

VISUAL IMPACT ASSESSMENT

175-177, Cleveland Street, Redfern, NSW

January 2021



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**Development Application, 175-177 Cleveland Street.
Visual Impact Assessment Report.
February, 2021.**

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1. INTRODUCTION

1.1 Scope and Purpose of Report.

This Visual Impact Report has been prepared by Urbaine Architectural as supporting documentation for a Development Application being submitted to City of Sydney Council for a new boarding house and associated facilities at 175 to 177 Cleveland Street, see Figure 1:

175, Cleveland Street	Lot 1	DP 1093304
175, Cleveland Street	Lot 1	DP 724328
175, Cleveland Street	Lot 15	DP 57107
177, Cleveland Street	Lot 10	DP 809537
1-5 Woodburn Street	Lot 3	DP 977379
1-5 Woodburn Street	Lot 4	DP 977379
1-5 Woodburn Street	Lot 5	DP 977379

This report has been prepared for Mark Shapiro Design and EG Funds Management to provide 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 planning proposal.

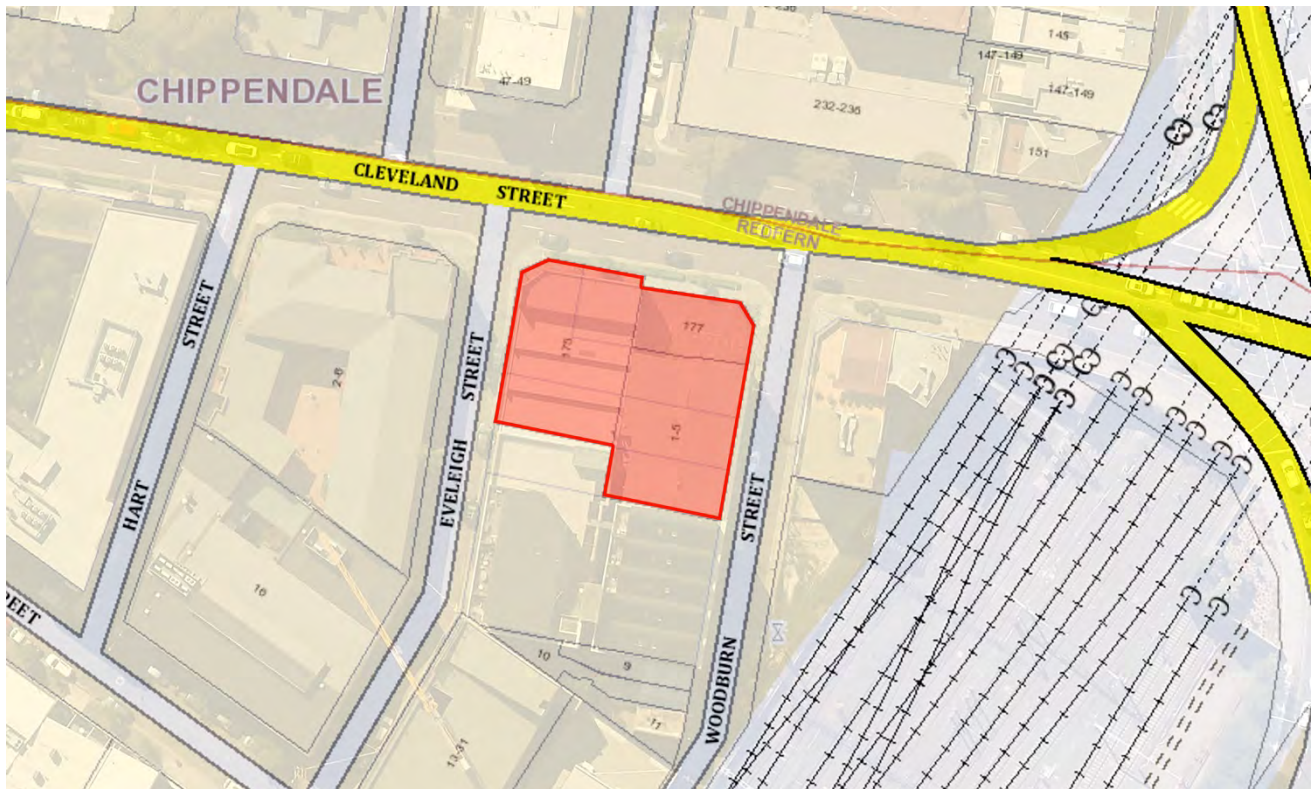
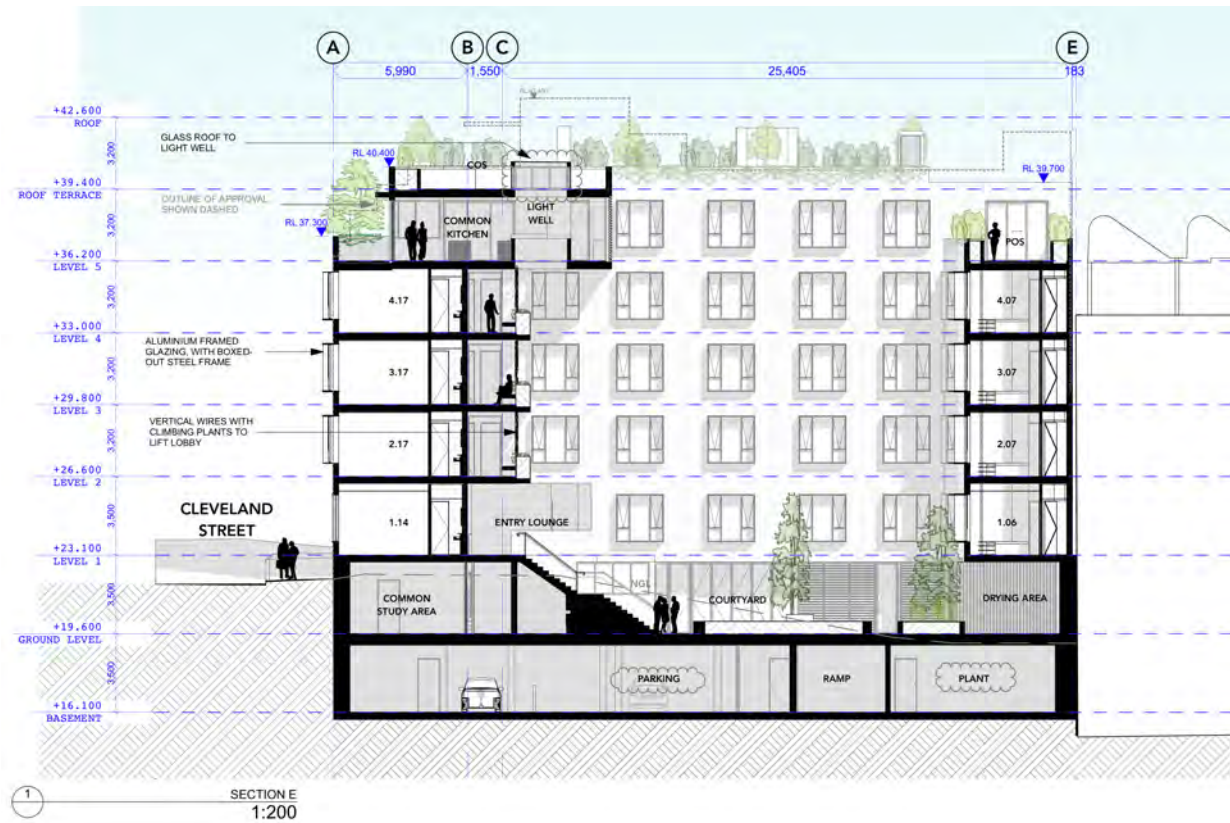


Figure 1 – site location shown in red.

1.2 The Proposed Development

1.2.1 Project Overview.

The application proposes the demolition of all existing buildings on the site and the construction of a 6 storey, co-living development with associated communal facilities and recreation areas. Figure 2 shows a generic, north-south section through the proposed building, indicating the accommodation and internal courtyard arrangements, spread over a total of 6 levels, one being below ground level. This adjoins existing buildings to the southern perimeter of the site.



Figure

2 – Generic north-south section through proposed design – from MSD Architects

1.2.2 The Site

The subject site is situated on Cleveland Street in Redfern, within the City of Sydney local Government Area (see Figure 3 below). The site is approximately 1048sqm in area and is comprised of several mixed-use existing buildings and workshops (see existing photos): The site is located within the Redfern-Waterloo Authority Site, and is subject to the provisions of State Environmental Planning Policy

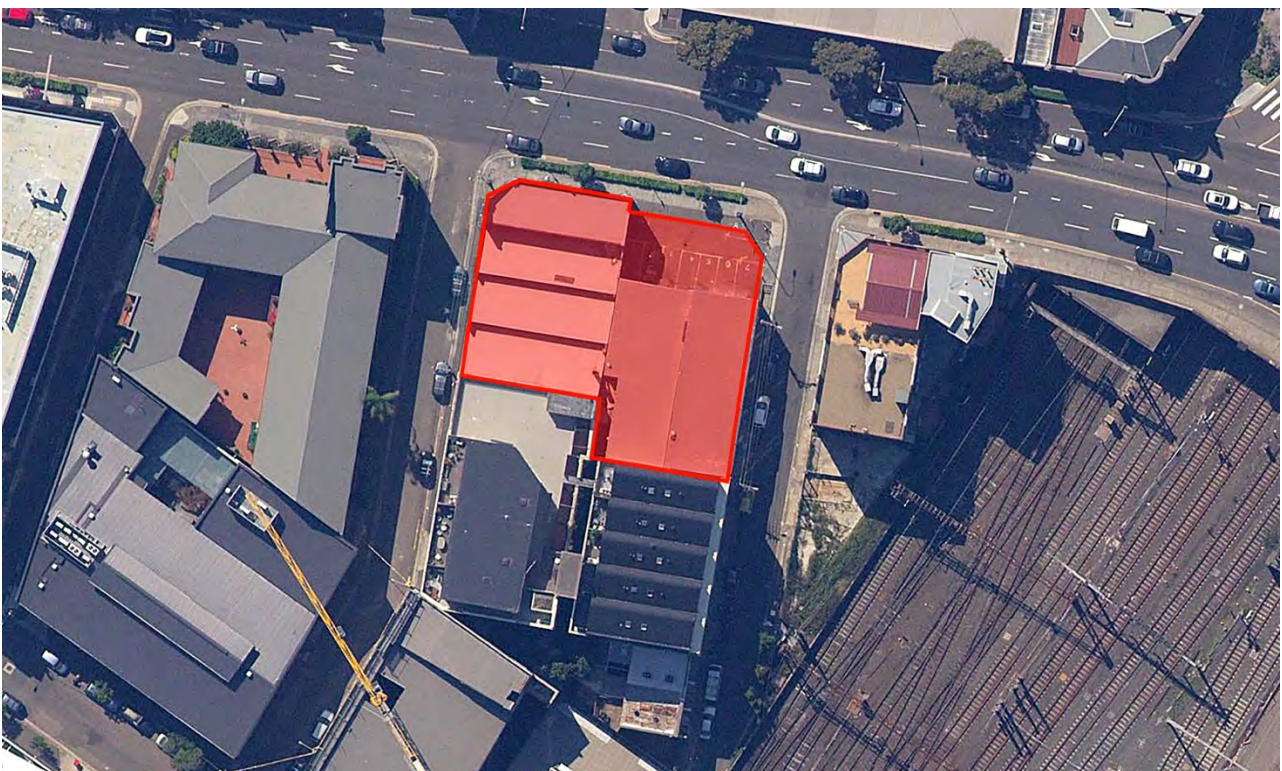


Figure 3 – Aerial photo showing site location in red.

The site fronts onto Cleveland Street, that runs between Victoria Park in the West and Moore Park in the East. Redfern train station is located approximately 350m southwest of the site. The site frontage to Cleveland Street is approximately 37m. The site frontage to Everleigh Street is approximately 26m and to Woodburn Street, approximately 33.2m. The site is not located within a conservation area. There are no listed heritage items located on the site, nor in the immediate vicinity of the site. There are listed heritage items within wider proximity to the site.

The site is approximately 2.1 kilometres from Sydney CBD and approximately 350m from the Redfern train station. Cleveland Street also carries a high frequency bus service.

The subject site is adjoined in each major direction by different forms of development within 300 metres. The key built forms for new development are mid-rise tower blocks and older mid-level development. The area contains a mix of commercial businesses and residential apartments, hotel and serviced apartments.

The subject site is identified within the RWAS Business Zone—Mixed Use as identified in Figure 4 below;

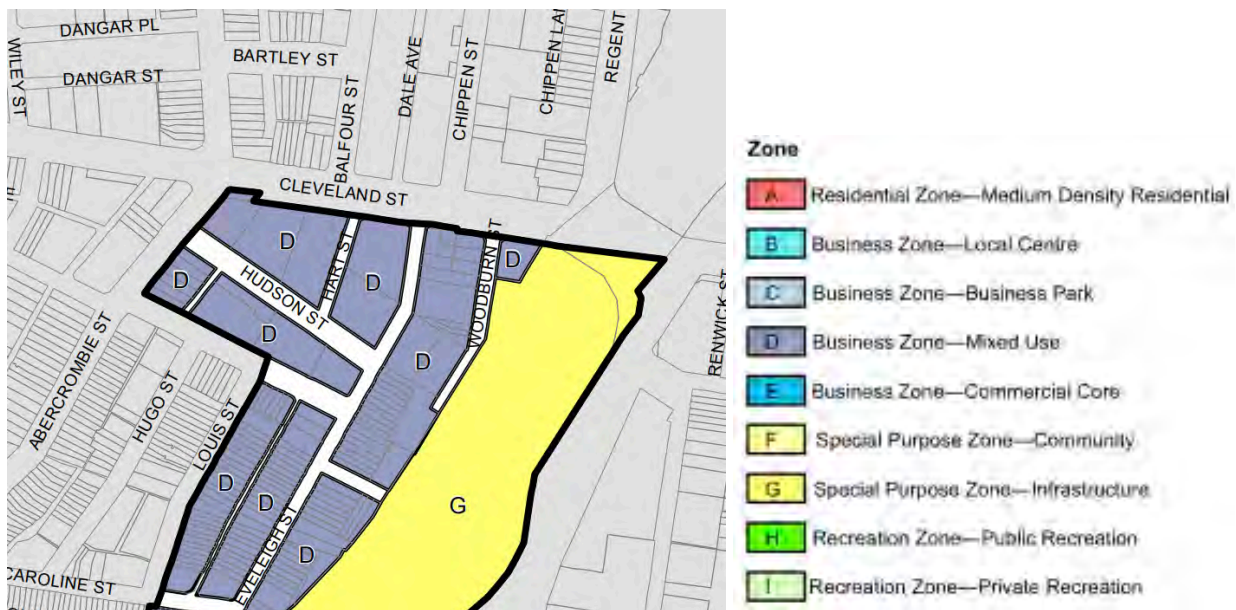


Figure 4 – Land Zoning Map (Sheet LZN_001)

The objectives of the Business Zone—Mixed Use are as follows:

- a) to support the development of sustainable communities with a mix of employment, educational, cultural and residential opportunities,*
- (b) to encourage employment generating activities by providing a range of office, business, educational, cultural and community activities in the Zone,*
- (c) to permit residential development that is compatible with non-residential development,*
- (d) to maximise public transport patronage and encourage walking and cycling,*
- (e) to ensure the vitality and safety of the community and public domain,*
- (f) to ensure buildings achieve design excellence,*
- (g) to promote landscaped areas with strong visual and aesthetic values to enhance the amenity of the area.*

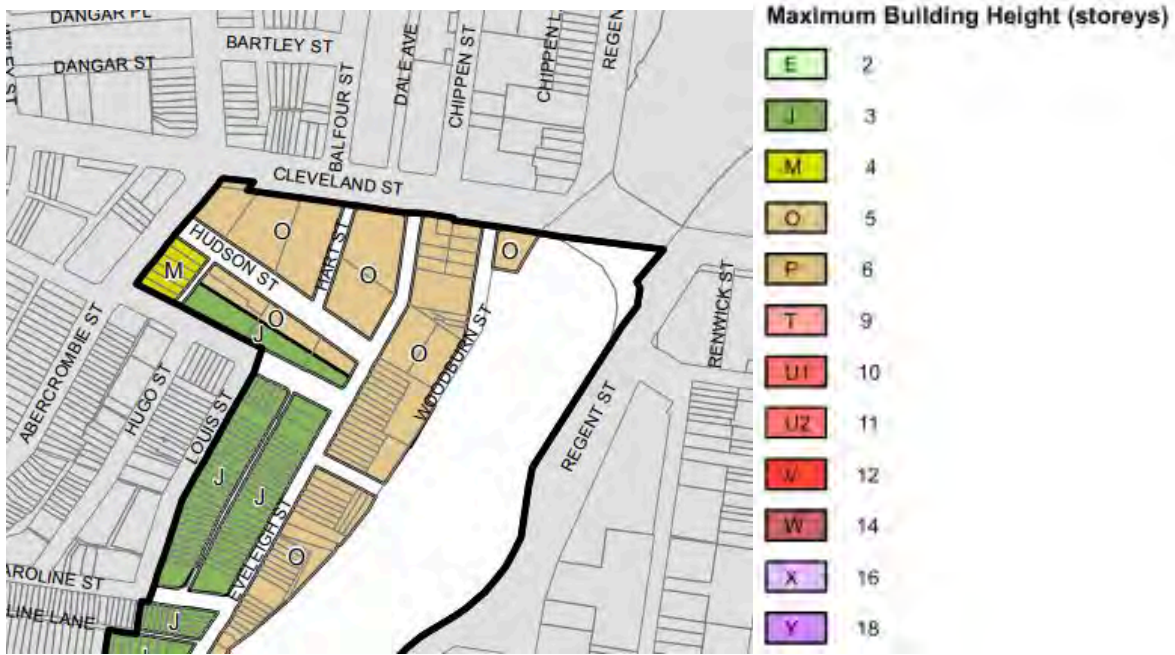


Figure 5: Building Height Map (Sheet HOB_001)

Figure 5 indicates the maximum building height limits on the subject site. The maximum number of storeys is 5 above ground. As can be observed from the section, in Figure 2, the lowered courtyard accesses an additional sixth storey which sits below the site ground level.

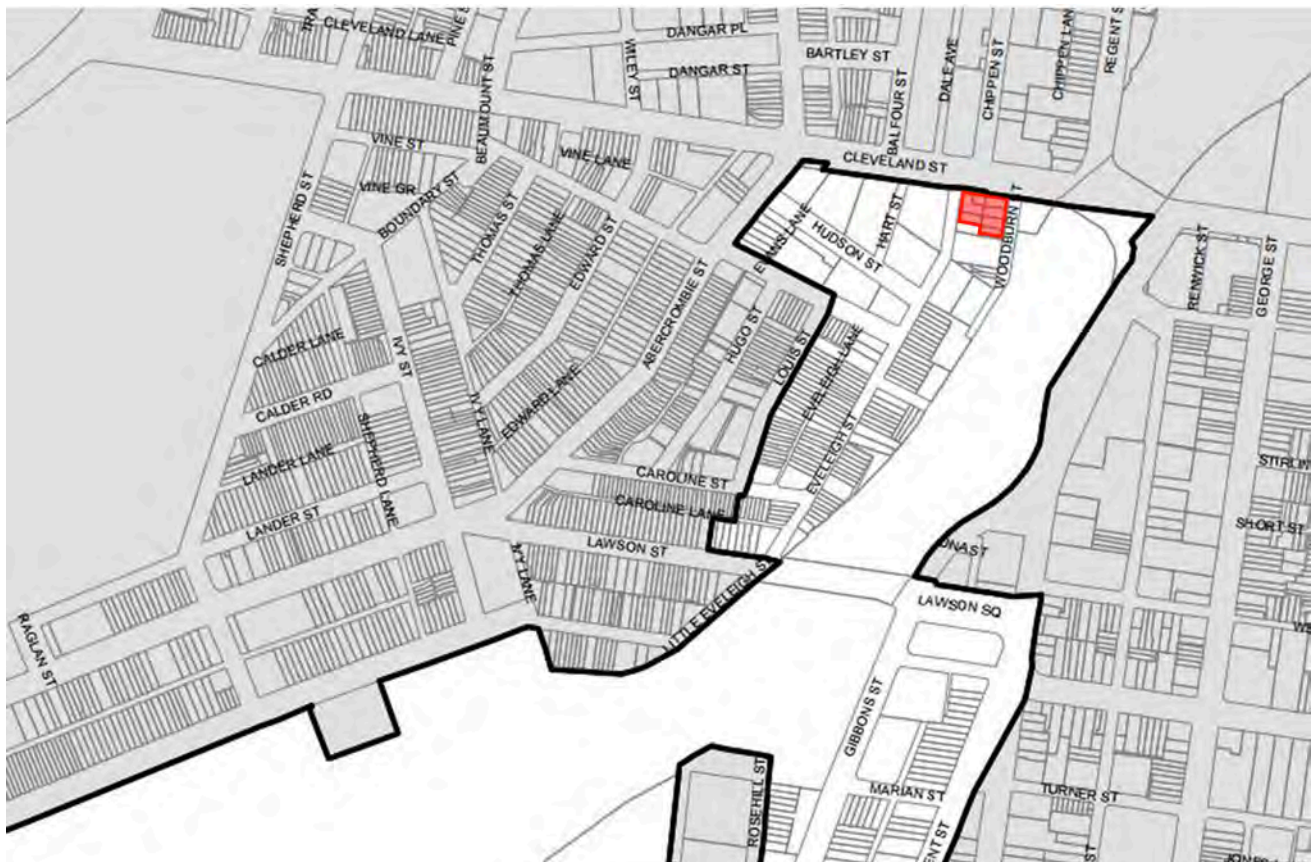


Figure 6: Land Application Map (Sheet LAP_001)

The subject site is also subject to the conditions of the State Environmental Planning Policy (State Significant Precincts) 2005 - The Redfern – Waterloo Authority Sites

Land to which Part applies:

This Part applies to the area shown edged heavy black on the Land Application Map referred to in this Schedule as the Redfern–Waterloo Authority Sites (RWAS). The site is shown in the land application map, above in Figure 6.

For the purposes of this Policy, land within the Redfern–Waterloo Authority Sites (RWAS) is within a zone specified below if the land is shown on the Land Zoning Map as being within that zone:

- (a) Business Zone—Business Park
- (b) Business Zone—Commercial Core
- (c) Business Zone—Mixed Use
- (d) Business Zone—Local Centre
- (e) Recreation Zone—Public Recreation
- (f) Recreation Zone—Private Recreation
- (g) Residential Zone—Medium Density Residential
- (h) Special Purpose Zone—Infrastructure
- (i) Special Purpose Zone—Community

1.2.3 Proposed Land Use and Built Form

The land uses will incorporate Community and Residential.

The development is a six storey, co-living development (the lowest level being below street level of Cleveland Street), with accommodation blocks around the perimeter, forming a central, landscaped courtyard. The roof is also landscaped with a communal garden, seating areas and an outdoor cinema (see Figure 7).

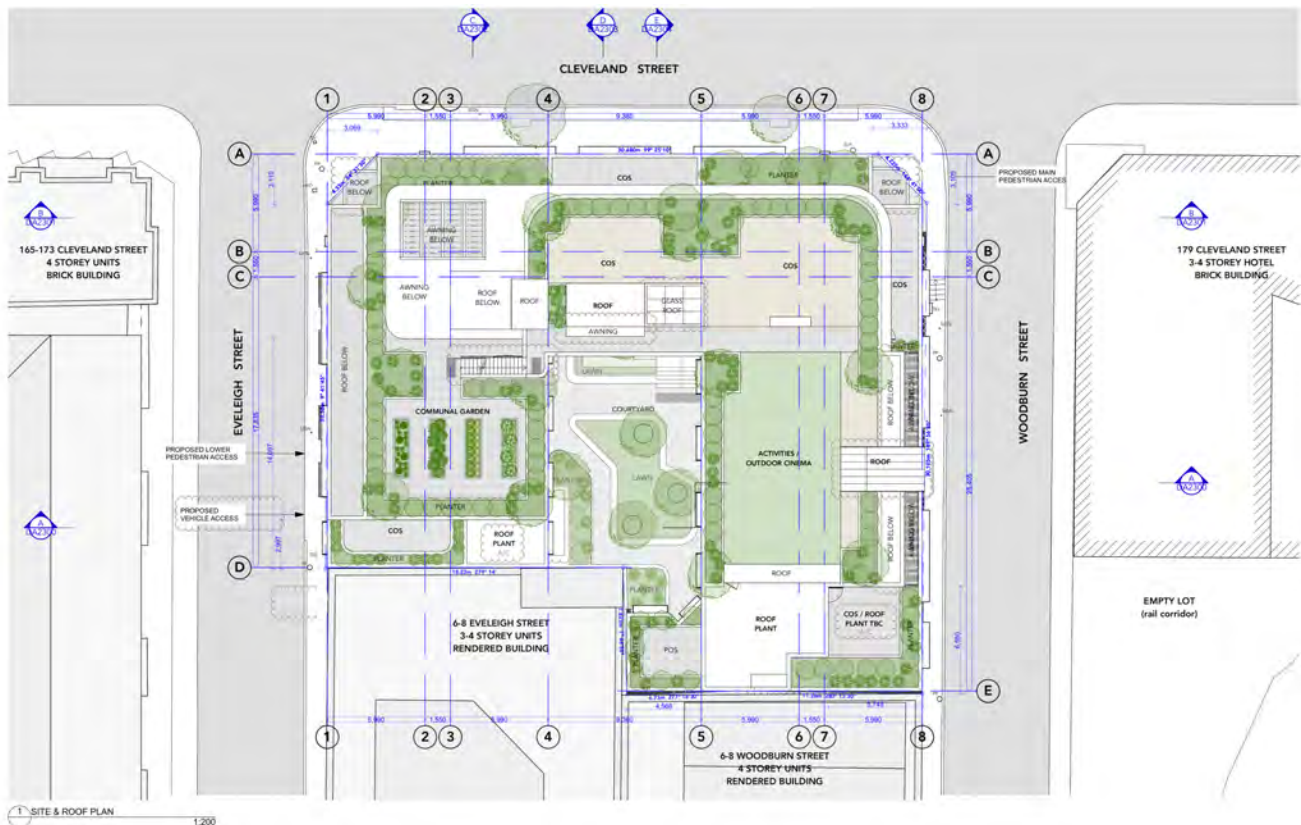


Figure 7 – Roof level plan indicating the developments accessibility and functional permeability.

The architectural massing and materials of the new proposal are both in keeping with the adjoining buildings along Cleveland Street and also reinforce the more traditional warehouse-style elevations, prevalent in the area (see Figure 8). Access to the building is from the two corners of the site, fronting Cleveland Street. The podium level rises at each corner to facilitate clearly defined entrances.



Figure 8 – Preliminary design perspective view of the proposal from Cleveland Street.

1.3 Visual Impact Assessment Methodology

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 C. 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 supercede the current instructions.

1.3.1 Process

Initially, a fully contoured 3d model was created of the site and surrounding buildings to the extent of the designated viewpoints, with detailed modelling matching the building envelope of the latest Turner design of the proposal

Virtual cameras were placed into the model to match various selected viewpoints, in both height and position. From these cameras, rendered views have been generated and photomontaged into the existing photos, using the ground plane for alignment (allowing a set camera height for standing position being at 1600mm). Several site location poles were placed into the 3d model to allow accurate alignment with the original photo. These poles align with known elements of the existing elements and surroundings.

The rendered views create an accurate interpretation of the visual impact and provide a basis for minimising any view loss by the incorporation of amended building heights and landscape, where appropriate.

The final selection of images shows these stages, concluding with an outline, indicating the potential visual impact. In addition, Appendix A contains larger format versions of these photomontaged assessment views. It is from these that a better understanding can be gained, regarding the visual impact in the overall urban context, although for the purposes of statutory requirements, the images within the report are of a standard 50mm lens format, as required by Land and Environment Court guidelines.

1.3.2 Assessment Methodology

There are no set guidelines within Australia regarding the methodology for visual impact assessment.

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 Architectural provides a detailed description of its methodologies and the resultant accuracy verifiability – this is contained within Appendix C. 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 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. Locations that feature a prominent, direct and mostly unobstructed line of sight to the subject site 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.

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 sites most likely to be affected by the Proposal
- Important vistas and viewsheds
- Other major influences on local character and amenity

The site map, see figure 9, indicates chosen locations for site photography. predominantly from the main approach roads to the site and the residential areas to the east of the site.

Site photography was supplied by Urbaine Architectural, with accurate location points noted (see Figure 9 for selected viewpoint locations).



Figure 9: Selected neighbouring property viewpoint locations towards the subject site, for visual impact assessments.

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 impact of the proposed development was analysed in relation to the visual context and assessed for their likely impact upon the local area.

Statutory Planning Assessment:

The results of the local view impact assessment are included in Section 3 of this report, with large format images included in Appendix A.

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 Mark Shapiro Design Architects, dated January, 2021.
- Creating Places for People - An Urban Design Protocol for Australian Cities:
www.urbandesign.gov.au/downloads/index.as
- State Environmental Planning Policy No.55 - Remediation of Land;
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004;
- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017;
- Australia and New Zealand Urban Design Protocol:
www.mfe.govt.nz/publications/urban/design-protocol-mar05/urban-design-protocol-colour.pdf
- The Value of Urban Design:
www.designcouncil.org.uk/Documents/Documents/Publications/CABE/the-value-of-urban-design.pdf
- Fifteen Qualities of Good Urban Places:
www.goldcoast.qld.gov.au/planning-and-building/fifteen-qualities-of-good-urban-places-3774.html
- The Image of the City (1960), Kevin Lynch
- The Environmental Planning and Assessment Act 1979 as amended (“the Act”);

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 general topographical area 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. This is particularly relevant in this instance, where the scale and form of the proposed development is viewed in context. Within the scope of this report the public realm is 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.

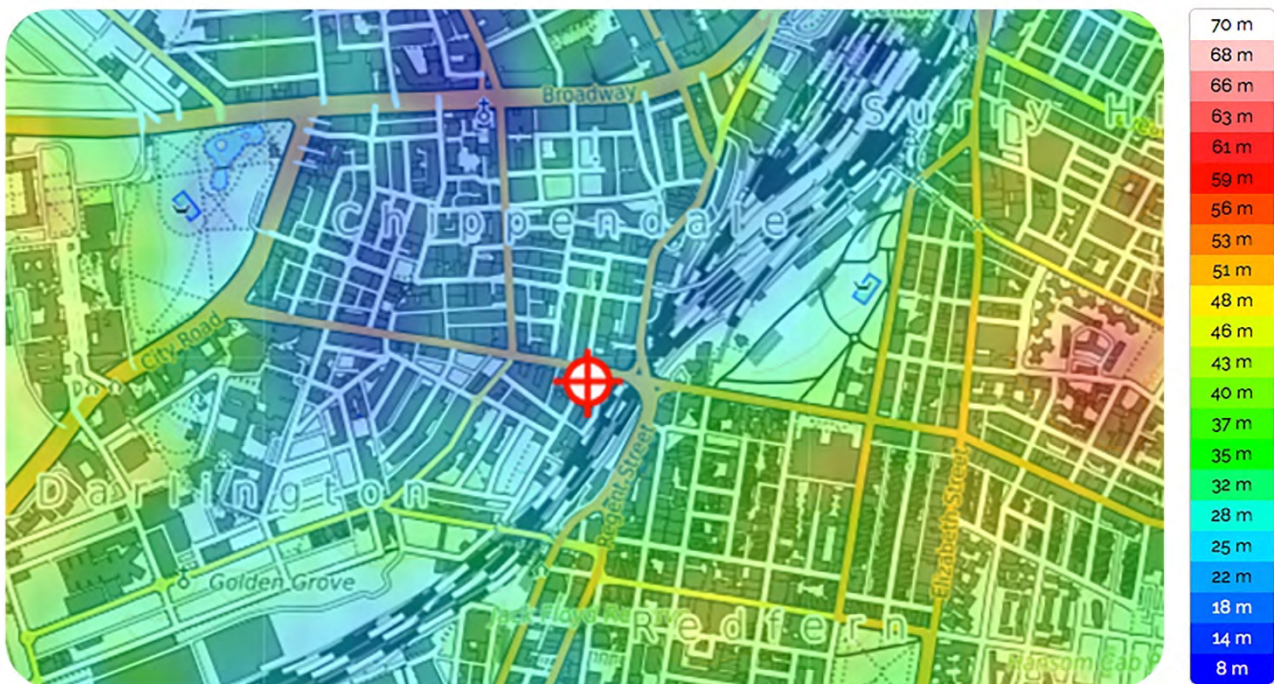


Figure 10: Subject Site topographical map

Figure 10 shows the topographical rise of land to the east and west from the subject site. The lower site level ensures the visual impact will be of less significance than other locations along Cleveland Street,

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.

2.1 The Visual Context:

Within the street context, to the east and west of the site on the souther side of the Cleveland Street are a mixture of commercial and mixed-use buildings that are up to six storeys in height. The buildings are varied in their age and form and materiality, creating a disjointed streetscape. To the east of the site, the land form rises steeply to pass over the main rail lines from Central Station. The subject site is several metres below the rail crossing and road intersections.

2.2 Streetscapes

The subject site is adjoined in each major direction by different forms of development within 300 metres. The key built forms for new development are mid-rise tower blocks and older mid-level development. The area contains a mix of commercial businesses and residential apartments, hotel and serviced apartments.

2.3 The selected view locations for the local view analysis:

As a result of the site’s topography, the visual impact is primarily relevant from the main arterial road approaches, particularly Cleveland Street from the east and west. A short distance from Cleveland Street and the main railway line, sit well-established, low-scale residential areas. It is important for the development to respect the scale of these areas, acting as a transition between the main arterial roads and the quieter residential streets.

2.4 Period of View:

The view is either

- (a) Intermittent, or Dynamic if it will be viewed from a car travelling along a road; or
- (b) Stationary, or Static if the proposal can be viewed from a fixed location or for an extended period of time. In this instance, most views will be considered as stationary, since the impact is most significant on views from adjoining gardens.

Context of View:

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

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, with reference to the requirements of the Land and Environment Court.

When undertaking the assessment of visual impacts, the guidelines stipulated by the Land and Environment Court, NSW, are used as a starting point for compliance. These are contained within Appendix B.

3.2 Visual Impact Assessments from 7 local viewpoint locations – static, private and dynamic public locations: These are contained within Appendix A.

3.2.1 Method of Assessment:

In order to allow a quantitative assessment of the visual impact, photos were selected that represented relevant public and private viewing locations from locations around the subject site and along Cleveland St, being the main location for viewing.

A Canon EOS Full Frame Digital Camera with fixed focal length 35mm 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 of the viewpoint from the site boundary for each location and the distance to the closest built form is provided in Section 3.2.2 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 11 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.

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

<i>Scale</i>	<i>Value</i>	<i>Visual quality</i>	<i>Visual impact</i>
0	Negligible	N/A	No negative impact on the pre-existing visual quality of the view.
1	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: <ul style="list-style-type: none"> - Minor impacts on natural landscapes. - No impact on iconic views - Impacts on a small number of receivers. - Significant distance between the development and receiver.
2			
3			
4			
5			
6	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: <ul style="list-style-type: none"> - Moderate impacts on iconic views or natural landscapes. - Impacts on a moderate number of receivers. - Located nearby the receiver.
7			
8			
9			
10			
11	High	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 or landmark features.	A high negative impact on the pre-existing visual quality of a view: Examples: <ul style="list-style-type: none"> - Loss of iconic views. - Impacts on a significant number of receivers. - Overshadowing effect. - Directly adjacent the receiver.
12			
13			
14			
15			

Figure 11 – Urbaine Architectural Visual Assessment Scale.

3.2.2 Assessment at selected viewpoints



Viewpoint no.1: Existing site photo.

Pavement level - standing height - to the north-west of the subject site. On the western side kerb of Dale Avenue, 18.2m north of the junction between Cleveland Street and Dale Avenue.

Distance to site boundary: 48.2m. Distance to centre of subject site and proposed development: 68.8m. RL of camera: + 21.51



Viewpoint no.1: Photomontage of new proposal



Viewpoint no.1: Visual Impact indicated in red overlay.

Visual Quality Assessment: Scale no.2 Visual Impact Assessment: Scale no.6

Amount of new development visible from this location: 38%

This is a static and dynamic, public viewpoint, looking south east towards the subject site, with a partially obstructed view of the new proposal, across the junction of Cleveland Street and Dale Avenue. It is predominantly the western elevation of the new proposal that will be visible.

The extent of visual impact can be assessed as moderate from this location, since the adjoining buildings and the neighbouring buildings along Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal

This view demonstrates that the building design will integrate into the existing urban fabric and the upper levels are only impacting on sky view. Adjoining buildings to the southern perimeter of the subject site are also partially impacted visually.



Viewpoint no.2: Existing site photo.
Pavement level - standing height - to the north-west of the subject site. On the northern side kerb of Cleveland Street, at the junction with Cleveland Street and Dale Avenue;
Distance to site boundary: 28.8m. Distance to centre of subject site: 52.1m
RL of camera: + 21.62



Viewpoint no.2: Photomontage of new proposal.



**Viewpoint no.2: Visual Impact indicated in red overlay.
Visual Quality Assessment: Scale no.4 Visual Impact Assessment: Scale no.10
Amount of new development visible from this location: 98%**

This is a static and dynamic, public viewpoint, looking south east towards the subject site, with an unobstructed view of the new proposal, across Cleveland Street. It is predominantly the northern and western elevations of the new proposal that will be visible.

The extent of visual impact can be assessed as significant from this location, although the actual quantifiable view loss is contained, for the most part, to sky. The adjoining buildings and the neighbouring buildings along Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal

This view demonstrates that the building design will integrate into the existing urban fabric and the upper levels are only impacting on sky view. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.

From this location, the topographical depression along Cleveland Street is clearly visible. This serves to further reduce the effect of the visual impact of the proposed development within the urban context.



Viewpoint no.3: Existing site photo.

Pavement level - standing height - to the north of the subject site. On the western side kerb of Chippen Street, 61m north of the junction with Cleveland Street, adjoining 47-49, Chippen Street.

Distance to site boundary: 83m. Distance to centre of subject site: 98.8m

RL of camera: + 22.92



Viewpoint no.3: Photomontage of new proposal



Viewpoint no.3: Visual Impact indicated in red overlay.

Visual Quality Assessment: Scale no.3 Visual Impact Assessment: Scale no.5

Amount of new development visible from this location: 78%

This is a static and dynamic, public viewpoint, looking south towards the subject site, with a partially obstructed view of the new proposal, directly across Cleveland Street. It is predominantly the northern elevation of the new proposal that will be visible.

The extent of visual impact is of a medium to high level from this location, with the quantifiable view loss fairly evenly distributed between sky view and views of distant residential towers. The adjoining buildings on Dale Avenue provide an existing level of height and massing consistent with the area and with that of the new proposal.

This view demonstrates that the building design will integrate into the existing urban fabric and that the upper levels will only impact on sky views. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.



Viewpoint no.4: Existing site photo.
Pavement level - standing height - to the north-east of the subject site. On the northern side kerb of Cleveland Street, adjoining 232-236 , Cleveland Street.
Distance to site boundary: 29.1m. Distance to centre of subject site: 51.2m
RL of camera: + 26.49m



Viewpoint no.4: Photomontage of new proposal.



**Viewpoint no.4: Visual Impact indicated in red overlay.
Visual Quality Assessment: Scale no.3 Visual Impact Assessment: Scale no.10.
Amount of new development visible from this location: 86%**

This is a static and dynamic, public viewpoint, looking south towards the subject site, with a partially obstructed view of the new proposal, directly across Cleveland Street. It is predominantly the northern elevation of the new proposal that will be visible.

The extent of visual impact is of a medium to high level from this location, with the quantifiable view loss fairly mostly of sky view, with a small amount of visual obstruction to the existing buildings along the southern perimeter of the site. The adjoining buildings on Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal.

This view demonstrates that the building design will integrate into the existing urban fabric and the upper levels are only impacting on sky view. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.



Viewpoint no.5: Existing site photo.
Street level - standing height - to east of the subject site. At the junction between Cleveland Street and Regent Street.
Distance to site boundary: 55.5m. Distance to centre of subject site: 77.1m
RL of camera: + 29.06m



Viewpoint no.5: Photomontage of new proposal.



Viewpoint no.5: Visual Impact indicated in red overlay.

Visual Quality Assessment: Scale no.4 Visual Impact Assessment: Scale no.5

Amount of new development visible from this location: 58%

This is a static and dynamic, public viewpoint, looking south towards the subject site, with a partially obstructed view of the new proposal, looking west along Cleveland Street. It is predominantly the northern elevation of the new proposal that will be visible.

The extent of visual impact is of a medium level from this location, with the quantifiable view loss mostly of sky view, with a small amount of visual obstruction to the existing buildings to the west of the subject site. The adjoining buildings on Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal. This view angle clearly demonstrates the proposal's positive impact upon the continuity of rooflines along the street. It is also apparent that the building design will integrate into the existing urban fabric and the upper levels will only impact on sky view. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.



Viewpoint no.6: Existing site photo.
Pavement level - standing height - to the south of the subject site. On the eastern side kerb of Woodburn Street, 57m south of the junction with Cleveland Street, adjoining 7, Woodburn Street. Distance to site boundary: 22.2m. Distance to centre of subject site: 44.8m
RL of camera: + 21.74



Viewpoint no.6: Photomontage of new proposal.



**Viewpoint no.6: Visual Impact indicated in red overlay.
Visual Quality Assessment: Scale no.2 Visual Impact Assessment: Scale no.5
Amount of new development visible from this location: 92% of eastern elevation.**

This is a static and dynamic, public viewpoint, looking north towards the subject site, with an unobstructed, oblique view of the eastern elevation of the new proposal. The extent of visual impact can be assessed as moderate-to-significant from this location, although the quantifiable view loss is mostly of sky view, with a small amount of visual obstruction to the existing buildings to the north of the subject site, across Cleveland Street. The adjoining buildings on Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal. This view angle clearly demonstrates the proposal's positive impact upon the continuity of rooflines along the street. It is also apparent that the building design will integrate into the existing urban fabric and the upper levels will only impact on sky view. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.



Viewpoint no.7: Existing site photo.
Pavement level - standing height - to the south-south-west of the subject site. On the eastern side kerb of Eveleigh Street, 64.7m south of the junction with Cleveland Street, adjoining 13-31, Eveleigh Street. Distance to site boundary: 37.4m. Distance to centre of subject site: 52.8m
RL of camera: + 20.18m



Viewpoint no.7: Photomontage of new proposal.



**Viewpoint no.7: Visual Impact indicated in red overlay.
Visual Quality Assessment: Scale no.3 Visual Impact Assessment: Scale no.4
Amount of new development visible from this location: 94% of western elevation.**

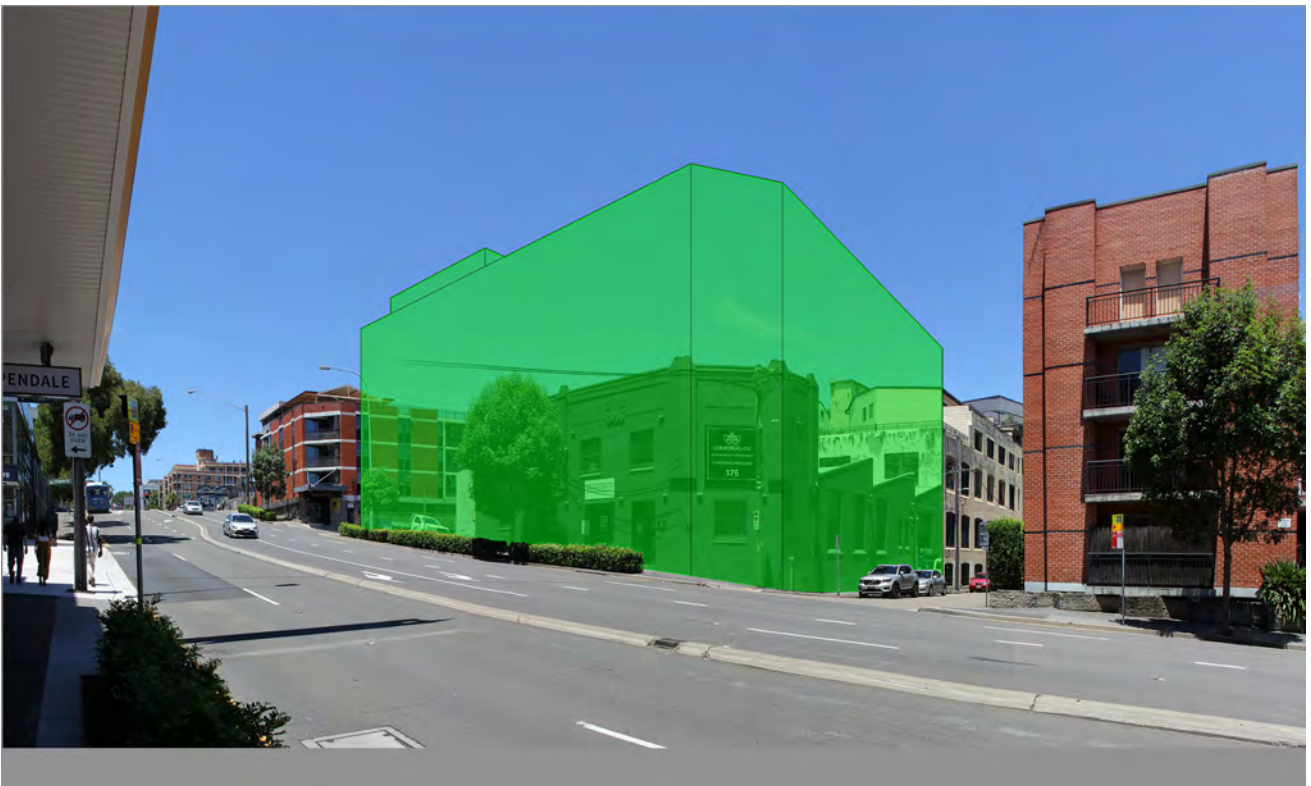
This is a static and dynamic, public viewpoint, looking south towards the subject site, with a partially obstructed view of the new proposal, looking west along Cleveland Street. It is predominantly the northern elevation of the new proposal that will be visible.

The extent of visual impact is of a medium level from this location, with the quantifiable view loss mostly of sky view, with a small amount of visual obstruction to the existing buildings to the west of the subject site. The adjoining buildings on Cleveland Street provide an existing level of height and massing consistent with the area and with that of the new proposal. This view angle clearly demonstrates the proposal's positive impact upon the continuity of rooflines along the street. It is also apparent that the building design will integrate into the existing urban fabric and the upper levels will only impact on sky view. The new proposal helps to define a sense of rhythmic scale, very much in keeping with the neighbourhood, which was traditionally a mix of residential and warehouse-style architecture.

Compliant Building Envelope Diagrams



Viewpoint No.1 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.2 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.3 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.4 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.5 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.6 – Visual impact of compliant building envelope shown in green overlay



Viewpoint No.7 – Visual impact of compliant building envelope shown in green overlay

4. CONCLUSIONS + PLANNING SCHEME PROVISIONS RELATING TO VISUAL IMPACTS

The proposed development seeks to demolish all buildings on an existing site and build a 6 storey co-living accommodation block.

The Planning Proposal:

- Is consistent with the objectives of the proposed B4 Mixed Use Business zoning pursuant to the current RWA Land Zoning map;
- Resolves the amalgamation of the overall site to provide a single redevelopment with a single building form and an articulated ground plane that clearly identifies the main entry points to the building.
- Is a suitable development which is consistent with the existing and future built form and will not adversely impact on the locality;
- Complies with the statutory height controls for the area.
- Is consistent with the Metro Strategy and Sub-Regional Strategy objectives to locate increased affordable residential density closer to public transport and access to mature road networks and existing urban centres;

In terms of an assessment regarding the visual impact of the proposal:

- The visual impact is greatest in areas of low visual quality and areas where most observations will be from vehicles, namely along Cleveland Street and other arterial approach roads to the site.
- In areas where the visual impact is more sensitive, particularly the well-established residential lots to the west of the subject site, the heights of the adjoining buildings largely obscure much of the proposal
- As described in the individual view assessments, the site is in an area of mixed architectural quality and scale. The new proposal seeks to add a degree of unification to the streetscape.
- There is an opportunity for the podium architectural treatment to respond sensitively to the human scale of the existing urban fabric, whilst the levels above serve a larger scale purpose in relation to urban growth and the inter-relationship of suburbs in this area.
- The visual impact does not create any material view loss, rather visual impact upon the sky for the most part. This is as a result of the subject site's lower position, relative to its surroundings on all sides.

In conclusion, an approved development application would allow the unification of the site and the provision of affordable co-living accommodation in a location that facilitates easy connection to the City and CBD through various means of transportation. The visual impact is, in this respect, a positive feature of the proposal, where it is observed from main arterial routes, whilst the scale of existing buildings in the surrounding neighbourhood minimises the visual impact on the more local and personal scale.

Cleveland Street has an existing, identifiable scale, in terms of building height and massing. The new design seeks to align with this and to enhance the continuity of form along major arterial road.

5. APPENDICES

- 5.1 APPENDIX A: Full Panoramic Photomontages of the Proposed Development from local viewpoints + verification diagrams.
- 5.2 APPENDIX B: Land and Environment Court: Guidelines for Photomontages.
- 5.3 APPENDIX C: Aspinall CV and Expert Witness experience.
Methodology article – Planning Australia, by Urbaine Architectural.

APPENDIX B:

Land and Environment Court: Guidelines for Photomontages

LAND AND ENVIRONMENT COURT

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:
 - i. 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 C

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

CURRICULUM VITAE:

JOHN ASPINALL. Expert Witness – Land and Environment Court.

dob 8.2.63

Registered Architect RIBA BA(Hons) BArch(Hons) Liverpool University, UK.
Qualified 1987, London 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 Architectural (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 programmes 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 Architectural. 2005 to present.

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

Specialist in design development via interactive 3d modelling.

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, 1998 to present.

In Australia and the UK, for the Land and Environment Court. Expert witness for visual impact studies and view loss assessments 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 many articles relating to the accuracy of Visual Impact Assessments. An article contained in Australian Planner Magazine, 2018, is attached as Appendix A.

The experience, in architectural design and 3D visualisation, over 30 years, as outlined above, gives John Aspinall a foundation of skills and experience to deliver highly competent visual information as the basis for very accurate visual impact assessment reports, both in Australia and internationally.

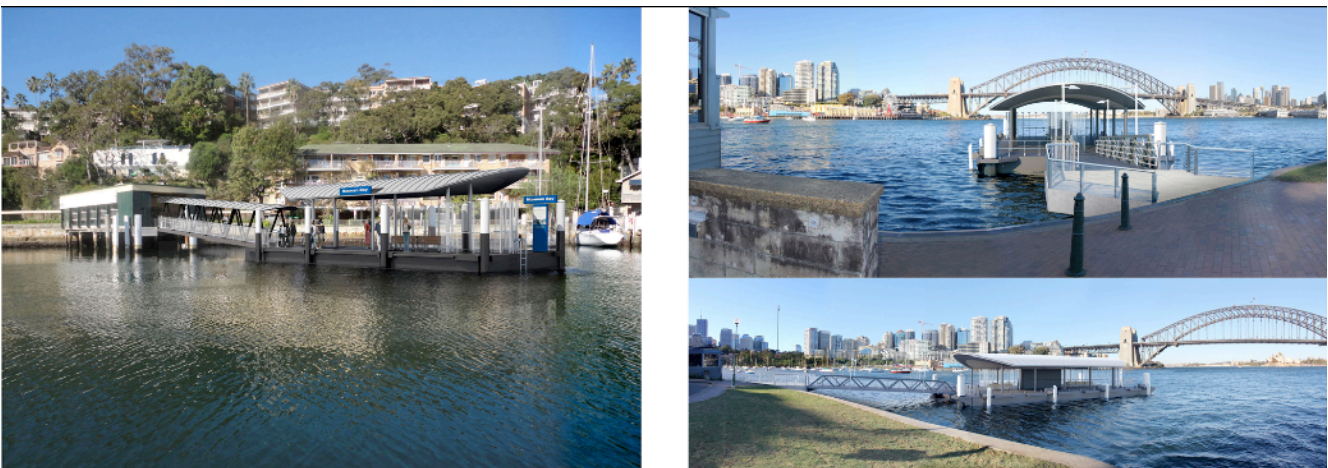


Photomontaged views of new apartment building at Pyrmont: Urbaine

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%.

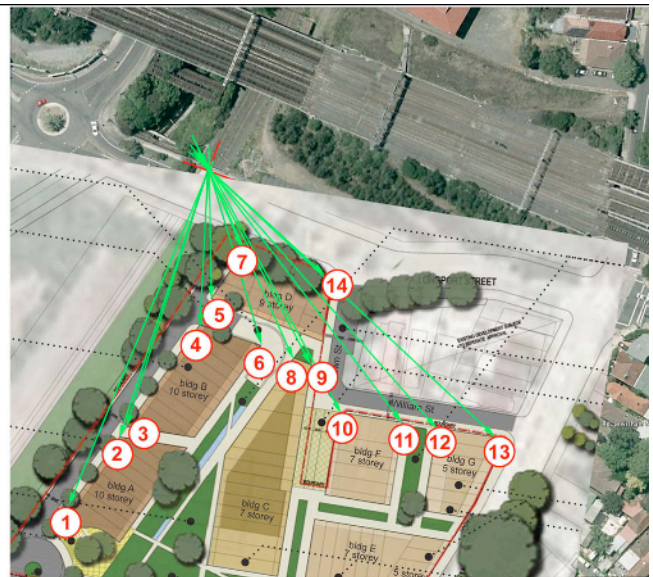
Domain The Sydney Morning Herald
Inaccurate images anger residents
 February 21
 Kelsey Munro



Picture imperfect... the original interpretation of how the Lewisham Estates development will look.
 CAN residents affected by big development proposals rely on developers' photo montages? One inner west group thinks not, after inaccuracies were found in a series of digital photo montages which made the proposed Lewisham Estates development appear much smaller than it would if built. The developer was sent back to the drawing board by the Department of Planning to redo the images that were publicly exhibited for the project after questions were raised over their accuracy.

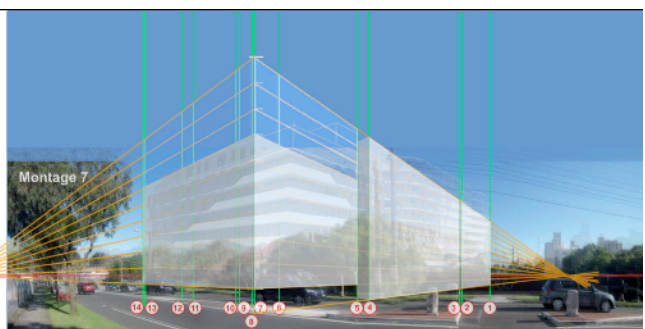
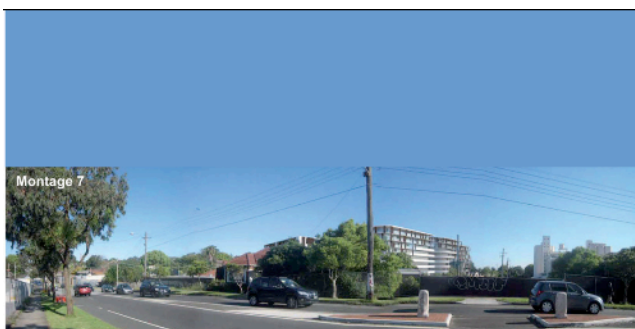


The corrected interpretation of how the Lewisham Estates development will look.
 The No Lewisham Towers residents' action group claims the original images were so misleading that the corrected ones should go on public exhibition before the Planning Assessment Commission makes its determination next week.



SMH article re inaccurate visualisations

Key visual location points on site: Urbaine



Photomontage submitted by developer

Assessment of inaccuracy by Urbaine

Urbaine has developed a number of methods for adding verification data to the 3d model of new proposals 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

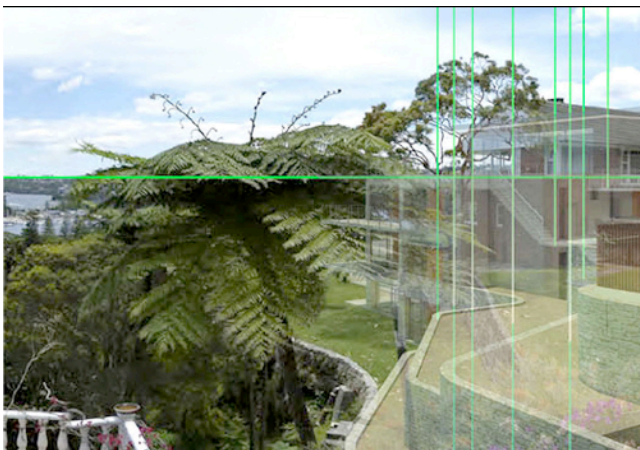
rendered version of all the elements was then placed over the photo and the final model applied to this. As can be seen, the original montage and the final verified version are dramatically different and, in this case, to the disadvantage of the complainant.



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.



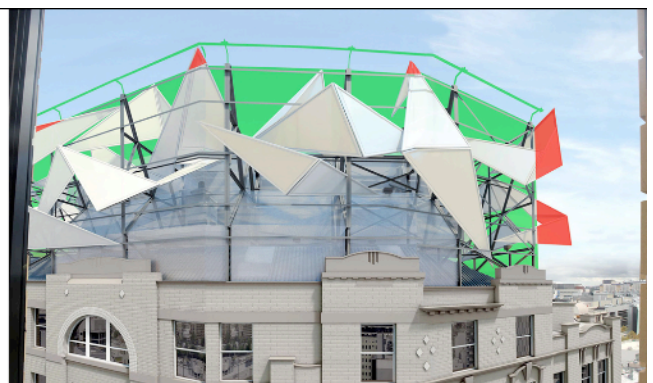
Photomontage of new proposal for digital billboard



Existing situation – view from adjoining hotel

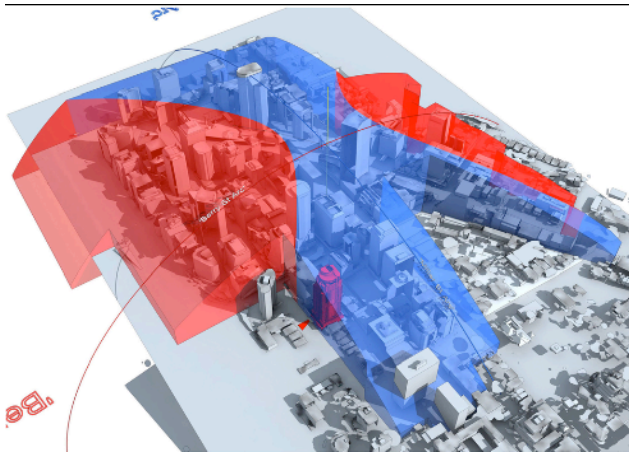


Photomontage of view from hotel

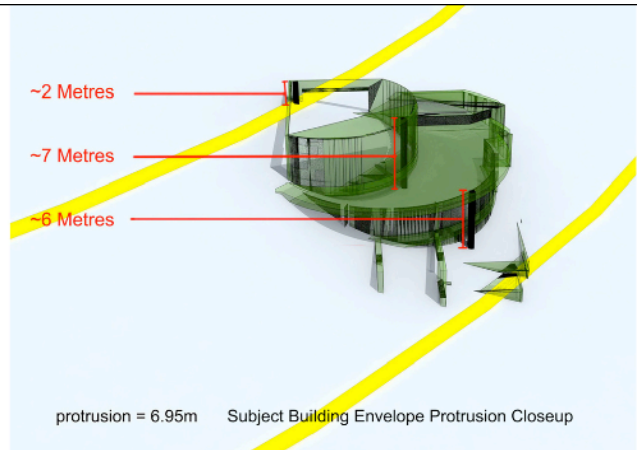


View loss – green = view gain / red = view loss

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

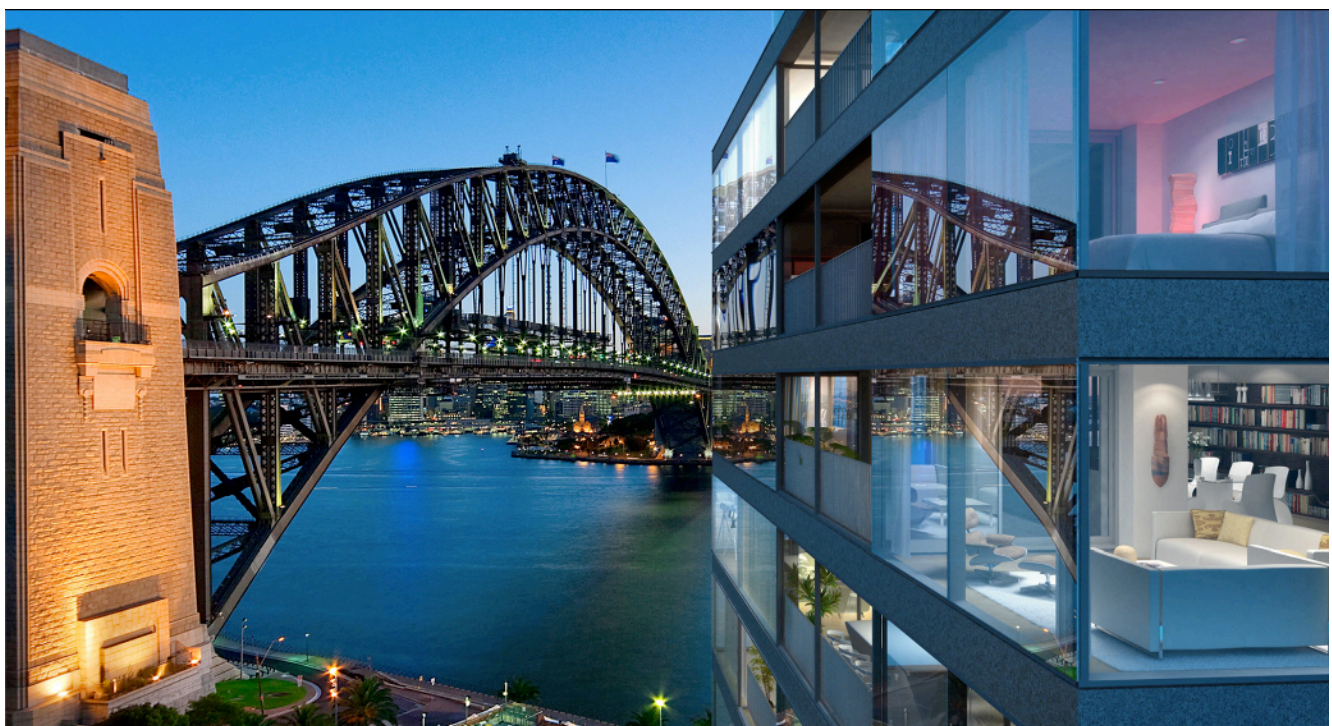


Extent of protrusion of proposed design prior to re-design

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.



Verified photomontage for proposed apartments in Milsons Point by Urbaine.

APPENDIX A

Visual Impact Assessment Images



Aerial site photo - indicating location of camera viewpoints



Viewpoint 1 - existing photo



Viewpoint 1 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 1 - montaged view.



Viewpoint 1 - visual impact shown in red overlay.



Viewpoint 1 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 2 - existing photo



Viewpoint 2 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 2 - montaged view.



Viewpoint 2 - visual impact shown in red overlay.



Viewpoint 2 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 3 - existing photo



**Viewpoint 3 - with wireframe overlay
- aligning 3d model with site.**



Viewpoint 3 - montaged view.



Viewpoint 3 - visual impact shown in red overlay.



Viewpoint 3 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 1 - existing photo



Viewpoint 4 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 4 - montaged view.



Viewpoint 4 - visual impact shown in red overlay.



Viewpoint 4 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 5 - existing photo



Viewpoint 5 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 5 - montaged view.



Viewpoint 5 - visual impact shown in red overlay.



Viewpoint 5 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 6 - existing photo



Viewpoint 6 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 6 - montaged view.



Viewpoint 6 - visual impact shown in red overlay.



Viewpoint 6 - visual impact of compliant building envelope shown in green overlay.



Viewpoint 7 - existing photo



Viewpoint 7 - with wireframe overlay
- aligning 3d model with site.



Viewpoint 7 - montaged view.



Viewpoint 7 - visual impact shown in red overlay.



Viewpoint 7 - visual impact of compliant building envelope shown in green overlay.