Urbaine Design Group Pty Ltd, 19c/74 , The Corso, Manly, NSW 2095

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VISUAL IMPACT ASSESSMENT

FOR A PROPOSED SHOP TOP HOUSING DEVELOPMENT
LOT 100 IN DP 1009880
22-24 RAGLAN STREET, MANLY 2095

NOVEMBER 4 2025

Project Type: Proposed Shop Top Housing Development
Lot: 100/-/DP1009880
Address: 22-24 Raglan Street, Manly 2095

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1. INTRODUCTION

1.1. Scope and Purpose of Report

This Visual Impact Report has been prepared for Para-ere Holding Pty Ltd and is submitted to the Northern Beaches Council in support of a Development Application (DA) for a proposed shop top housing development at 22-24 Raglan Street, Manly 2095 (the site). The report provides an analysis of the proposed development's visual impact in relation to its visual and statutory contexts and is to be read in conjunction with the drawings and other material submitted with the development application.

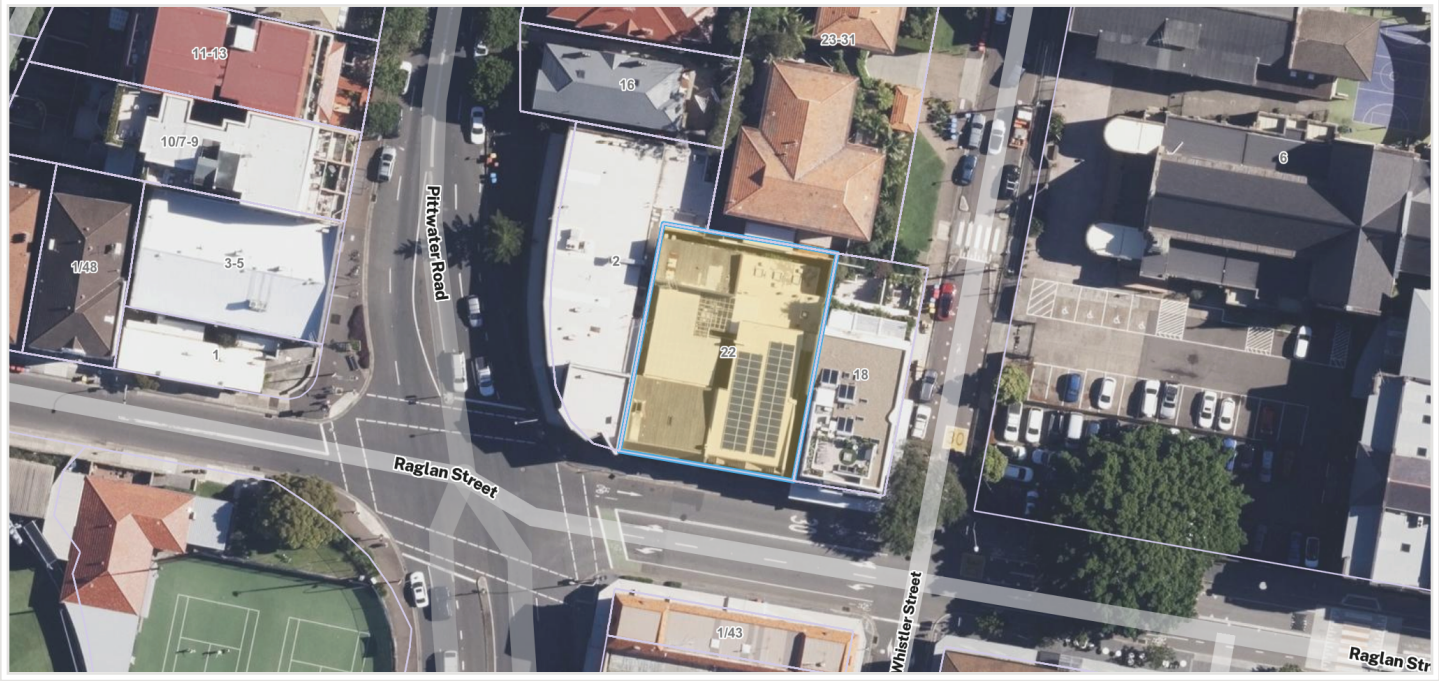

Figure 1 – Site location shown in yellow overlay.

1.2. The Proposed Development

Development Application (DA) for the proposed amendment of approved DA No. 2022/2256 at Nos. 22-24 Raglan Street, Manly. The approved development is a three-storey mixed use development, comprising a neighbourhood shop and a residential flat building with eight units, and associated works. The primary amendment to the approval is the addition of five storeys above the existing approved envelope, containing residential units; provision of in-fill affordable housing; modifications to the approved levels; and a change of use from mixed use development to shop top housing.

1.2.1. The Site and existing property

The subject site is located on the northern side of Raglan Street, between Pittwater Road and Whistler Street and is known as Nos. 22-24 Raglan Street, described as Lot 100 in DP1009880. The site is a rectangular parcel of land, with a northern boundary of 23.295 metres, an eastern boundary of 30.62 metres, a southern boundary of 23.32 metres, and a western boundary of 30.58 metres, providing a total site area of 713.3m2. The site is relatively flat, with a fall of 0.17 metres (RL 5.80 – 5.63 AHD) from west to east along Raglan Street and another 0.33 metres (RL 6.10 – 5.77 AHD) from north to south. The site is occupied by two separate two to three storey rendered structures both built to the allotment boundaries which was later amalgamated and is currently used as a backpackers accommodation, known as "Stoke Beach House". The development presents to the streetscape as a part two and part three storey rendered development with a terracotta mansard roof form to the street, with two dormers and a series of steel skillion roof forms beyond the façade. The hostel currently provides 33 rooms for rent.

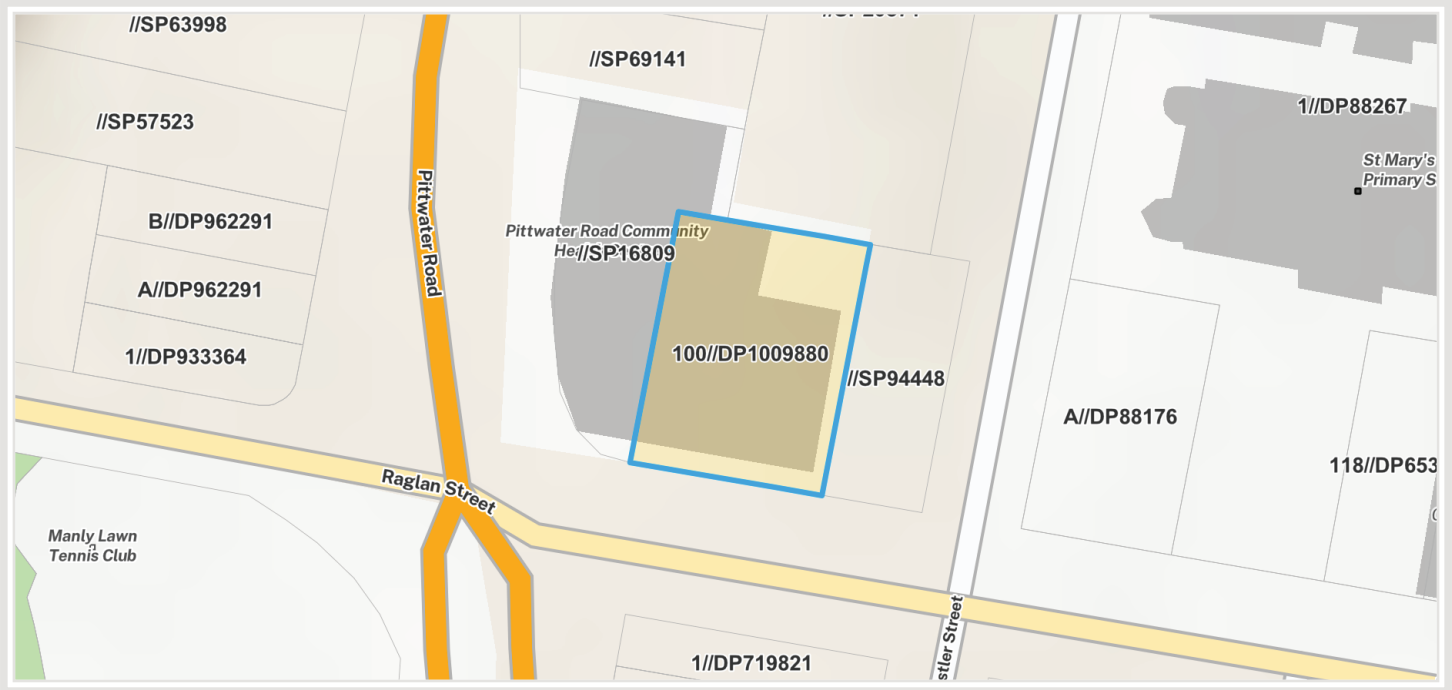

Figure 2 – Subject site shown in yellow overlay.

1.3. Proposed Land Use and Built Form

The proposed Amending DA will accommodate an eight storey shop top housing development (total 15 units, with 3 of these being for affordable housing), with basement parking, landscaping and associated works. See Figures 3 and 4 for

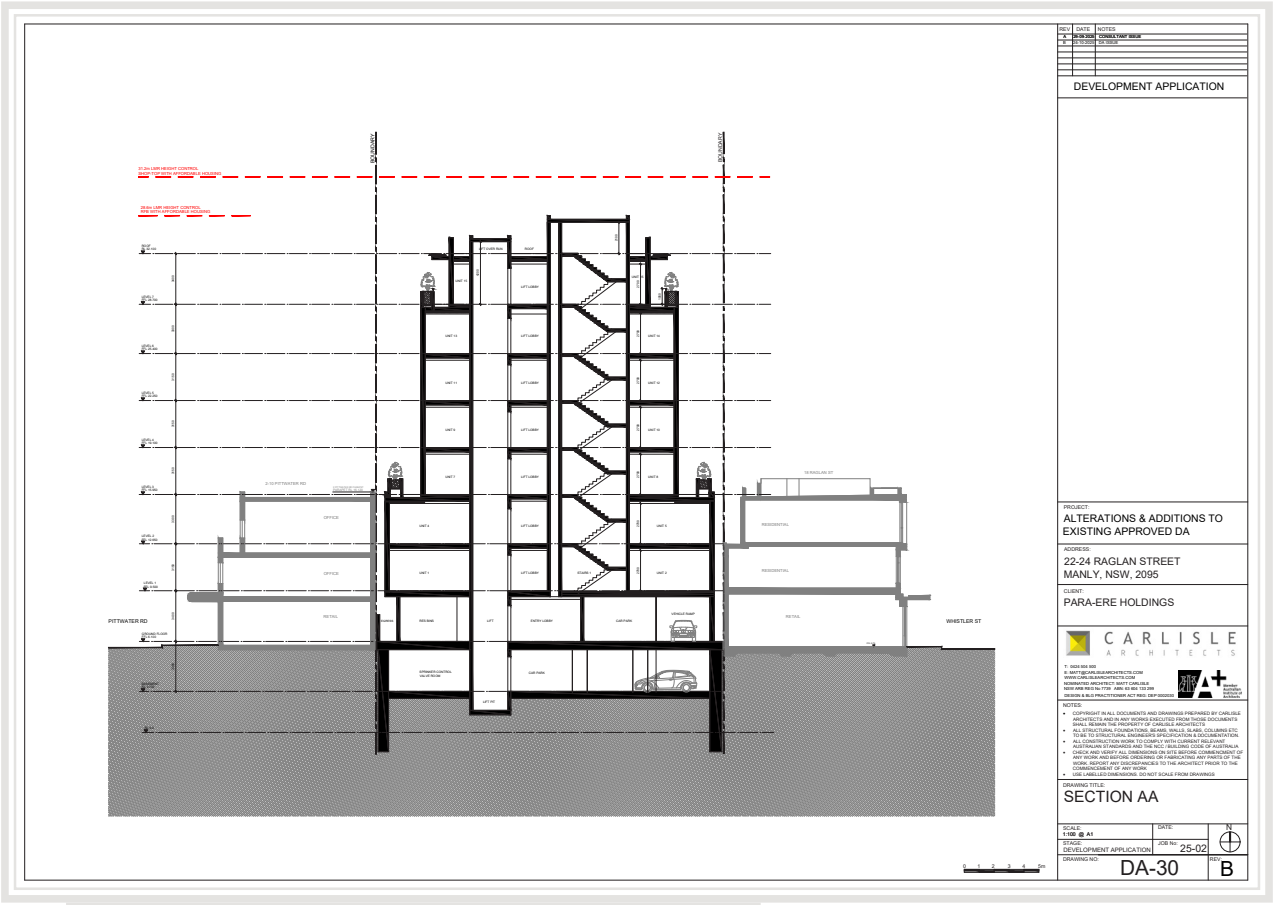

Figure 3 – Section of the proposed design by Carlisle Architects.

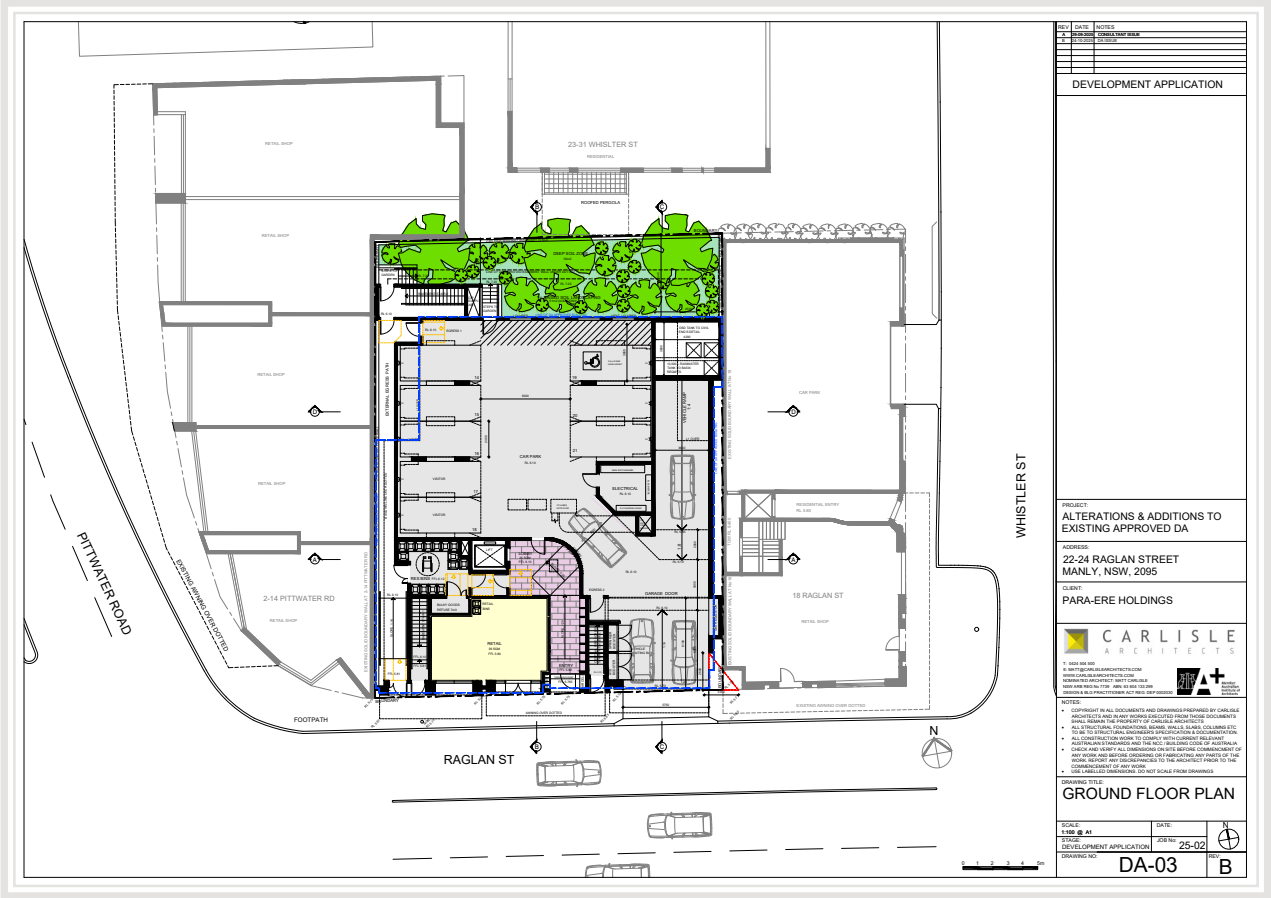

Figure 4 – Ground floor plan of the proposed design by Carlisle Architects.

1.4. Methodology of Assessment

The methods used by Urbaine, for the generation of photomontaged images, showing the proposed development in photomontaged context are summarised in an article prepared for New Planner magazine in December 2018 and contained in Appendix A. A combination of the methods described were utilised in the preparation of the photomontaged views used in this visual impact assessment report.

1.4.1. Process

Survey, plans, elevations and model of the proposal were sourced from the architect , Carlisle Architects and aligned to the scene using the survey information from Bee & Lethbridge Pty Ltd Surveyors, which accompanies the DA submission.

A drone assessment was undertaken and triangulated into a 3D point cloud which was aligned to ground control points using a RTK GNSS rover with NTRIP corrections and local model from Aerometrix. This was placed into the scene and further verified against the survey DWG and a wider LIDAR point cloud from the Intergovernmental Committee on Surveying and Mapping.

Virtual cameras were placed into the 3D model to match various selected viewpoints, in both height and position. These locations were measured on-site using a survey provided. From these cameras, rendered views have been generated and photomontaged into the existing photos, using the ground plane for alignment at standing height 1600mm.

The final selection of images shows these stages, including the block montage of the original development application and concluding with an outline, indicating the potential visual impact and view loss. For the purposes of statutory requirements, the images within the report are of a standard lens format.

1.4.2. Assessment Methodology

There are no set guidelines within Australia regarding the actual methodology for visual impact assessment, although there are a number of requirements defined by the Land and Environment Court (LEC) relating to the preparation of photomontages upon which an assessment can be based.

Where a proposal is likely to adversely affect views from either private or public land, Council will give consideration to the Land and Environment Court's Planning Principle for view sharing established in Tenacity Consulting v Warringah Council [2004] NSWLEC 140. This Planning Principle establishes a four-step assessment to assist in deciding whether or not view sharing is reasonable:

- *Step 1: assessment of views to be affected.*
- *Step 2: consider from what part of the property the views are obtained.*
- *Step 3: assess the extent of the impact.*
- *Step 4: assess the reasonableness of the proposal that is causing the impact.*

However, there is no peer review system for determining the accuracy of the base material used for visual impact assessments. As a result, Urbaine Group provides a detailed description of its methodologies and the resultant accuracy verifiability – this is contained within Appendix A.

The methodology applied to the visual assessment of the current design proposal has been developed from consideration of the following key documents:

- *Environmental Impact Assessment Practice Note, Guideline for Landscape Character and Visual Impact Assessment (EIA-N04) NSW RMS (2013);*
- *Visual Landscape Planning in Western Australia, A Manual for Evaluation, Assessment, Siting and Design, Western Australia Planning Commission (2007);*
- *Guidelines for Landscape and Visual Impact Assessment, (Wilson, 2002);*

In order to assess the visual impact of the Design Proposal, it is necessary to identify a suitable scope of publicly accessible locations that may be impacted by it, evaluate the visual sensitivity of the Design Proposal to each location and determine the overall visual impact of the Design Proposal.

Accessible locations that feature a prominent, direct and mostly unobstructed line of sight to the Project are used to assess the visual impact of the Design Proposal. The impact to each location is then assessed by overlaying an accurate visualisation of the new design onto the base photography and interpreting the amount of view loss in each situation, together with potential opportunities for mitigation.

Views of high visual quality are those featuring a variety of natural environments/ landmark features, long range, distant views and with no, or minimal, disturbance as a result of human development or activity. Views of low visual quality are those featuring highly developed environments and short range, close distance views, with little or no natural features.

Visual sensitivity is evaluated through consideration of distance of the view location to the site boundary and also to proposed buildings on the site within the Design Proposal. Then, as an assessment of how the Design Proposal will impact on the particular viewpoint. Visual sensitivity provides the reference point to the potential visual impact of the Design Proposal to both the public and residents, located within, and near to the viewpoint locations.

Figure 5: Selected private viewpoint locations for visual impact assessments with site outlined in red.

1.4.3. Site Inspections

A site inspection was undertaken to photograph the site and surrounding area to investigate:

- *The topography and existing urban structure of the local area*
- *The streetscapes and houses most likely to be affected by the Proposal*
- *Important vistas and viewsheds*
- *Other major influences on local character and amenity*

The map, see figure 5, indicates chosen locations for site photography.

Where photography was not possible or impracticable in regards to time, resources and lilkely hood of high value view loss, drone images were taken from the boundary or virtual views were used. The map, see figure 5, indicates chosen locations for site photography.

Virtual analysis was also undertaken to asses the potential for high value view loss base on relative height of the proposal and current site, see figure 6.

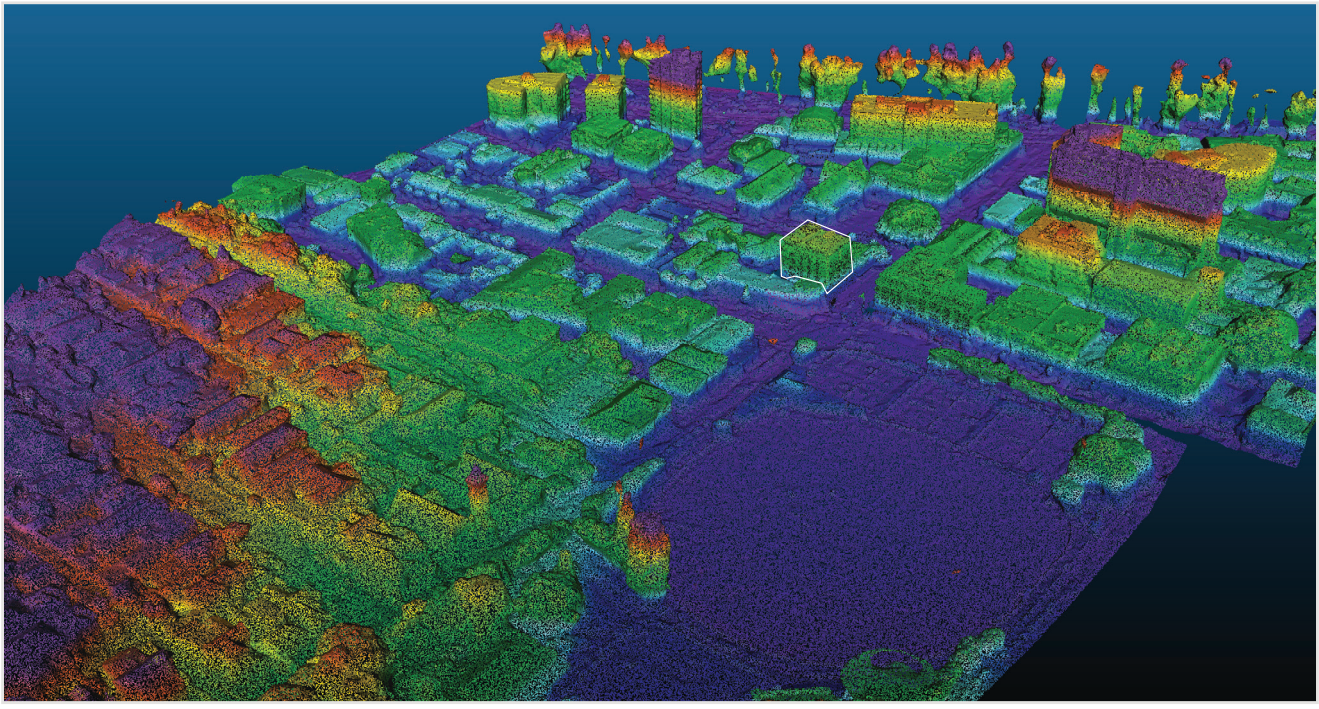

Figure 6: Neighbourhood with gradient ramp - Proposed site ridge height in yellow and above in yellow to red to purple

1.4.4. Contextual Analysis:

An analysis was undertaken of the visual and statutory planning contexts relevant to the assessment of visual impacts in a Development Application.

1.4.5. Visual Impact Analysis:

The visual impacts of the proposed development were analysed in relation to the visual context and assessed for their likely impact upon the local area and upon specific residential properties.

1.4.6. Statutory Planning Assessment:

The results of the local view impact assessment are included in Section 3 of this report.

1.5. References

The following documentation and references informed the preparation of this report:

- *Design Documentation*
- *The design drawings and information relied upon for the preparations of this report were prepared by Matt Carlisle*
- *Northern Beaches Council*

- *Photography by Urbaine Design Group*
- *Photomontages and 3D by Urbaine Design Group*
- *Survey by Lethbridge Pty Ltd - Registered Surveyor Copland C Lethbridge*

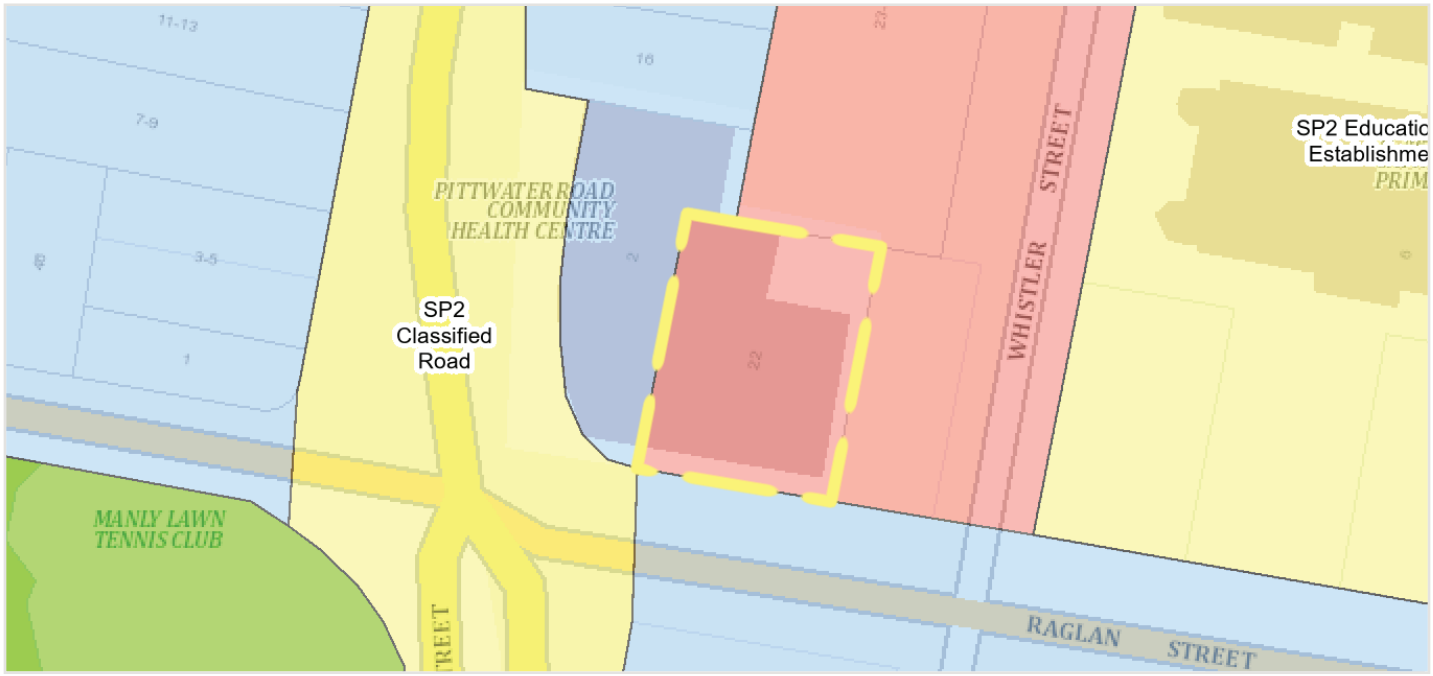

Figure 7: Land zoning map, indicating site with yellow outline.

2. THE SITE AND THE VISUAL CONTEXT

Visual impacts occur within an existing visual context where they can affect its character and amenity. This section of the report describes the existing visual context and identifies its defining visual characteristics.

Defining the local area relevant to the visual assessment of a proposed development is subject to possible cognitive mapping considerations and statutory planning requirements. Notwithstanding these issues, the surrounding local area that may be affected by the visual impact of the proposed development is considered to be the area identified on in the topographical area map, Figure 8.

Although some individuals may experience the visual context from private properties with associated views, the general public primarily experiences the visual context from within the public realm where they form impressions in relation to its character and amenity. The public realm is generally considered to include the public roads, reserves, open spaces and public buildings.

The visual context is subject to “frames of reference” that structure the cognitive association of visual elements. The “local area” (as discussed above) provides one such frame of reference. Other “frames of reference” include the different contextual scales at which visual associations are established and influence the legibility, character and amenity of the urban environment. Within the scope of this report three contextual scales are considered relevant to the analysis of the visual context and the visual impact of the proposed development.

The ‘Street Context’ provides a frame of reference for reviewing the visual relationship of the new development (and in particular its facades) in relation to the adjoining pedestrian spaces and roads. Elements of the development within this frame of reference are experienced in relatively close proximity where, if compatible with the human scale they are more likely to facilitate positive visual engagement and contribute to the “activation” of adjoining pedestrian spaces.

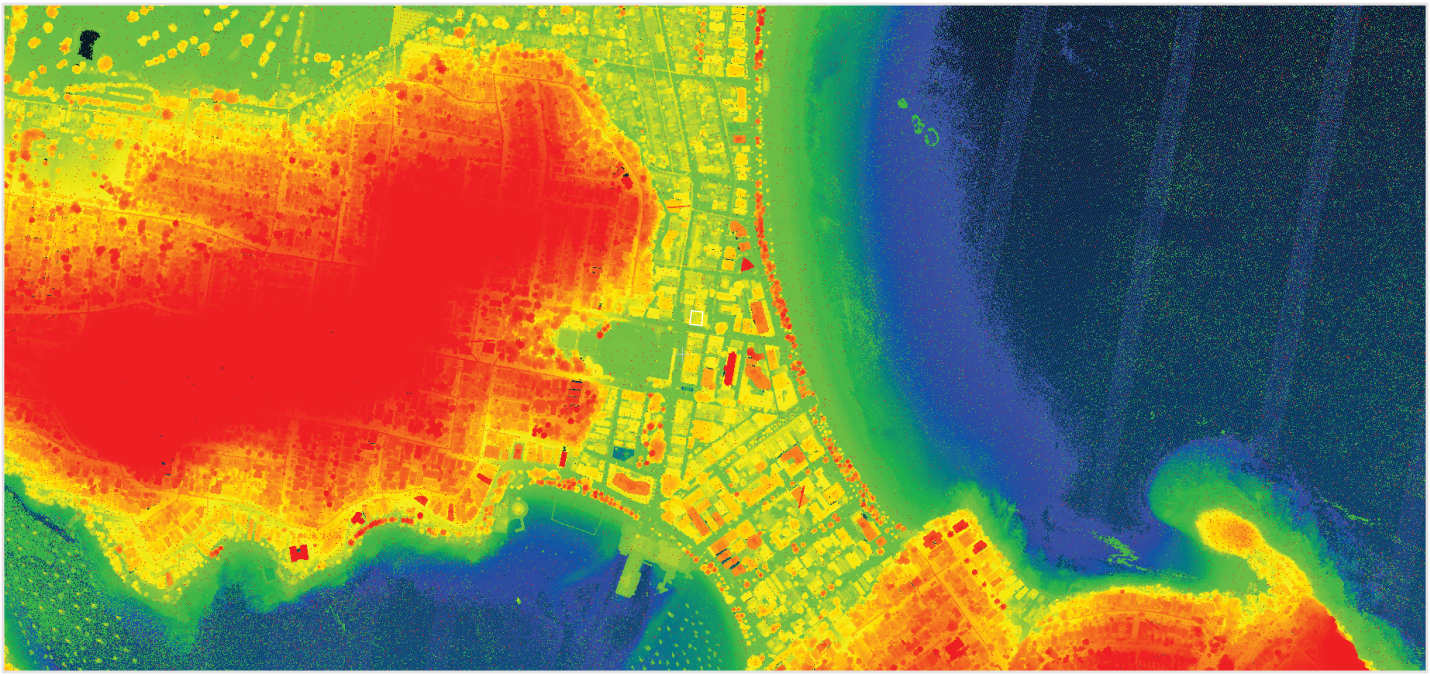

Figure 8: Lidar Point cloud including trees and buidlings with gradient ramp to show topography, proposed site in white outline.

The 'Neighbourhood Context' provides a broader frame of reference that relates the appearance of the development as a whole to the appearance of other developments within the local area. As a frame of reference, it evolves from the understanding gained after experiencing the site context and the low density of development. Within this context the relative appearance, size and scale of different buildings are compared for their visual compatibility and contribution to a shared character from which a unique "sense of place" may emerge. This frame of reference involves the consideration of developments not necessarily available to view at the same time. It therefore has greater recourse to memory and the need to consider developments separated in time and space. The neighbourhood context is relevant to the visual 'legibility' of a development and its relationship to other developments, which informs the cognitive mapping of the local area to provide an understanding of its arrangement and functionality.

The 'Town / City Context' provides a frame of reference that relates the significance of key developments or neighbourhoods to the town as a whole. The contribution that distinctive neighbourhoods make (or may potentially make) to the image of the city can be affected by the visual impact of an individual development through its influence on the neighbourhood's character and legibility. Within this context, it is also important to be aware of other proposed developments in the area.

2.1. The Visual Context

The immediate surroundings of the site feature a diverse range of residential options, including terrace houses, apartments within residential complexes, and standalone dwellings. These buildings showcase a blend of architectural styles, encompassing both traditional and contemporary designs. The area's development history spans different eras, leading to a mixture of construction materials and finishes. As a result, the buildings exhibit varying setbacks from the public domain, contributing to the overall eclectic character of the neighbourhood.

The locality has a residential, leafy character characterised by a streetscape quality of side setbacks and predominant landscape. The building heights reinforce the existing cityscape in response to the undulating character of the area.

2.2. Visual Features and Local Landmarks

Particular elements in the urban pattern, through either location and/or built form provide visual nodes and landmarks that assist in differentiating locations within the broader visual context. The following visual nodes are considered to be of the greatest significance in terms of their contribution to the character and legibility of the local and surrounding area:

The focus of all the properties is primarily to the east and visual nodes of, Manly Oval and town, South Steyne Beach, Cabbage Tree Bay, and Shelly Beach beyond this.

2.3. Streetscapes

Within the immediate and surrounding areas, the streetscapes are typical of the suburbs of beachside suburbs of the Northern Beaches being a mixture of individual houses and apartments blocks of varying scales, commercial buildings and multi-storey hotels. The landscaping is predominantly mature and well established.

As a result of the site's topography, the visual impact is primarily relevant to the residential properties to the south and east of the subject site. A large number of site photos were taken and a smaller number of specific views selected from these, relevant for private viewing locations, as described above. The selected photos are intended to allow consideration of the visual and urban impact of the new development at a local level and, specifically, from the neighbouring properties and public viewing locations.

2.4. Context of View

The context of the view relates to where the proposed development is being viewed from. The context is different if viewed from a neighbouring building, or garden, as is the case here, where views can be considered for an extended period of time, as opposed to a glimpse obtained from a moving vehicle.

2.5. Extent of View

The extent to which various components of a development would be visible is critical. For example, if the visibility assessment is of a multi-storey development proposal in a low-density context of 2 to 3 storey buildings, it would be considered to have a significant local scale visual impact, whereas if a development proposal is located in an area of a CBD containing buildings of a similar scale and height, it may be considered to have a lower scale visual impact.

The capacity of the landscape to absorb the development is to be ranked as high, medium or low, with a low ranking representing the highest visual impact upon the scenic environmental quality of the specific locality, since there is little capacity to absorb the visual impact within the landscape.

3. VISUAL IMPACT OF THE PROPOSED DEVELOPMENT

3.1. Visual Impact Assessments viewpoint locations

Visual Impact Assessments from 12 viewpoint locations – from public places and private viewpoints

3.1.1. Method of Assessment

In order to allow a quantitative assessment of the visual impact locations where view impact and view loss,

a Canon EOS Full Frame Digital Camera with fixed focal length 24mm lens was used to take all viewpoint photos, at an eye level of 1600mm. Where this was not possible a micro drone was used and or virtual equivalent view using the same 3D scene as the camera matching. See figure 9 for verification image to check the virtual scene and virtual cameras renders have a high correlation to real world images and cameras.

Figure 9: Left: Drone photo. Right: Virtual camera render verification image, showing accurate alignment and spacial separation.

The photos include location descriptions, to be read in conjunction with the site map, contained in Appendix A. Additionally, information is supplied as to the distance from the site boundary for each location and the distance to the closest built form is provided in Section 3.1.2 below.

To assess the visual impact, there are 2 relevant aspects - view loss of actual substance (landscape, middle and distance view elements etc.) and also direct sky view loss. To a large extent, the value associated with a view is subjective, although a range of relative values can be assigned to assist with comparing views. Figure 9 is a scale of values from 0 to 15, used to allow a numeric value to be given to a particular view, for the purposes of comparison.

On the same table are a series of values, from zero to 15, that reflect the amount of visual impact.

The second means of assessment relates to assigning a qualitative value to the existing view, based on criteria of visual quality defined in the table – see figure 9.

The % visual content is then assessed, together with a visual assessment of the new development's ability to blend into the existing surroundings.

TENACITY / SCALE / VALUE		VISUAL IMPACT	VISUAL QUALITY
NIL	0	**NEGLIGIBLE** No negative impact on the pre-existing visual quality of the view	N/A
NEGILIBLE	1	**LOW** A minor negative impact on the pre-existing visual quality of the view Examples: minor impact on natural landscapes no impact on iconic views impact on small number of receivers significant distance between the development and receiver	Predominant presence of low quality man made features Minimal views of natural formations (e.g. cliffs, mountains, coastlines, waterways, ridges etc.) Uniformity of land forms
	2		
	3		
MINOR	4		
	5		
	6	**MEDIUM** A medium negative impact on the pre-existing visual quality of the view Examples: moderate impact on iconic views or natural landscapes impact on moderate number of receivers located nearby the receiver	Presence of some natural features mixed with manmade features Some views of distinct natural formations (e.g. cliffs, mountains, coastlines, waterways, ridges etc.)
MODERATE	7		
	8		
	9		
SEVERE	10		
	11	**HIGH** A high negative impact on the pre-existing visual quality of a view Examples: loss of iconic view impact on significant number of receivers owershadowing effect directly adjacent the receiver	Predominantly natural features Minimal manmade features, however if present of a high architectural standard Significant views of distinct natural formations (e.g. cliffs, mountains, coastlines, waterways, ridges etc.) Presence of iconic regional views of landmark features
	12		
DEVASTATING	13		
	14		
	15		

Figure 9: Urbaine Group Assessment Table

3.1.2. Assessment at selected viewpoints

VIEWPOINT 01

Existing site photo - Ivanhoe Park

From standing position on Manly Oval
RL + 6.45m - Distance to boundary 191.22m - Bearing direction 70.49 °

Camera - Canon RP
Lens - 24mm

Photomontage of Proposal

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Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 55%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 35% : 65%*
- *Existing Visual Assessment Scale no: 9 /15 & Visual Impact Assessment Scale no: 5 /15*

This is a static, public viewpoint, taken from Manly Oval, located within the Ivanhoe Park. This viewpoint is situated near the southern edge of the playing field. Directly in the foreground visible is the grassed playing surface, with a low white boundary fence around this. Beyond the playing field, a combination of residential and commercial buildings delineates the northern and northeastern boundaries, along Belgrave Street. To the northeast, a number of low-rise residential properties can be observed. Toward the east-northeast, a series of taller residential and commercial structures are seen in the mid and far distance. An array of mature trees delineates the eastern boundary of the oval, serving as a natural barrier between the oval and the surrounding streets. In the distant background, the Norfolk pines along the Manly beach front can be discernibly identified.

The visual impact from this position can be assessed as Minor, given the fact that the new proposal integrates well with the existing environment in bulk, scale and colour, sitting below the upper roof outlines of other apartment buildings to the east. Additionally, the existing trees will conceal much of the lower elements of the new proposal and view change is primarily to sky.

Rose Bay Marina Pty Limited v Woollahra Municipal Council Assessment Summary:

- *Value of view: Medium*
- *View location: Public viewpoint - Manly Oval.*
- *Extent of impact: Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and the view loss is, for the mostpart, to sky view beyond the site.

VIEWPOINT 02

Existing site photo - Raglan Street

From standing position on the southern pavement, facing northwest
RL + 4.90m - Distance to boundary 208.93m - Bearing direction 284.40 °

Camera - Canon RP
Lens - 24mm

Photomontage of Proposal

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Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 3%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 0% : 100%*
- *Existing Visual Assessment Scale no: 3 /15 & Visual Impact Assessment Scale no: 1 /15*

This is a static, public viewpoint, taken from the southern pavement of Raglan St, facing in a west direction away from the beach with Manly beach located to the east of this viewpoint. The street extends westward, with a designated bicycle lane running along the southern side. to the northern side there is a wide pedestrian walkway. In the midground, trees and additional structures can be seen further west, indicating the continuation of Raglan Street, toward Belgrave Street and Manly Village. The far distant western view shows the road rising in elevation to the northern side of the Manly Oval.

The visual impact from this location can be assessed as Negligible, with the new proposal significantly concealed by the established foliage along Raglan Street.

Rose Bay Marina Pty Limited v Woollahra Municipal Council Assessment Summary:

- *Value of view: Low.*
- *View location: Public viewpoint - pavement.*
- *Extent of impact: Negligible*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the view loss is minimal and to sky only.

VIEWPOINT 03

Existing site photo - No.7-9 Pittwater Road

From approximate standing height on the level 4 balcony
RL + 19.24m - Distance to boundary 57.13m - Bearing direction 102.42 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

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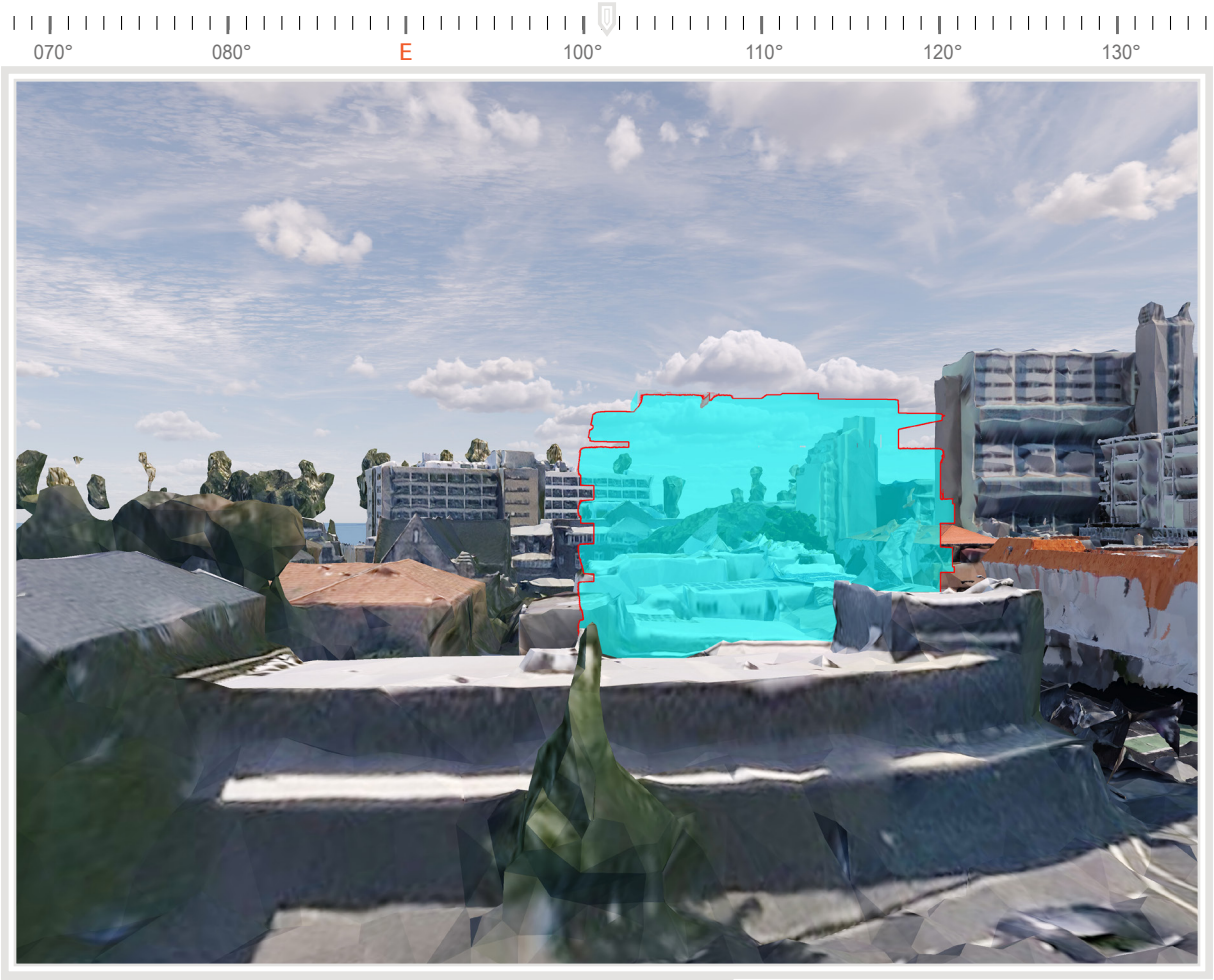

Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 67%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 68% : 32%*
- *Existing Visual Assessment Scale no: 7 /15 & Visual Impact Assessment Scale no: 8 /15*

This is a private viewpoint taken from an elevated position approximately level 4, No 7-9 Pittwater Road facing in a eastward direction. In the midground to the south-southeast, the intersection with Raglan St can be observed with low rise commercal buildings located around the intersection and small trees is interspersed among the buildings. In the background, the mid-rise apartments of Manly adjacent to the beachfront with characteristic Norfolk pines of the area along the beachfront promenade with a small section of and horizon line.

The visual impact of the new proposal from this vantage point affects the roof tops and upper levels of local buildings and sight-line to Norfolk pines and the buildings located along North Steyne. The access to water view is not impacted. The extent of impact is assessed as Moderate.

Tenacity Assessment Summary:

- *Value of view: Medium.*
- *View location: Private viewpoint - Level 4 - secondary living area.*
- *Extent of impact: Moderate.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since no views of high value are impacted to the east and the modest ocean views are maintained.

VIEWPOINT 04

Existing site photo - 11-13 Pittwater Road

From approximate standing height on the level 4 balcony
RL + 18.46m - Distance to boundary 74.34m - Bearing direction 117.82 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

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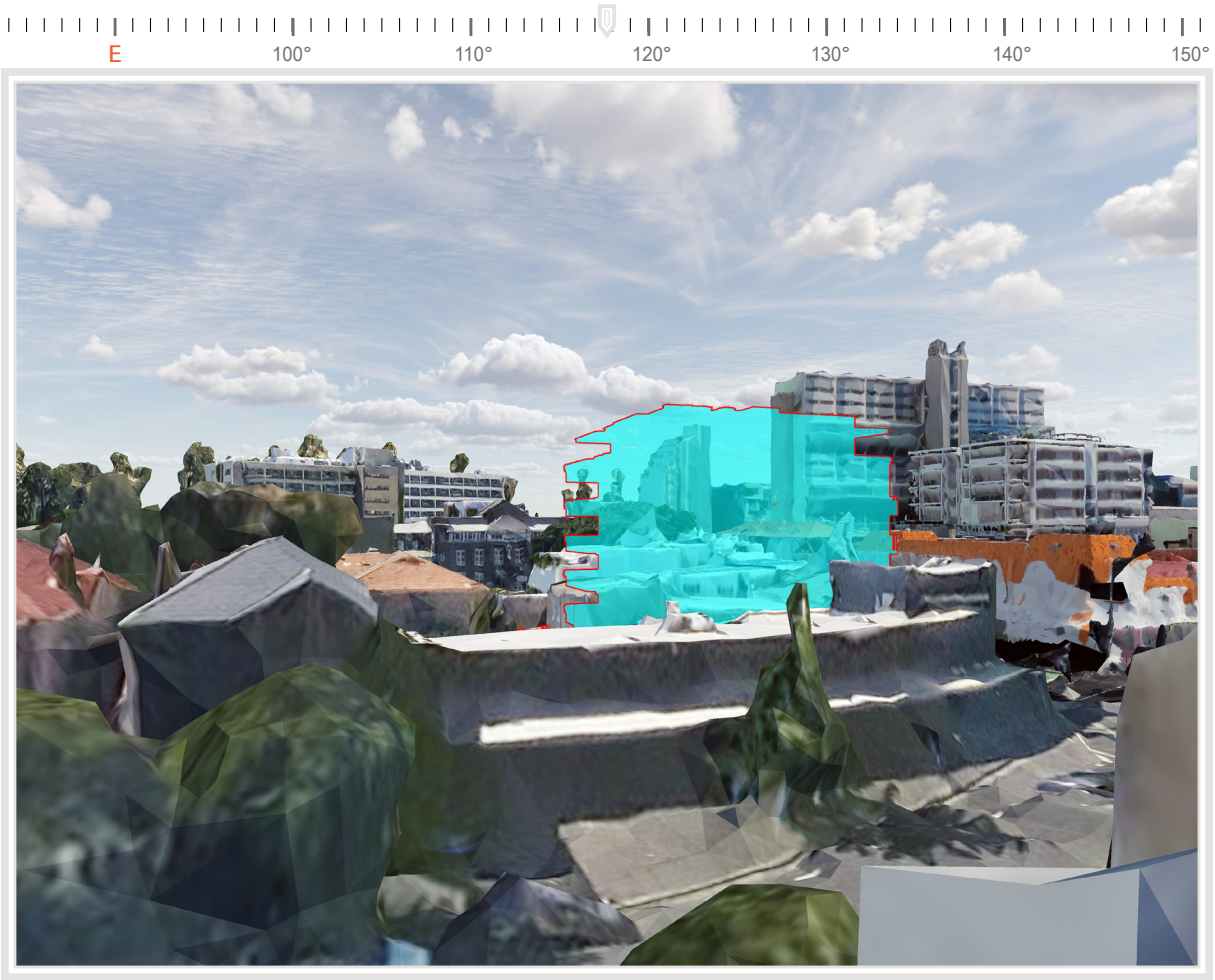


Visual impact in cyan with red outline, view gain in yellow

VC03 14-11-13 Pittwater Rd LVL04 d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 62%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 73% : 27%*
- *Existing Visual Assessment Scale no: 6 /15 & Visual Impact Assessment Scale no: 8 /15*

This is a private viewpoint taken from level 4, balcony of 11-13 Pittwater Rd, facing in a eastward direction. To the south-southeast, the intersection with Raglan St can be observed in the mid-ground features a low commercial buildings and small trees is interspersed among the buildings. In the background, the mid-rise coastal buildings Manly with Norfolk pines characteristic of the area along the beach front promenade.

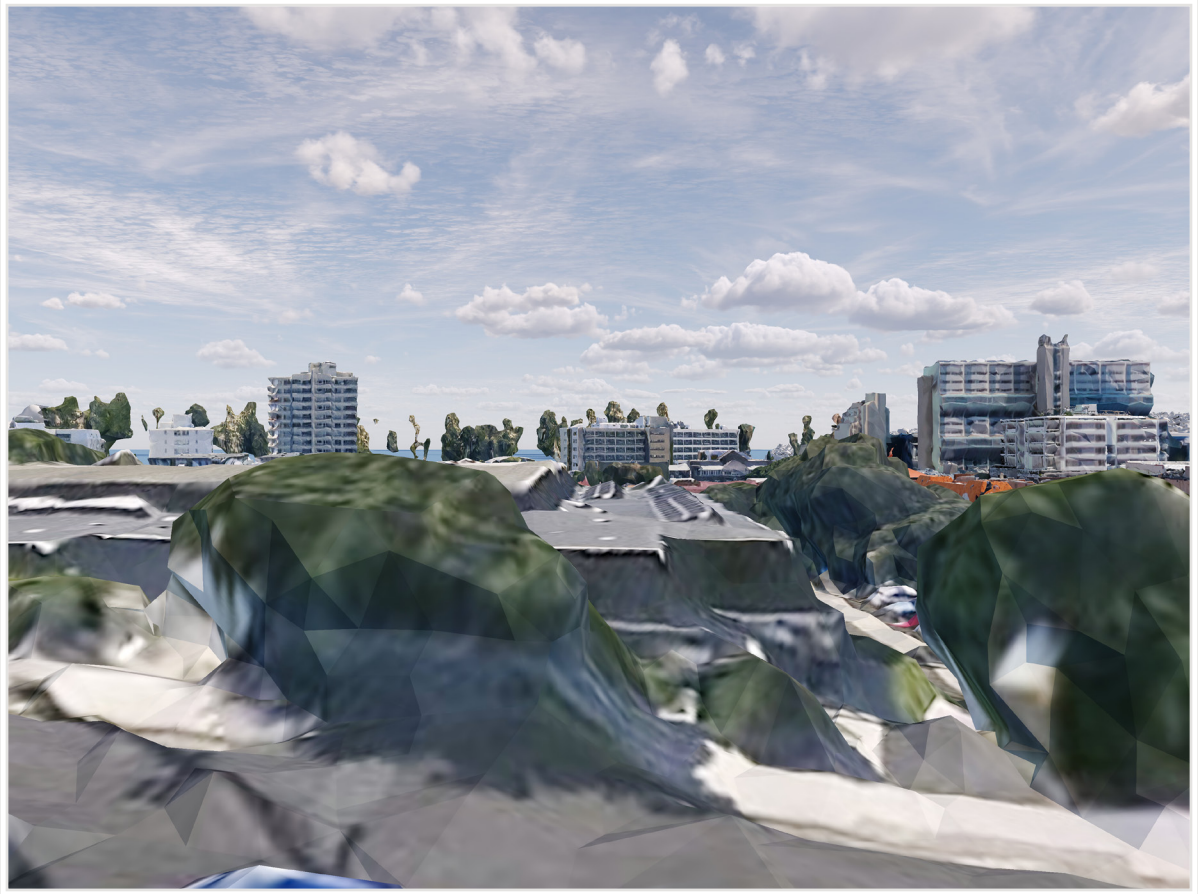
The visual impact of the new proposal from this vantage point is predominantly to the buildings and rooftops located along Raglan St and North Steyne. The extent of impact is assessed as Moderate.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Private viewpoint - Level 4 - secondary living area.*
- *Extent of impact: Moderate.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and the view loss is to buildings and sky view beyond the site.

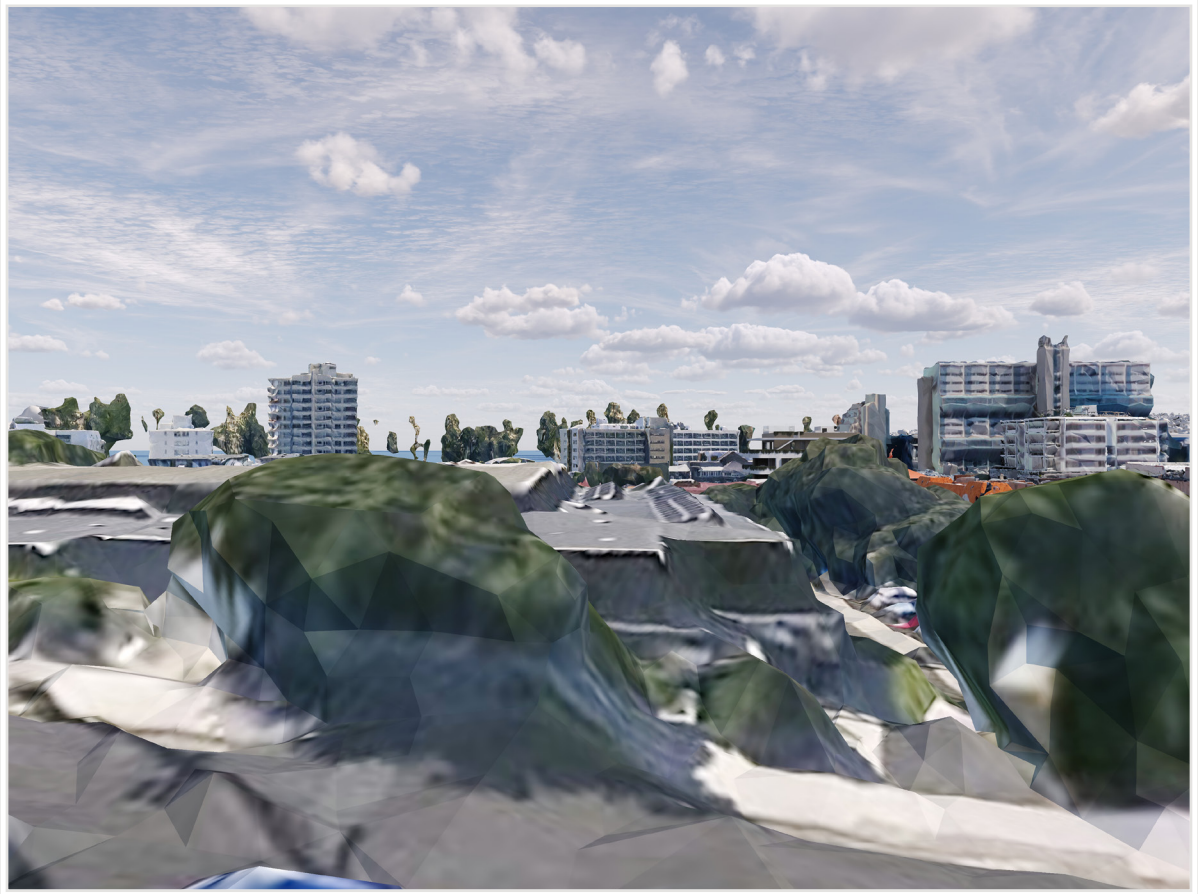
VIEWPOINT 05



Existing site photo - Kangaroo Street

From approximate standing height on the level 2 window
RL + 24.15m - Distance to boundary 160.28m - Bearing direction 98.61 °

Virtual Camera
Lens - 24mm



Photomontage of Proposal

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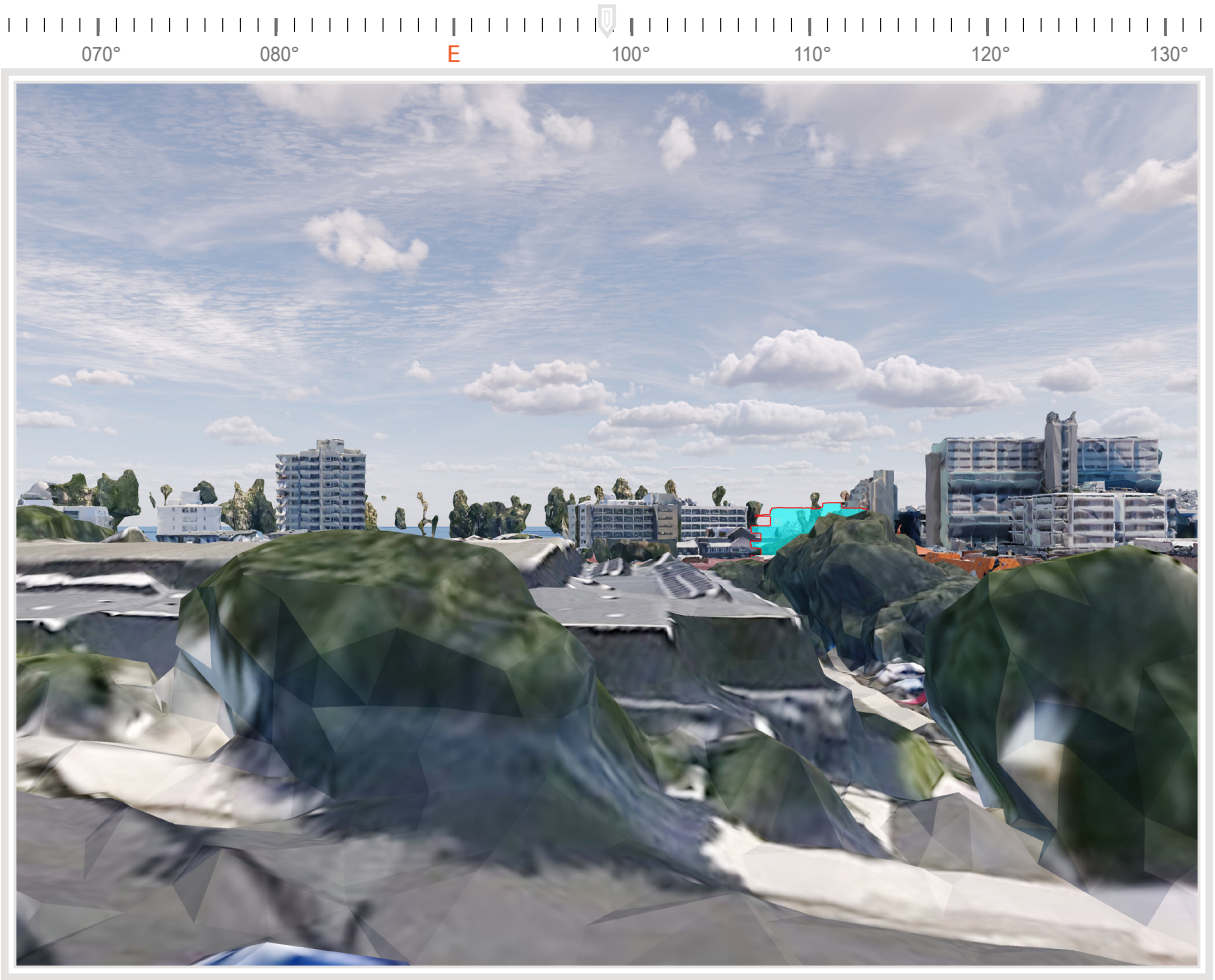


Visual impact in cyan with red outline, view gain in yellow

VC05 Unit 6-7 Kangaroo St d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 22%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 43% : 57%*
- *Existing Visual Assessment Scale no: 7 /15 & Visual Impact Assessment Scale no: 6 /15*

This is a private viewpoint, taken from a level two apartment at 7 Kangaroo St, facing in an easterly direction toward the subject site. The view looks out over tree lined street and rooftops which slope away to the south and east. In the background, the mid and high-rise buildings of Manly adjacent to the beach front can be observed, punctuating the skyline. In the distance a row of Norfolk pine trees that delineates the Manly beachfront promenade with horizon water view in-between.

The visual impact of the new proposal from this vantage point is to a small section of water view to the south east of the viewpoint and sky above. The extent of impact is assessed as Minor-to-Moderate.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Private viewpoint - level 2 living room. Primary living space.*
- *Extent of impact: Minor-Moderate.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the many of the high value components of the view remain and the view loss is to a very small area of ocean and to buildings and sky view beyond the site.

VIEWPOINT 06

Existing site photo - No. 11, Kangaroo Street

From approximate ground level balcony at standing height
RL + 29.16m - Distance to boundary 184.50m - Bearing direction 99.65 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP

Visual impact in cyan with red outline, view gain in yellow

VC06 11 Kangaroo St d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 55%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 8 /15 & Visual Impact Assessment Scale no: 5 /15*

This is a private viewpoint, taken from rear balcony of 11 Kangaroo St, facing in an easterly direction toward the subject site. The view looks out over tree lined street and rooftops which slope away to the south and east. In the background, the mid and high-rise buildings of Manly adjacent to the beach front can be observed, punctuating the skyline. In the distance a row of Norfolk pine trees that delineates the Manly beachfront promenade with horizon water view in-between and Shelly Beach and North Head in the far distance to the south east.

The visual impact of the new proposal from this vantage point is to a rooftops and buildings around Raglan Street. The extent of impact is assessed as Minor.

Tenacity Assessment Summary:

- *Value of view: Moderate*
- *View location: Upper level balcony - secondary living space.*
- *Extent of impact: Minor.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to buildings only, to the east of the site.

VIEWPOINT 07

Existing site photo - Augusta Lane

From elevated position, facing southeast
RL + 75.15m - Distance to boundary 204.45m - Bearing direction 112.56 °

Camera - UAV Drone
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP

Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 39%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 11 /15 & Visual Impact Assessment Scale no: 5 /15*

This is a dynamic, public viewpoint, taken at Augusta Lane facing southeast. In the foreground, residential rooftops are accompanied by green vegatation and palm trees. These structures are situated on slightly elevated terrain, providing a view of the vicinity towards Manly Beach. The midground displays a combination of low-rise and mid-rise buildings. Notable local landmarks, such as St Mary's Chatolic Church and Manly Oval, are identifable from this perspective. In the background, a series of high-rise buildings nearer to the Manly beachfront comes into view. Trees delimeate the beach area, marking the coastline. In the distant background, the vista extends towards Shelly Beach and North Head in the far distance to the south east.

The visual impact from this vantage point can be assessed as Minor, given the fact that the new proposal will seamlessly integrate with the existing environment, enriching the overall aesthetic of the area. Additionally, the existing trees will be substituted with the new construction, which is expected to exert a negligible and nearly imperceptible effect on the visibility of the sky

Tenacity Assessment Summary:

- *Value of view: High.*
- *View location: Pavement - public viewpoint.*
- *Extent of impact: Minor.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to parts of buildings only, to the east of the site.

VIEWPOINT 08

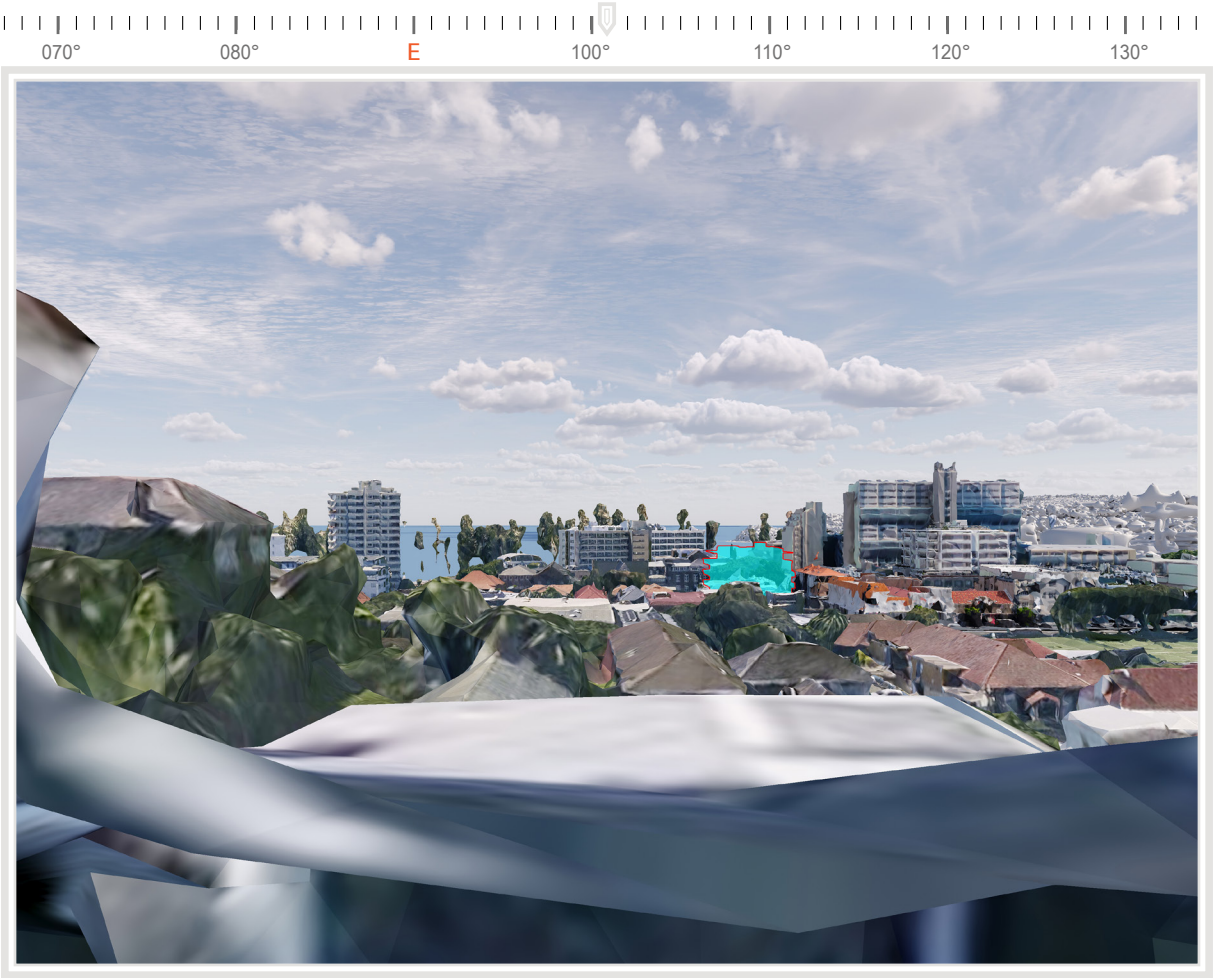
Existing site photo - No. 8, Ocean Road

From elevated position, facing east
RL + 34.54m - Distance to boundary 223.15m - Bearing direction 100.94 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP



Visual impact in cyan with red outline, view gain in yellow

VC08 6 Ocean Rd d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 39%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 10 /15 & Visual Impact Assessment Scale no: 8 /15*

This is a dynamic, public viewpoint taken from an elevated position at Ocean Road no 8, facing in an easterly direction. Lush greenery and small trees is interspersed among the buildings, enhancing the landscape. The midground displays a combination of low-rise and mid-rise buildings. Notable local landmarks, such as St Mary's Catholic Church and Manly Oval, are identifiable from this perspective. The In the background, the high-rise coastal edifices of Manly adjacent to the beachfront can be observed. In the distance a notable characteristic of the area is the row of pine trees that delineates the Manly beachfront promenade and in the far distance horizon water view in-between and North Head in the far distance to the south east.

The visual impact from this location can be assessed as Moderate. The revised proposal is designed to harmoniously integrate with the surrounding environment, ensuring that the overall visual aesthetics remain unaffected. It will minimally and nearly imperceptibly obstruct a limited portion of the vista toward the Manly beachfront.

Tenacity Assessment Summary:

- *Value of view: Medium-to-High.*
- *View location: Upper level balcony - secondary living area.*
- *Extent of impact: Moderate.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to parts of buildings only, to the east of the site.

VIEWPOINT 09

Existing site photo - No. 5 Ocean Lane

From elevated position, facing southeast
RL + 38.25m - Distance to boundary 265.77m - Bearing direction 98.60 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP

Visual impact in cyan with red outline, view gain in yellow

VC09 5 Ocean Ln d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 19%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 8 /15 & Visual Impact Assessment Scale no: 3 /15*

This is a dynamic, public viewpoint taken from an elevated position at no 5 Ocean Lane, facing in a southeasterly position, in which the foreground shows the Ocean Lane and a series of residential structures with pitched tiled roofs. Small trees is interspersed among the buildings, enhancing the landscape. In the background, the high-rise coastal edifices of Manly adjacent to the beachfront can be observed. A notable characteristic of the area is the row of pine trees that delineates the Manly beachfront promenade. To the north, the vista encompasses Manly beach, to the east, the direction leads to North Head and Shelly Beach, while the westward view is oriented toward Queenscliff and Freshwater.

The visual impact from this perspective can be assessed as Negligible, considering that the new proposal will harmoniously align with the current environment, it will enhance the overall visual appeal of the area. Additionally, the existing trees will be substituted with the new construction, is expected to exert a negligible and nearly imperceptible effect on the visibility of the tree line of Manly beachfront promenade.

Tenacity Assessment Summary:

- *Value of view: Medium.*
- *View location: Upper level balcony - secondary, outdoor living space.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to a very small area of water and parts of buildings only, to the east of the site.

VIEWPOINT 10

Existing site photo - Ocean Lane

From elevated position, facing east
RL + 81.14m - Distance to boundary 293.80m - Bearing direction 106.33 °

Camera - UAV Drone
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP

Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 27%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 9 /15 & Visual Impact Assessment Scale no: 4 /15*

This is sa dynamic, public viewpoint, taken at Ocean Lane, facing east, in which the foreground shows a series of residential structures with pitched tiled roofs. The midground transitions to larger residential complexes and St Matthews Manly church distinguished by its stone bell tower. Lush greenery and small trees is interspersed among the buildings, enhancing the landscape. In the background, the high-rise coastal edifices of Manly adjacent to the beachfront can be observed. A notable characteristic of the area is the row of pine trees that delineates the Manly beachfront promenade.

To the north, the vista encompasses Manly beach, to the east, the direction leads to North Head, while the westward view is oriented toward Queenscliff and Freshwater.

The visual impact from this perspective can be assessed as Negligible considering that the new proposal will harmoniously align with the current environment, it will enhance the overall visual appeal of the area. Additionally, the existing trees will be substituted with the new construction, is expected to exert a negligible and nearly imperceptible effect on the visibility of the tree line of Manly beachfront promenade.

Tenacity Assessment Summary:

- *Value of view: Medium.*
- *View location: Upper level balcony - secondary, outdoor living space.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to parts of buildings only, to the east of the site.

VIEWPOINT 11

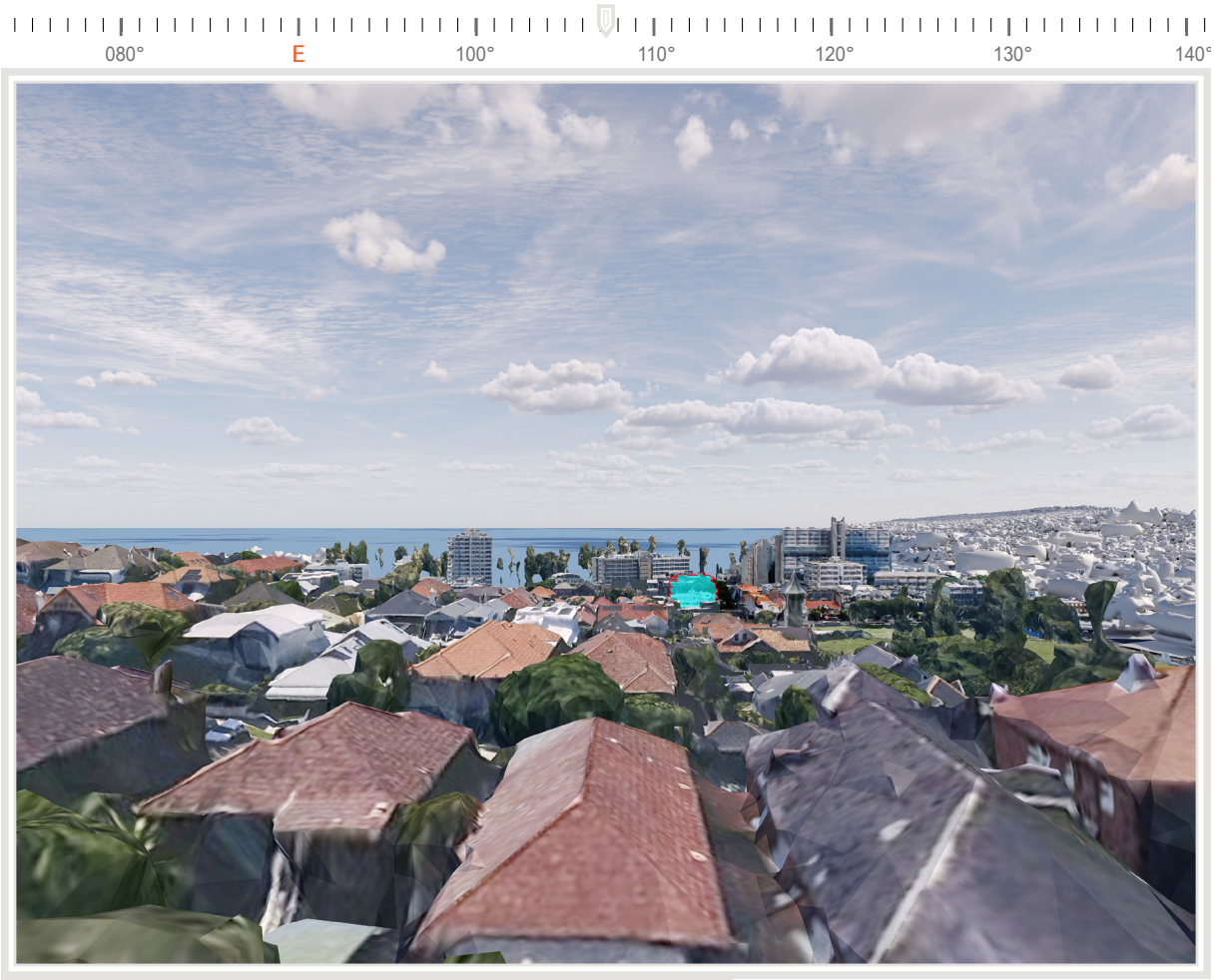
Existing site photo - No.24 Birkley Road

From elevated position LVL 3
RL + 54.21m - Distance to boundary 395.99m - Bearing direction 97.38 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP



Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 38%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 11 /15 & Visual Impact Assessment Scale no: 3 /15*

This is a dynamic, public viewpoint taken from an elevated position at Birkley Road no. 24, LVl 3, the elevated viewpoint overlooks the coastline to the east and east-northeast. In the foreground, tightly clustered residential rooftops are interspersed with patches of green vegetation and trees. The midground slopes gently downwards towards the coast, transitioning from residential homes to larger commercial buildings near the beachfront. To the north, the coastline curves towards Queenscliff and Freshwater. To the east, the beachfront corridor of Manly features mid-rise buildings and commercial establishments. To the south, the view extends toward South Steyne, The Corso, and North Head beyond the beach. The horizon presents in the background the Pacific Ocean, delineating the eastern boundary.

The visual impact from this perspective can be assessed as Negligible, the new proposal will harmoniously integrate with the current surroundings, ensuring that the overall aesthetic remains undisturbed. It will result in only a minimal obstruction of a limited portion of the view towards the Manly promenade.

Tenacity Assessment Summary:

- *Value of view: High.*
- *View location: Upper level balcony - secondary, outdoor living space.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to parts of buildings only, to the east of the site.

VIEWPOINT 12

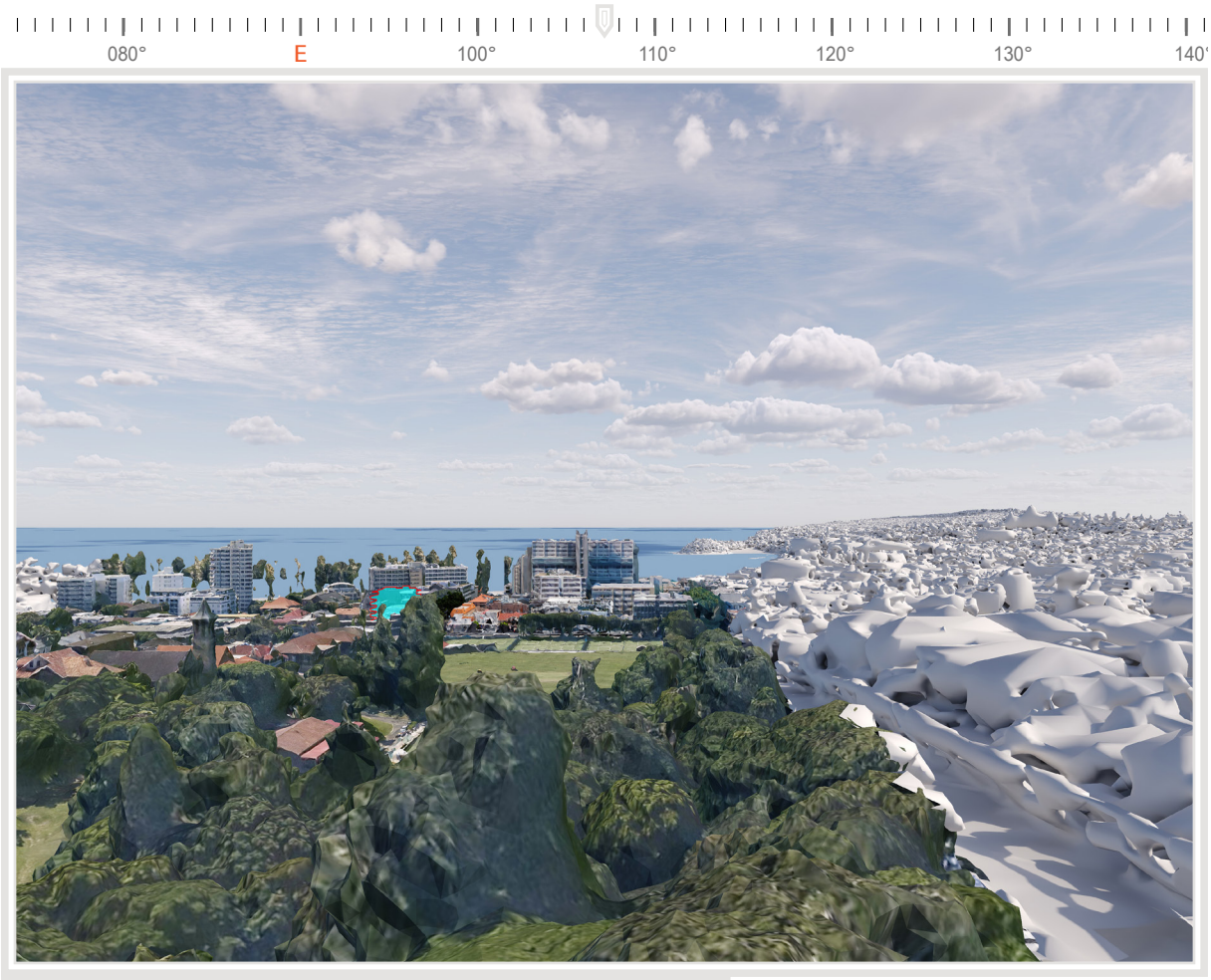
Existing site photo - No.2 Birkley Road

From elevated position, facing east
RL + 62.87m - Distance to boundary 412.61m - Bearing direction 97.29 °

Virtual Camera
Lens - 24mm

Photomontage of Proposal

urbaine DESIGN GROUP



Visual impact in cyan with red outline, view gain in yellow

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 37%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 12 /15 & Visual Impact Assessment Scale no: 3 /15*

This is a dynamic, public viewpoint taken from an elevated position at no. 2 Birkley Road, the elevated viewpoint overlooks the coastline to the east and east-northeast. In the foreground, tightly clustered residential rooftops are interspersed with patches of green vegetation and trees. The midground slopes gently downwards towards the coast, transitioning from residential homes to larger commercial buildings near the beachfront. To the north, the coastline curves towards Queenscliff and Freshwater. To the east, the beachfront corridor of Manly features mid-rise buildings and commercial establishments. To the south, the view extends toward South Steyne, The Corso, Shelly Beach and North Head beyond the beach. The horizon presents in the background the Pacific Ocean, delineating the eastern boundary.

The visual impact from this perspective can be assessed as Negligible, the new proposal is designed to harmonize with the current environment and will not interfere with its visual integrity. It will only marginally obstruct a limited portion of the sightline toward the Manly beachfront

Tenacity Assessment Summary:

- *Value of view: High.*
- *View location: Upper level balcony - secondary, outdoor living space.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and view loss is to parts of buildings only, to the east of the site.

4. SUMMARY ASSESSMENT

This Visual Impact Assessment from Urbaine Design seeks to provide an objective approach to the likely visual impact on the surrounding areas from the development proposal at Nos.22-24 Raglan Street, Manly 2095.

This Visual Impact Assessment has undertaken a review of the proposal, within its future setting and concludes that, although there are locations within the neighbouring properties that are impacted by the new development, the relevant views, as selected within the report, are all observed from areas within an 800m curtilage of the subject site.

As a result of the surrounding topography, the visual impact is most likely to be significant from the rising western slopes of the residential areas of Manly, with views of the ocean to the east. In the context of the locations that have been assessed, the view loss and visual impact are acceptable, particularly when seen relative to the larger residential and hotel buildings to the east of the site which are larger in plan and elevation. Most of the ocean views are maintained and the building's scale is appropriate for both the existing and future context of this particular area of Manly.

Since the proposal is largely compliant, it satisfies the Council's guidelines for view sharing between neighbouring properties and important public viewpoint..

Based on our 3D analysis, photography, and site visit it would be my recommendation that the Development Application be approved on the grounds of an acceptable amount of visual impact and view loss, when assessed against the permissible building envelope for the site.

John Aspinall, Director,

urbaine design group pty ltd

5. APPENDICES

APPENDIX A: Assessment Images - panoramic (additional PDF)

APPENDIX B: Aspinall CV

- *LEC Guidelines for Photomontages*
- *Visual Impact Assessment Methodology*

APPENDIX C: Survey and camera positions

APPENDIX D: Wireframe/alignment images

5.1. APPENDIX B: Methodology, C.V and L.E.C Guidelines

JOHN ASPINALL. director: urbaine design group

UK Qualifed Architect RIBA BA(Hons) BArch(Hons) Liverpool University, UK.

24 years' architectural experience in London and Sydney.
Halpin Stow Partnership, London, SW1
John Andrews International, Sydney
Cox and Partners, Sydney
Seidler and associates
NBRS Architects, Milsons Point
Urbaine Pty Ltd (current)

Design Competitions:

UK 1990 – Final 6. RIBA 'housing in a hostile environment'. Exhibited at the Royal Academy, London
UK Design Council – innovation development scheme finalist – various products, 1990.
Winner: International Design Competition: Sydney Town Hall, 2000
Finalist: Boy Charlton Swimming pool Competition, Sydney, 2001
Finalist: Coney Island Redevelopment Competition, NY 2003

Design Tutor: UTS, Sydney, 1997 – 2002

This role involved tutoring students within years 1 to 3 of the BA Architecture course. Specifically, I developed programs and tasks to break down the conventional problem-solving thinking, instilled through the secondary education system. Weekly briefs would seek to challenge their preconceived ideas and encourage a return to design thinking, based on First Principles.

Design Tutor: UNSW, Sydney 2002 – 2005

This role involved tutoring students within years 4 to 6 of the BArch course. Major design projects would be undertaken during this time, lasting between 6 and 8 weeks. I was focused on encouraging rationality of design decision-making, rather than post-rationalisation, which is an ongoing difficulty in design justification.

Current Position: URBAINE GROUP Pty Ltd

Currently, Principal Architect of Urbaine - architectural design development and visualisation consultancy: 24 staff, with offices in: Sydney, Shanghai, Doha and Sarajevo.

Urbaine specialises in design development via interactive 3d modelling.

Urbaine's scale of work varies from city master planning to furniture and product design, while our client base consists of architects, Government bodies, developers, interior designers, planners, advertising agencies and video producers.

URBAINE encourages all clients to bring the 3D visualisaton facility into the design process sufficiently early to allow far more effective design development in a short time frame. This process is utilised extensively by many local and international companies, including Lend Lease, Multiplex, Hassell, PTW, Foster and Partners, City of Sydney, Landcom and several other Governmental bodies. URBAINE involves all members of the design team in assessing the impact of design decisions from the earliest stages of concept design. Because much of URBAINE's work is International, the 3D CAD model projects are rotated between the various offices, effectively allowing a 24hr cycle of operation during the design development process, for clients in any location.

An ever-increasing proportion of URBAINE"S work is related to public consultation visualisations and assessments. As a result, there has also been an increase in the Land And Environment Court representations. Extensive experience in creating and validating photomontaged views of building and environmental proposals. Experience with 3D photmonages began in 1990 and has included work for many of the world's leading architectural practices and legal firms.

Co-Founder Quicksmart Homes Pty Ltd. , 2007 - 2009

Responsible for the design and construction of 360 student accommodation building at ANU Canberra, utilising standard shipping containers as the base modules.

Design Principal and co-owner of Excalibur Modular Systems Pty Ltd: 2009 to present.

High specification prefabricated building solutions, designed in Sydney and being produced in China.

Excalibur has developed a number of modular designs for instant delivery and deployment around the world. Currently working with the Cameroon Government providing social infrastructure for this rapidly developing country.

The modular accommodation represents a very low carbon footprint solution

Expert Legal Witness, 2005 to present

In Australia and the UK, for the Land and Environment Court. Expert witness for visual impact studies of new developments.

Currently consulting with many NSW Councils and large developers and planners, including City of Sydney, Lend Lease, Mirvac, Foster + Partners, Linklaters.

Author of several articles in ‘Planning Australia’ and ‘Architecture Australia’ relating to design development and to the assessment of visual impacts, specifically related to the accuracy of photomontaging.

Currently preparing a set of revised recommendations for the Land and Environment Court relating to the preparation and verification of photomontaged views for the purposes of assessing visual impact

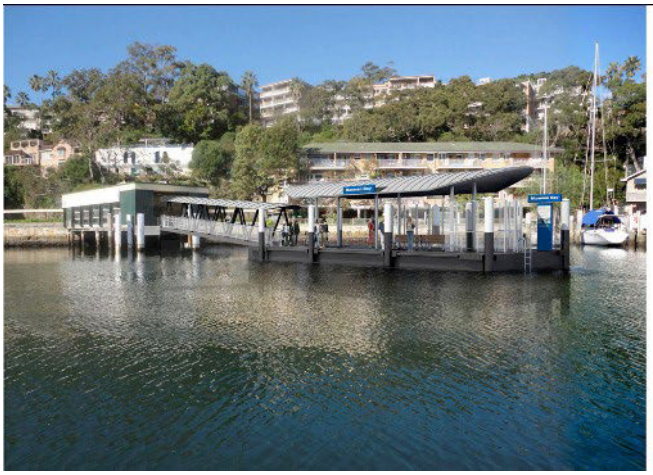
VISUAL IMPACT ASSESSMENTS: A REALITY CHECK.
BY JOHN ASPINALL.

Photomontaged views of new apartment building at Pyrmont: Urbaine

Australia's rapid construction growth over the past 10 years has coincided with significant advances in the technology behind the delivery of built projects. In particular, BIM (Building Information Modelling). Virtual Reality and ever-faster methods of preparing CAD construction documentation.

Alongside these advances, sits a number of potential problems that need to be considered by all of those involved in the process of building procurement. Specifically, the ease with which CAD software creates the appearance of very credible drawn information, often without the thoroughness and deliberation afforded by architects, and others, in years past.

Nowhere is this more apparent than in the area of visual impact assessments, where a very accurate representation of a building project in context is the starting point for discussion on a project's suitability for a site. The consequences of any inaccuracies in this imagery are significant and far- reaching, with little opportunity to redress any errors once a development is approved.



Photomontaged views of new Sydney Harbour wharves: Urbaine

Urbaine Architecture has been involved in the preparation of visual impact studies over a 20 year period, in Australia and Internationally. Urbaine's Director, John Aspinall, has been at the forefront of developing methods of verifying the accuracy of visualisations, particularly in his role as an expert witness in Land and Environment Court cases.

In Urbaine's experience, a significant majority of visualisation material presented to court is inaccurate to the point of being invalid for any legal planning decisions. Equally concerning is the amount of time spent, by other consultants, analysing and responding to this base material, which again can be redundant in light of the frequent inaccuracies. The cost of planning consultant reports and legal advice far exceeds that of generating the imagery around which all the decisions are being made.

Over the last 10 years, advances in 3d modelling and digital photography have allowed many practitioners to claim levels of expertise that are based more on the performance of software than on a rigorous understanding of geometry, architecture and visual perspective. From a traditional architect'straining, prior to the introduction of CAD and 3d modelling, a good understanding of the principles of perspective, light, shadow and building articulation, were taught

throughout the training of architects.

Statutory Authorities, and in particular the Land and Environment Court, have attempted to introduce a degree of compliance, but, as yet, this is more quantitative, than qualitative and is resulting in an outward appearance of accuracy verification, without any actual explanation being requested behind the creation of the work.

Currently, the Land and Environment Court specifies that any photomontages, relied on as part of expert evidence in Class 1 appeals, must show the existing surveyed elements, corresponding with the same elements in the photograph. Often, any surveyed elements can form such a small portion of a photograph that, even by overlaying the surveyed elements as a 3d model, any degree of accuracy is almost impossible to verify. For sites where there are no existing structures, which is frequent, this presents a far more challenging exercise. Below is one such example, highlighted in the Sydney Morning Herald, as an example of extreme inaccuracy of a visual impact assessment. Urbaine was engaged to assess the degree to which the images were incorrect – determined to be by a factor of almost 75%.

Domain

The Sydney Morning Herald

Inaccurate images anger residents

February 21

Kelsey Munro

Picture imperfect ... the original interpretation of how the Lewisham Estates development will look.

CAN residents affected by big development proposals rely on developers' photo montages?

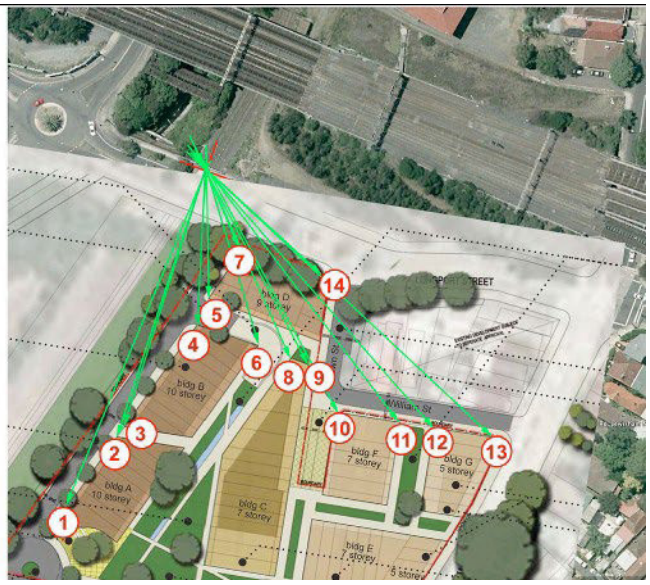
One inner west group thinks not, after inaccuracies were found in a series of digital photo montages which made the proposed Lewisham Estates development appear much smaller than it would if built.

The developer was sent back to the drawing board by the Department of Planning to redo the images that were publicly exhibited for the project after questions were raised over their accuracy.

The corrected interpretation of how the Lewisham Estates development will look.

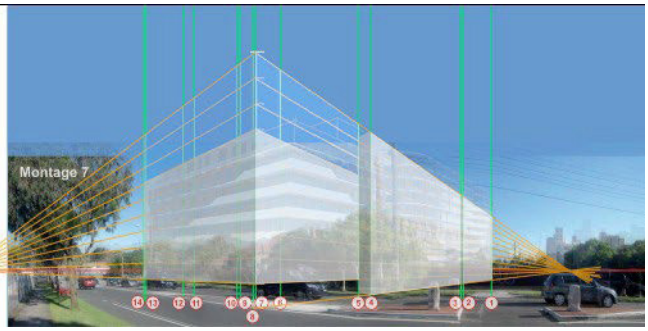
The No Lewisham Towers residents' action group claims the original images were so misleading that the corrected ones should go on public exhibition before the Planning Assessment Commission makes its determination next week.

SMH article re inaccurate visualisations



Key visual location points on site: Urbaine

Photomontage submitted by developer



Assessment of inaccuracy by Urbaine

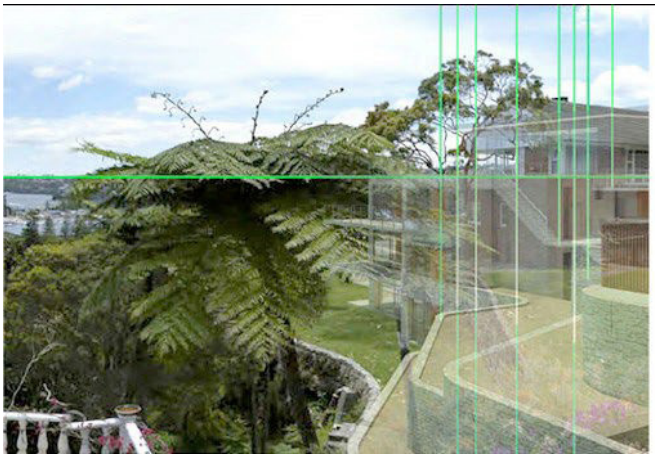
Urbaine has developed a number of methods for adding verification data to the 3d model of proposed buildings and hence to the final photomontages. These include the use of physical site poles, located at known positions and heights around a site, together with drones for accurate height and location verification and the use of landscaped elements within the 3d model to further add known points of references. Elements observed in a photograph can be used to align with the corresponding elements of the new building in plan. If 4 or more known positions can be aligned, as a minimum, there is a good opportunity to create a verifiable alignment.

Every site presents different opportunities for verification and, often, Urbaine is required to assess montages from photographs taken by a third party. In these cases, a combination of assessing aerial photography, alongside a survey will allow reference points to be placed into the relevant 3d model prior to overlaying onto the photos for checking.

The following example clearly demonstrates this – a house montaged into a view, by others, using very few points of reference for verification. By analysing the existing photo alongside the survey, the existing site was able to be recreated with a series of reference elements built into the model. A fully rendered version of all the elements was then placed over the photo and the final model applied to this. As can be seen, the original montage and the final verified version are dramatically different and, in this case, to the disadvantage of the complainant.

Photomontage submitted by developer

Key visual location points on site: Urbaine



Key points and 3d model overlaid onto existing photo

Final accurate photomontage: Urbaine

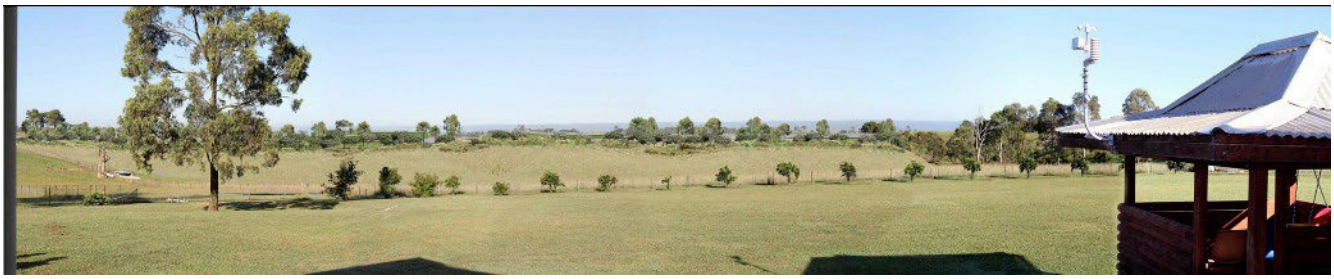
Often, Urbaine's work is on very open sites, where contentious proposals for development will be relying on minimising the visual impact through mounding and landscaping. In these cases, accuracy is critical, particularly in relation to the heights above existing ground levels. In the following example, a business park was proposed on very large open site, adjoining several residential properties, with views through to the Blue Mountains, to the West of Sydney. Urbaine spent a day preparing the site, by placing a number of site poles, all of 3m in height. These were located on junctions of the various land lots, as observed in the survey information. These 3d poles were then replicated in the 3d CAD model in the same height and position as on the actual site. This permitted the buildings and the landscaping to be very accurately positioned into the photographs and, subsequently, for accurate sections to be taken through the 3d model to assess the actual percentage view loss of close and distant views.

Physical 3000mm site poles placed at lot corners

3d poles located in the 3d model and positioned on photo

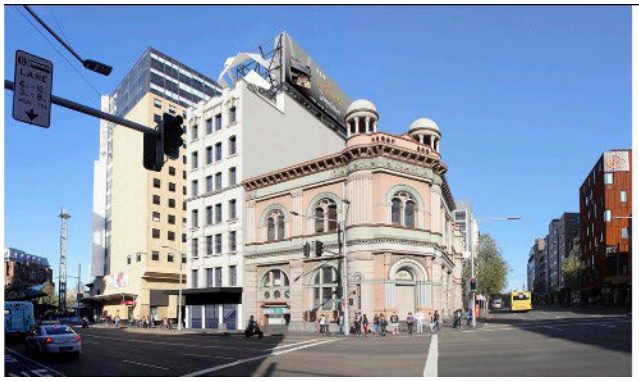
Proposed buildings and landscape mounding applied

Proposed landscape applied – shown as semi-mature

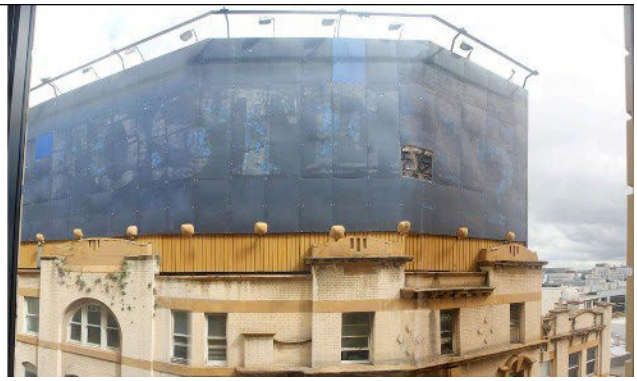


Final verified photomontage by Urbaine

Further examples, below, show similar methods being used to give an actual percentage figure to view loss, shown in red, in these images. This was for a digital advertising hoarding, adjoining a hotel. As can be seen, the view loss is far outweighed by the view gain, in addition to being based around a far more visually engaging sculpture. In terms of being used as a factual tool for legal representation and negotiation, these images are proving to be very useful and are accompanied by a series of diagrams explaining the methodology of their compilation and, hence verifying their accuracy.

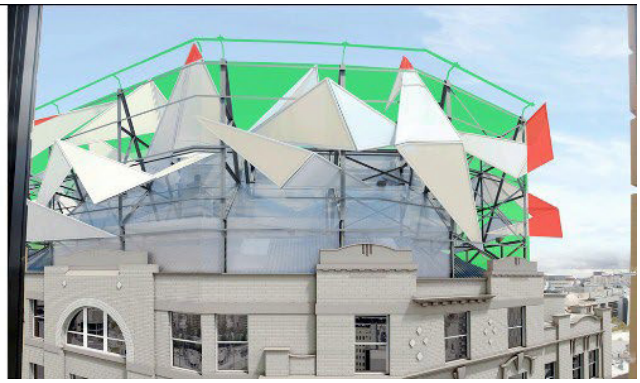


Photomontage of proposed building for digital billboard



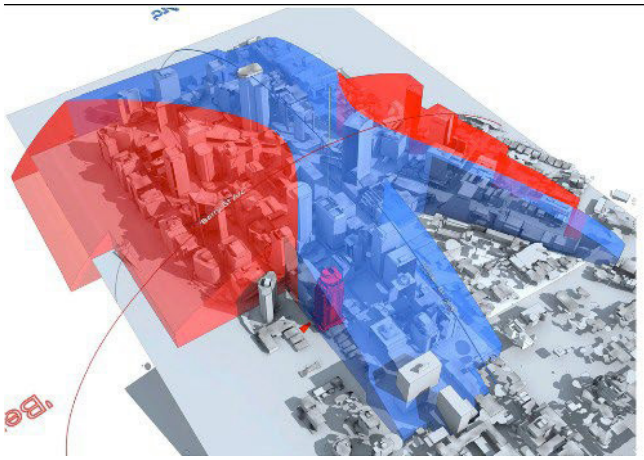
Existing situation – view from adjoining hot

Photomontage of view from hotel

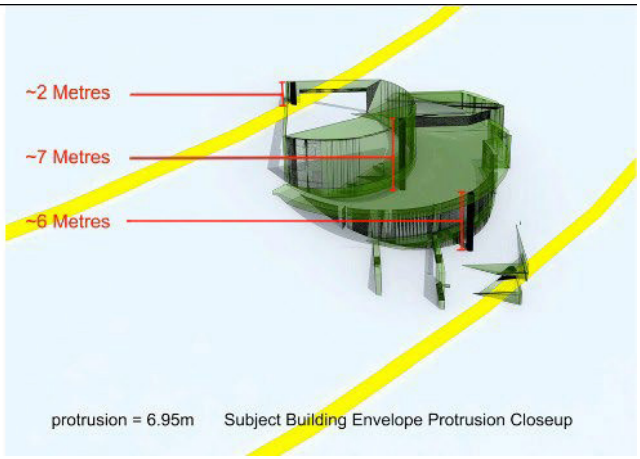


View loss – green = view gain / red = view loss

There are also several areas of assessment that can be used to resolve potential planning approval issues in the early stages of design. In the case below, the permissible building envelope in North Sydney CBD was modelled in 3d to determine if a building proposal would exceed the permitted height limit. Information relating to the amount of encroachment beyond the envelope allowed the architect to re-design the plant room profiles accordingly to avoid any breach.



3d model of planning height zones



Extent of protrusion of proposed design prior to re- design

Urbaine's experience in this field has place the company in a strong position to advise on the verification of imagery and also to assist in developing more robust methods of analysis of such imagery. As a minimum, Urbaine would suggest that anyone engaging the services of

visualisation companies should request the following information, as a minimum requirement:

1. Height and plan location of camera to be verified and clearly shown on an aerial photo, along with the sun position at time of photography.
2. A minimum of 4 surveyed points identified in plan, at ground level relating to elements on the photograph and hence to the location of the superimposed building.
3. A minimum of 4 surveyed height points to locate the imposed building in the vertical plane.
4. A series of images to be prepared to explain each photomontaged view, in line with the above stages.

This is an absolute minimum from which a client can determine the verifiability of a photomontaged image. From this point the images can be assessed by other consultants and used to prepare a legal case for planning approval.

Land and Environment Court
of New South Wales

Policy: Use of Photomontages and Visualisation Tools

Commencement

1. This policy commences on 17 May 2024 and replaces the policy published 21 August 2013.

Purpose of the policy

2. This policy is to guide the preparation of photomontages, still images, video images, and other visualisation tools to depict the development in an appeal under the *Environmental Planning and Assessment Act 1979*, to ensure that the data they present is represented and interpreted accurately, and that their use would assist the Court in determining the appeal.

Application

3. The policy applies to appeals under the EPA Act, where photomontages or other visual tools are to be submitted as part of expert evidence.

Definitions

4. In this Policy:

   Appeal means an appeal to the Court under the EPA Act.

   CGI means Computer Generated Image.

   Commissioner means a Commissioner or Acting Commissioner of the Court.

   Court means the Land and Environment Court of New South Wales.

   Development means the development for which consent is sought in the development application that is the subject of the appeal.

   EPA Act means the *Environmental Planning and Assessment Act 1979*.

Existing Image means an unchanged or unaltered image of the location, viewing angle and approximate conditions on which the proposed development will be overlaid, to convey the issues in dispute.

Judge means a Judge of the Court.

Photomontages means, for the purpose of this policy, any visual tool or aid, whether still image, video, computer generated image, two dimensional (2D) or three dimensional (3D) or other visual means to depict development plans.

Registrar means a Registrar of the Court.

RL Reduced Level or Relative Level as defined in Australian Standard® AS1100 Technical Drawings.

General principles

5. A photomontage submitted in an appeal should provide to the Judge, Commissioner or Registrar the most accurate visual images of the development in its real-world location, so as to specifically convey the issues in dispute.

6. A photomontage must include:

   6.1 the existing image;

   6.2 a 2D plan and/or elevation showing the location of the camera, target point/viewing angle, and lighting source that corresponds to the location from where the existing image was taken; and

   6.3 the proposed built envelope and key features of the development overlaid on the existing image in the form of a wire frame and/or ‘block massing’ model to demonstrate the development.

7. Where a photorealistic CGI of the development is used:

   7.1 the metadata from the existing image to create an identical 3D computer generated camera should be provided;

   7.2 the environmental conditions of the CGI should be set to the same parameters as the existing image;

   7.3 colour matching in the CGI is to correspond with the existing image; and

7.4 the details of the software used in creating the CGI should be stated as part of the submission of the photomontage.

8. A detailed summary of the methodology used to create the photomontage should be provided, including:

8.1 survey data that is used to create the photomontages, including the name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame was obtained;

8.2 site specific topographical data used to create the photomontages, including the source and references utilised for the topographical data (for example paper, or survey inputs from file types such as from 'DWG' or 'DXF');

8.3 the camera type, lens, focal length or field of view, and sensor used for the purpose of the photograph from which the existing image has been derived;

8.4 accurate location, alignment and direction of the camera (whether fixed on tripod or drone) and RL of the camera for the existing image;

8.5 data that was used to prepare the photomontages, such as:

8.5.1 use of relevant plans and data for the depiction of existing buildings or existing elements as shown in the wire frame, block massing model or photorealistic CGI;

8.5.2 the means by which terrain has been generated (such as surveyed spot levels and/or contours or by some form of point cloud, or Ground Control Point survey method);

8.5.3 any variables applied to the images such as, time of day, lighting and weather conditions;

8.5.4 consistency in application of scale and interpretation of the relevant data;

8.5.5 rationale for selecting a particular view, use of camera lens or conditions in creating the image. For example, in circumstances where a development is best depicted with an expanded field of view or panoramic view, the type of panorama head and equipment must be stated, in addition to the data above.

8.6 where a photomontage has used more than one baseline image to represent the existing context (that is where multiple images are 'stitched together'), this must be stated, and the requirements above should be adapted to convey the key data required to verify its accuracy; and

8.7 whether any editing software or other visual manipulation has been used in the preparation of the final image, for example an adjustment in contrast, saturation, tilt shift or the like.

Visualisation Tools

9. As technology emerges, the principles outlined above are to be applied. What is important is that the Court has an unaltered and real life baseline, summary of metadata so the veracity of imagery presented can be verified, and application of relevant overlays of the proposed development that assists in the Court's consideration of the real issues in dispute.

10. All effort is to be made and the 'best practices' are to be applied when utilising technology for the purposes of visualisation of the development to ensure accuracy and avoid bias of information interpretation.

Paperless Hearings

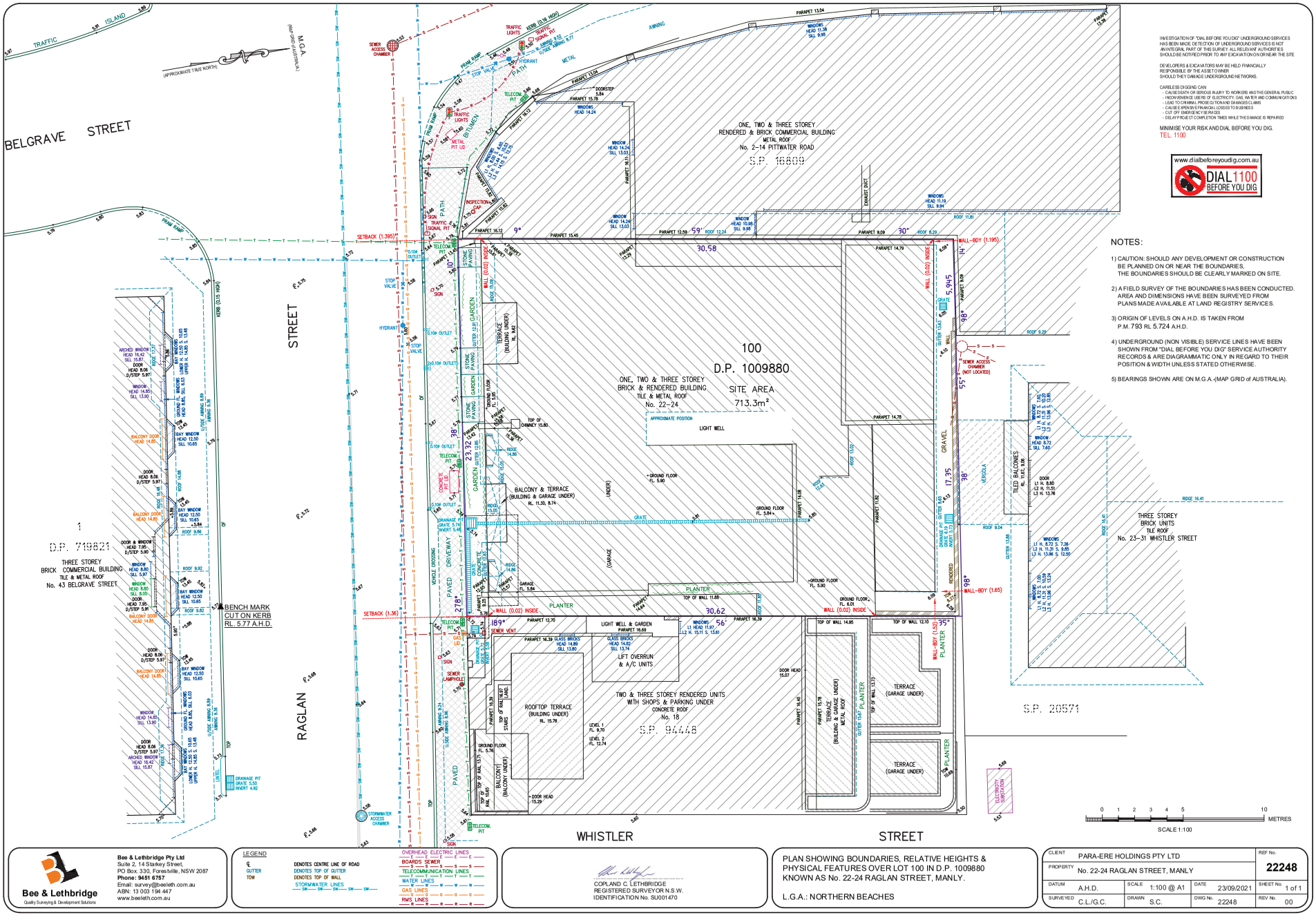
11. Parties should be prepared to display the photomontage electronically if it is to be relied upon, or be the subject of an examination of an expert witness.

12. It will be the responsibility of the party whose expert is being examined, to provide a device compatible with courtroom technology which can display the photomontage electronically. This will allow the presiding officer, the experts, lawyers and all other people to be able to see in real time and on a common image, the subject of the examination.

Issued by:

The Honourable Justice Brian J Preston
Chief Judge – Land and Environment Court of NSW
Date: 17 May 2024

5.2. APPENDIX C: Survey and camera positions



INVESTIGATION OF "DIAL BEFORE YOU DIG" UNDERGROUND SERVICES HAS BEEN MADE. DETECTION OF UNDERGROUND SERVICES IS NOT AN INTEGRAL PART OF THIS SURVEY. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN
- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSS TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG.
TEL 1100

www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG

NOTES:

1) CAUTION: SHOULD ANY DEVELOPMENT OR CONSTRUCTION BE PLANNED ON OR NEAR THE BOUNDARIES, THE BOUNDARIES SHOULD BE CLEARLY MARKED ON SITE.

2) A FIELD SURVEY OF THE BOUNDARIES HAS BEEN CONDUCTED. AREA AND DIMENSIONS HAVE BEEN SURVEYED FROM PLANS MADE AVAILABLE AT LAND REGISTRY SERVICES.

3) ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM P.M. 793 RL 5.724 A.H.D.

4) UNDERGROUND (NON VISIBLE) SERVICE LINES HAVE BEEN SHOWN FROM "DIAL BEFORE YOU DIG" SERVICE AUTHORITY RECORDS & ARE DIAGRAMMATIC ONLY IN REGARD TO THEIR POSITION & WIDTH UNLESS STATED OTHERWISE.

5) BEARINGS SHOWN ARE ON M.G.A.-(MAP GRID of AUSTRALIA).

Bee & Lethbridge
Quality Surveying & Development Solutions

Bee & Lethbridge Pty Ltd
Suite 2, 14 Starkey Street,
PO Box. 330, Forestville, NSW 2087
Phone: 9451 6757
Email: survey@beeleth.com.au
ABN: 13 003 194 447
www.beeleth.com.au

LEGEND

℄	DENOTES CENTRE LINE OF ROAD
GUTTER	DENOTES TOP OF GUTTER
TOW	DENOTES TOP OF WALL
SW SW SW SW	STORMWATER LINES
OVERHEAD ELECTRIC LINES	
BOARDS SEWER	
TELECOMMUNICATION LINES	
WATER LINES	
GAS LINES	
RMS LINES	

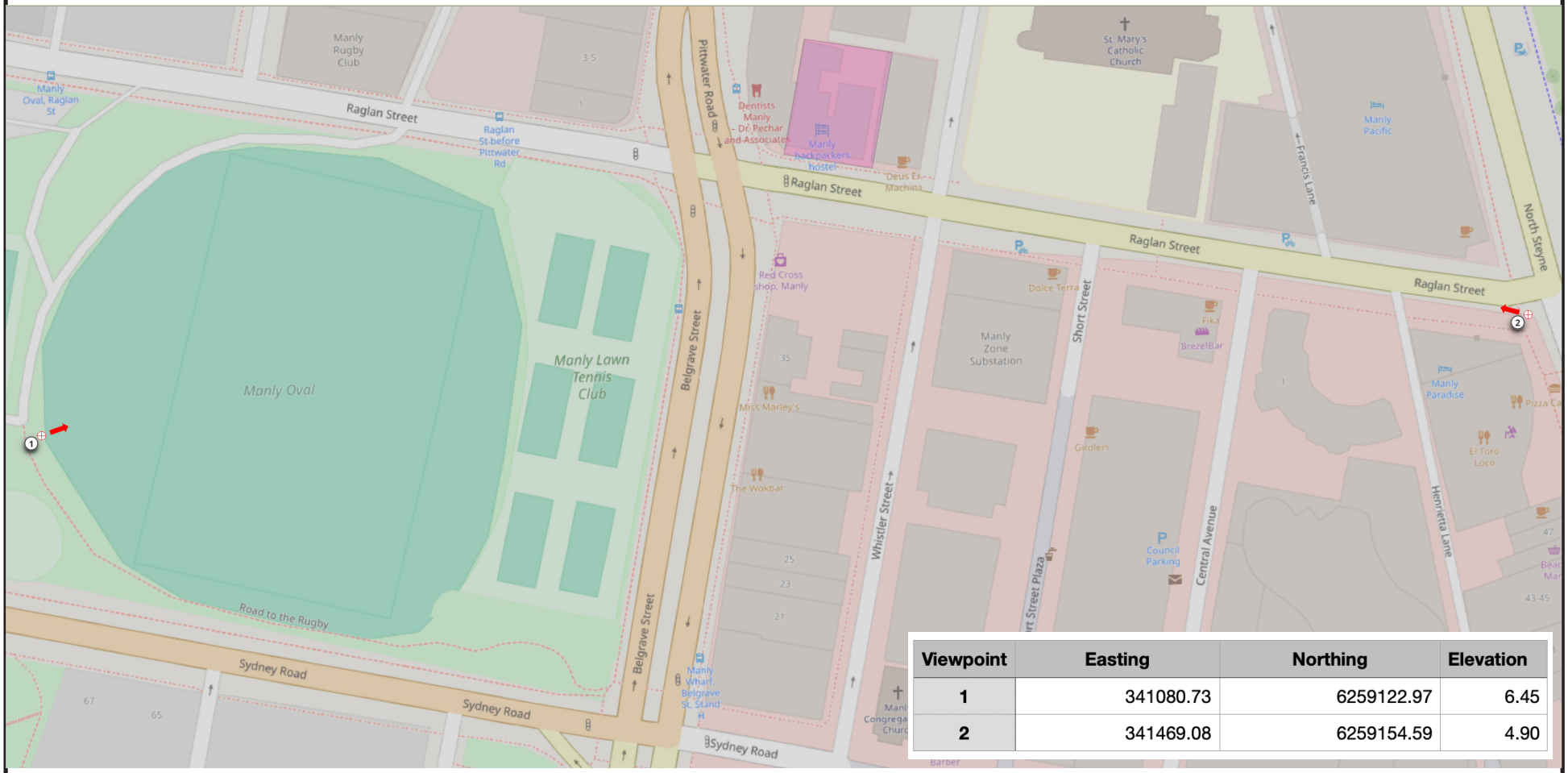
COPLAND C. LETHBRIDGE
REGISTERED SURVEYOR N.S.W.
IDENTIFICATION No. SU001470

PLAN SHOWING BOUNDARIES, RELATIVE HEIGHTS & PHYSICAL FEATURES OVER LOT 100 IN D.P. 1009880 KNOWN AS No. 22-24 RAGLAN STREET, MANLY.

L.G.A.: NORTHERN BEACHES

CLIENT	PARA-ERE HOLDINGS PTY LTD			REF No.	22248
PROPERTY	No. 22-24 RAGLAN STREET, MANLY				
DATUM	A.H.D.	SCALE	1:100 @ A1	DATE	23/09/2021
SURVEYED	C.L./G.C.	DRAWN	S.C.	DWG No.	22248
				SHEET No.	1 of 1
				REV No.	00

GROUND POSITIONS - GDA 2020 AT GROUND LEVEL (AHD)



Viewpoint	Easting	Northing	Elevation
1	341080.73	6259122.97	6.45
2	341469.08	6259154.59	4.90

NOTE:

BUILDING POSITIONS ARE INDICATIVE FOR PRESENTATION PURPOSES.
DATA WAS CAPTURED USING GNSSS RTK ROVER

CAMERA POSITIONS ARE FROM GNSS WITH NTRIP CORRECTIONS OBSERVATIONS WITHIN +/- 0.01M.
LEVELS ARE BASED ON AUSTRALIAN HEIGHT DATUM (AHD)

JOB NO: 770 LPG_Raglan	LGA: NORTHERN BEACHES COUNCIL
DATE: 07.10.2025	DATUM: AHD
DRAWN: DK	SCALE: N/A
CHECK: JA	SHEET: 1:1

SKETCH PLAN SHOWING
INDICATIVE CAMERA POSITIONS FOR -
22-24 RAGLAN STREET, MANLY 2095

urbaine DESIGN GROUP

5.3. APPENDIX D: Wireframe images

Viewpoint 01

Viewpoint 02

Viewpoint 03

Viewpoint 04