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EXECUTIVE SUMMARY

The purpose of this report is to provide a detailed Visual Impact Assessment of the proposed works at Barker College and consider any potential impacts that may result within the surrounding landscape from the public domain. This report addresses the study requirements of the Planning Secretary's Environmental Assessment Requirements (SEARs).

The SSDA seeks approval for:

- A Co-curricular Performing Arts and Exams Centre building and associated basement parking on the south-western corner of Unwin Road and Clarke Street.
- A new maintenance shed and associated parking to the south of the Performing Arts and Exam Centre Building.
- An Aquatic and Tennis Centre incorporating an indoor pool and roof-top tennis courts and associated basement parking on the north-western corner of Unwin Road and Clarke Street.

The methodology employed for this VIA is based on a combination of established methods used in NSW including; the Guideline for landscape character and visual impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services December 2018 (RMS LCIA) and well established best-practice methods.

The Urbis methodology identifies objective information about the existing visual environment, analyses the extent of visual effects on those baseline characteristics and unlike other methods, considers the importance of additional relevant information including view place sensitivity, compatibility and visual absorption etc. Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

The existing visual environment has a relatively high capacity to absorb the visual changes proposed given the surrounding topography and high level of mature vegetation, which block or partially block views towards the proposed development. Of the eight viewpoints assessed, six viewpoints have a high absorption capacity and two have a medium absorption capacity.

The final impact assessment and determination of the level of significance of any residual visual impacts is included in Section 8.0 of this report.

Given the likely view impacts to the immediate and wider area based on the representative modelled views and the overall low view impact ratings, the view impacts are considered acceptable.

1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

The purpose of this report is to provide a detailed Visual Impact Assessment of the proposed works at Barker College and consider any potential impacts that may result within the surrounding landscape from the public domain. This report addresses the study requirements of the Planning Secretary's Environmental Assessment Requirements (SEARs):

1.2 PROJECT DESCRIPTION

This SSDA seeks approval for the development of Barker College, including the largest and most visible buildings. The concept proposal includes two new buildings and ancillary facilities to be located at the south-east (upper site) and north east (lower site) corners at the intersection of Unwin and Clarke Roads. The focus of the photomontages and VIA will be on future buildings at these sites:

- Concept Proposal for the provision of new and upgraded facilities, including:
 - A Co-curricular Performing Arts and Exams Centre building and associated basement parking on the south-western corner of Unwin Road and Clarke Street.
 - A new maintenance shed and associated parking to the south of the Performing Arts and Exam Centre Building.
 - An Aquatic and Tennis Centre incorporating an indoor pool and roof-top tennis courts and associated basement parking on the north-western corner of Unwin Road and Clarke Street.
 - Approval for the associated demolition of existing school buildings to accommodate the buildings described above.
- Internal works which are unlikely to be highly visible from public domain locations will not be included in public domain photomontages including:
 - Rationalisation of the of the internal Chapel Drive carriageway and parking area associated with the Junior School to improve the traffic flow and pedestrian safety associated with the internal pick-up and drop off system.
 - Re-alignment of the internal Chapel Drive carriageway and

- provision of adjacent footpath to improve the traffic flow and pedestrian safety associated with the internal pick-up and drop off system.
- Landscape works to 'The Avenue' roadway (an internal share way) to create a new Civic space for the school and transitioning to the existing east-west site connection on RB Finlay Walk and toward C-Block.
- Construction of a new elevated east-west walkway along the southern edge of C-Block and incorporating spectator viewing to Bowman Field.
- Construction of a north-south pathway connection linking the Rosewood Centre to the Junior School Campus.

1.3 COMPLIANCE WITH SEARS

SEARs that are relevant to visual impact are identified below in Table 1 along with the location in the report where the issue has been addressed.

Requirements	Addressed in section
Section 6: Visual Impact	Refer to sections 3.0 - 8.0
Provide a visual analysis of the concept development envelopes from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.	
Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the concept development on the existing catchment	

Table 1: SEARS requirements for visual impact assessment

PROPOSED WORKS

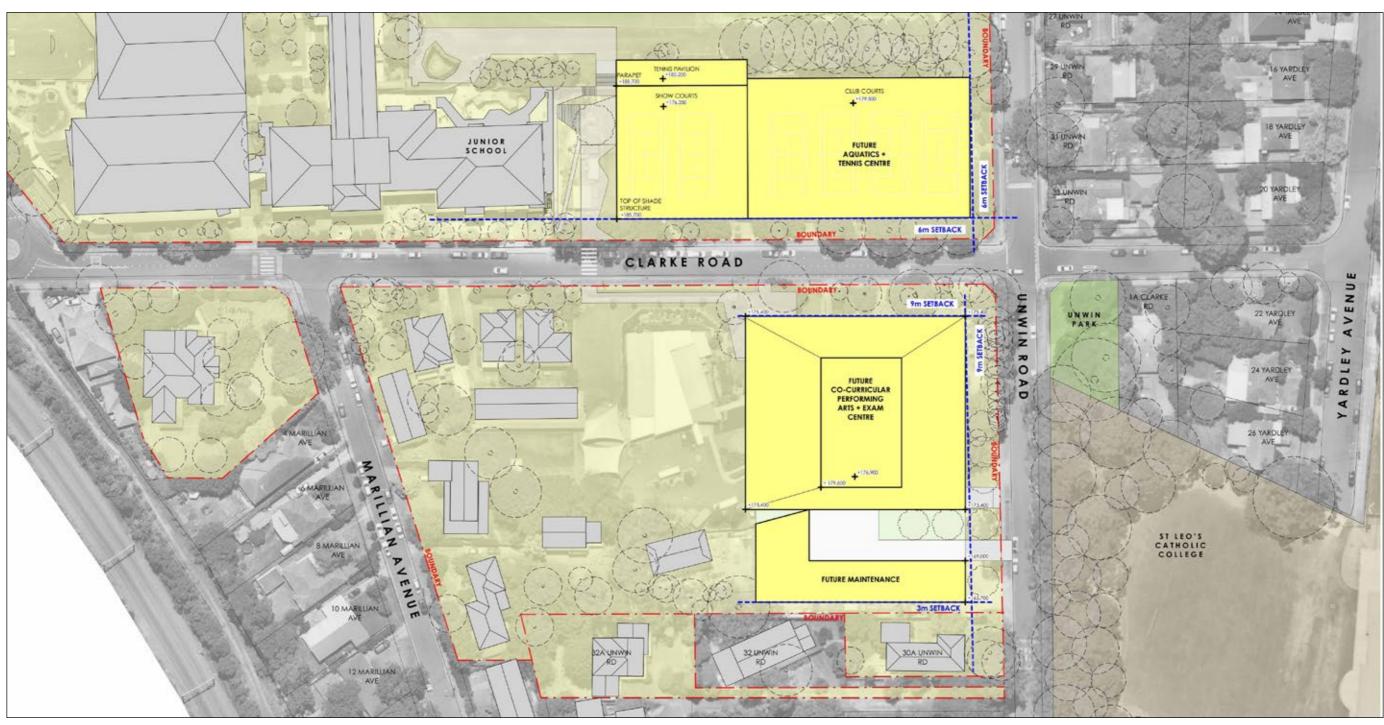


FIGURE 1 CONCEPT ENVELOPES (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

CO-CURRICULAR PERFORMING ARTS AND EXAM CENTRE

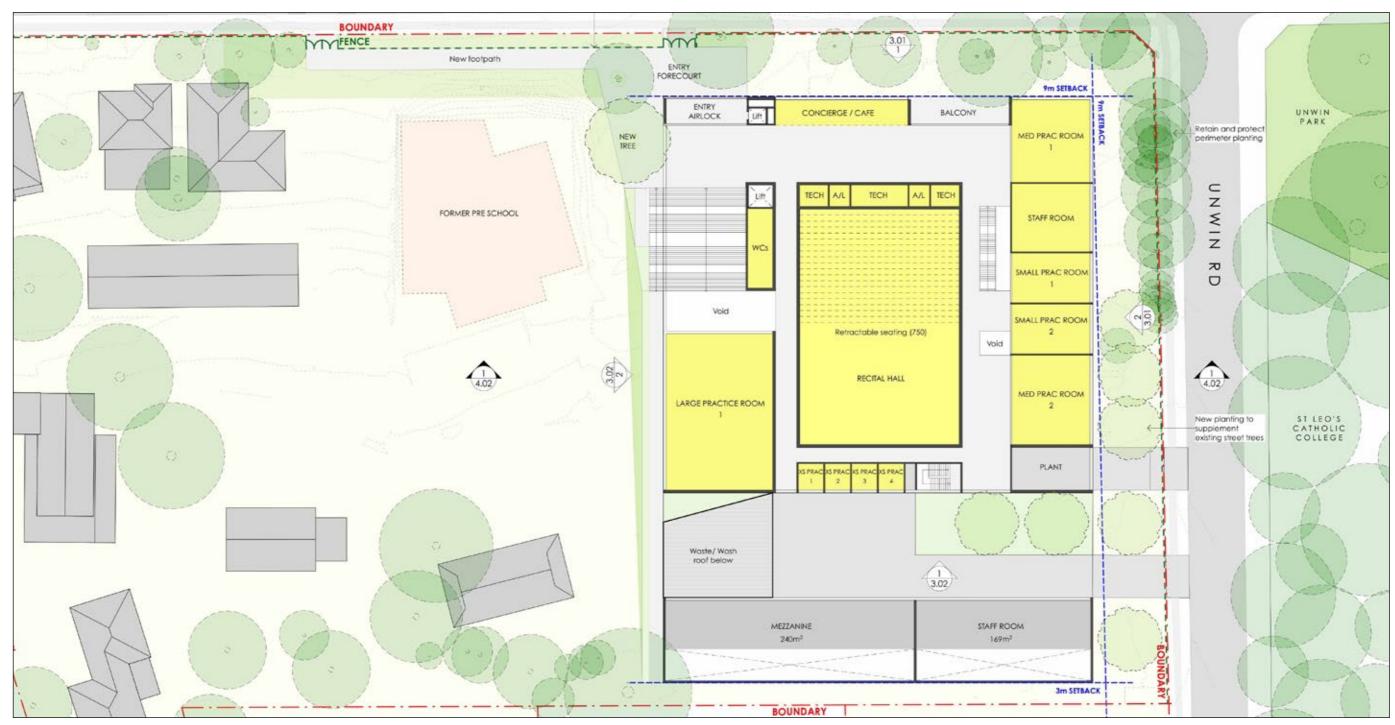


FIGURE 2 CO-CURRICULAR PERFORMING ARTS AND EXAM CENTRE GROUND FLOOR PLAN (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

CO-CURRICULAR PERFORMING ARTS AND EXAM CENTRE

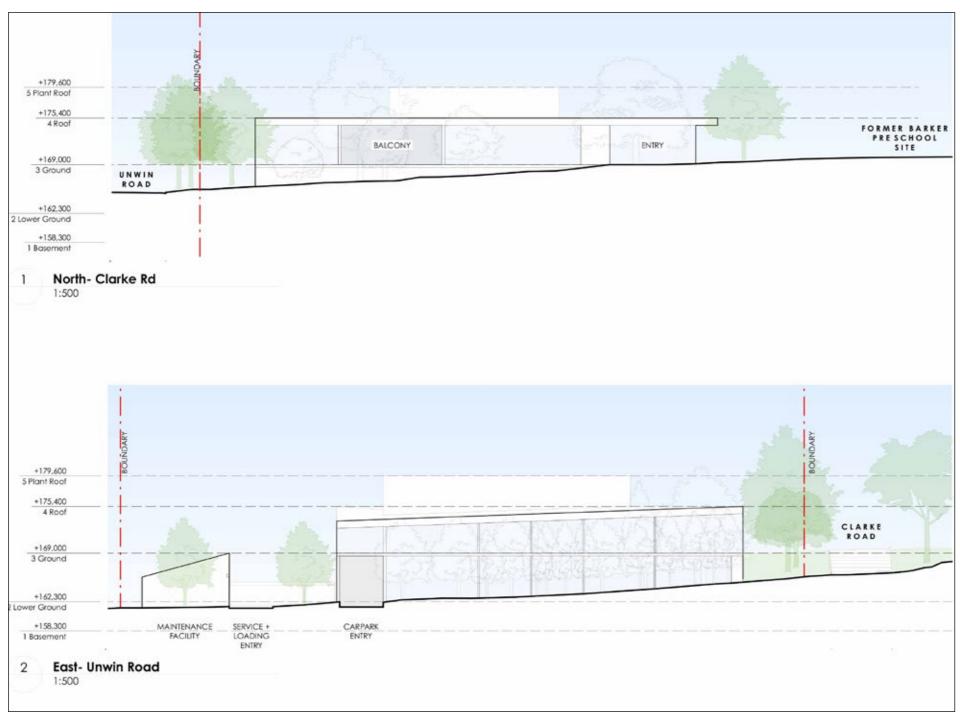


FIGURE 3 CO-CURRICULAR PERFORMING ARTS AND EXAM CENTRE NORTH AND EAST ELEVATIONS (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

AQUATICS AND TENNIS CENTRE



FIGURE 4 AQUATICS AND TENNIS CENTRE GROUND FLOOR PLAN (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

AQUATICS AND TENNIS CENTRE



FIGURE 5 AQUATICS AND TENNIS CENTRE NORTH AND SOUTH ELEVATIONS (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

AQUATICS AND TENNIS CENTRE

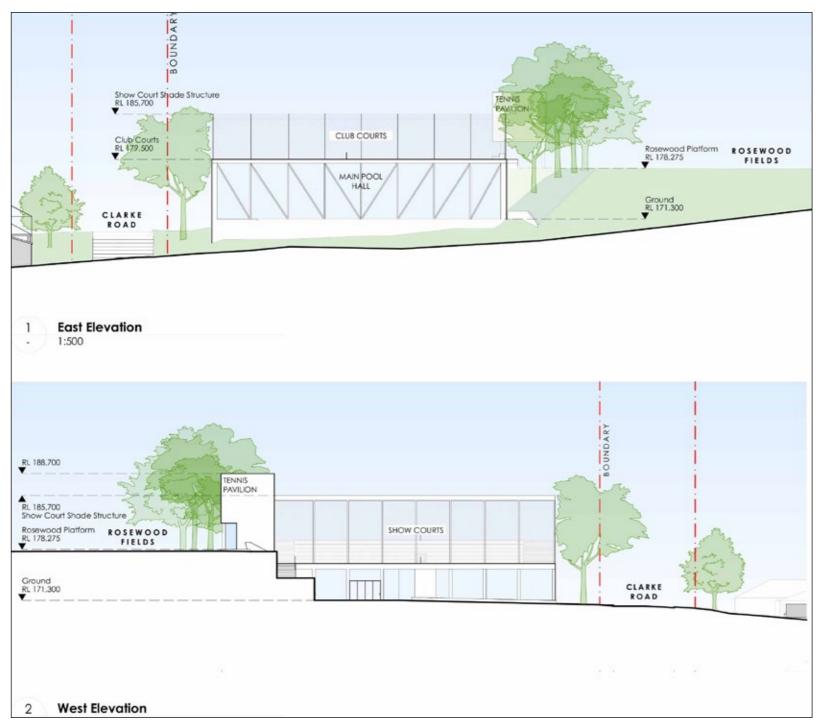


FIGURE 6 AQUATICS AND TENNIS CENTRE EAST AND WEST ELEVATIONS (NEESON MURCUTT + NEILLE ARCHITECTS MAY 2022)

2.0 **VIA** METHODOLOGY

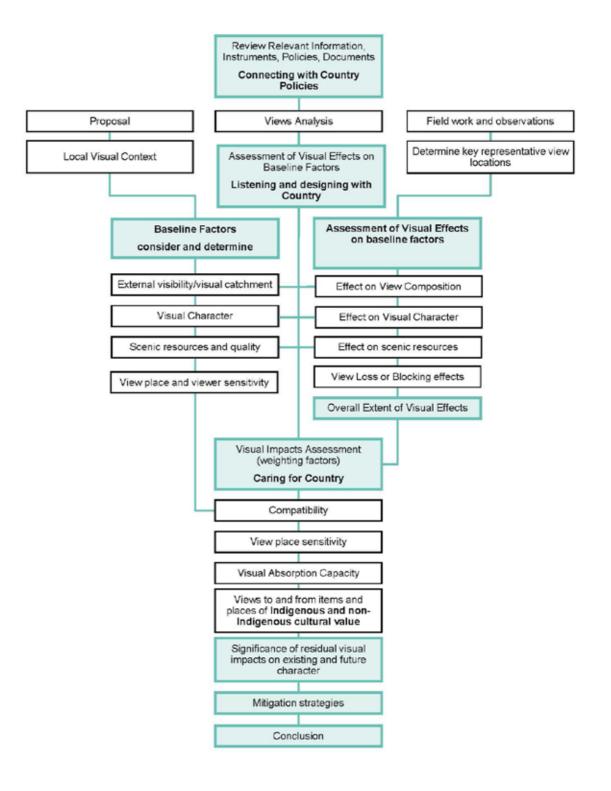
The methodology employed for this VIA is based on a combination of established methods used in NSW including; the Guideline for landscape character and visual impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services December 2018 (RMS LCIA) and well established best-practice methods.

Although the content and purpose of the RMS LCIA is to assess the impact on the aggregate of an area's built, natural and cultural character or sense of place rather than solely on views, it provides useful guidance as to the logic and process of visual impact assessment (VIA).

The Urbis methodology identifies objective information about the existing visual environment, analyses the extent of visual effects on those baseline characteristics and unlike other methods, considers the importance of additional relevant information including view place sensitivity, compatibility and visual absorption etc. Separating objective matrix for analysis and final assessment of visual impacts.

The sequence of steps and flow of logic is shown graphically below in our method flow chart.

2.1 URBIS VIA METHODOLOGY



3.0 BASELINE VISUAL ANALYSIS

3.1 VISUAL CHARACTER OF THE SUBJECT SITE

The underlying topography of the Barker campus broadly falls in elevation from north to south, where Clarke Road is an east-west mid-slope corridor which separates the two proposed building locations. The north side of Clarke Road is currently occupied by the Barker College Campus, associated buildings, sports fields, landscaping and internal road and parking network. The majority of existing buildings on the site are massed to the north and close to the Pacific Highway edge of the Campus. These are used as the senior campus which is separated by the Middle School buildings located at the south-west end of Clarke Road.

The height, form and scale of existing buildings on the site vary and are typical of school sites are long and relatively low, and typical of school buildings as dictated by function. The Rosewood centre is a more recent bulky and visible building but is significantly spatially separated from both the upper and lower sites proposed. The south side of Clarke Road opposite the school is predominantly characterised by individual residential dwellings set within ornamental gardens, but which are owned by the school and form part of the lower site. We note the presence of St Leo's Catholic School campus east of the site which includes development that is not dissimilar in height or scale to those proposed.



FIGURE 7 BARKER COLLEGE SITE BOUNDARY

3.2 SURROUNDING VISUAL CONTEXT

NORTH

The immediate visual context north of the College consists of the four lane Pacific Highway with the B6 Enterprise Corridor to the north of it. The commercial corridor consists of a mixture of business types including offices, retail, light industrial and food outlets, with buildings typically either single or double storey in height. Architecturally the buildings vary in specific construction date and style, but are broadly consistent with one another in that they are large in nature and often have either a large setback to the front or side of the buildings to allow for parking, product display (such as car yards) or storage. As a result the buildings are often detached from one another which allows for views into and through the sites. The commercial nature of the highway in this area results in a limited number of mature street trees in order to allow for visibility of the business, and is in contrast to the highly vegetated residential streets in the surrounding area.

The wider context to the north is comprised of a mixture of land uses including infrastructure elements, Hornsby Town Centre, high density living, and education sites. A rail corridor on a north-west to southeast axis separates the B6 Enterprise Core from the north and creates a physical and often visual barrier as a result of mature vegetation to either side of the corridor.

High density residential living roughly bounded by Edgeworth David Ave to the north, Park Ave to the east, Alexandria Parade to the south and Thomas Street to the west creates an area of residential built form that is noticeably different from that to the south of the site. The residential flat buildings are typically eight to nine storeys and are of modern construction (post 2000), typically rectangular in nature with a combination of brick and rendered façades with external balconies. The buildings have generous side setbacks from one another which allow for views into and through the sites, often to neighbouring apartment buildings. Front setbacks often allow for planting which tends to be a mixture of large shrubs and trees which provide instances of street canopy cover, but largely does not provide continuous street canopy.

The Hornsby Town Centre is comprised of the east and west sides of the Hornsby Railway Station and include Westfield Hornsby, businesses along George Street up to Bridge Road, Hornsby Mall and the Hornsby RSL Club. The town centre is a mixture of building scales, construction types and architectural styles which is consistent with the gradual European development of the area from the mid nineteenth century to present day. To the west of the rail line bordered by Peats Ferry Road, Station Street and Coronation Street is the traditional shopping village which is predominately comprised of small scale single to double storey attached commercial buildings which create a virtually continuous built form frontage to the street, with larger, detached and more modern buildings such as the Aquatic and Leisure Centre and TAFE located northwards.

To the east of the rail line is larger scale commercial developments including Westfield Hornsby which is in contrast in scale to the traditional shopping village opposite it. A pedestrianised shopping mall along Florence and Hunter Streets separates Westfield from the adjoining developments allowing for sight lines east to west and north to south as well as sporadic tree planting which breaks up the continuous building façades presenting to the mall.

EAST & SOUTH

Immediately east of the site is Unwin Road which is comprised of low density housing, businesses and educational uses. The low density housing is primarily detached single to double storey buildings constructed of weatherboard with tiled gabled roofs, set back from the road with vegetated front gardens. South of the college is similarly comprised of this type of residential dwellings.

St Leo's Catholic College is directly opposite the southern campus of Barker College, however built form is largely obstructed from view as a result of a level change between the road and the campus, as well as a number of significant Eucalyptus trees and other vegetation bordering the road. This vegetation is consistent with much of Unwin Road that has a mixture of mature species types bordering the road.

The northern end of Unwin Road is visually unique from the rest of the road as a result of being used for business purposes on the eastern side. A large, open car park is opposite the Barker College Rosewood Centre, which allows for views to a cluster of low level apartment buildings beyond with the Blue Gum Hotel and Bottlemart adjacent to this. The lack of mature vegetation in the area is noticeable in comparison to the rest of the road.

WEST

Immediately west of the college is College Crescent which has high density residential flat buildings (RFBs) opposite the northern corner of the college generally ranging in height between 6-7 storeys. The buildings are generally of similar construction dates and materials (brick) and tend to have balconies presenting to College Crescent with a mixture of planting species within front gardens filtering views of the lower level apartments.

South of the RFBs intermittent views of the rail corridor are possible from the street, although mature vegetation within the rail corridor often obstructs or highly filters views of the infrastructure.

To the west of the rail corridor are further residential dwellings of a similar type to that are located to the east of the college.

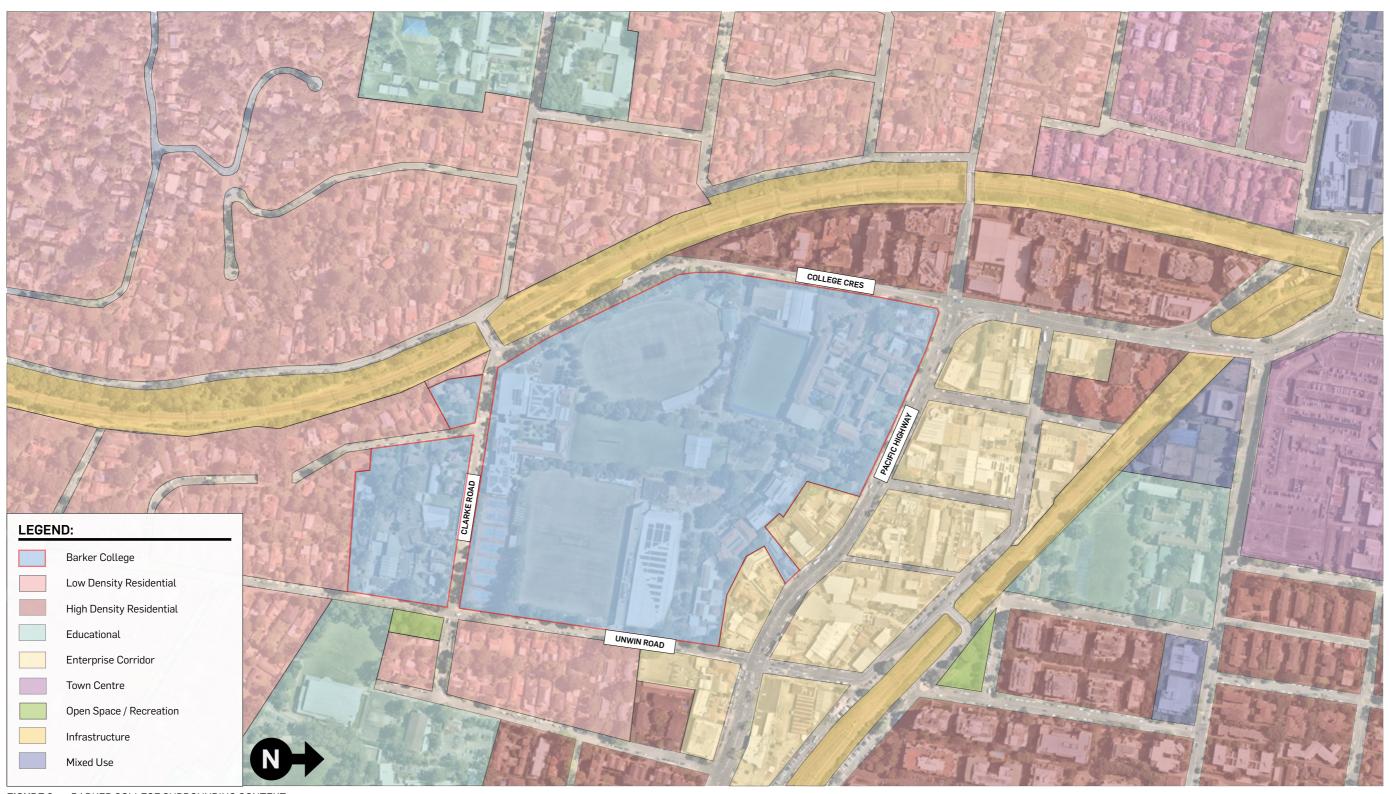


FIGURE 8 BARKER COLLEGE SURROUNDING CONTEXT



FIGURE 9 REPRESENTATIVE VIEWPOINT LOCATIONS

REPRESENTATIVE VIEWS FROM THE VISUAL CONTEXT



PLATE. 5 VIEWPOINT 1 DETAIL VIEW OF RESIDENTIAL DWELLING AT 25 UNWIN ROAD



PLATE. 6 VIEWPOINT 2 DETAIL VIEW OF VACANT BLOCK AT 27 UNWIN ROAD



PLATE. 7 VIEWPOINT 3 LOOKING NORTH TOWARDS SITE OUTSIDE 73 UNWIN ROAD



PLATE. 8 VIEW 4 LOOKING NORTHWARDS ALONG UNWIN ROAD OF BARKER COLLEGE MAINTENANCE BUILDING



PLATE. 3 VIEW 5 ST LEO'S CATHOLIC COLLEGE ELEVATED OVAL VIEWED FROM UNWIN ROAD



PLATE. 4 VIEW 6 INTERSECTION OF UNWIN ROAD AND CLARE ROAD LOOKING SOUTH

REPRESENTATIVE VIEWS FROM THE VISUAL CONTEXT



PLATE. 11 VIEW 7 DETAIL VIEW OF RESIDENTIAL DWELLING AT 34A UNWIN ROAD



PLATE. 12 VIEW 8 ST LEO'S CATHOLIC COLLEGE UNWIN ROAD EXIT & 65 UNWIN ROAD

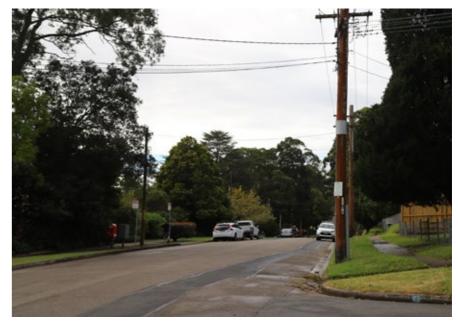


PLATE. 13 VIEW 9 NORTH FROM CORNER OF UNWIN ROAD AND RUSSELL AVENUE



PLATE. 14 VIEW 10 EAST ALONG CLARKE ROAD FROM COLLEGE CRES



PLATE. 9 VIEW 11 VIEW NORTHEAST TO UPPER SITE (TENNIS COURTS) FROM CLARKE ROAD



PLATE. 10 VIEW 12 DETAIL VIEW OF RESIDENTIAL DWELLINGS AT 31 AND 29 UNWIN ROAD

3.3 VISUAL CATCHMENT

WHAT IS A VISUAL CATCHMENT?

The potential visual catchment is the theoretical area within which parts of the proposed development may be visible. The visibility of any proposed development varies depending on constraints such as the blocking effects of intervening built form, vegetation, infrastructure and topography.

Visibility refers to the extent to which the proposal would be physically visible, identifiable for example as a new, novel, contrasting feature or alternatively as a recognisable but compatible feature.

3.3.1 EXTENT OF VISUAL CATCHMENT

The potential visual catchment was deemed to be low during desktop analysis as a result of the low height of the existing and proposed buildings generally across the site. This, combined with surrounding topography and the streetscapes which have a high level of mature vegetation either obstruct or highly filter views of the proposal except within close proximity from immediately adjacent streets.

3.4 VIEW PLACE SENSITIVITY

View place sensitivity refers to the importance of a view or view place in the public domain. 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.

There is one small public reserve and minor playground on the intersection of Unwin Road and Clarke Road which will have direct views of the proposed works, however this is considered that this would not be highly used or occupied for significant time periods throughout the day that a more sensitive or highly valued public domain location would be. In this regard visual effects on views from the reserve are unlikely to be significant and as such potential visual impacts would be low.

The widest number of closest and potentially most affected views are from immediately surrounding roads and intersections. The majority of potential views would therefore, be from moving, viewing situations and experienced for short periods of time. In some of those potential views the built form proposed would be highly visible however, the magnitude of change does not directly equate to a high visual impact or a negative visual impact. Visual impacts on sensitive public domain views are analysed and rated in Section 6.0 and 7.0 in relation to each photomontage.

3.5 VIEWER SENSITIVITY

Viewer sensitivity is a judgement as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

Private domain views to the subject site and the built form proposed may be available form a small number of dwellings to the east of the college along Unwin Road (approximately 25 - 33 Unwin Road). However, as a result of mature vegetation within the properties these views may be obstructed or highly filtered. Furthermore, it is likely that only 29, 31 and 33 Unwin Road would have front facing views towards the proposal, and that 19 - 27 would only have highly oblique views through mature vegetation.

Detailed view loss analysis from surrounding residential dwellings is not included in the study scope and would be undertaken at a later date in relation to individual DAs, if required. In our opinion notwithstanding that the composition of some close private domain view may change, these views are not characterised by views of high scenic quality, iconic views or access to views of individual icons.

4.0 RELEVANT **ADDITIONAL FACTORS**

VIEWING PERIOD

Viewing period in this assessment refers to the influence of time available to a viewer to experience the view to the site and the visual effects of the proposed development. Longer viewing periods, experienced either from fixed or moving viewing places such as dwellings, roads or waterways, provide for greater potential for the viewer to perceive the visual effects. The majority of views from close locations to the proposed development will be from moving viewing locations, or those of a short duration.

VIEWING DISTANCE

Viewing distance can 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.

For Barker College given the visual catchment is limited due to the generally low height of built forms proposed, topography, and high level of mature vegetation in the immediate vicinity, the majority of the views modelled fall into the close and medium distance ranges. Ranges are as follows; close range (<100m), medium range (100-500m) and distant (>500m).

4.3 RELEVANT REGULATORY **FRAMEWORK**

Barker College is identified as a Heritage Conservation Area (9.3.11 Barker College Heritage Conservation Area) within the Hornsby DCP. The DCP identifies that:

Major views within the school precinct along the school streets and across the grounds from north to south and from east to west should be retained.

No documented views towards the site from the surrounding streetscape or wider visual catchment have been identified within the DCP.

5.0 SELECTION OF VIEWS

5.1 WHAT IS A HERITAGE VIEW?

There are no widely adopted guidelines used in NSW to determine whether or not a potential 'heritage' view has been historically, and/ or intentionally designed. Many documented views exist that capture heritage items (typically individual buildings) from particular places and historic scenes of early colonial development for example streetscape and view corridors across NSW etc. However without knowing the purpose of a photograph, or intentions and inherent potential cultural bias of a photographer at the time of photography, it cannot be determined whether or not a so called 'heritage view' is associated with cultural or visual values of significance.

This report considers the assessment criteria and methodology for determining the historic legitimacy of a documented view which may be thought to have heritage significance or value, developed by Dr Richard Lamb. The co-author of this report assisted in developing this approach. Urbis notes that the criteria and ratings developed have been accepted by various consent authorities within NSW.

Views are rated at five different levels, Level 1 being a documented view that is considered as being most likely to be a deliberately designed view and therefore assumes the most significance or greatest value. A Level 5 view is the lowest rating assigned, based on evidence found, and refers to a view that is most unlikely to have been historically designed or intended as a visual link between items of features.

At a lower level still, on the hierarchy of views that might be claimed to be heritage views, are views from or in the vicinity of items, the curtilages or settings of items, from which new or non-significant items are visible. Simply being able to see a heritage item, place or setting does not make the view a heritage view. By the same token, being able to see a new, different or novel item of no current significance, in the context of a heritage item, does not create an impact on heritage values, unless it can be demonstrated that the acknowledged authentic heritage values of the item would be impaired to the detriment of interpretation of the heritage values of the item (level 5 L5).

The Hornsby DCP 2013 identifies Barker College as a Heritage Conservation Area and 9.3.11(a) and outlines prescriptive measures in relation to streetscape character:

- · The predominant building scale of two storeys should be retained
- Major views within the school precinct along the school streets and across the grounds from the north to south and from east to west should be retained.

While these prescriptive measure have been identified within the DCP for Barker College, no documented views of or to the site were identified during a desktop analysis.

5.2 VIEWPLACE SELECTION

In simple terms, the key purpose of a VIA for a SSDA where simple massing envelopes will be assessed, is to determine the quantum of visual change (ie level of visual effects), external visibility, that is the extent of change that will be visible from external public domain locations, and also to consider the importance or sensitivity of the view place (including its accessibility).

The range of views assessed should include close, medium and distant views so that a representative sample of the types of views that are likely to be experienced by the public are considered. In this way conclusions about visual impacts across the wider, 'theoretical' potential visual catchment can be considered.

Visibility is also considered in terms of its likely exposure period for example; the kind of viewing locations, private domain, public domain, parks and reserves and whether potential views will be available for sustained period of time, for example from moving viewing situations eg from transport/rail/road corridors. Urbis have considered these factors as part of our desktop review and prior to undertaking or fieldwork.

Prior to undertaking fieldwork, Urbis staff undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and LiDAR data to establish the potential visual catchment and to inform fieldwork inspections. Following fieldwork undertaken by Urbis in October 2021 to familiarise ourselves with the site and surrounding visual setting, and the documentation of a range of representative views from close, medium and distant locations surrounding the site, Urbis selected and recommended 11 view places for further analysis via the use of objective visual aids.

5.3 USE OF PHOTOMONTAGES

The following pages undertake a detailed analysis of 8 views. These 8 modelled views represent a range of view points from which the proposed development may have a visual effect or impact.

Photomontages were prepared for these 8 views by an Urbis visualisation specialist (see Appendix 2) and are analysed against descriptions which have been used to make judgements in relation to the effects and impacts of the proposed development on each of the modelled views. Please refer to Appendix 1 for details on the descriptions and their ratings.

The photomontages are designed to inform an analysis of the height and scale of the built forms proposed on the existing visual environment. The photomontages do not include any ameliorative planting, architectural detailing, materiality or colours all of which will serve to soften the appearance of the built form.

6.0 VISUAL EFFECTS ANALYSIS

TABLE 1VIEWS ANALYSED

View No.	Direction and location of view analysed
View 01	View south-west to uppers site from Blue Gum Hotel car park
View 02	View west from Clarke Road and Yardley Avenue
View 03	View north along Unwin Road by St Leo's Catholic College
View 04	View southwest along Unwin Road from 27 Unwin Road
View 05	View east along Clarke Road opposite Barker College tennis courts
View 06	View east from Clarke Road and Marillian Avenue
View 07	View east from Clarke Road and College Crescent roundabout
View 08	View north from intersection of Unwin Road and Russell Avenue



FIGURE 11 PHOTOMONTAGE VIEW LOCATION MAP

VIEW SOUTHWEST TO UPPER SITE FROM BLUE GUM CARPARK

Distance class

- Close view
- <100m

Existing composition of the view

The view is characterised by mature vegetation to the centre and centre right of the view surrounding the playing fields to the south of the Rosewood Centre. Long distance views southward along Unwin Road are possible, however as a result of a variety of mature trees lining either side of the road, the view is highly constrained and restricted to the road corridor.

Visual effects of the proposed development on the composition as modelled

A highly filtered portion of the northern facade of the proposed Aquatic and Tennis Centre is visible through the lower portion of trees around the southern perimeter of the Rosewood Field. Mature vegetation to the eastern perimeter of the playing fields entirely obstruct views of the proposed Performing Arts and Exam Centre, as well as a large portion of the proposed eastern part of the Aquatic and Tennis Centre. The Rosewood Centre to the right of the view largely obstructs the remaining western portion of the Aquatic and Tennis Centre. As a result of the framed and filtered view of only a portion of the proposed works being visible combined with the majority of viewing time being brief

Visual effects of proposed development		
Visual Character	low	
Scenic Quality of View	low	
View Composition	low	
Viewing Level	high	
Viewing Period	low	
Viewing Distance	high	
View Loss & View Blocking Effects	low	
Rating of visual effects on variable weighting factors		
Public Domain View Place Sensitivity	low	
Physical Absorption Capacity	high	
Compatibility with Urban Context and Visual Character	high	
Overall rating of significance of visual impact	low	



FIGURE 12 EXISTING VIEW



FIGURE 13 VIEWPOINT LOCATION



FIGURE 14 PROPOSED

VIEW WEST FROM CLARKE ROAD AND YARDLEY AVENUE

Distance class

- Medium view
- 100-500m

Existing composition of the view

The composition is characterised by a constrained medium distance view west along the road corridor. A variety of mature tree species to either side of the corridor largely obscure views to within properties adjacent to the road, with predominantly only fence lines bordering properties in the foreground visible.

Visual effects of the proposed development on the composition as modelled

Mature vegetation to either side of the road entirely obstructs views of the proposed works and will have no impact on the existing view.

Visual effects of proposed development		
Visual Character	low	
Scenic Quality of View	low	
View Composition	low	
Viewing Level	low	
Viewing Period	low	
Viewing Distance	medium	
View Loss & View Blocking Effects	low	
Rating of visual effects on variable weighting factors		
Public Domain View Place Sensitivity	low	
Physical Absorption Capacity	high	
Compatibility with Urban Context and Visual Character	high	
Overall rating of significance of visual impact	nil	



FIGURE 15 EXISTING VIEW



FIGURE 16 VIEWPOINT LOCATION



FIGURE 17 PROPOSED

VIEW NORTH ALONG UNWIN ROAD BY ST LEO'S CATHOLIC COLLEGE

Distance class

- Medium view
- 100-500m

Existing composition of the view

A clear view of the intersection is visible with associated signage visible in the foreground of the composition. At the centre of the view immediately beyond the intersection is the south-east corner of Barker College with property signage presenting to the street. Surrounding this is mature vegetation which recedes west and north along the site boundaries, highly filtering views into the site. A small segment of the eastern facade of the single story parking structure and roof tennis court is visible through the vegetation.

Visual effects of the proposed development on the composition as modelled

The proposed Performing Arts and Exam Centre is highly visible from this location, with existing mature vegetation surrounding the intersection of Unwin Road and Clarke Road obstructing views of the proposed Aquatic and Tennis Centre.

Viewing Level	low
Viewing Period	low
Viewing Distance	high
View Loss & View Blocking Effects	medium
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	medium
Compatibility with Urban Context and Visual Character	medium
Overall rating of significance of visual impact	medium



FIGURE 18 EXISTING VIEW



FIGURE 19 VIEWPOINT LOCATION



FIGURE 20 PROPOSED

VIEW SOUTHWEST ALONG UNWIN ROAD FROM 27 UNWIN DRIVE

Distance class

- Distant view
- >500m

Existing composition of the view

A variety of vegetative species within the site is seen receding into the distance along the eastern site boundary and largely obstructs views to within the site. Similarly, mature vegetation within private properties can be seen to the left of the view. The vegetation to either side of Unwin Road largely restricts views to the road corridor and prevents any significant views of built-from.

Visual effects of the proposed development on the composition as modelled

Partial views of the eastern facade of the Aquatics and Tennis Centre are visible, however the setback of the proposed built-form and retention of existing mature vegetation obstructs or highly filters views. Similarly, the setback and retained vegetation entirely obstructs views of the Performing Arts and Exam Centre. The massing and built-form of the Aquatic and Tennis Centre is noticeably more significant than what is currently visible, however it does not dominate the view as a result of the aforementioned setback and retained vegetation and is in line with existing massing further to the north of Unwin Road (such as the Rosewood Centre).

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	low
Viewing Distance	medium
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	3
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	medium
Compatibility with Urban Context and Visual Character	medium
Overall rating of significance of visual impact	medium



FIGURE 21 EXISTING VIEW



FIGURE 22 VIEWPOINT LOCATION

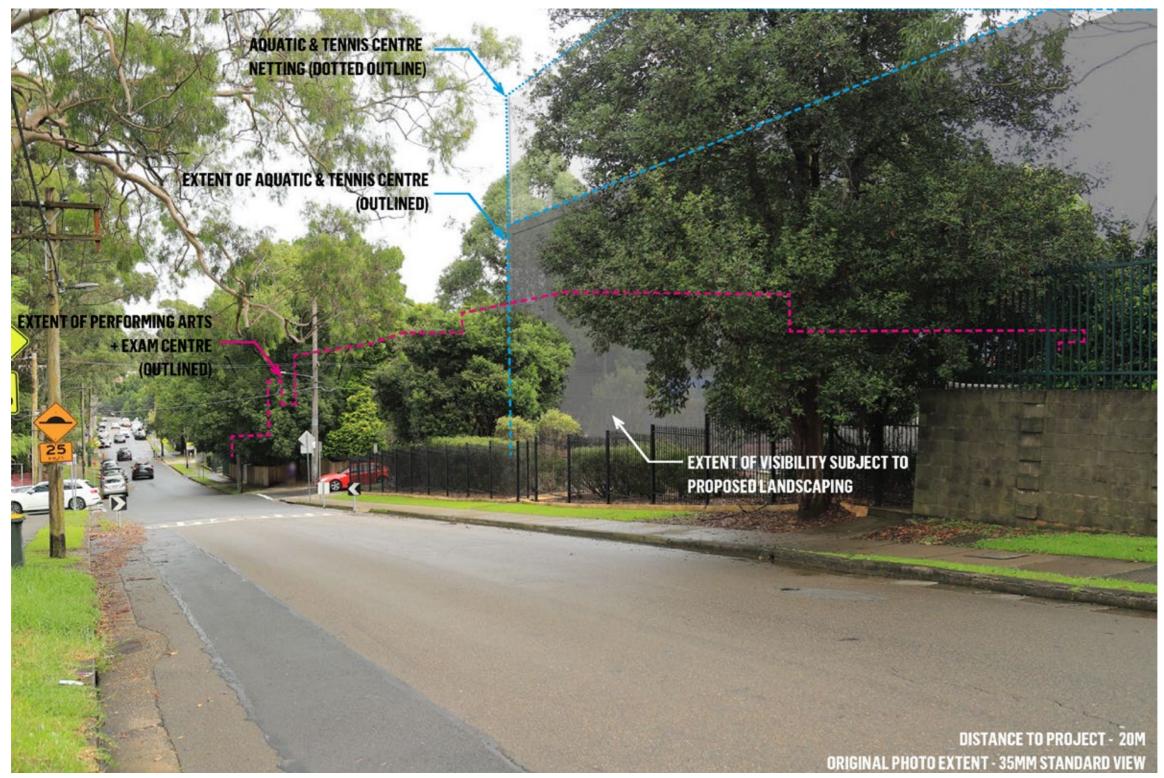


FIGURE 23 PROPOSED

VIEW EAST ALONG CLARKE ROAD OPPOSITE BARKER COLLEGE TENNIS COURTS

Distance class

- Medium view
- 100-500m

Existing composition of the view

The views is largely comprised of a variety of mature vegetation species both within Barker College and beyond within private properties along Unwin Road which prevents any long distance views. Built-form within the college is almost entirely obstructed due to vegetation in the foreground.

Visual effects of the proposed development on the composition as modelled

A small portion of the Performing Arts and Exam Centre is visible. Existing vegetation including boundary hedge and juvenile tree planting in the foreground as well as more mature tree species in the mid-ground entirely obstruct the majority of proposed builtform. While the level of visible built-form has increased from this location, the overall view composition remains one dominated by a variety of vegetative species, with the proposed works having a low impact on the overall visual scene.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	low
Viewing Distance	medium
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	3
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Overall rating of significance of visual impact	low



FIGURE 24 EXISTING VIEW



FIGURE 25 VIEWPOINT LOCATION



FIGURE 26 PROPOSED

VIEW EAST FROM CLARKE ROAD AND MARILLIAN AVENUE

Distance class

- Distant view
- >500m

Existing composition of the view

Minimal built-form is visible as a result of mature vegetation to either side of Clarke Road. The foreground is largely open as a result of minimal trees around the intersection, however this openness decreases when looking eastwards as a result of mature trees to either side of the road.

Visual effects of the proposed development on the composition as modelled

The Aquatics and Tennis Centre is largely obstructed from view by the mature trees seen receding into the distance along Clarke Road and the existing built-form within the college. A small portion of the proposed new built-form will be visible between the existing trees and building, however this will form a minor addition in the overall visual composition. The Performing Arts and Exam Centre is entirely obstructed from view as a result of mature vegetation within the site.

Visual effects of proposed development		
Visual Character	low	
Scenic Quality of View	low	
View Composition	low	
Viewing Level	low	
Viewing Period	low	
Viewing Distance	high	
View Loss & View Blocking Effects	low	
Rating of visual effects on variable weighting factors		
Public Domain View Place Sensitivity	low	
Physical Absorption Capacity	high	
Compatibility with Urban Context and Visual Character	high	
Overall rating of significance of visual impact	low	



FIGURE 27 EXISTING VIEW



FIGURE 28 VIEWPOINT LOCATION



FIGURE 29 PROPOSED

VIEW EAST FROM CLARKE ROAD AND COLLEGE CRESCENT ROUNDABOUT

Distance class

- · Close view
- <100m

Existing composition of the view

Mature trees to either side of Clarke Road largely obstruct views of built-form, with only highly filtered views of built-form to the south-western corner of the campus visible. The mature vegetation to either side of the road creates a confined view corridor looking east and prevents views into the campus or private residential properties.

Visual effects of the proposed development on the composition as modelled

Both the Aquatic and Tennis Centre proposed works and the Performing Arts Centre proposed works will not be visible due to mature vegetation to either side of Clarke Road.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	low
Viewing Distance	high
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Overall rating of significance of visual impact	nil



FIGURE 30 EXISTING VIEW



FIGURE 31 VIEWPOINT LOCATION



FIGURE 32 PROPOSED

VIEW NORTH FROM INTERSECTION OF UNWIN ROAD AND RUSSELL AVENUE

Distance class

- Distant view
- >500m

Existing composition of the view

The view is comprised of Unwin Road receding northwards with mature tree species to either side. The dominance of these mature trees obstructs views of built-form both within Barker College and surrounding private properties, with only partial views of minor built-form elements such as fencing visible.

Visual effects of the proposed development on the composition as modelled

The significant level of mature vegetation entirely obstructs the Aquatic and Tennis Centre proposed works and the Performing Arts Centre proposed works.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	low
Viewing Distance	low
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Overall rating of significance of visual impact	nil



FIGURE 34 EXISTING VIEW



FIGURE 35 VIEWPOINT LOCATION

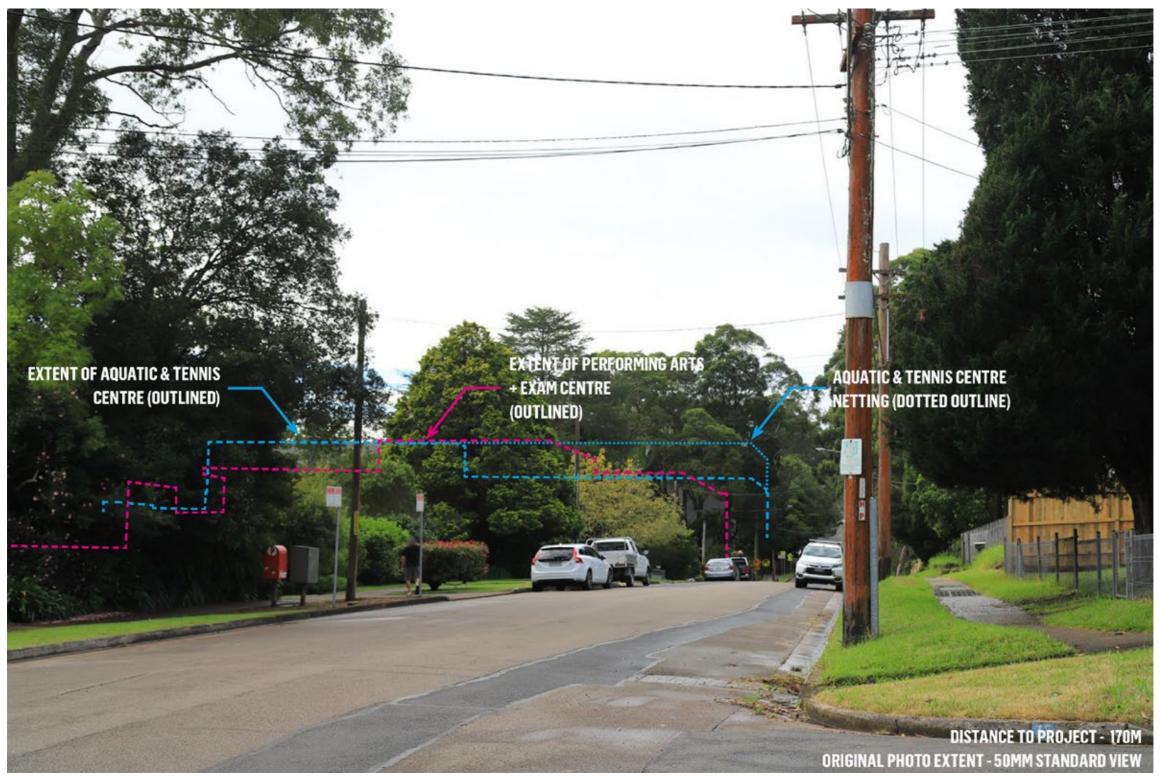


FIGURE 36 PROPOSED

7.0 VISUAL IMPACT ASSESSMENT

7.1 SENSITIVITY

The overall rating for view place sensitivity was weighted according to the influence of variable factors such as distance, the location of items of heritage significance or public spaces of high amenity and high user numbers.

Public domain view place sensitivity was rated as low for all views, with the views generally experienced for shorter durations of time as a result of being in moving vehicles or walking past. Views are available from one public open space to the east of the proposal sites (Unwin Park), however this is a neighbourhood scale open space which would generally be considered to have a limited number of daily users.

7.2 PHYSICAL ABSORPTION CAPACITY

The following definitions describe our understanding of relevant considerations when assessing visual impacts. These factors form part of our methodology and allow us to consider the importance of visual change in a 'site- specific' or nuanced way. The definitions were originally developed by Dr Richard Lamb but amended by Urbis and included in our method with his permission. Physical Absorption Capacity (VAC) 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.
- 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, difficulty of being identified or compatibility with existing elements.
- 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.

The existing visual environment has a relatively high capacity to absorb the visual changes proposed given the surrounding topography and high level of mature vegetation, which block or partially block views towards the proposed development. Of the eight viewpoints assessed, six viewpoints have a high absorption capacity and two have a medium absorption capacity.

7.3 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 project 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.

The proposed development has high compatibility with the existing visual character of the site and the immediate visual context. While much of the surrounding built-form is characterised by single or double storey residential dwellings, examples of built-form similar in scale, height and character are located within close proximity including Barker College buildings to the west of the proposed buildings, the Rosewood Centre to the north of the campus and buildings associated with St Leo's catholic College such as the Light

of Christ Centre.

In this regard the proposed development would not be out of place or an have unexpected features for viewers travelling within the immediate or wider visual catchment.

All but two views were rated as having a HIGH compatibility which provides an 'down-weight' to the level of visual effects, reducing their importance

7.4 COMPATIBILITY WITH REGULATORY CONTEXT

The proposed development has been assessed against the Rose Bay Planning Principle (*Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor* [2013] NSWLEC 1046) and the potential visual impacts were found to be acceptable.

7.5 SIGNIFICANCE OF RESIDUAL VISUAL IMPACTS

Residual effects are discussed and quoted below by Dr Lamb as follows:

The final question to be answered after the mitigation factors are assessed, 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 permanent visual change to the immediate setting.

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 colours, materials and the articulation of building surfaces. These personal preferences are to or resilience towards change to the existing arrangement of views. Individuals or groups may express strong preferences for either the existing, approved or proposed form of urban development.

7.5.1 APPLYING THE 'WEIGHTING' FACTORS

To arrive at a final level of significance of visual impact, the weighting factors are applied to the overall level of visual effects.

In all views modelled where the level of visual effects was rated as low for the majority of factors, for example in relation to effects on scenic quality, character or composition, the overall rating was also low or nil.

The visual effect which rates the highest amongst the eight viewpoints is distance, which ranges from low through to high depending on the viewpoint location. Although some viewpoints recorded a high rating for distance, when assessed in conjunction with other weighting factors such as PAC and compatibility with the urban context, reduced the significance of the effect resulting in a low impact.

7.5.2 OVERALL VISUAL IMPACTS

Taking into consideration the level of visual effects of the proposal on baseline characteristics, and application of impact weighting factors, the visual impacts of the proposed development were found to be compatible with the existing urban character.

	Description		Rating of Visual Effects on Variable Weighting Factors as Low, Medium or High			Overall Rating of Significance of
View Reference		View Direction	"(Refer to Table 4 in Appendix 1 for descriptions of ratings) NB: high ratings mean low impacts e.g. where there is high compatibility or absorption, this reduces the significance of the weighting factor"			
			Public Domain View Place Sensitivity	Visual Absorption Capacity	Compatibility with Urban Context and Visual Character	Visual Impact
View 01	VIEW SOUTHWEST TO UPPER SITE FROM BLUE GUM CARPARK	SOUTHWEST	LOW	HIGH	HIGH	LOW
View 02	VIEW WEST FROM CLARKE ROAD AND YARDLEY AVENUE	WEST	LOW	HIGH	HIGH	NIL
View 03	VIEW NORTH ALONG UNWIN ROAD BY ST LEO'S CATHOLIC COLLEGE	NORTH	LOW	MEDIUM	MEDIUM	MEDIUM
View 04	VIEW SOUTHWEST ALONG UNWIN ROAD FROM 27 UNWIN DRIVE	SOUTHWEST	LOW	MEDIUM	MEDIUM	MEDIUM
View 05	VIEW EAST ALONG CLARKE ROAD OPPOSITE BARKER COLLEGE TENNIS COURTS	EAST	LOW	HIGH	HIGH	LOW
View 06	VIEW EAST FROM CLARKE ROAD AND MARILLIAN AVENUE	EAST	LOW	HIGH	HIGH	LOW
View 07	VIEW EAST FROM CLARKE ROAD AND COLLEGE CRESCENT ROUNDABOUT	EAST	LOW	HIGH	HIGH	NIL
View 08	VIEW NORTH FROM INTERSECTION OF UNWIN ROAD AND RUSSELL AVENUE	NORTH	LOW	HIGH	HIGH	NIL

 Table 2
 Summary Table of Visual Impacts

8.0 CONCLUSION

- The proposed works create generally low visual effect on the base line factors such as visual character, scenic quality, and view place sensitivity from public domain views.
- Of the eight views analysed, the overall visual impacts are rated from nil to low (six viewpoints) with two viewpoints having a medium visual impact.
- The scale, height and character of the proposed built-form is not dissimilar
 to existing examples in the surrounding landscape including the Rosewood
 Centre to the north and buildings associated with St Leo's Catholic College
 to the east.
- The surrounding topography and level of mature vegetation in the adjacent streetscapes highly filters or entirely obstructs views of the proposed works, generally limiting the visual catchment to immediately adjacent streets and within close proximity.
- Considering the likely view impacts to the immediate and wider area based on the representative modelled views and the overall low view impact ratings, in our opinion the view impacts are considered acceptable.

APPENDIX 1

DESCRIPTION OF VISUAL EFFECTS

Table 3 Description of Visual Effects

Published on the NSW Department of Planning, Industry and Environment website via major projects tab (NSW DPIE). This information has been developed by RLA and is acknowledged as being a comprehensive summary of typical descriptions regarding visual effects. The descriptions below have been used as a guide to make subjective judgements in relation to the effects and impacts of the proposed development on each modelled view.

Factors	Low Effect	Medium Effect	High Effect	
The proposal does not have negative effects on features which are associated with high scenic quality, such as the quality of panoramic views, proportion of or dominance of structures, and the appearance of interfaces.		The proposal has the effect of reducing some or all of the extent of panoramic views, without significantly decreasing their presence in the view or the contribution that the combination of these features make to overall scenic quality	The proposal significantly decreases or eliminates the perception of the integrity of any of panoramic views or important focal views. The result is a significant decrease in perception of the contribution that the combinations of these features make to scenic quality	
Visual character	The proposal does not decrease the presence of or conflict with the existing visual character elements such as the built form, building scale and urban fabric	The proposal contrasts with or changes the relationship between existing visual character elements in some individual views by adding new or distinctive features but does not affect the overall visual character of the precinct's setting.	The proposal introduces new or contrasting features which conflict with, reduce or eliminate existing visual character features. The proposal causes a loss of or unacceptable change to the overall visual character of individual items or the locality.	
View place sensitivity	Public domain viewing places providing distant views, and/or with small number of users for small periods of viewing time (Glimpses-as explained in viewing period).	Medium distance range views from roads and public domain areas with medium number of viewers for a medium time (a few minutes or up to half day-as explained in viewing period).	Close distance range views from nearby roads and public domain areas with medium to high numbers of users for most the day (as explained in viewing period).	
Viewer sensitivity	Residences providing distant views (>1000m).	Residences located at medium range from site (100-1000m) with views of the development available from bedrooms and utility areas.	Residences located at close or middle distance (<100m as explained in viewing distance) with views of the development available from living spaces and private open spaces.	
View composition	Panoramic views unaffected, overall view composition retained, or existing views restricted in visibility of the proposal by the screening or blocking effect of structures or buildings.	Expansive or restricted views where the restrictions created by new work do not significantly reduce the visibility of the proposal or important features of the existing visual environment.	Feature or focal views significantly and detrimentally changed.	
Relative viewing level	Elevated position such as ridge top, building or structure with views over and beyond the site.	Slightly elevated with partial or extensive views over the site.	Adjoining development, public domain area or road with view blocked by proposal.	
Viewing period	Glimpse (e.g. moving vehicles).	Few minutes to up to half day (e.g. walking along the road, recreation in adjoining open space).	Majority of the day (e.g. adjoining residence or workplace).	
Viewing distance	Distant Views (>1000m).	Medium Range Views (100-1000m).	Close Views (<100m).	
View loss or blocking effect	No view loss or blocking.	Partial or marginal view loss compared to the expanse/extent of views retained. No loss of views of scenic icons.	Loss of majority of available views including loss of views of scenic icons.	

Visual impacts factors

Indicative ratings table of visual impacts factors:

Factors	Low Impact	Medium Impact	High Impact
Physical absorption capacity	Existing elements of the landscape physically hide, screen or disguise the proposal. The presence of buildings and associated structures in the existing landscape context reduce visibility. Low contrast and high blending within the existing elements of the surrounding setting and built form.	The proposal is of moderate visibility but is not prominent because its components, texture, scale and building form partially blend into the existing scene.	The proposal is of high visibility and it is prominent in some views. The project location is high contrast and low blending within the existing elements of the surrounding setting and built form.
Compatibility with urban/natural features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing urban and natural features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character, scale, form and spatial arrangement of the existing urban and natural features in the immediate context. The proposal introduces new urban features, but these features are compatible with the scenic character and qualities of facilities in similar settings.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the existing urban features in the immediate context which could reasonably be expected to be new additions to it when compared to other examples in similar settings.
Compatibility with urban features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing industrial features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character and built form of the existing urban context and buildings in the immediate context. The proposal introduces new features, but these are compatible with the scenic character and qualities of the setting.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the industrial context, or which could reasonably be expected to be new additions to it.

APPENDIX 2

CERTIFICATION OF PHOTMONTAGES

USE OF PHOTOMONTAGES OR OTHER VISUALISATION

The Landscape Institute (UK) provides the following guidance:

Visual representations or 'visualisations' must fairly represent what people would perceive in the field. The sophistication of visualisation technique needs to be proportionate to factors such as purpose, use, user, sensitivity of the situation and magnitude of potential effect.

The use of the most appropriate type of visualisation requires an understanding of the landscape and visual context within which the development may be seen, knowledge regarding the type of development proposed, its scale and size, and an understanding of the likely effect of introducing the development into the existing environment.

Photomontages were selected as being an appropriate means to model the potential visual effects of the proposal. This analysis required only block-model photomontages as a means to show the extent of the built form proposed. Other graphic aids which include fine-grained level of architectural detail and a more photo-realistic image of the built forms proposed will be provided by others.

PHOTOMONTAGES IN THE LAND & **ENVIRONMENT COURT OF NSW**

The preparation of photomontages has been undertaken to comply with the practice direction for the use of photomontages in the Land and Environment Court of New South Wales which in NSW is the most conservative standard to follow in the absence of any statutory guidelines. This involves following a number of steps as outlined below.

- Any photomontage proposed to be relied on in an expert report or as demonstrating an expert opinion as an accurate depiction of some intended future change to the present physical position concerning an identified location and is to be accompanied by:
- A photograph showing the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage (the existing photograph);
- A copy of the existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed. The wire frame overlay represents the existing surveyed elements which correspond with the same elements in the existing photograph; and
- A 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken.
- Confirmation that accurate 2D/3D survey data has been used to prepare the Photomontages. This is to include confirmation that survey data was used: for depiction of existing buildings or existing elements as shown in the wire frame; and to establish an accurate camera location and RL of the camera.
- Any expert statement or other document demonstrating an expert opinion that proposes to rely on a photomontage is to include details of:

- The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived was obtained; and
- The camera type and field of view of the lens used for the purpose of the photograph in (1)(a) from which the photomontage has been derived.

CERTIFICATION OF ACCURACY OF PHOTOMONTAGES

The method of preparation is outlined in Appendix 4 of this report, prepared by Urbis visualisation - lead Ashley Poon.

The accuracy of the locations of the 3D model of the proposed development with respect to the photographic images was checked by Urbis in multiple ways:

- 1. The model was checked for alignment and height with respect to the 3D survey and adjacent surveyed reference markers which are visible in the images.
- 2. The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the photographs are known.
- 3. Reference points from the survey were used for cross-checking accuracy in all
- **4.** No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the camera lens, were reviewed by myself and were considered to be within reasonable limits.

I am satisfied that the photomontages have been prepared in accordance with the Land and Environment Court of New South Wales practice direction.

I certify, based on the methods used and taking all relevant information into account, that the photomontages are as accurate as is possible in the circumstances and can be relied upon by the Court for assessment.

BARKER COLLEGE, HORNSBY

VISUAL ASSESSMENT - PHOTO-SIMULATIONS

PREPARED FOR **BARKER COLLEGE**AUGUST 2022

PHOTO-SIMULATIONS PREPARED BY:

Urbis, Level 10, 477 Collins Street, MELBOURNE 3000.

DATE PREPARED:

17 August 2022

VISUALISATION ARTIST:

Ashley Poon, Urbis - Lead Visual Technologies Consultant

Bachelor of Planning and Design (Architecture) with over 20 years' experience in 3D visualisation

LOCATION PHOTOGRAPHER:

Jane Maze-Riley, Urbis - Associate Director, National Design

CAMERA:

Canon EOS 6D Mark II - 26 Megapixel digital SLR camera (Full-frame sensor) - with GPS enabled

CAMERA LENS AND TYPE:

Canon EF24-105mm f/4L IS USM

SOFTWARE USED:

- 3DSMax 2023 with Arnold 5.0 (3D Modelling and Render Engine)
- AutoCAD 2021 (2D CAD Editing)
- Globalmapper 23 (GIS Data Mapping / Processing)
- Photoshop CC 2022 (Photo Editing)

DATA SOURCES:

- Point cloud and Digital Elevation Models from NSW Government Spatial Services datasets Sydney 2020-06
- Aerial photography from Nearmap 2022-04-21
- Proposed 3D massing model received from Architect 2022-05-25
- Proposed Architectural plans received from Architect 2022-05-25

2 BARKER COLLEGE, HORNSBY | Photo-simulations for proposed development

METHODOLOGY:

Photo-simulations provided on the following pages have been produced with a high degree of accuracy to comply with the requirements as set out in the practice direction for the use of visual aids in the Land and Environment Court of New South Wales.

The process for producing these photo-simulations are outlined below:

- Photographs have been taken on site using a full-frame GPS enabled digital camera coupled with a quality lens in order to obtain high resolution photos whilst minimising image distortion. Photos are taken hand-held and at a standing height of 1.6m above natural ground. Photos have generally been taken at a standard focal length of 50mm or at 35mm to cover a wider context. A photo taken using the 50mm focal length on a full-frame camera (equivalent to 40° horizontal field-of-view / 46.8° diagonal field-of-view) is an accepted photographic standard to approximate human vision.
- Using available geo-spatial data for the site, including independent site surveys, aerial photography, digital
 elevation models and LiDAR point-clouds, the relevant datasets are validated and combined to form a georeferenced base 3D model from which additional information, such as proposed architecture, landscape and
 photographic viewpoints can be inserted.
- Layers of the proposed development are obtained from the designers as digital 3D models and 2D plans. All
 drawings/models are verified and registered to their correct geo-location before being inserted into the base 3D
 model.
- For each photo being used for the photo-simulation, the GPS location, camera, lens, focal length, time/date and exposure information is extracted, checked and replicated within the 3D base model as a 3D camera. A camera match is created by aligning the 3D camera with the 3D base model against the original photo, matching the original photographic location and orientation.
- From each viewpoint, a reference 3D model camera match is generated to verify an accurate match between the base 3D model (existing ground survey/vegetation etc) and original photo. A 3D wireframe image of the 3D base model is rendered in the 3D modelling software and composited over the original photo using the photoediting software.
- From each viewpoint, the final photo-simulation is then produced by compositing 3D rendered images of the proposed development into the original photo with editing performed to sit the render at the correct view depth. Photographic elements are cross-checked against the 3D model to ensure elements such as foreground trees and buildings that may occlude views to the proposed development are retained. Conversely, where trees/buildings may be removed as part of the proposal, these are also removed in the photo-simulation.





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT PHOTO-SIMULATIONS - VIEW LOCATION MAP





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 1 (PHOTO 2426) LOOKING SSW, UNWIN ROAD - ROSEWOOD CENTRE | EXISTING PHOTO : 2022-04-08 14:22 AEST

DATE: 2022-08-17 **JOB NO:** P0023439 DWG NO: VP_01A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT VP 1 (PHOTO 2426) LOOKING SSW, UNWIN ROAD - ROSEWOOD CENTRE | ALIGNMENT OF 3D MODEL TO PHOTO DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_01B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 1 (PHOTO 2426) LOOKING SSW, UNWIN ROAD - ROSEWOOD CENTRE | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_01C REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 2 (PHOTO 2438) LOOKING WNW, INTERSECTION OF YARDLEY AVE & CLARKE RD | EXISTING PHOTO : 2022-04-08 14:40 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_02A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 2 (PHOTO 2438) LOOKING WNW, INTERSECTION OF YARDLEY AVE & CLARKE RD | ALIGNMENT OF 3D MODEL TO PHOTO

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_02B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 2 (PHOTO 2438) LOOKING WNW, INTERSECTION OF YARDLEY AVE & CLARKE RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_02C REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 3 (PHOTO 2441) LOOKING NNW, UNWIN RD | EXISTING PHOTO : 2022-04-08 14:47 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_03A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT VP 3 (PHOTO 2441) LOOKING NNW, UNWIN RD | ALIGNMENT OF 3D MODEL TO PHOTO





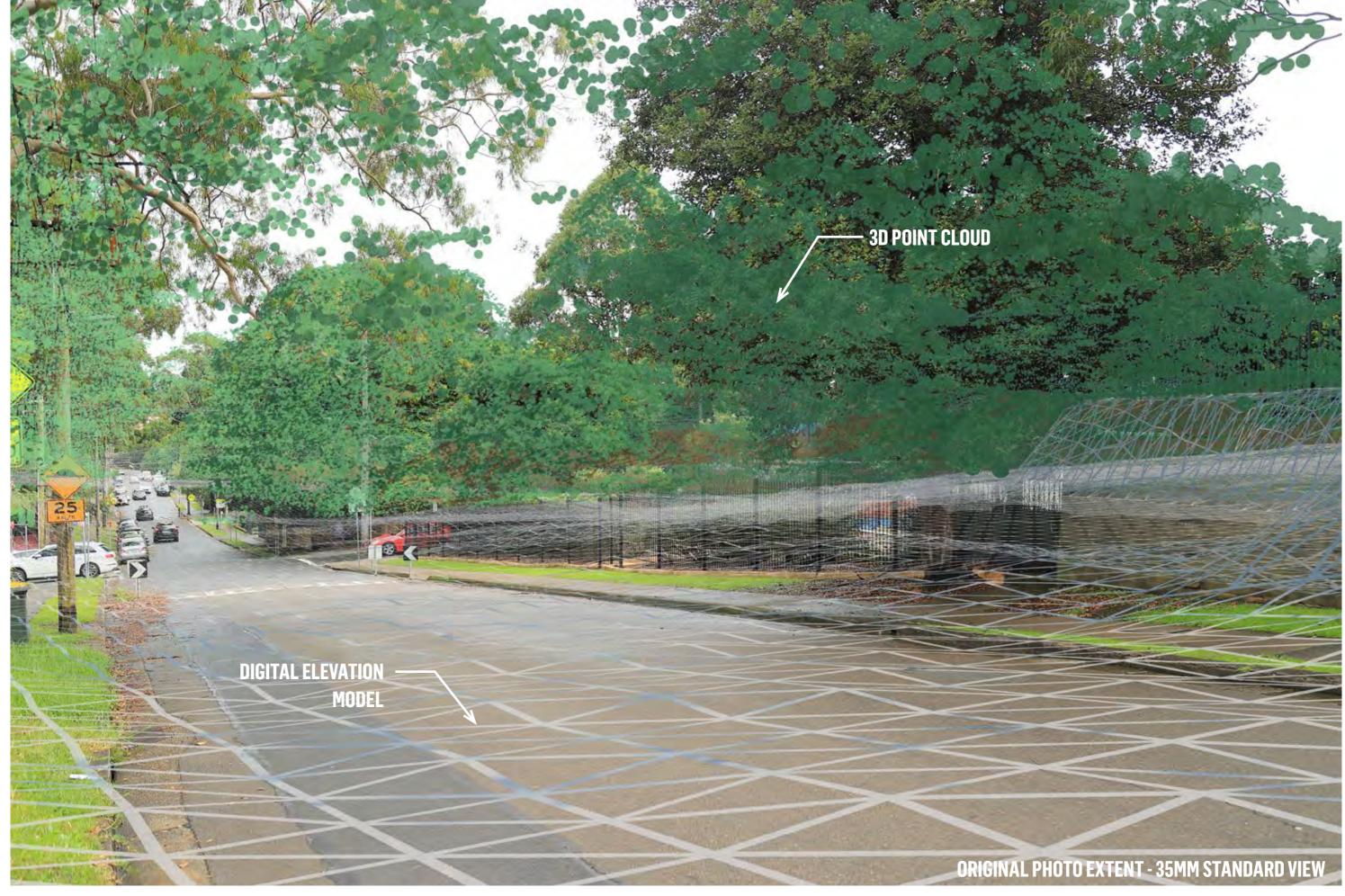
BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 3 (PHOTO 2441) LOOKING NNW, UNWIN RD | PHOTO-SIMULATION - PROPOSED





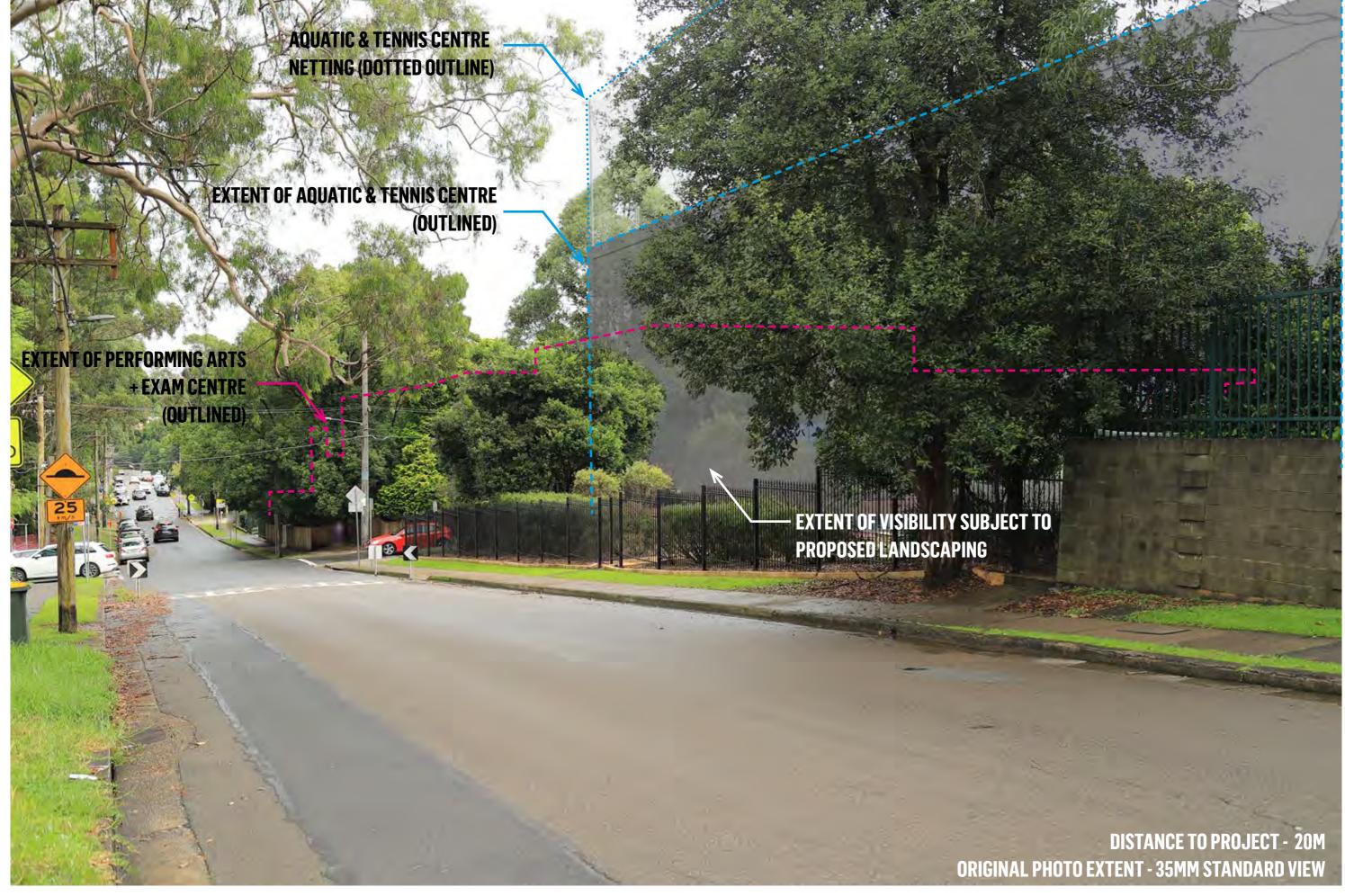
BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 4 (PHOTO 2468) LOOKING SSW, UNWIN RD | EXISTING PHOTO : 2022-04-08 15:06 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_04A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT VP 4 (PHOTO 2468) LOOKING SSW, UNWIN RD | ALIGNMENT OF 3D MODEL TO PHOTO DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_04B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 4 (PHOTO 2468) LOOKING SSW, UNWIN RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_04C REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 5 (PHOTO 2474) LOOKING ESE, ALONG CLARKE RD | EXISTING PHOTO : 2022-04-08 15:12 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_05A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 5 (PHOTO 2474) LOOKING ESE, ALONG CLARKE RD | ALIGNMENT OF 3D MODEL TO PHOTO

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_05B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 5 (PHOTO 2474) LOOKING ESE, ALONG CLARKE RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_05C REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 6 (PHOTO 2483) LOOKING EAST, INTERSECTION MARILLIAN AVE & CLARKE RD | EXISTING PHOTO : 2022-04-08 15:17 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_06A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 6 (PHOTO 2483) LOOKING EAST, INTERSECTION MARILLIAN AVE & CLARKE RD | ALIGNMENT OF 3D MODEL TO PHOTO

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_06B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 6 (PHOTO 2483) LOOKING EAST, INTERSECTION MARILLIAN AVE & CLARKE RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_06C REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 7 (PHOTO 2486) LOOKING EAST, INTERSECTION COLLEGE CRES & CLARKE RD | EXISTING PHOTO : 2022-04-08 15:20 AEST

DATE: 2022-08-17 **JOB NO:** P0023439 **DWG NO:** VP_07A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 7 (PHOTO 2486) LOOKING EAST, INTERSECTION COLLEGE CRES & CLARKE RD | ALIGNMENT OF 3D MODEL TO PHOTO

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_07B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENTVP 7 (PHOTO 2486) LOOKING EAST, INTERSECTION COLLEGE CRES & CLARKE RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 **JOB NO:** P0023439 **DWG NO:** VP_07C

REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 8 (PHOTO 2501) LOOKING NORTH, INTERSECTION RUSSELL AVE & UNWIN RD | EXISTING PHOTO : 2022-04-08 15:35 AEST

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_08A REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT VP 8 (PHOTO 2501) LOOKING NORTH, INTERSECTION RUSSELL AVE & UNWIN RD | ALIGNMENT OF 3D MODEL TO PHOTO

DATE: 2022-08-17 JOB NO: P0023439 DWG NO: VP_08B REV: -





BARKER COLLEGE, HORNSBY - VISUAL ASSESSMENT
VP 8 (PHOTO 2501) LOOKING NORTH, INTERSECTION RUSSELL AVE & UNWIN RD | PHOTO-SIMULATION - PROPOSED

DATE: 2022-08-17 **JOB NO:** P0023439 **DWG NO:** VP_08C

REV: -