

NEXTDC S5 DATA CENTRE MACQUARIE PARK

PREPARED FOR
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SEPTEMBER 2025
FINAL

URBIS

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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 Visual Impact Assessment has been prepared by Urbis on behalf of NEXTDC Limited to accompany a detailed State Significant Development Application (SSDA) for the S5 data centre development at 269 Lane Cove Road, Macquarie Park. The legal description of the site is Lot 3 in Deposited Plan (DP) 1129811.
- This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project (SSD-63168959).
- The proposal is located within E2 (Commercial Centre) zoned land which includes data centres as a permissible land use and as such the visual character and scale of the proposal has been anticipated.
- In our opinion, the proposal is visually compatible with the desired future character and land uses within Macquarie Park Innovation Precinct Strategic Master Plan.
- Views from the public domain are predominantly limited to transport corridors and as such, visibility is typically from moving situations.
- Views of the proposal from significant public recreation space is limited by distance, intervening elements and topography, but would be possible from open sections of Lachlan's Line Park to the south-east due to underlying topography.
- Visual effects of the proposal with regard to viewing periods from the public domain are low, typically from moving viewing situations (both pedestrian and vehicle) and experienced for short periods.
- Analysis of 7 public domain photomontages found that:
 - The visual impact for the assessed viewpoints ranges from Nil to Medium-low.
 - The proposal does not block visual access to any heritage items, icons or large areas of unique scenic quality.
- Views to the site and proposal from private domain dwellings in the wider visual catchment are limited due to intervening built form and vegetation.
- Views from private domain dwellings are unlikely to include the proposal and scenic or highly valued features in the same composition.
- On balance when all relevant matters are considered, the visual effects and view impacts caused by the proposed development are considered to be reasonable and acceptable and as such the proposal can be supported on visual impact grounds.

01 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report has been prepared to accompany a detailed SSDA for the proposed S5 data centre development at 269 Lane Cove Road, Macquarie Park (SSD-63168959).

The application seeks consent for construction and operation of a data centre development and includes site preparation works, bulk earthworks and infrastructure, and construction of the buildings, ancillary facilities, and associated site works. The application also includes the delivery of two internal roads and an urban plaza adjacent to the Macquarie Park Metro Station entrance.

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 8 November 2023 issued for the SSDA (SSD-63168959). Specifically, this report has been prepared to respond to the SEARs requirement issued below.

Table 1 SEARs Compliance

Description of Requirement	Section Reference
Visual Impact	
a visual impact assessment (including photomontages and perspectives) of the development layout and design (buildings and storage areas), including:	Section 4.0, 5.0 and 6.0
<ul style="list-style-type: none"> details of staging, site coverage, setbacks, open space, landscaping, height, colour, scale, building materials and finishes, façade design, signage and lighting, particularly in terms of potential impacts on: nearby public and private receivers (including the Ryde Hunters Hill District Hockey Club, nearby commercial properties, Courtyard by Marriot, Gondon Macquarie and Lachlan's Square Village) significant vantage points in the broader public domain (residential streets in North Ryde such as Lorna Avenue, Napier Crescent, Larkard Street and Paul Street) consideration of the layout and design of the development having regard to the surrounding vehicular, pedestrian and cycling networks an assessment of the potential visual impacts of the project on the amenity of the surrounding area. 	



Figure 1 Site location and surrounding context.

1.2 PROPOSED DEVELOPMENT

- Site preparation works including demolition and removal of existing structures, tree removal and bulk earthworks.
- Staged construction and operation of two connected data centre buildings (Building A and Building B) with a maximum height of 65 metres and a combined total gross floor area (GFA) of 47,285m² comprising 33,142m² of technical data hall floor space and 14,143m² of office, retail and innovation hub floor space.
- Building A will be delivered in Stage 1 and will comprise the following:
 - Basement parking for 51 car spaces including two accessible spaces and 10 EV spaces
 - Seven storeys of technical data floor space accommodating seven data houses: 16,571m²
 - Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each).
 - Business identification signage facing Waterloo Road and Lane Cove Road.
 - Integrated 'Building O' component within Building A, comprising:
 - Two retail tenancies at ground level: 326m²
 - Lobby and innovation hub including auditorium and training rooms: 3,186m²
 - NEXTDC and ancillary office floor space on upper levels: 10,631m²
- Building B will be delivered in Stage 2 and will comprise the following:
 - Seven storeys of technical data floor space accommodating seven data halls: 16,571m²
 - Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each).
 - Business identification signage on the western and southern building facades.
- Landscaping across the site in accordance with the project staging, delivering a mix of native and endemic plant species, shrubs and grasses, including 139 additional trees within a total area of 4,959m² deep soil and a resultant tree canopy cover of 5,707m²
- Staged delivery of public domain works including:
 - Stage 1: construction of Road 13 within the subject site and urban plaza.
 - Stage 2: construction of Road 6 (half-width) within the subject site, including provision for a future pedestrian/cycle overbridge (to be delivered by others), and works along Lane Cove Road.
- Delivery of 90 megawatts of power with a 33kV switching station to be accommodated on site, as well as other site services, including stormwater infrastructure.

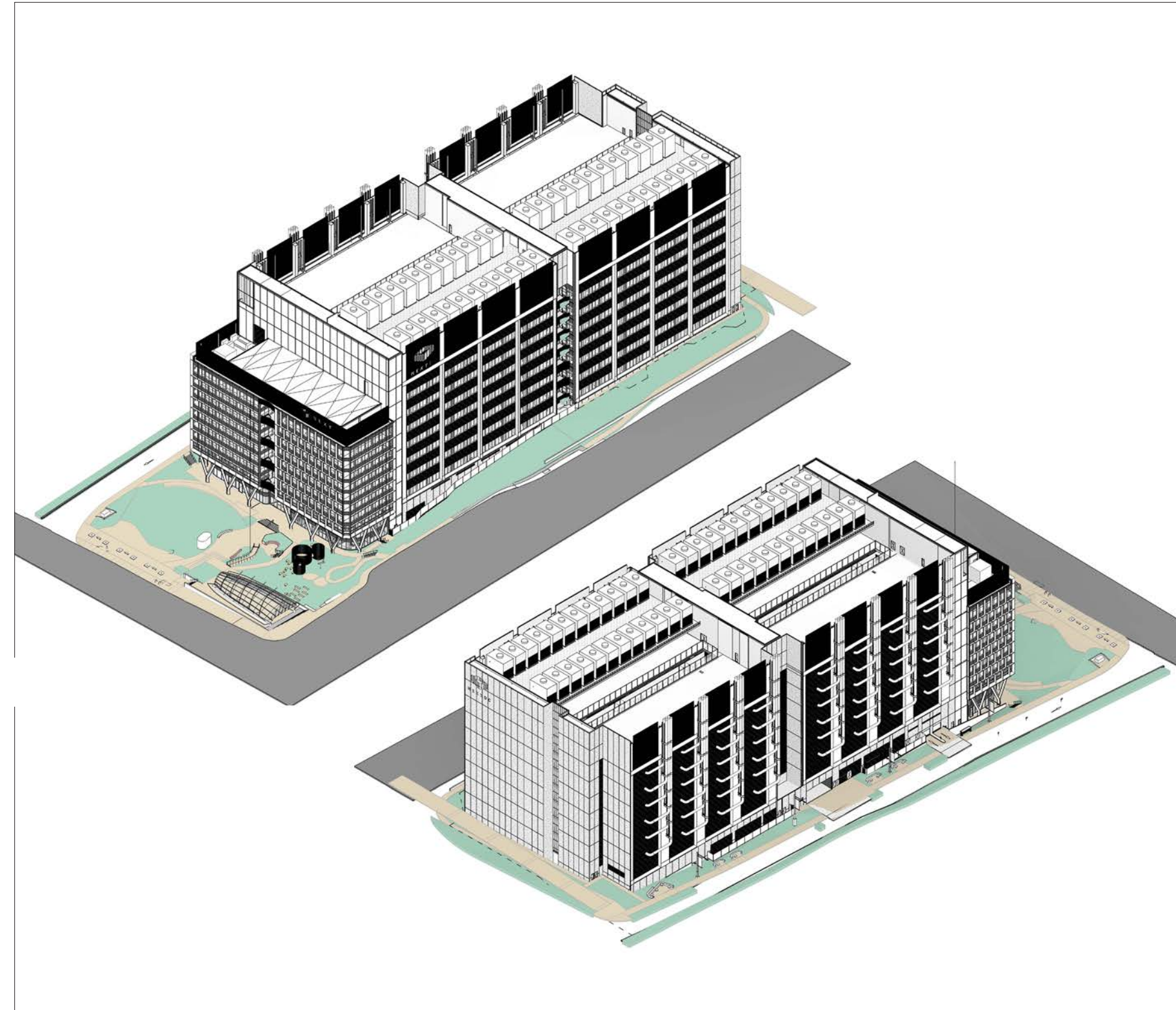


Figure 2 Axonometrics (HDR).

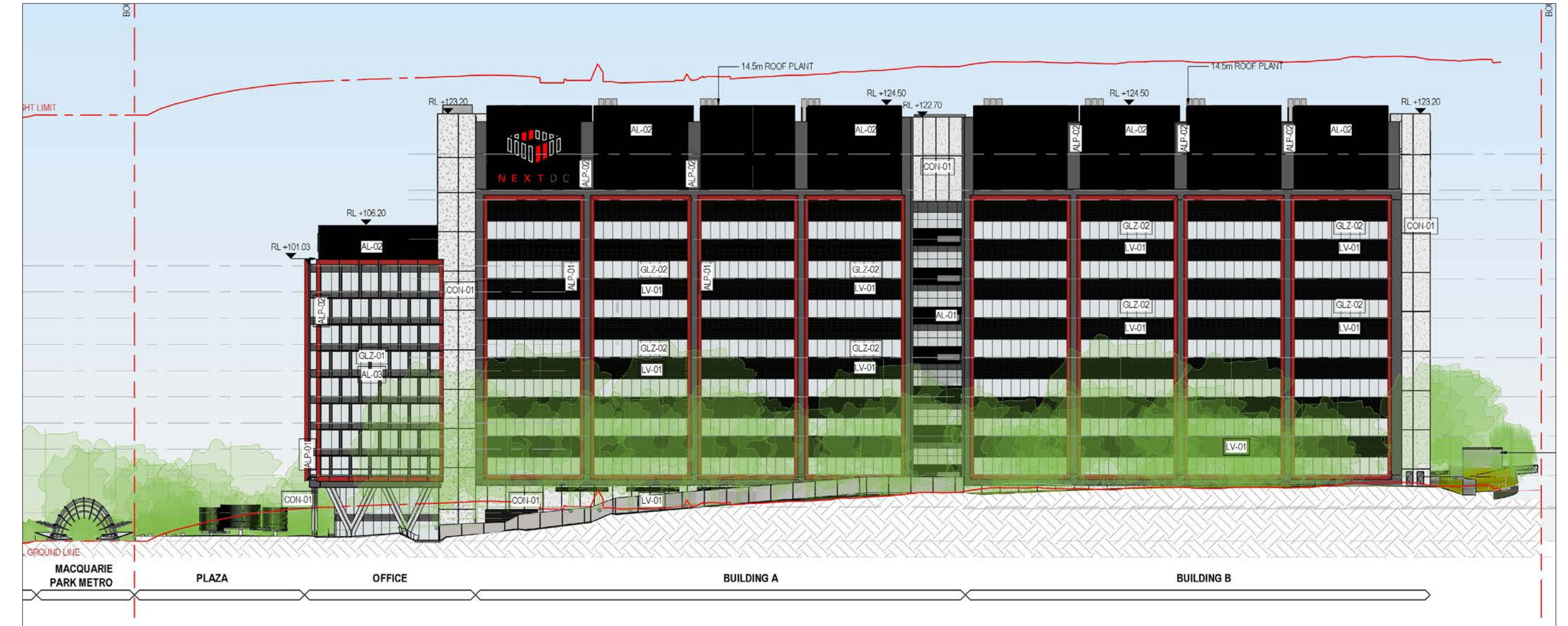


Figure 3 Northern Elevation (HDR).

02 VIA METHODOLOGY

2.1 URBIS METHODOLOGY

The methodology employed by Urbis to assess visual impacts is based on a combination of established methods used in NSW. It is based on widely adopted concepts and terminology included in multiple LVIA methods, guidelines and objectives.

In addition the Urbis VIA method draws on 30 years of academic research and publications by industry leaders whom have considered a more tailored response to assess the visual impacts of built forms in urban settings rather than landscape character visual impacts assessments (LCVIA).

An LCVIA takes a more holistic approach to changes proposed to the physical and visual landscape, which in our opinion is more appropriate to assess the impacts of development in greenfield locations or sites that are predominantly characterised by rural or open, less developed landscapes.

Reviewing and combining industry best practice, Urbis continually refines its VIA methodology so that it is appropriate for application across an urban visual context. The Urbis methodology identifies objective 'visual baseline' information about the site and surrounds, analyses the extent of visual effects or quantum of change using visual aids from key locations, and considers the importance of that change. The significance of the extent of visual effects, is explained and determined in the visual impact assessment section of the method and this report.

The Urbis method, takes into consideration other relevant factors such as the underlying strategic planning intent of the site, its immediate or wider setting. For example other methods do not consider visual compatibility with the existing or desired future character for the site or area which may allow for transformational visual change.

The Urbis method also distinguishes and places 'weight' on key factors such as view place and viewer sensitivity, physical absorption capacity etc. and considers impacts on unique settings near the site that could be potentially affected, including for example heritage items, conservation areas, views to icons and areas of high scenic quality.

Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

The sequence of steps and logic flow is shown graphically in the method flow chart.

Our method also has regard to:

The Landscape Institute Technical Guideline Note- Visual Representation of Development Proposals (AILA 2019)

Guidance note for Landscape and Visual Assessment (AILA 2018)

Guidelines for Landscape Character and Visual Impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services 2018 (RMS LCIA)

Urbis rely on accurately prepared and certifiable photomontages prepared by ourselves or others to satisfy the NSW Land and Environment Court photomontage policy.

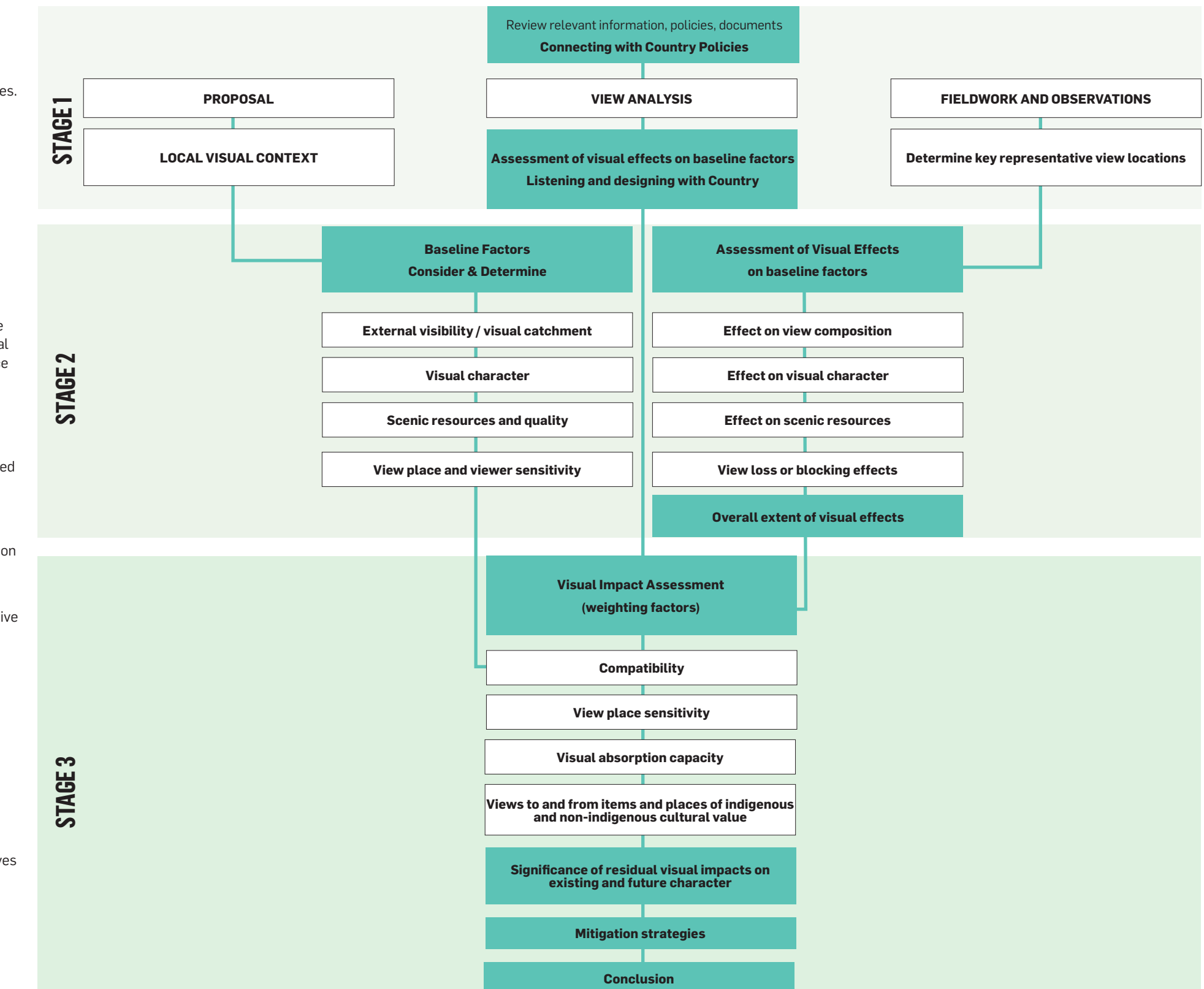


Figure 4 Methodology flowchart.

2.2 VISUAL CONTEXT

NORTH

Immediately north of the site is the Macquarie Park Metro Station (east) exit, a contemporary, low height structure that is parallel to the four lane Waterloo Road.

Beyond this the visual context to the north is characterised by commercial built form that range from one to five stories with large floor plates. The built form is spatially well separated from one another to allow for vehicle and pedestrian access, on-site parking and vegetation.

SOUTH

To the south is a two-storey warehouse building owned by Goodman and the five-storey Quest Hotel located to south-west. These developments are separated from the site by at-grade parking and internal roads, as well as a line of large trees between the Goodman property and the site.

Further south is Epping Road, a major multi-lane transport corridor which includes a flyover above Lane Cove Road. Beyond this is residential development which consists largely of mid to late twentieth century detached single and double storey dwellings, and one large scale contemporary residential flat building (RFB) development (Gordon Macquarie).

EAST

East of the site is a business park at 1-5 Holt Drive that includes the eight-storey Foxel commercial office building and 7 storey Metcash building arranged around an irregular shaped open space with areas of turf and groupings of large trees of varied species.

Beyond this is the Ryde Hunters Hill District Hockey Club and a large expanse of undeveloped land that includes areas of open turf area, grouping of large trees and concrete slabs and asphalt paving from previous development that has now been removed.

WEST

The east of the site is Lane Cove Road, a major suburban arterial road and is the main road from central Sydney to the Macquarie Park commercial area. Beyond this is similar development to the north characterised by commercial built form that ranges in size but characterised by large spatial separations from one another.

2.3 DOCUMENTED VIEWS

A background desktop analysis did not identify any documented views for consideration or protection either within, across or to the site.



Photo 1. View north from the intersection of Epping Road and Lane Cove Road.

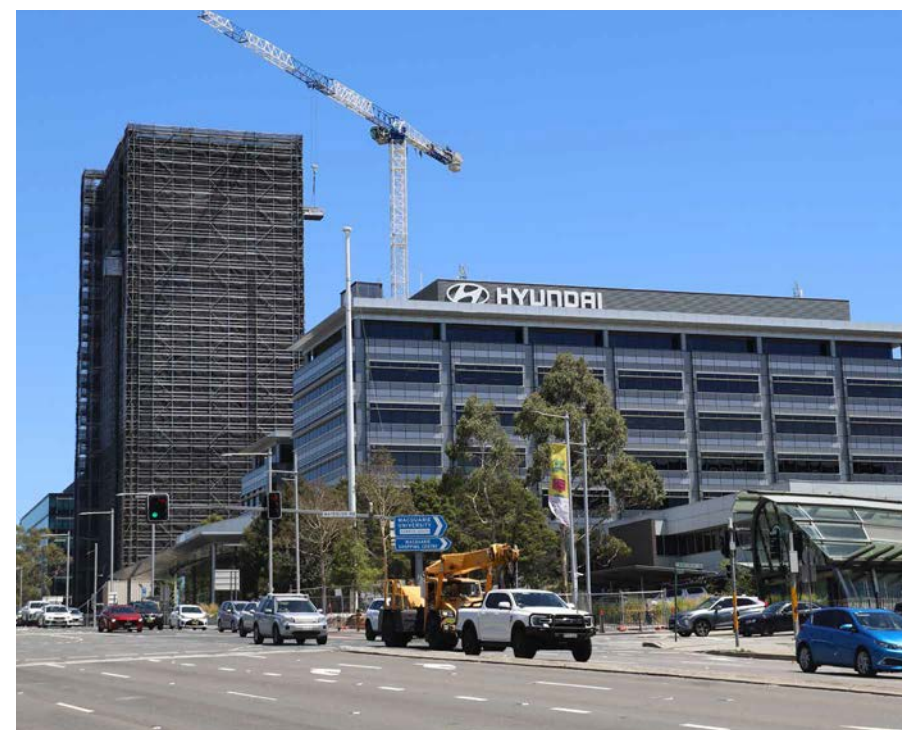


Photo 2. South-west view from the intersection of Waterloo Road and Lane Cove Road.



Photo 3. Commercial development at 26-32 Waterloo Road.

2.4 PUBLIC DOMAIN VISUAL CATCHMENT

The potential visual catchment is the theoretical area within which parts of the site and proposal may be visible, and, in this regard, the visual catchment is larger than the area within which there would be discernible visual effects of the proposal. 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, identifiable for example as a new, novel, contrasting element or alternatively as a recognisable but compatible feature.

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents in relation to views, analysed aerial imagery and topography.

Potential visibility of the proposal was determined by Urbis during fieldwork observations of the site from a range of distance classes (close, medium and distant views) and an indicative visual catchment from Google Earth. Due to the underlying topography, presence of vegetation and intervening built form, the visual catchment of the proposed works is constrained.

Views from the public domain are predominantly limited to transport corridors and as such, visibility is typically from moving situations for vehicles, pedestrians and cyclists which range in duration but are typically brief in nature. Views would be possible from sections of:

- Lane Cove Road
- Waterloo Road
- Epping Road
- Drake Ave.

We note that partial views of the proposal would be possible from sections of Larkard Street, Paul Street, Lorna Avenue and Napier Crescent due to their elevated positions. Views from Larkard Street, Paul Street and Lorna Avenue are reduced by intervening built form and vegetation which limits the visibility of the proposal to certain viewpoints and would not impact on the overall visual character of the streets in our opinion. The proposal is more visible from Napier Avenue due to its orientation and has been assessed within Section 5.0 of this report (View 06).

Views of the **existing site** from significant surrounding recreation spaces is not possible due to intervening built form and vegetation. We note that a highly filtered view to the northern part of the site (the Work Arena building) is possible from a 'park-like' section of 26-32 Waterloo Road which, while not a public recreation space, is used by commercial and office workers and is publicly accessible.

Potential views of the **proposal** from significant public recreation space is limited by distance, intervening elements and topography, but would be possible from open sections of Lachlan's Line Park to the south-east due to underlying topography.



Photo 4. North-east view from intersection of Larkard Street and Lorna Ave.



Photo 5. North-east view from Paul Street.



Photo 6. North-east view from Lorna Avenue.

03 BASELINE VISUAL ANALYSIS



3.1 VISUAL CHARACTER OF THE SITE

The site is located at 269 Lane Cove Road, Macquarie Park and is legally described as Lot 3 in Deposited Plan (DP) 1129811. It is located on the corner of Lane Cove Road and Waterloo Road and is made up of a single rectangular lot and is approximately 22,540m² in size.

Existing development includes a two-storey office furniture store (Work Arena) at the northern end of the site and offices and studios associated with Foxtel in the southern portion of the site. Scattered trees exist along the site boundaries, particularly within the western setback to Lane Cove Road, along the southern boundary and the eastern boundary.

Vehicle access to the site is currently provided from Waterloo Road with an internal driveway providing access to several at-grade parking areas. A further vehicle crossover has been constructed along the Lane Cove Road frontage; however, it is not currently in use and barriers have been installed prohibiting access.

The site is well serviced by public transport with several bus routes operating along Lane Cove Road and Waterloo Road. The entrance to Macquarie Park Metro Station is immediately to the north of the site. The site includes a lengthy frontage to Lane Cove Road which provides access to the M2 Hills Motorway and Epping Road.



Photo 7. Elevated car park within the site.



Photo 8. South-west view along internal site road.



Photo 9. North-west view towards Lane Cove Road from within the site.

3.2 SCENIC QUALITY

Scenic quality relates to the likely expectations of viewers regarding scenic beauty, attractiveness, or preference. Scenic preferences typically relates to the variety of features that are present, and the uniqueness or combination of those features. Scenic quality of the visual setting of the subject site is a baseline factor against which to measure visual effects. Criteria and ratings for preferences of scenic quality and cultural values of aesthetic landscapes are based on empirical research undertaken in Australia and internationally.

Therefore, analysis of the existing scenic quality of a site or its visual context and understanding the likely expectations and perception of viewers is an important consideration when assessing visual effects and impacts.

Comment:

The site is occupied by nondescript built form and areas of hardstand parking. There is a low level of large, mature trees on site which are largely located along site boundaries and separating the two existing buildings. The existing site has no scenic or unique features and has a **low** scenic quality.

The immediate visual context surrounding the site includes a major transport corridor (Lane Cove Road) to the west and Commercial and distribution developments to the north, east and further west beyond Lane Cove Road (including an existing Data Centre). To the south is Epping Road, a major multi-lane arterial road, with residential development beyond. There are no significant scenic or recreation spaces or visually unique scenic features in the immediate visual context. As such, the scenic quality surrounding the site is **low**.

3.3 VIEW PLACE SENSITIVITY

This factor relates to the likely level of public interest in a view of the proposed development. The level of public interest includes assumptions made about its exposure in terms of distance and number of potential viewers. For example, close and middle-distance views from public places such as surrounding roads and intersections that are subject to large numbers of viewers, would be considered as being sensitive view places. However, the level of sensitivity depends on the nature of the view and whether it is gained from either a moving viewing situation and the duration of exposure to the view for example for short periods of time or for sustained periods.

Comment:

The site occupies a prominent position with a high number of visual receivers which includes vehicles, pedestrians, cyclists and Metro users. Views to the site include oblique close views along the western site boundary from Lane Cove Road, and close views from the intersection of Lane Cove Road and Waterloo Road to the north of the site. Medium distance views are available from sections of Lane Cove Road, Waterloo Road and from elevated residential streets to the south of the site.

While there is a high relative number of viewers from these public domain locations, the views would typically be for short durations of time from moving situations. Further, given the highly urbanised location of the site, viewers would likely expect to see moderate to high levels of built form and infrastructure.

3.4 VIEWER SENSITIVITY

Viewer sensitivity is a judgement as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

Comment:

There is limited visual access of the **existing site** from the private domain, with views possible from a small number of apartments within the Gondon Macquarie development to the south. These views would likely include the site within a wider visual context of similar development within the Macquarie Park E2 Commercial Core and E3 Productivity Support areas.

Visibility of the proposal will increase due to the height of the proposal and will include elevated locations around Napier Crescent and Holt Street south-east of the site and from mid and upper levels of more distant residential flat buildings (RFB's) in the wider visual catchment including Macquarie Gardens to the north and Lachlan's Square to the south-east.

04 VISUAL EFFECTS ANALYSIS



4.1 USE OF PHOTOMONTAGES

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and lidar data to establish the potential visual catchment to inform fieldwork inspections. Following fieldwork Urbis selected and recommended 7 public view locations for further analysis.

View No.	VIEWPOINT LOCATION
View 01	North-east view along Lane Cove Road from Epping Road intersection.
View 02	View south-west from Waterloo Road & Lane Cove Road.
View 03	View south-west from Goodman entrance stairs on Lane Cove Road
View 04	View north-west from Eden Park Drive & Waterloo Road roundabout.
View 05	View east from Ryde Hunters Hill District Hockey Club.
View 06	View north-east from 14 Napier Crescent
View 07	View north-west from steps to Cassaniti Bridge.

4.2 CERTIFICATION OF PHOTOMONTAGES

The method of preparation is outlined in Appendix 3 of this report.

The accuracy of the locations of the 3D model of the proposed development inserted into digital photographs has been checked by Urbis in multiple ways:

1. The model was checked for alignment and height with respect to the 3D survey and adjacent surveyed reference markers which are visible in the images.
2. The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the photographs are known.
3. Reference points from the survey were used for cross-checking accuracy in all images.
4. No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the camera lens, were reviewed by Urbis and were considered to be within reasonable limits.

Urbis is satisfied that the photomontages have been prepared in accordance with the Land and Environment Court of New South Wales practice direction.

Urbis certifies, based on the methods used and taking all relevant information into account, that the photomontages are as accurate as is possible in the circumstances and can be relied upon by the Court for assessment.



Figure 5 Viewpoint location map.

VIEW 01 NORTH-EAST VIEW ALONG LANE COVE ROAD FROM EPPING ROAD INTERSECTION.

DISTANCE CLASS

- Close
- 88m

EXISTING COMPOSITION OF THE VIEW

The foreground view is characterised by Lane Cove Road adjacent to the western boundary of the site. The mid-ground composition includes a linear row of trees within the site which heavily filters views of built form within the site.

Long distance views are almost entirely blocked by mid-ground elements, with a long distance view along Lane Cove Road to the north possible.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The proposal replaces existing built-form and vegetation on site and introduces new, contemporary buildings to the mid-ground composition.

The proposed buildings increase the level and perception of built-form along Lane Cove Road, with the mid and upper sections of the buildings visible above proposed reinstated and new planting along the western edge of the site. The proposed planting filters views of the lower sections of the proposed buildings.

The proposal does not block views to any heritage items or areas of unique scenic quality.

Visual effects of proposed development (quantum of change)

Visual Character	medium-high
Scenic Quality	low-medium
View Composition	high
Viewing Period	low
Viewing Distance	high
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	low (down-weight)
Physical Absorption Capacity	low (up-weight)
Compatibility with Urban Context and Visual Character	medium (neutral)

Overall rating of effects on baseline factors Medium

See section 5.8 for overall visual impact rating.



Figure 6 Viewpoint location.



Figure 7 Viewpoint 01 existing view.



Figure 8 Viewpoint 01 photomontage.

VIEW 02 VIEW SOUTH-WEST FROM WATERLOO ROAD & LANE COVE ROAD INTERSECTION

DISTANCE CLASS

- Close
- 60m

EXISTING COMPOSITION OF THE VIEW

The foreground composition is comprised of the Lane Cove Road and Waterloo Road intersection to the north of the site.

The mid-ground includes the contemporary Macquarie Park Metro Station, 2 storey built form and large trees within the site and partial views of the neighbouring commercial development at 26-32 Waterloo Road.

Long distance views are almost entirely blocked by mid-ground elements, with a constrained long distance view along Lane Cove Road to the south possible.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground composition is unaffected by the proposal.

The proposal replaces existing built-form and vegetation on site and introduces new, contemporary built-form to the mid-ground composition.

The proposed buildings increase the level and perception built-form along Lane Cove Road, with the mid and upper sections of the buildings visible above proposed reinstated and new planting along the western edge of the site. The proposed planting filters views of the lower sections of the proposed buildings.

The proposal does not block views to any heritage items or areas of unique scenic quality.

Visual effects of proposed development (quantum of change)

Visual Character	medium-high
Scenic Quality	low-medium
View Composition	high
Viewing Period	low
Viewing Distance	high
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	low (down-weight)
Physical Absorption Capacity	low (up-weight)
Compatibility with Urban Context and Visual Character	medium (neutral)

Overall rating of effects on baseline factors Medium

See section 5.8 for overall visual impact rating.



Figure 9 Viewpoint location.



Figure 10 Viewpoint 02 existing view.



Figure 11 Viewpoint 02 photomontage.

VIEW 03 VIEW SOUTH-WEST FROM GOODMAN ENTRANCE STAIRS ON LANE COVE ROAD

DISTANCE CLASS

- Medium
- 270m

EXISTING COMPOSITION OF THE VIEW

The foreground composition includes Lane Cove Road with low-height commercial development to either side. The mid-ground includes the Lane Cove Road and Waterloo Road intersection to the north of the site and large trees along the northern site boundary. Long distance views are almost entirely blocked by mid-ground elements, with a constrained long distance view along Lane Cove Road to the south possible which includes large trees along the western site boundary.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground composition is unaffected by the proposal while mid-ground elements filter views to the northern elevation of Building A. The proposal replaces existing built-form and vegetation on site and introduces new, contemporary built-form to the mid-ground composition. The proposed buildings increase the level and perception built-form along Lane Cove Road, with the mid and upper sections of the buildings visible above proposed reinstated and new planting along the western edge of the site. The proposed planting filters views of the lower sections of the proposed buildings. The proposal does not block views to any heritage items or areas of unique scenic quality.

Visual effects of proposed development (quantum of change)	
Visual Character	medium
Scenic Quality	low
View Composition	high
Viewing Period	low
Viewing Distance	high
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	low (down-weight)
Physical Absorption Capacity	low (up-weight)
Compatibility with Urban Context and Visual Character	medium (neutral)
Overall rating of effects on baseline factors	Medium

See section 5.8 for overall visual impact rating.



Figure 12 Viewpoint location.



Figure 13 Viewpoint 03 existing view.



Figure 14 Viewpoint 03 photomontage.

VIEW 04 VIEW NORTH-WEST FROM EDEN PARK DRIVE AND WATERLOO ROAD ROUNDABOUT

DISTANCE CLASS

- Medium
- 140m

EXISTING COMPOSITION OF THE VIEW

The foreground composition is characterised by the Waterloo Road carriageway with low and mid-height vegetation to either side.

The mid-ground includes a high number of trees that range in height and canopy density within the park-like frontage of 26-32 Waterloo Road. Views of upper sections of existing and under construction built form are visible above and through the canopy cover, with built form on site blocked from view.

Long distance views are blocked by mid-ground elements.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground composition is unaffected by the proposal.

The proposal introduces new, contemporary built-form to the mid-ground composition above existing and retained vegetation and built-form.

The proposal increases the perception built-form in the composition and blocks a small amount of commercial tower form under construction west of the site and open sky.

The proposal does not block views to any heritage items or areas of unique scenic quality.

Visual effects of proposed development (quantum of change)

Visual Character	medium
Scenic Quality	low
View Composition	medium
Viewing Period	low
Viewing Distance	medium
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	low (down-weight)
Physical Absorption Capacity	medium (neutral)
Compatibility with Urban Context and Visual Character	medium (neutral)

Overall rating of effects on baseline factors Low-medium

See section 5.8 for overall visual impact rating.



Figure 15 Viewpoint location.



Figure 16 Viewpoint 04 existing view.



Figure 17 Viewpoint 04 photomontage.

VIEW 05
VIEW EAST FROM RYDE HUNTERS HILL DISTRICT HOCKEY CLUB

DISTANCE CLASS

- Medium
- 260m

EXISTING COMPOSITION OF THE VIEW

The foreground composition is comprised of the Ryde Hunters Hill District Hockey Club with a modified landform, artificial pitch, fencing and canteen and facilities building.

The mid-ground includes a linear row of trees within the neighbouring property along the Club's western boundary, with a filtered view of the neighbouring contemporary commercial building beyond.

Mid-ground elements block views to the site and long distance views beyond.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The proposal is not visible and does not generate any visual effects or impacts on the existing composition.

Visual effects of proposed development (quantum of change)

Visual Character	nil
Scenic Quality	nil
View Composition	nil
Viewing Period	nil
Viewing Distance	nil
View Blocking of Scenic Elements	nil
Public Domain View Place Sensitivity	nil
Physical Absorption Capacity	nil
Compatibility with Urban Context and Visual Character	nil

Overall rating of effects on baseline factors Nil

See section 5.8 for overall visual impact rating.



Figure 18 Viewpoint location.



Figure 19 Viewpoint 05 existing view.

ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW



Figure 20 Viewpoint 05 photomontage.

VIEW 06 VIEW NORTH-EAST FROM 14 NAPIER CRESCENT

DISTANCE CLASS

- Medium
- 500m

EXISTING COMPOSITION OF THE VIEW

The foreground and mid-ground composition includes residential development to south of the site. The residential development is characterised by mid to late twentieth century detached, double storey dwellings set back from roads with front and gardens.

Long distance views of large trees within residential properties to the north are visible beyond mid-ground elements, as is sections of existing and under construction buildings along Lane Cove Road opposite the site.

A small section of tree canopy within Lane Cove National Park is visible.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground and mid-ground compositions are unaffected.

The proposal introduces new, contemporary built form to the distant composition. The mid and upper sections of the buildings are visible above intervening mid-ground elements which block views of the lower sections of the building.

The proposal does not block views to any heritage items, but does block a small section of tree canopy within the Lane Cove National Park to the north-east.

Visual effects of proposed development (quantum of change)

Visual Character	medium
Scenic Quality	low
View Composition	medium
Viewing Period	low
Viewing Distance	medium
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	medium-high (up-weight)
Physical Absorption Capacity	low (up-weight)
Compatibility with Urban Context and Visual Character	medium (neutral)

Overall rating of effects on baseline factors **Low-medium**

See section 5.8 for overall visual impact rating.



Figure 21 Viewpoint location.



Figure 22 Viewpoint 06 existing view.

ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



Figure 23 Viewpoint 06 photomontage.

DISTANCE TO PROJECT - 520M
ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

VIEW 07 VIEW NORTH-WEST FROM STEPS TO CHRISTOPHER CASSANITI BRIDGE

DISTANCE CLASS

- Medium
- 950m

EXISTING COMPOSITION OF THE VIEW

The composition includes a wide, open expanse of recreation space within Lachlan's Line Park with contemporary, mixed-use development built from adjacent to the park to the left. Long distance views of large trees to the north block views of lower and mid sections of commercial buildings within the Macquarie Park Commercial Centre, with upper sections of taller built forms visible above the canopy.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground and mid-ground compositions are unaffected. The proposal introduces new, contemporary built form to the distant composition, where mid and upper sections of the buildings are visible above intervening mid-ground elements. The lower sections of the proposal are blocked by intervening vegetation and built form. The proposal does not block visual access to any heritage items, icons or areas of unique scenic quality.

Visual effects of proposed development (quantum of change)

Visual Character	medium
Scenic Quality	low
View Composition	low
Viewing Period	high
Viewing Distance	medium
View Blocking of Scenic Elements	low
Public Domain View Place Sensitivity	high (up-weight)
Physical Absorption Capacity	medium (neutral)
Compatibility with Urban Context and Visual Character	high (down-weight)

Overall rating of effects on baseline factors **Low**

See section 5.8 for overall visual impact rating.

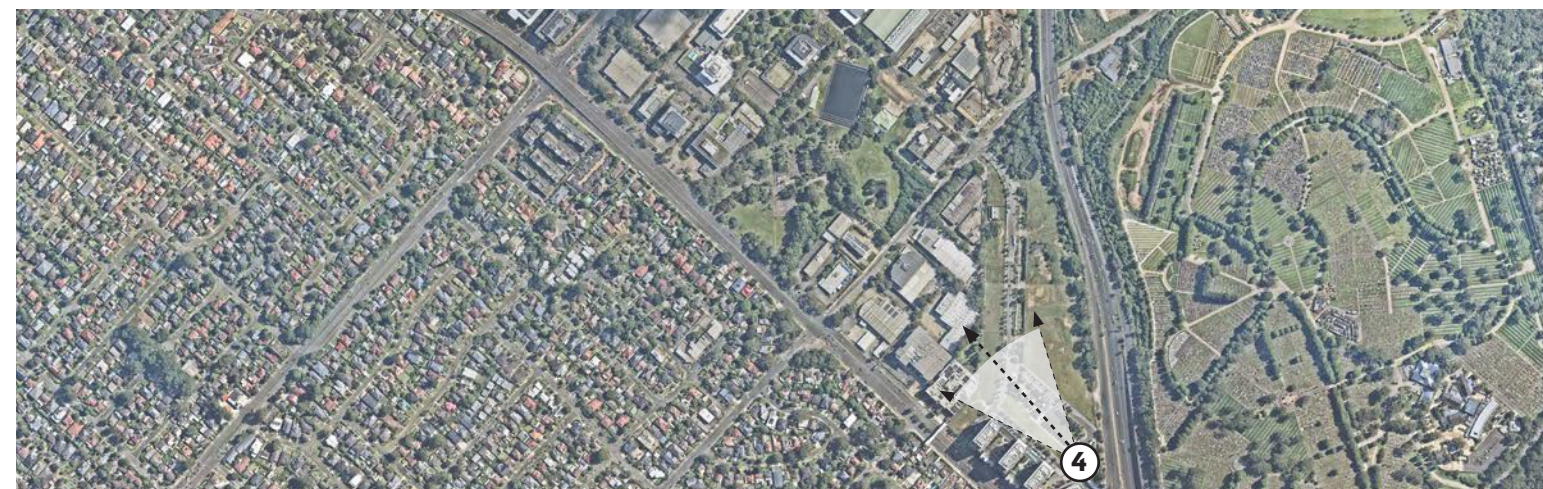


Figure 24 Viewpoint location.



Figure 25 Viewpoint 07 existing view.



Figure 26 Viewpoint 07 photomontage.

4.3 PRIVATE DOMAIN VIEWS

INTENT OF *TENACITY*

The extent and reasonableness of private domain view loss is typically assessed against the Land and Environment Court of New South Wales planning principle outlined in *Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours (Tenacity)*.

The planning principle has the objective of achieving a 'desirable outcome' and to reaching a planning decision about what is reasonable or not and defines a number of appropriate matters to be considered in making the planning decision. Therefore, the importance of the principle is in outlining all relevant matters and the relationships of factors to be considered throughout the process and is not simply to describe the features within a view that could be lost.

The principle identifies and rates the relative scenic value and importance of some view compositions and combinations of features compared to others. The features described were based on the particulars of that matter, for example water and areas of land-water interface, the presence of a combination of factors to create a whole view as opposed to a partial view and the presence of unique features and icons. Various combinations are attributed greater value than others and as such the loss of more highly views attracts more weight and importance when considering potential view loss. However the principle can be applied to various views and composition for example in relation to land views and city views which have scenic merit depending on their 'wholeness' or partiality and the features and combinations of features, unique items or topography etc which are present in views.

By describing the nature and predominant composition of the views *Tenacity* suggests that if there is no substantive view loss in qualitative or quantitative terms, then the threshold for proceeding to apply the principle may not be warranted.

The underlying intent in *Tenacity* requires the consideration of all relevant factors in reaching an overall view impact rating. Factors include:

- Scenic quality of the view including consideration of the predominant character; its intactness, wholeness or partiality, and whether the composition includes particular features for example 'icons' etc.
- Formal presentation (site boundary) of the dwelling in relation to the proposed development
- Internal room types and uses for the entire dwelling including an assessment of all potential view loss from the dwelling or entire residential flat building including views that will be unaffected,
- Ownership of space through or over which a view is gained,
- Remaining view composition,
- Reasonable development potential of site and,
- Overall reasonableness of potential view loss in the context of a proposal compliance with relevant controls and objectives.

4.4 POTENTIAL PRIVATE DOMAIN VIEW LOSS

As part of fieldwork observations and analysis Urbis examined (externally only) surrounding residential locations and potential views from private domain locations and note the following:

- Views from Courtyard by Marriot would likely only be possible from a small number of rooms on the upper levels of the southern elevation. The buildings front and rear long elevations are orientated to the south-east and north-west and would not have views of the proposal due to the angle of the building apart from external terraces on the top level. Views from the lower levels of the southern elevation would likely not be possible due to surrounding built form and vegetation (Photo 10).
- Views towards the site from the northern block of residential flat building development 'Gordon Macquarie' south of the site are possible and likely characterised by vegetation south of the site at 67 Epping Road and existing built form along Epping Road, Lane Cove Road and the wider urban expanse of Macquarie Park. These views would likely only be possible from mid and upper level apartments due to views to the site being blocked by the Epping Road flyover (Photo 12).
- Views are possible from mid and upper level dwellings within Macquarie Gardens approximately 690m north of the site. The proposal would be visible from dwellings with south facing views which are likely characterised by a wide expanse of existing commercial and industrial development and vegetation within Macquarie Park (Photo 13) where the proposal would be unlikely to appear as a visually incompatible or unexpected element to the existing view.
- Residential development south of the site is characterised by low density, detached single and double storey dwellings. Due to road and building alignment, underlying topography and intervening built form and vegetation, private views compositions from surrounding residential locations are likely to be limited, restricted to second storey view locations and unlikely to include both the subject site and scenic and highly valued features.



Photo 10. South-west view from pedestrian entrance to Courtyard by Marriot.



Photo 11. Northern elevation of 'Gordon Macquarie' residential flat building.



Photo 12. View north from entrance to 'Gordon Macquarie' residential flat building.



Photo 13. View south from Macquarie Gardens residential flat building.

05 VISUAL IMPACT ASSESSMENT

Having determined the extent of the visual change based on the 7 representative modelled views (photomontages) Urbis have applied relevant weighting factors to determine the overall level of visual impacts or importance of the visual effects. The factors have been considered in relation to the visual effects to provide up-weight or down-weights and to determine a final impact rating.

The weighting factors include sensitivity, visual absorption capacity and compatibility with urban features.

5.1 SENSITIVITY

The overall rating for view place sensitivity was weighted according to the influence of variable factors such distance, the location of items of heritage significance or public spaces of high amenity and high user numbers.

The proposal is not located in close proximity to any heritage items or significant areas of public open recreations space where views of the proposal would be visible. The proposal is located in a prominent position with a high number of visual receivers which includes vehicles, pedestrians, cyclists and Metro users.

While there is a high number of viewers from these public domain locations, the views would typically be for short durations of time from moving situations. Further, given their role as major urban transport corridors, these locations have low amenity value.

As such, the view place sensitivity is rated as low.

5.2 PHYSICAL ABSORPTION CAPACITY

Physical Absorption Capacity (PAC) means the extent to which the existing visual environment can reduce or eliminate the perception of the visibility of the proposed redevelopment.

PAC includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. It also includes the extent to which the colours, material and finishes of buildings and in the case of buildings, the scale and character of these allows them to blend with or reduce contrast with others of the same or closely similar kinds to the extent that they cannot easily be distinguished as new features of the environment.

Prominence is also an attribute with relevance to PAC. It is assumed in this assessment that higher PAC can only occur where there is low to moderate prominence of the proposal in the scene.

- Low to moderate prominence means:
 - Low: The proposal has either no visual effect on the landscape or the proposal is evident but is subordinate to other elements in the scene by virtue of its small scale, screening by intervening elements, difficulty of being identified or compatibility with existing elements.
 - Moderate: The proposal is either evident or identifiable in the scene, but is less prominent, makes a smaller contribution to the overall scene, or does not contrast substantially with other elements or is a substantial element, but is equivalent in prominence to other elements and landscape alterations in the scene.

The existing visual environment has a low capacity to absorb the visual changes demonstrated in the assessed views. While both the immediate and more distant context includes a high level of built form and large, mature vegetation, the proposal's height allows for views to mid and upper sections of the proposed buildings from both close and more distant view places.

5.3 VISUAL COMPATIBILITY

Visual Compatibility is not a measure of whether the proposal can be seen or distinguished from its surroundings. The relevant parameters for visual compatibility are whether the proposal can be constructed and utilised without the intrinsic scenic character of the locality being unacceptably changed. It assumes that there is a moderate to high visibility of the project to some viewing places. It further assumes that novel elements which presently do not exist in the immediate context can be perceived as visually compatible with that context provided that they do not result in the loss of or excessive modification of the visual character of the locality.

A comparative analysis of the compatibility of similar items to the proposal with other locations in the area which have similar visual character and scenic quality or likely changed future character can give a guide to the likely future compatibility of the proposal in its setting.

The proposal has a medium-high level of visual compatibility with the existing Macquarie Park Commercial Core. The buildings have a comparable floorplate size to the existing buildings on site and in surrounding Lots, however the proposed buildings are typically of a greater height than surrounding buildings which results in an increased perception of bulk and scale. We note that the E2 (Commercial Centre) zoning that the proposal is located includes data centres as a permissible land use and as such the visual character and scale of the proposal has been anticipated.

The Macquarie Park Innovation Precinct Strategic Master Plan identifies seven 'neighbourhoods' that are intended to create distinct character areas. The proposal is located within *Gari Nawi (Saltwater Canoe)* - Macquarie Living Station neighbourhood. Design criteria for this neighbourhood includes:

- Taller buildings should be centred around the metro station and the new Activity Hub to create identity and a hierarchy of place within the neighbourhood.
- The design of taller buildings should allow for a permeable and interesting skyline.
- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.

In our opinion, the proposal is compatible with the desired future character and land uses within Macquarie Park Innovation Precinct Strategic Master Plan.

5.4 VIEWING PERIOD

Viewing period in this assessment refers to the influence of time available to a viewer to experience the view to the site and the visual effects of the proposed development. Longer viewing periods, experienced either from fixed or moving viewing places such as dwellings, roads or waterways, provide for greater potential for the viewer to perceive the visual effects.

Visual effects of the proposal with regard to viewing periods from the public domain are low, typically from moving viewing situations (both pedestrian and vehicle) and experienced for short periods from surrounding roads.

5.5 VIEWING DISTANCE

Viewing distance can influence on the perception of the visual effects of the proposal which is caused by the distance between the viewer and the development proposed. It is assumed that the viewing distance is inversely proportional to the perception of visual effects: the greater the potential viewing distance, experienced either from fixed

or moving viewing places, the lower the potential for a viewer to perceive and respond to the visual effects of the proposal.

The visual catchment of the site includes close views from Lane Cove Road and Waterloo Road. Medium and long distance views to the site and proposal decrease in proportion to distance due to the highly urbanised context around the site. The high level of intervening built form and vegetation surrounding the site has a significant blocking effect on the proposal, particularly mid and lower sections of the proposal. Views of upper parts of the proposed buildings are often restricted to viewpoints from elevated locations at which point the proposal is viewed in a wide visual context with other built form elements.

5.6 SIGNIFICANCE OF RESIDUAL VISUAL IMPACTS

The final question to be answered after the mitigation factors are assessed, is whether there are any residual visual impacts and whether they are acceptable in the circumstances. These residual impacts are predominantly related to the extent of permanent visual change to the immediate setting.

In terms of the urban component of the development, residual impacts relate to individuals' preferences for the nature and extent of change which cannot be mitigated by means such as colours, materials and the articulation of building surfaces. These personal preferences are to, or resilience towards change to the existing arrangement of views. Individuals or groups may express strong preferences for either the existing, approved or proposed form of urban development.

The residual impacts are low and acceptable given the highly urbanised location of the site where larger scale, contemporary built form is likely to be anticipated by viewers. The development is compatible with its surrounding visual context and the desired future character of the area.

5.7 APPLYING THE 'WEIGHTING' FACTORS

To arrive at a final level of significance of visual impact, the weighting factors are applied to the overall level of visual effects.

The level of visual effects generated ranged from nil to high (with the highest effects for each modelled viewpoint relating to distance and therefore would generate the same effect regardless of the type and scale of proposal). The level of visual effects were rated as low to medium for the majority of baseline factors including scenic quality, visual character and view loss and blocking effect.

5.8 OVERALL VISUAL IMPACTS

VP1 - Medium

VP2 - Medium

VP3 - Medium-Low

VP4 - Low-Medium

VP5 - Nil

VP6 - Low-Medium

VP7 - Low

Taking into consideration the existing visual context and baseline factors against which to measure change, the level of visual effects of the proposed development and in the context of additional weighting factors, the visual impacts of the proposed development were found to be acceptable.

06 CONCLUSION

- In our opinion the proposed development creates low visual effects on the majority of baseline factors such as visual character, scenic quality and view place sensitivity from public domain view locations.
- Intervening buildings and vegetation block the majority of views to the proposal from medium and long distance locations and restricts visibility to close view places.
- The proposal is of a similar height and scale to buildings immediately surrounding it including the Susan Wakil Health Building and Royal Prince Alfred Hospital.
- The public domain view place locations are rated as having a low to medium-low visual quality.
- Views to surrounding heritage items are not blocked by the proposal from the assessed viewpoints.
- The proposal appears as a contemporary companion to the existing Susan Wakil Health Building, is highly compatible and can be physically absorbed within close and medium view compositions.
- Potential visual impacts of the development on the adjacent HCA are limited and reduced by the central location and 'cluster' of large health related buildings. These factors combine to create a spatial separation in relation to the HCA and as such allow it to remain visually distinct and buildings within to remain distinct.
- The clearest view of the proposal is from the south (view 4) where the proposed development will be visible but effectively replaces views to an existing contemporary built form with the proposed building and therefore does not generate any significant visual impact.
- No views identified within the University of Sydney Grounds Conservation Management Plan 2017 blocked by the proposal.
- Considering the visual effects of the proposal and view impacts on both the public and private domain, the proposal is considered reasonable and acceptable and can be supported on visual impact grounds.

6.1 SUMMARY

- The proposal is located within E2 (Commercial Centre) zoned land which includes data centres as a permissible land use and as such the visual character and scale of the proposal has been anticipated.
- In our opinion, the proposal is visually compatible with the desired future character and land uses within Macquarie Park Innovation Precinct Strategic Master Plan.
- Views from the public domain are predominantly limited to transport corridors and as such, visibility is typically from moving situations.
- Views from the most heavily trafficked locations (Lane Cove Road and Waterloo Road) are typically oblique views.
- Potential views of the proposal from significant public recreation space is limited by distance, intervening elements and topography, but would be possible from open sections of Lachlan's Line Park to the south-east due to underlying topography.
- Visual effects of the proposal with regard to viewing periods from the public domain are low, typically from moving viewing situations (both pedestrian and vehicle) and experienced for short periods.
- Analysis of 7 public domain photomontages found that:
 - The visual impact for the assessed viewpoints ranges from Nil to medium-low.
 - The proposal does not block views to any heritage items or areas of unique scenic quality.
- Views to the site and proposal from private domain dwellings in the wider visual catchment are limited due to intervening built form and vegetation.
- Views from private dwellings are likely to be limited to dwellings with elevated positions, such as Macquarie Gardens or from the second storey of dwellings south of the site.
- Views from private domain dwellings are unlikely to include the proposal and scenic or highly valued features in the same composition.
- The proposal can be supported on visual impact grounds.



07 APPENDIX

APPENDIX 1 ANALYSIS OF VISUAL EFFECTS

Published on the NSW Department of Planning, Industry and Environment website via major projects tab (NSW DPIE). This information has been developed by RLA and is acknowledged as being a comprehensive summary of typical descriptions regarding visual effects. The descriptions below have been used as a guide to make subjective judgements in relation to the effects and impacts of the proposed development on each modelled view.

Factors	Low Effect	Medium Effect	High Effect
Scenic quality	The proposal does not have negative effects on features which are associated with high scenic quality, such as the quality of panoramic views, proportion of or dominance of structures, and the appearance of interfaces.	The proposal has the effect of reducing some or all of the extent of panoramic views, without significantly decreasing their presence in the view or the contribution that the combination of these features make to overall scenic quality	The proposal significantly decreases or eliminates the perception of the integrity of any of panoramic views or important focal views. The result is a significant decrease in perception of the contribution that the combinations of these features make to scenic quality
Visual character	The proposal does not decrease the presence of or conflict with the existing visual character elements such as the built form, building scale and urban fabric	The proposal contrasts with or changes the relationship between existing visual character elements in some individual views by adding new or distinctive features but does not affect the overall visual character of the precinct's setting.	The proposal introduces new or contrasting features which conflict with, reduce or eliminate existing visual character features. The proposal causes a loss of or unacceptable change to the overall visual character of individual items or the locality.
View place sensitivity	Public domain viewing places providing distant views, and/or with small number of users for small periods of viewing time (Glimpses-as explained in viewing period).	Medium distance range views from roads and public domain areas with medium number of viewers for a medium time (a few minutes or up to half day-as explained in viewing period).	Close distance range views from nearby roads and public domain areas with medium to high numbers of users for most of the day (as explained in viewing period).
Viewer sensitivity	Residences providing distant views (>1000m).	Residences located at medium range from site (100-1000m) with views of the development available from bedrooms and utility areas.	Residences located at close or middle distance (<100m as explained in viewing distance) with views of the development available from living spaces and private open spaces.
View composition	Panoramic views unaffected, overall view composition retained, or existing views restricted in visibility of the proposal by the screening or blocking effect of structures or buildings.	Expansive or restricted views where the restrictions created by new work do not significantly reduce the visibility of the proposal or important features of the existing visual environment.	Feature or focal views significantly and detrimentally changed.
Viewing period	Glimpse (e.g. moving vehicles).	Few minutes to up to half day (e.g. walking along the road, recreation in adjoining open space).	Majority of the day (e.g. adjoining residence or workplace).
Viewing distance	Distant Views (>1000m).	Medium Range Views (100- 1000m).	Close Views (<100m).
View loss or blocking effect	No view loss or blocking.	Partial or marginal view loss compared to the expanse/extent of views retained. No loss of views of scenic icons.	Loss of majority of available views including loss of views of scenic icons.

Table 2 Description of visual effects.

Factors	Low Impact	Medium Impact	High Impact
Physical absorption capacity	Existing elements of the landscape physically hide, screen or disguise the proposal. The presence of buildings and associated structures in the existing landscape context reduce visibility. Low contrast and high blending within the existing elements of the surrounding setting and built form.	The proposal is of moderate visibility but is not prominent because its components, texture, scale and building form partially blend into the existing scene.	The proposal is of high visibility and it is prominent in some views. The project location is high contrast and low blending within the existing elements of the surrounding setting and built form.
Compatibility with urban/natural features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing urban and natural features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character, scale, form and spatial arrangement of the existing urban and natural features in the immediate context. The proposal introduces new urban features, but these features are compatible with the scenic character and qualities of facilities in similar settings.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the existing urban features in the immediate context which could reasonably be expected to be new additions to it when compared to other examples in similar settings.

Table 3 Indicative Ratings Table of Visual Impact Factors.

APPENDIX 2 ANALYSIS OF VISUAL IMPACTS

In order to establish an objective assessment of the extent and significance of the likely visual changes in each view, Urbis have used the following descriptions of visual impacts on baseline factors sourced from Richard Lamb and Associates (RLA).

S5 MACQUARIE PARK DATA CENTRE

PHOTOMONTAGES

PREPARED FOR
NEXTDC
JANUARY 2025

PHOTOMONTAGES PREPARED BY:

Urbis, Level 10, 477 Collins Street, MELBOURNE 3000.

DATE PREPARED :

30 January 2025

VISUALISATION ARTIST :

Ashley Poon, Urbis – Lead Visual Technologies Consultant

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

LOCATION PHOTOGRAPHER :

Nick Sisam, Urbis - Associate Director, National Design

under direction from Jane Maze-Riley, Urbis - Director, National Design

CAMERA :

Canon EOS 6D Mark II - 26 Megapixel digital SLR camera (Full-frame sensor)

CAMERA LENS AND TYPE :

Canon EF24-105mm f/3.5-5.6 IS STM

SOFTWARE USED :

- 3DSMax 2023 with Arnold 5.0 (3D Modelling and Render Engine)
- AutoCAD 2022 (2D CAD Editing)
- Globalmapper 23 (GIS Data Mapping / Processing)
- Photoshop CC 2022 (Photo Editing)

DATA SOURCES :

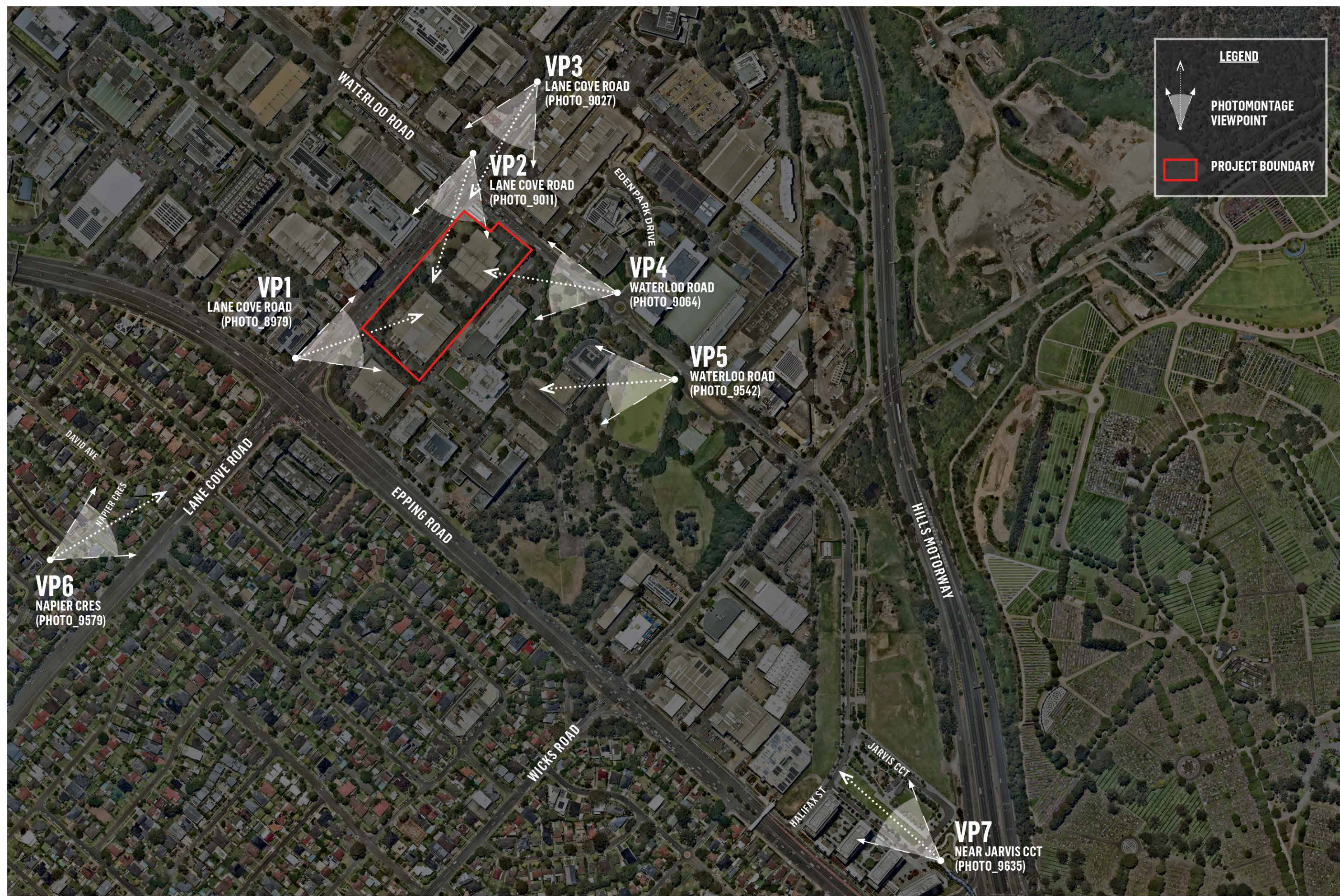
- Point cloud and Digital Elevation Models from NSW Government Spatial Services datasets (LAS and DEM) - Sydney 2020-06
- Aerial photography from Nearmap (geo-referenced JPG) - 2023-12-07
- Proposed 3D model received from Architect ([Revit](#)) - 2025-01-29

METHODOLOGY :

Photomontages provided on the following pages have been produced with a high degree of accuracy to satisfy the intent of the requirements as set out in the practice direction for the use of visual aids in the NSWLEC Policy: Use of Photomontages and Visualisation Tools, May 2024 (the Policy).

The process for producing these photomontages are outlined below:

- Photographs have been taken on site using a full-frame digital camera coupled with a quality lens in order to obtain high resolution photos whilst minimising image distortion. Photos are taken handheld at a standing height of 1.65m above natural ground level. Photos have generally been taken at a standard focal length of 50mm, or 35mm to show a wider context. A photo taken using the 50mm focal length on a full-frame camera (equivalent to 40° horizontal field-of-view / 46.8° diagonal field-of-view) is an accepted photographic standard to approximate human vision.
- Using available geo-spatial data for the site, including independent site surveys, aerial photography, digital elevation models 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, landscape and photographic viewpoints can be inserted.
- Layers of the proposed development are obtained from the designers 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.
- For each photo being used for the photomontage, the photo's survey location, camera, lens, focal length, time/date and exposure information is extracted, checked and replicated within the 3D base model as a 3D camera. A camera match is created by aligning the 3D camera with the 3D base model against the original photo, matching the original photographic location and orientation.
- From each viewpoint, a reference 3D model camera match is generated to verify an accurate match between the base 3D model (existing ground survey/vegetation etc) and original photo. A 3D wireframe image of the 3D base model is rendered in the 3D modelling software and composited over the original photo using the photo-editing software.
- From each viewpoint, the final photomontage is then produced by compositing 3D rendered images of the proposed development into the original photo with editing performed to sit the render at the correct view depth. Photographic elements are cross-checked against the 3D model to ensure elements such as foreground trees and buildings that may occlude views to the proposed development are retained. Conversely, where trees/buildings may be removed as part of the proposal, these are also removed in the photomontage.





ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW



DISTANCE TO PROJECT - 85M
ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
 VP1 (PHOTO 8979) : LOOKING ENE ALONG LANE COVE ROAD | CAMERA MATCH 3D MODEL TO PHOTO

DATE: 2025-01-30
 JOB NO: P0048038
 DWG NO: VP_1B
 REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
 VP1 (PHOTO 8979) : LOOKING ENE ALONG LANE COVE ROAD | PHOTOMONTAGE - PROPOSED DEVELOPMENT WITH VEGETATION AT 10 YEARS

DATE: 2025-01-30
 JOB NO: P0048038
 DWG NO: VP_1C
 REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
VP2 (PHOTO 9008) : LOOKING SSW ALONG LANE COVE ROAD | EXISTING CONDITIONS 2023-10-31 11:53 AEDT

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_2A
REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
VP2 (PHOTO 9011) : LOOKING SSW ALONG LANE COVE ROAD | CAMERA MATCH 3D MODEL TO PHOTO

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_2B
REV: -





ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



DISTANCE TO PROJECT - 270M
ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW



ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT

VP4 (PHOTO 9064) : LOOKING WEST ALONG WATERLOO ROAD | EXISTING CONDITIONS 2023-10-31 12:11 AEDT

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_4A
REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT

VP4 (PHOTO 9064) : LOOKING WEST ALONG WATERLOO ROAD | CAMERA MATCH 3D MODEL TO PHOTO

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_4B
REV: -





S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
 VP5 (PHOTO 9542) : LOOKING WEST ALONG WATERLOO ROAD | CAMERA MATCH 3D MODEL TO PHOTO

DATE: 2025-01-30
 JOB NO: P0048038
 DWG NO: VP_5B
 REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
 VP5 (PHOTO 9542) : LOOKING WEST ALONG WATERLOO ROAD | PHOTOMONTAGE - PROPOSED DEVELOPMENT

DATE: 2025-01-30
 JOB NO: P0048038
 DWG NO: VP_5C
 REV: -



ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



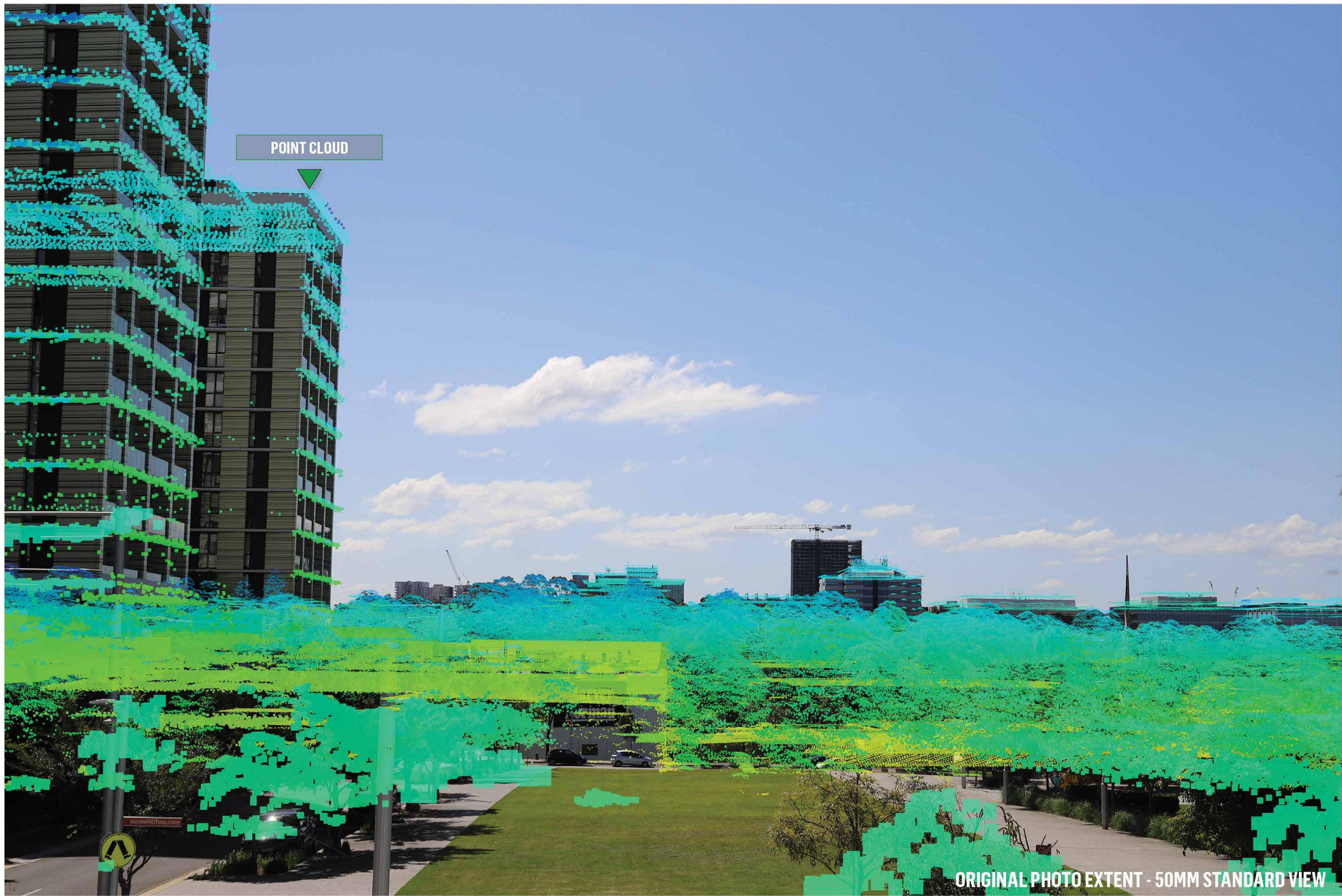
ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



DISTANCE TO PROJECT - 520M
ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



DISTANCE TO PROJECT - 950M
ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
VP7 (PHOTO 9635) : LOOKING NW FROM NEAR JARVIS CCT | CAMERA MATCH 3D MODEL TO PHOTO

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_7B
REV: -



S5 MACQUARIE PARK DATA CENTRE - VISUAL ASSESSMENT
VP7 (PHOTO 9635) : LOOKING NW FROM NEAR JARVIS CCT | PHOTOMONTAGE - PROPOSED DEVELOPMENT

DATE: 2025-01-30
JOB NO: P0048038
DWG NO: VP_7C
REV: -