trinity point

LAKE MACQUARIE

MOD 5 Application

Supplementary Report

Visual Impact Assessment

March 2015

Trinity Point MOD 5 Application

Trinity Point Road, Morisset Park

Report prepared for Johnson Property Group

Report prepared by Dr Richard Lamb, BSc, PhD, CBiol.

VISUAL IMPACT ASSESSMENT
Supplementary Report

March 2015

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Executive Summary

- The theme for and concept of design of the MOD 5 application to vary the Concept Approval is to create a destination development, with the capacity to draw tourism demand and provide a unique level of accommodation for tourists and residents.
- The report analyses and summarises the visual impact assessment for the MOD 5 application and compares it to the visual impacts of the Concept Approval.
- The site would be transformed by the Concept Approval into an urban setting with the same uses proposed in the MOD 5 application. Contrasts with existing development forms in the locality must be taken into account in determining acceptable visual impacts.
- The visual impacts were assessed using a methodology specific to urban development applications and cross checked using the methods in the LMSMG.
- The visual catchment for both the Concept Approval and the MOD 5 application is confined to isolated parts of the urban foreshores of surrounding settlements in the southern basin of Lake Macquarie, parts of the Lake and the eastern and north eastern shorelines.
- The landscape setting in Bardens Bay demonstrates significantly modified features of the underlying natural character of the bay and shoreline.
- The site is of a moderate scenic quality rating with low visual accessibility as identified in the LMSMG and confirmed in this assessment. The landscape has a higher potential to absorb visual impacts than one of high scenic quality and high accessibility.
- The site has low visual exposure to the public domain on land and moderate exposure to part of the waters of the southern basin of Lake Macquarie. The southern basin experiences lower usage than the remainder of the Lake.
- The effect on view composition compared to the Concept Approval would be minor and the effect of relative viewing level would be no different than the Concept Approval.
- There are no roads which provide sustained views. The MOD 5 application would be no more visible or prominent than the Concept Approval.
- Most public domain views other than close views from the water are in the Low sensitivity zone.
- The proposal would cause no greater impact on view through the site from the waterway and foreshores to the north east than the Concept Approval.
- The overall rating of the visual effects of the proposed MOD 5 application on its total visual catchment was assessed to be low to medium, the same as for the Concept Approval.
- The MOD 5 proposal would provide a high level of view accessibility and be significantly better in that regard than the Concept Approval.
- The Physical Absorption Capacity (PAC) for the MOD 5 proposal was rated the same as for the Concept Approval, as was the visual compatibility.
- Overall, in comparison to the Concept Approval, the visual impacts of the MOD 5 application are considered to be either neutral (no different) or superior (less).
- The visual effects and residual impacts of the proposal were assessed as being acceptable in the context of a destination development of distinctive character with a significant tourism component.

Contents

1.0 Introduction

1.1 Purpose of this Report and Background

This report is a comparison of the visual impacts of the proposed Amendment (MOD 5) to the Part 3a Trinity Point Major Project Concept Approval MP 06_0309 obtained with conditions by Johnson Property Group (JPG) at Trinity Point. The report was prepared by Richard Lamb and Associates (RLA) and authored by the principal Dr Richard Lamb. A curriculum vitae for Dr Lamb is attached at Appendix E. A full CV can be viewed on the RLA website at www.richardlamb.com.au accessed from the People tab.

A marina was part of the Concept Approval. Amendment Modification 2 (MOD 2) was lodged in September, 2013 relating to the staging of the marina and the timing of several condition requirements. In August, 2014 the MOD 2 application was updated by JPG to incorporate design amendments resulting from compliance with Condition B1 of the Concept Approval as well as a number of other modifications. Assessment of MOD 2 is currently ongoing.

Condition B1 required a review of the marina in the Concept Plan, to improve its environmental performance. Compliance with Condition B1 has been achieved and the Concept Approval now incorporates the amendment to the marina. A DA and EIS for the Stage 1 of the Marina has been submitted to Lake Macquarie Council for determination by the JRPP. RLA prepared the Visual Impact Assessment for the Marina EIS (Stage 1 Marina VIA).

This report therefore does assess the merits of the marina. To fairly compare the Concept Approval with the MOD5 application, the proposed stage 1 marina has been included in consideration of the visual impacts of both.

RLA also prepared the visual impact assessment report on the original Concept Plan Application (RLA 2007 Visual Impact Assessment Report) in November, 2007 (VIA 2007). The baseline information in that report, which analyses and assesses the existing visual context, character and visual exposure of the site of the proposals remains current. No significant changes to the visual environment or access to it have changed in the intervening period. This was confirmed in reassessment of the visual catchment and medium range and close range viewing places made in July and August of 2014 in preparation for the Stage 1 Marina VIA and s75W Application VIA.

To avoid repetition of relevant material contained in the VIA 2007 report, the report below summarises the findings where appropriate and tabulates the findings against a comparison between the visual effects and impacts of the Concept Approval and the MOD 5 application.

This comparison has been assisted by graphic materials prepared for the purpose by Squillace Architects, including photomontages representing views from locations either identical to or similar to those assessed in the VIA 2007 and the more recent s75W Application VIA. As there were no photomontages prepared for the Master Plan Application in 2007 and no details were provided as to building detailing, the photomontages of the Concept Approval depict the potential built form as a grey massing model. The buildings represented are however of the footprint, height and general form that has been approved.

The methodology which is the basis on which the comparative assessment in this report has been based closely follows that of the 2007 VIA and s75W VIAs. For the sake of clarity, the methodology is appended to this report at Appendix B. A flow chart which shows the components and logic of the process of assessment is shown in Appendix B.

1.2 Documents consulted

Documents consulted in preparing this report are set out in Section 1.2 of the s75W report, with the exception of new graphic material provided by ourselves and Squillace Architects, which is within this report.

1.3 Context for the Development

1.3.1 The Regional and Local Visual Context

The regional and local visual context are described in the 2007 VIA report in part 1.4.1 and updated in the RLA Marina DA/EIS report. With the exception of further development of adjacent approved residential land by JPG to the west of the site, there have been no significant changes the character, quality or visual accessibility of the site.

The visual catchment is mapped in the RLA 2007 VIA. An updated representation of the catchment, including that of the sensitivity zones used in the assessment methodology, prepared under our instructions by Squillace Architects, is below at Map 1. The Concept Approval and the MOD 5 application have the same visual exposure to the external visual catchment, as there is no significant difference in potential visibility of the built form or the marina component in either case, as evidenced in the photomontages at Appendix A. The general locations of areas from which views were analysed are shown on Map 2 and on Figure 10 and Figure 17, the key plan to the photomontage locations.

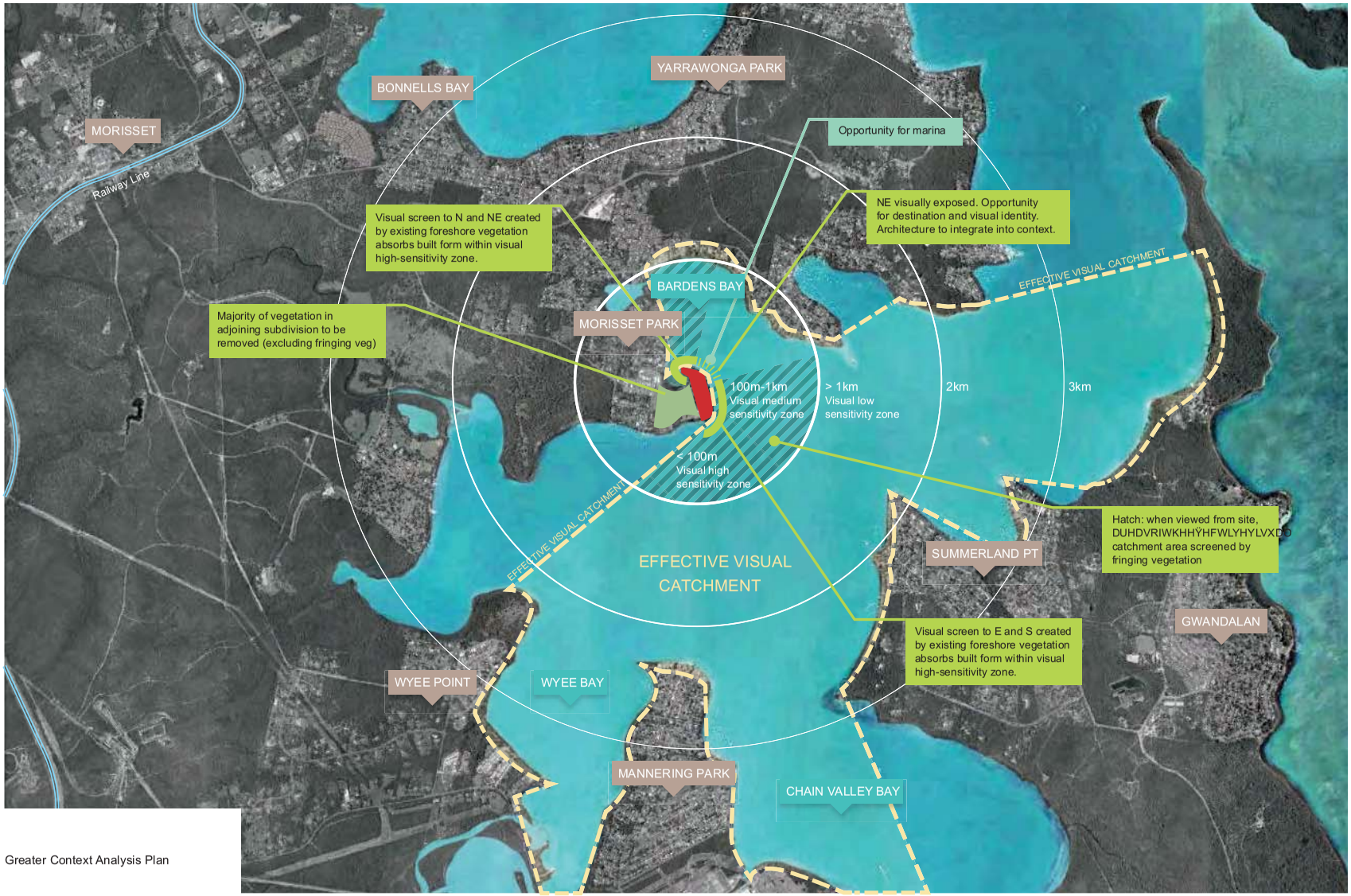
1.3.2 Existing Scenic Resources

The existing scenic resources are detailed in the RLA 2007 report in part 1.4.2 and reviewed in the RLA Marina DA/EIS report. No significant changes have occurred other than the continuing growth of cultural vegetation on the south end of the site and in isolated parts of what is now the Council reserve along the Lake shore.

A series of current photographs taken by Squillace Architects are shown representing views of the site looking outward from various locations in Figures 1-4 in this report.

1.4 Opportunities and Constraints

The site presents similar opportunities and constraints to which the amended development should positively respond to those identified in the VIA 2007 report in part 1.5. The s75W VIA in part 1.4 notes that the constraints would be similar to those of the Concept Approval, however the smaller number of individual buildings proposed and a more visually permeable public domain and tourism/commercial component will exist in the MOD 5 Masterplan. The comparison between visual opportunities and constraints are summarised in tabular form in Tables 1 and 2, below.



Greater Context Analysis Plan

Map 1: Greater context Analysis Plan

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

VIEWPOINTS ANALYSIS PLAN

Viewpoints Analysis Plan

Map 2: Viewpoints Analysis Plan

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

1.4.1 Opportunities

Table 1

Visual Opportunities

Opportunities	Concept Approval Response	MOD 5 Application Response
Possibility for high quality destination buildings to signify and anchor the development	Achieved	Achieved
Views to the north, east and southeast across the adjacent bay or lake.	Partly achieved Views to lake from one row of residential component, otherwise confined to streets Views from public domain other than foreshore highly constrained Moderate permeability	Optimised Views from all buildings including residential component, not confined to streets Expansive views from public domain, high permeability
Share views with residential development to the west and residential streets	Partly achieved View corridors protected along east west roads Partial view from Trinity Point Drive Residential streets in site confine views	Achieved View corridors protected along east west roads Extensive view from Trinity Point Drive Residential streets inside site minimised, views not confined
Foreshore reserve with existing and future natural attributes for access, views	Achieved	Achieved
Retain and enhance existing partial screening of the site by vegetation in foreshore reserve	Achieved	Achieved
Opportunity for high visual and physical permeability	Partly achieved Moderate permeability of the public domain Low permeability of the private domain	Optimised Views from public domain maximised Higher permeability to both public and private domains
Opportunity for high quality public domain and scenic quality of site landscape	Partly achieved Formalised private domain inside residential component has low access to quality site landscape	Achieved Higher proportion and quality of public domain and scenic quality of site landscape
Potential to link the future layout and the public and private domain landscapes to the existing and future development area immediately to the west of the site	Achieved	Achieved
Potential unlimited views from the foreshore, proposed marina and land/water interface	Achieved	Achieved
High point, lookout and public parkland possible on southeast, cliff top area	Achieved	Achieved
High quality close range views, managed public access to salt marsh, and enclosed, scenic views to the bay at northwest margin of site	Achieved	Achieved

1.4.2 Constraints

Table 2

Visual Constraints

Opportunities	Concept Approval Response	MOD 5 Application Response
Discontinuous and thin existing tree canopy on lakeshore in places	Retains existing tree canopy where possible	Retains existing tree canopy where possible
Variable height and form of existing trees	Building heights respond to slope and variable canopy height	Building heights respond to slope and variable canopy height
Predominant built form profile height to be contained within the existing or future tree canopy line	Achieved	Achieved Detailed analysis of tree canopy to be removed in adjacent land shows that this opportunity is achieved in the MOD 5 application
Irregular shape of the foreshore reserve and steep edge on south and southeast face	Responds to reserve shape and topography to minimise visual impacts	Responds to reserve shape and topography to minimise visual impacts
Open aspect toward residential northern shoreline of Bardens Bay and Brightwaters from north eastern foreshore	Achieved	Achieved
Vegetation in the foreshore reserve and internal site landscape could block views to the Lake and shorelines	Appropriate balance between proposed landscape planting and need to retain views and sunlight access	Appropriate balance between proposed landscape planting and need to retain views and sunlight access
Layout needs to achieve equitable view sharing and public domain access	Partly achieved Formalised private domain inside residential component has generally low access to views other than on limited street axes	Achieved Higher proportion and quality of public domain with higher access to views leads to more equitable view sharing and public domain access
Permeable but legible interfaces needed between private and public domain landscape	Partly achieved Foreshore interface has high permeability Permeability of private domain is sub-optimal because of subdivision planning, attached residential development form and view confined to street axes	Achieved High permeability of interfaces between private and public domain Fewer, more widely spaced buildings in less formal layout increases legibility
Building and landscape design and layout must not conflict with need for casual and physical surveillance of public spaces	Achieved	Achieved

In summary, with regard to the responses of the Concept Approval and the MOD 5 application to opportunities and constraints as regards visual impacts, we consider that overall the MOD 5 application is either equal to or superior in performance to the Concept Approval on every criterion.

1.5 Scenic Resource Management Principles

The existing scenic resources of the site, the visual exposure to external and future internal views and the visual constraints remain as in 2007 (see 2007 VIA report part 1.4.2) and as reviewed in the s75W VIA.

Those reports identified that care needs to be taken in managing the scenic resources of the site so that there is an overall high level of scenic amenity and that the best elements of view experiences are preserved.

In section 1.6.1 of the RLA 2007 report was a series of recommendations for management of scenic resources and for scenic protection and enhancement, which became part of the Concept Approval. The MOD5 application is consistent with these recommendations.

2.0 Concept Comparison

The concept the MOD 5 proposal is set out in detail in the Proposed S75w Modifications to the Part 3A Concept Plan report prepared by Squillace Architects. For ease of comparison, the Approved Concept Plan is shown below at Figure 5 and the proposed MOD 5 Masterplan is at Figure 6.

The Concept Approval at Figure 5 is acknowledged as a starting point for assessment of the visual impacts of the MOD 5 proposal as it envisages transformation of the visual environment of the site into an urban setting different from the adjacent residential and lake-side environment. The MOD 5 application is an alternative approach with the same land uses.

2.1 Destination Developments with Different Visual Outcomes

The underlying concept for the site in the MOD 5 application, as in the Concept Approval, is as a destination for tourism, with a mix of commercial, tourist accommodation and residential uses, along with a destination marina. RLA prepared the 2007 VIA for the Concept Plan Application. However, the final Concept Approval which was developed later (Figure 6) featured a number of changes, including a reduction in building height and a significant increase in the number of buildings, in particular detached and semi-detached dwellings, in a suburban arrangement including small lot subdivision.

RLA consider that the Concept Approval features:

- too many detached and attached residences;
- an unnecessarily strict suburban character, with its grid of streets;
- a formal, but not a practical transition from the adjacent residential development approved west of the site, to the Lake shore.;
- a small number of individual dwellings privileged with views (See Figure 7a);
- the remainder of the tourism/residential component 'walled off' from views by the attached built form, the street grid, the topography to the south and the placement of buildings to the north;

Accessibility to views overall is superior in the MOD 5 proposed Masterplan (see Figures 7b and 8).

2.2 Concept for the Arrangement of the Built Form

By comparison to the Concept Approval, the MOD 5 broadly intended to:

- rationalise the accommodation, both residential and tourist, into a smaller number of individually larger buildings of between 2 and 4-storeys in height
- arrange the buildings according to site opportunities, not on a grid, minimise internal roads, maximise public open space and view opportunities
- group like commercial functions together
- integrate the marina buildings into a single structure including a hotel
- propose a single functions building, and;
- set all of this into a landscaped garden.

A comparison of the visual effects caused by the arrangement of the built form in the Concept Approval and the MOD 5 applications below in Table 3.

Table 3

Visual effects of arrangement of Built Form

Factors affecting view accessibility	Concept Approval	MOD 5 Application
Geometry of layout	Grid of streets in south part of site associated with residential component	Free form layout other than in response to Trinity Point Drive
Residential access to views	One row of dwellings privileged with views at edge of residential component (see Figure 7) Most of the development has no access to view of the lake Vistas on streets retained east-west but blocked north-south by buildings or topography View access is inequitable	Organic layout gives every dwelling potential views Vistas east-west retained. Street inside site minimised. Views expand rather than contracting with distance through site. North vista not blocked by buildings Equitable view access and view sharing
Commercial precinct form	Piazza surrounded by buildings with multiple tenancies. Views through the complex form outside restricted by buildings Marina separated from tourism and hospitality functions. Views through piazza compromised by bordering buildings and use of the space	Hotel/marina and Functions building only Buildings set in landscaped space that flows to foreshore Views possible in multiple directions through landscape from entry node on Trinity Point Drive
Built form relationship to viewing directions	Attached built form and small lot subdivision restricts views to axes on roads in residential component Predominant views restrained to the north-south direction when view focus is west-east	Built form orientated to maximise views, sunlight access, ventilation. Almost every dwelling has a view toward the lake. Multiple alternative viewing directions are available
Sense of space	Access to views of the lake limited to edges of site and ends of roads. Suburban character restricts sense of space	Access to views almost unlimited from public domain. Sense of spaciousness provided by size and shape of expanding public domain on entering site
Distinction between private and public spaces	Clear but suburban definition of private and public spaces. Streets dominated by cars and parking/garage entries.	Subtle interplay of private and public space. Presence of cars minimised. Streets minimised.
Built form footprint	Higher built form footprint Formal, legible and familiar streetscapes	Lower built form footprint Less formal but legible and engaging public domain

A series of 3D views that represent a comparison between the massing model of the Concept Approval and artist's impressions of the MOD 5 application, prepared by Squillace Architects are at Figures 12-16. These clearly illustrate the visual impact advantages of the MOD 5 application compared to the Concept Approval.

In summary in this regard, we consider the MOD application to be superior to the Concept Approval in a variety of respects. It provides a higher degree of accessibility to views, a more equitable distribution of view sharing, a higher proportion of perceived public to private space and a more spacious, inviting and engaging environment.

3.0 View Analysis

A detailed View Analysis was carried out in the RLA 2007 VIA in section 5.1 and reviewed in relation to the Marina Stage 1 DA/EIS VIA and s75W VIA in section 4.1 in 2014. In 2007 the Lake Macquarie Scenic Quality Guidelines (LMSQG) to LMDCP1 were the relevant guidelines for assessment of visual impacts. The LMSQG were superseded in the interim by the Lake Macquarie Scenic Management Guidelines (LMSMG) to LMDCP 2014. The LMSMG were used in reviewing the RLA 2007 VIA for the Marina Stage 1 DA/EIS and this addendum report.

The View Analysis is initially based on objective assessment of baseline criteria that are independent of the proposal being assessed.

A summary of baseline criteria in relation to the Concept Approval and MOD 5 application is below at Table 4.

3.1 Visual Exposure

The effective visual catchment for MOD 5 application is unchanged compared to the Concept Approval. The built form will be no more prominent (see Appendix A).

3.1.1 Views into the Site

Views from the area of the approved residential subdivision

When viewed from the future proposed Trinity Point Road, there will be visibility of the raised topography toward the commercial hub and of the hotel/marina building, while there will be significant view corridors through the site between this building, the functions centre/restaurant and adjacent short-stay tourism accommodation building (Figures 7 and 8).

The access to views will be improved in the MOD 5 application compared to the Concept Approval. The three roads that approach the site from the west in the approved subdivision provide views through the site in either scenario. In the MOD 5 application the view opportunities open up as people move into the site, rather than being narrowed and confined as in the Concept Approval (see Figures 7 and 8).

Views from the public domain

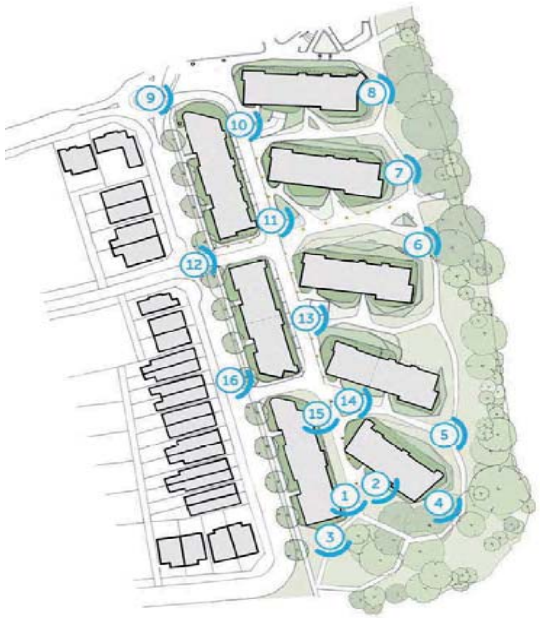
The views from the public domain will be significantly improved in the MOD 5 application compared to the Concept Approval. As already noted above, the sense of space, access to views, variety of opportunities to see and experience new locations and to appreciate and be drawn by connections between spaces, will be significantly enhanced in the MOD 5 application compared to the Concept Approval. Views are possible through the site from the streets that lead from the adjacent future approved residential subdivision as in the Concept Approval. These are inviting in the application, which encourages exploration and provides a variety of view experiences, whereas the Concept Approval has narrow and confined axes and essentially no cross views from the residential areas once the axial road is left (Figures 7 and 8).

Views from the foreshore reserve

Views are possible into development area at close range from the foreshore reserve in the Concept Approval and in the MOD 5 application, however the reverse view is interesting and engaging in the MOD 5 application, whereas in the Concept Approval the view is of a wall of privatised back yards, fences and buildings situated with small or no side setbacks. The MOD 5 application invites exploration

SITE ANALYSIS

Site Photos



Site Plan showing key existing vistas

Figure 1: Site Analysis Site Photos

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

SITE ANALYSIS

Site Photos

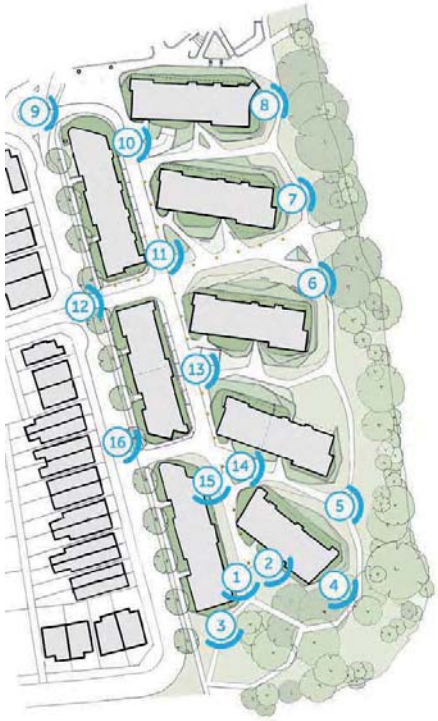
Site Plan showing key existing vistas

Figure 2: Site Analysis Site Photos

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

SITE ANALYSIS

Site Photos



Site Plan showing key existing vistas

Figure 3: Site Analysis Site Photos

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

SITE ANALYSIS

Site Photos

Site Plan showing key existing vistas

Figure 4: Site Analysis Site Photos

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

and is less formal, with various ways to access or move through space between the foreshore reserve and adjacent development.

There are only minor differences between the application and the Concept Approval as regards outward views from the foreshore reserve.

Views from the wider visual catchment

The approved or proposed MOD5 distribution of buildings and their heights would not significantly change the visibility of the development in the public and private domains.

In summary, there has been no change in the regional and local visual setting that would cause the MOD 5 application to be assessed differently from the Concept Approval. There would be no significant difference in visibility of the Concept Approval and the MOD 5 application in distant and middle distance views. In close range views the differences would be perceives as the MOD 5 application having a higher permeability to views from both the residential context developing to the west and from the public domain within the site.

3.2 Relevant Planning Documents

The planning documents relevant to the potential visual impacts of the MOD 5 application are follows

- Lake Macquarie Local Environmental Plan 2004 (the LEP)
- Lake Macquarie Development Control Plan 2014 (the DCP)
- Lake Macquarie Scenic Management Guidelines (LMSMG)
- Lifestyle 2030 Strategy
- NSW Coastal Policy 1997
- SEPP 71 – Coastal Protection
- Coastal Design Guidelines of NSW (2003)

C APPROVED CONCEPT PLAN

Figure 5: Approved Concept Plan

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

INDICATIVE OUTCOME

C

PROPOSED CONCEPT PLAN

Figure 6: Proposed MOD 5 Masterplan

Graphics by Squllace Architects as amended in some cases by Richard Lamb and Associates

4.0 Assessment

4.1 View Analysis

The components and features of the proposed development are explained in section 3.0. A detailed field assessment was undertaken on 22 February, 10 October and 19 October 2007 including from the waterway and the findings were confirmed in August of 2014.

4.1.1 Viewing Locations and Viewing Situations

As indicated at Table 3 below, there has been no change to these parameters since the Concept Approval.

4.1.2 Visual Catchment

Map 1 shows the potential visual catchment for the MOD 5 application. As noted in Table 4, the Concept Approval and the MOD 5 application would have the same visual catchment.

4.1.3 Photomontages

At the direction of RLA, a series of photomontages were prepared by Squillace, to represent the appearance of the proposed development as seen from a sample of viewing places on land and on the waterway. The photomontages are appended at Appendix A.

The locations from which the photographic images used to prepare the photomontages were taken were surveyed by registered surveyors who accompanied the photographer. The base photographs were taken with a full-frame DSLR camera at a standard 1.6m above ground or water level, using a 50mm focal length lens. The locations for the images were selected to represent views from the water and land. The land-based locations shown in the photomontages were matched to locations used in the RLA 2007 and Marina DA/EIS reports. The water based locations were similar but not identical to those analysed in the two reports mentioned above (see the Key Plan to Photomontage Locations, Figure 17).

A series of reference markers were identified on the site or temporarily erected on the site for the purpose of aligning the 3D Sketchup computer model of the proposed development by Squillace, relative to the photographs. The reference markers are visible on the photomontages images in some cases. The surveyed location of the 3D reference markers were added to the electronic survey of the site and the computer model. When identified in the photographs used to prepare the photomontages, the 3D reference points were used to cross-check the location and elevation of the computer model of the proposed development, before it was merged with the photographic images.

The accuracy of the location of the proposed buildings and landscape works in the photomontages was by this means cross checked with the survey information.

The parameters for the preparation of the photomontages satisfy the Land and Environment Court of New South Wales practice direction for photomontages to be used in the Court. We can certify that the photomontages are as accurate as is reasonable in the circumstances and represent best practice.

4.1.4 Effect of future removal of vegetation

One of the constraints identified in the RLA2007 VIA and in this summary VIA for the MOD 5 application was to ensure that the overall height of buildings did not exceed the vegetation canopy horizon in

views, in particular from the north east and east. It was therefore necessary to determine which of the canopy would be retained in the applications and which would be removed.

An oblique aerial view from the north east (Figure 9) shows the existing vegetation on the site and includes vegetation to the south west which is inside land zoned for residential purposes. Figure 10 is an oblique aerial view from the south west, indicating the general location of the vegetation in question. A part of the survey plan for the future subdivision (Figure 11) was used to identify the trees, which were added to the survey plan on which the Sketchup model of the proposed MOD 5 application was based.

The trees intended for removal could then be identified on the model and therefore in the photographs used to prepare photomontages (Appendix A), where they are shown as transparent, to distinguish them from vegetation to be retained.

4.2 Visual Effects Analysis

The baseline criteria for the visual effects analysis have in most cases not changed since the RLA 2007 VIA and as subsequently reviewed. The baseline criteria (see Methodology, Appendix B part B 2.2.2) are summarised in Table 4, below.

4.2.1 Base-Line Factors

Table 4

Baseline Criterial for Visual Impact Assessment

Criteria	Concept Approval	MOD 5 Application VIA
Regional and Local Visual Context	Analysed in RLA (2007 VIA) Reviewed in Marina Stage 1 DA/EIS report	No significant changes have occurred since Concept Approval
Landscape Setting Unit	Assessed against Lake Macquarie Scenic Quality Guidelines (LMSQG) in RLA 2007 VIA Landscape Setting Unit is Bardens Bay Unit, rated: Medium Visual Quality Low Visual Accessibility The unit is of overall Low Visual Sensitivity	Assessed against Lake Macquarie Scenic Management Guidelines (LMSMG) in 2014 for RLA Marina Stage 1 DA/EIS VIA No Change has occurred in unit, quality, or visual accessibility Unit is rated as of overall Low Visual Sensitivity
Visual Catchment	Identified and mapped in RLA 2007 VIA, reviewed in Marina Stage 1 DA/EIS and s75W report	See updated map in MOD 5 VIA (Map 1) No changes have occurred since Concept Approval MOD 5 will have the same visual catchment (see photomontages Appendix A)
Visual Exposure	Analysed in RLA 2007 VIA, reviewed in Section 3.1 of RLA s75W VIA	No change MOD 5 will have the same visual exposure (summary in MOD 5 comparison report) See also photomontages in Appendix A
Views into the site (Distant and medium distance classes)	Identified and mapped in RLA 2007 VIA, reviewed in Marina Stage 1 DA/EIS and s75W VIA	Minor changes caused by different proportion of building to open space. MOD 5 will have similar visibility to the Concept Approval
Views into the site (Close distance classes)	Identified and mapped in RLA 2007 VIA, reviewed in RLA Marina Stage 1 DA/EIS and RLA s75W VIA	MOD 5 will have no higher visibility than Concept Approval MOD 5 has higher visual permeability than Concept Approval See Figures 7 and 8
Visual exposure to the Public Domain (land)	Low Highest exposure is to low sensitivity zones	Low (No change) Summary in MOD 5 VIA See photomontages in Appendix A
Visual exposure to the Private Domain (land other than adjacent development west of Trinity Point Drive)	Low Assessed in RLA 2007 VIA and reviewed in RLA s75W VIA	Low (No change) Summary in MOD 5 VIA See photomontages in Appendix A

In summary, we consider that the baseline factors that apply to assessment of the visual impacts of the MOD 5 application are overall the same as for the Concept Approval. However in close views into the site, the MOD 5 application would have higher visual permeability than the Concept Approval.

INDICATIVE OUTCOME

C

APPROVED CONCEPT PLAN

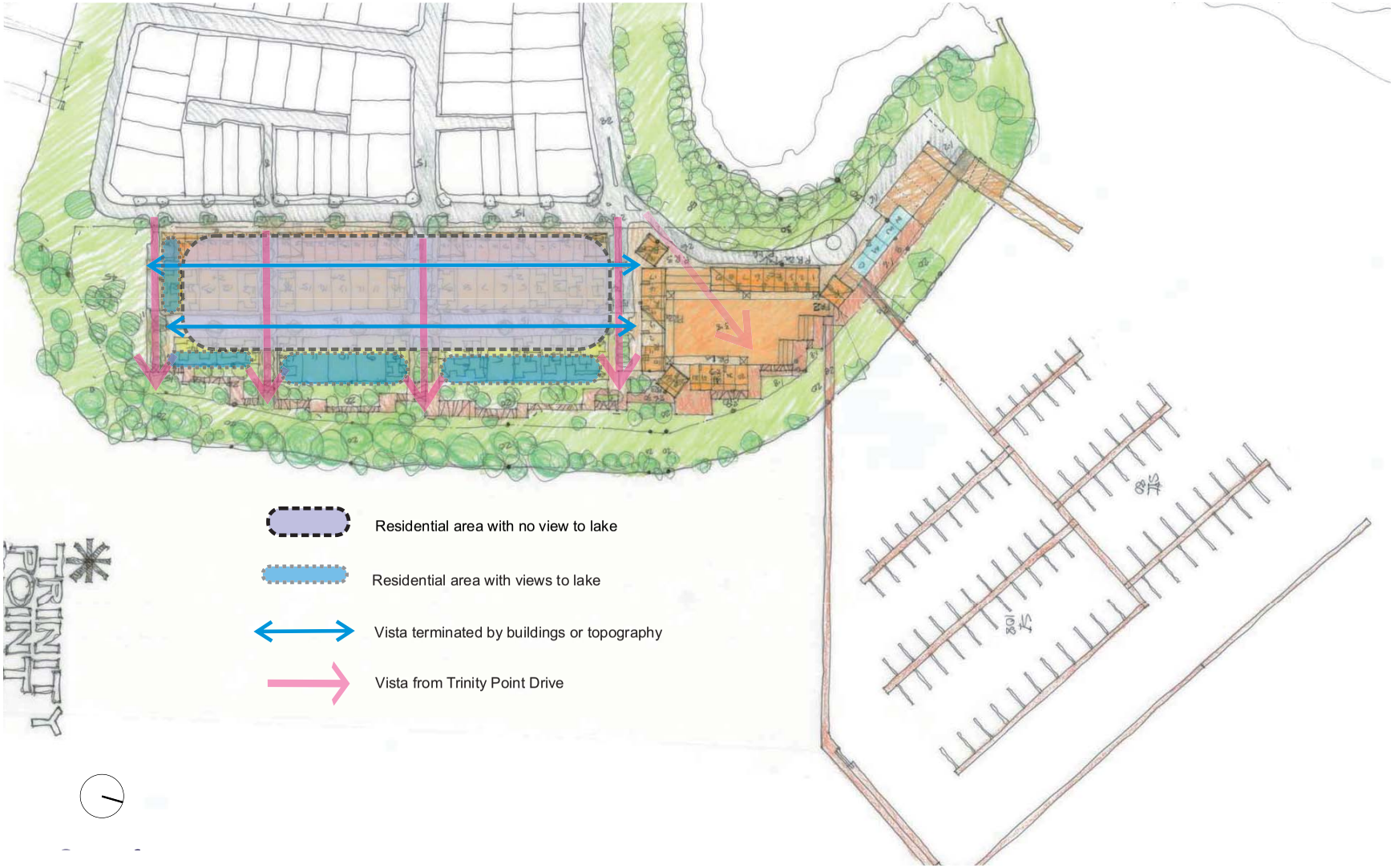


Figure 7A: Approved Concept Plan showing internal view accessibility

Graphics by Squllace Architects Annotations by Richard Lamb and Associates

INDICATIVE OUTCOME

C

PROPOSED CONCEPT PLAN

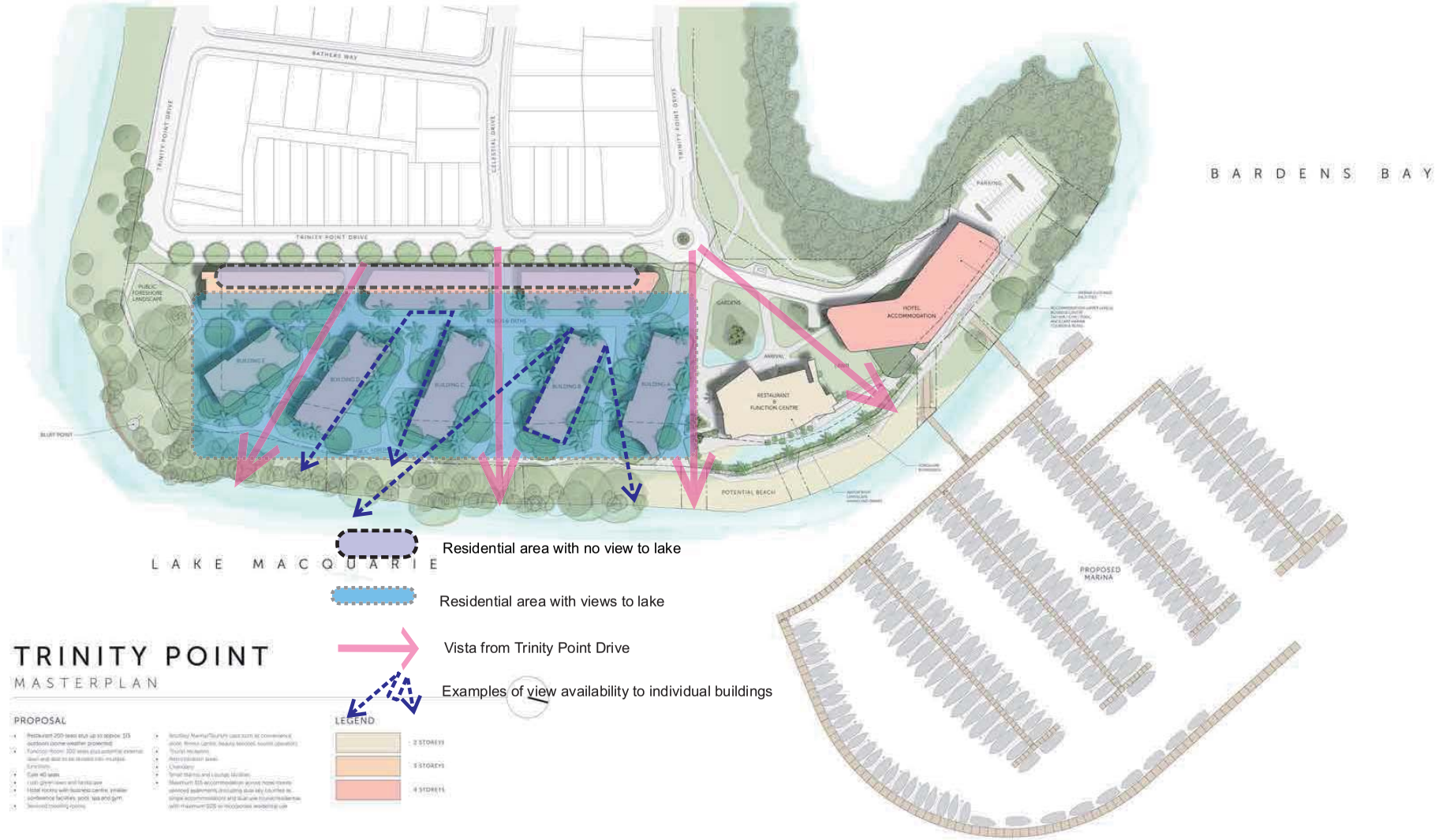


Figure 7B: Proposed MOD 5 Masterplan showing internal view accessibility

Graphics by Squllace Architects Annotations by Richard Lamb and Associates

SITE VISTAS

'Views from public domain including the lake'

- Siting and orientation of buildings is determined by key view opportunities through site from Trinity Point Drive and Celestial Drive
- Buildings are orientated to provide increased solar access and enhanced views to all apartments
- View opportunities are increased from the approved concept plan via the radial positioning of buildings
- Central view corridor from Celestial Drive provides a minimum 15m wide unobstructed view which widens at eastern foreshore
- Central view corridor from Celestial Drive physically manifests as a public paved pathway with vertical street lighting delineating the route to the eastern foreshore and shared pathway encircling the foreshore. Informal public nodes provided along the path invite the public within the site to for recreation and to enjoy closer views of the lake
- View corridors are established at multiple points along Trinity Point Drive (achieve minimum of 8m wide unobstructed views which widen at eastern foreshore

Site Plan showing Key Vistas within Proposal

Vistas achieved from Trinity Point Drive as per approved concept plan

Vistas achieved from Trinity Point Drive additional in width & scope to approved concept plan

Vistas achieved from internal road

Figure 8: Site Vistas from Approved Concept Plan and Proposed MOD 5 Masterplan

Graphics by Squllace Architects Annotations by Richard Lamb and Associates

4.2.2 Variable Factors

Table 5 below summarises the findings of a comparison between the visual effects of variable factors on the Concept Approval or MOD 5 application (See methodology Appendix B 2.2.2)

Table 5

Visual Effects of Variable Factors

Visual effects	Context: Concept Approval	MOD 5 Application VIA
Effect on view composition	Medium to Low	No difference
Relative viewing level	Low to Moderate Moderate effect only on close views, affected by marina component	No difference
Viewing period	The visual effects would be increased for medium range views from foreshore reserves such as Brightwaters Parks and the immediate waterways	No difference
Visual Distance	No views that are affected other than from the waterway are in the close range category	No difference
View loss or blocking effect	Minor view blocking effect associated with the marina in views inward from moderate and high sensitivity zones	No difference
Overall extent of visual effects	Moderate for close range views Low for medium and long range views	MOD 5 will have no higher visibility than Concept Approval See Appendix A

In summary, there would be no difference between the Concept Approval and the MOD 5 application in terms of the effects of these variable factors on the extent of visual effects.

4.2.3 Overall extent of visual effect

The overall extent of visual effects was evaluated for each view place and also by inspection of the pattern of assessment of the visual effects of all of the individual factors for all viewing locations (see Appendix B, part B2.2.3.3). We assessed the overall visual effects rating of the Concept Approval on its total visual catchment to vary between medium and low, the same ratings as for the MOD 5 application. Please see summary in Table 6 below.

Table 6

Overall extent of visual effects

Viewing situation	Overall impacts Context: Concept Approval	Overall impacts MOD 5 Application VIA
Distant views	Low	Low (no difference)
Medium distance views (low sensitivity zone)	Low	Low (no difference)
Medium distance views (medium sensitivity zone)	Medium	Medium (no difference)
Close range views	Low Close range land views have high visual absorption capacity	Low (No difference) Close range land views have high visual absorption capacity

4.3 Visual Impact Analysis

The visual impact is determined by giving differential weighting to factors that either increase of decrease the importance of the impact, relative to the assessed level of visual effects (see Appendix B, Part B2.2.3.3). This is because a small effect that is important could be significant as an impact if up-weighting is justified. A large effect could also be unimportant and deserve to be down-weighted in impact significance. The criteria adopted as weighting factors were the same as for the RLA 2007 VIA, RLA Marina DA/EIS VIA and RLA s75W VIA, ie. Physical absorption capacity and visual compatibility with urban and natural features and with the Concept Approval.

The findings and application of the weighting factors are summarised at Table 7, below:

Table 7

Effect of weighting factors on overall visual impacts

Weighting factors	Concept Approval	MOD 5 Application VIA
Physical Absorption Capacity (baseline: the Concept Approval)	Moderate Reduces significance of impact Low to Medium impact	Moderate Reduces significance of impact Low to Medium impact (No difference)
Visual compatibility with urban and natural features	High Reduces significance of impact Low impact	High Reduces significance of impact Low impact (No difference)
Visual compatibility with Concept Approval	NA	High (Low impact)
Overall visual impact	Low to medium Medium impacts on close range views from waterway only Close range land views have high visual absorption capacity	Low to medium Close range land views have high visual absorption capacity Close range land views have high visual absorption capacity (No difference)

In summary, the overall visual impacts of the MOD 5 application are no different than the Concept Approval.

4.4 Visual Sensitivity Zones

4.4.1 Impact Assessment (Ratings)

The residual visual impacts on the high and medium sensitivity zones for the MOD 5 application were analysed against the relevant mitigation measures in Section 4.5 of the RLA s75W VIA. The views from low sensitivity zones were not analysed. This is because it was considered that no significant impacts could occur for these locations.

The overall ratings, with notes on the reasons for the ratings, are summarised in Table 8, below. The table also includes a summary of the analysis of the impact on affected sensitivity zones of the MOD 5 application against relevant planning instruments and policies. The Concept Approval was given when LMLEP 2004 and LMDCP1 were in force and therefore there is no equivalent summary of the performance of the Concept Approval against LMLEP 2014 and LMDCP 2014, which are now in force.

Table 8

Analysis of impacts on sensitivity zones

Sensitivity zone	Concept Approval	MOD 5 Application VIA
High **(Close range residential areas and immediate waterway**	Medium	Medium (No different)
Medium **(Medium range on waterway and private domain on north eastern foreshore)**	Medium	Medium (No difference)
Analysis against planning instruments		
Lake Macquarie LEP 2004	Complies	NA
Lake Macquarie LEP 2014	NA	Satisfies the objectives of the zones SP3, RE1 AND W1
Lake Macquarie DCP 1	Complies	NA
Lake Macquarie DCP 2014	NA	Satisfies the aims for development in tourist zones. Satisfies objectives in Part 6 in relation to the Scenic Values Application supported by LVIA required in the LMSMG (see RLA s75W VIA)
Lake Macquarie Council Scenic Management Guidelines (LMSMG)	Concept Plan application was assessed against LMSQG in RLA 2007 VIA. Fundamental criteria remain the same in LMSMG. Concept Approval complies with LMSMG requirements	MOD 5 application was assessed against LMSMG in RLA s75W VIA. MOD 5 application complies with LMSMG requirements
Lifestyle Strategy 2030	Concept Approval was approved prior to adoption of LS 2030	MOD 5 application was assessed against LS 2030 Direction 3 in RLA s75W VIA. MOD 5 application complies with the strategy
NSW Coastal Policy 1997	Concept Approval complies with policy as required by DGRs	MOD 5 application was assessed against the policy in RLA s75W VIA. Complies
SEPP 71–Coastal Protection	Concept Approval complies with the SEPP as required by DGRs	MOD 5 application was assessed against the policy in RLA s75W VIA. Complies
Coastal Design Guidelines of NSW 2003	Concept Approval complies with the Guidelines as required by DGRs	MOD 5 application was assessed against the Guidelines in RLA s75W VIA. Complies
Relevant planning principles (view loss): **Tenacity** **Rose Bay Marina**	Concept Approval causes no significant view loss *Rose Bay Marina* principles post-date approval Concept Approval would satisfy the planning principle in *Rose Bay*	MOD 5 application was assessed against the principles in *Tenacity* and *Rose Bay* in RLA s75W VIA. Proposal would cause no significant view loss No difference Complies

In summary, there would be no significant difference with regard to impacts on sensitivity zones caused by the MOD 5 application compared to the Concept Approval.

4.5 Assessment of the proposed Mitigation Measures

4.5.1 Proposed Landscaping

The proposed landscape schemes in both the Concept Approval and MOD 5 application would assist in mitigating potential visual effects and impacts for both high and medium sensitivity zones. The schemes will assist in providing access to the foreshore, amenity for users and an appropriate setting, while retaining existing natural vegetation in the foreshore reserve.

The quantum of publicly available landscape is higher in the MOD 5 application, as is the quality of the visual experience that would be available.

4.5.2 Colours and Finishes

The colours and finishes of the built component of the development would be chosen to be sympathetic to the colours of the natural environment and to blend and harmonise with the natural features of the site as much as possible. Subject to final design and any residual concerns that Council may have, these may be subject to Conditions of Consent in either scenario.

4.5.3 Lighting

The lighting for the buildings and landscape in the MOD 5 application would have similar effects to that approved in the Concept Approval. Landscape lighting would only be sufficient for safe access and surveillance and for safe working conditions. The lighting for the proposal would be subject to the need for the design to meet the Australian Standard AS 4282-1997, Control of Obtrusive Effects of Outdoor lighting. A lighting management plan would be a likely requirement for consent.

5.0 Residual Impacts and Conclusions

The southern basin of Lake Macquarie has generally low public accessibility, including low accessibility from the waterway, as identified in the LMSMG and confirmed in the assessment in this report. The locality is of moderate scenic quality and varied integrity. The subject site has a significant capacity to absorb the Concept Approval without negative visual effects that would be perceived by large numbers of viewers from sensitive public domain locations. The subject site itself possesses minor scenic resources. The MOD 5 application would be no more visible from those locations than the Concept Approval and in some locations, less so.

The Concept Approval contemplates the transformation of the site to an urban lake-side setting and a tourism and residential destination as does the MOD 5 application. However, the Concept Approval is unlikely to be successful in making the site into a world-class tourism destination. In our opinion as regards view accessibility, relationship of the built form to the views and the lake, landscape and foreshore, the application is superior to the Concept Approval, as analysed and summarised in Tables 1-8 above.

There are substantive differences between the Concept Approval and the MOD 5 application with regard to building numbers and proposed building form, character of the public and private domains, view availability and spatial qualities of the site. At the same time, these differences will largely be perceived within the site and will be seen as part of the distinctive character that is intended for the development and an integral part of its appeal as a destination. On most criteria the MOD 5 application is superior, while on all others there is no difference between it and the Concept Approval.

A more consistent theme for the whole site exists in the MOD 5 application, compared to the Concept Approval, which was partly a tourism site and partly a small lot residential development. The distinctive character of the application would remain no matter how the individual buildings or groups of buildings are delivered, giving more certainty as to the visual character of the outcome of the MOD 5 application in regard to the built form compared to the Concept Approval.

The buildings' scale can be accommodated on the site within the fringing vegetation and below the tree canopy height in both the Concept Approval and MOD 5 application. Some additional canopy trees are proposed as a part of the landscape scheme to augment the canopy without conflicting with the obvious pull factor of views of the Lake in both scenarios

This assessment against the criteria of the LMSMG also found the MOD 5 application would be acceptable.

We consider that the public domain benefits of the proposed MOD 5 and the contrast they will provide to the generally privatised foreshores of the Lake in the vicinity are major compensatory factors for the change in visual character proposed compared to the Concept Approval. The benefits will flow to high numbers of people, not only those within the subject site, but from elsewhere in the locality and the region.

Figure 9: Oblique Aerial Image of Subject Site seen from the east

Courtesy Squllace Architects

Aerial shot

Figure 10: Oblique Aerial Image of Subject Site seen from the south showing the location of vegetation that is to be removed and montage view sites

Courtesy Squllace Architects

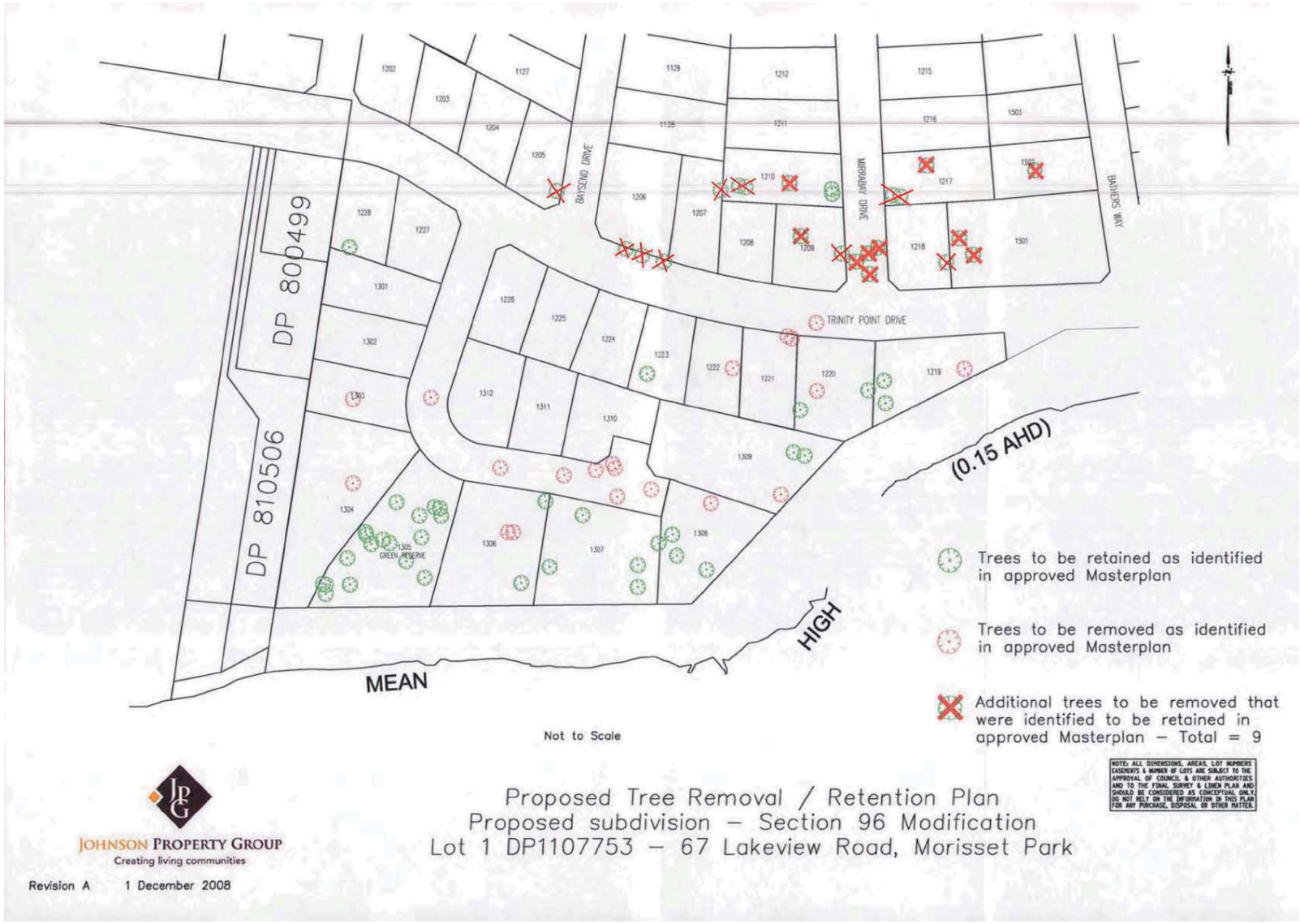


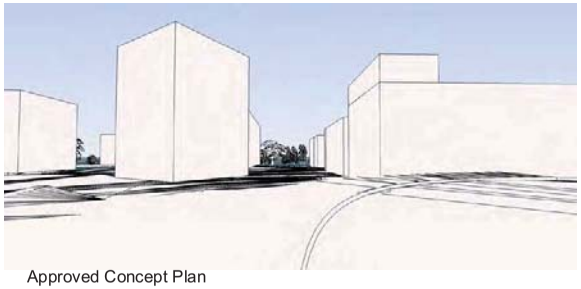
Figure 11 Extract from survey play of future subdivision showing vegetation that is to be removed

Courtesy Squllace Architects

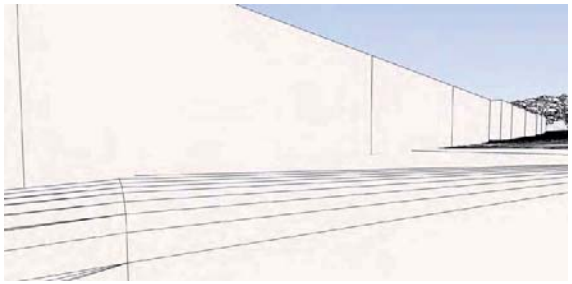
3D VIEWS

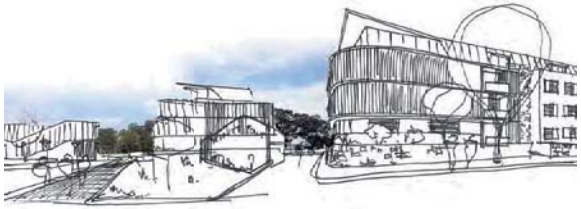
Approved & Proposed

Comparison of select site views between the approved and proposed concept plans

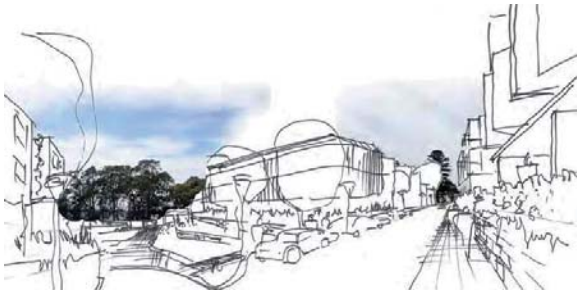


Approved Concept Plan





Proposal - Artists Impression



Proposal - 3D model

9

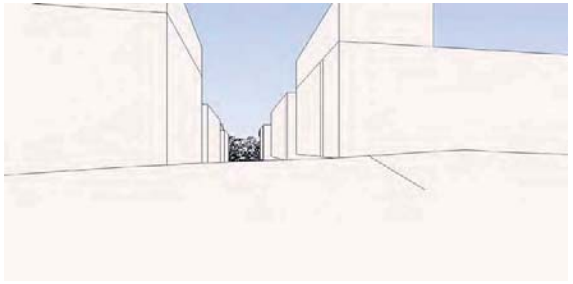
11a

Figure 12: 3D Comparison views of Approved Master Plan and proposed MOD 5 Master Plan, based in Squillace Sketchup models

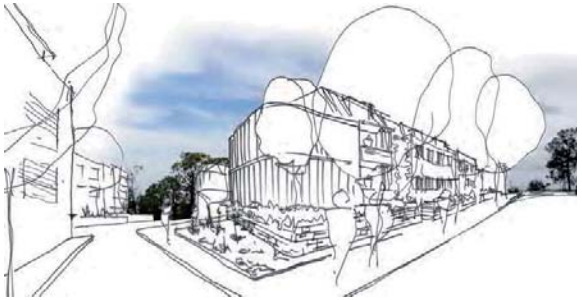
Courtesy Squllace Architects

Comparison of select site views between the approved and proposed concept plans

Approved Concept Plan



Proposal - Artists Impression



Proposal - 3D model

12

16

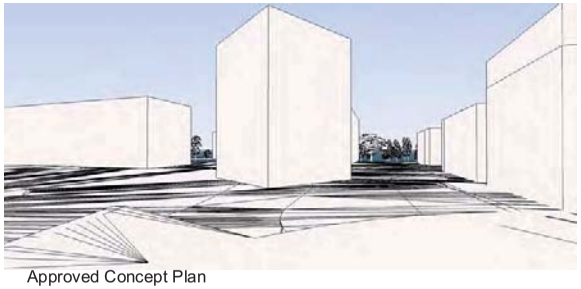
Figure 13: 3D Comparison views of Approved Master Plan and proposed MOD 5 Master Plan, based in Squillace Sketchup models

Courtesy Squllace Architects

3D VIEWS

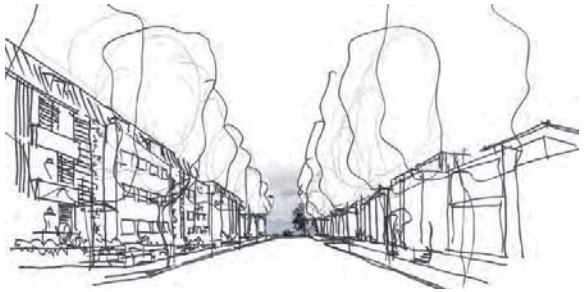
Approved & Proposed

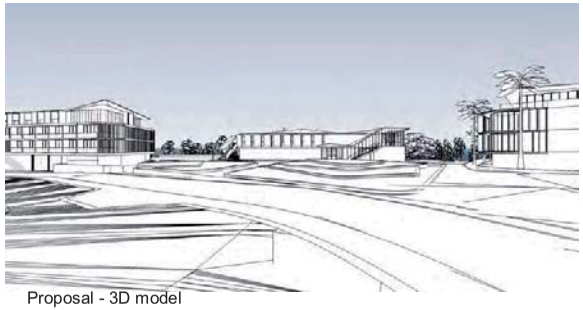
Comparison of select site views between the approved and proposed concept plans



Approved Concept Plan

Proposal - Artists Impression





Proposal - 3D model

20

21

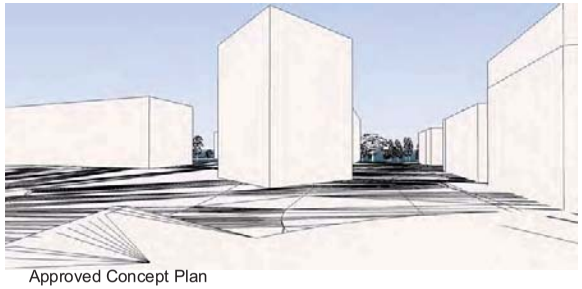
Figure 14: 3D Comparison views of Approved Master Plan and proposed MOD 5 Master Plan, based in Squillace Sketchup models

Courtesy Squllace Architects

3D VIEWS

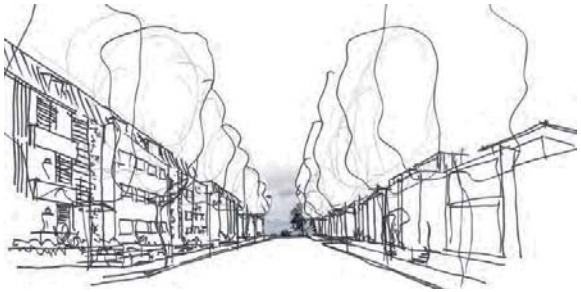
Approved & Proposed

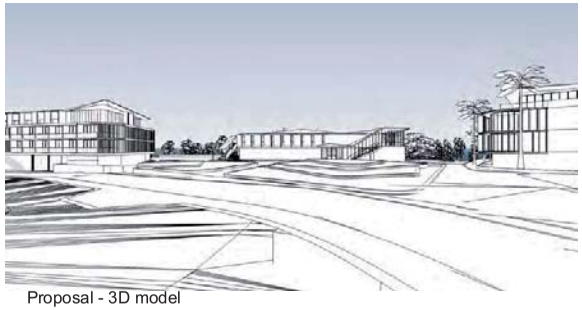
Comparison of select site views between the approved and proposed concept plans



Approved Concept Plan

Proposal - Artists Impression





Proposal - 3D model

20

21

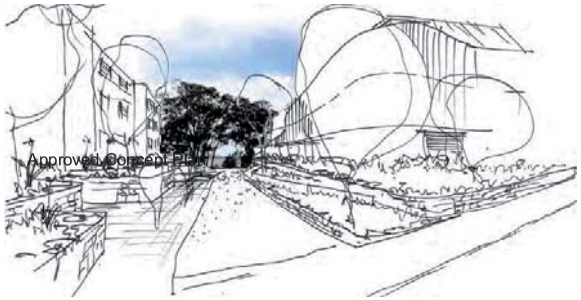
Figure 15: 3D Comparison views of Approved Master Plan and proposed MOD 5 Master Plan, based in Squillace Sketchup models

Courtesy Squllace Architects

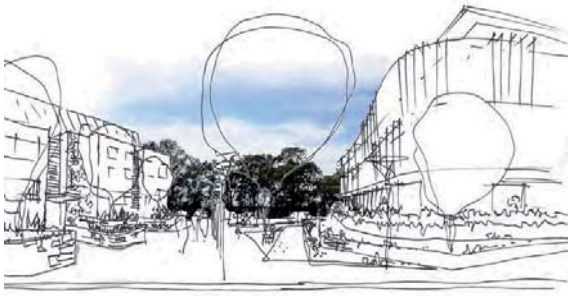
3D VIEWS

Proposed

Artist sketches of select site views of the proposed concept plan



10



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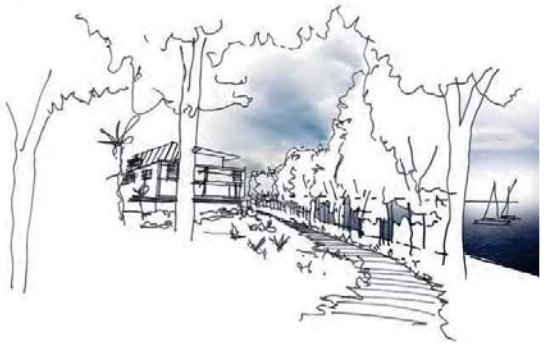

22

Figure 16: 3D Comparison views of Approved Master Plan and proposed MOD 5 Master Plan, based in Squillace Sketchup models

Courtesy Squllace Architects

Visual Impact Assessment Key Plan

Figure 17: Aerial Image of Subject Site s showing locations and coordinates of montage view sites

Courtesy Squllace Architects

'Foreshore canopy and the relationship of the proposed buildings to the horizon line'

- Thick foreshore canopy within the public foreshore zone is the prevailing visual element of the site when viewed from the lake and remains as such in the proposal
- The north-eastern tip of the site presents a more visually exposed condition. The marina and tourist-based facilities have been located at this thinning of the foreshore vegetation to establish visual identity for the development. The dominant visual element is the marina berths and their associated boats
- The building scale and positioning is determined to ensure that the tree canopy forms the dominant horizon line in the majority of views
- Articulated apartment elevations along Trinity Point Drive help reduce bulk, address the street and respond to the adjacent massing of the small lot terrace housing
- Top storey of apartment buildings is recessed to reduce impact of built form and minimise the visual appearance of the building height
- Detailed visual impact analysis of the built form impact

EXISTING - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 1

North elevation showing the existing site from the north.

APPROVED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 1

Figure 45
North elevation photomontage showing a massing model of the previously approved concept plan.

PROPOSED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 1

North elevation photomontage showing the proposed building height of the hotel from the north. The building shows minimal exposure from the north through the existing tall and dense tree line.

EXISTING - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 2

Existing site photo - View 2 (Brightwaters Sea Baths)

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 2

Figure 49
North-East elevation photomontage showing a massing model of the previously approved concept plan.

PROPOSED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 2

Northeast elevation photomontage
accommodation building largely hidden behind the tree line along the foreshore

EXISTING - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 3

Figure 51
Northeast elevation of the existing site

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 3

Figure 53
Northeast elevation photomontage showing a massing model of the previously approved concept plan.

PROPOSED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 3

Northeast elevation photomontage showing proposed building heights across the tourist hospitality precinct and into the accommodation precinct to the south.

EXISTING - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 4

South elevation of the existing site

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 4

Figure 57
South elevation photomontage showing a massing model of the previously approved concept plan.

PROPOSED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 4

South elevation photomontage showing the proposed building height of the south-most accommodation building largely hidden behind the tree line along the southern foreshore and Bluff Point.

EXISTING - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 5

Figure 59
East elevation of the existing site

APPROVED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 5

Figure 61
East elevation photomontage showing a massing model of the previously approved concept plan.

PROPOSED - SITE PRINCIPLE 3

3

BUILDING HEIGHTS

VISUAL IMPACT ANALYSIS

VIEW 5

Figure 62
East elevation photomontage showing proposed building heights across the tourist hospitality precinct and into the accommodation precinct.

Appendix B: Assessment Methodology

B.1 Introduction

The assessment of visual impacts is a field that requires a degree of subjective judgement and cannot be made fully objective. It is therefore necessary to limit the subjectivity of the work by adopting a systematic, explicit and comprehensive approach. This has the aim of separating aspects that can be more objective, for example the physical setting, visual character, visibility and visual qualities of a proposal, from more subjective elements, such as visual absorption capacity and the compatibility of the proposal with the setting.

The methodology used in the present assessment has been developed over several years and uses relevant aspects of methods accepted in landscape assessment, extended and modified to adapt to urban and maritime environments. The modifications introduced are informed by visual perception research that has been carried out by others and us in both natural and urban contexts. The methodology is also designed to be compatible with the LMSMG.

The flow chart at Figure B1 above indicates the relationships among the parts of the visual impact assessment methodology.

B.2 Components of the Methodology

Overall, the major components of the visual impact assessment are determining the concept for the development, and general strategic planning principles, view analysis, visual effects analysis, visual impact evaluation and assessment of significance of residual visual impacts. This assessment is also supplemented with an assessment of the merits and compliance of the proposed redevelopment with the relevant Planning Instruments in relation to visual and related amenity impacts and the mitigation measures that have been undertaken to reduce or eliminate residual impacts. It is also supplemented by a comparative analysis of other mixed shoreline development and marinas in the Lake Macquarie locality.

B.2.1 The Components of the View Analysis

The development proposed and detailed field assessment

This includes a thorough understanding of the proposed development including its location, scale and extent to understand the scale and spatial arrangement of the development. The next step is to carry out a detailed field assessment by identifying the potential viewing locations, visiting the representative locations, documenting the proposal's approximate location on a base map, photographing representative locations and filling out an evaluation sheet for each, which contains separate and overall assessment of the visual effects and relative visual impacts factors. Examples of the analysis sheets can be found in Appendix D. The assessment factors are explained in Section B2.2.2 and B2.2.3. The analysis sheet that was filled out for each viewing location rated the factors in three ranges; Low, Medium and High. An indicative rating table that describes what is considered a low, medium and high effect and impact on each factor is shown in Table B2.2.

Identifying viewing locations and viewing situations

So as to represent all of the kinds of viewing locations which could be affected by each of these factors and variations among them, a view point analysis was conducted. This was carried out as part of the ground truthing exercise associated with mapping the visual catchment. Views on land and on the waterway were assessed. Viewing places were chosen so as to represent the full range

of possible view experiences, situations, distances and land uses that are possible, in the entire visual catchment, as required by the Director General of Planning's Requirements and by good visual impact assessment practice.

The viewing locations fall into two categories, a) Public domain locations and b) Private domain locations. Public domain locations are major and minor roads, public reserves and recreation areas and waterways. The private domain viewing locations are predominantly residences.

It was not possible for views to be assessed from the many residences that would have views containing the proposal. However, it was possible to interpret the likely effects of the proposal based on views taken toward the proposal from roads and reserves in the vicinity of the residences and also by observing the locations of buildings with windows and outdoor areas which would provide views when these were seen from the existing facilities.

The viewing places visited and analysed therefore represent views predominantly from the public domain, but they also provide insights into the likely visual effects on private views. All the significant vantage points from which the site can be viewed, both water and land based, were assessed. A sample of the very large number of viewing places assessed, which represents examples of every relevant kind of viewing place, was abstracted from the total number of places assessed, for detailed analysis.

Mapping viewing locations and situations

The representative viewing locations sample visited during the field assessment are mapped including the ones for which photomontages have been prepared to represent the future appearance of the proposed redevelopment in the existing context (see photomontages, Appendix A).

Identification and mapping of visual catchment

The potential total visual catchment is mapped. The potential total visual catchment means the physical area within which the proposal would be visible and identifiable if there were no other constraints on that visibility, such as intervening vegetation and buildings. The catchment on the water is not delineated by a finite boundary because there is no identifiable physical feature that can define it. As is the case for views from the distant foreshore or land, the potential total visual catchment is larger than the area within which there could be visual effects of the proposal. This is because with increasing distance, perspective effects, the horizon of the water body itself and intervening elements such as topography, buildings and boats, a viewer's ability to discern and potentially be affected by the proposal would decrease to zero before the theoretical extent of the potential total visual catchment is reached.

Within the boundary of the area mapped as the potential total visual catchment, the visibility of the proposal would therefore vary. We identify the area within which the proposal would be identifiable and where it could cause visual impacts by assessing visibility.

Visibility means the extent to which the proposal would be physically visible to the extent that it could be identified, for example as a new, novel, contrasting or alternatively a recognisable but compatible feature. Features such as vegetation, buildings and intervening topography can affect the degree of visibility.

B2.2.2 The components of the Visual Effect Analysis Matrix

B2.2.2.1 Base-Line Factors

These are the criteria that remain predominantly constant and independent of the nature of viewing locations and factors which condition the viewing situation.

Visual character

The visual character of the locality in which the development would be seen is identified. It consists of identification of the physical and biological components of the area and the setting of the proposal that contribute to its visual character. The character elements include topography, vegetation, natural systems, land use, settlement pattern, urban form, interface of land-water elements, maritime features and waterways. Visual Character has also been assessed for the locality in the LMSMG.

Visual character is a baseline factor against which the level of change caused by the proposal can be assessed. The desired future character of the locality is also relevant to assessing the extent of acceptable change to character.

Scenic Quality

Scenic quality is a measure of the ranking, which the setting of the proposal either is accepted to, or would be predicted to have, on the basis of empirical research carried out on scenic beauty, attractiveness, preference or other criteria of scenic quality. Scenic quality has also been assessed for the locality in the LMSMG.

Scenic quality is a baseline factor against which the visual impacts caused by the proposal can be assessed.

View place sensitivity

View place sensitivity means a measure of the public interest in the view. The public interest is considered to be reflected in the relative number of viewers likely to experience the view from a publicly available location. Places from which there would be close or middle distance views available to large numbers of viewers from public places such as roads, or to either large or smaller numbers of viewers over a sustained period of viewing time in places such as reserves, beaches and walking tracks, are considered to be sensitive viewing places. View place sensitivity in regard to likely viewer numbers and accessibility has also been assessed for the locality in the LMSMG.

Viewer sensitivity

Viewer sensitivity means a measure of the private interests in the effects of the proposal on views. The private interest is considered to be reflected in the extent to which viewers, predominantly viewing from private residences, would perceive the effects of the proposal. Residences from which there would be close or medium distance range views affected, particularly those which are available over extended periods from places such as the living rooms and outdoor recreational spaces, are considered to be places of medium and high viewer sensitivity respectively.

The relationship between the viewer's location in either the private or public domain and the viewing distance in determining view place or viewer sensitivity is shown in the table below. (For example, a view place in a reserve or foreshore at a distance of 100-1000m is rated as of medium sensitivity)

Table B2.3: Relationship between viewing situation, viewing distance and view/viewer sensitivity zones

View Place or Viewer Sensitivity				
		L	M	H
Public Domain	Roads			
				X
Private Domain				
		>1000m	1 0 0 - 1000m	<100m
	Viewing Distance			

B2.2.2.2 Variable Factors

These are the assessment factors that vary between viewing places with respect to the extent of visual effects.

View composition type

View composition type means the spatial situation of the proposal with regard to the organisation of the view when it is considered in formal pictorial terms. The types of view composition identified are:

Expansive (an angle of view unrestricted other than by features behind the viewer, such as a hillside, vegetation and buildings.)

Restricted (a view which is restricted, either at close range or some other distance, by features between or to the sides of the viewer and the view such as vegetation and buildings.)

Panoramic (a 360 degree angle of view unrestricted by any features close to the viewer who is surrounded by space elements.)

Focal (a view that is focused and directed toward the proposal by lateral features close to the viewer, such as road corridors, roadside vegetation, buildings, boats etc.)

Feature (a view where the proposal is the form element that dominates the view, for example in close range views.)

It is considered that the extent of the visual effects of the proposal is related to its situation in the composition of the view. The visual effect of the proposal on the composition of the view is considered to be greater on a focal or a feature view, cognisant of the distance effect, compared to a restricted, panoramic or expansive view.

Relative viewing level

Relative viewing level means the location of the viewer in relative relief, compared to the location of the proposal. It is conventional in landscape assessment to assess views from locations above, level with and below the relative location of the proposal. However when maritime developments are concerned, the latter viewing level (i.e. relatively below the level of the proposal) has no practical application.

It is considered that the visual effects of a development are related to the relative viewing level and distance. Viewing levels above the development where views are possible over and beyond it decrease the visual effects, whereas views from level with and close to the development, dependent on viewing distance, may experience higher effects, particularly if built form intrudes into horizons.

Viewing period

Viewing period in this assessment means the influence on the visual effects of the proposal which is caused by the time available for a viewer to experience the view. It is assumed that the longer the potential viewing period, experienced either from fixed or moving viewing places such as dwellings, roads or the waterway, the higher the potential for a viewer to perceive the visual effects of the proposal. Repeated viewing period events, for example views repeatedly experienced from roads as a result of regular travelling, are considered to increase perception of the visual effects of the proposal.

Viewing distance

Viewing distance means the influence on the perception of the visual effects of the proposal which is caused by the distance between the viewer and the development proposed. It is assumed that the viewing distance is inversely proportional to the perception of visual effects: the greater the potential viewing distance, experienced either from fixed or moving viewing places, the lower the potential for a viewer to perceive and respond to the visual effects of the proposal.

Three classes of viewing distance have been adopted which are the same as those in Appendix D and Figure D2 in the DCP methodology, i.e. short range (<100m), medium range (100-1000m) and distant (>1000m).

View loss or blocking effects

View loss or blocking effects in this assessment means a measure of the extent to which the proposal is responsible for view loss or blocking the visibility of items in the view. View loss is considered in relation to the principles enunciated in the Land and Environment Court of NSW by Roseth SC in *Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours* Although Tenacity concerned view losses from residential properties, the matter of what could be construed to be a valuable feature of the view which could be lost, e.g. specific features of views such as whole views and iconic elements viewed across water, alluded to in *Tenacity*, are of some relevance to the public domain also. View loss in the public domain specifically has been considered in relation to the planning principles in *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor. [2013] NSWLEC 1046*.

It is assumed that view loss and blocking effects increase the perception of the visual effects of the proposal. It is also assumed that view loss and view blocking can be important matters for consideration in regard to short range views from the public domain of the foreshore and potentially from nearby adjacent residences. View loss and blocking effects are likely to be more pronounced for the marina component of the proposal than the buildings.

B2.2.2.3 Overall Extent of Visual Effect

Based on the inspection of the pattern of the assessment ratings for the above factors on the relevant analysis sheet for each viewing location an overall rating is arrived at which represents an overall extent of visual effects for a viewing location.

B2.2.3 The Components of the Visual Impact Analysis

The criteria in 2.2 concern assessment of the extent of the visual effects of the proposal when seen from specific viewing places. The extent of the visual effects is the baseline assessment against which to judge the visual impacts.

Whether or not a visual effect is an impact of potential significance cannot be equated directly to the extent of the visual effect. For example, a high visual effect can be quite acceptable, whereas a small one can be unacceptable. As a result, it is necessary to give a weighting to the assessed levels of effects to arrive at an assessment of the impact.

This method therefore does not equate visual effects directly to visual impacts. The approach is to assess visual effects as in 2.2.2 above to arrive at an overall level of visual effect of the proposal for each kind of viewing place and then to assess the level of impact, if any, by giving differential weighting criteria to impact criteria. By this means, the relative importance of impacts are distinguished from the size of the effect. We consider that two weighting criteria are appropriate to the overall assessment of visual impacts, Physical Absorption Capacity and Visual Compatibility. Each of these addressed the primary question of the acceptability of the visual effects and changes caused by the proposal.

B2.2.3.1 Physical Absorption Capacity

Physical Absorption Capacity (PAC) means the extent to which the existing visual environment can reduce or eliminate the perception of the visibility of the proposed redevelopment.

PAC includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. It also includes the extent to which the colours, material and finishes of buildings and in the case of boats and buildings, the scale and character of these allows them to blend with or reduce contrast with others of the same or closely similar kinds to the extent that they cannot easily be distinguished as new features of the environment.

Prominence is also an attribute with relevance to PAC. It is assumed in this assessment that higher PAC can only occur where there is low to moderate prominence of the proposal in the scene.

Low to moderate prominence means:

Low: The proposal has either no visual effect on the landscape or the proposal is evident but is subordinate to other elements in the scene by virtue of its small scale, screening by intervening elements, or difficulty of being identified.

Moderate: The proposal is either evident or identifiable in the scene, but is less prominent, makes a smaller contribution to the overall scene, or does not contrast substantially with other elements or is a substantial element, but is equivalent in prominence to other elements and landscape alterations in the scene.

Design and mitigation factors are also important to determining the PAC. Appropriate colours, materials, building forms, line, geometry, textures, scale, character and appearance of buildings, marina structures and vessels are relevant to increasing PAC and decreasing prominence.

PAC is related to but distinct from Visual Compatibility (see below).

B2.2.3.2 Visual Compatibility

Visual Compatibility is not a measure of whether the proposal can be seen or distinguished from its surroundings. The relevant parameters for visual compatibility are whether the proposal can be constructed and utilised without the intrinsic scenic character of the locality being unacceptably changed. It assumes that there is a moderate to high visibility of the proposal to some viewing places. It further assumes that novel elements which presently do not exist in the immediate context can be perceived as visually compatible with that context provided that they do not result in the loss of or excessive modification of the visual character of the locality.

A comparative analysis of the compatibility of similar items to the proposal with other locations in the area which have similar visual character and scenic quality or likely changed future character can give a guide to the likely future compatibility of the proposal in its setting.

Because the development proposed is on the interface between water and land, with components on each, the question of its visual impacts also depends on its perception both as an entity and in regard to its compatibility with the major scenic character attributes. In this regard, both the maritime/ industrial environment and the urban/natural environment are attributes of relevance. Hence, it is considered that there are two relevant measures of Visual Compatibility, i.e. Compatibility with Urban and Natural Features, and Compatibility with Maritime Features.

Visual compatibility with urban and natural features

This assessment is a measure of the extent to which the visual effects of the proposal are compatible with urban and natural features. It is assumed that in some views the proposal can be seen and clearly distinguished from its surroundings. Compatibility does not require that identical or closely similar features to those which are proposed exist in the immediate surroundings.

Compatibility with Urban and Natural Features means that the proposal responds positively to or borrows from within the range of features of character, scale, form, colours, materials and geometrical arrangements of urban and natural features of the surrounding area or of areas of the locality which have the same or similar existing visual character.

Visual compatibility with Concept Approval

This assessment is a measure of the extent to which the visual effects of the proposal are compatible with the existing Concept Approval. In some views, the proposal can be seen and clearly distinguished from its surroundings. Compatibility does not require that identical or closely similar features to those that are approved exist in the application or the immediate surroundings.

Compatibility with the Concept Approval means that the proposal responds positively to or borrows from within the range of features of character, scale, form, colours, materials and overall qualities of tourism development sites of the surrounding area or of areas of the locality or region.

B2.2.3.3 Overall Extent of Visual Impact

Based on the inspection of the pattern of the assessment ratings for the above factors on the relevant analysis sheet for each viewing location an overall rating is arrived at which represents an overall extent of visual impacts for a viewing location.

B2.2.4 Impacts on visual Sensitivity Zones

Three visual sensitivity zones are identified which are based on the view place sensitivity or viewer sensitivity as explained above in 2.2.2.1 and Table B2.1. These are related to the distance zones from the development site and whether views are from significant public domain or private viewing locations. Viewing places within the high or medium visual sensitivity zones are further assessed as explained below.

Impact assessment for each zone

An overall impact rating for each of the three visual sensitivity zones is arrived at by inspecting the pattern of the assessment ratings for the visual impacts factors (as given in 2.2.3) on the relevant analysis sheet for each viewing location in that zone. It is generally found that the close range visual sensitivity zone is most affected by any development as the development forms part of the foreground views from the viewing locations within this zone.

Analysis against relevant information/planning instruments/policies & master plans

The proposed redevelopment and its overall impacts on each of the visual sensitivity zones is analysed against the relevant information above in Section 4.5.

Assessment of the mitigation measures proposed to eliminate visual impacts

The mitigation measures that are proposed and approved in the Concept Approval are then assessed in terms of their capability to overcome the negative visual effects and impacts on each of the visual sensitivity zones. Other mitigation measures and management guidelines are then formulated to overcome every possible visual effect and impact.

Significance of residual visual impacts

Finally and subsequent to the visual effects of the mitigation factors being assessed, a relevant question is whether there are any residual visual impacts and whether they are acceptable in the circumstances. These residual impacts are predominantly related to the extent of visual change to the immediate setting and are also a result of personal choices and preferences.

In terms of the urban component of the development, residual impacts relate to individuals' preferences for the nature and extent of change which cannot be mitigated by means such as vegetation, colours, materials and the articulation of building surfaces.

These personal choices are also a result of people's resistance or resilience towards any change to the existing arrangement of views. Particular individuals or groups may express strong preferences for either the approved or proposed form of urban development. There is no clear research evidence of which we are aware to support either preference.

The significance of these residual impacts is assessed on the basis of the relative sensitivity of viewers and viewing places that may experience these impacts. Whether overcoming these impacts would result in undermining of the potential capacity of the development site to economically support the intended use is not the focus of a visual impacts assessment such as this.

APPENDIX C - CV Dr R Lamb

Summary

I am a professional consultant specialising in landscape heritage and visual impacts assessment and the principal of Richard Lamb and Associates (RLA). I was a senior lecturer in Architecture and Heritage Conservation in the Faculty of Architecture, Design and Planning at the University of Sydney for 28 years and Director of the Master of Heritage Conservation program. I have taught and specialised in environmental impact assessment and visual perception studies for 30 years.

As the principal of RLA I provide professional services, expert advice and landscape heritage and aesthetic assessments in many different contexts. I carry out strategic planning studies to protect and enhance scenic quality and heritage values, conduct scenic and aesthetic assessments in contexts from rural to urban, provide advice on view loss and view sharing and conduct landscape heritage studies. I act for various client groups on an independent basis, including local councils, government departments and private clients to whom I provide impartial advice. I provide expert advice, testimony and evidence to the Land and Environment Court of NSW and the Planning and Environment Court of Queensland in various classes of litigation. I have appeared in over 170 cases and made submissions to several Commissions of Inquiry. I have been the principal consultant for over 500 consultancies concerning the visual impacts and landscape heritage area of expertise during the last ten years.

At the University of Sydney I had the responsibility for teaching and research in my areas of expertise, which are visual perception and cognition, aesthetic assessment, landscape assessment and conservation of heritage items and places. I taught postgraduate students in these areas and also gave specialised elective courses in aesthetic heritage assessment. I supervise postgraduate research students undertaking PhD and Masters degree academic research in the area of heritage conservation and Environment Behaviour Studies (EBS). The latter field is based around empirical research into human aspects of the built environment, in particular, in my area of expertise, aspects of visual perception, landscape preference and environmental cognition.

I have a number of academic research publications in local and international journals that publish research in EBS, environmental psychology and cultural heritage management. I have developed my own methods for landscape heritage assessment, based on my education, knowledge from research and practical experience.

Qualifications

- Bachelor of Science, First Class Honours, University of New England (Botany and ecology double major).
- Doctor of Philosophy, University of New England in 1975.
- Visiting lecturer, University of New South Wales, School of The Built Environment
- Principal of Richard Lamb and Associates and Director of Lambcon Associates Pty Ltd.

Employment History

- Tutor, Botany and Ecology, School of Botany, UNE (1968-1974)
- Lecturer in Resource Management, School of Life Sciences, UTS (1975-1980)
- Lecturer, Foundation Program in Landscape Architecture, Faculty of Architecture, University of Sydney (1980-1989)
- Lecturer and Senior Lecturer, Architecture and Heritage Conservation, University of Sydney (1989-2011)

Since 1975 I pursued research related to my teaching responsibilities and professional practice. My research works are in:

- Plant ecology
- Landscape heritage assessment
- Visual perception
- Social and aesthetic values of the natural and built environment

Publications and presentations relevant to visual perception and assessment of landscapes are listed at the end of this CV.

Affiliations

Professional

Chartered Biologist, Institute of Biology (UK)

International Journals for which papers have been refereed

- Landscape & Urban Planning
- Journal of Architectural & Planning Research
- Architectural Science Review
- Journal of the Australian & New Zealand Association for Person Environment Studies
- Journal of Environmental Psychology
- Australasian Journal of Environmental Management
- Ecological Management & Restoration
- Urban Design Review International

Recent Experience : for full CV see website (**www.richardlamb.com.au**)

Heritage Impacts

Assessment and Advice

Private Clients

- Advice and advocacy concerning heritage view impacts, proposed maritime facility, Toocooya Road, Hunters Hill
- Advice and advocacy with Willoughby Council on visual impacts and amenity effects of development controls on new dwelling proposal in heritage conservation area, Northbridge.
- Advice and analysis of visual and landscape heritage impacts of approved development in Parramatta including referral to Federal Minister for DSEWPaC under provisions of the EPBC Act.
- Advice concerning heritage and visual impacts of proposed additions to the SCEGGS School., Darlinghurst
- Advice concerning heritage and visual impacts of proposed demolition and redevelopment of Willeroon, Ocean Road, Palm Beach.
- Advice on heritage and visual impacts, potential rezoning and development applications, Medlow Bath, Blue Mountains NSW.
- Advice on heritage values, scenic qualities and landscape heritage resources, pre-DA for additions and alterations to heritage streetscape and stone walls, Bronte.
- Advice on heritage, visual and impacts of proposed development application, Currawong Beach, Pittwater.
- Advice on streetscape and character of conservation area for a property on Schedule 2, of Parramatta Council Heritage LEP, Railway Parade, Granville.
- Advice on visual and heritage conservation constraints, development application, Bishopscourt, Darling Point.
- Advice regarding visual and related heritage impacts of proposed development, St Marys Church, Waverley.
- Advice, advocacy and evidence to Land and Environment Court of NSW concerning potential visual impacts of additions and alterations to two heritage listed dwellings, Victoria Street, Watsons Bay.
- Assessment of heritage and related scenic issues for strategic planning study, CUB site, Broadway, Sydney.
- Assessment of heritage impacts of proposed retrospective approval of adjoining development, Loch Lomond Crescent, Burraneer Bay.
- Assessment of heritage impacts of proposed terrace style infill housing and advocacy with City of Sydney Couclil, Wilson Street, Newtown.
- Assessment of heritage impacts on specific groups of trees and views caused by proposed redesign of KIllara Golf Course. Statement of heritage impact of proposed safety screens on adjacent heritage items.

- Assessment of heritage significance of item proposed to be listed on the ACT Heritage Register; St Patrick's Church, Braddon, ACT

- Assessment of potential impacts on heritage views of proposed development, area of National Significance, Tramway Lane, Rosehill.

- Assessment of visual and heritage aspects of development application, conversion of The Boiler House building, Pyrmont Point.

- Assessment, analysis and report to the Federal Minister for the Environment in response to Emergency Listing of Kurnell Peninsula under the Environment Protection and Biodiversity Conservation Act 1999.

- Design stage advice and visual and landscape heritage impact assessment of a proposed seniors living development, SHT listed property, 'Neerim Park', Centennial Road, Bowral.

- Development Control Plan, South West Lochinvar.

- Heritage and visual impact analysis for proposed new residential development, SHR item "Swifts", Darling Point.

- Heritage assessment and Statement of Cultural Significance for Anzac Parade, Sydney.

- Heritage curtilage, cultural landscape assessment and visual controls recommendations, Elderslie Urban Release Area, Camden LGA.

- Heritage Impact Assessment of proposed adjacent new dwelling on heritage registered item "Camelot", 3 The Basion, Griffin Estate, Castlecrag.

- Heritage impact assessment of proposed amendment to permissible uses table in the Wingecarribee LEP, Berrima.

- Heritage impact assessment, curtilage, review of SHR entry and proposal of new landscape conservation area, The Glebe Gully Cemetery, East Maitland.

- Heritage impacts assessment for proposed employment lands rezoning, Menangle, NSW.

- Heritage landscape and streetscape assessment as part of pre-DA study, Easterly, Upper Spit Road, Mosman.

- Heritage view analysis and mitigation strategy for the proposed "Wet n Wild" Water Theme Park, Reservoir Road, Prospect.

- Heritage view line study and pre-DA report, proposed residential development, Morton Street, Parramatta.

- Heritage view study, proposed rezoning for residential use, curtilage of Menangle village including several SHI registered items, Menangle Village.

- Heritage, scenic qualities and landscape impact assessment, proposed residential development, Potts Point.

- Landscape assessment, curtilage study and heritage impact assessment as part of a Local Environmental Study, curtilage of St Helena, Lochinvar, Hunter Valley.

- Landscape heritage impact assessment, proposed aged care development, McLaren Street, North Sydney.

- Local & regional visual assessment study to accompany rezoning and subdivision proposal, Mount Harris, Hunter Valley.

- Pre DA advice re heritage impacts of proposed additions and alterations to heritage homestead Kurrawong, Dunmore.

- Review of documentation concerning heritage landscape and visual issues, St Columba's Springwood.

- Scenic quality and landscape heritage assessment, rural subdivision proposal, Duckenfield, Hunter Valley.

- Statement of heritage impact : proposed development in the vicinity of "Alma's Tree", North Narrabeen.

- Statement of Heritage Impact and Heritage Discovery Plan, proposed dual occupancy dwellings on two lots approved by Land and Environment Court of New South Wales, Birrell Street, Tamarama.

- Statement of heritage impact of proposed additions and alterations, The Corso, Manly.

- Statement of heritage impact of proposed additions and alterations, Military Road, Mosman.

- Statement of heritage impact of proposed development on heritage listed stone wall, Burns Bay Road, Lane Cove.

- Statement of heritage impact on significant gardens, proposed building extensions, PLC Croydon.

- Statement of visual and heritage impact as part of Statement of Environmental Effects, proposed conservation of Ashton,

Elizabeth Bay Road, Elizabeth Bay and construction of new apartment building.

- Submission to Kiama Council on potential heritage impacts of a potential alternative dwelling footprint adjacent to two SHI registered items, Jamberoo Road, Jamberoo

- Submission to Minister for Planning regarding potential visual impacts, proposed alterations to White Bay Cement Terminal.

- Submission to the Minister for DSEWPaC including assessment of the potential heritage impacts of the Shine Dome (National Heritage List) of the proposed Nishi Building, New Acton, ACT.

- Visual and cultural landscape assessment, constraints and strategic planning study, potential urban release area, Raby Road, Leppington.

- Visual and cultural landscape assessment, constraints and strategic planning advice, potential seniors living development, Kiama.

- Visual impact, visual constraints and landscape heritage study, proposed residential development, Morpeth, Hunter Valley.

Government Clients

- *Blue Mountains City Council*

Advice on visual and heritage impacts of development application, SHI listed item Everglades, Everglades Avenue, Leura.
Advice on visual impacts of building materials and colours, heritage precinct, Lawson.
Advice on merits of development application with respect to heritage significance, Scenic Railway site, Katoomba.

- *Camden Council*

Cultural landscape and assessment of heritage significance of William Howe, Reserve, Camden, Heritage Assistance Grant Program.
Scenic and cultural landscape advice re proposed subdivision, Kirkham Lane, Camden.
Scenic and Cultural Landscape Study of the entire municipality, including specific input into the Rural Lands and Town Centre Urban Design Studies.

- *Department of Planning and Infrastructure:*

Advice on impacts on views and heritage values of Lennox Bridge and Old Government House and Domain of proposed additional height to approved mixed use building, 330 Church Street, Parramatta.

- *Department of Urban Affairs and Planning*

Scenic Quality Study of the Hawkesbury-Nepean River as part of review of State Regional Environmental Plan No. 20.
Landscape, heritage values and strategic planning study of Hoxton Park Corridor, Western Sydney.
Visual, heritage and cultural landscape boundary location investigations, Hoxton Park Corridor, Western Sydney Regional Parklands.
Cultural and recreational landscape values study, recommendations for form and location of expansion of Waste Services New South Wales facilities, Eastern Creek, Western Sydney.
Cultural and scenic landscape assessment of excluded lands parcels, Western Sydney Regional Parklands, Doonside.
Visual and heritage landscape assessment, Western Sydney Parklands, Core Parklands Precinct 2 and interface parcels 2, 3 and 4.

- *Hornsby Shire Council*

Heritage, scenic qualities and landscape heritage resources study of rural lands of the Shire as part of the Rural Lands Study.
Scenic resources study and strategic planning advice, Brooklyn and Environs Management Plan.

- *Lake Macquarie City Council*

Development assessment of visual and landscape heritage impacts, application for resort and high density housing, former coal preparation plant and other SHI registered heritage items Catherine Hill Bay.

- *Manly Council*

Advice on landscape heritage and visual impact issue concerning an appeal against refusal of development application, Manly Wharf, by Manly Wharf Pty Ltd.
Heritage impact assessment, residential development, Pine Street, Manly.

- *Mosman Council*

Heritage curtilage assessment as part of development assessment adjacent to SHI item, "Woolley House", Bullecourt Avenue, Mosman.

- *Pittwater Council*

Palm Beach Conservation Area: Heritage impact assessment on proposed redevelopment of Blueberry Ash Square and its impact on the Palm Beach Conservation Area.

- *Roads and Traffic Authority*

Heritage Impact Assessment of proposed tree maintenance, SHI registered item "Overthorpe", New South Head Road, Double Bay.

- *Wingecarribee Shire Council*

Visual and heritage landscape impact assessment, Burrawang, Southern Highlands.
Author of Development Control Plan No.53 for sighting of dwellings in rural zones.

Land and Environment Court Proceedings

Altamira v Burwood Council: Demolition and SEPP5 development, Livingstone Street, Burwood.

*Architectural Projects v Manly Counci*l: Conservation and addition of apartments, 'Dungowan' South Steyne, Manly.

Australand Holdings Pty Ltd v Sutherland Council: Resort development, Captain Cook Drive, Cronulla.

Blue Mountains Council ats Cecil D Barker: Subdivision and new dwellings, curtilage of Stoneholme Estate, Woodford.

Cody Outdoor Advertising Pty Ltd v South Sydney Council: Retention of existing rooftop advertising sign, Oxford Street, Darlinghurst.

Dixson H v Wingecarribee Council: Proposed conversion of existing stable to manager's residence, Sutton Forest.

Dumaresq Shire Council ats Commercial and Residential Developments Pty Ltd: Proposed residential subdivision, curtilage of Palmerston Estate, Kellys Plains, Armidale.

Hobhouse K v Minister assisting Minister for Infrastructure & Planning and Sydney Gas Operations Pty Ltd: Proposed gas plant adjacent to heritage listed Mt Gilead Homestead, Campbelltown.

Hunters Hill Council ats Bykerk: Proposed additions and alterations to heritage listed property, Vernon Street, Hunters Hill.

Joshua International Pty Ltd v Ku ring gai Council: Proposed new residence, Rosebery Road, Killara.

Kanowie v Woollahra Council: Proposed residential apartment building adjacent to heritage properties, Yarranabbe Road, Darling Point.

L D Fowler Pty Ltd and anor. ats Flower and Samios: Proposed subdivision and construction of residential development, Jane Street, Balmain.

Leichhardt Council ats Bezzina Developments Pty Ltd: proposed demolition and alterations to SHI item Darling Street Wharf, Balmain.

Leichhardt Council ats Charteris: Proposed demolition and construction of new dwelling, Punch Street, Birchgrove.

Lend Lease Development Pty Ltd v Manly Council:
St Patrick's Estate, Manly

- Development precinct 2 (1998)
- Development precincts 1, 2, 3 and 5 (1997)
- Development precincts 5, 10 and 11 (1998)

Manly Council v Vescio: Proposed new dwelling in curtilage of heritage property, Pine Street, Manly.

Marie Antoinette Aviani v Burwood Council: SEPP5 development proposal, Livingstone Street, Burwood.

McClenehan J and T v North Sydney Council: Proposed SEPP5 development, Cremorne Road, Cremorne.

Commission of Inquiry into proposed Exeter Quarry extension and Village bypass route on SHR registered property, Vine Lodge: Concrite Quarries, Primary Submission:, Southern Highlands, 2000.

Ricki Developments Pty Ltd v The City of Sydney: Proposed redevelopment, former warehouse building, Quay Street Haymarket.

Royal Botanic Gardens & Domain Trust and Minister for the Environment ats City of Sydney Council: Judicial Review of heritage and aesthetic impacts of replacement of trees in The Outer Domain, Sydney.

South Sydney Council ats Gameplan Sport and Leisure Pty Ltd: Proposed McDonalds restaurant, Anzac Parade, (the Old Grand Drive), Centennial Park, Sydney.

Sydney City Council ats Anglican Church: Proposed master plan for new apartments, curtilage of St John's Church, Darlinghurst.

Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd: appeal against Minister's approval of proposed wind farm, Taralga.

Toon, John v Ku ring gai Council: Proposed demolition of existing dwelling and SEPP5 residential development, Pentecost Avenue, Pymble.

V Berk and M Kersch v Woollahra Council: Proposed demolition and construction of mixed development, Gap Tavern site, Military Road, Watsons Bay.

Wilton v Hunters Hill Council: Proposed alterations and additions to heritage listed dwelling, Edgecliff Road, Woolwich.

Winten Property Group v Campbelltown Council: Proposed rural and residential development adjacent to Macquarie Field House, SHR item, Quarter Sessions Road, Glenfield.

Wollongong City Council v Weriton Finance: Proposed resort and dual occupancy development, Headlands Hotel site, Austinmer.

ACT Administrative Claims Tribunal

Catholic Archdiocese of Canberra and Goulburn v ACT Heritage Council: Appeal against decision to place St Patrick's Church, Braddon, on the ACT Heritage Register.

Landscape Planning

Assessment and Advice

Private Clients

- Advice on merits of proposal for SEPP HSPD development, Pokolbin.
- Advice on visual impacts of alternative building footprint locations, Foxground Road, Foxground.
- Advice on visual impacts of proposed residential development at Cambewarra.
Report on strategic planning issues related to Scenic Preservation hatching and Draft LEP specific to visual quality protection, Cambewarra Village.
- Advice on visual impacts of proposed subdivision and draft submission to Gosford Council, The Scenic Road, MacMasters Beach.
- Aesthetic assessment and evaluation of REF for proposed wind farm by Pacific Power and Partners, Crookwell.
- Assessment of visual impacts of proposed development and submisson to Shoalhaven City Council, Bendeela Road, Kangaroo Valley.
- Heritage and visual impacts assessment as part of statement of environmental effects, proposed monastery at Mangrove Mountain, City of Gosford
- Independent assessment and advice concerning identification of viewing places and presentation of visual impact scenarios, Harrington Park Stage II, Camden.
- Initial advice concerning visual resources of site and potential to accommodate large scale institutional development, Campbelltown Road, Denham Court.
- Landscape assessment and evaluation of alternative building sites, Saddleback Mountain, Kiama.
- Landscape character analysis and visual assessment in relation to "Gateway" concept, The Northern Road, Glenmore Park.
- Landscape constraints and development capability assessment for potential residential development, Governors Way, Macquarie Links.
- Landscape planning strategy and visual impacts assessment, proposed cemetery and crematorium, Elizabeth Drive, Luddenham.
- Landscape visual constraints and capability assessment for potential for residential development, Shellharbour Road, Dunmore.
- Landscape visual constraints and capability assessment for potential residential development, Old Princes Highway, Dunmore.

- Landscape visual constraints and capability assessment of a land proposed fo be rezoned for residential development, Cooby Road, Albion Park

- Landscape visual constraints and capability assessment of a parcel of land proposed for rezoning, Ashburton Drive, Albion Park

- Landscape visual constraints and capability assessment of parcels of land proposed for rezoning to residential use within the urban fringe area, Albion Park.

- Pre DA advice and statement of visual exposure, seniors living proposal, Cobbitty, Camden municipality.

- Pre DA advice on constraints and development envelopes, strategy and advice, Windang, Lake Illawarra.

- Pre-DA advice and visual impact assessment of proposed rezoning of rural land for potential residential development, Corner Kirkham Lane and Macquarie Grove Road, Kirkham.

- Pre-DA advice on design, visual and streetscape impacts assessment, proposed Islamic school, Burragorang and Cawdor Roads, Camden

- Pre-DA advice on visual impacts of proposed SEPP 5 development at Cambewarra.

- Report on visual impacts and effects on adjoining zones of a proposed subdivision, Glenhaven Road, Glenhaven.

- Pre DA advice and advocacy on proposed rural residential subdivision, The Northern Road, Glenmore Park.

- Statement of visual impact to accompany rezoning application, Old Northern Road, Castle Hill.

- Strategic planning advice concerning development potential, Fernhill, Mulgoa.

- Strategic planning and 3D modelling study to establish visibility constraints on zone boundaries, East Leppington Urban Release Area.

- Submission of feasibility study for re-zoning of land and subdivision for rural residential uses, Macquarie Grove Road, Kirkham.

- Submission to NSW Department of Planning against proposed extension of Catherine Hill Bay, Mooney Village and Gwandalan for residential development by Asquith & Dewitt Pty Ltd for Rosecorp Ltd.

- Visual and environmental impact assessment, proposed new dwelling, Dora Creek.

- Visual and heritage landscape assessment of impacts of proposed additions on the locality and Landscape Conservation Area, Benedictine Abbey, Jamberoo Pass.

- Visual and scenic impacts advice both pre- and post-DA, SEPP 5 Development, Old Northern Road, Castle Hill.

- Visual and scenic resources management study and visual impact assessment of a Concept Plan for Mixed Use Development, Tallawarra Lands, Tallawarra.

- Visual assessment and development strategy for proposed re-zoning of land partly for cemetery purposes, Varroville, Campbelltown.

- Visual assessment and development strategy for proposed re-zoning of land partly for residential purposes, Grange Hills, Campbelltown.

- Visual assessment and statement of environmental effects, proposed rezoning and subdivision, Cooranbong, Lake Macquarie.

- Visual assessment of proposed Town Centre land, Nambucca Drive, Scotts Head.

- Visual impact advice and report regarding location of dwellings on subdivided lots, Princes Highway, Kiama.

- Visual impact advice for proposed location of new dwelling, Weir Street, Kiama.

- Visual impact assessment and scenic amenity statement, proposed rural residential development, Dido Street, Kiama.

- Visual impact assessment for Jack Nicklaus Golf Resort, Rothbury, Hunter Valley

- Visual impact assessment for proposed Seniors Living Development, Pokolbin, Hunter Valley.

- Visual impact assessment of potentially unsightly landscape features vis-à-vis the Local Government Act definition in the vicinity of Vacy Downs Estate subdivision, Vacy.

- Visual impact assessment of proposed new dwelling, Pheasant Point Drive, Kiama.

- Visual impact assessment of proposed rezoning of land for urban residential use, Blue Seas Parade, Lennox Head.
- Visual impact assessment of proposed subdivision, Hillcrest Road, Mirrabooka, Lake Macquarie.
- Visual impact assessment, assessment against the provisions of Wingecarribee DCP 53 and advice concerning merits of proposed new dwelling location and design, Bibbys Lane, Werai Junction, Southern Highlands.
- Visual impact assessment, residential subdivision and development application, Scotts Head.
- Visual impact assessment, strategic planning analysis and peer review of proposed Forde Masterplan, Canberra.
- Visual impacts assessment of the proposed residential subdivision, Old Northern Road, Castle Hill.
- Visual resources and visual constraints study to accompany DA for establishment of new necropolis, Berrima district, Southern Highlands of NSW.
- Visual resources and visual constraints study, design advice and advocacy for potential DA, proposed resort and seniors living development, Glossodia.

Government Clients

- *Camden Council*

Camden Scenic and Cultural Landscape Study, Local Government Area of Camden.
Report on strategic planning for landscape protection based on the Camden Scenic and Cultural Landscape Study, for the Camden Rural Lands Study.

- *Dungog Council*

Assessment of visual and heritage impacts, scenic protection controls and heritage impact performance standards, proposed rezoning and rural residential development, Paterson, Upper Hunter Valley.

- *Shellharbour City Council*

Strategic planning study for identification, protection and conservation of landscapes of natural and cultural heritage significance, Shellharbour Local Government Area.

- *The Joint Old Growth Forest Project*

Empirical study to assess the feasibility of including cultural and aesthetic values in the evaluation of old growth forest.

- *The Resources and Conservation Council of New South Wales (RaCAC)*

Aesthetic values audit of the Upper North East region of NSW.

Expert workshop on integrating heritage values into the CRA/RFA process for evaluation of Australian forests.

- *Wingecarribee Shire Council*

Preparation of Development Control Plan No.53 for sighting of dwellings in rural zones.

Land and Environment Court Proceedings

Australian Native Landscapes v Warringah Council: s82A Review of conditions of consent, retail nursery, Mona Vale Road, Terrey Hills.

Baevski v Wingecarribbee Shire Council: proposed covered dressage arena, Myra Vale Road, Robertson.

Baulkham Hills Council ats Gelle: proposed extension to existing caravan park, KoVeda Caravan Park, Wisemans Ferry.

Broken Bay Pty Ltd v The National Parks and Wildlife Service of NSW: valuation matter concerning acquisition of land, Hawke Head Road, Killcare.

CD Barker Pty Ltd for Eodo Pty Ltd v Council of the City of Blue Mountains: proposed subdivision and detached residential development, Heather Road, Winmalee.

Design Collaborative Pty Ltd v Wingecarribee Shire Council: proposed spring water extraction facility, Governors Street, Bundanoon.

Erolmore Park Pty Ltd v Maitland City Council: proposed industrial development, New England Highway, Thornton.

Flower and Samios v Shoalhaven Council: proposed Seniors Living Development, Main Road, Cambewarra.

Heathcote Gospel Trust v Sutherland City Council: proposed place of worship, Forum Drive, Heathcote.

Hornsby Shire Council

- *ats Haoushar*, proposed attached dual occupancy dwellings, Crosslands Road, Galston.
- *ats Momentum Architects*, proposed SEPP5 development, Old Northern Road, Kenthurst.
- *ats M&R Civil*, proposed SEPP5 development, Old Northern Road, Kenthurst.

Kiama Council ats Moss: proposed new residence in rural land, Alne Bank Road, Gerringong.

Liverpool City Council ats Kira Holdings Pty Ltd: proposed subdivision and low density residential development, Hoxton Park.

Luke Tappouras v Lake Macquarie City Council: proposed Heritage College, Ironbark Road, Morisset.

Marsim (Queensland) Pty Ltd and Gold Coast City Council ats Hoffman & Ors: proposed neo-traditional settlement development, Killowill Avenue, Paradise Point, Gold Coast.

Molusso J v Gosford Council: proposed apartment building, Grosvenor Road, Terrigal.

Penrith City Council

- *ats Pacific Waste Management Pty Ltd*, proposed waste facility, Elizabeth Drive, Badgery's Creek.
- *ats Penrith Waste Services Pty Ltd*, prosecution for alleged breaches of conditions of consent, Mulgoa Quarry.
- *ats Sydney Anglican Schools Corporation*, proposed rural school construction, Homestead Road, Orchard Hills.

Pope Shenouda Coptic Christian Centre v Campbelltown City Council: proposed redevelopment of religious and community facilities, Wills Road, Long Point.

RTA ats Scollard: valuation matter concerning compulsory acquisition of land, Olympic Way, Gerogery.

Sangha Holdings Pty Ltd v Kiama Council: proposed subdivision, Cooby Road, Albion Park.

Save Hawkesbury's Unique River Environment (SHURE) ats Consensus Developments: proposed tourist accommodation facility, Kangaroo Point, Brooklyn.

Seaview Gardens Pty Ltd v Port Stephens Shire Council:proposed medium density residential development, One Mile Close, Boat Harbour, Port Stephens.

Sherringhams v Baulkham Hills Council: proposed retail nursery, Old Northern Road, Dural.

Sutherland Shire Council: primary submission to Commission of Inquiry into land use, Helensburgh.

The Coffs Harbour Environment Centre v the Minister for Planning: proposed rezoning of Look at Me Now Headland for the purpose of sewage treatment plant and outfall, Coffs Harbour.

The Jehovah's Witnesses Congregations v Penrith Council: proposed place of worship, Homestead Road, Orchard Hills.

Tony Fidler as Trustee for Howship Holdings v Port Stephens Shire Council: valuation matter concerning acquisition of land, Lily Hill, Nelson Bay.

Townsend W & D v Lake Macquarie City Council: proposed rural dwelling, Chelston Street, Warners Bay.

Warringah Council ats Vigor Master: proposed dwelling construction, Brooker Avenue, Beacon Hill

Wingecarribee Shire Council

- *ats Knox*, prosecution for illegal construction of earth bank, Range Road, Kangaloon.
- *ats Webb*, proposed rural dwelling, Silver Springs Hill, Burrawang.
- *ats Allen*, proposed rural dwelling Greenhills Road, Berrima.

Visual Impacts

Assessment and Advice

Private Clients

- Advices and visual impact assessment of a proposed aged care facility, McLaren Street, North Sydney.
- Advices and visual impact assessment of the proposed concept plan for a medium density residential development, Belmore Street, Ryde.

- Advices and visual impact assessment of the proposed new dwelling and swimming pool, Mountain Road, Austinmer.

- Advices and visual impact assessment of the proposed retirement resort, Oakey Creek Road and Marrowbone Road, Pokolbin.

- Advices on potential visual impacts of the proposed driveway and basement car park, Musgrave Street, Mosman.

Advice on potential visual impacts of proposed amendments to existing consent, Minamurra Road, Northbridge.

- Assessment and advice on visual effects of lighting from adjacent parking garage, Ocean Street, Woollahra

- Assessment of visual impacts of additions and alterations to existing retirement village, Jersey Road, Paddington.

- Assessment of visual impacts of proposed subdivision, Bantry Bay Road, Frenchs Forest.

- Landscape assessment, curtilage study and heritage impact assessment as part of a Local Environmental Study, curtilage of Duckenfield House, Duckenfield, Hunter Valley.

- Local environmental study, proposed subdivision and residential development, Berkeley Vale, Wyong Shire.

- Report on strategic planning issues and submission to Shoalhaven City Council related to Scenic Preservation hatching being proposed over the locality of Cambewarra Village, North Nowra.

- Scenic resources and visual constraints study, proposed seniors living proposal involving concurrent rezoning, Milton, South Coast.

- Strategic planning and visual impact assessment for proposed rezoning and master plan application, Riverlands Golf Course, Milperra.

- Strategic planning study for Stage 1 Master Plan, visual impact assessment for rezoning applications, principles for siting of buildings and mitigation of potential impacts, Boydtown, Eden region.

- Submission to Council against a proposed industrial development on Burley Road, Horsley Park on the visual amenity, Capitol Hill Drive, Mt Vernon.

- Submission to Council against a proposed industrial development on Burley Road, Horsley Park on the visual amenity, Greenway Place, Horsley Park.

- Submission to Waverley Council concerning visual impacts of proposed amended DA, Birrell Street, Tamarama.

- - Urban design and visual impact study, Beach Street, Coogee.

- Urban design and visual impacts assessment, proposed Trinity Point Marina and tourism development Concept Plan, Lake Macquarie.

- Visual and landscape strategic planning assessment of proposed draft amendment to Wingecarribee LEP 1989, Burradoo, Moss Vale

- Visual constraints and residential development strategy advice, Lennox Head.
Advocacy concerning strategic planning process and proposed rezoning of land, Lennox Head.

- Visual impact and view loss assessment for proposed seniors living development, former Loreto site, Bronte Road, Bronte

- Visual impact assessment and advice on building height controls for Greystanes Estate, Southern Employment Land, Greystanes.

- Visual Impact Assessment and advices on rural subdivision, The Northern Road, Glenmore Park.

- Visual impact assessment and strategic planning for proposed rezoning and subdivision of land at Menangle Road, Menangle

- Visual impact assessment as part of the Review of Environmental Factors for Shellharbour Waste Water Treatment Works.

- Visual impact assessment for subdivision application, The Northern Road, Glenmore Park.

- Visual impact assessment of land proposed for rezoing to support a proposed clay target shooting facility, Bong Bong Road, Huntley.

- Visual impact assessment of new school house, Kingswood Road, Orchard Hills.

- Visual impact assessment of proposed amendments to existing consent, Tulloch Avenue, Concord

- Visual impact assessment of proposed residential development, Bray Street, Mosman.

- Visual impact assessment of proposed residential subdivision, mitigation measures and advice on conditions for site specific DCP, Scarborough Gardens, Bonnells Bay

- Visual impact assessment of proposed seniors living development, St Albans Street, Abbotsford.

- Visual impact assessment of the proposed mixed use development, Columbia Precinct, Parramatta Road and Columbia Lane, Homebush.

- Visual impact assessment of the proposed residential townhouses development including preparation and certification of photomontages, Johnston Street, Annandale.

- Visual Impact Assessment Part 3A Concept Plan application. Old Canterbury Road, Lewisham.

- Visual impact evaluation of a series of possible locations for dwelling sites, Menai.

- Visual impacts assessment of proposed residential developments, Thomas and Dumbarton Streets, McMahons Point.

Government Clients

- *Ashfield City Council*
Ashfield Town Centre, Study of Building Heights to be incorporated into the Town Centre Development Control Plan.
Review of DA for Abacus Ashfield Mall Redevelopment, against the performance standards of Building Heights Study.

- *Brisbane City Council*
Cultural Mapping exercise, for Quality Urban Corridors Program, Logan Road, Lutwyche/Gympie Roads, in association with Archimix Brisbane.

- *Brisbane City Council and the Department of Natural Resources, Queensland*
Protection of Scenic Landscapes Study; Regional landscape study to develop a methodology for the documentation of scenic values of the South East Region of Queensland.
South East Queensland Regional Organisation of Councils
advice on Scenic Amenity Study

- *Council of the City of Gosford*
City Wide Visual Quality Study in association with David Kettle Consulting Services.
Development Control Plan-Scenic Quality.
Local Environmental Study, The Scenic Highway, Terrigal.

- *Department of Infrastructure, Planning and Natural Resources and The Uniting Church of Australia*
Visual impact assessment for subdivision of land at Ingleside Road, Ingleside.

- *Hastings Shire Council*
Review and redrafting of DCPs 9 and 20 relating to scenic and heritage resource protection, Port Macquarie.
Visual resources and scenic conservation study as part of Camden Haven River Estuary Processes Study, in association with Patterson Britton and Partners.

- *Ku ring gai Council*
Brief development for municipality wide neighbourhood visual and streetscape study.
Local Environmental Study: scenic quality of South Turramurra.

- *Landcom*
Strategic planning advice and visual impact assessment for proposed NSW Police Facilities on former Sydney Water land, Potts Hill.

- *Manly Council*
advice on and provision of certified photomontages of proposed Major Projects developments in Manly Town Centre.

- *Pittwater Council*
Scenic qualities, landscape resources and visual constraints study, potential rezoning and land swap exercise, Council Works Depot site, Ingleside.

- *Sydney Water*
Review of visual environmental effects for Wongawilli Reservoir proposal, West Dapto, Illawarra.

- *Road Transit Authority*
Review of visual environmental effects for Oak Flats Highway Interchange proposal, Oak Flats to Dunmore section, Princes Highway, Illawarra.

- *Office of Marine Administration and Department of Environment and Planning*
Methodology for assessment of visual issues and design guidelines for the DCP to accompany SREP 22 and 23, Sydney and Middle Harbours and Parramatta River: and Part 5 checklist.

- *Rockdale City Council*
Development control strategy and advice for Draft DCP, Rocky Point Road, Ramsgate.

- *Singleton City Council*
Visual impact assessment of proposed temporary accommodation village, Putty Road, Singleton.

- *Shoalhaven City Council*
East Nowra Local Environmental Study.
Old Erowal Bay visual quality study.
Brief for Mollymook Local Environmental Study: Visual Impacts.
- Visual impacts assessment relating to land swap and rezoning proposals, Milton and Narrawallee.

- Sutherland Shire Council, jointly with Wollongong City Council.
Commission of Inquiry into rezoning, primary submission on visual impacts, Helensburgh.

- *Wingecarribee Shire Council*
Preparation of Development Control Plan No 53 for the siting of buildings in rural zones.

Publications

Refereed articles

Falchero, S., Lamb, R.J., Peron, E.M. and Purcell, A.T. (1992). Is our experience of the world more complicated than we think? In Aristides, M. and C Karaletsou, Socio-Environmental Metamorphoses: Builtscape, Landscape, Ethnoscape, Euroscape, Thessaloniki, Aristotle University Press, IV, 121-125.

Fuller, A, and Lamb, R.J. (2002). The objectification and aesthetication of cultural landscapes: The meeting point of western heritage traditions and Australian Cultural Landscapes, Journal of the Australian and New Zealand Association for Person Environment Studies,57, 16-26

Lamb, R.J. (1985). Litter fall and nutrient turnover in two eucalypt woodlands. Australian Journal of Botany, 33, 1-14

Lamb, R.J. (1988). The nexus between aesthetics and ecology: perception of naturalness and landscape management. Journal of the Australian and New Zealand Association for Person Environment Studies, 30, 23-32.

Lamb, R.J. (1989). Identification and assessment of rural cultural landscapes: The National Trust's method, and a relevant case study. Historic Environment 7(2), 38-44.

Lamb, R.J. (1991). Ecology and architecture: A tradition of neglect. Journal of the Australian and New Zealand Association for Person Environment Studies, 37/38, 7-18.

Lamb, R.J. (1991). The challenge of ecology to the design professions I: Invention and intervention. Exedra, 3(1), 16-24.

Lamb, R.J. (1992). Aesthetic impacts of development on valued landscapes: The nature of evidence given in five cases. Journal of the Australian and New Zealand Association for Person Environment Studies, 41-42, 31-52.

Lamb, R.J. (1993). Psychological type in first year Architecture students: Potential new answers to some old questions. Higher Education Research and Development Association, 16, 159-164.

Lamb, R.J. (1995). Biodiversity, in: Architecture and the Environment, (New Zealand Institute of Architects), 2, 1-6.

Lamb, R.J. (1995). Biodiversity, in: Environmental Design Guide, (Royal Australian Institute of Architects), General Issues,1,(3), 1-6.

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Lamb, R.J., and Purcell, A.T. (2002). Landscape perception: A Comparison of perceived naturalness to variations in the ecological naturalness of vegetation. Journal of the Australian and New Zealand Association for Person Environment Studies 57, 1-16.

Lamb, R.J., and Holland, G. (1995). Are physical and cultural issues of ecologically sustainable development always compatible?: The Australian example of urban consolidation. People and Physical Environment Research, 47, 34-41.

Lamb, R.J., and Morris, C. (1996). Symbolic, Spiritual and Aesthetic vales of forests. In: Design for People, Groves, M.A. and Wong, S. (eds), Sydney, People and Physical Environment Research, pp 79-84.

Lamb, R.J., Purcell, A.T., Mainardi Peron, E., and Falchero, S. (1994). Cognitive categorisation and preference for places. In

S.J. Neary, M.S. Symes and F.E. Brown, The Urban Experience: a People Environment Perspective, London, E & F.N. Spon, pp 405-416.

Outhred, R.K., Lainson, R., Lamb, R. and Outhred, D. (1985). A floristic survey of Ku Ring Gai Chase National Park. Cunninghamia, 3, 313-338.

Lamb, R.J., and Purcell, A.T. (1982). A Landscape Perception Study of the Peninsula Area of Warringah Shire: Implications for Planning Controls, Building Regulations and Other Areas of Council Activities. University of Sydney, Department of Architecture, Occasional Paper, 44pp.

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Published Symposia

Lamb, R.J. (1994). Advancing arguments for the conservation of valued places. In: Ramsay, J and Paraskevopolous, J (eds). More Than Meets the Eye: Identifying and assessing aesthetic value. Australian Heritage Commission Technical Workshop Series No. 7, University of Melbourne, 1993. Canberra, Australian Heritage Commission, pp 23-38.

Lamb, R. J. (1994). Technics or ethics? In: Ross, H., Dovers, S., Sexton, M. and Rodger, A. (eds). Sustainability and the built environment: Interpretation and strategies. Fundamental Questions paper No. 12, Centre for Resource and Environmental Studies, Canberra, Australian National University, p 20.

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Thorne, R.T. and Lamb, R.J. (1991). The education of architectural designers. What will be the qualities required of the teachers of design if the Higher Education Council policy for universities is implemented? ANZASCA Conference Proceedings, Adelaide, University of Adelaide.

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Lamb, R.J. (1983). Ecological and aesthetic objectives in bush management. In: Sydney or the Bush? Australian Institute of Horticulture Conference, Sydney, Ku ring Gai CAE.

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Conference papers

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Lamb, R.J. (1995). Conservation of the scenic quality of rural areas: The role of local government. Planning for Rural Areas: the Key Role of Local Government Conference, Hawkesbury Nepean River Catchment Management Trust.