

Visual Impact Assessment:

Residential Rezoning Application: No.141 Googong Road Sunset Stage 2.

August 1, 2024

# urbaine design group

Visual Impact Assessment Report: August 1, 2024.

Rezoning Application at Lot 39 DP 1257837 - 141 Googong Road, Googong.

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#### 1. INTRODUCTION

## 1.1 Scope and Purpose of Report.

This Visual Impact Report has been prepared by Urbaine Design Group for the proponent Binowee Developments Pty Ltd.

The report is provided to accompany the development proposal at The Sunset Estate (Stage 2) located at 141 Googong Road, Googong legally described as Lot 39 DP 1257837

Urbaine Design Group and its Director, John Aspinall, BA(Hons), BArch(Hons) have been preparing 3d imagery and Visual Impact Assessments, both in Australia and Internationally for over 25 years. Their methods are regularly published in planning and architectural journals and John Aspinall has lectured in Architectural Design at both the University of Technology Sydney and The University of New South Wales



Figure 1 – Site location shown in magenta

# 1.2 The Proposed Scope

This application requests approval to reduce the minimum lot size for existing R1 zoned land and to rezone a portion of Lot 39 DP 1257837 (currently zoned C2). The aim is to ensure more efficient use of land and infrastructure, increase potential lot yield, and provide a gradual transition from R1 to C2.

## 1.2.1 The site and background context.

In 2007, Greater Queanbeyan City Council conducted a Local Environmental Study (LES) for the future Googong Study Area, identifying part of the site within the Campbell soil landscape, which has erosion potential. This led to zoning the area as C2 Environmental Conservation and R1 General Residential. A lot size map set a 330 m² minimum for R1 land in Googong Township and 1000 m² for the subject site. Binowee Developments Pty Ltd consulted with QPRC Council, addressing concerns on native vegetation, bushfire mitigation, and geotechnical constraints. Updated layouts incorporating specialized studies were presented, leading to the submission of a scoping document for further consideration, including an emergency exit track to meet bushfire requirements.





Figure 2 – Subject site shown in magenta overlay - extent of rezoning.

## 1.2.2 Proposed Land Use:

The objectives of this proposal are: a) To amend the minimum lot size on existing R1 zoned land from 1000 m² to 600 m² to increase the yield and to provide more affordable housing choices. It is noted that proposed lots in the concept layout are 700m² in size and 600m² has only been used to match the existing lot size map categories. b) To rezone part of the C2 Environmental conservation land to R1. c) To amend the minimum lot size on rezoned land from 10 ha to 1000 m² to facilitate subdivision and development of the site and to allow for appropriate gradual transition from R1 to C2. d) To update the applicable Height of Buildings Maps to match the rezoned land.



Figure 3 – Aerial view of the proposed design by Urbane Studio Pty Ltd.

## 1.3 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. This same methodology is currently under review by the Land and Environment Court as a basis for future VIA guidelines to supersede the current instructions.

#### 1.3.1 Process:

Survey and contour DWG were provided by Urbane Studio and a model of the proposal built by Urbaine and aligned to the scene using the survey information

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.

## 1.3.2 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 4: Selected public viewpoint locations for visual impact assessments with site outlined in magenta

#### 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 4, indicates chosen locations for site photography.

#### Contextual Analysis:

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

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

# 1.4 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 Urbane Studio Pty Ltd.



- Queanbeyan LEP 1998
- Yarrowlumla LEP 2002

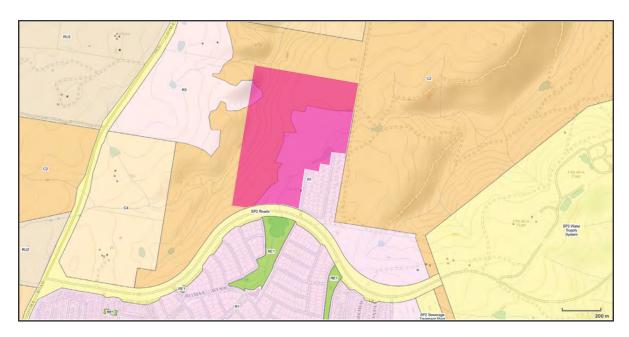


Figure 5: Land zoning map, indicating site with magenta overlay

#### 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 6.

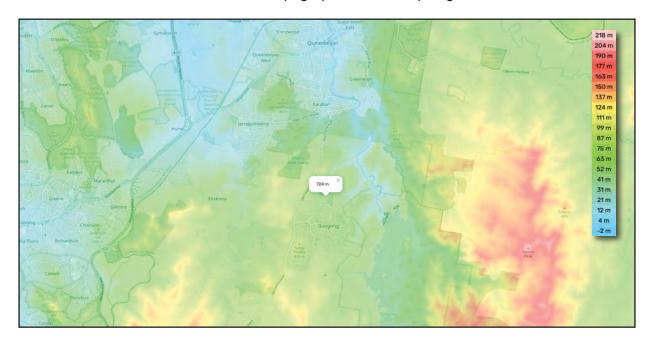


Figure 6: Subject area topographical map.

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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.

## 2.1 The Visual Context:

The area of the subject site features a diverse landscape of rolling pastoral land and rugged bushland. Most of the area consists of pastoral land, characterised by grassy plains and hills that have been largely cleared for grazing, with some areas used for cropping. It also contains new developments of houses, farm buildings, dams, and dirt roads.

In contrast, denser vegetation and woodlands are predominantly found in the steeper and less accessible parts of the area, further away from the subject site. Steep gullies cut into the overall area's margins to the north, west, and east, which often align with significant geological features.

Adjacent land uses have important implications for this, and all future development. To the east lies the Commonwealth-owned Googong Dam and its foreshores, while the Cooma Road Quarry is situated to the north. Rural-residential areas such as Fernleigh Park and Wickerslack Lane are located to the south and north, respectively. Additionally, to the northwest, is the southern boundary of the Jerrabomberra Park residential estate.

#### 2.2 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 south and east of the subject site, with selected views from more distant locations, where the elevation permits. 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.

#### 2.3 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.

#### 2.4 Extent of View:

The extent to which various components of a development would be visible is critical. In this case, the proposal is for a two storey development proposal in a low-density rural context. It is therefore considered to have a local scale visual impact. If the development proposal was located in an area containing buildings of a similar scale and height, it would 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 from 8 viewpoint 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 7 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 7.

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



Scale	Value	Visual Quality	Visual Impact	Tenacity Value
0	Negligible	N/A	No negative impact on the pre-existing visual quality of the view.	2
1 2 3 4 5	Low	Predominant presence of low quality manmade features. Minimal views of natural formations (e.g. cliffs, mountains, coastlines, waterways, ridges etc). Uniformity of land form.	A minor negative impact on the pre-existing visual quality of the view.  Examples:  Minor impacts on natural landscapes.  No impact on iconic views Impacts on a small number of receivers.  Significant distance between the development and receiver.	Minor Negligible
6 7 8 9	Medium	Presence of some natural features mixed with manmade features. Some views of distinct natural formations (e.g. cliffs, mountains, coastlines, waterways, ridges etc).	A medium negative impact on the pre-existing visual quality of the view: Examples:  - Moderate impacts on iconic views or natural landscapes Impacts on a moderate number of receivers Located nearby the receiver.	Devastating Severe Moderate
11 12 13 14 15	High	Predominantly natural features. Minimal manmade features, thowever 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 or landmark features.	A high negative impact on the pre-existing visual quality of a view: Examples: Loss of iconic views. Impacts on a significant number of receivers. Overshadowing effect. Directly adjacent the receiver.	

Figure 7 – Urbaine Group Visual Assessment Scale

3.1.2: Assessment at selected viewpoints.



# **Existing site photo - Googong Road.**

P01 IMG\_3726 a.jpg

From standing position in the Googong Foreshore carpark facing north west towards the subject site RL + 720.52m

Distance to centre of subject site: 1.01km



Photomontage of proposal (unseen).

P01 IMG\_3726 c.jpg



Extent of development's visual impact (unseen) in yellow.

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

This is a static and dynamic, public viewpoint from the northeastern perimeter of the main car park for the administration buildings of the Googong Foreshores Cultural and Geodiversity Heritage Area. The eastern building, of three is visible in the foreground, surrounded by mesh fencing and several large, mature eucalypt trees. The topography of the land falls from south to north, with large amounts of existing landscaping and trees to the west of the buildings, between this viewpoint and the subject site. There are no other residential properties visible from this location, including the approved houses within the subject site.

The additional extent of development is not visible from this viewpoint.

The visual impact of the new proposal, from this location, is assessed as Nil.

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: High.

View location: Grassed area adjoining car park.

Extent of impact: Nil.

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its

surroundings and is not visible from this location.





# **Existing site photo - Corner of George Creek Road and Googong Road.**

P05 IMG\_3777 a.jpg

From standing position on the northern side public footpath of Googong Road facing north west towards the subject site

RL + 730.78m

Distance to centre of subject site: 350.57m



Photomontage of proposal.

P05 IMG\_3777 c.jpg



Extent of development's visual impact (unseen) in yellow with red outline.

Visual impact – Amount of new development visible in view (additional only) - 9% Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0% Existing Visual Assessment Scale no: 9 /15. Visual Impact Assessment Scale no (additional only): 3 /15

This is a static and dynamic, public viewpoint from the eastern verge at the road junction between Gorge Creek Drive and Googong Road. The view looks across George Creek Road towards the subject site in a northwesterly direction. Existing, developed housing plots are seen to the north, with the topography of the land rising beyond this to the north. There are several, large, existing mature trees on the western edge of George Creek Road, on the boundary of the subject site. The far distant views, beyond the subject site are towards the distant ridgeline that follows Old Cooma Road to Karabar. This ridgeline is defined by mature trees intercepting the sky view.

The additions to the approved development are partially observed between and above the existing houses. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: Medium.

View location: Road and pavement

Extent of impact: Negligible (additional component).

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its

surroundings and is only partially visible from this location (additional component)...





# **Existing site photo - Chimney Rise, Googong.**

P06 IMG\_3788 a.jpg

From standing position on eastern side of the public road facing west towards the subject site RL + 721.03m

Distance to centre of subject site: 205.84m



Photomontage of proposal.

P06 IMG\_3788 c.jpg



## **Extent of development's visual impact.**

# Visual impact:

Visual impact – Amount of new development visible in view (additional only) - 12% Visual impact ratio - view loss (including buildings) : sky view loss: 94% : 6% Existing Visual Assessment Scale no: 10 /15. Visual Impact Assessment Scale no. (additional only): 4 /15

This is a static and dynamic, public viewpoint from the vehicle turning circle at the northern end of Chimney Rise, looking northwest across the subject site. The land rises to the north and the ridgeline of Old Cooma Road forms the ridgeline, with a mixture of large, mature trees and individual, residential properties located along this.

The additions to the approved development are partially observed beyond the northern extent of the currently approved houses. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed as Negligible-to-Minor (additional component).

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: Medium-to-High. View location: Road and pavement.

Extent of impact: Negligible-to-Minor (additional component).

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its

surroundings and is only partially visible from this location (additional component)..





# **Existing site photo - 8 Merlin Cresent, Googong.**

P10 IMG\_3845 a.jpg

From standing position on the southern public footpath of Merlin Crescent, facing north-northwest towards the subject site

RL + 729.84m

Distance to centre of subject site: 391.89m



Photomontage of proposal.

P10 IMG\_3845 c.jpg





Extent of development's visual impact (unseen) in yellow with red outline.

Visual impact – Amount of new development visible in view (additional only) - 11% Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0% Existing Visual Assessment Scale no: 7 /15. Visual Impact Assessment Scale no. (additional only): 3/15

This is a static and dynamic, public viewpoint from the southern pavement of Merlin Crescent, looking across the junction of Googong Road and Gorge Creek Drive in a north-northeasterly direction towards the subject site. Directly north, the new houses along the eastern boundary of Gorge Creek Drive are observed and far distant views, beyond the subject site are towards the distant ridgeline that follows Old Cooma Road to Karabar. This ridgeline is defined by mature trees intercepting the sky view. There are also several lamppost structures observable along the existing roads in this view.

The additions to the approved development are partially observed between and above the existing houses. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed ad Negligible.

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: Medium.

View location: Road and adjoining pavement.

Extent of impact: Negligible (additional component).

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its surroundings and is only partially visible from this location around the existing approved development (additional component)..

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# **Existing site photo - Blair Crescent.**

P15 IMG\_3886 a.jpg

From standing position on the public footpath of the north part of Beltana Park reserve near Blair Crescent RL + 727.09m

Distance to centre of subject site: 451.20m



Photomontage of proposal.

P15 IMG\_3886 c.jpg



Extent of development's visual impact in yellow with red outline.

Visual impact – Amount of new development visible in view (additional only) - 8% Visual impact ratio - view loss (including buildings) : sky view loss: 76% : 24% Existing Visual Assessment Scale no: 11/15. Visual Impact Assessment Scale no.(additional only): 2/15

This is a static, public viewpoint from the footpath that runs around the perimeter of Beltana Park on its western side, adjoining Blair Crescent. The view looks due north along the foothpath and to the northern end of the park, through a screen of semi-mature eucalypt trees and Australian native grasses. Beyond the park, the subject site can be seen with the ridgeline behind, in the far distance.

The additions to the approved development are partially observed between and above the existing houses, with significant screening from the trees in the foreground. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed ad Negligible.

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: High.

View location: Path within public park.

Extent of impact: Negligible (additional component).

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its

surroundings and is only partially visible from this location.





# **Existing site photo - Corner of Googong Road and Baker Crescent.**

P19 IMG\_3928 a.jpg

From standing position on the eastern public footpath of Googong Road near the junction with Baker Crescent facing north east towards the subject site.

RL + 741.92m

Distance to centre of subject site: 538.53m

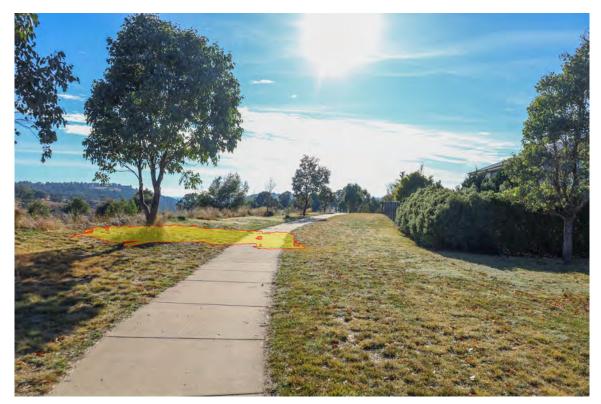


Photomontage of proposal (unseen).

P19 IMG\_3928 c.jpg



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Extent of development's visual impact (unseen) in yellow with red outline.

Visual impact – Amount of new development visible in view - 0% Visual impact ratio - view loss (including buildings) : sky view loss: 0% : 0%

Existing Visual Assessment Scale no: 9/15. Visual Impact Assessment Scale no: 0/15

This is a static, private viewpoint from the public footpath that runs parallel to Googong Road and to the west of Baker Crescent. This area is well landscaped with semi-mature eucalypt trees lining Googong Road and high hedges screening the houses to the east. This area is elevated, relative to the subject site, which is located in a north-northeasterly direction. The landform visually conceals the subject sit entirely, when viewed from this location. The rising, distant ridgeline can be seen beyond the location of the subject site, to the north, in the far distance.

The additional extent of development is not visible from this viewpoint.

The visual impact of the new proposal, from this location, is assessed as Nil

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: Medium-to-High. View location: Road and pavement

Extent of impact: Nil

Reasonableness of proposal: This is a compliant development that is not visible from this location.





# **Existing site photo - Old Cooma Road.**

P23 IMG\_3966 a.jpg

From standing position on the public footpath along the eastern side of Old Cooma Road facing southeast towards the subject site

RL + 772.37m

Distance to centre of subject site: 874.02m



Photomontage of proposal.

P23 IMG\_3966 c.jpg



Extent of development's visual impact indicated with cyan overlay.

Visual impact – Amount of new development visible in view (additional only) - 73% Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0% Existing Visual Assessment Scale no: 10 /15. Visual Impact Assessment Scale no. (additional only): 2 /15

This is a static and dynamic, public viewpoint from the eastern verge of Old Cooma Road, at the boundary fence of the property at no.661, Old Cooma Road. The view looks across open pastures, with a small water dam in the foreground. Power lines cross the view, running south-southeast towards the subject site, as the land levels fall from north to south. Existing mature trees line to road and there are several groups of trees between the viewing location and the site. Beyond the site, further south are the existing housing developments around Gorman Drive, with Googong Hill seen rising in the far distance, further south.

The additions to the approved development are partially observed, with its location to the west of the currently approved houses. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed Negligible.

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: High. View location: Road verge.

Extent of impact: Negligible (additional component).

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its surroundings and is only partially visible from this location, alongside the approved development (additional

component)..





# **Existing site photo - Old Cooma Road.**

P26 IMG\_3991 a.jpg

From standing position on the public footpath along the eastern side of Old Cooma Road facing east towards the subject site.

RL + 774.08m

Distance to centre of subject site: 829.29m



Photomontage of proposal.

P26 IMG\_3991 c.jpg



Extent of development's visual impact indicated with cyan overlay.

Visual impact – Amount of new development visible in view (additional only) - 61% 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 static and dynamic, public viewpoint from the eastern verge of Old Cooma Road, approximately 145m to the south-southeast of the boundary fence of the property at no.661, Old Cooma Road and viewpoint no.7. The view looks across open pastures, with a small water dam in the foreground. The land levels fall from north to south, towards the subject site. There are several groups of trees, together with mature, individual trees, between the viewing location and the site. Beyond the site, further south are the existing housing developments around Gorman Drive, with Googong Hill and the continuing high ridgeline is seen rising in the far distance, further south.

The additions to the approved development are partially observed, with its location to the west of the currently approved houses. The visual impact is not significant and will be further reduced with the addition of landscaping, both along roads and within the individual plots.

The visual impact of the new proposal, from this location, is assessed as Minor.

LEC Judgement: Rose Bay Marina v Woollahra Council (2013) Assessment Criteria:

Value of view: High

View location: Pasture land adjoining road.

Extent of impact: Negligible-to-Minor (additional component)...

Reasonableness of proposal: This is a compliant development that integrates well into the scale of its surroundings and is only partially visible from this location beyond the existing, approved development (additional component)...



August 1, 2024

#### 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 Residential Rezoning Application: No.141 Googong Road Sunset Stage 2.

This Visual Impact Assessment has undertaken a review of the proposal, within its future setting and concludes that, since the already approved extent of rezoning integrates into the overall context of the area, the additional component does not increase this to any significant level. As wil be observed within the report images, the additional housing lots are observed, for the mostpart, in the gaps, above and between the approved houses. Longer distance views are largely obscured by the topogtraphy of the land and the existing mature trees and landscaping.

Since the proposal is compliant, it would not be incumbent upon the Applicant to investigate whether a better design solution would reduce the view loss and visual impact, since it is currently acceptable.

Based on our 3D analysis, photography, and site visit it would be my recommendation that the Residential Rezoning Application be approved on the grounds of an acceptable amount of visual impact and view loss, directly as a result of a compliant design. The increased efficiency of land use will also be taken as a positive outcome if the application is approved.



John Aspinall, Director,

urbaine design group pty ltd.

## 5. APPENDICES.

■ 5.1 APPENDIX A: Visual Impact Images. Large format.

■ 5.2 APPENDIX B: Aspinall CV

LEC Guidelines for Photomontages Visual Impact Assessment Methodology

■ 5.3 APPENDIX C: Wireframe/alignment images

■ 5.4 APPENDIX D: Camera positions

APPENDIX B:
Aspinall CV and Expert Witness experience.  Methodology article – Planning Australia, by Urbaine Architecture

## 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 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 photomonages 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

August 1, 2024

#### VISUAL IMPACT ASSESSMENTS: A REALITY CHECK.

## BY JOHN ASPINALL.

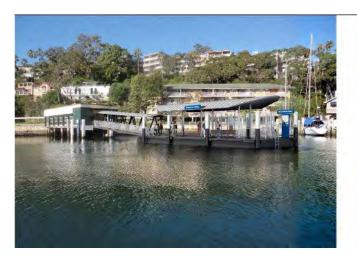


Photomontaged views of new apartment building at Pyrmont: Urbaine

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

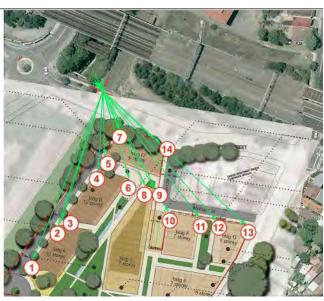
training, prior to the introduction of CAD and 3d modelling, a good understanding of the principles of perspective, light, shadow and building articulation, were taught throughout the training of architects.

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%.



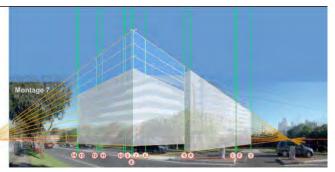
SMH article re inaccurate visualisations



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.

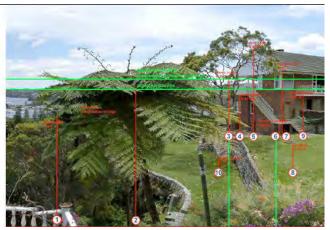
Every site presents different opportunities for verification and, often, Urbaine is required to assess montages

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.

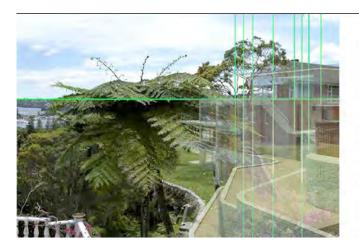
The following example clearly demonstrates this – a house montaged into a view, by others, using very few points of reference for verification. By analysing the existing photo alongside the survey, the existing site was able to be recreated with a series of reference elements built into the model. A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

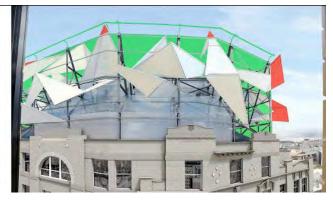




Photomontage of proposed building for digital billboard

Existing situation – view from adjoining hot

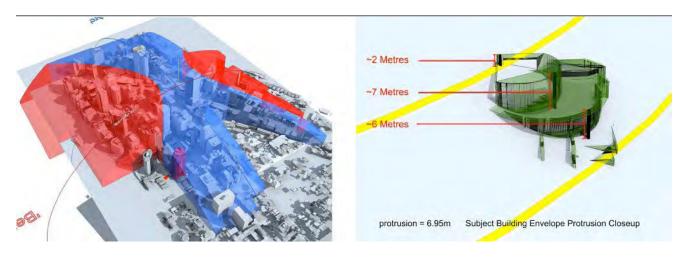




Photomontage of view from hotel

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.

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#### Land and Environment Court guidelines for photomontages:

#### Use of photomontages

The following requirements for photomontages proposed to be relied on as or as part of expert evidence in Class 1 appeals will apply for proceedings commenced on or after 1 October 2013. The following directions will apply to photomontages from that date:

#### Requirements for photomontages

1. Any photomontage proposed to be relied on in an expert report or as demonstrating an expert opinion as an accurate depiction of some intended future change to the present physical position concerning an identified location is to be accompanied by:

#### Existing Photograph.

- a) A photograph showing the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage (the existing photograph);
- b) A copy of the existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed. The wire frame overlay represents the existing surveyed elements which correspond with the same elements in the existing photograph; and
- c) A 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken. Survey data.
- d) Confirmation that accurate 2D/3D survey data has been used to prepare the Photomontages. This is to include confirmation that survey data was used:
- for depiction of existing buildings or existing elements as shown in the wire frame; and
- ii. to establish an accurate camera location and RL of the camera.
- 2. Any expert statement or other document demonstrating an expert opinion that proposes to rely on a photomontage is to include details of:
- a) The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived was obtained; and
- b) The camera type and field of view of the lens used for the purpose of the photograph in (1)(a) from which the photomontage has been derived.

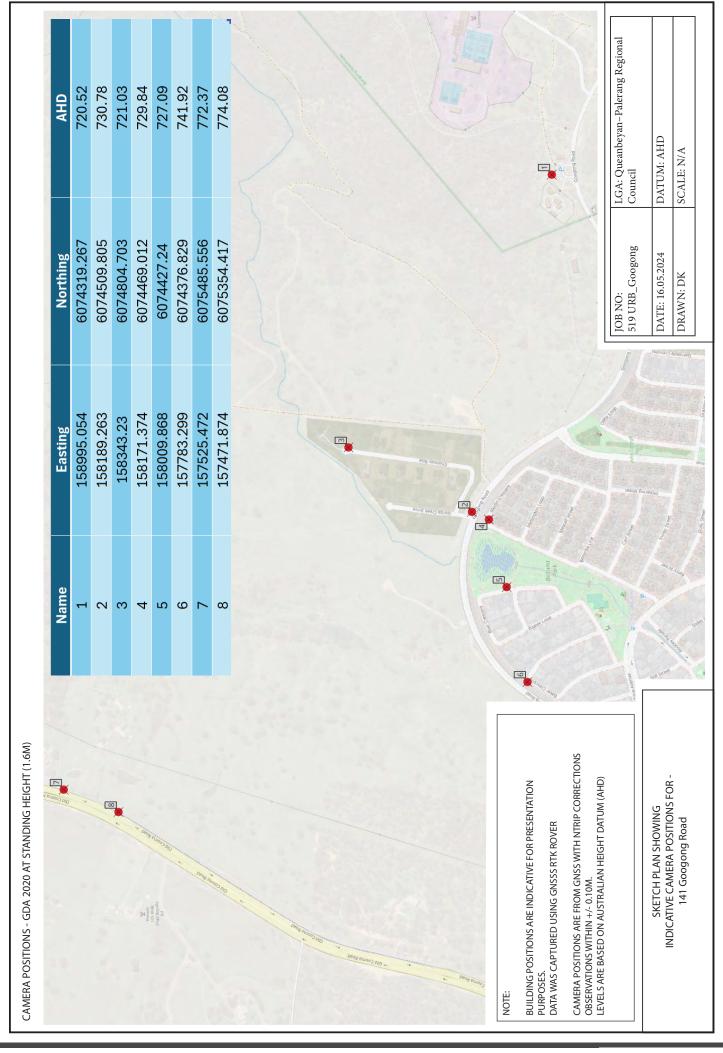


APPENDIX D:
Wire Frame / Point Cloud Alignment

Viewpoint 01

Viewpoint 02

APPENDIX D:	
camera positions	





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

Appendix A - Visual Impact Images

Residential Rezoning Application: No.141 Googong Road Sunset Stage 2.

August 1, 2024



Camera positions map with proposed D.A site in magenta



Site images



Photomontage of proposal (unseen)



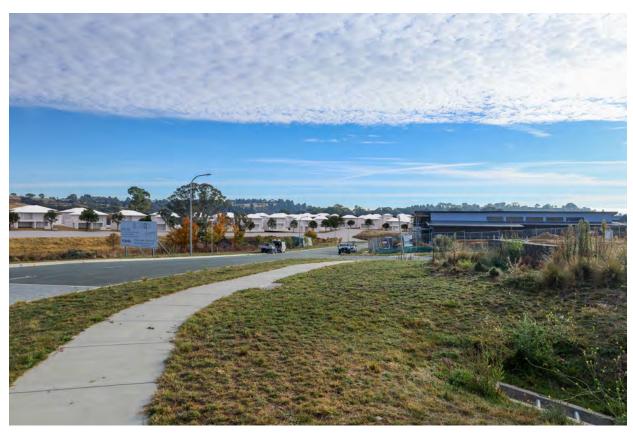
Visual impact (unseen) in yellow with red outline



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



Site images



Photomontage of proposal

CLIENT:

DWG NO:



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



Site images



Photomontage of proposal



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



Site images



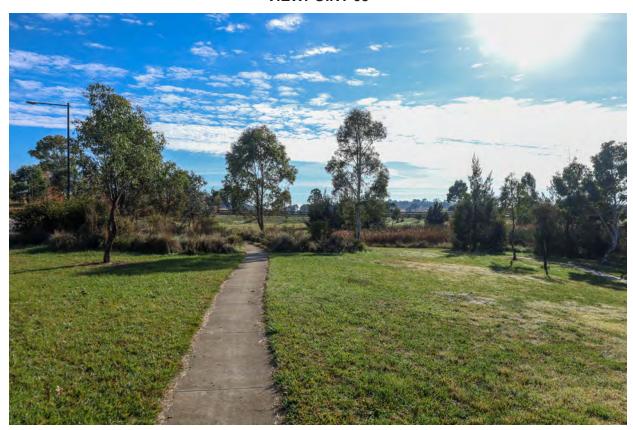
Photomontage of proposal



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



Site images



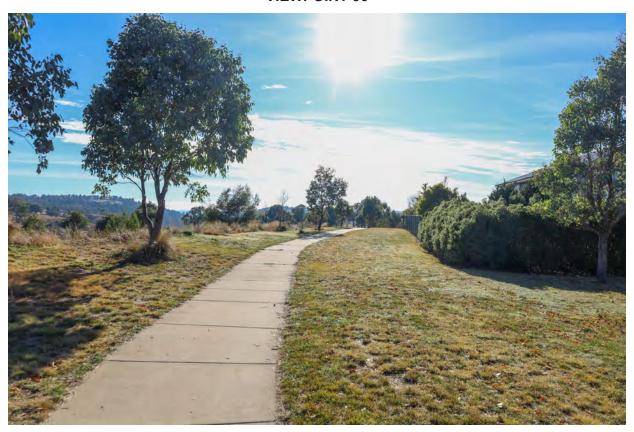
Photomontage of proposal



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



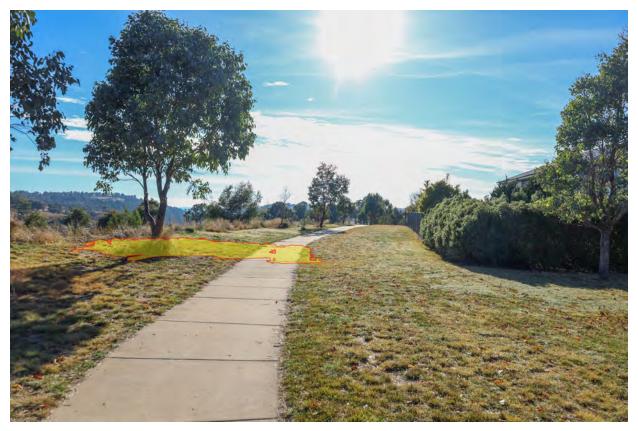
Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



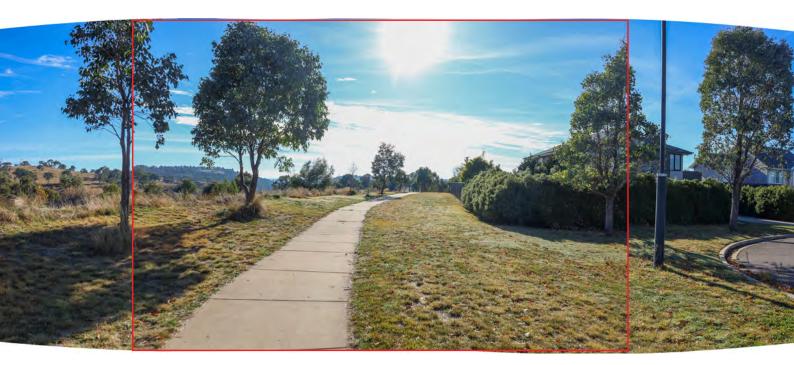
Site images



Photomontage of proposal (unseen)



Visual impact (unseen) in yellow with red outline



Photomontage (unseen) in red frame, nested in panorama for additional context closer to field of view of two human eyes



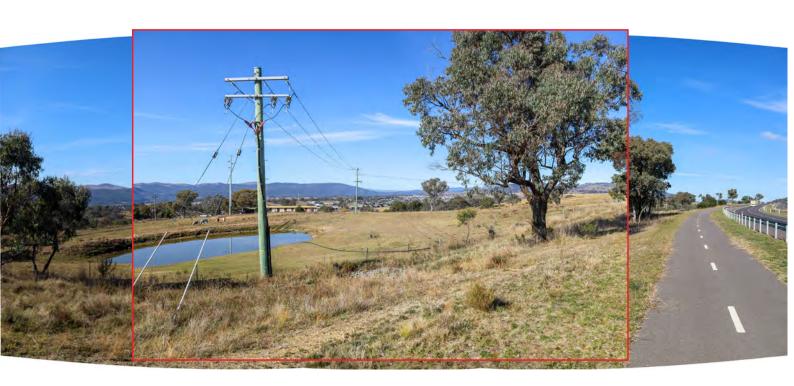
Site images



Photomontage of proposal



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes



Site images



Photomontage of proposal



Visual impact in cyan with red outline and magenta indicating extent of proposed rezoning



Photomontage in red frame, nested in panorama for additional context closer to field of view of two human eyes

**Aerial Views** 



Photomontage of proposal



Visual impact in cyan with extent of proposed rezoning in magenta