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D E S I G N G R O U P

VISUAL IMPACT ASSESSMENT



NOS.35 - 39 DARLEY STREET EAST MONA VALE 2103

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSD-113872990.

LOT: 16/-/SP18919

MAY 28 2026

Project Type: State Significant Development Application SSD-113872990.

Lot: 16/-/SP18919

Address: 35 - 39 Darley Street East Mona Vale 2103

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1. INTRODUCTION

1.1. Scope and Purpose of Report

This Visual Impact Report has been prepared for The Trustee for IPG Dev 2 Unit Trust & GOP AFF 1 Unit Trust & IPG AFF 1 Unit Trust and is submitted in support of a State Significant Development Application (SSDA) SSD-113872990. for a Residential Flat Building at Nos.35-39, Darley Street East Mona Vale 2103 (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

The proposed development is for an infill affordable housing development at 35-39 Darley Street East, Mona Vale.

1.2.1. The Site and existing property

The subject site is known as 35-39 Darley Street East at Mona Vale (Lot 16 in DP18919). The site is currently occupied by a medium density strata complex (SP 18919) comprising 18 dwellings (townhouses, apartments) and swimming pool and is located in a high amenity location, being within walking distance of the Mona Vale town centre (to the west) and Mona Vale Beach (to the east). Mona Vale Golf Course is located to the south (fronting Golf Avenue to the south).

The site has a frontage of 38.1m and a depth of 70.41m creating a site area of 2679m² (Source: Strata Plan and by survey). There is an easement to drain water one (1) metre wide located along the western boundary.

According to the Council's Section 10.7 'Planning' Certificate, the land is within the flood planning area and subject to flood related development controls. There are no other known major constraints affecting the land which is relatively level. The site contains some established vegetation within the landscaped areas of the residential complex. The immediate area is characterised by medium density residential development, typically two and three storeys on large lots.



Figure 2 – Subject site shown in yellow overlay.

1.3. Proposed Land Use and Built Form

The proposal includes the demolition of all existing structures and the construction of a eight (8) storey residential flat building containing 53 apartments (mix of 2 and 3) bedroom units) and a three (3) level basement, with the number of car parking spaces dependent on the final unit mix and basement design. Fifteen percent (15%) of dwellings will be dedicated affordable housing. The built form and massing is still evolving, as illustrated by the accompanying Scoping Document plan set by Plus Studio, intends to provide a ‘base’ lower levels and ‘step in’ the top four floor in accordance with the building separation/setback guidance within the Apartment Design Guide (ADG). The scheme proposes to retain some trees on site, provides deep soils zones at the front and rear of the site, and communal open space.

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, Plus Studio Architects and aligned to the scene using the survey information from Northon Survey Partners 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. This was placed into the scene and further verified against the survey DWG.

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.



Figure 3 – Elevations of the proposed design by Plus Studio Architects .



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

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 Principles. For view sharing from private locations *Tenacity Consulting v Warringah Council* [2004] NSWLEC 140 'planning principle' can be used or *Rose Bay Marina Pty Limited v Woollahra Municipal Council & Anr* [2013] NSWLEC 1046 'planning principle' for public domain views.

The Tenacity 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*

The planning principle for public domain views adopted in *Rose Bay Marina* involves a two stage inquiry: the first factual, followed by a second, analytical requiring both quantitative as well as qualitative assessment.

However, there is no peer review system for determining the accuracy of the base material used for visual impact assessments. As a result, Urbaine Design 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.

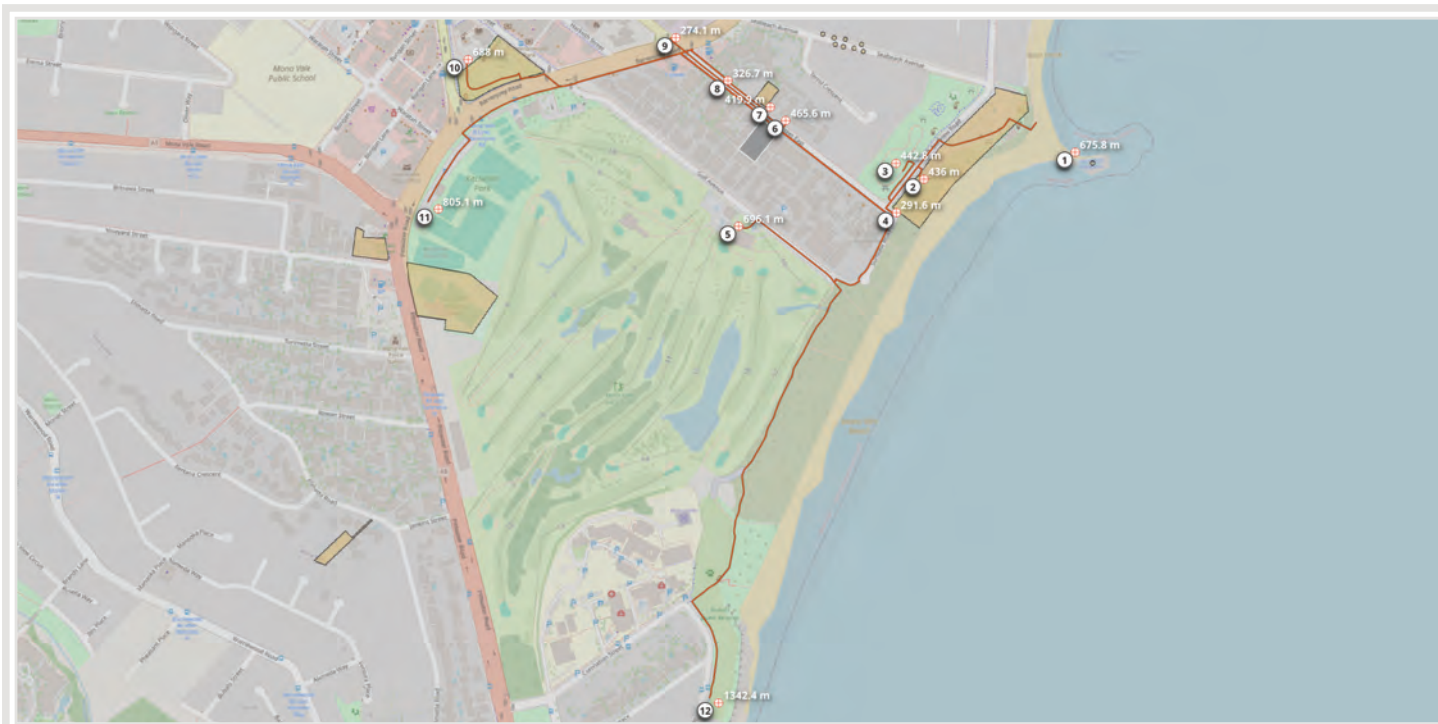


Figure 5: Area investigated during site visit

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

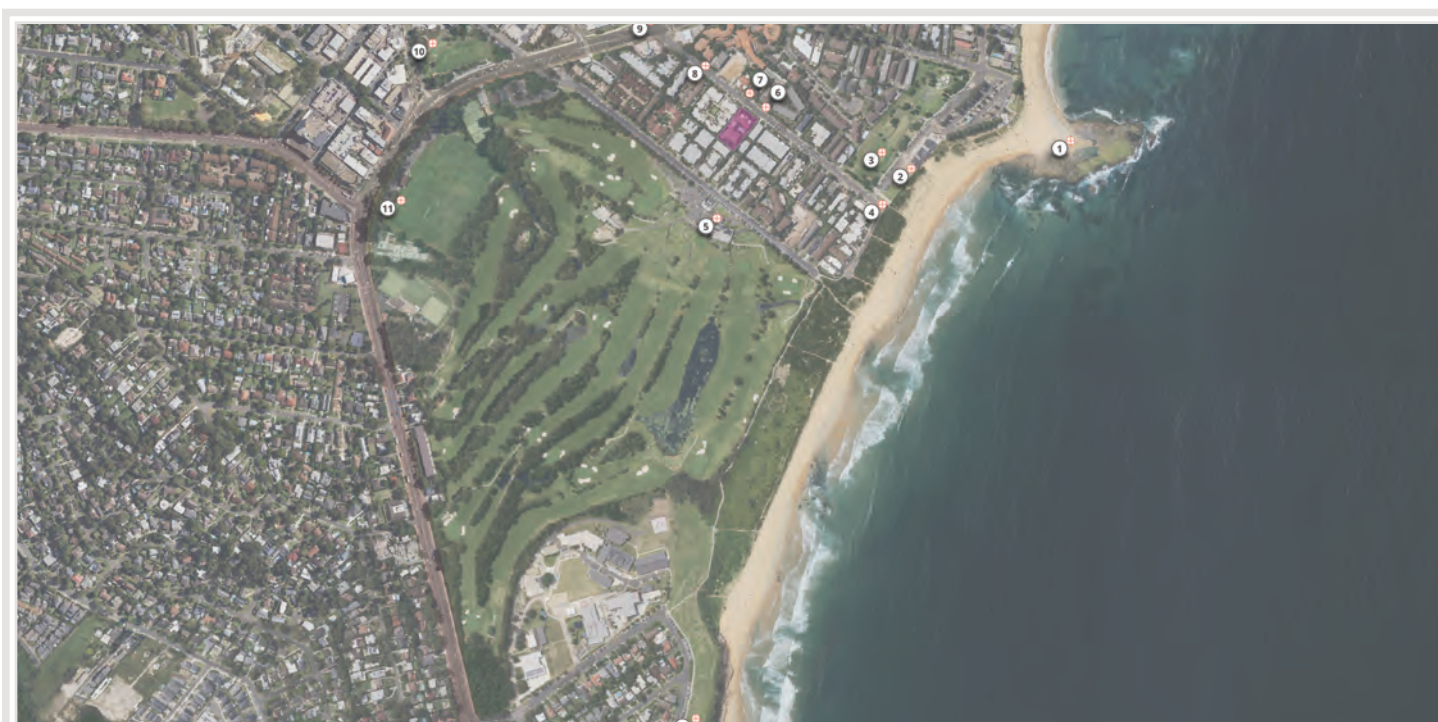


Figure 6: Selected private or public viewpoint locations for visual impact assessments with site outlined in red.

Where photography was not possible or impracticable in regards to time, resources and likely hood of high value view loss, drone images were taken from the boundary or virtual views were used. The map, see figure 6,

indicates chosen locations for site photography.

Virtual analysis was also undertaken to assess the potential for high value view loss based on relative height of the proposal and current site, see figure 7.

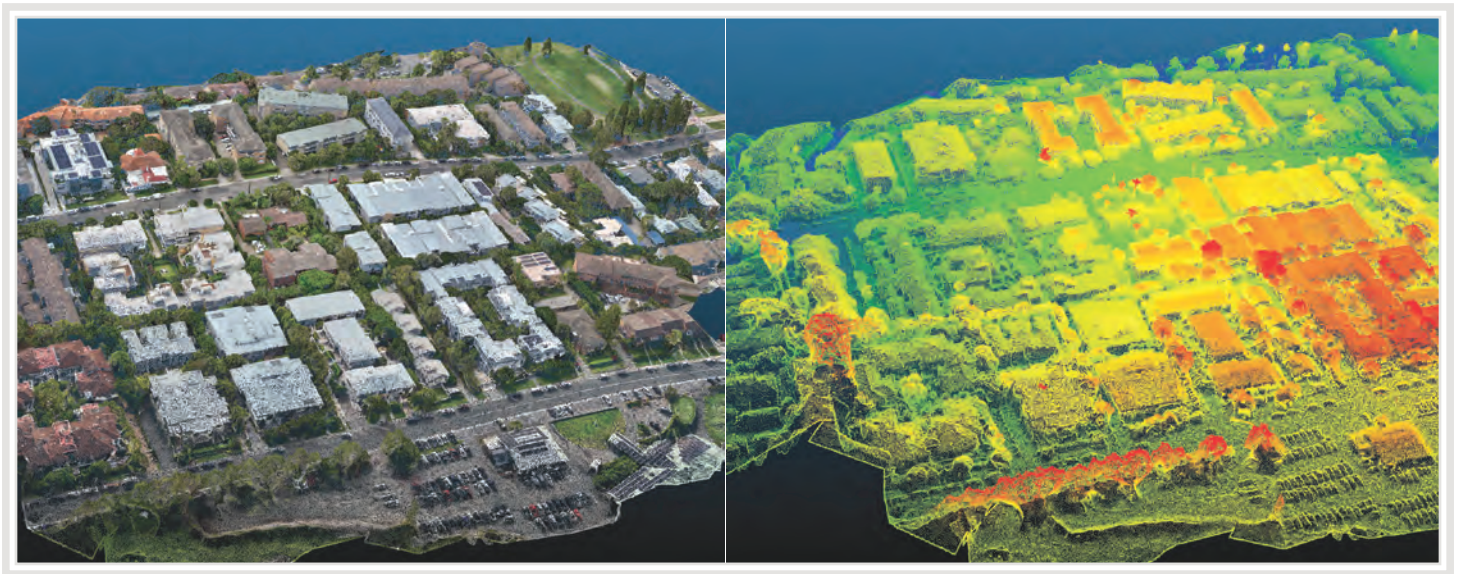


Figure 7: Neighbourhood with gradient ramp - Proposed site ridge height and above in yellow to red, below in green - blue.

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 Plus Studio Architects*
- *Pittwater Local Environmental Plan (PLEP) 2014*
- *Northon Survey Partners*
- *Photography by Urbaine Design Group*
- *Photomontages and 3D by Urbaine Design Group*
- *Housing SEPP relating to the proposed development, namely Chapter 6 (LMR) and Chapter 2 (Affordable Housing) and Chapter 4 (Design of Residential Apartment Development).*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021, section 2.77.*
- *Tree Canopy Guide for Low and Mid Rise Housing, published by the Department in February 2025*
- *Guideline for landscape character and visual impact assessment : environmental impact assessment practice note EIA-N04 . 2023*

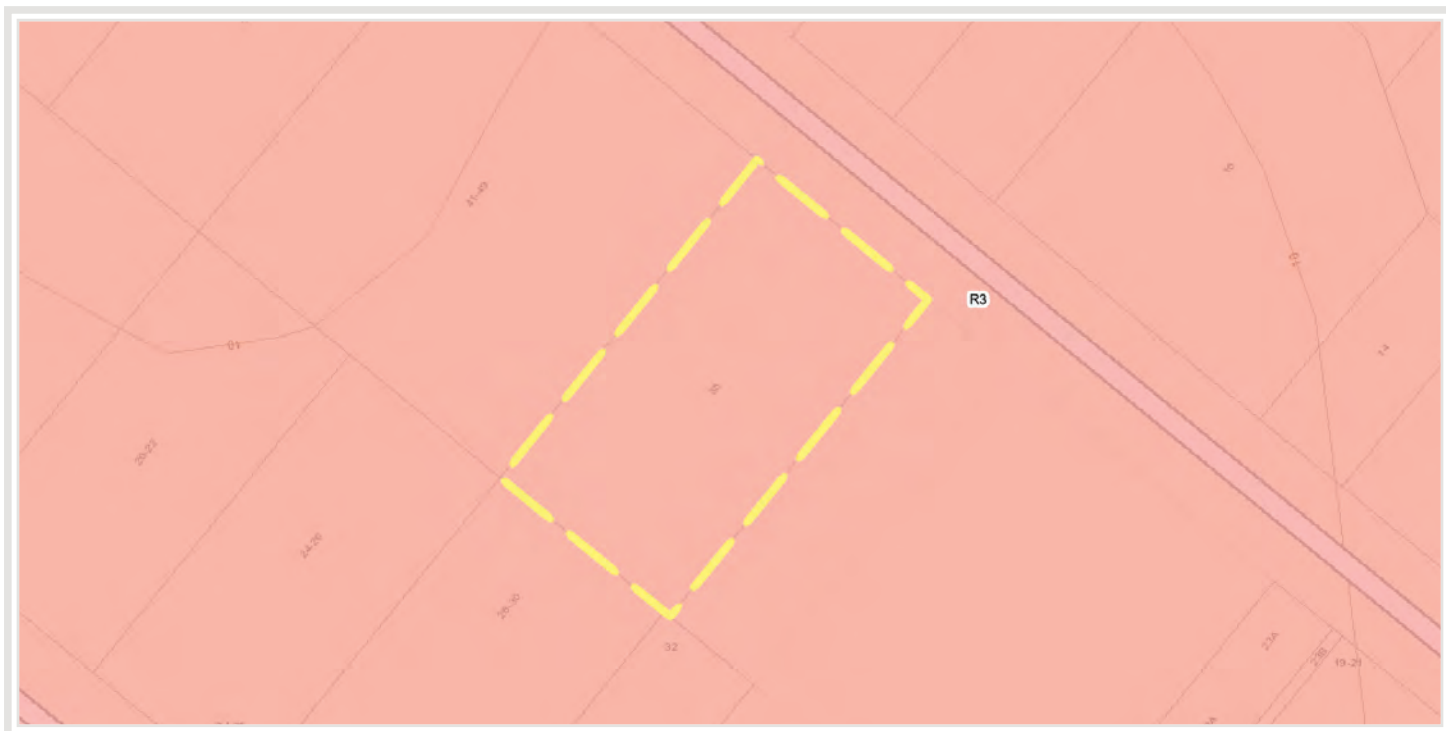


Figure 8: Land zoning map, indicating site with yellow outline.

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 9.

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.

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.

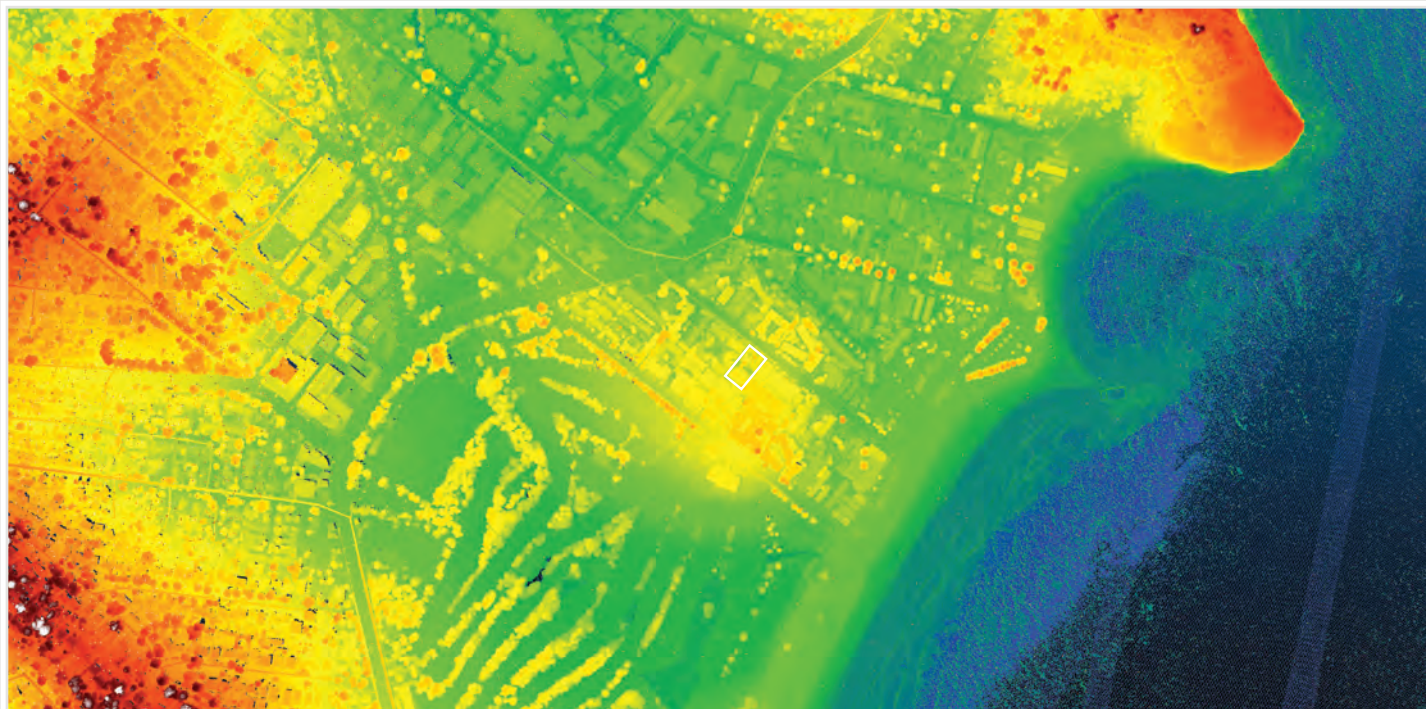


Figure 9: Lidar Point cloud including trees and buildings with gradient ramp to show topography, proposed site in white outline.

2.1. The Visual Context

The site at 35–39 Darley Street East, Mona Vale is located within an established coastal centre setting that combines residential flat buildings, local commercial activity, and convenient access to the Mona Vale town centre. The broader visual context is more urban than a purely suburban street, but still retains a distinctly Northern Beaches character shaped by low- to mid-rise built form, landscaped streets, and proximity to the coast. Council's current place-planning work for Mona Vale indicates that the area is expected to accommodate continued change through improved urban design outcomes and streetscape upgrades, reinforcing its role as an attractive and vibrant centre.

2.2. Visual Features and Local Landmarks

Key visual features and landmarks in the wider locality include the Mona Vale town centre, the nearby coastline and beach precinct, and associated public open space such as Apex Park and the Mona Vale Rockpool. Council describes the rockpool and adjoining parkland as being directly associated with the beach setting, with cafés nearby on Darley Street, which helps establish the strong relationship between the Darley Street area and the coastal public domain. These landscape and town-centre elements contribute to the identity and legibility of this part of Mona Vale.

2.3. Streetscapes

The Darley Street East streetscape is likely to read as a mixed residential and centre-edge environment, characterised by apartment buildings, landscaped frontages, local pedestrian activity, and connections toward the town centre and beachside public spaces. In comparison with larger metropolitan centres, the street character remains relatively modest in scale, but it is more urban and active than a detached-housing streetscape. Council's place-planning material indicates an ongoing focus on public domain and streetscape improvements

in Mona Vale, suggesting that the street environment is intended to become more coordinated, attractive, and pedestrian-friendly over time.

2.4. The selected view locations for the local view analysis

As a result of the site's topography, the visual impact is primarily relevant to the residential properties to the west of the subject site and to public viewpoints within a 3km radius. 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.

2.5. 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.

2.6. 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 and drone-equivalent private locations.

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.

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 10.

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
	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
NEGILIBLE	2			
	3			
	4			
MINOR	5	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.)
	6			
	7			
MODERATE	8			
	9			
	10			
SEVERE	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 overshadowing 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			
	13			
DEVASTATING	14			
	15			

Figure 10: Urbaine Group Assessment Table

3.1.2. Assessment at selected viewpoints

VIEWPOINT 01



A11 IMG_4323.jpg

Existing site photo - Mona Vale Rock Pool

From standing position on Mona Vale Rock Pool at Mona Vale Beach
RL + 2.49m - Distance to boundary 549.51m - Bearing direction 268.65 °

Camera - Canon RP
Lens - 24mm



A11 IMG_4323 c.jpg

Photomontage of Proposal



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 31%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 22% :78%*
- *Existing Visual Assessment Scale no: 12 /15 & Visual Impact Assessment Scale no: 2 /15*

This is a static public view from the Mona Vale Rock Pool and adjacent beach, looking west across the shoreline toward the built edge of Mona Vale. The foreground comprises the rock pool, shallow water and wet sand, transitioning to the wider beach. The midground is defined by an active expanse of sand with beach users dispersed along the shore. A continuous row of mature Norfolk Pines forms a strong visual edge behind the beach and screens much of the fore-shore development. Beyond the tree line, only fragmented glimpses of low-rise built form are available, and the broader setting remains dominated by the beach, trees and open sky.

The visual impact of the new proposal, from this location, is assessed as negligible. The new proposal will be screened for the most part by the Norfolk pine trees in the west, leaving only a small segment visible and impact upon the sky view.

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

- *Value of view: High.*
- *View location: Beach - public viewpoint.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of this highly valued public coastal view, the proposal may reasonably be regarded as acceptable because its visibility is negligible. The proposal is largely screened by the Norfolk Pines, with only a very limited component affecting sky view. That outcome is also consistent with the pre-scoping letter, which identifies the site as being set back within an existing urban area rather than on the foreshore itself, and as part of a centre-edge location where increased residential density is anticipated under the Housing SEPP. The proposal would not materially affect the primary public experience of the beach, rock pool or coastline from this location.

VIEWPOINT 02



A07 IMG_4286.jpg

Existing site photo - Surfview Road

From standing position the paved platform adjacent to the parking area on Surfview Road
RL + 8.86m - Distance to boundary 285.57m - Bearing direction 282.50 °

Camera - Canon RP
Lens - 24mm



A07 IMG_4286 c.jpg

Photomontage of Proposal



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 59%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 12% : 88%*
- *Existing Visual Assessment Scale no: 5 /15 & Visual Impact Assessment Scale no: 6 /15*

This is a static public view from the paved area adjoining the parking area on Surfview Road, looking west across open grassed parkland. The foreground includes the edge of the paved platform, parked vehicles and a gently sloping lawn. The midground is characterised by open recreational land with Norfolk Pines and other vegetation providing vertical structure. Existing low-rise residential buildings form a relatively modest built edge behind the park. The background contains additional rooftops and treetops within a generally low-rise suburban skyline.

The visual impact of the new proposal, from this location, is assessed as minor-to-moderate. The lower segments of the new proposal will be screened by the existing buildings and vegetation in the background, while the upper levels will have some impact upon the sky view, nevertheless, it would integrate with the surrounding context and contribute to a more urbanised character of the area.

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

- *Value of view: Low-to-Medium.*
- *View location: Paved area at car park - public viewpoint.*
- *Extent of impact: Minor-to-Moderate.*

Reasonableness of proposal: Within the context of this low-to-medium value public view, the proposal may reasonably be regarded as acceptable. The lower levels are screened by existing buildings and vegetation, leaving the upper levels to register mainly against the sky. The pre-scoping letter confirms that the land is in an R3 zone, that residential flat buildings are permissible with consent, and that the site sits within an LMR inner area and accessible area close to town centre and transport. In that planning context, a modest increase in urban presence from this location is consistent with the intended transition of the area and does not unreasonably affect the public park setting.

VIEWPOINT 03



Existing site photo - Apex Park

A06 IMG_4261.jpg

From standing position on the grassed section within Apex Park
RL + 9.33m - Distance to boundary 226.54m - Bearing direction 273.40°

Camera - Canon RP
Lens - 24mm



Photomontage of Proposal

A06 IMG_4261 c.jpg



Visual impact

A06 IMG_4261 d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 49%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 3% : 97%*
- *Existing Visual Assessment Scale no: 9 /15 & Visual Impact Assessment Scale no: 6 /15*

This is a static public view from the grassed area within Apex Park, looking west across a broad open lawn toward the surrounding residential edge. The foreground is an expansive, gently sloping grassed field that gives the view a strong sense of openness. The midground contains a mix of detached dwellings and low-rise apartment buildings interspersed with mature trees and shrubs. The background is formed by additional roofscape and vegetation, producing a layered suburban setting with a relatively low skyline.

The visual impact of the new proposal, from this location, is assessed as minor-to-moderate. The lower levels of the proposed development would be screened by existing buildings, while the upper storeys would have some effect on sky views. However, the proposal does not jeopardise the overall integrity of the surrounding environment and is thought to fit well within its context.

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

- *Value of view: Medium.*
- *View location: Sports ground - public viewpoint.*
- *Extent of impact: Minor-to-Moderate.*

Reasonableness of proposal: Within the context of this public open-space view, the proposal may reasonably be accepted. The lower levels are screened by existing development and that the upper levels have only a minor-to-moderate effect on sky view. The pre-scoping letter explains that the future character of this part of Mona Vale is expected to shift toward a denser form under the Housing SEPP, and that the proposal is being designed consistently with that intended change. In those circumstances, the proposal reads as an emerging centre-edge building rather than an intrusive element in the park itself, and the open recreational character of Apex Park remains intact.

VIEWPOINT 04



A08 IMG_4295.jpg

Existing site photo - Surfview Road

From standing position

RL + 11.24m - Distance to boundary 264.52m - Bearing direction 293.25 °

Camera - Canon RP

Lens - 24mm



A08 IMG_4295 c.jpg

Photomontage of Proposal



Visual impact

A08 IMG_4295 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: 4% : 96%*
- *Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment Scale no: 4 /15*

This is a static public view from the pedestrian crossing on Surfview Road, looking northwest along the intersection with Darley Street East. The foreground is defined by the road pavement, kerbs, footpaths and traffic signage. A multi-storey apartment building at 18 Surfview Road forms a substantial built edge on the western side, softened by small trees and landscaping. The midground along Darley Street East contains a mix of low- to medium-density residential development and mature vegetation. The background rises gently toward a vegetated ridgeline, with tree canopy and rooftops contributing to a layered suburban skyline.

The visual impact of the new proposal, from this location, is assessed as negligible-to-minor. The new proposal would be largely screened by vegetation along Darley Street East, with its visual impact softened by the surrounding natural canopy. However, due to its increased height, it would result in a minor reduction in sky views.

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

- *Value of view: Low.*
- *View location: Pedestrian crossing - public viewpoint.*
- *Extent of impact: Negligible-to-Minor.*

Reasonableness of proposal: Within the context of this low-value public streetscape view, the proposal may reasonably be regarded as acceptable. The impact to be negligible to minor, with the building largely screened by vegetation and only a limited increase in visible height. The surrounding area already includes apartment development and a more urban character than a detached-housing street, and the pre-scoping letter identifies the site as part of an area where a higher density built form is anticipated under the Housing SEPP. The resulting change is therefore consistent with both the existing centre-edge context and the planned evolution of the locality.

VIEWPOINT 05



A14 IMG_4353.jpg

Existing site photo - Monna Vale Golf Club

From standing position at the driveway at Monna Vale Golf Club
RL + 21.37m - Distance to boundary 124.02m - Bearing direction 2.73 °

Camera - Canon RP
Lens - 24mm



A14 IMG_4353 c.jpg

Photomontage of Proposal



Visual impact

A14 IMG_4353 d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 29%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 11% : 89%*
- *Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment Scale no: 5 /15*

This is a static public view from the driveway of the Mona Vale Golf Club, looking northeast. The foreground is formed by the curving asphalt driveway, kerb line and adjoining grassed embankment. The clubhouse occupies the northwestern side of the view as a low, elongated building. In the midground, residential development along Golf Avenue sits slightly above street level behind planting and low boundary treatments. The background contains additional rooftops and vegetation, maintaining a relatively subdued skyline.

The visual impact of the new proposal, from this location, is assessed as negligible-to-minor. The lower parts of the new proposal will be obscured by the existing vegetation, leaving only a small part of the upper levels to have impact on sky view.

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

- *Value of view: Low.*
- *View location: Golf Club driveway - public viewpoint.*
- *Extent of impact: Negligible-to-Minor.*

Reasonableness of proposal: Within the context of this public driveway view, the proposal may reasonably be accepted. Only a small portion of the upper levels is visible above existing screening, resulting in a negligible-to-minor effect. The pre-scoping letter identifies the proposal as an infill affordable housing development in a high-amenity location close to the town centre, beach and frequent bus services. In that setting, a limited increase in background built form is reasonable and does not detract materially from the character of the golf club or adjoining streetscape.

VIEWPOINT 06



Existing site photo - Darley Street East

D03 DJI_20260410105822_0483_D.jpg

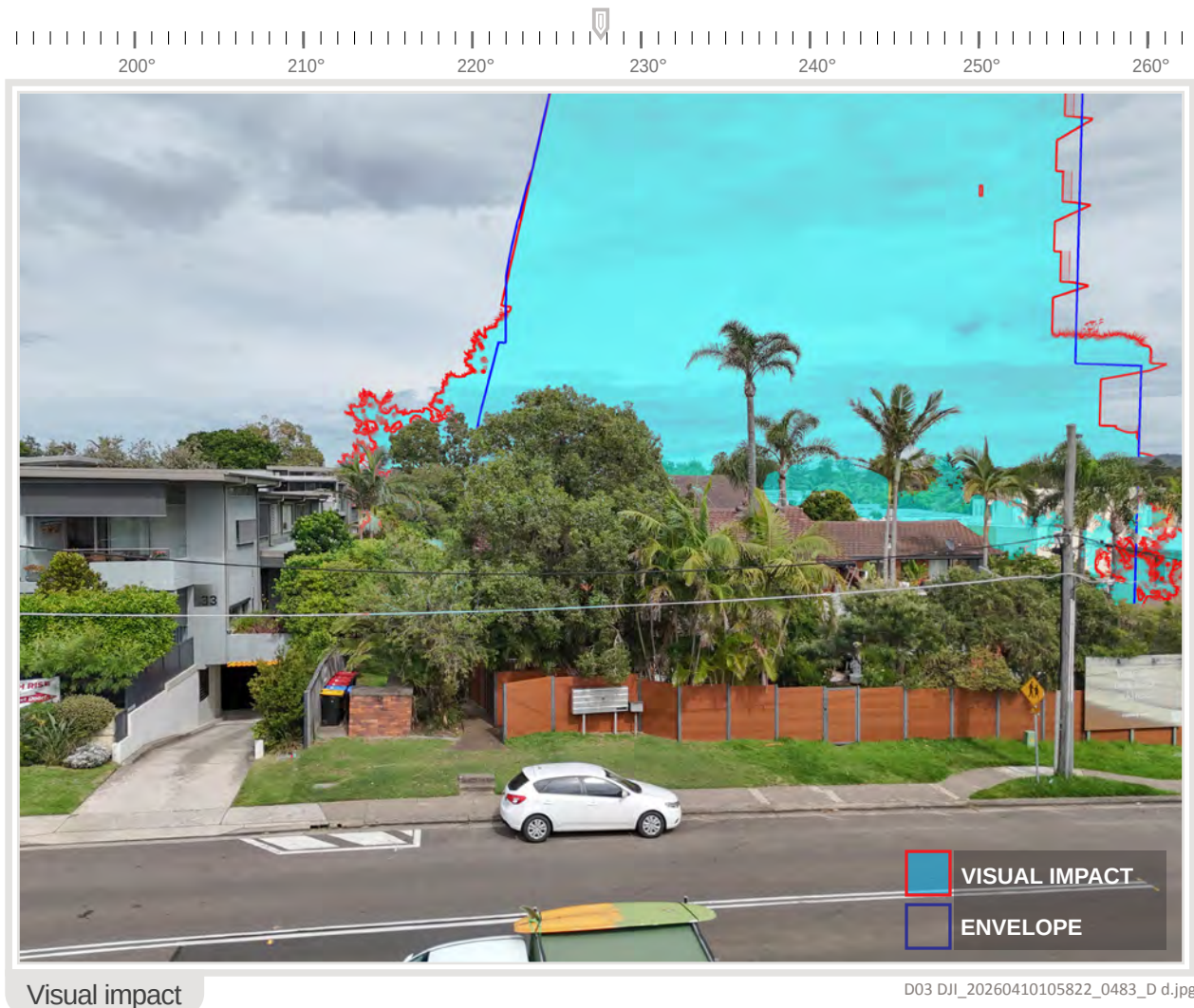
From approximate elevated drone position
RL + 32.28m - Distance to boundary 25.01m - Bearing direction 227.70°

Camera - Drone
Lens - 24mm



Photomontage of Proposal

D03 DJI_20260410105822_0483_D c.jpg



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 87%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 42% : 58%*
- *Existing Visual Assessment Scale no:7 /15 & Visual Impact Assessment Scale no: 10 /15*

This is an elevated private-equivalent view looking southwest across Darley Street East toward the subject site. The foreground comprises the street corridor, including carriageway, footpaths and landscaped verges. The subject site occupies the midground and is presently characterised by low- to medium-density residential development, boundary fencing, retaining elements and substantial established planting, including palms and mature trees. An apartment building at 33 Darley Street provides a stronger built edge to the south. The background is predominantly vegetated, with only filtered glimpses of distant roofscape.

The visual impact of the new proposal, from this location, is assessed as moderate to moderate-to-severe. The new proposal, due to its proximity and height, would impact the streetscape by transforming the existing open character into a more enclosed environment, while also reducing sky views.

Tenacity Assessment Summary:

- *Value of view: Medium.*
- *View location: Drone equivalent of 2nd floor apartment - private viewpoint.*
- *Extent of impact: Moderate-to-Severe.*

Reasonableness of proposal: Within the context of this adjoining private-equivalent outlook, the proposal may still be regarded as reasonable notwithstanding the moderate-to-severe impact. The existing view is over the subject site itself, and the pre-scoping letter makes clear that the site is zoned R3 Medium Density Residential, that residential flat buildings are permissible, and that the land sits within an LMR inner area where the intended future character is higher density than the current 2–3 storey pattern. The letter further states that the Housing SEPP can permit 22m height and 2.2:1 FSR, with a 30% affordable housing bonus seeking up to 28.6m and 2.86:1 FSR. In that context, the increased enclosure and reduction in sky view from this near-range position are consequences of a scale of development expressly contemplated by the applicable strategic planning framework.

VIEWPOINT 07



Existing site photo - Darley Street East

D01 DJI_20260410104747_0462_D.jpg

From approximate drone position on the property boundary of Nos. 20 and 22
Darley Street East
RL +31m - Distance to boundary 25.26m - Bearing direction 182.66°

Camera - Drone
Lens - 24mm



Photomontage of Proposal

D01 DJI_20260410104747_0462_D c.jpg



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 92%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 39% : 61%*
- *Existing Visual Assessment Scale no: 7 /15 & Visual Impact Assessment Scale no: 10 /15*

This is an elevated private-equivalent view from the vicinity of the boundary of Nos. 20 and 22 Darley Street East, looking south across Darley Street East toward the subject site. This site sits within a mapped Heritage zone under the Pittwater Local Environment Plan, 2014, but it not individually catalogued as a specific built heritage item. The foreground includes the road reserve, kerbs, footpaths and landscaped verges. The subject site occupies the midground and currently presents as a low-density residential complex behind fencing and dense planting. A driveway gap to the southeast allows deeper views into the block. The background contains additional two- and three-storey residential buildings filtered by mature vegetation, resulting in a relatively low and consistent skyline.

The visual impact of the new proposal, from this location, is assessed moderate-to-severe. introducing greater bulk and height that reduce sky views and dominate the existing low-scale streetscape. While its design and landscaping help soften the effect, it ultimately creates a more urban and enclosed character.

Tenacity Assessment Summary:

- *Value of view: Medium.*
- *View location: Drone equivalent of 2nd floor apartment - private viewpoint.*
- *Extent of impact: Moderate-to-Severe.*

Reasonableness of proposal: Within the context of this nearby private-equivalent outlook, the proposal may reasonably be accepted, although the impact is clearly more pronounced than from the public-domain locations. The site is intended for an 8-storey infill affordable housing development and that this form responds to the strategic intent of the Housing SEPP in a well-located Mona Vale centre-edge site. It also notes that the design seeks a podium-and-stepped-up-per-level composition in accordance with ADG building separation and setback guidance. When considered against that statutory and design framework, the stronger visual change from a close private-equivalent vantage point is an expected outcome of redevelopment at the scale anticipated by the current planning controls.

VIEWPOINT 08



A01 IMG_4203.jpg

Existing site photo - Darley Street East

From standing position at the eastern footpath along Darley Street East
RL + 10.06m - Distance to boundary 94.21m - Bearing direction 149.93 °

Camera - Canon RP
Lens - 24mm



A01 IMG_4203 c.jpg

Photomontage of Proposal



Visual impact

A01 IMG_4203 d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 63%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 17% : 83%*
- *Existing Visual Assessment Scale no: 6 /15 & Visual Impact Assessment Scale no: 8 /15*

This is a static public view from the eastern footpath of Darley Street East, looking southeast along a gently rising residential street. The foreground includes the footpath, grass verge and parked vehicles. The midground is lined by low-rise residential development partly concealed by dense hedges, mature palms and layered vegetation. The apartment complex at 51–53 Darley Street East is partly screened by tall palms, while larger residential development at Seabeach Avenue is visible in filtered form beyond. The ascending alignment of the street reinforces depth and perspective.

The visual impact of the new proposal, from this location, is assessed as moderate. The new proposal would be more prominent in the streetscape than the surrounding lower-scale buildings due to its increased height, which would affect sky views. Nevertheless, its design is intended to harmonise with the surrounding environment and enhance the urbanised and cohesive built character of the region.

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

- *Value of view: Medium.*
- *View location: Pavement - public viewpoint.*
- *Extent of impact: Moderate.*

Reasonableness of proposal: Within the context of this public streetscape view, the proposal may reasonably be regarded as acceptable. The moderate impact, primarily through the proposal's increased height and resulting effect on sky view, but not through loss of a valued landmark or scenic vista. The pre-scoping letter expressly states that the site is within walking distance of Mona Vale Town Centre and public transport and that the area is expected to transition to a denser built form. As such, a more prominent building on this frontage is consistent with the planned character of the locality and does not appear anomalous in planning terms.

VIEWPOINT 09



A10 IMG_4314.jpg

Existing site photo - Darley Street East

From standing position at the intersection of Darley Street East and Barrenjoey Road
RL + 7.74m - Distance to boundary 221.28m - Bearing direction 139.10 °

Camera - Canon RP
Lens - 24mm



A10 IMG_4314 c.jpg

Photomontage of Proposal



Visual impact

A10 IMG_4314 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: 11% : 89%*
- *Existing Visual Assessment Scale no: 2 /15 & Visual Impact Assessment Scale no: 2 /15*

This is a static public view from the intersection of Darley Street East and Barrenjoey Road, looking south-southeast. The foreground is dominated by the broad paved intersection, lane markings, traffic signals and pedestrian crossings. Barrenjoey Road forms a strong lateral movement corridor, while Darley Street East rises away from the intersection into a more vegetated residential setting. The midground contains a petrol station and retail edge, with mature trees softening the commercial and residential built form beyond. The background is heavily filtered by tree canopy, limiting views of development further along Darley Street East.

The visual impact of the new proposal, from this location, is assessed as negligible. The proposed development will be screened by the existing vegetation for the most part, only small segments will have a slight impact upon sky view.

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

- *Value of view: Low.*
- *View location: Road intersection - public viewpoint.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of this low-value road intersection view, the proposal may reasonably be accepted. The VIA records a negligible impact, with the building largely screened by existing vegetation and only minor visibility against the sky. Given the strongly infrastructural and commercial character of the foreground, and the fact that the proposal sits deeper within the residential block, the additional building is not of a scale or visibility that would materially alter the public experience of the intersection.

VIEWPOINT 10



A17 IMG_4396.jpg

Existing site photo - Village Park

From standing position at the grassy field within Village Park
RL + 9.96m - Distance to boundary 533.38m - Bearing direction 102.69 °

Camera - Canon RP
Lens - 24mm



A17 IMG_4396 c.jpg

Photomontage of Proposal



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 00%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: N/A*
- *Existing Visual Assessment Scale no: 10 /15 & Visual Impact Assessment Scale no: 0 /15*

This is a static public view from the grassy field within Village Park, looking west across a broad open recreational space. The foreground and midground are occupied by open lawn and a curving pedestrian path, with a mural wall providing a distinct visual feature to the southwest. Mature trees and dense vegetation form a continuous backdrop to the west and northwest, screening views beyond. The skyline is established by the layered tree canopy rather than by built form.

The visual impact of the new proposal, from this location, is assessed as nil. The new proposal from this location will not be visible.

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

- *Value of view: Medium-to-High.*
- *View location: Park - public viewpoint.*
- *Extent of impact: Nil.*

Reasonableness of proposal: Within the context of this parkland setting, the proposal may reasonably be accepted because it is not visible from this location. The VIA records a nil impact, and accordingly the proposal does not affect the public visual qualities of Village Park.

VIEWPOINT 11



A18 IMG_4405.jpg

Existing site photo - Kitchener Park

From standing position within the grass field of Kitchener Park Sports Centre
RL + 8.32m - Distance to boundary 573.35m - Bearing direction 72.77 °

Camera - Canon RP
Lens - 24mm



A18 IMG_4405 c.jpg

Photomontage of Proposal



Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 6%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 12% : 88%*
- *Existing Visual Assessment Scale no: 11 /15 & Visual Impact Assessment Scale no: 1 /15*

This is a static public view from the grass field within Kitchener Park Sports Centre, looking northeast across a large open sporting field. The foreground and midground are characterised by expansive turf and subtle field markings, reinforcing the open recreational quality of the space. A line of soccer goals sits at varying distances across the field. The background is formed by a continuous belt of mature trees and dense vegetation, which screens most surrounding development and establishes a strong natural skyline.

The visual impact of the new proposal, from this location, is assessed as negligible. The new proposal would be screened by the existing tree line, and will have no visual impact.

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

- *Value of view: High.*
- *View location: Sports field - public viewpoint.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of this high-value public sports field view, the proposal may reasonably be regarded as acceptable because its impact is negligible. The development is screened by the existing tree line and has effectively no visual consequence for the public use or appreciation of the sports field.

VIEWPOINT 12



A19 IMG_4417.jpg

Existing site photo - Monavale Headland Park

From standing position at the Cook Terrace paragliding location
RL + 41.79m - Distance to boundary 1002.82m - Bearing direction 5.48 °

Camera - Canon RP
Lens - 24mm



A19 IMG_4417 c.jpg

Photomontage of Proposal



Visual impact

A19 IMG_4417 d.jpg

Visual Impact Assessment:

- *Visual impact – Amount of new development visible in view - 79%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 13 /15 & Visual Impact Assessment Scale no: 2 /15*

This is a static public view from Mona Vale Headland Park at the Cook Terrace paragliding location, looking generally north across a highly valued coastal landscape. The foreground comprises an open grassed headland falling toward the cliff edge, marked by a modest fence. To the east and northeast, Bongin Bongin Bay, the adjoining beach and the North Mona Vale headland form the principal visual elements. In the midground, the rockpool and foreshore are visible within the broader coastal setting. Inland, the view extends across a vegetated valley containing scattered low-rise development, with layered hills and tree canopy forming the distant backdrop.

The visual impact of the new proposal, from this location, is assessed as negligible. The new proposal would have little impact on the background and, due to its significant distance from this vantage point, would not be visually dominant. It would generally blend in with the surrounding context while maintaining the underlying character of the area in which it is to be developed.

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

- *Value of view: High.*
- *View location: Park - public viewpoint.*
- *Extent of impact: Negligible.*

Reasonableness of proposal: Within the context of this highly valued public coastal view, the proposal may reasonably be accepted because its effect is negligible and it does not compromise the defining coastal elements of the outlook. The headland, bay, beach and open coastal foreground remain the dominant features, while the proposal is distant and visually recessive. The development therefore does not undermine the public appreciation of Mona Vale Headland Park or the coastal landscape more broadly.

4. SUMMARY ASSESSMENT

This Visual Impact Assessment considers the likely visual effects of the proposed infill affordable housing development at 35–39 Darley Street East, Mona Vale, involving demolition of the existing medium-density residential complex and construction of an 8-storey residential flat building containing 55 apartments, with 3 basement levels and a 15% affordable housing component - Application SSD-113872990. The site is located in a high-amenity coastal-centre setting within walking distance of Mona Vale Town Centre, Mona Vale Beach and frequent bus services, and currently sits within an established medium-density residential area characterised by 2–3 storey development on relatively large lots.

The broader visual context is mixed and transitional. The VIA describes the locality as more urban than a purely suburban street, while still retaining a distinct Northern Beaches character shaped by low- to mid-rise built form, landscaped streets and proximity to the coast. The key public reference points in the surrounding area include Mona Vale Beach, the Mona Vale Rockpool, Apex Park, Kitchener Park Sports Centre, Village Park and the wider centre-edge streetscape of Darley Street East and Barrenjoey Road. Those places establish a visual setting in which beach, open space, vegetation and moderate urban development coexist.

The assessment considers 12 viewpoints drawn from both the public domain and drone-equivalent private locations. Across these viewpoints, the proposal produces a wide range of outcomes. At the more distant and high-value coastal or open-space viewpoints, including Mona Vale Rock Pool, Village Park, Kitchener Park Sports Centre and Mona Vale Headland Park, impacts are assessed as nil or negligible because the proposal is either not visible or is substantially screened by existing tree canopy and landform. Public views from Barrenjoey Road and parts of Surfview Road are similarly limited, with visibility generally restricted to upper built elements against the sky. Moderate outcomes occur from certain public streetscape and park-edge views, particularly where the upper levels become more legible above existing vegetation and low-rise building forms. The strongest impacts are experienced from the nearby drone-equivalent private locations across Darley Street East, where the development replaces an existing low-density complex with a substantially larger built form and correspondingly reduces sky view and increases enclosure.

In considering the reasonableness of those outcomes, the site is zoned R3 Medium Density Residential. Residential flat buildings are permissible with development consent, and that the site is located within both an accessible area and a low and mid rise housing inner area under the Housing SEPP. It further states that the future character of the area is expected to transition to a denser and taller built form than presently exists, with Chapter 6 of the Housing SEPP enabling a residential flat building of up to 22m and 2.2:1 FSR, and Chapter 2 permitting a further 30% affordable housing bonus, giving a potential maximum of 28.6m and 2.86:1 FSR where the affordable housing requirements are met. The letter also notes that the development is intended to address the Apartment Design Guide and that the concept proposes a lower podium/base with upper levels stepped in.

That planning framework is important because it means the proposal is not to be assessed as an isolated departure from a stable, low-scale suburban setting. Rather, it forms part of a strategic transition expressly contemplated by the current state planning framework for well-located land near Mona Vale Town Centre and frequent public transport. In that context, the visual change evident in the near-range views—particularly the more pronounced increase in scale and reduction in sky view—must be understood as a consequence of redevelopment at a scale now encouraged by the Housing SEPP in appropriate locations.

At the same time, the VIA demonstrates that the proposal does not materially affect the defining public landscape qualities of Mona Vale's key open-space and coastal viewpoints. The major public experience of Mona Vale Beach, the Rockpool, Headland Park and the larger sporting fields remains dominated by beach, vegetation, open sky and recreational open space rather than by the proposed building. Even where the proposal becomes visible, it is generally read as part of the inland urban backdrop rather than as a dominant interruption of the coastal public domain.

On balance, the VIA supports the conclusion that the proposal will introduce a more urban and visually prominent built form into parts of the local area, particularly in closer-range views from adjoining residential properties and sections of Darley Street East. However, those effects occur within a site and locality that are strategically identified for increased density and height, and they do not unreasonably compromise the principal public coastal and open-space views that define Mona Vale's broader visual character. Having regard to the relevant planning

framework, the mixed urban-coastal context of the site, and the range of assessed viewpoint outcomes, the overall visual impact of the proposal is capable of being regarded as acceptable in planning terms.

Based on our 3D analysis, photography, and site visit it would be my recommendation that the State Significant 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

APPENDIX E: Site photography

5.1. APPENDIX B: Methodology, CV and LEC Guidelines

JOHN ASPINALL. director: urbaine design group

UK Qualified 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 visualisation 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 photomontages 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's training, prior to the introduction of CAD and 3d modelling, a good understanding of the principles of perspective, light, shadow and building articulation, were taught

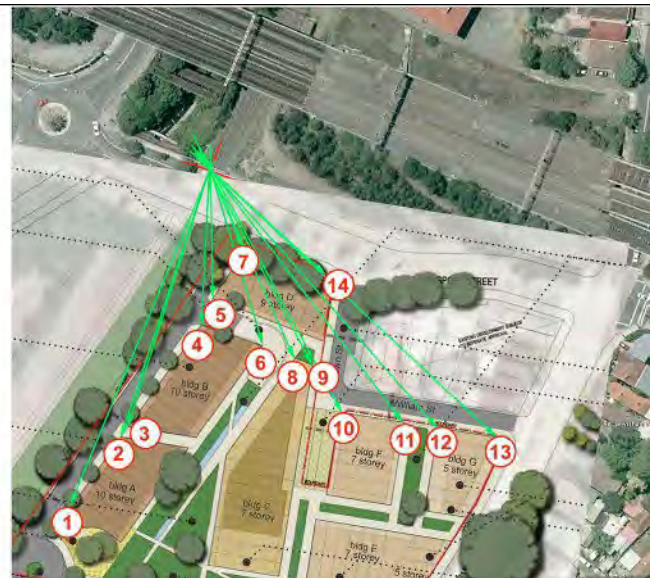
throughout the training of architects.

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%.



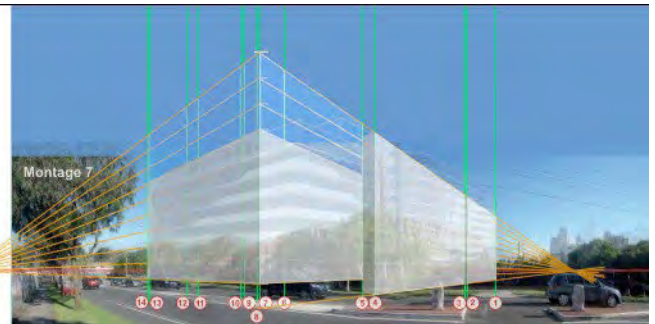
SMH article re inaccurate visualisations



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.

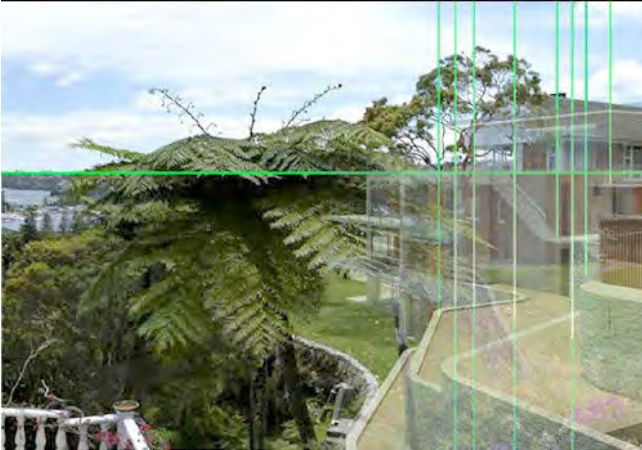
The following example clearly demonstrates this – a house montaged into a view, by others, using very few points of reference for verification. By analysing the existing photo alongside the survey, the existing site was able to be recreated with a series of reference elements built into the model. A 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 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.



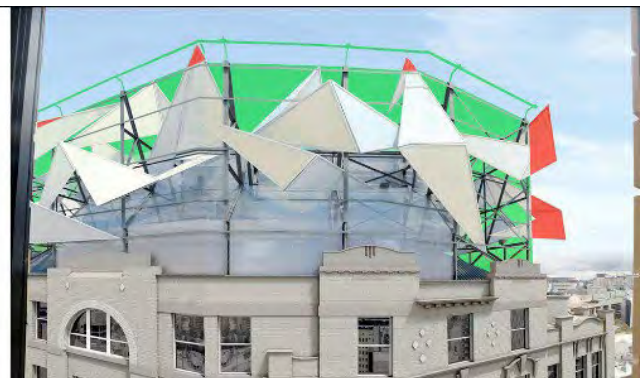
Photomontage of proposed building for digital billboard



Existing situation – view from adjoining hotel

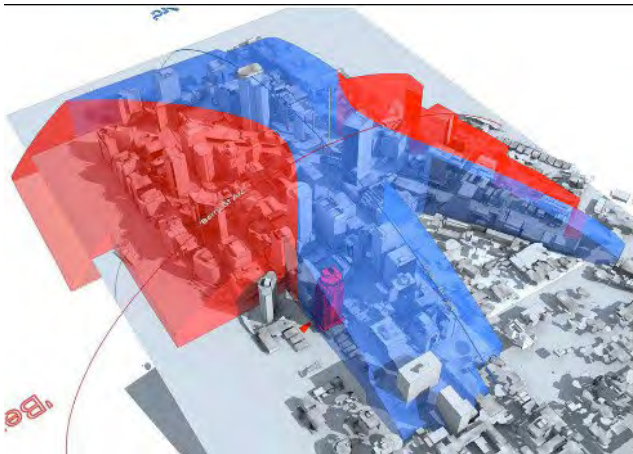


Photomontage of view from hotel

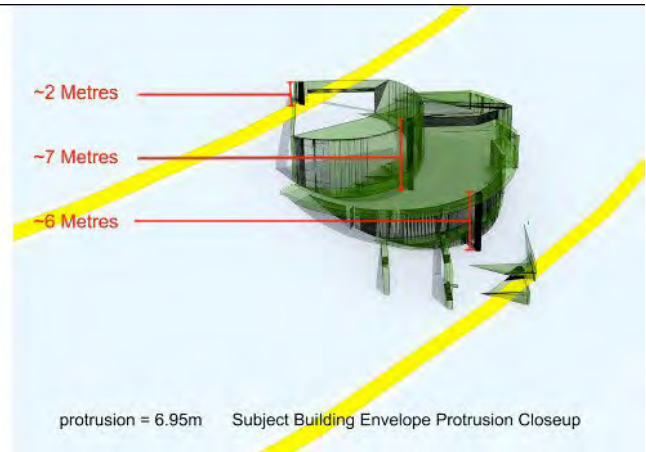


View loss – green = view gain / red = view loss

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



CAMERA POSITIONS - GDA 2020 AT GROUND LEVEL (AHD)

NOTE:

BUILDING POSITIONS ARE INDICATIVE FOR PRESENTATION PURPOSES.

DATA WAS CAPTURED USING GNSS RTK ROVER

CAMERA POSITIONS ARE FROM GNSS WITH NTRIP CORRECTIONS OBSERVATIONS WITHIN +/- 0.01M.

LEVELS ARE BASED ON AUSTRALIAN HEIGHT DATUM (AHD)

JOB NO: 838 CPD_Reynolds St	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 -
35 DARLEY STREET EAST MONA VALE 2103

5.3. APPENDIX D: Wireframe images



Viewpoint 01

A11 IMG_4323 b.jpg



Viewpoint 02

A07 IMG_4286 b.jpg



Viewpoint 03

A06 IMG_4261 b.jpg



Viewpoint 04

A08 IMG_4295 b.jpg



Viewpoint 05

A14 IMG_4353 b.jpg



Viewpoint 06

D03 DJI_20260410105822_0483_D b.jpg



Viewpoint 07

D01 DJI_20260410104747_0462_D b.jpg



Viewpoint 08

A01 IMG_4203 b.jpg



Viewpoint 09

A10 IMG_4314 b.jpg



Viewpoint 10

A17 IMG_4396 b.jpg



Viewpoint 11

A18 IMG_4405 b.jpg



Viewpoint 12

A19 IMG_4417 b.jpg

5.4. APPENDIX E: Site Photography



Site 01

A01 IMG_4203.jpg



Site 02

A02 IMG_4211.jpg



Site 03

A03 IMG_4219.jpg



Site 04

A04 IMG_4236.jpg



Site 05

A05 IMG_4243.jpg



Site 06

A06 IMG_4261.jpg



Site 07

A07 IMG_4286.jpg



Site 08

A08 IMG_4295.jpg



Site 09

A09 IMG_4305.jpg



Site 10

A10 IMG_4314.jpg



Site 11

A11 IMG_4323.jpg



Site 12

A12 IMG_4339.jpg



Site 13

A13 IMG_4345.jpg



Site 14

A14 IMG_4353.jpg



Site 15

A15 IMG_4367.jpg



Site 16

A16 IMG_4380.jpg



Site 17

A17 IMG_4396.jpg



Site 18

A18 IMG_4405.jpg



Site 19

A19 IMG_4417.jpg



Site 20

A20 IMG_4427.jpg



Site 21

D01 DJI_20260410104747_0462_D.jpg



Site 22

D02 DJI_20260410104825_0469_D.jpg



Site 23

D03 DJI_20260410105822_0483_D.jpg