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



VISUAL IMPACT ASSESSMENT

PROPOSED MIXED-USE WITH INFILL AFFORDABLE HOUSING

NOS.3-5 HELP STREET CHATSWOOD

MARCH 11 2025

Proposed mixed-use residential and commercial building

Nos.3-5 Help Street Chatswood

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1. INTRODUCTION

1.1. Scope and Purpose of Report

This Visual Impact Report has been prepared for Loftex Chatswood Pty Ltd and is submitted to the Department of Planning Housing and Infrastructure (DPHI) in support of a State Significant Development Application (SSDA) for a proposed mixed-use residential and commercial building at Nos.3-5 Help Street, Chatswood. 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.

The subject application is made under State Environmental Planning Policy (Housing) 2023 (Housing SEPP), which provides for additional height and floor space ratios for developments that include a minimum of 10% of dwellings as dedicated affordable housing units for a minimum of 15 years.

This document fulfills the specific requirements from Section 6 of the Planning Secretary's Environmental Assessment Requirements: Visual Impact. The request is for the specific content below:

Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.

Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment.

These are addressed within this report.

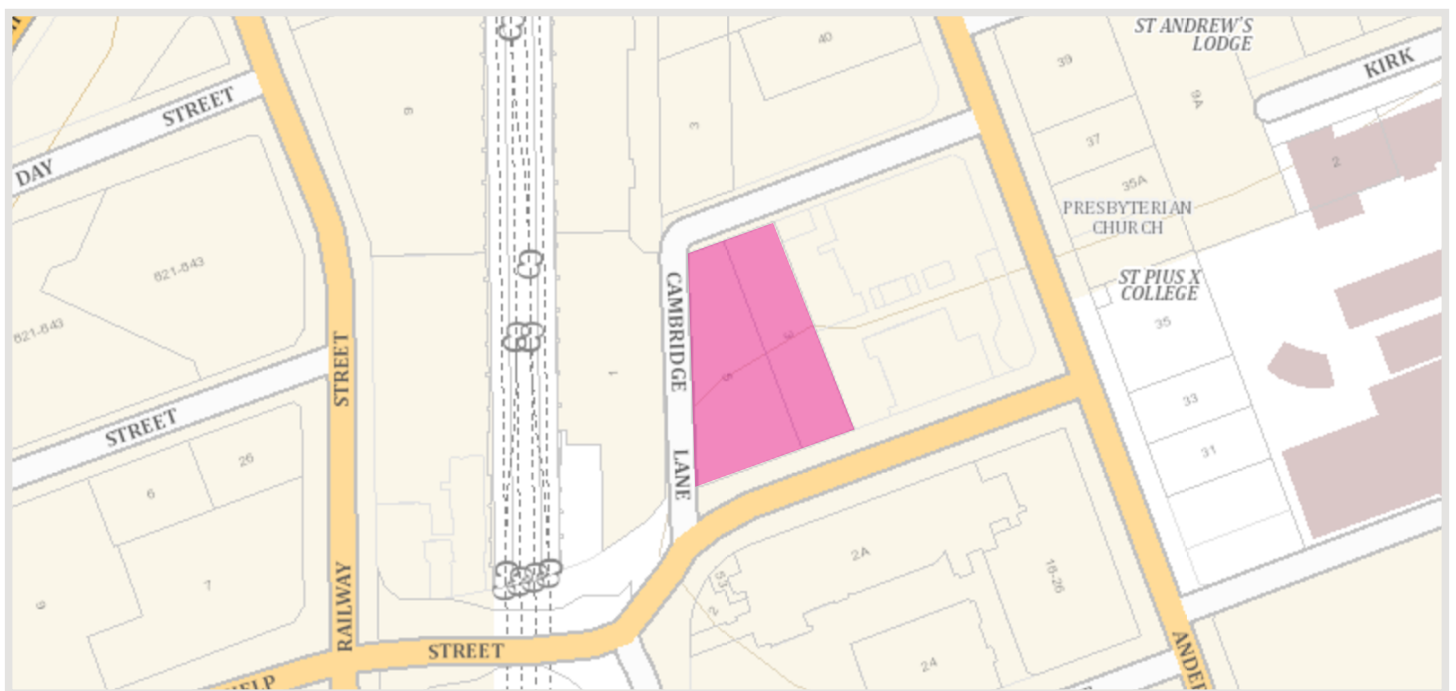


Figure 1 – Site location shown in magenta

1.2. The Proposed Development

The proposed development comprises of the addition of 8 floors above an approved development, which includes the demolition of the existing dwelling and subsequent construction of an architecturally designed twenty six (26) storey mixed-use building with 5 levels of basement/

1.2.1. The Site and existing property

The subject site is located within the Local Government Area (LGA) of City of Willoughby. The site comprises lots

SP134 and SP52320 and is more commonly referred to as No. 3-5 Help Street, Chatswood. The site comprises a total land area of 2,290m². The site currently comprises two adjacent two-storey brick dwellings with pitched shingle roofs. The front setback currently presents as a predominately hard paved area with no identifiable deep soil vegetation being limited to the frontmost boundary interface between the subject and neighbouring site.

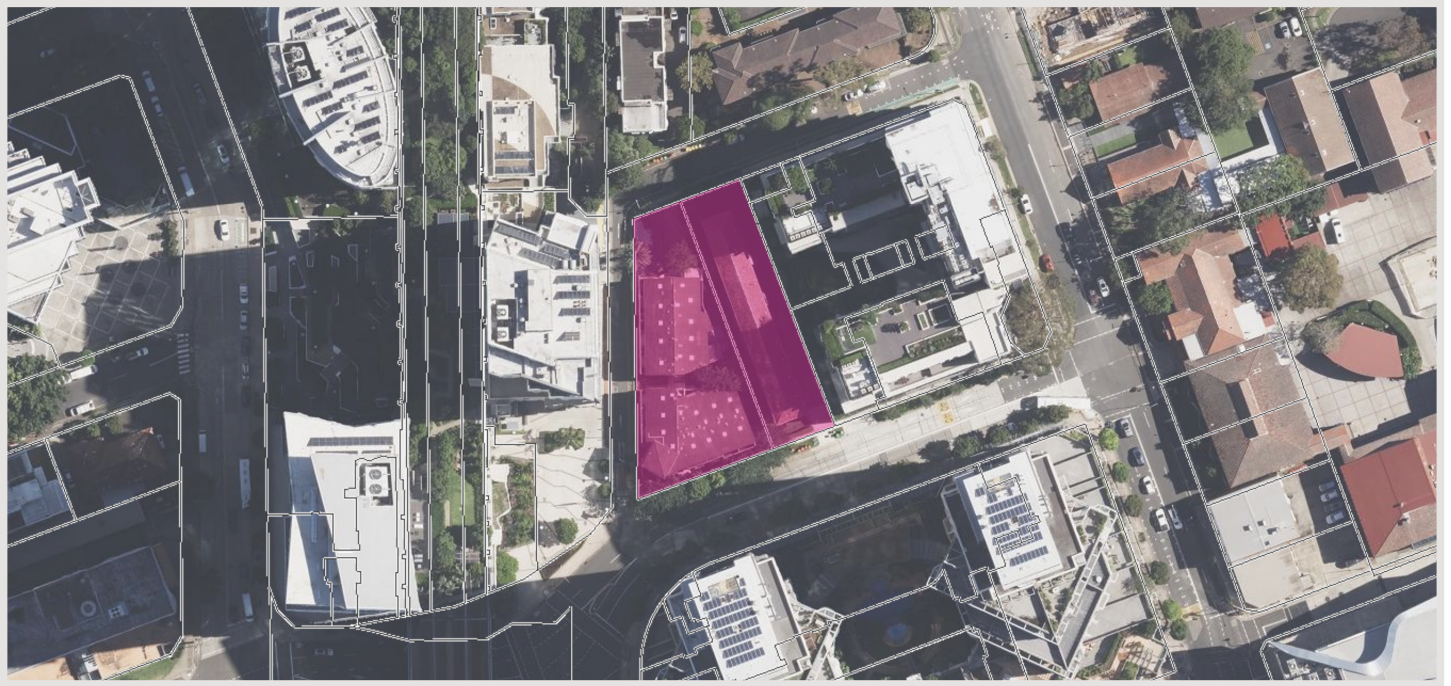


Figure 2 – Subject site shown in magenta overlay

1.3. Proposed Land Use and Built Form

The proposed development comprises of the construction of an architecturally designed 26 storey building. The proposed development is further described as follows:

Basement 05:

- 14 residential spaces (2 adaptable)

Basement 04:

- 42 residential spaces (13 adaptable)

Basement 03:

- 42 residential spaces (13 adaptable)

Basement 02:

- 34 residential spaces (4 adaptable)
- 10 residential visitor spaces (1 adaptable)

Basement 01:

- 10 commercial spaces (2 adaptable)
- 13 residential spaces (1 adaptable)
- Bike Storage, OSD, Cold Water Plant, Rainwater Tank, Grease Arrestor, and Car Park Supply and Exhaust Fan Rooms.

Lower - Ground and Upper Ground:

- Car Park Entry
- 3 commercial premises
- Fire Pump Room, Fire Tank Room, Residential and Commercial Waste Rooms, Substation. Residential Lift Lobby and Commercial Lobby.

Mezzanine and Level One:

- Commercial Premises

Level Two:

- Residential Apartments and Communal Area.

Levels Three to Thirty four:

- Residential Apartments.

The building façades have been designed in a manner whereby they serve to modulate the building volume while variations in materiality seek to further define the layers of the development in a manner that also facilitates the provision of a greater level of visual interest. Furthermore, appropriate window positioning and proportions serve to articulate the building elevations and help to avoid unadorned expanses of cladding.

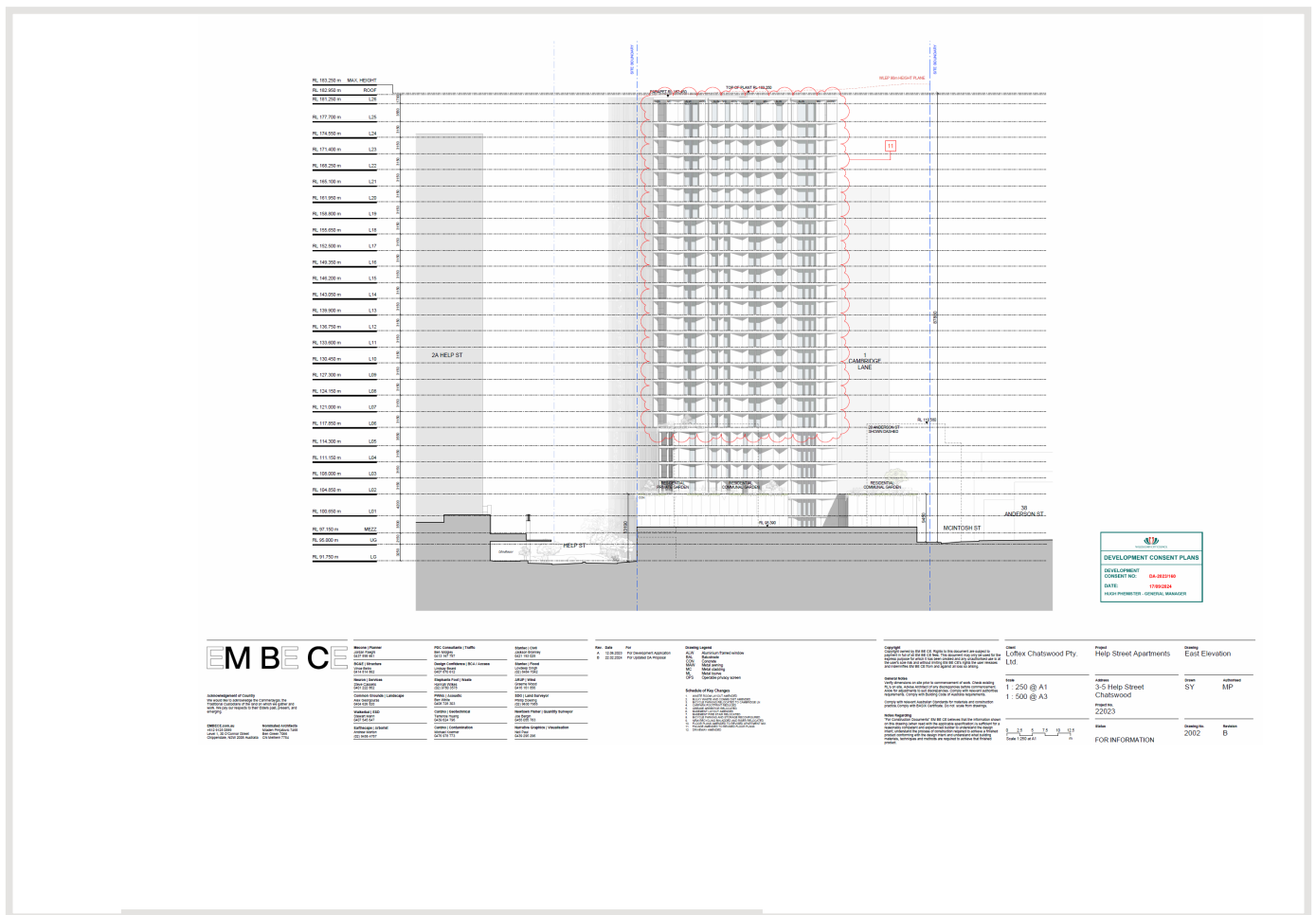


Figure 3 – Elevations of the proposed design by EMBECE

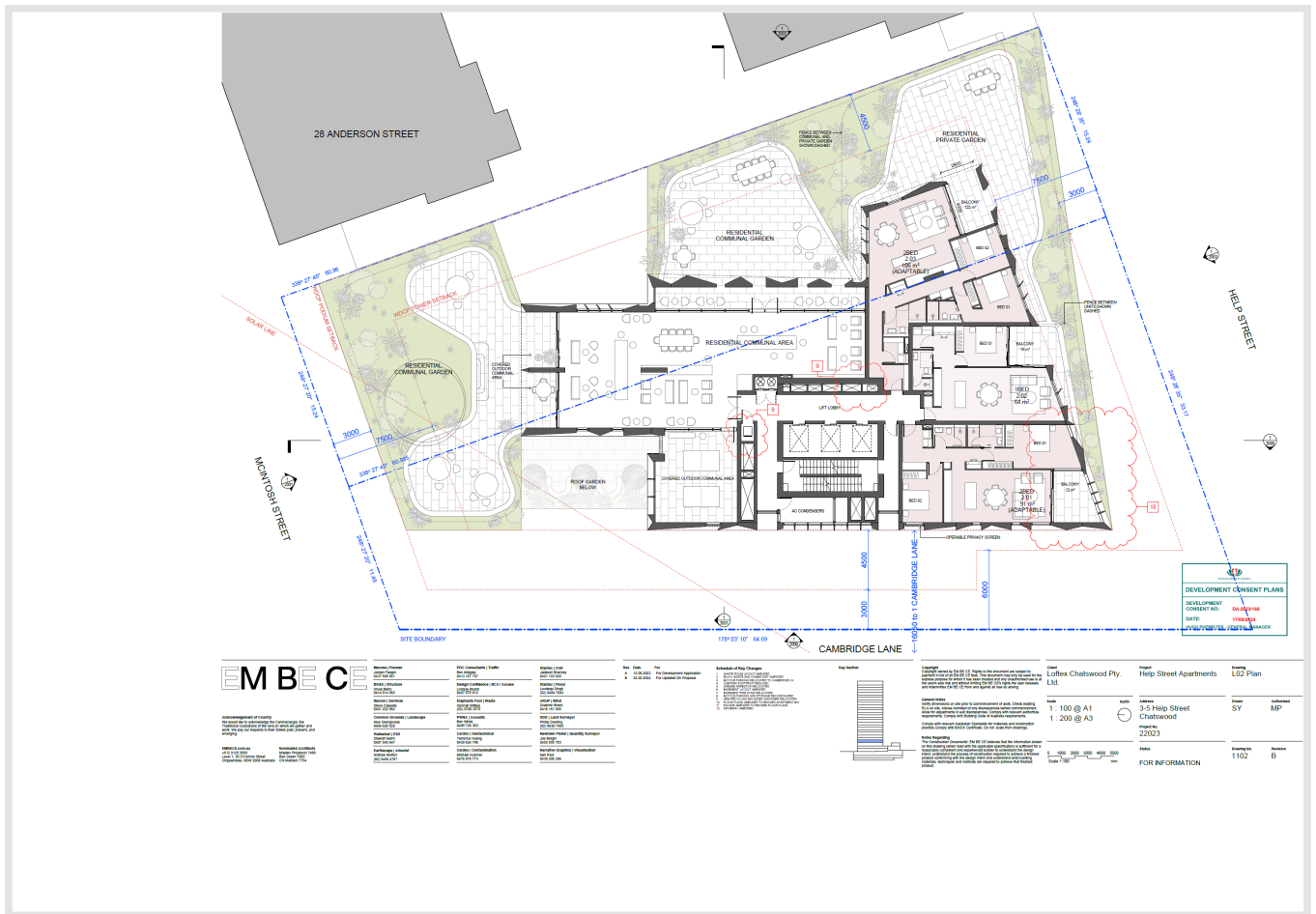


Figure 4 – Typical floor plan of the proposed design by EMBECE

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 B. 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 architects, EMBECE and aligned to the scene using the survey information from SDG | Land Surveyor Surveyors, which accompanies the SSDA 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.

1.4.2. Assessment Methodology

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

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

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

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

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

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

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

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

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

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

1.4.3. Site Inspections

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

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

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

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.

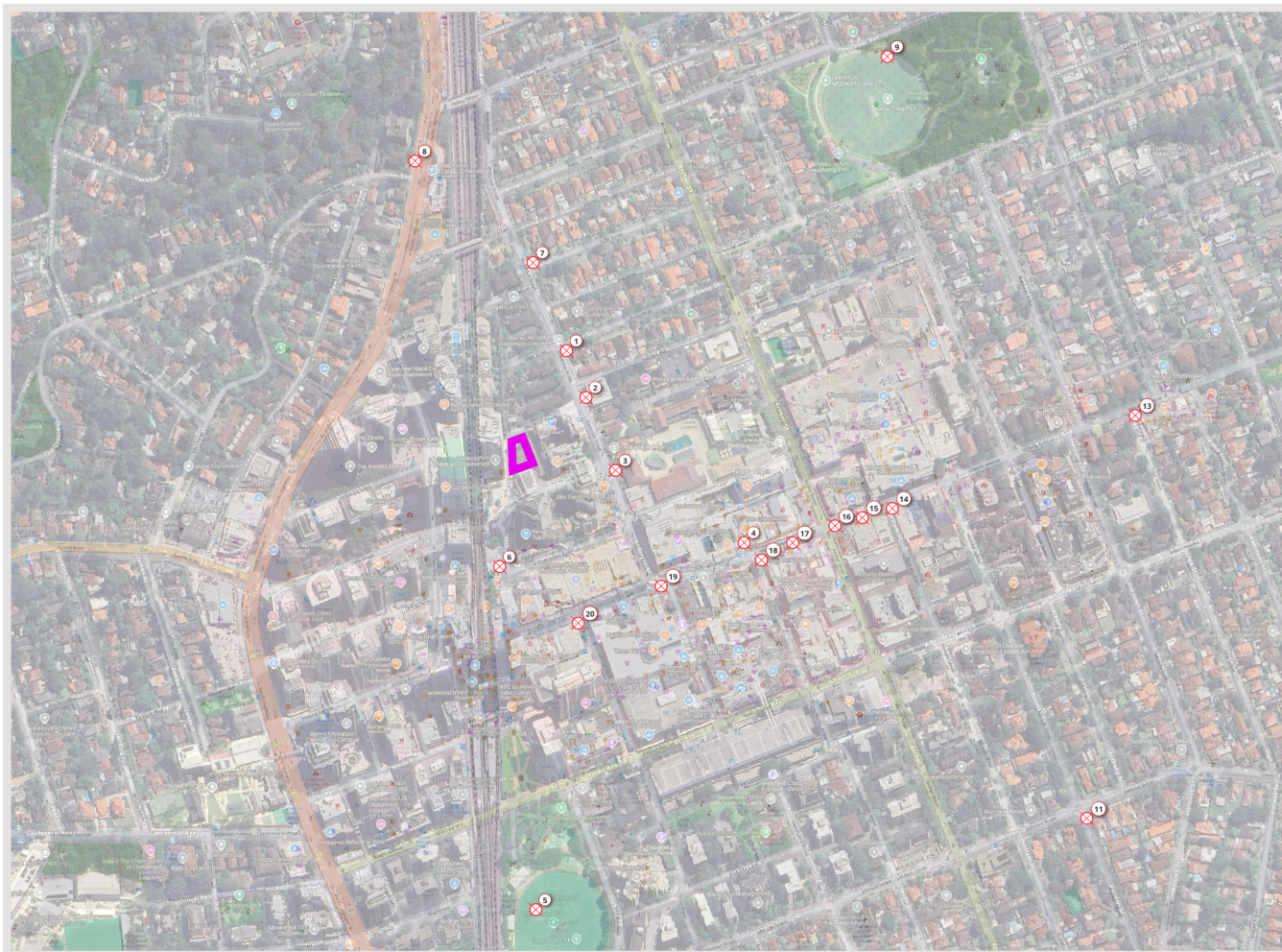


Figure 5: Selected viewpoint locations for visual impact assessments with site outlined in magenta.

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 EMBECE*
- *Willoughby DCP 2023*
- *Willoughby LEP 2012*

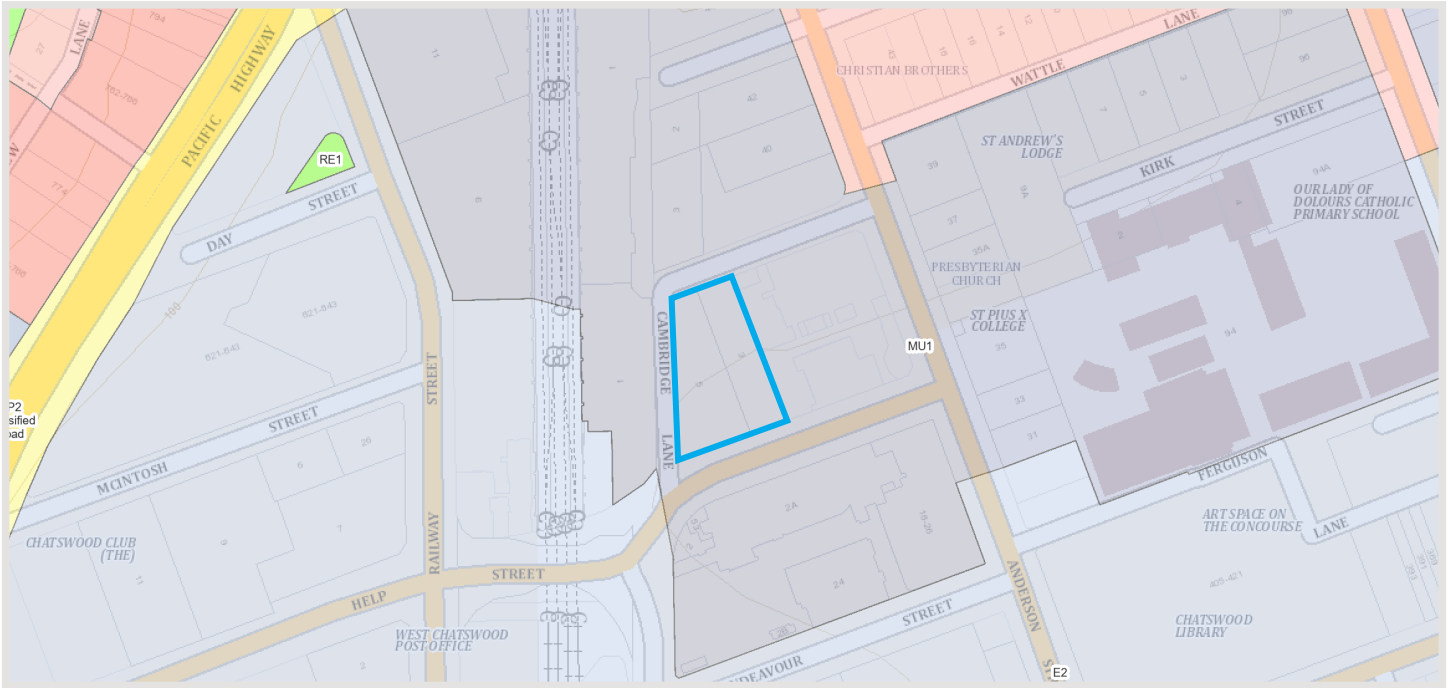


Figure 6: Land zoning map, indicating site with blue outline.

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 7.



Figure 7: Subject area topographical map.

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

Within the street context, there is a mix of property types, sizes and architectural styles. Pacific Highways is lined with a mixture of residential apartment and commercial buildings. Within the urban context, away from Pacific Highway, there is a relatively diverse fabric, in terms of planning and architecture, consisting of large conjoined lots of mid to high rise apartments. There are also several large scale educational establishments within the vicinity and the CBD and retail precincts of Chatswood are 0.5km away from the subject site.

2.2. Visual Features and Local Landmarks

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

Views to Chatswood CBD, Sydney Harbour and CBD (from high levels), North Sydney and St Leonards.

2.3. Streetscapes

Within the immediate and surrounding areas, the streetscapes are typical of the suburb of Chatswood, being a mixture of individual houses and apartments blocks of varying scales. There are many heritage buildings within the area and the landscaping is predominantly mature and well established. Wide pavements are generally the norm, responding to the large amount of pedestrian traffic, utilising public transport along Pacific Highway.

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 surrounding the subject site, both within the Chatswood CBD and also the residential street beyond. 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 3-5 Help Street Chatswood

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 8 is a scale of values from 0 to 15, used to allow a numeric value to be given to a particular view, for the purposes of comparison.

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

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

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

blend into the existing surroundings.

TENACITY / SCALE / VALUE		VISUAL IMPACT		VISUAL QUALITY	
NIL	0	NEGLECTIBLE	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
2					
3					
MINOR	4	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.)	
	5				
	6				
MODERATE	7	HIGH	A high negative impact on the pre-existing visual quality of a view Examples: loss of iconic vie 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	
	8				
	9				
SEVERE	10				
	11				
DEVASTATING	12				
	13				
	14				
	15				

Figure 8: Urbaine Group Assessment Table

3.1.1. Assessment at selected viewpoints

VIEWPOINT 01



Existing site photo - Anderson Street and Daisy Street intersection. Ground level street view

From standing position on Anderson Street.
RL: +103.64m, Distance to boundary: 98.65m



Photomontage of Proposal



Visual Impact of SSDA proposal in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 91%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 19% :81%*
- *Existing Visual Assessment Scale no: 5 /15 & Visual Impact Assessment (additions only) Scale no: 3 /15*

This is a static, public view from the street intersection between Anderson St and Daisy St, looking north towards the subject site at nos.3-5 Help Street. The foreground of the view shows the four lane width road and adjacent to it, beyond a line of mature trees, are two three-storey residential flat buildings, with the dwelling at no. 42 Anderson St observed in the eastern foreground, and the dwellings at nos.40 Anderson St and 38 Anderson St observed in the eastern aspect of the foreground view. In the eastern most aspect of the view the southeastern boundary of the dwelling at No. 36 Anderson St is visible. Beyond this is a line of high-rise residential flat buildings, located along Day St, spanning across the entire width of the further view line.

The visual impact, from the additional floors, results in sky view loss only, although there may be further view loss experienced by neighbouring properties to the south and east.

Tenacity Assessment Summary:

- *Value of view: Low*
- *View location: Ground level-street view*
- *Extent of impact: Negligible*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 02



Existing site photo - Anderson Street and Macintosh intersection, ground level

From standing position - Anderson and Macintosh Street intersection.
RL: +98.84m, Distance to boundary: 70.17m



Photomontage of Proposal



Visual Impact of SSDA scheme in green with red outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 0%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 0%*
- *Existing Visual Assessment Scale no: 5 /15 & Visual Impact Assessment (additions only) Scale no: 0 /15*

This is a static, public view from the eastern pavement at the intersection of Anderson St and Macintosh St, looking west-southwest towards the subject site. In the immediate foreground of the view, the dwelling at no.38 Macintosh St is seen, beyond a line of mature trees bordering the southern boundary. In the southwestern aspect of the foreground view is the northern corner of the high-rise residential flat building at no.30, Anderson Street, with the lower level apartment buildings further to the west, not visible from this location. The background elements of the view are comprised of various high-rise apartment towers along the eastern and western boundaries of the railway line, running north.

The visual impact upon the proposals completion can be assessed as Nil from this view location, resulting in partial sky view loss and some lateral residential view loss of the adjacent dwelling at no.1 Cambridge Lane.

Tenacity Assessment Summary:

- *Value of view: Low*
- *View location: Ground level-street view*
- *Extent of impact: Nil*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 03



Existing site photo - Anderson Street, ground level

From standing position on Anderson Street and Help Avenue intersection.
RL: +93.52m, Distance to boundary: 74.04m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 8 %*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 0% : 100%*
- *Existing Visual Assessment Scale no: 5 /15 & Visual Impact Assessment Scale no: 2 /15*

This is a static, public view from Anderson St at its intersection with Help St. The view looks due west, towards the subject site and the southern elevation of the apartment building at no.30 Anderson St, beyond the street trees bordering the site. The southwestern aspect of the foreground view shows the northern boundary of no.18-20, Anderson Street. Beyond that, in the middle distance, the eastern elevation of the apartment tower at no.7 Railway St. terminates the view in this direction, on the western side of the railway line.

The visual impact upon the proposal dwellings completion can be assessed as Low from this view location, consisting of sky view loss due to the elevated vertical aspect of the dwelling in relation to that of the neighbouring dwellings in the observable vicinity. The view loss encompasses lateral residential view loss of the neighbouring northern dwelling at no. 28 Railway St.

Tenacity Assessment Summary:

- *Value of view: Low*
- *View location: Ground level-street view*
- *Extent of impact: Negligible*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 04



Existing site photo - Chatswood Concourse, ground level

From standing position on Chatswood Concourse plateau.
RL: +90.79m, Distance to boundary: 237.18m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 94%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 0% : 100%*
- *Existing Visual Assessment Scale no: 8 /15 & Visual Impact Assessment (additions only) Scale no: 5 /15*

This is a static, public view taken from the The Concourse, at nos.405-421, Victoria Avenue, looking west-northwest across the grassed, tree-lined courtyard towards the main entrance to the performance space. Beyond this, the two residential towers at nos.2A and 2B, Help Street are seen at their upper levels, with no.7, Railway Street to the north of these.

The visual impact upon the design proposals completion, from this location, can be assessed as Low. and is observed beyond the roof structure of Chatswood Concourse. The view loss consists of sky view loss and residential view loss from the dwelling at no. 53 Orchard St.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Ground level- plateau view.*
- *Extent of impact: Negligible-to-Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 05



Existing site photo - Ground level, standing position from Chatswood Oval

From standing position ground level of Chatswood Oval.
RL: 94.95m, Distance to boundary: 504.27m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 0%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: N/A*
- *Existing Visual Assessment Scale no: 9 /15 & Visual Impact Assessment (additions only) Scale no: 0 /15*

This is a static, public view from Chatswood Oval, looking due north towards the subject site across the outfield of the oval, a seating stand and a line of mature trees, in the northwestern aspect of the view. A mixture of commercial and residential towers, along Albert Street are observed at their upper levels beyond these. Further north, larger residential flat buildings are seen along Post Office Lane and Victoria Avenue, bounding the perimeter of the railway line. The apartment tower of no.7, Railway is seen between these in the far distance.

The view impact upon the proposed dwellings design completion can be assessed as Low front his view location. Consisting of partial residential view loss, the proposal can be observed beyond a line of mature trees around the perimeter of Chatswood Oval.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Ground level - park view*
- *Extent of impact: Nil*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 06



Existing site photo - Ground level, street view from Orchard Street

From standing position on Orchard Street, ground level.

RL: 95.82m. Distance to boundary: 98.31m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- Visual impact – Amount of Proposed Development visible in view - 79%
- Visual impact ratio - view loss (including buildings) : sky view loss: 0% : 100%
- Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment (additions only) Scale no: 3 /15

This is a static, public view from Orchard Road, looking due north towards the subject site at no.3 Help St. From this location, the foreground view, to the northeast shows the podium and western tower of the residential development at nos.2a and 2b, Help Street. To the northwest, from left to right, are the elevations of the apartment towers at no.7, Railway Street, no.9, Railway Street and, on the eastern side of the railway line, the southern elevation of no.1, Cambridge Lane. The lower level podiums have landscaped elements, together with existing street trees along Orchard Road.

The view impact, upon the proposal design's completion, from this view location, can be assessed as Low, and consists of lateral sky and residential view loss. The sky view loss resulting from the elevated vertical aspect of the dwelling. There is an observable view gain in the central far distance view, and results from a structural removal of the eastern boundary, thus allowing for a more open view of Help Street.

Tenacity Assessment Summary:

- Value of view: Low
- View location: Ground level, street view
- Extent of impact: Negligible

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 07



Existing site photo - Standing position, Anderson Street

From Ground level standing position on Anderson Street.
RL: 105.80m, Distance to boundary: 196.06m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 25%*
- *Existing Visual Assessment Scale no: 6 /15 & Visual Impact Assessment (additions only) Scale no: 5 /15*

This is a static, public view from the eastern pavement of Anderson St, near its intersection with Tulip St, looking due south towards the subject site. From this location, the four lanes of Anderson St can be observed along the entire length of the foreground view, with various low to mid-rise residential properties observed, positioned on both sides. At this location, the street is lined with mature trees and planting, obscuring large areas of these buildings, O'Brien St. Beyond the residential dwellings of O'Brien Street, is a clear linear view of various multi-storey towers lining Railway Street, on the western side of the railway line. The view continues to the south, including the towers at No.1, Cambridge Lane and nos.2A and 2B, Help Street.

The view impact upon the proposed dwellings design completion, from this location can be assessed as Low. The view loss encompasses an aspect of the sky elements, as well as obstructing some residential views of the adjacent dwelling at no. 53 Orchard St.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Ground level-street view*
- *Extent of impact: Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 08



Existing site photo - Pacific Highway street view

From standing position, ground level of Pacific Highway.
RL: +107.74m, Distance to boundary: 342.30m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 10%*
- *Existing Visual Assessment Scale no: 5 /15 & Visual Impact Assessment (additions only) Scale no: 6 /15*

This is a static, public view from the western pavement of Pacific Highway, adjoining its intersection with View St. to the west. The view looks due south towards the array of multi-storey apartment towers, positioned along Railway Street, Cambridge Lane and Help St. The foreground of the view shows the extending highway, which is observable along the entire length of the view. The eastern aspect of the view includes a service station and empty development site to the south of this, slightly obstructed by a mature street tree. The western aspect of the view shows the northern boundary of the dwelling at no. 850 Pacific Highway. Beyond this, is the panoramic view of the multi-storey commercial and residential buildings positioned along the eastern side Pacific Highway and along Railway, Macintosh and Help Streets.

The view impact upon the proposal dwellings design completion, from this view location, can be assessed as Low, consisting of sky view loss due to the elevated vertical aspect in relation to that of the neighbouring dwellings. The proposal also results in some residential view loss, in which case a lateral aspect of the northern boundary at no. 53 Orchard St.

Tenacity Assessment Summary:

- *Value of view: Low*
- *View location: Ground level-street view*
- *Extent of impact: Minor-to-Moderate*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 09



Existing site photo

From standing position, ground level of Beauchamp Park.
RL: +95.55m, Distance to boundary: 619.77m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100 %*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 15%*
- *Existing Visual Assessment Scale no: 10 /15 & Visual Impact Assessment (additions only) Scale no: 5 /15*

This is a static, public view from the northern boundary of Beauchamp Park, looking southwest towards the subject site at no. 3 Help St. From this location, the foreground view shows the grassed playing area of the park with the clubhouse in the further, central aspect of the view, beyond which is a line of mature trees encompassing the entire land plot of the park, with two light poles positioned in both the western and eastern most aspect of the immediate view. Beyond the park landscaping is an open and panoramic view of the urban, multi-storey skyline of Chatswood CBD, with a mix of residential and commercial towers rising in height towards the location of the subject site. The sky aspect is open and uninterrupted from this view location.

The view impact upon the proposal dwelling's design completion, from this location, can be assessed as Low, consisting of sky view loss and observed beyond Beauchamp Park. The dwelling also encompasses some residential views, in particular that of the dwelling at no.1, Cambridge Lane.

Tenacity Assessment Summary:

- *Value of view: Medium-to-High*
- *View location: Park, standing position, ground level.*
- *Extent of impact: Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 10



Existing site photo

From standing position on Mowbray Rd.
RL: +108.06m, Distance to boundary: 1025.49m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 0%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment (additions only) Scale no: 0 /15*

This is a static, public view from the northern pavement of the elevated road bridge on Mowbray Rd, looking due north across the train rails towards the residential and commercial high rise towers at the centre of Chatswood CBD, located to the east and west of the railway line. The foreground of the view shows the rail lines and associated infrastructure running to the north. In the western aspect of the immediate foreground view, the structure at no. 355 Mowbray Rd. The eastern aspect of the foreground view shows a continuous line of shrubs and mature trees within the property boundaries of the residences along Orchard Road and Gillam Street. To the west, the scale of buildings increases towards the mid and high-rise towers to the north, with various mature trees interspersed.

The view impact upon the proposal dwellings design completion does not result in any observable view loss nor gain, and as thus, can be assessed as NIL.

Tenacity Assessment Summary:

- *Value of view: Low*
- *View location: Elevated bridge*
- *Extent of impact: Nil*
- Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 11



Existing site photo - Neridah and Johnson Street intersection

From standing position on Neridah and Johnson Street intersection.
RL: +101.74m, Distance to boundary: 747.05m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 6 /15 & Visual Impact Assessment (additions only) Scale no: 4 /15*

This is a static, public view from pavement on the southeastern corner of the Neridah St intersection with Johnson St, looking northwest towards the subject property across various mature trees bordering the midground residential dwellings. The immediate foreground view shows the traffic island and two mature palm trees. In the centre of the view is the dwelling at no.15 Johnson St. Beyond this is an open and panoramic view of Chatswood CBD with various multi-storey residential and commercial towers, the locations of which are described elsewhere within this document.

The visual impact caused upon the proposal's design finalization results in an observable view loss, in the eastern midground aspect of the view. The view impact can thus be assessed as Low from this location, as it results from mostly sky view loss.

Tenacity Assessment Summary:

- *Value of view: Medium*
- *View location: Ground level -street*
- *Extent of impact: Negligible-to-Minor*
- *Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.*

VIEWPOINT 12



Existing site photo - A38 Forestville street view

From standing position on A38 Warringah Road, Forestville.
RL: +111.00m, Distance to boundary: 4492.91m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 6 /15 & Visual Impact Assessment (additions only) Scale no: 2 /15*

This is a static, public view from Warringah Road, Forestville, looking south-southeast towards Chatswood at a distance of approx 4.6 kilometres. From this view location, the foreground view shows Warringah Road, which extends the entirety of the view, towards the Roseville Bridge, Roseville Chase and Chatswood. The eastern aspect of the view shows the residential dwellings at no.781, Warringah Road and the western foreground aspect is completely obstructed by mature shrubs and trees, with various large, mature trees lining the road. In the furthest visible central distance is an open and panoramic view of Chatswood CBD atop of a topographical elevation seen beyond Davidson Park.

The visual impact caused upon the proposal's design finalization results in an observable view loss, in the... aspect of the view. The view impact can thus be assessed as NIL from this location.

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

- *Value of view: Low-to-Medium*
- *View location: Ground level-street view.*
- *Extent of impact: Negligible*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 13



Existing site photo - Victoria Avenue

From standing position - Victoria Avenue and Olga Street.
RL: + 92.48m, Distance to boundary: 712.5m



Photomontage of Proposal



Visual Impact of SSSA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- Visual impact – Amount of Proposed Development visible in view -100%
- Visual impact ratio - view loss (including buildings) : sky view loss: 100% :5%
- Existing Visual Assessment Scale no: 8 /15 & Visual Impact Assessment (additions only) Scale no:3 /15

This is a static, public viewpoint from the eastern Victoria Avenue at standing height, on the southern pavement at the junction with Olga Street, looking west towards the subject site. From this location, the existing view is along Victoria Avenue, with glimpses of the Chatswood CBD through the various large, mature street trees bounding the road. In the immediate foreground view, to the southwest is the street's merge with Olga Street, with the mid-rise mixed-use building on the corner of Victoria Avenue and Blakeley Street visible at the centre of the view. This represents a typical residential street view from the area to the east of Chatswood CBD.

The view impact upon the proposal's completion would result in a view loss observable in the central aspect of the view. The proposal slightly obstructs Chatswood urban panorama to the east, and can be assessed as Low.

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

- Value of view: Medium
- View location: Ground level - street view.
- Extent of impact: Negligible

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 14



Existing site photo - Victoria Avenue

From standing position on Victoria Avenue and Bertram Street.
RL: +84.79m, Distance to boundary: 412.76m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- Visual impact – Amount of Proposed Development visible in view - 58%
- Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 3%
- Existing Visual Assessment Scale no: 3 /15 & Visual Impact Assessment (additions only) Scale no: 5 /15

This is a static, public street view from the southern pavement of Victoria Avenue at its intersection with Bertram Street, looking in a west-northwesterly direction towards the subject site. From this location, the existing view is along the length of the street to the west, with Victoria Plaza observed in the centre of the view on the northern side of the road. Buildings in the middle-distance vary in height between 2 and 3 storey and are, predominantly commercial. The building heights then increase in the distant views, with the tops of the two towers at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway.

The view impact upon the proposal's completion results in a slight sky view loss observable in the central distance aspect of the view, adjacent to the dwelling at no.25 Endeavour Street. The overall view impact can be assessed as Low from this location.

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

- Value of view: Low
- View location: Ground level - street view.
- Extent of impact: Minor

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 15



Existing site photo - Victoria Avenue

From standing position on Victoria Avenue
RL: +85.30m, Distance to boundary: 368.66m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 53%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 3%*
- *Existing Visual Assessment Scale no: 3 /15 & Visual Impact Assessment (additions only) Scale no: 5 /15*

This is a static, public street view from the southern pavement of Victoria Avenue, directly opposite the main entrance to Victoria Plaza, looking in a west-northwesterly direction towards the subject site. From this location, the existing view is along the length of the street to the west, with Victoria Plaza observed to the northwest of the view on the northern side of the road and the junction with Archer Street seen in the middle-distance. Buildings in the immediate vicinity vary in height between 2 and 3 storey and are, predominantly commercial. The building heights then increase in the distant views, with the top of the residential tower at no.88, Archer Street and of the two towers at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway.

The view impact upon the proposal's completion would result in a slight sky view loss observable beyond the roof of the dwelling at no.88 Archer Street. The view impact overall can be assessed as NIL from this location.

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

- *Value of view: Low*
- *View location: Ground level - street view.*
- *Extent of impact: Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 16



Existing site photo - Victoria Avenue and Archer Street

From standing position.

RL: +84.99m, Distance to boundary: 341.80m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 98%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 3%*
- *Existing Visual Assessment Scale no: 2 /15 & Visual Impact Assessment (additions only) Scale no:4 /15*

This is a static, public street view from southeastern pavement at the road junction between Archer Street and Victoria Avenue, looking northwest towards the subject site. 2 storey commercial properties are observed at the northwestern corner of the junction, with the residential tower at no.88 Archer Street, rising up behind these and partial visibility of the large apartment towers along Railway Street in the far distance. Mature tree impact on much of the view to the west, along Victoria Avenue, towards the station.

The view impact upon the proposal's completion would result in a slight view loss observed beyond the dwelling on no.381 Victoria Ave observed in the midground prominence. The view impact can be assessed as Low from this location.

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

- *Value of view: Low*
- *View location: Ground level - street view.*
- *Extent of impact: Negligible-to-Minor*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 17



Existing site photo - Victoria Avenue

From standing position

RL: +87.03m, Distance to boundary: 291.37m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- Visual impact – Amount of Proposed Development visible in view - 31%
- Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%
- Existing Visual Assessment Scale no: 3 /15 & Visual Impact Assessment (additions only) Scale no:3 /15

This is a static, public street view from Victoria Avenue, southern pavement, approximately 50m west of the junction with Archer Street, looking west-northwest towards the subject site. The commercial buildings on the northern side of Victoria Avenue are varied in scale, but, predominantly 2 storeys with Chatswood Concourse visible in the middle distance. The building heights then increase in the distant views, with the tops of the two residential towers at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway.

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

- Value of view: Low
- View location: Ground level - street view.
- Extent of impact: Negligible

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 18



Existing site photo - Victoria Avenue at The Concourse.

From standing position

RL: +87.78m, Distance to boundary: 265.86m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 100%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 5%*
- *Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment (additions only) Scale no: 7/15*

This is a static, public street view from the southern pavement of Victoria Avenue, directly across from the western access steps to Chatswood Concourse and at the junction with the pedestrianised Spring Street to the south. The view looks northwest, across Victoria Avenue and the southeast corner of the Chatswood Concourse building, with the corner of the commercial building at no.342, Victoria Avenue seen to the immediate west of the view. Beyond The Concourse and street trees that line Victoria Avenue, the building heights then increase in the distant views, with the top of the residential tower at no.88, Archer Street and of the two towers at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway.

The view impact upon the proposal's completion would result in a slight view loss observed across the Chatswood Concourse in the central aspect of the distance. The overall view impact can be assessed as NIL from this location.

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

- *Value of view: Low*
- *View location: Ground level - street view.*
- *Extent of impact: Moderate*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 19



Existing site photo - Victoria Avenue and Anderson Street.

From standing position

RL: +90.96m, Distance to boundary: 179.77m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 94%*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 5%*
- *Existing Visual Assessment Scale no: 4 /15 & Visual Impact Assessment (additions only) Scale no: 7 /15*

This is a static, public street view from the southern pavement of Victoria Avenue at the western corner of its junction with Anderson Street. The view looks north-northwest, towards the subject site, across Anderson Street towards the 2 storey commercial buildings in the foreground. From here, the building heights then increase in the middle distance and far distant views, with the top of the residential tower at no.88, Archer Street and of the two towers at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway.

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

- *Value of view: Low*
- *View location: Ground level - street view.*
- *Extent of impact: Moderate*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

VIEWPOINT 20



Existing site photo - Victoria Avenue (pedestrianised).

From
RL: +96.21m, Distance to boundary:173.20m



Photomontage of Proposal



Visual Impact of SSDA in cyan with red outline, approved scheme in green with magenta outline

Visual Impact Assessment

- *Visual impact – Amount of Proposed Development visible in view - 11 %*
- *Visual impact ratio - view loss (including buildings) : sky view loss: 100% : 0%*
- *Existing Visual Assessment Scale no: 2 /15 & Visual Impact Assessment (additions only) Scale no: 1/15*

This is a static, public view from the souther side of the pedestrianised western end of Victoria Avenue looking due north towards the subject site. The view is directly across from the 4 storey commercial building at no.445, Victoria Avenue and approximately 45m to the east of the main entrance canopy to Chatswood railway station. From here, the building heights then increase to the north, above the streetscape in the foreground, with the top of the residential tower at no.7, Railway Street and of the western tower at 2a and 2b, Help Street visible above the street frontages and taller towers beyond this, along Railway Street on the western side of the railway. Views to the northeast are obscured by the street tree canopy.

The view impact upon the proposal's completion results in a slight sky view loss adjacent to the roof of no. 24 Endeavour Street which is observed in the central-eastern aspect of the view. The view impact overall can be assessed as NIL from this location.

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

- *Value of view: Low*
- *View location: Ground level - street view.*
- *Extent of impact: Negligible*

Reasonableness of proposal: Within the context of the development's height compliance, the proposal can be deemed acceptable, since the highest value components of the view remain and views to the south and west are not impacted.

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 additions to the development proposal at nos.3-5, Help Street, Chatswood

This Visual Impact Assessment has undertaken a review of the proposal, within its future setting and concludes that, although there are locations within the neighbouring areas, both commercial and residential, that are impacted by the new development, the visual impact is acceptable within the context of the future development intent of Chatswood CBD. Currently, three development sites to the north of the subject site are under assessment for lodged DA's/SSDA's relating too towers of more than 90 metres in height, resulting in a diminished visual impact of the subject SSDA,

Firstly, it is important to acknowledge the extent of visual impact and view loss incurred as a result of the existing buildings, particularly the large residential towers on the northern boundary of Chatswood CBD. Alongside this, the architectural and material quality of these existing buildings can also be considered in the overall assessment, when viewed alongside the new proposal. Significantly, the Willoughby City Council LEP 2012 promotes design excellence, through a defined set of guidelines: 'Design excellence' is a term used in environmental planning instruments to refer to the design quality of a building or project. It describes an expectation that a project will achieve a high level of design quality. It also describes the requirements and processes that support this. This definition is broadly consistent across planning legislation, where it is often summarised as 'the highest standard of architectural, urban and landscape design'. Each definition varies in the level of detail, but all include references to context, accessibility, public domain, streetscape, massing and sustainability.

In conclusion, the new proposal represents a moderate variation to the existing visual impact and view loss to neighbouring residential properties along, and around the subject site. In particular, views looking from the east and west are already impacted significantly by the large residential towers on the northern boundary of Chatswood CBD. These have already defined the visual parameters for visual impact in this area and the new proposal extends this visual envelope in an acceptable manner, when observed against the newly approved development within the same area.

The new proposal's scale responds to the Council's Chatswood CBD Planning and Urban Design Strategy for this section of Pacific Highway. This permits a higher building envelope which, over time, will be reflected in neighbouring developments, further reducing the visual impact at a local level.

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

5.1. APPENDIX A: Assessment Images - panoramic

APPENDIX B: Aspinall CV

LEC Guidelines for Photomontages

Visual Impact Assessment Methodology

APPENDIX C: Survey

APPENDIX D: Wireframe/alignment images

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 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.

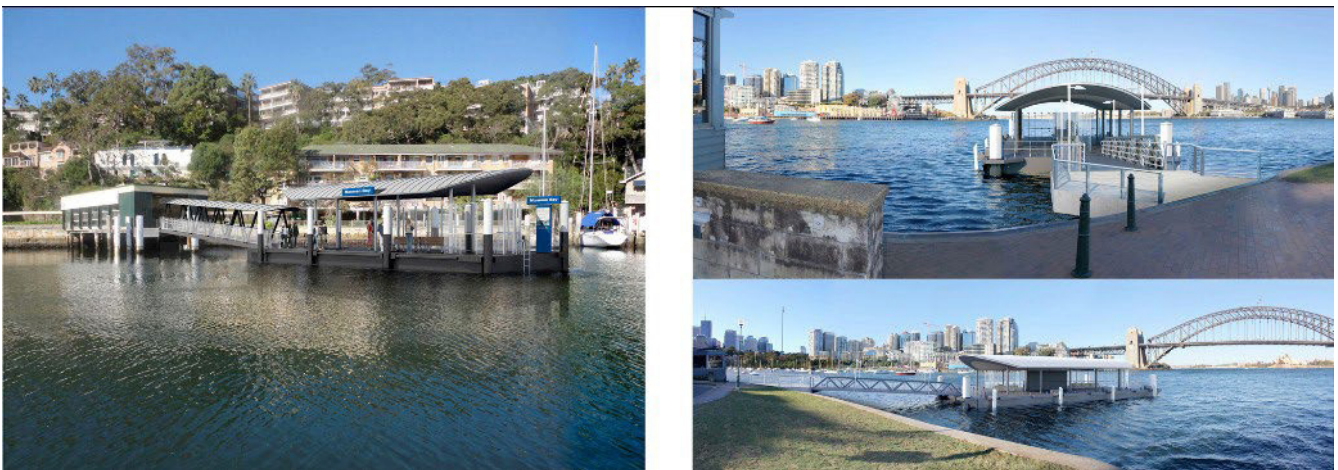


Photomontaged views of new apartment building at Pyrmont: Urbaine

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

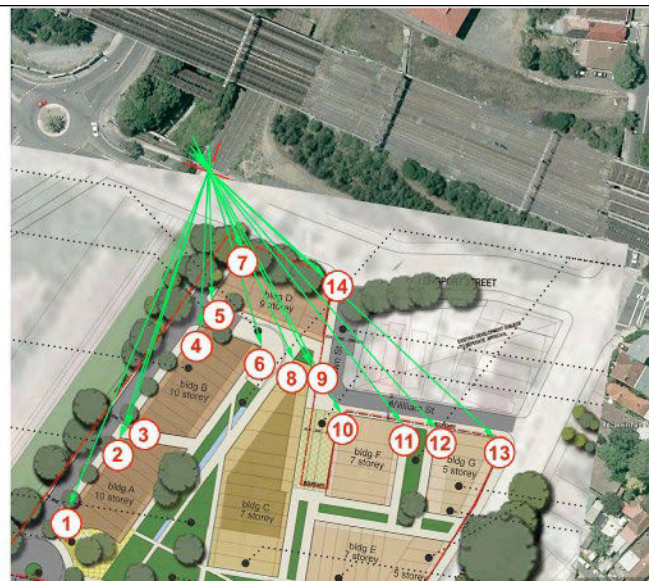
modelling, a good understanding of the principles of perspective, light, shadow and building articulation, were taught throughout the training of architects.

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.

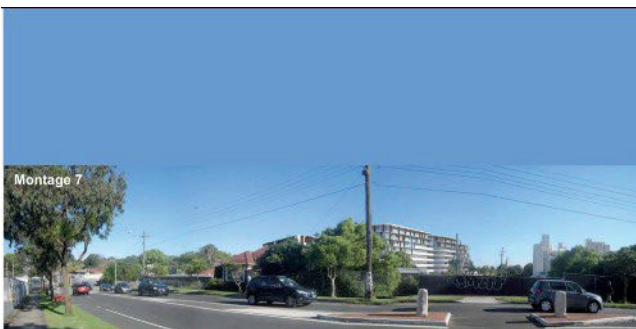
Currently, the Land and Environment Court specifies that any photomontages, relied on as part of expert evidence in Class 1 appeals, must show the existing surveyed elements, corresponding with the same elements in the photograph. Often, any surveyed elements can form such a small portion of a photograph 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%.



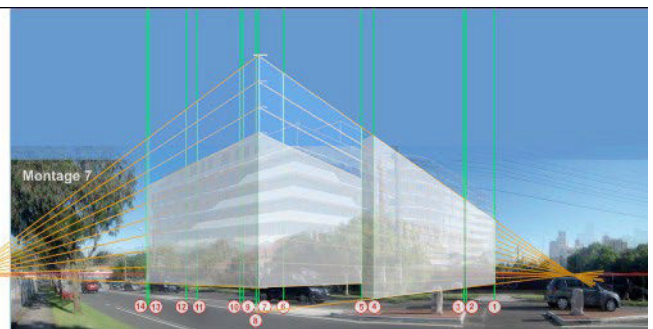
SMH article re inaccurate visualisations



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.

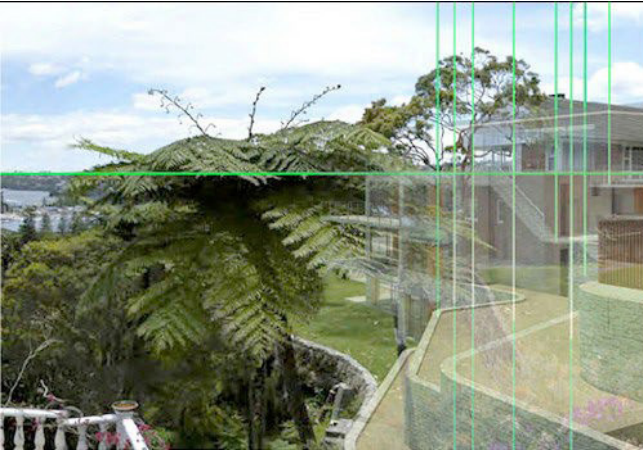
The following example clearly demonstrates this – a house montaged into a view, by others, using very few points of reference for verification. By analysing the existing photo alongside the survey, the existing site was able to be recreated with a series of reference elements built into the model. A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

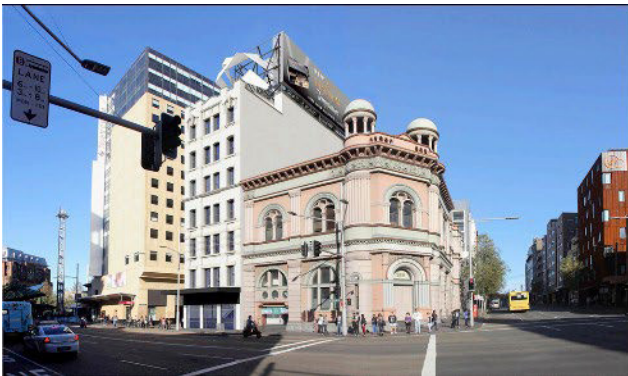


Proposed landscape applied – shown as semi-mature

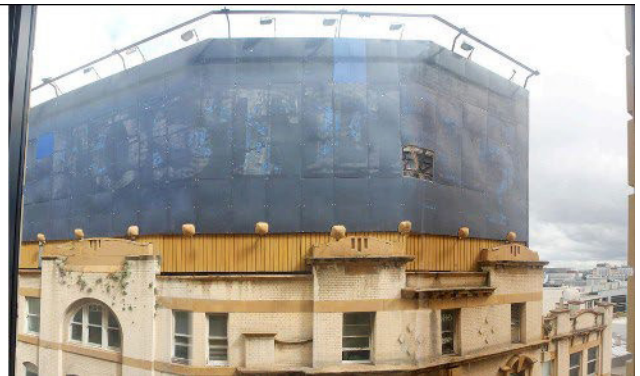


Final verified photomontage by Urbaine

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 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.



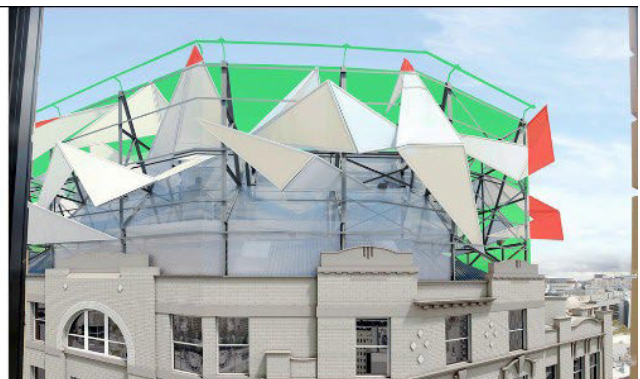
Photomontage of proposed building for digital billboard



Existing situation – view from adjoining hotel

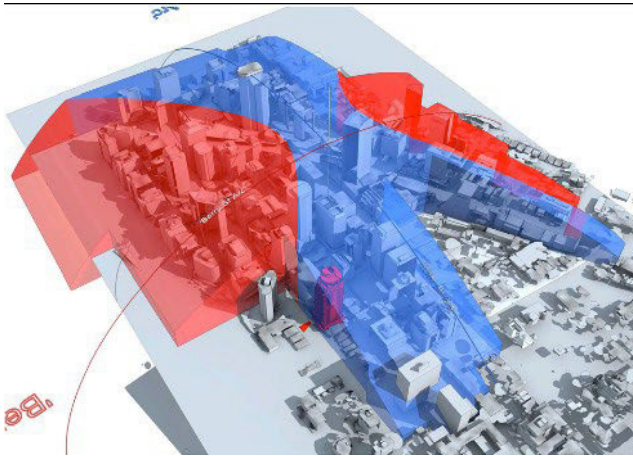


Photomontage of view from hotel

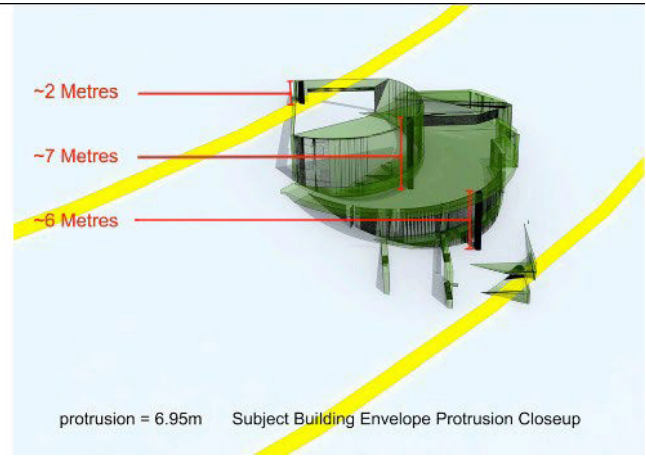


View loss – green = view gain / red = view loss

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 placed 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.



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***





Viewpoint	Easting	Northing	Elevation
1	331703.842	6259239.21	101.831
2	331726.264	6259182.78	97.599
3	331761.55	6259094.624	91.481
4	331913.017	6259007.249	88.628
5	331667.343	6258563.045	92.972
6	331624.842	6258978.136	94.203
7	331663.795	6259345.847	104.219
8	331524.779	6259468.73	106.786
9	332082.533	6259594.855	92.557
10	331647.754	6258044.41	105.015
11	332317.856	6258673.271	98.459
12	334094.652	6262957.446	111.637
13	332374.914	6259160.748	88.012
14	332087.853	6259048.328	86.578
15	332052.522	6259037.117	86.636
16	332020.463	6259027.077	86.925
17	331970.803	6259006.652	88.106
18	331933.699	6258986.159	89.061
19	331815.414	6258954.542	93.078
20	331717.523	6258909.506	97.773

SKETCH PLAN SHOWING
INDICATIVE CAMERA POSITIONS FOR -
3-5 Help St, Chatswood

NOTE:

BUILDING POSITIONS ARE INDICATIVE FOR PRESENTATION PURPOSES.

DATA WAS CAPTURED USING RTK ROVER

GROUND POSITIONS ARE FROM GNSS WITH NTRIP CORRECTIONS OBSERVATIONS WITHIN +/- 0.05M and LEVELS ARE BASED ON AUSTRALIAN HEIGHT DATUM (AHD)

CAMERA POSITION IS +1.6m

JOB NO	LGA: Willoughby City Council
DATE: 20.11.2024	DATUM: AHD
DRAWN: DK	SCALE:
CHECK: JA	SHEET: 1:1





Viewpoint 01



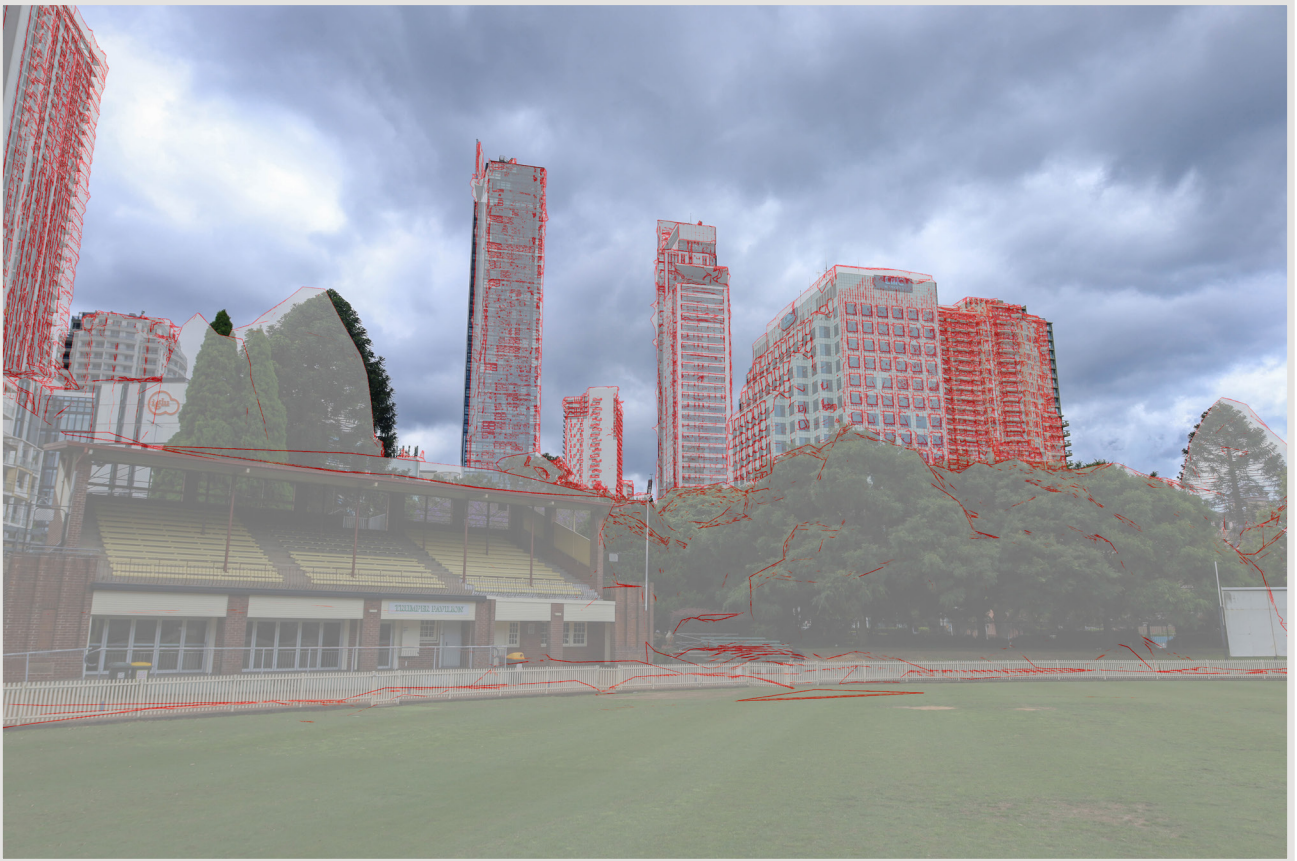
Viewpoint 02



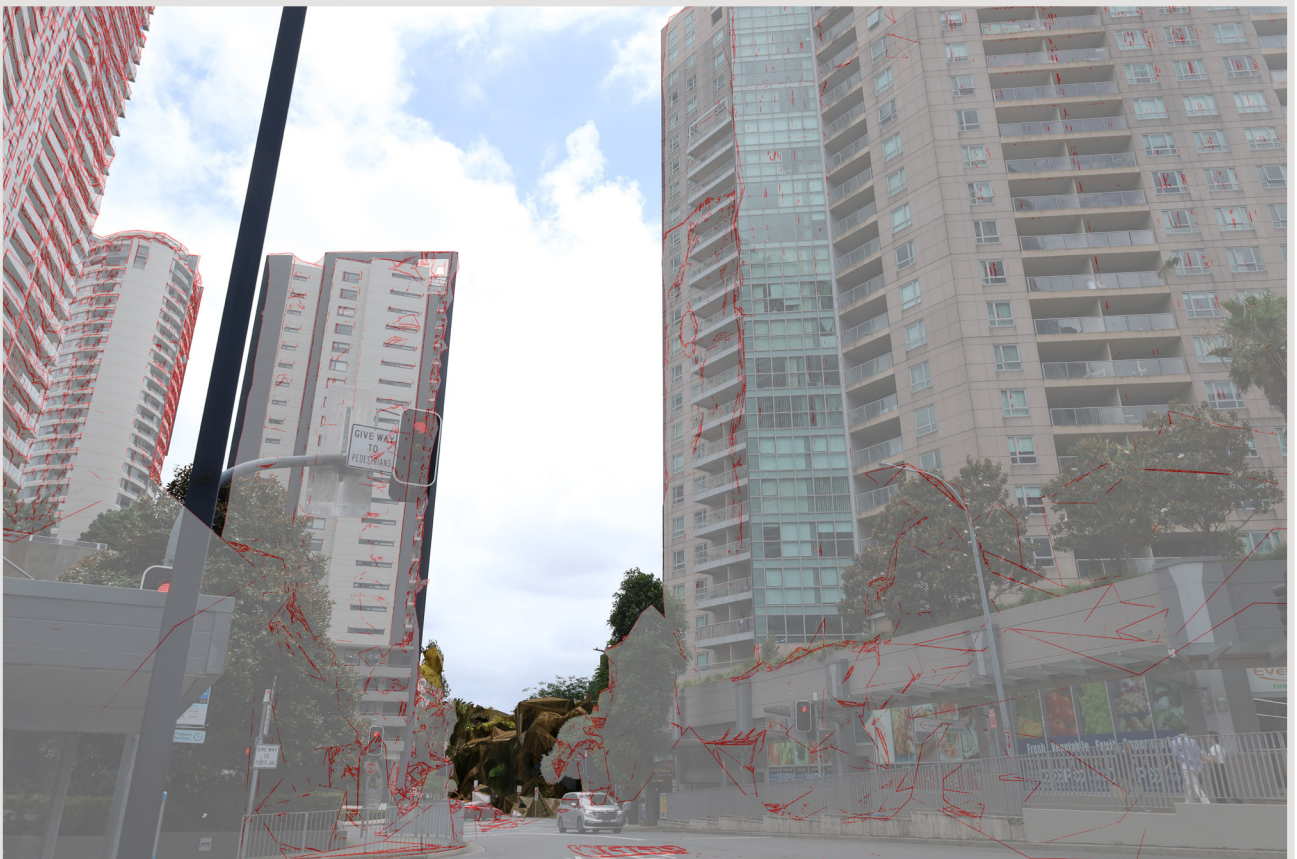
Viewpoint 03



Viewpoint 04



Viewpoint 05



Viewpoint 06



Viewpoint 07



Viewpoint 08



Viewpoint 09



Viewpoint 10



Viewpoint 11



Viewpoint 12



Viewpoint 13



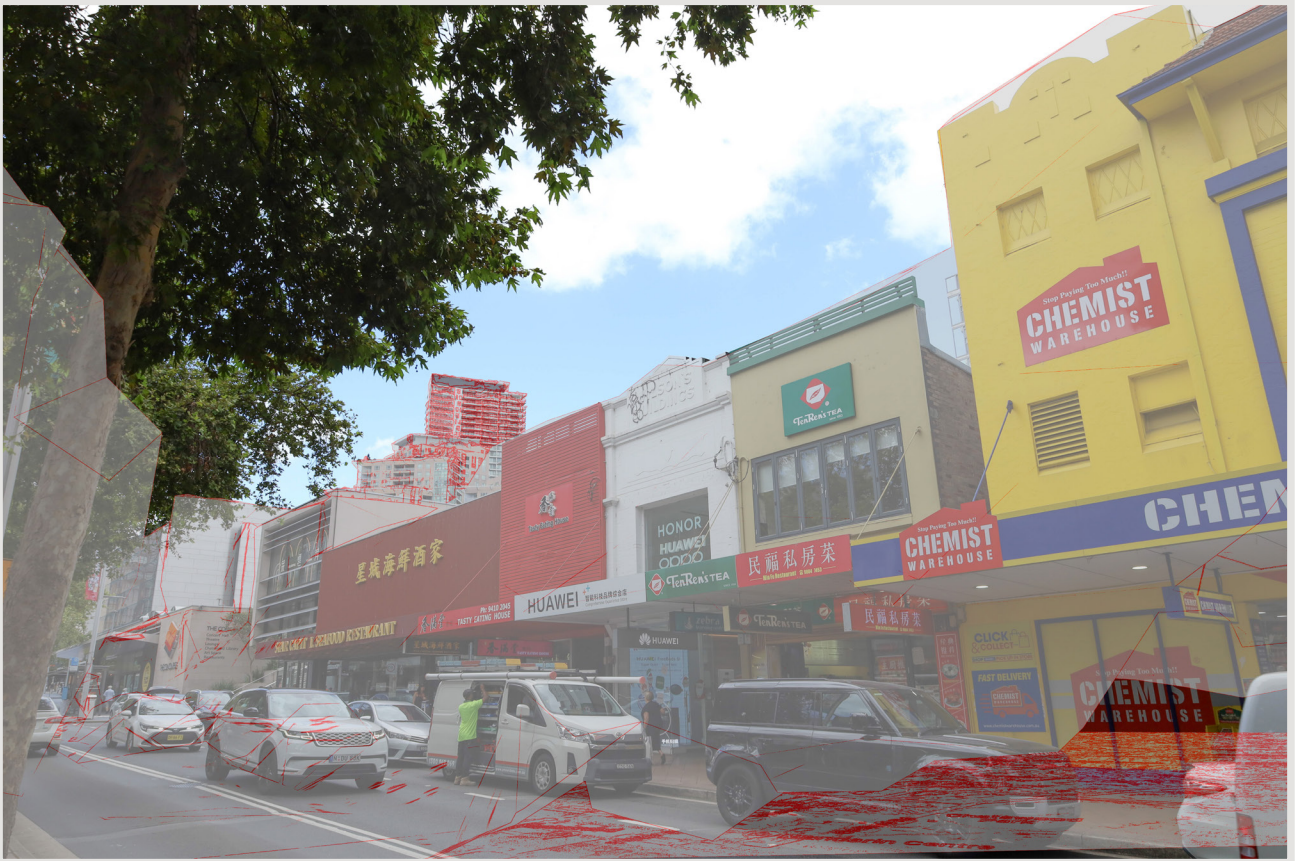
Viewpoint 14



Viewpoint 15



Viewpoint 16



Viewpoint 17



Viewpoint 18



Viewpoint 19



Viewpoint 20