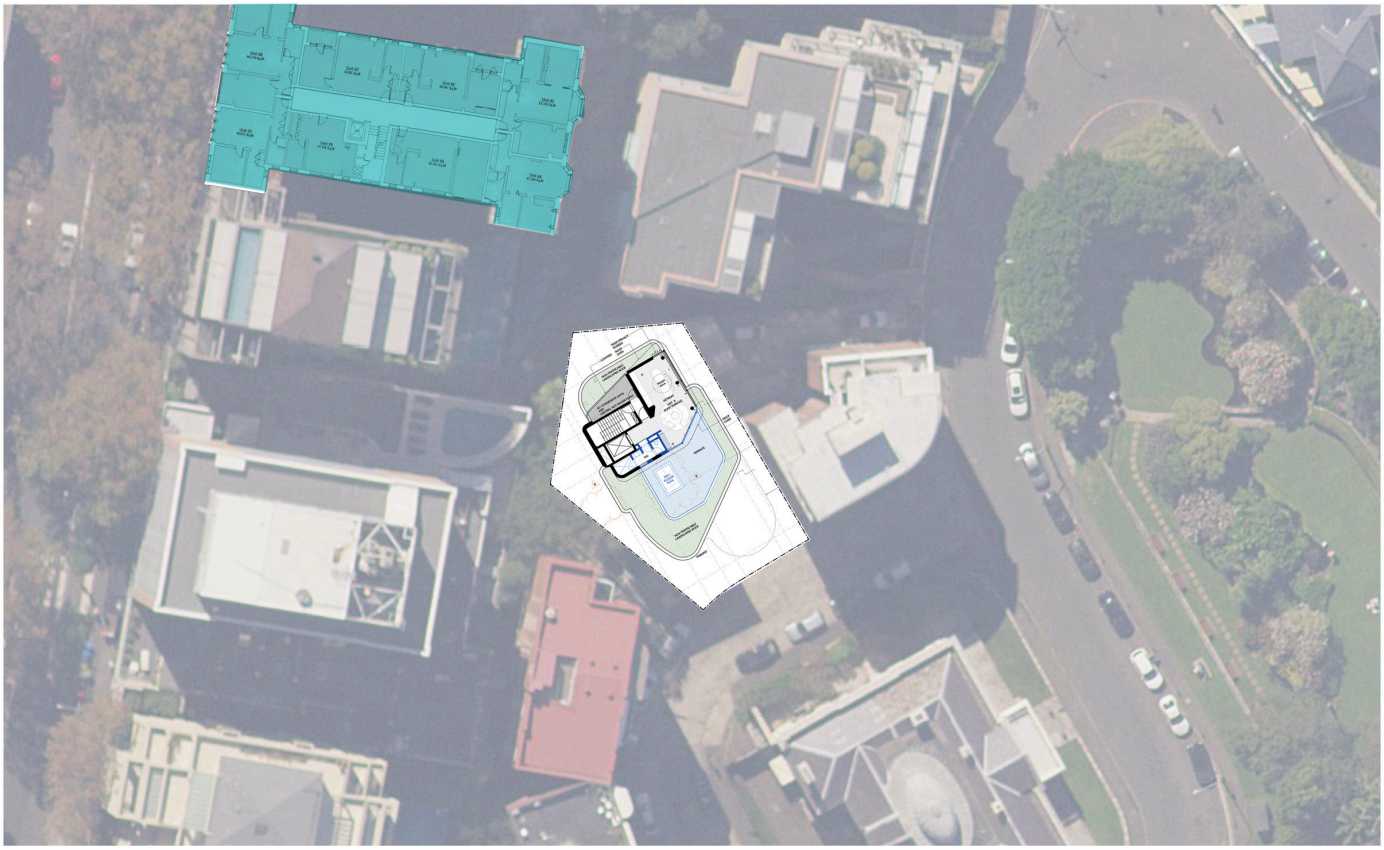
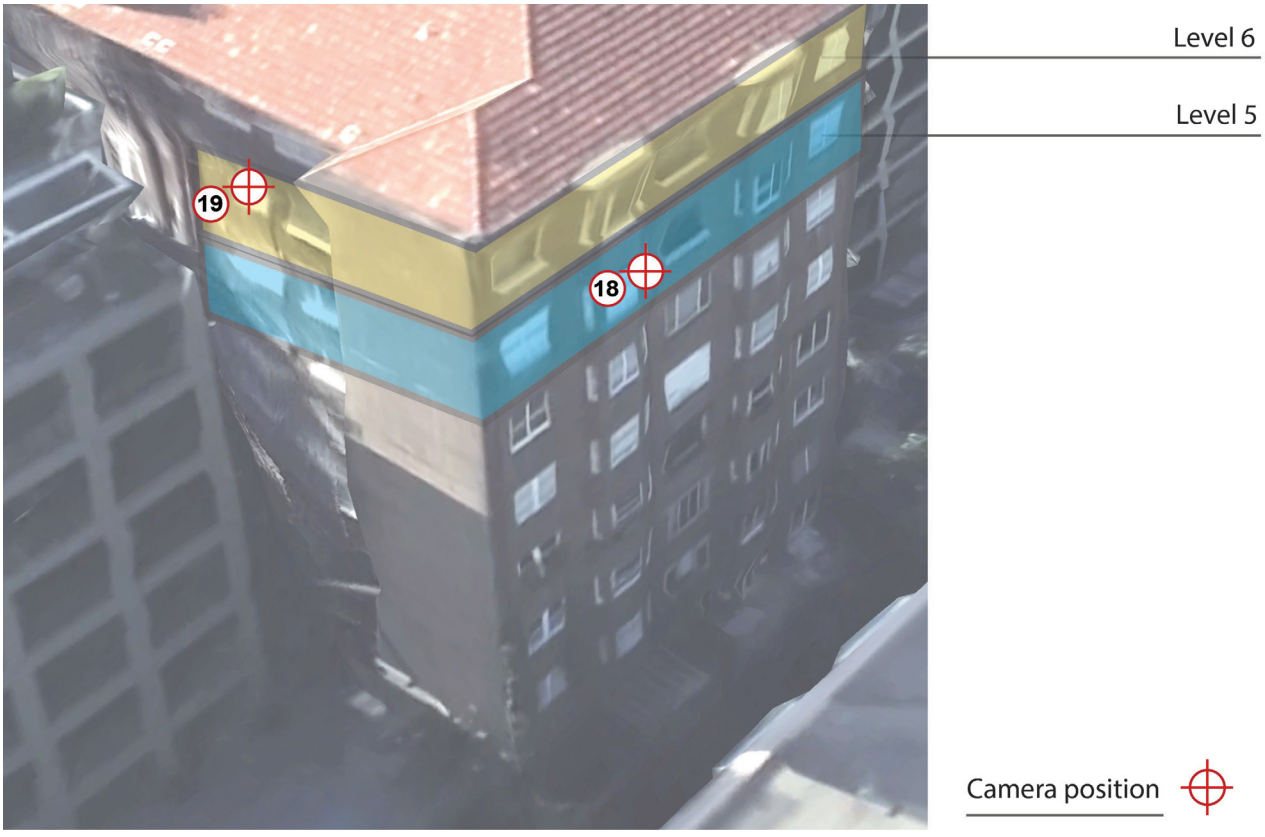
Attachment C6

Visual Impact Assessment

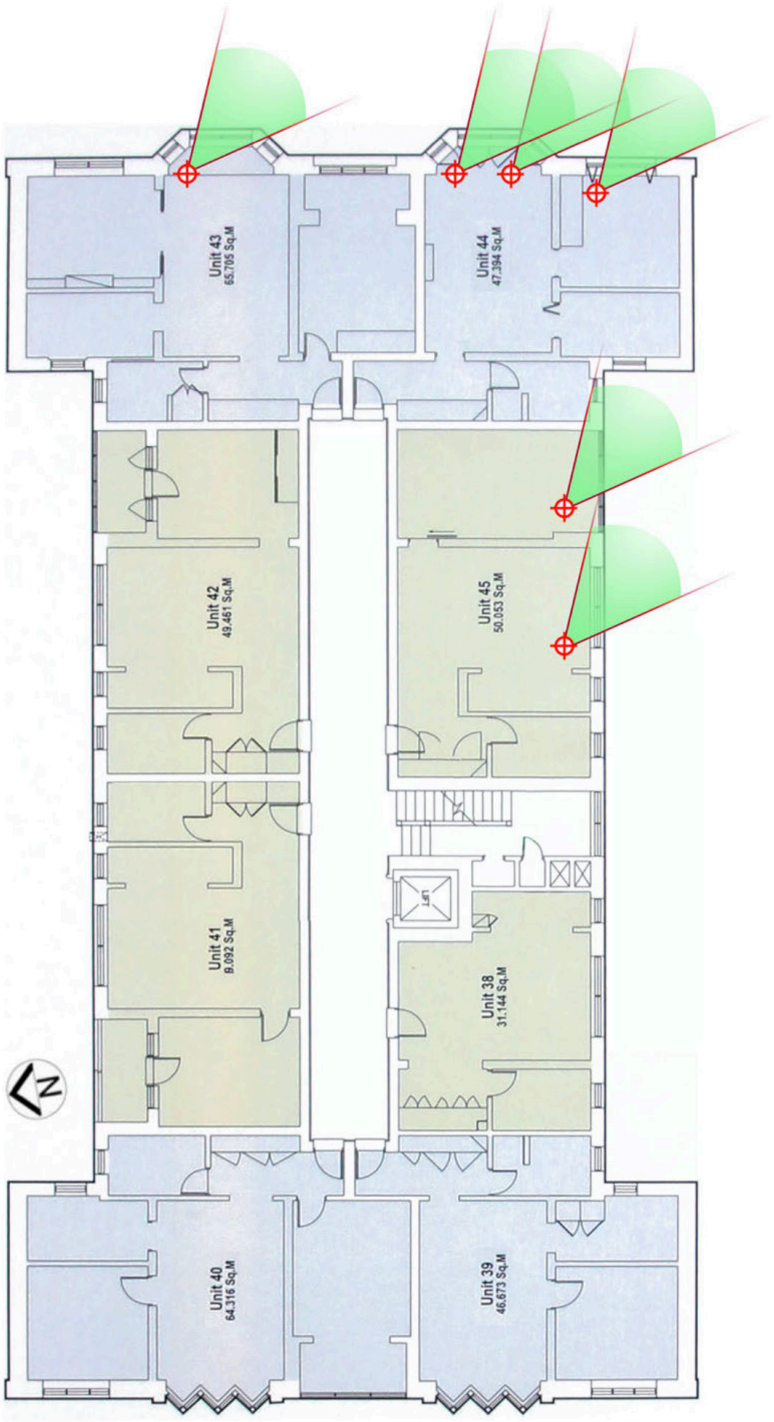
VIEWPOINTS @ NO.20, MACLEAY STREET:



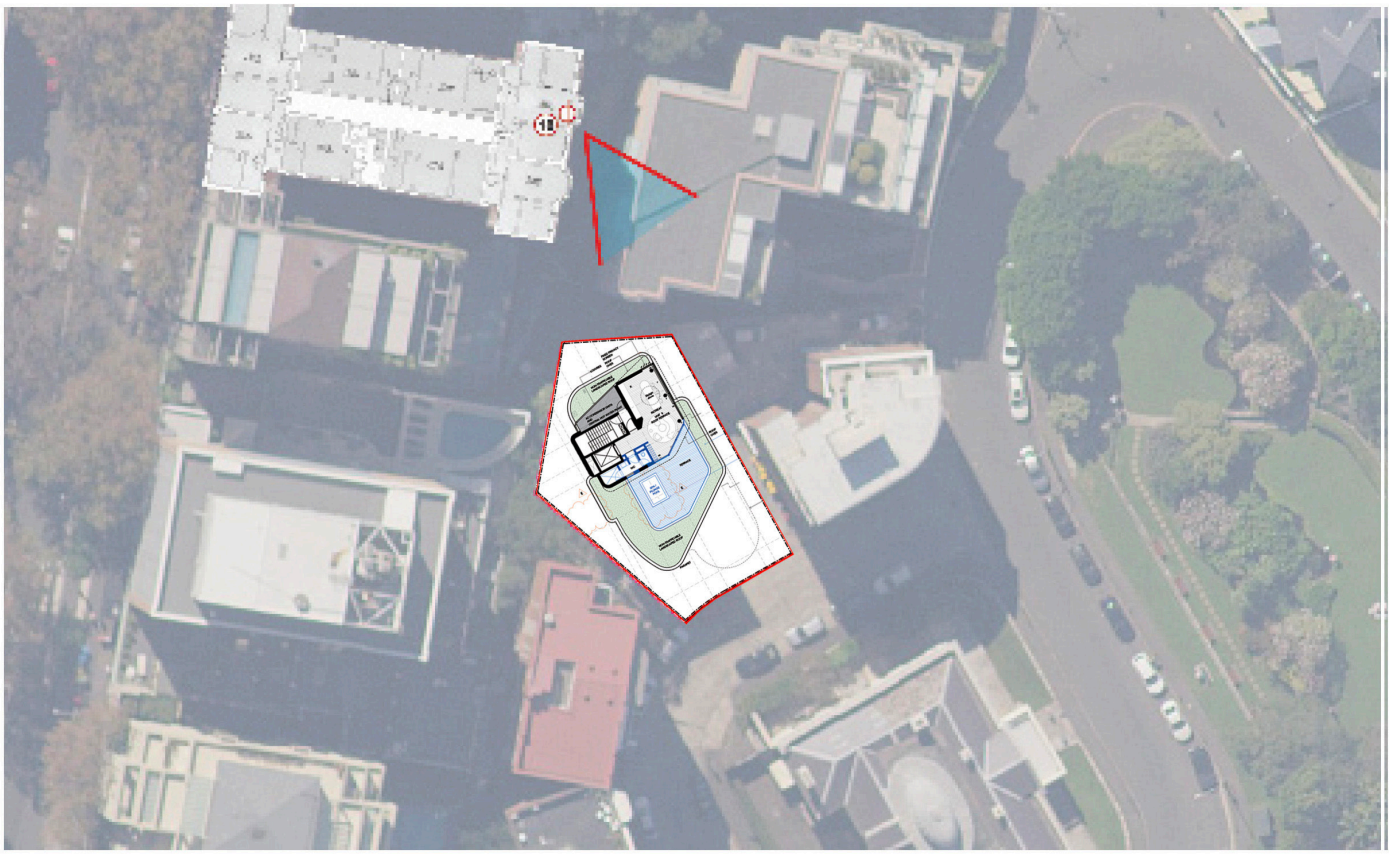
Aerial view showing location of No.20, Macleay Street in cyan overlay.



Floor levels and viewpoint locations of No.20, Macleay Street.



Typical floor plan of No.20-20A, Macleay Street, indicating locations within selected apartments with access to views across the subject site.
From these apartments, there are 6 relevant view aspects towards the southeast and the subject site. The impact on the views Is experienced by the apartments on the east and south of this apartment building, in a southeasterly direction



Viewpoint No.18: Site map indicating camera position and target.

Viewpoint No.18: Approved Development photo. Unit no.52, No.20-20A, Level 5. Macleay Street.
From main living room – southeast facing.
RL +46.23. Distance to site boundary: 17.1m. Distance to centre of subject site: 31.6m

Viewpoint No.18: Photomontage of new proposed landscaping onto Approved Development photo.

Viewpoint No.18:: Extent of visual impact of proposed landscaping - indicated in cyan overlay with red outline.

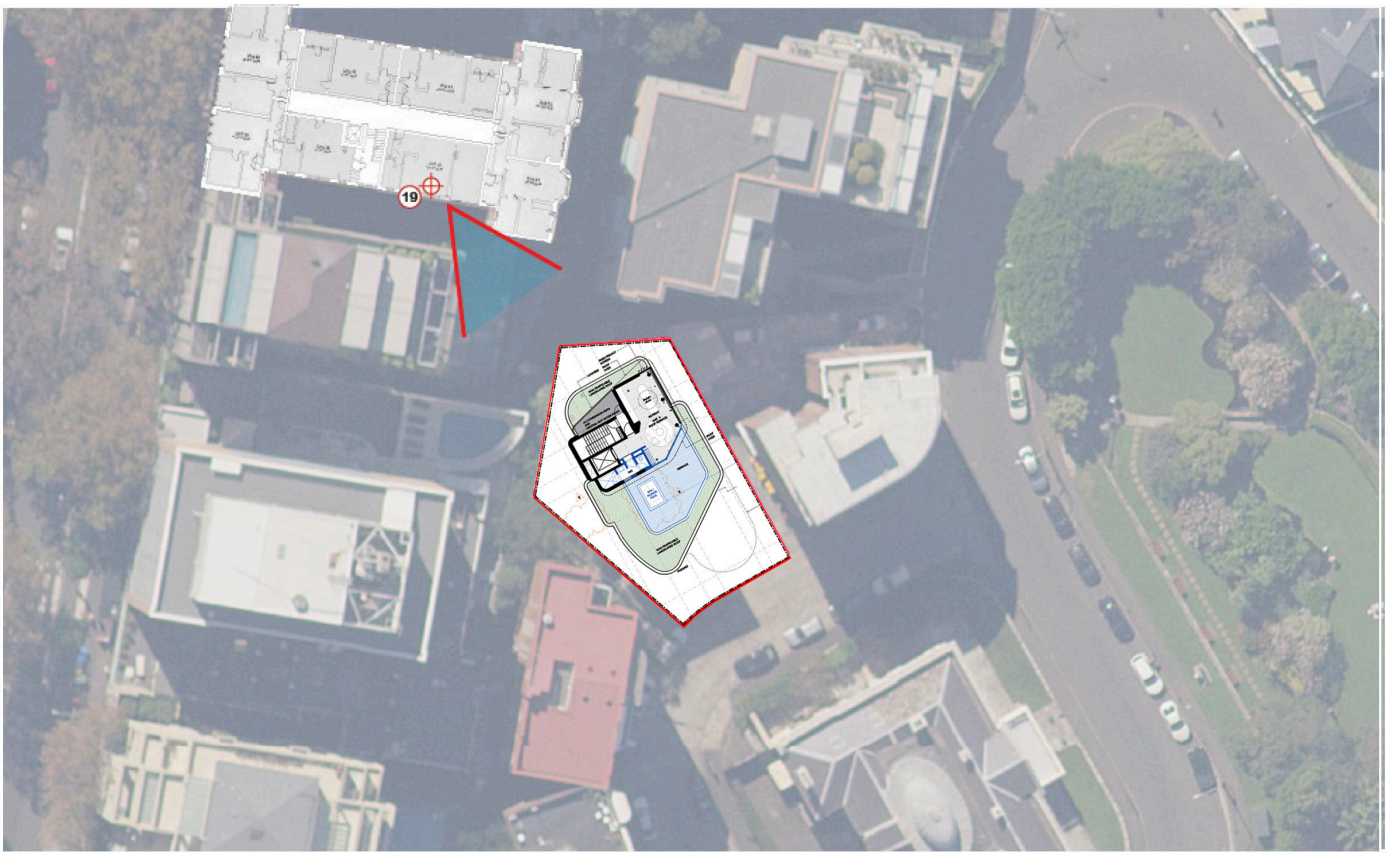
Viewpoint No.18: Assessment.

Visual impact – portion of additions to new building visible in view – 0%
Visual impact ratio of view loss to sky view loss in visible portion. 0%: 0%
Existing Visual Quality Scale no: 9 /15 Visual Impact Assessment Scale - additional view loss: 0 /15

This is a static, private viewpoint from the main living room of the northeastern apartment, fifth floor level, at No.20-20A, Macleay Street. From this location, the oblique view is to the roof and rear, northern elevation of the apartment building at No.5, Onslow Avenue. The middle dtance buildings, trees and distant skyline beyond No.5, Onslow can also be seen. To the south of this, there is a small portion of the new proposal that is observed, but the impact upon views is negligible.

The view loss, as a result of the new proposed landscaping, would be considered nil under the assessment guidelines of the Tenacity Consulting v Warringah Council [2004] NSWLEC 140 case. The new design proposal respects the DCP guidelines contained within the City of Sydney Council DCP, 2012.

Tenacity Assessment Summary:
Value of view: Medium-to-high.
View location: Primary living space – standing.
Extent of impact: Nil.
Reasonableness of proposal: Acceptable.



Viewpoint No.19: Site map indicating camera position and target.

Viewpoint No.19: Approved Development photo. Unit no.61, Level 6. No.20-20A, Macleay Street.
From main living room – southeast facing.
RL +49.79. Distance to site boundary: 18.1m. Distance to centre of subject site: 35.6m

Viewpoint No.19: Photomontage of new proposed landscaping onto Approved Development photo.

Viewpoint No.19: Extent of visual impact of proposed landscaping - indicated in cyan overlay with red outline.

Viewpoint No.19: Assessment.

Visual impact – portion of landscaping additions to new building visible in view – 0% of soft landscaping
Visual impact ratio of view loss to sky view loss in visible portion. 0%: 0%
Existing Visual Quality Scale no: 6 /15 Visual Impact Assessment Scale - additional view loss: 0 /15

This is a static, private viewpoint from the south-facing window of the main living room within the southeastern apartment of the central section, fourth floor of No.20-20A, Macleay Street. There are no high-value views from this location.

The view loss, as a result of the new proposed landscaping, would be considered nil under the assessment guidelines of the Tenacity Consulting v Warringah Council [2004] NSWLEC 140 case.
The new design proposal respects the DCP guidelines contained within the City of Sydney Council DCP, 2012.

Tenacity Assessment Summary:
Value of view: Medium.
View location: Primary living space – standing.
Extent of impact: Nil.
Reasonableness of proposal: Acceptable.

4. SUMMARY ASSESSMENT.

This Visual Impact Assessment from Urbaine Design seeks to provide an objective approach to the likely visual impact and potential view loss from neighbours, surrounding the site of an addition to the approved development at the top, pool level, of No.1, Onslow Place, Elizabeth Bay. The view loss assessment is in relation to the addition of landscaping to the upper, pool leve, adjoining residential properties on the western and southern sides of the subject site and, specifically the apartment buildings at Nos.20, Macleay Street, No.28, Macleay Street, No.3, Onslow Place. and No.38, Macleay Street, forming the basis of this report.

The additional landscaping proposal at No.1, Onslow Place is, in almost every instance, not increasing visual impact. In cases, where view loss does occur, this is negligible.

In conclusion, the addition to the approved proposal represents a negligible variation to the existing visual impact and view loss to neighbouring residential properties along Macleay Street. The highest value views are middle and distant views to the east and southeast, namely to Arthur McElhone Reserve and the Elizabeth Bay foreshore. From here there are varying degrees of view to the water in Elizabeth Bay, Rushcutters Bay and the main harbour, with the parts of Clark Island also observable from some properties. The high-rise residential towers at the northern end of Darling Point are at the centre of most of the views to the east, with the far foreshore of Double Bay and Vaucluse behind the Darling point Headland. The building additions are higher than the existing building and the resultant increase in view loss is small as a quantifiable percentage figure.
The extent of additional view loss varies from nil to moderate.

The neighbouring Council has a similar approach to view sharing: Woollahara Council DCP, 2015, Section B3.5.3: Public and Private Views. This states:
'*View sharing concerns the equitable distribution of views between properties. The view sharing controls in this DCP seek to strike a balance between accommodating new development while providing, where practical, reasonable access to views from surrounding properties. Development should be designed to reflect the view sharing principles in Tenacity Consulting v Warringah Council [2004] NSWLEC 140.'*
In this instance, the design maintains full access to the existing views.

When reviewing the revised application, it is important to not that the addition to the rooftop does not compromise the extensive process of skilful design in the Court approved scheme that sought to maximise view sharing wherever possible from each of the assessed properties. In actuality, the addition results in a virtually imperceptible, negligible addition of built form to the rooftop, and does not change any of the severity ratings as was approved in the Court scheme. Consequently,the maximum extent of additional view loss impact is classified as negligible, with the majority of it being of non-descript areas, assessed of having a nil impact.
Overall, the reasonableness of the proposal has not changed . It still maintains full compliance with all relevant controls and therefore the view loss is still acceptable.
When assessed alongside the Tenacity principles, it is my opinion that the location and size of the additional landscaping, whilst being compliant with Council's statutory requirements, could not be designed in a 'more skilful manner' to reduce any additional view loss.

John Aspinall, Director, Urbaine Design Group Pty Ltd.

5. APPENDICES.

- 5.1 APPENDIX A: Photomontages and view loss assessment images of the Proposed Development from 18 local viewpoints + verification diagrams.
- 5.2 APPENDIX B: Methodology article – Planning Australia, by Urbaine Architecture.
- 5.3 APPENDIX C: Land and Environment Court guidelines for photomontages.
- 5.4 APPENDIX D: Survey from TSS: Total Surveying Solutions.
- 5.5 APPENDIX E: Wireframe Images – LEC Compliance.
- 5.6 APPENDIX F: LEC Compliance description.

5.1 APPENDIX A:

Photomontages and view loss assessment images of the
Proposed Development from 18 local viewpoints + verification diagrams.

5.2 APPENDIX B:

Methodology article – Planning Australia, by Urbaine Architecture.

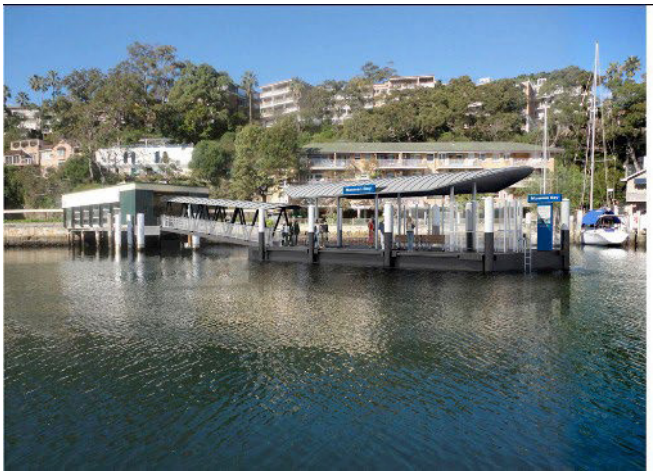
VISUAL IMPACT ASSESSMENTS: A REALITY CHECK.
BY JOHN ASPINALL.

Photomontaged views of new apartment building at Pyrmont: Urbaine

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

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

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



Photomontaged views of new Sydney Harbour wharves: Urbaine

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

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

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

throughout the training of architects.

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

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

Domain

The Sydney Morning Herald

Inaccurate images anger residents

February 21

Kelsey Munro

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

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

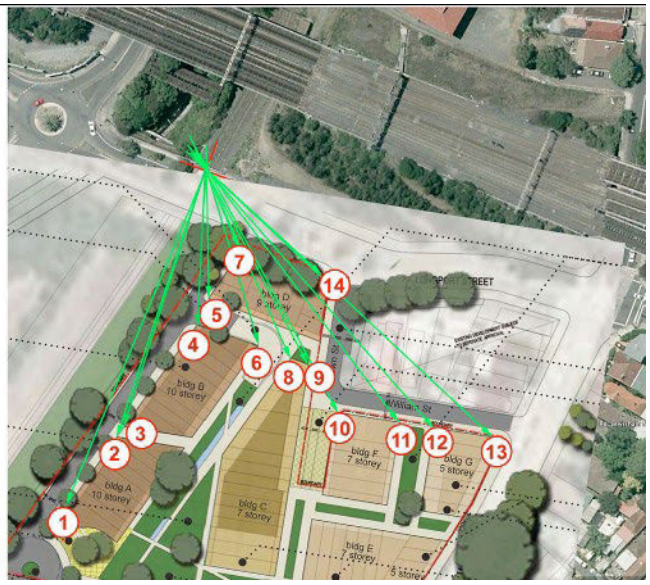
One inner west group thinks not, after inaccuracies were found in a series of digital photo montages which made the proposed Lewisham Estates development appear much smaller than it would if built.

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

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

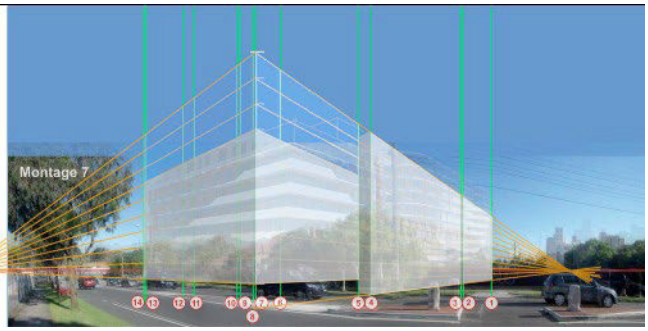
The No Lewisham Towers residents' action group claims the original images were so misleading that the corrected ones should go on public exhibition before the Planning Assessment Commission makes its determination next week.

SMH article re inaccurate visualisations



Key visual location points on site: Urbaine

Photomontage submitted by developer



Assessment of inaccuracy by Urbaine

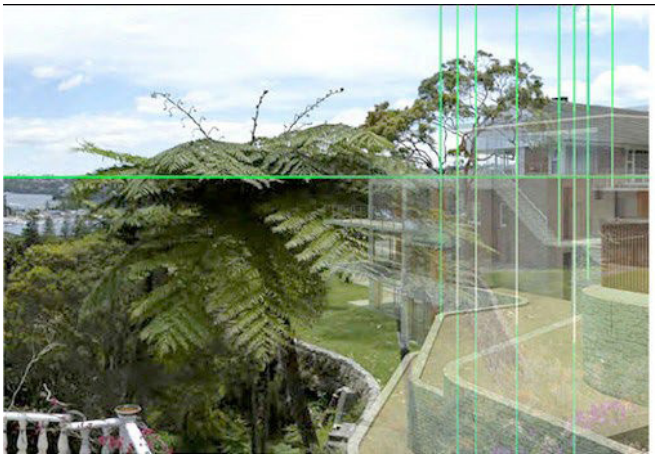
Urbaine has developed a number of methods for adding verification data to the 3d model of proposed buildings and hence to the final photomontages. These include the use of physical site poles, located at known positions and heights around a site, together with drones for accurate height and location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

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

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

Photomontage submitted by developer

Key visual location points on site: Urbaine



Key points and 3d model overlaid onto existing photo

Final accurate photomontage: Urbaine

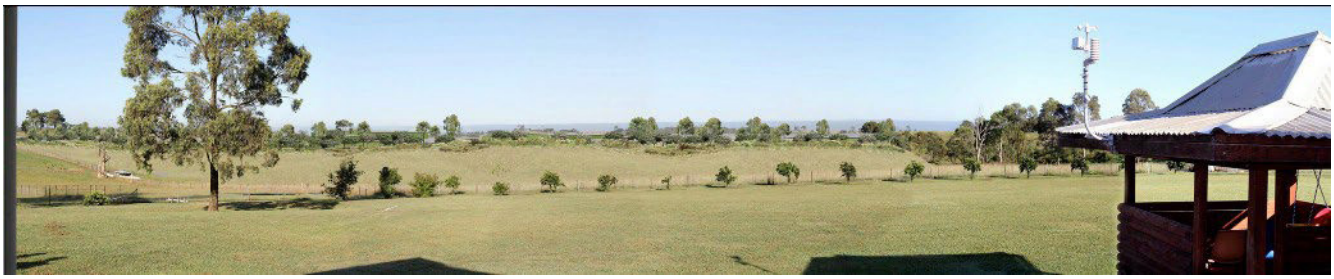
Often, Urbaine's work is on very open sites, where contentious proposals for development will be relying on minimising the visual impact through mounding and landscaping. In these cases, accuracy is critical, particularly in relation to the heights above existing ground levels. In the following example,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

Physical 3000mm site poles placed at lot corners

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

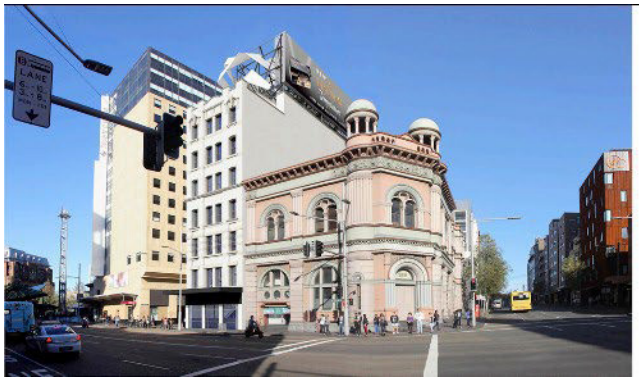
Proposed buildings and landscape mounding applied

Proposed landscape applied – shown as semi-mature

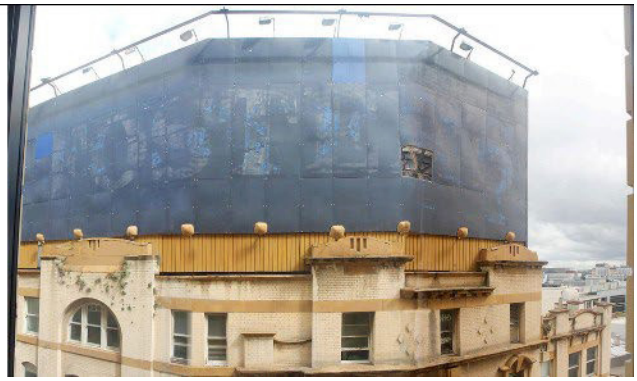


Final verified photomontage by Urbaine

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

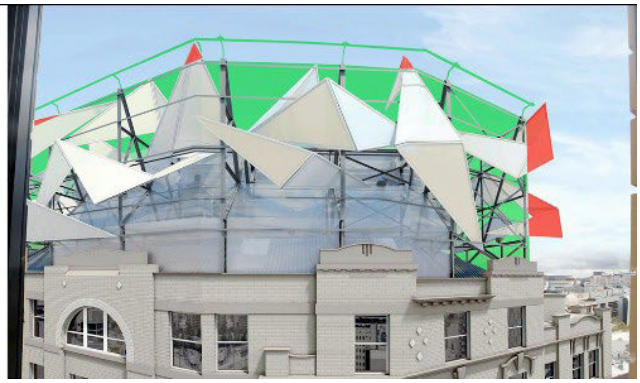


Photomontage of proposed building for digital billboard



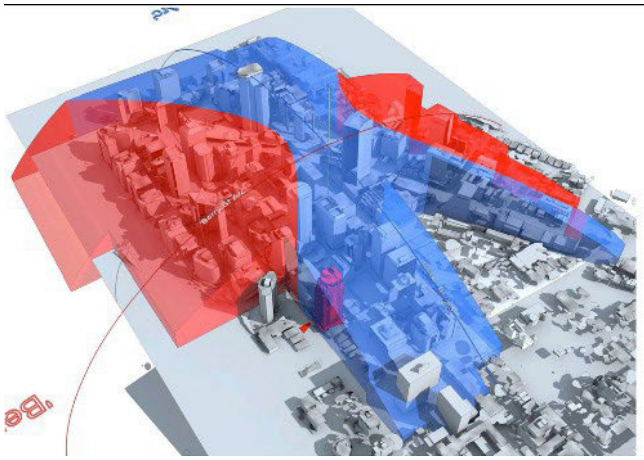
Existing situation – view from adjoining hot

Photomontage of view from hotel

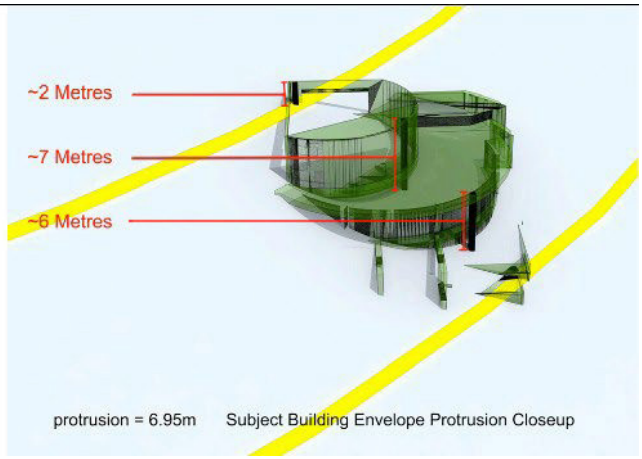


View loss – green = view gain / red = view loss

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



3d model of planning height zones



Extent of protrusion of proposed design prior to re- design

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

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

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

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