VISUAL IMPACT ASSESSMENT

Prepared for: Jackson Environment & Planning on behalf of Mr & Mrs Ray and Sue Davies

Project No: 1569 Issue: FINAL (REVISION G) Date: 3rd JULY 2020

moir
landscape architecture

Contents

1.0 Introduction

1.1 Background

Moir Landscape Architecture have been commissioned by Mr & Mrs Ray and Sue Davies to prepare a Visual Impact Assessment (VIA) for the proposed development and operation for the expanded operational area for design and construction of a recycling facility (the Proposal) on Lot 4 DP227279, 90 Gindurra Road, Somersby (**Refer to Figure 1**).

The purpose of this report is to provide a qualitative and quantitative assessment of the visibility and potential visual impacts of the proposal. The VIA has been prepared in response to the request for SEARs to provide 'an assessment of the potential visual impacts of the project on the amenity of the surrounding area'.

Survey work was undertaken during July 2018 using key viewpoints and locations with potential views towards the site. The report details the results of the field work, documents the assessment of the landscape character and visual setting, and assesses potential visual impacts associated with the proposal.

The report also provides an overview of the proposed landscape treatments which may be considered to assist in the mitigation of potential visual impacts. This information is provided to aid understanding the likely impacts and how they may be managed to ensure that the positive character of the immediate area and surrounding visual landscape are not overly modified or diminished.

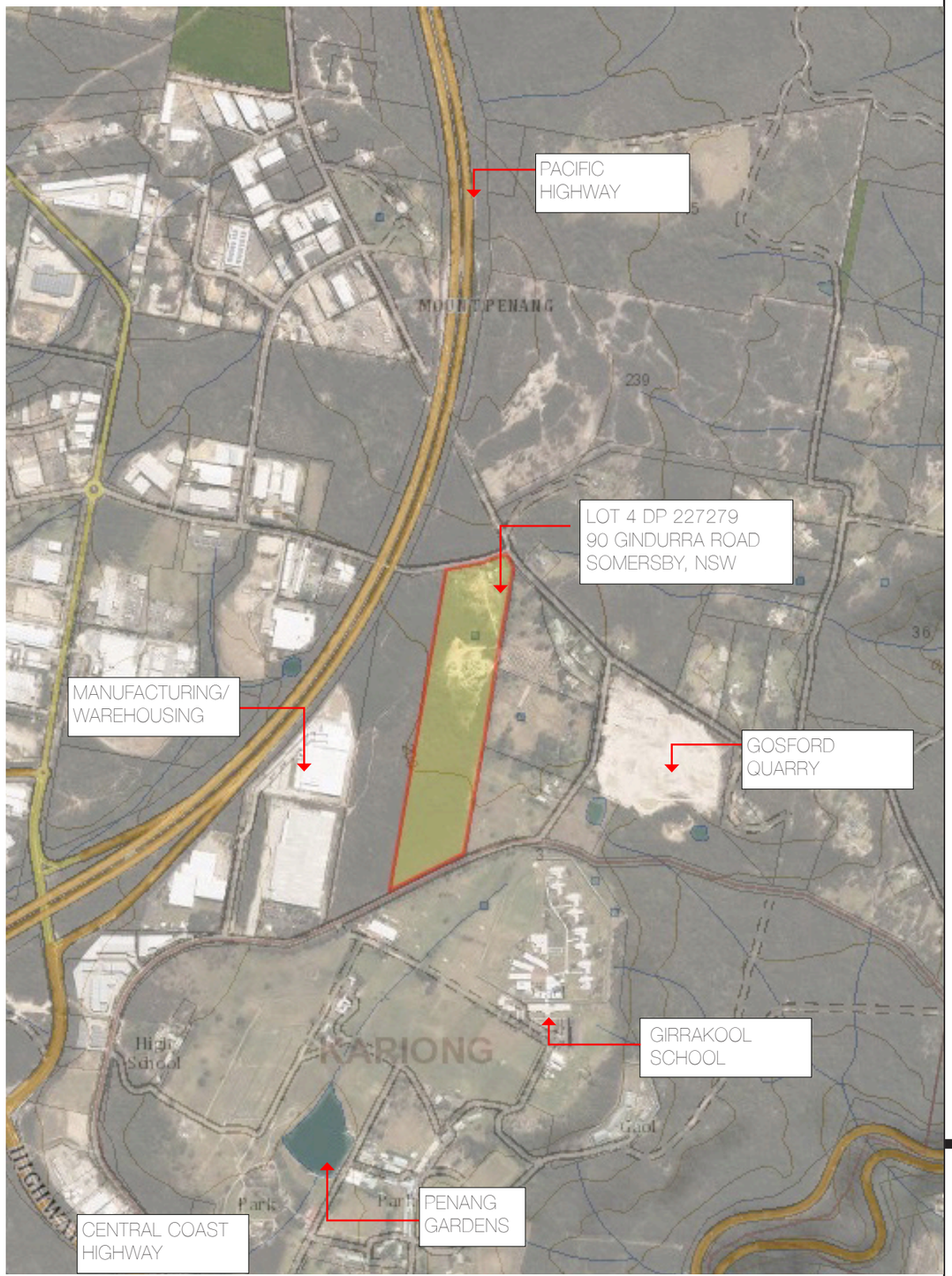


FIGURE 1: Site Locality Plan (Image source: SIX Maps)

2.0 Study Method

2.1 Visual Impact Assessment (VIA)

A VIA is used to identify and determine the value, significance and sensitivity of a landscape. The method applied to this study involved systematically evaluating the visual environment pertaining to the site and using judgements based on landscape values.

The assessment was undertaken in stages as noted below:

- Objective assessment of the relative aesthetic value of the landscape, defined as visual quality and expressed as high, medium or low. This assessment generally relates to variety, uniqueness, prominence and naturalness of the landform, vegetation and water forms within each character type.
- Determination of the landscape sensitivity and its ability to absorb different types of development on the basis of physical and environmental character.
- An assessment of viewer sensitivity to change. This includes how different groups of people view the landscape (for example, a resident as opposed to a tourist), and how many people are viewing and from how far.
- The undertaking of a viewpoint analysis to identify areas likely to be affected by development of the site and a photographic survey using a digital camera and a handheld GPS unit to record position and altitude.
- An assessment of visual impacts and the preparation of recommendations for impact mitigation. Suggestions are made for suitable development patterns that would maintain the areas visual quality.

The purpose of the above methodology is to reduce the amount of subjectivity entering into the visual impact assessment and to provide sufficient data to allow for third party verification of results.

2.2 Definitions

Definitions for terms used throughout the VIA are included in this section of the report.

2.2.1 Landscape Values

Landscape values are the set of principles that aid judgement of the proposal. These include cultural attributes (social, indigenous, artistic and environmental) as well as the aesthetics of a place, shown in **Figure 2.**

FIGURE 2: Landscape Values.

2.2.2 Visual Quality

Visual quality of an area is essentially an assessment of how viewers may respond to designated scenery. Scenes of high visual quality are those which are valued by a community for the enjoyment and improved amenity they can create. Conversely, scenes of low visual quality are of little value to the community with a preference that they be changed and improved, often through the introduction of landscape treatments.

As visual quality relates to aesthetics its assessment is largely subjective. There is evidence to suggest that certain landscapes are constantly preferred over others with preferences related to the presence or absence of certain elements. The rating of visual quality for this study has been based on scenic quality ratings and on the following generally accepted assumptions arising from scientific research (DOP, 1988):

- Visual quality increases as relative relief and topographic ruggedness increases;
- Visual quality increases as vegetation pattern variations increase;
- Visual quality increases due to the presence of natural and/or agricultural landscapes;
- Visual quality increases owing to the presence of water forms (without becoming too common) and related to water quality and associated activity; and
- Visual quality increases with increases in land use compatibility.
- In addition to the above, cultural items may also endow a distinct character to an area and therefore contribute to its visual quality due to nostalgic associations and the desire to preserve items of heritage significance.

2.0 Study Method

In addition to the before mentioned, cultural items may also endow a distinct character to an area and therefore contribute to its visual quality due to nostalgic associations and the desire to preserve items of heritage significance.

2.2.3 Visual Sensitivity

Visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different areas. The assessment is based on the number of people affected, land use, and the distance of the viewer from the proposal. (EDAW, 2000).

For example, a significant change that is not frequently seen may result in a low visual sensitivity although its impact on a landscape may be high. Generally the following principles apply:

- Visual sensitivity decreases as the viewer distance increases.
- Visual sensitivity decreases as the viewing time decreases.
- Visual sensitivity can also be related to viewer activity (eg. a person viewing an affected site whilst engaged in recreational activities will be more strongly affected by change than someone passing a scene in a car travelling to a desired destination).

Sensitivity ratings are defined as high, moderate or low and are shown in the table below (Adapted from EDAW, 2000).

VISUAL SENSITIVITY					
LAND USE	DISTANCE ZONES				
	FOREGROUND		MIDDLE GROUND		BACKGROUND
	0-1	1-2km	2-4.5	4.5-7	> 7kms
Tourist / Recreation	High	High	High	Mod	Low
Residential: Rural or Urban	High	High	High	Mod	Low
Main Travel Corridor	Mod	Mod	Low	Low	Low
Minor / Local Roads	Mod	Mod	Low	Low	Low
Railway Line (Freight)	Low	Low	Low	Low	Low
Industrial Areas	Low	Low	Low	Low	Low

TABLE 1: Visual Sensitivity Table.

2.3.4 Visual Effect

Visual effect is the interaction between a proposal and the existing visual environment. It is often expressed as the level of visual contrast of the proposal against its setting or background in which it is viewed.

Low visual effect: occurs when a proposal blends in with its existing viewed landscape due to a high level of integration of one or several of the following: form, shape, pattern, line, texture or colour. It can also result from the use of effective screening often using a combination of landform and landscaping.

Moderate visual effect: occurs where a proposal is visible and contrasts with its viewed landscape however, there has been some degree of integration (eg. good siting principles employed, retention of significant existing vegetation, provision of screen landscaping, appropriate colour selection and/or suitably scaled development).

High visual effect: results when a proposal has a high visual contrast to the surrounding landscape with little or no natural screening or integration created by vegetation or topography.

2.3.5 Visual Impact

Visual impact is the combined effect of visual sensitivity and visual effect. Various combinations of visual sensitivity and visual effect will result in high, moderate and low overall visual impacts as suggested in the below table (URBIS, 2009).

VISUAL IMPACT				
		VISUAL EFFECT ZONES		
		HIGH	MODERATE	LOW
VISUAL SENSITIVITY LEVELS	HIGH	High Impact	High Impact	Moderate Impact
	MODERATE	High Impact	Moderate Impact	Low Impact
	LOW	Moderate Impact	Low Impact	Low Impact

TABLE 2: Visual Impact Table.

3.0 Existing Landscape Character

3.1 Existing Landscape Character

LAND USE

Under the Gosford LEP 2014, the site is within the Somersby Business Park. The site is zoned as IN1 (General Industrial) zone under Central Coast - Gosford LEP 2014. The proposed landuse is consistent with the LEP purpose. Due to historic clearing of the site and disturbance from previous and current land use the Heritage Council of NSW acknowledges it is unlikely to be affected by historic features. The adjoining lot to the north and west is predominantly bushland mixed with industrial, the east is bounded by an orchard and Gosford quarries site and to the south is Girrakool School and Mt Penang Gardens. Mt Penang Gardens is a significant recreation and open space resource for the Central Coast region.

The site forms the eastern edge of the industrial zone of the Somersby Industrial Park and is bordered to the east by small rural properties within an (RU1) The sandstone Quarry on Debenham Rd S is a signficant landmark in the immediate site surrounds.

MAJOR ROADS

The Site is located east of the Pacific Motorway with local roads Acacia and Kangoo to the east and south. The site is accessed via Gindurra Rd which, via a tunnel under the M1 connects the Western and Eastern industrial zones of Somersby. With restrictions on height the tunnel is primarily used by smaller vehicles and local traffic. Debenham Rd S connects Gindurra Rd with Acacia Rd and Kangoo Rd travelling through a semi rural landscape. Debenham Rd S provides a direct connection into West Gosford.

The M1 is a prominant feature in the landscape surrounding the site however visual connectivity with the M1 is limted due to its elevation in relation to the site and the extent of vegetation between the site and the motorway.

TOPOGRAPHY

Topography surrounding the Site is undulating. The land rises to the north from Kangoo Rd from approximately 195AHD (Australian Height Datum) to 213 AHD at the site entry on Gindurra Rd. Views from within the industrial area are generally contained by vegetation and buildings however distant views to ridgelines are accessible from within the site. Although the site is elevated the undulating nature of the landscape contains views from the North, East and West. Views from the South are primarily screened by vegetation.

VEGETATION

Vegetation on site is mapped as E26 - Exposed Hawkesbury Woodland and E29 - Hawkesbury Banksia Scrub - Woodland. Areas of Sandstone Hanging Swamp Endangered Ecological Community have been identified on the southern portion of the site.

Surrounding roads are well vegetated and significant areas of bushland exist to the North of the site. Surrounding ridgelines are well vegetated and influence the character of the site by dominating the visible horizons.

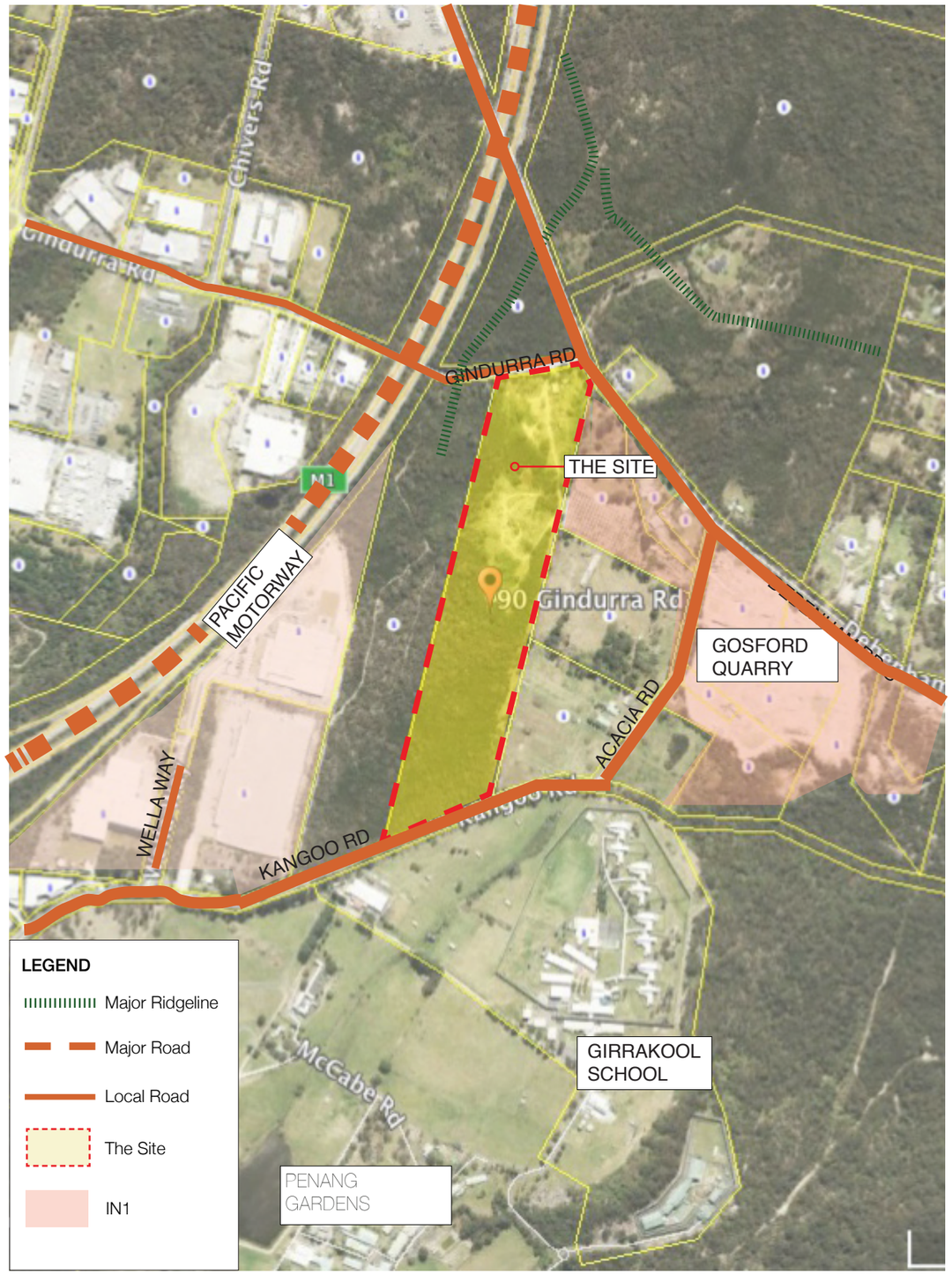


FIGURE 3: Regional Context (Source: Sixmaps)

3.0 Existing Landscape Character

View of Gosford Quarries.

IN1 zone warehousing on Gindurra Road.

Property on Debenham Road South.

Typical roadside vegetation.

Mt Penang Gardens.

Typical roadside vegetation.

4.0 The Proposal

4.1 The Site

The subject land, referred to as “the Site” is located at 90 Gindurra Road, Somersby and occupies the lot known as Lot 4 in DP227279. With reference to Central Coast Council’s Gosford Local Environment Plan (LEP) 2014, the Site is zoned IN1 (General Industrial) zone.

The Site is located on the southern side of Gindurra Road in the suburb of Somersby within the Central Coast Local Government Area (LGA). The Site covers an area of approximately 10.8 ha and sloping from the northern boundary at Gindurra Road in a south-easterly direction. The Site has been used for sand and metal recycling since 1992 and overtime has expanded its operational footprint.

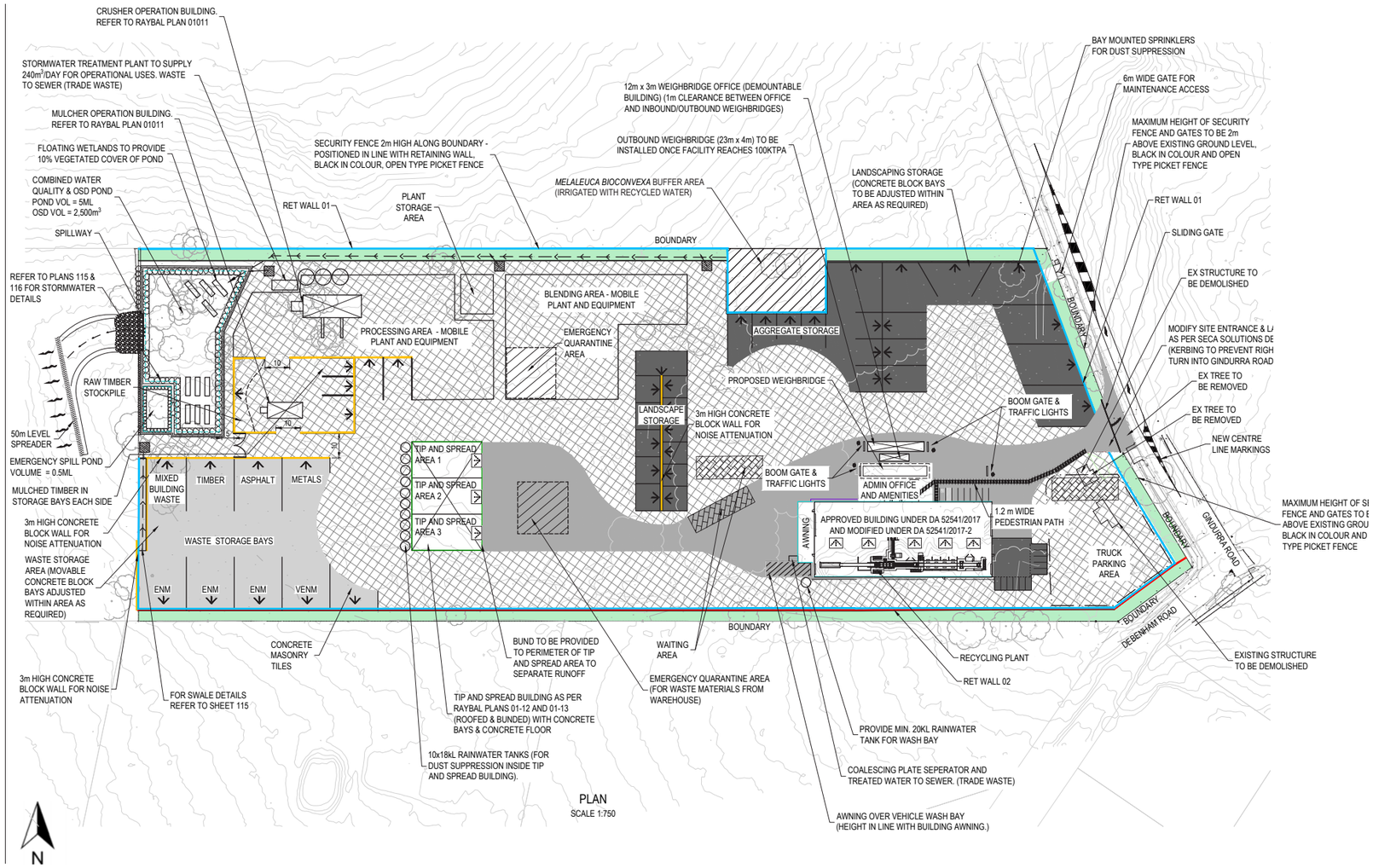


FIGURE 4: The Proposal (Source: Jackson Environment and Planning Pty Ltd)

4.0 The Proposal

4.2 The Proposal

The Kariong Sand and Soil Supplies development will involve the construction and operation of a best practice recycling and landscape supplies facility that will enable the receipt of up to 200,000 tonnes of sand, soil and building materials each year. The project will transform the site into a state-of-the-art facility turning sand, soil and building materials into 100% recycled building and landscaping supplies. The facility aims to produce a number of building and landscape products, providing them for re-use mainly in the Central Coast region.

The proposed development will seek to expand the current facility into a best-practice recycling plant that will assist the Central Coast in achieving the NSW Government's target of an 80% recycling rate for construction and demolition waste by 2021.

The project will involve the development of a largely undeveloped industrial site, to enable the facility to be used to receive, process and recycle construction and demolition waste, as well as supply building and landscape supplies for local projects. All waste materials will be received and processed indoors, to minimise impacts on the environment and neighbours.

The front part that will be visible from Gindurra Rd will be the landscaping supply operations, including landscaping along the road frontage and landscape storage bays behind the set back area. A fully enclosed warehouse where sorting and recycling operations will be conducted will be visible from the front of the site. Along the eastern boundary, a noise barrier and a native landscape buffer will be planted to avoid noise impacts on nearly rural dwellings, and to provide an aesthetically pleasing interface between the edge of the Somersby Industrial Estate and nearby rural zone lots and dwellings.

Waste processing and recycling operations for selected materials, including crushing and mulching will be done on the southern section of the site, where processing will also be done in dedicated buildings to avoid any impacts on nearby land uses. These operations are to be conducted at maximum distance from any sensitive receptors. The southern section of the site will be retained as bushland to provide a natural buffer between the development and other residential areas more than a kilometre away from the southern boundary of the site.

Advanced water capture, rainwater harvesting, water treatment and dust suppression systems will be integrated in all buildings and outdoor areas to prevent dust being formed. The site will also include an advanced membrane filtration plant to enable much of the water captured from the site to be fully reused across the site for operational uses. The site will also include its own weather monitoring station, high volume air samplers for continuous air quality and dust analysis, and continuous noise loggers to confirm compliance with consent and licence conditions. The site will be fully serviced with fire suppression systems.

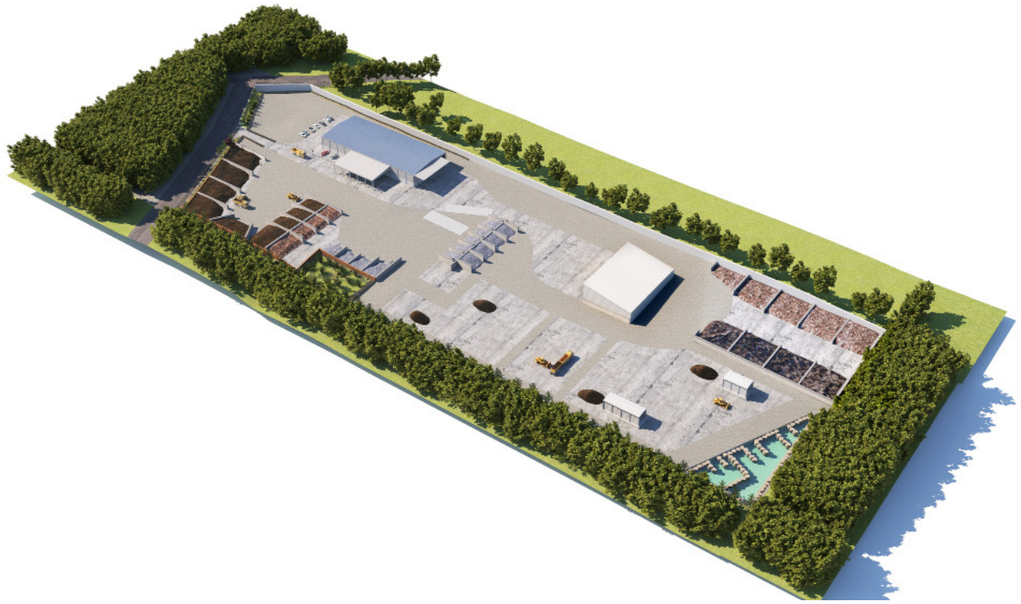


FIGURE 5: 3D Render of the Proposal as viewed from the SW (Source: Jackson Environment and Planning Pty Ltd)

FIGURE 6: 3D Render of the Proposal as viewed from the NE (Source: Jackson Environment and Planning Pty Ltd)

5.0 Viewpoint Analysis

5.1 Viewpoint Analysis

This part of the visual assessment considers the likely impact that development would have on the existing landscape character and visual amenity by selecting prominent sites, otherwise referred to as viewpoints.

5.1.1 Viewpoint Selection Process

Viewpoints are selected to illustrate a combination of the following:

- Present landscape character types.
- Areas of high landscape or scenic value.
- Visual composition (eg. focused or panoramic views, simple or complex landscape pattern).
- Range of distances.
- Varying aspects.
- Various elevations.
- Various extent of development visibility (full and partial visibility).
- Sequential along specific routes.

Viewpoints have been carefully selected to be representative of the range of views within the study area. The selection of viewpoints is informed by topographical maps, field work observations and other relevant influences such as access, landscape character and the popularity of vantage points.

A total of **10 viewpoints** were recorded as part of the field work process (see **Figure 7**). The majority of these viewpoints were taken from publicly accessible roads surrounding the site. The viewpoints which have been included represent the areas from where the development would appear most prominent, either based on the degree of exposure or the number of people likely to be affected.

It is important to note that viewpoints for this study have been taken only from accessible public land.

5.1.2 Process of Viewpoint Analysis

Once the viewpoint was selected, panoramic photographs were taken at eye level from the viewpoints towards The Site. Photographs were taken with a Canon EOS 5D Mark III digital SLR through a 50mm lens to best represent the human eye.

The visual impact of the viewpoint was then assessed both on site and with the topographic and aerial information to ensure accuracy. Viewpoint photographs and analysis is included in the following pages. The findings of the viewpoint analysis have been quantified and are summarised in **Table 3.**

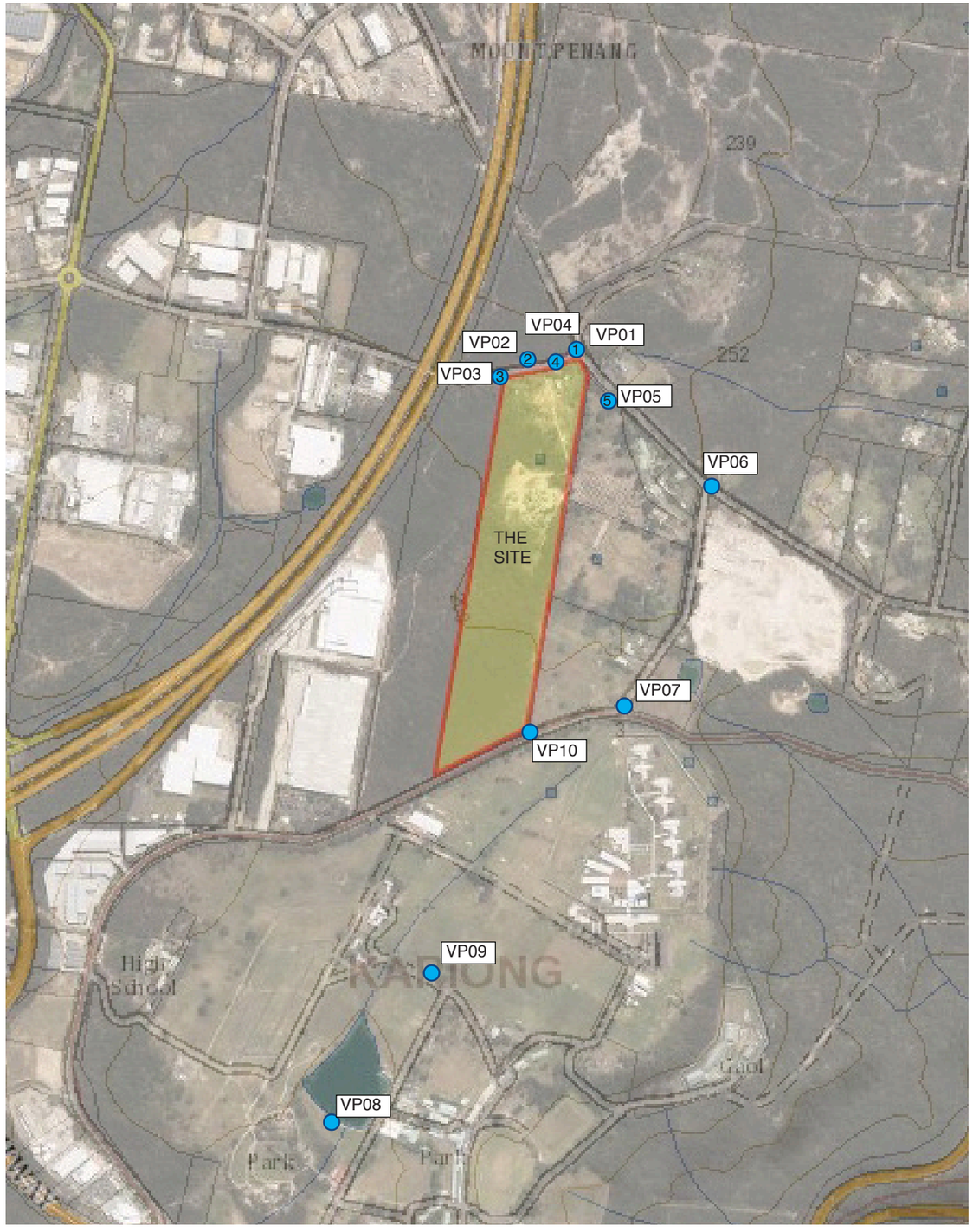


FIGURE 7: Viewpoint Assessment Locations

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 01 View from corner of Gindurra Rd and Debenham Road S

VP01 Viewpoint Location

VIEWPOINT 01			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Cnr Gindurra RD and Debenham Road S	This photograph was taken from the intersection of Gindurra Rd and Debenham Rd S with a view towards the site. The main entry to the site is visible as is signage for the previous operation of the site as a landscape supplies centre. This section Gindurra Rd and Debenham Rd S is characterised by dense roadside vegetation that restricts views into properties. Vegetation is primarily mixed native plantings. Sensitivity to the development is between industrial uses (generally low) and residential (generally High or Moderate). The visual sensitivity of this viewpoint has been rated as ***moderate***.	From this location views into the Site are fragmented by the vegetation along the northern boundary which fronts Gindurra Rd. The noise barrier will be visible from the road along the boundary. The visual effect has been assessed as ***high*** due to proximity of the noise wall to the road and removal of vegetation along the boundary. The resulting visual impact would be ***high*** from this viewpoint. **Refer photomontage PM01.**
COORDINATES	33º 21'54.94S 151º 18.0'39"E		
ELEVATION	217m		
VIEWING DIRECTION	South West		
DISTANCE TO SITE	Approx. 20m		
LAND USE	Industrial/Rural Residential		
VISUAL EFFECT	High		
VISUAL IMPACT	High		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 02 View East on Gindurra Rd

VP02 Viewpoint Location

VIEWPOINT 02			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Gindurra Road	This photograph was taken on Gindurra Road approximately in alignment with the north western boundary of the site. Machinery adjacent to the existing site sheds is visible in the middle of the photo. This demonstrates the extent of visual permeability of the roadside vegetation. Views into the site are largely fragmented and constrained by the vegetation. The visual sensitivity from this viewpoint has been rated as ***low*** due to the Industrial land use.	From this location views into the Site are fragmented by the vegetation along the northern boundary which fronts Gindurra Rd. It is likely the proposed *office and maintenance building and noise barrier* would be partially visible through the vegetation. The visual effect has been assessed as ***moderate*** and the resulting visual impact would be ***low*** from this viewpoint.
COORDINATES	33º 24’53.53S 151º 17.54’12”E		
ELEVATION	212m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	Approx. 30m		
LAND USE	Industrial		
VISUAL EFFECT	Moderate		
VISUAL IMPACT	Low		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 03 View East along Gindurra Road..

VP03 Viewpoint Location

VIEWPOINT 03			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Gindurra Road	This photograph was taken from the eastern edge of the Gindurra Road M1 tunnel. The signage associated with the site entry is visible on the road edge. Views toward the western boundary of the site are screened by roadside vegetation and by dense vegetation on the adjoining lot to the West. The visual sensitivity of this viewpoint has been rated as ***low*** due to the land use.	From this viewpoint, the new development areas will be partially visible, generally associated with 2m high fencing along the perimeter. Existing vegetation provides substantial screening of the site. Proposed signage at the entry will likely be visible from this location and glimpses of the noise wall may be possible. The visual effect is likely to be ***moderate*** resulting in a ***low*** visual impact.
COORDINATES	33º 24'53.78S 151º 17.50'47"E		
ELEVATION	205m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	Approx. 100m		
LAND USE	Industrial		
VISUAL EFFECT	Moderate		
VISUAL IMPACT	Low		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 04 View South into site from Gindurra Road.

VP04 Viewpoint Location

VIEWPOINT 04			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Gindurra Road	This photograph was directly opposite the main entry to the site on Gindurrah Road. Views into the site are limited by the 5m noise attenuation wall and removal of vegetation for its construction. 2m high fencing will also be visible. The visual sensitivity of this viewpoint has been rated as ***low*** due to the visible industrial land use.	It is likely that there will modification to the entry to the site to accommodate the new use and for installation of the 5m noise wall and 2m fencing. Vegetation that would otherwise provide screening will be removed for the noise wall. The visual effect has been assessed as ***high*** due to proximity of the noise wall to the road and removal of vegetation along the boundary. The resulting visual impact would be ***moderate*** from this viewpoint.
COORDINATES	33º 24’25.80”S 150º 17’58.17’E		
ELEVATION	215m		
VIEWING DIRECTION	South		
DISTANCE TO SITE	Approx. 20m		
LAND USE	Industrial		
VISUAL EFFECT	High		
VISUAL IMPACT	Moderate		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 05 View into neighbouring property towards site from access off Debenham Road S.

VP05 Viewpoint Location

VIEWPOINT 05			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	No.12 Debenham Road S	This photograph was taken from the entry to No.12 Debenham Road S. No 12 is the neighbouring property on eastern boundary of the site, The access has filtered views into the site through established trees that are situated across the boundary of both properties. The visual sensitivity of this viewpoint has been rated as ***high*** due to rural residential land use.	Views from the public domain are open due to construction of 5m noise wall and removal of mature boundary vegetation that would form a screen. The visual effect has been assessed as ***low*** due removal of vegetation along the boundary. The resulting visual impact would be ***moderate*** from this viewpoint. **Refer photomontage PM02**
COORDINATES	33º 24’25.80”S 150º 17’58.17’E		
ELEVATION	213m		
VIEWING DIRECTION	South west		
DISTANCE TO SITE	Approx. 10m		
LAND USE	Rural Residential		
VISUAL EFFECT	Low		
VISUAL IMPACT	Moderate		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 06 View West from the corner of Debenham Rd S and Acacia Rd.

VP06 Viewpoint Location

VIEWPOINT 06			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Corner Debenham Rd S and Acacia Rd	This photograph was taken from the corner of Debenham Road S and Acacia Rd. Although only 250m distance from the site extensive roadside vegetation provides significant screening. Several layers of vegetation associated with the neighbouring residence between the viewpoint and the site form part of the character of the land use transition from industrial to rural residential. The visual sensitivity of this viewpoint has been rated as ***high*** due to the land use.	From this location views into the site are largely screened by the existing vegetation along roadside and through the adjoining property. Glimpses of the noise attenuation may be visible due to removal of vegetation and proximity to the site. Due to close proximity and partially visibility of the site the visual effect is ***low.*** Visual Impact from this location is ***moderate***.
COORDINATES	33º 25'0.35"S 151º 18'9.72'E		
ELEVATION	192m		
VIEWING DIRECTION	West		
DISTANCE TO SITE	Approx. 255m		
LAND USE	Rural Residential		
VISUAL EFFECT	Low		
VISUAL IMPACT	Moderate		

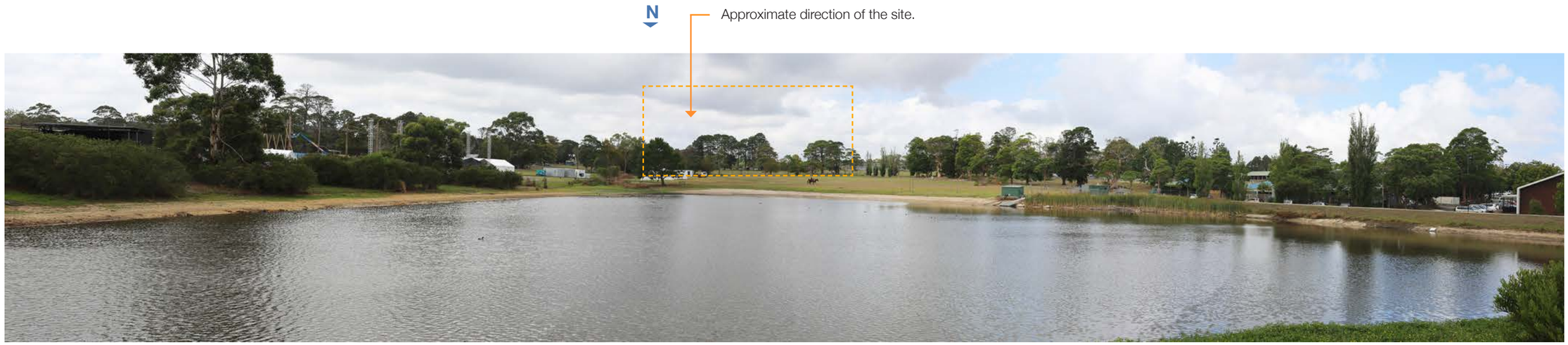
5.0 Viewpoint Analysis (contd.)

VIEWPOINT 07 View from North West across the neighbouring property from Kangoo and Acacia Roads.

VP07 Viewpoint Location

VIEWPOINT 07			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Intersection of Kangoo Rd and Acacia Rd	This photograph was taken from the location where Kangoo Rd transitions into Acacia Road. The visual sensitivity of this location has been rated as ***high*** due to the rural residential land use.	From this location views towards the site are open and partial views to the southern end of the noise wall may be possible. Views to the proposed development area are screened by site vegetation at the southern end of the lot and mature vegetation on neighbouring lots. As the site is partially visible the visual effect is assessed as ***low***. Visual Impact from this location is ***moderate***.
COORDINATES	33º 25’13.69”S 151º 18’ 02.85”E		
ELEVATION	193m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 193m		
LAND USE	Rural Residential		
VISUAL EFFECT	Low		
VISUAL IMPACT	Moderate		

5.0 Viewpoint Analysis (contd.)



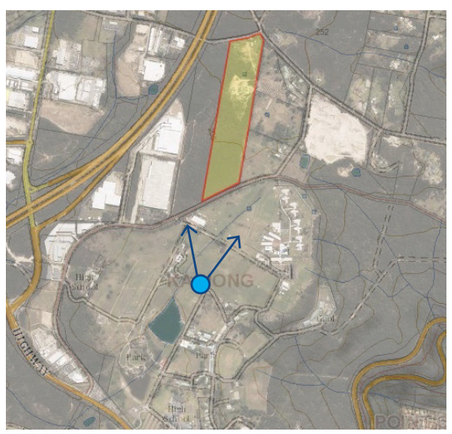
VIEWPOINT 08 View from lake edge, Mt Penang Gardens (accessed off Parklands Road)

VP08 Viewpoint Location

VIEWPOINT 08			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Mt Penang Gardens	This photograph was taken from the lake edge in Mt Penang Gardens looking in a generally north direction towards the Site. Mt Penang Gardens is a significant recreation and open space resource for the region. The parkland has extensive plantings that contain views to the north. The visual sensitivity from this location has been rated as ***high*** due to the recreation/open space land use.	From this location, views toward the Site are contained by established vegetation within Mt Penang Gardens and on surrounding lots. The site is not visible form this location therefore the visual effect is assessed as ***nil*** and the potential Visual Impact is ***nil***.
COORDINATES	33º 24’59.75”S 151º 18’24.10”E		
ELEVATION	178m		
VIEWING DIRECTION	North		
DISTANCE TO SITE	Approx. 1.1K (to development area)		
LAND USE	Recreation/Open space		
VISUAL EFFECT	Nil		
VISUAL IMPACT	Nil		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 09 View from McCabe Rd, Mt Penang Gardens

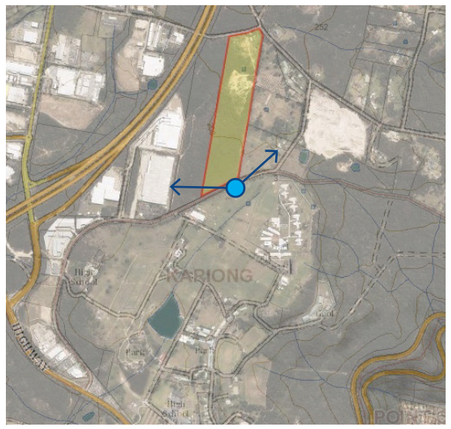


VP09 Viewpoint Location

VIEWPOINT 09			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	McCabe Drive, Mt Penang Gardens	This photograph was taken from McCabe Rd within Mt Penang Gardens. The Gaol is visible in the right of photo. The existing character retains the previous agricultural use of the site. Extensive roadside vegetation associated with the parklands, Kangoo Rd and the southern portion of the screen any views to the development area of the site. The visual sensitivity of this location has been rated as ***high*** due to the recreational land use.	From this location views towards the site are screened by vegetation. The proposal will not be visible from this location creating ***nil*** Visual effect and subsequently ***nil*** Visual Impact.
COORDINATES	33º 25’ 29.7”S 151’ 17’49.88”E		
ELEVATION	184m		
VIEWING DIRECTION	North		
DISTANCE TO SITE	Approx. 800m (to development area)		
LAND USE	Recreation/Open Space		
VISUAL EFFECT	Nil		
VISUAL IMPACT	Nil		

5.0 Viewpoint Analysis (contd.)

VIEWPOINT 10 View from the South Eastern corner of the site on Kangoo Rd.



VP10 Viewpoint Location

VIEWPOINT 10			
SUMMARY OF VIEWPOINT		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Kangoo Rd	This photograph was taken from South eastern corner of the site on Kangoo Rd. The southern end of the site is situated in a transition zone between established industrial developments to the West and rural land (RU1) to the east. It is not anticipated that the development will impact standing vegetation at the southern end of the lot. The visual sensitivity of this location has been rated as ***moderate*** due to the rural land use.	From this location views towards the site are screened by vegetation associated with southern end of the site which is proposed to be retained as part of the development proposal. Works on the site will not be visible form this location therefore the Visual Effect is ***nil*** and the Visual Impact is ***nil***.
COORDINATES	33º 25'15.35"S 151º 17'56.32"E		
ELEVATION	195m		
VIEWING DIRECTION	North		
DISTANCE TO SITE	15m (250m to development area)		
LAND USE	Rural Residential/Industrial		
VISUAL EFFECT	Nil		
VISUAL IMPACT	Nil		

5.0 Viewpoint Analysis (contd.)

5.2 Overview of Viewpoint Analysis

As discussed in the rationale for the viewpoint selection process, these viewpoints are representative of the worst case scenario. For each viewpoint, the potential visual impact was analysed through the use of a combination of topographic maps and on site analysis.

The visual sensitivity and visual effect of each viewpoint have been assessed which, when combined, result in an overall visual impact for the viewpoint (Refer to Table 3).

Of the ten (10) viewpoints assessed as part of this VIA, the proposal would be visible from a total of seven (7) viewpoints. Of the seven (7) viewpoints from which the proposal would be visible, four (4) of these have been assessed as having a moderate visual impact one, (1) with a high visual impact and two (2) with a low visual impact.

It is noted visual impacts associated with the proposed development are likely to be higher during the construction phases and mitigated overtime with the implementation of measures to ultimately achieve a low or negligible visual impact level. The incorporated mitigation measures outlined in Section 7.0 of this report seek to avoid, reduce and where possible remedy adverse visual effects arising from the proposed development.

VIEWPOINT	VISUAL SENSITIVITY	VISUAL EFFECT	POTENTIAL VISUAL IMPACT
VP01	MODERATE	HIGH	HIGH
VP02	LOW	MODERATE	LOW
VP03	LOW	MODERATE	LOW
VP04	LOW	HIGH	MODERATE
VP05	HIGH	LOW	MODERATE
VP06	HIGH	LOW	MODERATE
VP07	HIGH	LOW	MODERATE
VP08	HIGH	NIL	NIL
VP09	HIGH	NIL	NIL
VP10	MODERATE	NIL	NIL

*Please note the Viewpoint Visibility Assessment Summary is based on the visibility assessment criteria outlined in Section 2.1 of this report.

TABLE 3: Viewpoint Summary

5.3 Photomontage Development

A photomontage is a visualisation based on the superimposition of an image (ie building, road, landscape addition etc) onto a photograph for the purpose of creating a realistic representation of proposed or potential changes to a view. (Horner and Maclennan et al, 2006). Photomontages have been prepared for Viewpoint VP01 and VP05

Photomontage Development Process

Photomontages are representations of the development that are superimposed onto a photograph of The Site. The process for generating these images involves computer generation of a wire frame perspective view of The Site.

The photo simulations based on photography from typical sensitive viewpoints are included within the following analysis section. The images that the photo simulations have been based on have been were captured with a Canon EOS 50D Mark III Full Frame Digital SLR through a 50mm fixed focal lens which closely represent the central field of vision of the human eye.

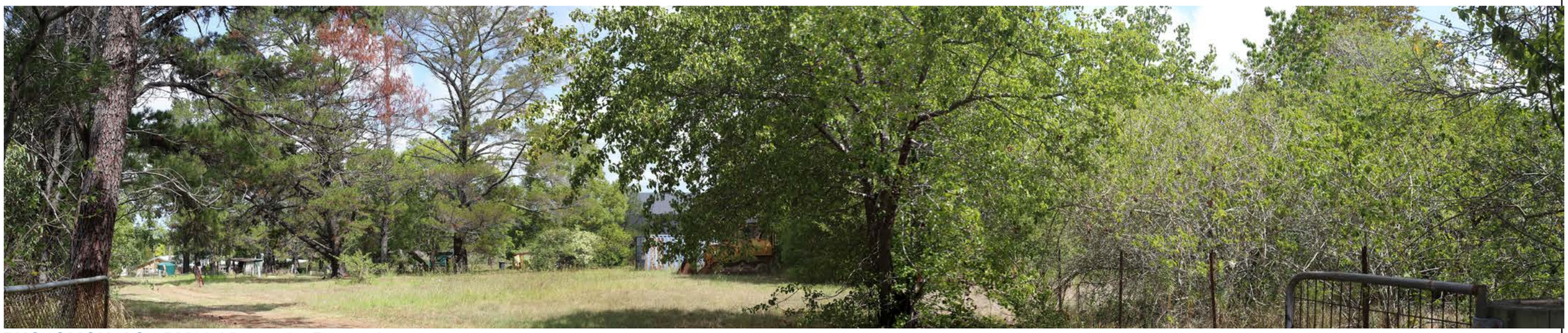
5.3 Photomontages

PANORAMA VP01 Existing View

PHOTOMONTAGE PM01 View of proposal

5.3 Photomontages

VIEWPOINT VP05 Existing view



PHOTOMONTAGE PM02 View of the Proposal

PHOTOMONTAGE PM02 Highlighted view of proposal

6.0 Visual Impact Assessment

6.1 Assessment of Visual Impacts

In addition to the photographic viewpoint assessment, the following section provides an overview of the potential visibility from local areas surrounding the site. This is by no means an exhaustive description of the visibility from every locality. It is intended to provide an overall assessment of the potential visual impact on areas potentially affected by the proposal.

The existing character along Gindurra Rd (East of the M1 tunnel), Debenham Rd S and Acacia Rd is dominated by significant roadside screen planting, bushland and intermittent views into small rural holdings.

The proposal will remove mature vegetation along the eastern boundary for the construction of a 2m noise attenuation barrier. This barrier will modify views of the site, however as proposed landscaping works adjoining the wall mature, it is likely the impact would diminish overtime.

As views into the site from these roads at 150 - 250m from the site is largely screened by the roadside vegetation it is likely that this will reduce the impact upon the existing landscape character of these streetscape.

The residence associated with the access off Debenham Rd S (as identified in Viewpoint 05) is likely to experience a slight change in character of their view to the West, in particular as a result of the proposed 5m noise attenuation fencing that is to be positioned along the eastern boundary.

The concept plan indicates that the development is to occur primarily in the disturbed areas of the site with the retention of the existing bushland surrounding the development areas to the West and South. Without this retained vegetation it is likely that the development would be visible from Kangoo Rd and Mt Penang Gardens. The established nature of the retained vegetation ensures that these more sensitive locations are screened from any impact.

Distant views to the site are constrained by vegetation and the M1. However, if a residence were to have distant views towards the site then it is likely that the surrounding industrial and commercial areas would also be visible and the development would not be contributing any new or contrasting elements to the character of the view shed.

Night lighting is likely to be required for safety and security reasons. It is likely this will appear in keeping with existing lighting from vehicular traffic, street lighting and surrounding residential and industrial buildings and is complying with the GLEP/DCP.

The proposal is likely to be viewed as a continuation of the existing industrial development in a large scale industrial zone and as the site is already disturbed it is our determination that the visual impacts from public domain areas are acceptable.

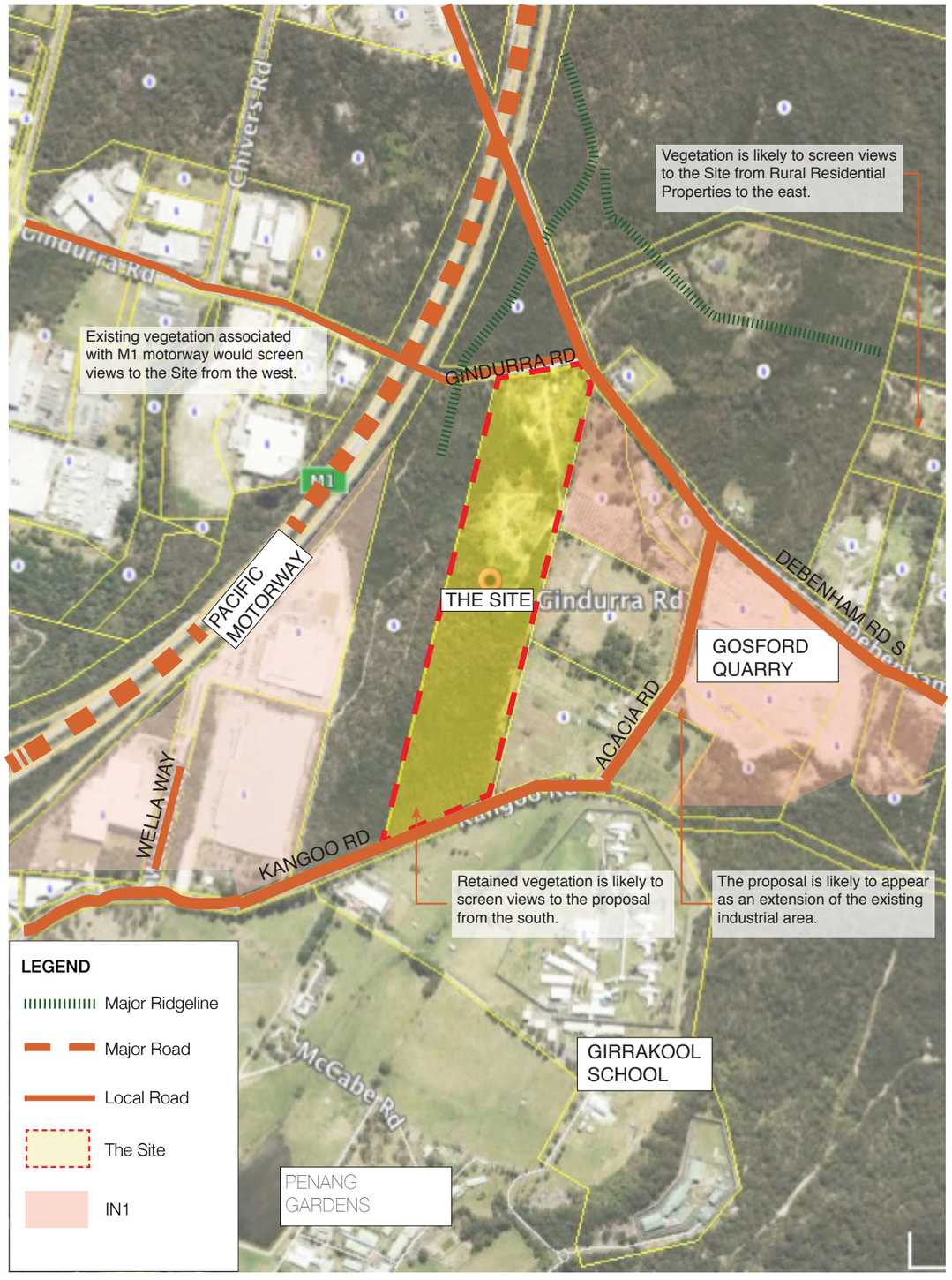


FIGURE 8: Visual Impact Assessment (Map Source: Google)

7.0 Mitigation Methods

7.1 Proposed mitigation methods

These principles may be incorporated into the concept design to achieve better visual integration of the proposal and the existing visual character at both, local and regional scales. The mitigation measures can mitigate any visual impact of the proposed development whilst enhancing the visual character of the surrounding environment.

7.1.1 Incorporated Mitigation Methods

Methods incorporated into the concept design for mitigating the potential visual impact include:

- The built form of the proposed buildings are of a similar scale to the surrounding industrial and commercial buildings.
- Building materials selected will reduce colour contrast and blend any new and existing structures, as far as possible, into the surrounding landscape.
- The existing buildings are being reused, which will reduce the visual impact during the construction phase.
- Retention of existing trees within the Site to assist in fragmenting views of the proposed development.

7.1.2 Screen Planting Principles

The following principles will apply to screen planting:

- Foreground visual planting is to be undertaken in areas of highest visual effect, such as along Gindurrah Rd and on the sites Eastern boundary.
- The use of endemic flora species which will integrate with the existing landscape character whilst providing habitat for fauna.
- Planting should aim to fragment views instead of blocking completely.
- Proposed screening and planting of a vine adjoining the noise attenuation wall would significantly reduce visual impact of the wall.

This is by no means an exhaustive list however the adoption of these recommendations will assist considerably in ensuring that the proposal contributes positively to the visual quality and character of the visual catchment and the character.

8.0 Conclusion

8.1 Summary of Visual Impacts

With all visual impact assessments the objective is not to determine whether the proposal is visible or not, it is to determine how the proposal will impact on existing visual amenity, landscape character and scenic quality. If there is a potential for a negative impact on these factors it must then be investigated and determined how this impact can be mitigated to the extent that the impact is reduced to an acceptable level.

The existing landscape character is a mix of industrial development, rural properties and bushland ridgelines and corridors. The scale of the built form in the proposal is small compared to existing industrial developments in the Somersby Industrial Area and is more in keeping with adjacent rural residential developments

The implemented design principles outlined in **Section 7.0** of this report seek to avoid, reduce and where possible, remedy adverse effects on the environment arising from the proposed development. Implementation of the mitigation measures, which propose a combination of primary mitigation measures (site planning principles) and secondary measures (landscaping, street trees, colour and material selections) are proposed to reduce localised negative impacts.

There is an opportunity to mitigate this impact through articulation in the fence, patterning, colour and position of the fence in relation to the boundary. In addition additional screen planting along the boundary would also considerably soften the impact of the barrier.

With the implementation of the recommended mitigation measures, the proposed development could be undertaken whilst maintaining the core landscape character of the area, and have a low visual impact on the surrounding visual landscape.

9.0 References and Bibliography

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MAPS

Google Maps, 2014 http://google.com/maps/

Six Maps, 2014, http://http://maps.six.nsw.gov.au/

Appendix A

Response to Submissions		
Agency	***Requirement / Comment***	RESPONSE / WHERE ADDRESSED
SEARs	*An assessment of the potential visual impacts of the project on the amenity of the surrounding area.*	This VIA has been prepared in accordance with the SEARs. **Section 3** Provides an overview of existing landscape character. **Section 5** includes an assessment of the potential impacts from key viewpoints surrounding the Site including photomontages of the proposal. **Section 6** proviced an assessment of the potential visual impacts **Section 7** Provides mitigation methods to assist in reducing any potential visual impacts on the amenity of the surrounding area.
Comments on the EIS from Public Exhibition (Feb - March 2019)		
Public submission – Save Somersby Form Letter	*The Height, scale, visual bulk. As it would be a visual eyesore and out of character with the surrounding forest landscape and rural residential blocks*	The existing landscape character has been assessed as apart of the VIA. In addition to rural residential the existing visual character includes industrial use, M1 Motorway and Gosford Quarry. The proposal is in keeping with the surrounding visual landscape. **Section 3: Existing Landsape Character** **Section 5: Viewpoint Assessment** Photomontages have been developed to provide an indicative view of the proposed development from adjoining rural residential properties. Refer to **Section 5.3: Photomontages.** Proposed Mitigiation Methods seek to reduce potential visual impacts from surrounding residences. Refer to **Section 7.0: Mitigation Methods**

Table A. *Response to submissions*