SYDNEY ADVENTIST HOSPITAL
VISUAL IMPACT ANALYSIS

Wahroonga

June 2010

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CONTENTS

INTRODUCTION

Urbis has been engaged by the Sydney Adventist Hospital to undertake a visual impact analysis of the site located at the intersection Fox Valley Road and The Comenarra Parkway.

This visual impact analysis is based on drawings by Morris Bray, dated June 2010, which illustrate staged alterations and additions to the existing hospital buildings. The assessment of the potential visual impact of the proposed building height on the subject site tests the visual impacts of a 39.5m height control, consistent with the maximum building height recommendation for the precinct. The proposed development complies with this height control.

The objectives of this report are:

- To identify, assess and document the visual and landscape qualities of the land within the study area and potential view impacts of the proposed development.
- To ensure potential development of the land adequately accounts for localised and sub-regional visual impacts.
- To identify potential mitigation measures to reduce visual impact of the proposed development.

METHOD

The method chosen utilises a formal aesthetic model for describing the visual landscape units combined with a qualitative analysis approach.

The process that Urbis used to conduct this visual landscape analysis included, but was not limited to:

1. Research and site survey
    - Desktop and field work to assess base information
2. Classification
    - Dividing the landscape into units and types that have distinct visual character to assist in defining the importance of where the views are being taken from.
    - Viewpoints are selected based on prominent locations identified within each landscape unit.
3. Analysis
    - Detailed evaluation of common elements of the landscape to understand the visual character and how it is experienced by people in the public domain.
    - An assessment of the relative importance of each common element in the context of the landscape in relation to the importance of views.
    - An assessment of the quality and impact of views from selected view points
4. Presentation of findings

The importance of particular views assessed in the analysis was determined by the method described in the planning principle for views from Tenacity Consulting v Warringah [2004] NSWLEC 140.

Potential private domain view impact is identified in this report however particular views from individual dwellings have not been assessed.

STUDY CONTEXT

Local Context

The study area as illustrated in Figure 1 is located approximately 18km north-west of the Sydney CBD, and is located 1km south of the intersection between the Pacific Highway, Pennant Hills Road and F3 Freeway.

In the immediate context, the site is approximately 2.2km to the east of Thornleigh Railway Station, 3km to the west of Turramurra Railway Station and 1.5km to the south of Normanhurst Railway Station. Loreto Normanhurst Catholic School is located north of the site and a neighbourhood retail centre is south of the intersection of the Comenarra Parkway and Fox Valley Road.

Site Context

The proposed development seeks alterations and additions to the Sydney Adventist Hospital. The hospital is located in the suburbs of Wahroonga and Normanhurst, astride the western edge boundary of Ku-ring-gai Local Government Area (LGA).

The existing hospital building is located on a high point and is relatively visible from a distance of up to 2km. Beyond 2km the extent that which the site can be seen is limited and views are considered negligible due to the scale of the impact. This distance of approximately 2km from the proposed development has been used to define the study area as shown in Figure 1.

It is also noted that a significant portion of the land within the 2km radius of the site comprises bushland or open space from which no key view points have been identified.

Figure 1 – Site Context

TOPOGRAPHY

Fox Valley Road runs along a ridge to the east of the site, with land falling away to Coups Creek to the west and Fox Valley Creek to the east. Both creeks are tributaries of the Lane Cove River.

The Coups Creek riparian corridor adjacent to the western boundary of the site, links across the Comenarra Parkway to Lane Cove National Park in the south, and extends north of the site along the creek and between existing residential development.

As illustrated in Figure 2, a local high point is situated in the middle of the subject site at an elevation of approximately 170m (AHD). The lowest portion of the site is situated along the western boundary at an elevation of approximately 154m (AHD).

A regional high point is located 2km north east of the site along the Pacific Highway at an elevation of 210m.

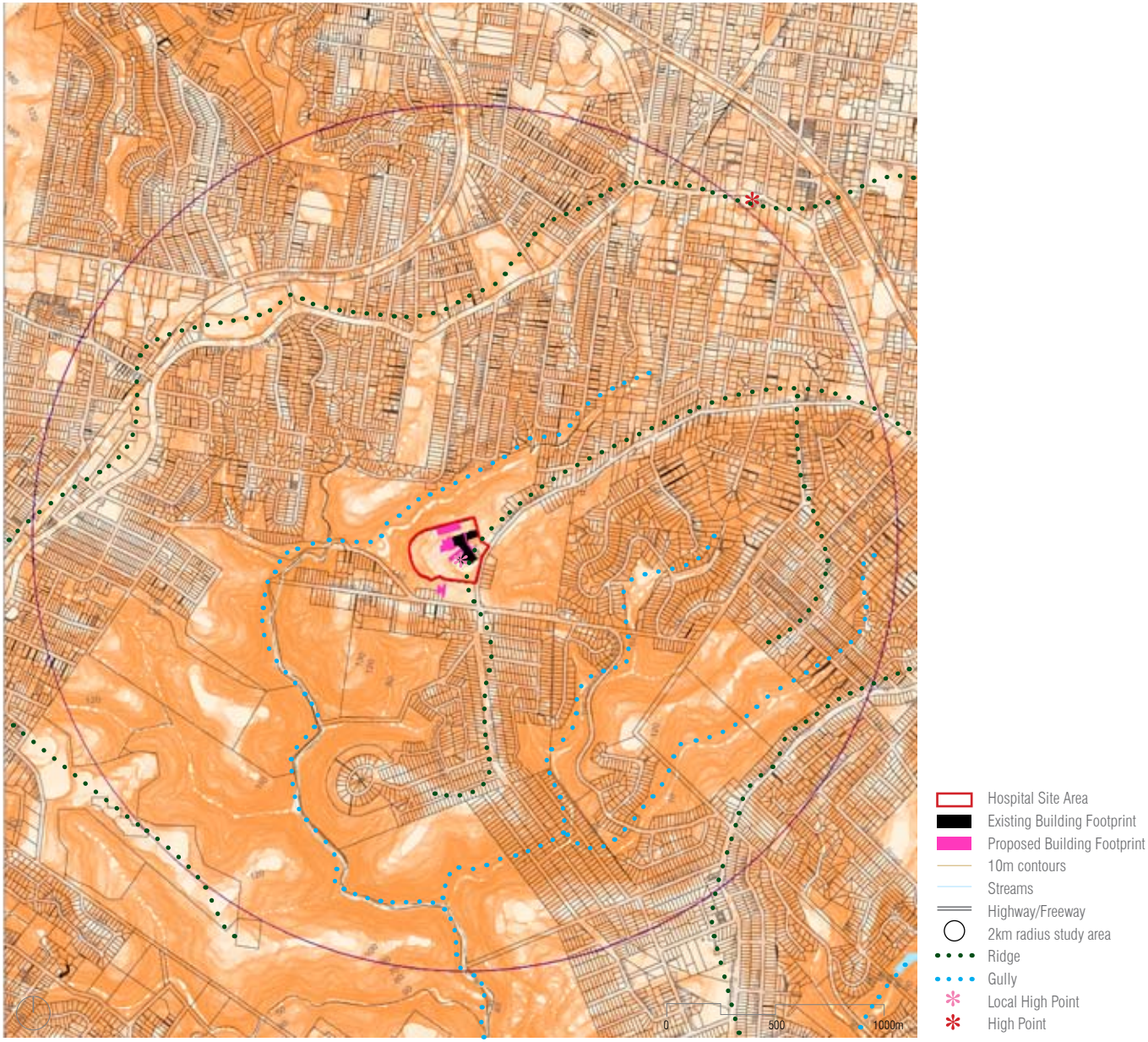

Figure 2 – Topography

EXISTING LAND USES + CHARACTER TYPES

To the north, east and west of the site, the suburbs of Thornleigh, Normanhurst and Wahroonga/Warrawee respectively, typify the existing built form context. These include predominately large single lot residential dwellings with extensive gardens. Recent medium/high density sites particularly at key centres and along the Pacific Highway are emerging.

To the south of the site lies the Lane Cove National Park. The park separates the south western portion of the site from the nearby suburbs of Roseville, Pennant Hills, North Epping and South Turramurra. The physical context of the site is illustrated in Figure 3.

Much of the surrounding development is buffered by urban bushland. The Sydney Adventist Hospital directly adjoins surrounding development along Fox Valley Road to the north-east.

A small retail centre is situated to the south of the hospital at the corner of Comenarra Parkway and Fox Valley Road.

Type	Type Name	Characteristics
1	Fox Valley	Single lot residential, commercial and institutional buildings with well established trees.
2	Turramurra	Predominantly single lot residential with well established trees.
3	Wahroonga	Predominantly single lot residential with well established trees.
4	Mahratta Urban Conservation Area	Area of large single-storey 1920s, 1930s and 1940s houses with some post World War 2 houses in the centre of the precinct.
5	Thornleigh/ Normanhurst	Mix of single lot residential and medium density housing.
6	North Epping	Predominantly single lot residential with well established trees.
7	Thornleigh Industrial Area	Light industrial and commercial.
8	Lane Cove Vegetation	Dense vegetation.
9	Berowra Valley Vegetation	Dense vegetation.

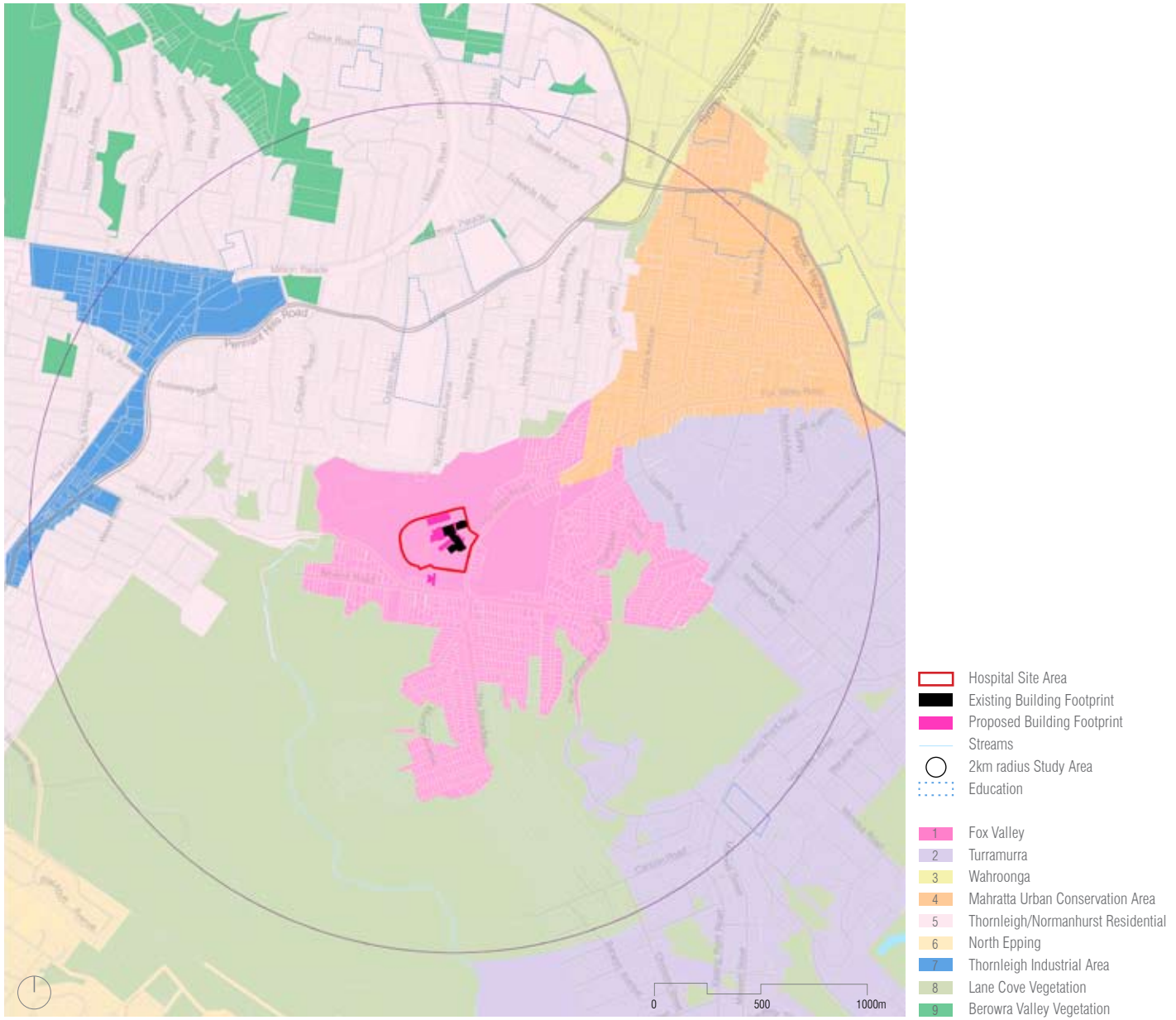

Figure 3 – Landscape Types

VISUAL SENSITIVITY

A viewshed analysis was undertaken utilising Geographical Information Systems (GIS). The analysis was based on available contour and cadastre data and used the following criteria:

- Building height on subject lands of 39.5m.
- An average tree height for treed areas of 27.5m was applied based on tree heights acknowledged in the Cumberland Ecology Report accompanying the Wahroonga Estate Environmental Assessment Report.
- Surrounding land excluding roads, open space and utilities is assumed to be developed to a height of 3.2m to reflect the predominant detached single family dwelling built form.

Viewing points where the proposed development is most likely to be visible from have been selected based on the view shed analysis (Figure 4). Each selected viewing points are then qualitatively assessed to determine their sensitivity to change. To determine the sensitivity to change, each view point is assessed based on:

- The type of viewer (identification of the predominant viewers from each given location).
- The duration of view (an evaluation / grading of the period of time each view would last from each given location).
- The viewing distance (an approximate estimation on how far away each given location is from the subject area.
- An assessment on what can be viewed from each given location, in terms of foreground / mid-ground / background elements).
- The quality of the view (an assessment of whether view points possess views of high visual quality, such as uninterrupted views to the skyline, panoramic views of the tree canopies and skyline interface etc).
- The landscape compatibility (the extent to which the visual landscape can accept change without loss of existing visual amenity, as viewed from each given location).

	No existing view / no vegetation buffer	No existing view / vegetation buffer	Existing view / no vegetation buffer	Existing view / landscape buffer
Distant (greater than 1km)	Moderate	Low	Low	Low
Middle (500m - 1km)	High	Moderate	Moderate	Low
Local (less than 500m)	High	High	Moderate	Moderate

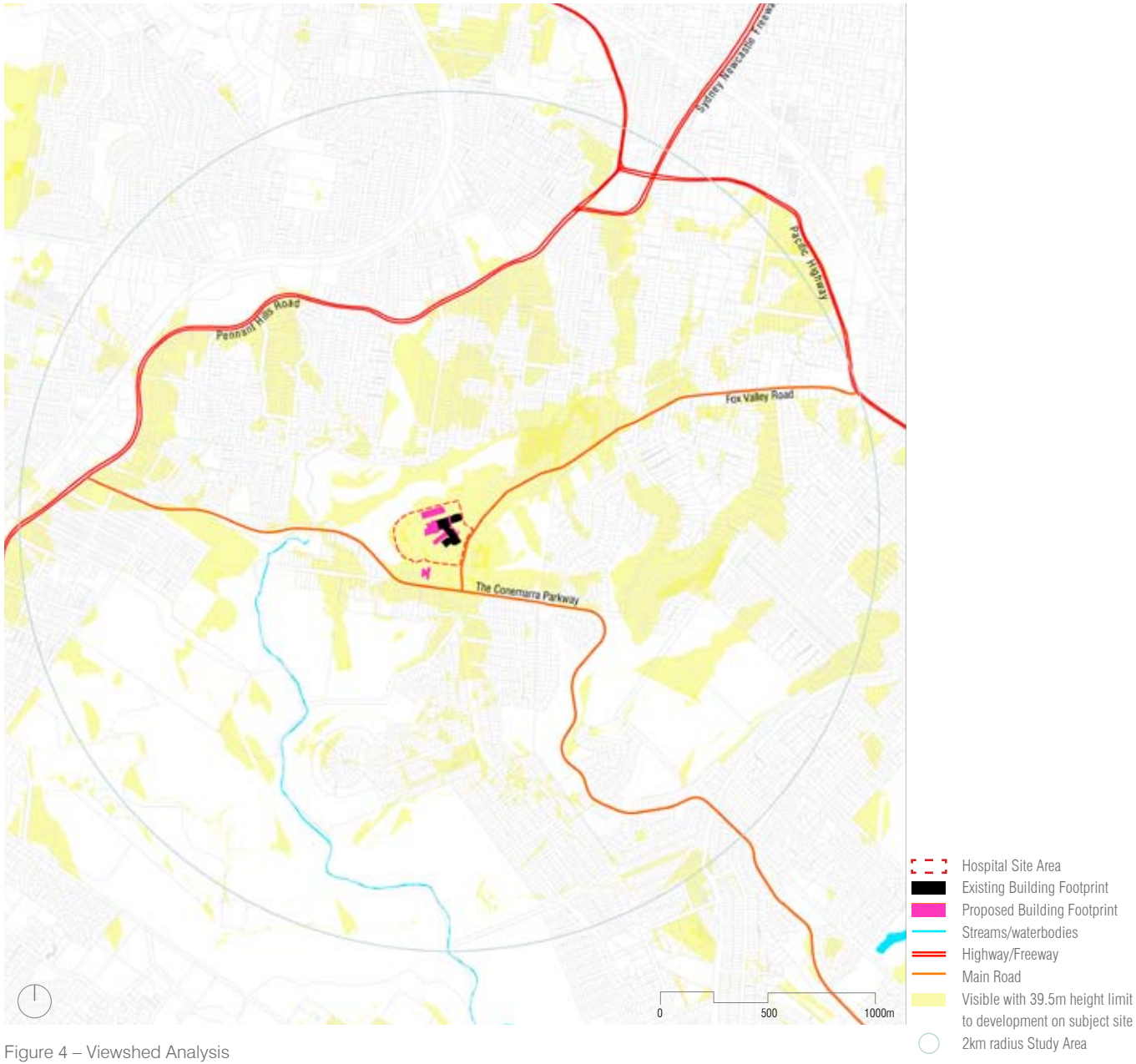

Figure 4 – Viewshed Analysis

VIEWING POINT 1

This viewing point is located on Fox Valley Road, approximately 250m west from the intersection of Strone Avenue.

Figure 5 – Viewing Point 1

Figure 6 – Location of Viewing Point 1

	Assessment
Type of viewer	Residents, motorists and pedestrians.
Duration of view	Moderate; 50km/hr speed limit, longer for pedestrians and residential housing.
Viewing distance	The subject site is slightly obscured by vegetation with roughly half the main hospital building visible.
Quality of view	Low quality of view as this point affords visibility of a vegetated streetscape which is interrupted by the existing hospital building. The view is not considered highly valuable, but any changes to the existing SAN building will be highly visible.
Landscape compatibility	Any development behind the existing landscape buffer would have a high impact on the visual amenity of the landscape setting as viewed from this point if it was to be higher than the vegetation canopy.

Visual Sensitivity

The view from this location has a low sensitivity to change as the existing SAN building is highly visible from this viewpoint, and the streetscape vegetation is interrupted by the hospital.

There is a moderate number of viewers from this point in the public domain as the road serves as the main entrance to the hospital. Main view groups are motorists and people making use of the hospitals facilities for limited amounts of time.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 45 of this report due to the close proximity to the proposed development.

VIEWING POINT 2

This viewing point is located on Canoon Road, South Turramurra, approximately 110m west from the intersection of Kissing Point Road.

Figure 7 – Viewing Point 2

Figure 8 – Location of Viewing Point 2

	Assessment
Type of viewer	Almost exclusively residents and motorists driving to the netball and tennis courts at the end of Canoon Road.
Duration of view	Short; 50km/hr speed limit.
Viewing distance	The subject site is predominantly buffered by vegetation with only the main hospital building visible.
Quality of view	Low to moderate quality of view based on the visibility to a vegetated ridge line. However, the view is interrupted by the existing hospital tower and overhead power lines, reducing the significance of the view.
Landscape compatibility	The majority of the subject site is not visible from this viewing point, therefore any development behind the existing landscape buffer would have a low impact on the visual amenity of the landscape setting as viewed from this point.

Visual Sensitivity

There would be a relatively low number of viewers from this point in the public domain as the road is a cul-de-sac that serves the netball and tennis courts at the end. The viewer sensitivity is low as it is would be mainly motorists experiencing this view, which would be for a limited amount of time.

The current SAN building is visible from this viewpoint, and protrudes above the prevailing ridge top into the skyline. However, it is at a distant view and is buffered by vegetation. The visual sensitivity to change of this point is low.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 46 of this report due to the high probable visibility of the proposed development.

VIEWING POINT 3

This viewing point is located on Mimosa Road, South Turramurra adjacent to Rofe Park.

Figure 9 – Viewing Point 3

Figure 10 – Location of Viewing Point 3

	Assessment
Type of viewer	Residents of the street and people utilising the facilities at Rofe Park.
Duration of view	Short - Mid; 50km/hr speed limit.
Viewing distance	The topography affords views to the horizon. Dense vegetation to along this ridge obscures the subject site with only the main hospital building visible.
Quality of view	The view is of a vegetated ridge line interrupted by the existing hospital tower. The view is buffered by local vegetation and interrupted by services infrastructure reducing the significance of the view. Nearby residents may have a view less interrupted by local interference, however the vegetated ridge line is not considered highly valuable due to the existing interruption of the natural setting by the hospital tower.
Landscape compatibility	The visual amenity of the landscape visible form this view point is considered to be compatible with change. Development within the subject site will not impact the visual amenity of the landscape setting when viewed from this point provided the existing landscape buffer is maintained.

Visual Sensitivity

There would be a low to moderate number of viewers from this point on Mimosa Road. It is considered that the viewer sensitivity is low as viewing of the subject site would not be for a significant period of time. Views afforded to the site are only minor.

The subject view of a vegetated ridge top has been altered by the visibility of the hospital building. Therefore the visual sensitivity to change is low to moderate.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 4

This viewing point is located at the intersection of Monteith Street and Finlay Road, Turramurra.

Figure 11 – Viewing Point 4

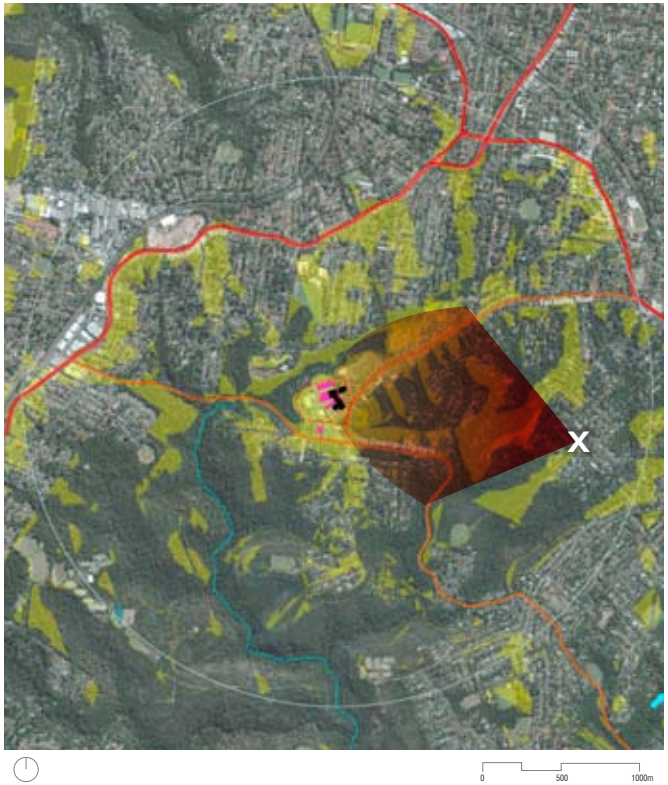

Figure 12 – Location of viewing Point 4

	Assessment
Type of viewer	Almost exclusively residents of Monteith Street and Finlay Road.
Duration of view	Short; 50km/hr speed limit.
Viewing distance	The subject site is buffered by a rise in the landform and dense vegetation.
Quality of view	Moderate quality of view based on the dominance of vegetation in the foreground, blending in with partial views to vegetated ridge line. Partial views to built forms are visible but do not dominate this view point.
Landscape compatibility	The visual amenity of the landscape visible form this view point is considered to be moderately compatible with change. Development within the subject site would not overly impact upon the visual amenity of the landscape setting when viewed from this point provided the existing landscape buffer is maintained.

Visual Sensitivity

There would be a relatively low number of viewers from this point in Turramurra The viewer sensitivity is moderate as residents may be viewing the subject site for a significant period of time.

The subject site is only slightly visible from this point due to dense vegetation and distance between this viewing point and the subject site. Therefore the visual sensitivity to change is low to moderate.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 5

This viewing point is located at the intersection of Stuart Street and Illoura Avenue, Wahroonga opposite Wahroonga Park.

Figure 13 – Viewing Point 5

Figure 14 – Location of Viewing Point 5

	Assessment
Type of viewer	Residents of surrounding streets and users of Wahroonga Park.
Duration of view	Moderate; 50km/hr speed limit.
Viewing distance	The subject site is completely obscured with a ridge line and vegetation.
Quality of view	Low to medium quality of view based on the visibility of low rise buildings in the foreground, with partial views to tree canopies and interface with the skyline in the background. The landscape quality particularly in the foreground has been altered from its natural form.
Landscape compatibility	The landscape from this view point will remain unchanged as a result of the proposed development, as the subject site is not visible. The landscape is compatible to the proposed built form changes associated with the development.

Visual Sensitivity

Views to the proposed development are heavily vegetated with no opportunity for distant views to the site.

There are a relatively high number of viewers from this point due to the central location of the park. Viewers are likely to perceive any dominant change to the visual landscape as having an impact upon the visual character. However, as the quality of the view from this location is low to moderate, the sensitivity to change is considered moderate.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 6

This viewing point is located on Unwin Road, Waitara opposite Rosewood Oval.

Figure 15 – Viewing Point 6

Figure 16 – Location of Viewing Point 6

	Assessment
Type of viewer	Almost exclusively motorists and residents of nearby streets.
Duration of view	Short; 50km/hr speed limit.
Viewing distance	The subject site is completely obscured as the topography falls away and rises again covered with vegetation.
Quality of view	Low to moderate quality of view based on the presence of low rise buildings and power lines in the foreground, with partial views to tree canopies and interface with the skyline.
Landscape compatibility	The landscape from this view point will remain unchanged as a result of the proposed development, as the subject site is not visible. The built form changes associated with the development landscape are compatible with the existing landscape character.

Visual Sensitivity

The existing SAN building cannot be seen from this location due to the significant distance between this viewing point and the subject site, buffered by dense vegetation in between.

There are a moderate number of viewers from this point on Unwin Road. The view shed analysis identifies that the proposed 39.5m may be seen from this location. The visual sensitivity of this view point is considered moderate as the quality of the view is considered low to moderate due to the interference of buildings and associated power lines with the vegetated backdrop. However, as there are currently no views of the existing building which is of a similar height as what is proposed, the development is unlikely to change this view.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 7

This viewing point is located on Redgrave Road, Normanhurst, approximately 625m south of Pennant Hills Road.

Figure 17 – Viewing Point 7

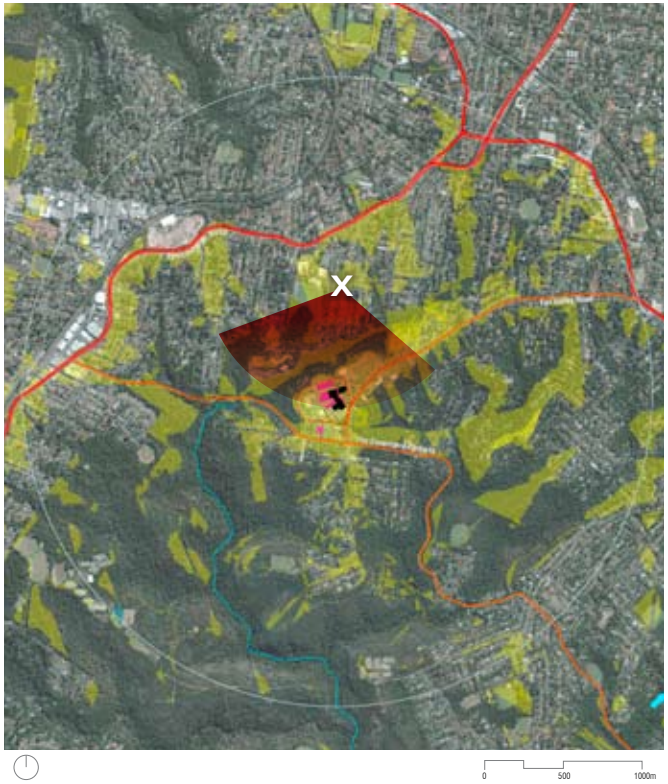

Figure 18 – Location of Viewing Point 7

	Assessment
Type of viewer	Residents of Redgrave Road and Ferndale Road.
Duration of view	Medium to long; 50km/hr speed limit.
Viewing distance	The subject site is partially obscured due to a generously proportioned canopy in the mid-ground.
Quality of view	Moderate quality of view based on the visibility of the interface between tree canopies and the skyline, but are disrupted by power poles and power lines. Vegetation density is moderate, with partial views to buildings afforded.
Landscape compatibility	The landscape of this view point has a moderate compatibility with change, as partial visibility is afforded to the site.

Visual Sensitivity

There are a relatively low number of viewers from this point as it would mainly be residents. The viewer sensitivity is moderate to high, as viewers would perceive any dominant change to the visual landscape as having an impact upon the visual character.

While the existing building can be partially seen, it is currently mitigated by an existing row of trees. This viewpoint also provides a near view so the visual sensitivity to change is moderate.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 8

This viewing point is located at the intersection of Campbell Avenue and Pennant Hills Road, Normanhurst.

Figure 19 – Viewing Point 8

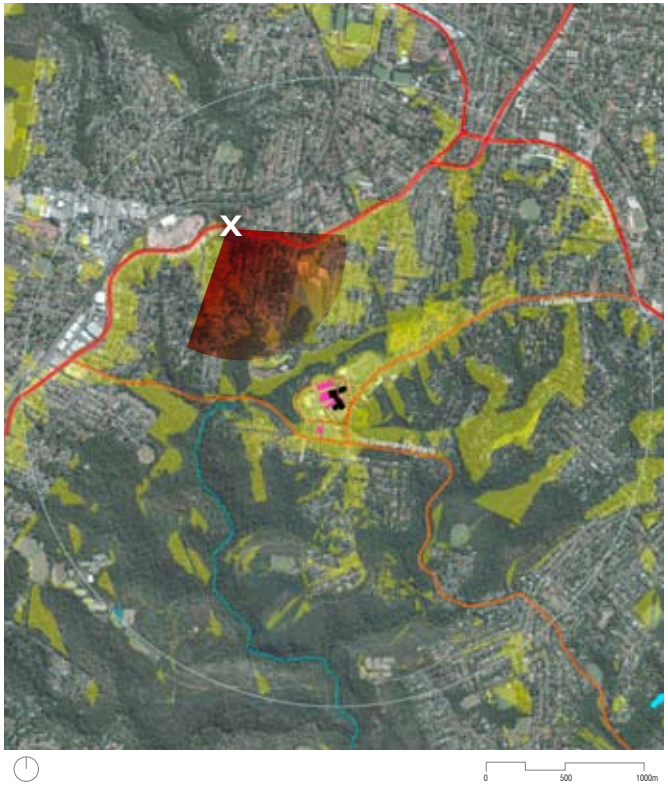

Figure 20– Location of Viewing Point 8

	Assessment
Type of viewer	Predominately motorists and residents.
Duration of view	Short to medium as motorists slow down to turn off Pennant Hills Road; 50km/hr speed limit.
Viewing distance	The subject site is completely obscured by vegetation in the foreground.
Quality of view	Moderate quality of view based on varied vegetation and tree canopy types and densities are afforded from this view point, with low rise dwellings in the foreground.
Landscape compatibility	The landscape has a high compatibility with the proposed changes associated with the development, as the site is completely obscured from this view point.

Visual Sensitivity

The sensitivity of this view point is moderate, considering the likelihood of short to medium duration of this view and the moderate quality of the view. The visual sensitivity of this view point is also defined by the fact that there are a high number of viewers from this point along Pennant Hills Road. Passengers may focus on the landscape as they enter the reduced speed limit of the area.

The view shed analysis identifies that the proposed 39.5m building would be seen from this location. However, as there are currently no views to the existing SAN building which is of a similar height as the proposed building height, the development will not be visible from this view point.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 9

This viewing point is located on the corner of Wood and Bellevue Streets, Thornleigh.

Figure 23 – Viewing Point 9

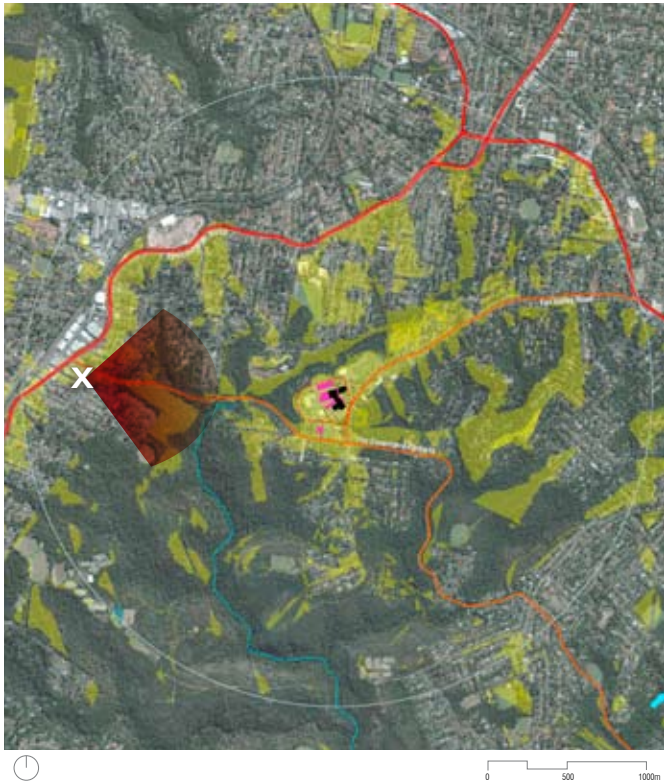

Figure 24 – Location of Viewing Point 9

	Assessment
Type of viewer	Residents and users of the nearby shopping complex.
Duration of view	Short to medium; 50km/hr speed limit.
Viewing distance	Due to the topography only foreground views with vegetation.
Quality of view	Varied vegetation and tree canopy types and densities are afforded from this view point, with low rise dwellings and associated gardens in the foreground.
Landscape compatibility	The landscape as viewed from this point is considered to have a high capacity for change that sensitively manages development.

Visual Sensitivity

The sensitivity of this view point is moderate, considering the likelihood of short to medium duration of this view and the moderate quality of the view. Further, viewers from this point would be predominately be limited to shoppers and residents. Much of the visible vegetation viewed from this location has been altered.

The view shed analysis identifies that the proposed 39.5m building would be seen from this location. However, as there are currently no views to the existing SAN building which is of a similar height as the proposed building height, the development will not be visible from this view point.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 10

This viewing point is located at the intersection of Trelawney Street and Pennant Hills Road, Thornleigh.

Figure 21 – Viewing Point 10

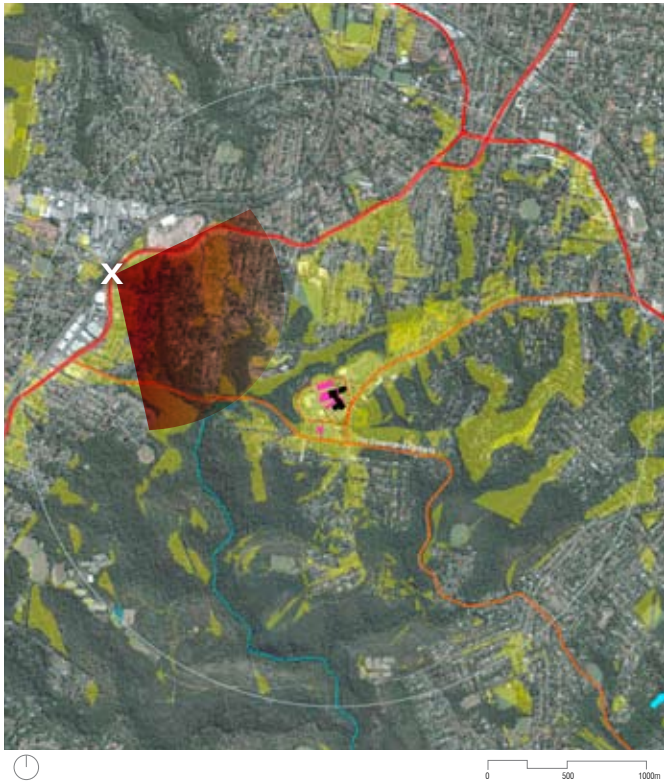

Figure 22 – Location of Viewing Point 10

	Assessment
Type of viewer	Limited motorists and residents of Thornleigh using the street.
Duration of view	Limited; despite motorists slow down to turn off Pennant Hills Road; 50km/hr speed limit, long duration of views are limited as there are no permanent vantage points for pedestrians.
Viewing distance	Unobstructed views to the mid-ground landscape where dense vegetation completely obscures the subject site.
Quality of view	Moderate quality of view based on tree lined street but with the visibility of power lines and power poles. The view is not interrupted by the existing hospital tower however the view shed analysis identifies that a 39.5m high tower may be visible from this location. However this would have minor impact on the quality of this view.
Landscape compatibility	The landscape as viewed from this point is considered to have a moderate capacity for change that sensitively manages development.

Visual Sensitivity

The sensitivity to change from this view point is moderate, as views to the interface between dense tree canopies and the skyline is afforded, but buildings and power lines in the foreground slightly detract from the quality of the view. Further, there would be a low number of viewers from this point as users would be predominately limited to motorists and residents of nearby streets. Trelawney Street is not a major thoroughfare or key road connection.

The view shed analysis identifies that a 39.5m high building would likely be seen from this location. However, as there are currently no views to the existing SAN building which is of a similar height as the proposed building height, the development will not be visible from this view point.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building height.

VIEWING POINT 11

The location of this viewing point is on Britannia Street, Pennant Hills overlooking Pennant Hills Park.

Figure 25 – Viewing Point 11

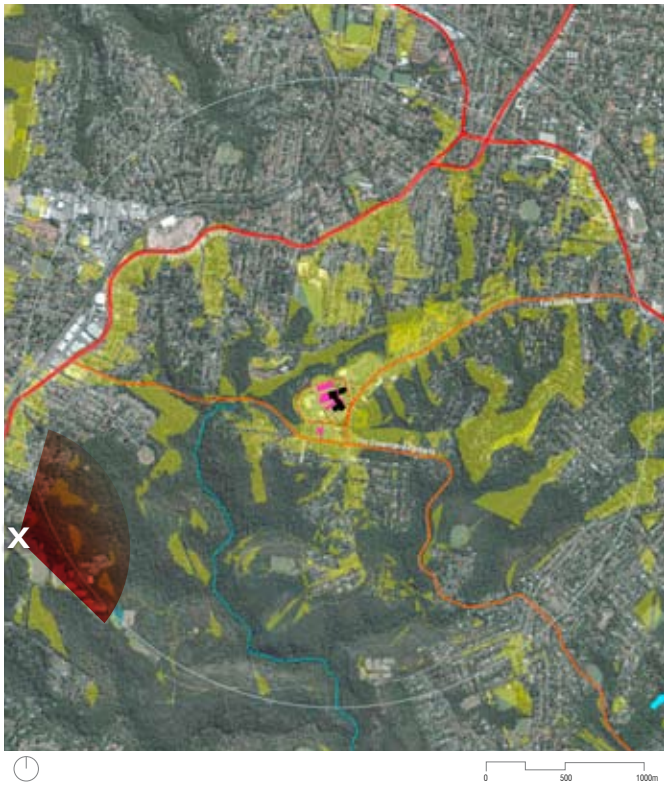

Figure 26 – Location of Viewing Point 11

	Assessment
Type of viewer	Motorists and users of the parks facilities.
Duration of view	Medium to long.
Viewing distance	Due to extremely dense vegetation there are only views to the immediate foreground.
Quality of view	Moderate to high quality view based on the existing tree lined open space. The view is not interrupted by the existing hospital tower however the view shed analysis identifies that a 39.5m high tower may be visible from this location however this would have minor impact on the quality of this view.
Landscape compatibility	The unseen subject site is considered to have a high compatibility with change (from this point) as it is obscured.

Visual Sensitivity

The sensitivity to change from this view point is high, as views to the interface between dense tree canopies and the skyline are afforded. There are a moderate to high number of viewers/users for unlimited durations from this point overlooking Pennant Hills Park.

The view shed analysis identifies that a 39.5m high building would likely be seen from this location. However, as there are currently no views to the existing SAN building which is of a similar height as the proposed building height, the development will not be visible from this view point.

This view has been identified as not requiring further investigation in regards to the visual impact of proposed building heights.

VIEWING POINT 12

This viewing point is at Woods Street, North Epping overlooking Woods Street Reserve.

Figure 27 – Viewing Point 12

Figure 28 – Location of Viewing Point 12

	Assessment
Type of viewer	Users of Woods St Reserve.
Duration of view	Medium to long.
Viewing distance	Mid ground views of the Lane Cove National Park with views of the ridge that subject site sits upon forming the horizon.
Quality of view	Moderate quality of this view based on the visual dominance of a vegetated ridge line. However, the view is interrupted by the existing hospital tower reducing the significance of the view.
Landscape compatibility	The landscape as viewed from this point is considered to have a low capacity for change.

Visual Sensitivity

The visual sensitivity to change from this view point is moderate, as there are a moderate to high number of viewers from this point which would predominately be users of the parks facilities and some neighbouring properties who share the same views. Significant changes to the visual landscape may be perceived as having a negative impact on the visual landscape character of the area.

However, as the existing SAN building is visible from this viewpoint, the existing tree line and skyline interface is interrupted. The proposed maximum building height is consistent with the existing height of the SAN building, and will not generate additional impacts associated with a taller building form.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 47 of this report.

VIEWING POINT 13

This viewing point is at The Comenarra Parkway, Wahroonga facing the south-west facade of the existing hospital.

Figure 29: Viewing Point 13

Figure 30 – Location of Viewing Point 13

	Assessment
Type of viewer	Motorists and residents of Thornleigh.
Duration of view	Short to medium.
Viewing distance	Mid ground views of single family residences, associated vegetation and street trees.
Quality of view	Low quality of view as a vegetated ridge line is visible, but the view is interrupted by the existing hospital tower and nurses' residence reducing the significance of the view. The view contains existing mid ground vegetation and large canopy street trees at the foreground.
Landscape compatibility	The landscape as viewed from this point is considered to have a high capacity for change.

Visual Sensitivity

The visual sensitivity of this view point is low, considering the current hospital tower is highly visible and creates a significant break in the vegetation. There are a moderate to high number of viewers from this point, predominantly being neighbouring properties facing the Hospital, fronting The Comenarra Parkway.

It should be noted that the Wahroonga Estate Concept Plan proposes a new hospital/hospital related building and residential building south-west of the main hospital precinct direct of this view with the retention of three existing buildings located at the most westerly point of the site at the fork of The Comenarra Parkway and Browns Road.

Upon developing the southern-most portion of the site, the proposed buildings (max 14.5m height control) would have greater visual impacts than any alterations and additions made to the SAN building, by virtue of the location of these proposed buildings within the foreground of this view.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 48 of this report.

VIEWING POINT 14

This viewing point is at the intersection of Fox Valley Road and The Comenarra Parkway, Wahroonga heading north-north-west towards the hospital.

Figure 31: Viewing Point 14

Figure 32 – Location of Viewing Point 14

	Assessment
Type of viewer	Motorists and residents of Thornleigh.
Duration of view	Short to medium.
Viewing distance	Midground views of single family residences, associated vegetation and street trees.
Quality of view	Low to moderate quality of view based on the presence of buildings, and sparse to medium density vegetation in the mid ground. Denser vegetation and tree canopies are visible in the background.
Landscape compatibility	The landscape has a medium to high capacity for change. Proposed alterations and additions to the SAN building is unlikely to be visible from this location as it is obscured

Visual Sensitivity

This view point has a low to moderate sensitivity to change as there are a moderate to high number of viewers from this point which would predominately be local residents and motorists using The Comenarra Parkway and Fox Valley Road. However, existing buildings and intermittent vegetation detract from the quality of this view point.

Prior to any development to the southern portion of the site visual sensitivity to change of this point is low to moderate, as the majority of the proposed alterations and additions to the hospital is buffered by trees and the existing nurses' residences. Similarly, upon development of the southern portion of Precinct C, the proposed mixed-use building (max 14.5m height control) will be more visually dominant than proposed alterations and additions to the SAN building by virtue of its siting and proximity to this intersection.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 49 of this report.

VIEWING POINT 15

This viewing point is located at Leuna Avenue, approximately 30m west of the Moruna Avenue intersection in Wahroonga. This view faces the south-west facade of the existing hospital.

Figure 33: Viewing Point 15

Figure 34 – Location of Viewing Point 15

	Assessment
Type of viewer	Mainly residents of Leuna Avenue fronting north towards the hospital and some passing motorists.
Duration of view	Short.
Viewing distance	Foreground views of low-lying roofs to single family residences, associated vegetation and dense street trees.
Quality of view	Low quality of view based on the dominance of low set roofscapes and a dense canopy of street trees with breaks to the skyline. The horizon above the tree line beyond is already broken by the existing hospital tower reducing the significance of the view.
Landscape compatibility	The landscape as viewed from this point is considered to have a low to medium capacity for change.

Visual Sensitivity

The visual sensitivity to change from this view point is low as low-lying roof forms are dominant in the foreground, and the existing tower disrupts the tree line and skyline interface. Main viewers of this view point are residents and passing motorists.

The existing SAN building is visible from this viewpoint. The proposed maximum building height is consistent with the existing height of the SAN building and will not generate additional impacts associated with a taller building form.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 50 of this report.

VIEWING POINT 16

This viewing point is located north-east of the existing hospital, where proposed residential apartments have been sited in the Wahroonga Estate Concept Plan.

Figure 35: Viewing Point 16

Figure 36 – Location of Viewing Point 16

	Assessment
Type of viewer	Residents of proposed development to Precinct B - Central Church of the Wahroonga Estate Concept Plan.
Duration of view	Medium (pre and post development).
Viewing distance	Foreground views of what is currently vacant open space, with the existing hospital tower in sight beyond.
Quality of view	Low quality of view based on the presence of intermittently vegetated ridge line, with the interruption of the existing hospital tower reducing the significance of the view.
Landscape compatibility	The landscape as viewed from this point is considered to have a high capacity for change.

Visual Sensitivity

This viewpoint is taken from what is currently vacant open space within what will be the proposed Precinct B - Central Church (Wahroonga Estate Concept Plan). It is evident from this view point the proposed development is within direct sightline.

The visual sensitivity to change from this viewpoint is low based on the low quality view. Prior to any development to the southern portion of Precinct B - Central Church (Wahroonga Estate Concept Plan) visual sensitivity to change of this point is low as the dominance of the hospital and intermittent vegetation renders this view of a low quality. Most of the viewers from this location are passersby.

Upon development of Precinct B, the proposed buildings (max 20.5m height control) would be more visually dominant than any proposed alterations and additions to the SAN building, by virtue of its siting and proximity to this view.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 51 of this report.

VIEWING POINT 17

This viewing point is at the lower end of the north-south alignment Mount Pleasant Avenue, Wahroonga. It faces the north-east facade of the existing hospital.

Figure 37: Viewing Point 17

Figure 38 – Location of Viewing Point 17

	Assessment
Type of viewer	Users of Mount Pleasant Avenue.
Duration of view	Short.
Viewing distance	Mid ground views of existing single family residential dwellings and street trees with views of the ridge that subject site sits upon forming the horizon.
Quality of view	The view is of low set roofscapes and a dense canopy of street trees with breaks to skyline. The intermittent skyline view is interrupted by the existing hospital tower reducing the significance of the view.
Landscape compatibility	The landscape as viewed from this point is considered to have a moderate capacity for change.

Visual Sensitivity

View taken of the existing hospital tower north of the development site. There are a low number of viewers from this point which would predominately be local residents and passing motorists using Mount Pleasant Avenue. The viewer sensitivity is low to moderate as viewers would perceive any dominant change to the visual landscape as having an impact upon the visual character.

While the existing building can be partially seen, it is currently mitigated by an existing row of trees and will be screened by dense existing vegetation on the foreground.

This view has been identified for further investigation in regards to the visual impact of proposed building heights on page 52 of this report.

VISUAL IMPACTS OF PROPOSED ADDITIONS

Key view points with the most potential to be affected by the proposal have been selected from those identified in the previous chapter. View points where the hospital was not found to be visible have not been further examined.

Based on the assessment of landscape compatibility previously detailed for the selected view points, an observational criteria has been applied to rate the anticipated degree of visual impact of the proposed upgrade from each of the selected view points. The criteria provide a description of the estimated visual change in the character of the landscape for the proposed upgrade. These points were graphically represented using the nominated colours below.

The following images (Figures 39-47) visually demonstrate the proposed changes to the existing development form on the site.

Key	Description of Terms	Degree of Impact
	Fundamental Change – will dominate the view frame and experience for receptor	Very high visual impact expected and a fundamental change in the visual character of the area
	Noticeable Change – will be clearly visible within the view frame and experience of the receptor	High visual impact expected and a noticeable change in the visual character of the area
	Some Change – will be a recognisable feature within the view frame and experience of the receptor	Moderate visual impact expected and some change in the visual character of the area
	Limited Change – will not be particularly noticeable within the view frame and experience of the receptor	Minimal visual impact expected and a limited change in the visual character of the area
	Generally Compatible – the extension will not practically be visible, or blends in with the surroundings	Little or no visual impact expected and is generally compatible with existing development in the area

VIEWING POINT 1

Generally compatible, little or no visual impact expected

Analysis demonstrates that the majority of the proposed development will be completely screened by existing streetscape vegetation, therefore the visual impact of the proposal is deemed to be generally compatible

Figure 39: Viewing point 1 photomontage. Located on Fox Valley Road, approximately 250m west from the intersection of Strone Avenue.

Extent of proposed development

VIEWING POINT 2

Some change, moderate visual impact expected.

Analysis demonstrates that the proposed additions to the hospital are screened by the vegetated ridge line, expanding horizontally in line with the height of the existing hospital.

The low to moderate quality of the view due to the existing interruption to the skyline by the hospital tower and overhead powerlines deem the visual impact of the proposal to be moderate.

Figure 40: Viewing point 2 photomontage. Located on Canoon Road, South Turramurra, approximately 110m west from the intersection of Kissing Point Road.

Extent of proposed development

VIEWING POINT 12

Some change, moderate visual impact expected.

Analysis demonstrates the extent of the view and that the proposed development is reasonable given the proportion of the view that is being affected as well as the proposal being partially screened by existing vegetation.

The moderate quality of the view due to the existing interruption to the skyline by the hospital tower and overhead powerlines deem the visual impact of the proposal to be moderate.

Figure 41: Viewing point 12 photomontage. Located on Woods Street, North Epping overlooking Woods Street Reserve.

Extent of proposed development

VIEWING POINT 13

Noticeable change, high visual impact expected.

Analysis demonstrates that the proposed additions to the hospital are screened by existing vegetation and residential buildings in the foreground.
The low quality of the view due to the interruption by the existing hospital tower and nurses residence deem the visual impact of the proposal to be of noticeable change, but with a high degree of visual impact due to the proximity of the view.
It should be noted that the proposed hospital and residential buildings (southern portion of Central Hospital precinct) closer to this view point will have a greater visual impact than the current proposed additions.

Figure 42: Viewing point 13 photomontage. Located on The Comenarra Parkway, Wahroonga facing the south-west facade of the existing hospital.

Extent of proposed development

VIEWING POINT 14

Noticeable change, high visual impact expected.

Analysis demonstrates the extent of the view and that the proposed development is noticeable given the proportion of the view that is being affected as well as the proposal being partially screened by existing vegetation.
The low to moderate quality of the view due to the presence of existing buildings and high capacity for change deem the visual impact of the proposal to be of a high degree by virtue of the proximity of the view.
Upon development of the southern portion closer to this view of buildings with a maximum 14.5m height, the impact of the proposed additions will recede.

Figure 43: Viewing point 14 photomontage. Located at the intersection of Fox Valley Road and The Comenarra Parkway, Wahroonga heading north-north-west towards the hospital.

Extent of proposed development

VIEWING POINT 15

Limited change, minimal visual impact expected.

Analysis demonstrates that the majority of the proposed additions to the hospital will be screened by existing vegetation and high trees beyond.

The low quality of the view due to the existing interruption to the skyline by the hospital tower, residential roofscapes and overhead powerlines deem the visual impact of the proposal to be limited11.

Figure 44: Viewing point 15 photomontage. Located at Leuna Avenue, Wahroonga, facing towards the south-west facade of the existing hospital.

Extent of proposed development

VIEWING POINT 16

Some change, moderate visual impact expected.

Given the low quality of view based on the presence of the existing hospital buildings and the high capacity for change, analysis demonstrates the proposed development is acceptable.

The proportion of the view that is being affected as well as the proposal being partially screened by existing vegetation and existing buildings deem the visual impact of the proposal to be of a moderate degree. Upon development of Precinct B of buildings with a maximum 20.5m height, the impact of the proposed additions will recede.

Extent of proposed development

Figure 45: Viewing point 16 photomontage. Located north-east of the existing hospital, where proposed residential apartments (Precinct B) have been sited in the Wahroonga Estate Concept Plan.

VIEWING POINT 17

Some change, moderate visual impact expected.

Analysis demonstrates that the majority of the proposed additions to the hospital will be screened by existing vegetation and street trees beyond.

The low quality of the view due to the existing interruption to the skyline by the hospital tower, residential roofscapes and overhead powerlines deem the visual impact of the proposal to be limited11.

Extent of proposed development

Figure 46: Viewing point 17 photomontage. Located at the lower end of the north-south alignment Mount Pleasant Avenue, Wahroonga. It faces the north-east facade of the existing hospital.

VISUAL IMPACT FINDINGS

The visual impact analysis of the selected views points (Figure 47) are summarised below:

Key	Degree of Visual Impact	Viewpoints
	Fundamental Change	N/A
	Noticeable Change	13 &14
	Some Change	2, 12, 16 & 17
	Limited Change	15
	Generally Compatible	1, 3, 4, 5, 6, 7. 8. 9, 10 & 11

The viewpoints identified as being generally compatible are those, not requiring further investigation in regards to the visual impact of proposed maximum building height being views: 3, 4 , 5, 6, 7. 8. 9, 10 & 11.

The viewpoints identified as being subject to a fundamental or noticeable change are recognised as resulting in a significant visual change to the existing landscape.

Viewpoints 13, 14 and 16 located within a view corridor along Fox Valley, Conemarra Road and within the future development of Central Church Precinct will have clear views to the proposed hospital upgrade. Residents with sightlines in this view corridor will recognise a noticeable change in the visual landscape. It should be noted that proximity to the development is a large factor in the degree of visual impact to the views identified and is unavoidable. Additionally, future development (as illustrated in the Wahroonga Redevelopment Concept Plan) to the Central Church precinct and southern portion of the Central Hospital Precinct will result in the current alterations additions to the hospital receding in visual impact from these views.

Viewpoint 2 and 12 is located further to the south-east on Canoon Road and south at Woods Street Reserve will also present partial views to the hospital upgrade above the vegetated ridge line. The current hospital tower already forms part of this view, with the proposed additions adding perceived bulk only horizontally and proportionally smaller than the vegetated horizon itself.

Viewpoint 17 located along Mount Pleasant Avenue directly north of the proposed hospital additions will also have a partial view of the upgrade. However, given the falling topography south towards the hospital and the dense vegetation partially and, at times, completely screening the building, the degree of visual change is not anticipated to be significant.

From the results, it can be determined that the highest degree of visual impact will be evident from viewpoints 13 and 14 which are located in close proximity to the proposed upgrade along Conemarra Road (Refer to Figure 47).

The above discussion informs the basis for the conclusion and recommendations for design considerations to maintain the visual amenity within the identified view frames above.

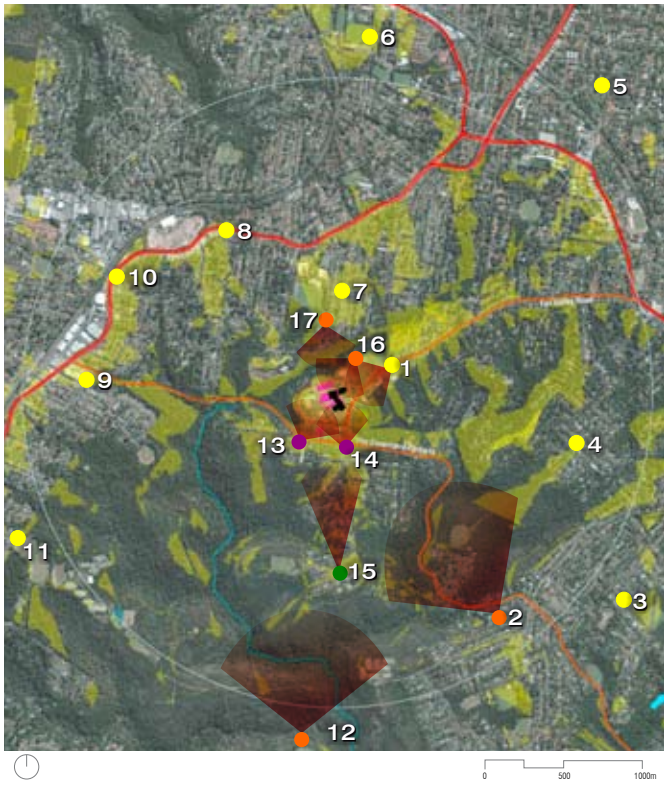

Figure 47 – Viewpoint Analysis

CONCLUSION

The analysis identifies that the proposed development is visible from a number of locations. It is also noted that all of the identified views are of interrupted or partial views of vegetated ridge lines or vegetated streetscapes with treetop and sky interface. We do not consider any views identified in the analysis or from elsewhere within the study area to be highly valuable based on the principles used in Tenacity Consulting v Warringah [2004] NSWLEC 140.

Height

The proposed building height to a maximum of 39.5m adds visual bulk to built form in the views identified. The impact of visual bulk in the proposed development is limited in the 1km radius due to the significant amount of vegetated areas surrounding the site as shown from view points 1 and 7.

The visual prominence of the proposed development is considered to be less disruptive as the additional built form has been expanded horizontally rather than vertically in line with the tree line which is considered the element most valuable to the identified views.

The distant views experienced from within 1-2km of the site generally afford broad and extensive treetop views whereby small distant and/or local elements interrupt the view such as local trees, above ground services or existing built forms.

The proportion of the view that is affected is minimal for views further than 1km from the site as the proposed development appears distant behind a horizon line of trees. The proposed development will only be visible in part and therefore will detract from the view rather than interrupt the view. Consequently there will be a negligible impact on the views.

The proposed development utilising a height of 39.5m slightly increases the existing perceptual bulk of the built form in the landscape. This additional bulk will be difficult to distinguish, particularly at distance.

From view points 2, 12 and 15 a small upper part of the proposed development may be visible however this is considered to have minimal impact on the view in context of the entire view.
We therefore conclude the heights as proposed in the current drawings to be reasonable and acceptable. It is noted that the analysis has been undertaken for a specific height and that due to the distance from which the views are taken, minor increases in height will not have a significant increase in perceived bulk and hence visual impact. The acceptability of the proposed height in principle is subject to the proposed development being well designed in terms of form and finishes that respond to the vegetated surrounds.

Bulk and Scale

The bulk and scale of the proposed development will add to the prominence of the built form, which may be considered to detract from the visual landscape when viewed from the identified locations. In Michael Hesse v Parramatta City Council [2003] NSWLEC 313 the visual impact is based on whether the proposed built form relates better to the precinct than the existing development.

When applying this principle to the proposed development, there is opportunity to:

- Relate the proposed development to its context utilising sympathetic colours, material and finishes to provide a more subtle transition between built form and landscape, than the existing development.
- Reduce building bulk towards the top of the development, thereby reducing the visual bulk adding to the merit to the proposed development.

RECOMMENDATIONS

The following recommendations are to be considered during the design development for the site, to reduce the visual impact of the development:

- Careful selection of colours, material and finishes particularly on upper storeys to avoid reflectivity, visual prominence and disturbance to views. Colours, material and finishes that assist with softening the interface between the vegetated ridge line should be adopted.
- Retain existing vegetation and individual valuable trees on site where possible and practical, to soften the visual prominence of development from edges of site and retain the existing visual character.
- Any clearing should be appropriately offset with re-planting
- Retain trees that contribute to the vegetated ridge line as experienced from views identified in this report.

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