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ART GALLERY OF NSW EXPANSION PROJECT - SYDNEY MODERN VISUAL IMPACT ASSESSMENT

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CLOUSTON associates



Cover: View towards the Project site and Sydney
CBD from Finger Wharf, Woolloomooloo
This Page: Sydney CBD rising behind The Domain

ART GALLERY OF NSW EXPANSION PROJECT - SYDNEY
MODERN
VISUAL IMPACT ASSESSMENT

Prepared by

CLOUSTON Associates
Landscape Architects • Urban Designers • Landscape Planners
65-69 Kent Street• Sydney NSW 2000
PO Box R1388 • Royal Exchange NSW 1225 • Australia
Telephone +61 2 8272 4999 • Facsimile +61 2 8272 4998
Contact: Leonard Lynch
Email • sydney@clouston.com.au
Web • www.clouston.com.au

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View from The Domain over Project site to Woolloomooloo Bay and Potts Point



1.0

introduction

1.0 INTRODUCTION

1.0 INTRODUCTION

The Art Gallery of New South Wales (AGNSW) Expansion Project - Sydney Modern is proposing to expand the Gallery over a former World War Two fuel bunker and partly over the Eastern Distributor land bridge. (see Figure 01).

1.1 PURPOSE OF THE REPORT

CLOUSTON Associates has been commissioned by AGNSW to prepare the Visual Impact Assessment (VIA) for the proposed Sydney Modern Project (hereafter referred to as 'the Project').

The Project is a State Significant Development under Schedule 1 of the State Environmental Planning Policy State and Regional Development 2011.

The Secretary's Environmental Assessment Requirements (SEARs) stipulate that the application should be supported by a VIA in accordance with the Land and Environment Court requirements. This VIA is one of a number of technical reports supporting the Environmental Impact Statement (EIS) for the Project. Table 03 lists the relevant SEARs requirements and where they are addressed within this report.

1.1.1 Visual Assessment Rationale

A VIA takes into account all effects of change and development in a visual scene that may impact visual amenity. It is concerned with how the surroundings of individuals or groups of people may be specifically affected by change in the visual scene, both quantitatively and qualitatively.

Judgement as to the significance of the effects is arrived at by a process of reasoning, based upon analysis of the baseline conditions, identification of visual receptors (viewers of the scene) and assessment of their sensitivity, as well as the magnitude and nature of the changes that may result from any development.

This assessment is an independent report and is based on a professional analysis of the visual environment and the Project at the time of writing. The current and potential future viewers (visual receptors) have not been consulted about their perceptions. The analysis and conclusions are therefore based solely on a professional assessment of the anticipated impacts, based on a best practice methodology.

1.2 REPORT STRUCTURE

The report is divided into the following sections:

1 - INTRODUCTION

An introduction section that describes the planning and methodology context for the VIA.

2 - THE PROJECT

A description of the proposed works.

3 - EXISTING VISUAL ENVIRONMENT

A description of the existing site and visual environment of the study area.

4 - VISUAL IMPACT ASSESSMENT

A study of the visual impacts of the Project. Each of the selected viewpoints are assessed on a range of qualitative and quantitative criteria.

5 - PHOTOMONTAGES

Spatially verified images of the Project within the landscape setting.

6 - MITIGATION RECOMMENDATIONS

A discussion as to the means by which the visual impacts identified can be precluded, reduced or offset.

7 - CONCLUSION

Conclusions are drawn on the overall visual impact of the Project within the study area.



Figure 01 - Project location

1.3 LEGISLATIVE POLICY AND PLANNING CONTEXT

The planning instruments and guidelines that have the most direct bearing on the visual assessment of the Project include;

- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Sydney Local Environmental Plan (LEP) 2012
- The Land and Environment Court's Planning Principles (for assessing visual impact)
- Royal Botanic Gardens and Domain Planning Documents.

1.3.1 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

The Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (SREP 2005), a deemed SEPP, applies to the site and it is identified as being within the Foreshores and Waterways Area.

Under Clause 14 of the SREP 2005, a key principle which applies is '(d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores'.

Clauses 25 and 26 of the SREP 2005 also identify matters for consideration by authorities under Part 4 of the Environmental Planning and Assessment Act 1979. These are as follows:

Cl 25 Maintenance, protection and enhancement of views

(a) the scale, form, design and siting of any building should be based on an analysis of:

- (i) the land on which it is to be erected, and
- (ii) the adjoining land, and
- (iii) the likely future character of the locality,

(b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,

Cl 26 Maintenance, protection and enhancement of views

(a) development should maintain, protect and enhance views (including night views) to and from Sydney Harbour,

(b) development should minimise any adverse impacts on views and vistas to and from public places, landmarks and heritage items,

(c) the cumulative impact of development on views should be minimised.

The clauses emphasise protection of views to and from the public domain (including Sydney Harbour), landmarks and heritage items. The view impacts of the proposal are considered in detail at Section 4.0 of this Report.

Foreshores and Waterways Development Control Plan 2005

The SREP 2005 is supported by detailed provisions contained within the Foreshores and Waterways Development Control Plan 2005 (FWDCP 2005).

With regards to views, the following must be considered:

3.2 General Aims

minimise any significant impact on views and vistas from and to: public places, landmarks identified on the maps accompanying the DCP, and Heritage items;

The DCP maps show those 'landmarks' within 3km of the site as including:

- * Harbour Bridge (a state heritage item)
- * Opera House (a UNESCO world heritage item)
- * Conservatorium of Music (a local heritage item)
- * Royal Botanic Gardens (a state heritage item)
- *Finger Wharf (a state heritage item)
- *Garden Island Precinct historic buildings
- *Elizabeth Bay House
- *St Mark's Spire
- *Admiralty House

Under the SREP 2005 the proposal is identified as a Land Based Development, requiring consideration of the provisions identified in Section 5 of the FWDCP 2005. Of these, the following are considered relevant to views and visual impact.

5.3 Siting of Buildings and Structures

buildings should not obstruct views and vistas from public places to the waterway;

buildings should not obstruct views of landmarks and features identified on the maps accompanying this DCP; and

5.4 Built Form

where buildings would be of a contrasting scale or design to existing buildings, care will be needed to ensure that this contrast would enhance the setting;

The above has been considered in detail as part of Section 4.0 of this report which considers the impacts of the proposal.

Significant viewpoints within this report that relate to this are:

- Viewpoint 11 - View corridor from Woolloomooloo Gate to ridge of Potts Point
- Viewpoint 16 - Views of the western facade of AGNSW building from Art
- Viewpoint 13 - View from land bridge east over Woolloomooloo Bay and Finger Wharf to Potts Point
- Viewpoint 9 - View from Finger Wharf west over green canopy of The Domain to city skyline.

1.3.2 Sydney Local Environmental Plan (LEP) 2012

The SLEP 2012 does not include any significant controls which relate specifically to views. However, it is noted that the objectives of cl 4.3 Height of Buildings includes: '(c) to promote sharing of views' under the Sydney Local Environmental

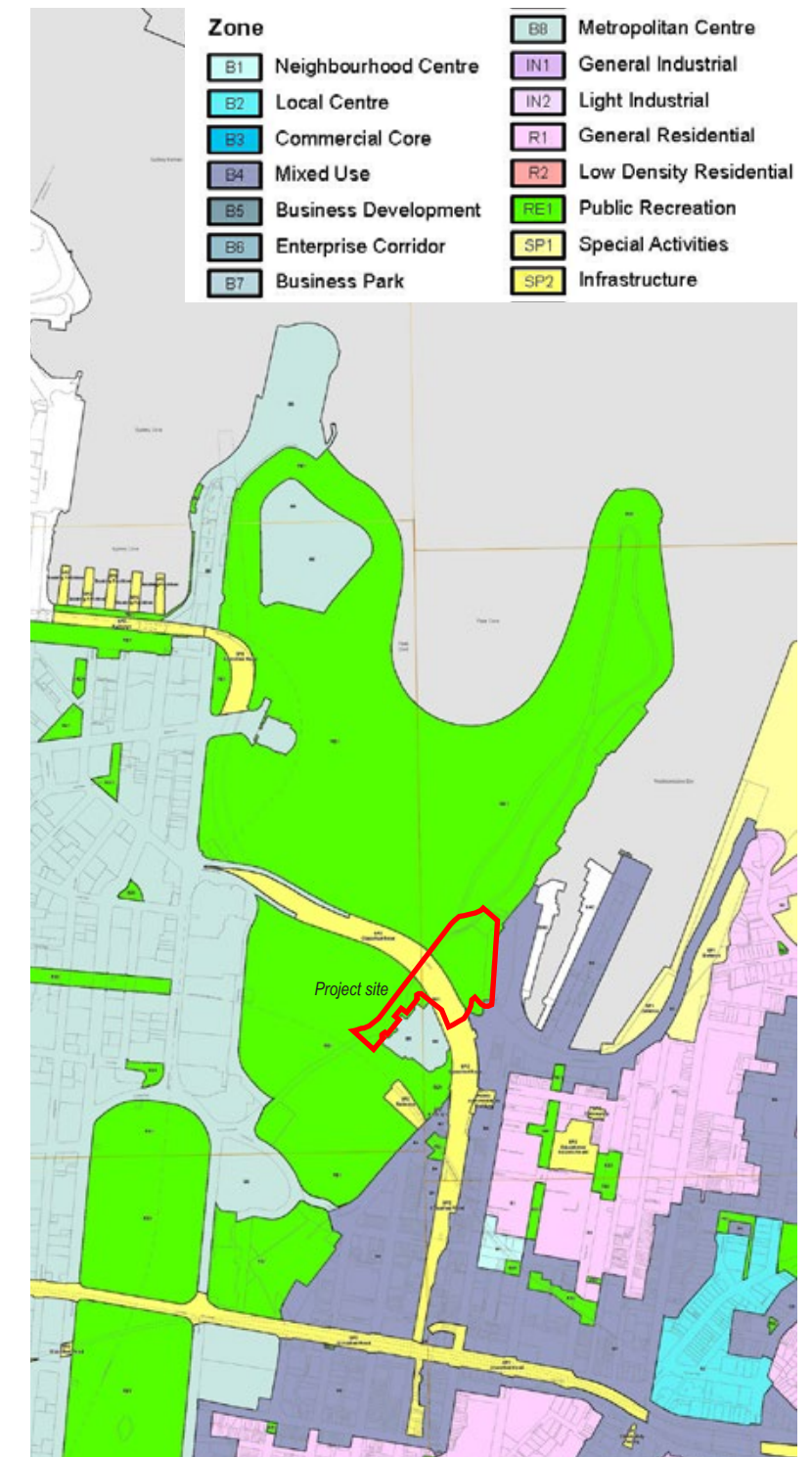


Figure 02 - Extract from the City of Sydney Land Zoning Plan

Plan 2012. Importantly, this recognises the importance of sharing views and does not specifically require the retention of views. Cl. 6.21 Design Excellence includes that 'In considering whether development... exhibits design excellence, the consent authority must have regard to... (c) whether the proposed development detrimentally impacts on view corridors'.

Significant viewpoints within this report that relate to this are:

- Viewpoint 11 - View corridor from Woolloomooloo Gate to ridge of Potts Point
- Viewpoint 16 - Views of the western facade of AGNSW building from Art
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- Viewpoint 9 - View from Finger Wharf west over green canopy of The Domain to city skyline.

1.3.2.1 Environmental Heritage

The following items associated with the Project site are listed within the schedule of heritage items:

- Item i1665 - Art Gallery of NSW including interiors (many parts) - Local
- Item i1653 - The Domain - State

The relevant LEP clause of heritage conservation includes the following objectives:

- to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views

Within the Office of Environment & Heritage's (OEH) statement of significance for heritage items, the relevant recommended management for these two items include:

- AGNSW - 'Views and vistas from the building should be retained'
- The Domain - 'Minimise any impact of views down from the higher areas of The Domain and Art Gallery. Maintain views that connect the area to precincts outside the boundaries, from the upper Domain levels down to Woolloomooloo and Woolloomooloo Bay'.

It should be noted that a separate specialist heritage assessment has been undertaken for the EIS which evaluates the compatibility of the new building with the existing built environment of the heritage listed Gallery.

Consequently, judgement as to the quality and appropriateness of the Project's architecture on heritage items is outside the remit of this report. For the purposes of the VIA it is assumed that the Project's design is therefore architecturally compatible with the existing AGNSW building.

The assessment of visual impacts is based on a study of both qualitative and quantitative criteria of the building in the visual scene, regardless of architectural style.

1.3.3 Sydney Development Control Plan (DCP) 2012

DCPs do not apply to State Significant Development. Notwithstanding this, the Project site is not included within any of the DCP's Special Character Areas (SCAs). The most relevant part of the DCP is related to the principles from the locality plan for Woolloomooloo, including:

- Maintain district views over Woolloomooloo from high ground of The Domain and Art Gallery to Kings Cross.

The Sydney Development Control Plan 2012 (SDCP 2012) includes provisions specifically relating to views.

Section 3.2.1.2 Public Views provides that:

Buildings are not to impede views from the public domain to highly utilised public places, parks, Sydney Harbour, Alexandra Canal, Heritage Buildings and monuments including public statues, sculptures and art; Development is to improve public views to parks, Sydney Harbour, Alexandra Canal, heritage buildings, and monuments by using buildings to frame views. Low level views of the sky along streets and from locations in parks are to be considered;

The DCP objectives and provisions recognise the importance of views from public places, including streets, plazas and parks. There are no specific views identified within the SDCP 2012 which relate to the subject site, however the broader principles established by the SDCP 2012 relating to improvement of public views and preserving of public views and vistas will need to be considered.

1.3.4 The Domain and Royal Botanic Gardens Planning Documents The Domain Plan Of Management, 1999

The Domain covers 28 hectares on the eastern edge of the Sydney CBD and is managed by the Royal Botanic Gardens and Domain Trust, a statutory body under the Royal Botanic Gardens and Domain Trust Act 1980.

The 1999 Domain Master Plan set out a framework for the operation and management of the parklands for a 10 year period. Although now dated, principles from the document still remain relevant for assessing visual impacts within the parklands. These principles include the desired outcomes to:

- Retain, recover and carefully enhance the spatial and scenic qualities of The Domain.
- Investigate and implement measures to improve the land bridge visual environment. These include ensuring that a more appropriate sense of scale and a more convincing relationship with the Art Gallery is achieved while visually unifying the area and convincingly integrating the new development with the areas beyond.

The document mentions specific views, both into and out of The Domain, which are further discussed within Section 3 of this report: Existing Visual Environment.

Royal Botanic Garden and Domain Draft Master Plan, 2014

In 2014 the RBG began work on the Royal Botanic Garden and Domain Master Plan, the first time a combined master plan had been developed for the Garden and Domain.

The draft Master Plan was placed on public exhibition from 6 April to 31 May 2014, receiving mixed feedback from stakeholders and community. The draft plan has subsequently been withdrawn with an expected re-engagement with the community to develop a new plan in 2017.

1.3.5 The Land and Environment Court Planning Principles

The Land and Environment Court of New South Wales was established in 1980 by the Land and Environment Court Act 1979. Relevant planning principles have been developed in visual assessment case judgments over the years to guide future decision-making in development appeals. These include separate but related principles for private and public domain views.

The principles set out a process for assessing the acceptability of impact. The two most relevant cases to this site are:

- Public domain views - Rose Bay Marina Pty Limited v Woollahra Municipal Council (2013)
- Private views - Tenacity Consulting v Warringah Council (2004)

The framework for a planning principle concerning impacts on views enjoyed from the public domain (Rose Bay Marina) is broadly consistent with (but not identical to) the matters raised for consideration in Tenacity. The process must account for reasonable development expectations as well as the enjoyment of members of the public of outlooks from public places.

Overall, public domain views are given more weight than private domain views due to the potential for visual impacts to affect a greater number of viewers.

Planning Principles for Public domain views - Rose Bay Marina Pty Limited v Woollahra Municipal Council (2013)

The assessment process from these planning principles includes:

Identification Stage

Identify the nature and scope of the existing views from the public domain:

- the nature and extent of any existing obstruction of the view
- relevant compositional elements of the view
- what might not be in the view - such as the absence of human structures in the outlook across a natural area
- is the change permanent or temporary.

This is followed by identifying the locations in the public domain from which the potentially interrupted view is enjoyed and the extent of obstruction at each

relevant location. The intensity of use of this location is also to be recorded. Finally, the existence of any document that identifies the importance of the view - ie. international, national, state or local heritage recognition is ascertained.

Analysis of impacts

- The analysis required of a particular development proposal's public domain view impact is both quantitative as well as qualitative.
- A quantitative evaluation of a view requires an assessment of the extent of the present view, the compositional elements within it and the extent to which the view will be obstructed by or have new elements inserted into it by the proposed development.
- Any qualitative assessment must set out the factors taken into account and the weight attached to them. Whilst minds may differ on outcomes of such an assessment, there should not be issues arising concerning the rigour of the process.
- As with Tenacity, a high value is to be placed on what may be regarded as iconic views (major landmarks or physical features such as land/water interfaces).

Other questions to be considered in undertaking a qualitative assessment of a public domain view impact include:

- Is any significance attached to the view likely to be altered?
- If so, who or what organisation has attributed that significance and why have they done so?
- Is the present view regarded as desirable and would the change make it less so (and why)?
- Should any change to whether the view is a static or dynamic one be regarded as positive or negative and why?
- If the present view attracts the public to specific locations, why and how will that attraction be impacted?

Planning Principles for Private views - Tenacity Consulting v Warringah Council (2004)

The planning principles from this judgement include:

Assessment of views to be affected

- Water views are valued more highly than land views
- Iconic views (eg of the Opera House, the Harbour Bridge or North Head) are valued more highly than views without icons
- Whole views are valued more highly than partial views, e.g. a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

From what part of the property the views are obtained

- The protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries
- Sitting views are more difficult to protect than standing views.

Extent of the impact

- The impact on views from living areas is more significant than from bedrooms or service areas
- It is usually more useful to assess the view loss qualitatively as negligible, minor, moderate, severe or devastating.

Reasonableness of the proposal

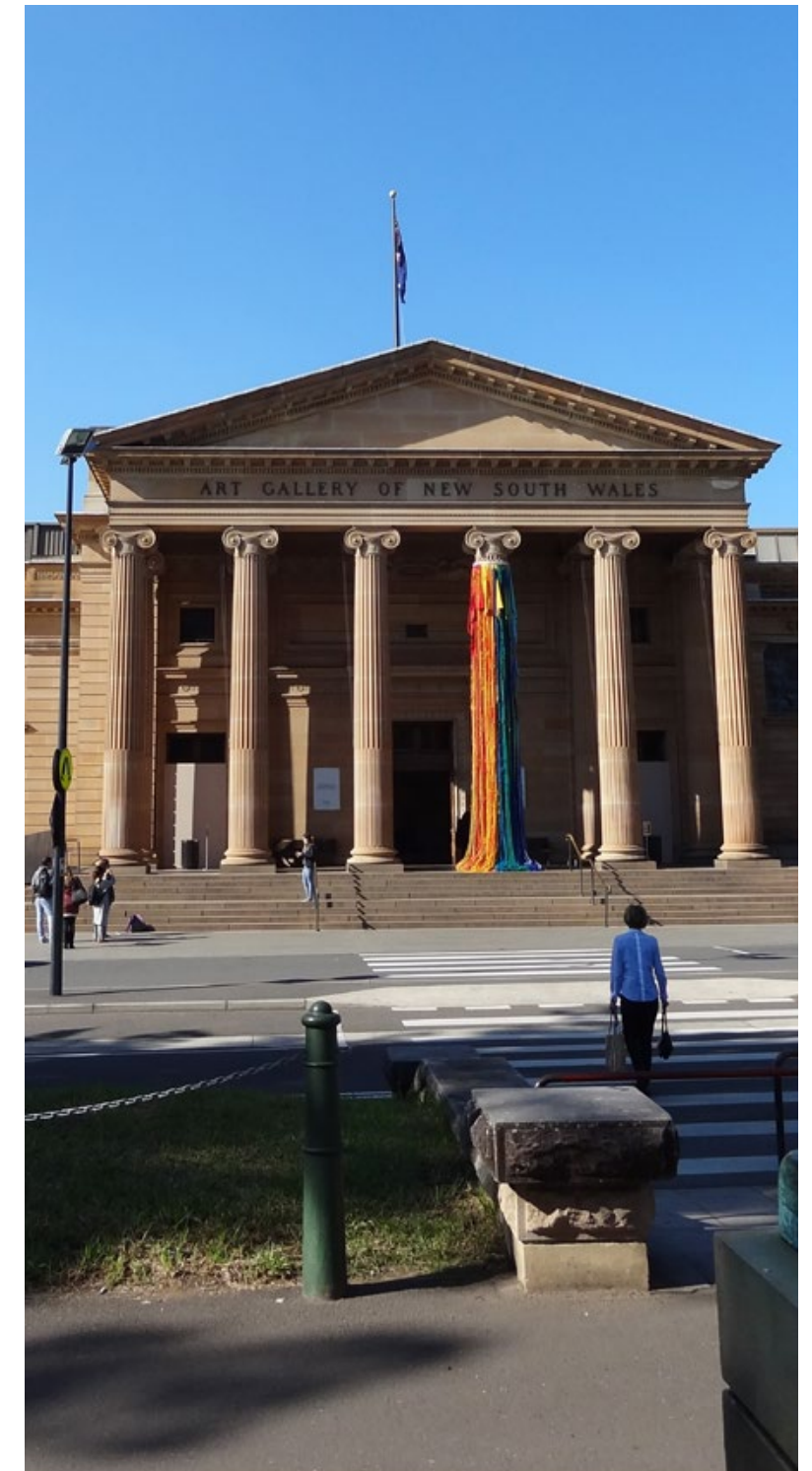
- With a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable.

The principles established by the Court from both cases have been integrated into the methodology approach adopted for this evaluation and detailed in the following section.

Royal Botanic Gardens and Domain Trust Act 1980

The principal objects of the Trust and how the Project responds to these objectives should be considered, with these objectives being:

- (a) to maintain and improve the Trust lands, the National Herbarium and the collections of living and preserved plant life owned by the Trust,
- (b) to increase and disseminate knowledge with respect to the plant life of Australia, and New South Wales in particular
- (c) to encourage the use and enjoyment of the Trust lands by the public by promoting and increasing the educational, historical, cultural and recreational value of those lands



The western facade of the Art Gallery of NSW

1.4 METHODOLOGY

Given the subjective nature of an individual's appreciation of any given scene, Visual Impact Assessment is by its nature not an exact science and consequently methodologies for preparing VIAs vary both in Australia and overseas.

Potentially subjective assessment material and differences of opinion about how to best assess visual characteristics, qualities, degrees of alteration and viewer sensitivity often arise.

As a consequence, and as identified by the NSW Land and Environment Court, the key to a robust process is to explain clearly the criteria upon which an assessment is made:

'The outcome of a qualitative assessment will necessarily be subjective. However, although beauty is inevitably in the eye of the beholder, the framework for how an assessment is undertaken must be clearly articulated. Any qualitative assessment must set out the factors taken into account and the weight attached to them. Whilst minds may differ on outcomes of such an assessment, there should not be issues arising concerning the rigour of the process.'

VIA methodologies are often inconsistent and while various governments have generated specific methodologies, no Australian national framework exists. Within NSW, there are two guidelines prepared by the NSW State Government that are recognised as best practice:

- Guidelines for Landscape Character and Visual Impact Assessment, WIA-N04, as published by the Roads and Maritime Service (RMS)
- Appendix D of the Sydney Harbour Foreshore Waterways Area Development Control Plan (SHFWA DCP), as published by the Department of Planning and developed for marina assessment.

Internationally, the following methodologies and guidelines are broadly considered best practice:

- Guidelines for Landscape and Visual Impact Assessment, 3rd edition, as published by the Landscape Institute UK and IEMA
- Visual Assessment of Windfarms: Best Practice as published by Scottish Natural Heritage.

In the case of the former guidelines these have been widely adopted through Europe in seeking to meet the EU Directive 2011/92/EU concerning preparation of Environmental Impact Assessment (EIA).

1.4.1 Assessment methodology

CLOUSTON Associates has developed a best practice methodology based on these internationally accredited approaches and 20 years of experience in the field of visual assessment. There are several critical dimensions demonstrated through this assessment and evaluation:

- ensuring all receptors (viewers) have been adequately identified, even at distance, with emphasis on public domain views
- comprehensive evaluation of context to determine visual catchment of site from these areas
- being clear on and separately defining quantitative impacts (distance, magnitude, duration etc) as against qualitative impacts (viewer type and context of view)
- providing a clear rationale for how impacts are compared and contrasted
- ensuring photomontages include views from highest potential impact locations, identified from analysis above
- being clear on the differing forms of mitigation options, namely avoidance, amelioration (eg design), mitigation (eg screening) and compensation (on or offsite).

The methodology employed for this assessment is described in Figure 04.

1.4.2 Rating System

The overall visual impact rating of the Project on any given viewpoint/visual receptor is based on themes of magnitude and sensitivity, recorded using a six band scoring system from negligible to high - refer Table 02.

Sensitivity

Each visual receptor type has an inherent and varied sensitivity to change in the visual scene based on the personal context in which their view is being experienced (ie. at home, on the street, in a park etc.) This sensitivity has a direct bearing on the perception of visual impact experienced by the receptor and qualifies the quantitative impacts. Table 01 describes the levels of sensitivity for each receptor type and the numerical score allocated to each impact band.

Magnitude

A measure of the magnitude of the visual effects of the development within the landscape. A series of quantitative assessments are studied, including distance from development, quantum of view, period of view and scale of change. Table 01 describes the ratings assigned to these quantitative assessments and the numerical score allocated to each impact band.

Overall Rating

The scores for each assessment factor are totalled and an average taken, determining the overall visual impact rating on a six band scale - refer Table 02.

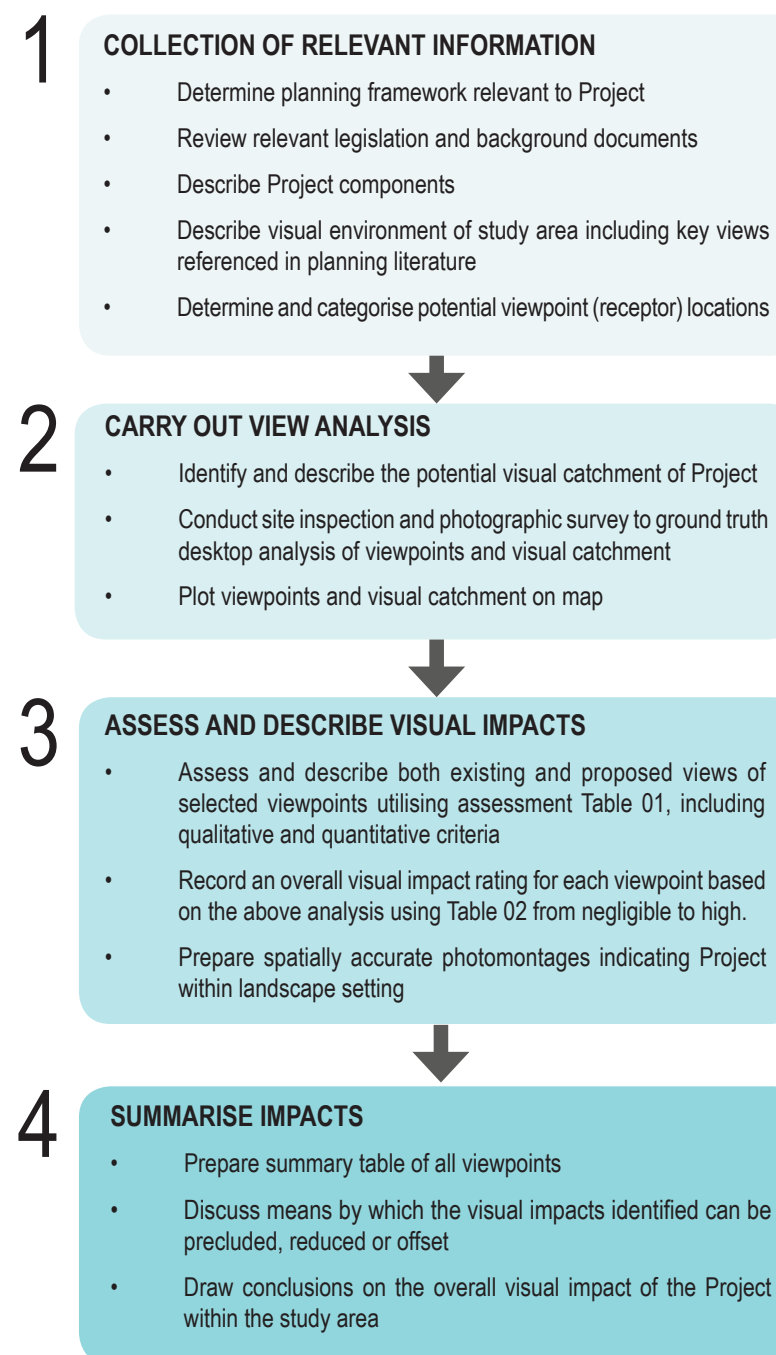


Figure 03 - Summary of CLOUSTON methodology

	FACTOR		NEGLIGIBLE 0 POINT	LOW IMPACT 1 POINT	MODERATE IMPACT 2 POINTS	HIGH IMPACT 3 POINTS
QUALITATIVE	Viewer Sensitivity	Each visual receptor type has an inherent and varied sensitivity to change in the visual scene based on the personal context in which their view is being experienced. This sensitivity has a direct bearing on the perception of visual impact experienced by the receptor and qualifies the quantitative impacts. Number of viewers also has a bearing on sensitivity. Viewpoints have a varied number of potential receivers depending on whether the viewpoint is public or private, the popularity of the viewing location and its ease of accessibility. Views from public reserves and open space are often given the highest weighting due to the increased number of viewers affected.	Vacant lot, uninhabited building, car park.	Minor roads, service providers.	Residential properties with limited views, commercial properties, scenic public roads (eg official tourist routes).	Public open space, public reserves, living areas or gardens/balconies of residential properties with direct views of Project.
	Quantum of View	The quantum of view relates to the openness of the view and the receptor's angle of view to the scene. A development located in the direct line of sight has a higher impact than if it were located obliquely at the edge of the view. Whether the view of the Project is filtered by vegetation or built form also affects the impact, as does the nature of the view (panoramic, restricted etc.). A small element within a panoramic view has less impact than the same element within a restricted or narrow view.	Only an insignificant part of the Project is discernible.	An oblique, highly filtered or largely obscured view of the Project or a view where the Project occupies a very small section of the view frame.	A direct view of the Project or its presence in a broader view where the Project occupies a moderate proportion of the view frame.	A direct view of the Project or its presence (sometimes in a very narrow or highly framed view), where the Project occupies the greater proportion of the view frame.
QUANTITATIVE	Distance of View	The effect the Project has on the view relating to the distance between the Project and the visual receptor. The distances are from the approximate boundary of the Project site.	Over 3000m	Viewing distance of between 1000-3000m.	Viewing distance between 100m and 1000m.	Viewing distance between 0 and 100m.
	Period of View	The length of time the visual receptor is exposed to the view. The duration of view affects the impact of the Project on the viewer - the longer the exposure the more detailed the impression of the proposed change in terms of visual impact.	Less than 1 second	1 to 10 seconds: often from a road or walking past.	1 to 5 minutes: usually from a road/driveway entrance, walking past.	Significant part of the day: usually residential property.
	Scale of Change	Scale of change is a quantitative assessment of the change in compositional elements of the view. If the proposed development is largely similar in nature and scale to that of existing elements in the vicinity, the scale of change is low. If the development radically changes the nature or composition of the elements in the view, the scale of change is high. Distance from the development would accentuate or moderate the scale and variety of visible elements in the overall view and hence influence this rating.	Project barely discernible	Elements and composition of the view would remain largely unaltered.	Elements within the view would be at odds with existing features in the landscape	Elements within the view would greatly dominate existing features in the landscape

Table 01 - Assessment criteria

0 - 1	Negligible	Only an insignificant part of the Project is discernible.
1 - 1.3	Low	The Project constitutes only a minor component, which might be missed by the casual observer or receptor. Awareness of the proposal would not have a marked effect on visual amenity.
1.4 - 1.7	Moderate/low	Whilst discernible, the Project does not dominate the visual scene and has only slight impacts on visual character.
1.8 - 2.3	Moderate	The Project may form a visible and recognisable new element within the overall scene that affects and changes its overall character.
2.4 - 2.6	Moderate/High	The Project is a discernible feature of the scene leading to moderately high impacts on visual character.
2.7 - 3.0	High	The Project becomes the dominant feature of the scene to which other elements become subordinate, and significantly affects and changes the visual character.

Table 02 - Visual impact scoring bands

1.4.3 Common Terms

The following provides a brief explanation of the terms used within this report:

View: the sight or prospect of some landscape or scene.

View Corridor: a line of sight of an observer looking toward an object.

View Frame: the extent of the observable world that can be seen by an observer from a fixed location, moving their head from side to side.

Visual Accessibility: the extent to which an area or object is visible to an observer.

Visual Amenity: the measure of the visual quality of a site or area experienced by residents, workers or visitors. It is the collective affect of the visual components which make a site or an area pleasant to be in.

Viewshed/Visual Catchment: the area which the Project is visible to the human eye from a fixed vantage point.

Receptor/Receiver: the public or community at large who would have views of the Project site either by virtue of where they live and/or work or from transport routes, paths, lookouts and the like.

1.5 SEARS REQUIREMENTS

- Table 03 describes the SEARS Requirements and the respective section of this report within which the requirement is addressed.
- SEARS identifies a number of key view locations as listed in Table 03.
- In Section 4.0, if a view location is required by SEARS, this will be identified within the analysis of the existing view.
- It should be noted that two SEARs required view locations (Macquarie Street and Cahill Expressway) are not contained within Section 4.0 view locations as the Project is not visible from these locations.

1.6 REFERENCE DOCUMENTS

- Guidelines for Landscape Character and Visual Impact Assessment, WIA-N04, Roads and Maritime Services
- Guidelines for Landscape and Visual Impact Assessment, 3rd edition, Landscape Institute UK
- Sydney Harbour Foreshores and Waterways Area Development Control Plan by NSW Government Department of Planning 2005
- Environmental Planning and Assessment Act, 1979 (NSW)
- Land and Environment Court - Tenacity Consulting v Warringah Council, 2004
- Land and Environment Court - Rose Bay Marina Pty Limited v Woollahra Municipal Council, 2013
- Sydney Development Control Plan (DCP), 2012
- The Domain Plan Of Management (POM), 1999
- Sydney Local Environment Plan (LEP), 2012

SEARS REQUIREMENTS	WHERE ADDRESSED IN REPORT
Visual assessment methodology	
The consultant's methodology should be explicit.	Section 1.4 - Methodology
Provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework	Section 1.3 - Legislative and Planning context Section 1.4 - Methodology Section 2.0 - The Project Section 3.0 - Existing visual environment
Visual catchment should be defined and explained	Section 3.0 - Existing visual environment
An assessment matrix should be produced including number of viewers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low.	Section 1.4 - Methodology Section 4.0 - Visual Impact Assessment
Visual catchment	
Potential visual catchments and view locations, including contours should be identified. This must include, but is not limited to, numerous key locations with the RBGD, Macquarie Street, Cahill Expressway, Art Gallery Road, Mrs Macquarie Road, Lincoln Crescent, Cowper Wharf Roadway, Woolloomooloo Bay and Vistoria Street	Section 3.0 - Existing visual environment
Categories of views (e.g. from the water, from public open space, from key streets, from main buildings and from key heritage items) should be defined.	Section 3.0 - Existing visual environment Section 4.0 - Visual Impact Assessment
Photos are required for representative view categories, plotted on a map.	Section 4.0 - Visual Impact Assessment Appendix A
Visual material	
Provide key plan indicating where viewpoints are located and narrative explaining why these have been selected.	Section 4.0 - Visual Impact Assessment
The built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact.	Section 4.0 - Visual Impact Assessment Section 5.0 - Photomontages
The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment.	N/A
A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views.	Section 5.0 - Photomontages
Assessment must benchmark against the existing situation with the proposed plans.	Section 5.0 - Photomontages
A comparison of 'before', 'approved' and 'proposed' is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46° angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating.	Section 5.0 - Photomontages
Reference to be made to site analysis.	Section 3.0 - Existing visual environment
Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment.	Section 5.0 - Photomontages
As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context.	N/A
Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment.	Section 4.0 - Visual Impact Assessment

Table 03 - SEARS requirements and where addressed within this report



2.0

the project

2.0 THE PROJECT

2.1 PROJECT DESCRIPTION

The Art Gallery of NSW proposes to undertake a major expansion of the existing art gallery in the Crescent Precinct in the Domain, adjacent to the Phillip Precinct. The expansion is located north of the existing gallery, and extends over a disused Navy fuel bunker and partly over the Eastern Distributor land bridge. (refer Figure 05).

2.1.1 Response to Design Competition Brief

In 2014, the AGNSW held an invited, staged international design competition to select an architect and concept design for the Sydney Modern Project. Two competition design briefs were issued to short listed architects, with responses assessed by a jury panel. The competition concluded in April 2015 and the winner was announced in May 2015. SANAA was unanimously selected by the Jury as the architect for the Project.

The designs were judged against key criteria from the Stage 1 and 2 competition Briefs. The winning design was described by the jury panel as a scheme that:

'responds to the beauty of the competition site through a series of pavilions that reach out to The Domain and the Royal Botanic Gardens as they cascade down to Sydney Harbour and Woolloomooloo. The low profile of the pavilions complements and preserves both the integrity and importance of the existing Gallery building and creates spaces to bring people together and foster a sense of community, imagination and openness.'

The following findings were noted by the competition jury, relevant to visual impact:

- Pavilions offer different orientations within the site and views and permeability through the site

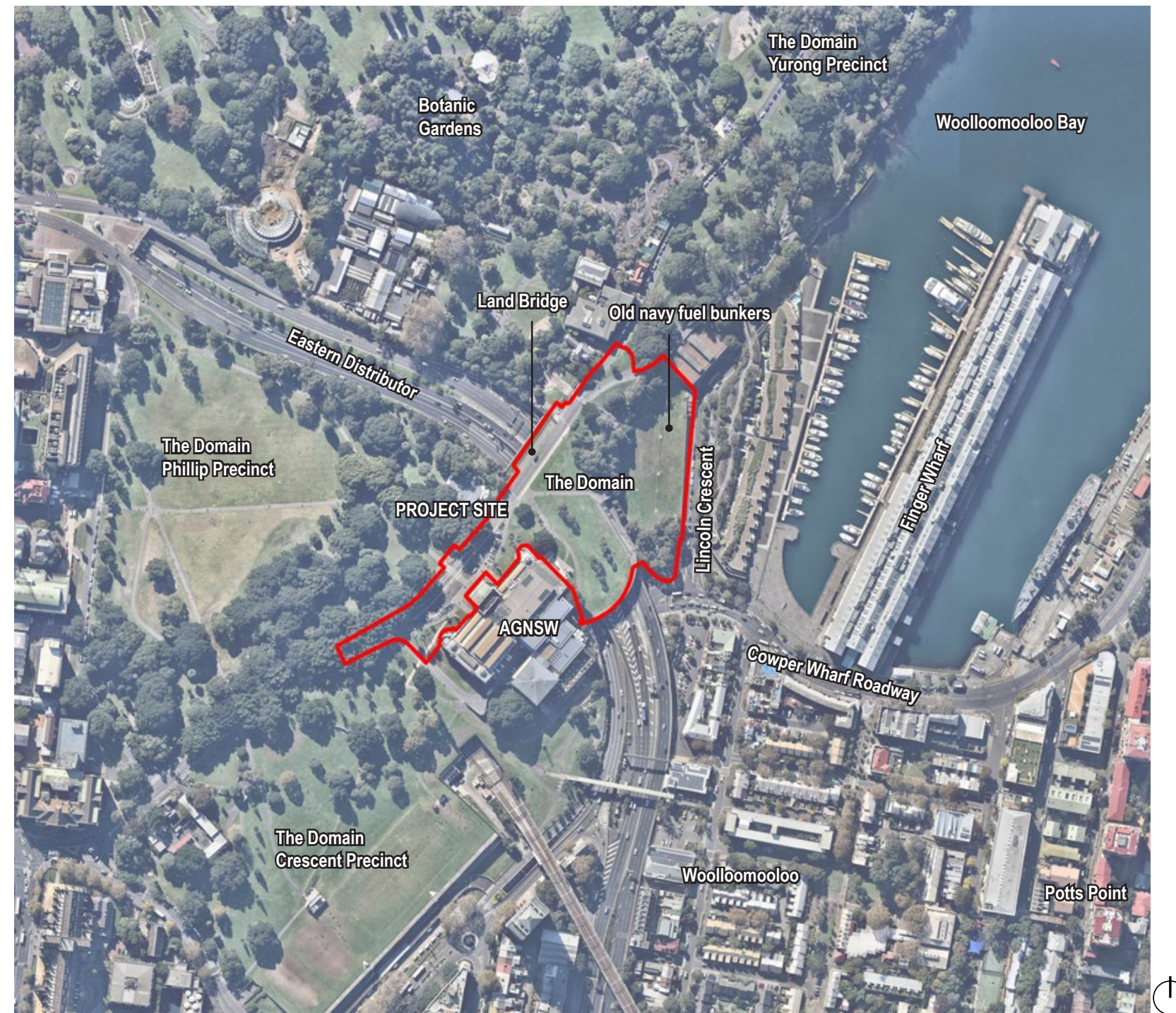


Figure 05 - Project context

2.1.2 Project Elements

The Art Gallery of NSW proposes to undertake a major expansion of the existing art gallery adjacent to the Phillip Precinct of the Domain. The expansion, proposed as a separate, stand-alone building, is located north of the existing gallery, partly extending over the Eastern Distributor land bridge and includes a disused Navy fuel bunker located to the north east of this land bridge.

The new building comprises a new entry plaza, new exhibition spaces, shop, food and beverage facilities, visitor amenities, art research and education spaces, new roof terraces and landscaping and associated site works and infrastructure, including loading and service areas, services infrastructure and an ancillary seawater heat exchange system.

Development consent is sought for:

- Site preparation works, including:
- Site clearing, including demolition of former substation, part of road surfaces, kerbs and traffic islands, pedestrian crossings, foot paths, retaining walls, stairs, and part of disused underground former Navy fuel bunkers;
- Tree removal;
- Excavation and site earthworks;
- Remediation works;
- Construction of the new building comprising:
- Covered public entry plaza;
- Five building levels, including entry pavilion following the site topography down to Lincoln Crescent;
- Retention of part of existing former underground Navy fuel bunker for use as gallery space and support spaces;
- Art exhibition spaces;
- Outdoor publicly accessible terraces;
- Shop and cafe;
- Multipurpose space;
- Education spaces;

Ground level loading dock (accessed via Lincoln Crescent) with associated art handling facilities, workshops, service parking, plant, and storage areas.

- Landscaping and public domain improvements including:
- Continuation of the east-west pedestrian link over the land bridge between the Domain and Woolloomooloo Bay, including dedicated lift structure for universal access;
- Improved public access of the north south pedestrian link
- Enhancement of the public open space on the land bridge to create a landscape and art connection between the two buildings

- Hard and soft landscaping to roofs and terraces;
- Plantings and new pathways;
- Increased landscaped area to forecourt of existing Art Gallery building and removal of car parking
- Relocation of selected trees to the south-eastern corner of the site;
- Sound barrier to edge of land bridge;
- Upgrade works to part of Art Gallery Road, Cowper Wharf Road, Mrs Macquaries Road, and Lincoln Crescent, including new pedestrian crossings;
- Provision of vehicle drop off points including a taxi stand, private vehicle drop off and bus/coach drop off, at Art Gallery Road;
- Installation of an ancillary seawater heat exchange system to act as the new building's cooling system, adjacent to and within Woolloomooloo Bay;
- Diversion, extension and augmentation of physical infrastructure and utilities as required.

2.1.3 Tree Retention and Removal

The Project will require the removal of a quantum of vegetation within the proposed project footprint to the north of the AGNSW (refer Figure 07). The proposal also identifies trees to be retained, including several visually prominent palm and fig trees near the existing AGNSW entrance, as well as other high value trees.

Several trees are proposed to be moved and transplanted. A large area of existing tree planting is proposed to be retained on the corner of Lincoln Crescent and Cowper Wharf Roadway, visually screening some elements of the Project from this location. New planting is proposed to bolster existing trees and replace some of that lost during construction.

The largest quantum of removed mature vegetation is proposed opposite Woolloomooloo Gate, running from Art Gallery Road to the edge of the Navy fuel bunker area. This removal will have associated visual impacts for viewpoints looking east from Art Gallery Road in particular.



Artist impression of Project gardens (Sydney Modern Project as produced by Kazuyo Sejima + Ryue Nishizawa / SANAA © Art Gallery of New South Wales, 2017)



Artist impression of the Project (Sydney Modern Project as produced by Kazuyo Sejima + Ryue Nishizawa / SANAA © Art Gallery of New South Wales, 2017)



Artist impression of the Project (Sydney Modern Project as produced by Kazuyo Sejima + Ryue Nishizawa / SANAA © Art Gallery of New South Wales, 2017)

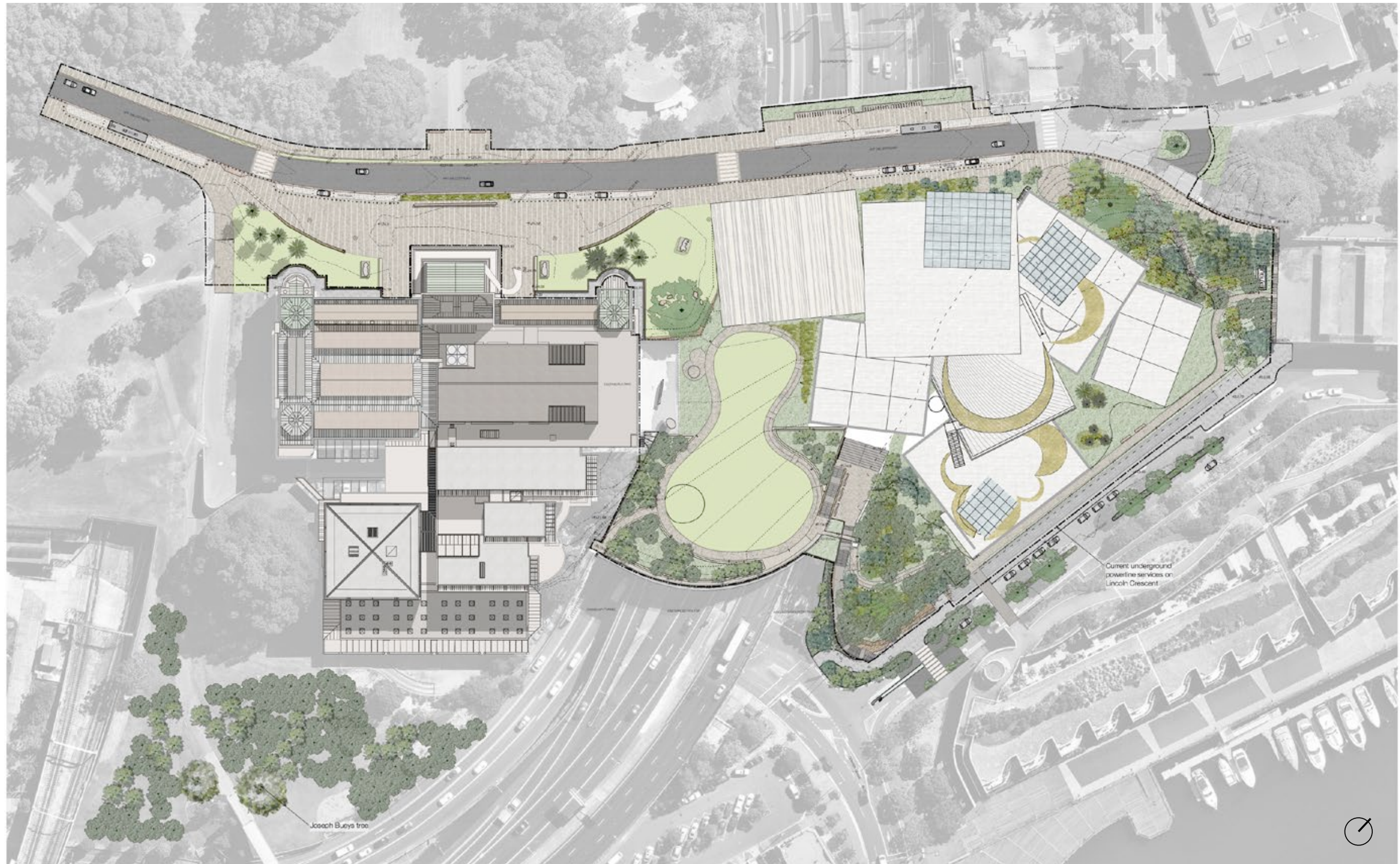


Figure 06 - SMB Landscape Plan (McGregor Coxall Landscape Architects 2017)



Figure 07 - Trees to be removed and retained (McGregor Coxall Landscape Architects 2017)



3.0

existing visual environment

3.0 EXISTING VISUAL ENVIRONMENT

3.0 EXISTING VISUAL ENVIRONMENT

As required by the Land and Environment Court Planning Principles, this assessment starts by identifying the nature and scope of the existing views from the public and private domain. The visual environment of the study area includes large areas of public open space, marinas, roads, mixed commercial premises and medium to high density residential development.

The study area for the visual assessment comprises land and water surrounding the Project site that may be visually impacted by some aspect of the project. The study area has been identified through a thorough desktop and site analysis to ascertain the visual catchment of the Project site. This is based upon an analysis of the following factors:

- Topography - a major influence on the extent of visual catchment (refer Figure 8A). Elevated ground to the east allows extensive visual accessibility to the Project site from the suburbs of Potts Point and Darlinghurst. The lower elevation of ground within Woolloomooloo and to the northwest within the RBG limits visibility from these areas. The enclosed nature of Woolloomooloo Bay presents a view corridor to the Project site from the water, including sections of Sydney Harbour
- Built form - blocks views from ground level and above but can also offer elevated views from high-rise towers. The built form of Woolloomooloo (including Finger Wharf) limits views from within this suburb. Tall towers within the Sydney CBD to the west and Potts Point to the east allow visual accessibility to the Project site
- Vegetation - filters or blocks views depending on height and density. Mature tree planting within The Domain significantly limits the visual catchment to the west and north.

3.1 PUBLIC REALM

The public realm within the study area is dominated by the large open spaces of the Royal Botanic Garden (RBG) and The Domain.

3.1.1 The Domain

The Domain is a 28 hectare urban park situated on the eastern edge of the Sydney CBD. Sitting astride two short peninsulas extending into Sydney Harbour, The Domain has a spectacular geographical setting offering extensive harbour and city views as well as recreation opportunities. The park is heavily used for leisure, sport, recreation and special events by Sydneysiders and tourists alike.

Crescent Precinct

The part of The Domain to the east of Art Gallery Road and to the south and west of the Eastern Distributor is named the Crescent Precinct and falls in the east via a sharp slope towards the much lower-lying land of Woolloomooloo.

This part of The Domain is visually dominated by the AGNSW, with a neo-classical

façade facing Art Gallery Road and a modern extension built onto the eastern slope.

Phillip Precinct

The part of The Domain to the west of Art Gallery Road and to the south of the Eastern Distributor is known as the 'Philip Precinct' and comprises a large open grass area bounded by groups of mature trees to the east and south. These trees generally constrain long distant views to the east and south. This area is crossed by several walkways, and has a restaurant called 'The Pavilion' in the north-east corner.

The public institutions of Macquarie Street, such as Sydney Hospital, Parliament House and the State Library, back onto the park although are mostly visually separated from the Project site by mature tree planting to the east. This area is popular for city workers to relax, exercise and play sports.

Woolloomooloo Precinct

North of the AGNSW, Art Gallery Road passes over the Eastern Distributor, with a narrow section of parkland built over the road known as the 'land bridge'. Extensive views both east to Potts Point and west to the CBD are available from this bridge.

Views extend east over Woolloomooloo Bay to the elevated suburb of Potts Point and Darlinghurst. There are dramatic views west to the city skyline, fronted by dense tree planting within the Phillip Precinct.

Yurong Precinct

Yurong Precinct extends north from the land bridge to Mrs Macquaries Point. In this section, The Domain is a narrow section of greenery bounded by the Royal Botanic Gardens to the west of the roadway and the waters of Woolloomooloo Bay to the east. Views south towards the AGNSW are generally screened by dense tree planting.

3.1.2 The Royal Botanic Garden

Views towards the Project site are generally unavailable from the RBG due to topographical constraints and dense vegetation. Shakespeare Place at the south western corner of the RBG and Woolloomooloo Gate, just north of the land bridge, have visual accessibility to the Project site.

3.1.3 Woolloomooloo Bay

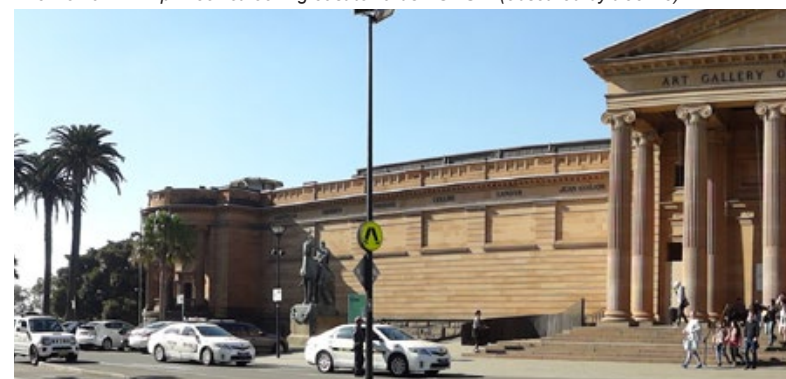
Public open space with views to the Project site from this area include parts of the bay itself, the public roof terrace above the 'Wharf Terraces' Apartments off Lincoln Crescent and the eastern side of Finger Wharf. The wharf consists of a large timber deck extending its length and a strip of restaurants that line the southern end. The walkway and alfresco restaurant seating offer views over the Project site to The Domain and CBD towers beyond.



View from the Woolloomooloo Precinct land bridge east towards Darlinghurst and Kings Cross



The Domain Phillip Precinct looking east towards AGNSW (obscured by treeline)



AGNSW western facade viewed from Art Gallery Road

3.1.4 Embarkation Park

Further public open space with visual accessibility of the Project site is limited to Embarkation Park, situated above a large multi-storey car park off Cowper Wharf Roadway, approximately 400m east of the Project. This park has filtered views west across Woolloomooloo Bay.

3.1.5 Transport Corridors

Roads with views to the Project site include Art Gallery Road and Mrs Macquaries Road within The Domain, Cowper Wharf Roadway and Lincoln Crescent to the east and the Eastern Distributor, which travels directly underneath the Project site.

The Eastern Suburbs rail line is located to the south of the Project site, elevated above Woolloomooloo on a viaduct structure. Glimpses of the Project site are available to the north from the moving train.

3.2 PRIVATE REALM

3.2.1 Commercial

Commercial premises with views to the Project site can be found to the west of The Domain and RBG along Phillip and Macquarie Street. Panoramic views east are available from the upper floors of office towers including the NSW Law Courts, Chiefly Tower, Aurora Place, Governor Phillip Tower and the AMP Centre, amongst others.

To the east of the SMB, commercial premises with visual accessibility to the Project site include shops and bars/restaurants along Cowper Wharf Roadway, as well as a hotel and restaurants associated with the Finger Wharf complex.

3.2.2 Residential

Residential dwellings with visual accessibility to the Project site can be found to the west, east and south of the study area. The dwellings in closest proximity are to the immediate east and south of the Project site, including the western edge of Finger Wharf, the entrance foyer to The 'Wharf Terraces' Apartments and the upper storey of an apartment building off Lincoln Crescent.

More distant views are available looking towards The Domain from elevated residential towers within Potts Point, Kings Cross and Darlinghurst. The suburb of Woolloomooloo sits at a lower elevation to the Project site with the majority of views west obscured by built form and vegetation.



Residential tower within Potts Point



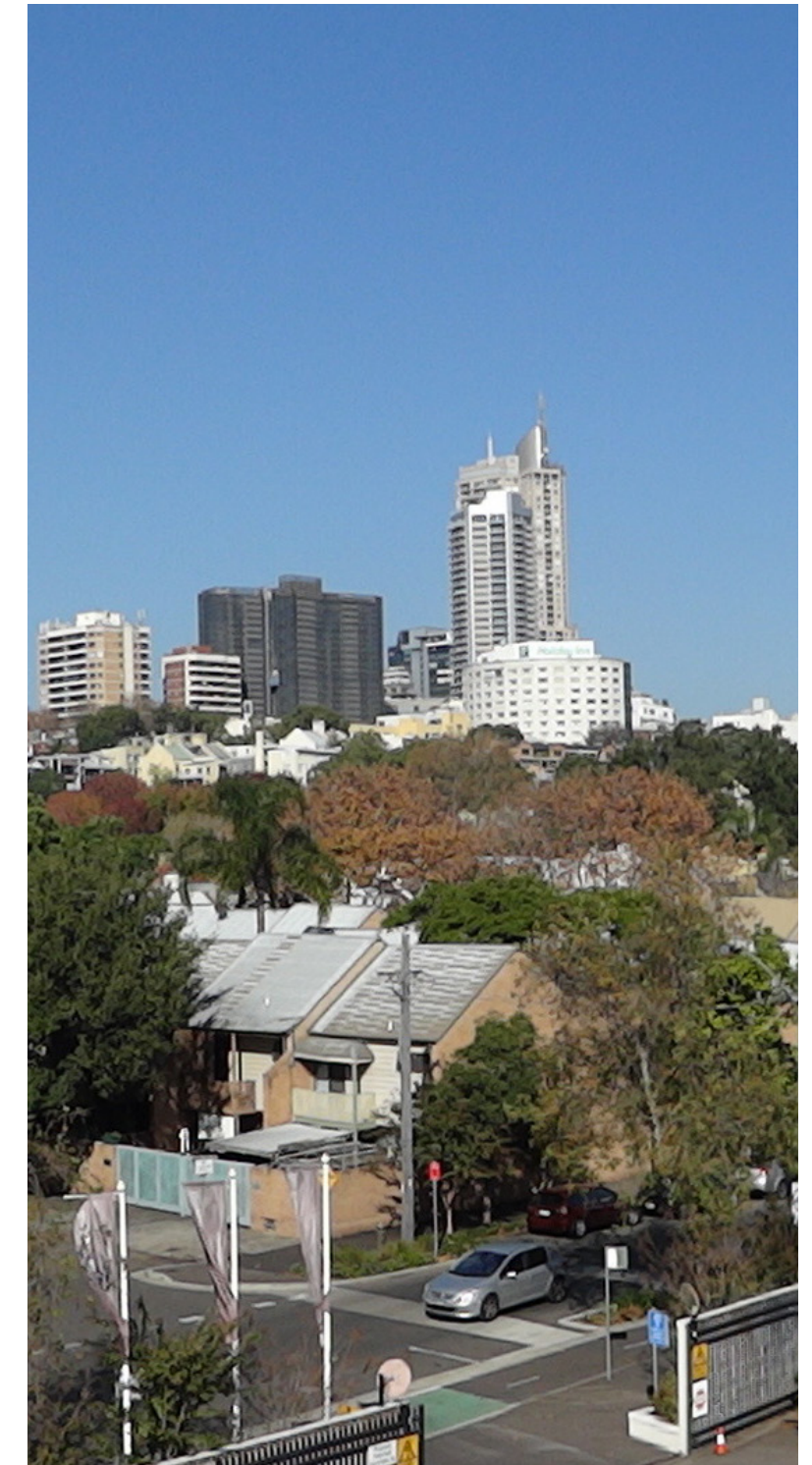
Finger Wharf Apartments



Office towers along Phillip Street



Residential towers within Potts Point



Low-rise residential character within Woolloomooloo (foreground)

3.3 VIEW CATEGORIES

The visual environment of the study area has been subdivided into view types with similar visual characteristics to assist in understanding the types of views available to the Project site:

3.3.1 View Type A

This view type is characterised by:

- elevated, distant and open views of the Project site
- panoramic field of view with extensive view frames
- a varied visual composition including built form, green space and water
- views of iconic landmarks such as the Harbour Bridge, Opera House and city skyline
- a high ability to absorb change in the visual scene without degrading the quality of view - Project likely to occupy a small quantity of the view frame.

Typical locations include: *Elevated commercial towers along Phillip and Macquarie Street, elevated residential towers within Potts Point and Kings Cross.*

3.3.2 View Type B

This view type is characterised by:

- slightly elevated to level views of the Project site
- panoramic to narrow field of view
- open to partially filtered/screened views
- a varied visual composition including built form, green space and water
- a moderate to low ability to absorb change in the visual scene without degrading the quality of view - Project likely to occupy a moderate quantity of the view frame.

Typical locations include: *Top level of Finger Wharf apartments, Embarkation Point.*

3.3.3 View Type C

This view type is characterised by:

- level to low-angle views of the Project site
- close proximity to Project site
- open to constrained field of view
- less varied visual composition
- a moderate to low ability to absorb change in the visual scene without degrading the quality of view - Project likely to occupy a larger quantity of the view frame.

Typical locations include: *The Domain, Pavilion Cafe, ground level of Finger Wharf apartments and Finger Wharf public space, 'Wharf Terraces' Apartments entrance, Lincoln Crescent, Cowper Wharf Roadway, Eastern Distributor, Woolloomooloo Bay.*



View Type A - Typical visual character (Level 28, Deutsche Bank Tower, Phillip Street)



View Type B - Typical visual character (Apartment 417/6 Cowper Wharf Roadway, Finger Wharf, Woolloomooloo)



View Type C - Typical visual character (Cowper Wharf Roadway)

3.4 KEY VIEWS

The "Domain" is well-known to residents and visitors as a place of great sylvan beauty. Its grassy slopes, shady glades, rocky eminences, and a perfect labyrinth of picturesque walks, have attractions which would be almost impossible to surpass.
Leigh's Handbook 1867

A key part of the Land and Environment Court's Planning Principles requires a record as to whether or not there is any document that identifies the importance of the view to be assessed. As stated within *Rose Bay Marina Pty Limited v Woollahra Municipal Council (2013)*, 'the absence of such a provision does not exclude a broad public interest consideration of impacts on public domain views'.

A thorough desktop study of the planning literature identified the recurring references to several significant vistas relevant to the study area. These include both views in and out of the Project site and surrounding area. The references to these key views are described further below:

3.4.1 Domain Plan of Management (POM), 1999

A general discussion within this planning document raises the importance of views west from Woolloomooloo, Kings Cross, Potts Point and Finger Wharf to The Domain. Views east from the eastern edge of The Domain back to these suburbs are also given significance.

More specifically, the POM lists the following relevant significant vistas that should be retained:

- vista from Woolloomooloo entry court to ridge on Potts Point featuring early 20th century apartments on Macleay Street.
- vista from Woolloomooloo northern access path to Italianate tower of former director's residence - an old connection between the outer domain and this building.

It should be noted that since the publication of the POM, vegetation has grown to partly obscure views to Potts Point from Woolloomooloo Gate, although a narrow view corridor still exists (refer Key view 1).

3.4.2 The Cultural Landscape Strategy 2001

The 2001 Cultural Landscape Study identifies a view from the relocated Woolloomooloo Gate entry court through to the focal buildings on the Potts Point ridge as being of heritage significance. At the time of preparing the 2001 CMP, the view from the Woolloomooloo Gate would have been clearer; today the view line is significantly impeded by vegetation along Art Gallery Road.

Although the design process has acknowledged that this view is of importance, one of the proposed new buildings would block this identified

view almost entirely. However, the view identified is linked to the location of the Woolloomooloo Gate, which was relocated to its present position in the late twentieth century during the construction of the Cahill Expressway. No further assessment or explanation is provided in the 2001 CMP regarding the importance of this recent view line to the Potts Point ridge or its relationship to the Woolloomooloo Gate entry court.

The proposal would result in a major adverse heritage impact on this identified view; however, there is no clear basis for the identified heritage significance of this view line. Clearer views to the Potts Point ridgeline are available from other positions within the Domain, and the existing vegetation prohibits a clear vista from the Woolloomooloo Gate entry court through to the focal buildings on the Potts Point ridge, as described.

3.4.3 Heritage Register

The Domain and AGNSW are both included within the State Heritage Inventory. The management guidelines for each item discuss the following guidelines relevant to visual amenity:

- AGNSW - 'Views and vistas from the building should be retained'
- The Domain - 'Minimise any impact of views down from the higher areas of The Domain and Art Gallery. Maintain views that connect the area to precincts outside the boundaries, from the upper Domain levels down to Woolloomooloo and Woolloomooloo Bay'.

3.4.4 City of Sydney DCP 2012

This document mentions views within the locality plan of the Woolloomooloo suburb as follows:

- maintain district views over Woolloomooloo from high ground of The Domain and Art Gallery to Kings Cross.

As previously mentioned, DCPs do not apply to State Significant Developments.

3.4.5 Selected Key Views

For the purposes of this report, the following significant views have been identified based on a study of the planning literature - refer Figure 8A and 8B. These views have consequently also informed the selection of assessment viewpoints for the VIA.

- Viewpoint 11 - View corridor from Woolloomooloo Gate to ridge of Potts Point
- Viewpoint 17 - Views of the western facade of AGNSW building from Art Gallery Road
- Viewpoint 13 - View from land bridge east over Woolloomooloo Bay and Finger Wharf to Potts Point
- Viewpoint 9 - View from Finger Wharf west over green canopy of The Domain to city skyline.



Key view - viewpoint 11 - Woolloomooloo Gate to ridge of Potts Point



Key view - viewpoint 17 - Northern facade of AGNSW building from Art Gallery Road



Key view - viewpoint 13 - Woolloomooloo Bay, Finger Wharf and Potts Point from land bridge



Key view - viewpoint 9 - CBD and The Domain from Finger Wharf

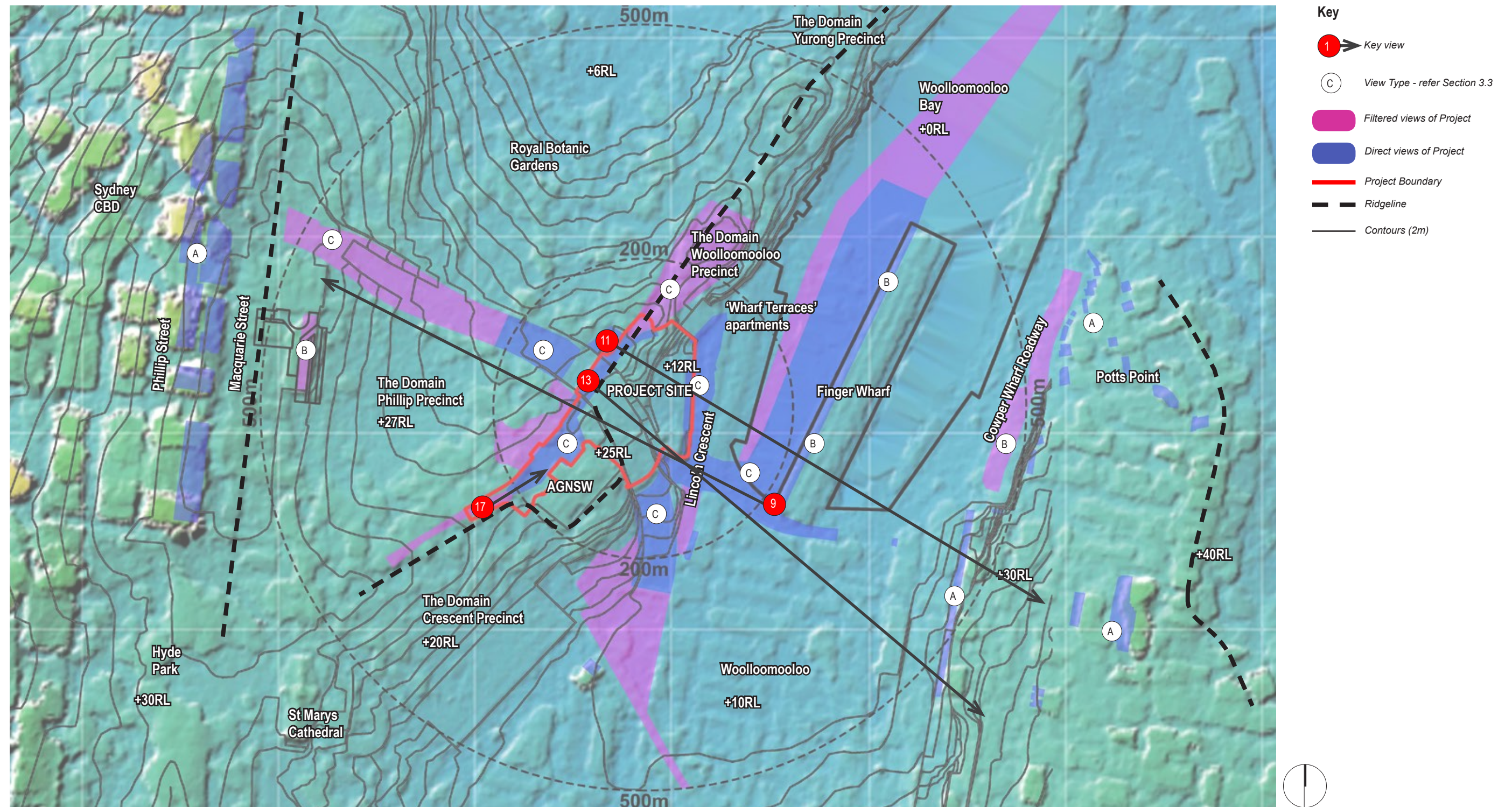


Figure 8A - Visual Catchment Map (Topography) - source NearMap

Key

-  Key View
-  View Type - refer Section 3.3
-  Filtered Views of Project
-  Direct views of Project
-  Project Boundary
-  Ridgeline

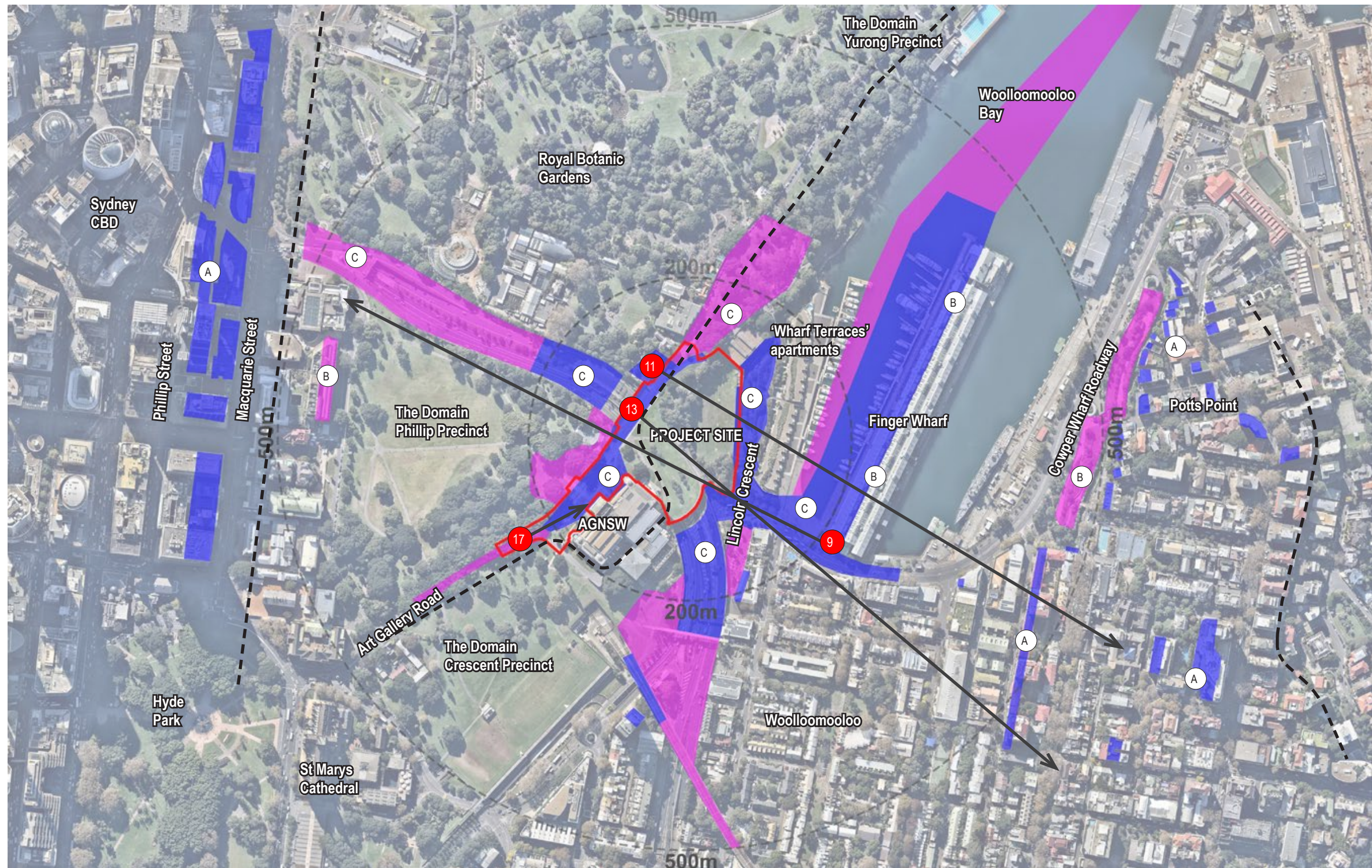


Figure 8B - Key View Corridors and Visual Catchment of the Project

3.5 FUTURE VIEWS FROM PROJECT

Whilst assessing potential visual impacts of the Project, it is important to note that new viewing opportunities will be created from internal and external areas of public open space associated with the project.

Whilst internal views will be restricted to the opening hours of the gallery, it should be noted that as the gallery is a public institution, these views remain available to the public.

The key future external view corridors are illustrated in Figure 09, indicating the vistas that will be available. These viewpoints will look east over Woolloomooloo Bay to the suburbs of Potts Point, Darlinghurst and Kings Cross. These views will be similar in nature to those currently available from this section of The Domain, east of the land bridge.

Although these viewing opportunities are similar in nature to some of the existing views that will be obstructed by the Project, a direct comparison between views has not been drawn. The surrounding context of a viewpoint has a subjective effect on an individual's experience of that view. The nature of the space surrounding the viewpoint will alter in character, accommodating a denser urban form and offering a different form of public open space.

The viewpoint text within Section 4 - Visual Impact Assessment - discusses where an existing view may be replaced by a similar future viewing opportunity associated with the Project.

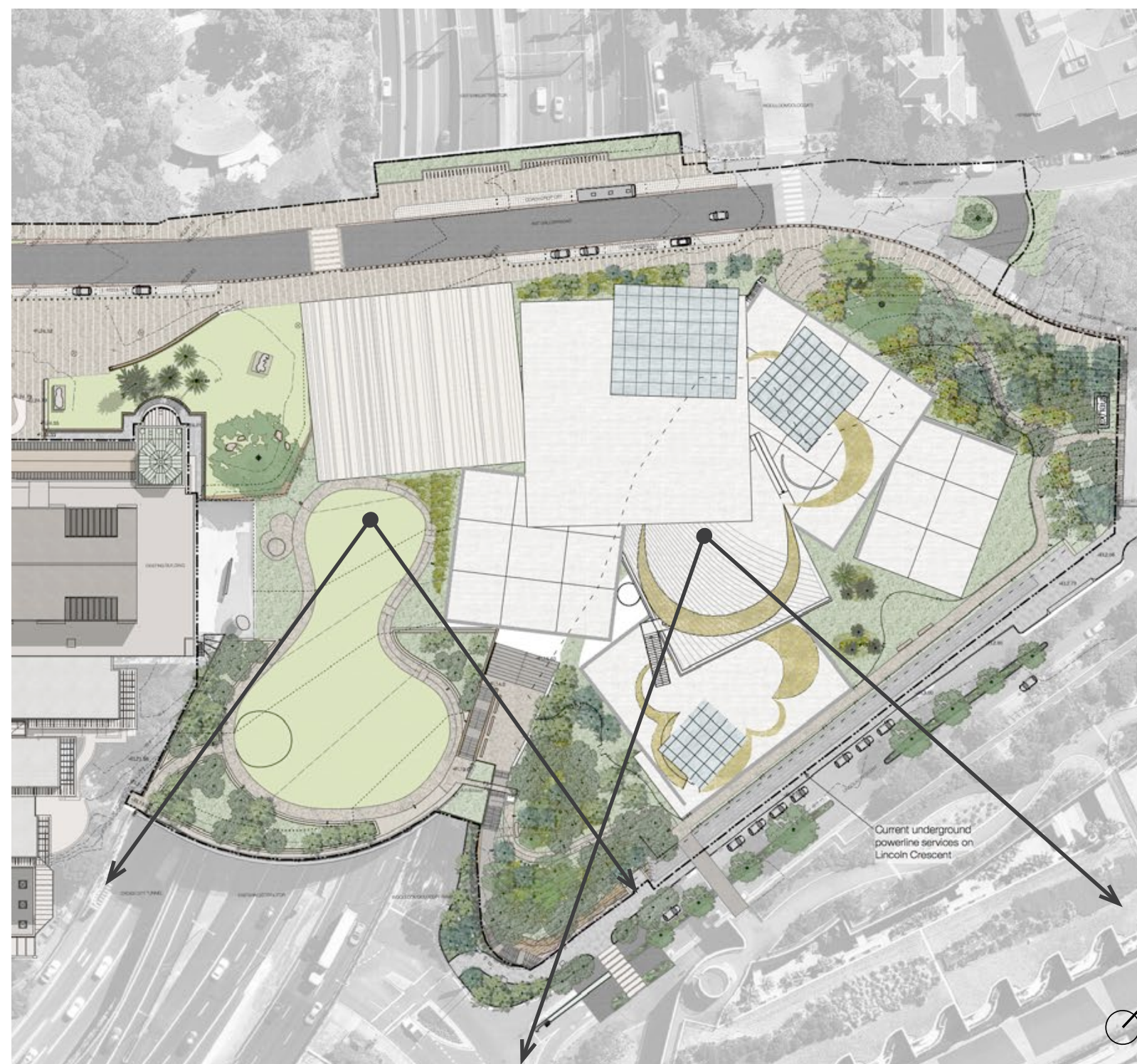


Figure 09 - Proposed future view corridors from Project



4.0

visual impact assessment

4.0 VISUAL IMPACT ASSESSMENT

4.1 PRINCIPAL VIEWPOINTS

Following a thorough desktop study and site visit within the locality of the AGNSW, as well as incorporating viewpoints specified for assessment in SEARs and important views within the relevant statutory planning framework, the subsequent principal viewpoints with the potential to be visually impacted by some element of the Project were identified and selected for further analysis (refer Figure 11A and 11B).

The viewpoints were selected from within the visual catchment identified in Section 3 - Existing Visual Environment. Viewpoints include representative locations from both the public and private domain at varied distances from the Project site. Principal views referenced within the planning literature are highlighted in italics. Viewpoints have been ordered from long range to close range views.

PUBLIC VIEWPOINTS

Long range views

1. Sydney Harbour, near Fort Denison, looking southwest from public ferry
2. Woolloomooloo Bay, looking southwest (SEARs required view)
3. Shakespeare Place, Botanic Gardens, looking east

Mid range views

4. Embarkation Park, Potts Point, looking west
5. Eastern Suburbs Train line, looking north
6. Eastern Distributor pedestrian bridge, looking northwest
7. Eastern Distributor, east of land bridge, looking northwest
8. Corner of Bourke Street and Cowper Wharf Roadway, looking northwest (SEARs required view)
9. *Finger Wharf public open space, looking west (key view)*
10. The Domain, near Mrs Macquaries Road, looking south (SEARs required view)

Short range views

11. *Woolloomooloo Gate, Botanic Gardens, looking southeast (key view)*
12. Art Gallery Road, The Domain, adjacent to Woolloomooloo Gate, looking southeast (SEARs required view)
13. *The Domain land bridge, looking east (key view)*
14. 'The Pavilion' cafe, The Domain, looking east
15. Domain footpath, opposite AGNSW, looking northeast
16. *Art Gallery Road, opposite AGNSW, looking northeast (SEARs required view) (key view)*
17. *Art Gallery Road, The Domain looking northeast towards AGNSW (SEARs required view) (key view)*
18. AGNSW internal window, looking northeast
19. Domain land bridge, looking west
20. Public roof garden above 'Wharf Terraces' apartments, looking west

PRIVATE VIEWPOINTS

21. Level 28, Deutsche Bank Place, 126 Phillip Street, looking east
22. 'Wharf Terraces' apartments entrance, Lincoln Crescent, looking west (SEARs required view)
23. Finger Wharf apartments, hotel and restaurant complex, Woolloomooloo, looking west
24. Hordern Tower apartments, Victoria Street, looking west (SEARs required view)
25. Apartment block, corner of Lincoln Crescent and Nicholson Street, looking northwest

4.2 VISUAL ANALYSIS

The following section assesses the visual impact of the Project from each of the selected viewpoints. This includes a description of the current view from each viewpoint followed by a discussion of the potential visual impacts of the Project on that view - refer example in Figure 10.

Each viewpoint is accompanied by a location map, photo of the current view and either a block model visualisation or photomontage of the Project to indicate the expected view when complete. For a detailed description of the assessment criteria and impact ratings used, see 'Methodology' Section of this report.

For residential receptors, access was not always possible to the property itself and so accordingly a photograph was taken at the closest publicly accessible point. In these instances the description of visual impact is estimated from the property's main dwelling area.

4.2.1 Excluded Viewpoints

Some elements of the Project may be visible from areas beyond the nominated study area such as residential towers on elevated ground to the east within Potts Point, Kings Cross and Darlinghurst and very tall buildings to the west of the Project including Sydney Tower.

These locations sit at a distance of over 800m from the Project, offering wide panoramic views over Sydney and Sydney Harbour. The Project would therefore form a relatively insignificant part of the overall view frame from these locations and any adverse visual impact would therefore expected to be negligible. For this reason a visual impact assessment has not been carried out from these potential viewpoints.

4.2.2 Viewer Height

The Land and Environment Court (Rose Bay Marina Pty Limited v Woollahra Municipal Council 2013) states that 'the impact on appreciation of a public domain view should not be subject to any eye height constraint. A public domain view is one that is for the enjoyment of the whole population, old or young and whether able-bodied or less mobile.'

Although the images and visualisations within this report have been taken at standing eye level, the assessment of visual impacts on each viewpoint is relevant to both sitting and standing positions. The difference between the two is not considered significant enough from any of the viewpoints selected for this report to justify a separate assessment.

4.2.3 Field of View

The choice of lens, camera format and final presentation has a significant bearing on the understanding of site photos. There is a balance to be struck in matching the human experience of the view with its wider context, so that a Project's appearance and its place within its environment can be recognised and understood.

In recognising that no photographic image can exactly replicate the view of the human eye, extensive literature has been published on the nearest equivalent combination of focal length and field of view of a camera that best emulates human vision. Much of this literature is highly contradictory with a further complication to this process is the differing sensor formats of digital cameras which affect the apparent focal length and field of view.

It is important to note that the process of assigning visual impact ratings to viewpoints has been undertaken during a site visit and is calculated from a human vision perspective, on site. Photographic images should be considered representative only.

Assessment Images in this Chapter

The photos within the following viewpoint analysis are taken with a Sony Cyber-shot DSC-HX9V with the following specification:

- Body type: Compact
- Sensor size: 1/2.3" (6.17 x 4.55 mm)
- Sensor type: BSI-CMOS
- ISO: Auto
- Focal length (equiv.) 24mm

These photos have a horizontal field of view slightly wider than human vision (approx. 86° degrees compared to a 46°). This wider-angle lens allows more of the site context to be visible, consistent with a viewer turning their head from side to side. This has the affect of making objects appear slightly more distant than when viewed with the human eye but allows more of the visual scene to be represented.

Due to the location of Viewpoint 7 (Eastern Distributor), it was not possible to gather an assessment image consistent with the above specifications, therefore a Google Street View image has been used in order to create an indicative view of the Project from travelling within a vehicle.

Appendix A contains photos from the same viewpoints taken with a Canon EOS 7D with a 35mm focal length. This gives a field of view similar to human vision, focused on a fixed position rather than the full sweep of the view frame associated with turning the head. These images are useful for representing a more human perception of the view, although are limited by not showing the full visual context.

Photomontages

The spatially verified photomontages within Section 5 of this report have been photographed to achieve the closest possible representation of the SEARS requirement (50mm at 35mm FX format and 46° angle of view) from long range, medium range and short range positions.

These images represent building materiality, reflection and shadows accurately. Proposed vegetation is shown based on landscape masterplan with accurate species at mature heights. Depending on vegetation maturity at installation, trees may take years to reach indicated heights.

4.3 INDICATIVE VIEW VISUALISATIONS

The majority of viewpoint analysis is accompanied by block model visualisations of the Project within the landscape context. These block models have been created using 3D modelling and geographical mapping software in order to accurately position the Project within the landscape. The images are designed to give an indicative impression of the size and scale (massing) of the Project within the view frame.

The 3D block models show limited materiality, translucency, reflections and shadows and are therefore likely to appear more solid and 'blocky' than in reality as they are primarily for giving an indicative sense of massing. Proposed landscape planting and vegetation to be removed are indicated within the visualisations but are also indicative only.

4.4 SIMULATED VISUALISATIONS

Simulated visualisations have been used when:

- access to certain locations was not possible (specifically viewpoint 25 Image B and C)
- the existing quantum of vegetation dominated the existing view so significantly that a simulated image based on 3D modelling would produce a more accurate representation

EXAMPLE

LOCATION	Level 28, Deutsche Bank Place, 126 Phillip Street	Viewpoint location
DISTANCE	580 m	Distance to Project site boundary
RECEPTORS	Building occupants	Description of viewers
NO. OF VIEWERS		Number of viewers
EXISTING VIEW	As shown in viewpoint image A..	Description of current view
EXPECTED VISUAL IMPACT		
The Project will be..		Description of expected view

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	3	2	1	2	1	1.8
Visual Impact Rating	LOW/MODERATE					

Figure 10 - Example assessment

Scoring System

The overall impact rating of the Proposal on any given receptor is based on factors of magnitude and sensitivity. The scores for each assessment criteria within the matrix table are totalled and an average taken. The following scores are used to determine the overall visual impact rating:

0 - 1	Negligible	Only an insignificant part of the Project is discernible.
1 - 1.3	Low	The Project constitutes only a minor component, which might be missed by the casual observer or receptor. Awareness of the proposal would not have a marked effect on visual amenity.
1.4 - 1.7	Moderate/low	Whilst discernible, the Project does not dominate the visual scene and has only slight impacts on visual character.
1.8 - 2.3	Moderate	The Project may form a visible and recognisable new element within the overall scene that affects and changes its overall character.
2.4 - 2.6	Moderate/High	The Project is a discernible feature of the scene leading to moderately high impacts on visual character.
2.7 - 3.0	High	The Project becomes the dominant feature of the scene to which other elements become subordinate, and significantly affects and changes the visual character.

Tavle 02 - Visual impact scoring bands

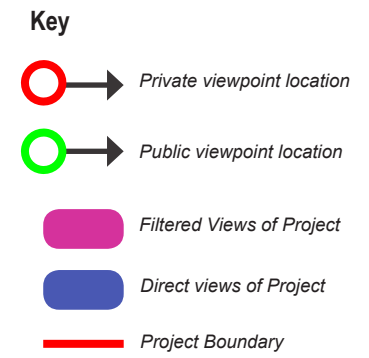
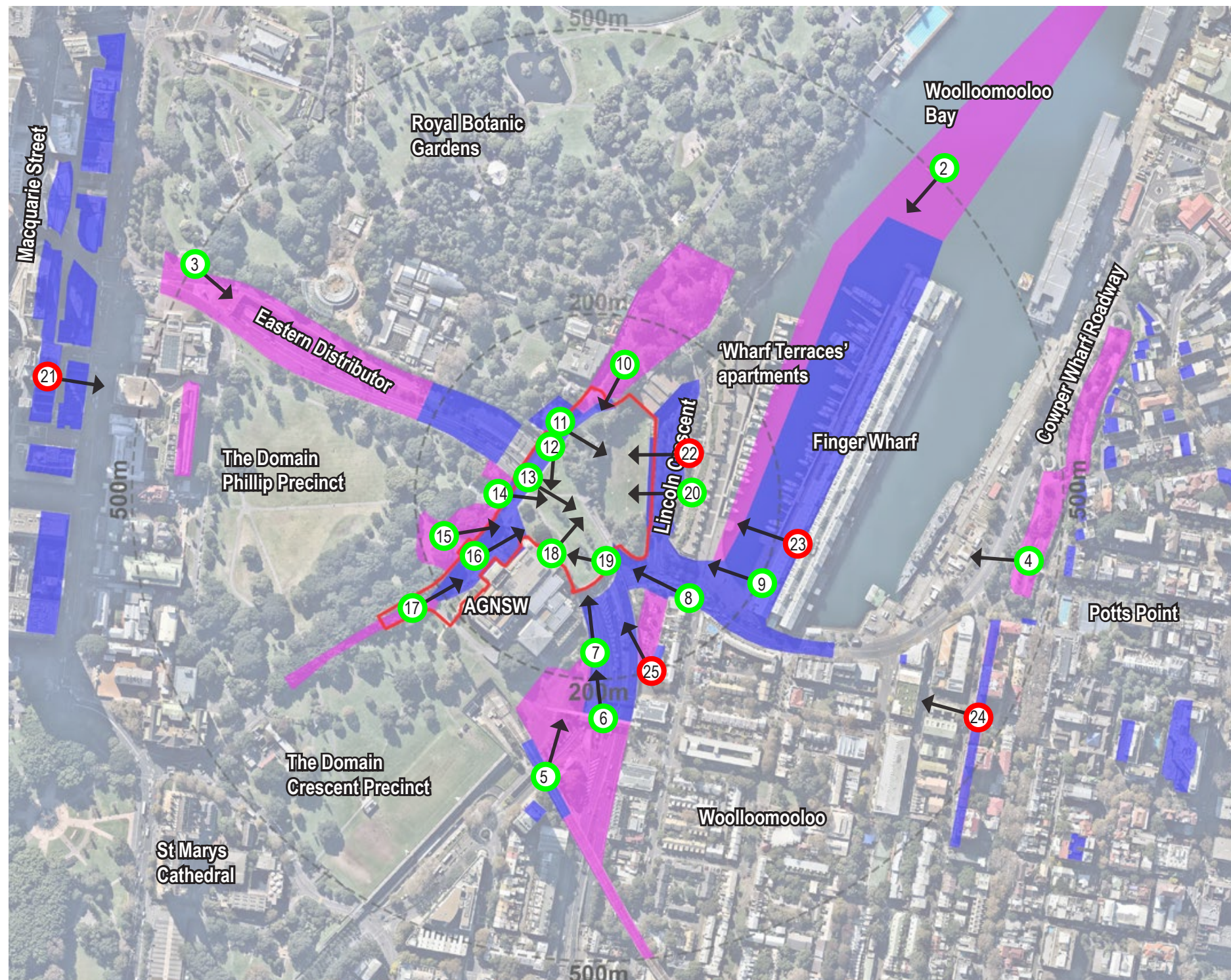
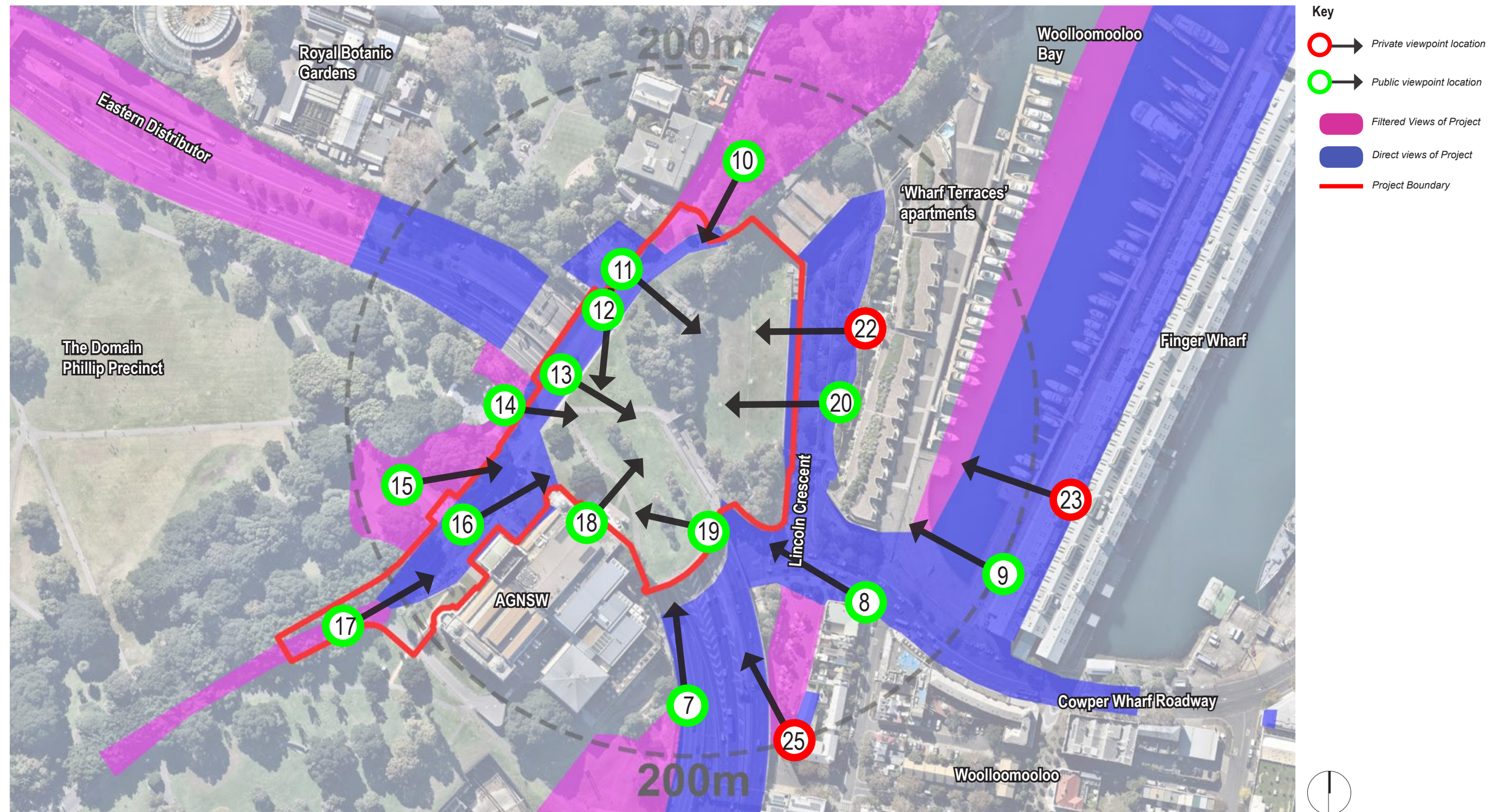
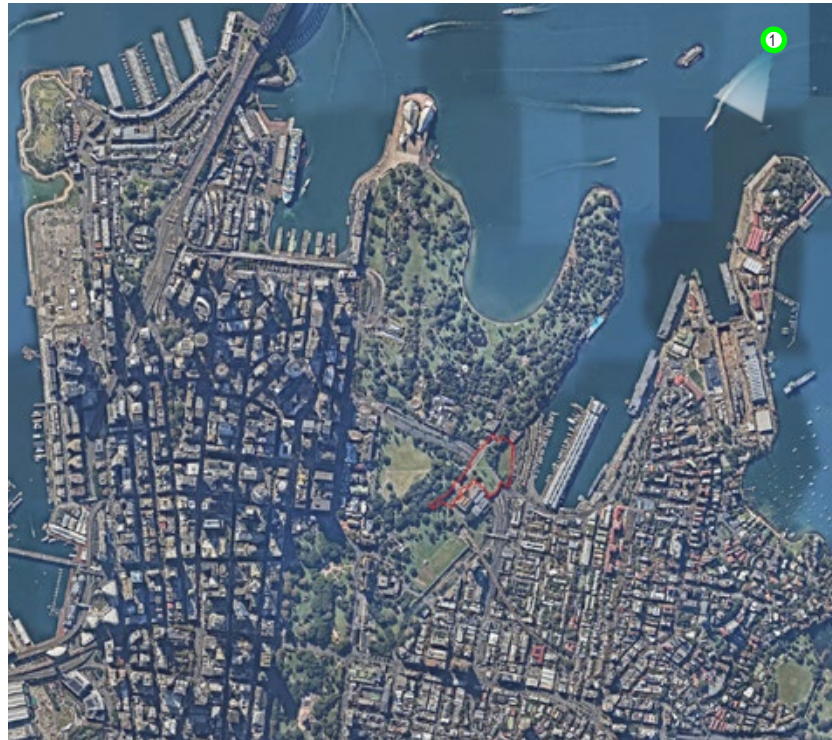


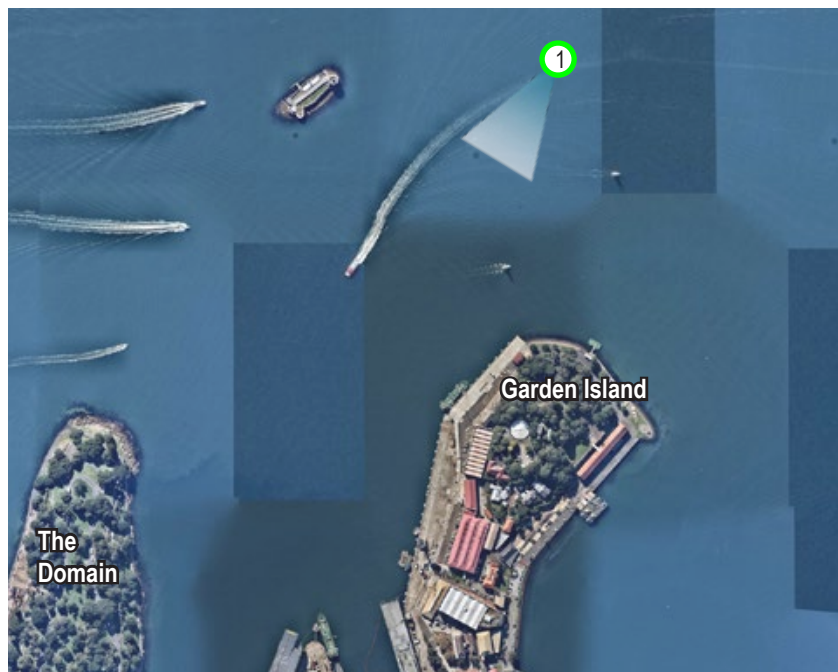
Figure 11A - Visual Catchment and Viewpoint Location Map



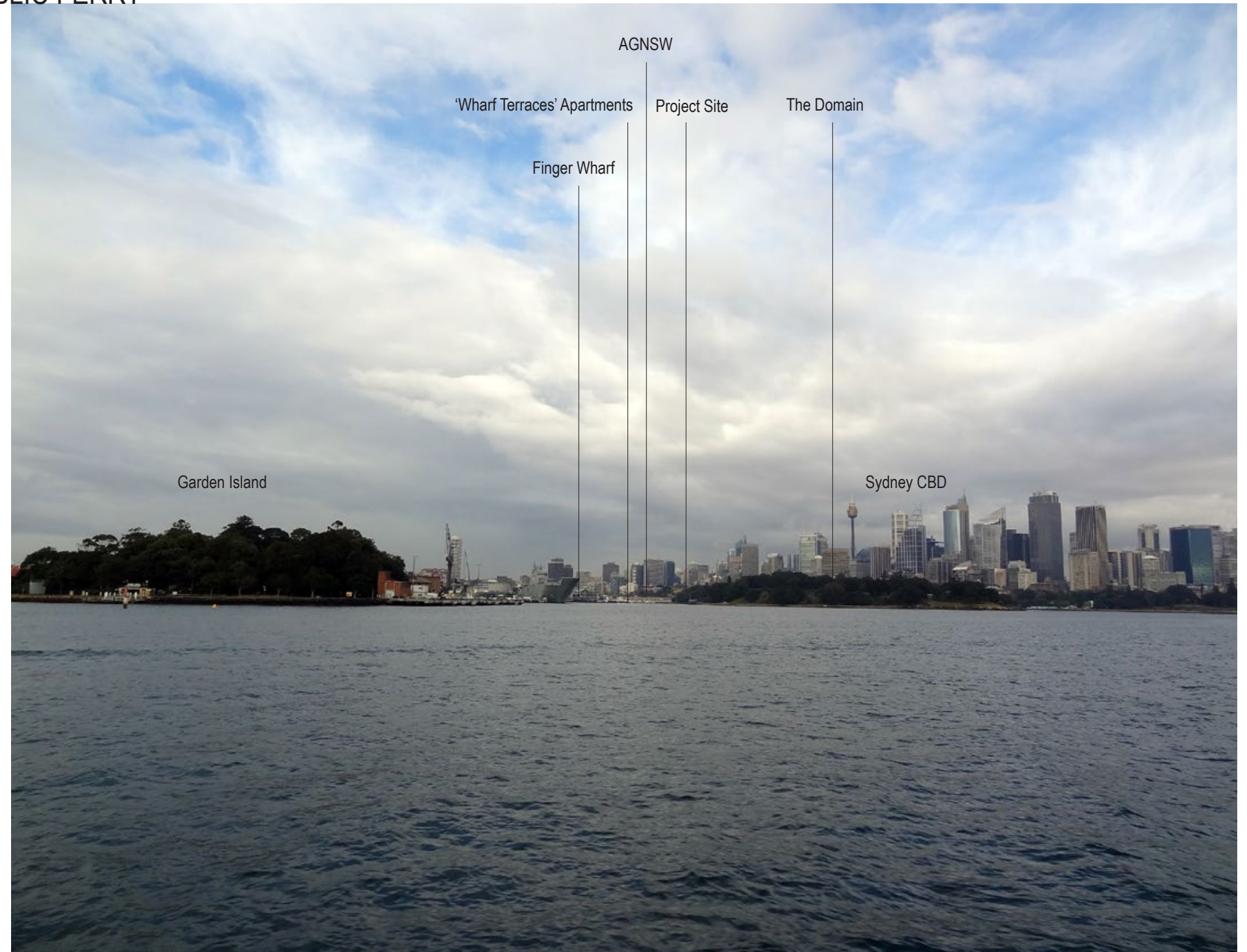
PUBLIC - LONG RANGE VIEWPOINT 1: SYDNEY HARBOUR FROM PUBLIC FERRY



Viewpoint location



Viewpoint context



Public Viewpoint 1: Image A - Existing view

LOCATION	Public Viewpoint 1: Sydney Harbour from public ferry
DISTANCE	1600 m
RECEPTORS	Harbour users
NO. OF VIEWERS	Moderate
EXISTING VIEW	As shown in image A, distant views of the Botanic Gardens, Woolloomooloo Bay and the city skyline are available from this section of the harbour. This view would be available to Eastern Suburbs and lower North Shore ferry passengers, as well as cruise ships and recreational watercraft.

EXPECTED VISUAL IMPACT

The Project will be visible from this section of the harbour at a distance of over 1.5km. The new buildings associated with the Project will be noticeable but from such a distance will appear as an insignificant part of a much wider panoramic view frame - refer image B. Overall, a negligible visual impact is expected from this location.

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	2	1	0	1	0	0.8
Visual Impact Rating	NEGLIGIBLE					



Public Viewpoint 1: Image B - Indicative view of Project

PUBLIC - LONG RANGE VIEWPOINT 2: WOOLLOOMOOLOO BAY



Viewpoint location



Viewpoint context



Public Viewpoint 2: Image A - Existing view

LOCATION	Public Viewpoint 2: Woolloomooloo Bay, looking southwest
DISTANCE	510 m
RECEPTORS	Harbour users
NO. OF VIEWERS	Low
EXISTING VIEW	SEARs required visual location. As shown in image A, this section of Woolloomooloo Bay has views south and east over the Finger Wharf marina to the low rise 'Wharf Terraces' apartments, backed by the green canopy of The Domain, AGNSW and CBD towers. This view is public although the number of viewers would be limited to recreational watercraft as ferries do not currently travel this far into Woolloomooloo Bay. There is, however, a proposal for a future ferry stop within the bay.

EXPECTED VISUAL IMPACT	
The Project will be clearly visible from this viewpoint. There will be views of the proposed buildings rising behind the 'Wharf Terraces' Apartment complex, including the noticeable removal of vegetation and a reduction in the mid ground 'green band' between Woolloomooloo Bay and the city skyline - refer image B. The undulating tree canopy will be partially replaced by the roof lines of the Project buildings, extending the built form of the existing AGNSW to the north. Retained vegetation and planting on the 'Wharf Terraces' roof will partially screen lower elements of the Project. Overall, a moderate visual impact is expected from this location although it should be noted that the number of viewers will be relatively limited due to the inaccessibility of this location.	

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	2	2	1	1	1	1.4
Visual Impact Rating	LOW/MODERATE					



Public Viewpoint 2: Image B - Indicative view of Project

PUBLIC - LONG RANG
VIEWPOINT 3: SHAKESPEARE PLACE, BOTANIC GARDENS



Viewpoint location



Viewpoint context



Public Viewpoint 3: Image A - Existing view

LOCATION	Public Viewpoint 3: Shakespeare Place, Botanic Gardens
DISTANCE	450 m
RECEPTORS	Park users
NO. OF VIEWERS	Moderate
EXISTING VIEW	A southwest entrance to the RBG, this area of public open space has views east towards Potts Point, as shown in viewpoint image A. The foreground is defined by large trees either side of the Eastern Distributor on/off ramps and the front of the NSW State Library building. The Art Gallery Road land bridge is visible in the middle distance with vegetation obscuring views towards the Art Gallery itself. The residential towers of Potts Point are visible in the background.

EXPECTED VISUAL IMPACT						
The Project will be visible from this entrance to the Botanic Gardens, situated above the land bridge at a slightly lower elevation to the viewer - refer image B. There will be the noticeable removal of a small quantum of existing vegetation and views to Potts Point will be slightly restricted by the new built form. Overall, a low/moderate impact rating is expected from this viewpoint due to the short duration of view and limited scale of change.						

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	3	2	1	1	1	1.6
Visual Impact Rating	LOW/MODERATE					

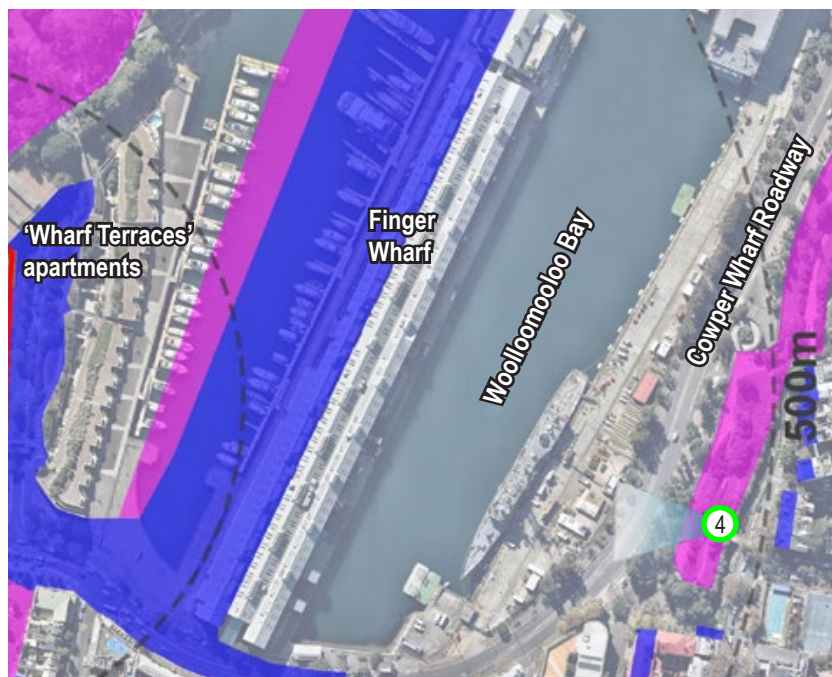


Public Viewpoint 3: Image B - Indicative view of Project

PUBLIC VIEWPOINT 4: EMBARKATION PARK, POTTS POINT



Viewpoint location



Viewpoint context



Public Viewpoint 4: Image A - Existing view

LOCATION	Public Viewpoint 4: Embarkation Park, Potts Point
DISTANCE	410 m
RECEPTORS	Park users
NO. OF VIEWERS	Low
EXISTING VIEW	As shown in viewpoint image A, this park looks west across Woolloomooloo Bay towards the Project site. The majority of views from the park are heavily filtered by foreground vegetation. Where views are available, the naval docks and Finger Wharf dominate the middle distance. The Art Gallery is visible in the background, above Finger Wharf within a band of undulating vegetation. The city towers rise behind this vegetation, associated with the Botanic Gardens and The Domain.

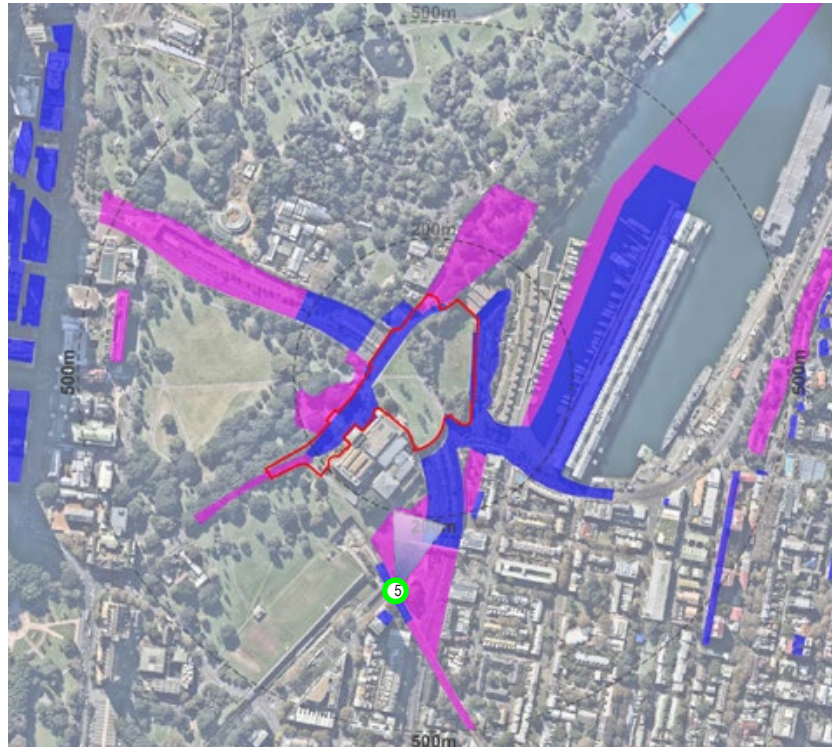
EXPECTED VISUAL IMPACT
The tops of several Project buildings will be visible above the roof line of Finger Wharf (where foreground vegetation permits). There will be a slight reduction in the mid ground 'green band' between Woolloomooloo and the city CBD - refer image B.
The Project will form a small element within a wide, panoramic view frame with the built form of Finger Wharf and foreground vegetation obscuring most views of the new buildings. A low/moderate visual impact is expected from this location.

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	3	2	1	1	1	1.6
Visual Impact Rating	LOW/MODERATE					

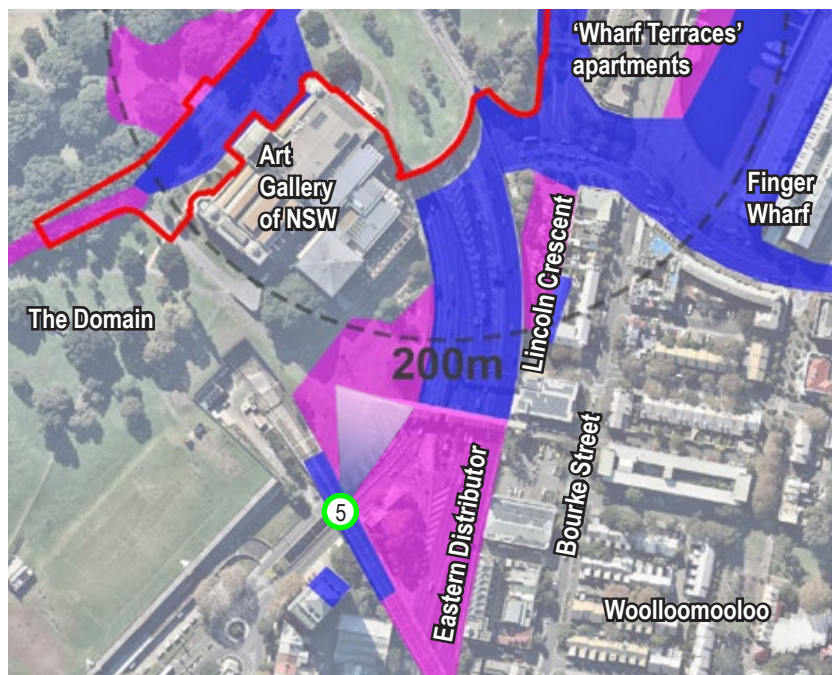


Public Viewpoint 4: Image B - Indicative view of Project

PUBLIC - MID RANGE
VIEWPOINT 5: EASTERN SUBURBS TRAIN LINE



Viewpoint location



Viewpoint context



Public Viewpoint 5: Image A - Existing view

LOCATION	Public Viewpoint 5: Eastern Suburbs train line
DISTANCE	193 m
RECEPTORS	General public
NO. OF VIEWERS	High
EXISTING VIEW	As shown in viewpoint image A, the northern side of the train line has open but fleeting views towards the Project site. The track is elevated in this location and has sweeping views over Woolloomooloo and the eastern facade of the AGNSW building.

EXPECTED VISUAL IMPACT

The Project will not be visible from the northern side of the train due to compensatory planting to the south-east corner of the existing gallery. This will change the area from a predominately open grassed area with limited tree canopy to one with substantial canopy cover.

Due to the speed of the train, viewers will pass this location quickly and the period of view will be very short. Overall, a **low** impact on visual amenity is expected.

RECEPTOR TYPE	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
		DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	1	2	1	1	2	1.2
Visual Impact Rating	LOW					



Public Viewpoint 5: Image B - Indicative view of Project