors that may increase or reduce the life for e.g. scheduled maintenance, preventive maintenance, operation of the asset in its environmental conditions.

Equipment	Economic Life (years)
Main Switchboard	20 to 25
Distribution Board	20 to 25
Cables	25 to 30
Rack	8 to 10
PFC	10 to 15

4.3 Existing Electrical Services

Park Royal Hotel consists of the following major Low Voltage (LV) electrical plant and infrastructure:

4.3.1 Main Switch Room:

Main Switchboard

The main electrical services Main Switch Room (MSR) is located in the upper basement and serves as the central point of electrical services distribution for the entire building. The switchboard is approaching end of life with no service protection device (SPD) and is not compliant to the current standards(AS 61439). The consumer mains currently originate from Ausgrid substation S.7983(Sussex Sand) and currently has half sized neutral which is also non-compliant to current AS/NZS 3000 requirements.



Figure 4-1 : Main Switchboard

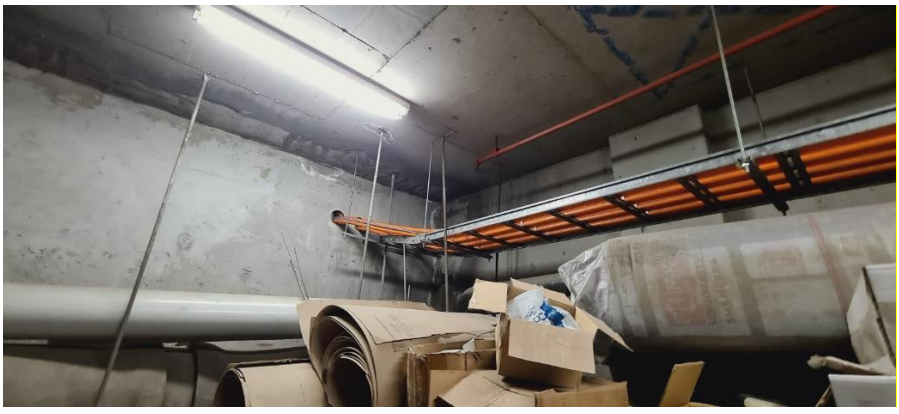


Figure 4-2 : Incoming Consumer Mains

4.3.2 Power Factor Correction Units

A total of one (1) power factor correction units (PFC) are housed within the Upper Basement Switch Room, with their details summarized below:

- PFC: 350kVAR unit connected to MSB on the mechanical bus bar

The power factor correction units were installed circa 1999 and the equipment have been maintained well, with annual inspections conducted per manufacturers recommendations with maintenance labelling observed on the PFC unit. The expected services life for PFC units is around 15 years before contactors begin failing, and therefore it is expected this equipment will require replacement in the coming years.

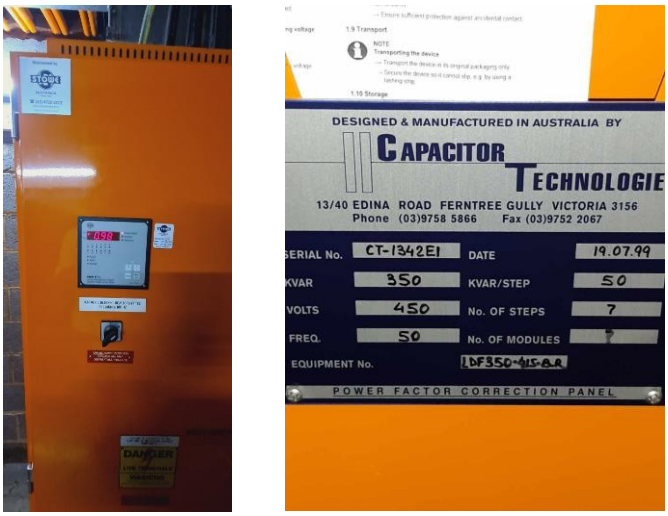


Figure 4-3 : Power Factor Correction Unit

4.3.3 House and Services Distribution Boards (Various Locations)

The development includes various electrical distribution boards (DBs) throughout the building, housed in plant areas, hotel level corridors within dedicated services cupboards and risers to enable efficient distribution of electrical power. These include house distribution boards (supplying general power and lighting circuits) and DBs dedicated to certain plant (such as security, telecommunications or hydraulics). During the site inspection, it was observed that these boards are end of life. The boards cannot be retained and would have to be upgraded to meet current standards.

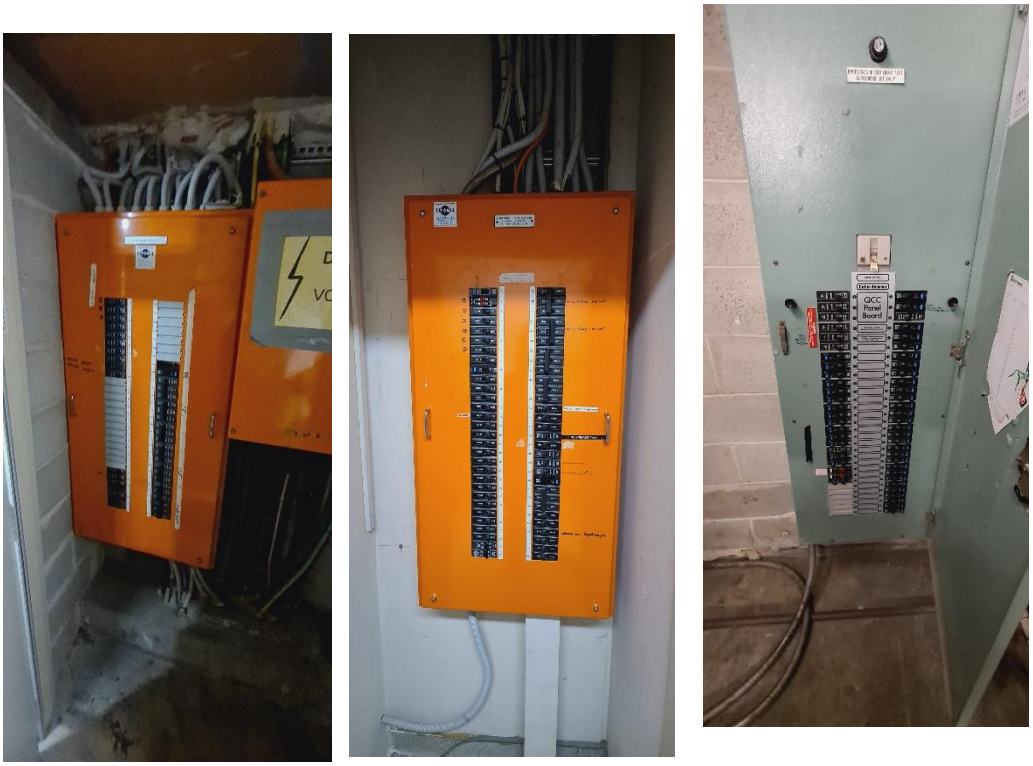


Figure 4-4: Typical Distribution Boards

4.4 Existing Communication Services

4.4.1 MDF

The main communications room is located in the upper basement and serves as the central point of communication incoming services from the street. The site currently has NBN and other service providers terminating their services in the MDF room. The room and services could be retained in its current location for existing and future development needs however needs to be cleaned, repainted and finished internally to the current requirements of S009.



Figure 4-5: MDF Room

4.4.2 BDR

The main building distributor room is located in the lower basement and serves as the central point of distribution for the entire building. The room currently houses 5 racks. The room and services could be retained in its current location for existing and future development needs however needs to be cleaned, repainted and finished internally to the current requirements of S009.

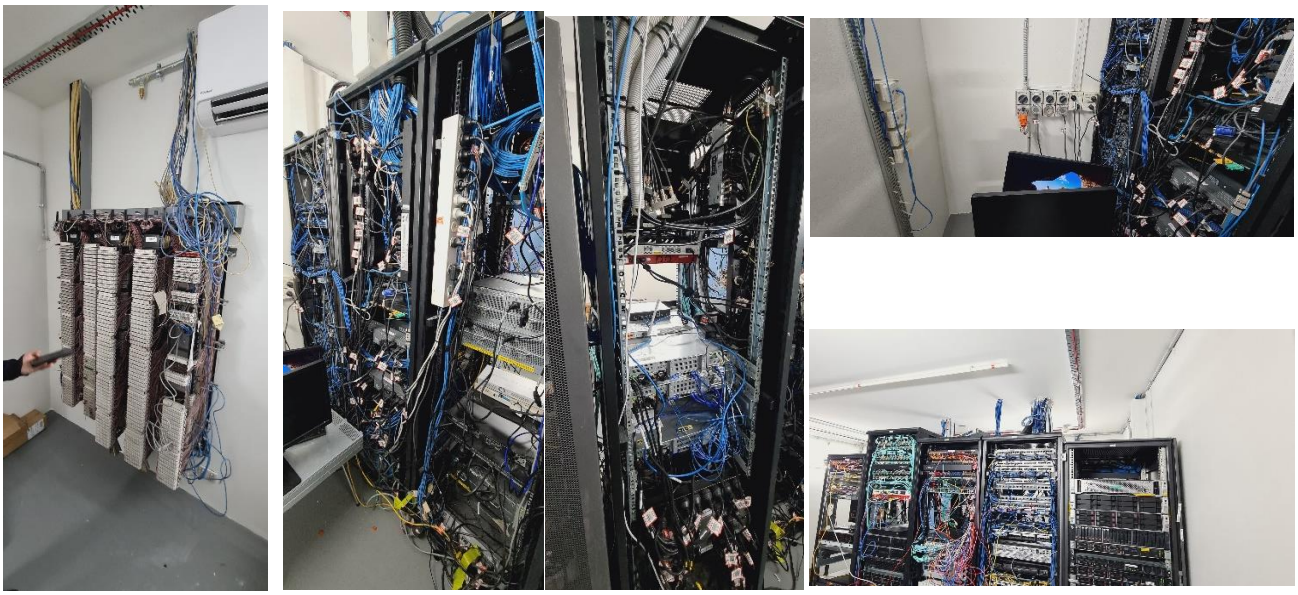


Figure 4-6: Building Distributor Room

4.4.3 FDR

The floor distributor room is located on every level and serves as the central point of distribution on every floor. The room currently houses 1 rack. The space allocation for this room would need to be reviewed in conjunction with the new lift core arrangement for the new development. In some instances, the rack could be re-used for new works which would be dependent on its age and integrity. Spaces for specific use, for e.g. function spaces have their own small wall mounted racks. The suitability of reusing active gear in the current racks would have to be evaluated by the systems integrator which will be dependent on the technology being deployed for hotel communication infrastructure.

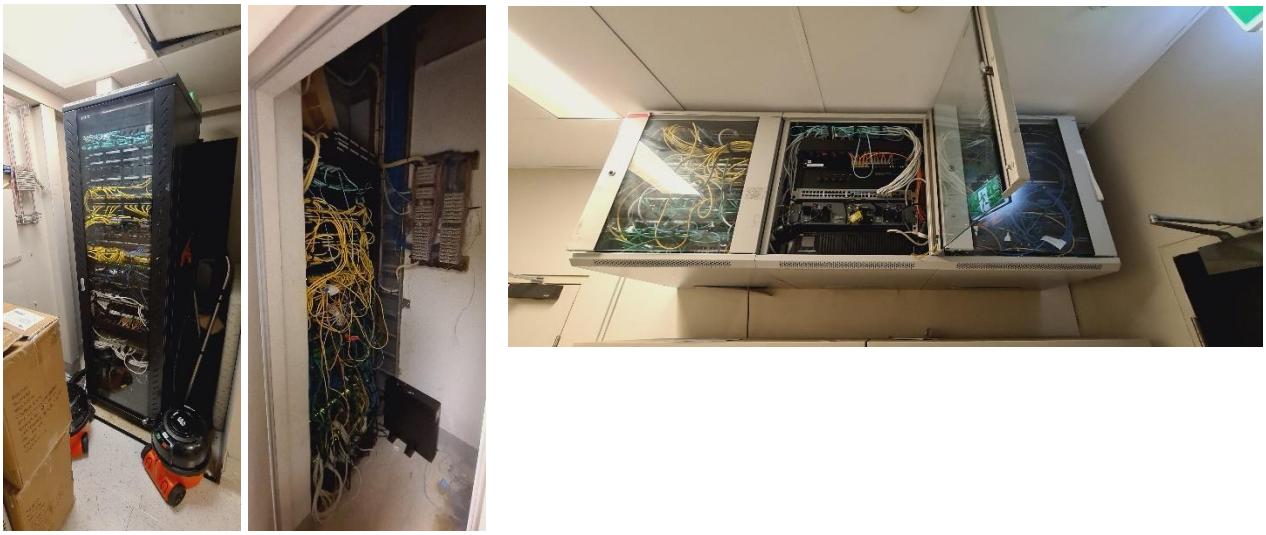


Figure 4-7: Floor Distributor Room

5 Hydraulic Services

The table below has summarised the minimum required works for each hydraulic service to accommodate the proposed new Building Scheme.

Service	New Building Scheme
Sanitary Drainage services	
Sanitary drainage and stacks	• To accommodate the new building scheme, it is envisaged the existing the existing mild steel sanitary drainage services pipework and stack risers would be undersized and should be replaced with new uPVC drainage pipework of adequate size.
Sewer Holding well.	• A new sewer holding well and associated pumps will be provided. • The existing plantroom the sewer holding well is located within does not incorporate adequate ventilation for personnel to enter and work within. The ventilation to the room should be upgraded
Tradewaste Drainage services	
Grease Arrestors	• New grease arrestors will be provided and adequately sized to accommodate the grease waste anticipated for the new building scheme.
Tradewaste drainage and stacks	• New grease arrestors will be provided and adequately sized to accommodate the grease waste anticipated for the new building scheme.
Potable Water service	
Transfer and Booster pumps.	• A new potable water transfer pumpset and potable water boosting pumpset will be provided to accommodate the new building scheme. • Potable Water transfer pumps to be located within dedicated plantroom on Lower Basement.
Potable Water tank.	• The existing tank should be decommissioned, and a new potable water storage tank will be provided, that is adequately sized for the new building scheme.
Potable Water pipework	• New potable water services pipework should be provided that is adequately sized to cater for the new building scheme.
Hot Water service	

Hot Water plant	• The existing hot water plant should be replaced with an adequately sized hot water plant that consist of either:
	  • A gas fired instantaneous with hot water storage.
	  • Electric boosted air to water heat pumps with hot water storage.

Hot Water services pipework	• New hot water flow and return services pipework should be provided that is adequately sized to cater for the new building scheme.

Hot water temperature control devices	• New temperature control devices will be provided throughout the building to provide:
	  • 50 degrees Celsius tempered water to all ablution fixtures.
	  • 45 degrees Celsius tempered water o all accessible ablution fixtures.

Natural Gas service	
Gas pipework pressure	• New natural gas service pipework will be run throughout the building to serve to the existing and new gas appliance, sized to cater for the lower gas pressure.

Stormwater drainage service	
Stormwater drainage and downpipes	• The existing mild steel horizontal stormwater drainage and downpipes appears to be in poor condition and would will need to be replaced with new uPVC drainage pipework of adequate size.
Stormwater Holding well	• A new stormwater holding well and associated pumps will be provided.

5.1 Sanitary Drainage System

5.1.1 Existing System

The building's sanitary drainage system is conveyed by a boundary trap connection point to Sydney Water's 300 VC sewer main located within Sand St. Drainage services pipework is run throughout the building to provide connection to sanitary fixtures in the following arrangements:

- Drainage services conveying wastewater from sanitary fixtures located on Levels 1 to Roof, gravitate directly to the boundary trap located at high level on the Upper basement level.
- Drainage services conveying wastewater from fixtures located on Upper basement and Lower basement level reticulate to an inground sewer holding well located within dedicated plant room on Lower basement level. Wastewater that is conveyed by the holding well is pumped back to the boundary trap connection point via submersible macerator pump. The size and condition of the holding well was not inspected during the site inspection.

Sanitary drainage stacks are provided within dedicated services riser that are located between each apartment suit. The drainage stacks provide connection to each apartment fixtures. All sewer stacks and sanitary horizontal drainage pipework was visually inspected to be mild steel.

5.1.2 Recommended upgrade works

5.1.2.1 Sanitary drainage and Sewer stack risers

The existing sewer horizontal drainage and stack appears to be in poor condition and is currently sized to accommodate wastewater for the current building scheme. To accommodate the new building scheme, it is envisaged the existing the existing mild steel sanitary drainage services pipework and stack risers would be undersized and should be replaced with new uPVC drainage pipework of adequate size.

5.1.2.2 Sewer Holding Well

The condition of the existing sewer holding well and associated pumps located on Lower ground Basement is expected to need replacing due to being at it's end of life period. A new sewer holding well and associated pumps will be provided. The existing plantroom the sewer holding well is located within does not incorporate adequate ventilation for personnel to enter and work within. The ventilation to the room will be upgraded.



Existing Mild Steel sewer drainage.



Existing sewer pump station.

5.2 Tradwaste Drainage System

5.2.1 Existing System

A trade waste drainage system is provided to convey the grease waste generated from the hotel's commercial kitchen areas. It is understood the hotel have a current tradewaste agreement with Syndey Water in place.

The commercial kitchen areas within the building currently served by the tradewaste drainage system are understood to be:

- Ground level - Bistro Kitchen
- Level R – Banquet Kitchen & Main Kitchen
- Level 1 – Servery

Tradewaste drainage pipework reticulates from all commercial kitchen areas within building to make connection into (2) 9Kl grease arrestors that are located within a dedicated plantroom on Upper basement level. The treated grease waste then gravitates from the arrestors, into the Sewer holding well on Lower basement level. The current condition or capacity of the arrestors was not visually inspected during the site visit.

5.2.2 Recommended upgrade works

5.2.2.1 Grease Arrestors

The current grease arrestors are sized to cater for the grease waste usage for the current commercial kitchen areas within the building. As part of the new building scheme, additional restaurant tenancies are being proposed and it is envisaged the existing grease arrestors would not be able to accommodate any additional grease waste. New grease arrestors will be provided and adequately sized to accommodate the grease waste anticipated for the new building scheme in the basement and coordination has considered access of equipment.



Grease Arrestor level alarm.



Existing Grease Arrestor room.

5.3 Potable Cold Water System

5.3.1 Existing System

The Potable Water service for the building is supplied from a connection made to the 250 CICL water main located within Day St. A 100mm dia. authority master water meter and backflow assembly is located within a dedicated enclosure on the Upper basement level.

The potable water service extends via town's main pressure up to a set of transfer pumps located within a ceiling cavity plantroom cavity on Level R. The transfer pumps pressurise the potable water service up to a 95kl shared hydrant/potable water storage panel tank located within the Roof top plantroom. It is unknown how much of the potable/hydrant water storage tank's capacity is dedicated for potable water usage.

A variable speed pump set that is located within plantroom on Level 11. The pump set pressurises the potable water service from the break tank to enable minimum operating flow and pressures for the potable water service when serving fixtures and provisions on the higher floor levels.

The portable service extends from the pumps to provide connection to each apartment cold water services riser. The apartment cold water services risers are located within dedicated services cupboards that have positioned between each apartment, access via the corridor on each floor level. Each cupboard contains a cold water isolation valve to enable individual isolation of the potable water supply to each apartment.

The potable water service also provides a potable water supply provisions to the following main plant equipment:

- Cooling tower top-up water supply.
- Domestic potable water supply.

5.3.2 Recommended upgrade works

5.3.2.1 Potable Water transfer & booster pumpsets

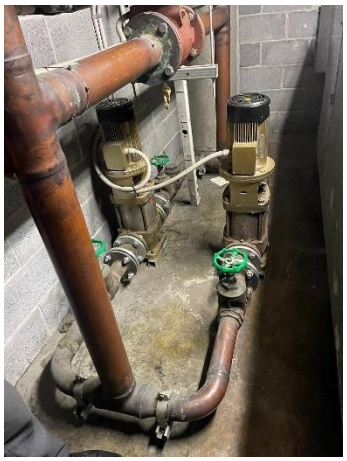
The existing potable water transfer pumps on level R and the potable water booster pumps on Level 11 are sized for the old building scheme. A new potable water transfer pump set(B2) and potable water boosting pump set (L11) will be provided to accommodate the new building scheme.

5.3.2.2 Potable Water tank

The existing combined potable/fire water storage tank is sized to cater for the current building scheme. The existing tank should be decommissioned, and a new potable water storage tank will be provided, that is adequately sized for the new building scheme.

5.3.2.3 Potable water services pipework

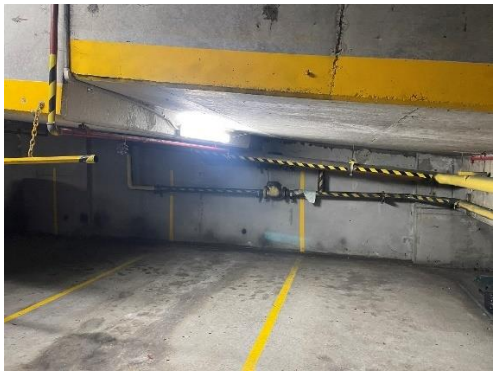
The current potable water services pipework appears to be in poor condition and is sized to cater for the current building scheme. New potable water services pipework should be provided that is adequately sized to cater for the new building scheme,



Existing CW. transfer pumps.



Existing CW. booster pumps.



Existing incoming CW. service.



Existing Combined CW. & FH water storage tank.

5.4 Hot Water System

5.4.1 Existing System

The building's domestic hot water system is served by (4) gas fired hot water storage boilers (approx. capacity of 5kl each) located within roof top plantroom. The hot water plant storage boilers have a combined approx. capacity of 20kl to cater for the hotel's anticipated hot water peak usage.

A hot water flow and return service extends from the hot water boilers to provide connection to each apartment hot water services riser. The hotel hot water services risers are located within dedicated services cupboards that have positioned between each hotel, access via the corridor on each floor level. Each cupboard contains a hot water isolation valve to enable individual isolation of the hot water supply to each hotel room.

There is no evidence that thermostatic control valves are currently being utilised for the hot water system.

5.4.2 Recommended upgrade works

5.4.2.1 Hot Water plant

The existing hot water plant is sized based on the current building scheme and is expected to no have spare capacity to accommodate the new building works scheme. The existing hot water plant should be replaced with an adequately sized hot water plant that consist of either:

- A gas fired instantaneous with hot water storage.
- Electric boosted air to water heat pumps with hot water storage.

5.4.2.2 Hot water services pipework

The current hot water services flow and return pipework appears to be in poor condition and is sized to cater for the current building scheme. New hot water flow and return services pipework should be provided that is adequately sized to cater for the new building scheme.

5.4.2.3 Hot water Temperature Control devices

Currently no hot water temperature control devices in the form of tempering valves or thermostatic mixing valves are being utilised on the hot water system as required by the AS3500. New temperature control devices will be provided throughout the building to provide:

- 50 degrees Celsius tempered water to all ablution fixtures.
- 45 degrees Celsius tempered water o all accessible ablution fixtures.



Existing Domestoc HW boiler.



Existing Hot Water services pipework.

5.5 Natural Gas System

5.5.1 Existing System

The building's natural gas services is supplied from Jemena's high pressure (1050kpa) gas main located within Sand St. The gas main enters the development and extends through an authority owned High-pressure boundary gas regulator/meter assembly that is located within a dedicated enclosure on Ground level. The boundary regulator steps the incoming gas services pressure down from 1050kpa to 100kpa.

The gas services reticulates through the building at 100kpa pressure, to provide a gas connection to appliances located within following areas:

- Lower basement – Laundry (200mj/hr Approx.)
- Level R – Banquet Kitchen & Main Kitchen (1000mj/hr Approx.)
- Level 1 – Servery (300 mj/hr Approx.)
- Roof level – Domestic Hot Water boilers (6500 mj/hr Approx.)

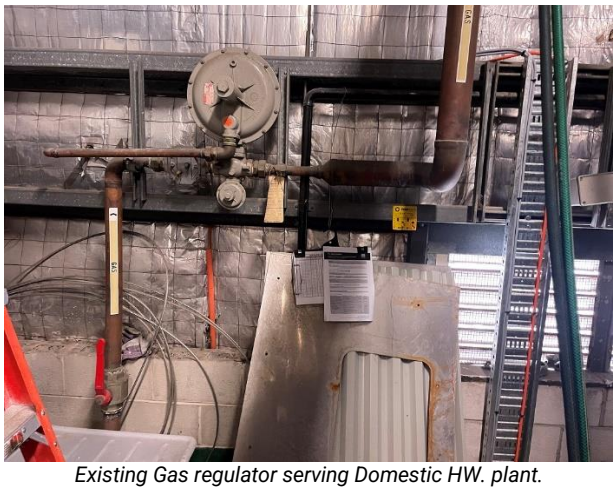
5.5.2 Recommended upgrade works

5.5.2.1 Gas service pressure

The existing natural gas services reticulates within the building at 100kpa, without being located within a ventilated fire rated shaft in accordance with AS5601. A new boundary regulator will be provided to limit the natural gas supply operating pressure to 7kpa once entering into the building. The building's existing natural gas pipework will be deemed to small to accommodate anticipated natural gas usage at the new lower pressure and will need to be decommissioned and removed. New natural gas service pipework will be run throughout the building to serve to the existing and new gas appliance, sized to cater for the lower gas pressure.



Existing High pressure gas boundary regulator.



Existing Gas regulator serving Domestic HW. plant.

5.6 Stormwater Drainage System

5.6.1 Existing System

The building's stormwater drainage system is conveyed via a conventional gravity drainage connection made to Sydney Water's stormwater infrastructure at high level Upper basement level.

Stormwater drainage extends from the connection point at high level Upper basement and makes connection to multiple stormwater downpipes. The stormwater downpipes run up through the building within dedicated services risers to make connection to stormwater outlets provided to following roof areas:

- Level 11 & 12 roof areas that incorporate a corrugated roof, are provided with box gutter type outlets.
- In-slab stormwater outlets have been provided on the Level 12 cooling tower plantroom and to the balcony terrace areas on Leves 2 to 8.

An inground stormwater holding well is provided on Lower basement level. It is envisaged the inground stormwater pumpstation is utilised to convey ground water collected via the inground subsoil drainage and perimeters spoon drains, and driveway grated drains. The collected stormwater from holding well is pumped back into the stormwater drainage connection to council's main.

5.6.2 Required upgrade works

5.6.2.1 Stormwater drainage and downpipes

The existing mild steel horizontal stormwater drainage and downpipes appears to be in poor condition and will need to be replaced with new uPVC drainage pipework of adequate size.

5.6.2.2 Stormwater Holding Well

The condition of the existing sewer holding well and associated pumps located on Lower ground Basement is expected to need replacing due to being at it's end of life period. A new stormwater holding well and associated pumps will be provided.



Existing L11 roof stormwater outlet and overflow.



Existing Stormwater pumpstation control panel.

6 Fire Services

The table below has summarised the minimum required works for each fire service to achieve compliance to the latest version of the NCC and to accommodate the proposed new Building Scheme.

Service	NCC 2021	New Building Scheme
Fire Hydrant service		
Hydrant System water supply	• A new hydrant water connection will need to be provided from town's main. • (2) new hydrant diesel pumps and pumproom will need to be provided.	• As per NCC requirement.
Hydrant 'Break' water storage tank	• A new galvanised steel break tank will need to be provided, sized in accordance with AS2419.1.	• As per NCC requirement.
Brigade Booster assembly	• A new brigade booster assembly will need to be provided. • A new performance solution as part of an FER may need to be provided to address booster location.	• As per NCC requirement. (Existing location maintained and upgraded.)
Hydrant pumps	• Replaced current hydrant pump set with a new hydrant pump set. • Provided a new dedicated fire pumproom room.	• As per NCC requirement.
Hydrant landing valves	• Relocated within fire egress stairs on each level within building. Alternatively, develop a performance solution to address maintaining the current hydrant locations outside the fire stairs.	• As per NCC requirement.
Fire Sprinkler service		
Sprinkler 'Break' water storage tank	• Survey effective capacity of the existing sprinkler tank to confirm size.	• As per NCC requirement.
Brigade Booster assembly	• A new brigade booster assembly will need to be provided. • A new performance solution as part of an FER may need to be provided to address booster location.	• As per NCC requirement. (existing location maintained in refurbishment of building)
Range pipes	• Replaced all current sprinkler range pipes serving light hazard sprinklers and concealed in-ceiling sprinklers.	• As per NCC requirement.
Fire Sprinkler pumps.	• Would achieve compliance to NCC.	• Would need to be upgraded to accommodate additional building floor levels. •

Fire hose reel service		
Hose reel drum.	• Replaced existing fire hose reels with new fire hose reels that incorporate a 36m hose. • Develop a performance solution to remove all hose reels from all Class 5 areas of the building.	• As per NCC requirement.
Smoke detection and Alarm system		
Cabling Infrastructure	• Replace all current Cabling infrastructure throughout the building.	• As per NCC requirement.
Smoke detectors	• Replaced existing smoke detectors with new addressable detectors.	• As per NCC requirement.
FIP Panel	• Replace panel with newer model.	• As per NCC requirement.
FFC Panel	• Replace panel with newer model.	• As per NCC requirement.
Fire Control Room	• Provide new control panel in accordance with NCC.	• As per NCC requirement. (existing location maintained in refurbishment of building)
EWIS system	**AS1670.4 2018**	
Cabling Infrastructure	• Replace all current Cabling infrastructure throughout the building.	• As per NCC requirement.
EWIS devices i.e. speakers, WIP phones	• Replaced existing devices with new compliant devices.	• As per NCC requirement.

6.1 Fire Hydrant System

6.1.1 Existing System Overview

Based on the available as built documentation, the existing fire hydrant system has been designed and commissioned to meet the performance criteria of the Ordinance 70. Based on visual inspection, it is evident that small portions of the hydrant system may have been upgraded i.e. Storz adapters added to landing valve outs, however it is understood complete upgrades of the hydrant system have never taken place.

A dedicated hydrant booster assembly consisting of two booster points is located within an enclosure on Sand St.

The building's hydrant system is supplied a shared hydrant and potable water storage tank located within the Level 11 rooftop plantroom. The effective capacity of the hydrant tanks is 95kl. However, the hydrant and potable water allocation is unknown and would need to be surveyed. The hydrant tank is topped up via a dedicated 100mm dia. potable water provision.

A single hydrant booster pump is located within the roof top plantroom. The pump is a horizontal end suction centrifugal type pump that incorporates both an electric and diesel motors. The hydrant pumps draws water from the fire hydrant storage tank and distributes water to the hydrant landing valves located on levels 11 through to level R. A gravity hydrant service line by-passes the hydrant pump set to serve the hydrants landing valves located on levels Ground floor through to Basement level.

Hydrant landing valves are located on each level, within a dedicated cupboard that is located area adjacent to the door to each fire stair (outside the fire egress stairs).



Figure 1: Existing fire hydrant booster assembly

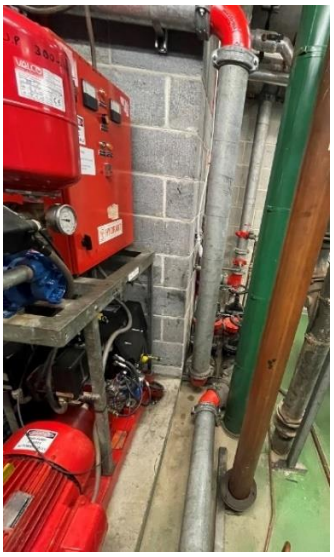


Figure 2: Existing Diesel/Electric Hydrant pump



Figure 3: Fire egress stair not contaiing fire hydrant.



Figure 4: Fire hydrant in cupboard.



Figure 5: Roof top combined potable/fire hydrant tank.

6.1.2 Required Upgrade works

6.1.2.1 Hydrant System Water Supply

The current water supply arrangement serving the hydrant system won't comply with the AS 2419.1 2021. The current hydrant system does not incorporate a dedicated water supply from the town's main and relies on water from the combined potable/hydrant storage tank and an automatic infill provision that is supplied from the building's potable water service via potable water pumps.

A new suitably sized galvanised steel dedicated fire water break tank shall be provided in accordance with AS 2419.1 2021. The tank will need to be topped-up by a dedicated fire water service that can achieve the minimum design flow requirements of the hydrant system. A new dedicated hydrant connection will need to be provided to the authorities main within Day St that will serve as a direct top-up service to the rooftop hydrant storage tank. The new hydrant service will need to incorporate a double check detector valve in accordance with SW's guidelines.

The pumps pressurising the top-up provisions should be dedicated fire pumps rather served from the domestic water pump sets. A new hydrant pump will be provided within a dedicated pump room on Lower or Upper basement levels to pressurise the new hydrant top-up provision.

6.1.2.2 Fire Hydrant Booster Assembly

The current hydrant booster assembly would not comply with the AS 2419.1 2021 as the booster assembly does not incorporate brigade suction points (only boost points).

A new brigade booster assembly complete with suction/booster points will need to replace the current booster assembly. The current enclosure will be upgraded to allow the hydrant valves to achieve minimum clearances.

A performance solution that is prepared by the project fire engineer will be developed to address the current location of the booster assembly.

6.1.2.3 Fire Hydrant Pumpset

The existing hydrant system pump set is designed to achieve the design parameters (flow and pressure) of an Ordinance 70 system. As the design parameters for an Ordinance 70 system are less than what is required by a compliant AS 2419.1 2021 hydrant system, the current hydrant pump set will need to be replaced with a new hydrant pump set capable of achieving new design parameters required by the AS 2419.1 2021.

The new hydrant pump set shall be provided within a new dedicated fire pumproom room that will allow the fire pumps to be separated from other MEP services plant.

6.1.2.4 Fire Hydrant Landing Valves

The current location of the hydrant landing valves on each floor level would not comply with AS 2419.1 2021. Hydrants landing valves will need to be relocated with the fire egress stairs on each level to be compliant with the AS 2419.1. 2021. The fire stairs will be upgraded to accommodate the fire hydrant landing valves on each level together with the minimum stair egress widths required by the NCC.

6.1.2.5 Fire Hydrant Pipework

The current condition of hydrant system pipework is unknown and it would be a very big risk to try and pressurise it to the minimum design requirements of AS2419.1 2021 without causing pipe leaks. Additionally, the building will require hydrant pipework to incorporate a ring main which it doesn't not currently incorporate.

New hydrant pipework should be run in accordance with AS2419.1 2021.

6.2 Fire Sprinkler System

6.2.1 Existing System

The original sprinkler system was installed in 1979 to AS CA16 standards. It is envisaged upgrade works were completed a after the sprinkler system's initial installation to enable the sprinkler system to achieve compliance with AS2118.1 1982 Amendment 1.

As per the site's fire sprinkler block plan, the building is served by both a primary and secondary water supply to achieve a dual water supply arrangement:

- The primary water supply is provided a 150mm connection from the authority's main within Day St.
- The secondary water supply to the sprinkler service that is provided by a 143kl concrete in-situ sprinkler water storage tank located within the basement level. Visual inspection of the sprinkler tank could not be confirmed during the site visit.

A sprinkler pump room is located adjacent to the sprinkler water storage tank on Basement level 1. The pump room contains the two (Electric and Diesel) sprinkler booster pumps. The electric sprinkler pump is connected to the town's main and the diesel sprinkle pump draws water from the sprinkler water storage tank. Both pump sets are Horizontal End Suction Centrifugal type pumps.

The sprinkler system's brigade booster assembly is located within a dedicated enclosure on Sands St. The assembly incorporates dual booster points.

A sprinkle valve room is located on Ground level and incorporates access via Sand St. The sprinkler valve room contains 4 x 100mm sprinkler alarm valves installed in a manifold type of arrangement. Each sprinkler alarm valve supplies the sprinklers services in the following areas:

- Sprinkler Alarm valve 1 –Basement level to Level 2
- Sprinkler Alarm valve 2 – Level 3 to 5
- Sprinkler Alarm valve 3 – Level 6 to 8
- Sprinkler Alarm valve 4 – Level 9 to LMR Roof.

Each floor level contains a sprinkler control valve assembly that is located within a dedicated cupboard. The control valve assembly consists of a monitored isolation valve, flow switch and test/drain-down facilities. A main sprinkler service extends from the control valve assembly to serve the sprinkler services located on that floor level.

Wall wetting sprinklers were visually inspected. It is envisaged the wall wetting sprinklers are installed to protect the atrium glazing on Levels Level 1 & Level R as part of a performance solution.

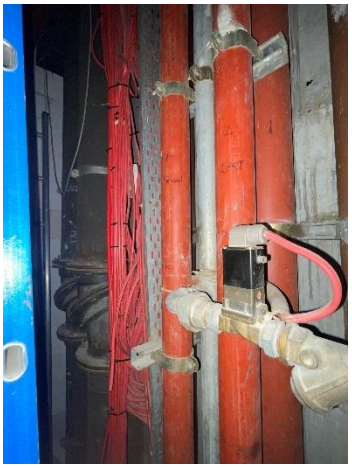


Figure 6: On-floor sprinkler control valve assembly



Figure 7: Sprinkler heads example and sprinkler pipes



Figure 8: Sprinkler heads example and sprinkler pipes



Figure 9: Electric Sprinkler pump



Figure 10: Diesel Sprinkler pump

6.2.2 Required Upgrade works

6.2.2.1 Fire Sprinkler Booster Assembly

A new brigade booster assembly complete with suction/booster points will need to replace the current booster assembly. The current enclosure will be upgraded to allow the hydrant valves to achieve minimum clearances.

A new double check detector valve will need to be retrofitted onto the incoming sprinkler service to comply with SW's guidelines.

A new brigade booster assembly complete with suction/booster points will need to replace the current booster assembly. The current enclosure will be upgraded to allow the hydrant valves to achieve minimum clearances.

A performance solution that is prepared by the project fire engineer will be developed to address the current location of the booster assembly.

6.2.2.2 Fire Sprinkler Range Pipes

It is envisaged the building utilises 10mm orifice type size sprinkler heads for all light hazard areas and for concealed in-ceiling areas. The AS 2118.1 2017 requires the minimum size of sprinkler heads for these areas to now adopt a 15mm orifice type sprinkler. To ensure compliance, all sprinkler range pipes within areas that incorporate in-ceiling sprinklers will need to be replaced to allow 15mm orifice type sprinkler heads to be installed. All current below ceiling sprinklers in light hazard areas shall be replaced.

6.2.2.3 Fire Sprinkler Tank

The capacity of the existing sprinkler tank located on Basement level will need to be surveyed. Depending on the size, the tank may need to be upsized to comply with the water storage requirements of AS 2118.1 2017 and the building's revised fire engineering report.

6.2.2.4 Fire Sprinkler Pumpset

While the existing sprinkler pumps appear to be in good condition, as the building will be providing additional floor levels, the current pump's design duty would be too small for them to be reused. New sprinkler pumps will need to be provided and size to accommodate new building scheme. A new fire services pump room will be provided to enable the new fire pumpsets to achieve compliance.

6.3 Fire Hose Reel and Fire Extinguishers System

6.3.1 Existing System

Due to the current arrangement of the fire hose reel service, it is envisaged the fire hose reel system has been designed to Ordinance 70. This will need to be confirmed on building's AFSS.

Fire hose reels are located adjacent to each hydrant landing valve. Based on visual inspection, each hose reel drum within the building appears to incorporate a 30m hose.

Each hose reel is provided with a dedicated 25mm water supply that extends from the nearest hydrant service riser.

At each hydrant/hose reel location, a CO2 fire extinguisher has been provided.



Figure 11: Fire hose reel


Figure 12: CO2 Fire extinguisher

6.3.2 Required Upgrade works

6.3.2.1 Fire Hose Reels

All fire hose reels within the building that incorporate a 30m hose length would not comply with the AS 2441. 2005 as it requires all fire hose reels to incorporate a minimum 36m hose length. All current hose reels shall be removed and replaced with new fire hose reels that incorporate a 36m hose.

As an alternative, there may be an opportunity for the fire engineer to develop a performance solution to remove fire hose reels form all class 2, 3 & 5 areas of the building.

6.3.2.2 Fire Extinguishers

It is envisaged the current type and quantity of fire extinguisher provided throughout the building achieve compliance with the AS 2444-2001. However, in most areas of the building it would be more beneficial to provide ABE type fire extinguishers instead of dry chemical type extinguishers that are currently installed. An ABE type fire extinguisher would be more relevant to the class of fire risks expected within all building areas. It is recommended to swap out all C02 fire extinguishers with ABE type fire extinguishers. Additional CO2 fire extinguishers serving electrical DB boards or Comms rooms would also be provided.

6.4 Fire Detection and EWIS System

6.4.1 Existing System

There is no existing as-built information of the dry fire system. It is envisaged the detection system has been designed and commissioned to AS 1670.1-2004 requirements. The EWIS system is believed to have been designed to AS 2220.1 1978. This will need to be confirmed once the building's AFSS is received.

The building's main fire control room is located on Ground level and is accessed via Sand St. The fire control room houses the building's main Fire Detection Control Indicating Equipment (FDCIE), the Emergency Warning and Intercom System (EWIS) panel and the Fire Fan Control panel (FFCP). The current FDCIE panel installed is a Siemens FC series fire panel. A dedicated Fire Fan Control Module (FFCP) that enables manual control of the building's smoke control systems is mounted directly adjacent. The EWIS panel located adjacent to the FIP is a SIMPLEX QE90 type panel.

The current EWIS panel is arranged to so that each floor level is an individual fire zone.

A dedicated Fire Detection and EWIS fire cabling riser extends up through the building and is located within the fire sprinkler control valve cupboard adjacent to the central fire stair on each level.

Smoke Detection devices
Smoke and heat detectors are located throughout the building on each floor. The detectors are a Siemens type detector and based on visual inspection appear to be an addressable type detector. The current spacing of detectors was not surveyed on-site.

Early Warning and Intercom System
EWIS speakers are provided on each floor level throughout the building. It is unknown if the current spacing of EWIS speakers throughout each floor achieve compliant sound pressure levels and speech intelligibility requirements.

Multiple WIP and ECP's are provided on each level, located within the fire hydrant/hose reel cupboard adjacent to the female amenities.

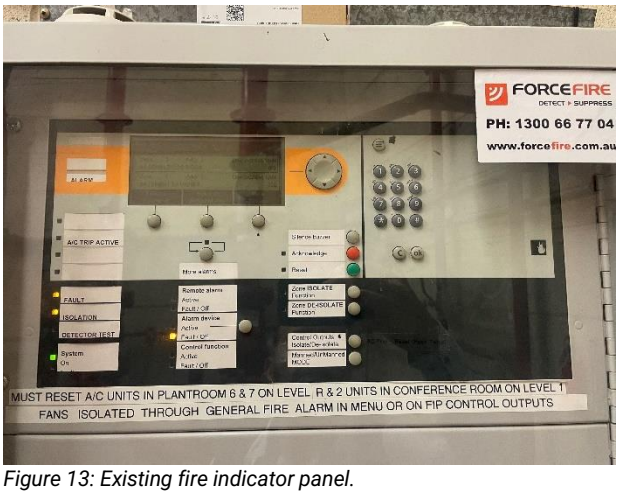


Figure 13: Existing fire indicator panel.



Figure 14: Existing addressable fire indicator panel inc. FFCP



Figure 15: Existing Fire Fan Control panel (FFCP).



Figure 16: Existing EWIS panel.



Figure 17: Existing smoke detector.


Figure 18: WIP/ECP points within cupboard.


Figure 19: EWIS horn speakers and strobe lights

6.4.2 Required Upgrade works

6.4.2.1 Main FIP & EWIS System panel

Due to the age of the existing FIP and EWIS panels, they will be made obsolete over the next few years. As a result, replacement parts for these models will be impossible to source. It is recommended both the FIP and EWIS panel is replaced with a newer version.

Additionally, it is a non-compliance to have the fire control room that contains the sprinkler alarm valves as the room currently does. A new fire control room that achieves compliance with the NCC will need to be provided within on ground floor level.

6.4.2.2 FFCP

The current Fire Fan Control panel FFCP is very old and should be replaced with a newer version that achieves compliance with AS1670.1 to enable easier monitoring and control of the mechanical smoke control systems.

6.4.2.3 Smoke Detectors and Detection Cabling Infrastructure

Due to the age of the existing fire detection system, it is envisaged the detection cabling infrastructure won't comply with the cabling identification requirements of the AS 1670.1 2018 and will need to be replaced with new detection cabling throughout the building.

The existing smoke detectors installed throughout the building won't comply with the latest version of AS 7240 and will need to be replaced with new addressable detectors that achieve compliance with AS 7240.

6.4.2.4 EWIS Speakers and EWIS Cabling Infrastructure

Due to the age of the existing EWIS system, it is envisaged the EWIS cabling infrastructure won't comply with the cabling identification requirements of the AS 1670.4 2018 and will need to be replaced with new EWIS cabling throughout the building.

The existing EWIS speakers installed throughout the building won't comply with the latest versions of AS 7240.24 and will need to be replaced with new EWIS speakers that achieve compliance with AS 7240.24.

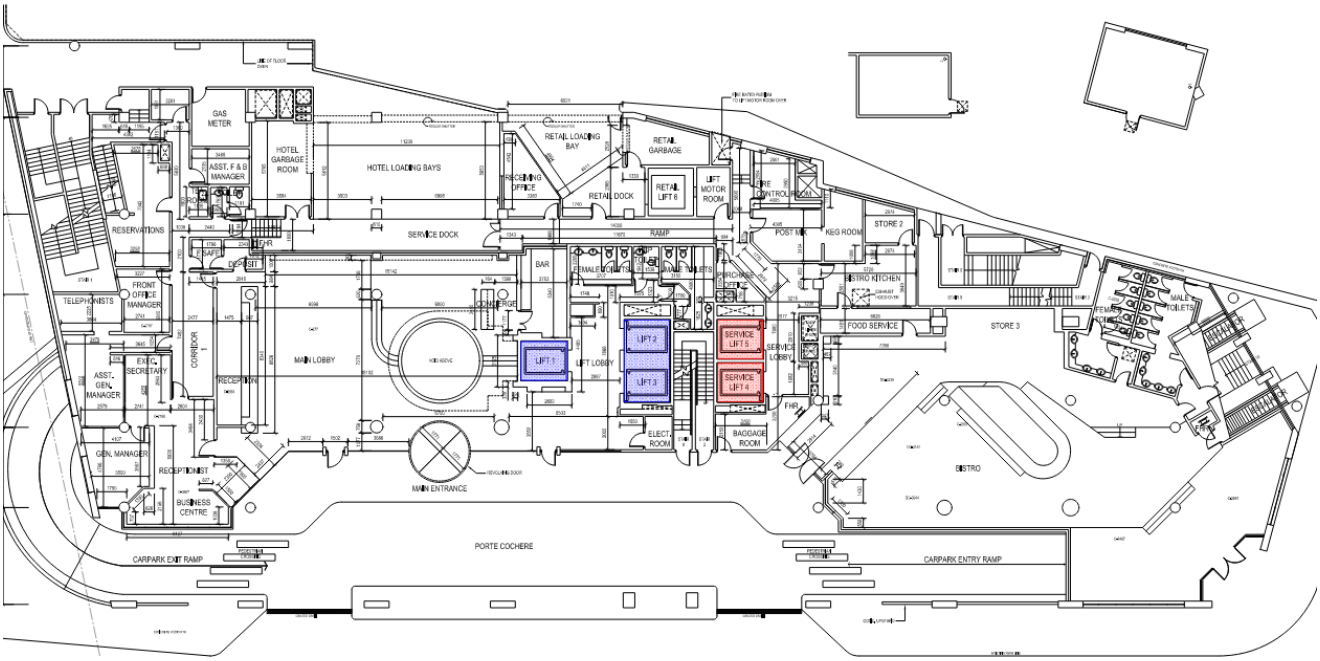
While the Vigilante QE90 EWIS panel still achieves compliance with AS 2220.1, due to its age it will be made obsolete over the next few years. As a result, replacement parts for this the panel will be hard to source and long wait times would be expected. It is recommended the EWIS panel is replaced with a newer version EWIS panel as part of these works.

7 Vertical Transportation Services

7.1 Overview

The inspection of the existing lifts was prima facie only and was conducted from the lift landing lobbies within the lift cars and within the lift machine room as required. LCI did not access the lift shaft and did not inpsect the equipment located within these spaces.

The existing vertical transportation services currently installed consist of three (3) guest passenger lifts for front of house serving ground to level 10 inclusive and two (2) dedicated service lifts for back of house serving basement level, carpark level and ground to level 10 inclusive centrally located in core arrangement below:



Ground Level

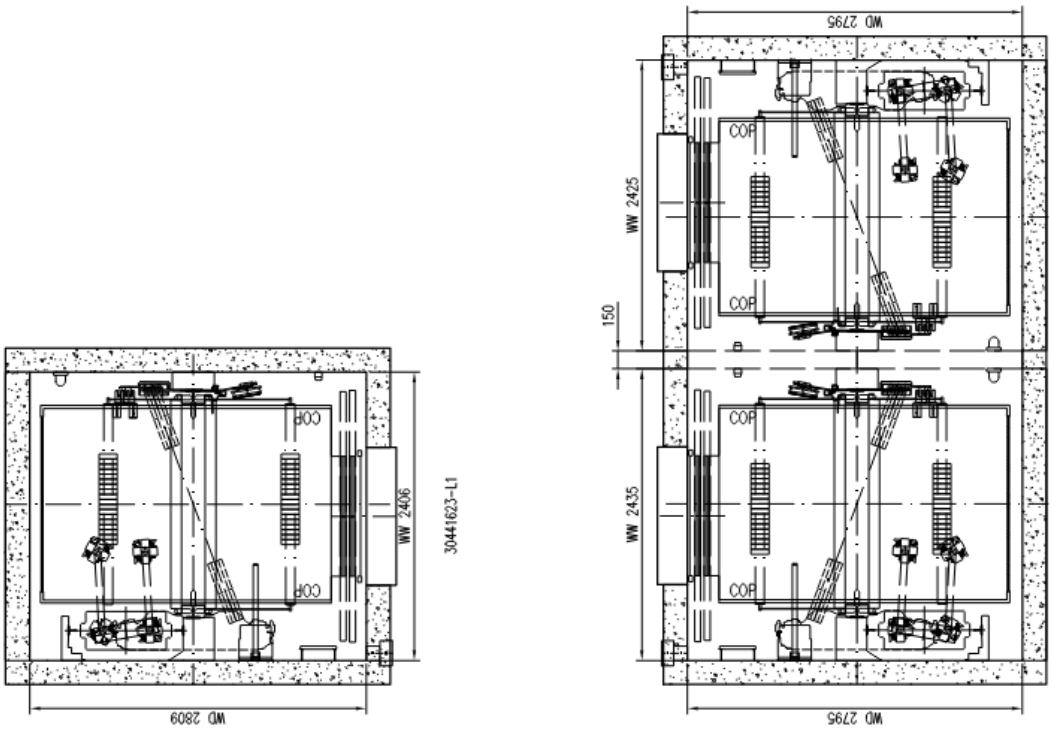
7.2 Guest Lift No.1, 2 & 3

The existing guest passenger lifts are Kone Elevator model Monospace gearless traction machine room less (MRL) passenger lifts newly installed by Kone Elevators for replacement circa. 2013 into the existing shafts and appeared in very goood condition with minimal wear and tear for their operational life with continuous service of approx. 11 years.

These lifts are 26 passenger 2000 kg rated load for capacity with speed of 2.50 m/s and are adequately provisioned for their intended use.

The lift equipment is installed certified complying to AS1735.1:2003 and appears compliant to the current NCC/BCA 2022 mandatory requirements for **C4D11 - Openings in fire-isolated lift shafts** and **E3D8 - Accessible features required for passenger lifts** with the exception of a handrail complying with the provisions for a mandatory handrail in AS 1735.12.

The design life for this model lift is in the order of 20 years subject to usage and continued ongoing maintenance with OEM service schedule. On this basis the current operational life for these lifts should provide for ongoing continuous operation up to approx. 2033 with the view that there will upgrade to Kone LCE controllers and KDM90 drives, and user interface fixturs and fittings with new interior finishes fitout within this period.



Lift No.1, 2 & 3

7.3 Service Lift No.4 & 5

The existing service lifts are original as installed passenger lifts circa. 1991 with full modernisation of the existing equipment by Kone Elevators circa. 2013 with the exception of the original geared machines which appear to have been retained. The lifts appeared in good condition with consideration for heavy usage during their operational life.

These lifts are 16 passenger 1150 Kg rated load for capacity with speed of 1.75 m/s and are of minimal size for their intended use.

The modernisation of lift equipment appears installed complying to AS1735 and appears compliant to the current NCC/BCA 2022 mandatory requirements for **E3D8 - Accessible features required for passenger lifts** with the exception of a handrail complying with the provisions for a mandatory handrail in AS 1735.12 and automatic audible information within the lift car to identify the level each time the car stops.

On the basis the original lift equipment was installed in 1991 it is assumed the landing doors were certified by Otis Elevators complying to AS1735.11:1986 - Fire rated landing doors and were again re-certified with opinion by a qualified practitioner after the modernisation of the door system in circa. 2013. On this basis it is assumed that the openings in the shaft are compliant to the current NCC/BCA 2022 mandatory requirements for **C4D11 - Openings in fire-isolated lift shafts**.

LCI assumes the effective height of the building is more than 25 metres, It is noted that warden intercoms (WIP) were not observed in any of the lifts so consider that none of these lifts are nominated emergency lifts NCC/BCA 2022 complying **E3D5 - Emergency lifts**.

Where the effective height of the building is more than 25 metres must be served by at least one (1) emergency lift. Where two or more passenger lifts are installed and serve the same storeys, excluding a lift that is within an atrium and not contained wholly within a shaft, at least two emergency lifts must be provided to serve those storeys; and if located within different shafts, at least one emergency lift must be provided in each shaft.

The design life for the modernised components of these lifts is in the order of 15 years for the controllers, drives, lift car and landing control buttons and signalisation, and in the order of 20 years for the car door operator and landing door system. The original Otis Elevator as installed geared machine has reasonably cycled beyond it's operational design life of approx. 25 - 30 years with continuous operation for a period of 33 years.

Complete replacement of these lifts with larger lift cars (minimum 21 passenger 1600 Kg rated load) can be reasonably considered and is recommended during the proposed extension works.



Original as-installed Otis Elevator Geared Machine

Lehr Consultants International (Australia) Pty Ltd (ABN 92 124 107 973) is the evolution of a firm which began in 1969. Challenging the standard approach to Building Services engineering, LCI offers traditional and innovative consulting services worldwide, as well as access to cutting edge technological thought, applications and proprietary systems.

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Attachment A22

Building code of Australia 2022 capability statement

METRO BUILDING CONSULTANCY

24 March 2025

UOL Group Limited
101 Thompson Road,
#33-00 United Square
Singapore 307591

Attention: Lim Sheng Yang

Park Royal – Darling Harbour
Building Code of Australia 2022 Capability Statement

UOL have requested Building Code of Australia 2022 advice in relation to the BCA compliance of the draft planning proposal drawings for the proposed building works at Parkroyal on Day Street in Darling Harbour as proposed in the draft planning proposal drawings prepared by Hassell dated 19/12/24. These drawings have been reviewed in conjunction with the architectural workshop drawings dated 03/12/24.

The information submitted to date has been reviewed for compliance with the Deemed-to-Satisfy provisions of the Building Code of Australia excluding Section B structure, Part F3 roof and wall cladding, Part F7 sound transmission & insulation, NSW Part I4 entertainment venues & Section J energy efficiency. A consultant team have been appointed and have completed a concept design stage in these areas.

Note that the design is not finalised and design compliance against the deemed-to-satisfy provisions or the Performance Requirements of these parts of the Building Code of Australia 2022 is yet to be completed. The design will be reviewed again during the design development phase and prior to the issue of the Construction Certificate. Also note that the application for the construction certificate is to be after 01st May 2025 and the pending BCA 2025 will apply to the project and subsequent BCA reviews will have to be against the BCA 2025 requirements.

The proposed building, as taken from the drawings provided, has the following characteristics:

Storey	Use	Class
Basement B2	Staff changerooms, engineering workshop, plant areas and ancillary laundry storage (it is noted that the laundry is not a working laundry ie it is not class 8, and is only used for storage of laundry)	Class 3
Basement B1	Carpark and plant areas	Class 7a
Ground floor	Hotel lobby, BOH offices, F&B dining, loading dock and substation	Class 3, 5, 6, 7b & 8*
Level 01	Hotel staff dining, hotel kitchen, combined all day dining (assumed hotel guests only ie not a public restaurant) and ancillary admin offices	Class 3
Level 02	Hotel kitchen, function rooms, ballroom, plant toilets and ancillary admin offices	Class 3 & 9b
Level 03-10	Hotel rooms	Class 3
Level 11	Hotel gym & outdoor swimming pool, plant,	Class 3
Level 12-16	Hotel rooms	Class 3
Level 17	Hotel rooms	Class 3
Level 18	Hotel rooms, club & resident lounge, terrace and plant	Class 3 & 6
Level 19-20	Hotel rooms	Class 3
Level 21	Restaurant and terrace	Class 6
Level 22	Engineering maintenance workshop and plant	Class 3

METRO BUILDING CONSULTANCY

Rise in Storeys & Effective Height:

The proposed building will have a rise in storeys of 23.
The effective height of the proposed building is to be 77.7m.

Type of Construction:

The building is required to comply with the BCA Type A Construction requirements.

Access & Egress

The design will have to comply with the access and egress requirements of Building Code of Australia 2022. Compliance is fully achievable either with the deemed to satisfy or performance requirements (eg fire engineering) of the BCA prior to the issue of the Construction Certificate(s).

Services

The building is expected to be provided with the following fire safety measures, as per the requirements of Building Code of Australia 2022:

No	Fire Safety Measure	Standard of Performance
1.	Automatic fail safe devices	BCA 2022 Clause C3D15 & BCA Specification 12 Clause C4(d)(ii)
2.	Automatic fire detection and alarm systems	BCA 2022 Clause E2D5, NSW E2D16, BCA Specification 20, AS1670.1-2018
3.	Automatic fire suppression systems	BCA 2022 Clause E1D4, E1D5, E1D6, BCA Specification 17, AS2118.1 2017
4.	Emergency lifts	BCA 2022 Clause E3D5
5.	Emergency lighting	BCA 2022 Clause E4D2, E4D3, E4D4, AS/NZS2293.1-2018
6.	Emergency warning and intercommunication systems	BCA 2022 Clause E4D9, AS1670.4-2018
7.	Exit signs	BCA 2022 Clause E4D5, E4D6, E4D8, AS/NZS2293.1-2018
8.	Fire control centres and rooms	BCA 2022 Clause E1D15
9.	Fire dampers	BCA 2022 Clause C4D13, C4D15, AS1668.1 2015
10.	Fire doors	BCA 2022 Clause C4D9, C4D12, AS1905.1-2015
11.	Fire hose reel systems	BCA 2022 Clause E1D3, AS2441 2005
12.	Fire hydrant systems	BCA 2022 Clause E1D2, AS2419.1 2021
13.	Fire seals protecting openings in fire-resisting components of the building	BCA 2022 Clause C4D13, C4D15, AS1530.4-2014
14.	Lightweight construction	BCA 2022 Clause C2D9, BCA Specification 6
15.	Mechanical air handling systems	BCA 2022 Clause E2D4, E2D6, NSW E2D16, AS1668.1 2015
16.	Portable fire extinguishers	BCA 2022 Clause E1D14, AS 2444-2001
17.	Smoke alarms and heat alarms	BCA 2022 Clause E2D5, NSW E2D16, BCA Specification 20, AS1670.1-2018
18.	Smoke detectors and heat detectors	BCA 2022 Clause E2D5, NSW E2D16, BCA Specification 20, AS1670.1-2018
19.	Smoke doors	BCA 2022 Clause C3D15 & BCA Specification 12
20.	Warning and operational signs	BCA 2022 Clause D3D28, E3D4

METRO BUILDING CONSULTANCY

Conclusion

Metro Building Consultancy has reviewed the proposed plans and sees no reason why a Construction Certificate cannot be issued upon completion of the design drawings.

As stated previously areas of the design are still being finalised and design compliance against the deemed-to-satisfy provisions or the Performance Requirements of these parts of the Building Code of Australia 2022 is yet to be completed. The design will be reviewed again during the design development phase and prior to the issue of the Construction Certificate.

If you have any questions in relation to the above, please do not hesitate to contact this office.

Regards



Sean Moore
Metro Building Consultancy
NSW Fair Trading – Building Surveyor – Unrestricted – BDC0764

Attachment A23

Preliminary public art strategy

UAP acknowledges the Traditional Custodians of the land on which we are meeting and recognise the value, diversity and integrity of First Nations arts, cultures and expressions, and their continual significance today.

We pay our respect to Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander people. We acknowledge that Indigenous sovereignty has never been ceded.

UA

150 DAY STREET, SYDNEY

PRELIMINARY PUBLIC ART STRATEGY

PLANNING PROPOSAL & CD DEVELOPMENT PHASE

Client
Pan Pacific Hotels Group

UAP Reference
P3976

Document Type
Preliminary Public Art Strategy

March
2025

1426

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Preliminary Public Art Strategy

Planning Proposal and CD Development Phase

UAP is an internationally renowned company specialising in collaborative place-making and the management and delivery of intergrated art and design solutions for the public realm.

UAP has been invited by UOL to prepare this Preliminary Public Art Strategy to support the implementation of public art for 150 Day St, Sydney. This Preliminary Public Art Strategy supports the Planning Proposal and concept design development for the site and is recommended to be further refined as part of the Stage 2 DA in future project stages.

The primary objective of this Preliminary Public Art Strategy is to thoroughly analyse the site and project ambitions as a framework for the inclusion of public art within the redevelopment. At this early stage of the project, the Preliminary Public Art Strategy holds the potential to deeply consider the narratives embedded within the site, the building's history and the broader project ambitions, and allows for these threads to be authentically woven within the fabric of the redevelopment and the renewed visitor experience. The Strategy will continue to be refined throughout future DA stages of the project in collaboration with the project team. This strategy makes recommendations for public art to demonstrate excellence, whilst being in accordance with the City of Sydney Public Art Policy.

To inform the successful commissioning of suitable public art for 150 Day St, Sydney this Preliminary Public Art Strategy will:

- Research the local context, including current planning/design status, historic, cultural, environmental and social factors relevant to the site and surrounding precinct
- Develop a curatorial framework to align with client objectives and guide the conceptual approach in future project stages
- Provide high-level benchmark imagery to illustrate the opportunity potential
- Develop the implementation plan with program and artist procurement method recommendations
- Review and define commissioning model in the context of authority approval processes

PROJECT CONTEXT

Project Context
Development Overview

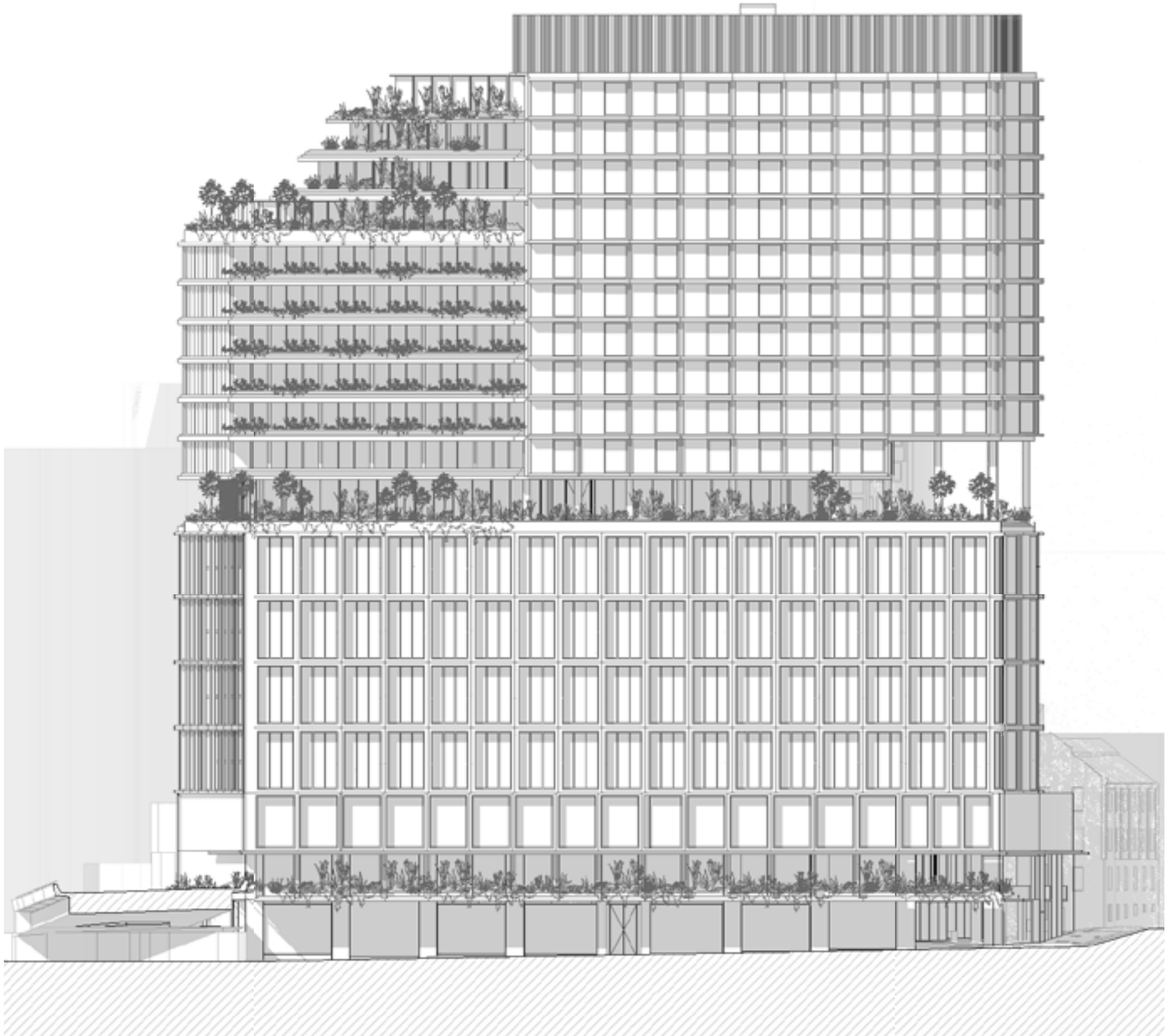
150 Day St, Sydney is a unique site nestled at the edge of Sydney's CBD and Darling Harbour. First built in the 1980s, the building's unrivalled position at the junction of waterfront and city offers the quintessential Sydney experience.

The planning proposal for 150 Day Street involves an ambitious upgrade and expansion of the existing hotel. Designed by Hassell, this initiative aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city boundary characteristic of this prominent location.

The development is defined by three key principles:
1. Maximising adaptive reuse (setting a benchmark for future developments in Sydney);
2. Energising the Sydney visitor economy; and
3. Significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals.

Achieving this vision involves an expansion of the existing core and egress upgrades to service new floors over the existing hotel; the employment of a 'strip to structure' approach from the ground to Level 02; and a full upgrade of all existing building services. This initiative not only seeks to create a modernised hotel destination but also sets a precedent for sustainable urban redevelopment.

As the first point arrival for a host of local and international visitors, the hotel is primed to exist as a beacon on Sydney's urban skyline.



WIP West Elevation, view from Day St, courtesy of Hassell

Visioning
Architectural Vision

Conceptually inspired by Singapore's lush, greened architectural language, the proposed design approach for 150 Day Street transposes this approach into the site's locality of Sydney. Referencing the local landscape's striking sandstone cliff faces, 150 Day St embodies rich possibilities for the Australian design landscape and Sydney's metropolitan landscape more broadly.

This unique design approach will be implemented through a series of key design moves across the retained and new levels of the development. The primary feature of the building's design is the composite facade, which merges old and new through considered interventions. Reimagining the existing building's facade, the new design will feature a revitalised sandstone base, from which will emerge light and forested platforms. Contrasting solidity and permeability, built surfaces and greenery, driven by the building's requirements for increased solidity within the facade's window-to-wall ratio.

In line with the project's intentions of reactivating the site, open design will play a key role in demarcating communal areas. The Ground Floor will offer visual connections to Level 1 all-day dining amenities and Level 2 function rooms by way of a double height retail offering. This will reinstate the Bathurst St entry, activate the ground floor plane and create a dynamic conversation between the two ground floor entrances. At the podium level, a new facade awning will provide an immersive green balcony for Level 2's communal amenities.

At the junction of the old and new, the Level 11 *Transfer Floor* will exist as a defining moment within the building, establishing a green perimeter to demarcate the transition from the existing building to the new addition. As visitors rise through the building's new upper floors, the Levels 18 & 21 Sky Terrace will act as a lush, green landing point for visitors to bask in the site's panoramic views from city to harbour, and beyond.

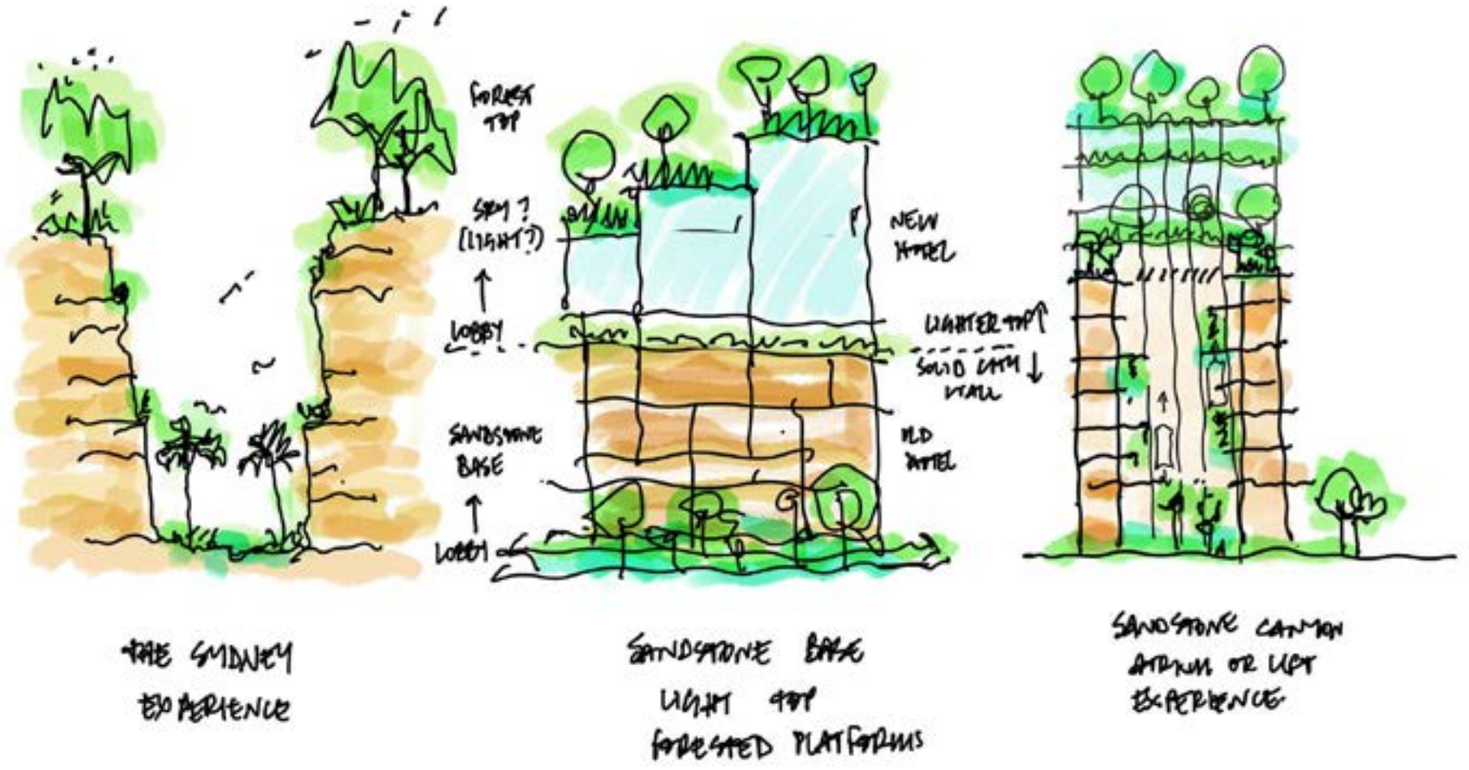


Image courtesy of Hassell

Project Context
First Nations Context

During these early stages of the project, WSP has been engaged by UOL to provide cultural guidance for the site. This is being led by Budawang/Yuin man Michael Hromek, Technical Executive - Indigenous (Architecture), Design and Knowledge at WSP. As part of the process to inform understandings of place, WSP invited Dharug knowledge holder Dr Shane Smithers to host a session to share Indigenous knowledges relating to the areas surrounding 150 Day Street. The following information has been adapted from the knowledge shared in that session.

Dr Shane Smithers is Director and Principal Artist of 500 Voices, an Aboriginal art and design consultancy. He holds cultural connections to the Dharug, Dharawal and Gandangara peoples, the language groups of the Sydney Basin region. Dr Smithers is currently completing his second PhD in contemporary urban Indigenous art and traditional symbols, and has an extensive knowledge of the culture and histories pertinent to the site's area.

Site Context

The site is located on Gadigal Country, which spans from the Inner South Head at the entrance to Port Jackson, through to the present Eastern Suburbs to Woolloomooloo Bay, Farm Cove and Warrane or Warrang (Sydney Cove), terminating at the entrance to Darling Harbour - Bangaroo.

The site's marshy mangroves and low-lying waterways gave rise to rich abundance and life. Camping behind the harbour, Aboriginal people travelled to the water to gather food and resources. Women floated across the water in nawis (bark canoes), gathering fish, crustaceans and other sea life, and cooking these from the hearths embedded within their canoes, while men fished predominantly with spears.

In a temperate environment with resources everywhere, the Gadigal people were afforded the time and energy to frequently gather and feast, as well as host visitors from neighbouring areas. As a result, Sydney was recognised as a dynamic cultural place - a place of expression. While the area has changed significantly since colonisation, being built and rebuilt over the ensuing years, Sydney, once the most densely populated Indigenous place on these lands, continues to be known as a place of cultural dynamism.

Project Ambitions - Connecting to Country

Underpinning Smithers' approach to Connecting to Country is the cultural understanding often present within Indigenous knowledge systems that *the point at which earth meets sky is the point at which life is established*.

Within this framework, the construction of a building embodies this connection of earth and sky. The building - being located on the ground is itself part of the earth - reaching up and outwards into the sky. When considered in this way, the architecture offers the possibility to exist at the point of life, facilitating the experience of rising to meet the sky; of walking through the atmosphere.

Key Takeaways - Public Art

Informed by these cultural premises, public art holds the potential to reinstate the site's longstanding history of habitation, culture, gathering and celebration, and to the life and vitality present in the Country of the site, the area more broadly, and the building as a convergence of earth, sky and community.



Image courtesy of WSP

Project Context
Site History

Defined by Interfaces

Since pre-colonisation, the area surrounding 150 Day St has continually morphed and evolved, with the eventual city emerging from the abundant lands adjacent to the harbour. Against this backdrop of steady change, the site has remained defined by interfaces. Harping back to its pre-colonial identity, the site defined the interface between Wangal and Gadigal clans, existing at the elemental juncture of land and sea. The abundant shores of the harbour facilitated both food and transport, a fundamental source of resources for all who inhabited the surrounding areas.

In 1788 with the arrival of European settlers, the site continued to exist as a interface, this time between new cultures and peoples. From the arrival of the First Fleet at Warrane, or Sydney Cove as it became known, the harbour served as the first point of contact between the Eora people and Berewalgal (people from a distant place: Europeans).

Place of Exchange

The 19th Century established this vital interface as at its core, a place of exchange. Propelling the rapid acceleration of the Industrial Age, the harbour facilitated significant advancements in industrial technology. It was in Sydney Harbour that Australia's first steam engine started running in 1815, as were the first iron-hulled ship and first steamship launched. Throughout the 19th Century, the harbour was a key transport route for vital resources including wheat, wool, coal and timber, contributing to the country's burgeoning relationship with global trade.

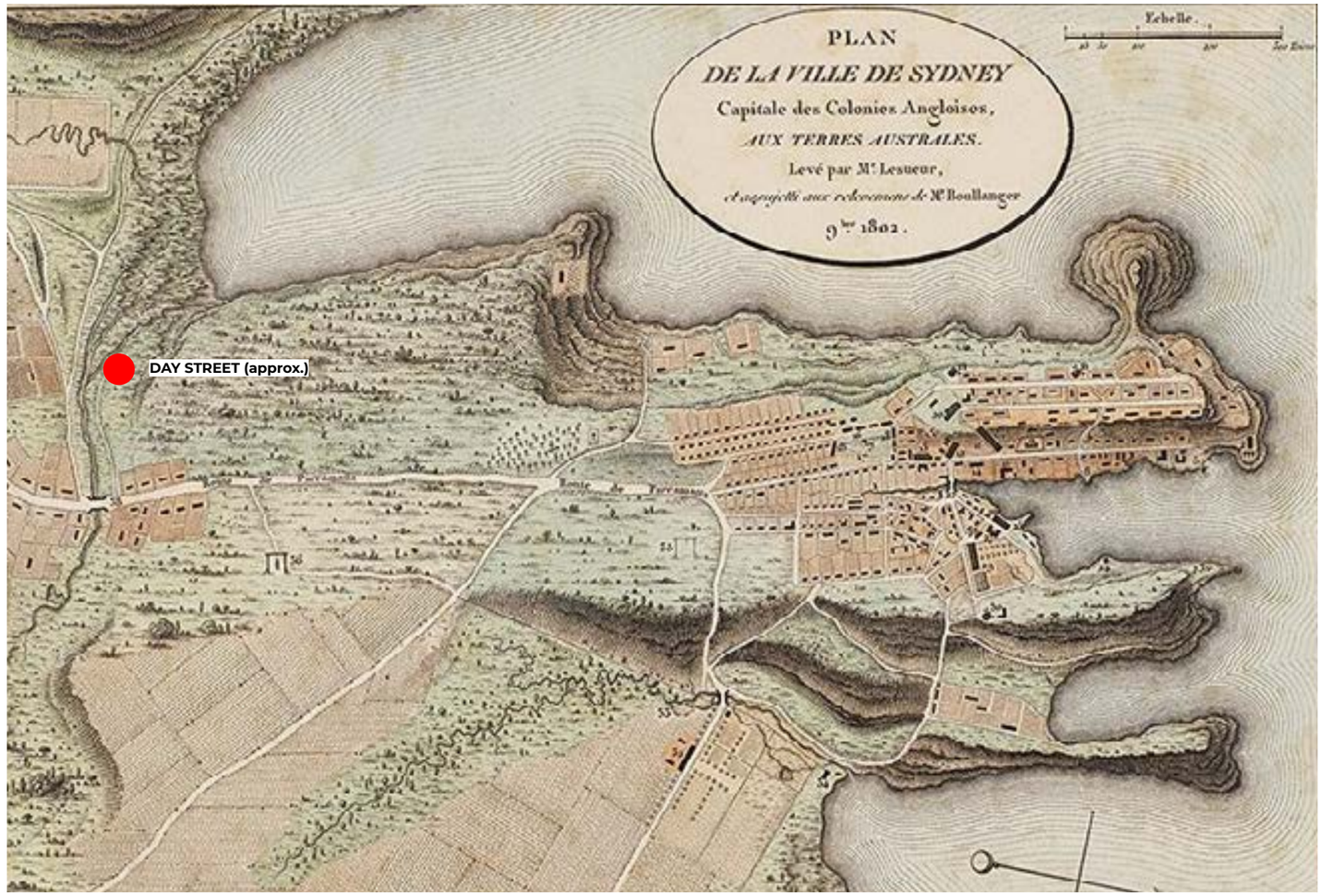
However, as world wars ravaged through the 20th Century, transformation was necessitated, with Sydney Harbour undergoing a 'return to the people', as coined by the NSW premier in 1984. Shifting focus, the harbour began to offer a new form of exchange in the currency of culture. Darling Harbour was formally opened in its contemporary form in 1988, with Sydney Aquarium leading the establishment of a range of museums, retail, restaurants and bars, re-positioning the identity of Sydney.

Turn of the Century

With a new vibrancy under its wings, Sydney soared into the turn of the century as a cultural leader of Australia and the world. Hosting the 2000 Summer Olympics, Sydney catapulted onto the global stage hosting a range of activations across the city, with Sydney Harbour as the glistening backdrop. The 2000 Olympics played a key role in cementing Sydney's identity as the honorary capital of Australia, becoming a major tourism destination for local and international travellers alike.

As Sydney's global reputation continued to grow as a place of abundant cultural dynamism, the city's inextricable connection to the water remains at its core. Iconic destinations such as the Sydney Opera House, Harbour Bridge, Darling Harbour and Bondi Beach are all grounded in the interface of land and sea, known to the world as quintessential icons of Australia's east coast. As the city has morphed and flowed much like water itself, its coastal histories remain very much present at its surface.

Images courtesy of WSP / 500 Voices and Darling Habour









Project Context
Building Heritage

UAP

A Growing CBD

The Park Royal Hotel has always occupied a unique location in the urban fabric, appearing on the edge of the Sydney CBD skyline not long after the completion of the Western Distributor motorway. In this part of the Distributor, the elevated roads swing around Darling Harbour, carrying traffic above the city streets between the Anzac Bridge (at the time of opening, the Glebe Island Bridge) and the Harbour Bridge. A viaduct ramp connecting Druitt Street with the flyover roads was constructed as part of the original Western Distributor around Darling Harbour. When the Park Royal Hotel was built in the late 1980s, the position of the buildings facing Darling Harbour flanked by arterial roads, was a notable feature of the building.

Pedestrian Interfaces

When the building first opened, the area hosted several pedestrian walkways and links to the foreshores of Darling Harbour. However this altered over subsequent decades with the introduction of new roads. The image below shows a pedestrian approach to Darling Harbour with Robert Parr's *Jay Flowers*, a large sculpture of yellow flowers alongside the pathway. The Park Royal Hotel is not far off camera to the right of the sculpture. This sculpture still stands today, however it is no longer part of a pedestrian thoroughfare due to motorways either side of it, and overhead.

Infrastructure projects continued to shape the form of the area immediately surrounding the Park Royal Hotel in the subsequent decades, such as the Cross City Tunnel in 2005, which required several vehicle access points in close proximity to 150 Day Street.

Park Royal Today

Today the Hotel stands proud at the edge of the central business district, surrounded by the pathways and travel routes of the many users of Sydney's public domain.









Image Credit: City of Sydney Archives (images 1-3 from left to right), Park Royal Darling Harbour Sydney, Image source: Qantas.com

Project Context
Location and Access

150 Day St is defined by its unique location. While positioned in prime proximity to both Darling Harbour and Sydney's city centre, the site is bordered by major vehicular thoroughfares, creating an oppressive environment for pedestrians.

Hassell's redesign of the site envisions recalibrating the interface between the city edge and waterfront. Hassell's aims for improving the site's circulation include enhancing connections between Darling Harbour and the future Town Hall Square, and revitalising underutilised pedestrian pathways within the area.

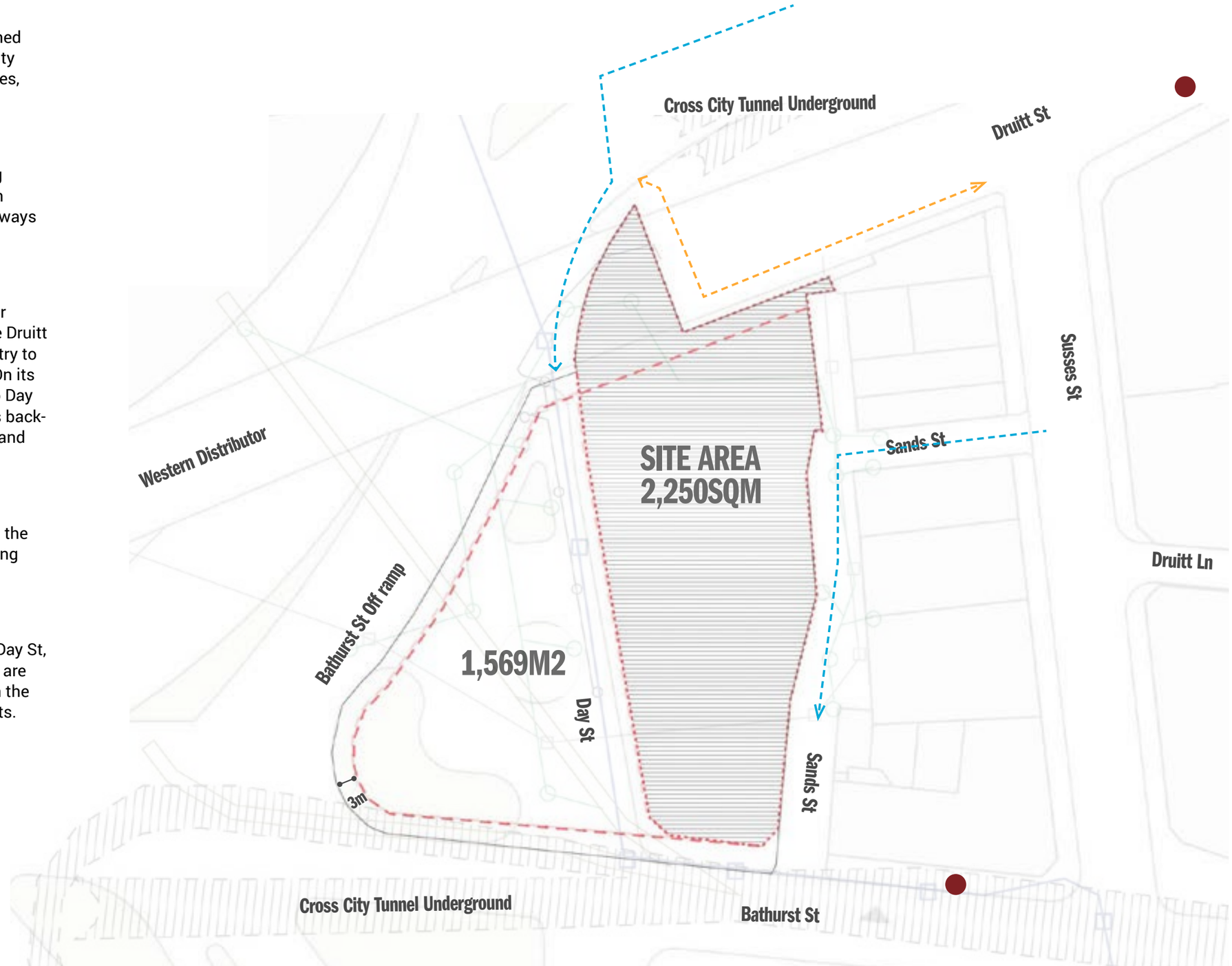
Major Roads and Transport

The site is bordered by a matrix of major roads and smaller streets. The site's northern boundary is demarcated by the Druitt St connection to the Western Distributor, as well as the entry to the Cross City Tunnel which continues to the site's west. On its southern side, it is bordered by Bathurst St, which leads to Day St (the site's main vehicular entry) and Sands St (the site's back-of-house entry), which encompass the site on its western and eastern edges respectively.

There are bus stops located on the northern and southern sides of the site, however it is the location's proximity to Sydney's Town Hall which allows for greatest access, with the Town Hall train station and Gadigal metro station facilitating travel in all directions.

Pedestrian Access

The existing pedestrian entrance to the site is located on Day St, adjacent to the Western Distributor overpass. Pedestrians are able to walk directly beneath the overpass to connect with the city centre via the intersection of Sussex and Turbot streets.



Plan courtesy Hassell

Project Context
Diverse Publics

150 Day St exists as a recognisable touchpoint for a variety of people due to its unique positioning at the intersection of key areas within Sydney's CBD. Informed by Hassell's research to date, the site's predominant demographics are outlined below, namely:

- **Interstate and International Tourists**

  As a functioning hotel, the main users of the building itself will be tourists visiting from both interstate and international locations. Due to this, it is necessary for the site to act as an accessible touchpoint being the first point of contact for many people who may be unfamiliar with Sydney or Australia more broadly.

- **Inner-City Residents**

  Despite its unique location, the area surrounding the site is a hub of residential activity. As depicted in the diagram shown right, approximately 750 apartments are within a block of 150 Day St. This highly residential pocket of the city reframes the experience of the site as not only transitory, instead identifying the site as a cornerstone of this inner-city residential neighbourhood and a key contributor to the local community.

- **City Workers and Commuters**

  Located within Sydney's CBD, the site is frequented by city workers and commuters who regularly transit past or through the site during the working week. For city workers utilising pedestrian thoroughfares, the Northern Pedestrian Link serves as a key route between the city centre and the popular Darling Harbour precinct. Additionally, the Western Distributor and Cross City Tunnel are prominent thoroughfares for those commuting through the city via vehicular transport, both of which inadvertently provide clear sightlines to the site.

- **Wider Sydney Population**

  The site also acts as a touchpoint for the wider population of Sydney who may visit the CBD for amenities, retail or dining. Adjacent to the vibrant Darling Harbour precinct, the site is frequented at all hours of the week as a key thoroughfare connecting to the city centre.

The above demographics speak to the site's function as a point of convergence for diverse publics visiting and transiting past the site, further reinforcing the importance of public art which supports and enhances pedestrian experiences of the city.

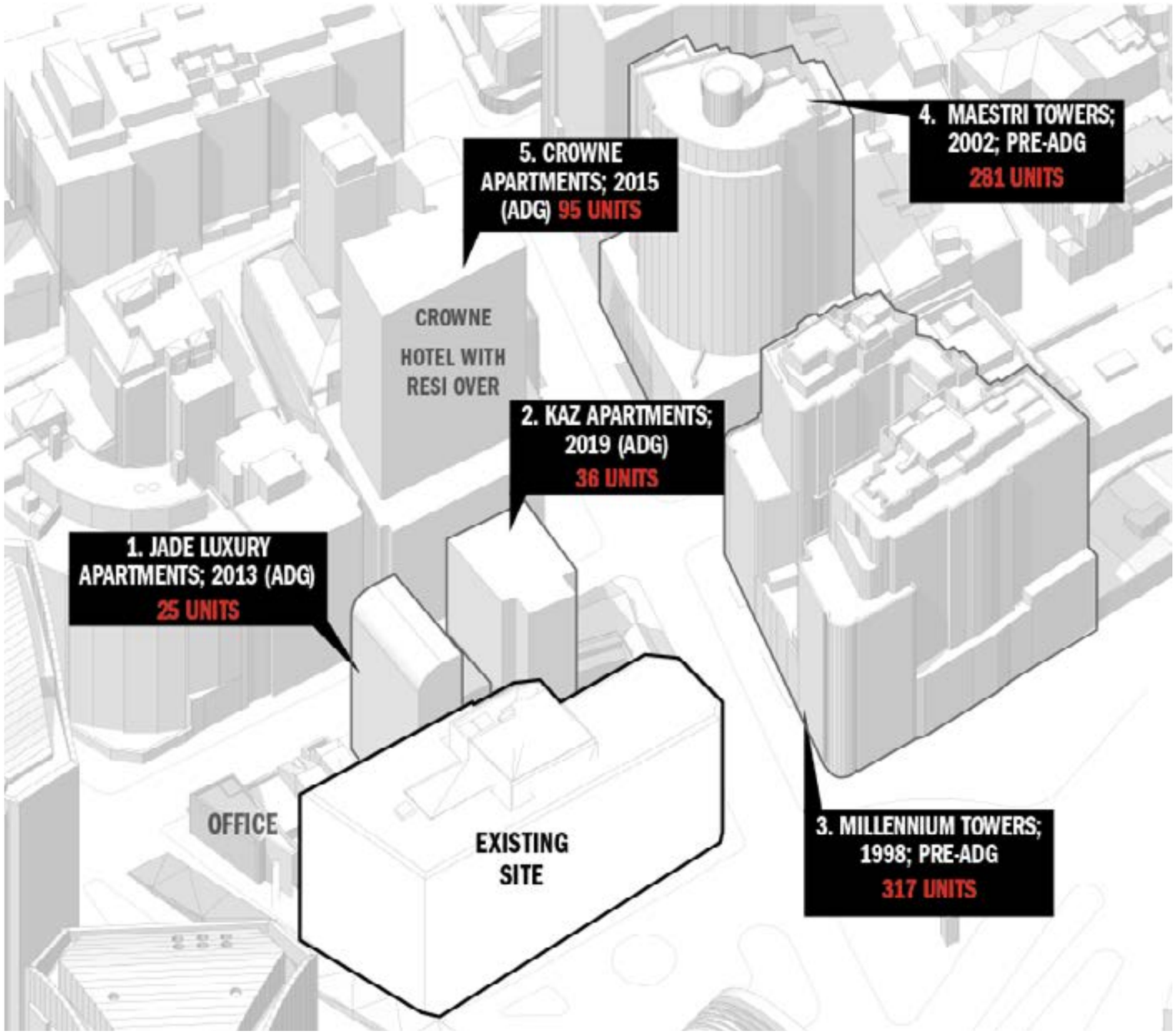


Image courtesy Hassell

Strategic Site Vision - Future Pedestrian Pathway

UAP



Image courtesy Hassell

VISIONING

1438

Visioning
Public Art Policy Alignment

Public art for 150 Day St, Sydney will be developed to align with the City of Sydney's vision and goals for public art, and drawing from the City's Sustainable Sydney 2030 vision and related public art policies, strategies and plans.

The matrix (right) outlines the '8 Guiding Principles' for City of Sydney public art and provides an overview that demonstrates how public art for 150 Day St will align with these principles.

Sydney 'Creative City' Vision

The City of Sydney demonstrates a strong commitment to the provision of creative offerings for the people who work in, live in, and visit the City.

Along with a strong history of public art programming, and the combined success of City of Sydney's various temporary laneway art projects, City of Sydney has also conducted wide-scale strategic planning for 'A Revitalised City Centre'.

Culminated in Sydney's Sustainable Sydney 2030-2050 Continuing the Vision, culture and creativity are recognised as playing an integral role in Sydney's future as a world-class city – a role that is emphasised and evidenced through numerous accompanying arts policy and strategy documents.

Supported by the *Sustainable Sydney 2030-2050 Continuing the Vision*, Sydney's cultural life is one that is:

- Visible
- Innovative
- Proud
- Engaged
- Diverse
- Bold
- Curious

City of Sydney Public Art Objectives	150 Day St, Sydney Public Art
Align significant public art projects with major *Sustainable Sydney 2030-2050 Continuing the Vision* urban design projects	Artwork will be commissioned in consideration of other major public art projects located within the City of Sydney municipality as well as those outlined within the *Sustainable Sydney 2030-2050 Continuing the Vision* strategy.
Recognise Aboriginal stories and heritage in the public domain	Aboriginal artists will be recommended within the curated longlist. Selected artist(s) will be encouraged to draw inspiration from the rich heritage of the site, including First Nations history and stories. The works developed will be cognisant of the City's *Eora Journey* and *Yananurala - Walking on Country* public art projects.
Support local artists and activate city spaces with temporary art projects	Providing a significant opportunity to showcase local talent, distinguished professional local artists or artists with a significant connection to Sydney will be highly considered for this opportunity.
Support vibrant places in Village Centres with community art and public art in City projects	Public Artwork for 150 Day St will become a memorable addition to the site, which contributes to a meaningful, active and vibrant public realm.
Promote the integration of high quality public art in new development	Significant national or international artists whose practice supports the prestige of this opportunity will be considered. Close collaboration with the project team will ensure that public artwork for the site is of a high-quality.
Support stakeholder and government partners to facilitate public art opportunities	This Public Art Strategy provides guidelines and recommendations on the management and maintenance of public artworks to be developed for the site. Artworks created will not be a duplication of existing artworks, monuments, memorials and/or related concepts.
Manage and maintain the City's collection of permanent art, monuments and memorials	This Public Art Strategy provides guidelines and recommendations on the management and maintenance of public artworks to be developed for the site. Artworks created will not be a duplication of existing artworks, monuments, memorials and/or related concepts.
Initiate and implement programs to communicate, educate and engage the public about City Art projects	Public art created for 150 Day St can be incorporated into existing City Art projects and programs, extending its accessibility and engagement with the public.

INTERWOVEN WORLDS

Image: Nike Savvas, *Sliding Ladder: Truncated Icosahedron* (detail), 2010

Visioning
Curatorial Vision

Public art at 150 Day St seeks to enhance key points of intersection, emphasising the movement, convergence and flow of multiple narratives and histories at the site. The vision poses points of connection as vital thresholds that open exchange - unlocking connections across both space and time, geography and history.

150 Day St is seamlessly embedded within the city's intricate grid, surrounded by a dynamic network of streets and buildings. The site is enveloped by an ever-present pulse of energy, threading and weaving through the urban fabric, resonating with the enduring vitality of Gadigal Country that persists beneath the built landscape.

At once a vibrant nexus of movement and a place of pause for those in transit, the site exists at the intersection of parallel worlds—where metropolis meets waterfront, travellers meet residents, and contemporary perspectives intertwine with ancient ways of knowing.

The curatorial vision, *Interwoven Worlds*, reimagines these points of connection as generative relationships, forging new pathways for understanding and inhabiting our richly layered world.

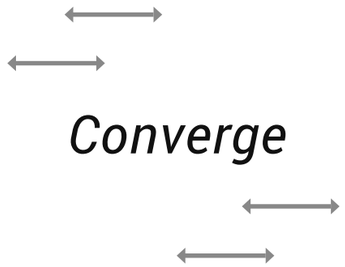
Artists are invited to draw inspiration from this sense of convergence, exploring creation as a product of interwoven elements. Artworks may trace the built overlay of Sydney's CBD on Gadigal Country, revealing the synergies between the abundant, dynamic energy of Gadigal land and the bustling rhythms of the metropolitan center.

Artists might take cues from the fluid movement of city dwellers in their daily lives or seek to evoke the sense of refuge and sanctuary found in lush landscapes and tranquil waterfronts—infusing vitality into the city's urban forms.

Driven by a spirit of possibility, the curatorial vision seeks to map intersections as touchpoints for new ways of being—new ways of inhabiting place, relating to one another, and engaging with the city as a whole.

Visioning
Curatorial Principles

The following Curatorial Principles seek to provide a high-level framework for the commissioning of considered site-specific public art at 150 Day St. Expanding upon both WSP and Dr Shane Smithers' cultural principle of connection and generation, and Hassell's public domain design moves of accessibility and openess, the Curatorial Principles below lay the groundwork for transformative public art commissions with the power to reimagine 150 Day St's experience.

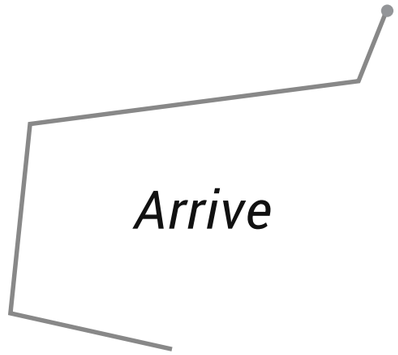


Converge

Converge envisions public art as the catalyst for generative potential, transforming 150 Day St into a place of meaningful connection and renewal.

The curatorial principle *Converge* may manifest in the following ways:

- Transforming the dynamic nexus of Sydney's CBD at the convergence point of key vehicular thoroughfares and the transition between the city and Darling Harbour.
- Supporting the project's ambitions to enhance safety, connectivity and comfort for pedestrians.
- Re-establishing permeability within the public realm by contributing to improved accessibility and enhancing connections.
- Softening the inferface between pedestrian and vehicular, and city and harbour.

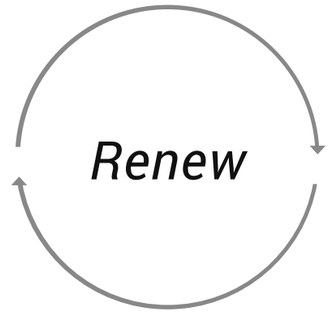


Arrive

Arrive envisions public art as a captivating touchpoint for engagement, immersing people in 150 Day St's identity from both near and far.

The curatorial principle *Arrive* may manifest in the following ways:

- Establishing the building's identity as a radiating beacon and an embodiment of the project's visionary ambitions.
- Acknowledging the site's pre-colonial history as a place of abundance and dynamism which drew people from far and wide, as well as the site's current and future identity as a hotel which welcomes visitors from across the world.
- Existing as an undeniable sense of arrival which signifies the unique qualities of the destination to those travelling both domestically and internationally.
- Defining not only the site's 'front door', but the gateway to the Sydney CBD and surrounding suburbs.



Renew

Renew envisions public art as a rich tool for revitalising the urban environment, reinstating site narratives and enhancing the porosity and habitability of Sydney's CBD.

The curatorial principle *Renew* may manifest in the following ways:

- Imbuing a sense of rejuvenation of landscape and of community.
- Drawing on the site's longstanding history of exchange, established thousands of years ago by the Gadigal people, artists may seek to open out to the surrounding community and reinstate the presence of people within the built environment.
- Contribute to regreening or returning a sense of habitability to the site by softening the urban environment and unearthing the presence of Country beneath.
- Embodying site stories and creating accessible touch points which embrace individuals and transform the site into a place of community.

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ARTWORK EXPERIENCE ZONES

Artwork Experience Zones
Overview

UAP

The following pages outline the key experience zones of Hassell's architectural design which hold the potential to be enhanced by public art. In line with the project's ambitions and guided by UAP's curatorial vision and principles, these artwork experience zones provide the opportunity to enliven the site's public realm and create accessible touchpoints for those transiting to and from the site, and Sydney more broadly.

The artwork experience zones are outlined on the map opposite, with further detail and high-level benchmarking pertaining to each zone provided on the following pages.

The artwork experience zones are as follows:

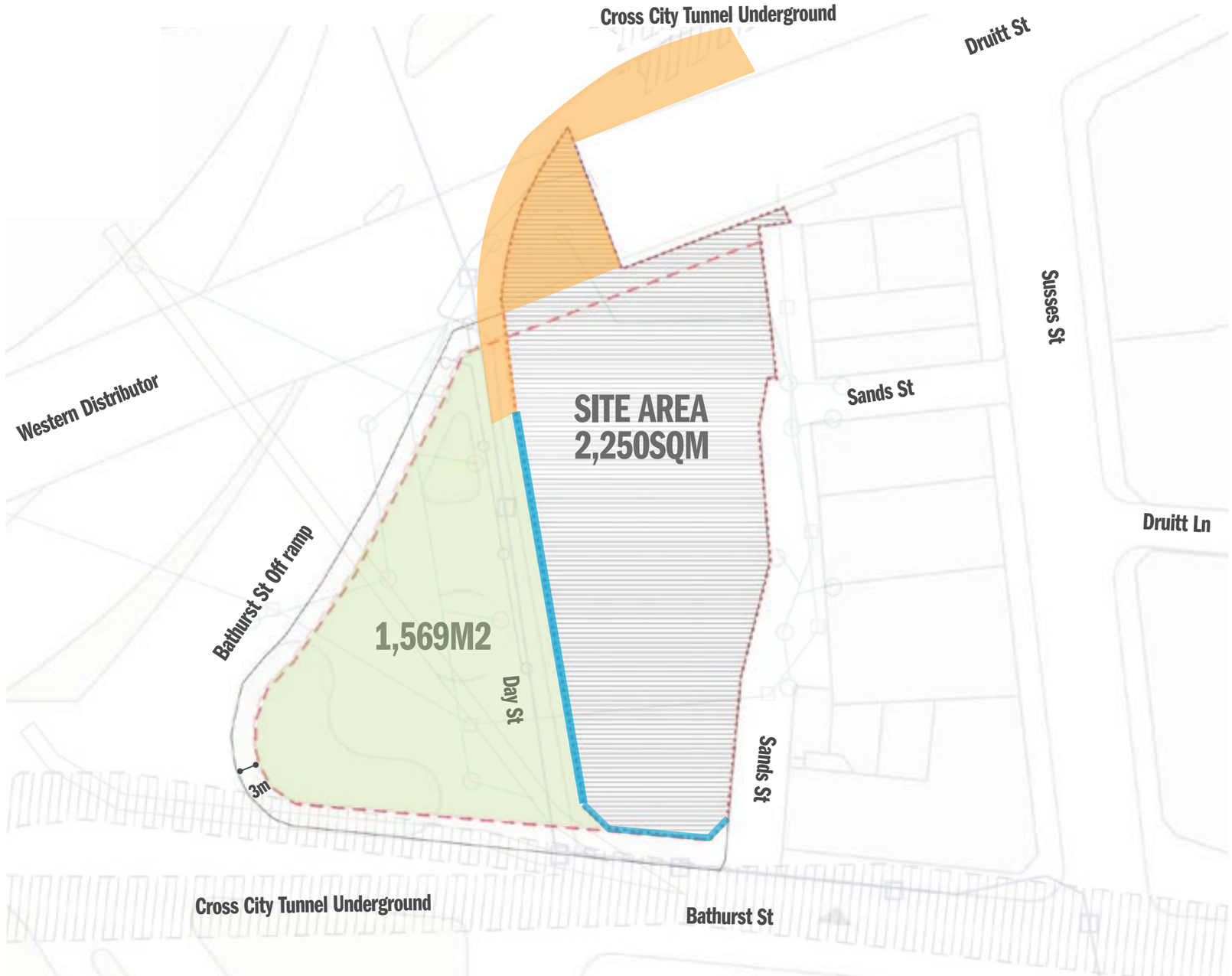
Primary Zone

- Artwork Experience Zone 1 - Northern Pedestrian Link

Secondary Zones

- Artwork Experience Zone 2 - Arrival Experience
- Artwork Experience Zone 3 - Day St Public Domain (outside of site boundary)

At this stage, the budget for public art is undefined, and therefore the high-level benchmarking provided demonstrates public art interventions across a range of budgets which transform pedestrian and visitor experiences. In line with the total development budget, it is anticipated that the developers will be contributing between 0.5%-1% of the construction costs to the commissioning of public artwork.



PRIMARY ZONE

Artwork Experience Zone 1 - Northern Pedestrian Link Entrance

SECONDARY ZONES

Artwork Experience Zone 2 - Arrival Experience

Artwork Experience Zone 3 - Day St Public Domain (outside of site boundary)

Plan courtesy of Hassell

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PRIMARY ZONE

Artwork Experience Zones
1 - Northern Pedestrian Link Entrance

Artwork Experience Zone 1 - Northern Pedestrian Link Entrace is a key focus area of Hassell's redevelopment, with ambitions to reactivate the unwelcoming public realm in this area.

In its current form, the Northern Pedestrian Link is a complex interface, enclosed by vehicular infrastructure. Not only utilised by visitors of the hotel, but of residents and visitors to Sydney more broadly, and serving as a vital entrance point for the hotel, the Northern Pedestrian Link is a major thoroughfare connecting the site directly to Sydney's city centre.

Artwork Experience: Transformed Pathways

In this zone, public art is envisioned as reimagining transitory pedestrian experiences. Leveraging the curatorial principles of *converge*, *arrive* and *renew*, public art holds the capacity to animate and enliven this thoroughfare through innovative artistic interventions which redefine the area infront of the Northern Pedestrian Link as a captivating destination.

NB: The following benchmarks are indicative only. These benchmarks capture a range of artworks which transform underused or transitory spaces to create captivating and intriguing pedestrian destinations. This strategy notes that the site boundary extends to the entrace to the Pedestrian underpass, but does not extend to the underpass itself.




Megan Cope



Tina Havelock Stevens


Jason Bruges


Callum Morton


Jason Bruges Studio


Warren Langley

SECONDARY ZONES

Artwork Experience Zones
2 - Arrival Experience

Artwork Experience Zone 2 - Arrival Experience is another key focus area of Hassell's redevelopment, seeking to revitalise both the Day St entrance and the Bathurst St facade at ground level. 150 Day Street will be the location of two distinct hotels: the Park Royal Hotel and the Pan Pacific Hotel. The co-location of two hotels in one building brings many benefits, but does mean that the building facade is working hard to articulate two brands to the public. For this reason, this strategy does not propose the upper facade of the building as a viable location. Instead, the pedestrian level facade has been identified as a zone with potential to enliven the building's street facing areas to create a welcoming environment for pedestrians passing by.

Artwork Experience: Animated Connections

In this zone, public art is envisioned as animating the urban environment and enlivening the pedestrian experience. Leveraging the curatorial principles of *converge*, *arrive* and *renew* public art holds the potential to imbue the building's ground level facade with a feeling of porosity at a human height by punctuating the building's frontage with distinctive and captivating moments that invite passersby to pause and connect whilst transiting.

NB: The following benchmarks are indicative only, and seek to demonstrate of the type of experience or effect of public art envisioned for this site. These benchmarks capture a range of public art interventions which embellish facades at human scale to create intriguing, memorable and bespoke pedestrian experiences.




Emily Floyd



Callum Morton


Richard Glover


Amy Joy Watson

Artwork Experience Zones
3 - Day St Public Domain

Artwork Experience Zone 3 - Day St Public Domain is a key public realm area adjacent to 150 Day St. Servicing hotel guests, transiting city workers and inner-city residents from the surrounding areas, the Day St Public Domain is currently a bustling yet underutilised thoroughfare. In line with Hassell's ambition to revitalise this public realm area, there is potential for public art interventions which are both iconic and bold, and thoughtfully integrated with the softscape, to distinguish this space and act as a vital reference point for journey markers transiting through this part of the city.

NB: As this zone is located outside of the site boundary, this opportunity would require a Deed arrangement with the City of Sydney

Artwork Experience: Iconic Touchpoint

In this zone, public art is envisioned as enlivening the public realm and defining it as a unique area of the city. Leveraging the curatorial principles of *converge, arrive* and *renew*, public art within the Day St Arrival Zone holds the potential to exude a distinctive identity and become a visual touchpoint for all who visit Sydney's CBD.

NB: The following benchmarks are indicative only, and seek to demonstrate of the type of experience or effect of public art envisioned for this site. These benchmarks capture a range of distinct and memorable public art interventions which integrate with landscape design.




Linda Marinon




Emily Floyd


Dirt Witches

IMPLEMENTATION

Implementation
Indicative Public Art Process and Timeline

UAP

The process outlined below details a standard public art process for the commissioning of permanent artworks in line with the building's development phases.

Planning Proposal / DA

Planning Proposal and Concept Design Development Phase

Preliminary Public Art Strategy (4 – 6 weeks)

- Project initiation meeting and workshop process with key stakeholders
- Review of development's design documents
- Research into local culture, history and environment
- Development of Art Strategy with identification of curatorial framework, high-level art locations and benchmarking
- Implementation planning including development of; art budget guide, art process and initial program, maintenance and sustainability methodologies

CURRENT STAGE

STAGE 2 DA

Public Art Strategy (4 – 6 weeks)

Refinement of Preliminary Public Art Strategy, including:

- Update research of local context, including current planning/design status
- Review curatorial vision to ensure alignment with project team ambition
- Illustrate art locations and specific benchmarking
- Advise on budget allocation
- Develop the implementation plan with program and procurement method recommendations, confirmed budget plan, and identification of authority approval processes

Post-DA Approval

Artist Procurement (2 – 4 weeks)

- Facilitate and support artist short-listing and selection process with Client
- Confirm artist availability
- Develop Artist Briefing documents

Design Assist (10 - 12 weeks)

- Contract selected Artists
- Brief contracted Artists
- Artist support for research and investigation, concept development, selection of materials, colours and scale
- Concept Design presentation including narrative descriptions, sketches and visualisations prepared by artists
- Preliminary manufacturing program and budget
- Management of Client review and selection of winning Concept Designs

Delivery

Technical Assist (10 – 12 weeks)

- Artist support for further materials investigation
- Preliminary engineering advice and liaison with design consultants and manufacturing team
- Final models and computer generated visualisations (as required)
- Material selection and fabrication budget review with client
- Management of Client review and approval of Developed Designs

Manufacturing and Installtion (14 – 22 weeks)

- Full manufacturing documentation and engineering certification including samples and prototypes (as required)
- Final manufacturing budget review with client
- Project management and budget control of artwork manufacturing
- Management of fabrication process, including:
- Artwork fabrication
- Client approvals during manufacturing
- Quality control
- Transportation to site
- Maintenance advice and development of Maintenance Manual/s
- Attribution plaque

Council review points by stage

- City of Sydney to endorse Preliminary Public Art Plan
- City of Sydney to endorse Preliminary Public Art Plan and provide Public Art conditions
- City of Sydney to endorse Detailed Public Art Plan aligned to relevant construction certificate/s
- City of Sydney to endorse final Public Art Report prior to Occupation Certificate

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Implementation
Artist Procurement

UAP

There are two (2) main methods recommended for the procurement of an artist for 150 Day St, Sydney.

Limited Competition

- A short list of 6 – 8 artists is developed
- Up to 3 artists are selected to develop concept designs in competition with each other
- The 3 concept designs are presented for selection of 1 concept to continue to design development
- All artists are paid a concept design fee

Direct Engagement

- A short list of 5 – 7 artists is developed
- 1 artist is selected to develop a concept design
- The artist's concept design is presented for approval to continue to Design Development
- The artist is paid a concept design fee. In some cases the artist may be paid a higher fee and asked to submit more than one concept for consideration

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Images courtesy of UAP – Barangaroo Workshop.

Implementation
Maintenance and Decomissioning

UAP

Maintenance is a key factor in the long-term care and quality of public artworks and should be taken into consideration during concept and design development, during material selection and manufacturing.

There are climatic conditions that all artists and fabricators should consider during permanent artwork development to ensure the longevity of all artworks. These conditions include humidity, fatigue, vehicular pollution, UV degradation and vandalism.

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Material Selection

To withstand these conditions, artists will be required to ensure their artworks are of a robust nature, incorporate technologies that are easily replaced and be constructed from materials suitable for long-term exterior installations.

Materials not considered suitable include resins, soft timbers and any materials that are not UV stable.

Where artworks include technology elements, these should be high quality, warrantied components and fittings that are easily accessible for replacement. Use of LEDs is recommended for longevity and power efficiency of lighting installations.

Maintenance Program

During the development of a public art project, consideration should be given to the thorough documentation of the processes involved in the future care and maintenance requirements of the artwork. In order that maintenance responsibilities and associated costs do not become onerous it is recommended that responsibility for maintenance is clearly established and that a condition check of the artwork is undertaken on a regular basis with any remedial works and cleaning carried out when necessary. This will prevent any deterioration of the artwork that may lead to more expensive restoration works in the long-term.

An Artwork Maintenance Manual which outlines the following information in relation to the artwork should be issued at the time of project completion:

- Contact details for the manufacturing company/companies involved
- Materials used during manufacturing and supplier details
- Treatments, aftercare works and processes
- Design and structural drawings
- Predicted lifespan of components
- Location of power source, power supply, water supply etc
- Cleaning program outlining processes and recommended frequency
- Any specific specialist maintenance requirements

The Artwork Maintenance Manual forms the final handover of ownership of the artwork.

Artwork Life-Span

Permanent artworks should be intended to have a life expectancy equal to the life of the building. Where artworks include technology elements with expected lifespans shorter than that of the building, the future owner of the artwork may choose to conduct a review of the artwork before the intended expectancy is reached.

Decommissioning

When the artwork has reached the end of its lifespan, a decommissioning process should be undertaken through either relocation or deaccessioning.

Deaccession involves removing a work from the collection under which it is owned and managed. Deaccession can include the return of the work to the artist/designer, donor or lender, relocation of the work, or the destruction of the work. The permanent removal and destruction of an artwork should only take place as a last resort. A full and thorough process of assessment and consultation should take place before such an action is undertaken, and the artist should first be given the opportunity to take over ownership of the work and properly document the artwork.

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Attachment A24

Social and community needs assessment

Social and Community Needs Assessment

150 Day Street, Sydney

Prepared for
Success Venture (Darling Harbour) Unit Trust

March 2025

MECONE.COM.AU

Project director

Sean Perry

Contributors

Joshua Murray

Revision	Revision date	Status	Authorised: Name & Signature	
1	17/01/2025	Draft	Sean Perry	
2	21/01/2025	Draft	Sean Perry	
3	25/03/2025	Final	Sean Perry	

* This document is for discussion purposes only unless signed and dated by the persons identified. This document has been reviewed by the Project Director.

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1 Introduction

1.1 Purpose of this report

This Social and Community Needs Assessment has been prepared by Mecone Group Pty Ltd on behalf of UOL Group to support a Planning Proposal for 150 Day Street, Sydney, NSW. It provides an evidence-based analysis of the social and community infrastructure requirements that may arise from the proposed development. In doing so, it aims to ensure that the local area has sufficient capacity to accommodate an increase in residents, students, or employees, and that these new community members will have appropriate access to essential facilities, services, and open space.

1.2 Scope and approach

This Social and Community Needs Assessment addresses the following questions, identified in the Department of Planning, Housing and Infrastructure ('DPHI') *Local Environmental Plan Making Guidelines* (August 2023)[1]:

1. *Identifying the impact on existing social infrastructure, such as schools and hospitals.*
2. *Identifying the need for public open space or impacts on green infrastructure.*
3. *Identifying measures to mitigate any adverse social impacts, where necessary, and whether additional studies are required.*
4. *Addressing whether existing social infrastructure is adequate to serve or meet the needs of the proposal and how any predicted shortfall in infrastructure provision could be met.*

To respond to these requirements, the Assessment:

- Develops an understanding of the current community infrastructure provision within the City of Sydney (LGA) – and Sydney CBD – and their performance and role within the relevant region, district and locality
- Identifies infrastructure needs/gaps within the precinct and recommends actions and mechanisms to address them through delivery as part of this project, and
- Highlights best value community infrastructure delivery opportunities to inform potential inclusions in future infrastructure planning for the Proposal.

The approach taken to this study is based on established practice in community infrastructure planning which involves two core stages of analysis:

- Quantitative analysis of demand for infrastructure typologies generated by additional populations of residents, workers and visitors envisaged by a Planning Proposal,
- Qualitative analysis of:
    - the geographic distribution of supply from a population equity and accessibility/ walkability perspective, and

[1] Refer esp. Table 3 regarding questions to consider when demonstrating justification for a proposal.

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- the quality of supply (whether infrastructure is fit for purpose/ in need of maintenance etc).

1.3 Study areas applied

Social planning typically considers two primary typology levels:

- **Primary study area:** considers a local catchment of infrastructure to serve the daily needs of the community. The infrastructure is typically of a smaller scale and floorspace.
- **Secondary study area:** considers district and/or regional infrastructure needs. This infrastructure is typically accessed on special occasions, and is of a larger scale and catchment size.

This Assessment has selected the following study areas to best identify and appraise infrastructure impacts generated by this Planning Proposal:

- **Primary study area:** Due to data limitations, two study areas have been selected for the primary study area. These are:
  - Sydney SAL: representing the local CBD area for the purposes of understanding baseline population demographics and likely existing demand on infrastructure
  - CBD-Harbour and Chinatown-CBD South Village Areas: representing a more fine-grain view of local CBD area for purposes of future population changes and to understand variation within the primary study area, noting that the site sits at the boundary between these two 'village' geographies.
- **Secondary study area:** City of Sydney LGA

1.4 Assessment requirements

Source	Requirement	Where addressed
DPHI *Local Environmental Plan Making Guidelines* (August 2023) Attachment C – 'Supporting Technical Information'	Social and community needs assessment, which addresses the following: • Demographic context • Existing social infrastructure (i.e. local facilities including shopping and neighbourhood services, schools, childcare, community facilities, open space and recreation facilities), district and regional facilities need for the proposal (if proposal is responding to a particular need including additional housing, employment, education etc) • Housing and population projections (to support the assessment particularly if housing is proposed) • Demand for social and community facilities • Funding approach and delivery arrangements for local, district and regional facilities • Requirements for open space and recreation facilities (if relevant) including likely needs, quantum of open space, dual use of open space, delivery and funding arrangements • Housing diversity and affordability (if residential is proposed and/or the proposal results in the displacement of existing residents and businesses).	This report comprehensively addresses these requirements. The following sections can be referred to for each requirement, respectively: • Section 2: Demographic context; housing and population projections • Section 4.1: Existing social infrastructure • Section 4.3: District and regional facilities need for the proposal • Section 4.4, 4.5: Demand for social and community facilities; Requirements for open space and recreation facilities • Section 5: Housing diversity and affordability.

2 Baseline context

2.1 Current population

Population size and growth

Sydney SAL's population was estimated at 16,667 in 2021,[2] marking a 3.4% decrease from 17,252 in 2016.[3] While specific projections at the Statistical Area Level (SAL) are unavailable, broader projections at the Local Government Area (LGA) level reveal substantial growth. The population of the LGA is expected to increase from 232,438 in 2025 to 304,049 by 2046,[4] highlighting the importance of forward planning to address the growing social infrastructure needs of the community.

Age profile

The age distribution of a population offers valuable insights into community needs and vulnerabilities. For example, young children under four and older adults aged 65 and above are generally more susceptible to health risks, while older populations may be less adaptable to change. In 2021, the median age within the Sydney SAL was 32 years,[5] notably younger than the median age of 34 across the City of Sydney LGA[6] and 39 across New South Wales.

A closer analysis of age groups in Sydney SAL compared to the broader City of Sydney highlights several distinct trends. Sydney SAL had a smaller proportion of younger residents aged 0–17 and a lower proportion of older residents aged 60 and above. Conversely, the area recorded a higher percentage of "young workforce" residents, comprising 39.2% of the population compared to 32.2% in the City of Sydney. Additionally, there were smaller proportions of "empty nesters and retirees" (5.0% vs. 7.1%), "older workers and pre-retirees" (7.7% vs. 9.6%), and "seniors" (4.0% vs. 5.5%).

These trends paint a picture of a predominantly younger, workforce-driven population. This demographic composition suggests a need for infrastructure and services tailored to the demands of a vibrant, working-age community, while also considering the emerging needs of families and the gradual aging of the population.

Housing composition

An analysis of dwelling types in Sydney SAL in 2021 reveals that 0.1% of all dwellings were separate houses, 0.9% were medium density, and 97.9% were high density.[7] In contrast, the City of Sydney had 1.9% separate houses, 19.9% medium density dwellings, and 77.1% high density dwellings.[8]

Between 2016 and 2021, the total number of dwellings in Sydney grew by 1,523. The most significant changes in dwelling types over this period were:

- High density: +1,671 dwellings

[2] ABS 2021 Census, *Sydney SAL – Quickstats*
[3] ABS 2016 Census, *Sydney SAL – Quickstats*
[4] .id, informed decisions, *City of Sydney population forecasts*
[5] ABS 2021 Census, *Sydney SAL – Quickstats*
[6] ABS 2021 Census, *Sydney LGA – Quickstats*
[7] ABS 2021 Census, *Sydney SAL – Quickstats*
[8] ABS 2021 Census, *Sydney LGA – Quickstats*

- Other: -263 dwellings
- Medium density: +84 dwellings

In 2021, 23% of households in Sydney were purchasing or fully owned their homes, 66.8% were renting privately, and 0.2% were in social housing.

2.1.1 Socio-economic advantage and disadvantage

The Socio-Economic Indexes for Areas (SEIFA), developed by the Australian Bureau of Statistics (ABS), provide insights into levels of advantage and disadvantage based on access to material and social resources and the capacity to participate in society. While the Study Areas are generally affluent, pockets of relative disadvantage are present, particularly in the Southern CBD, Haymarket, and Ultimo areas.

The ABS advises that SEIFA scores should be viewed as contextual indicators of an area's relative advantage or disadvantage, rather than definitive measures of individual circumstances. For instance, while some SA1s may reflect higher levels of advantage, this does not imply that all residents in these areas are advantaged, and the same applies to disadvantaged areas.

The Index of Relative Disadvantage considers factors such as income, employment, occupation, education, housing, and English proficiency, as illustrated in Figure 1. The site's SA1 is ranked in SEIFA quintile 5, indicating it is among the most advantaged areas.[9]

[9] ABS 2021 Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA). Link

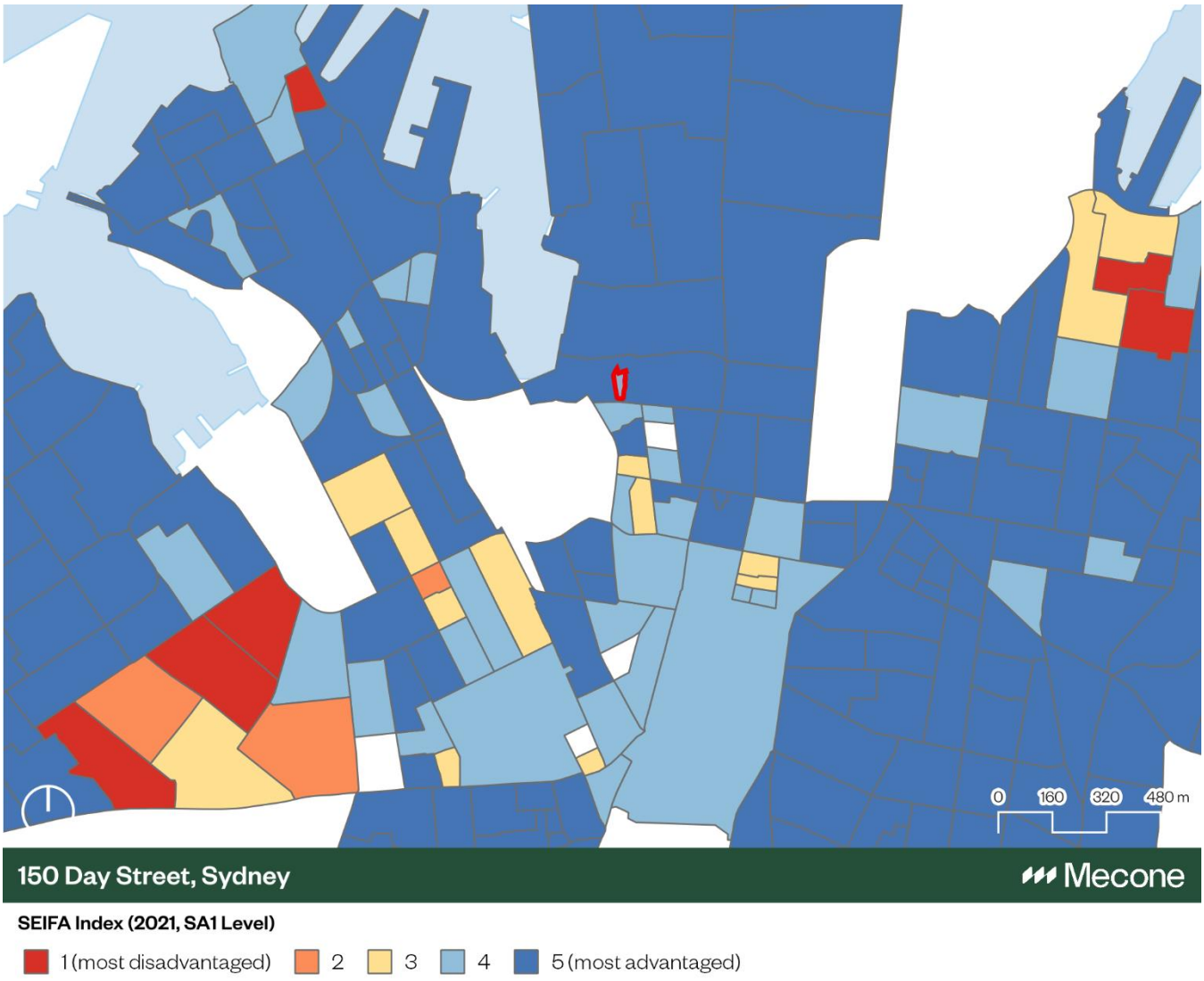


Figure 1: Distribution of socio-economic advantage and disadvantage

Source: ABS Census of Population and Housing (2021)

2.2 Future population

City of Sydney population and household forecasts have been undertaken by .id, informed decisions, on behalf of the City of Sydney and were last updated in December 2024. Population forecasts have been broken down by age, and are shown in

Table 1 and Table 2 below.

CBD-Harbour and Chinatown-CBD South

To estimate future population trends, the CBD-Harbour and Chinatown-CBD South village areas have been utilised. These areas were chosen because the site is situated on their border, and long-term population projections for the Sydney SAL are not available through to 2046. This approach ensures a comprehensive understanding of demographic trends influencing the site and its surrounding context.

Current estimates of the 2025 population show that the CBD-Harbour and Chinatown-CBD South village areas have a current resident population of 32,563.[10] This accounts for approximately 14.0% of the City of Sydney's population, estimated at 232,438 persons for the same year.

Forecast population estimates for the village areas project that the resident population will increase by +23,949 residents between 2025 and 2046, reaching a total population of 56,512. This growth represents an average annual increase of 3.35% per annum.[11]

Characteristics of population growth by age within the Village Areas include:[12]

- **Young adults (25–29 years):** The largest increase, with +4,414 residents, highlighting significant growth in this demographic.
- **Middle-aged adults (30–49 years):** A substantial rise of +11,700 individuals, reflecting the area's growing appeal to professionals and families.
- **Children and youth (under 20 years):** A modest increase of +1,854 residents, suggesting positive but limited growth in family households.
- **Elderly population (85 years and over):** An increase of +310 individuals, pointing to a gradual aging of the population.

These trends underscore the Village area's transformation into a hub for young professionals, families, and a growing workforce, while maintaining a modest increase in the elderly demographic.

Figure 2: Forecast change in age structure in CBD-Harbour and Chinatown-CBD South (2025-2046)
Source: .id, informed decisions

[10] .id, informed decisions. City of Sydney, Population, households and dwellings. Link
[11] Ibid
[12] .id, informed decisions. City of Sydney, Population and age structure. Link

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Forecast change in age structure in CBD-Harbour and Chinatown-CBD South (2025-2046)

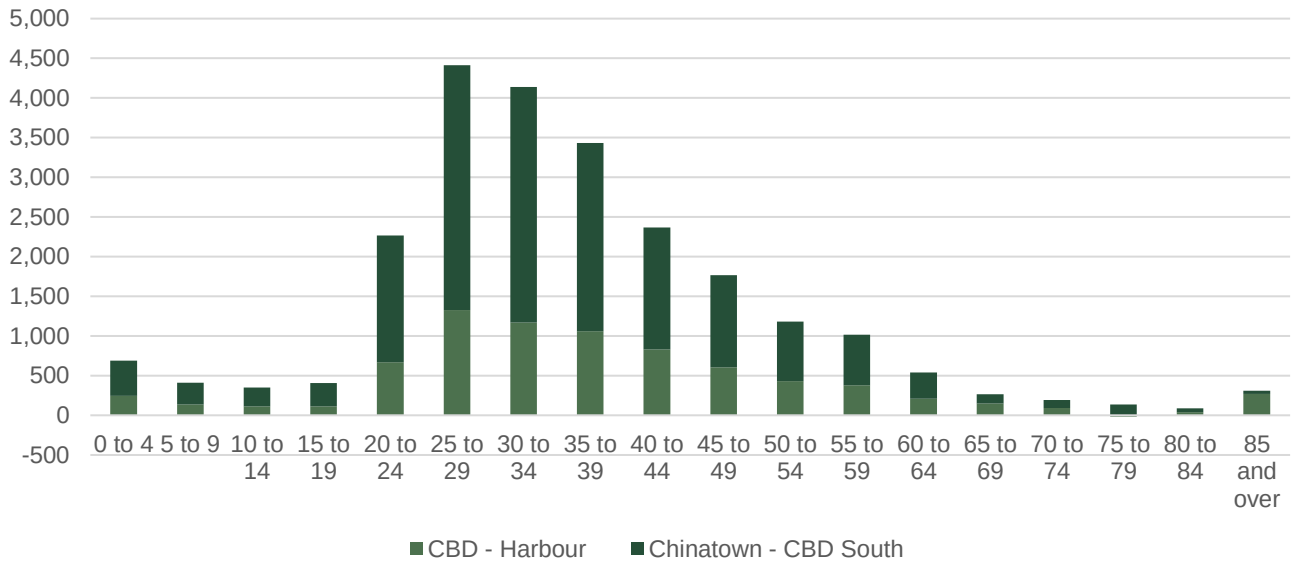


Table 1: Population forecast, CBD-Harbour and Chinatown-CBD South age profile (2025-2046)
Source: .id, informed decisions

Age group	2025				2046				2025-2046
	CBD-Harbour		Chinatown-CBD South		CBD-Harbour		Chinatown-CBD South		Total change
	No.	%	No.	%	No.	%	No.	%	No.
0 to 4	232	2.2	553	2.5	479	2.6	994	2.6	**+689**
5 to 9	151	1.5	328	1.5	288	1.6	600	1.6	**+409**
10 to 14	114	1.1	258	1.2	225	1.2	496	1.3	**+349**
15 to 19	266	2.6	851	3.8	377	2.1	1,148	3.0	**+407**
20 to 24	1,232	11.8	3,120	14.1	1,901	10.4	4,717	12.3	**+2,267**
25 to 29	1,862	17.9	4,534	20.5	3,187	17.5	7,622	19.9	**+4,414**
30 to 34	1,454	14.0	4,200	18.9	2,624	14.4	7,167	18.7	**+4,137**
35 to 39	1,168	11.2	2,899	13.1	2,227	12.2	5,270	13.8	**+3,431**
40 to 44	814	7.8	1,811	8.2	1,645	9.0	3,346	8.7	**+2,366**
45 to 49	527	5.1	998	4.5	1,130	6.2	2,161	5.6	**+1,766**
50 to 54	523	5.0	668	3.0	952	5.2	1,422	3.7	**+1,182**
55 to 59	386	3.7	490	2.2	766	4.2	1,127	2.9	**+1,016**
60 to 64	412	4.0	439	2.0	620	3.4	771	2.0	**+540**
65 to 69	371	3.6	358	1.6	521	2.9	475	1.2	**+267**
70 to 74	265	2.6	294	1.3	356	2.0	397	1.0	**+194**
75 to 79	293	2.8	177	0.8	275	1.5	312	0.8	**+117**
80 to 84	183	1.8	92	0.4	221	1.2	142	0.4	**+88**
85 years +	145	1.4	96	0.4	416	2.3	135	0.4	**+310**
Total	**10,397**	**100.0**	**22,166**	**100.0**	**18,210**	**100.0**	**38,302**	**100.0**	**+23,949**

City of Sydney LGA

The projected Village Area's population growth will account for 33.4% of the estimated growth in the City of Sydney, which is forecast to increase by +71,611 residents between 2025 and 2046. In total, the City of Sydney resident population is forecast to grow to 304,049 by 2046, increasing at an average annual rate of 1.27% per annum.

Similarly to Sydney SAL, a large share of growth within the LGA is forecast to occur in residents aged 20–34 years, with significant increases in the 25–29 (+10,049 persons) and 30–34 (+9,054 persons) age groups. Notably, while the 35–49 years cohort will also see strong growth, particularly in the 35–39 (+7,842 persons) and 45–49 (+5,657 persons) groups, the share of young adults aged 20–34 will remain high, accounting for a significant portion of the population in 2046.

Older adults will also experience noticeable growth, with the 85+ age group projected to increase by +2,669 persons, suggesting an aging population. This shift reflects longer life expectancy and improved healthcare, alongside growing demand for services catering to older residents.

These trends are influenced by factors such as ongoing migration into the LGA, particularly among young professionals, families, and retirees seeking urban amenities. However, there may also be challenges related to housing affordability and the provision of age-appropriate services as the population grows across different age groups.

Table 2: Population forecast, City of Sydney Population age profile (2025-2046)

Source: .id, informed decisions

Age group	2025		2046		2025-2046
	No.	%	No.	%	Total change (no.)
0 to 4	8,109	3.5	10,778	3.5	**+2,669**
5 to 9	5,073	2.2	6,970	2.3	**+1,898**
10 to 14	4,310	1.9	5,518	1.8	**+1,208**
15 to 19	9,313	4.0	11,261	3.7	**+1,949**
20 to 24	25,690	11.1	32,743	10.8	**+7,054**
25 to 29	36,535	15.7	46,585	15.3	**+10,049**
30 to 34	34,794	15.0	43,848	14.4	**+9,054**
35 to 39	25,823	11.1	33,665	11.1	**+7,842**
40 to 44	18,285	7.9	23,849	7.8	**+5,564**
45 to 49	12,685	5.5	18,342	6.0	**+5,657**
50 to 54	11,344	4.9	15,315	5.0	**+3,971**
55 to 59	9,391	4.0	13,368	4.4	**+3,978**
60 to 64	8,690	3.7	10,959	3.6	**+2,269**
65 to 69	7,093	3.1	8,511	2.8	**+1,417**
70 to 74	5,731	2.5	7,073	2.3	**+1,342**
75 to 79	4,553	2.0	5,808	1.9	**+1,255**
80 to 84	2,683	1.2	4,449	1.5	**+1,767**
85 years +	2,338	1.0	5,006	1.6	**+2,669**
Total	**232,438**	**100.0**	**304,049**	**100**	**+71,611**

3 Overview of the Proposal

The planning proposal for the existing Park Royal Hotel at 150 Day Street, Sydney (the site), involves an ambitious upgrade and expansion of the existing hotel. This project aims to enhance the existing hotel offering while introducing a new, distinct hotel experience above the current structure, enabling the coexistence of the existing Park Royal and a new Pan Pacific Hotel on the same site. Strategically positioned at the edge of the City of Sydney, the development reinforces the city's entry into Darling Harbour by maintaining and emphasising the city wall characteristic of this prominent location.

The project is defined by 3 key principles – maximising adaptive reuse (setting a benchmark for future developments in Sydney), energising the Sydney visitor economy, and significantly enhancing the greening of both the public realm and the skyline, in alignment with the City of Sydney's sustainability goals. Achieving this vision involves expanding the existing core to support the new hotel above, employing a 'strip to structure' approach from ground to Level 02 to facilitate amenity upgrades, lightly refurbishing existing hotel rooms, and comprehensively upgrading all building services. This initiative aims to establish a contemporary hotel destination while setting a new standard for sustainable urban redevelopment.

To achieve the intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 (the LEP) by inserting a new site-specific clause for the subject site under Part 6 Division 5 Site specific provisions to:

- allow a maximum building height of 85 metres,
- permit a maximum floor space ratio of 13.5:1 for hotel and associated land uses,
- restrict use to employment/hotel use and not residential accommodation or serviced apartments.

The Planning Proposal is supported by a site-specific Development Control Plan (DCP) and reference design scheme, prepared by Hassell. Key elements of the site specific DCP and reference design include:

- Renovation of existing 2 level basement and existing 11 storey hotel, with the addition of a new 11 storey hotel above (including a transfer floor between the two structures), and a rooftop plant floor resulting:
    - Two hotel brand offerings – Park Royal Hotel (3.5 star) and Pan Pacific Hotel (5 star)
    - 90-540 hotel keys with gross floor area of ~30,000m2
    - Upgrade existing infrastructure and services (including new lift core),
    - New and upgraded hotel facilities (including lobby, dining areas, meeting rooms, ball room, gymnasium, bar and restaurants, and pool).
    - Removal existing Porte Cochere and exit ramp resulting in single vehicle entry/ exit ramp from Day Street to be used by valet only.
- Ground floor public domain, public art and landscaping design, and
- Significant greening and landscaping of western façade.

4 Social infrastructure needs assessment

4.1 Existing social infrastructure

A review of the existing local social infrastructure has been undertaken to inform this Social and Community Needs Assessment. An overview of the local social infrastructure context is provided below, identifying key social infrastructure within a local 800m catchment of the site (a distance equivalent to a 10-minute walk). A map illustrating the approximate area is shown in Figure 3 over page.

The Sydney CBD locality comprises a concentration of social infrastructure. As a regionally and nationally significant centre, there are a number of state and district level social infrastructure and various heritage, cultural, or built form landmarks within walking distance from the site, for example Sydney Town Hall, the Powerhouse Museum, National Maritime Museum, the International Convention Centre, and the Queen Victoria Building. There are various other historic sites and monuments distributed within the locality.

The locality also includes popular open spaces, such as Darling Harbour foreshore, Tumbalong Park, and Town Hall Square. Whilst the locality primarily functions as an employment and visitor destination, there is a range of social infrastructure located within walking distance of the site, such as a small number of childcare centres, schools and medical centres within walking distance of the site. City of Sydney community assets within walking distance include the Darling Square library, Town Hall library link and Community Service Hub, and Ultimo Community Centre.

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Figure 3: Local context

Source: Mecone

The following categories of social infrastructure relevant to the project are identified as being within walking distance of the site:

- **Parks, open space and recreational facilities:** There are several parks and open spaces within 800 meters of the site, of varying significance. Some of the most accessible for this site include Tumbalong Park, Town Hall Square, Darling Harbour and Barangaroo Foreshores, and Darling Park.
- **Community facilities:** There are five community facilities within walking distance of the site, including Town Hall library link, Town hall Community services hub, Ultimo Library, Ultimo Community Centre, and the Darling Exchange library. Note that there are numerous privately owned community and social spaces within the study area on top of the public provision.
- **Cultural facilities and tourist attractions:** The site is located on the perimeter of Darling Harbour, a popular tourist and cultural destination. The site therefore includes a host of significant creative and cultural facilities, including the Powerhouse Museum, National Maritime Museum, Harris Street Motor Museum, the Chinese Garden of Friendship, Sydney Wildlife World, Sydney Aquarium and the International Convention Centre facilities.
- **Emergency services:** Emergency services within walking distance of the site include fire stations in Sydney and Pyrmont, and City Central and Town Hall Police Stations.
- **Health care facilities:** There are some medical centres and primary care services within walking distance of the site. The closest are bunched around George Street South, next to Town Hall Square and the Pitt Street Mall precinct. MyHealth Darling Square, MyHealth Sydney CBD, and World Square CBD Medical Centre are some of the most significant and proximate to the site.
- **Child care facilities:** There are numerous childcare facilities located throughout the 800m catchment, spread throughout Pyrmont, Ultimo, Darling Square and Sydney CBD. Many of these services, particularly in the CBD, cater towards city workers.
- **Educational facilities:** There are a range of educational facilities near the site. Primary and secondary schools include St Andrew's Cathedral School, Ultimo Public School, Australian International high School and Macquarie Grammar School. Many major metropolitan universities have CBD campuses in proximity, including the University of Sydney, University of Technology, Macquarie University, and the University of Newcastle.
- **Places of worship:** Places of worship catering for all major religious and denominational beliefs are located in proximity to the site. These include the St Andrew's Cathedral, Central Baptist Church, St Peter Julian's Catholic Church, The Great Synagogue, St George's Presbyterian Church of Eastern Australia, Pitt Street Uniting Church, St James Church, and Darling Exchange Muslim Prayer Room.
- **Civic facilities:** There are numerous civic facilities in walking distance to the site, including Sydney Town Hall, numerous post offices and local, district, and supreme courts.

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4.2 City of Sydney social infrastructure priorities

The City of Sydney's social infrastructure priorities aim to foster community connection, enhance quality of life, and adapt to the evolving needs of its diverse population.

The following strategic policy review highlights several key areas related to City of Sydney's social infrastructure priorities.

Table 3: Key City of Sydney social infrastructure priorities

Theme	Summary	Relevant policy or strategy
Enhancing CBD amenity	Improving public spaces and amenities is essential to attract global talent and businesses. The City's Draft Economic Development Strategy 2025-2035 prioritises infrastructure and services that enhance liveability and attract skilled workers.	• Our Greater Sydney 2056: Eastern City District Plan, Greater Sydney Commission (2018) • Draft Economic Development Strategy 2025-2035 (2024)
Diversifying economic, cultural, and social activities	The CBD's global role is supported by a vibrant mix of activities, including cultural, entertainment, and tourism. Policies promote affordable spaces for small businesses and startups, fostering innovation and economic growth.	• Our Greater Sydney 2056: Eastern City District Plan, Greater Sydney Commission (2018) • Draft Economic Development Strategy 2025-2035 (2024)
Darling Harbour as a key precinct	Recognised as a major cultural and recreational hub, Darling Harbour plays a significant role in Sydney's tourism and entertainment offerings, supporting world-class infrastructure and public spaces. 'City South' is envisioned to be a thriving theatre scene and destination for world class events such as SXSW Sydney, and a 24-hour economy attract people from around the world to come study, work, live and visit.	• Our Greater Sydney 2056: Eastern City District Plan, Greater Sydney Commission (2018) • City Plan 2036: Local strategic planning statement (City of Sydney, 2019) • Draft Economic Development Strategy 2025-2035 (2024)
Walkability and connectivity	The City of Sydney aims to enhance pedestrian safety and connectivity, ensuring all major centres, including the CBD, are walkable, safe, inclusive and vibrant. Improvements in public transport and infrastructure linkages, particularly around Darling Harbour, are priorities.	• City Plan 2036: Local strategic planning statement (City of Sydney, 2020) • Our Greater Sydney 2056: Eastern City District Plan, Greater Sydney Commission (2018) • City Plan 2036: Local strategic planning statement (City of Sydney, 2019) • Draft Economic Development Strategy 2025-2035 (2024)
Green infrastructure	The need for more green spaces is highlighted, with strategies focusing on creating connected green environments, increasing tree canopy coverage, and ensuring accessible open spaces within urban areas.	• Sustainable Sydney 2030-2050 (City of Sydney, 2023) • Greening Sydney Strategy (City of Sydney, 2021) • Greener Places, NSW Government Architect (2020)

		• Draft Economic Development Strategy 2025-2035 (2024)
Community wellbeing and liveability	Policies stress the importance of social sustainability, adaptable infrastructure, and equitable access to services, with a focus on building resilient and connected communities through high-quality social infrastructure. The City aims to provide a liveable environment that promotes wellbeing and social connectedness.	• City Plan 2036: Local strategic planning statement (City of Sydney, 2020) • A City for All: Towards a socially just and resilient Sydney (City of Sydney, 2019) • Draft Economic Development Strategy 2025-2035 (2024) • Eastern City District Plan (Greater Sydney Commission, 2018)

The City has undertaken a midpoint review of it's 'A City for All' policy and action plan, which aims to create a socially just and equitable Sydney.[13] This has allowed for a clearer definition of infrastructure priorities and a streamlined measurement framework for assessing social impact. One of the identified goals is to renew social infrastructure to align with changing community needs. This involves developing a principle-based social impact framework that prioritises quality of life and wellbeing, ensuring urban renewal projects yield positive social outcomes.

The following actions are outlined under the Liveable strategic direction:

- **Renew social infrastructure to meet changing community needs and aspirations (3.3):** Develop a principle-based social impact framework to guide our efforts, focusing on the quality of life and wellbeing of our communities. This goal is closely aligned with Action 3.2, which aims to enhance the positive impact of urban renewal and development.
- **Enhance walking and cycling infrastructure to support active lifestyles (3.11):** Promote a greener, more walkable city through the walking strategy and action plan. This will include projects such as improved crossings, street upgrades, road space reallocation, planting, and public domain enhancements along key walking routes.
- **Deliver inclusive sport, recreation, health, and wellbeing programs through community facilities (3.12):** Ensure that community infrastructure and public spaces support growth, learning, and social connections for young people. Continue to create opportunities for personal growth and connection within our communities, with a focus on inclusive spaces for young people.

[13] City of Sydney (2024). A City for All Midpoint Review. Link

4.3 Need for this proposal

Under the LEP-Making Guidelines, a Social and Community Needs Assessment should appraise the social and economic justification for a proposal if responding to a particular community need (e.g. additional housing, employment, education etc.).

Sydney CBD is an international gateway with world-class tourism attractions. There are established tourism facilities and attractions close to the site, including Sydney Aquarium, Wild Life Sydney Zoo, Madame Tussauds Sydney, Australian National Maritime Museum, Chinese Garden of Friendship, Tumbalong Park, Darling Quarter Playground and cafes, and IMAX theatre.

Many businesses in Sydney CBD rely on income from tourists, including hotels, hospitality, entertainment, tour operators and cultural infrastructure. Over 10 million domestic overnight visitors, 25 million domestic day-trippers and 3.2 million international visitors come to experience Sydney each year, supporting around 8,000 businesses in the food and drink, retails and personal services, and tourist, cultural and leisure sectors.[14]

International visitor spend now sits at 98.5% of pre-pandemic levels after adjusting for inflation, outperforming the recovery of visitor arrivals and signalling a boost in high-value tourism. In part, growth in spend is driven by international visitors staying longer.[15]

According to the Floor Space and Employment Survey undertaken by the City of Sydney in 2022: [16]

- In 2022, 20,268 jobs in tourism, culture, and leisure were located in the CBD and Harbour, and the Chinatown and CBD South Villages, accounting for 60.6% of the total jobs in this sector across the LGA.
- Across the LGA, there was a 10.1% increase in the number of hotel rooms (20,372 to 22,435), a 5.7% increase in serviced apartments (5,800 to 6,131), and a 14.4% decrease in the number of backpacker beds (7,719 to 6,639) between 2017 and 2022.
- The tourism, cultural and leisure sector occupies the largest amount of occupied business floor space in the City of Sydney, with 3,087,307m² (18.5%). This is more than 1.3 million square metres more than the industry sector with next largest floor space area. The Tourist, cultural and leisure sector had the highest increase in floor area used, with an additional 175,797m² between 2017 and 2022 (an increase of 6.0%).

There is a clear strategic and socio-economic need for this proposal. Providing for additional and high-quality hotel floorspace, the Proposal supports:

1. The provision of a significant number of new rooms in an ideal location, contributing to meeting the Minns Government's goal of providing 40,000 additional hotel rooms in NSW by 2035.[17]
2. Supporting the City's strategic goals of reinforcing Darling Harbour as the City's premier tourism hub (refer Section 4.2 above).

[14] City of Sydney (2024). Draft Economic Development Strategy 2025-2035. Link.
[15] City of Sydney (2024). City Economic Insights. Link
[16] City of Sydney (2022). Floor space and employment survey. Link
[17] See NSW Visitor Economic Strategy Review (NSW Government, 2024). Link

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3. Adaptive re-use of existing hotel floorspace to minimise impacts on other land uses, while generating increased employment in the short and long term in line with economic development goals for the Sydney CBD.

4.4 Increased demand for infrastructure attributable to this Planning Proposal

The presence of hotel guests in urban and regional areas can influence local social infrastructure, encompassing transportation networks, public utilities, healthcare services, and community amenities. These impacts, while variable based on the capacity and preparedness of local infrastructure, are critical to consider in urban planning and tourism development.

The following are key areas where hotel guests are likely to increase demand on social infrastructure, based on a high-level literature review undertaken by Mecone:

- **Essential services:** Hotel guests contribute to heightened demand for essential public utilities such as water, electricity, and waste management. Research by Sharma (2024) underscores that urban areas experiencing high volumes of tourists often face strain on these services, particularly during peak seasons.[18] Infrastructure originally designed to cater to resident populations may struggle to accommodate the additional load generated by transient visitors.
- **Transportation:** Tourism-driven increases in hotel occupancy directly impact transportation infrastructure. According to Puspasari and Haslinda (2024), the influx of hotel guests leads to greater reliance on both public and private transportation, resulting in congestion, delays, and accelerated wear and tear on road networks.[19] This heightened demand necessitates increased maintenance and investment, potentially reducing the quality and accessibility of transportation for local residents.
- **Healthcare:** The presence of hotel guests can also affect the availability of local healthcare services. In cases of medical emergencies, tourists may depend on public healthcare systems, as observed by Ziari and Rafiemehr (2024).[20] This increased reliance can place additional pressure on healthcare facilities, particularly in smaller cities or regions with limited medical infrastructure, potentially diminishing access and quality of care for residents.
- **Recreational and cultural amenities:** Hotel guests often utilise local recreational facilities and cultural attractions, contributing positively to the local economy. However, this increased usage also necessitates higher operational and maintenance expenditures for these amenities. Rajha (2024) notes that in some cases, the higher costs and greater demand associated with maintaining such amenities can limit accessibility for residents, creating potential friction between tourists and local communities.[21]

[18] Sharma, V. (2024). Role of Tourism for Socio-Economic Development of Jammu & Kashmir. *ResearchGate*. Link to PDF
[19] Puspasari, E.Y., & Haslinda, N. (2024). Pilgrimage Tourism for Sustainable Rural Development. *E3S Web of Conferences*. Link to PDF
[20] Ziari, K., & Rafiemehr, H. (2024). Evaluation of Brand Indicators of Tourist Destinations. *Urban Tourism Journal*. Link to article
[21] Rajha, R.A.D. (2024). Impact of Responsible Tourism Towards Environmental Sustainability. *The Scientific Temper*. Link

The impact on local social and community infrastructure from additional demand from visitors generated by this Proposal is expected to be insignificant. In making this conclusion, the following can be noted:

1. The Proposal is providing for additional visitor numbers in an inner-city context and in an area with a pronounced tourism focus. This means that there is extensive local and district infrastructure that is capable of accommodating for additional demand.
2. The Proposal is providing a number of visitor amenities on-site (refer Section 3.0 above for full description). This will lessen the impact of additional demand for recreation and cultural amenities.
3. The Proposal, providing up to 540 rooms, is less than 2% of the expected growth in residential population in the Sydney CBD. Residential uses generally generate more demand on local social, health and cultural infrastructure compared to visitors due to differences in infrastructure utilisation preferences.

While additional demand on local social and health services may not be significant from this Proposal alone, in cumulation with broader growth in Sydney's tourism sector, there may be significant impacts. These impacts will require consideration from relevant government agencies and has been identified in numerous planning documents, including as part of the recent NSW Government Review of the Visitor Economy Strategy 2030.

4.5 Potential impacts of proposal on existing and proposed social infrastructure items

Changes to a site facilitated by a Planning Proposal can sometimes result in temporary or permanent impacts to local and regional social and community infrastructure items in a local area. These impacts may be from either direct change to the urban environment, such as from increased construction activities or overshadowing of sensitive assets, or indirect, such as from changes to the local demographic character, rents and affordability, or competition over existing spaces.

The following table outlines possible impacts from the Proposal on existing open space, recreation, community and cultural assets identified in the baseline assessment (Section 4.1). 200m has been selected as the radius within which direct impacts are likely to be experienced. This is a commonly accepted radius for inner-city areas and is often utilised in environmental impact reporting on issues such as noise, dust and vibration.[22]

[22] See, eg., MacEwan, K. (2019). *Strategic Environmental Assessment for Gas Pipeline Development*; Yevugah, L. L., Bannerman, S. D., Duker, A. A., & Osei, E. M. Jnr. (2018). *Environmental Noise Implications of Quarrying at Buoho Township and Surrounding Communities in Ghana*; Rorke, A. J. (2011). *Blasting Impact Assessment*; Bosnjakovic, M., Hrkać, F., Stoić, M., & Hradovi, I. (2024). *Environmental Impact of Wind Farms*; Mwale, T. (2015). *Phenomenology of Control Blasting in Close Proximity to Densely Populated Communities*.

Table 4: Potential impacts of proposal on existing and proposed social infrastructure items

Item	Likely impact	Assessment of significance
St Andrew's Cathedral School, BBC Campus	St Andrew's Cathedral School, Bishop Barry Centre (BBC) Campus Building located at 51 Druitt Street, Sydney is located approximately 50m from the project site. This proximity is likely to generate some noise, vibration, and visual impact. It is understood that the commercial grade building is constructed to withstand high levels of baseline city noise and activity. Further, it is understood that students are not permitted to access areas to the West of the building on Sussex Street and Day Street, and so additional construction vehicle movements are unlikely to impact students transiting between campuses.	Low. Impacts to be validated at the Development Application stage.
Town Hall Square	It is understood, on review of the Urban Design Report accompanying this Planning Proposal (Hassell, 2025), that the Proposal is compliant with the Town Hall solar plane and has incorporated setbacks to preserve solar access to this key public open space.	Negligible. No significant impacts expected to the use and enjoyment of Town Hall Square.
Kaz Incursions	Kaz Incursions is a children's theatre company that produces regular incursion for children aged 2 to 12. The shows occur during school hours, as an after school program, and during holidays. Kaz Incursions is located directly adjacent to 150 Day Street site, at 273 Sussex St NSW 2000. There may be impacts to the facility and the movements of school groups to and from the venue associated with construction activities to deliver this project. It is noted that these impacts are temporary and will be validated in detail at the Development Application stage.	Moderate. Impacts should be validated at Development Application stage. Social Impact Assessment to include direct engagement with Kaz Incursions venue.
IMAX Sydney	While the IMAX Theatre is located in close proximity to the 150 Day Street site (approx.100m), it is separated by a busy motorway. Any construction noise associated with this proposal is unlikely to be perceptible within the theatre given its extensive noise insulation and given the existing noisy inner-city environment.	Low
Darling Harbour, inc. Tumbalong Park	The Urban Design Report (Hassell, 2025) details how this Proposal has been developed to preserve solar access to Darling Harbour and surrounding development. Additionally, the Proposal incorporates substantial public domain improvements that are intended to enhance access and enjoyment to Darling Harbour and Tumbalong Park.	Negligible. No significant impacts expected to the use and enjoyment of Darling Harbour.

5 Impacts on local housing diversity and affordability

The development of hotel floorspace has been closely studied in urban contexts for its potential effects on housing affordability and diversity. Research highlights both the challenges and opportunities posed by such developments.

Adding hotel capacity in urban areas can raise property values and rents in adjacent neighbourhoods. Wang (2024) notes that the growth of short-term rentals and hotel spaces contributes to gentrification, displacing lower-income residents and exacerbating housing affordability issues in regions with constrained housing supply.[23] Similarly, Nwakpuda et al. (2024) argue that hospitality-focused developments can displace socioeconomically diverse families, prioritising tourism infrastructure over residential needs.[24]

Additionally, hotel projects often reduce the potential for delivering diverse housing stock by occupying land that could have been used for mixed-income residential developments. Katsoni and Cassar (2024) observe that large-scale hotel developments frequently lead to a shift toward tourist-centric urban landscapes, reducing opportunities for local residential communities to thrive.[25]

While these findings underscore the potential for hotel developments to impact housing affordability and diversity, they do not apply to this Proposal. In this case, the Proposal involves, in effect, the addition of floorspace to an existing hotel, rather than converting residential properties or occupying land otherwise designated for housing. **Since the project does not reduce housing supply or limit opportunities to deliver residential developments, its impact on housing affordability and diversity is negligible.**

[23] Wang, N. (2024). *Understanding the role of peer-to-peer accommodation in disrupting the neighbourhood: A new form of gentrification.* White Rose eTheses Online. Link
[24] Nwakpuda, E.I., Berry-James, R.J.M. (2024). *Psychosocial dimensions of health, homelessness, and diverse families.* Handbook on Diversity, Elgar Online. Link
[25] Katsoni, V., Cassar, G. (2024). *Recent advancements in tourism business, technology, and social sciences.* Springer. Link

6 Concluding comments

This Social and Community Needs Assessment has conducted a thorough assessment of social and community infrastructure needs generated by this Planning Proposal.

Overall, it concludes that the proposed development at 150 Day Street, Sydney aligns with the City's strategic objectives while addressing potential social and community infrastructure needs. The analysis confirms that existing infrastructure within the area, including open spaces, community facilities, and transport networks, has sufficient capacity to accommodate the projected increase in visitors generated by the Proposal. Additionally, the Proposal includes on-site amenities to mitigate potential impacts on local services. The incremental demand generated by the project is minimal compared to broader residential and visitor growth, supporting the conclusion that it will generate negligible strain on public services, utilities, and cultural infrastructure.

Potential impacts, such as temporary disruptions during construction, have been identified and will be addressed at the Development Application stage, with measures to minimise noise, vibration, and overshadowing impacts on nearby assets.

Overall, the project’s emphasis on adaptive reuse, sustainable urban design, and enhanced hotel offerings supports the revitalisation of the Sydney CBD and reinforces Darling Harbour as a premier tourism and cultural hub. It does so without adversely affecting housing diversity or affordability, given it is intensifying hotel use on an existing hotel site, thereby supporting community resilience and inclusivity. The project aims to set a benchmark for sustainable urban redevelopment and aligns with the City of Sydney's vision for a liveable, connected, and globally competitive city.

Attachment A25

Connecting with country Aboriginal design principles

From:
Michael Hromek
Technical Executive of Indigenous design and knowledge
Indigenous Specialist Services
WSP Australia Pty Ltd
michael.hromek@wsp.com
0404106623

Date: 25/11/2024

Letter of support

Mecone has engaged WSP's Indigenous Specialist Services (ISS) team to assist with the development of Connecting to Country themes and outcomes for the project at 150 Day Street, Sydney.

Activities to date:

The ISS team developed a scope and program to assist this development to Connect with Gadigal Country through design outcomes during the Planning Proposal phase.

The ISS team have delivered a Discovery Session for the design teams to unpack what is involved in the Connecting with Country process, and discuss the Aboriginal engagement methodology we use. The ISS team identified relevant Aboriginal people to engage as consultants on the project during Planning Proposal and Development Application phases.

ISS developed an Aboriginal Design Principles document for the project, based on publicly available information to help develop the design team's cultural capacity and competence while providing information about Gadigal Country, people and culture. This document also provides high level design ideas to help inspire the design team. An online meeting was held to share the contents of the document with the design teams and start the conversation regarding possible opportunities and appropriate themes.

Two engagement workshops have been held with relevant Aboriginal Elders and Knowledge Holders. One workshop was held with prominent Aboriginal Elder Auntie Yvonne Simms (Bidjigal Elder) with the design team representatives to discuss the project and talk through relevant themes. The second workshop was held with Dr. Shane Smithers, a Darug artist and Knowledge Holder with the design team representatives, to guide the team on a culturally appropriate approach and provide input and comment on the design.

Next steps:

Phase 2 for this project relates to the preparation and lodgment of a Development Application. For the next phase, the following steps are identified:

- Organise and deliver additional Aboriginal engagement with Elders and Knowledge Holders to further inform and co-design the culturally appropriate elements for inclusion.
- Update the Aboriginal Design Principles document with outcomes from the engagement sessions and add to the design ideas and opportunities as the design is developed and refined.
- Review and input into the proposed design as it is developed during design workshops and via document reviews.

The outcomes we aim to achieve during the Connecting with Country process include:

- Aboriginal input and engagement throughout the process, providing an economic opportunity and valuing Elders and Knowledge Holders.
- A Welcome to Country and / or Smoking Ceremony hosted by Elders for the opening of the future development.
- Opportunity for Gadigal culture to be celebrated and appreciated in the built form and landscaping outcomes giving the development a strong sense of place.
- A building that is an iconic landmark in the area, contributing to the local character of Darling Harbour and the CBD.
- Use of materials and colour palette that responds to Country in the landscaping and built form.
- Consideration of more than humans / kin / animal species in the design.
- Stormwater management to reduce potential water pollution impacts to Darling Harbour.

This project has the scope to include Gadigal design, create a legacy and provide opportunity for Aboriginal Elders, Knowledge Holders and artists to be engaged and have input into the built environment outcomes on a significant project that will be built on Gadigal Country.

Kind regards,



Signed_____

Date_____25/11/2024_____

CONNECTING TO COUNTRY

Aboriginal Design Principles

150 Day Street, Sydney // WSP Indigenous Specialist Services // March 2025



Document produced by Michael Hromek WSP Australia Pty Limited. Descended from the Budawang tribe of the Yuin nation, Michael is currently working at WSP, simultaneously completing his PhD and lecturing at the University of Technology Sydney in the Bachelor of Design in Architecture.

michael.hromek@wsp.com

Research by Sian Hromek (Yuin), WSP. Sian specialises in variety of fields relating to Aboriginal Country and landscape design, including Cultural Land Management Practices such as cultural burning, and how these practices might inform built outcomes and inform engagement strategies.

1488

Please note:
In order to highlight the use of Aboriginal Design Principles, this document may contain examples from other Aboriginal Countries.

Warning:
Aboriginal and Torres Strait Islander readers are warned that this document may contain reference to or images of deceased persons.

Front coverPort Jackson, 1804, William Westall Mitchell Library, State Library of New South Wales

*This document acknowledges the Elders, past and present, of the **Gadigal people** and their neighbours Wangal and Gamaragal people as the Traditional Custodians of the land and its knowledge*

/

“Warami wellamabamiyui, yura.”
It is good to see you all, people.

Design Statement

Aboriginal people and the built environment have had a longstanding relationship as settlements, roads, and railways often cut through and disrupt the connection between people and Country.

Our projects change the environment in significant, and often positive ways, yet Aboriginal people often ask the following question:

“How are you going to leave my Country better than when it was before?”

How can we reconnect the relationship between Country and people? Projects offer an opportunity to acknowledge and celebrate the Aboriginal Country, Culture and people of the land on where the project is located.

Through the project’s design elements and our place-based landscape interventions (architecture, infrastructure, art and the like), **we can acknowledge Country** and reveal the site’s latent Aboriginal history.

This document describes the principles we use as a starting point to engage with Aboriginal people and Country. While more consultation and permission must be sought from the local elders, the ideas set out in this document should be seen as an introduction to the engagement process.



The grass tree, and people kindling fire, 1836, Wm. Romaine Govett, National Library Australia

Aim of this Document

This document aims to

1. Provide further cultural context and competency for anyone with interest in the First Nations people and culture of the area.

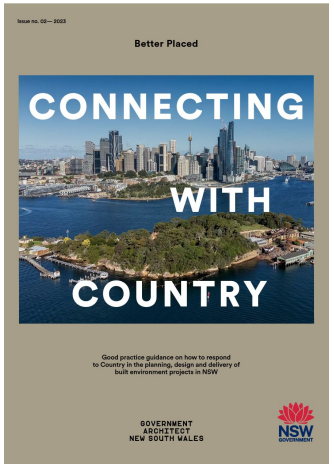
2. Propose principles that align with important guidelines, such as the Connecting to Country Guidelines by the NSW Government Architects Office, The International Indigenous Design Charters Principles, and the 3 tenors of the Reconciliation Australia of Respect, Relationships and Participation.

3. Consider high level concepts for how project might engage and co-design with Aboriginal people.

This document has been produced with information sourced from publicly available desktop research on Country, people and culture and will develop / change based upon engagement and consultation with Aboriginal people with connections to the area.

1480







Indigenous Design Statement

Aboriginal design principles

We will follow the following principles:

Aboriginal led / Aboriginal people (designers, elders and community members) should be leading or co-leading the Indigenous design elements.

Community involvement / The local Aboriginal communities will be engaged in a co-design process; where dean teams, client and Aboriginal groups design the project together.

Appropriate use of Indigenous design / All Aboriginal design elements must be approved by consulted Indigenous Knowledge Holders. If approval is not given, the knowledge will not be used on the project.

1488

Design approach

Image - Signage/surface treatment/ walls/art/ Surface treatments using local Indigenous design knowledge, commissioned from artists, or by urban designers with engagement and approval from community. Signage helps to share the story of Country and its people.

Space - Indigenous space/ landscaping/ A space or landscape where Aboriginal people can have their culture celebrated. Yarning circles, space for contemplation, spaces for non human kin, cultural land stewardship practices, cultural fire, yam daisy propagation, etc. 3D forms, such as sculpture and art.

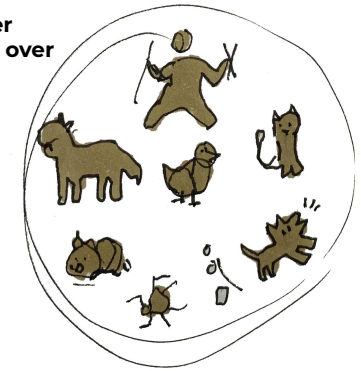
Language words- Using First Nations language in the built environment to use it and keep it alive.

Country focused design

Overall, Aboriginal Australia has a simple but quite different hierarchy when it comes to their connection to nature. Rather than placing humans above all other living entities, we are just as important as everything else, but no more important.

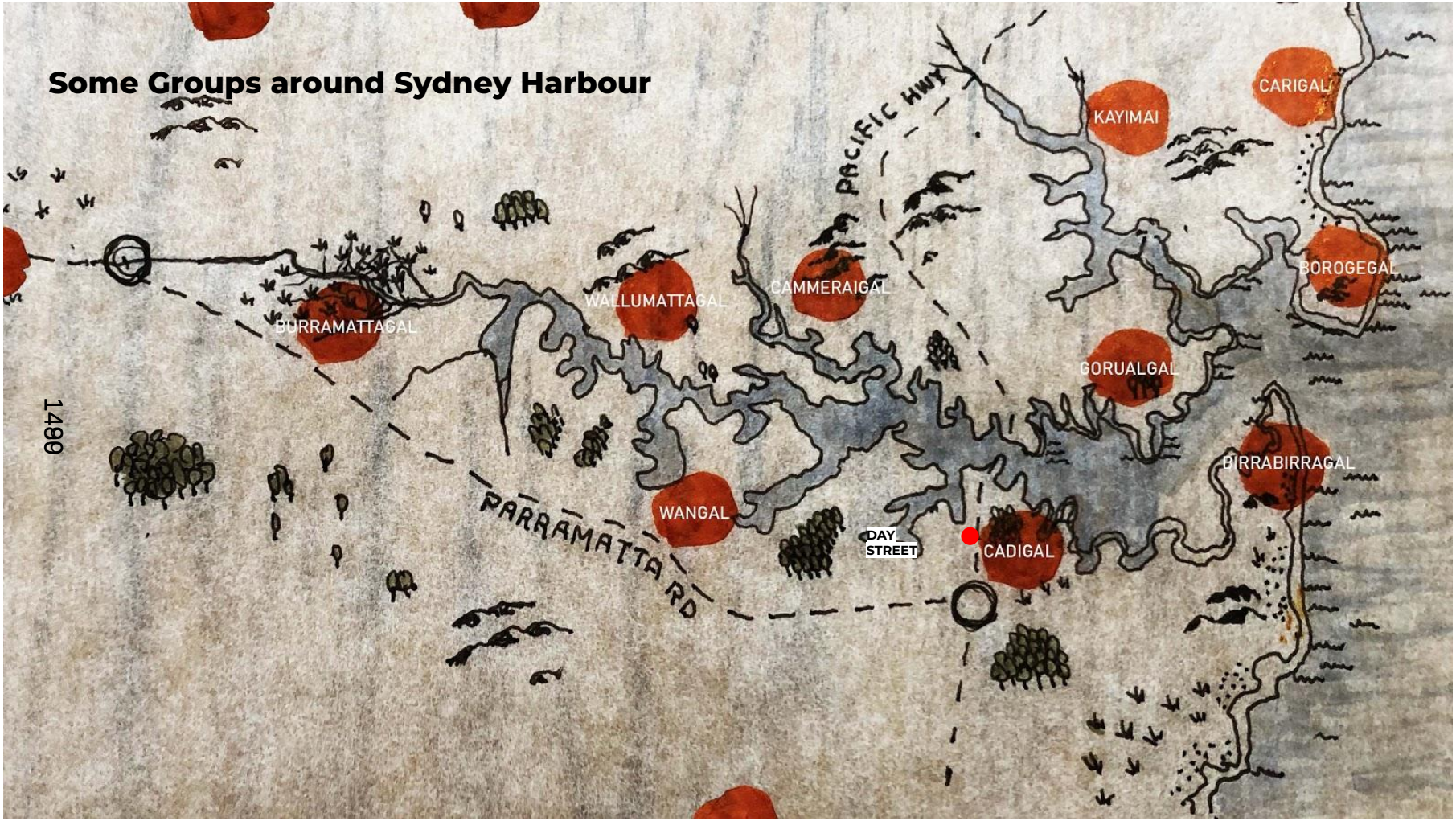
How might this different perspective shift or enhance current practices? Can we improve biodiversity in the built environment through changing the way we think?

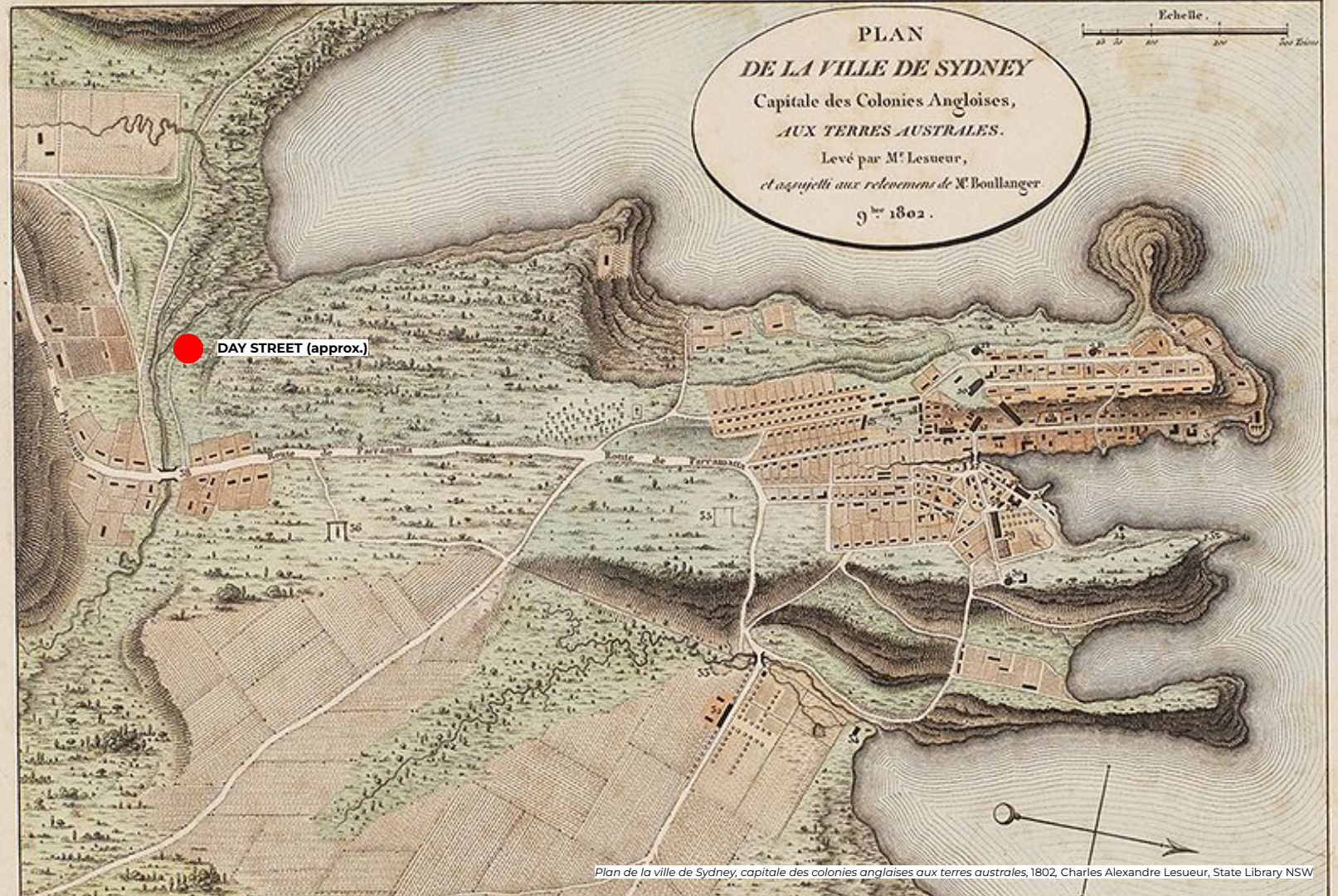
Country, over Community, over Individual



Country focused design

Country, people, culture


Some Groups around Sydney Harbour
1490
PACIFIC HWY
PARRAMATTA RD
CARIGAL
KAYIMAI
BOROGEGAL
CAMMERAIGAL
WALLUMATTAGAL
BURRAMATTAGAL
GORUALGAL
BIRRABIRRAGAL
WANGAL
DAY STREET
CADIGAL



1490

Plan de la ville de Sydney, capitale des colonies anglaises aux terres australes, 1802, Charles Alexandre Lesueur, State Library NSW

A Country of beauty

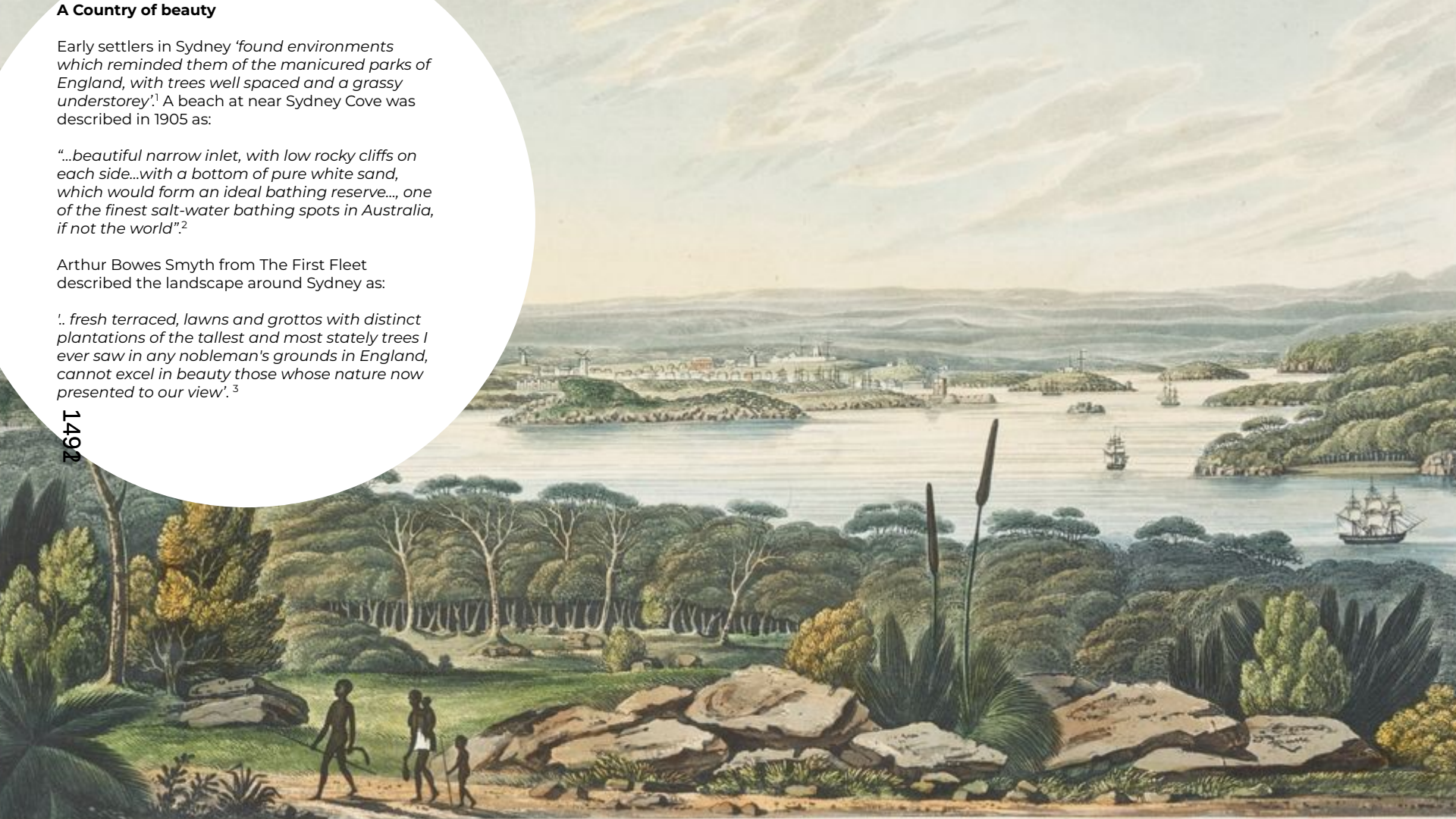
Early settlers in Sydney *'found environments which reminded them of the manicured parks of England, with trees well spaced and a grassy understorey'*.[1] A beach at near Sydney Cove was described in 1905 as:

"...beautiful narrow inlet, with low rocky cliffs on each side...with a bottom of pure white sand, which would form an ideal bathing reserve..., one of the finest salt-water bathing spots in Australia, if not the world".[2]

Arthur Bowes Smyth from The First Fleet described the landscape around Sydney as:

'.. fresh terraced, lawns and grottos with distinct plantations of the tallest and most stately trees I ever saw in any nobleman's grounds in England, cannot excel in beauty those whose nature now presented to our view'. [3]

1492



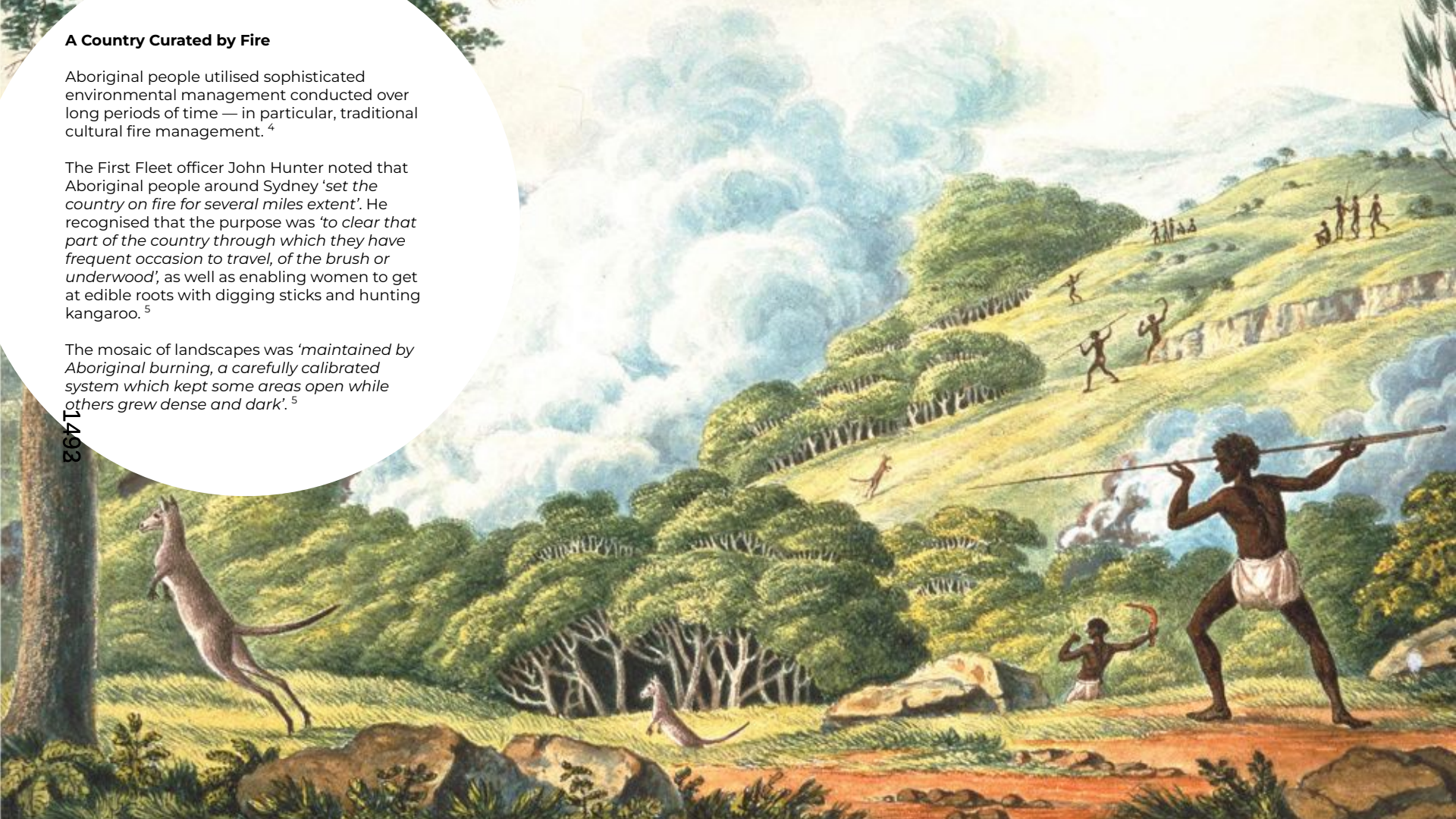
A Country Curated by Fire

Aboriginal people utilised sophisticated environmental management conducted over long periods of time — in particular, traditional cultural fire management. [4]

The First Fleet officer John Hunter noted that Aboriginal people around Sydney '*set the country on fire for several miles extent*'. He recognised that the purpose was *'to clear that part of the country through which they have frequent occasion to travel, of the brush or underwood'*, as well as enabling women to get at edible roots with digging sticks and hunting kangaroo. [5]

The mosaic of landscapes was *'maintained by Aboriginal burning, a carefully calibrated system which kept some areas open while others grew dense and dark'*. [5]

1493



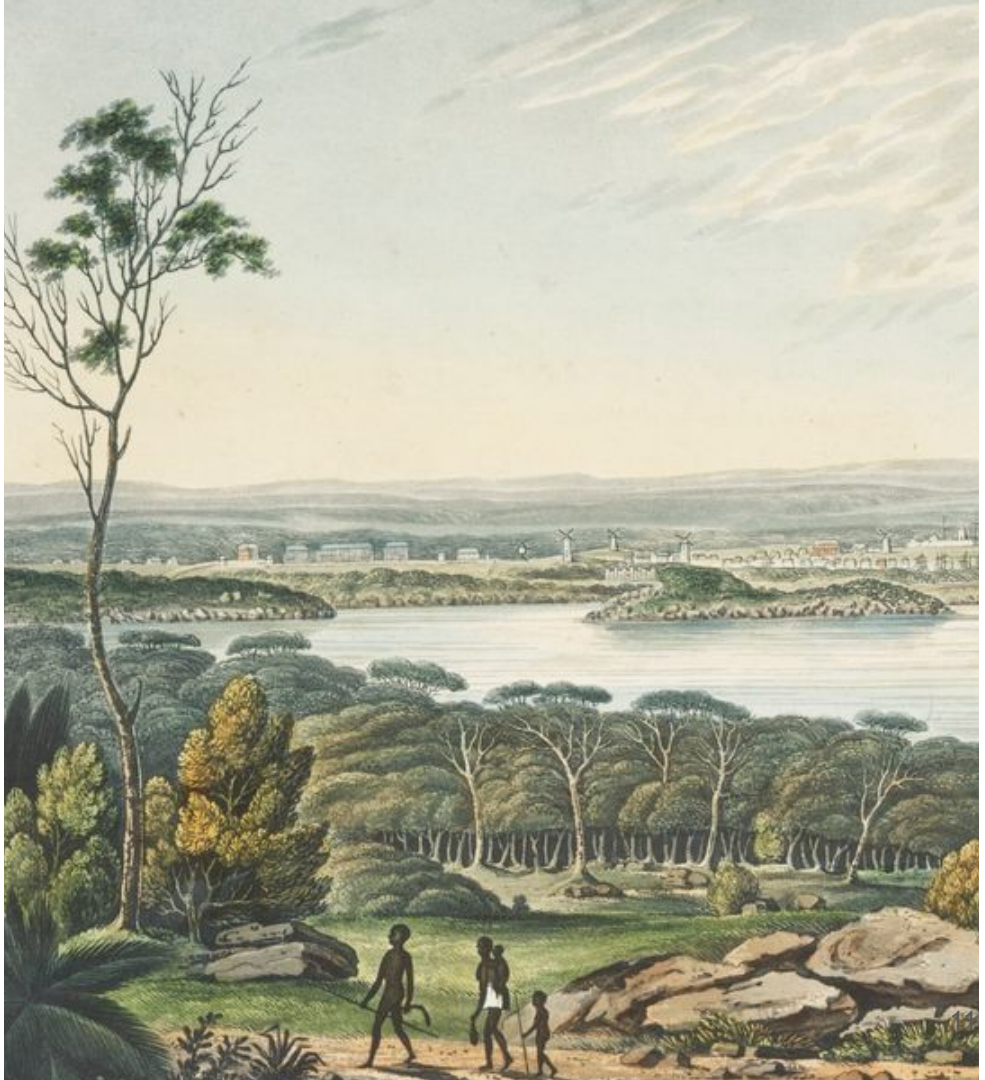
Gadigal Country

Language Groups

The Sydney basin region is traditionally inhabited by people of several language groups, including Darug (Dharug) and Dharawal. Within these language groups there are at least 36 smaller clan groups.[6] Due to the fast pace of colonisation and displacement of Aboriginal people in this region there is some disagreement about the name of the traditional language of the coastal region.

Each group is distinguished from other groups by different designs and decorations on tools and weapons, unique body decorations – for example painted designs worn during ceremonies, also the cicatrices (scarification) formed during initiation rites. Some groups also had distinctive hairstyles.[7]

The original inhabitants of coastal Sydney suffered from the trauma of occupation and the severing of their spiritual bonds to Country. Within two years of settlement, kinship ties in the area were damaged, more than half the population died from smallpox.[8]



Distant view of Sydney from the lighthouse at South Head New South Wales,Joseph Lycett. State Library of New South Wales

Salt Water Country

The area has bountiful water resources with easy access to the harbour for bark canoes. The main food source is from the harbour with men making spears and wooden tools. Women are the masters of the canoe or **Nawi**, they made and used fishing lines and fish hooks and would cook fish on a small fire built on an ochre clay base on the canoe floor. [8]

1498

Watkin Tench observed that they possessed the best fishing grounds in Port Jackson. Sea urchins, shellfish and other foodstuff were thrown into the water to attract fish. Shell middens can still be seen in several Sydney locations providing a record of countless meals, showing the type of food that was eaten and the places where feasts were held.[8]

At the time of colonisation coastal groups used stone as implements less often than those on the Cumberland Plain, and bone or shell was used in its place for items such as spear barbs, adzes and scrapers.



Watercolour illustration of a group of Aborigines fishing, ca 1790s - attributed to Philip Gidley King_State Library of New South Wales

Changing Country

Country changed by rising Sea Water

During the last ice age about 12,000 years ago, sea levels were around 100 metres below their current level and the eastern coastline of this continent was about 25 to 30 kilometres further to the east.

As ice caps melted the river valleys filled up with sea water as sea levels rose, and the lower middle slopes of the ancient valleys were slowly inundated.[8]

The sea eventually flooded the area that is now Port Jackson and food resources for First People would have changed dramatically. As the sea level stabilised about 8000 to 6000 years ago, it provided a rich maritime resource economy to Gadigal people until after the arrival of the First Fleet in 1788.[8]

1496



Gadigal Country

The Gadigal are a harbour dwelling group, inhabiting the area from Inner South Head at the entrance to Port Jackson through the present Eastern Suburbs to Woolloomooloo Bay, Farm Cove and Warrane or Warrang (Sydney Cove), terminating at the entrance to Darling Harbour-Barangaroo.[9]

The suffix ‘gal’ denotes ‘people of’, thus, the **Gadigal** are the people of the **Gadi** or grass tree (*Xanthorrhoea* species).[8]

1498

Traditionally people moved seasonally between camps accessing different resources, the main diet is fish. They fished from Nawi which are canoes made of bark. with men using multi pronged spears, and women using hooks and lines. Women also gathered shellfish and plant foods such as fern roots and native figs.[9]



Zanthorrhaea / or Grass Tree / Nelson Bay / Sydney, ca. 1842-1850, Georgiana Lowe, State Library NSW

Gadigal People

Rickety Dick's Toll Gate

Ricketty Dick (c1795-1863) was an Aboriginal man who lived in Sydney in the early to mid-19th century. He was also known as Warrah Warrah or William (Bill) Warrah, Worrell or Worrall.

Ricketty Dick lived at a range of traditional camps in Sydney, including those at The Domain, Rose Bay and Woolloomooloo. As one of the elders in these camps, Ricketty Dick was sometimes described as the 'King of the Woolloomooloo Tribe' and the 'Chief of the Rose Bay Tribe'.[10]

For many years Ricketty Dick camped in his **gunyah** bark hut by the paling fence of a grand house by the swampy shores at Rose Bay on South Head Road, asking passers-by to pay a 'toll' of sixpence, one shilling or some tobacco to use the traditional **muru** walking track.[11]



Ricketty Dick, Broken Bay tribe, c1844
Charles Rodius (1802-1860)
Mitchell Library,
State Library of New South Wales, Sydney

Neighbouring Group- Wangal People

The Wangal clan are a part of the broader Darug language group. Wangal Country is thought to extend from Darling Harbour, around the Balmain Peninsula including Goat Island / Me-mel or Memill, almost to Parramatta in the west.

The Parramatta River forms the northern boundary of Wangal Country, although it is uncertain how far south their land extended. The Wangal people are thought to have occupied this area for over 20,000 years. [12]

Country of Mangroves and Waterways

Wangal people occupied the meandering mangrove-lined estuary which supported an abundance of animal and birdlife, fish and oysters. The majority of their food resources would have been collected from the waterways and harbour. [13]

The region contained rocky foreshores, mangrove flats, salt-marshes and small beaches. The hinterland consisted of low hills and flatlands crossed by a number of freshwater streams.[13]



By water to Parramatta, with a distant view of the western mountains, taken from the Windmill-hill at Sydney, 1798, Heath, J., Strand, Cadell & Davies, National Library of Australia

Neighbouring Group- Gamaragal People

Early writers noted that Gamaragal people were *'robust and muscular'* people, and the men presided over the initiation of young males from other Sydney area groups.[10]

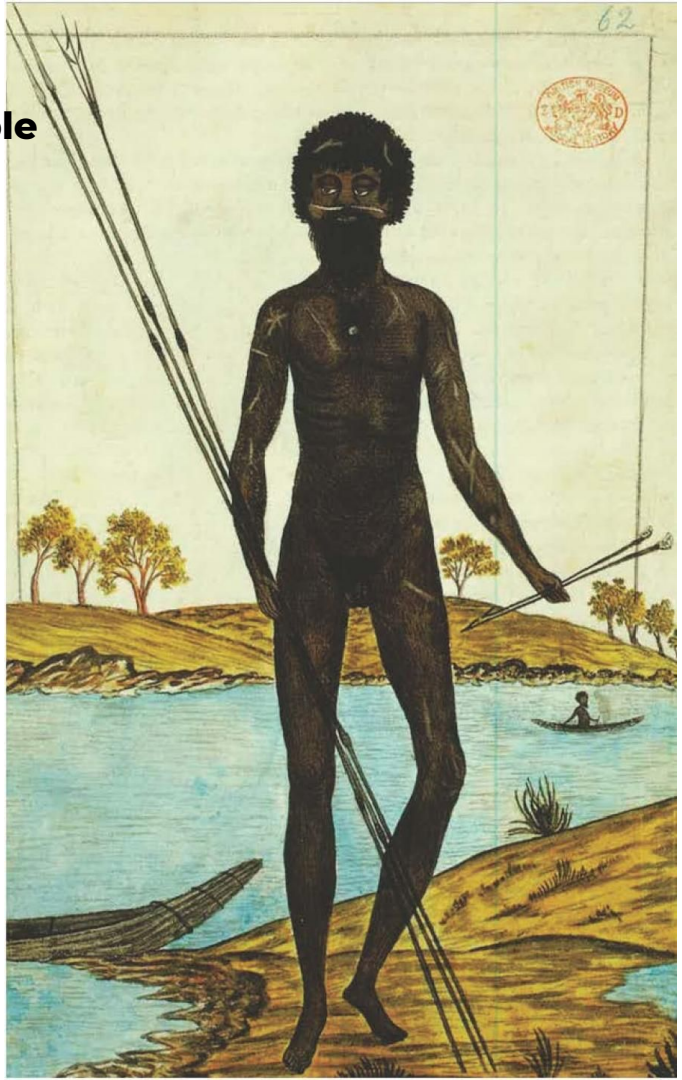
There are approximately 1,000 identified Gamaragal sites in the Warringah, Willoughby, Lane Cove and North Sydney Council areas. These sites include middens, rock engravings, axe grinding grooves, carved trees, fish traps and stone arrangements.[14]

Balls Head has some of the most significant remaining Gamaragal sites in North Sydney. The Australian Museum investigated a rock shelter at Balls Head in 1964 and 1971 where the skeleton of a female was uncovered. A small tooth with traces of vegetable gum found near the skeleton suggests that the woman had adorned her hair or wore a necklace.[14]

Food remains from a midden consisted almost entirely of shellfish. The main species were the rock oyster, the hairy mussel and the Sydney cockle and mud oyster, both of which are now virtually extinct in Port Jackson. Their presence confirms the importance of the harbour as a source of food. The study concluded that the site had been used by women, who gathered shellfish, and men, who made and repaired implements.[14]

The group of pictographs or rock engravings at Balls Head, featuring a shoal of fish, human figures and a large marine creature, is further testimony to the cultural significance of the harbour. [14]

1800



The notation accompanying this painting states:

'This man's name is Cameragal the chief of the most powerful Tribe that we at present know of in New South Wales. He holds two fighting spears and a Fizgig in one hand and two throwing sticks in the other.'

[Natural History Museum in Benard Smith & Alwyne Wheeler (eds), The Art of the First Fleet, Oxford University Press, Australia, 1988, p.42]

Interesting Places within Eastern Sydney Region

There are many sites that hold significance for Aboriginal people in the Sydney Harbour area. The following are a few sites of interest in the region:

1 Oxford Falls: Moon Rock- is well known for about 50 engravings which depict different phases of the moon, tools and weapons used and animals caught and eaten in the area. It is a traditional gathering place to meet, learn and heal. [1]

2 Gumbooya Reserve- 68 rock carvings including fish, hunting implements, a dolphin and a large human figure which appears to be inside or on top of a whale. [1]

3 Lane Cove National Park- over 40 sites recorded within the park including shelters, cave art, engravings, middens and axe grinding grooves. A sunburst motif is the only known example of its kind in the Sydney area. [3]

4 Bobbroyd Head- Axe grinding grooves and rock carvings of footprints, known as mundoes, have been found on the rocks below Scenic Drive.[1]

5 South Head near Hornby Lighthouse- are carvings of fish, whale, wallaby swordfish, and kangaroo. [3]

6 Mosman- 79 known sites within the area are catalogued. These are occupation sites, religious and ceremonial sites and rock art sites. [3]

7 Linley Point- a number of weathered carvings have been engraved onto flat rocks on the west side of the point. There are a number of shelters and middens nearby. [4]

8 Glades Bay Native Gardens- a traditional campsite with 11 carvings, with two jumping kangaroos which are among the best preserved of the remaining examples of rock art in the CBD. Axe grinding grooves can be found on rocks beside a nearby creek. [3]

9 Iron Cove- rare engravings due to the scarcity of suitable rock with a shell midden nearby. [4]

10 Balls Head- some of finest examples of cultural sites on the lower north shore. Large caves and rock shelters along waterways and trade routes are another popular location for local groups.[3]

11 Yoo-lahng Ceremonial Ground- at Farm Cove Gadigal performed large initiation ceremonies in bora rings as late as 1795, this area is of great significance.[2]

12 Rushcutters Bay- here in the 1890s a settlement contained several gunyahs around a central campfire.[5]

13 Milk Beach, Vaucluse- fish, shields and human figures have been carved into the rocks near the waterline. The remains of two hand stencils and a painting of a boomerang are situated in an cave. [6]

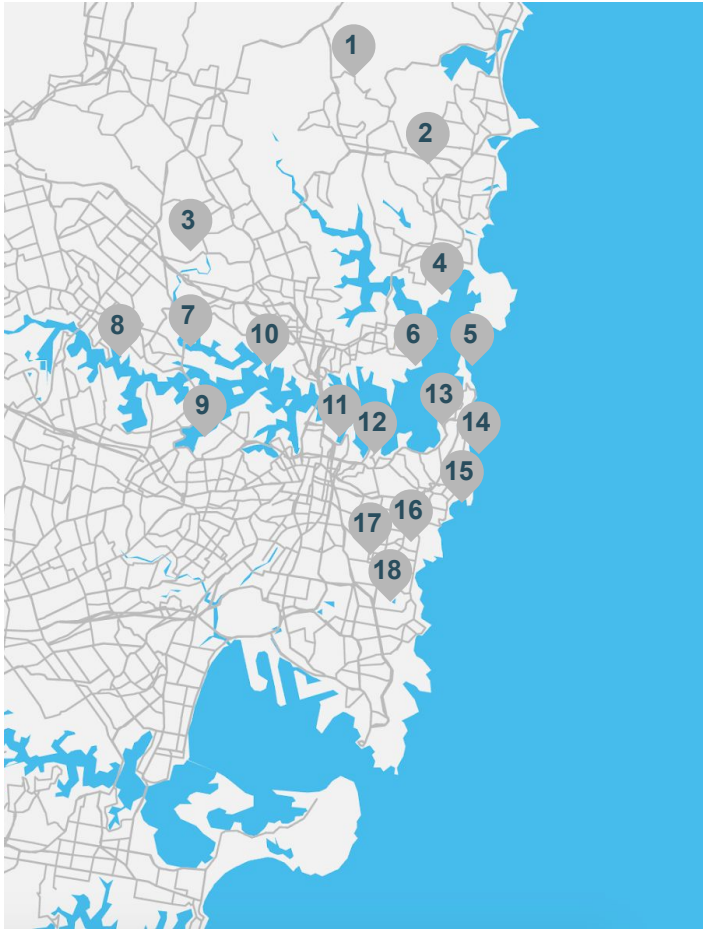
14 Rodney Reserve- the figure of a man in warlike or corroboree gesture is etched on bedrock here. [6]

15 Ben Buckler, North Bondi- numerous examples of Aboriginal rock art on the cliffs above the ocean at North Bondi. A whale and three elongated figures have either been buried by silt or destroyed when the path and staircase were built. [6]

16 Queens Park- a campsite with a large rock overhang, scatters of campfires and artefacts including bones of mammals, birds and fish, charcoal and stone artefacts. [7]

17 Randwick Stabling Yard - over 22,000 artefacts around 3000 years old uncovered on a construction site for Sydney's Light Rail line. There are spear tips, knife blades, scrapers, cutters and about 12 marriage stones, given to a man when he comes of age and gets married.[9]

18 Randwick Hearth and campsite near Prince of Wales Hospital- a hearth and campsite, dated to 8,000 years ago, one of the oldest such sites in coastal Sydney. [8]



Please note: these sites are publicly available information and are not a definitive assessment nor an archaeological study of the area. Locations are indicative only.

Original Vegetation Communities

The original vegetative communities located around Day Street were rich in a variety of habitats, species, resources and life.

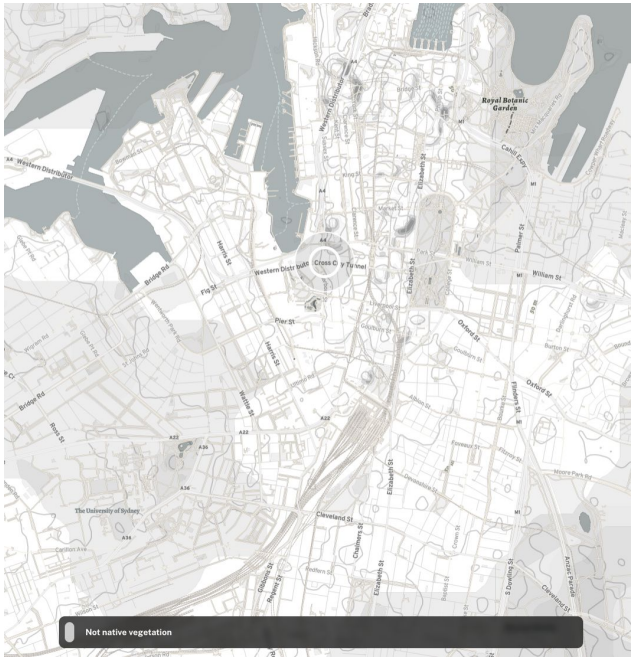
Today there is no original vegetation left.

1502

Communities that belong here are:
- Grey Mangrove-River Mangrove Forest
- Sydney Coastal Sandstone Foreshores Forest
- Estuarine Swamp Oak Twig-rush Forest
- Sydney Turpentine Ironbark Forest

How can the Day Street project return some of the missing species back to Country?





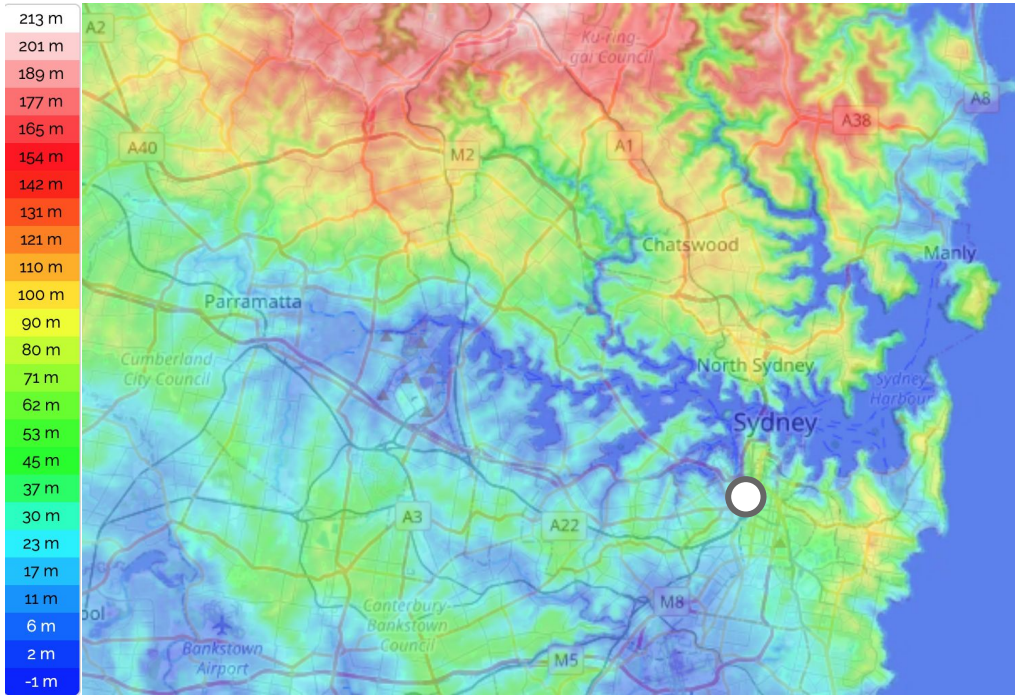
Source: Trees Near Me

Topography and Geology

The Sydney-Bowen Basin was formed when the earth's crust expanded, subsided and filled with sediment between the late Carboniferous and Triassic (between around 245 and 208 million years ago). Early stages of development were as a continental rift that filled with marine volcanic sediments, but deposition shifted to river and swamp environments in a cold climate in the early Permian. [15]

The harbour is situated within the Sydney Basin Bioregion which lies on the east coast and covers a large part of the catchments of the Hawkesbury-Nepean, Hunter and Shoalhaven river systems. Here sedimentary rocks have been uplifted with gentle folding and minor faulting during the formation of the Great Dividing Range. [15]

Erosion by coastal streams has created a landscape of deep cliffed gorges and remnant plateaus across which an east-west rainfall gradient and differences in soil control the vegetation of eucalypt forests, woodlands and heaths. The Sydney Basin Bioregion includes coastal landscapes of cliffs, beaches and estuaries. [15]



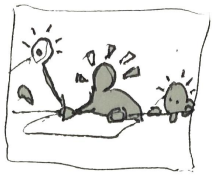
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Engagement strategy

How to apply these themes

1. Engagement

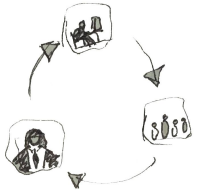
The first step will be to engage with the relevant Aboriginal group (artist / elder, Lands Council etc), early and often, through a series of 'yarns' or conversations about the potential opportunities to incorporate the theming contained within the document (or other themes) into project outcomes.





2. Co Design

To kick of the co-design process design teams are given time to integrate the themes and ideas into the scope of the project

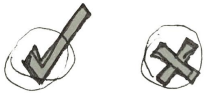


3. Co Design workshops

Engagement workshops with the relevant Aboriginal group will everyone gets in the room to co-design cultural solutions to project outcomes, yet Aboriginal voices should be given preference to ensure they are heard.

4. Endorsement:

All content that uses local Aboriginal theming will be endorsed by the Aboriginal group.



5. Other opportunities:

Should be highlighted and put forward to ensure the local Aboriginal community has opportunities, economic outcomes and better connections to their Country, through the project



1st Yarn with Aunty Yvonne Simms

On Wednesday the 30th of October 2024, the design team met with Aunty Yvonne Simms at her house to talk about the site and project. This is what she said:

- Adding more floors is ok, the casino is too tall so why not fill the gap
- Verandas are important to connect to country. Tall buildings are not good for people to live, but for a shot visit.
- Sandstone cliffs are important
- Bring aboriginal flavour into the project - it's ugly at the moment and should change.
- Water connection is important
- Figs trees should come out, they over grow, over shade, fig trees are dreaming trees, these trees have been planted there.
- The landscape in front could be a bora ring, a welcome space for visitors
- We are losing knowledge, aunty is getting old. Old school is about sharing. Clan groups don't matter,
- Space needs to be made for aboriginal sharing.
- Mullet, fish were important. During easter, nets used for catching mullet.
- Tell the story of clan groups, language for floor and room names - tell story of clan groups.





1506

Sketch made during Yarn with Aunty Yvonne Simms



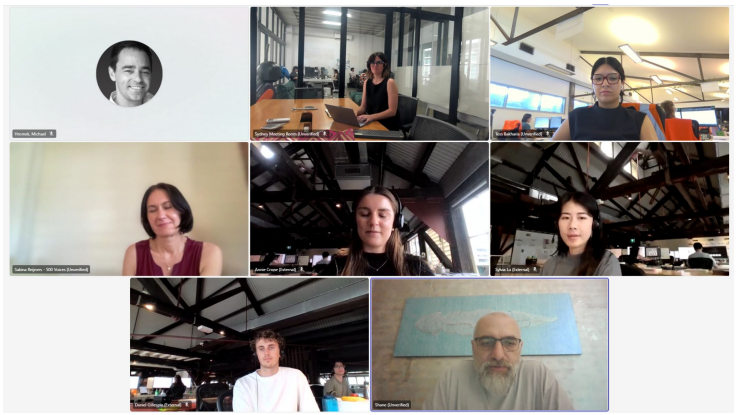
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1st Yarn with Dr Shane Smithers

On Thursday the 7th of November 2024, the design team met with Dr Shane Smithers to talk about the site and project.
This is what he said:

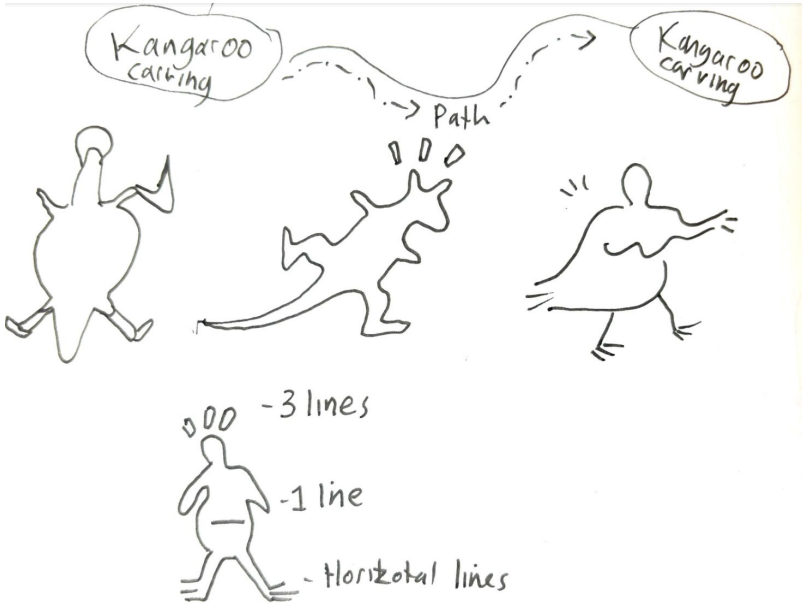
- One of the main points gained through engagement is the importance of early engagement with Elders, knowledge holders and community members.
- It is important to spiritually connect to the country you are on, even if you're not from this country. Additionally, you can still connect to Country if you not originally from this country.
- Moreton Bay figs were a common species of tree within the area. These trees are native to the area and provided resource and shelter to the local mobs.
- The site location was known as a place where people would meet for festivals. The festival would include trades with saplings or seeds. Mt Annan had many species brought there from these festivals.
- Many species were culturally introduced through this practice, some by human's, others by birds. Both birds and humans would carry tree seeds and deposit them leading to native flora being spread around the area. This process helps maintain biodiversity and allows tree species to spread across various regions.





1st Yarn with Dr Shane Smithers cont.

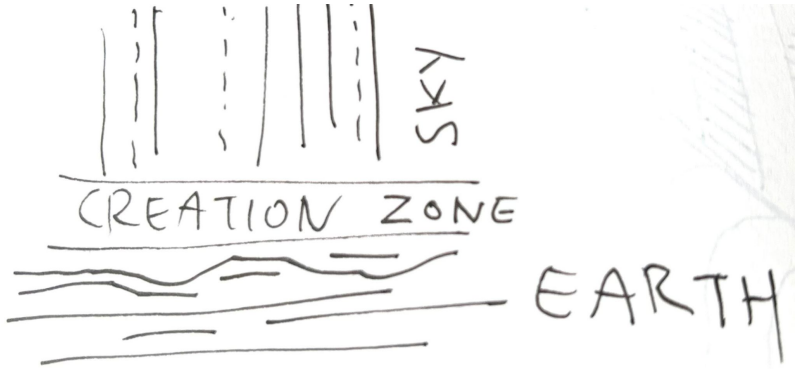
- However, the location of the project site is problematic as it is extremely developed. It is hard to get a cultural sense of the place as there is minimal flora, fauna or original landscape to be found. This limits the ability to connect to Country.
- It was said that this Country was abundant in food and resources. People would be able to dance here all night because of this. This meant that some cultural areas could be developed more than others leading to elaborate and diverse cultural expression.
- The rich tradition of body painting, rock carving and cave art in this area is a testament to the deep cultural and artistic heritage of its people and Country. Additionally, this area features more cave art than anywhere else in the world. This cultural practice should be continued in the contemporary form of public artworks working into the existing dynamic art. This can preserve culture and honour Country and the people.



Sketches by Michael Hromek during the meeting

1st Yarn with Dr Shane Smithers cont.

- There is a difference between what to tell adults and children, there is a line in what knowledge should be shared.
- Muka / Biami was the Darug sacred creator. It means the sperm or father or all. Similar to christianity, but quite different in values (nudity etc)
- Mother earth is the bringer of life. We (humans) united earth and sky together. God formed adam from the dust of the ground. Air and spirit = life. God used clay to form man, and breathed air, this gave life.
- Symbols to join this together
- Falling water is masculin, standing water is feminine.
- The building should be connected to the earth, but connected to sky
- Team should think and talk about mother earth and sky father
- Symbology is important and should be connected to meaning. Abstraction is important but should be overlaid with geometric forms
- Shane liked the idea of the lower building can be considered earth and the newer glass can connect to sky Country. Lightweight on top with green, mother earth below.
- Laneway should facilitate water going back into the soil, back into Country.
- Urban gardening should be considered. Common wart weed for example
- Shane likes the idea of the project and location. Stressed importance of echoing sandstone and stone formations that are of this place.



Sketches by Michael Hromek during the meeting

Design ideas

Potential use of Local Aboriginal design

1512



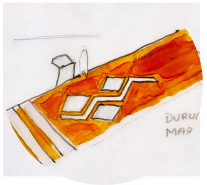
Structural columns and beams and slabs painted up in colours and patterns of Country



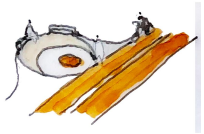
Facade treatment, anti throw screens, abutments, noise walls etc



Entry statement, significant site marker sculpture referencing local Design



Shared pathway with local patterns in coloured asphalt



Resting place with design treatment in pavement, seating, landscape art.



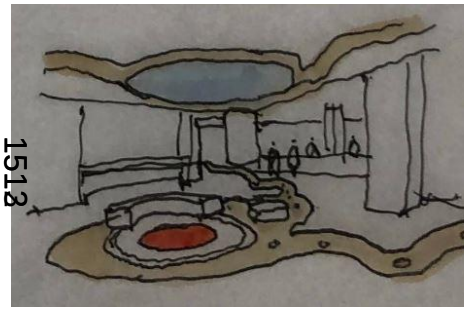
Sculptural or murals, message sticks, landscape communicating stories and design



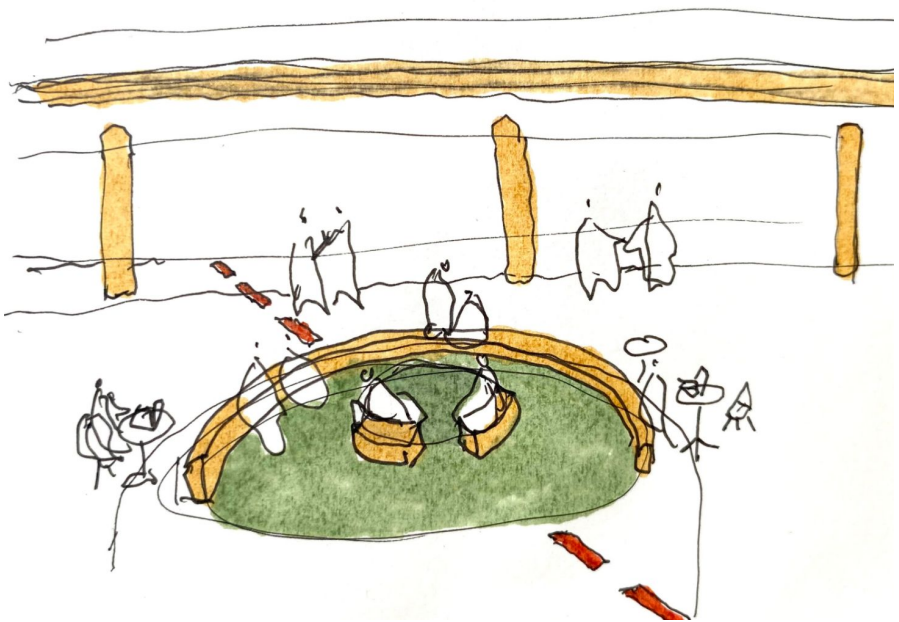
Managed landscape healing country

Gathering

Invite people to sit, immerse them in colours and patterns of Country.



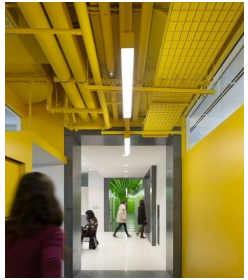


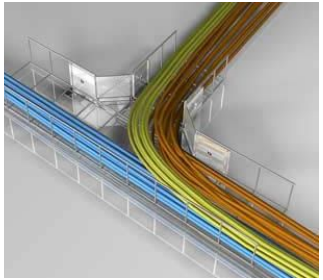


Ceiling

The ceiling can celebrate Country and culture through a simple composition of existing elements, such as data cable trays, exposed piping and services.











Exposed services artwork of the Waugal

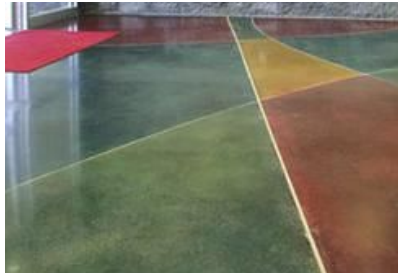
Floor

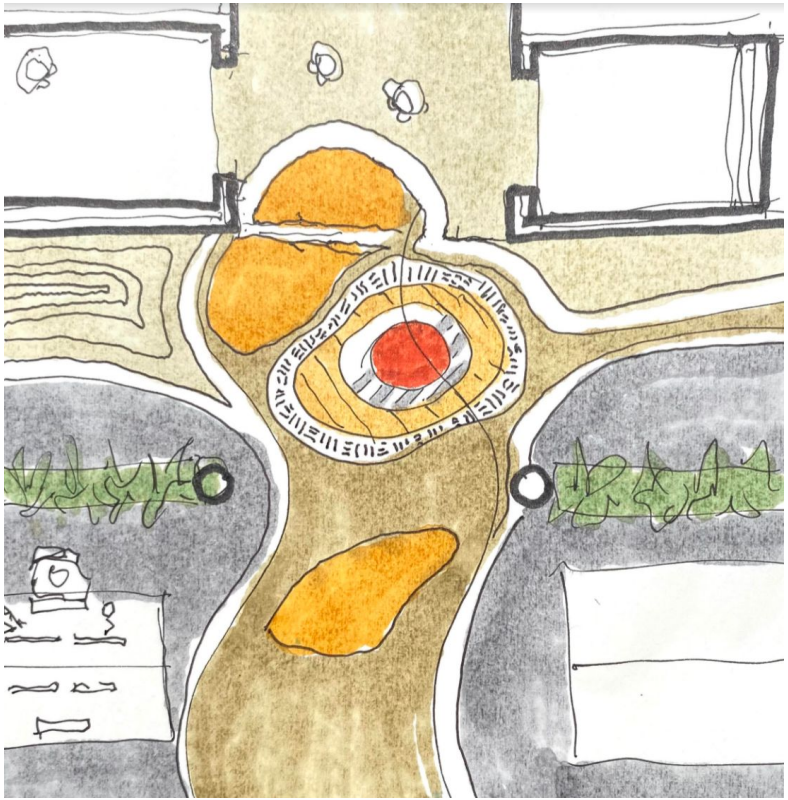
Carpet, concrete and colour can meet in weird ways to create artworks in key spaces where clients and staff enter and exit the buildings..











Spaces where clients and staff enter and exit the buildings demand a memorable / iconic response. This offers an opportunity to broaden the conversation with people's journey with Reconciliation and it's value with WSP.

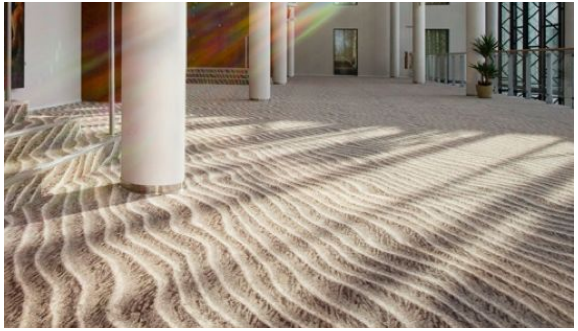
Floor

Material examples of carpet and lino-art flooring to create strong visual outcome.

Colours, patterns and textures can be incorporated to develop a strong sense of place.







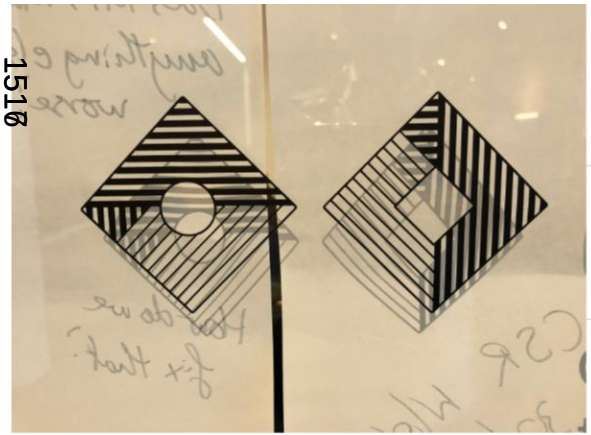


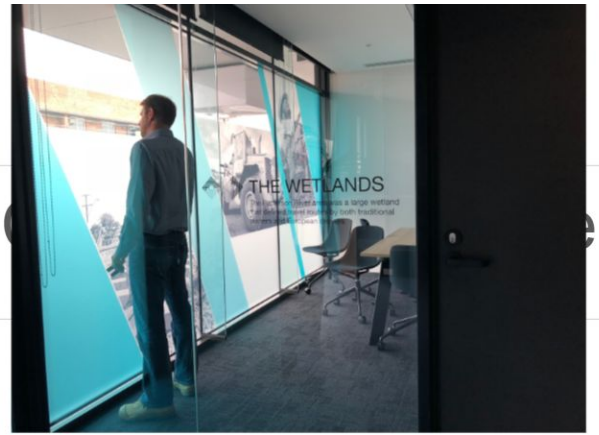


Language

Language can be used to name rooms, places, spaces, object etc. it can tell a story and educate people by stealth.

Example below of Mentone project office for SPA, LXRP of Bunurong cultural patterns and language.







Surfaces

The cultural core should contain the strongest response to enhance the effect.

Celebrate Gadigal Country through iconic art integration in key arrival spaces.

Connect to Country through nature, native plants that thrive indoors.







Further Indigenous participation

1. Consultation with Aboriginal Community. Elders, community, respected community members etc
The use of Aboriginal patterns and motifs must be done with approval - and hopefully involvement - from the elders and community. A document like this can begin these conversations between community.
We need to ask:

- Can we use your Countries patterns?
- Do you want to make patterns for the project?
- How would you like to be involved?

1518

2. Engage Aboriginal artists and designers
Aboriginal artists should be engaged from the local community who acknowledge Country / culture in their designs

3. A Smoking Ceremony recommended on the site
Smoking Ceremonies are conducted by Aboriginal people with specialised cultural knowledge. The ceremony aims to cleanse the space in which the ceremony takes place (this site being of major significance). Given the significant nature of the ceremony, smoking ceremonies are usually only performed at major events.

4 Perform a Welcome to Country when site opens .
Generally, providers offer participants local Aboriginal history and cultural information and will go on to welcome the delegates to the Country.



Yellow Gum Plant, [Broadleaf grass-tree Xanthorrhoea arborea] 1789, State Library Victoria

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1520

Attachment A26

Concept operational waste management plan

150 Day Street, Sydney NSW 2000
Hotel Development

CONCEPT OPERATIONAL WASTE MANAGEMENT PLAN

27/08/2025
Report No. 6347
Revision D

Client

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https://mecone.com.au/

Architect

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REVISION REFERENCE

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B	27/07/2025	A. Armstrong	J. Parker	Final
C	29/07/2025	A. Armstrong	J. Parker	Amendment
D	27/08/2025	A. Armstrong	J. Parker	Amendment

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GLOSSARY AND ABBREVIATIONS OF TERMS

TERM	DESCRIPTION
Bin-Carting Route	Travel path for transporting bins from their allocated storage location to the nominated collection point
Bin Hoist	A device used for lifting or lowering bins between different levels
Bin Lifter	A device used to mechanically lift bins for the purpose of emptying them into larger bins and/or compactors.
Bin Mover	Either a handheld device (commonly referred to as a bin tug) or a ride-on device (typically a tractor or Class C vehicle with an attached bin trailer) used to facilitate the movement of bins across long distances or up ramps
Bulk Bins	Containers with a capacity greater than 1100L designed to be collected by a front-loading vehicle
Bulky Waste	Recycling items that are too large to be deposited into bins, including furniture, whitegoods, electronics and mattresses
Collection Area/Point	Designated area or point where bins are loaded onto the collection vehicle for servicing
Comingled Recycling	Waste stream for the recycling of plastic bottles, other plastics, paper, glass and metal containers
Communal Bin Room	A central, shared bin room accessible to all residents or staff to dispose of their waste stream
DA	Development Application
DCP	Development Control Plan
EPA	Environment Protect Authority
FOGO	Food Organics and Garden Organics
General Waste	All non-recyclable and non-hazardous waste that is sent to landfill
HRV	Heavy Rigid Vehicle
Kerbside Collection	A collection arrangement whereby bins are presented in a single row along the kerb and serviced by a collection vehicle on the street.
L	Litre
LEP	Local Environmental Plan
Mixed Use Development	A development comprising a combination of both residential and commercial units or two or more different land uses within the one development.
Mobile Bins	Containers with a capacity up to and including 1100L designed to be collected by a rear-loading vehicle
Multi-unit Residential Development	Also known as MUD's, residential flat buildings, or apartment blocks, this is a residential development with multiple units that typically share facilities and services such as bins and collections.

MRV	Medium Rigid Vehicle
Onsite Collection	A collection arrangement whereby all bins are serviced by a collection vehicle within the property boundary, either in the building's basement or at grade and off-street.
Owners Corporation	An organisation or group of persons that is identified by a particular name and that acts, or may act, as an entity
Paper/ Cardboard Recycling	Waste stream for the recycling of paper and cardboard only.
Recycling	Waste stream that combines all recycling, including comingled recycling, paper/cardboard and metals.
Source Separation Receptacles	Communal containers used throughout the development for the day-to-day disposal of different waste streams
SRV	Small Rigid Vehicle
Waste Stream	A classification used to describe waste of a particular type (eg. food waste stream)
WHS	Workplace Health and Safety
Wheel-Out Wheel Back	A collection arrangement whereby a collection vehicle parks on the street and collection staff exit the vehicle to wheel each bin from a designated storage area to the vehicle for servicing and returns them upon completion.

1.0 ACKNOWLEDGEMENT OF COUNTRY

Elephants Foot Consulting (EFC) acknowledges that every project we work on takes place on First Peoples land. We recognise Aboriginal and Torres Strait Islander People as Traditional Custodians of this land. We pay respect to ancestors and Elders, past and present.

2.0 INTRODUCTION

Elephants Foot Consulting (EFC) has been engaged to prepare the following Concept Operational Waste Management Plan (OWMP) to support a Planning Proposal for the redevelopment of the existing Park Royal Hotel, located at 150 Day Street, Sydney NSW 2000.

The aim of this Concept OWMP is to ensure waste and recycling generation for the future development is appropriately considered at this stage of the development with more detailed design development to occur at the DA stage and post approval.

Robust waste management strategies are required for new developments to support the design and sustainable performance of the building. It is EFC's belief that a successful waste management strategy contains three key objectives:

i. ***Promote responsible source separation*** to reduce the amount of waste that goes to landfill by implementing convenient and efficient waste management systems.

ii. ***Ensure adequate waste and recycling provisions and procedures*** are established that will cater for potential changes during the operational phase of the development.

iii. ***Comply*** with all relevant council codes, policies, and guidelines.

To achieve these objectives, this OWMP identifies and details the following components:

- Waste streams expected to be generated onsite and anticipated volumes;
- Suitable bin sizes and quantities;
- Waste and recycling disposal procedures;
- Bin room size estimations and equipment recommendations; and
- Waste collection strategies, locations and frequencies.

The Concept OWMP is tp be developed further as the design progresses and integrates into the overall management of the building.

2.1 SCOPE OF REPORT

This Concept OWMP only applies to the **operational** phase of the proposed development; therefore, the requirements outlined in this OWMP must be implemented during the operational phase of the site and may be subject to review upon further expansion of, and/or changes to the development.

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. A construction and demolition WMP will be addressed at the DA stage and will be provided separately.

2.2 REPORT CONDITIONS

The purpose of this report is to document an OWMP, which will form part of a development application, which is supplied by EFC with the following limitations:

- Drawings, estimates and information contained in this OWMP have been prepared by analysing the information, plans and documents supplied by the client and third parties including Council and other government agencies. The assumptions based on the information contained in the OWMP is outside the control of EFC,
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building management's approach to educating residents and tenants regarding waste management operations and responsibilities,
- The building manager will adjust waste management operations as required based on actual waste volumes (e.g. if waste is greater than estimated) and increase the number of bins and collections accordingly,
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures,
- The report has been prepared with all due care; however no assurance is made that the OWMP reflects the actual outcome of the proposed waste facilities, services, and operations, and EFC will not be liable for plans or results that are not suitable for purpose due to incorrect or unsuitable information or otherwise,
- EFC offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated,
- Any manual handling equipment recommended in this OWMP should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply,
- Design of waste management chute equipment and systems must be approved by the supplier,
- EFC cannot be held accountable for late changes to the design after the OWMP has been submitted to Council,
- EFC will provide specifications and recommendations on bin access and travel paths within the OWMP, however it is the architect's responsibility to ensure the architectural drawings meet these provisions,
- EFC are not required to provide information on collection vehicle swept paths, head heights, internal manoeuvring or loading requirements. It is assumed this information will be provided by a traffic consultant,
- Council are subject to changing waste and recycling policies and requirements at their own discretion.
- This OWMP is only finalised once the draft watermark has been removed. If the draft watermark is present, the information in the OWMP is not confirmed.

3.0 LEGISLATION & GUIDANCE

Waste management and resource recovery regulation in Australia is administered by the Australian Constitution, Commonwealth laws, and international agreements. State and territory governments maintain primary responsibility for controlling development and regulating waste. The following legislation has been enacted in New South Wales, and provides the lawful underpinnings of this OWMP.

- NSW Environmental Planning & Assessment Act 1979
- NSW Protection of the Environment Operations Act 1997
- NSW Waste Avoidance & Resource Recovery Act 2001

At the local level, councils or Local Government Areas (LGAs) require OWMPs to be included in new planning proposals and development applications. This OWMP is specifically required by:

- Sydney of Sydney Council's Guidelines for Waste Management in New Developments 2018.

Information provided in this OWMP comes from a wide range of waste management guidance at the local, state, and federal levels. The primary sources of guidance include:

- City of Sydney Guidelines for Waste Management in New Developments 2018
- Sydney Development Control Plan 2012, Section 3, Chapter 3.14 – Waste Design and Management Standards
- NSW Better Practice Guide For Resource Recovery In Residential Developments 2019
- NSW Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012
- NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014-2021
- NSW Waste and Sustainable Materials Strategy 2041
- NSW Waste Classification Guidelines 2014
- Australia's National Waste Policy 2018

4.0 DEVELOPMENT OVERVIEW

The site is currently occupied by a 10-storey hotel building known as the Park Royal Darling Harbour Hotel. The Planning Proposal seeks to amend the Sydney Local Environmental Plan 2012 (LEP) to increase the building height from 45m to 85m and a commensurate increase to the maximum floor space ratio control to support the adaptive reuse of the existing building to support an additional 10 storeys at the site to aid additional hotel accommodation.

The proposed hotel will incorporate the following:

- 490-540 hotel suites (approximately 31 m² per suite), located from Level 3 to Level 22, which will be confirmed at the DA stage;
- Hotel dining facilities on the ground level, level 1, level 18 and level 21 occupying a combined GFA of approximately **2,000m²**;
- Bars/lounges on level 18 occupying a combined GFA of approximately **300m²**;
- A gym/wellness centre on level 18 with a GFA of **100m²**;
- A ball room on level 2 with a GFA of approximately **1,000m²**; &
- Offices and meeting rooms with a combined GFA of approximately **500m²**.

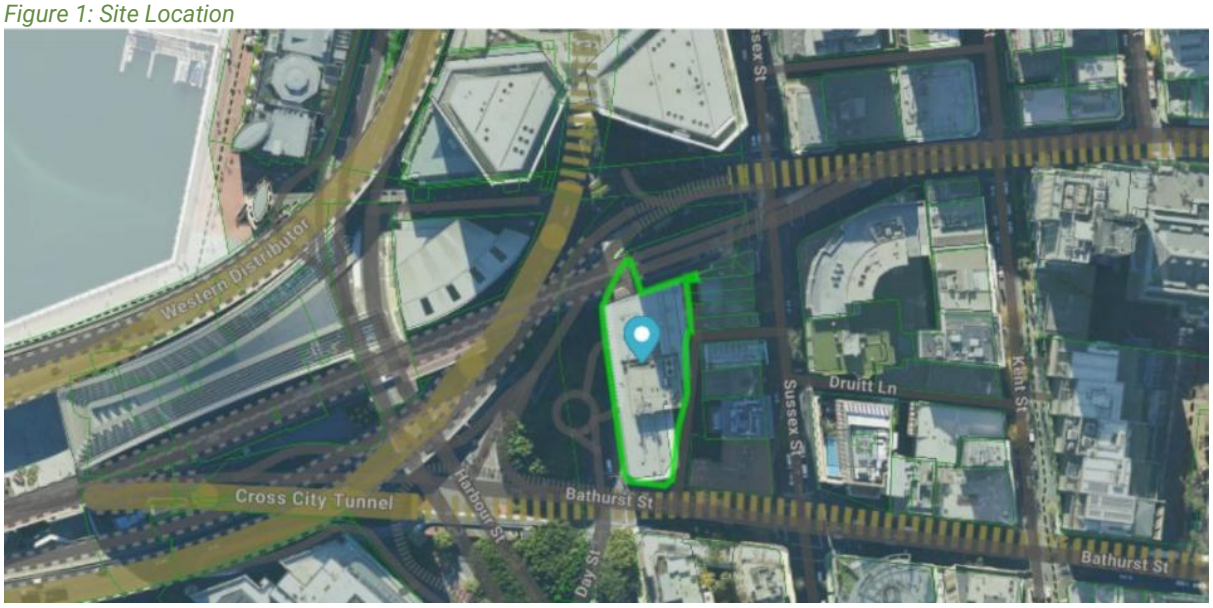
All figures and calculations are based on area schedules as advised by our client and shown on the supporting reference scheme prepared by Hassell.

4.1 SITE LOCATION

The site, legally described bas Lot 20 DP1046870, is located within the City of Sydney local government area (LGA) with a site area of approximately 2,250m^2.

The site has frontages to Day Street, Bathurst Street and Sands Street, with vehicle access via Sands Street. The site also abuts the Western Distributor to the north and the surrounding area includes a mix of commercial and residential development as well as major arterial roads.

Figure 1: Site Location



Source: Mecone Mosaic

5.0 HOTEL WASTE AND RECYCLING MANAGEMENT

The following section outlines best practice waste management for the hotel development, including waste stream generation estimates and disposal and collection procedures.

5.1 HOTEL WASTE AND RECYCLING GENERATION ESTIMATES

5.1.1 EXISTING WASTE AND RECYCLING GENERATION

The existing 10-storey hotel building currently operates with the following bin summary and collection arrangement:

- **General Waste:** 26,400 L/week
  (4 × 1,100 L bins, collected 6 times per week)
- **Paper/Cardboard Recycling:** 3,960 L/week
  (2 × 660 L bins, collected 3 times per week)
- **Commingled Recycling:** 3,960 L/week
  (2 × 660 L bins, collected 3 times per week)
- **Food Waste:** 4,320 L/week
  (12 × 120 L bins, collected 3 times per week)

The loading dock is currently managed as per the original building plans from the 1990's and the refurbishment of the existing building will allow for optimization of the loading dock usage and upgrading the dock management systems.

5.1.2 POST-EXPANSION WASTE AND RECYCLING GENERATION

The City of Sydney Council's Guidelines for Waste Management in New Developments 2018 has been referenced to calculate the total number of bins required for the proposed hotel (including the current hotel and proposed additions). Calculations are based on generic general waste, recycling and food waste rates. Actual volumes generated in operation may differ according to the hotels' actual waste management practices.

Two hotels are co-located on this site for the proposal, which is considered far more efficient than a separate hotel within the city. The co-location enables optimisation of the waste management scheme, including reduced vehicle movements.

The following table shows the estimated volume (L) of general waste, recycling and food waste generated by the hotel development. These are based on a seven-day operating week.

To streamline waste systems onsite, it is proposed that all the different components within this site (restaurants, bars, offices etc) will share waste facilities within the existing loading dock and collection services.

Table 1: Estimated General Waste, Recycling and Food Waste Volumes

Type	**NLA** (m^2)	**General Waste Generation Rates** (L/100m2/day)	**Generated Garbage** (L/week)	**Recycling Generation Rate** (L/100m^2/day)	**Generated Recycling** (L/week)	**Food Waste Generation Rate** (L/100m^2/day)	**Generated Food Waste** (L/week)
Hotel Suites	17000	20	23800	25	29750	15	17850
Hotel Dining	2000	100	14000	500	70000	100	14000
Bars/Lounges	300	100	2100	150	3150	40	840
Gym/Wellness	100	20	140	50	350	5	35
Ballroom	1000	50	3500	125	8750	30	2100
Offices/Admin	500	15	525	25	875	5	175
TOTAL	**20900**		**44065**		**112875**		**35000**

5.2 HOTEL WASTE AND RECYCLING STORAGE SUMMARY

Due to the increase in hotel suites and dining facilities for the site resulting in augmented waste and recycling volumes, EFC recommends that the site acquires a general waste and cardboard compactor unit. Furthermore, a food waste processing system should also be implemented to manage the additional food waste output, as per the below breakdown:

General Waste - Collected **on call**

- 1 × 8m^3 or 10 m³ Portable Compactor Unit (Compacts waste at a 5:1 compaction ratio)

Paper/Cardboard Recycling - Collected **on call**

- 1 × 8m^3 or 10m³ Portable Compactor Unit (Compacts cardboard at a 5:1 compaction ratio)

Comingled Recycling - Collected **3 x weekly**

- 8 × 1,100 L bins

Food Waste: Collected **on call**

- 1 × food waste processing system
- 5 x 240L bins

As per the existing bin arrangement currently operational onsite, the recycling generation for the proposed hotel is higher with the calculations completed inline with City of Sydney Council's Guidelines for Waste Management in New Developments 2018. It is therefore likely that the actual recycling generation for the proposed hotel will be less.

During operation, it is the responsibility of building management to monitor the compactor capacities, bin quantities/sizes and the collection frequencies. Hotel management will be required to negotiate any changes to bins or collections with the collection service provider.

As per the Traffic Impact Assessment Report prepared by PTC, a future management plan ensuring efficient, safe and compliant transport operations on the site will be implemented.

5.3 HOTEL WASTE AND RECYCLING DISPOSAL PROCEDURES

5.3.1 HOTEL SUITES

All hotel suites will be supplied with general waste, recycling and food waste source separation receptacles suitable for two days' storage capacity. Guests are encouraged to dispose of general waste, recycling and food waste into the designated receptacles.

On a daily basis, hotel cleaners will circulate throughout the hotel suites and collect bagged waste, loose recycling and food waste from each suite whilst undertaking cleaning duties. All waste and recycling items will be transferred to the central Waste Storage Area, via the lifts.

Refer to Council guidance for the types of materials accepted in the general waste and recycling streams.

5.3.2 HOTEL DINING AND OTHER COMMERCIAL AREAS

Kitchens within the hotel dining areas will be provided with source separation bins for general waste, recycling and food waste.

All other areas, including bars, offices and the wellness centre will also be provided with source separation bins in convenient locations for hotel staff disposal.

Hotel staff and/or cleaners will be responsible for monitoring the capacity of bins and transferring bagged waste, loose recycling and food waste to the central Waste Storage Area when required.

5.3.3 COMMON AREAS

Hotel common areas will be supplied with suitably branded source separation receptacles where considered appropriate. Receptacles should be placed in convenient locations which are accessible to guests and staff.

Hotel staff and/or cleaners will monitor the capacity of these receptacles and empty the contents to the Waste Storage Area as required.

5.3.4 LANDSCAPED AREAS

Garden organics generated from surrounding landscaped areas and indoor foliage typically consists of lawn clippings, cuttings, leaves and branches. These will be managed and removed from the site by the designated landscaping contractors as they carry out scheduled landscaping maintenance works.

5.3.5 WASHROOM FACILITIES

Washroom facilities should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

5.4 HOTEL SOURCE SEPARATION MANAGEMENT

The following sections outline other waste management considerations for the hotel.

5.4.1 GENERAL WASTE

It is recommended that one 8m^3 or 10m^3 portable compactor (with a 5:1 compaction ratio) will be provided and located within the loading dock.

When full, the compactor will be collected by a nominated waste servicing provider using a hook-lift collection vehicle on an on-call basis

The following two compactor options have been provided:

PORTABLE ECO WEIGHING COMPACTOR

All staff and/or cleaners authorized to operate the compactor will be supplied with their own pre-programmed security swipe card. When a tenant approaches the unit, they are required to swipe their card and place their bagged waste directly in the hopper door. The waste is weighed, displayed on the screen for the tenant and the information is sent via GPS to the ECO database management system.

PORTABLE BLADE COMPACTOR WITH BIN LIFTER

Two 1100L general waste bins will be positioned adjacent to the compactor. Tenants will be required to dispose of general waste into the 1100L MGBs and when full, authorised staff and/or cleaners will decant the general waste into the compactor via a designated bin lifter.

5.4.2 PAPER/CARDBOARD RECYCLING

It is recommended that one 8m^3 or 10m^3 portable compactor (with a 5:1 compaction ratio) will be provided and located within the loading dock.

When full, the compactor will be collected by a nominated waste servicing provider using a hook-lift collection vehicle on an on-call basis

The following two compactor options have been provided:

PORTABLE MULTIPRESS ECO CARTON COMPACTOR

All staff and/or cleaners authorized to operate the compactor will be supplied with their own pre-programmed security swipe card. When a tenant approaches the unit, they are required to swipe their card and place their flattened cardboard directly in the hopper door.

PORTABLE BLADE COMPACTOR EQUIPPED WITH BIN LIFTER

Two 1100L cardboard bins will be positioned adjacent to the compactor. Tenants will be required to flatten cardboard prior to placing into the 1100L MGBs and when full, authorised staff and/or cleaners will decant the cardboard into the compactor via a designated bin lifter.

Similarly to the general waste compactor, the cardboard compactor will be collected by a nominated waste servicing provider using a hook-lift collection vehicle on an on-call basis.

5.4.3 COMINGLED RECYCLING

Bulk 1,100 L bins, collected three times per week, should be provided in the loading dock for commingled recycling. Commingled recyclables include, but are not limited to, plastic bottles and containers, glass, as well as aluminium and steel cans.

Comingled recycling can be serviced on a 3 x weekly basis by a nominated waste servicing provider operating a rear load collection vehicle.

5.4.4 FOOD WASTE

Due to the high volume of food waste anticipated to be generated from the site, it is recommended that a food waste processing system be implemented to manage this waste stream.

Appendix B.6 provides detailed information on the WasteMaster food waste processing system. Additionally, 240L mobile garbage bins should be provided within the loading dock to collect the processed food waste.

A suitable waste servicing provider will be engaged to collect the finished compost-like residual material on an on-call basis.

5.4.5 USED COOKING OIL

Hotel Management will make arrangements for the storage and collection of used cooking oil in a collection container, which will be serviced by the appointed contractor on an as required basis.

5.4.6 BULKY WASTE & SPECIAL WASTE

A designated room or caged area will be made available within the loading dock for the storage of bulky waste, including discarded furniture, computers etc. This room must have a minimum doorway width of 2.5m to allow for easy movement of large waste items in and out.

Within this room, additional space will also be allocated for reusable commercial items such as crates, pallets, kegs, strip-out waste, and similar materials to ensure that storage of these items does not occur in public areas.

A designated, secure area within the bulky waste storage room must also be allocated for liquid wastes, including commercial cleaning products, chemicals, paints and solvents. This liquid waste storage area must be bunded and drained to a grease trap, in accordance with legislation and the requirements of State government authorities and agencies.

Based on the City of Sydney Council's *Guidelines for Waste Management in New Developments 2018*, the required gross floor area (GFA) for the bulky waste storage room is 35 m².

5.5 HOTEL WASTE AND RECYCLING COLLECTION PROCEDURES

Private waste servicing providers operating small rigid vehicles (SRV's) will be engaged to service all waste and recycling streams for the site. The collection vehicles will enter the site's loading dock via Sands Street.

A hook-lift vehicle will remove the general waste and cardboard compactors from the site for servicing and return them upon completion.

A typical rear load collection vehicle will service the comingled recycling bins and food waste bins.

Veolia have been contacted and have confirmed that their hook lift collection vehicles (SRV's) are able to service 10m^3 compactors. These vehicle dimensions and clearances (provided by Veolia) have been considered in the separate Traffic Impact Assessment and vehicle specifications have also been provided for reference in Appendix B.5 of this OWMP.

6.0 STAKEHOLDER ROLES & RESPONSIBILITIES

The following table outlines the primary roles and responsibilities of the respective stakeholders:

Table 2: Stakeholder Roles and Responsibilities

Roles	Responsibilities
Hotel Management	• Co-ordinate general waste, recycling and food waste collections • Clean and transport source separation bins as required. • Organise replacement or maintenance requirements for bins. • Organise, maintain and clean bin storage areas. • Organise bulky waste collections when required. • Investigate and ensure prompt clean-up of illegally dumped waste materials. • Prevent storm water pollution by taking necessary precautions (secure bin rooms, prevent overfilling of bins). • Abide by all relevant WH&S legislation, regulations, and guidelines. • Provide staff/contractors with equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management. • Assess any manual handling risks and prepare a manual handling control plan for bin transfers. • Ensure site safety for guests, children, visitors, staff and contractors; and • Ensure effective signage, communication and education is provided to occupants, tenants, maintenance staff, and cleaning contractors.
Guests	• Dispose of all general waste, recycling and food waste in the allocated receptacles provided. • Ensure adequate separation of general waste, recycling and food waste; and • Comply with the provisions of Council and the OWMP.
Hotel Staff And Cleaners	• Manage general waste, recycling and food waste within BOH areas during daily operations. • Correctly separate general waste, recycling and food waste streams. • Flatten cardboard within the recycling bin. • If required, arrange for storing used and unused cooking oil in a bunded area, • Organise grease interceptor trap servicing, and • Ensure the suitable storage for chemicals, pesticides and cleaning products waste back of house.
Waste Servicing Contractors	• Provide a reliable and appropriate waste and recycling collection service. • Provide feedback to building managers/residents regarding contamination of recyclables; and • Work with building managers to customise waste systems where possible.
Gardening/ Landscaping Contractor	• Remove all garden organics generated during gardening maintenance activities for recycling at an offsite location.
Developer	• Purchase all equipment required to implement this OWMP prior to the occupation of the building to be provided to the Strata or Body Corporate.

7.0 SOURCE SEPERATION

Better practice waste management includes the avoidance, reuse, and recovery of unwanted items, which can be achieved through source separation. The table below outlines what is typically included in various waste streams and how they can be managed. Refer to your local council for a list of accepted materials. Planet Ark can be accessed online to find other facilities that recover unwanted items.

Table 3: Operational Waste Streams

Waste Stream	Description	Typical Destination	Waste Stream Management
General Waste	The remaining portion of the waste stream that is not recovered for re-use, processing, or recycling. May include soft plastics, food scraps, polystyrene, etc.	Landfill	General waste should be bagged before placing in designated general waste bins and/or portable compactor.
Paper and Cardboard Recycling	Cardboard and paper products are recyclable materials that can be re-processed into new products.	Resource Recovery Centre	Cardboard should be flattened before placing in the designated cardboard bins and/or portable compactor.
Commingled Recycling	A mixture of items that are commonly recycled usually segregated through a MRF. Typically include food and beverage containers (e.g. aluminium, glass, steel, hard plastics, cartons).	Materials Recovery Facility (MRF)	Commingled recycling must not be bagged and instead should be placed loosely in the designated comingled recycling bins.
Food Waste	Food waste consists of unwanted or uneaten kitchen scraps that are easily compostable/biodegradable (e.g. vegetable peels, fruit rinds, coffee grounds).	Composting facility or Landfill	Food waste can be processed onsite using an appropriate food waste processing system.
Garden Organics	Garden organics consists of unwanted organic materials that are easily biodegradable and/or compostable (e.g. lawn clippings, branches)	Resource Recovery Centre	Landscape Maintenance Contractors will remove the garden organics from site during scheduled maintenance.
Electronic Waste	Discarded e-waste, electronic components and materials such as computers, mobile phones, keyboards, etc.	Resource Recovery Centre	Hotel Management arranges for recycling of their own e-waste.
Bulky Waste Items	Items that are to too large to place into general rubbish collection. This includes disused and/or broken furniture, mattresses, white goods, etc.	Resource Recovery Centre or Landfill	Hotel Management arranges with a private waste contractor for removal.
Sanitary Waste	Feminine hygiene waste generated from female bathrooms.	Incineration or Landfill	Sanitary bins are serviced by sanitary waste contractor.
Other	Other recyclable items that require special recovery may include ink cartridges, batteries, chemical waste, fluorescent tubes, etc.	Resource Recovery Facility	Building manager arranges collection by appropriate recycling services when required.

8.0 EDUCATION

Educational material encouraging correct separation of general waste, recycling and food waste must be provided to all hotel staff, cleaners and guests. This should include the correct disposal process for bulky waste such as old furniture, large discarded items, and other materials including electronic and chemical wastes. It is recommended that Hotel Management provides information in multiple languages to support correct behaviours, and to minimise the possibility of cross contamination between waste streams.

Education and communication must be provided consistently on a regular basis to encourage behaviour change and account for transient building personnel such as new cleaning staff. Information should include:

- Descriptions of items accepted in the general waste and recycling streams;
- How to dispose of bulky waste and any other items that are not general waste and recycling;
- Residents' obligations to health and safety as well as building management; and
- How to prevent cross contamination among waste streams.

8.1 SIGNAGE

Signage and education are essential components to support best practice waste management including resource recovery, source separation, and diversion of waste from landfill.

Signage should include:

- Clear and correctly labelled bins,
- Instructions for separating and disposing of waste items. Different languages should be considered,
- Locations of, and directions to, the waste storage areas with directional signs, arrows, or lines,
- The identification of all hazards or potential dangers associated with the waste facilities, and
- Emergency contact information should there be issues with the waste systems or services in the building.

Hotel Management is responsible for waste room signage including safety signage. Appropriate signage must be prominently displayed on doors, walls and above all bins, clearly stating what type of waste or recyclables is to be placed in each bin.

All signage should conform to the relevant Australian Standards.

9.0 POLLUTION PREVENTION

Hotel management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity:

- Promoting adequate waste disposal into the bins
- Securing all bin rooms (whilst affording access to staff/contractors)
- Prevent overfilling of bins, keep all bin lids closed and bungs leak-free
- Taking action to prevent dumping or unauthorised use of waste areas
- Require collection contractor/s to clean up any spillage when clearing bins

10.0 BIN WASHING

The bins and will be cleaned by hotel cleaners periodically to ensure hygiene is adhered to and minimise odour.

Bin washing can occur within the loading dock, using the clean down facilities (i.e tap connection and drain). Alternatively, a specialist bin washing contractor can be engaged to clean the bins to an agreed schedule. The specialist bin contactor would collect the bins from the loading dock and clean the bins with their specialised vehicle.

11.0 BIN MOVING PATHS

Minimal movement of bins is anticipated for this site, as bins are to be collected directly from their storage location within the loading dock. Hotel Management will be responsible for any transportation of bins that does occur.

Any movement of bins should minimise manual handling where possible, as bins become heavy when full. The building manager must assess manual handling risks and provide any relevant documentation to key personal.

The routes along any bin moving paths should;

- Allow for a continuous route that is wholly within the property boundary.
- Be free from obstruction and obstacles such as steps and kerbs.
- Be constructed of solid materials with a non-slip surface
- Be A minimum of 300mm wider than the largest bin used onsite.
- If bins are moved manually, the route must not exceed a grade of 1:14.
- If a bin moving device is used, the route cannot exceed the maximum operating grade of the device. This is typically a grade of 1:4, however this will vary depending on the model of bin moving device acquired for the site.

12.0 WASTE AND RECYCLING AREAS

The areas allocated for waste and recycling storage are detailed in the table below and are estimates only. Final areas will depend on compactor and bin layouts as per a comprehensive design review in the detailed design stage.

Table 4: Waste Room Areas

Location	Waste Room Type	Equipment	Estimated Area Required (m^2)	Actual Area Provided (m^2)
Loading Dock		**General Waste** • 1 × 8m^3 or 10m^3 portable compactor • 2 × 1,100 L bins **Paper/Cardboard Recycling** **General Waste** • 1 × 8m^3 or 10m^3 portable compactor • 2 × 1,100 L bins **Comingled Recycling** • 8 × 1,100 L bins **Food Waste:** • 1 × food waste processing system • 10 x 240L bins	Dependant on layout	190
	Bulky Waste Room or Caged Area		35	32

EFC recommends compactor and bin sizes and collection frequencies for best practice waste management at this site, however EFC also acknowledges there are a range of other suitable options that may alter waste room requirements (e.g. floor area, accessibility, head height, etc.)

In addition, all doorways and passageways facilitating the movement of bins and/or bulky waste items must be at least 1500mm wide.

The following table provides further waste room requirements.

Table 5: Waste Room Requirements

Waste Room Type	Waste Room Requirements
Compactor and Bin Storage Areas	• Bins should be arranged so that all bins are accessible. Bins are not to be placed in front of one another or in such a way as to restrict access to the other bins for use. • Adequate circulation areas must be provided around compactor units. • Rooms must be well ventilated either naturally or mechanically in accordance with AS1668.4.2012. • Cleaning facilities such as hose hock and drainage for odour and hygiene control must be provided. • It is recommended a dustpan and broom is provided in this room for cleaning up unexpected spillages when using bins.
Bulky Waste Area	• May be a dedicated room or caged area within the loading dock. • Must be in close proximity to the collection area. • Area must also be allocated for the segregation of e-waste, gas bottles, cardboard, etc. • Doorway should be a minimum of 1500mm wide

13.0 CONSTRUCTION REQUIRMENTS

Waste and recycling area construction must comply with the minimum standards as outlined in City of Sydney Council's *Guidelines for Waste Management in New Developments 2018* in order to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area.

The *NSW Better practice guide for resource recovery in residential developments (2019)* also states that better practice bin storage areas should achieve more than the minimum compliance requirements, which are as follows:

- Ensuring BCA compliance, including ventilation. Where required, ventilation system must comply with AS1668.4-2012 The use of ventilation and air conditioning in buildings.
- Ensuring storage areas are well lit (sensor lighting preferred) and have lighting available 24 hours a day.
- Provision of bin washing facilities, including taps for hot and cold water provided through a centralised mixing valve. The taps must be protected from bins and be located where they can be easily accessed even when the area is at bin capacity.
- Floor constructed of concrete at least 75mm thick.
- Floor graded so that any water is directed to a sewer authority approved drainage connection to ensure washing bins and/or waste storage areas do not discharge flow into the stormwater drain.
- Provision of smooth, cleanable and durable floor and wall surfaces that extend up the wall to a height equivalent to any bins held in the area.
- Ensuring ceilings are finished with a smooth-faced non-absorbent material capable of being cleaned.
- All surfaces (walls, ceiling and floors) finished in a light colour.

13.1 ADDITIONAL CONSIDERATIONS

- Waste room floor to be sealed with a two-pack epoxy;
- All corners coved and sealed 1,200mm up, this is to eliminate build-up of dirt;
- Hot and cold water tap height and light switch height of 1.6m;
- Storm water access preventatives (grate);
- All walls painted with light colour and washable paint;
- Equipment electric outlets to be installed 1700mm above finished floor level;
- Optional automatic odour and pest control system installed
- If 660L or 1100L bins are utilised, 2 x 820mm (minimum) double-doors must be used;
- All personnel doors are hinged, lockable and self-closing;
- Conform to the Building Code of Australia, Australian standards and local laws; and
- Childproofing and public/operator safety shall be assessed and ensured
- Waste and recycling rooms must have their own exhaust ventilation system either;
    - Mechanically - exhausting at a rate of 5L/m² floor area, with a minimum rate of 100L/s minimum. Mechanical exhaust systems shall comply with AS1668.4.2012 and not cause any inconvenience, noise or odour problem; or
    - Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area.

14.0 USEFUL CONTACTS

EFC does not warrant or make representation for goods or services provided by suppliers.

LOCAL COUNCIL

City of Sydney Customer Service	Ph: (02) 9265 9333	E: council@cityofsydney.nsw.gov.au

PRIVATE WASTE COLLECTION PROVIDER

Capital City Waste Services	Ph: 02 9599 9999	E: service@ccws.net.au
Sydney Waste	Ph: 02 8661 0031	
Waste Clear	Ph: 1300 525 352	E: admin@wasteclear.com.au

BIN MOVING DEVICE SUPPLIERS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
Sitecraft	Ph: 1300 363 152	E: sales@sitecraft.com.au

BALER SUPPLIERS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au

ORGANIC DIGESTERS AND DEHYDRATORS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
Waste Master	Ph: 1800 614 272	E: hello@wastemasterpacific.com.au

COOKING OIL CONTAINERS AND DISPOSAL

Cookers	Ph: 1300 882 299	E: info@cookers.com.au
Auscol	Ph: 1800 629 476	E: sales@auscol.com

ODOUR CONTROL

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au

SOURCE SPERATION BINS

Method Recycling	Ph: 0499 890 455

BINS AND BIN EQUIPMENT

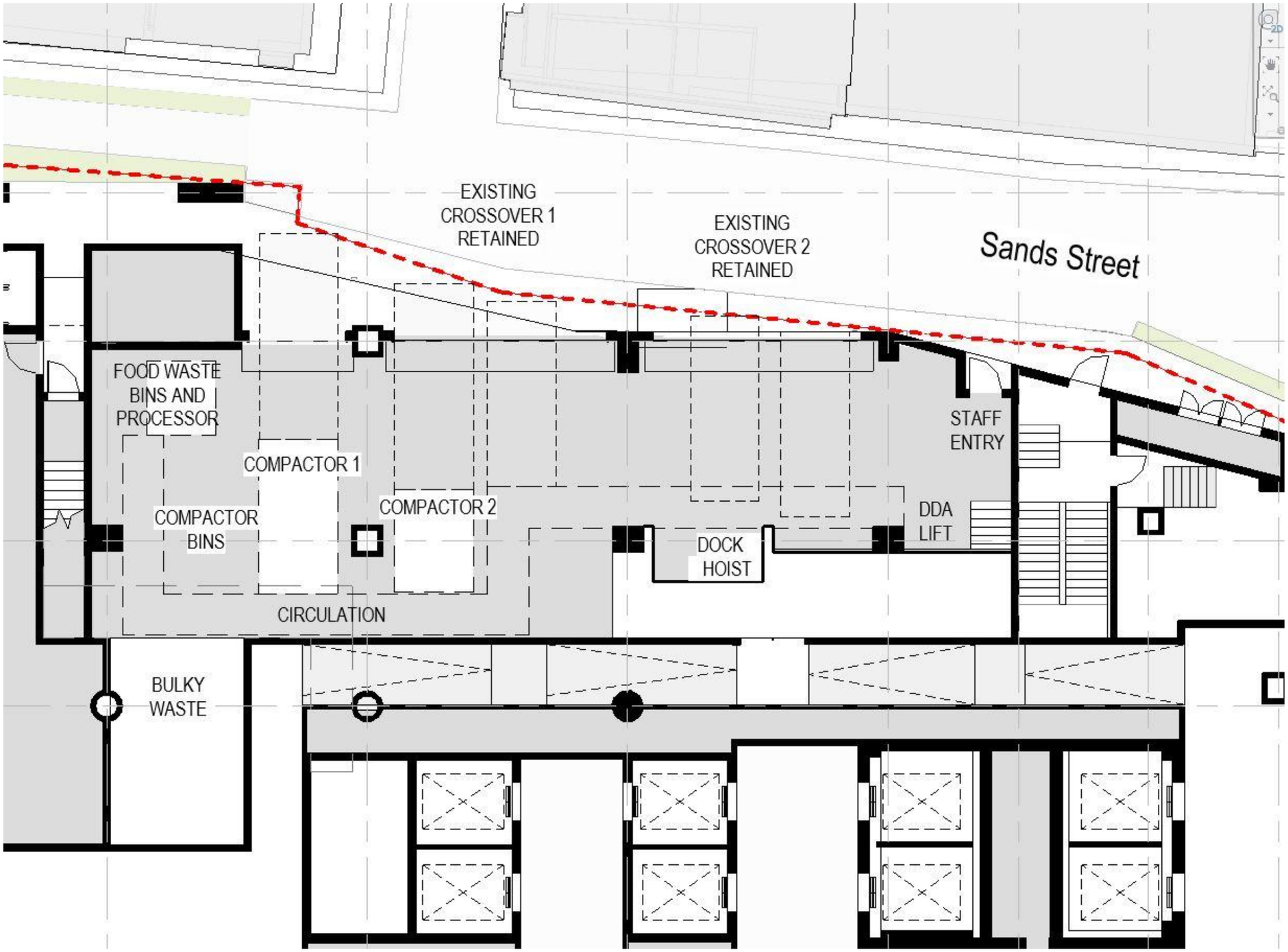
Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
SULO	Ph: 1300 364 388	E: sulosales@pactgroup.com

CHUTES, COMPACTORS AND EDIVERTER SYSTEMS

Elephants Foot Chute Solutions	Ph: 1300 435 374	E: chutes@elephantsfoot.com.au

APPENDIX A: ARCHITECTURAL PLANS

APPENDIX: A.1 LOADING DOCK CONCEPT DRAFT WORKING PLAN



Source: Hassell

1549

APPENDIX B: PRIMARY WASTE MANAGEMENT PROVISIONS

APPENDIX: B.1 TYPICAL PORTABLE ECO WEIGHING COMPACTOR INFORMATION

MULTIPRESS ECO
Roll-off container





The filling opening at the roll-off container can be carried out selectively on left or right side.

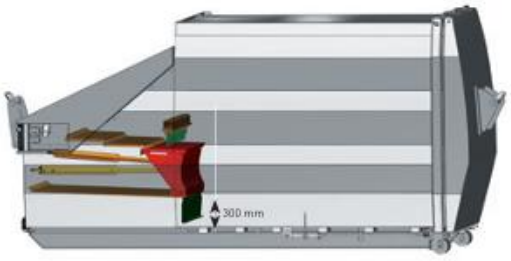
The machine is also optionally available with canopy.

ECO Roll-off container	MP 10-1.0	MP 12-1.0	MP 14-1.0	MP 16-1.0
Volume Container	10 m³	12 m³	14 m³	16 m³
Length (without rear hook)	4820	5320	5820	6320
Length (with rear hook)	5060	5560	6060	6560
Width x height	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm
Filling height	1270 mm	1270 mm	1270 mm	1270 mm
Volume weighing sluice	510 lt.	510 lt.	510 lt.	510 lt.
Volume weighing sluice	3 x 80 lt. Säcke	3 x 80 lt. Säcke	3 x 80 lt. Säcke	3 x 80 lt. Säcke
Compaction force	250 kN	250 kN	250 kN	250 kN
Pressing cycle	24 sec.	24 sec.	24 sec.	24 sec.
Motor	5,5 kW	5,5 kW	5,5 kW	5,5 kW
Fuse slow	16 A	16 A	16 A	16 A
Electric connection	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz
Unladen weight	3390 kg	3550 kg	3720 kg	3880 kg
Container conical	conical à 80 mm	conical à 80 mm	conical à 80 mm	conical à 80 mm

1550

APPENDIX: B.2 PORTABLE BLADE COMPACTOR

MULTIPRESS 1.0
Roll-off container



Special version as wet waste press

Mixed waste and also waste with a high moisture content can be ideally compressed. The sloping pressing floor and the special high level difference (300 mm Trashholder) between the pressing floor and the container floor guarantee that the equipment remains clean.
In addition, the **MULTIPRESS 1.0 roll-off container** is also available as an underground garage model.



Roll-off container	MP 10-1.0	MP 12-1.0	MP 14-1.0	MP 16-1.0
Volume Container	10 m³	12 m³	14 m³	16 m³
Length (without hook)	4960	5460	5960	6460
Length (with hook)	5200	5700	6200	6700
Width x height	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm
Filling height	1270 mm	1270 mm	1270 mm	1270 mm
Volume per stroke	1 m³	1 m³	1 m³	1 m³
Height of press ram	550 mm	550 mm	550 mm	550 mm
Press opening W x H	1000 x 1450 mm	1000 x 1450 mm	1000 x 1450 mm	1000 x 1450 mm
Filling opening W x H	1580 x 1450 mm	1580 x 1450 mm	1580 x 1450 mm	1580 x 1450 mm
Compaction force	300 kN	300 kN	300 kN	300 kN
Pressing cycle	24 sec.	24 sec.	24 sec.	24 sec.
Motor	5,5 kW	5,5 kW	5,5 kW	5,5 kW
Fuse slow	16 A	16 A	16 A	16 A
Electric connection	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz
Unladen weight	3390 kg	3550 kg	3720 kg	3880 kg
Container conical	conical à 80 mm	conical à 80 mm	conical à 80 mm	conical à 80 mm

APPENDIX: B.3 TYPICAL PORTABLE MULTIPRESS ECO CARTON COMPACTOR INFORMATION

MULTIPRESS ECO Carton

Efficient recyclable materials collection in public places, at residential complexes and settlements

The collection of cardboard is laborious and costly.
The **MP ECO Carton** can achieve a compression of at least 500% with its integrated press.

This replaces ca. 80 x 1100 litre containers. Up to 5000 kg of cardboard can be collected with just one emptying.
Thanks to the compact dimensions and simple operation, the system is ideal for placement in public areas.
The „Full" message, sent via SMS, enables optimum route planning and saves time and money.









ECO Carton	MP 10-1.0	MP 12-1.0	MP 14-1.0	MP 16-1.0
Volume Container	10 m³	12 m³	14 m³	16 m³
Length (without rear hook)	4820	5320	5820	6320
Length (with rear hook)	5060	5560	6060	6560
Width x height	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm	1950 x 2440 mm
Filling height	1270 mm	1270 mm	1270 mm	1270 mm
Filling opening W x H	1000 x 120 mm	1000 x 120 mm	1000 x 120 mm	1000 x 120 mm
Compaction force	250 kN	250 kN	250 kN	250 kN
Pressing cycle	60 sec.	60 sec.	60 sec.	60 sec.
Motor	5,5 kW	5,5 kW	5,5 kW	5,5 kW

APPENDIX: B.4 TYPICAL BIN SPECIFICATIONS

Mobile bins

Mobile bins come in a variety of sizes and are designed for lifting and emptying by purpose-built equipment.

Mobile bins with capacities of up to 1700L must comply with *AS4123.6-2006 Mobile waste containers* which specifies standard sizes and sets out the colour designations for the bodies and lids of mobile waste containers indicating the type of materials they are used to collect.

The most common bin sizes are provided below, although not all sizes are shown. The dimensions are a guide only and differ slightly between manufacturers. Some bins have flat or domed lids and are used with different lifting devices. Refer to *AS4123.6-2006* for further details.

Table G1.1: Average dimension ranges for two-wheel mobile bins



Wheelie bin

Bin capacity	80L	120L		140L		240L	360L
Height (mm)	870	940	1065	1080	1100		
Depth (mm)	530	530		540		735	820
Width (mm)	450	485		500		580	600
Approximate footprint (m^2)	0.24	0.26–0.33		0.27-0.33		0.41–0.43	0.49
Approximate weight (kg)	8.5	9.5		10.4		15.5	23
Approximate maximum load (kg)	32	48		56		96	Not known

Sources include Sulo, Single Waste, Cleanaway, SUEZ, just wheelie bins and Perth Waste for two-wheel mobile bins

Table G1.2: Average dimension ranges for four-wheel bulk bins



Dome or flat lid container

Bin capacity	660L	770L	1100L	1300L	1700L
Height (mm)	1250	1425	1470	1480	1470
Depth (mm)	850	1100	1245	1250	1250
Width (mm)	1370	1370	1370	1770	1770
Approx footprint (m^2)	0.86–1.16	1.51	1.33–1.74	2.21	2.21
Approx weight (kg)	45	Not known	65	Not known	Not known
Approx maximum load (kg)	310	Not known	440	Not known	Not known

Sources include Sulo, Signal Waste, Cleanaway, SUEZ, Just Wheelie Bins and Perth Waste

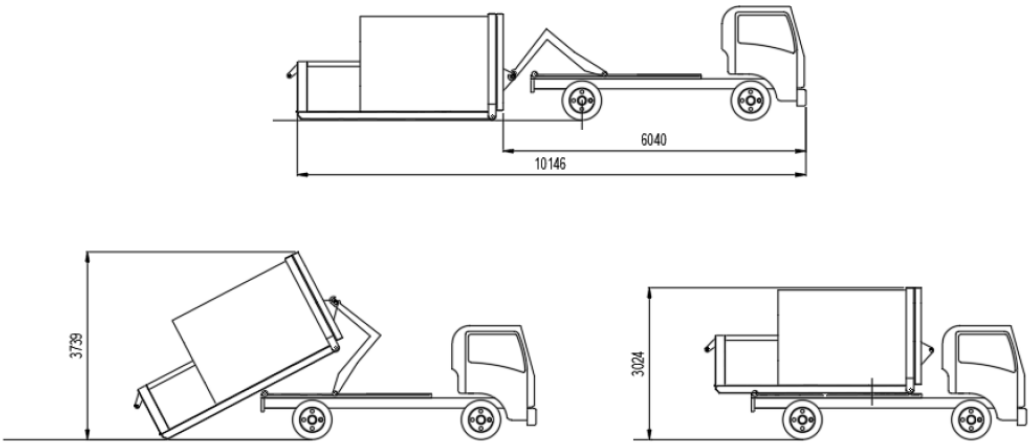
Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

APPENDIX: B.5 VEOLIA HOOK LIFT SMALL RIGID VEHICLE

AT90-100

10m Transportable AUGER Compactor

TRUCK WIDTH: 2300 mm
(2800 mm WITH MIRRORS)



APPENDIX: B.6 FOOD WASTE PROCESSOR EXAMPLE



WasteMaster

Whether your food waste is from food manufacture or processing, food preparation for meals, cooked food from the kitchen or servery or table waste left overs, the WasteMaster system cleanly and efficiently converts and reduces the volume of this waste, on site, to a much smaller quantity of odour-free material.

Perfect for businesses and institutions such as hospitals, food manufacturers, restaurants and others providing catering and hospitality, WasteMaster is easily installed on site and doesn't release any harmful emissions or odours during the process. All that is required is a three-phase power supply and an air outlet



NOT ALL WASTE SOLUTIONS ARE THE SAME

You may have considered a food waste management solution before. WasteMaster is different.

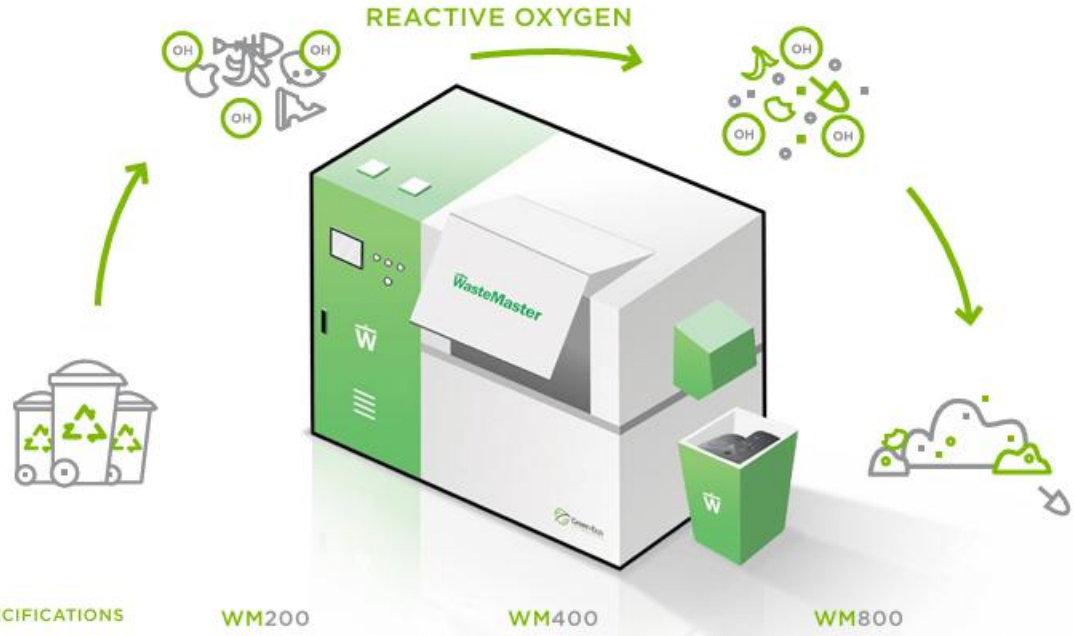
WasteMaster's clean operation and managed service makes it the cleaner, simpler alternative for on-site food waste conversion. WasteMaster is very easy to operate and will indicate when it is full and unload automatically when the process is complete. Employees need only minimal training to load WasteMaster as Green Eco Technologies fully manages your food waste conversion on your behalf. We can also provide you with accurate waste volume data to help with your reporting.

WasteMaster's unique approach to food waste conversion eliminates food waste odour, prevents additional environmental impact and eliminates the need for time-sensitive on-site food waste storage and collections.



HOW DOES WASTEMASTER WORK?

- ✓ Food waste is converted within the WasteMaster system using a proprietary technology which accelerates the decomposition of the waste material without the use of bacteria, additives or water.
- ✓ At the end of the process the volume of the waste material has been reduced by up to 80%. For every 500kg loaded into the system, WasteMaster outputs just 100kg of compost-like residual material, which will not attract insects or vermin in its dry state.



SPECIFICATIONS	WM200	WM400	WM800	
Dimensions (L, W, H)	1957 x 1000 x 1660	2520 x 1420 x 1760	3316 x 1700 x 1950	mm
Dimensions Inc Bin Lifter (L, W, H)	1957 x 2170 x 2260	2520 x 2590 x 2260	3316 x 3100 x 2600	mm
Maximum Loading Door Height	2350 with bin lifter 2210 without bin lifter	2350 includes bin lifter	2600 includes bin lifter	mm
Working Area	2960 x 3800 with bin lifter 2960 x 2000 without binlifter	3500 x 4000 includes bin lifter	4320 x 4500 includes bin lifter	mm
Machine Weight	800	1395	3690	kgs
Daily Volume Capacity	up to 200	up to 400	up to 800	kgs
Total Loaded Weight	1000	1795	4490	kgs
Power Supply	32 amp 3-phase circuit, hardwired	32 amp 3-phase circuit, hardwired	50 amp 3-phase circuit, hardwired	
IP Rating	54	54	54	
Noise Level	<85	<85	<85	dBA
Air Outlet	150mm	150mm	150mm	mm
Comms Requirement	Network, Wifi or 4G/5G SIM	Network, Wifi or 4G/5G SIM	Network, Wifi or 4G/5G SIM	

Source: WasteMaster https://www.greenecotec.com/how-it-works

APPENDIX: B.7 SIGNAGE FOR WASTE AND RECYCLING BINS

Waste signs

Signs and educational materials perform several functions including:

- informing residents why it is important to recover resources and protect the environment
- providing clear instructions on how to use the bins and services provided
- alerting people to any dangers or hazards within the bin storage areas.

All waste, recycling and organic bins should be Australian Standard colours and clearly and correctly labelled, such as by a sticker on the lid and/or the body of the bin.

Communal bin storage areas should be clearly signposted with signs outlining how to correctly separate waste into the bins provided. The local council responsible for waste services may be a good source of signs and posters and can advise on what signs are suitable.

Information on who to contact to find out more about the recycling and/or other resource recovery services in the building should also be displayed in communal areas, such as on a noticeboard.

The Planet Ark website also has resources available free of charge for use by businesses and councils. These signs can be found at businessrecycling.com.au/research/signage.cfm

Figure I1.1: Examples of waste wall posters (EPA supplied)



Figure I1.2: Examples of bin lid stickers (EPA supplied)

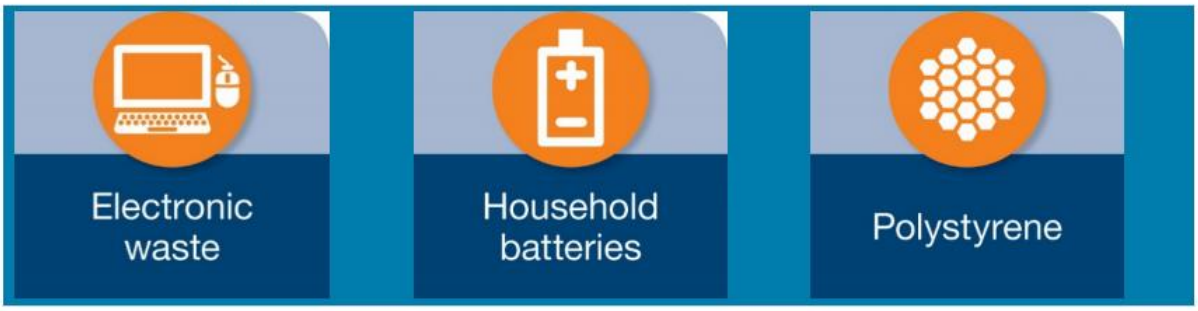


Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

Problem waste signs

The EPA has also produced a range of images and signs that can be used for problem wastes, such as fluoro globes and tubes, household and car batteries, e-waste and smoke detectors. To access these resources, contact the NSW EPA. Some examples are shown below.

Figure I2.1: Problem waste signs



Safety signs

The use of safety signs for waste resource recovery rooms must comply with *AS1319 Safety signs for occupational environments*. Safety signs must be used to regulate and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Suitable signs should be decided for each development as required.

Figure I3.1: Example safety signs



Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

APPENDIX C: SECONDARY WASTE MANAGEMENT PROVISIONS

1560

APPENDIX: C.1 EXAMPLE HANDHELD BIN MOVERS

movexx
smart electric tugs

MOVEXX T2500
BIN MOVER BATTERY ELECTRIC

Movexx T2500 Tow Tug is an extremely user friendly battery powered mobile towing unit that is ideal for applications where trolleys and rolling objects need to be moved from one place to another simply, efficiently and without physical effort. Some standard features included are: battery indicator, on board battery charger, battery, adjustable handle, dual speed and electric brake.

These units are fitted with an electromagnetic brake system for use on ramps and slopes

Features
- Electromagnetic brake for use on ramps and slopes
- Adjustable height handle



SPECIFICATION

MODEL	DIMENSIONS (MM)	OPTIONS	PULL - PUSH CAPACITY (KG)	BATTERY
T2500-D	511 (w) x 757 (l)	* Centre mount 2x 240 lt. wheelie bin attachment	2500	AGM batteries 2x 85AH up to 8 hrs continuous operation

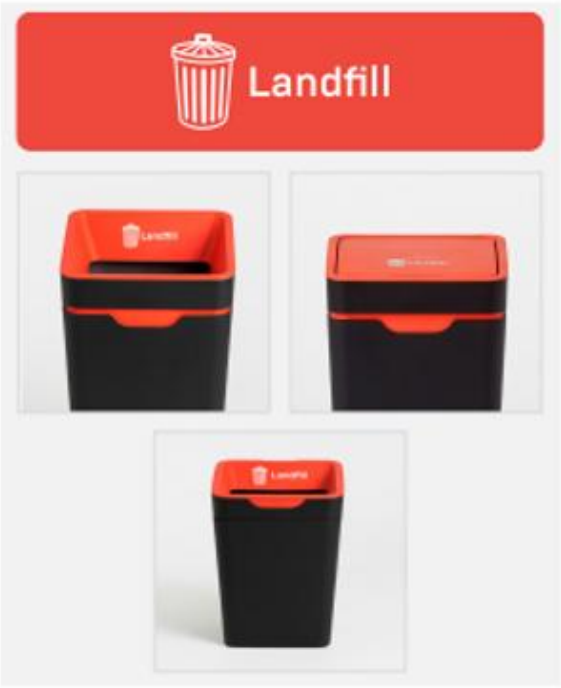
TOWING CAPACITY - ON FLAT GROUND (all models)	TOWING CAPACITY - SLOPE (all models)
Towing up to 4x 660 lt. Wheelie Bin	Towing up to 2x 660 lt. Wheelie Bin Up / Down maximum 25% (1:4 slope)
Towing up to 4x 1100 lt. Wheelie Bin	Towing up to 1x 1100 lt. Wheelie Bin Up / Down maximum 25% (1:4 slope)
	**Electromagnetic brake for use on ramps and slopes



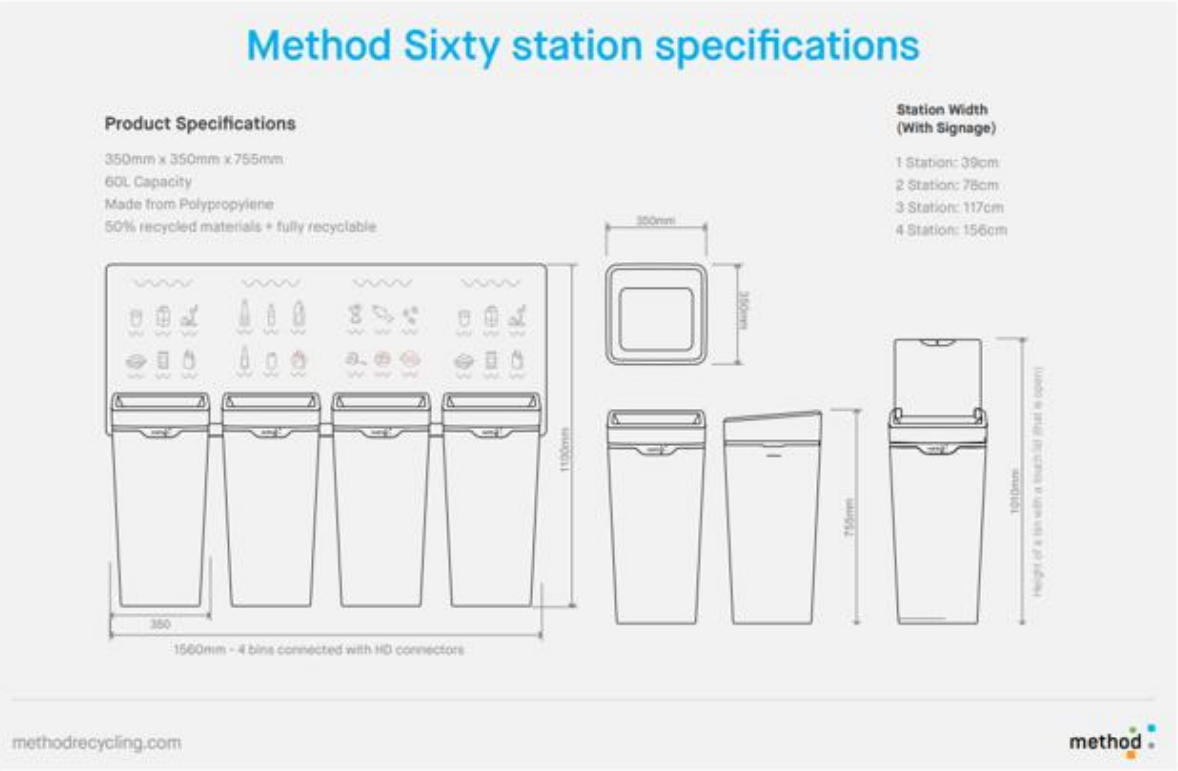
Please Note: This is an example only – please contact supplier for specific recommendations.

Source: Sitecraft - www.sitecraft.net.au

APPENDIX: C.2 EXAMPLE SOURCE SEPARATION RECEPTACLES







Source: Method Recycling - www.methodrecycling.com

Attachment A27

Addendum to transport impact assessment

31 July 2026

Strategic Planning and Urban Design
City of Sydney Council
465 Kent Street
Sydney

ATTN: Sally Peters, James Dirickx-Jones

Dear Sally, James

Response to TfNSW Comments on Porte Cochere removal – PP-2025-550 – 150 Day Street, Sydney

The response provided in this letter is in addition to our intial agency response provided on 2 June 2026 and follows our meeting with the City of Sydney and TfNSW on 3 July 2026 where the following matters were discussed:

- **Removal of Porte Cochere** – TfNSW raised concern for the removal of the existing porte cochere and reliance for on-street pick-up/drop-off on Day Street, which is under the ownership/management of TfNSW. In particular, TfNSW raised concern regarding:
    - Potential for queing of traffic onto Bathurst Street,
    - Ability for vehicles to occupy and safely pass vehicles occupying pick-up/drop-off bays, and
    - Potential redevelopment of Day Street and the need to consider alternative arrangements in such a circumstance (*Note: TfNSW confirmed in the meeting there are currently no future plans to redesign Day Street in the future*).
- **SIDRA Modelling** – updates required to:
    - model to correct intersection cycle times,
    - compare 'with development' and 'without development' scenarios for 2034,
    - correct modelling to show no turn from Day Street to Bathurst Street (West).

These items are discussed in further detail below and supported by PTC's TfNSW Response dated 30 July 2026 which is provided under separate cover.

1. Removal of Porte Cochere

(a) Reasons for Pote Cochere removal and alternatives considered

Noting the adapative reuse of the existing base building, significant strengthening to the column structure is required to accomodate the verticle extension as well as additional servicing (lift and utilities) back of house and lobby space to cater for the additional hotel rooms and dual hotel offering at the site. Consequently, the removal of the existing porte cochere is required to enable the adaptive reuse and hotel extension above. Furthermore, the removal of the porte cochere will achieve an improved urban design outcome by removing car parking access infrastructure and creating a more permeable and active ground floor plane.

As discussed with TfNSW, use of the basement for pick-up/drop-off was considered following TfNSW feedback, however due to the adaptive reuse of the existing basement levels and flood constraints, this was not considered a viable option. At present, the basement is operated as a valet service only due to the constrained nature of the basement level. With significant strengtheing of coloumns, removal of exit ramp and porte cochere to accommodate hotel needs (as described above), single lane access, and to mitigate flood risks, the basement was deemed unsuitable for public access pick-up/drop-off.

With particular regard to existing flood conditions, public use of the basement level is strongly discouraged noting the shelter in place flood emergency response required for the site. Further details of the development's preliminary flood emergency Managemennt Plan and Shelter in Place Flood response strategy is detailed within TTW's Flood Impact and Risk Assessment.

mecone.com.au
info@mecone.com.au
02 8667 8668

(b) Possibility of queing traffic onto Bathurst Street – Poisson Distribution Analysis

A Poisson Distribution Analysis has been prepared by PTC to assess the capacity of the proposed hotel drop-off bays and potential queing to accommodate forecast demand.

For the analysis, PTC have considered a worst case scenario being '2034 AM peak hour with proposed development' being:

- 2034 AM peak traffic with proposed development – 45 vehicles
- The proposed drop-off area accommodates 4 vehicles, with each space having a length of 5.4 metres.
- Analysis Time period – 60 minutes
- Drop-off Service Time – 120seconds (A service time of 120 seconds per vehicle has been adopted to reflect typical hotel drop-off operations, including passenger alighting, luggage handling, and vehicle manoeuvring within the drop-off area. Vehicle arrivals are assumed to occur randomly throughout the AM peak hour.)

Based on the results of the Poisson distribution analysis, a maximum of four vehicles is expected to occupy the proposed drop-off bays at a 95% confidence level, with no vehicles expected to queue.

For robustness, a 5 minute service time was also considered which demonstrates a maximum of two vehicles queueing at 95% confidence level. As shown in **Figure 1** below, approximately 50 metres of queing space (approximately 8 car spaces – 6m per vehicle) is also available withing the existing road design. Moreover, an existing taxi zone capable of accommodating 3 taxi vehicles is already provided on Day Street providing additional queing capacity.

Acccordingly, the assessment confirms that the proposed drop-off bays have adequate capacity to accommodate the expected traffic demand at typical and highly conservative service times which can be suitably managed by way of a future Operational Traffic Management Plan at DA stage.

It should also be noted that this analysis is based on existing circumstances only and opportunities to improve vehicle movements is capable of being considered should this be required by TfNSW.

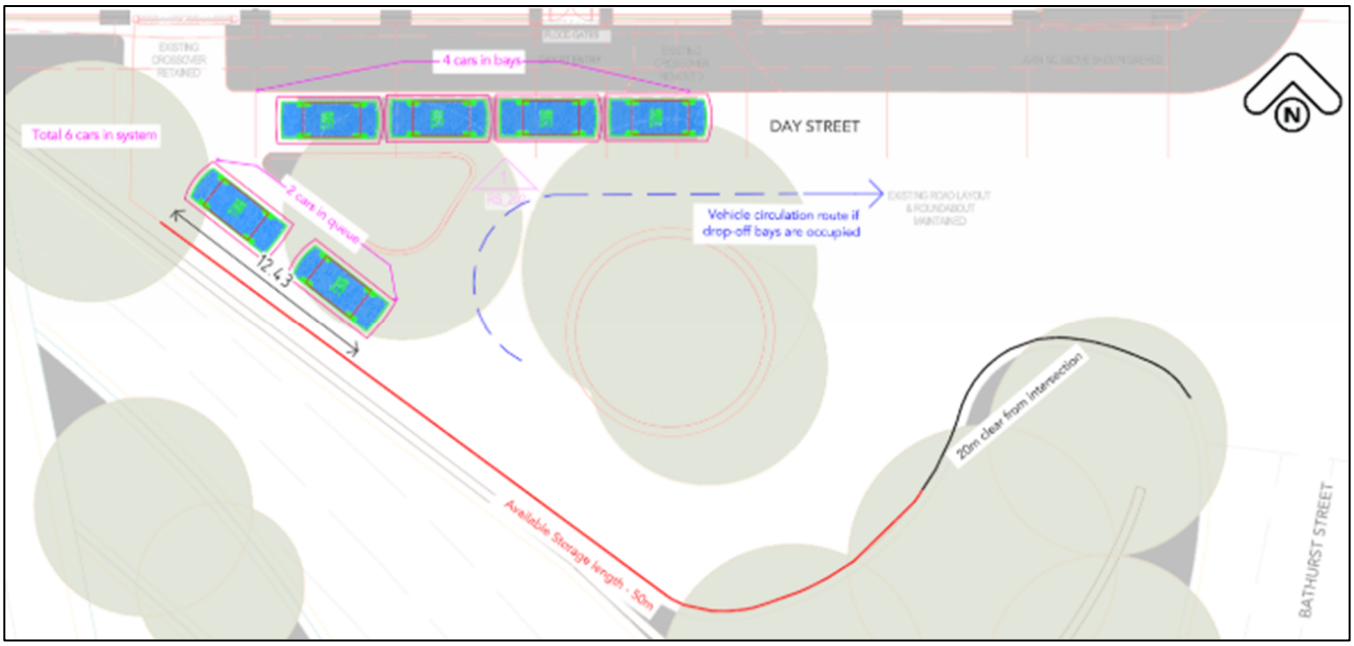


Figure 1 - Available Queue Storage for the Proposed Hotel Drop-off Bay
Source: PTC

(c) Ability to safely pass pick-up/drop-off bays

As shown by the blue dashed line in Figure 1, cars at the rear of the potential queue have the ability to exit the queue and pass proposed parking bays. This arrangement reflects existing circumstances and typical hotel operations where some arriving guests will arrive without luggage and simply exit the vehicle in a matter of seconds.

(d) Precedent Examples and current functional use of Day Street

On street pick-up/drop-off from local streets within the City of Sydney is a common occurrence where on site porte cochere or basement is not appropriate. Such examples include but are not limited to:

- 372-382A Pitt Street, Sydney
- 757-763 George Street, Haymarket
- 24 Loftus Street, Sydney (Capella)
- 203 Castlereagh Street, Sydney (The Porter House Hotel)
- 339 Pitt Street, Sydney (Kimpton Margot Sydney)
- 47-53 Wentworth Avenue, Sydney (Ace Hotel Sydney)
- 65 Sussex Street, Sydney (West Hotel Sydney)
- 26 Clarence Street, Sydney (Little Nation Sydney)
- 412 Pitt Street, Haymarket (Hotel Morris)

This approach is reinforced by the *Central Sydney On-Street Parking Policy*, which expressly supports the provision of kerbside pick-up/drop-off, taxi zones and short-stay parking to support hotel operations.

As Day Street is a local road which effectively services 150 Day Street (north of Bathurst Street) exclusively, the provision of kerb-side pick-up/drop-off can be accomodated and is suitable in this circumstance, particularly noting TfNSW have no future/alternative plan for Day Street.

(e) Conclusion

As established above, the removal of the existing porte cochere is necessary to accommodate the substantive adaptive reuse development.

Poisson Distribution Analysis undertaken by PTC demonstrates that under a worst case scenario, a maximum of four vehicles is expected to occupy the proposed drop-off bays at a 95% confidence level, with no vehicles expected to queue (120 second service time). Notwithstanding, the existing road design is capable of accommodating up to 8 queued vehicles in addition to an existing taxi bay capable of accomodating up to 3 taxi vehicles. Accordingly, the traffic demand generated by the development is not considered to have adverse impacts on the Day/Bathurst Street intersection.

In an unlikely queing event, sufficient space is available to enable vehicles to pass any queued/parked vehicles associated with the future development.

On street pick-up/drop off is a common occurrence on local streets within the City of Sydney. With regard to the many precedent examples within the City of Sydney, the propsoed on-street pick-up/drop-off arrangement is suitable for the site.

2. SIDRA Modelling

SIDRA modelling has been updated in accordance with TfNSW comments as provided within PTC's response provided under separate cover. Overall, the amendments to SIDRA modelling were recognised to be minor and do not change the conclusions presented previously.

Conclusion

We trust the above adeuately considers the matters raised by TfNSW. Should you wish to discuss any aspect of the above further, please do not hesitate to contact me at jrixon@mecone.com.au.

Yours sincerely



Jack Rixon
Associate

30th July 2026

Transport for New South Wales (TfNSW)

1. 150 Day Street – Response to TfNSW

This letter has been prepared by ptc. on behalf of UOL in response to the TfNSW comments regarding the SIDRA modelling of the Bathurst Street / Day Street intersection and the potential impact of queueing associated with the proposed hotel drop-off bays for the proposed development at 150 Day Street, Sydney.

TfNSW *comments* and ptc. responses are provided below.

1.1. TfNSW comment

The SIDRA movement summaries provided for 2024 (without development) modelling scenario indicates cycle time of 120-125 seconds have been adopted. However, the Bathurst Street/ Day Street signalised intersection (TCS 2331) currently operates at 110 seconds. SIDRA models should be updated accordingly.

ptc. response

The SIDRA models have been updated to reflect the existing 110 second traffic signal cycle time at the Bathurst Street / Day Street intersection.

The updated SIDRA movement summaries are provided in Attachment 1.

1.2. TfNSW comment

The SIDRA movement summaries have been provided for 2024 (without development) and 2034 (with development) modelling scenarios. Outputs for the 2034 (without development) scenario should also be provided to enable relative comparison between 'with development' and 'without development' scenarios in 2034. Furthermore, Day Street (North) does not permit right-turn out to Bathurst Street (West) and Day Street (Southwest) does not permit left-turn out to Bathurst Street (West). SIDRA models should be updated to restrict these movements and allow through-traffic movements on these approaches.

ptc. response

The turning movements within the SIDRA model were already consistent with the existing traffic restrictions. However, the intersection geometry has been updated to accurately reflect the existing road layout. The updated movement summaries for the existing, 2034 without development, and 2034 with development scenarios are provided in Attachment 1.

The updated SIDRA results indicate that the 95th percentile queue on Day Street during the AM peak hour increases marginally from approximately 1.4 vehicles (9.8 m) in the '2034 without development' scenario to 1.8 vehicles (12.6 m) in the '2034 with development scenario'. This represents a minor increase in queue length (2.8m / cars), indicating that the proposed development has a negligible impact on the operation of the Bathurst Street / Day Street intersection, as previously presented.

1.3. TfNSW comment

It is recommended the applicant demonstrate that the proposed bays have sufficient capacity to accommodate the future demand, considering peak demands and queuing impacts.

ptc. response

A queueing analysis has been undertaken to assess the capacity of the proposed hotel drop-off bays to accommodate the forecast demand.

The following inputs and assumptions have been adopted based on the worst-case demand scenario, being the '2034 AM peak hour with proposed development':

- 2034 AM peak traffic with proposed development – 45 vehicles
- The proposed drop-off area accommodates 4 vehicles, with each space having a length of 5.4 metres.
- Analysis Time period – 60minutes
- Drop-off Service Time – Two service times have been adopted to assess both typical and robust hotel drop-off operations:
    1. 2 minutes – A service time of 2 minutes has been adopted to reflect the typical hotel operations.
    2. 5 minutes - A service time of 5 minutes per vehicle has been adopted to reflect a robust assessment of the hotel drop-off operations, including passenger alighting, luggage handling, and vehicle manoeuvring within the drop-off area. Vehicle arrivals are assumed to occur randomly throughout the AM peak hour.

For the purposes of this analysis, a Poisson distribution has been adopted to analyse the queueing system based on the arrival rate, departure rate and service time.

A summary of the queueing analysis is shown in Table 1.

Table 1: Queueing Analysis Summary from Poisson Distribution

Model	Vehicle Arrivals	Inputs		Outputs	
		Time period (mins)	Service time (secs)	95% confidence	
				Cars in system	Cars queueing
2034 AM peak hour with proposed development – Hotel Drop-off	45 vehicles	60minutes	2 minutes	4	0
			5 minutes	6	2

Using these inputs, the Poisson distribution analysis indicates that, under the typical hotel drop-off operation assuming a 2-minute service time, all forecast vehicles can be accommodated within the four proposed drop-off bays, with no queueing expected. A further assessment was undertaken using a conservative 5-minute service time to represent a worst-case scenario where all 45 forecast hotel drop-off vehicles arrive during the AM peak hour and occupy a drop-off bay for 5 minutes. Under this scenario, the proposed drop-off bays are expected to be fully occupied, with up to two vehicles queueing at the 95% confidence level.

It is noted that the distance from the rear of the fourth drop-off bay to a point 20 metres clear of the Bathurst Street / Day Street intersection is approximately 50 metres, providing storage for approximately eight vehicles (based on 6m per vehicle). Under the 5 minute service time, a maximum queue of two vehicles is expected beyond the proposed drop-off bays, the available storage length is more than sufficient to accommodate the forecast demand without affecting the operation of the Bathurst Street / Day Street intersection. Accordingly, the assessment confirms that the proposed drop-off bays have adequate capacity to accommodate the expected traffic demand.

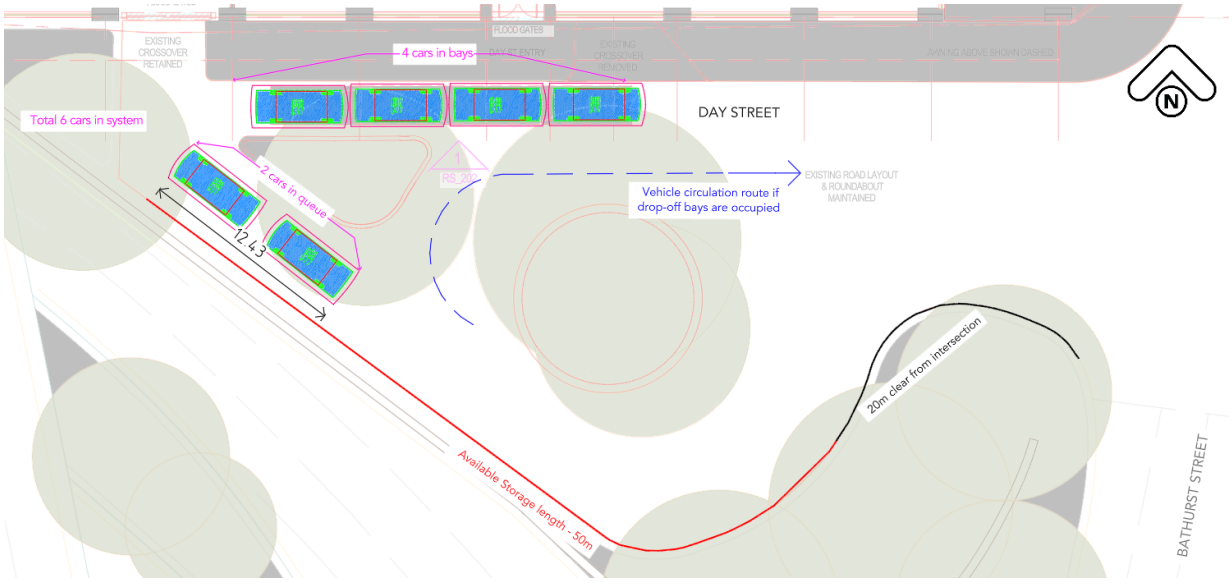


Figure 1: Available Queue Storage for the Proposed Hotel Drop-off Bays (5-minute service time)

Based on the assessment, no queueing is expected under the typical 2-minute service time. Under the worst-case scenario assuming a 5-minute service time, the available queue storage significantly exceeds the forecast maximum queue demand of two vehicles as shown in Figure 1. Furthermore, cars at the rear of the potential queue have the ability to exit the queue by following the blue dashed line in Figure 1, which reflects typical hotel operations where some arriving guests will arrive without luggage and simply exit the vehicle in a matter of seconds.

Accordingly, the proposed hotel drop-off bays have sufficient capacity to accommodate the forecast demand, and the likelihood of vehicle queues extending back to or affecting the operation of the Bathurst Street / Day Street intersection is considered negligible.

The detailed results of the drop-off queueing analysis for both the service times are provided in Attachment 2.

Yours faithfully

Priya Baaskaraun

Traffic Engineer

Document Control: Prepared by *PB* on *28 July 2026*. Reviewed by *DP* on *30 July 2026*

Attachment 1. SIDRA Modelling Results

MOVEMENT SUMMARY

Site: 2331 [2024 AM Bathurst Street/ Day Street (Site Folder: 2024 AM Existing Scenario)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2024 Existing AM Peak (Network Folder: Existing Scenario_95th Queue)]

2024 AM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Day Street															
2	T1	All MCs	18	0.0	18	0.0	0.698	40.2	LOS C	5.0	36.4	1.00	0.87	1.08	4.5
3	R2	All MCs	215	4.9	214	4.8	* 0.698	64.4	LOS E	7.6	55.5	1.00	0.86	1.06	2.6
Approach			233	4.5	232	4.4	0.698	62.5	LOS E	7.6	55.5	1.00	0.87	1.06	2.8
East: Bathurst Street															
4	L2	All MCs	18	11.8	18	11.8	0.116	47.4	LOS D	1.0	7.7	1.00	0.71	1.00	4.9
6	R2	All MCs	2	0.0	2	0.0	* 0.116	67.7	LOS E	1.0	7.7	1.00	0.71	1.00	6.9
Approach			20	10.5	20	10.5	0.116	49.5	LOS D	1.0	7.7	1.00	0.71	1.00	5.1
North: Day Street															
7	L2	All MCs	24	0.0	24	0.0	0.246	54.6	LOS D	1.3	8.9	0.94	0.73	0.94	3.4
8	T1	All MCs	16	0.0	16	0.0	0.116	46.2	LOS D	0.8	5.4	0.90	0.65	0.90	4.0
Approach			40	0.0	40	0.0	0.246	51.3	LOS D	1.3	8.9	0.93	0.70	0.93	3.6
West: Bathurst Street															
10	L2	All MCs	15	14.3	10	14.6	0.671	26.4	LOS B	7.2	52.2	0.83	0.74	0.83	8.9
11	T1	All MCs	1494	3.5	1051	3.6	* 0.671	23.5	LOS B	7.3	52.2	0.83	0.75	0.83	6.3
12	R2	All MCs	165	0.0	116	0.0	0.671	26.7	LOS B	7.3	52.2	0.85	0.76	0.85	6.2
Approach			1674	3.3	1178	3.3	0.671	23.8	LOS B	7.3	52.2	0.84	0.75	0.84	6.4
All Vehicles			1966	3.4	1470	4.6	0.698	31.0	LOS C	7.6	55.5	0.87	0.76	0.88	5.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Day Street											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											
P2	Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92

All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2024 PM Bathurst Street/ Day Street (Site Folder: 2024 PM Existing Scenario)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2024 Existing PM Peak (Network Folder: Existing Scenario_95th Queue)]

2024 PM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Day Street															
2	T1	All MCs	8	0.0	8	0.0	0.574	35.3	LOS C	5.0	35.0	1.00	0.83	1.01	4.7
3	R2	All MCs	204	1.0	204	1.0	* 0.574	61.5	LOS E	6.9	48.7	1.00	0.83	1.00	2.7
Approach			213	1.0	212	1.0	0.574	60.5	LOS E	6.9	48.7	1.00	0.83	1.00	2.8
East: Bathurst Street															
4	L2	All MCs	39	5.4	39	5.4	0.174	43.2	LOS D	2.0	14.8	1.00	0.75	1.00	5.3
6	R2	All MCs	3	0.0	3	0.0	* 0.174	62.8	LOS E	2.0	14.8	1.00	0.75	1.00	7.5
Approach			42	5.0	42	5.0	0.174	44.7	LOS D	2.0	14.8	1.00	0.75	1.00	5.5
North: Day Street															
7	L2	All MCs	13	0.0	13	0.0	0.089	51.0	LOS D	0.6	4.4	0.91	0.69	0.91	3.6
8	T1	All MCs	11	10.0	11	10.0	0.040	42.9	LOS D	0.5	3.7	0.88	0.61	0.88	4.3
Approach			23	4.5	23	4.5	0.089	47.3	LOS D	0.6	4.4	0.90	0.65	0.90	3.9
West: Bathurst Street															
10	L2	All MCs	15	7.1	14	7.4	0.506	25.5	LOS B	7.2	52.2	0.74	0.66	0.74	9.1
11	T1	All MCs	1007	3.6	924	3.7	* 0.506	25.9	LOS B	7.3	52.2	0.81	0.69	0.81	5.9
12	R2	All MCs	33	0.0	30	0.0	0.506	32.0	LOS C	7.3	52.2	0.87	0.73	0.87	5.3
Approach			1055	3.5	968	3.6	0.506	26.1	LOS B	7.3	52.2	0.81	0.69	0.81	5.9
All Vehicles			1333	3.2	1245	3.4	0.574	33.0	LOS C	7.3	52.2	0.85	0.72	0.85	4.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Day Street											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											
P2	Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92

All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 AM Bathurst Street/ Day Street (Site Folder: 2034 AM Future Do Minimum_Signal Optimise)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2034 Future AM Peak (Network Folder: Future Do Minimum_95th Queue_Signal Optimise)]

2024 AM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Day Street															
2	T1	All MCs	20	0.0	20	0.0	0.619	36.9	LOS C	6.3	45.2	1.00	0.85	1.02	4.8
3	R2	All MCs	242	4.8	240	4.7	* 0.619	62.0	LOS E	7.6	55.5	1.00	0.85	1.01	2.7
Approach			262	4.4	260	4.3	0.619	60.1	LOS E	7.6	55.5	1.00	0.85	1.01	2.9
East: Bathurst Street															
4	L2	All MCs	20	10.5	20	10.5	0.113	43.9	LOS D	1.1	8.1	1.00	0.72	1.00	5.2
6	R2	All MCs	2	0.0	2	0.0	* 0.113	65.8	LOS E	1.1	8.1	1.00	0.72	1.00	7.4
Approach			22	9.5	22	9.5	0.113	46.0	LOS D	1.1	8.1	1.00	0.72	1.00	5.4
North: Day Street															
7	L2	All MCs	27	0.0	27	0.0	0.208	53.3	LOS D	1.4	9.8	0.94	0.73	0.94	3.5
8	T1	All MCs	18	0.0	18	0.0	0.133	46.4	LOS D	0.9	6.2	0.90	0.66	0.90	4.0
Approach			45	0.0	45	0.0	0.208	50.6	LOS D	1.4	9.8	0.92	0.70	0.92	3.7
West: Bathurst Street															
10	L2	All MCs	17	12.5	11	12.8	0.641	27.1	LOS B	7.2	52.2	0.81	0.73	0.81	8.7
11	T1	All MCs	1682	3.5	1064	3.6	* 0.641	28.7	LOS C	7.3	52.2	0.88	0.76	0.88	5.3
12	R2	All MCs	186	0.0	118	0.0	0.641	35.6	LOS C	7.3	52.2	0.94	0.79	0.94	4.6
Approach			1885	3.2	1192	3.3	0.641	29.4	LOS C	7.3	52.2	0.88	0.76	0.88	5.3
All Vehicles			2215	3.4	1520	4.9	0.641	35.5	LOS C	7.6	55.5	0.91	0.77	0.91	4.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Day Street											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											
P2	Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92

All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 PM Bathurst Street/ Day Street (Site Folder: 2034 PM Future Do Minimum_Signal Optimise)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2034 Future PM Peak (Network Folder: Future Do Minimum_95th Queue_Signal Optimise)]

2024 PM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Day Street															
2	T1	All MCs	9	0.0	9	0.0	0.558	34.9	LOS C	5.5	38.8	1.00	0.83	1.00	4.8
3	R2	All MCs	229	0.9	229	0.9	* 0.558	60.4	LOS E	7.7	54.2	1.00	0.84	1.00	2.7
Approach			239	0.9	238	0.9	0.558	59.4	LOS E	7.7	54.2	1.00	0.84	1.00	2.8
East: Bathurst Street															
4	L2	All MCs	43	4.9	43	4.9	0.175	42.0	LOS C	2.2	16.1	1.00	0.75	1.00	5.4
6	R2	All MCs	3	0.0	3	0.0	* 0.175	63.9	LOS E	2.2	16.1	1.00	0.75	1.00	7.7
Approach			46	4.5	46	4.5	0.175	43.5	LOS D	2.2	16.1	1.00	0.75	1.00	5.6
North: Day Street															
7	L2	All MCs	15	0.0	15	0.0	0.088	53.3	LOS D	0.7	5.2	0.94	0.69	0.94	3.5
8	T1	All MCs	12	9.1	12	9.1	0.047	44.0	LOS D	0.5	4.1	0.89	0.62	0.89	4.2
Approach			26	4.0	26	4.0	0.088	49.2	LOS D	0.7	5.2	0.92	0.66	0.92	3.8
West: Bathurst Street															
10	L2	All MCs	17	6.3	14	6.6	0.538	27.4	LOS B	7.2	52.2	0.78	0.69	0.78	8.7
11	T1	All MCs	1135	3.5	962	3.7	* 0.538	28.0	LOS B	7.2	52.2	0.84	0.72	0.84	5.5
12	R2	All MCs	37	0.0	31	0.0	0.538	34.0	LOS C	7.2	52.2	0.90	0.75	0.90	5.0
Approach			1188	3.5	1007	3.7	0.538	28.1	LOS B	7.2	52.2	0.84	0.72	0.84	5.5
All Vehicles			1500	3.1	1318	3.5	0.558	34.7	LOS C	7.7	54.2	0.88	0.74	0.88	4.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Day Street											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											
P2	Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92

All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 AM Bathurst Street/ Day Street (Site Folder: 2034 AM Future with Development_Signal Optimise)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2034 Future with Development AM Peak (Network Folder: Future with Development_95th Queue_Signal Optimise)]

2024 AM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Day Street															
2	T1	All MCs	26	0.0	26	0.0	0.626	37.6	LOS D	6.5	46.9	1.00	0.85	1.02	4.8
3	R2	All MCs	242	4.8	240	4.6	* 0.626	62.5	LOS E	7.6	55.5	1.00	0.85	1.01	2.7
Approach			268	4.3	266	4.2	0.626	60.0	LOS E	7.6	55.5	1.00	0.85	1.02	2.9
East: Bathurst Street															
4	L2	All MCs	20	10.5	20	10.5	0.132	42.9	LOS D	1.1	8.4	1.00	0.72	1.00	5.2
6	R2	All MCs	3	0.0	3	0.0	* 0.132	64.2	LOS E	1.1	8.4	1.00	0.72	1.00	7.4
Approach			23	9.1	23	9.1	0.132	45.8	LOS D	1.1	8.4	1.00	0.72	1.00	5.5
North: Day Street															
7	L2	All MCs	35	0.0	35	0.0	0.265	53.8	LOS D	1.8	12.6	0.95	0.74	0.95	3.5
8	T1	All MCs	22	0.0	22	0.0	0.164	46.7	LOS D	1.1	7.7	0.91	0.67	0.91	4.0
Approach			57	0.0	57	0.0	0.265	51.1	LOS D	1.8	12.6	0.93	0.71	0.93	3.7
West: Bathurst Street															
10	L2	All MCs	22	9.5	14	9.7	0.641	27.2	LOS C	7.2	52.2	0.81	0.73	0.81	8.7
11	T1	All MCs	1682	3.5	1061	3.6	* 0.641	28.7	LOS C	7.3	52.2	0.88	0.76	0.88	5.3
12	R2	All MCs	186	0.0	117	0.0	0.641	35.5	LOS D	7.3	52.2	0.94	0.79	0.94	4.6
Approach			1891	3.2	1193	3.3	0.641	29.4	LOS C	7.3	52.2	0.88	0.76	0.88	5.3
All Vehicles			2239	3.3	1539	4.9	0.641	35.7	LOS D	7.6	55.5	0.91	0.77	0.91	4.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Day Street											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											

P2 Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92
All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

Site: 2331 [2034 PM Bathurst Street/ Day Street (Site Folder: 2034 PM Future with Development_Signal Optimise)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Network: N101 [2034 Future with Development PM Peak (Network Folder: Future with Development_95th Queue_Signal Optimise)]

2024 PM Bathurst Street/ Day Street_Existing
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: RoadName															
2	T1	All MCs	12	0.0	12	0.0	0.560	35.2	LOS C	5.6	39.4	1.00	0.83	1.00	4.8
3	R2	All MCs	229	0.9	229	0.9	* 0.560	60.6	LOS E	7.7	54.4	1.00	0.84	1.00	2.7
Approach			241	0.9	240	0.9	0.560	59.3	LOS E	7.7	54.4	1.00	0.84	1.00	2.8
East: Bathurst Street															
4	L2	All MCs	43	4.9	43	4.9	0.189	41.6	LOS C	2.2	16.3	1.00	0.75	1.00	5.5
6	R2	All MCs	4	0.0	4	0.0	* 0.189	63.2	LOS E	2.2	16.3	1.00	0.75	1.00	7.7
Approach			47	4.4	47	4.4	0.189	43.5	LOS D	2.2	16.3	1.00	0.75	1.00	5.7
North: Day Street															
7	L2	All MCs	18	0.0	18	0.0	0.107	53.5	LOS D	0.9	6.3	0.94	0.70	0.94	3.5
8	T1	All MCs	15	7.1	15	7.1	0.059	44.1	LOS D	0.7	5.1	0.89	0.63	0.89	4.2
Approach			33	3.2	33	3.2	0.107	49.3	LOS D	0.9	6.3	0.92	0.67	0.92	3.8
West: Bathurst Street															
10	L2	All MCs	21	5.0	18	5.3	0.541	27.4	LOS B	7.2	52.2	0.78	0.69	0.78	8.7
11	T1	All MCs	1135	3.5	962	3.7	* 0.541	28.0	LOS B	7.2	52.2	0.84	0.72	0.84	5.5
12	R2	All MCs	37	0.0	31	0.0	0.541	34.1	LOS C	7.2	52.2	0.90	0.75	0.90	5.0
Approach			1193	3.4	1011	3.6	0.541	28.2	LOS B	7.2	52.2	0.84	0.72	0.84	5.5
All Vehicles			1514	3.1	1331	3.5	0.560	34.9	LOS C	7.7	54.4	0.88	0.74	0.88	4.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Eff. Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: RoadName											
P1	Full	252	49.7	LOS E	0.8	0.8	0.96	0.96	203.5	200.0	0.98
East: Bathurst Street											

P2 Full	383	50.0	LOS E	1.2	1.2	0.96	0.96	216.6	200.0	0.92
All Pedestrians	635	49.9	LOS E	1.2	1.2	0.96	0.96	211.4	200.0	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Attachment 2. AM Peak Drop-off Queuing Model

76.66666667 100

Inputs		
Total Arriving	***45***	Cars
Time Period	***60.0***	Mins
Arrival Time	***80.0***	Seconds/Car
Service Time	***120.0***	Seconds/Car
No. of Services (N)	***4***	Spaces

***This queuing system is based on Arrival Rate Nature/Departure Rate Nature/Number of Service Channels (M/M/N) Model.**

M - Exponential Distribution

Factors that could affect your analysis:

- Neighboring system
- Time-dependant variations in arrivals and departures (Peak hour effects in traffic volumes, human service rate changes)
- Breakdown in discipline (People jumping queues! More than one vehicle in a lane!)
- Time-dependent service channel variations (Grocery store counter lines)

0.061728

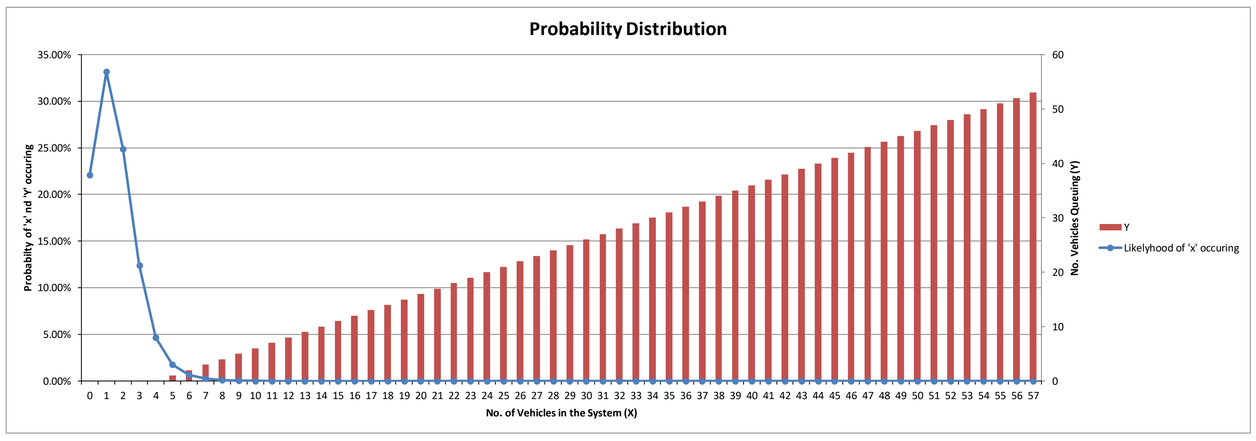
Model			
Arrival Rate (λ)	***0.75***	Cars/Min	*Average arrival rate
Service Rate (μ)	***0.500***	Cars/Min	*Average depature rate at each channel
ρ (=λ/μ)	***1.50***		
ρ / N	***0.38***		*Traffic Intensity < 1. If it's higher than 1 then the queue will grow without bound, please adjust inputs.

Poisson Distribution Calc based on 4 No. Spaces. ***4.19*** ***0.34***

Note: Calculation of Poisson Distribution needs to be adjusted manually when the number of service channels changes.

iNTERPRETING THE RESULTS: **P(x) means the probability of "x" cars in the system with "y" cars are queuing**

P(X)	likihood of 'x' occuring	"x"		Y		Confidence
P(0) (Poisson Distribution)	22.10%	***0***	Car in System	***0***	Cars in queuing	77.90%
P(1) (Poisson Distribution)	33.15%	***1***	Car in System	***0***	Cars in queuing	66.85%
P(2) (Poisson Distribution)	24.86%	***2***	Cars in System	***0***	Cars in queuing	75.14%
P(3) (Poisson Distribution)	12.43%	***3***	Cars in System	***0***	Cars in queuing	87.57%
P(4) (Poisson Distribution)	4.66%	***4***	Cars in System	***0***	Cars in queuing	95.34%
P(5) (Poisson Distribution)	1.75%	***5***	Cars in System	***1***	Cars in queuing	98.25%
P(6) (Poisson Distribution)	0.66%	***6***	Cars in System	***2***	Cars in queuing	99.34%
P(7) (Poisson Distribution)	0.25%	***7***	Cars in System	***3***	Cars in queuing	99.75%
P(8) (Poisson Distribution)	0.09%	***8***	Cars in System	***4***	Cars in queuing	99.91%
P(9) (Poisson Distribution)	0.03%	***9***	Cars in System	***5***	Cars in queuing	99.97%
P(10) (Poisson Distribution)	0.01%	***10***	Cars in System	***6***	Cars in queuing	99.99%
P(11) (Poisson Distribution)	0.00%	***11***	Cars in System	***7***	Cars in queuing	100.00%
P(12) (Poisson Distribution)	0.00%	***12***	Cars in System	***8***	Cars in queuing	100.00%
P(13) (Poisson Distribution)	0.00%	***13***	Cars in System	***9***	Cars in queuing	100.00%
P(14) (Poisson Distribution)	0.00%	***14***	Cars in System	***10***	Cars in queuing	100.00%
P(15) (Poisson Distribution)	0.00%	***15***	Cars in System	***11***	Cars in queuing	100.00%
P(16) (Poisson Distribution)	0.00%	***16***	Cars in System	***12***	Cars in queuing	100.00%
P(17) (Poisson Distribution)	0.00%	***17***	Cars in System	***13***	Cars in queuing	100.00%
P(18) (Poisson Distribution)	0.00%	***18***	Cars in System	***14***	Cars in queuing	100.00%
P(19) (Poisson Distribution)	0.00%	***19***	Cars in System	***15***	Cars in queuing	100.00%
P(20) (Poisson Distribution)	0.00%	***20***	Cars in System	***16***	Cars in queuing	100.00%
P(21) (Poisson Distribution)	0.00%	***21***	Cars in System	***17***	Cars in queuing	100.00%
P(22) (Poisson Distribution)	0.00%	***22***	Cars in System	***18***	Cars in queuing	100.00%
P(23) (Poisson Distribution)	0.00%	***23***	Cars in System	***19***	Cars in queuing	100.00%
P(24) (Poisson Distribution)	0.00%	***24***	Cars in System	***20***	Cars in queuing	100.00%
P(25) (Poisson Distribution)	0.00%	***25***	Cars in System	***21***	Cars in queuing	100.00%
P(26) (Poisson Distribution)	0.00%	***26***	Cars in System	***22***	Cars in queuing	100.00%
P(27) (Poisson Distribution)	0.00%	***27***	Cars in System	***23***	Cars in queuing	100.00%
P(28) (Poisson Distribution)	0.00%	***28***	Cars in System	***24***	Cars in queuing	100.00%
P(29) (Poisson Distribution)	0.00%	***29***	Cars in System	***25***	Cars in queuing	100.00%
P(30) (Poisson Distribution)	0.00%	***30***	Cars in System	***26***	Cars in queuing	100.00%
P(31) (Poisson Distribution)	0.00%	***31***	Cars in System	***27***	Cars in queuing	100.00%
P(32) (Poisson Distribution)	0.00%	***32***	Cars in System	***28***	Cars in queuing	100.00%
P(33) (Poisson Distribution)	0.00%	***33***	Cars in System	***29***	Cars in queuing	100.00%
P(34) (Poisson Distribution)	0.00%	***34***	Cars in System	***30***	Cars in queuing	100.00%
P(35) (Poisson Distribution)	0.00%	***35***	Cars in System	***31***	Cars in queuing	100.00%
P(36) (Poisson Distribution)	0.00%	***36***	Cars in System	***32***	Cars in queuing	100.00%
P(37) (Poisson Distribution)	0.00%	***37***	Cars in System	***33***	Cars in queuing	100.00%
P(38) (Poisson Distribution)	0.00%	***38***	Cars in System	***34***	Cars in queuing	100.00%
P(39) (Poisson Distribution)	0.00%	***39***	Cars in System	***35***	Cars in queuing	100.00%
P(40) (Poisson Distribution)	0.00%	***40***	Cars in System	***36***	Cars in queuing	100.00%
P(41) (Poisson Distribution)	0.00%	***41***	Cars in System	***37***	Cars in queuing	100.00%
P(42) (Poisson Distribution)	0.00%	***42***	Cars in System	***38***	Cars in queuing	100.00%
P(43) (Poisson Distribution)	0.00%	***43***	Cars in System	***39***	Cars in queuing	100.00%
P(44) (Poisson Distribution)	0.00%	***44***	Cars in System	***40***	Cars in queuing	100.00%
P(45) (Poisson Distribution)	0.00%	***45***	Cars in System	***41***	Cars in queuing	100.00%
P(46) (Poisson Distribution)	0.00%	***46***	Cars in System	***42***	Cars in queuing	100.00%
P(47) (Poisson Distribution)	0.00%	***47***	Cars in System	***43***	Cars in queuing	100.00%
P(48) (Poisson Distribution)	0.00%	***48***	Cars in System	***44***	Cars in queuing	100.00%
P(49) (Poisson Distribution)	0.00%	***49***	Cars in System	***45***	Cars in queuing	100.00%
P(50) (Poisson Distribution)	0.00%	***50***	Cars in System	***46***	Cars in queuing	100.00%
P(51) (Poisson Distribution)	0.00%	***51***	Cars in System	***47***	Cars in queuing	100.00%
P(52) (Poisson Distribution)	0.00%	***52***	Cars in System	***48***	Cars in queuing	100.00%
P(53) (Poisson Distribution)	0.00%	***53***	Cars in System	***49***	Cars in queuing	100.00%
P(54) (Poisson Distribution)	0.00%	***54***	Cars in System	***50***	Cars in queuing	100.00%
P(55) (Poisson Distribution)	0.00%	***55***	Cars in System	***51***	Cars in queuing	100.00%
P(56) (Poisson Distribution)	0.00%	***56***	Cars in System	***52***	Cars in queuing	100.00%
P(57) (Poisson Distribution)	0.00%	***57***	Cars in System	***53***	Cars in queuing	100.00%



Probability of no vehicles

$$P_0 = \frac{1}{\sum_{n_c=0}^{N-1} \frac{\rho^{n_c}}{n_c!} + \frac{\rho^N}{N!(1-\rho/N)}}$$

Probaliblity of having n vehicles

$$P_n = \frac{\rho^n P_0}{n!} \quad \text{for n} \le \text{N} \qquad P_n = \frac{\rho^n P_0}{N^{n-N} N!} \quad \text{for n} \ge \text{N}$$

Results		
Average Length of Queue $\overline{Q} = \frac{P_0 \rho^{N+1}}{N! N} \left[\frac{1}{(1-\rho/N)^2} \right]$	***0.04***	Cars in queuing
Average Time Spent in System $\bar{t} = \frac{\rho + \overline{Q}}{\lambda}$	***2.06***	Mins/Car
	123.58	Seconds
Average Time Waiting in Queue $\overline{w} = \frac{\rho + \overline{Q}}{\lambda} - \frac{1}{\mu}$	***0.06***	Mins/Car
	3.58	Seconds

Probability of Queue
2.80%

76.66666667 100

Inputs		
Total Arriving	45	Cars
Time Period	60.0	Mins
Arrival Time	80.0	Seconds/Car
Service Time	300.0	Seconds/Car
No. of Services (N)	4	Spaces

***This queuing system is based on Arrival Rate Nature/Departure Rate Nature/Number of Service Channels (M/M/N) Model.**

M - Exponential Distribution

Factors that could affect your analysis:

- Neighboring system
- Time-dependant variations in arrivals and departures (Peak hour effects in traffic volumes, human service rate changes)
- Breakdown in discipline (People jumping queues! More than one vehicle in a lane!)
- Time-dependent service channel variations (Grocery store counter lines)

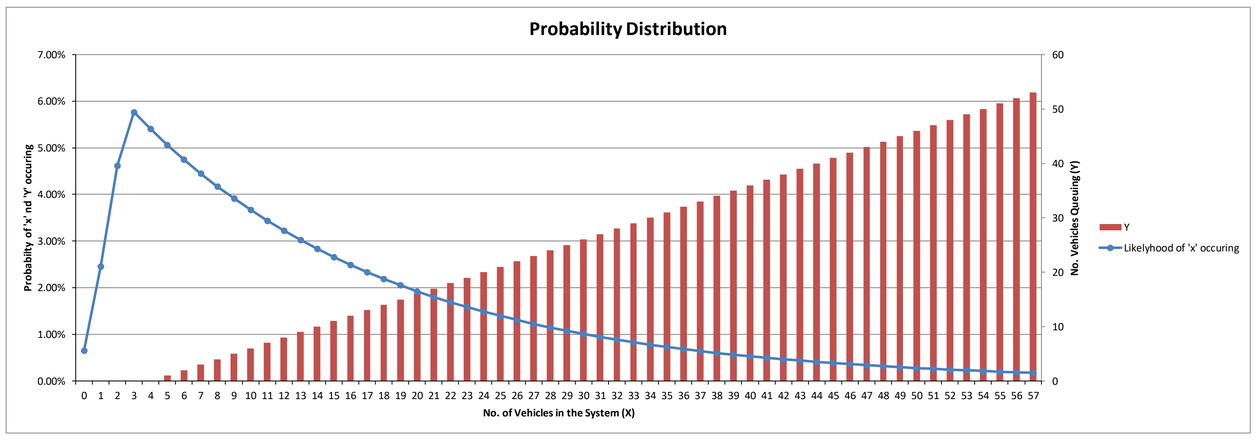
0.061728

Model			
Arrival Rate (λ)	0.75	Cars/Min	*Average arrival rate
Service Rate (μ)	0.200	Cars/Min	*Average depature rate at each channel
ρ (=λ/μ)	3.75		
ρ / N	0.94		*Traffic Intensity < 1. If it's higher than 1 then the queue will grow without bound, please adjust inputs.

Poisson Distribution Calc based on 4 No. Spaces. 20.57 131.84 *Note: Calculation of Poisson Distribution needs to be adjusted manually when the number of service channels changes.*

iNTERPRETING THE RESULTS: P(x) means the probability of "x" cars in the system with "y" cars are queuing

P(X)	likihood of 'x' occuring	"x"		Y		Confidence
P(0) (Poisson Distribution)	0.66%	0	Car in System	0	Cars in queuing	99.34%
P(1) (Poisson Distribution)	2.46%	1	Car in System	0	Cars in queuing	97.54%
P(2) (Poisson Distribution)	4.61%	2	Cars in System	0	Cars in queuing	95.39%
P(3) (Poisson Distribution)	5.77%	3	Cars in System	0	Cars in queuing	94.23%
P(4) (Poisson Distribution)	5.41%	4	Cars in System	0	Cars in queuing	94.59%
P(5) (Poisson Distribution)	5.07%	5	Cars in System	1	Cars in queuing	94.93%
P(6) (Poisson Distribution)	4.75%	6	Cars in System	2	Cars in queuing	95.25%
P(7) (Poisson Distribution)	4.45%	7	Cars in System	3	Cars in queuing	95.55%
P(8) (Poisson Distribution)	4.18%	8	Cars in System	4	Cars in queuing	95.82%
P(9) (Poisson Distribution)	3.92%	9	Cars in System	5	Cars in queuing	96.08%
P(10) (Poisson Distribution)	3.67%	10	Cars in System	6	Cars in queuing	96.33%
P(11) (Poisson Distribution)	3.44%	11	Cars in System	7	Cars in queuing	96.56%
P(12) (Poisson Distribution)	3.23%	12	Cars in System	8	Cars in queuing	96.77%
P(13) (Poisson Distribution)	3.02%	13	Cars in System	9	Cars in queuing	96.98%
P(14) (Poisson Distribution)	2.84%	14	Cars in System	10	Cars in queuing	97.16%
P(15) (Poisson Distribution)	2.66%	15	Cars in System	11	Cars in queuing	97.34%
P(16) (Poisson Distribution)	2.49%	16	Cars in System	12	Cars in queuing	97.51%
P(17) (Poisson Distribution)	2.34%	17	Cars in System	13	Cars in queuing	97.66%
P(18) (Poisson Distribution)	2.19%	18	Cars in System	14	Cars in queuing	97.81%
P(19) (Poisson Distribution)	2.05%	19	Cars in System	15	Cars in queuing	97.95%
P(20) (Poisson Distribution)	1.93%	20	Cars in System	16	Cars in queuing	98.07%
P(21) (Poisson Distribution)	1.80%	21	Cars in System	17	Cars in queuing	98.20%
P(22) (Poisson Distribution)	1.69%	22	Cars in System	18	Cars in queuing	98.31%
P(23) (Poisson Distribution)	1.59%	23	Cars in System	19	Cars in queuing	98.41%
P(24) (Poisson Distribution)	1.49%	24	Cars in System	20	Cars in queuing	98.51%
P(25) (Poisson Distribution)	1.39%	25	Cars in System	21	Cars in queuing	98.61%
P(26) (Poisson Distribution)	1.31%	26	Cars in System	22	Cars in queuing	98.69%
P(27) (Poisson Distribution)	1.23%	27	Cars in System	23	Cars in queuing	98.77%
P(28) (Poisson Distribution)	1.15%	28	Cars in System	24	Cars in queuing	98.85%
P(29) (Poisson Distribution)	1.08%	29	Cars in System	25	Cars in queuing	98.92%
P(30) (Poisson Distribution)	1.01%	30	Cars in System	26	Cars in queuing	98.99%
P(31) (Poisson Distribution)	0.95%	31	Cars in System	27	Cars in queuing	99.05%
P(32) (Poisson Distribution)	0.89%	32	Cars in System	28	Cars in queuing	99.11%
P(33) (Poisson Distribution)	0.83%	33	Cars in System	29	Cars in queuing	99.17%
P(34) (Poisson Distribution)	0.78%	34	Cars in System	30	Cars in queuing	99.22%
P(35) (Poisson Distribution)	0.73%	35	Cars in System	31	Cars in queuing	99.27%
P(36) (Poisson Distribution)	0.69%	36	Cars in System	32	Cars in queuing	99.31%
P(37) (Poisson Distribution)	0.64%	37	Cars in System	33	Cars in queuing	99.36%
P(38) (Poisson Distribution)	0.60%	38	Cars in System	34	Cars in queuing	99.40%
P(39) (Poisson Distribution)	0.56%	39	Cars in System	35	Cars in queuing	99.44%
P(40) (Poisson Distribution)	0.53%	40	Cars in System	36	Cars in queuing	99.47%
P(41) (Poisson Distribution)	0.50%	41	Cars in System	37	Cars in queuing	99.50%
P(42) (Poisson Distribution)	0.47%	42	Cars in System	38	Cars in queuing	99.53%
P(43) (Poisson Distribution)	0.44%	43	Cars in System	39	Cars in queuing	99.56%
P(44) (Poisson Distribution)	0.41%	44	Cars in System	40	Cars in queuing	99.59%
P(45) (Poisson Distribution)	0.38%	45	Cars in System	41	Cars in queuing	99.62%
P(46) (Poisson Distribution)	0.36%	46	Cars in System	42	Cars in queuing	99.64%
P(47) (Poisson Distribution)	0.34%	47	Cars in System	43	Cars in queuing	99.66%
P(48) (Poisson Distribution)	0.32%	48	Cars in System	44	Cars in queuing	99.68%
P(49) (Poisson Distribution)	0.30%	49	Cars in System	45	Cars in queuing	99.70%
P(50) (Poisson Distribution)	0.28%	50	Cars in System	46	Cars in queuing	99.72%
P(51) (Poisson Distribution)	0.26%	51	Cars in System	47	Cars in queuing	99.74%
P(52) (Poisson Distribution)	0.24%	52	Cars in System	48	Cars in queuing	99.76%
P(53) (Poisson Distribution)	0.23%	53	Cars in System	49	Cars in queuing	99.77%
P(54) (Poisson Distribution)	0.21%	54	Cars in System	50	Cars in queuing	99.79%
P(55) (Poisson Distribution)	0.20%	55	Cars in System	51	Cars in queuing	99.80%
P(56) (Poisson Distribution)	0.19%	56	Cars in System	52	Cars in queuing	99.81%
P(57) (Poisson Distribution)	0.18%	57	Cars in System	53	Cars in queuing	99.82%



Probability of no vehicles

$$P_0 = \frac{1}{\sum_{n_c=0}^{N-1} \frac{\rho^{n_c}}{n_c!} + \frac{\rho^N}{N!(1-\rho/N)}}$$

Probaliblity of having n vehicles

$$P_n = \frac{\rho^n P_0}{n!} \quad \text{for n} \le \text{N} \qquad P_n = \frac{\rho^n P_0}{N^{n-N} N!} \quad \text{for n} \ge \text{N}$$

Results		
Average Length of Queue $\overline{Q} = \frac{P_0 \rho^{N+1}}{N! N} \left[\frac{1}{(1-\rho/N)^2} \right]$	12.98	Cars in queuing
Average Time Spent in System $\bar{t} = \frac{\rho + \overline{Q}}{\lambda}$	22.30 1338.04	Mins/Car Seconds
Average Time Waiting in Queue $\overline{w} = \frac{\rho + \overline{Q}}{\lambda} - \frac{1}{\mu}$	17.30 1038.04	Mins/Car Seconds

Probability of Queue
78.45%

Attachment B

Draft Sydney Development Control Plan – 150 Day Street, Sydney

CITY OF SYDNEY

Sydney Development Control Plan – 150 Day Street, Sydney



Sydney DCP 2012 – 150 Day Street, Sydney
August 2025

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

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The purpose of this Development Control Plan

The purpose of this Development Control Plan (DCP) is to amend *Sydney Development Control Plan 2012*, which was adopted by Council on 14 May 2012 and came into effect on 14 December 2012.

The amendment provides objectives and provisions to inform future development at 150 Day Street, Sydney.

This plan is to be read in conjunction with Planning Proposal – 150 Day Street, Sydney.

Citation

This amendment may be referred to as *Sydney Development Control Plan 2012 – 150 Day Street, Sydney*.

Land covered by this plan

This plan applies to the land identified as 150 Day Street, Sydney – which is Lot 20 in DP 1046870.

Relationship of this plan to Sydney Development Control Plan 2012

This plan amends the Sydney Development Control Plan 2012 in the manner set out below.

Amendments to Sydney Development Control Plan 2012

This plan amends Sydney Development Control Plan 2012 by:

1. Amending Figure 6.1 Specific sites map to include 150 Day Street, Sydney.
2. Inserting a new section 6.3.X 150 Day Street, Sydney, as shown at Schedule 1.
3. Updating figure numbers as required.

Schedule 1 – Amendment to Sydney Development Control Plan 2012

6.3.X 150 Day Street, Sydney

The following objectives and provisions apply to 150 Day Street, Sydney, as shown in 'Figure 6.1 Specific sites map', where relevant site specific provisions of the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) are implemented.

Clause 6.XX of the Sydney LEP 2012 enables development to exceed the height and floor space ratio shown in the height of buildings and floor space ratio maps up to a prescribed amount, providing the entire site is developed for commercial use**,** and the existing primary structure and floors is substantially retained.

If a development at 150 Day Street, Sydney, seeks to utilise additional height and/or floor space permitted by clause 6.XX, then the provisions in this section also apply to the assessment of the proposed development and override other provisions in this DCP where there is an inconsistency.

Objectives

a. Deliver a high-quality built form which:
    i. features substantial retention of the existing columns, beams and slabs.
    ii. causes no additional overshadowing of Sydney Town Hall Steps, Sydney Square, and future Town Hall Square
    iii. ensures the development results in a comfortable and safe wind environment in adjacent public places
    iv. maximises opportunities to mitigate risk to life and property from flooding.
b. Ensure development can accommodate all servicing, loading and delivery requirements wholly within the site and not impact the use of any footpath or roadway
c. Ensure development is consistent with Australian best practice performance benchmarks for ecologically sustainable development.
d. Façade and roof design to maximise opportunities for green landscaping and tree planting, and provide visual integration between existing and new structure, while ensuring plantings on structure are viable and contribute to enhancing vegetation cover and complement tree canopy.

6.3.X.1 Built form

1. Development is not to exceed the envelope shown in 'Figures 6.XXX.1-17'.
2. Where 'Figures 6.XXX' show voids to mitigate wind impacts, the dimensions and location of these voids may be changed within the planning envelope, subject to achieving acceptable wind outcomes.

Figure 1 Ground floor plan

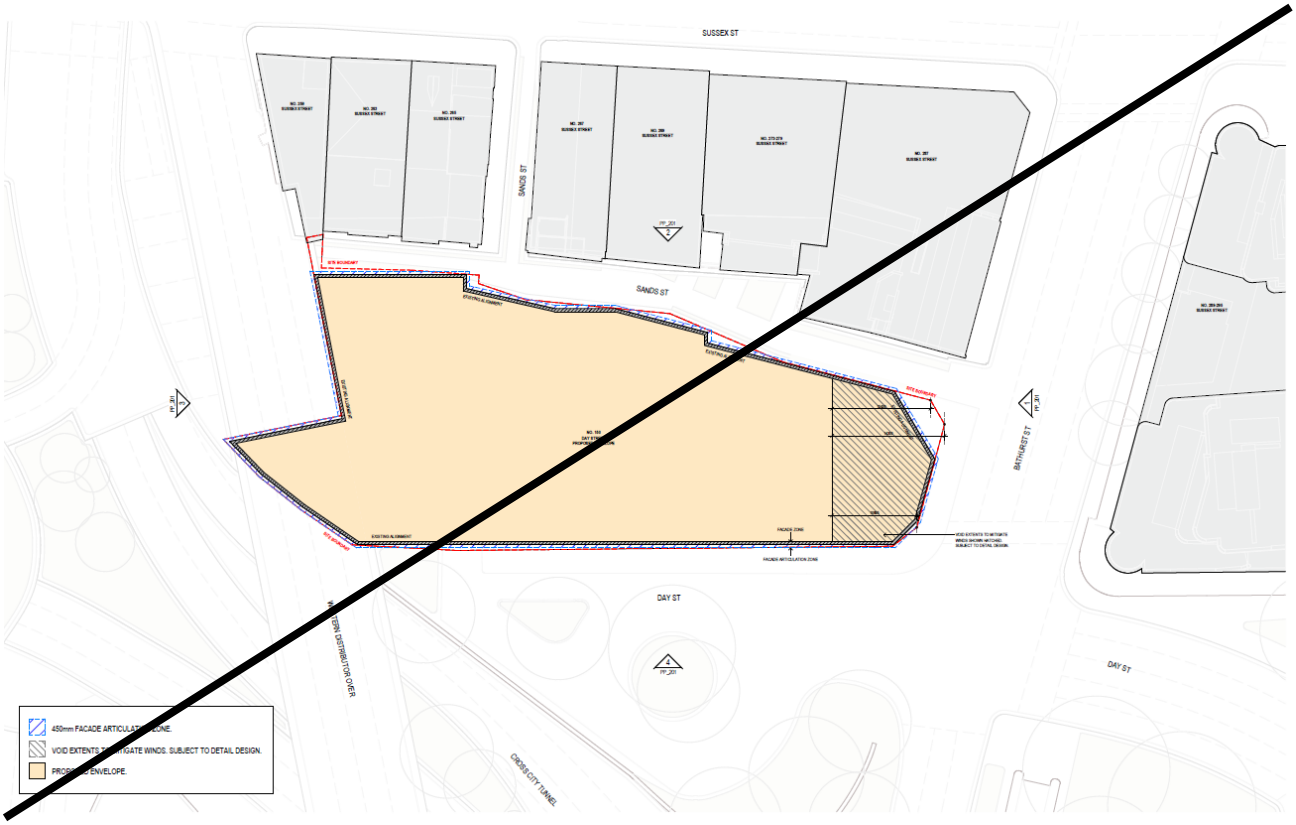




Figure 2 Level 1 floor plan

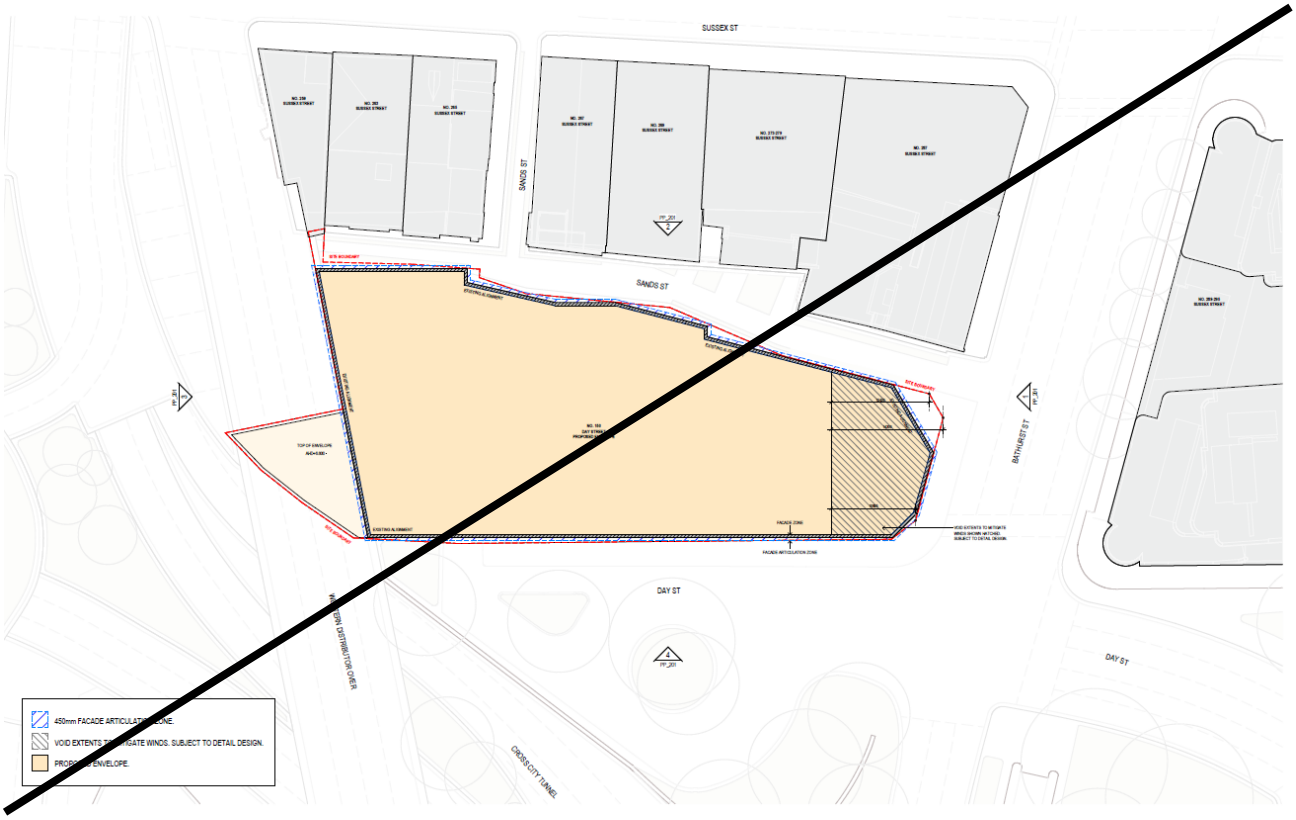




Figure 3 Level 2 floor plan





Figure 4 Levels 3-10 floor plan

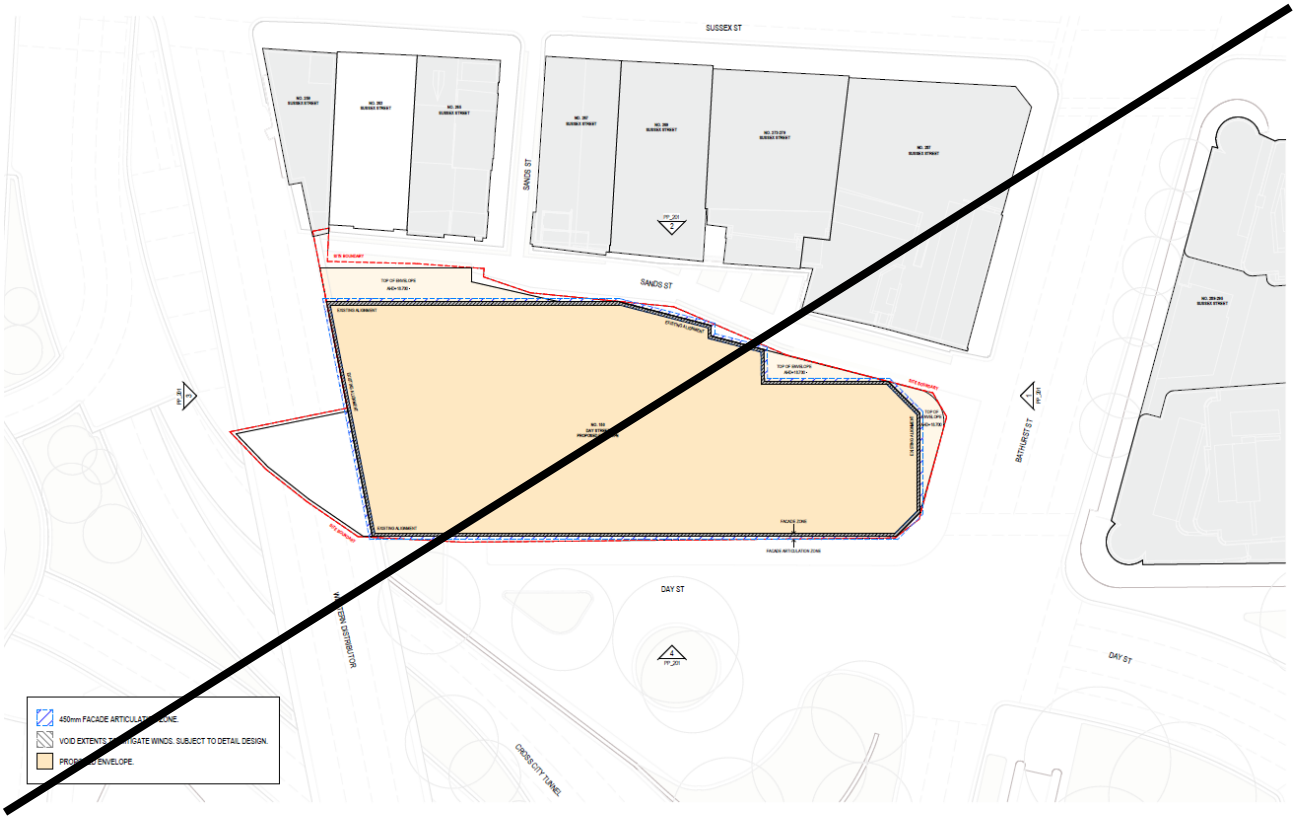




Figure 5 Level 11 floor plan

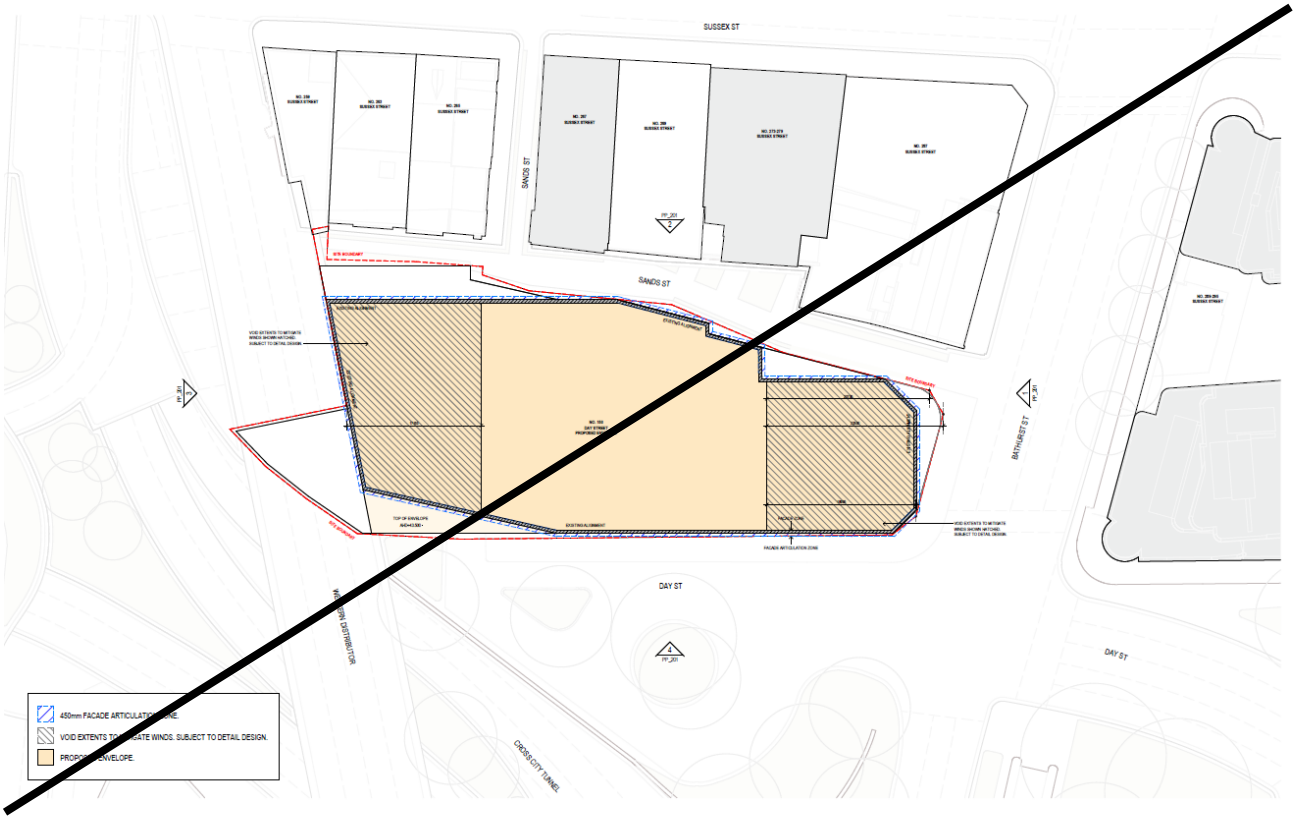




Figure 6 Level 12 floor plan



Figure 7 Levels 13-17 floor plan



Figure 8 Level 18 floor plan

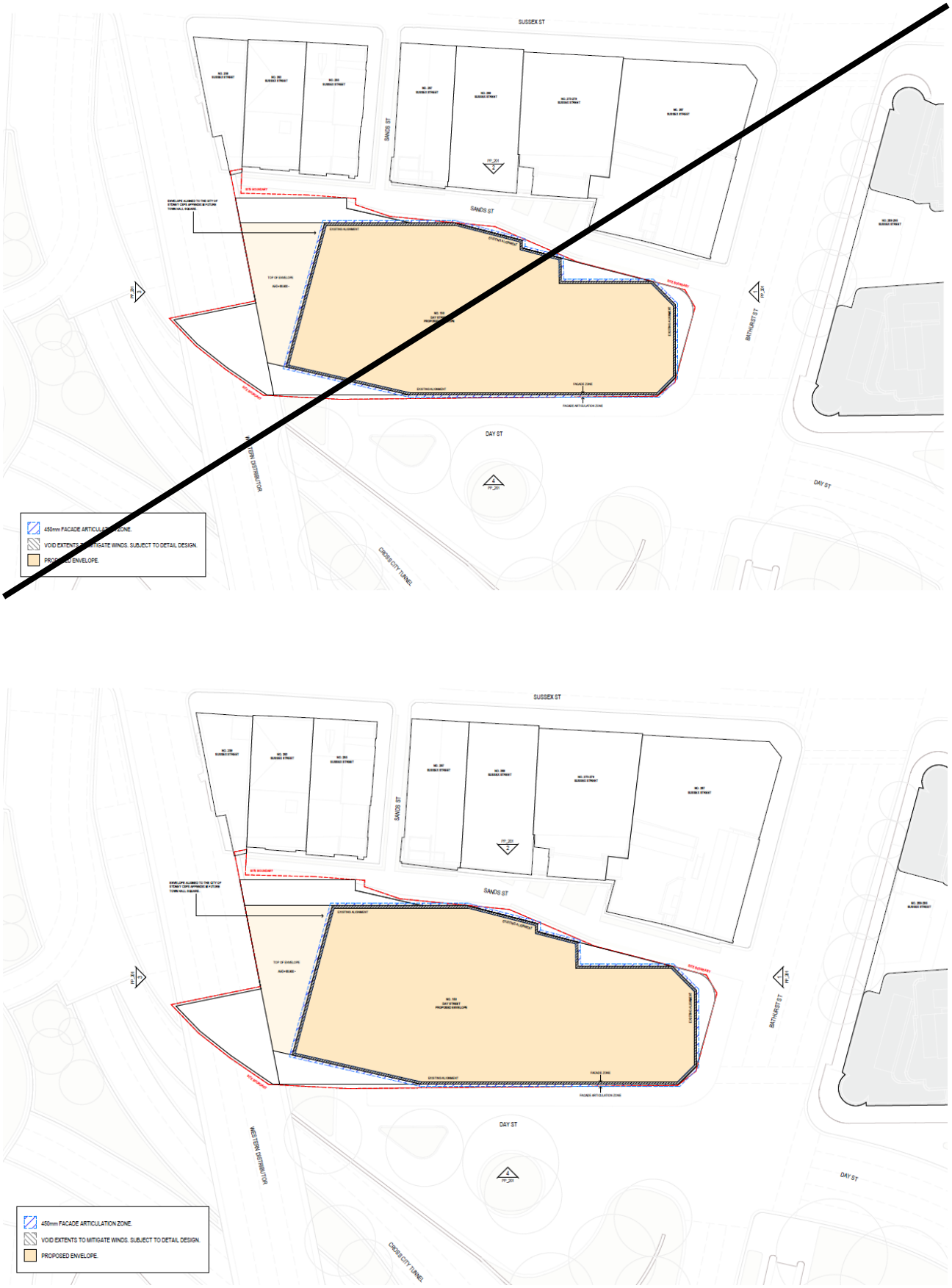


Figure 9 Level 19 floor plan

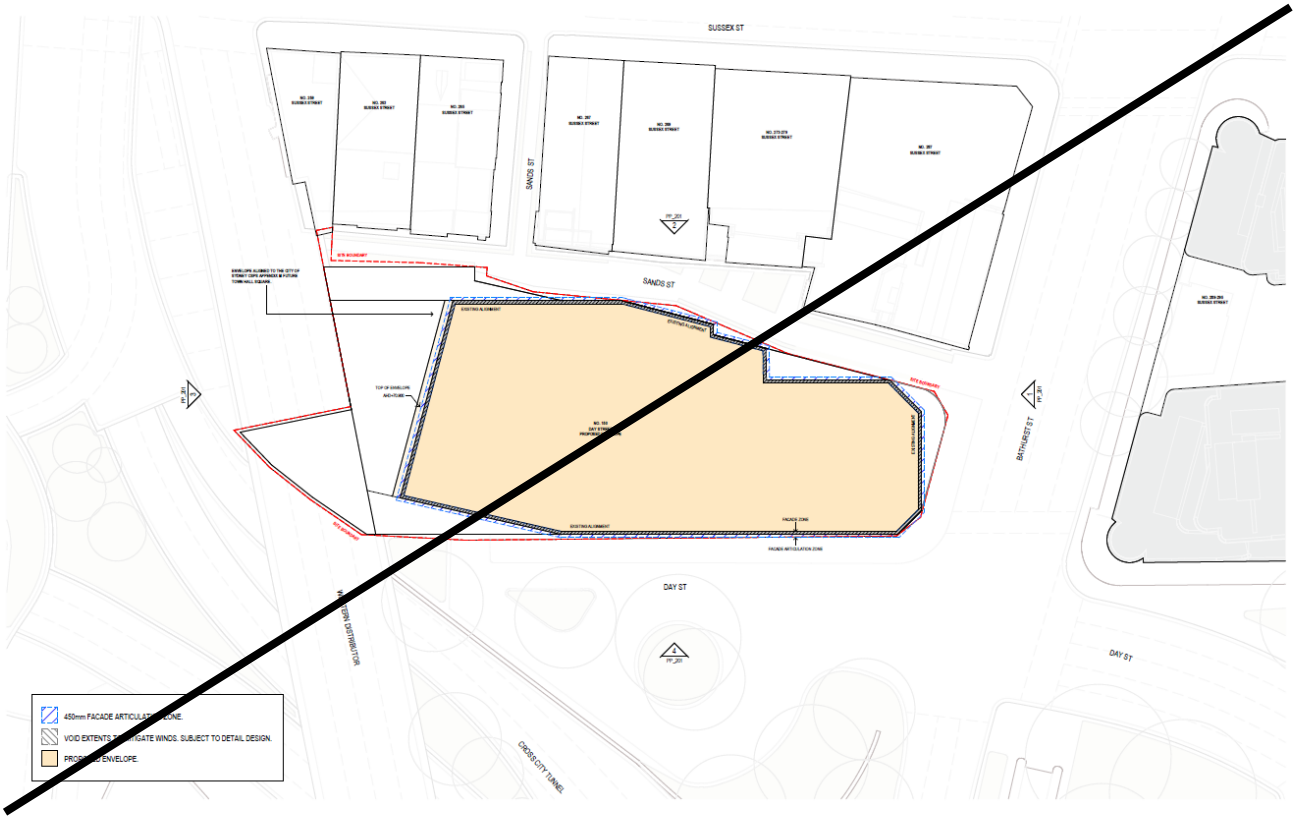




Figure 10 Level 20 floor plan

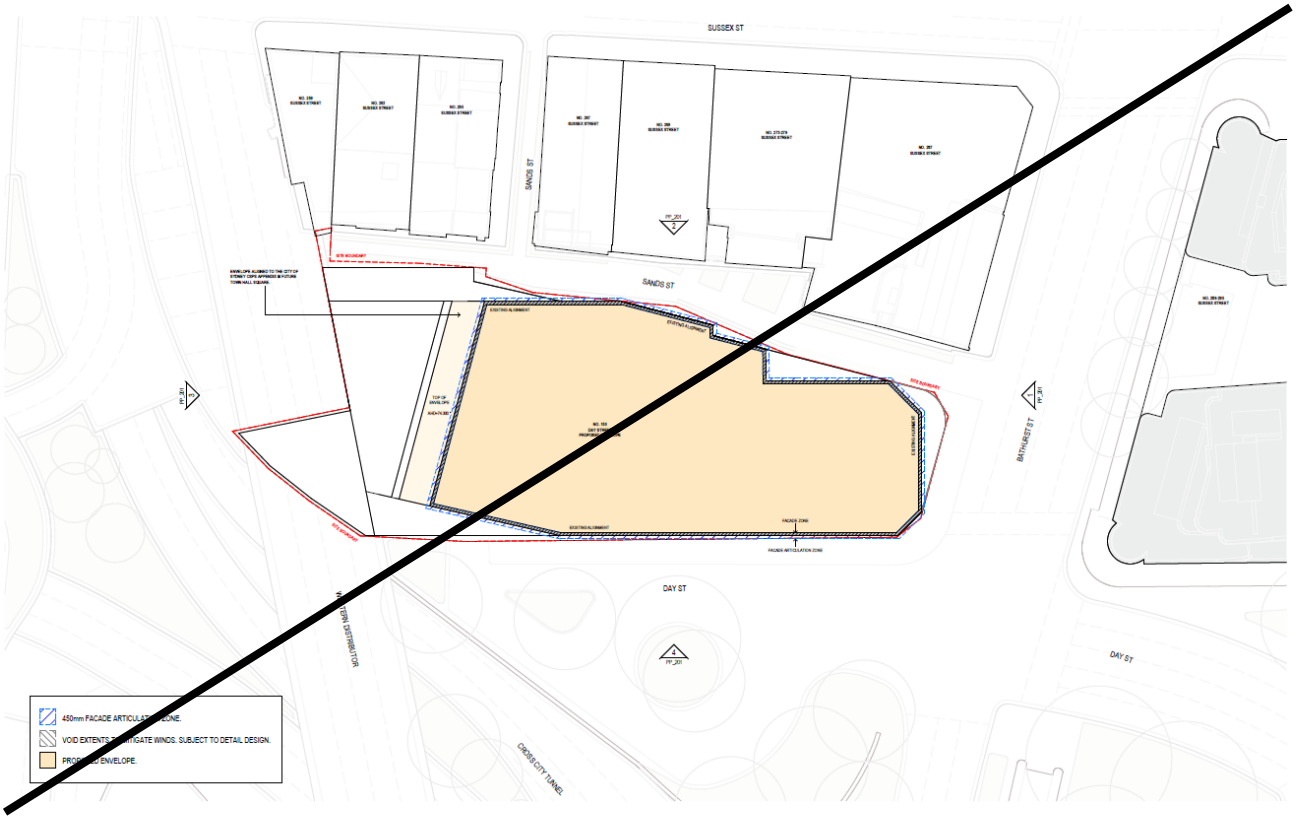
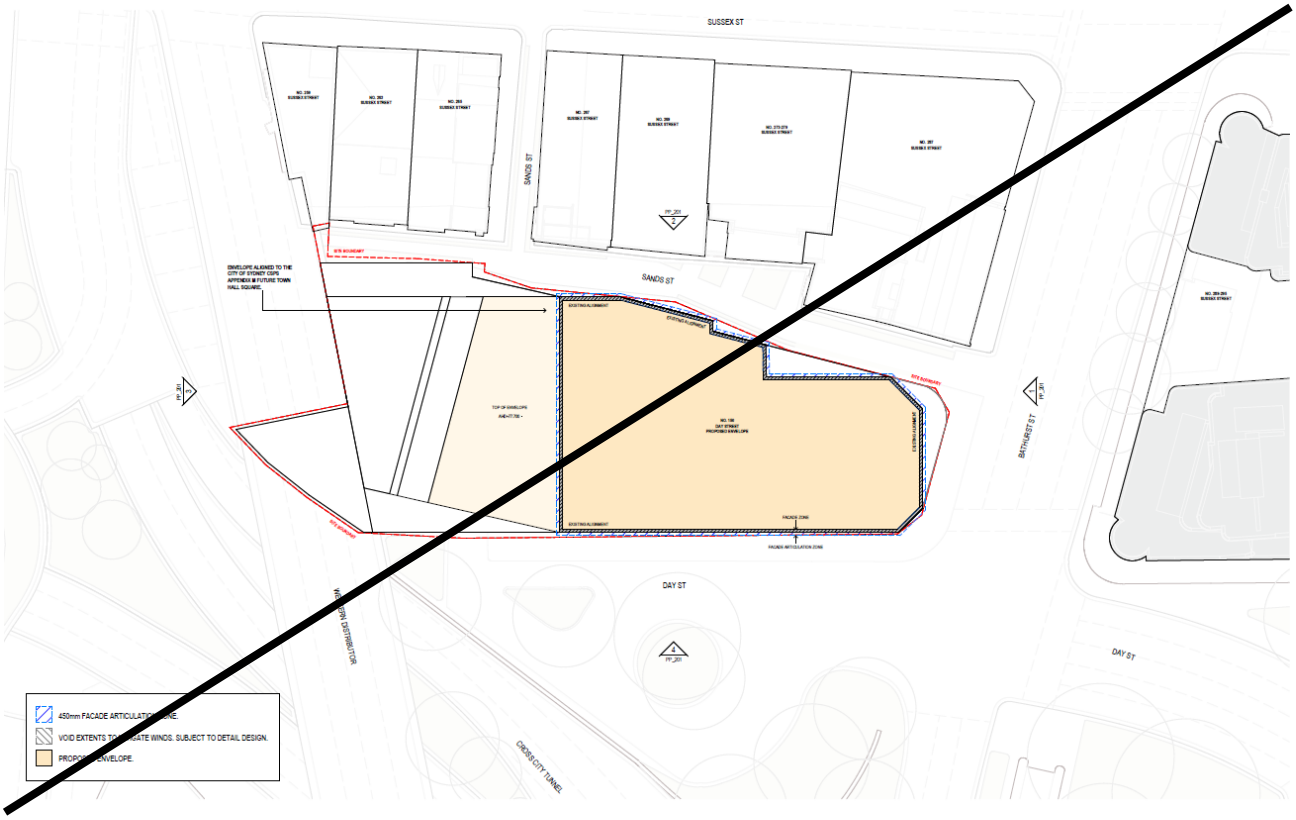




Figure 11 Level 21 floor plan



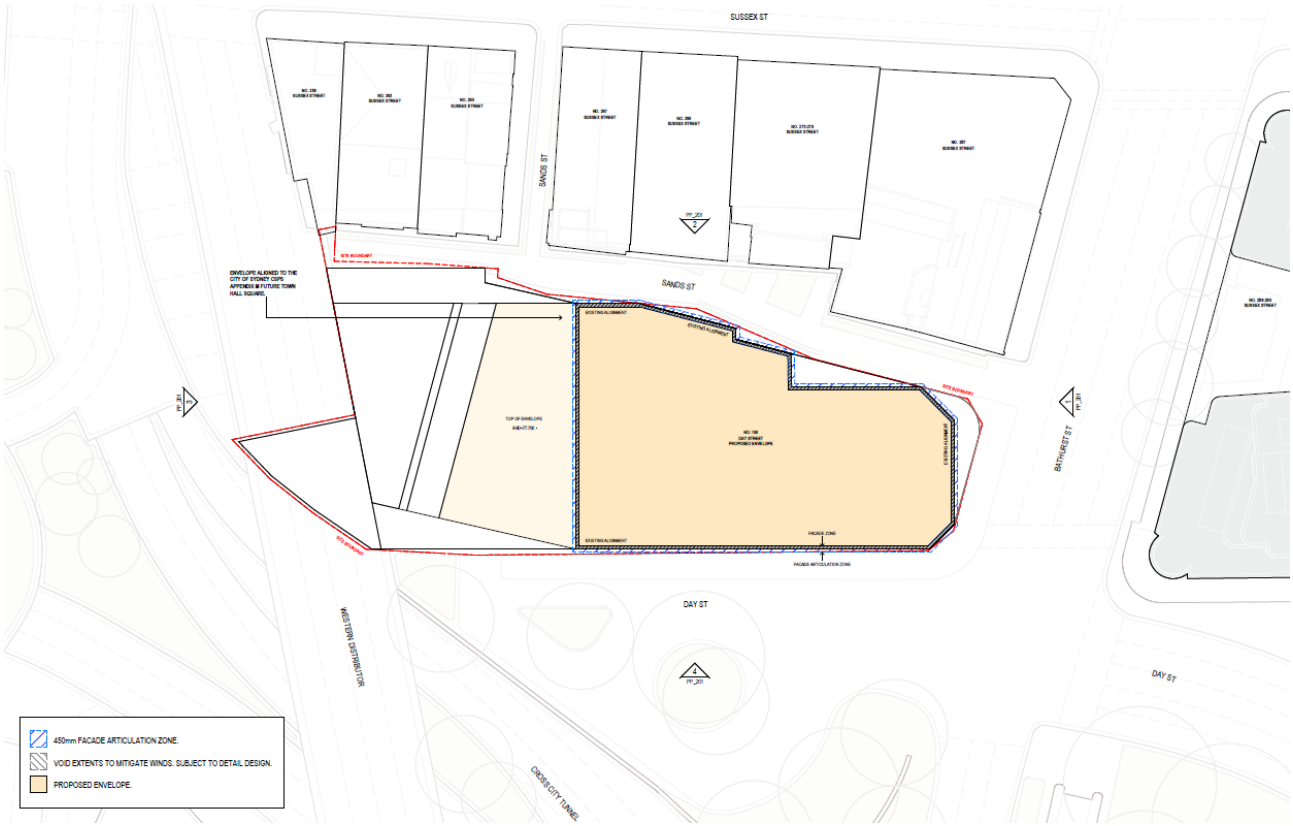
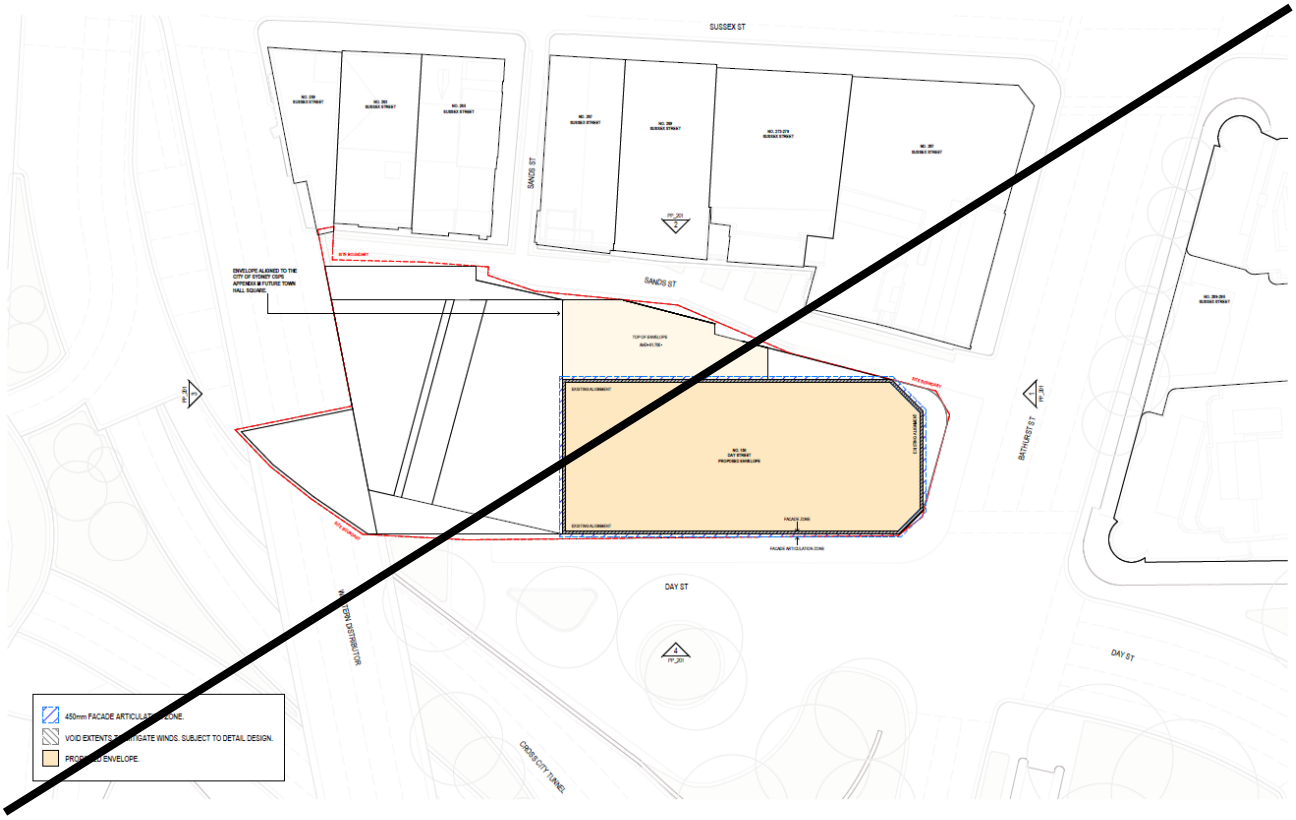


Figure 12 Level 22 floor plan



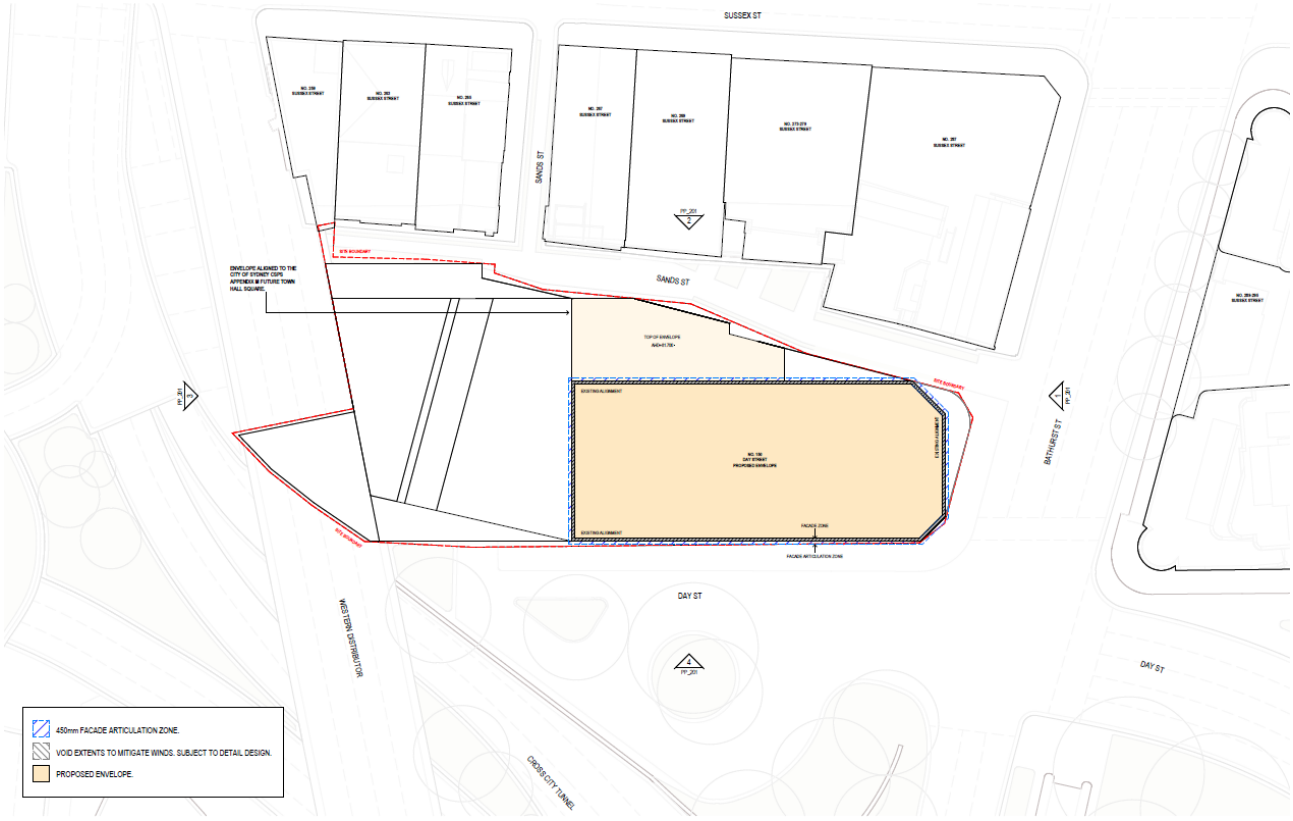
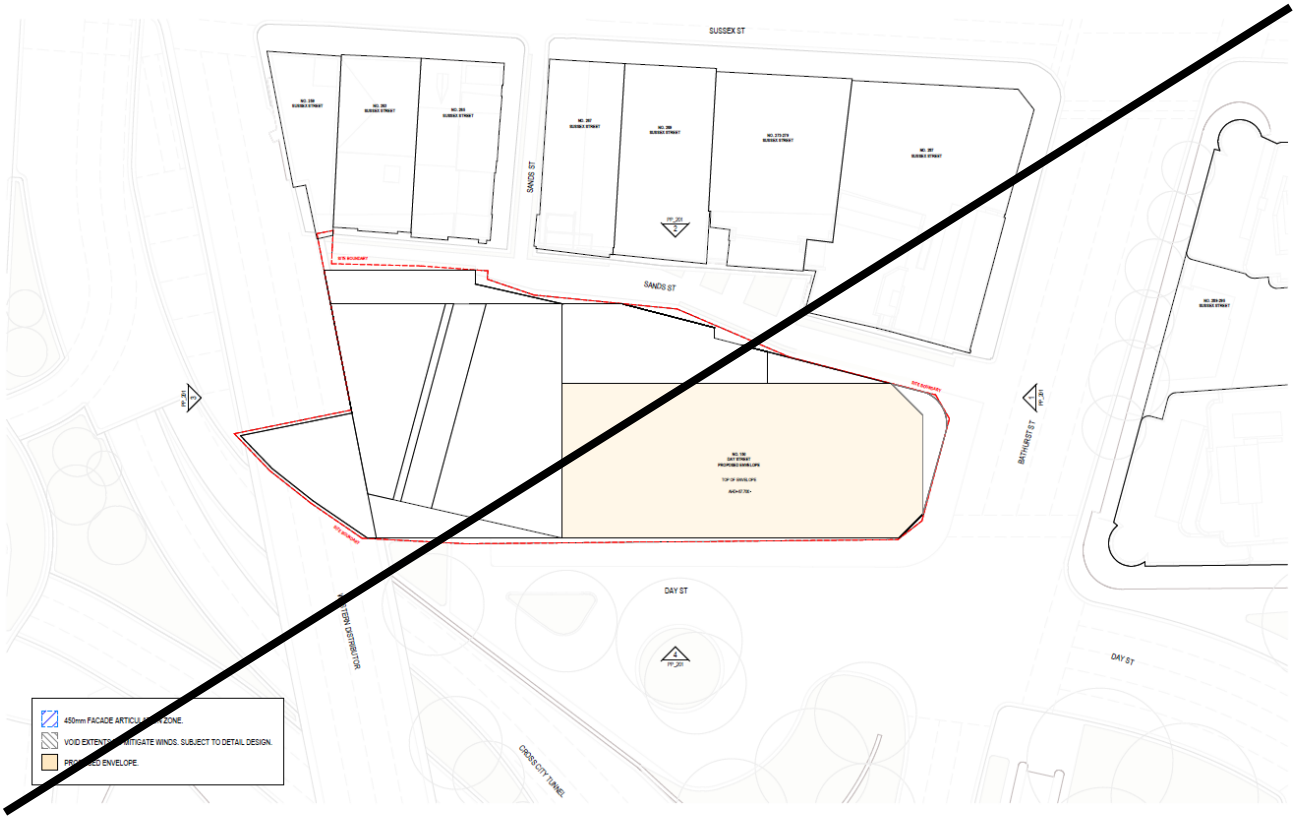


Figure 13 Level 23 floor plan



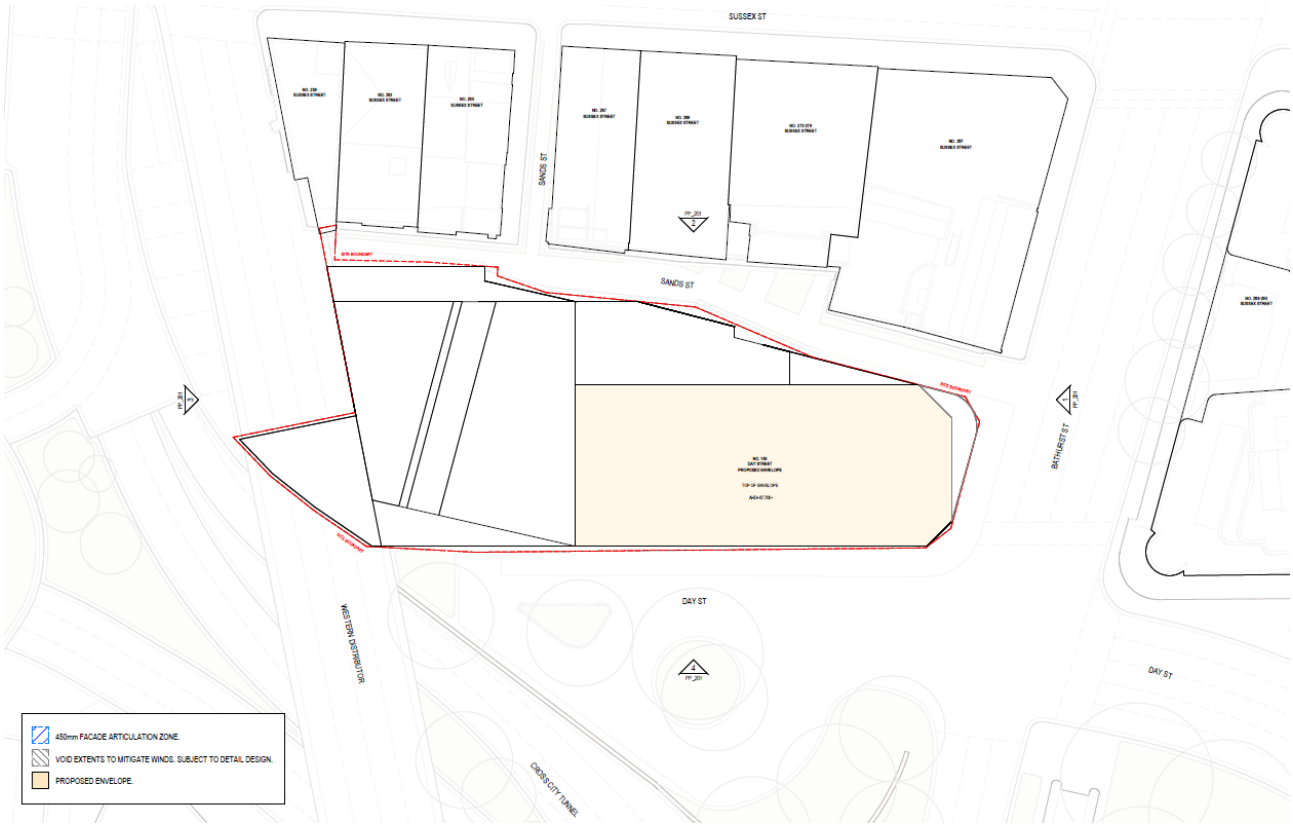


Figure 14 South elevation

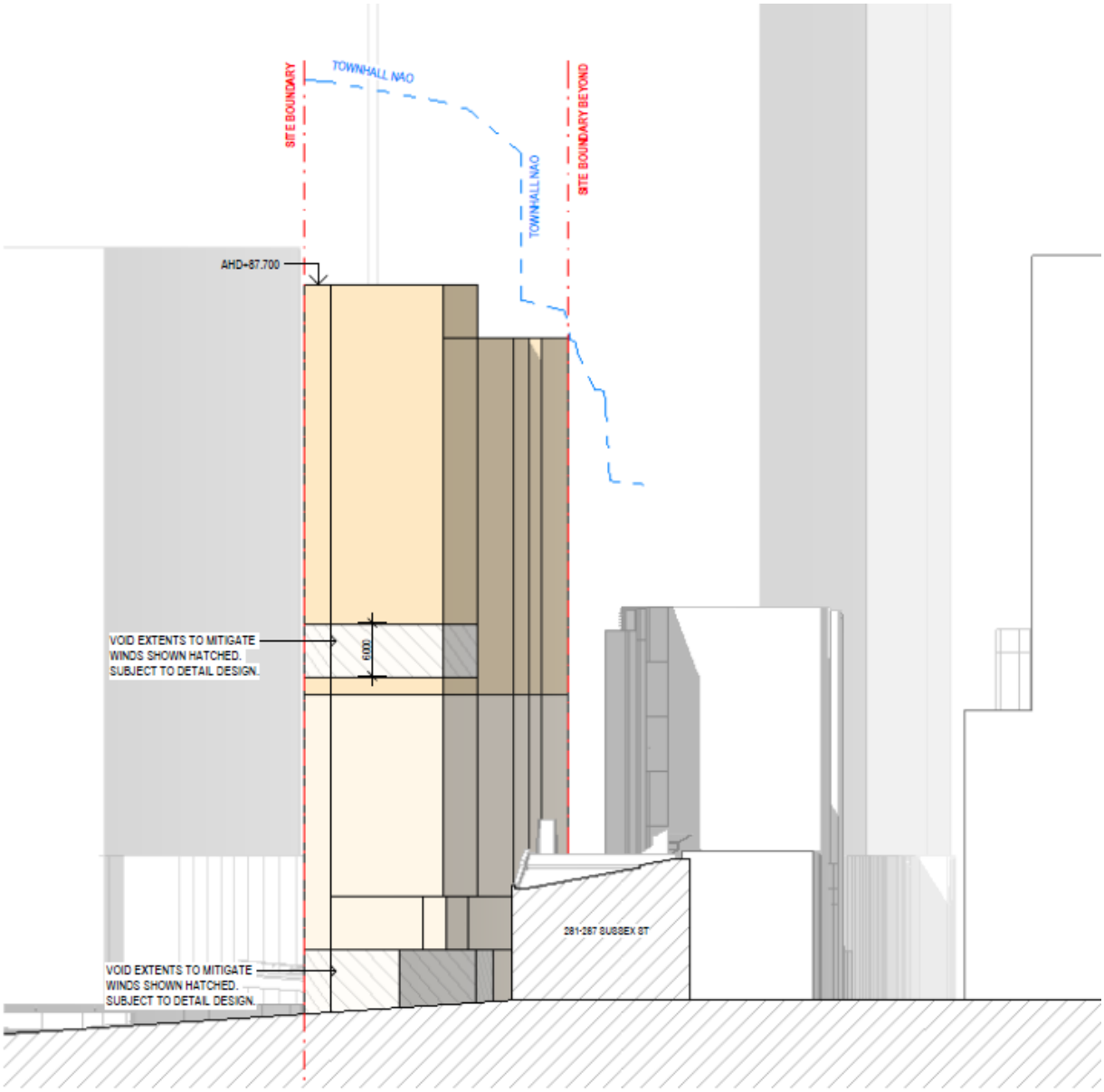


Figure 15 North elevation

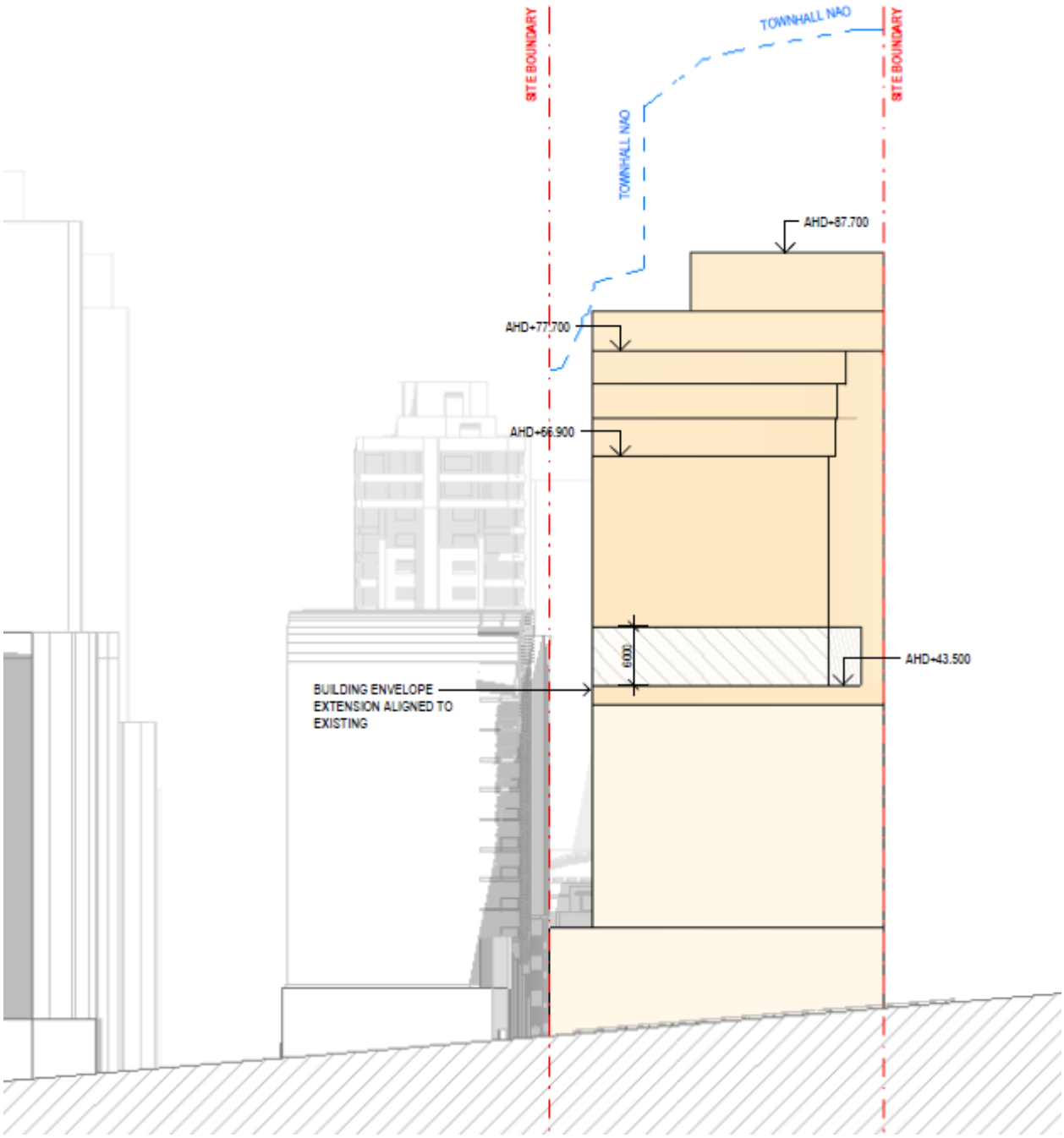


Figure 16 East elevation

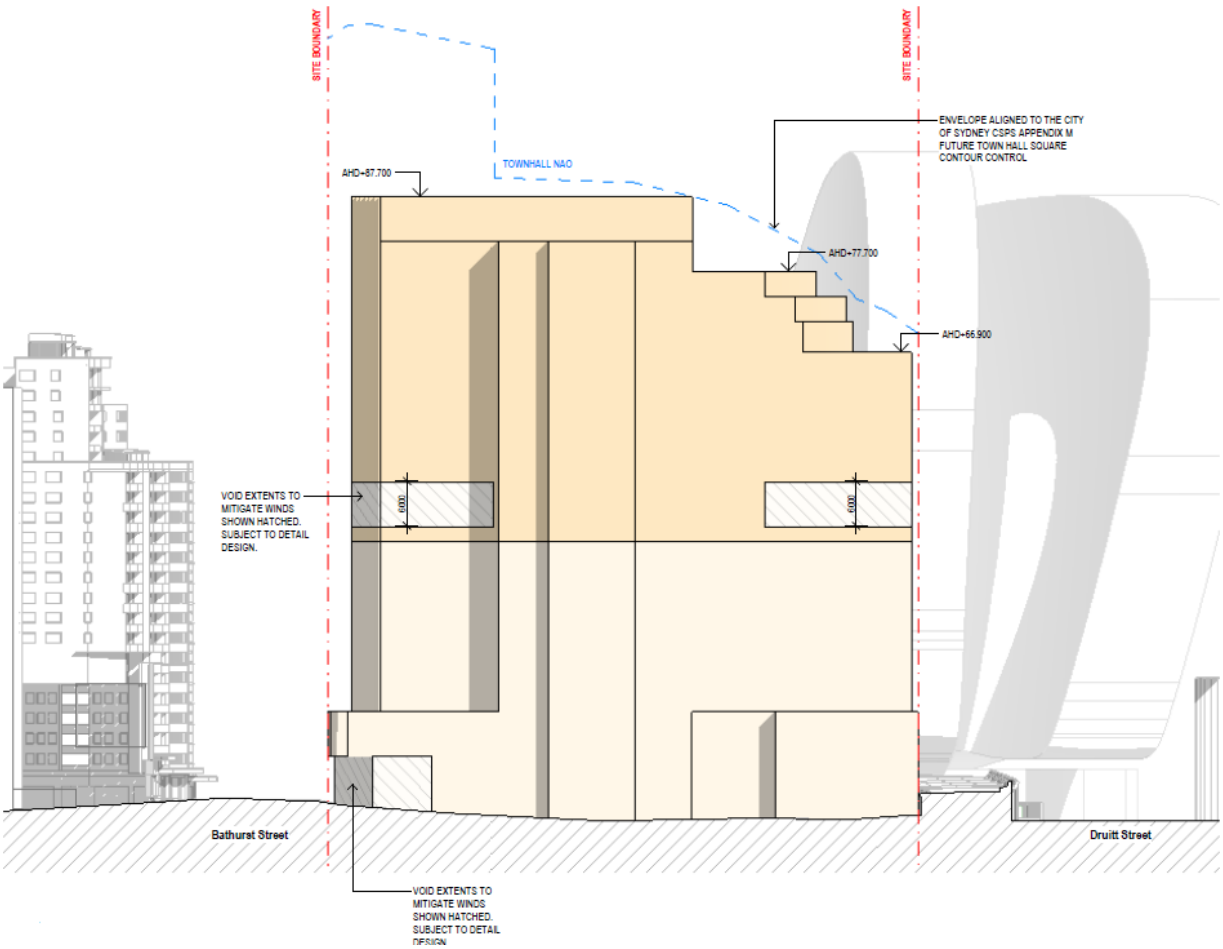
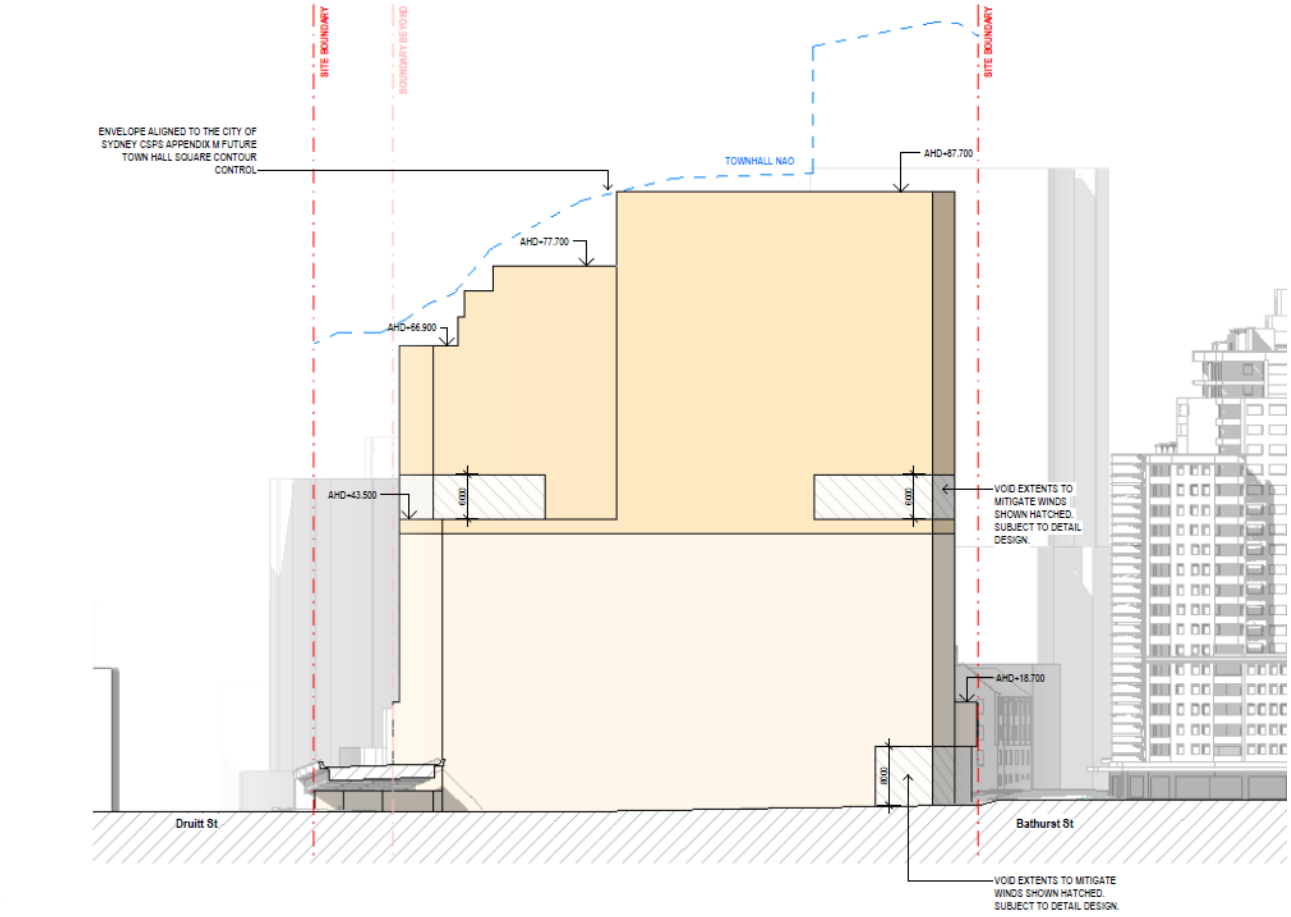


Figure 17 West elevation



6.3.X.2 Sustainability

1. Development on the subject site for tourist and visitor accommodation must meet, as a minimum:
   a. a 5-star Green Star Buildings v1 rating, and
   b. a 4.5-star NABERS Energy rating.
2. New structure is to maximise landscaping on walls, terraces, balconies and roofs, with a landscape plan to be prepared by a suitably qualified landscape architect which includes:
   a. existing and proposed site conditions including existing planting, paving, walls, fences, structures, levels, and services
   b. location and details of proposed planting on the site including planting on structure. Details must include soil depth and area, quantity, type and supply size of plant species
   c. details of drainage, waterproofing and watering systems
   d. landscape technical specification
   e. maintenance requirements, including any requirements for access and safe working at height for planting on structure.

6.3.X.3 Transport

1. A Delivery Servicing Plan must be prepared for the site for submission with any subsequent development application. The Delivery Servicing Plan must address (but not be limited to) the following:
   a. anticipated generation of waste, freight, delivery and servicing trips caused by the proposed development, with reference to the proposed uses and quantum of gross floor area
   b. expected timing of service and freight vehicle movements through the day and the week, and anticipated time slots per vehicle type
   c. anticipated peak and priority time slots by land use, business or activity, and any proposed exclusive operational windows
   d. design details for the proposed loading and servicing facilities, including number of service bays, clearance heights, grades and turning widths
   e. description of the minimum required features and capacities of a booking system to adequately manage the proposed loading dock
   f. prevention of oversized and incompatible vehicles from attending the site, with reference to proposed clearance heights and service bay sizes
   g. strategies for responding to flooding and associated inaccessibility of the proposed loading dock
   h. reduction of vehicle movements, including off-site delivery consolidation, waste contract consolidation and procurement-led consolidation
   i. be prepared with reference to the Loading and Servicing Last Mile Freight Toolkit published by Transport for NSW.

6.3.X.4 Flooding

1. Development is to be in accordance with the 'Design to reduce risk and hazard' amendments to Sydney DCP 2012 as adopted by Council on 23 June 2025.

2. Any flood risk assessment submitted as part of a development application, in addition to requirements elsewhere in Sydney DCP, must include:
   a. consideration of over-floor flooding risks, including depths and durations of any over-floor flooding; and
   b. a sensitivity test to understand potential risks in the case of failure of any flood control devices or systems, including flood doors and barriers.

3. A Flood Emergency Response Plan (FERP) must be prepared in accordance with requirements in the NSW Flood Risk Management ~~**Guideline**~~ **Manual and any supporting guidelines** including **but not limited to** EM01 Support for Emergency Management Planning, FB01 Understanding and Managing flood, and NSW shelter in-place ~~**guidelines**~~ **guideline for flash flooding**.

6.3.X.5 Design excellence

1. An invited architectural design competition is to be undertaken in accordance with clause 6.21D of the Sydney Local Environmental Plan 2012 and the City of Sydney Competitive Design Policy.
2. The competition is to include:
   a. a minimum of 5 competitors to participate;
   b. a minimum of 50% of competitors must be Australian-based architects;

c. at least one emerging architect or all competitors to be in partnership with emerging architects;

d. competitors to meet a gender representation ratio of 40% male, 40% female, 20% any gender in their design team and leadership;

e. competitors with demonstrated capabilities in design excellence by being the recipient of an Australian Institute of Architects (AIA) commendation or award in the past 5 years or in the case of overseas competitors, the same with their equivalent professional association;

f. competitors with demonstrated experience on projects that have either received an environmental sustainability award or achieved high Green Star Buildings or NABERS Energy/Water ratings.

3. The jury is to comprise a total of six (6) members, comprised of:

   a. three (3) jurors with architecture and urban design expertise nominated by the proponent including one independent member (a person who has no pecuniary interest, nor is a pending or contracted employee or consultant to the proponent);

   b. three (3) jurors nominated by the City of Sydney, who have no pecuniary interests in the development proposal or involvement in approval processes;

   c. at least one of the above members is to have sustainability expertise.

4. Any additional floor space **~~and building height~~** pursued for a building demonstrating design excellence under clause 6.21D(~~7~~**3**)(b), is to be accommodated within the building envelope shown in Figures 6.X-X.

CITY OF SYDNEY

1610

Attachment C

Voluntary planning agreement

CITY OF SYDNEY

Planning Agreement

The Council of the City of Sydney ABN 22 636 550 790

and

Success Venture Pty Limited ACN 060 569 539

Property: 150 Day Street Sydney NSW 2000

Reference: X124834

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THIS PLANNING AGREEMENT is made on 20[***insert***].

BETWEEN:

(1) **The Council of the City of Sydney ABN 22 636 550 790** of Town Hall House, 456 Kent Street, SYDNEY NSW 2000 (the **City**); and

(2) **Success Venture Pty Limited ACN 060 569 539 as the trustee for Success Venture (Darling Harbour) Unit Trust** ABN 36 225 879 060 of Suite 103, 150-154 Day Street, Sydney NSW 2000 (the **Developer**).

BACKGROUND

(A) The Developer is the owner of the Land and intends to undertake the Development on the Land.

(B) The Developer has offered to enter into this document with the City to provide the Public Benefits on the terms of this document.

THE PARTIES AGREE AS FOLLOWS:

1. **INTERPRETATION**

1.1 **Definitions**

The following definitions apply in this document.

Act means the *Environmental Planning and Assessment Act 1979 (NSW)*.

Attributed Value means the value the City and the Developer agree is to be attributed to each element of the Public Benefits as at the date of this document, as set out in clause 1 of Schedule 3 of this document.

Authorisation means:

(a) an approval, authorisation, consent, declaration, exemption, permit, licence, notarisation or waiver, however it is described, and including any condition attached to it; and

(b) in relation to anything that could be prohibited or restricted by law if a Government Agency acts in any way within a specified period, the expiry of that period without that action being taken,

including any renewal or amendment.

Business Day means a day (other than a Saturday, Sunday or public holiday) on which banks are open for general banking business in Sydney, Australia.

City's Personal Information means Personal Information to which the Developer, or any third party engaged by the Developer, has access directly or indirectly in connection with this document, including the Personal Information of any personnel, customer or supplier of the City (other than the Developer).

City's Policies means all policies and procedures relevant to the provision of the Public Benefits, as notified by the City in writing to the Developer.

City's Representative means the person named in Item 3 of Schedule 1 or his/her delegate.

Confidential Information means:

(a) information of a party (**disclosing party**) that is:

(i) made available by or on behalf of the disclosing party to the other party (**receiving party**), or is otherwise obtained by or on behalf of the receiving party; and

(ii) by its nature confidential or the receiving party knows, or ought reasonably to know, is confidential.

Confidential Information may be made available or obtained directly or indirectly, and before, on or after the date of this document.

Confidential Information does not include information that:

(a) is in or enters the public domain through no fault of the receiving party or any of its officers, employees or agents;

(b) is or was made available to the receiving party by a person (other than the disclosing party) who is not or was not then under an obligation of confidence to the disclosing party in relation to that information; or

(c) is or was developed by the receiving party independently of the disclosing party and any of its officers, employees or agents.

Construction Certificate has the same meaning as in the Act.

Corporations Act means the *Corporations Act 2001* (Cth).

Dealing means selling, transferring, assigning, novating, mortgaging, charging, or encumbering and, where appearing, **Deal** has the same meaning.

Developer's Representative means the person named in Item 4 of Schedule 1 or his/her delegate.

Development means the development of the Land by the Developer described at Item 2 of Schedule 1.

Development Application means the development application identified in Item 5 of Schedule 1 and includes all plans, reports models, photomontages, material boards (as amended supplemented) submitted to the consent authority before the determination of that Development Application.

Development Consent means the consent granted to the Development Application for the Development and includes all modifications made under section 4.55 of the Act.

Dispute means any dispute or difference between the parties arising out of, relating to or in connection with this document, including any dispute or difference as to the formation, validity, existence or termination of this document.

Environmental Laws means all laws and legislation relating to environmental protection, building, planning, health, safety or work health and safety matters and includes the following:

(a) the *Work Health and Safety Act 2011 (NSW)*;

(b) the *Protection of the Environment Operations Act 1997 (NSW)*; and

(c) the *Contaminated Land Management Act 1997 (NSW)*.

Government Agency means:

(a) a government or government department or other body;

(b) a governmental, semi-governmental or judicial person; or

(c) a person (whether autonomous or not) who is charged with the administration of a law.

Gross Floor Area has the meaning given to that term in the *Sydney Local Environment Plan* in effect at the date of this document.

GST means the same as in the GST Act.

GST Act means *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

Guarantee means an irrevocable unconditional bank guarantee or documentary performance bond for the Guarantee Amount which must:

(a) be denominated in Australian dollars;

(b) be an unconditional undertaking;

(c) be signed and issued by a bank licensed to carry on business in Australia, an Australian Prudential Regulation Authority (APRA) regulated authorised deposit taking institution or an insurer authorised by APRA to conduct new or renewal insurance business in Australia having at all times an investment grade security rating from an industry recognised rating agency of at least:

    (i) BBB + (Standard & Poors and Fitch);

    (ii) Baa 1 (Moodys); or

    (iii) Bbb (Bests);

(d) be issued on behalf of the Developer;

(e) have no expiry or end date;

(f) state the beneficiary as the City;

(g) be irrevocable;

(h) state the Guarantee Amount as the minimum amount required by this document to be lodged as security;

(i) state the purpose of the security as required in accordance with this document; and

(j) be on such other terms approved by the City.

Guarantee Amount(s) means a Guarantee or Guarantees for the total amount listed in Item 6 of Schedule 1 of this document.

Guarantee Amount(s) Due Date means the date or milestone by which the Developer must provide the Guarantee Amount to the City, set out at Item 7 of Schedule 1.

Index Number means the Consumer Price Index (Sydney all groups) published by the Australian Bureau of Statistics from time to time.

Insolvency Event means:

(a) having a controller, receiver, manager, administrator, provisional liquidator, liquidator or analogous person appointed;

(b) an application being made to a court for an order to appoint a controller, provisional liquidator, trustee for creditors or in bankruptcy or analogous person to the person or any of the person's property

(c) the person being taken under section 459F(1) of the Corporations Act to have failed to comply with a statutory demand;

(d) an application being made to a court for an order for its winding up;

(e) an order being made, or the person passing a resolution, for its winding up;

(f) the person:

(i) suspending payment of its debts, ceasing (or threatening to cease) to carry on all or a material part of its business, stating that it is unable to pay its debts or being or becoming otherwise insolvent; or

(ii) being unable to pay its debts or otherwise insolvent;

(g) the person taking any step toward entering into a compromise or arrangement with, or assignment for the benefit of, any of its members or creditors;

(h) a court or other authority enforcing any judgment or order against the person for the payment of money or the recovery of any property; or

(i) any analogous event under the laws of any applicable jurisdiction,

unless this takes place as part of a solvent reconstruction, amalgamation, merger or consolidation that has been approved by the other party.

Instrument Change means an amendment to *Sydney Local Environmental Plan 2012* in accordance with the Planning Proposal.

Land means the land described in Item 1 of Schedule 1 of this document.

Laws means all applicable laws, regulations, industry codes and standards, including all Environmental Laws.

Monetary Contribution means that part of the Public Benefits described as "Monetary Contribution" in clause 1 of Schedule 3 to be paid by the Developer to the City in accordance with this document.

Planning Proposal means the planning proposal PP-2025-550 for the Land proposing to amend the Sydney Local Environmental Plan.

Personal Information has the meaning set out in the *Privacy Act 1988* (Cth).

Personnel means the Developer's officers, employees, agents, contractors or subcontractors.

Privacy Laws means the *Privacy Act 1988* (Cth), the *Privacy and Personal Information Protection Act 1998* (NSW), the *Spam Act 2003* (Cth), the *Do Not Call Register Act 2006* (Cth) and any other applicable legislation, principles, industry codes and policies relating to the handling of Personal Information.

Public Benefits means the provision of benefits to the community by the Developer in the form and at the times specified in Schedule 3.

Regulation means the *Environmental Planning and Assessment Regulation 2000 (NSW)*.

Tax means a tax, levy, duty, rate, charge, deduction or withholding, however it is described, that is imposed by law or by a Government Agency, together with any related interest, penalty, fine or other charge.

1.2 **Rules for interpreting this document**

Headings are for convenience only, and do not affect interpretation. The following rules also apply in interpreting this document, except where the context makes it clear that a rule is not intended to apply.

(a) A reference to:

(i) a legislative provision or legislation (including subordinate legislation) is to that provision or legislation as amended, re-enacted or replaced, and includes any subordinate legislation issued under it;

(ii) a document (including this document) or agreement, or a provision of a document (including this document) or agreement, is to that document, agreement or provision as amended, supplemented, replaced or novated;

(iii) a party to this document or to any other document or agreement includes a permitted substitute or a permitted assign of that party;

(iv) a person includes any type of entity or body of persons, whether or not it is incorporated or has a separate legal identity, and any executor, administrator or successor in law of the person; and

(v) anything (including a right, obligation or concept) includes each part of it.

(b) A singular word includes the plural, and vice versa.

(c) A word which suggests one gender includes the other genders.

(d) If a word or phrase is defined, any other grammatical form of that word or phrase has a corresponding meaning.

(e) If an example is given of anything (including a right, obligation or concept), such as by saying it includes something else, the example does not limit the scope of that thing.

(f) A reference to **including** means "including, without limitation".

(g) A reference to **dollars** or **$** is to an amount in Australian currency.

(h) A reference to **this document** includes the agreement recorded by this document.

(i) Words defined in the GST Act have the same meaning in clauses about GST.

(j) This document is not to be interpreted against the interests of a party merely because that party proposed this document or some provision in it or because that party relies on a provision of this document to protect itself.

2. APPLICATION OF THE ACT AND THE REGULATION

2.1 Application of this document

This document is a planning agreement within the meaning of section 7.4 of the Act and applies to:

(a) the Land; and

(b) the Development.

2.2 Public Benefits to be made by Developer

Clause 5 and Schedule 3 set out the details of the:

(a) Public Benefits to be delivered by the Developer;

(b) time or times by which the Developer must deliver the Public Benefits; and

(c) manner in which the Developer must deliver the Public Benefits.

2.3 Application of sections 7.11, 7.12 and 7.24 of the Act

(a) The application of sections 7.11, 7.12 and 7.24 of the Act are excluded to the extent set out in Items 5 and 6 of Schedule 2 to this document.

2.4 **Application of section 7.13 of Sydney Local Environmental Plan 2012**

This document does not exclude the application of section 7.13 of Sydney Local Environmental Plan 2012. For the avoidance of doubt, any contributions required under section 7.13 remain payable.

2.5 **City rights**

This document does not impose an obligation on the City to:

(a) grant Development Consent for the Development; or

(b) exercise any function under the Act in relation to a change to an environmental planning instrument, including the making or revocation of an environmental planning instrument.

2.6 **Explanatory note**

The explanatory note prepared in accordance with clause 25E of the Regulation must not be used to assist in construing this document.

3. **OPERATION OF THIS PLANNING AGREEMENT**

3.1 **Commencement**

(a) This document will commence on the date of execution of this document by all parties to this document.

4. **WARRANTIES**

4.1 **Mutual warranties**

Each party represents and warrants that:

(a) (**power**) it has full legal capacity and power to enter into this document and to carry out the transactions that it contemplates;

(b) (**corporate authority**) it has taken all corporate action that is necessary or desirable to authorise its entry into this document and to carry out the transactions contemplated;

(c) (**Authorisations**) it holds each Authorisation that is necessary or desirable to:

(i) enable it to properly execute this document and to carry out the transactions that it contemplates;

(ii) ensure that this document is legal, valid, binding and admissible in evidence; or

(iii) enable it to properly carry on its business as it is now being conducted,

and it is complying with any conditions to which any of these Authorisations is subject;

(d) (**documents effective**) this document constitutes its legal, valid and binding obligations, enforceable against it in accordance with its terms (except to the extent limited by equitable principles and laws affecting creditors' rights generally), subject to any necessary stamping or registration;

(e) (**solvency**) there are no reasonable grounds to suspect that it will not be able to pay its debts as and when they become due and payable; and

(f) (**no controller**) no controller is currently appointed in relation to any of its property, or any property of any of its subsidiaries.

4.2 **Developer warranties**

(a) The Developer warrants to the City that, at the date of this document:

(i) it is the registered proprietor of the Land;

(ii) it is legally entitled to obtain all consents and approvals that are required by this document and do all things necessary to give effect to this document;

(iii) all work performed by the Developer and the Personnel under this document will be performed with due care and skill and to a standard which is equal to or better than that which a well experienced person in the industry would expect to be provided by an organisation of the Developer's size and experience; and

(iv) it is not aware of any matter which may materially affect the Developer's ability to perform its obligations under this document.

(b) The Developer warrants to the City that, prior to commencing delivery of the Public Benefits it will have obtained all Authorisations and insurances required under any Law to carry out its obligations under this document.

5. **PUBLIC BENEFITS**

5.1 **Developer to provide Public Benefits**

The Developer must, at its cost and risk, provide the Public Benefits to the City in accordance with this document.

6. **INDEMNITY**

The Developer indemnifies the City against all damage, expense, loss or liability of any nature suffered or incurred by the City arising from any act or omission by the Developer (or any Personnel) in connection with the performance of the Developer's obligations under this document, except where the damage, expense, loss or liability suffered or incurred is caused by, or contributed to by, any wilful or negligent act or omission of the City (or any person engaged by the City).

7. **REGISTRATION AND CAVEAT**

7.1 **Registration of this document**

(a) The Developer:

(i) consents to the registration of this document at the Land and Property Information on the certificate of title to the Land;

(ii) warrants that it has obtained all consents to the registration of this document on the certificate of title to the Land; and

(iii) must within 10 Business Days of a written request from the City do all things necessary to allow the City to register this document on the certificate of title to the Land, including but not limited to:

(A) producing any documents or letters of consent required by the Registrar-General of the Land and Property Information;

(B) providing the production slip number when the Developer produces the certificate of title to the Land at the Land and Property Information; and

(C) providing the City with a cheque for registration fees payable in relation to registration of this document at the Land and Property Information.

(iv) The Developer must act promptly in complying with and assisting to respond to any requisitions raised by the Land and Property Information that relate to registration of this document.

7.2 **Release of this document**

If the City is satisfied that the Developer has provided all Public Benefits and otherwise complied with this document then the City must promptly do all things reasonably required to remove this document from the certificate of title to the Land.

8. **ENFORCEMENT**

8.1 **Enforcement**

(a) Without limiting any other remedies available to the Parties, the Developer agrees that this document may be enforced by the City in any Court of competent jurisdiction, subject to clause 9.

(b) Nothing in this document prevents:

(i) a Party from bringing proceedings in the Land and Environment Court to enforce any aspect of this document or any matter to which this document relates; and

(ii) the City from exercising any function under the Act or any other Laws relating to the enforcement of any aspect of this document to any matter to which this document relates.

8.2 **Developer to provide Guarantee**

The Developer must deliver the Guarantee for the Guarantee Amount to the City by the Guarantee Amount Due Date.

8.3 **Adjustment of Guarantee Amount**

(a) Subject to clause 8.3(b), following each anniversary of the date of the Guarantee (the "Adjustment Date") and at any time prior to the payment of the Monetary Contribution, the Guarantee Amounts are to be adjusted to a revised amount by applying the following formula:

RGA = GA x (A/B)

where:

RGA is the revised guarantee amount applicable from the relevant Adjustment Date

GA is the Guarantee Amount that is current on the relevant Adjustment Date

A is the Index Number most recently published before the relevant Adjustment Date

B is the Index Number most recently published:

(i) before the date of the Guarantee for the first Adjustment Date; and

(ii) before the preceding Adjustment Date for every subsequent Adjustment Date

If after the formula is applied the revised Guarantee Amount will be less than the amount held at the preceding Adjustment Date, the Guarantee Amount will not be adjusted.

(b) If the Guarantee Amount is adjusted under clause 8.3(a), the Developer is not required to provide the City with a replacement Guarantee for that revised Guarantee Amount until such time as the City notifies the Developer that the City is ready to exchange the then current Guarantee held by the City, following which the City and the Developer must promptly exchange the then current Guarantee held by the City with a replacement Guarantee for that revised Guarantee Amount from the Developer.

8.4 **Right of City to claim on Guarantee**

(a) The Developer agrees that the City may make an appropriation from the Guarantee in such amount as the City, acting reasonably, thinks appropriate if:

(i) the Developer fails to comply with clause 2 of Schedule 3 (payment of Monetary Contribution); or

(ii) an Insolvency Event occurs in respect of the Developer.

Any amount of the Guarantee appropriated by the City in accordance with clause 8.3 must be applied only towards the costs and expenses incurred by the City rectifying any default by the Developer under this document.

8.5 **Expenditure by the City**

If the City claims on the Guarantee to Complete the Developer's Works, then the City:

(a) is not required to expend more money than the Guarantee Amount; or

(b) may expend more than the Guarantee Amount. If the City expends more money than the Guarantee Amount then the amount in excess of the Guarantee Amount will be deemed to be a debt due and owing to the City by the Developer.

8.6 **Top-up and return of Guarantee**

(a) If the City calls upon the Guarantee in accordance with this clause 8 then the Developer must immediately provide to the City a replacement Guarantee to ensure that, at all times until the Guarantee is released in accordance with paragraph (b), the City is in possession of a Guarantee for a face value equivalent to the Guarantee Amount.

(b) If the monies secured by the Guarantee have not been expended, then the City will return the Guarantee to the Developer, upon payment of the Monetary Contribution in accordance with clause 2 of Schedule 3 of this document.

9. **DISPUTE RESOLUTION**

9.1 **Application**

Any Dispute must be determined in accordance with the procedure in this clause 9.

9.2 **Negotiation**

(a) If any Dispute arises, a party to the Dispute (**Referring Party**) may by giving notice to the other party or parties to the Dispute (**Dispute Notice**) refer the Dispute to the Developer's Representative and the City's Representative for resolution. The Dispute Notice must:

(i) be in writing;

(ii) state that it is given pursuant to this clause 9; and

(iii) include or be accompanied by reasonable particulars of the Dispute including:

(A) a brief description of the circumstances in which the Dispute arose;

(B) references to any:

(aa) provisions of this document; and

(bb) acts or omissions of any person,

relevant to the Dispute; and

(C) where applicable, the amount in dispute (whether monetary or any other commodity) and if not precisely known, the best estimate available.

(b) Within 10 Business Days of the Referring Party issuing the Dispute Notice (**Resolution Period**), the Developer's Representative and the City's Representative must meet at least once to attempt to resolve the Dispute.

(c) The Developer's Representative and the City's Representative may meet more than once to resolve a Dispute. The Developer's Representative and the City's Representative may meet in person, via telephone, videoconference, internet-based instant messaging or any other agreed means of instantaneous communication to effect the meeting.

9.3 **Not use information**

The purpose of any exchange of information or documents or the making of any offer of settlement under this clause 9 is to attempt to settle the Dispute. Neither party may use any information or documents obtained through any dispute resolution process undertaken under this clause 9 for any purpose other than in an attempt to settle the Dispute.

9.4 **Condition precedent to litigation**

Subject to clause 9.5, a party must not commence legal proceedings in respect of a Dispute unless:

(a) a Dispute Notice has been given; and

(b) the Resolution Period has expired.

9.5 **Summary or urgent relief**

Nothing in this clause 9 will prevent a party from instituting proceedings to seek urgent injunctive, interlocutory or declaratory relief in respect of a Dispute.

10. **TAXES AND GST**

10.1 **Responsibility for Taxes**

(a) The Developer is responsible for any and all Taxes and other like liabilities which may arise under any Commonwealth, State or Territory legislation (as amended from time to time) as a result of or in connection with this document or the Public Benefits.

(b) The Developer must indemnify the City in relation to any claims, liabilities and costs (including penalties and interest) arising as a result of any Tax or other like liability for which the Developer is responsible under clause 10.1(a).

10.2 **GST free supply**

To the extent that Divisions 81 and 82 of the GST Law apply to a supply made under this document:

(a) no additional amount will be payable by a party on account of GST; and

(b) no tax invoices will be exchanged between the parties.

10.3 **Supply subject to GST**

To the extent that clause 10.2 does not apply to a supply made under this document, this clause 10.3 will apply.

(a) If one party (**Supplying Party**) makes a taxable supply and the consideration for that supply does not expressly include GST, the party that is liable to provide the consideration (**Receiving Party**) must also pay an amount (**GST Amount**) equal to the GST payable in respect of that supply.

(b) Subject to first receiving a tax invoice or adjustment note as appropriate, the receiving party must pay the GST amount when it is liable to provide the consideration.

(c) If one party must indemnify or reimburse another party (**Payee**) for any loss or expense incurred by the Payee, the required payment does not include any amount which the Payee (or an entity that is in the same GST group as the Payee) is entitled to claim as an input tax credit, but will be increased under clause 10.3(a) if the payment is consideration for a taxable supply.

(d) If an adjustment event arises in respect of a taxable supply made by a Supplying Party, the GST Amount payable by the Receiving Party under clause 10.3(a) will be recalculated to reflect the adjustment event and a payment will be made by the Receiving Party to the Supplying Party, or by the Supplying Party to the Receiving Party, as the case requires.

(e) The Developer will assume the City is not entitled to any input tax credit when calculating any amounts payable under this clause 10.3.

(f) In this document:

(i) consideration includes non-monetary consideration, in respect of which the parties must agree on a market value, acting reasonably; and

(ii) in addition to the meaning given in the GST Act, the term "GST" includes a notional liability for GST.

11. **DEALINGS**

11.1 **Dealing by the City**

(a) The City may Deal with its interest in this document without the consent of the Developer if the Dealing is with a Government Agency. The City must give the Developer notice of the Dealing within five Business Days of the date of the Dealing.

(b) The City may not otherwise Deal with its interest in this document without the consent of the Developer, such consent is not to be unreasonably withheld or delayed.

11.2 **Dealing by the Developer**

(a) Prior to registration of this document in accordance with clause 7, the Developer must not Deal with this document or the Land without:

(i) the prior written consent of the City, such consent is not to be unreasonably withheld or delayed; and

(ii) the City, the Developer and the third party the subject of the Dealing entering into a deed of consent to the Dealing on terms acceptable to the City and consistent with this document,

(b) On and from registration of this document in accordance with clause 7:

(i) the Developer may Deal with this document without the consent of the City only as a result of the sale of the whole of the Land (without subdivision) to a purchaser of the Land;

(ii) the Developer may register a plan of strata subdivision, and the City consents to this document remaining registered only on the certificate of title to the common property of the strata plan upon registration of the strata plan; and

(iii) the Developer must not otherwise Deal with this document to a third party that is not a purchaser of the whole or any part of the Land without:

(A) the prior written consent of the City, such consent is not to be unreasonably withheld or delayed; and

(B) the City, the Developer and the third party the subject of the Dealing entering into a deed of consent to the Dealing on terms acceptable to the City and consistent with this document.

(c) The Developer must pay the City's costs and expenses relating to any consent or documentation required due to the operation of this clause 11.2.

12. **TERMINATION**

(a) Either party may terminate this document by notice in writing to the other party if:

(i) The Instrument Change does not come into force within 36 months after the date of this document; or

(ii) The Sydney LEP is subsequently amended by an environmental planning instrument made after the Instrument Change, in a way that prevents the Development from proceeding; or

(iii) The Instrument Change is declared to be invalid by a Court of competent jurisdiction.

(b) If the City terminates this document then:

(i) the rights of each party that arose before the termination or which may arise at any future time for any breach or non-observance of obligations occurring prior to the termination are not affected;

(ii) the Developer must take all steps reasonably necessary to minimise any loss the each party may suffer as a result of the termination of this document;

(iii) the City will return the Guarantee to the Developer after first deducting any amounts owing to the City or costs incurred by the City by operation of this document. If in exercising its rights under this document the City expends more money than the Guarantee Amount then the amount in excess of the Guarantee Amount will be deemed to be a debt due and owing to the City by the Developer; and

(iv) the City will, at the Developer's cost, do all things reasonably required to remove this document from the certificate of title to the Land.

13. CONFIDENTIALITY AND DISCLOSURES

13.1 Use and disclosure of Confidential Information

A party (**receiving party**) which acquires Confidential Information of another party (**disclosing party**) must not:

(a) use any of the Confidential Information except to the extent necessary to exercise its rights and perform its obligations under this document; or

(b) disclose any of the Confidential Information except in accordance with clauses 13.2 or 13.3.

13.2 Disclosures to personnel and advisers

(a) The receiving party may disclose Confidential Information to an officer, employee, agent, contractor, or legal, financial or other professional adviser if:

(i) the disclosure is necessary to enable the receiving party to perform its obligations or to exercise its rights under this document; and

(ii) prior to disclosure, the receiving party informs the person of the receiving party's obligations in relation to the Confidential Information under this document and obtains an undertaking from the person to comply with those obligations.

(b) The receiving party:

(i) must ensure that any person to whom Confidential Information is disclosed under clause 13.2(a) keeps the Confidential Information confidential and does not use it for any purpose other than as permitted under clause 13.2(a); and

(ii) is liable for the actions of any officer, employee, agent, contractor or legal, financial or other professional adviser that causes a breach of the obligations set out in clause 13.2(b)(i).

13.3 **Disclosures required by law**

(a) Subject to clause 13.3(b), the receiving party may disclose Confidential Information that the receiving party is required to disclose:

(i) by law or by order of any court or tribunal of competent jurisdiction; or

(ii) by any Government Agency, stock exchange or other regulatory body.

(b) If the receiving party is required to make a disclosure under clause 13.3(a), the receiving party must:

(i) to the extent possible, notify the disclosing party immediately it anticipates that it may be required to disclose any of the Confidential Information;

(ii) consult with and follow any reasonable directions from the disclosing party to minimise disclosure; and

(iii) if disclosure cannot be avoided:

(A) only disclose Confidential Information to the extent necessary to comply; and

(B) use reasonable efforts to ensure that any Confidential Information disclosed is kept confidential.

13.4 **Receiving party's return or destruction of documents**

On termination of this document the receiving party must immediately:

(a) deliver to the disclosing party all documents and other materials containing, recording or referring to Confidential Information; and

(b) erase or destroy in another way all electronic and other intangible records containing, recording or referring to Confidential Information,

which are in the possession, power or control of the receiving party or of any person to whom the receiving party has given access.

13.5 **Security and control**

The receiving party must:

(a) keep effective control of the Confidential Information; and

(b) ensure that the Confidential Information is kept secure from theft, loss, damage or unauthorised access or alteration.

13.6 **Media releases**

The Developer must not issue any information, publication, document or article for publication in any media concerning this document or the Public Benefits without the City's prior written consent.

14. **NOTICES**

(a) A notice, consent or other communication under this document is only effective if it is in writing, signed and either left at the addressee's address or sent to the addressee by mail or email. If it is sent by mail, it is taken to have been received 5 Business Days after it is posted. If it is sent by email, it is taken to have been received the same day the email was sent, provided that the sender has not received a delivery failure notice (or similar), unless the time of receipt is after 5:00pm in which case it is taken to be received on the next Business Day.

(b) A person's address and email address are those set out in Schedule 1 for the City's Representative and the Developer's Representative, or as the person notifies the sender in writing from time to time.

15. **GENERAL**

15.1 **Governing law**

(a) This document is governed by the laws of New South Wales.

(b) Each party submits to the exclusive jurisdiction of the courts exercising jurisdiction in New South Wales, and any court that may hear appeals from any of those courts, for any proceedings in connection with this document, and waives any right it might have to claim that those courts are an inconvenient forum.

15.2 **Access to information**

In accordance with section 121 of the *Government Information (Public Access) Act 2009 (NSW)*, the Developer agrees to allow the City immediate access to the following information contained in records held by the Developer:

(a) information that relates directly to the delivery of the Public Benefits by the Developer;

(b) information collected by the Developer from members of the public to whom the Developer provides, or offers to provide, services on behalf of the City; and

(c) information received by the Developer from the City to enable the Developer to deliver the Public Benefits.

15.3 **Liability for expenses**

(a) The Developer must pay its own and the City's expenses incurred in negotiating, executing, registering, releasing, administering and enforcing this document.

(b) The Developer must pay for all reasonable costs and expenses associated with the preparation and giving of public notice of this document and the explanatory note prepared in accordance with the Regulations and for any consent the City is required to provide under this document.

15.4 **Relationship of parties**

(a) Nothing in this document creates a joint venture, partnership, or the relationship of principal and agent, or employee and employer between the parties; and

(b) No party has the authority to bind any other party by any representation, declaration or admission, or to make any contract or commitment on behalf of any other party or to pledge any other party's credit.

15.5 **Giving effect to this document**

Each party must do anything (including execute any document), and must ensure that its employees and agents do anything (including execute any document), that the other party may reasonably require to give full effect to this document.

15.6 **Time for doing acts**

(a) If:

(i) the time for doing any act or thing required to be done; or

(ii) a notice period specified in this document,

expires on a day other than a Business Day, the time for doing that act or thing or the expiration of that notice period is extended until the following Business Day.

(b) If any act or thing required to be done is done after 5pm on the specified day, it is taken to have been done on the following Business Day.

15.7 **Severance**

If any clause or part of any clause is in any way unenforceable, invalid or illegal, it is to be read down so as to be enforceable, valid and legal. If this is not possible, the clause (or where possible, the offending part) is to be severed from this document without affecting the enforceability, validity or legality of the remaining clauses (or parts of those clauses) which will continue in full force and effect.

15.8 **Preservation of existing rights**

The expiration or termination of this document does not affect any right that has accrued to a party before the expiration or termination date.

15.9 **No merger**

Any right or obligation of any party that is expressed to operate or have effect on or after the completion, expiration or termination of this document for any reason, will not merge on the occurrence of that event but will remain in full force and effect.

15.10 **Waiver of rights**

A right may only be waived in writing, signed by the party giving the waiver, and:

(a) no other conduct of a party (including a failure to exercise, or delay in exercising, the right) operates as a waiver of the right or otherwise prevents the exercise of the right;

(b) a waiver of a right on one or more occasions does not operate as a waiver of that right if it arises again; and

(c) the exercise of a right does not prevent any further exercise of that right or of any other right.

15.11 **Operation of this document**

(a) This document contains the entire agreement between the parties about its subject matter. Any previous understanding, agreement, representation or warranty relating to that subject matter is replaced by this document and has no further effect.

(b) Any right that a person may have under this document is in addition to, and does not replace or limit, any other right that the person may have.

(c) Any provision of this document which is unenforceable or partly unenforceable is, where possible, to be severed to the extent necessary to make this document enforceable, unless this would materially change the intended effect of this document.

15.12 **Operation of indemnities**

(a) Each indemnity in this document survives the expiry or termination of this document.

(b) A party may recover a payment under an indemnity in this document before it makes the payment in respect of which the indemnity is given.

15.13 **Inconsistency with other documents**

Unless the contrary intention is expressed, if there is an inconsistency between any of one or more of:

(a) this document;

(b) any Schedule to this document; and

(c) the provisions of any other document of the Developer,

the order of precedence between them will be the order listed above, this document having the highest level of precedence.

15.14 **No fetter**

Nothing in this document in any way restricts or otherwise affects the City's unfettered discretion to exercise its statutory powers as a public authority.

15.15 **Counterparts**

This document may be executed in counterparts.

SCHEDULE 1

Agreement Details

ITEM	TERM	DESCRIPTION
1.	**Land**	Lot 20 in DP1046870 known as 150 Day Street, Sydney
2.	**Development**	The expansion of an existing hotel as permitted by the controls proposed in the Planning Proposal and subject to the resultant Instrument Change. The Planning Proposal seeks to increase the maximum building height to RL 87.7 metres and the maximum floor space ratio to 13.5:1, with substantial retention of the existing structure and the additional building height and floor space being for hotel uses only (no residential or serviced apartments). The total Gross Floor Area of the Development on the Land is 30,766 square metres.
3.	**City's Representative**	Name: Chief Planner & Executive Director, Planning, Development and Transport Address: Level 1, 456 Kent Street, Sydney NSW 2000 Email address: planningsystemsadmin@cityofsydney.nsw.gov.au Or such alternative representative nominated by the City from time to time and notified in writing to the Developer's Representative.
4.	**Developer's Representative**	Name: Chan Weng Khoon Address: 150 Day Street, Sydney NSW 2000 Email address: Chan.wengkhoon@uol.com.sg
5.	**Development Application**	N/A
6.	**Guarantee Amount**	$95,000.00

7.	**Guarantee Amount Due Date**	On or before execution of this document

SCHEDULE 2

Requirements under the Act and Regulation (clause 2)

The below table summarises how this document complies with the Act and Regulation.

ITEM	SECTION OF ACT OR REGULATION	PROVISION/CLAUSE OF THIS DOCUMENT
1.	**Planning instrument and/or development application** (section 7.4(1) of the Act) The Developer has: (a) sought a change to an environmental planning instrument; (b) made, or proposes to make, a Development Application; or (c) entered into an agreement with, or is otherwise associated with, a person, to whom paragraph (a) or (b) applies.	(a) Yes (b) Yes (c) No
2.	**Description of land to which this document applies** (section 7.4(3)(a) of the Act)	Item 1 of Schedule 1.
3.	**Description of change to the environmental planning instrument to which this document applies and/or the development to which this document applies** (section 7.4(3)(b) of the Act)	Item 2 of Schedule 1.
4.	**The nature and extent of the provision to be made by the developer under this document, the time or times by which the provision is to be made and the manner in which the provision is to be made** (section 7.4(3)(c) of the Act)	Schedule 3 and Annexure A.

5.	**Whether this document excludes (wholly or in part) of does not exclude the application of section 7.11, 7.12 or 7.24 to the development** (section 7.4(3)(d) of the Act)	Section 7.11 not excluded Section 7.12 not excluded Section 7.24 not excluded
6.	**Applicability of section 7.11 of the Act** (section 7.4(3)(e) of the Act)	The application of section 7.11 of the Act is not excluded in respect of the Development and contributions (if any) under section 7.11 will be required to be paid, and do not include contributions pursuant to the City's Affordable Housing Program, being the contributions payable under this document.
7.	**Consideration of benefits under this document if section 7.11 applies** (section 7.4(3)(e) of the Act)	Benefits are not to be taken into consideration in determining a development contribution under section 7.11 of the Act, as section 7.11 contributions do not include contributions pursuant to the City's Affordable Housing Program, being the contributions payable under this document.
8.	**Mechanism for Dispute Resolution** (section 7.4(3)(f) of the Act)	Clause 9
9.	**Enforcement of this document** (section 7.4(3)(g) of the Act)	Clause 8
10.	**No obligation to grant consent or exercise functions** (section 7.4(9) of the Act)	Clause 2.5
11.	**Registration of this document** (section 7.6 of the Act)	Clause 7
12.	**Whether certain requirements of this document must be complied with before a construction certificate is issued** (clause 25E(2)(g) of the Regulation)	Payment of the Monetary Contribution for affordable housing.
13.	**Whether certain requirements of this document must be complied with before a subdivision certificate is issued**	NIL

	(clause 25E(2)(g) of the Regulation)	
14.	**Whether certain requirements of this document must be complied with before an occupation certificate is issued** (clause 25E(2)(g) of the Regulation)	NIL
15.	**Whether the explanatory note that accompanied exhibition of this document may be used to assist in construing this document** (clause 25E(7) of the Regulation)	Clause 2.6

SCHEDULE 3

Public Benefits (clause 5)

1. PUBLIC BENEFITS - OVERVIEW

The Developer must provide the Public Benefits in accordance with Schedule 3 and this document. The Attributed Value, timing of delivery and additional specifications relating to the Public Benefits is set out in the table below

	Public Benefit	Attributed Value	Due date	Additional specifications
1.	Affordable Housing Monetary Contribution	Monetary contribution applicable to 1% of new non-residential floor space achieved through planning proposal. Equivalent Monetary Contribution Amount will be that which applies at the time payment.	Before the issue of the first Construction Certificate for the Development	Refer Annexure A

2. PAYMENT OF MONETARY CONTRIBUTION

2.1 Payment

The Developer must pay the Monetary Contribution to the City before the issue of the first Construction Certificate for the development in cash or by unendorsed bank cheque.

2.2 Indexation

If the Monetary Contribution is not paid to the City before the date of issue of the first Construction Certificate for the development then at the date of payment the Monetary Contribution must be indexed as follows:

Monetary Contribution (to be provided) =

Monetary Contribution (as per item 1 of clause 1 above) x (A/B)

where:

A is the Index Number most recently published before the date the Monetary Contribution is to be paid

B is the Index Number most recently published before the date this agreement commenced in accordance with clause 3.1(a) of this document.

If after the formula is applied the Monetary Contribution will be less than the amount stated in item 1 of clause 1 above, the Monetary Contribution will not be adjusted.

2.3 **No trust**

Nothing in this document creates any form of trust arrangement or fiduciary duty between the City and the Developer. Following receipt of the Monetary Contribution, the City is not required to separately account for the Monetary Contribution, report to the Developer regarding expenditure of the Monetary Contribution or comply with any request by the Developer to trace the Monetary Contribution.

2.4 **Expenditure by the City**

The City will use the Monetary Contribution to achieve the public benefit of provision of affordable housing.

EXECUTED as a deed.

Signed, sealed and delivered for **THE COUNCIL OF THE CITY OF SYDNEY** (ABN 22 636 550 790) by its duly authorised officer, in the presence of:

Signature of officer

Signature of witness

Name of officer

Name

Position of officer

456 Kent Street, Sydney NSW 2000
Address of witness

EXECUTED by **SUCCESS VENTURE PTY LIMITED** (ACN 060 569 539) as the trustee for **SUCCESS VENTURE (DARLING HARBOUR) UNIT TRUST** ABN 36 225 879 060 in accordance with s127(1) of the Corporations Act 2001 (Cth):

Signature of director

Signature of director/secretary

Name

Name

ANNEXURE A

Public Benefits – Affordable Housing Monetary Contribution

- The Affordable Housing Monetary Contribution will be calculated as follows:

  X = 1% x Y x Z

  Where:

  X is the Affordable Housing Monetary Contribution to be paid

  Y is the 8,211.6m2, being the additional non-residential floor space achieved through the Planning Proposal

  Z is the Equivalent Monetary Contribution Amount / square metre that applies at the time of payment.

- The "Equivalent Monetary Contribution Amount" is as defined in the City of Sydney Affordable Housing Program in force at the time of payment, and as available on the Council of the City of Sydney's website.

Attachment D

Summary of submissions

CITY OF SYDNEY

Summary of submissions: 150 Day Street, Sydney



Engagement Report
August 2026

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

Activities to support the consultation

On 18 and 22 September 2025, the Central Sydney Planning Committee and Council respectively, approved the Planning Proposal – 150 Day Street, Sydney for public authority consultation and public exhibition.

A gateway determination was received from the Department of Planning Housing and Infrastructure dated 27 January 2026. This included requirements for public exhibition and identified the relevant agencies to be consulted.

The consultation period ran from 18 March to 20 April 2026. The following activities were undertaken to support the consultation:

- A webpage and survey were created for people to review the planning proposal and supporting documentation and provide their feedback. The webpage can be accessed at https://www.cityofsydney.nsw.gov.au/policy-planning-changes/your-say-proposed-changes-planning-controls-150-day-street-sydney. There were 263 views of the webpage and 120 document downloads.
- A notification letter was letterbox dropped to property owners and occupiers within a 75-metre radius of the site boundary, informing them of the planning proposal. 1,007 letters were sent. An example of the notification letter can be found at Appendix A.
- The project was included in the April edition of the Sydney Your Say eNews sent on 8 April 2026 to 3,985 subscribers. This provided a link to the webpage and survey. An image of the post can be found at Appendix B.
- The Planning Proposal was referred to the following government agencies for consultation and comment:
  - Ausgrid
  - Department of Climate Change, Environment, Energy and Water (DCCEEW)
  - NSW State Emergency Service
  - Sydney Water
  - Transport for NSW
- A submission was received from Placemaking NSW, the adjoining landowner and NSW government agency with responsibility for Darling Harbour.

What the community told us

We received a total of 52 submissions from the community, 6 responses from government agencies and one response from the proponent.

Of the 52 submissions from the community, 48 were opposed to the proposal and 4 were supportive.

Issues raised in submissions are summarised below.

Table 1. Responses from government agencies

Agency	Submission and response
Ausgrid	Ausgrid reviewed the planning proposal but did not provide any specific feedback or recommendations for this stage of the proposal. A list of development consent conditions was provided for consideration with any future development application.
City response	The response was noted and the information provided to the proponent.

Department of Climate Change, Energy, the Environment and Water (DCCEEW)	DCCEEW reviewed the proposal with specific reference to flood risk management and made the following recommendations:
	• Update the Flooding section of the draft DCP to state that where flood gate protection measures are proposed, those measures must be designed and implemented to provide an appropriate level of protection for long-term climate change conditions, and be consistent with the provisions of the *draft NSW Climate Change and Natural Hazards State Environmental Planning Policy* and *Draft Climate Change Scenario Guidelines* (DPHI, February 2026).
	• Update the Flooding section of the draft DCP to require that the Flood Emergency Response Plan:
	  ○ references flood warning systems that are relevant and reliable for the flooding mechanisms at this location
	  ○ be developed in consultation with hotel management and should include procedures for the operation, regular testing and maintenance of mechanical flood protection systems, including flood gates, to support the effectiveness of the shelter-in-place strategy
	  ○ be reviewed annually and after significant flood events.
	• Update Section 3 of the Sydney Development Control Plan 2012 to delete references to the Floodplain Development Manual 2025 and Flood Prone Lands Policy and instead refer to the NSW Flood Prone Land Policy and *Flood Risk Management Manual* (DPE, 2023).

City response	Policy and Housekeeping Amendments to the Sydney Local Environmental Plan 2012 and Development Control Plan 2012 were approved by Council in June 2025 and are currently with the Department of Planning, Housing and Infrastructure for drafting and finalisation. These Policy and Housekeeping Amendments update references to state government policies and strategies as sought by DCCEEW in their submission. Further amendments will be considered following the finalisation of the Climate Change and Natural Hazards SEPP and Climate Change Scenario Guidelines. A new DCP section ‘Design to reduce risk and hazard’ has been introduced as part of the Policy and Housekeeping Amendments which requires a Plan of Management to accompany any development application that includes flood control devices and systems. This plan must be assessed and approved concurrently with the application. The Plan of Management is to provide comprehensive details about the flood control devices and systems used, including all safety measures, and a plan for how the flood control device or system is to be appropriately maintained and

Agency	Submission and response
	managed over the life of the development. If approved, a condition of consent will require compliance with the approved Plan of Management. The draft DCP for the site, at Attachment B, has been updated to reference the Policy and Housekeeping Amendments to Sydney DCP in line with the information sought by DCCEEW and clarified the appropriate reference documents.

NSW State Emergency Service	The NSW State Emergency Service reviewed the proposal and attached Flood Impact and Risk Assessment (FIRA), and provided the following feedback and recommendations:
	
	• Further consideration be given to the impacts of climate change in line with updated NSW Government guidelines, including increases to the PMF in line with the latest Australian Rainfall and Runoff (ARR) Guideline.
	• Further consideration be given to the risks of prolonged flooding, as historical events often have longer times of isolation than modelled events.
	• Request further information regarding over-floor flooding risks, including depths and durations of any over floor flooding, and a sensitivity test to understand the risks in the case of failure of proposed flood gates.
	• Reconsider passive protection rather than flood gates as such barriers can restrict safe access to emergency services and restrict safe egress for people experiencing a secondary emergency like a medical incident. Instead, site design should be reconsidered to reduce flood risk, ensure safety features for lifts and all openings to the basement are situated above the PMF or 1% AEP plus freeboard, whichever is higher. If this is not feasible, basement carparking should be reconsidered.
	• Recommend including alternative triggers in the “Flood Response Actions” table in the FIRA. According to the table, Stage 2 of the Flood Emergency Response Plan is only triggered when:
	  ○ NSW SES issues a red ‘EMERGENCY’ warning, or
	  ○ Flood barriers are activated.
	The nature of flash flooding means it may occur with limited or no warning, so staff should undertake Flood Response Actions without waiting for official warnings from SES or the Bureau of Meteorology. It is unclear whether the flood gates are proposed to be automatically or manually activated. Regardless, Flood Response Actions should not wait for their activation as such mechanical devices may fail.
	• The FIRA should also be updated to:
	  ○ clarify the meaning of ‘accessible egress for mobility-impaired users’, ensuring that such access does not rely on electricity and is clearly identifiable with signage.
	  ○ clarify how internal fire suppression systems would not be reliant on mains pressure that may fail, and who has responsibility for ensuring this.
	  ○ ensure any flood-resilient generators or battery systems for critical power are located above the PMF and demonstrate consideration of any risks associated with these power sources (eg fuel storage and ventilation).

City response	The planning proposal requires the substantial retention of the existing structure, reducing the ability to respond to flood risk through design. The Sands Street loading dock floor level cannot be raised due to limited space and the need to maintain gradient compliance with the road level. Further, the Sands Street low

Agency	Submission and response
	point cannot be raised due to existing adjacent properties and loading dock entrances. Similarly, the need for the entrance to the basement to be flush with the existing road and the lack of internal space or headroom prevents the existing ramp being raised or lengthened to provide a crest above the flood level. In response the basement is to be valet-operated only, with access restricted to trained staff. An updated Flood Impact and Risk Assessment (FIRA) as part of a future DA will be required to incorporate updated climate change scenarios and demonstrate that modelling of a 6-hour duration PMF storm event is sufficient to understand flood risk on the site. If not, modelling of PMF storm events of longer duration will be required. The new DCP section 'Design to reduce risk and hazard', included in the Policy and Housekeeping Amendments, provides guidance for the use of flood control devices such as flood gates. It also requires a Plan of Management providing comprehensive details about any flood control devices and their ongoing operation. The FIRA submitted with any future DA will need to demonstrate compliance with the amended Sydney DCP and include a Plan of Management to be approved concurrently with the DA. The site specific DCP, at Attachment B, has been amended to include reference to the 'Design to reduce risk and hazard' guidance and includes a requirement for the FIRA to include consideration of over-floor flooding risks and a sensitivity test. Other recommendations for amendments to the Flood Response Actions table, clarifications on accessible egress and internal fire suppression systems, and the locations of back-up power sources, have been provided to the proponent for inclusion in the FIRA submitted as part of a future DA.
Placemaking NSW	Placemaking NSW (PMNSW) supports planning proposals that facilitate the development of additional hotel accommodation near Darling Harbour. As owner of the parcel of land located on the western side of the proposal, PMNSW must grant landowner's consent prior to any works being undertaken on its land. PMNSW supports the public domain upgrade works on the western side of the proposed development. The concept of a gully environment and the introduction of appropriate planting on the ground plane is generally supported. However, any works on PMNSW land will need to be developed in collaboration with, and approved by, PMNSW as landowner. Furthermore details of the party responsible for the ongoing maintenance of all future public domain, landscaped areas, and public art are included in any future DA application. PMNSW supports the proposed introduction of public art at the site as proposed under the Preliminary Public Art Strategy. However, the Public Art Strategy must acknowledge that any public art delivered on PMNSW-owned land will need to be developed in consultation with PMNSW as landowner with PMNSW to be represented on the art selection panel responsible for selecting the final artworks to be installed. PMNSW recommends that the proponent broaden their assessment of flooding, solar amenity impacts and wind to include the area to the immediate west and southwest of Darling Harbour. PMNSW requests the opportunity to collaborate on the assessment and management of these potential amenity impacts in its role as an adjoining landowner and key stakeholder in the precinct.

Agency	Submission and response
City response	PMNSW's support for the proposed land use and for the public domain and public art strategies is noted. Consultation with PMNSW will continue as the proposal progresses to DA stage and no activities on PMNSW land will take place without landowner's consent. With regard to flooding issues, as there is no proposed change to the existing building extent at the ground floor plane, there will be no change in flood behaviour compared with existing conditions. This means there will be no flood impact on PMNSW property as a result of this proposal. Section 5.1 of the Flood Impact and Risk Assessment, at Attachment A12, undertakes a preliminary stormwater flood mitigation assessment and concludes that due to high cost and disruption, and minimal scope for meaningful improvement, stormwater upgrades are not proposed as part of the proposal. However, this may be reconsidered at later stages and PMNSW will be consulted along with other affected government agencies. Overshadowing analysis of Darling Quarter and Tumbalong Park will be included as part of any future DA following the completion of the competitive design process. Wind analysis of the proposal, at Attachment A8, included wind testing locations along the Harbour Street frontage of Darling Quarter, the pedestrian footbridge above Harbour Street, and the pedestrian connection between Druitt Street and Cockle Bay. In all cases, the proposal was found to generate minimal impact, and locations beyond these sites should not be affected. These testing locations are consistent with the requirements of Sydney DCP.
Sydney Water	Sydney Water reviewed the planning proposal but did not provide any specific feedback or recommendations for this stage of the development. General information and advice was provided regarding water and wastewater for future stages of the development.
City response	This response was noted and the information forwarded to the proponent.
Transport for NSW (TfNSW)	The proposal to construct additional floors above the existing building must ensure that there is no detrimental impact to the Cross City Tunnel or associated structures. Further consultation with TfNSW and Transurban will be required once more detailed information is available, including a comprehensive construction impact assessment report. The developer will be required to enter into an interface agreement with Transurban due to the proximity of development with the Cross City Tunnel. A Construction Impact Assessment checklist has been provided outlining documentation that may be necessary at a future stage. Any projections or overhangs, such as louvres, windows or other façade elements, on the northern building façade must not encroach into TfNSW property nor pose safety risks to traffic using the Western Distributor. TfNSW does not support any encroachment into its property and requires that the development is constructed fully within the subject site. TfNSW contractors use Day Street and TfNSW land (underneath and beside the Western Distributor) to carry out regular inspection and maintenance. Any public domain works, such as upgraded paving, public art and landscaping on TfNSW land must not inhibit access to vehicles, cyclists and pedestrians and is to be designed and constructed to withstand vehicular loads. Any public domain works

Agency	Submission and response
	proposed on structures associated with the Cross City Tunnel, such as retaining or partition walls, will require consultation and approval of Transurban and TfNSW at a future stage. TfNSW is the roads authority for Day Street and Bathurst Street, and a Works Authorisation Deed (WAD) will be required to enable the delivery of road works, including public domain works, on these roads. The Transport Impact Assessment indicates that the existing Porte Cochere and exit ramp is to be removed which would result in a single lane ramp from the basement to Day Street, to be used only by valets. Any private structure or equipment to give effect to this arrangement, such as traffic signals or boom gates and barriers, must be wholly located within the subject site. The removal of the porte cochere may exacerbate traffic conditions in Day Street. It is recommended that the proposed pick up/drop off parking bays in Day Street demonstrate sufficient capacity to accommodate future demand, considering peak demands and queuing impacts. The preparation of a parking management strategy and road safety audit is recommended for access and parking arrangements on Day Street. The strategy and audit should be finalised and approved by TfNSW at the planning proposal stage. Any road or pavement markings can only be installed with TfNSW approval. The preparation of a detailed signage and linemarking plan is recommended, with approval by TfNSW at the planning proposal stage to ensure alignment between applicant and TfNSW. SIDRA models should be updated to provide movement summaries for 2034 'without development' scenarios, and to correct the operating assumptions of the Day Street/Bathurst Street intersection.
City response	It is expected that excavation on site will be minimal due to the building retention approach of the development. Some excavation will be required to expand and strengthen foundations. Consultation requirements with TfNSW and Transurban are noted and the Construction Impact Assessment checklist has been forwarded to the proponent. The objection to any encroachment of the building façade into TfNSW property is noted, and the site-specific DCP at Attachment B and the Building Envelope drawings at Attachment A4 have been amended to remove the 450mm façade articulation zone previously illustrated. Consultation requirements with TfNSW and Transurban regarding any public domain works on TfNSW land are noted. An addendum to the Transport Impact Assessment has been provided and is at Attachment A27, which updates the SIDRA modelling as requested. In addition, a queuing analysis has been conducted to assess the capacity of the hotel drop-off bays in Day Street if the porte cochere were to be removed as proposed in the reference design. The analysis finds that, under the typical hotel drop-off operation assuming a 2-minute service time, all forecast vehicles can be accommodated within the four proposed drop-off bays, with no queueing expected. A further assessment was undertaken using a conservative 5-minute service time to represent a worst-case scenario where all 45 forecast hotel drop-off vehicles arrive during the AM peak hour and occupy a drop-off bay for 5 minutes. Under this scenario, the proposed drop-off bays are expected to be fully occupied, with up to two vehicles queueing at the 95% confidence level. The analysis also demonstrates that there is sufficient overflow space on Day Street and for additional vehicles to queue without impacting the Day Street/Bathurst

Agency	Submission and response
	Street intersection. Engagement with TfNSW will continue to align inputs into the design competition and any future DA.

Table 2. Responses from organisations

Applicant	Submission and response
Mecone (on behalf of the proponent)	As drafted, the LEP provision identifies a maximum FSR of 13.5:1. This is inclusive of 0.33:1 for end of trip facilities or 752m^2 (after accounting for a 10% Design Comp bonus). 752m^2 is equivalent to more than half of the B2 level which is not feasible for the adaptive reuse and hotel development. Following additional information requested, bike parking was revised and relocated to B1 to satisfy traffic comments to ensure suitable bike path movements. Consequently, the proposed facilities are split across B1 and B2 and would not strictly satisfy the requirements of clause 6.6 of Sydney LEP. Furthermore, the combined area would be less than 752m^2 (B2 end of trip area is currently 216m^2) and as such, the proposal would not be able to realise the GFA identified in the reference scheme. As such, we request that clause 4(d) of the example clauses in Appendix 1 of the Planning Proposal be struck out and 0.3:1 added to 2.97:1 FSR (new total 3.27:1) in 4(b) noting: • Clause 6.6 is an incentive FSR clause for end of trip facilities in commercial premises only. Hotels are not commercial premises and as such this clause is not applicable to the project. • The reference scheme demonstrates and is able to comply with the minimum end of trip requirements in the DCP. Provision of 0.33:1 FSR for end of trip facilities is excessive for hotel development and would mean the loss of hotel floor space or back of house which is crucial to the viability of the scheme. • Given the adaptive reuse nature of the development, co-located bike parking and amenities is difficult to achieve whilst also accommodating suitable bike path, car parking and necessary plant, and building strengthening.
City response	Appendix 1 of the Planning Proposal represents an example of potential drafting for the LEP amendment. However, the Section 4 Explanation of Provisions and Appendix 1 of the Planning Proposal have been amended in response to this submission to remove the application of end of journey floor space to the site, while noting that: • the overall FSR allowable under the Sydney LEP will remain 13.5:1, and • any future DA will still need to satisfy the requirements to provide end of trip facilities in accordance with section 3.11.3 of Sydney DCP.
Racing NSW	Racing NSW formally objects to the proposal on the grounds that: • 51 Druitt Street, headquarters of Racing NSW, was not assessed as part of the View Sharing Analysis (at Attachment A10). Their offices currently enjoy clear outlooks over Darling Harbour with strong access to natural light. The proposed height of 150 Day Street would obstruct these views and light. The

Applicant	Submission and response
	conclusion of the analysis that none of the affected views would be considered as iconic, scenic or highly valued is not accepted. • the proposed increase in height and floor space represents an excessive uplift that is not appropriately balanced with the surrounding built form. • they are concerned the significant increase in height and bulk will exacerbate wind impacts, with the Pedestrian Wind Environment Study (at Attachment A8) noting that existing wind conditions exceed comfort and safety standards at point around 150 Day Street. • the scale of the proposed redevelopment will necessitate a prolonged and complex construction program, causing noise, vibration and dust, and disrupting building operations, traffic and pedestrian movements. • approval of a significant uplift of this nature risks establishing an undesirable precedent for similar increases in height and density across the surrounding precinct. The building height control should not be altered and remain at 45 metres.
City response	The planning proposal acknowledges the impact on views. While the View Sharing Analysis at Attachment A10 only made specific reference to impacted residential properties, it is clear that the commercial building at 51 Druitt Street will likely have its current westerly views obstructed. 51 Druitt Street should retain partial views of Cockle Bay as it is located slightly to the north of 150 Day Street. Because of the location of 150 Day Street, any increase in building height will result in impacts to views currently enjoyed by 51 Druitt Street. The proposed height is consistent with the surrounding context including 298 Sussex Street measuring RL 97.9m, 58-60 Bathurst Street measuring RL 91.3m, and the Darling Park commercial buildings between RL 95.9m and RL 132.2m, all higher than this proposal at RL 87.7m. It should be noted that the maximum height proposed of RL 87.7m does not apply across the whole site due to the application of the no additional overshadowing protections to Sydney Square, Town Hall Steps and future Town Hall Square. Along the northern boundary, closest to 51 Druitt Street, the maximum height of the building envelope is reduced to RL 66.9m. The City's planning framework does not protect private views. Section 5.3 of the Planning Proposal demonstrates how the proposal supports the strategic direction of the Central Sydney Planning Strategy and City of Sydney Economic Development Strategy by prioritising employment growth and increasing capacity, also contributing to the State Government's target for increasing hotel room supply by 40,000 statewide. In particular, obstructing future development on the site on view loss grounds is contrary to the objective of the Central Sydney Planning Strategy "to ensure that new development is not impeded by the preservation of private views". With consideration of the proposed building height and its context, and the clear strategic direction of the Central Sydney Planning Strategy and Economic Development Strategy, the view loss is considered reasonable. More information on views can be found in Table 3 of this document. 51 Druitt Street's access to direct sun will not be affected by this proposal. A separation of almost 45m between 51 Druitt Street and the built form of 150 Day Street, across Sussex and Sands Streets and a row of private properties in between, will ensure sufficient light and air to 51 Druitt Street and is consistent with Sydney DCP. The Pedestrian Wind Environment Study, at Attachment A8, demonstrates the proposal can deliver wind conditions equivalent to or improved on current

Applicant	Submission and response
	conditions, consistent with the requirements of the Sydney DCP. Wind tunnel testing of the proposed building envelope resulted in modifications to the massing. Further wind testing will take place at DA stage to ensure that wind conditions are acceptable. The proposal to increase the FSR control from 9.9:1 to 13.5:1 is consistent with other commercial developments in Central Sydney and aligns with the Central Sydney Planning Strategy to prioritise employment growth and increase capacity in Central Sydney. The maximum height of RL 87.7m has been tested to ensure that it can accommodate the proposed floor area, and the height is consistent with the maximum heights of surrounding buildings as mentioned above. Construction impacts, including noise and changes to pedestrian movements, will be considered as part of any future Development Application. This will include the implementation of a Construction Management Plan prior to the issuing of a Construction Certificate.

Table 3. Responses from individual submitters

Issue	Key themes	City response
Overshadowing and loss of natural light	44 submissions were received raising concern the proposal would increase overshadowing of apartments in neighbouring buildings. 35 objections were received from the residents of Millennium Towers at 289-295 Sussex Street and 1 objection from Maestri Towers at 298 Sussex Street, 6 objections were received from the residents of the Crowne Plaza at 60 Bathurst Street, and 2 objections from 267 Sussex Street. Key issues raised by residents include a loss of sunlight to apartments, diminishing residential amenity and increasing health risks. Submissions also raised concern the proposal	Section 5.4 of the Planning Proposal, at Attachment A, outlines the overshadowing impact of the proposal. The overshadowing impact to Millennium Towers at 289-295 Sussex Street is acknowledged. The building is currently non-compliant with the Apartment Design Guide, with only 37% of apartments receiving 2 hours of direct sunlight at midwinter. The proposal increases the number of apartments that receive less than 2 hours of direct sunlight at midwinter by 12, or 3.7%. Maestri Towers at 298 Sussex Street is currently non-compliant with the Apartment Design Guide with only 29% of apartments receiving 2 hours of direct sunlight at midwinter. The proposal increases the number of apartments that receive less than 2 hours of direct sunlight at midwinter by 6, or 2.1%. Millennium Towers and Maestri Towers were originally approved in 1995 and 1997 respectively, before the implementation of the current Sydney DCP and Apartment Design Guide. They were not designed nor oriented to maximise direct sun access at midwinter. Any increase to building height at 150 Day Street would increase overshadowing at midwinter to these residential properties. This means that no additional development for commercial activity can take place at 150 Day

Issue	Key themes	City response
	would result in the overshadowing of Bathurst and Sussex Street at street level, including a number of mature trees.	Street without accepting overshadowing impacts in this Central Sydney location. At the time of the construction of Millennium and Maestri Towers, the applicable development control was to protect a minimum of 2 hours direct sun access on the autumn equinox (21 March). If the proposal were to be assessed according to the controls in place at the time of the buildings' original design and construction, the proposal would cause no change to the number of apartments receiving 2 hours of direct sunlight on the equinox. The planning proposal found no overshadowing impact to the Crowne Plaza building at 60 Bathurst Street between the hours of 9am to 3pm at midwinter and no change to the number of apartments receiving more than 2 hours of direct sunlight at midwinter. Due to the northerly orientation of all living spaces at 267 Sussex Street, 20 out of 21 apartments currently enjoy more than 2 hours of direct sunlight at midwinter and there is no change to this as a result of the planning proposal. Street trees are chosen to cope with the difficulties of the urban environment, including shadows and wind. Trees located along Day Street and Harbour Street will retain substantial midwinter sun should the proposal proceed, and trees along Bathurst and Sussex Streets are already fully overshadowed at midwinter by neighbouring buildings, including 289-295 Sussex Street and 298 Sussex Street.
View loss	38 submissions were received raising concerns about the loss of views to Darling Harbour, Cockle Bay and Tumbalong Park from existing apartments, and subsequent impact on residential amenity, desirability and property values. The submissions included 33 from Millennium Towers at 289-295 Sussex Street, 4 submissions from 60 Bathurst Street and 1 submission from 278 Sussex Street.	The planning proposal acknowledges the impact on views, as demonstrated in the View Sharing Analysis at Attachment A10. Referring to the view sharing planning principle established by Tenacity Consulting v Warringah Council, while none of the views were identified as 'iconic', the total loss of partial water views of Cockle Bay and the partial loss of whole views of Tumbalong Park to the west were assessed as having moderate to severe impact. These views are currently obtained from front boundaries and from living spaces, accentuating the level of impact. The fourth step of the Tenacity planning principle is to assess the reasonableness of the proposal causing the impact. This planning proposal would increase the height of buildings control applying to the site from 45m to RL 87.7m (about 85m). This height is consistent with the surrounding context. The building height control to the east of Sussex Street is 110m, with 298 Sussex Street measuring

Issue	Key themes	City response
		RL 97.9m and 58-60 Bathurst Street measuring RL 91.3m, both higher than this proposal. The Darling Park commercial buildings to the north of the site reach between RL 95.9m and RL 132.2m. Millennium Towers at 289-295 Sussex Street is RL 74.5m, which exceeds the planning control on the site of 50m. The Tenacity planning principle requires an assessment of whether a more skilful design could provide the applicant with the same development potential and amenity while reducing the impact on the views of neighbours. Because of the location and orientation of the site, any increase in height will result in impacts to the views currently enjoyed by properties on Sussex and Bathurst Streets. The maximum height possible on the site has already been limited by the application of the no additional overshadowing protection to Sydney Square, Town Hall Steps and future Town Hall Square, which means that the maximum height of RL 87.7m does not apply across the whole site. Along the northern boundary, the maximum height of the building envelope is reduced to RL 66.9m. The subject site is strategically located between the major tourism infrastructure of Darling Harbour, the transport infrastructure of Town Hall, and the commercial and retail centres of the CBD. As established in section 5.3 of the Planning Proposal at Attachment A, the proposed development is consistent with the strategic direction established by the Central Sydney Planning Strategy and the City's Economic Development Strategy. In particular, the Central Sydney Planning Strategy seeks to prioritise employment growth and increased capacity in Central Sydney. The Economic Development Strategy encourages the growth of the tourism sector and precincts with strong sector specialisations. Therefore, the proposed land use is appropriate for the location. The views currently enjoyed by neighbouring properties on Sussex and Bathurst Streets are uncharacteristic of their CBD location. The City’s planning framework does not protect private views. An objective of the Central Sydney Planning Strategy is “to ensure that new development is not impeded by the preservation of private views”. To inhibit the development potential of 150 Day Street to protect these private views is unsustainable considering the strategic importance of the land and its ability to contribute to economic growth and job creation in Central Sydney. With consideration of the proposed building height and its context, the

Issue	Key themes	City response
		site restrictions that prevent a different design from achieving the same development potential while reducing impact on views for neighbours, and the clear strategic direction of the Central Sydney Planning Strategy and Economic Development Strategy, the view loss is considered reasonable.
Bulk and scale	37 submissions were received raising concern with the proposed height and FSR, stating that the height, density and scale was inconsistent with neighbourhood character.	The proposal to increase the FSR control from 9.9:1 to 13.5:1 is consistent with other commercial developments in Central Sydney and aligns with the strategic direction of the Central Sydney Planning Strategy to prioritise employment growth and increase capacity in Central Sydney. The maximum height of RL 87.7m has been tested to ensure that it can accommodate the proposed floor area. The site will remain subject to the no additional overshadowing controls protecting sun access to Sydney Town Hall steps, Sydney Square and future Town Hall Square. The maximum height of RL 87.7m is consistent with the existing heights of surrounding buildings. Millennium Towers at 289-295 Sussex Street is at RL 74.5m which exceeds the current height of buildings control of 50m. The height of buildings control to the east of Sussex Street is 110m, with 298 Sussex Street at RL 97.9m and 58-60 Bathurst Street at RL 91.3m.
Transport	35 submissions were received regarding transport and access issues, particularly increase of traffic on Bathurst Street and surrounding roads, impact on off-site parking due to the lack of parking on site, and pedestrian congestion on footpaths and nearby intersections. One submission was received in support of the proposal, noting the opportunities to improve pedestrian access, particularly the underpass from Druitt to Day Street.	The Transport Impact Assessment, at Attachment A11, finds that the proposal will generate an additional 23 vehicle trips per hour during the morning peak period, and an additional 13 vehicle trips per hour during the evening peak period. This level of traffic generation is acceptable, considering the Day Street/Bathurst Street intersection currently experiences excellent operating conditions with substantial spare capacity. The site's location within walking distance of major transport infrastructure, namely Town Hall Station 300 metres to the west, encourages the use of public transport. This is consistent with the strategic direction of City Plan 2036 and Sustainable Sydney 2030-2050: Continuing the vision, to locate development and growth in areas with existing transport infrastructure. Development on this site also represents an opportunity to improve the public domain and pedestrian linkages between the City and Darling Harbour, including along Bathurst Street, which can be secured as conditions of consent with any future Development Application.

Issue	Key themes	City response
Planning merit	33 submissions were received raising concern about the planning merit behind the proposal, criticising the proposed tourist and visitor accommodation land use in a housing crisis, and the use of a spot rezoning rather than a precinct wide approach. One submission was received which supported the proposed land use in this location.	The planning proposal at Attachment A demonstrates how the proposal is consistent with the objectives of the Greater Sydney Region Plan, Eastern City District Plan, City Plan 2036, Sustainable Sydney 2030-2050: Continuing the vision, Central Sydney Planning Strategy and City of Sydney Economic Development Strategy. In particular, the Central Sydney Planning Strategy seeks to prioritise employment growth and increase capacity in Central Sydney and the City of Sydney Economic Development Strategy seeks to support efforts to create world class visitor services and promote areas with strong sector specialisations such as the tourism sector in Darling Harbour. It is also in alignment with the NSW Government's Visitor Economy Strategy 2030 Review, which sets objectives to increase hotel room supply statewide by 40,000. These are strategies which apply across the entire Central Sydney precinct.
Construction noise	One submission was received raising concerns about the impact of construction noise on neighbouring buildings.	Construction impacts, including noise and changes to pedestrian movements, will be considered as part of any future Development Application. This will include the implementation of a Construction Management Plan prior to the issuing of a Construction Certificate.
Planting and public domain	One submission was received which supported the proposed increases to greenery and planting on the building and in the surrounding public domain.	This submission is noted.

Appendix A

CITY OF SYDNEY

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18 March 2026

Our Ref: X090796

Proposed changes to planning controls for 150 Day Street, Sydney

We invite your feedback on proposed changes to the planning controls for 150 Day Street, Sydney.

The proposal is to increase the maximum height from 45m to about 85m and the maximum floor space ratio from 9.9:1 to 13.5:1. This is equivalent to 8,200sqm more floor space.

The changes will support the retention and adaptive reuse of the existing 11-storey hotel and allow 11 more storeys for hotel uses.

The public consultation documents include a planning proposal to amend the Sydney Local Environmental Plan 2012 and a draft development control plan. We also seek your feedback on a draft planning agreement for affordable housing contributions.

Your feedback will be reported to Council and the Central Sydney Planning Committee. If Council approves this planning proposal, it can amend the Sydney Local Environmental Plan 2012 on behalf of the Minister for Planning and Public Spaces.

How to give feedback
You can view the proposal and give feedback at sydneyyoursay.com.au by **5pm on Monday 20 April 2026**.

Feedback can be made online, by email or post to: Project Officer, City Engagement, City of Sydney, Town Hall House, Level 7, 456 Kent Street, Sydney NSW 2000.

Feedback should quote 'Reference X090796 – 150 Day Street, Sydney'.

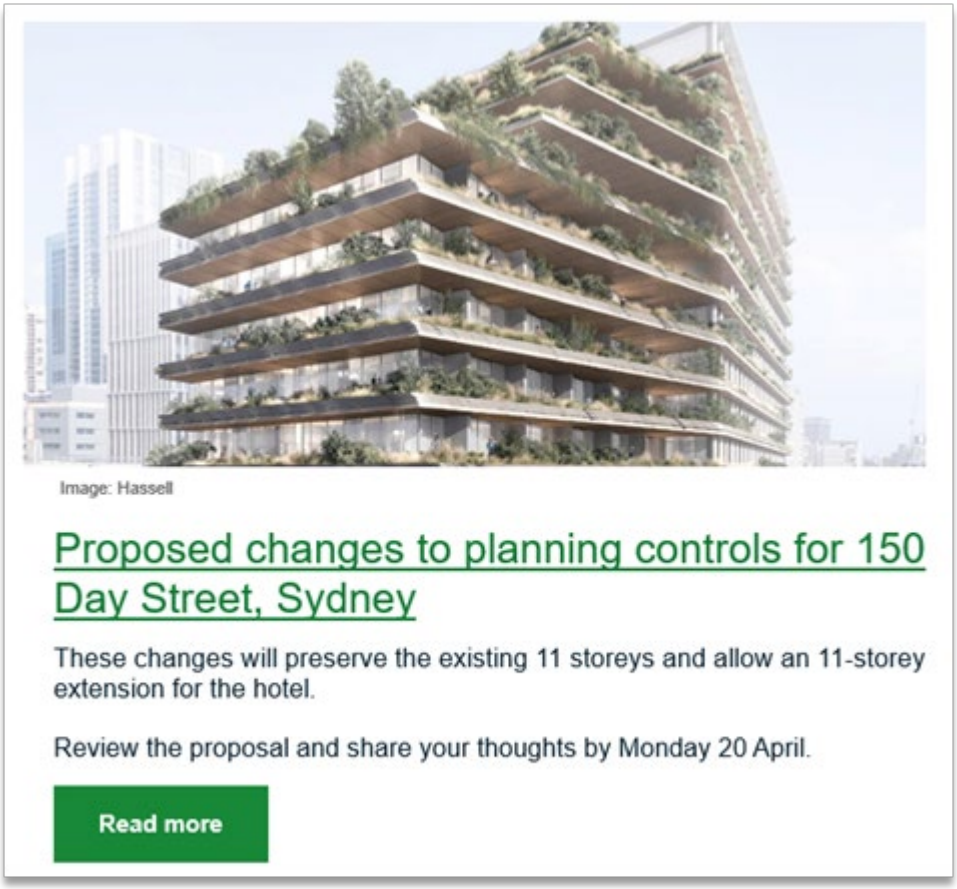
For more information or any queries about this project, please contact our planner James Dirickx-Jones on 02 9265 9333 or sydneyyoursay@cityofsydney.nsw.gov.au.

Yours sincerely

Ben Pechey
Executive Manager
Strategic Planning and Urban Design

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

Appendix B


Image: Hassell
Proposed changes to planning controls for 150 Day Street, Sydney
These changes will preserve the existing 11 storeys and allow an 11-storey extension for the hotel.
Review the proposal and share your thoughts by Monday 20 April.
Read more

Attachment E

Resolutions of Council and Central Sydney Planning Committee

Resolution of Council

22 September 2025

Item 10.4

Public Exhibition - Planning Proposal - 150 Day Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

It is resolved that:

(A) Council approve Planning Proposal - 150 Day Street, Sydney, as shown at Attachment A to the subject report, to be submitted to the Minister for Planning and Public Spaces with a request for Gateway Determination;

(B) Council approve Planning Proposal - 150 Day Street, Sydney, as shown at Attachment A to the subject report, for public authority consultation and public exhibition in accordance with any conditions imposed under the Gateway Determination;

(C) Council seek authority from the Minister for Planning and Public Spaces to exercise the delegation of all the functions under section 3.36 of the Environmental Planning and Assessment Act 1979 to make the local environmental plan and to put into effect Planning Proposal - 150 Day Street, Sydney;

(D) Council approve the Draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, as shown at Attachment B to the subject report, for public authority consultation and public exhibition concurrent with the Planning Proposal;

(E) authority be delegated to the Chief Executive Officer to make any variations to Planning Proposal - 150 Day Street, Sydney, to correct any drafting errors or to ensure consistency with the Gateway Determination;

(F) authority be delegated to the Chief Executive Officer to make any variations to Draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, to correct any drafting errors or ensure it is consistent with the Planning Proposal following the Gateway Determination; and

(G) Council note the Chief Executive Officer will prepare a draft planning agreement in accordance with the letter of offer dated 3 September 2025 at Attachment C to the subject report, and the requirements of the Environmental Planning and Assessment Act 1979, to be exhibited in accordance with the Act.

Carried unanimously.

X090796

Resolution of Central Sydney Planning Committee

18 September 2025

Item 6

Public Exhibition - Planning Proposal - 150 Day Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

Moved by the Chair (the Lord Mayor), seconded by Councillor Miller -

It is resolved that:

(A) the Central Sydney Planning Committee approve Planning Proposal - 150 Day Street, Sydney, as shown at Attachment A to the subject report, to be submitted to the Minister for Planning and Public Spaces with a request for gateway determination;

(B) the Central Sydney Planning Committee approve Planning Proposal - 150 Day Street, Sydney, as shown at Attachment A to the subject report, for public authority consultation and public exhibition in accordance with any conditions imposed under the gateway determination;

(C) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 15 September 2025, that Council seek authority from the Minister for Planning and Public Spaces to exercise the delegation of all the functions under section 3.36 of the Environmental Planning and Assessment Act 1979 to make the local environmental plan and to put into effect Planning Proposal - 150 Day Street, Sydney;

(D) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 15 September 2025, that Council approve the Draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, as shown at Attachment B to the subject report, for public authority consultation and public exhibition concurrent with the Planning Proposal;

(E) authority be delegated to the Chief Executive Officer to make any variations to Planning Proposal - 150 Day Street, Sydney, to correct any drafting errors or to ensure consistency with the gateway determination;

(F) authority be delegated to the Chief Executive Officer to make any variations to Draft Sydney Development Control Plan 2012 - 150 Day Street, Sydney, to correct any drafting errors or ensure it is consistent with the Planning Proposal following the gateway determination; and

(G) the Central Sydney Planning Committee note the Chief Executive Officer will prepare a draft planning agreement in accordance with the letter of offer dated 3 September 2025 at Attachment C to the subject report, and the requirements of the Environmental Planning and Assessment Act 1979, to be exhibited in accordance with the Act.

Carried unanimously.

X090796

Attachment F

Gateway determination
dated 27 January 2026

Gateway Determination

***Planning proposal (Department Ref: PP*-PP-2025-550*)**: To amend the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) to enable an increased floor space ratio (FSR) and an increased maximum building height for development at 150 Day Street Sydney which includes the retention of the existing structure, commits to design excellence and protects amenity by preventing additional overshadowing to key public spaces and provides a comfortable and safe wind environment.

I, the A/Director, Local Planning (North, East and Central Coast) at the Department of Planning, Housing and Infrastructure, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Sydney Local Environmental Plan 2012 to enable increased maximum building height and increased floor space ratio for development at 150 Day Street should proceed subject to the following.

The LEP should be completed on or before 6 November 2026.

Gateway Conditions

1. Prior to community consultation, the Flood Impact Risk Assessment is to be updated to include additional information on Shelter in Place provisions.
2. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:

   (a) the planning proposal is categorised as standard as described in the *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023) and must be made publicly available for a minimum of 20 working days; and

   (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023).

   The draft contributions plan for 150 Day Street is to be exhibited at the same time and in the same way as the planning proposal (as far as practicable).

3. Consultation is required with the following public authorities and government agencies under section 3.34(2)(d) of the Act (or any other part of the Act) and/or to comply with the requirements of applicable directions of the Minister under section 9 of the Act:

   - Department of Climate Change, Energy, the Environment and Water
   - Transport for NSW
   - Ausgrid
   - Sydney Water

- State Emergency Service

Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material via the NSW Planning Portal and given at least 30 working days to comment on the proposal.

4. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 27 January 2026



Eleanor Robertson
A/Director Local Planning (North, East and Central Coast)
Department of Planning, Housing and Infrastructure
Delegate of the Minister for Planning and Public Spaces

Item 5.

Post Exhibition - Planning Proposal - 580 George Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

File No: X124325

Summary

Central Sydney continues to be Australia's leading economic centre and a preferred centre for workers, residents and visitors. Maintaining Central Sydney's status as a global city with a strong economy and high quality of life is one of the City of Sydney's key strategic actions.

The Central Sydney Planning Strategy (the Strategy) prioritises growth opportunities through increased capacity in locations that can accommodate additional density. The Strategy protects Central Sydney's heritage and public places, encourages greater use of public transport, and steps towards delivering a more sustainable city.

This report recommends approving the recently exhibited planning proposal for 580 George Street, Sydney, which seeks to amend the floor space ratio control to facilitate 8,000 square metres of additional employment generating floor space in a new 10 storey office building on the northern western corner of the site. The new building will be integrated with the existing office tower on the site, as well as the lower ground retail arcade and pedestrian connection to Town Hall railway station.

The planning proposal was endorsed by Council and the Central Sydney Planning Committee (CSPC) in December 2025, and the NSW Government issued a gateway determination in March 2026.

This report details the public consultation outcomes of the planning proposal and draft development control plan (DCP) for the site, which were exhibited from 20 April 2026 to 18 May 2026. A total of 10 submissions were received: 3 were supportive, 5 opposed and 2 provided feedback without a position on the proposal. Submissions from 2 government agencies were also received. Key matters raised in submissions include concerns about view loss and amenity impacts, increased noise and prioritising new housing.

Located on the corner of George and Bathurst Streets in the 'midtown' precinct of Central Sydney, the proposal makes efficient use of recent capacity upgrades to public transport, including Sydney Metro, light rail and the pedestrianised George Street. The planning envelope is responsive to its prominent location, while protecting the amenity of adjoining residential apartments and will maintain good pedestrian wind and daylight conditions.

A summary of submissions and the City's response is provided at Attachment C, and key issues are discussed in this report. This report recommends the Central Sydney Planning Committee approve the planning proposal and note the draft development control plan without substantive change following public exhibition.

Recommendation

It is resolved that:

(A) the Central Sydney Planning Committee note the submissions raised during the public exhibition of Planning Proposal - 580 George Street, Sydney and draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, as shown in Attachment C to the subject report

(B) the Central Sydney Planning Committee approve Planning Proposal - 580 George Street, Sydney, as shown at Attachment A to the subject report to be made as a local environmental plan under section 3.36 of the Environmental Planning and Assessment Act 1979

(C) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 17 August 2026, that Council approve draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, as shown at Attachment B to the subject report, noting the approved development control plan will come into effect on the date of publication of the subject local environmental plan

(D) authority be delegated to the Chief Executive Officer to make any minor amendments to Planning Proposal - 580 George Street, Sydney and draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, to correct any minor errors or omissions prior to finalisation.

Attachments

Attachment A. Planning Proposal - 580 George Street, Sydney

Attachment B. Draft Sydney Development Control Plan 2012 - 580 George Street, Sydney

Attachment C. Summary of submissions

Attachment D. Resolutions of Council and Central Sydney Planning Committee

Attachment E. Gateway determination - dated 23 March 2026

Background

1. A request to prepare a planning proposal was lodged for 580 George Street, Sydney (the site) in September 2025 through the NSW Planning Portal on behalf of the landowner, The GPT Group. The site is shown in Figure 1.



Figure 1: Land affected by this planning proposal

2. The site has an area of 3,567 square metres, with frontages to George Street, Bathurst Street and Wilmot Street to the south, and a shared a boundary with 2 adjacent properties to the east.

3. Existing development consists of a 37-storey office tower featuring a retail podium with food court, childcare centre and underground connection to Town Hall Station. The building was completed in 1988 and refurbished in 2014 with the addition of the distinct curved awning along George Street.

4. Further details of the site and existing planning controls is found in the planning proposal at Attachment A to this report. Photos of the site and existing development are at Figures 2, 3 and 4.



Figure 2: Looking south-east toward the subject site (in red)

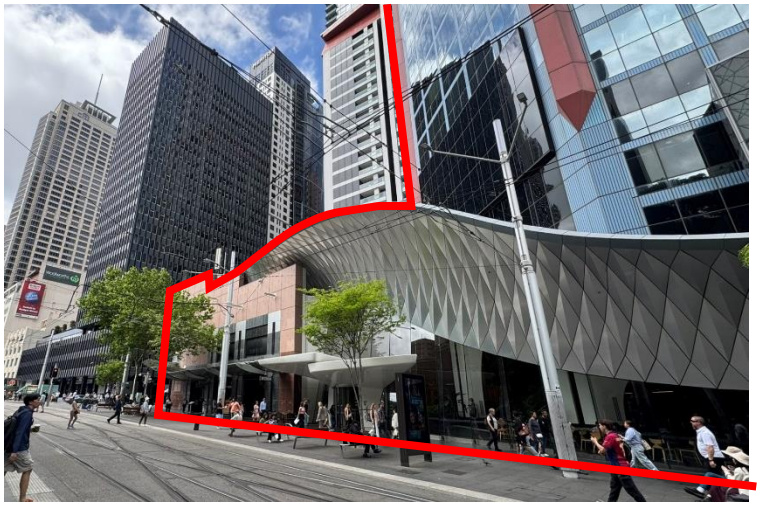


Figure 3: Looking north-east towards the subject site (in red) from George Street

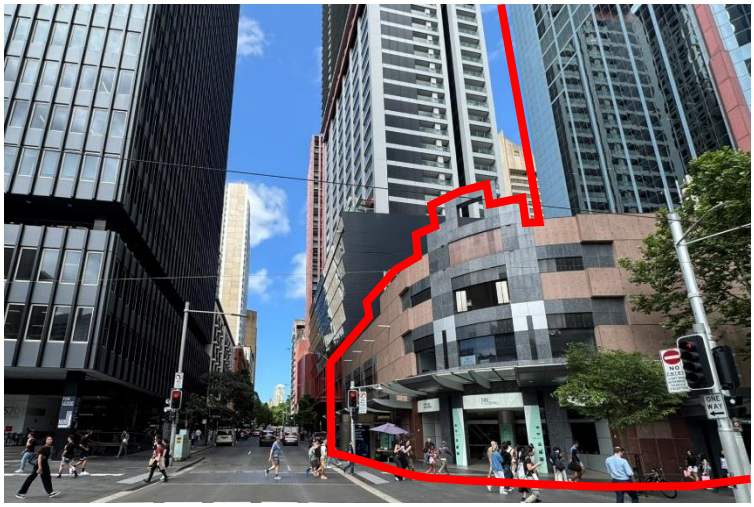


Figure 4: View of the Greenland Centre building adjoining the subject site (in red)

The proponent has requested a change to the floor space ratio control to facilitate construction of a new 10-storey building on a portion of the site

5. The proponent requested a planning proposal to facilitate the partial redevelopment as follows:

   (a) a new 10-storey office building to a maximum height of RL 62.22 metres (approximately 38 metres above street level)

   (b) deliver approximately 8,000 square metres of new premium-grade office space, to a maximum floor space ratio of 15.1:1

   (c) ensure the planning proposal floor space remains consistent with the assessment and not used for residential accommodation or serviced apartments purposes, and

   (d) ensure the new building includes end of journey facilities

6. Photomontages of the indicative scheme are provided at Figures 5 and 6.

Changes to the Development Control Plan will ensure the delivery of a high-quality built form that respects adjacent heritage buildings

7. A draft site-specific Development Control Plan (draft DCP) is at Attachment B and provides further guidance for development facilitated by this planning proposal. The draft DCP provisions include:

   (a) building envelope dimensions, including maximum height, as shown at Figure 6

   (b) built form requirements, including facade articulation and horizontal recess zones and integration of the existing curved feature awning and

   (c) additional provisions addressing heritage, sustainability, public art and design excellence.



Figure 5: Photomontage of the concept development facilitated by this planning proposal



Figure 6: Photomontage of the planning proposal concept development

The planning proposal received gateway determination and was placed on public exhibition

8. The planning proposal was approved to be submitted for gateway determination by the Central Sydney Planning Committee on 11 December 2025 and by Council on 15 December 2025. The Council also approved the draft DCP for public exhibition with the planning proposal.

9. The planning proposal was sent to the Department of Planning, Housing and Infrastructure (the Department) for gateway determination on 19 December 2025. A response was received on 23 March 2025, approving the planning proposal for public exhibition and public agency consultation. The gateway determination is at Attachment E.

10. The planning proposal and draft DCP were on public exhibition from 20 April 2026 to 18 May 2026.

Key implications

We received 10 responses to the public exhibition of the Planning Proposal

11. The following activities were undertaken to support the public exhibition:

    (a) a webpage and survey were created for people to review the planning proposal and supporting documentation, and provide their feedback

    (b) 1,167 notification letters were sent to property owners and occupiers within a 50-metre radius of the site boundary and

    (c) the planning proposal was referred to Transport for NSW, Sydney Water and Ausgrid.

12. Ten submissions were received in response to the exhibition. Three submissions were supportive, 5 opposed and 2 provided feedback without a position. Transport for NSW and Sydney Water provided comment but did not object to the proposal.

13. The City's response to the issues raised in submissions are broadly discussed below and in more detail in the summary of submissions at Attachment C. No changes have been made to the planning proposal or draft DCP in response to submissions.

Submissions supported the new building and additional employment floor space

14. The City received 3 submissions which were supportive of the proposal. Noting the planning proposal would facilitate a better urban outcome and deliver much needed commercial space close to public transport.

Submissions raised concerns regarding the impact of the proposal on residential amenity, views and outlook

15. Four submissions raised concerns that the future development would result in view loss and amenity impacts. The adjacent apartments that overlook the site would be impacted by the taller building, resulting in the loss of sunlight and fresh air, further contributing to existing feelings of being "boxed in" from nearby towers.

Response

16. The planning envelope is designed to minimise view loss and amenity impacts, particularly for residents in the lower level apartments in the Greenland Centre building. This has been achieved by ensuring the new office building sits below the height of where the adjoining apartments overlook the site, as shown in Figure 7. The addition responds to the context and is a transition between adjacent towers and lower-scale heritage items.

17. At a maximum height of RL 62.22 metres, the new building planning envelope must accommodate all built form elements, including lift and service equipment to ensure views from all the apartments in the Greenland Centre building are not adversely obstructed. Further, the proposed controls are clear that the new building is not eligible for additional height from an architectural design competition to provide greater certainty.

18. The planning proposal is supported by a detailed Urban Design Report that included a view retention/loss and amenity analysis to these adjacent apartments. As shown in Figure 8, most of the view loss will be toward the street level on George and Bathurst Streets and Sydney Square. District and open sky views will be maintained and protected by this planning proposal. As the new building sits below these west facing apartments, existing solar access will be maintained with no additional overshadowing to apartments.

19. The planning proposal and site-specific DCP provisions ensure all built elements including parapet, lift overrun and plant will not exceed this height. Given its context, the planning envelope is considered acceptable as residential amenity, views and daylight access are not detrimentally impacted.

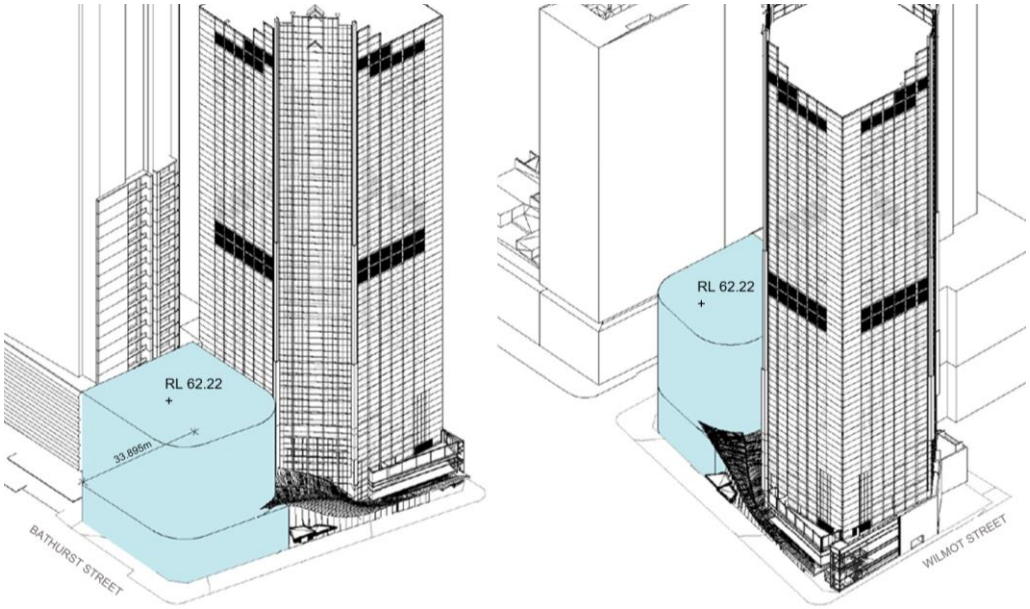


Figure 7: Planning envelope diagrams for the new building (in blue) in relation to the apartments of the Greenland Centre building



Figure 8: Proponent's view impact analysis from the apartment on level 9 of the Greenland Centre building

Submissions express concern regarding potential noise impacts from future development

20. Three submissions raised concerns over potential noise impacts of future development. Neighbouring residents note an audible noise from the rooftop plant equipment of the existing podium building, expressing concern that this already impacts their amenity, so the plant and air conditioning systems for a larger building would result in greater impacts, noise and disruption.

Response

21. The noise issues have been raised with the City and have been investigated. The source of the noise has been identified as the cooling tower for the retail fridges on the lower ground pedestrian connection to Town Hall station. The City's Compliance Unit notes that action has been taken to fix the cooling unit and that the excessive noise at night has ceased.

22. Resident's concern that a larger building would result in more noise impacts is noted, however the future development has been prepared to minimise adverse impacts, including ensuring all plant equipment is located in the building envelope and cannot exceed RL 62.22m, the lowest adjacent apartment floor.

23. The development application will assess any environmental noise considerations for the new office building in accordance with recently updated DCP provisions, that recommend noise generating equipment is located away from sensitive receivers, the use of noise attenuation measures and that a detailed noise impact assessment is supplied to ensure development is consistent with all relevant requirements.

One submission objected to the proposal, noting housing delivery should be a priority

24. One submission objected to the proposal, commenting that as there is currently a housing shortage and delivering more housing close to employment should instead be the priority.

Response

25. Concern regarding shortages in housing stock is acknowledged, however this planning proposal request was for an employment focused site. This planning proposal provides additional floor space for a new office building supporting economic and jobs growth. The site's location close to key transport connections will ensure there is a wide catchment for the new jobs within a short commute.

26. No change to the subject site's zoning is proposed, which will continue to support a wide range of uses including business uses, and retail and visitor accommodation. Residential and new housing remains permissible on the site. Any redevelopment for residential uses will however be subject to the current LEP floor space controls.

27. The City of Sydney takes an active approach in delivering new dwellings in the local area, prioritising approvals and streamlining processes for new affordable housing. The City is also exploring other opportunities for more housing, working with various private, not-for-profit and government stakeholders to encourage a diverse range of new dwellings.

Government agencies provided in principle support

28. Transport for NSW and Sydney Water raised no objections to the planning proposal. Noting other planning considerations such as concurrence requirements and the location of critical assets. This information has been relayed to the landowner.

Minor amendments to clarify the City's design excellence processes

29. Minor amendments have been made to the Planning Proposal and draft DCP to clarify that no additional height can be awarded through design excellence and the nature of the competitive design process under clause 6.21D of the LEP. This clarification ensures the consistent application of the City's policies, including heritage floor space provisions.

The planning proposal is consistent with the City's Strategic vision

30. Sustainable Sydney 2030-2050 Continuing the Vision renews the communities' vision for the sustainable development of the City to 2050. It includes 10 strategic directions to guide the future of the City, as well as 10 targets against which to measure progress. This planning proposal is aligned with the following strategic directions and objectives:

    (a) Direction 2 - A leading environmental performer - this planning proposal enables future development that aligns with the City's Net Zero requirements.

    (b) Direction 3 - Public places for all - future development includes improved retail activation, contributing towards pedestrianised George Street role as Central Sydney's civic spine.

    (c) Direction 4 - Design excellence and sustainable development - the new building shall be guided by a competitive design process to achieve design excellence and will ensure the City's sustainability requirements are met.

    (d) Direction 5 - A city for walking, cycling and public transport - the site is well positioned to capitalise from nearby transport and retaining the existing connection to Town Hall station, supporting pedestrian permeability of the CBD.

    (e) Direction 8 - A thriving cultural life - public art delivered with the new building will provide creative and cultural experiences and opportunities for engagement with the public.

    (f) Direction 9 - A transformed and innovative economy - this planning proposal helps support employment growth in Central Sydney, helping to maintain its position as a destination for business, investment and talent.

31. The City's local strategic planning statement, City Plan 2036 sets the land use context, vision and planning priorities to positively guide development and outlines how the City will plan for and manage change. This planning proposal gives effect to the City Plan by delivering additional floor space in a strategic location with direct access to public and active transport, supporting efficient use of this existing infrastructure.

32. The Central Sydney Planning Strategy is a 20-year growth strategy that facilitates opportunities for additional height and density for jobs growth where balanced with environmental sustainability initiatives and excellence in urban design. This planning proposal aligns with the Central Sydney Planning Strategy by:

    (a) prioritising employment growth and increasing capacity, facilitating a new office building, increasing employment capacity and growth within Central Sydney.

    (b) ensures future development is responsive to Central Sydney's heritage and public places with a building envelope that responds to its context with a suitable building height and street interface that acknowledges adjacent heritage items.

    (c) future development will achieve the City's 2026 performance standards for new zero energy buildings and ecological sustainable development targets.

    (d) commitment to design excellence, future development will be subject to a competitive design process to ensure a high quality built form.

Risks

33. City staff have undertaken a thorough assessment of the planning proposal and found that it demonstrates strategic and site-specific merit in accordance with NSW Government guidelines. The NSW Government also assessed and issued a Gateway Determination. The planning proposal is consistent with Sustainable Sydney 2030-2050 Continuing the Vision.

34. Progressing the planning proposal is within the City's risk tolerance and appetite.

35. The planning proposal has demonstrated that development will be capable of complying with relevant environmental and planning laws, regulations and industry standards and is within the City's minimal appetite for non-compliance with environmental laws, regulations and industry standards.

36. Proceeding with the planning proposal will meet the City's minimal appetite for disruption to our regulatory functions as decisions will be within the timeframes set in the NSW Government's Statement of Expectations Order 2026.

Relevant legislation

37. Environmental Planning and Assessment Act 1979.

38. Environmental Planning and Assessment Regulation 2021.

39. Environmental Planning and Assessment (Statement of Expectations) Order 2026.

Critical dates / Time frames

40. The gateway determination requires the amendments to the Sydney LEP 2012 be completed by 28 December 2026.

41. If the planning proposal is approved by the Central Sydney Planning Committee and Council, the City will liaise with Parliamentary Counsel to draft and make the local environmental plan. Once the plan is made, the amendments to the Sydney LEP 2012 will come into effect when published on the NSW Legislation website.

42. If approved by Council, the draft DCP will come into effect on the same day as the amendment to the Sydney LEP 2012

GRAHAM JAHN AM

Chief Planner / Executive Director City Planning, Development and Transport

Daniel Thorpe, Specialist Planner

Jaya Bray, Cadet Planner

Attachment A

Planning Proposal – 580 George Street, Sydney

CITY OF SYDNEY

Planning Proposal: 580 George Street, Sydney



The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

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Executive Summary

This planning proposal has been prepared by the City of Sydney (the City) for 580 George Street, Sydney (the site), in response to a request from the landowner to amend the Sydney Local Environmental Plan 2012 (LEP) as it applies to the site.

This planning proposal has been prepared by the City in accordance with section 3.33 of the Environmental Planning and Assessment Act 1979 and the Department of Planning, Housing and Infrastructure's *Local Environmental Plan Making* Guideline dated August 2023.

The Site

Located in the 'Midtown' precinct of Central Sydney, the site is 3,567m^2 in area, with frontages to George and Bathurst Streets and to Wilmot Street at the rear. Existing development comprises a 37-storey office building with a retail podium and underground connection to Town Hall train station. Surrounding development includes a mix of office buildings, ground floor retail, residential uses and visitor accommodation. A number of heritage items are proximal to the site, including St Andrews Cathedral and Sydney Town Hall – both State items.

Existing development controls

The site is zoned SP5 Metropolitan Centre in the Sydney LEP 2012, which permits a broad range of uses including office, retail and residential uses. The site has a maximum building height control of 55 metres on the north-west corner and 235 metres for the rest of the site and floor space ratio of 8:1 and additional floor space available, including where the development exhibits design excellence.

Intended outcome for development on the site

The proposed change to the planning controls will facilitate redevelopment delivering the following key benefits:

- additional employment floor space – retention and enhancement of business and employment uses in premium-grade floor space in a strategic Central Sydney location;
- improved built form – a new office building on the subject site, that is responsive to the character of the surrounding area and respects adjacent heritage buildings;
- enhanced public domain – improved pedestrian environment and amenity through the greater retail activation, engaging public art and comfortable pedestrian conditions;
- car parking – restriction of additional car parking on the site; and
- ecologically sustainable development – an energy efficient new building that meets the City's sustainability requirements.

The planning proposal – Sydney Local Environmental Plan 2012 controls

This planning proposal seeks to insert a new site-specific clause in Division 5 of the LEP to:

- increase the maximum floor space ratio to 15.1:1, inclusive of additional types of floor space;
- ensure development consent may only be granted under this clause provided the future development subject to the following:
  - will not be used for the purpose of residential or serviced apartments;
  - includes end of journey facilities;
  - will not result in additional car parking; and
  - demonstrate design excellence; and
- continue to permit alternative development utilising the existing LEP controls.

Draft site specific Development Control Plan

The City has prepared a draft site-specific amendment to the Sydney Development Control Plan 2012 (draft DCP) to help ensure the objectives and intended outcomes of this planning proposal are delivered, including built form, public art, design excellence and sustainability.

1. Background

1.1 Site identification

This planning proposal relates to 580 George Street, Sydney, otherwise referred to as “the site”.

The legal description and description of the subject site is detailed in Table 1 and a map of the site, outlined in red is shown at Figure 1.

Address	Legal description	Area m^2	Existing development
580 George Street	Lot 20 DP 835715	3,567m^2	37 storey office building c1988

Table 1. Legal description and basic qualities of the subject site



Figure 1. Land affected by this planning proposal

1.2 Site location

The subject site is located in Central Sydney within the ‘Midtown’ precinct of the Central Business District (CBD). The site has frontages to George Street to the west, Bathurst Street to the north, Wilmot Street to the south and shares a common boundary with two sites to the east.

The site is well placed strategically in the southern tower cluster amongst a variety of land uses, including commercial uses– retail, entertainment and office space, tourist accommodation, and residential apartment buildings. There is potential for increased building height and density subject to meeting the tower cluster requirements of the Sydney Local Environmental Plan 2012 (LEP) Central Sydney Planning Strategy (the Strategy).

The site has direct connections with several modes of public transport, including Town Hall train station and light rail services from George Street– 20m from the site, and Sydney Metro services from Gadigal Station on Bathurst Street– 100m to the east of the site. Dedicated cycle lanes are located close to the site, running along Kent Street and Castlereagh Street– 150m to the east and west of the site.

An aerial image of the site and surrounding area is shown in Figure 2 below.

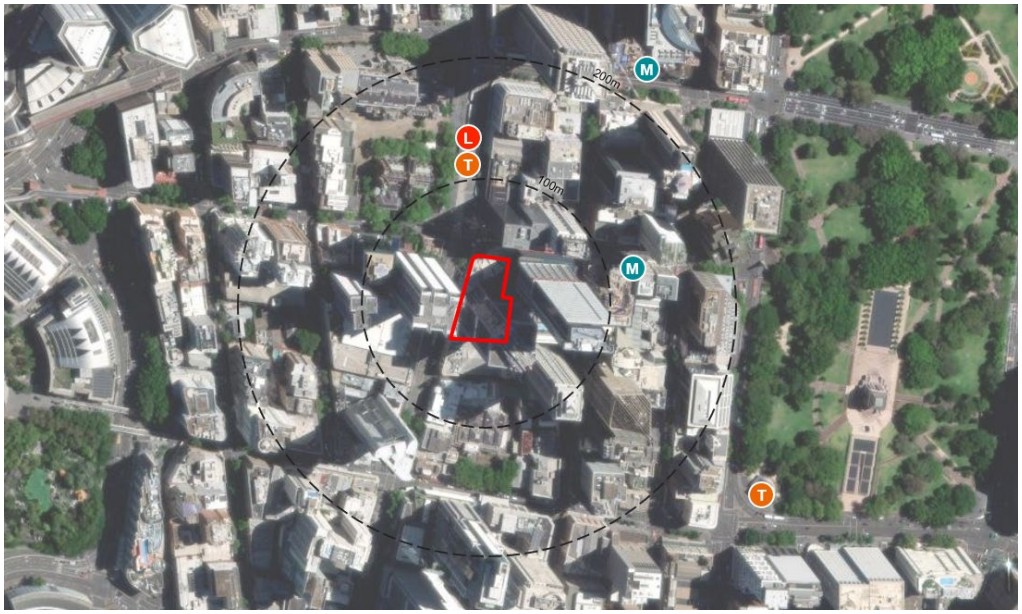


Figure 2. Aerial view of subject site and local proximity

1.3 Site characteristics

The site comprises a single lot of 3,567m^2 in area. It has an 82 metre frontage to George Street, 35 metres to Bathurst Street and 55 metres to Wilmot Street. The site has an irregular boundary with 2 properties to the east. The site is mostly level, with a 2 metre fall towards the south-west.

Existing development consists of a 37 storey commercial tower primarily comprising office space, and a retail podium, featuring a food court, childcare centre and underground connection to Town Hall Station. Vehicle access to the loading dock, basement and commercial car park is from Wilmot Street at the rear.

Surrounding development comprises a mix of commercial buildings – office space, retail and food and drink space, as well as hotel accommodation and residential apartments. To the north of the site fronting the intersection of George and Bathurst Streets is the former Sydney County Council building, a local heritage item. St Andrews Cathedral and Sydney Town Hall, State heritage items front the pedestrianised George Street, adjacent to the Town Hall light rail stop.

To the west of the site, on the opposite side of George Street is the 3 storey former Bank of NSW building, a local heritage item that comprises a fast food restaurant, adjoined by Regent Place, a shopping arcade and high-rise residential apartment tower. The Event Cinema complex is to the south of this building, comprising retail, food and drink and entertainment uses.

The pedestrianised Wilmot Street adjoins the site along its southern boundary, fronted by retail and food and drink premises, including the Plaza Hotel in the former Plaza Theatre building, a local heritage item. Century Tower, a 50 storey residential apartment building with ground floor retail uses, and backpackers accommodation front Wilmot Street to the south-east of the site.

Fronting Pitt Street to the east of the site is the former Sydney Water building, a State heritage item which has been redeveloped as a hotel with a rooftop bar. The Greenland building, a 67 storey residential apartment building and its podium directly adjoins the site on Bathurst Street, with a street wall height of RL 62.22 metres.

Photos of the subject site and surrounding area are shown below in Figures 3-8.

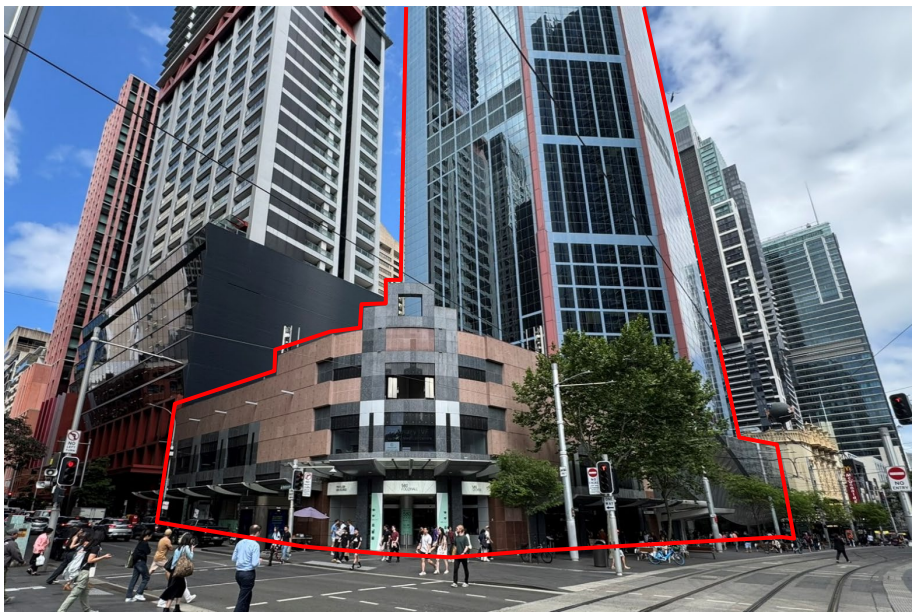


Figure 3. Looking south-east toward the subject site (in red)



Figure 4. Looking north-east towards the subject site (in red) from George Street



Figure 5. View along Bathurst Street towards the subject site (in red)



Figure 6. View of the Greenland Building adjoining the subject site (in red)

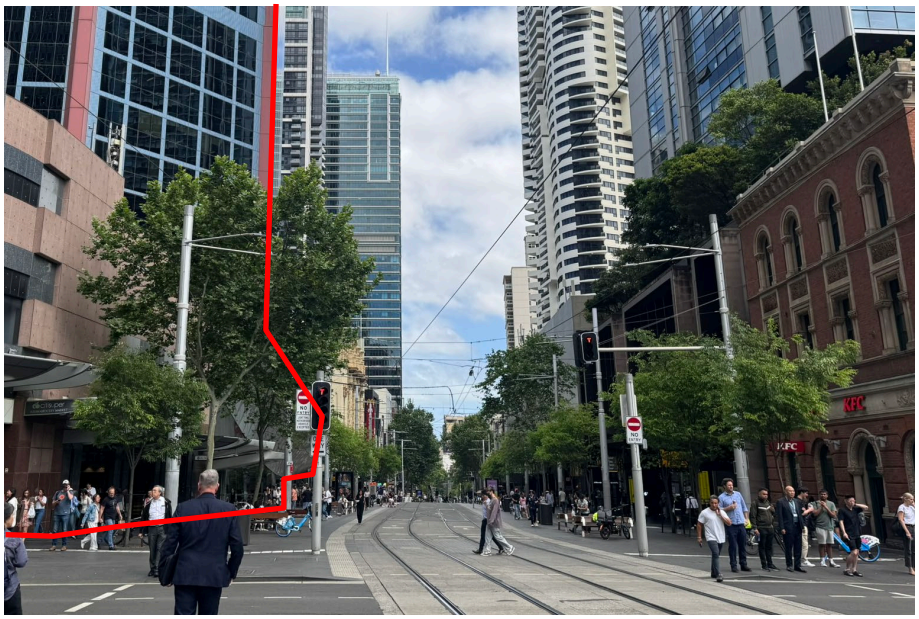


Figure 7. View along George Street showing the subject site (in red) and adjacent buildings



Figure 8. Looking west along Wilmot Street with the subject site (in red) on the left

2. Current planning controls

2.1 Zoning

The site is zoned SP5 Metropolitan Centre in Sydney LEP 2012 as shown in Figure 9. The zone objectives provide for the pre-eminent role of business, retail, entertainment and tourist premises, and opportunities for an intensity of land uses commensurate with Sydney's global status.

A range of uses are permitted, including commercial premises, food and drink premises, visitor accommodation and residential uses. This planning proposal will not change the site's zoning.

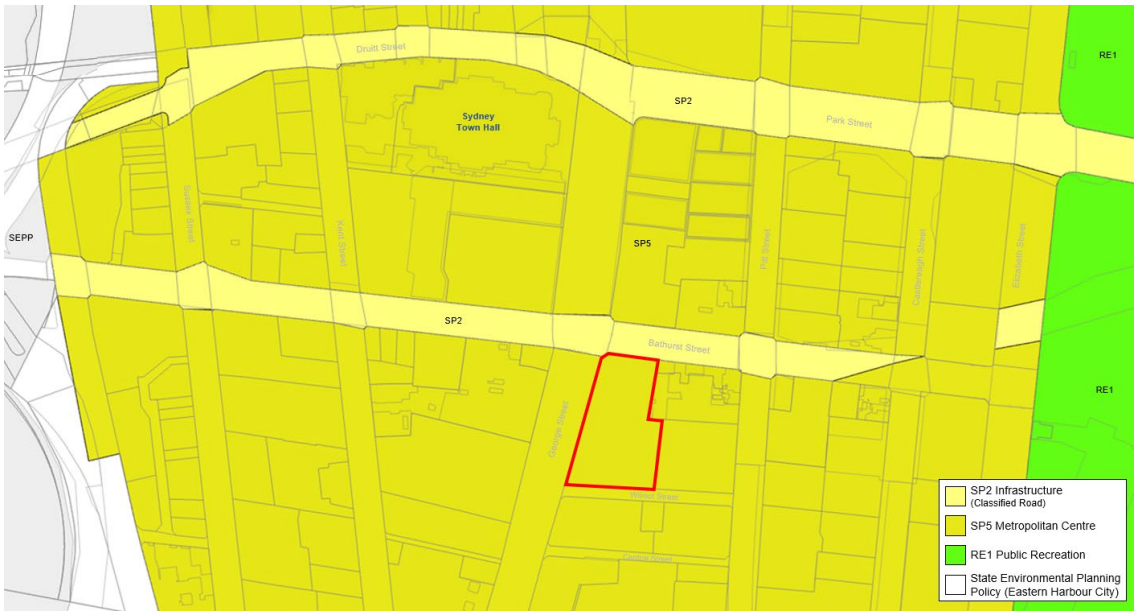


Figure 9. Extract from the Zoning map in Sydney LEP 2012

2.2 Development controls

Height of building

The site is subject to a maximum height of building control of 55 metres for the north-west corner of the site and 235 metres for the rest of the site as shown in Figure 10.

The site is not affected by any sun access plane.

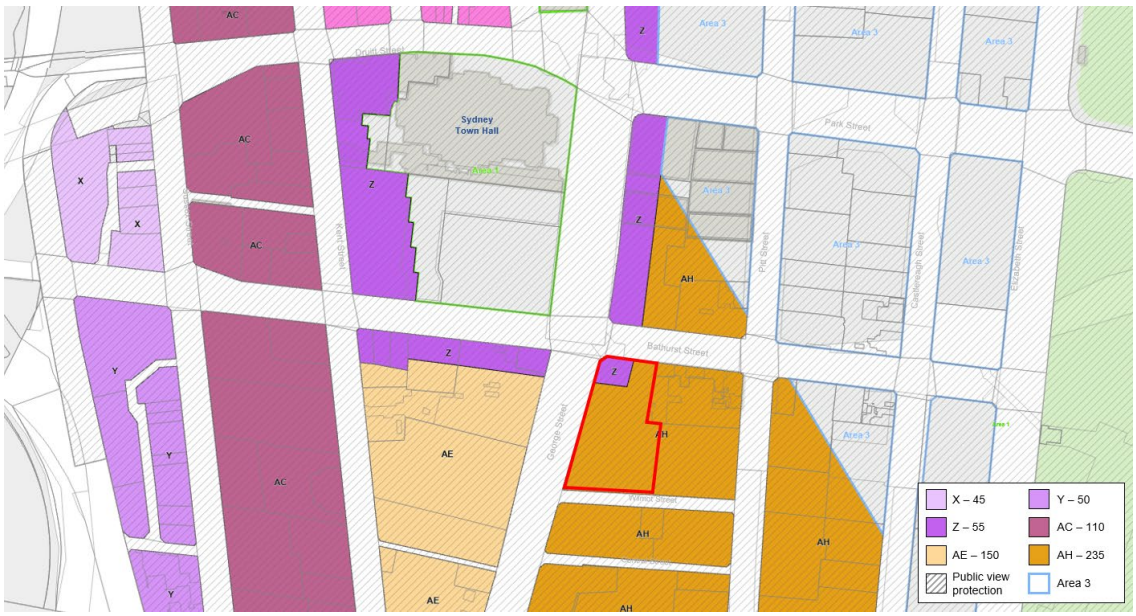


Figure 10. Extract from the Height of building map in Sydney LEP 2012

Floor space ratio

The maximum floor space ratio for the site is 8:1, shown in Figure 11.

The site is also eligible for additional floor space under Division 1 of the LEP as follows:

- accommodation floor space of up to 4.5:1 for business premises, subject to the allocation of heritage floor space;
- end of journey floor space of up to 0.3:1; and
- up to 10% additional floor space may be granted if a competitive design process has been undertaken and design excellence is demonstrated.

In total, an FSR of 14.05:1 is potentially achievable for a commercial development on the site.

The site is located in a tower cluster area and may be eligible for up to 50% additional floor space subject to the demonstration of design excellence as the winner of a design competition in accordance with the City's Competitive Design Policy pursuant to clause 6.21E of the LEP.



Figure 11. Extract from the Floor space ratio map in Sydney LEP 2012

2.3 Heritage

The site is not heritage listed or located within a heritage conservation area, however the north section of the site falls within in the Sydney Square/Town Hall & St Andrews Special Character Area. There are several heritage items within the site's vicinity.

Figure 12 shows the location of these heritage items in relation to the subject site, including:

- I1790 – State heritage item – Sydney Town Hall – 483 George Street
- I1793 – State heritage item – St Andrew's Cathedral – 483C George Street
- I1794 – former Bank of NSW – 485 George Street
- I2284 – former Sydney County Council building – 552-570 George Street
- I1941 – former "YMCA" building – 323-331 Pitt Street
- I1672 – former "Sydney Water" building – 339-341 Pitt Street
- I1800 – former Plaza Theatre building – 600-612 George Street



Figure 12. Extract from the Heritage map in Sydney LEP 2012

3. Objectives and intended outcomes

The objective of this planning proposal is to amend the Sydney Local Environmental Plan 2012 and insert new site-specific provisions to permit an increased maximum floor space ratio for subject site to accommodate additional business and employment generating floor space.

Specifically, the objectives and intended outcomes of this planning proposal are to:

- facilitate additional floor space in a strategic location to support a new office building on the subject site;
- maximise the efficient use of existing infrastructure by delivering uplift close to existing public and active transport connections;
- support additional employment growth to further strengthen Central Sydney's economy;
- facilitate a new building that is responsive to the character of the surrounding area and respects adjacent heritage buildings;
- deliver an improved urban design and pedestrian experience with greater activation and appropriate wind and daylight conditions at ground level; and
- ensure a built form that delivers improved design excellence, public art and sustainability outcomes with limited additional car parking.

Draft site-specific amendments to the Sydney DCP 2012 accompany this planning proposal and provides more detailed design guidance for the future redevelopment of the site.

4. Explanation of provisions

4.1 Sydney Local Environmental Plan 2012

To achieve the objectives and intended outcomes, this planning proposal seeks to amend the Sydney Local Environmental Plan 2012 by inserting new site-specific provisions for the subject site, 580 George Street, Sydney under Part 6, Division 5 as follows:

- permit maximum floor space ratio of 15.1:1, inclusive of:
  - the mapped floor space ratio (in accordance with clause 4.4);
  - accommodation floor space (clause 6.4);
  - end of journey floor space (clause 6.6); and
  - design excellence additional floor space (clause 6.21D);
- prevent development consent being granted under this clause unless the consent authority is satisfied that the building:
  - will not be used for the purpose of residential accommodation or serviced apartments;
  - includes an end of journey facility;
  - demonstrates design excellence as the winner of an architectural design competition process pursuant to clause 6.21D of the LEP; and
- clarify that no additional building height ~~**or floor space**~~ available under clause 6.21D (3)(a) ~~**and (b)**~~ is applicable.

These controls should not prevent alternative development on the site taking place under the existing LEP controls.

Appendix 1 of this planning proposal provides some example clauses of the proposed controls. The final version of the clauses to be inserted into the LEP would be subject to drafting and agreement with the NSW Parliamentary Counsel's Office.

4.2 Sydney Development Control Plan 2012

To ensure future development is consistent with the objectives of the planning proposal, site-specific DCP provisions will be drafted to ensure a high-quality built form. These provisions include:

– maximum building envelope dimensions;

– built form requirements– awning interface, architectural articulation and horizontal recess zones;

– additional requirements– heritage considerations, sustainability and public art requirements.

A draft of the new site specific provisions for the DCP, also to be placed on public exhibition, can be found at Attachment B.

5. Justification

This planning proposal amends the floor space ratio controls to facilitate redevelopment for new commercial floor space. No change to the land use zoning is proposed.

The following section provides justification for the planning proposal, outlining strategic and potential site-specific merit, outcomes, and process for implementation.

5.1 Landowner request

In August 2025, the GPT Group, the landowner, supported by Urbis submitted this planning proposal request to insert site-specific controls site in Part 6, Division 5 of Sydney LEP 2012.

The proposal will deliver approximately 8,000m^2 of employment floor space in a new 10 storey building including premium office space, with retail and active uses fronting the public domain and lower levels. The existing office building and foyer, awning, servicing and parking arrangements will be retained, as well as the underground pedestrian connection to Town Hall train station.



Figure 13. Photomontage of the concept development facilitated by this planning proposal



Figure 14. Photomontage of the planning proposal concept development

5.2 Need for the planning proposal

The City has prepared this planning proposal following detailed review and assessment of the proposed development concept. The proposed planning envelope is responsive to its context and maintains comfortable wind and daylight conditions in the adjacent public domain.

Is the planning proposal a result of an endorsed LSPS, strategic study or report?

This planning proposal has been prepared following a request from the landowner to change the planning controls that relate to the site in response to the Central Sydney Planning Strategy.

The landowner has provided a Planning Proposal Report prepared by Urbis and technical studies to support their request, including an Urban Design Report prepared by Curzon + Partners. The reports demonstrates how the proposal exhibits strategic and site specific merit and how the site is capable of accommodating new employment floor space without unacceptable impacts.

The supporting documentation submitted by with landowner to support their request accompany this planning proposal as follows:

– Attachment A1 – Planning proposal report – Urbis

– Attachment A2 – Site-specific DCP – Urbis

– Attachment A3 – Building envelope and reference plans – Curzon + Partners

– Attachment A4 – Urban Design Report – Curzon + Partners

– Attachment A5 – Heritage Impact Statement – Urbis

– Attachment A6 – Pedestrian Wind Environment Study – RWDI

– Attachment A7 – Services and Infrastructure Strategy – ARUP

– Attachment A8 – Sustainability Strategy – E-Lab

– Attachment A9 – Economic Benefits Assessment – Urbis

– Attachment A10 – Contribution Methodology Statement – Icon Project Management

– Attachment A11 – Loading Dock, Traffic and Waste Assessment – Traffix / Curzon + Partners

– Attachment A12 – Public Art Plan – Overton Creative

Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

This planning proposal seeks to insert new site-specific provisions into Sydney LEP 2012. The objective of this clause is to deliver 8,000m^2 of new employment floor space, which is greater than what is currently available under the existing floor space ratio controls. As the proposed changes are greater than those acceptable through an application to vary development standards via clause 4.6 of the LEP, the planning proposal approach is the most appropriate option. Further the retention of the existing office building, without upgrade or redevelopment means the tower cluster provisions are also not available to the proposed development.

The proposed envelope has been assessed to ensure any future built form is appropriate to its context and will not result in any unacceptable impacts on adjoining properties or public domain. As such, the planning proposal is consistent with the objectives of the Local Strategic Planning Statement and Central Sydney Planning Strategy.

5.3 Relationship to the strategic planning framework

Will the planning proposal give effect to the objectives and actions of the applicable regional or district plan or strategy (including any exhibited draft plans or strategies)?

This planning proposal is consistent with the relevant actions and objectives of the applicable regional and district plans, as summarised below.

Greater Sydney Region Plan

A Metropolis of Three Cities is the NSW Government's overarching strategic plan for growth and change in Sydney. The 20-year plan identifies key challenges facing Greater Sydney, in particular delivering new jobs and housing to support the projected population increase. This planning proposal gives effect to the Plan, as follows:

- Infrastructure – future development supports recent transport investment by delivering new employment floor space, utilising the additional capacity that has been made available.
- Liveability – this planning proposal contributes towards the public domain with new fine grain retail spaces which will enhance street level activation.
- Productivity – the proposal delivers additional employment generating floor space in a highly accessible location in Central Sydney, supporting a stronger, more competitive Harbour CBD.
- Sustainability – this planning proposal facilitates the delivery of a new building with improved sustainability outcomes, meeting the City's Net Zero provisions.

Eastern City District Plan

The Eastern City District Plan sets out the vision, priorities and actions for the Eastern District of the Greater Sydney area, including City of Sydney. This planning proposal is consistent with the following priorities from the Plan:

- Planning Priority E1 – Planning for a city supported by infrastructure – new office floor space in this location makes efficient use of nearby transport– train, metro, light rail and bus services.
- Planning Priority E6 – Creating great places and local centres, respecting heritage – this planning proposal facilitates future development that is appropriate to its urban context, respects adjacent heritage and maintains good amenity for pedestrians and residents.
- Planning Priority E7 – Growing a stronger and more competitive Harbour CBD – this planning proposal facilitates additional premium office space to support economic growth in the Harbour CBD, which has limited capacity for expansion.
- Planning Priority E10 – Delivering integrated land use and transport planning for a 30-minute city – future development satisfies this objective, with new office floor space in the immediate vicinity of public transport, with connections to much of Greater Sydney within 30-minutes.
- Planning Priority E11 – Growing investment, business opportunities and jobs in strategic centres – this planning proposal facilitates new commercial development providing new retail and office space in Central Sydney, adding to the viability of the Harbour CBD economy.
- Planning Priority E13 – Supporting growth of targeted industry sectors – this planning proposal delivers additional commercial floor space, including new retail space, helping support targeted industry sectors.
- Planning Priority E19 – Reducing carbon emissions and managing energy, water and waste efficiently – the planning proposal enables future development with improved sustainability outcomes that align with the City's Net Zero targets.

Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary, or another endorsed local strategy of strategic plan?

Sustainable Sydney 2030-2050: Continuing the vision

The City's vision for a green, global and connected city, achieved through sustainable growth, creativity and innovation. This planning proposal gives effect to the following strategic directions:

- Direction 2: A leading environmental performer – this planning proposal enables future development that aligns with the City's Net Zero requirements.
- Direction 3: Public places for all – future development includes improved retail activation, contributing towards the pedestrianised George Street role as Central Sydney's civic spine.
- Direction 4: Design excellence and sustainable development – future development shall be informed by a competitive design process to achieve design excellence and will ensure the City's sustainability requirements are met.
- Direction 5: A city for walking, cycling and public transport – the site is well positioned to take advantage of various forms of transport infrastructure in its immediate vicinity and retaining the existing connection to Town Hall station, supporting pedestrian permeability of the CBD.
- Direction 8: A thriving cultural and creative life – public art delivered with the new building will provide creative and cultural experiences and opportunities for engagement with the public.
- Direction 9: A transformed and innovative economy – this planning proposal helps support employment growth in Central Sydney, helping to maintain its position as a destination for business, investment and talent.

City Plan 2036 – Local Strategic Planning Statement

City of Sydney's local strategic planning statement sets the vision, priorities and planning context, outlining how the City will plan for change. This planning proposal supports the following priorities:

- Infrastructure – this planning proposal facilitates additional employment floor space in a strategically appropriate location, benefitting from direct access to several public and active transport options, supporting efficient use of this existing infrastructure.
- Liveability – future development will positively contribute towards improved street life through new ground floor uses and fine-grain retail, encouraging a lively streetscape and activity.
- Productivity – this proposal supports additional growth in Central Sydney by delivering new office space and capacity for economic and employment growth.
- Sustainability – the new building facilitated by this planning proposal will be required to meet ambitious sustainability benchmarks, delivering more ecologically sustainable buildings.

Central Sydney Planning Strategy

The Central Sydney Planning Strategy is a 20-year growth strategy for Central Sydney, supporting additional density in the right locations, balanced with environmental sustainability measures and improved urban design outcomes. This planning proposal is aligned with the following key moves:

1. Prioritise employment growth and increase capacity – this planning proposal facilitates a new office building on the site, increasing employment capacity and growth within Central Sydney.
2. Ensure development responds to context – a site-specific DCP includes provisions to ensure future development is designed within a maximum building envelope and responds to its context with appropriate street interface, building height and acknowledges adjacent heritage.
4. Provide for employment growth in new tower clusters – the site is located in a tower cluster where additional density may be accommodated for commercial floor space.

5. Ensure infrastructure keeps pace with growth – future development is subject to the Central Sydney Development Contributions Plan 2020 and City of Sydney Affordable Housing Program
6. Move towards a more sustainable city – this planning proposal facilitates future development that must achieve the City's sustainability and Net Zero requirements.
7. Protect, enhance and expand Central Sydney's heritage and public places – the building envelope responds to nearby heritage and maintains acceptable public domain amenity.
8. Move people more easily – the site is well located to capitalise on the recent public transport and public domain upgrades, while maintaining the existing connection to Town Hall station.
9. Reaffirm commitment to design excellence – future development will be subject to a competitive design process, with site-specific DCP provisions to ensure a high quality built form.

Is the planning proposal consistent with any other applicable State and regional studies or strategies?

Not applicable.

Is the planning proposal consistent with applicable State Environmental Planning Policies?

This planning proposal is consistent with all applicable State Environmental Planning Policies (SEPPs), as summarised in Table 2

Table 2. Consistency with State Environmental Planning Policies

State Environmental Planning Policy	Comment
SEPP (Biodiversity and Conservation) 2021	Consistent. The site is located in the Sydney Harbour Catchment area but not within the Foreshores and Waterways Area. As the existing tower on site is being retained, with no significant excavation and no change to existing infrastructure, the proposal is unlikely to adversely impact water quality or flooding.
SEPP (Exempt and Complying Codes) 2008	Consistent
SEPP (Housing) 2021	Consistent
SEPP (Industry and Employment) 2021	Consistent
SEPP (Planning Systems) 2021	Consistent
SEPP (Precincts–Eastern Harbour City) 2021	Consistent
SEPP (Resilience and Hazards) 2021	Consistent. No change in land use is proposed and future development requires minimal excavation. Further investigation will be required as part of any future development application process.
SEPP (Resources and Energy) 2021	Consistent.
SEPP (Sustainable Buildings) 2022	Consistent

State Environmental Planning Policy	Comment
SEPP (Transport and Infrastructure) 2021	Consistent. This SEPP facilitates infrastructure delivery and identifies matters for the assessment of adjacent development. The subject site directly adjoins Town Hall station and the rail corridor. This proximity requires future development application to consider potential impacts on the corridor and requires concurrence from Transport for NSW.

The following SEPPs are not applicable to this planning proposal:

– SEPP (Precincts – Central River City) 2021, SEPP (Precincts – Regional) 2021, SEPP (Precincts – Western Parkland City) 2021, SEPP (Primary Production) 2021

Is the planning proposal consistent with applicable Ministerial Directions (section 9.1 Directions) or key government priority?

Table 3 outlines the consistency is this planning proposal with the applicable Local Planning Directions.

Table 3. Consistency with Local Planning Directions

Ministerial Direction	Comment
1.1 Implementation of Regional Plans	Consistent, as demonstrated in section 5.3 of this report.
1.3 Approval and Referral Requirements	Consistent. No provision is proposed that would require concurrence, consultation or referral of any development application to a Minister or public authority or identifies any designated development.
1.4 Site Specific Provisions	Consistent. This proposal does not restrict the permitted uses on the land. This planning proposal provides an uplift for commercial development, consistent with local, district and State strategies. Other uses remain permissible on the site pursuant to its zoning and development controls.
3.1 Conservation Zone	Consistent. No amendment in this proposal hinders the application of this Direction
3.2 Heritage Conservation	Consistent. The site is adjacent to a number of heritage items. This planning proposal does not alter any heritage controls. Future development application will be assessed on impacts to nearby heritage.
3.5 Recreation Vehicle Areas	Consistent. The site is not being developed for the purpose of a recreation vehicle area.
3.7 Public Bushland	Consistent. The site does not contain any urban bushland.
3.9 Sydney Harbour Foreshores and Waterways Area	Consistent. The site is not located within the Foreshore and Waterways Area.

Ministerial Direction	Comment
3.10 Water Catchment Protection	Consistent. The site is in the Sydney Harbour Catchment but outside the Foreshore and Waterways Area Boundary. As the existing tower and basement structures are being retained, it is unlikely the proposal would worsen water quality.
4.1 Flooding	Consistent. The site is identified as subject to flooding in Probable Maximum Flood events. The site-specific provisions included in the planning proposal will not inhibit future development from complying with the flood planning requirements, nor result in adverse impacts to other properties, meeting the requirements of this Direction.
4.2 Coastal Management	Consistent. The site is not located within the coastal environment area or coastal use area.
4.4 Remediation of Contaminated Land	Consistent. This proposal facilitates the delivery of a new office building integrated with the existing basement and structures on site. No change of use or major excavation works are proposed. Further investigation will be included as part of the future development application.
4.5 Acid Sulfate Soils	Consistent. The site is located on Class 5 Acid Sulfate Soils land, per the LEP. The nearest Class 2 land is 400m to the west near Darling Harbour. No change of use or significant excavation is proposed and will not result in the disturbance or impact to sensitive uses.
5.1 Integrating Land Use and Transport	Consistent. The site is well-located close to key public transport connections in Central Sydney.
6.1 Residential Zones	Consistent. The planning proposal does not prevent a residential use from occurring on the site under the current LEP zoning and development standards. It introduces additional standards to encourage commercial uses.
6.2 Caravan Parks and Manufactured Home Estates	Consistent. No amendment in this proposal hinders the application of this Direction
7.1 Employment Zones	Consistent. This planning proposal shall deliver employment growth in a suitable location

The following Directions are not applicable to this planning proposal:

– 1.2 Development of Aboriginal Land Council Land, 1.5 Parramatta Road Urban Transformation Strategy, 1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan, 1.7 Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan, 1.8 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan, 1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor, 1.10 Implementation of the Western Sydney Aerotropolis Plan, 1.11 Implementation of Bayside West Precinct Plan, 1.12 Implementation of Planning Principles for the Cooks Cove Precinct, 1.13 Implementation of St Leonards and Crows Nest

Plan, 1.14 Implementation of Greater Macarthur 2040, 1.15 Implementation of the Pyrmont Peninsula Place Strategy, 1.16 North West Rail Link Corridor Strategy, 1.17 Implementation of the Bays West Place Strategy, 1.18 Implementation of the Macquarie Park Innovation Precinct, 1.19 Implementation of the Westmead Place Strategy, 1.20 Implementation of the Camellia-Rosehill Place Strategy, 1.21 Implementation of the South West Growth Area Plan, 1.22 Implementation of the Cherrybrook Station Strategy, 3.3 Sydney Drinking Water Catchments, 3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs, 3.6 Strategic Conservation Planning, 3.8 Willandra Lakes Region, 4.3 Planning for Bushfire Protection, 4.6 Mine Subsidence and Unstable Land, 5.2 Reserving Land for Public Purpose, 5.3 Development near Regulated Airports and Defence Airfields, 5.4 Shooting Ranges, 7.2 Reduction in non-hosted short-term accommodation period, 7.3 Commercial and Retail Development along the Pacific Highway, North Coast, 8.1 Mining, Petroleum Production and Extractive Industries, 9.1 Rural Zones, 9.2 Rural Lands, 9.3 Oyster Aquaculture, 9.4 Farmland of State Regional Significance on the NSW Far North Coast.

5.4 Environmental, social and economic impact

Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected because of the proposal?

The planning proposal is unlikely to adversely affect any critical habitat or threatened species, populations or ecological communities or their habitats. The site is located in Central Sydney, which does not contain any critical habitats or threatened species or ecological communities.

Are there any other likely environmental effects of the planning proposal and how are they proposed to be managed?

The additional floor space facilitated by this planning proposal will help deliver a new 10 storey office building that will be integrated with the existing tower and basement structure on the site.

The proposed amendments are unlikely to result in any adverse amenity impacts that cannot be controlled. Existing policies, regulations and standards are in place to ensure environmental impacts are mitigated during the construction phase and eventual use of the development.

The proposed scheme has been developed in collaboration with the proponent with environmental impacts identified and resolved during the detailed assessment. Key considerations arising from the planning proposal, are discussed below.

Planning envelope

Height of building

The proposed planning envelope accommodates a new office building on the subject site within a built form that is responsive to its context, protects adjoining residential amenity and maintains good pedestrian wind and daylight conditions. The new building's height complements the surrounding scale, providing a transition between adjacent towers and the prominent heritage buildings nearby.

The planning envelope detailed in the draft DCP has a maximum height of RL 62.22 metres. Provisions will ensure all building elements, including lift overruns, plant and balustrades will be entirely contained within this envelope to maintain residential amenity and views from the adjoining apartments on the lower levels of the Greenland Building tower.

This planning proposal does not seek to change the building height development control for the subject site. At RL 62.22 metres, the planning envelope is approximately 38 metres above the existing ground level, beneath the 55 metre height control for the north-west corner for the site and the 235 metre height control applicable for the rest of the site.

Clause 6.21D(3)(a) will not apply to the proposed site specific controls as future development shall not exceed the maximum building envelope at RL 62.22 metres.

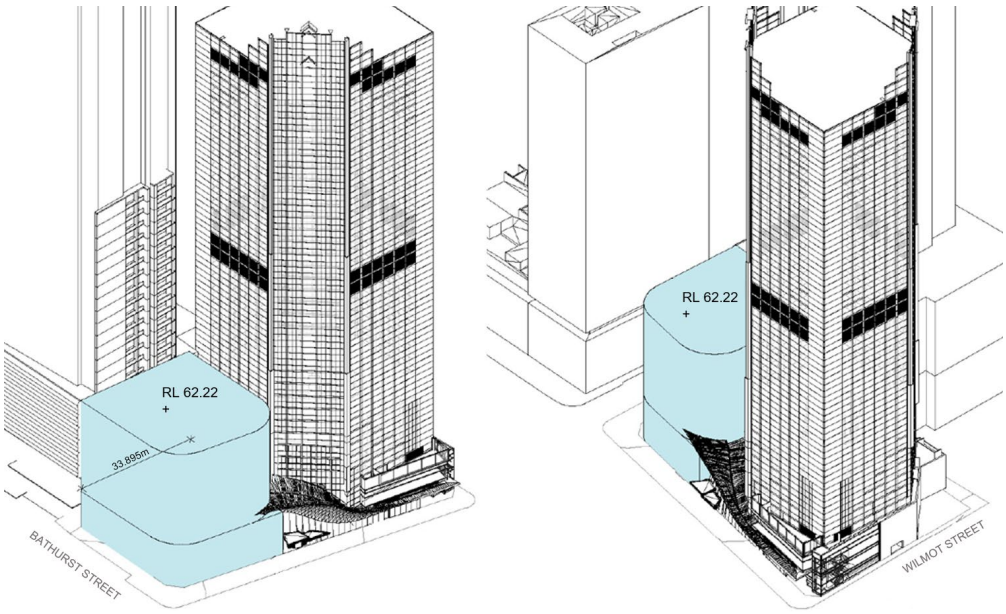


Figure 15. Axonometric view of the proposed planning envelope

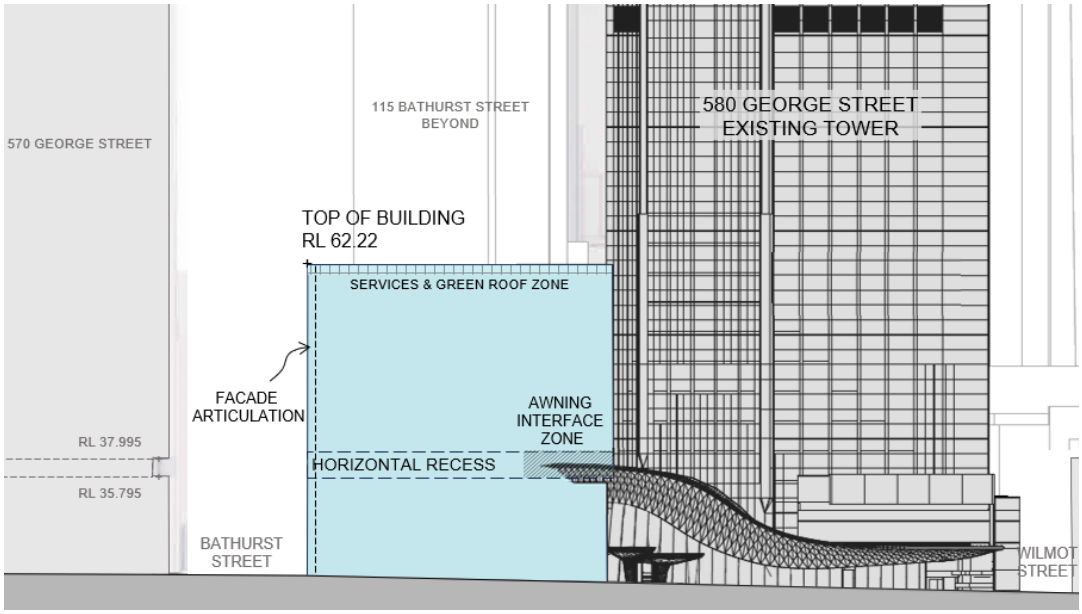


Figure 16. Proposed planning envelope – west elevation

Floor space ratio

This planning proposal inserts site-specific controls in Division 5 of the LEP, based on the proponent's request and indicative scheme prepared by Curzon + Partners. The proposed controls provide for an additional 8,000m^2 of floor space in a new 10 storey office building on the site. This envelope was tested to accommodate the proposed FSR and meet the City's efficiency and articulation requirements.

The planning proposal increases the maximum FSR for the site to 15.1:1, inclusive of end of journey floor space, accommodation floor space and design excellence. The controls are specific to the envelope outlined in this planning proposal and as such, future development is not eligible for any other types of additional floor space available elsewhere in the LEP.

To be eligible for the proposed controls, future development is to meet the site-specific requirements in the LEP, such as restricting future development on site to non-residential uses only, includes an end of journey facility and does not include additional car parking spaces.

There is no change to the application of heritage floor space for accommodation floor space or design excellence. The City's heritage floor space scheme shall remain applicable in accordance with the existing provisions in the LEP.

Urban design

Heritage

The subject site is not identified as a heritage item however the northern portion falls in the Sydney Square/Town Hall & St Andrews Special Character Area. Several prominent heritage items are in close proximity, including State heritage listed Sydney Town Hall and St Andrew's Cathedral, and the former Bank of NSW and former Sydney County Council buildings.

The accompanying Heritage Impact Statement prepared by Urbis found that future development would not adversely impact the heritage significance of adjacent items. The report noted the site's immediate context comprises a mix of contemporary high-rise buildings and lower scale heritage buildings. The planning envelope would not impact or obstruct key views to these heritage items.

The planning envelope includes a recessed horizontal "waist" zone, creating a break to the mass between the lower podium and upper levels. This zone reflects datums of adjacent heritage buildings, including a similar recess zone in the former Sydney County Council building and the height of the former Bank of NSW building opposite to the site.

The horizontal "waist" provides a point of transition to help the new building better relate to its varied urban context, delivering a podium form, with a strong coherent street wall that connects the existing tower and adjoining Greenland Building. The character of heritage building within the site's vicinity will be reflected through the use of sandstone on the lower levels of the new building.

A setback of at least 2 metres shall be included in the horizontal "waist" zone, to provide a visual and spatial distinction between the podium and upper levels of the building. The recessed setback allows for an external terrace and planting. It also provides an opportunity for the existing sweeping feature awning to be accommodated into the envelope and serve as an element that connects the two buildings on site.

Future development will be subject to a site-specific DCP, design competition and heritage advice to inform the detailed design to reflect and respond to surrounding heritage and urban context. The draft DCP contains specific provisions and diagrams that detail the above requirements.

Architectural articulation

The planning envelope includes sufficient opportunities for architectural articulation and flexibility for a design response to address potential issues. Articulation zones of at least 600mm to all street facing external facades have been included in the planning envelope and detailed in the draft DCP. These facade zones provide for opportunities to deliver visual interest, break down scale, address adjacent heritage and mitigate against adverse public domain amenity conditions.

Residential amenity and visual impact

The Urban Design Report included an overshadowing and view loss analysis for the lower level apartments in the Greenland Building overlooking the subject site. At RL 62.22 metres, the new building is positioned below the west facing apartments, ensuring no additional overshadowing and retaining existing outlook and solar access conditions, as shown in Figure 17.

The planning envelope will ensure that all built form elements for the new building, including parapet, lift overrun, and plant equipment cannot exceed RL 62.22 metres to protect views over the new building from the impacted apartments.

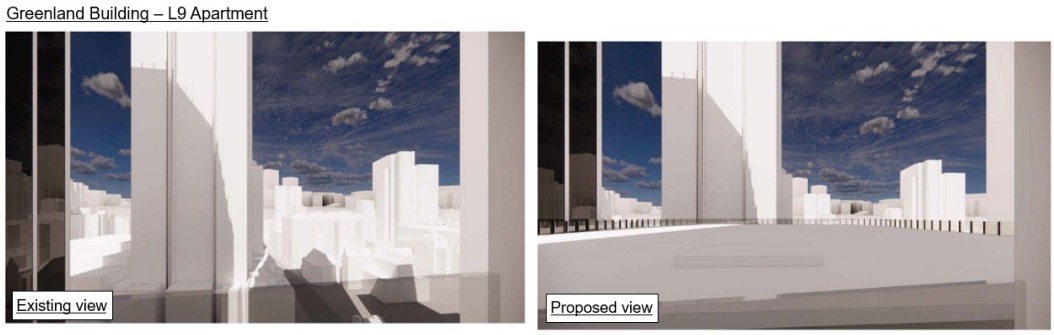


Figure 17. View impact analysis from the adjacent apartments in Greenland Building

Pedestrian amenity

The planning envelope was subject to public domain amenity testing to identify potential impacts on pedestrian wind and daylight conditions.

The Urban Design Report prepared by Curzon + Partners included an overshadowing analysis that found the proposal results in additional overshadowing to the pedestrianised section of George Street to the south-west of the site however this is contained in the shadow cast by nearby towers, including the former Sydney County Council Building to the north. This section of George Street receives direct sunlight from 11.00am in midwinter.

The building envelope height responds to its prominent location while maintaining substantial views of the open sky. Particularly from the George and Bathurst Street intersection, future development will maintain acceptable daylight access for pedestrians.

A Pedestrian Wind Assessment prepared by RWDI accompanied this planning proposal, testing pedestrian wind comfort and safety levels. Computational fluid dynamic (CFD) analysed wind flows around the site and public domain, testing the existing development and the proposed envelope.

The wind assessment noted comfortable existing wind conditions in the public domain surrounding the site. No locations exceeded the wind safety standard. Testing of the proposed envelope found generally consistent wind conditions that are suitable for its existing use, including outdoor dining. The comparatively small massing of the proposed envelope is not likely to significantly influence the local wind environment.

Notwithstanding, a detailed wind environment analysis is required at the development application stage and as such, the DCP includes provisions to ensure future development maintains good public domain amenity.

Public domain

Awning

The site's George Street frontage includes a distinctive undulating awning feature installed as part of retail, lobby and facade upgrade works in 2014. The awning, shown in Figure 18, is integrated into the office tower's form, beginning above the retail arcade entrance at the south of the site, extending over the tower's entrance lobby and terminating above the retail podium.

It is anticipated that the extent of integration of the feature awning with the new building on site shall be resolved through the design excellence process. The draft DCP includes provisions to ensure the feature awning is considered holistically as part of the future development. The provisions identify the horizontal recess zone above the lower podium as the interface between the curved awning and the new building. The 2 metre setback in this zone provides for the integration of the awning into the design of the new building.

Town Hall station connection

The lower ground through-site link provides an accessible pedestrian connection from Town Hall train station to George Street and the surrounding area. It features retail, a supermarket and an escalator connection to the ground floor food court and Bathurst Street building entry.

The retail arcade and Town Hall pedestrian connection will be retained following the redevelopment of the site, with public access maintained during construction works to the new building. This planning proposal excludes any changes to the lower ground level or retail spaces, except to the escalators, which will be removed to provide for the reconfigured ground floor layout and reinstated in the new building.

Public art

The City's public art requirements encourage public art integrated into new development. The are existing public art works provided as part of previous upgrades to the podium and retail spaces. These include the feature canopy awning and frit glass art to George Street as shown in Figure 18.

A Public Art Strategy accompanied this planning proposal, recommending new public art shall complement the existing works on site.

The identification of public art opportunities will be considered as part of the detailed design process and secured in accordance with the development application and the City's requirements.



Figure 18. George Street feature awning and existing public art

Traffic and transport

Servicing

This planning proposal does not include any change to the existing vehicle access, loading and waste collection arrangements. The new office building and retail spaces will utilise the existing loading dock and servicing spaces at the rear of the existing office tower. Vehicle access, basement entry and exit points and loading dock will also remain on the site's south-east corner from Wilmot Street.

A Loading Dock and Traffic Assessment prepared by Traffix accompanied the planning proposal analysing different layouts to support the additional retail and office floor space, requiring 3 additional loading bays. The assessment notes that the existing loading dock has sufficient space to include 2 additional spaces for small rigid vehicles and one new space for delivery vans with potential for different configurations to accommodate additional or larger service vehicles.

Curzon + Partners undertook a Waste Management Assessment to determine if the subject site can accommodate the anticipated higher waste volumes. The existing garbage room is of sufficient size to comfortably support the waste generated by the additional floor space facilitated by this planning proposal.

The final design and layout of the loading dock will be determined as part of detailed design and through the development application, however the submitted assessments demonstrate that future development is capable of accommodating the projected additional waste and servicing demands consistent with requirements of Sydney DCP 2012.

Parking

The existing car parking arrangements includes 137 parking spaces, including a commercial carpark operated by Wilson Parking, located in the basement and accessed from Wilmot Street.

This planning proposal does not propose any changes to these parking arrangements however the concept plan anticipates additional structural columns will be required to support the new office building penetrating into the basement. Across the three basement levels, there will be a reduction of 31 car parking spaces.

The accompanying Loading Dock and Traffic Assessment prepared by Traffix found the new building would likely result in a reduction of vehicle trips to Central Sydney, noting minimal impacts to Wilmot Street and surrounding road network, otherwise consistent with existing conditions.

Notwithstanding the above, this planning proposal includes site-specific LEP provisions to ensure future development will not result in additional car parking spaces on the subject site.

End of journey facilities

This planning proposal will ensure future development provides for cycle and end of journey facilities in the new building. The quantum of spaces for staff and visitor bicycle parking shall be consistent with DCP rates and requirements, including expanding the current facilities for the existing office building, or providing new facilities associated with the future development. The final location and composition of the end of journey facilities is subject to the design competition and will inform the detailed development application for the new building.

Environmental impacts

Flooding

The site and adjacent public domain may be subject to flooding in large rain events due to its location which experiences overland flows along George Street, however there is unlikely to be an increase to the flood hazard as a result of future development on the subject site. The reference scheme demonstrates the proposal is capable of complying with the City's flood planning requirements. A more detailed flood advice report would be included as part of any future development application for the site.

Sustainability

Future development shall be designed to achieve ecological sustainable development targets. The following commitments have been made by the landowner:

- 5.5 star NABERS Base Building Energy rating for offices;
- 4 star NABERS Base Building Water rating;
- 5 star Green Star Buildings rating;
- 100% electric in operation;
- procure renewable energy equivalent to "net zero emissions" in operation; and
- reduction in upfront carbon and construction and demolition waste.

These targets are consistent with the City's sustainability targets, cl 7.33 of Sydney LEP 2012 and Sydney DCP 2012, that require energy efficiency and net zero emissions from energy.

Other impacts

Design excellence

Future development will be subject to an architectural design competition pursuant to cl 6.21D of the LEP. As a planning proposal, the Tower cluster design excellence requirements do not apply, however design excellence provisions commensurate to its scale shall be applicable.

The draft DCP detailed the design excellence strategy, including the location of the new building and competition extent, and competitor requirements– minimum of 3 competitors, at least 50% of which are Australian-based architects from a range of emerging and established practices.

No additional building height or floor space is to be awarded as a result of an architectural design competition. The proposed provisions specify that consent may only be granted if the building is subject to an architectural design competition and demonstrates design excellence.

Draft site-specific Development Control Plan

A draft Development Control Plan has been prepared and will be exhibited alongside this planning proposal and provides site-specific controls to be inserted into Section 6 of the Sydney DCP 2012. It includes:

- objectives and provisions to ensure a high quality built form;
- maximum building envelope, massing and height;
- public art;
- sustainability; and
- design excellence strategy.

Has the planning proposal adequately addressed any social and economic effects?

Economic impact

This planning proposal provides for additional commercial floor space, contributing to the supply of high-quality office space in the central business district. Future development concept will comprise 8,000m^2 of premium-grade office floor space, generating more than 400 jobs during the construction phase and over 900 operational jobs.

The proposal aligns with the key moves of the City's local strategic planning statement and the Eastern City District Plan in that it facilitates additional employment generating floor space in a highly accessible strategic location, helping deliver a stronger, more competitive Central Sydney.

The project will also deliver considerable social benefits to Central Sydney, revitalising an ageing and underutilised site in a prominent location. Pedestrian amenity and safety will be enhanced with additional retail activation, new public art and associated public domain improvements.

5.4 Infrastructure (Local, State and Commonwealth)

Is there adequate public infrastructure for the planning proposal?

There is adequate public infrastructure to support this planning proposal. The subject site is well-served by public transport, directly adjacent to Town Hall train station and light rail stop on George Street and close to Gadigal metro station on Bathurst Street, as well as nearby bus services and cycleways.

The site is already serviced by public utilities including water, sewer and stormwater, electricity, gas and telecommunications. It is expected these services will be upgraded where required, and the relevant utilities will be contacted for comment during the exhibition period.

Any development application on the site will be subject to section 7.12 development contributions as outlined in the Central Sydney Development Contributions Plan 2020.

5.5 State and Commonwealth interests

What are the views of state and federal public authorities and government agencies consulted in order to inform the Gateway determination?

The gateway determination will advise the public authorities to be consulted as part of this planning proposal process. Issues raised will be incorporated into this planning proposal following the consultation in the public exhibition period.

As future development on the site requires excavation and is located directly adjacent to Town Hall station and rail corridor, the planning proposal and future development application requires consultation and concurrent approval from Transport for NSW before approval from the City.

6. Mapping

This planning proposal does not include any amendments to maps.

7. Community consultation

This planning proposal shall be exhibited in accordance with the requirements of the gateway determination once issued by the Department of Planning, Industry and Environment.

It is anticipated that the gateway determination will require public exhibition for a period of not less than 28 days in accordance with the Environmental Planning and Assessment Act 1979 and *Local Environmental Plan Making Guideline* dated August 2023.

Notification of the public exhibition will be consistent with the gateway determination and the City's Community Participation Plan.

Consultation with the necessary state agencies, authorities, other relevant organisations and stakeholders will be undertaken in accordance with the conditions contained in the gateway determination.

8. Project timeline

The anticipated timeframe for the completion of the planning proposal is as follows:

Stage	Timeframe
Commencement / gateway determination	February 2026
Government agency consultation	March – April 2026
Public exhibition	March – April 2026
Review of issues raised in submissions	May 2026
Post-exhibition reporting	August 2026
LEP drafting	September 2026
LEP made	October 2026
LEP notification	October 2026

Appendix 1

Example provisions

The final version of the site-specific provisions to be inserted into the LEP are subject to drafting and agreement with NSW Parliamentary Counsel's Office, but may be as follows:

Part 6 Local provisions – height and floor space

Division 5 Site specific provisions

6.xx 580 George Street, Sydney

(1) The objectives of this clause is to provide additional floor space to encourage the following:

(a) incentivise uses other than residential accommodation or serviced apartments, and

(b) new development with satisfactory distribution of built form and floor space appropriate to the surrounding area, and

(c) minimise adverse impacts on the amenity of the surrounding area.

(2) This clause applies to 580 George Street, Sydney, being Lot 20 DP 835715.

(3) A building on land to which this clause applies may have a floor space ratio of up to a maximum of 15.1:1, which includes–

(a) the gross floor area permitted as a result of applying the floor space ratio shown for the land on the Floor Space Ratio Map, and

(b) any additional floor space for which the building is eligible under clauses 6.4, 6.6 and 6.21D.

(4) Development consent must not be granted under subclause (3) unless the consent authority is satisfied the development:

(a) will not be used for the purposes of residential accommodation or serviced apartments, and

(b) will include end of journey facilities, and

(c) will not result in additional car parking spaces on the land.

(5) Clauses 6.21D(3)(a) ~~**and (b)**~~ and 6.21E do not apply to a building on the land to which this clause applies.

Attachment B

Draft Sydney Development Control Plan 2012
580 George Street, Sydney

CITY OF SYDNEY

Development Control Plan – 580 George Street, Sydney



Development Control Plan
December 2025

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

Purpose of this Development Control Plan

The purpose of this Development Control Plan (DCP) is to amend *Sydney Development Control Plan 2012*, which was adopted by Council on 14 May 2012 and came into effect on 14 December 2012.

The amendment provides objectives and provisions to inform future development at 580 George Street, Sydney

This plan is to be read in conjunction with draft Planning Proposal – 580 George Street, Sydney.

Citation

This amendment may be referred to as *Sydney Development Control Plan 2012 – 580 George Street, Sydney*.

Land covered by this plan

This plan applies to that land identified as 580 George Street, Sydney – which is Lot 20 DP 835715.

Relationship of this plan to Sydney Development Control Plan 2012

This plan amends the Sydney Development Control Plan 2012 in the manner set out in Schedule 1 below.

Amendments to Sydney Development Control Plan 2012

This plan amends Sydney Development Control Plan 2012 by:

1. Amending Figure 6.1 Specific maps to include 580 George Street, Sydney
2. Inserting a new section 6.3.X 580 George Street, Sydney
3. Updating figure numbers as required.

Post-exhibition amendments are shown, with deletions in strikethrough and additions and edits in underline

Schedule 1 – Amendment to Sydney Development Control Plan 2012

6.3.# 580 George Street, Sydney

The following objectives and provisions apply to 580 George Street, Sydney, as shown in 'Figure 6.1 Specific sites map', where relevant site specific provisions of the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) are implemented.

Clause 6.xx of Sydney LEP 2012 enables development to exceed the mapped floor space ratio, providing the entire site is developed for commercial uses.

If development at 580 George Street, Sydney, seeks to utilise additional floor space for commercial uses permitted by clause 6.xx of Sydney LEP 2012, then the provisions in this section also apply to the proposed development and override other DCP provisions where there is an inconsistency.

Objectives

a. Facilitate the development of a new building consisting of new commercial uses to achieve a high-quality built form which:
    i. is of appropriate bulk and scale for its location;
    ii. provides an appropriate height transition between adjacent taller buildings and is responsive to adjacent heritage buildings;
    iii. is comfortably contained within the defined building envelope, protecting neighbouring residential amenity and acceptable pedestrian wind and daylight conditions;
    iv. includes sufficient architectural articulation to address to amenity issues; and
    v. excludes the existing office tower, basement, lower ground retail spaces and pedestrian connection to Town Hall station.
b. Maximises active frontages to the public domain with retail and business premises uses at ground level.
c. Achieves performance benchmarks for ecologically sustainable development.
d. Incorporate high-quality public art.

6.3.x.1 Maximum building envelope

Objectives

a. Ensure the new building is appropriately massed within the defined planning envelope to respect the local context and minimise adverse amenity impacts.

Provisions

1. Development is not to exceed the building envelope shown in:
    a. 'Figure 6.xx 580 George Street, Sydney – Planning envelope massing'; and
    b. 'Figure 6.xx 580 George Street, Sydney – Planning envelope elevations';
2. The envelopes described are the maximum extent of the build form, and final building must be appropriately massed wholly within this envelope, including lift overruns, plant equipment, photovoltaic systems, balustrades and green roof materials.

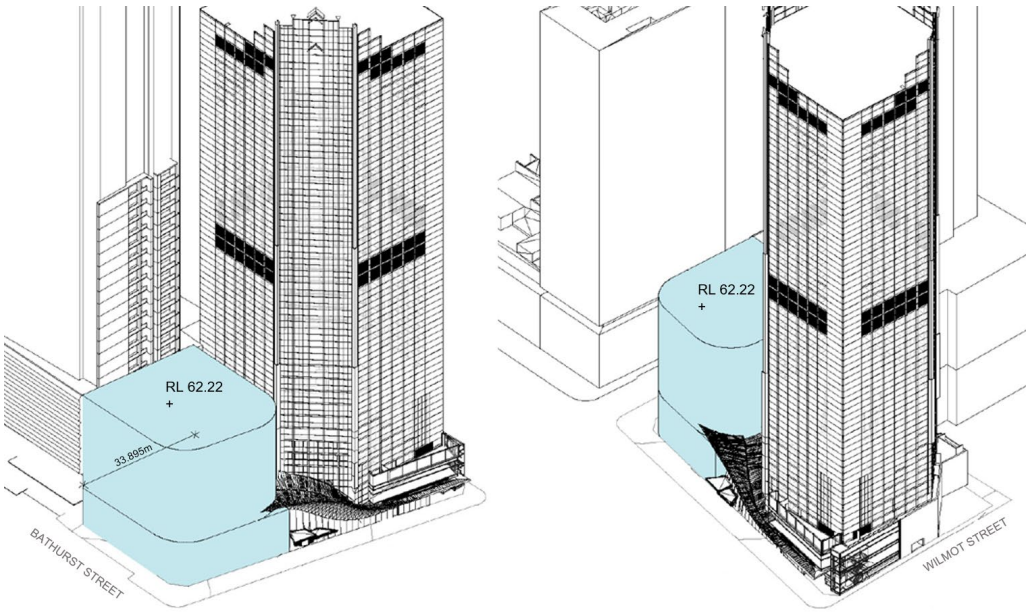


Figure 6.xx 580 George Street, Sydney – Planning envelope massing

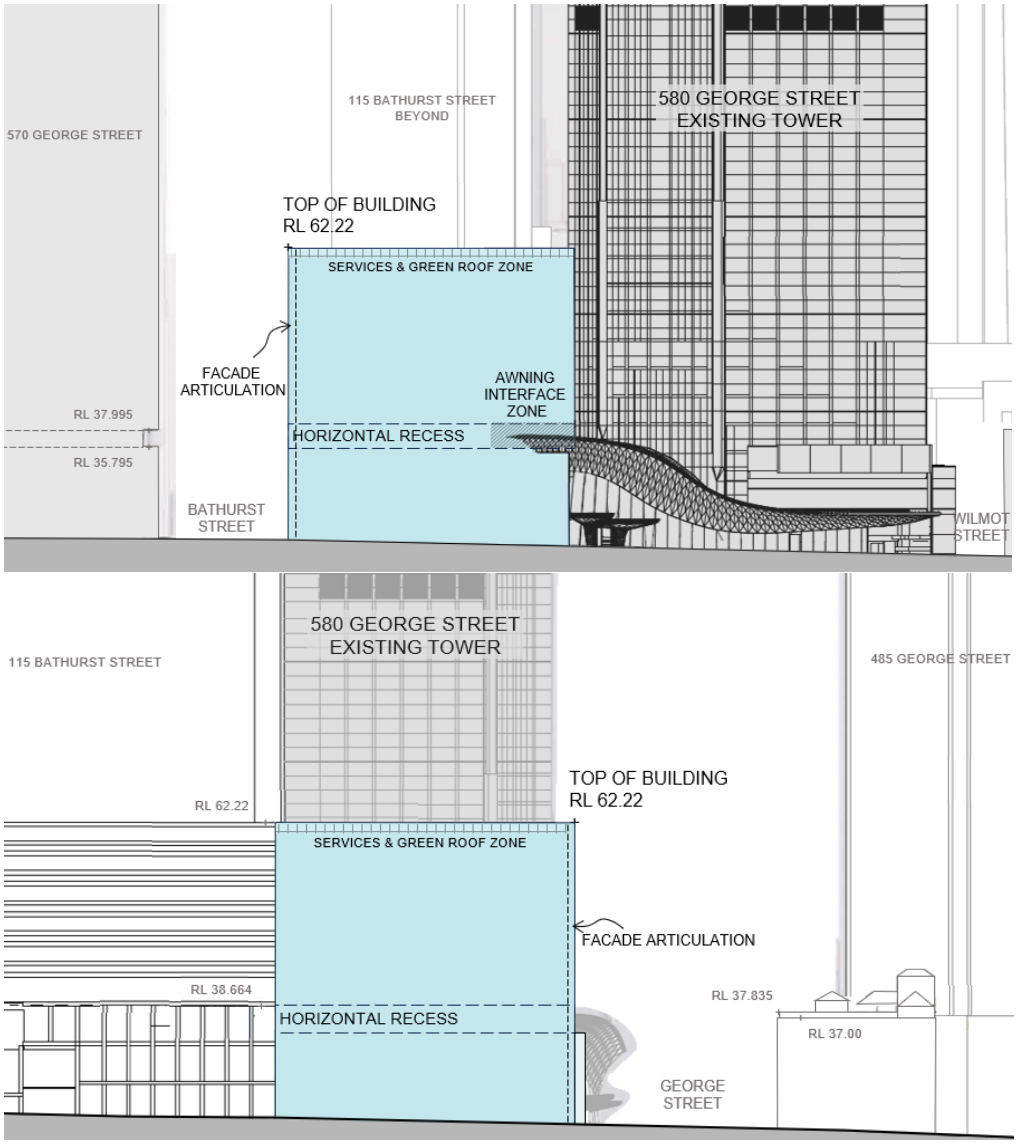


Figure 6.xx 580 George Street, Sydney – Planning envelope elevations

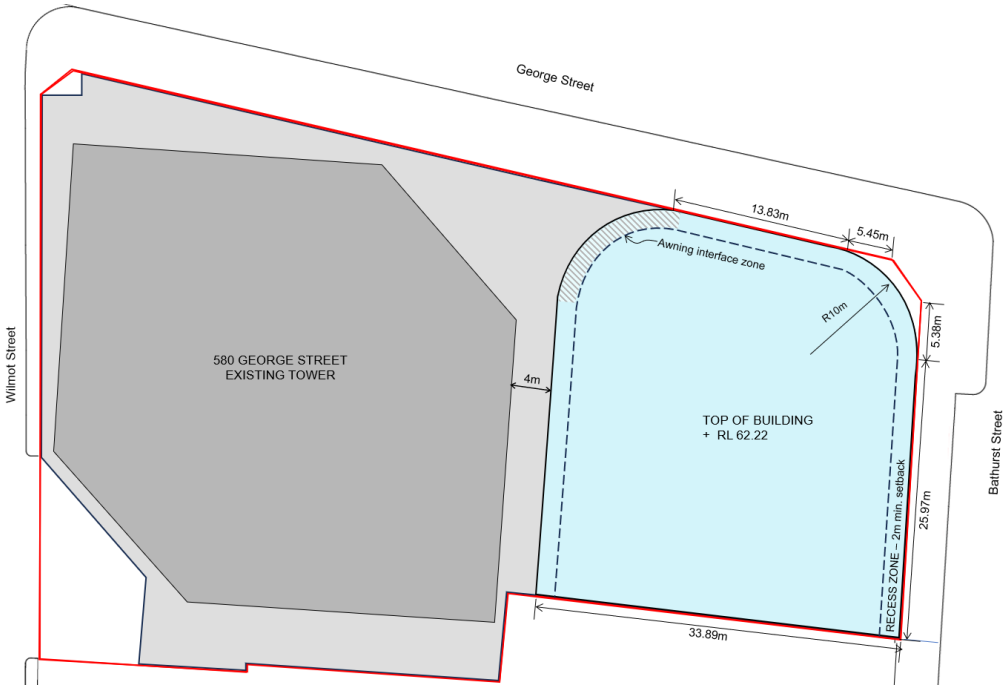


Figure 6.xx 580 George Street, Sydney – Envelope plan

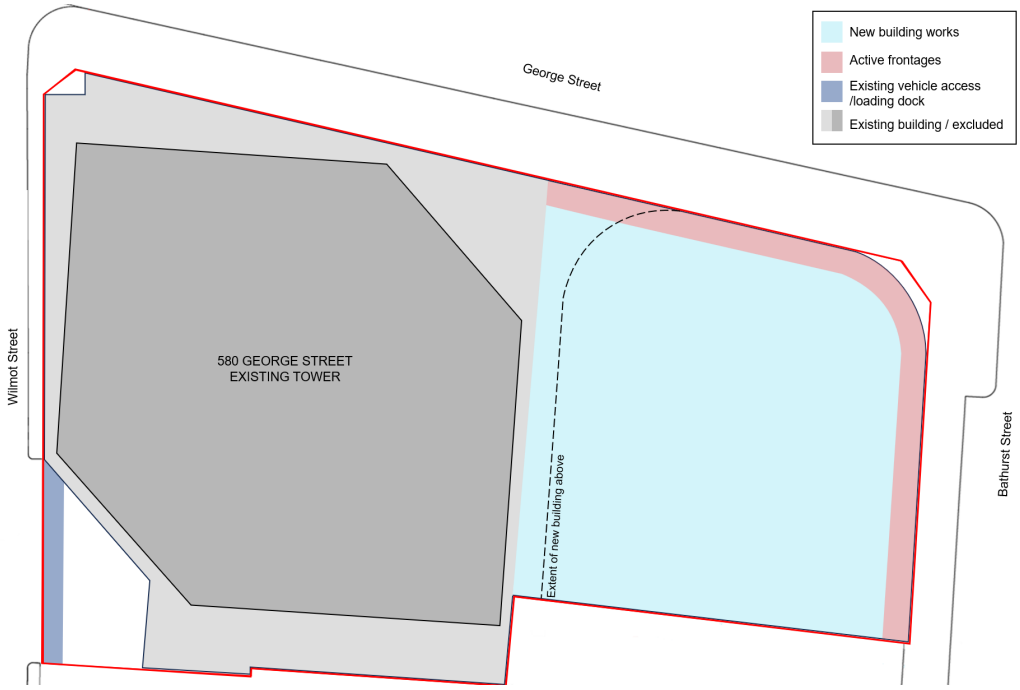


Figure 6.xx 580 George Street, Sydney – Structure plan

6.3.x.2 Built form

1. The building is to include a horizontal recess zone as shown in 'Figure 6.xx 580 George Street, Sydney – Planning envelope elevations' and 'Figure 6.xx 580 George Street, Sydney – Envelope plan', that:
   a. responds to the key datums of adjacent heritage buildings opposite to the site;
   b. achieves a defined lower podium and upper podium form;
   c. includes a minimum setback of at least 2 metres to accommodate an external terrace; and
   d. provides for the integration of the existing curved feature awning with the new building.
2. Architectural articulation zones of at least 600mm shall be included to the external street facing facades for the purposes of sun shading, modulation of massing and external walls.
3. Future development is to respond to the serrated glazed frontage of the adjacent Greenland building with an appropriate design solution.
4. Development is to respond to the existing curved feature awning in a holistic manner and provide for its integration with the new building.
5. Provide clear and legible pedestrian entry points to George and Bathurst Streets.

6.3.x.3 Development adjacent to heritage items

1. Future development, while being contemporary, must have regard to adjacent heritage items and the Sydney Square and St Andrews Special Character Area with an appropriate response to form, height, siting, facade articulation and materials, including sandstone and intricate architectural detailing.

6.3.x.4 Design excellence strategy

1. ~~An invited architectural design competition~~ **A competitive design process** is to be undertaken in accordance with clause 6.21D of Sydney LEP ~~Plan~~ 2012 and the City of Sydney Competitive Design Policy.
2. The location and extent of the competitive design process site is shown as 'New building' in 'Figure 6.xx 580 George Street, Sydney – Structure plan'.
3. The competition is to include:
   a. no less than three (3) competitors ~~invited to participate~~;
   b. ~~include~~ a range of emerging to established architectural practices;
   c. minimum of 50% of Australian-based architects; and
   d. competitors with demonstrated heritage experience.
4. The jury is to comprise a minimum of four (4) members, comprised of:
   a. ~~minimum of~~ two (2) jurors nominated by the proponent;
   b. ~~minimum of~~ two (2) jurors nominated by the City of Sydney; and
   c. at least one (1) juror is to have heritage expertise.
5. The secretariat will be provided by the proponent. A pre-briefing is required for the competition. A mid-point review is not required.
6. No additional building height ~~or floor space~~ under clause 6.21D(3)(a) ~~and (b)~~ of Sydney LEP 2012 is to be awarded as a result of the competition.

7. **Any additional floor space pursued for a building demonstrating design excellence in accordance with Sydney LEP 2012 is to be accommodated within the building envelope shown in Figure 6.xx.**

6.3.x.5 Sustainability

1. Achieve a 5 Star Green Star Buildings rating certified by the Green Building Council of Australia, through a holistic approach to environmentally sensitive design in:
   a. Minimisation of waste from associated demolition and construction – through the Responsible Construction and Upfront Carbon Emissions credits.
   b. Reduction in peak demand for electricity, through the Energy Use credit.
   c. Metering and monitoring of energy consumption, through the Verification and Handover credit.
   d. Minimisation of the consumption of potable water through the Water Use credit.
   e. Meeting the Metering and Monitoring criteria of the Verification and Handover Minimum Expectation.
   f. Reduction is resource consumption, through the Responsible Resource Management Minimum Expectation.

6.3.x.6 Public art

1. High-quality public art is to be provided in publicly accessible locations of the new podium building in accordance with the City of Sydney *Guidelines for Public Art in Private Development* and the *Public Art Policy*.

Attachment C

Summary of submissions

CITY OF SYDNEY

Summary of submissions: 580 George Street, Sydney



Engagement Report
May 2026

The City of Sydney acknowledges the Gadigal of the Eora Nation as the Traditional Custodians of our local area.

Activities to support the consultation

On 20 June and 24 December 2025, the Central Sydney Planning Committee and Council respectively, approved the Planning Proposal – 580 George Street, Sydney for public authority consultation and public exhibition.

The consultation period ran from 20 April to 18 May 2026. The following activities were undertaken to support the consultation:

– A webpage and survey were created for people to review the planning proposal and supporting documentation and provide their feedback. The webpage can be accessed at

  https://www.cityofsydney.nsw.gov.au/policy-planning-changes/proposed-changes-planning-controls-580-george-street-sydney

– The survey was open for feedback from 20 April to 18 May 2026. There were 305 unique page views and 250 document downloads during this period.

– A notification letter was letterbox dropped to property owners and occupiers within a 50-metre radius of the site boundary, informing them of the planning proposal. 1,167 letters were sent. An example of the notification letter can be found at Appendix A.

– The Planning Proposal was referred to Transport for NSW, Sydney Water and Ausgrid for agency consultation and comment.

What the community told us

We received a total of 10 responses. Five responses via the online survey and 4 by email, and 1 submission via the NSW Planning Portal, as well as 2 government agency responses.

Of the 10 responses from community members, 3 were supportive and 5 were opposed and 2 provided feedback without a position.

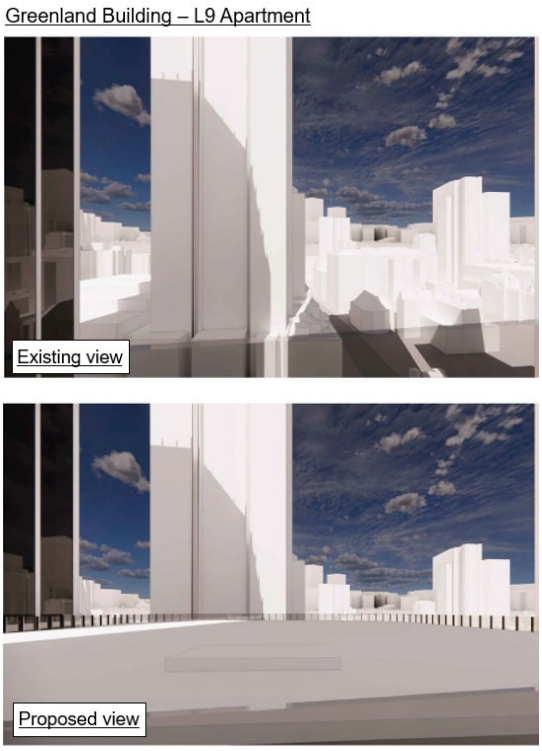
Issues raised in submissions are summarised below.

Table 1. Responses from government agencies

Agency	Submission	City response
Transport for NSW (TfNSW)	TfNSW reviewed the exhibited documents and did not comment on the planning proposal and DCP amendments. It was noted that as the site adjoins Town Hall station and the rail corridor, any development application must consider potential impacts on the rail corridor and require concurrence from TfNSW.	Submission is noted. This information has been passed on to the proponent to consider and action.
Sydney Water	After a preliminary assessment, Sydney Water advised there should be servicing capacity available for future development, subject to adjustments and minor extensions. They also noted a critical water asset that traverses through the site, noting early engagement by the proponent is encouraged to address this and other Sydney Water assets.	Submission is noted. This information has been relayed to the proponent to review and action.

Table 2. Responses from individual submitters

Issue	Key themes	City response
Support 3 submissions	Submissions supported the proposal, noting the planning proposal would facilitate a better urban outcome and deliver much needed commercial space close to public transport.	Support for the proposal is noted.
Noise impacts 3 submissions	Submissions raised concerns over potential noise impacts of future development. Residents of the adjoining apartment building note an audible noise from the rooftop plant of the existing podium building, expressing concern that this already impacts their amenity, so the plant and air conditioning systems for a larger building would result in greater impacts, noise and disruption.	The noise issues were raised with the City and are being investigated. The noise source is the cooling tower for the supermarket fridges on the pedestrian connection to Town Hall station. The City's Compliance Unit notes that action has been taken to fix the cooling unit and that the excessive noise at night has ceased. The development application will assess any environmental noise considerations for the new office building in accordance with recently updated (Housekeeping) DCP provisions, that recommend noise generating equipment is located away from sensitive receivers, the use of noise attenuation measures and that a detailed noise impact assessment is supplied to ensure development is consistent with all relevant requirements.
View loss 4 submissions	Submissions raised concerns that the future development would result in significant view loss to adjoining apartments. The existing apartments that overlook the subject site would be impacted by the taller building, and the planning proposal should be revised to consider greater setbacks, reduced building bulk, and view analysis.	This planning proposal accommodates a new office building within a built form that responds to its context by providing a height transition between the adjacent towers and lower scale heritage items. At a height of RL 62.22m, the planning envelope for the new office building must accommodate all built form elements, including lift and service equipment to ensure views from all the apartments in the Greenland Building are maintained. Further, the proposed controls clarify the new building is not eligible for additional height resulting from an architectural design competition to provide certainty that the new building would not adversely impact their views. The planning proposal included a view analysis detailing view loss impacts from the new building to these apartments. As shown in Figure 1 below, most of the view loss will be of street level on George and Bathurst Streets and Sydney Square. Open sky and district views will be maintained and protected by this planning proposal.

Issue	Key themes	City response
		 **Figure 1.** View analysis from apartments in Greenland Building
Amenity impacts 4 submissions	Four submissions express concern that the proposal would adversely impact the amenity of the adjoining apartments that overlook the site. They note that raising the building height would result in the loss of sunlight and fresh air circulation to these residents, compounding the existing 'boxed in' feeling from other nearby towers.	The planning envelope is designed to minimise amenity impacts to residents, particularly lower level apartments in the Greenland Building overlooking the site. The planning proposal is supported by an Urban Design Report that includes overshadowing and amenity analysis of the new building on nearby apartments. At RL 62.22 metres, the new building sits below these west-facing apartments and ensures existing outlook and solar access are retained, resulting in no additional overshadowing to apartments. The planning proposal and site-specific DCP provisions ensure all built elements including parapet, lift overrun and plant will not exceed this height. Given its context, the planning envelope is considered acceptable as residential amenity, views and daylight access are not detrimentally impacted.
Construction impacts and noise 1 submission	One submission raised concern about potential disruption and noise impacts from construction of the new building to nearby residents, particularly after hours.	The issues identified have been noted and will be addressed to prevent adverse impacts to pedestrians, residents and surrounding area. Management of construction impacts will be considered as part of the future development application. A Construction Management Plan

Issue	Key themes	City response
		is required to be prepared and approved by the City and Transport for NSW. Construction noise and working hours must be in accordance with the City's development guidelines and is subject to monitoring by the City. This will help minimise adverse impacts and ensure any issues are resolved quickly.
Land use / Housing 1 submission	One submission objected to the proposal, commenting delivering more housing close to jobs should be a priority.	Concern regarding shortages in housing stock is acknowledged, however this planning proposal is for an employment focused site. The planning proposal provides additional floor space for a new office building, supporting economic and jobs growth. The site's location close to key transport connections will ensure there is a wide catchment for new jobs within a short commute. No change to the subject site's zoning is proposed, which will continue to support a wide range of uses including business uses, retail and visitor accommodation. Residential and new housing remains permissible. Any future redevelopment of the site for residential or serviced apartments is however subject to the current floor space controls of the LEP.
Planning merit 1 submissions	The submission was prepared using the company's AI automatic document review tool in order to "provide constructive feedback on the contents of the planning proposal and to demonstrate the value of the tool." –	Noted. The AI tool incorrectly interpreted policy directions. It also suggested immaterial drafting changes.
Property value 1 submission	One submission objected to the proposal, stating that the new building's increased height would negatively impact the value of their apartment.	As noted above, this planning proposal has been prepared to ensure adverse impact to resident's amenity is minimised. The new building will not result in any loss of outlook or additional overshadowing and therefore is unlikely to result in a detrimental impact on any apartment's property value.
Retail activation 1 submission	One submission suggested that the proposal missed a big opportunity to activate laneways, particularly Wilmot Street as it is already pedestrianised.	This feedback is noted and has been passed on to the landowner for consideration. Improved pedestrian conditions and greater retail activation is supported by the City, in this instance however, the Wilmot Street frontage currently serves as the vehicle access point to the site's loading dock and basement carpark, as access from George Street is not possible. The proposal includes measures to improve

Issue	Key themes	City response
		pedestrian conditions, such as limiting more car parking on the site and ensuring the new building includes active uses to all frontages.
Publicly accessible rooftop 1 submission	A submission recommended the proposal include a publicly accessible roof top space featuring green space.	The concept design for the new building does not indicate that publicly accessible roof space is to be included, nor does the planning proposal require one to be provided. Notwithstanding, should the detailed design propose an external rooftop terrace, the site-specific DCP controls ensure it must be wholly contained within the planning envelope, below the height of the lower apartments in the Greenland Building. Any external space must ensure residential amenity is not adversely impacted and comply with the environmental noise and hours of operation DCP controls.

Appendix A

CITY OF SYDNEY

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Sydney NSW 2000

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council@cityofsydney.nsw.gov.au
GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

20 April 2026

Our Ref: X124325

Proposed changes to planning controls for 580 George Street, Sydney

The City of Sydney invites your feedback on proposed changes to the planning controls for 580 George Street, Sydney.

It is proposed to increase the maximum floor space ratio to 15.1:1, providing a further 8,000 square metres of new employment floor space. No change to the building height control is proposed.

These changes will allow a new 10-storey office building on the site, including ground floor retail on Bathurst and George streets. The existing office tower and walking connection to Town Hall station will be retained.

How to give feedback

You can view the proposal and give your feedback at sydneyyoursay.com.au by **5pm on 18 May 2026**.

Feedback can be made online, by email or post to Project Officer, City Engagement, City of Sydney, Town Hall House, Level 7, 456 Kent Street, Sydney NSW 2000.

Feedback should quote 'Reference X124325 – 580 George Street, Sydney'.

For more information, please contact our specialist planner Daniel Thorpe on 02 9265 9333 or sydneyyoursay@cityofsydney.nsw.gov.au

Yours sincerely

Ben Pechey
Executive Manager, Strategic Planning and Urban Design
City Planning I Development I Transport

Attachment D

Resolutions of Council and Central Sydney Planning Committee

Resolution of Council

15 December 2025

Item 9.4

Public Exhibition - Planning Proposal - 580 George Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

It is resolved that:

(A) Council approve Planning Proposal - 580 George Street, Sydney, as shown at Attachment A to the subject report, to be submitted to the Minister for Planning and Public Spaces with a request for Gateway Determination;

(B) Council approve Planning Proposal - 580 George Street, Sydney, as shown at Attachment A to the subject report, for public authority consultation and public exhibition in accordance with any conditions imposed under the Gateway Determination;

(C) Council seek authority from the Minister for Planning and Public Spaces to exercise the delegation of all the functions under section 3.36 of the Environmental Planning and Assessment Act 1979 to make the local environmental plan and to put into effect Planning Proposal - 580 George Street, Sydney;

(D) Council approve the Draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, as shown at Attachment B to the subject report, for public authority consultation and public exhibition concurrent with the Planning Proposal;

(E) authority be delegated to the Chief Executive Officer to make any variations to Planning Proposal - 580 George Street, Sydney, to correct any drafting errors or to ensure consistency with the Gateway Determination; and

(F) authority be delegated to the Chief Executive Officer to make any variations to Draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, to correct any drafting errors or ensure it is consistent with the Planning Proposal following the Gateway Determination.

Carried unanimously.

X124325

Resolution of Central Sydney Planning Committee

11 December 2025

Item 5

Public Exhibition - Planning Proposal - 580 George Street, Sydney - Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012 Amendment

Moved by the Chair (the Lord Mayor), seconded by Councillor Miller -

It is resolved that:

(A) the Central Sydney Planning Committee approve Planning Proposal - 580 George Street, Sydney, as shown at Attachment A to the subject report, to be submitted to the Minister for Planning and Public Spaces with a request for Gateway Determination;

(B) the Central Sydney Planning Committee approve Planning Proposal - 580 George Street, Sydney, as shown at Attachment A to the subject report, for public authority consultation and public exhibition in accordance with any conditions imposed under the Gateway Determination;

(C) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 8 December 2025, that Council seek authority from the Minister for Planning and Public Spaces to exercise the delegation of all the functions under section 3.36 of the Environmental Planning and Assessment Act 1979 to make the local environmental plan and to put into effect Planning Proposal - 580 George Street, Sydney;

(D) the Central Sydney Planning Committee note the recommendation to Council's Transport, Heritage and Planning Committee on 8 December 2025, that Council approve the Draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, as shown at Attachment B to the subject report, for public authority consultation and public exhibition concurrent with the Planning Proposal;

(E) authority be delegated to the Chief Executive Officer to make any variations to Planning Proposal - 580 George Street, Sydney, to correct any drafting errors or to ensure consistency with the Gateway Determination; and

(F) authority be delegated to the Chief Executive Officer to make any variations to Draft Sydney Development Control Plan 2012 - 580 George Street, Sydney, to correct any drafting errors or ensure it is consistent with the Planning Proposal following the Gateway Determination.

Carried unanimously.

X124325

Attachment E

Gateway determination, dated 23 March 2026

Gateway Determination

***Planning proposal (Department Ref: PP-2025-1510)**:* to amend the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) to enable an increased floor space ratio (FSR) for development at 580 George Street Sydney for uses other than residential and serviced apartments.

I, the Manager Local Planning (North, East and Central Coast) at the Department of Planning, Housing and Infrastructure, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Sydney Local Environmental Plan 2012 to enable increased floor space ratio for uses other than residential and serviced apartments at 580 George Street Sydney should proceed subject to the following:

The Council as planning proposal authority is authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the Act subject to the following:

(a) the planning proposal authority has satisfied all the conditions of the Gateway determination;

(b) the planning proposal is consistent with applicable directions of the Minister under section 9.1 of the Act or the Secretary has agreed that any inconsistencies are justified; and

(c) there are no outstanding written objections from public authorities.

The LEP should be completed on or before 28 December 2026.

Gateway Conditions

1. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:

   (a) the planning proposal is categorised as standard as described in the *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023) and must be made publicly available for a minimum of 20 working days; and

   (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023).

2. Consultation is required with the following public authorities and government agencies under section 3.34(2)(d) of the Act (or any other part of the Act) and/or to comply with the requirements of applicable directions of the Minister under section 9 of the Act:

   - Transport for NSW
   - Sydney Water

- Ausgrid

Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material via the NSW Planning Portal and given at least 30 working days to comment on the proposal.

3. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 23 March 2026



Emma Hitchens
Manager
Local Planning and Council Support
Department of Planning, Housing and Infrastructure

Delegate of the Minister for Planning and Public Spaces

Our ref: PP 2025-1510/(545032)

Monica Barone
Chief Executive Officer
City of Sydney Council
GPO Box 1591
Sydney NSW 2001

23 March 2026

Subject: PP-2025-1510 to amend Sydney Local Environmental Plan 2012

Dear Monica Barone

I am writing in response to the planning proposal you have forwarded to the Minister under section 3.34(1) of the *Environmental Planning and Assessment Act 1979* (the Act) and additional information received on 17 December 2025 in respect of the planning proposal to enable increased floor space ratio (FSR) for development at 580 George Street subject to criteria outlined in the planning proposal.

As delegate of the Minister for Planning and Public Spaces, I have determined that the planning proposal should proceed subject to the conditions in the enclosed Gateway determination. I have also agreed, as delegate of the Secretary, the inconsistency of the planning proposal with applicable directions of the Minister under section 9.1 of the Act 1.4 Site Specific Provisions is justified in accordance with the terms of the Direction. No further approval is required in relation to the Directions.

Considering the nature of the planning proposal I have determined that Council may exercise local plan-making authority functions in relation to the planning proposal.

The proposed local environmental plan (LEP) is to be finalised on or before 28 December 2026. Council should aim to commence the exhibition of the planning proposal as soon as possible. Should Council seek to make a proposed LEP, the request to draft the LEP should be made directly to Parliamentary Counsel's Office well in advance of the date the LEP is projected to be made. A copy of the request should be forwarded to the Department of Planning, Housing and Infrastructure.

Should you have any enquiries about this matter, I have arranged for Angela Bowden to assist you. Angela can be contacted on 02 8289 6325.

Yours sincerely



Emma Hitchens
Manager, Local Planning (North, East and Central Coast)
Planning, Land Use Strategy, Housing and Infrastructure

Encl: Gateway determination

Item 6.

Summary of Applications to be Reported to the Central Sydney Planning Committee

File No: S042755-02

Summary

The purpose of this report is to inform members of the Central Sydney Planning Committee of development applications currently under assessment that are to be determined by the Central Sydney Planning Committee.

Recommendation

It is resolved that the subject report be received and noted.

Attachments

Attachment A. Applications to be reported to the Central Sydney Planning Committee

Attachment B. Statistical information about applications to be reported to the Central Sydney Planning Committee

Background

1. There are 328 development related applications including 145 development applications under assessment. Other applications include applications to modify or review a development application, subdivision certificates, heritage work exemptions and footway applications.

2. The total value of development applications under assessment is $676 million as of 11 August 2026.

3. There are 141 development applications that are to be determined under delegation or referred to the Local Planning Panel.

4. There are currently 4development applications to be considered by the Central Sydney Planning Committee (CSPC) with a combined value of $454 million

5. The applications to be reported to the CPSC are detailed in Attachment A to the subject report.

6. Trend graphs show application numbers and value of development proposed, as well as the average number of outstanding days of development applications to be considered by the CPSC at end of each quarter, are provided in Attachment B to the subject report. The graphs represent the period from first quarter of 2024/25 to the end of the fourth quarter 2025/26.

Relevant legislation

7. City of Sydney Act 1988

GRAHAM JAHN AM

Chief Planner / Executive Director City Planning, Development and Transport

James Farrar, Information and Systems Officer

Attachment A

Applications to be reported to the Central Sydney Planning Committee

Applications to be considered by the Central Sydney Planning Committee

DA Number	Address	Lodged	Proposal	Cost $m	Target meeting date
D/2026/162	290-294 Botany Road ALEXANDRIA NSW 2015	26/02/2026	Concept development application for the demolition of existing structures and a concept envelope for a mixed-use development up to a height of RL 42.90 (8 storeys), indicative future retail and co-living land uses, vehicular access from Wyndham Street and 1 indicative basement level. The application is Integrated Development requiring the approval of WaterNSW under the Water Management Act 2000.	$53.1M	17/09/2026
D/2026/304	275 Clarence Street SYDNEY NSW 2000	8/04/2026	Renotification. Demolition of all structures and site features, excluding the Genesian Theatre. Adaptive re-use of the Genesian Theatre building, and the construction of a sixteen-storey mixed-use building including 25 residential apartments, a food and drink tenancy, indoor recreation tenancy, basement car parking and a pedestrian through-site link between Kent Street and Clarence Street. The application is Integrated Development requiring approval of NSW Water under the Water Management Act 2000.	$55.3M	22/10/2026
D/2026/513	26-38 Saunders Street PYRMONT NSW 2009	3/06/2026	Strata plan consolidation, demolition of existing building, excavation, earthworks, tree removal, and construction of shop-top housing with six basement levels for 193 car parking spaces, 200 bicycle spaces, podium levels 5 to 9 storeys, residential tower above to 38 storeys with a total of 175 residential apartments.	$279.6M	12/11/2026

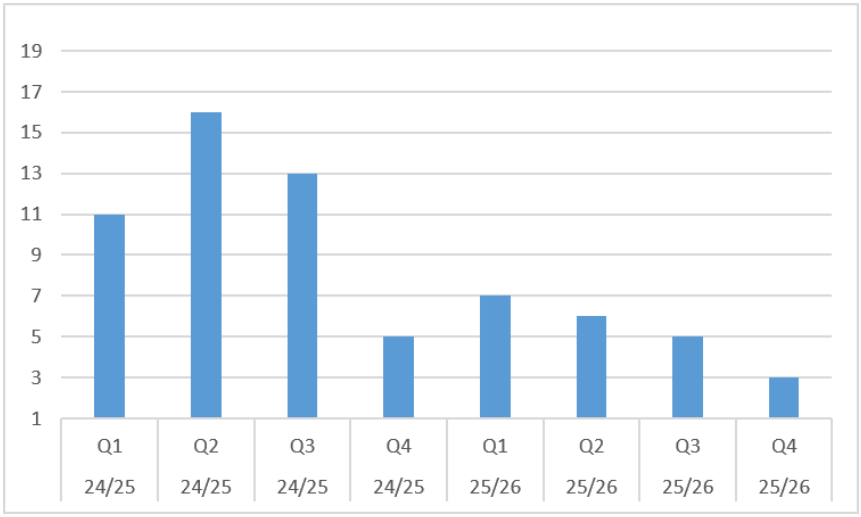
DA Number	Address	Lodged	Proposal	Cost $m	Target meeting date
D/2026/812	41-49 Mountain Street, ULTIMO	13/08/2026	Construction of a 15 storey mixed-use development comprising 114 build-to-rent (BTR) residential apartments, 11 affordable housing apartments, ground floor retail premises, basement parking and servicing, conservation and adaptive reuse of the State heritage listed Electricity Substation No. 5, and associated public domain and landscaping works. The application is Integrated Development requiring the approval of the Heritage Council (or its delegate) under the Heritage Act, 1977.	$66.1M	08/04/2027

List as at 11 August 2026

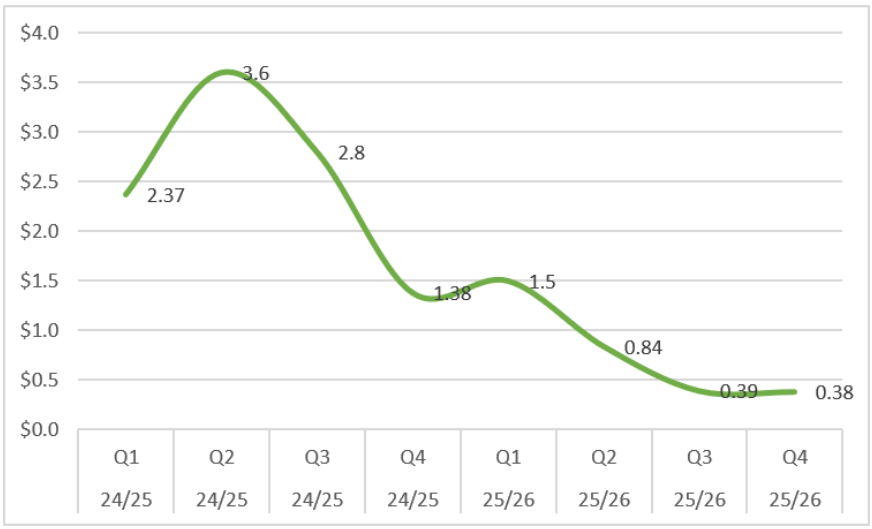
Attachment B

Statistical information about applications to be reported to the Central Sydney Planning Committee

Number of applications to be reported to the CSPC



Value of DAs under assessment to be reported to the CSPC ($ billion)



Average age of DAs under assessment to be reported to the CSPC (total days)

