27 Lang Drive, Bolwarra Heights 2320

VISUAL IMPACT ASSESSMENT

Prepared for:

SNL BUILDING

Project No: 240457VIA

Issue REV A

Date 20 JUNE 2023

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FIGURE 1: SITE LOCALITY PLAN (Source Six Maps, May 2023 Scale 1:9028)

1.0 PROJECT INTRODUCTION

ADW Johnson have been engaged by SNL Building to prepare a Visual Impact Assessment (VIA) for the proposed development located at Lot 1 DP1156433, 27 Lang Drive, Bolwarra heights, NSW 2320 (Refer to Figure 1). The VIA will support the DA submission for the proposal, lodged for assessment under the Maitland City Councils (MCC) Local Environment Plan (2011), Development Control Plan (2011) and other documentation as required.

This VIA supports the subdivision proposal on behalf of SNL Building in regard to create 14 Torrens title residential allotments at Lot 1 DP1156433, 27 Lang Drive, Bolwarra heights, NSW 2320. The purpose of this report is to provide a qualitative and quantitative assessment of the visibility and potential visual impacts of the proposal.

A site survey was undertaken on 19th May 2023 using key viewpoints and locations with potential views towards the site. The report details the results of the field work, documents, assessment of the landscape character and visual setting, and also assesses potential visual impacts associated with the proposal.

The report also provides an overview of the proposed massing based upon the proposed lot layout which will assist in the review of potential visual impacts. This information is provided to assist Maitland City Council in 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 eroded or diminished.

CONTENTS

We acknowledge the Wonnarua People as the Traditional Owners and Custodians of the land within the Maitland Local Government Area. We pay respect to all Aboriginal Elders, past, present and future with a spiritual connection to these lands.

1.1 PROJECT BACKGROUND

ADW Johnson has been engaged by SNL Building ("the proponent") to prepare and lodge a Development Application (DA) with Maitland City Council ("Council") for a one (1) into fourteen (14) Lot subdivision at 27 Lang Drive Bolwarra Heights, legally identified as 1/DP1156433. An existing shed ancillary to the existing dwelling will be required to be demolished to accommodate the proposal. The existing dwelling on-site is proposed to be retained and incorporated into the proposed subdivision on a new Lot.

The subject site is one of several larger Lots remaining within the R5 Large Lot zoned area between Tocal Road, Lang Drive and Paterson Road.

Two existing houses on separate Lots south of the subject site (23 & 25 Lang Drive) gain access via a right-of-carriageway through the subject site. This configuration is proposed to be retained.

The proposed development seeks to subdivide the subject site to create fourteen (14) Torrens title residential allotments. The proposal will include the construction of a public road connecting Lang Drive to the existing Hilldale Drive. Construction of the new public road will require demolition of a detached shed ancillary to the existing dwelling house on-site. Existing dwellings adjacent the subject site (23 Lang Drive and 25 Lang Drive) gain access to Lang Drive by way of a right-of-carriageway. No change to this access arrangement is proposed.

1.2 REPORT OBJECTIVES

To identify and describe the existing visual/landscape environment and to evaluate its current qualities.

- To graphically portray the proposal in contextual settings from selected viewpoints.
- To determine likely development impacts on the visual/landscape quality of the area.
- To identify locations where visual access is possible.
- To assess whether the proposed development would have a negative visual impact on the visual quality of the locality.
- To satisfy the guidelines within the Landscape and Visual Impact Assessment (GLVIA) – Third Edition (LI/ IEMA 2013) and the Landscape Institute Advice Note 01 (2011) Photography and Photo-montage in Landscape and Visual assessment.

To satisfy these guidelines this document aims to achieve the following for this Development Proposal:

- Describe the landscape and visual Context
- Identify the visibility and related visual sensitivity of the landscape and any viewpoints
- Describe likely visual changes
- Assess the likely landscape and visual impacts
- Report Illustration (to clarify the visual changes)

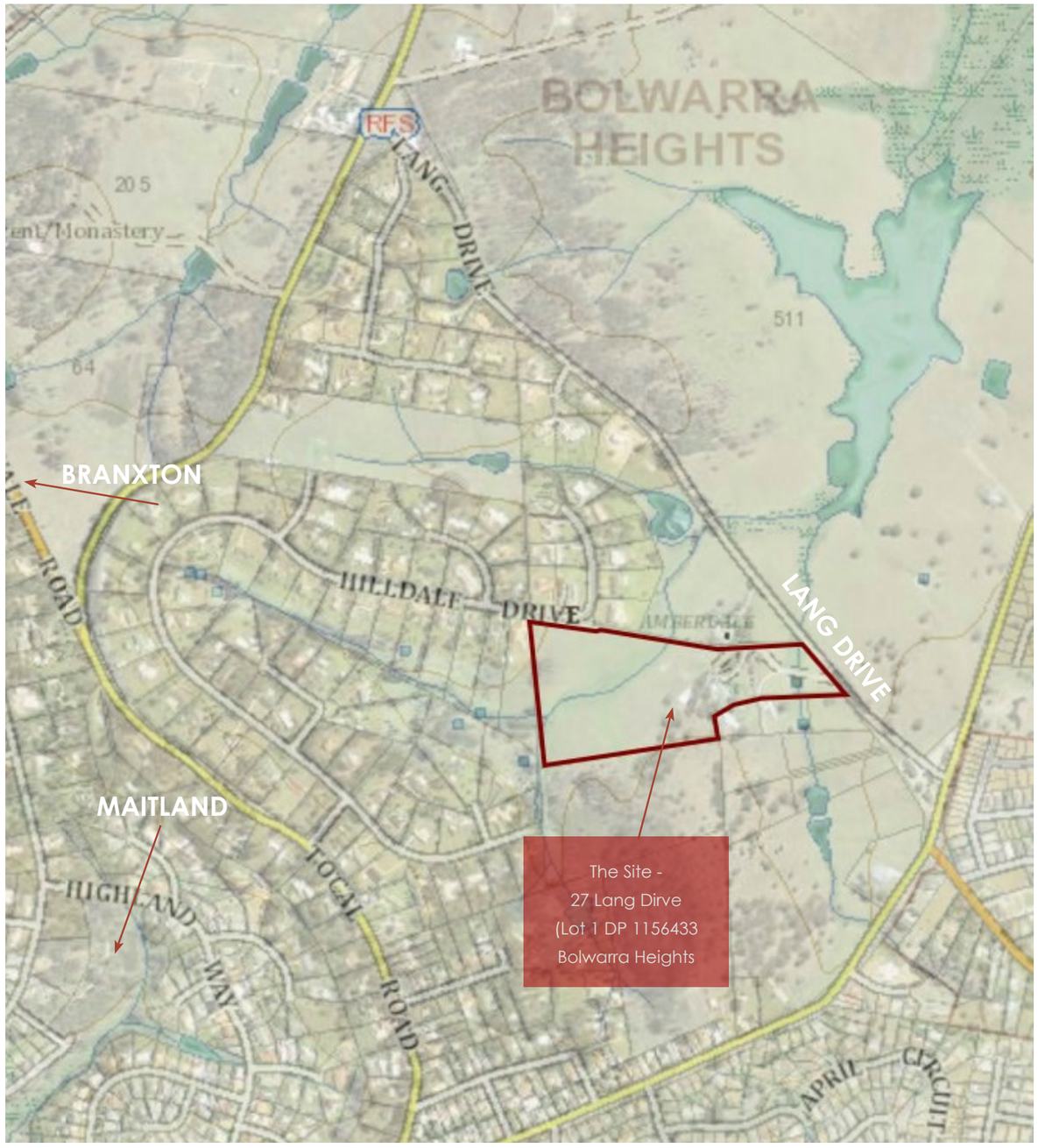


FIGURE 2: SITE LOCATION (Source Six Maps, May 2023 Scale 1:72,224)

2.0 VIA METHODOLOGY

This VIA is based on the guidelines and broad approaches recommended in the following documents and organisations:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA) – Third Edition (LI/IEMA 2013)
- The Landscape Institute Advice Note 01 (2011) Photography and Photo-montage in Landscape and Visual assessment.

In accordance with GLVIA3 the assessment methodology should reflect the specific requirements of the proposed development, the landscape context and likely significant effects. The methodology used for this assessment reflects the indicated proposed subdivision and subsequent development, and further its likely interaction with the existing landscape and visual conditions as a result of:

- The creation of 14 Torrens title residential allotments.
- The construction of a public road connecting the existing Hilldale Drive and Lang Drive.\
- Demolition of a detached shed ancillary to the existing dwelling house on-site.

Visual Impact Assessment is concerned with changes to the physical landscape in terms of features/elements that may give rise to changes in character. Visual appraisal is concerned with the changes that arise in the composition of available views as a result of changes to the landscape, people's responses to the changes and to the overall effects on visual amenity. The following assessment is based on the best practice guidance listed above, information and data analysis techniques, uses subjective professional judgment and quantifiable factors wherever possible and is based on clearly defined terms. As stated in paragraph 1.20 of the GLVIA:

"The guidance concentrates on principles while also seeking to steer specific approaches where there is a general concensus on methods and techniques. It is not intended to be prescriptive, in that it does not provide a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assesment to ensure that the approach and methodology adopted are appropriate to the particular circumstances."

This VIA written by ADW Johnson followed the stages indicated below and is considered to use appropriate methodology for this proposed development:

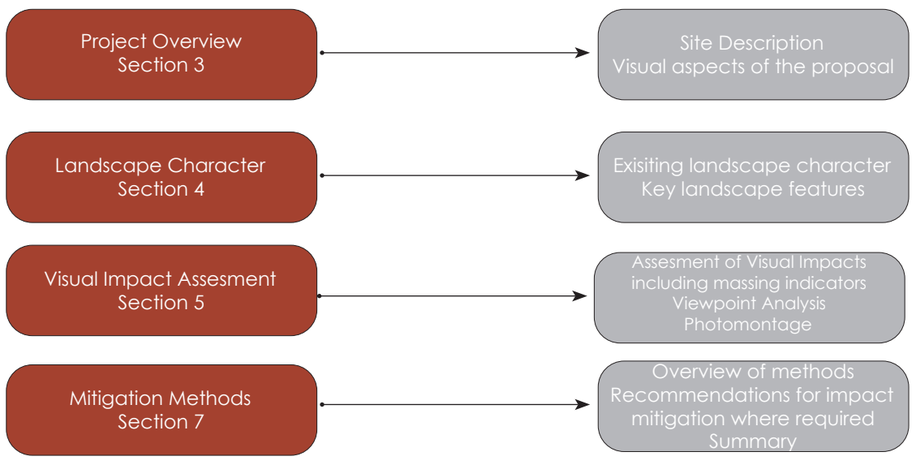


FIGURE 3: Study method

2.1 VISUAL ASSESSMENT PRINCIPLES

VISUAL QUALITY

Visual quality of an area essentially assesses how viewers may respond to designated scenery. Scenes of high visual quality are those valued by a community for the enjoyment and improved amenity that they can create. Conversely, scenes of low visual quality are of little scenic value to the community that can often emote a preference that they should be changed and improved; typically through the introduction of landscape treatments (e.g. screen planting).

As visual quality relates to aesthetics, its assessment is largely subjective. There is evidence to suggest that certain landscapes are continually preferred over others often in relation to the presence or absence of favoured elements. The rating of visual quality of this study has been based on the following generally accepted conclusions 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 common) and related to water quality and associated activity.
- Visual quality increases with increases in land use compatibility.

VISUAL SENSITIVITY

Visual Sensitivity estimates the significance that a change will have on a landscape and to those viewing it. 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. The assessment is based on variables such as the number of people affected, viewer access, viewer location including distance from the source, viewer position (i.e., inferior, neutral, superior), the surrounding land use and degree of change.

Generally, the following principles apply:

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

CATEGORY	DEFINITION
Very High	Typically a view to or from a heritage / protected asset. Key protected viewpoint e.g. interpretive signs. References in literature and art/or guidebooks and tourist maps. Protected view in planning policy designation [LEP, DCP etc]. Views from the main living space of residential properties, state public rights of way e.g. bush trails and state designated landscape feature with public access. Visitors to heritage assets of state importance.
High	View of clear value but may not be formally recognised e.g. framed view of high scenic value from an individual private dwelling or garden. It may also be inferred that the view is likely to have value e.g. to local residents. Local public rights of way and access land. Road and rail routes promoted in tourist guides for their scenic value.
Medium	Non-promoted view in any published sources and may be typical of the views experienced from a given receptor. People engaged in outdoor sport where an appreciation of the landscape has little or no importance or possible road users on main routes (Motorway/Freeway/Highway) and passengers on trains.
Low	View of clearly lesser value than similar views experienced from nearby visual receptors that may be more accessible. Road users on minor roads. People at their place of work or views from commercial buildings where views of the surrounding landscape may have some importance.
Very Low	A view affected by many landscape detractors and unlikely to be valued. People at their place of work or other locations where the views of the wider landscape have little or no importance.

TABLE 1: Visual Receptor Sensitivity

Assessment of the sensitivity of visual receptors may be modified through consideration of any particular value or importance attributed by people to available views. For example, some road users may be more sensitive due to a high level of surrounding scenic context, or residents of a particular property may be less sensitive due to a degraded visual setting. Typically, sensitivity of visual receptors is categorised as very high, high, medium, low or very low. Definitions of these indicative categories as appropriate to this assessment are set out in the table below, the visual receptors identified are judged in accordance with the indicative categories in the table 1 to determine the magnitude of change:

CATEGORY	DEFINITION
Very High	A substantial change to the baseline, with the proposed development creating a new focus and having a defining influence on the view. Direct views at close range with changes over a wide horizontal and vertical extent
High	The proposed development will be clearly noticeable and the view would be fundamentally altered by its presence. Direct or oblique views at close range with changes over a noticeable horizontal and or/vertical extent.
Medium	The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor. Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.
Low	The proposed development will be a minor part of the view, partially visible or at sufficient distance to be a small component. Oblique views at medium or long range with a small horizontal/vertical extent of the view affected.
Very Low	Proposed development is minimally noticeable, and the view whilst slightly altered is similar to the baseline situation. Long range views with a negligible part of the view affected

TABLE 2: Visual Receptor Magnitude of Change

If there is no magnitude of change and the baseline view is unaffected by the development a category of 'no change' or 'nil'will be used.

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 the setting or background in which it is viewed. This is often important if the proposal extends above the skyline unless, once again, there are particular circumstances that may influence viewer perception and/or visual impact.

Low visual effect occurs when a proposal blends in with the 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 land-form and landscaping.

Moderate visual effect results where a proposal noticeably contrasts with its viewed landscape, however, there has been some integration (e.g. good siting principles employed, retention of significant existing vegetation, provision of screen landscaping, careful colour selection and/or appropriately scaled development).

High visual effect results when a proposal presents itself with high visual contrast to its viewed landscape with little or no integration and/or screening.

VISUAL IMPACT

The following table illustrates how visual effect and visual sensitivity levels combine to produce varying degrees of visual impact.

It should be noted that a high visual impact does not necessarily equate with a reduction in scenic quality, and the degree of visual impact has to be understood and assessed in relation to both the existing scenic quality of an area and the design merits of the proposal itself. For example, a well-designed proposal with a high visual impact may help to improve the visual environment of an area with low scenic quality.

For each receptor type, the sensitivity of the location is combined with the predicted magnitude of change to determine the level of effect on any particular receptor.

The shaded area considers where the visual effect could be considered moderate or high which indicates a significant impact. However, there may be additional factors to take into account and some visual effects may be subjective due to individual perception and potential external influences. This report exercises flexibility where necessary in assessing the significance of effects and assumes the most probable case scenario unless stated otherwise. The significance of visual impacts are assessed for the proposed development in isolation.

Sensitivity Receptor	Magnitude of Change				
	Very High	High	Medium	Low	Very Low
Very High	Substantial	Major	Major/ Moderate	Moderate	Moderate/ Minor
High	Major	Major/ Moderate	Moderate	Moderate/ Minor	Minor
Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor	Minor/ Negligible
Low	Moderate	Moderate/ Minor	Minor	Minor/ Negligible	Negligible
Very Low	Moderate/ Minor	Minor	Minor/ Negligible	Negligible	Negligible/ None

TABLE 3: Visual Impact Estimator

2.2 VISUAL ASSESSMENT TOOLS

PHOTO MONTAGES

Photos and studies were taken at multiple locations around the subject site. Images in combination with on-line mapping tools, Sketch Up and Adobe Creative Suite have been used to create simulated views of the proposed development. These do not exactly replicate what is seen through the human eye and in some cases only provide an indication of the bulk and scale of the proposed development. They provide a useful tool in analysing the potential impact from the receptor locations.

The horizontal field of view (FOV) within the photo-montages exceeds the parameters of normal human vision. Human eye FOV is understood to be approximately 160°, the actual amount of detail in focus decreases towards the outer extents of the FOV. The 'Cone of Visual Attention' of the human eye is approximately 55° however, in reality the eyes, head and body can all move and, under normal conditions, the human brain would 'see' a broad area of landscape within a panoramic view. A single photographic image from a 50mm lens has a horizontal viewing angle of 39.6°. Whilst a photo-montage can provide an image that illustrates a representation of a development in relation to its proposed location and scale relative to the surrounding landscape, it is acknowledged that large scale objects in the landscape can appear smaller in photo-montages than reality. This is partly due to the fact that a flat image does not allow the viewer to perceive information relating to depth or distance. An extract taken from the Photography and Photo-montage in LVIA, Landscape Institute Advice Note 01/11 states that:

'it is also important to recognise that two-dimensional photographic images and photo-montages alone cannot capture or reflect the complexity underlying the visual experience and should therefore be considered an approximate of the three-dimensional visual experiences that an observer would receive in the field'

PROPOSAL MODELLING

Using Trimble SketchUp and Adobe Photoshop, ADW Johnson created overlays, massing models and photomontages. Proposed elements within the photomontages have not been created to absolute photo-real standard. The photomontages are purely a tool to supplement this visual assessment and are intended to demonstrate a predicted likely visual appearance.

SITE VISIT

A site visit took place on 19th May 2023 which verified the results of the desktop study and evaluated the existing visual character of the area. The visit determined the Zone of Visibility. Photographs taken at eye-level only allow a partial judgment on which residential properties, commercial properties, public open spaces and public rights of way (classed as visual receptors) in the immediate vicinity, may see the development from ground level to the top of the building line. There are limitations due to existing development, topography and surrounding vegetation, therefore, it is not possible to gain a complete understanding of the visual envelope.

3.0 PROJECT OVERVIEW

SITE DESCRIPTION

The subject land, referred to as "the Site" occupies Lot 1/DP1156433 at 27 Lang Drive Bolwarra Heights, New South Wales, located within the Maitland LGA. The subject site is one of several larger lots remaining within the R5 Large Lot zoned area between Tocal Road, Lang Drive and Paterson Road. There is an existing dwelling house on-site which is proposed to be retained as part of the development of the site. Two existing houses on separate lots south of the subject site (23 & 25 Lang Drive) gain access via a right-of-carriageway through the subject site. This configuration is proposed to be retained. The site has an overall area of approx. 9 hectares and was formerly used as a large lot with a single dwelling.

The site is located in Bolwarra Heights, approximately 5.2km north-east of the Maitland city centre. To the north and west of the site is existing large-lot residential development. To the east of the lot is undeveloped rural land and to the south is large-lot residential land. The site has a frontage to Lang Drive at the eastern boundary and Hilldale Drive at the north-west of the site.

The site is slightly undulating with a slight depression approximately through the centre of the site which accommodates a second order water course. The riparian water course is currently absent of vegetation but is proposed to be re-vegetated.

PROPOSED DEVELOPMENT

The objective of the proposal is to facilitate the subdivision of the site to create large-lot residential allotments. The proposal will provide an increase in the number of large lot allotments offered in the area and is consistent with the character of the area.

The proposal seeks to subdivide the subject site to create 14 Torrens title residential allotments which will require the demolition of an existing shed on-site. The existing dwelling on-site is proposed to be retained and incorporated into proposed lot 9.

The site contains a second order watercourse which is proposed to be re-vegetated as part of the proposal.

A majority of proposed lots exceed the minimum lot size identified for the site in the Maitland Local Environmental Plan 2011 (MLEP). Some lots are proposed to be slightly under the mapped minimum lot size which is required to facilitate a better outcome for the site principally with regard to re-vegetation of the riparian corridor.

The proposal will include the construction of a new public road from Hilldale Drive to Lang Drive. Existing dwellings adjacent the subject site (23 Lang Drive and 25 Lang Drive) gain access to Lang Drive by way of an existing right-of-carriageway through the subject site. No change to this access arrangement or the location of the right-of-carriageway is proposed.

The proposed development includes street tree planting and turfing within the road reserve, which will be included within a landscape plan.

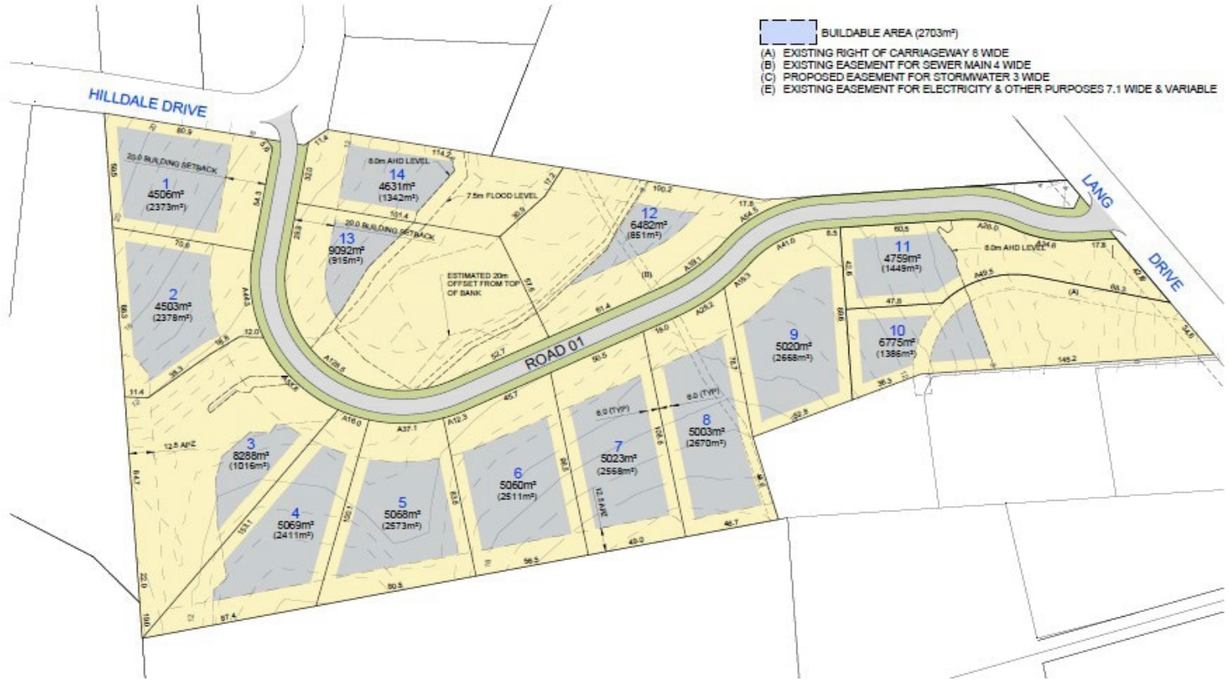


FIGURE 4: Subject Site Proposed Subdivision

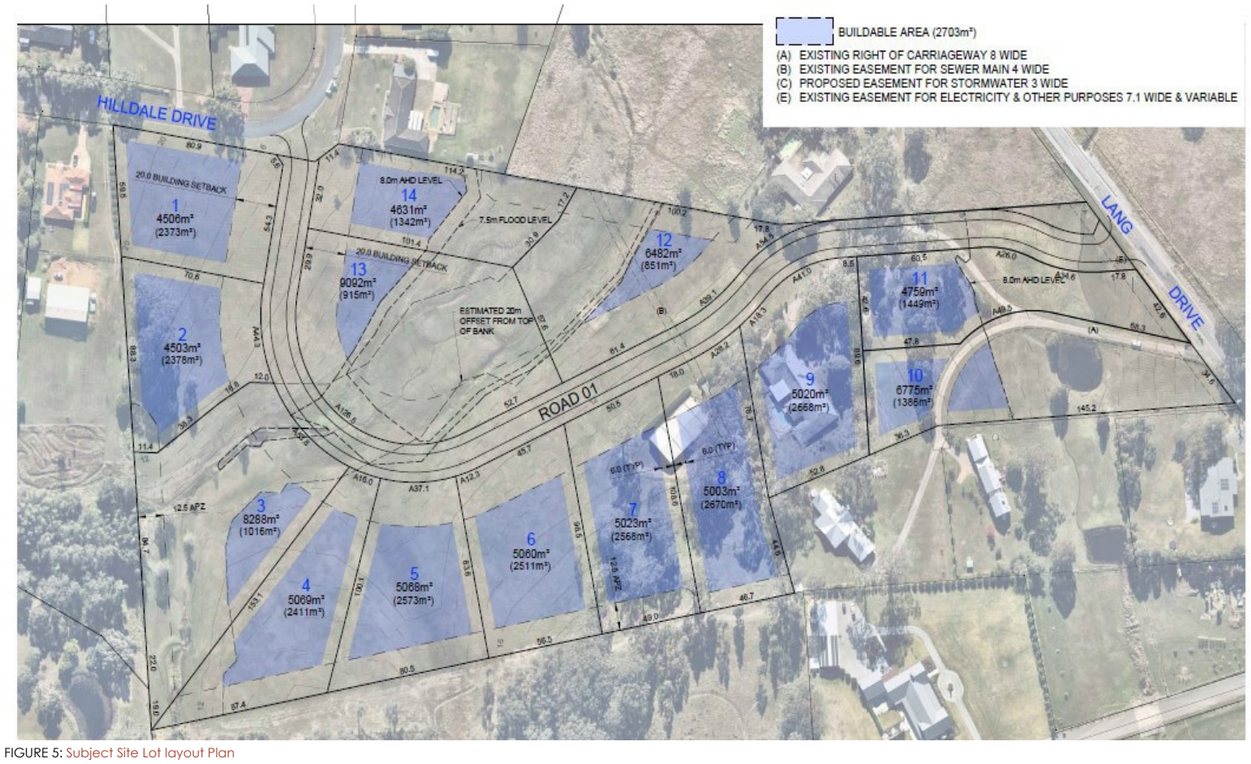


FIGURE 5: Subject Site Lot layout Plan

4.0 LANDSCAPE CHARACTER

LAND USE

The Site is large Lot single dwelling and is surrounded by similar size lots and usage along its southern boundary and development immediately to the northern boundary on the western portion of the site.

To the east on the other side of Lang Drive is extensive agriculture land which is RU2 Rural landscape zone.

It is located between two town centres with Clarence Town located 21 km to the north east and Maitland located 5km to the south west.

Land immediately surrounding the Site is predominately made up of grassland vegetation and tree copses. Lang Drive delineates the eastern boundary of the site and the established Bolwarra Heights large lot residential community is located to the west and north west.

Local places of note include the following; The Hunter River (approx. 2km) to the west, the Hunter Expressway (approx. 15km) to the south west, Paterson River (approx. 2km to the north east) and Mindaribba Railway Station (approx. 3km) to the north.

SITE ROADS

The Site's main access point is along its frontage to Lang Drive, a local access road within the area. This then joins the larger network of collector roads including Tocal Road to the north and Paterson Road to the south, with Maitland Vale Road to the west. A network of minor connector roads, residential roads and lane ways weave their way through the area connecting local town centres to the communities.

The existing large lot residential development to the north west and west of the site has its own minor access roads primarily used by residents.

SITE TOPOGRAPHY

The Site itself falls from its southern boundary towards the north western corner of the site where it meets Hilldale Drive. Land around the study area is gently undulating mainly associated with natural features within the landscape. A predominantly dry creek bed traverses the site from its northern boundary through to the western boundary of the site where it converges with another runoff creek falling from the Lot to the south. Several locations in surrounding Lots are noted as allowing for periods of inundation during periods of heavy or sustained rainfall.

SITE VEGETATION

The Site itself is mostly cleared, managed grassland however it is bounded along the southern and western side by a mix of canopy trees and dense undergrowth vegetation. Additional trees have been left surrounding the existing dwelling and shed pathways. Residential canopy trees and cleared vegetation is typical in the existing large lot residential development to the north west and west of the site.

FIGURE 6: Existing Visual Character (source: Six Maps 2023)

4.0 LANDSCAPE CHARACTER

IMAGE 1: View south west across site from Lang Drive

IMAGE 2: View towards the site from the western boundary properties on Hilldale Drive

IMAGE 3: View directly west across site from the frontage on Lang Drive

IMAGE 4: View of existing structure on site, across from the northern site boundary with Hilldale Drive

5.0 VISUAL IMPACT ASSESSMENT

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.

The symbols and numbering in Figure 7, indicate the viewpoints that have been selected for a Visual Impact Assessment (VIA). All viewpoints have been generated from publicly accessible areas.

SELECTED VIEWPOINTS

A sample of receptors which are closest in proximity to the proposed development and those with vantage points at various locations and elevations have been selected up to a 5km radius. It would be impractical to provide a VIA for every single possible visual receiver of the development, therefore a sample has been selected. For visual receptors where individual viewpoint assessment is not possible (i.e. from inside a private dwelling), a representative view for that location has been assessed in terms of likely significance of visual impact. From viewpoint locations, a development overlay or a photomontage image has been generated to represent as closely as possible, views of the proposed development following construction.

Viewpoints are selected to illustrate a combination of the following:

- Present landscape character types.
- Areas of high landscape or scenic value.
- Visual composition (e.g. 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.

The selection of viewpoints is informed by the Guidelines for Landscape and Visual Impact Assessment (GLVIA) – Third Edition (LI/IEMA 2013) as shown in Figure 7 locations were sited at a range of distances from a 5km radius out from the subject site. Viewpoint selection also involved topographical maps, field work observations and other relevant influences such as access, landscape character and the popularity of vantage points.

A total of **21 viewpoints** were taken as part of the field work process.

PHOTOGRAPHIC RECORDING & VISUALISATION

From desktop studies and site visits, locations were identified that would potentially be subject to visual impacts from the proposal. Panoramic photographs were taken on site visits and applications such as Google Streetview and Near Maps were used from the selected viewpoints looking towards the development site that best represented the human eye. In addition, a massing model of the site was created using SketchUp. This information was later used to create overlays and photo-montages, using different combinations. Eye-level photo-montages are intended to be printed at A3 and to be held at a comfortable distance by the viewer, this is generally accepted by current guidelines to be anywhere from 300mm to 500mm away from the eyes and held in a flat projection.

ASSESSMENT OF VISUAL IMPACT

The visual impact of each viewpoint has been assessed both on site and with the topographic and aerial information to ensure accuracy. Viewpoint photographs and analysis is included the following pages. The findings of the viewpoint analysis have been quantified and are summarised in Table 4.

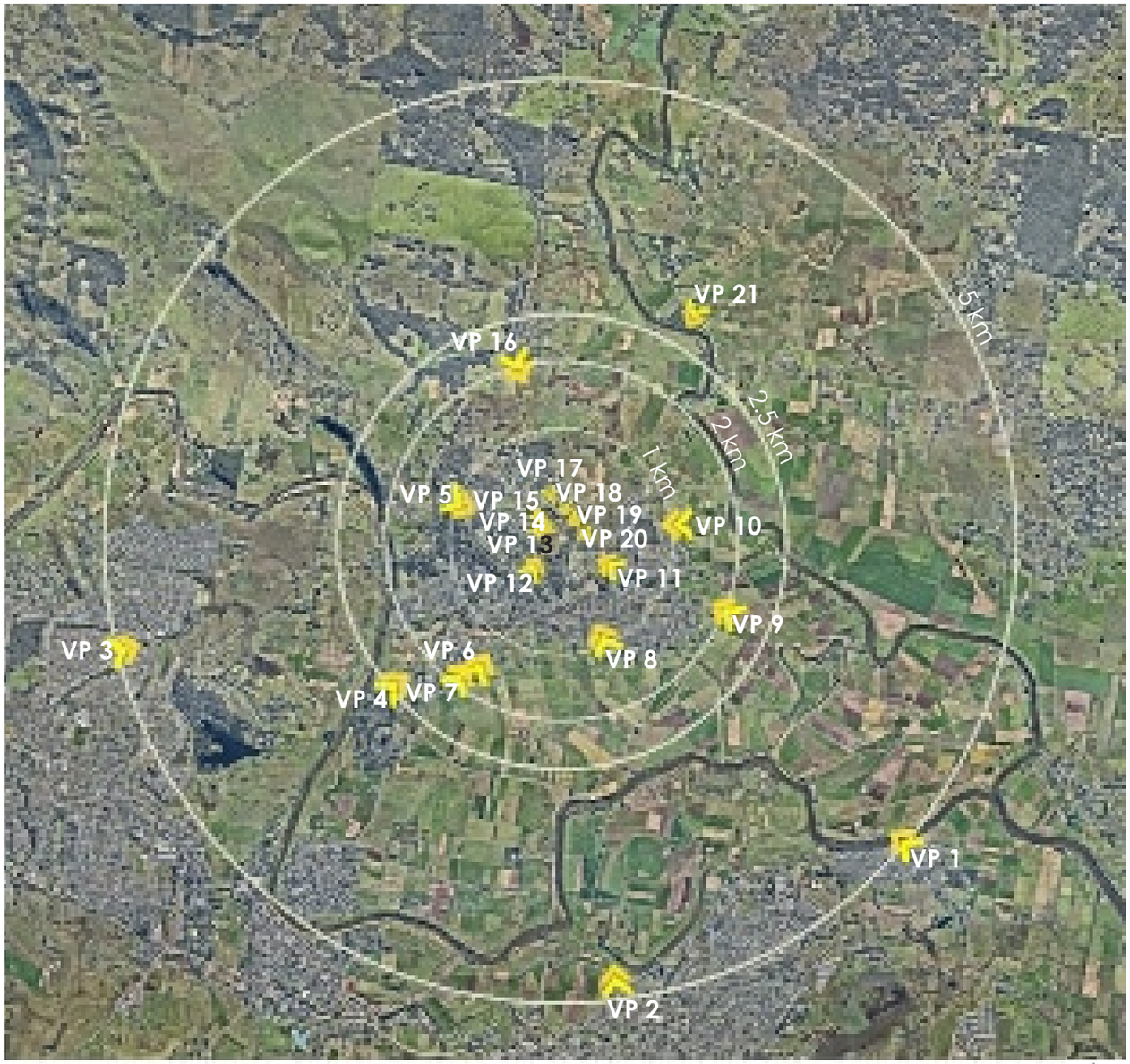


FIGURE 7: Viewpoint Assessment Locations (source: Near Maps 2023)

VIEWPOINT ANALYSIS

Wherever possible the viewpoints for this subject site have been selected to represent 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 magnitude of each viewpoint have been assessed which, when combined, result in an overall visual impact for the viewpoint (Refer to Tables 1,2 & 3).

Of the 21 viewpoints assessed as part of this VIA, the proposal would be visible from a total of 8 viewpoints.

Of the 8 viewpoints from which the proposal would be visible, one (1) of these have been assessed a negligible visual impact, three (3) of these have been rated as moderate impact, two have been assessed as major/ moderate and two (2) viewpoint have been rated as having a major visual impact.

Generally, these viewpoints rated as having a moderate to major visual impact were taken within a close proximity of the proposal and within a residential or public reserve area. The visual magnitude (the level of visual contrast) is likely to be NIL for the majority of locations.

VIEWPOINT	VISUAL SENSITIVITY	VISUAL EFFECT	POTENTIAL VISUAL IMPACT
VP 01	NIL -LOW	NEGLIGIBLE	NIL
VP 02	NIL -LOW	NEGLIGIBLE	NIL
VP 03	NIL -LOW	NEGLIGIBLE	NIL
VP 04	NIL	NIL	NIL
VP 05	NIL -LOW	NEGLIGIBLE	NIL
VP 06	NIL -LOW	NEGLIGIBLE	NIL
VP 07	NIL -LOW	NEGLIGIBLE	NIL
VP 08	NIL	NIL	NIL
VP 09	NIL -LOW	NEGLIGIBLE	NIL
VP 10	NIL -LOW	NEGLIGIBLE	NIL
VP 11	NIL -LOW	NEGLIGIBLE	NIL
VP 12	HIGH	HIGH	MAJOR / MODERATE
VP 13	HIGH	VERY HIGH	MAJOR
VP 14	HIGH	VERY HIGH	MAJOR
VP 15	LOW	LOW	MINOR / NEGLIGIBLE
VP 16	NIL -LOW	NEGLIGIBLE	NIL
VP 17	MEDIUM	HIGH	MODERATE
VP 18	MEDIUM	HIGH	MODERATE
VP 19	HIGH	HIGH	MAJOR / MODERATE
VP 20	MEDIUM	HIGH	MODERATE
VP 21	NIL -LOW	NEGLIGIBLE	NIL

TABLE 4: Viewpoint Visual Impact Summary

5.1 VIEWPOINT STUDY

VP 1 PUBLIC OPEN SPACE ADJACENT TO ROBERT STREET, MORPETH

VP 1: Location

VIEWPOINT 1			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Robert Street, Morpeth, NSW	Viewing point is from a 5km radius location on the side of the Hunter River in Morpeth, looking in a generally NW direction towards the subject site. Views from this location are dominated by the river, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of existing vegetation and topography associated with the Hunter River. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	32.72576 S, 151.62983 E		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 5 km		
LAND USE	Recreational Reserve		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

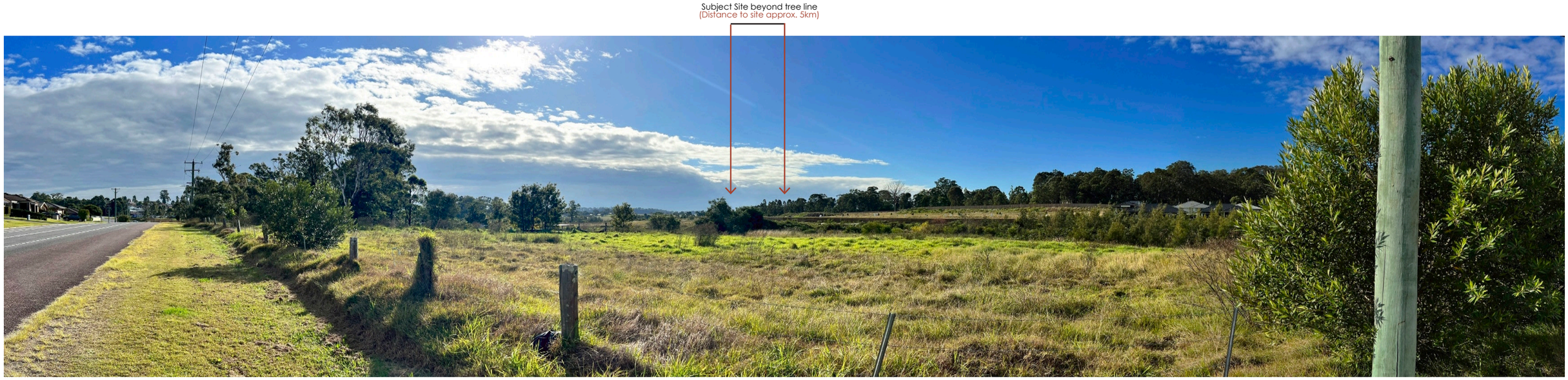
VP 2 PUBLIC LOCAL ROAD ADJACENT TO MORPETH ROAD, MORPETH

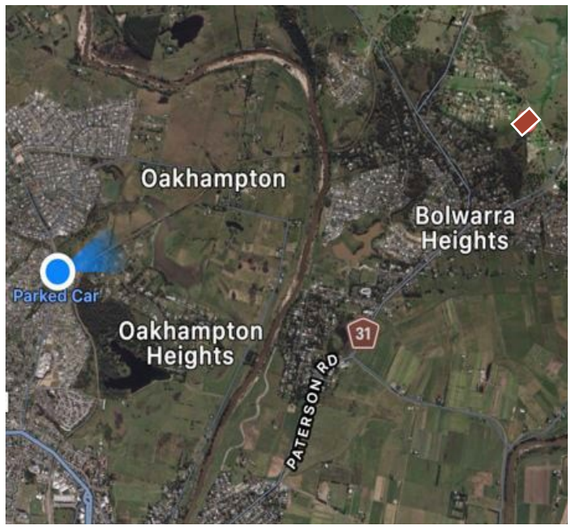
VP 2: Location

VIEWPOINT 1			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Morpeth Road, Morpeth, NSW	Viewing point is from a 5km radius location on the side of the Howes Lagoon in Morpeth, looking in a generally NW direction towards the subject site. Views from this location are dominated by the agricultural landscape, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of existing vegetation and topography associated with the agricultural lands . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.73336,151.60470		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 5 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 3 PUBLIC LOCAL ROAD ADJACENT TO ABERGLASSLYN ROAD, ABERGLASSLYN





VP 3: Location

VIEWPOINT 3			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Aberglasslyn Road, Aberglasslyn, NSW	Viewing point is from a 5km radius location on the side of the Aberglasslyn Road, looking in a generally NE direction towards the subject site. Views from this location are dominated by the railway line and embankment, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north east are non existent as a result of existing vegetation and topography associated with the agricultural lands . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.70545,151.54002		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North East		
DISTANCE TO SITE	Approx. 5 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

VP 4 PUBLIC LOCAL ROAD ADJACENT TO MAITLAND ROAD, BOLWARRA

No views were recorded at viewpoint 4, a location on the radius of approximately 2.5 km distance from the subject site. The viewpoint would be looking in a north east direction towards the site. Several locations were attempted at this distance along the Maitland Road, however, both sides of the road were dominated by private residences and no landscape or distant viewing was possible from human street level.

The potential visual impact from this location is NIL.

5.1 VIEWPOINT STUDY

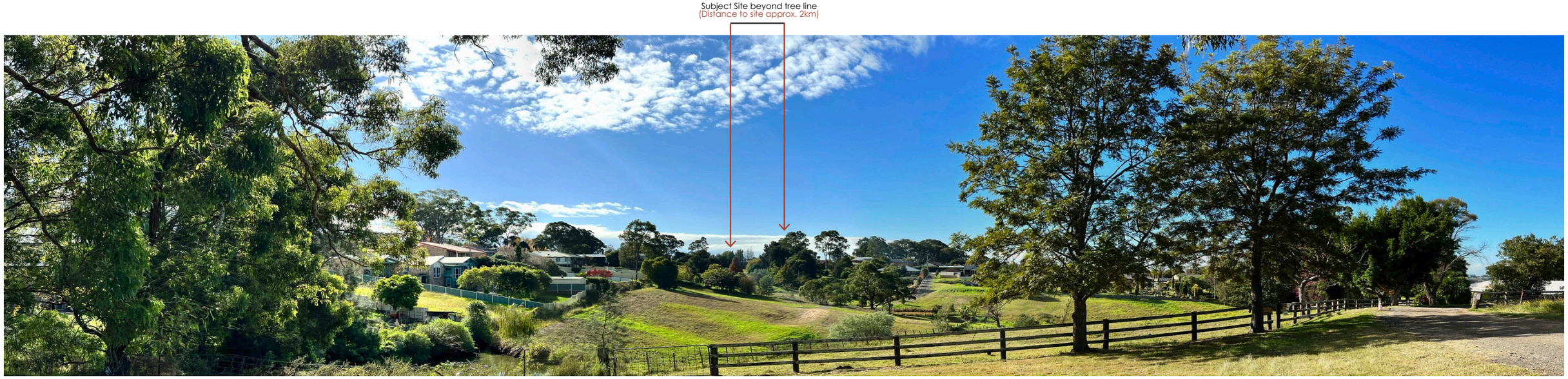
VP 5 PUBLIC LOCAL ROAD ADJACENT TO MAITLAND VALE ROAD, BOLWARRA HEIGHTS

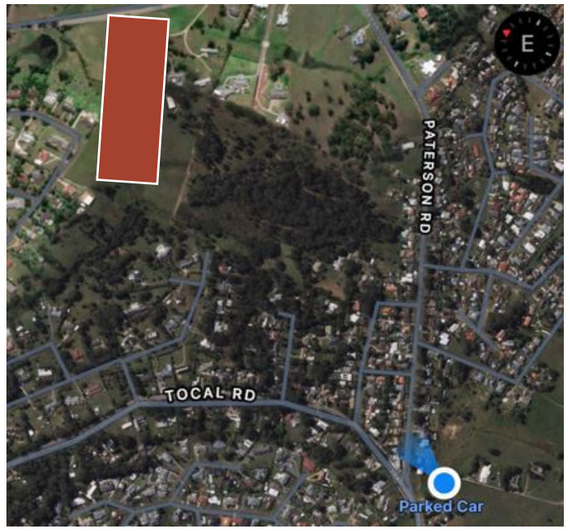
VP 5: Location

VIEWPOINT 5			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Maitland Vale Road, Bolwarra Heights, NSW	Viewing point is from a 1km radius location on the side of the Maitland Vale Road, looking in a generally east direction towards the subject site. Views from this location are dominated by the fields and tree line, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the east are non existent as a result of existing vegetation and topography associated with the agricultural lands . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.68949,151.57723		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	Approx. 1 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 6 UNSEALED ROAD ADJACENT TO PATERSON ROAD, BOLWARRA



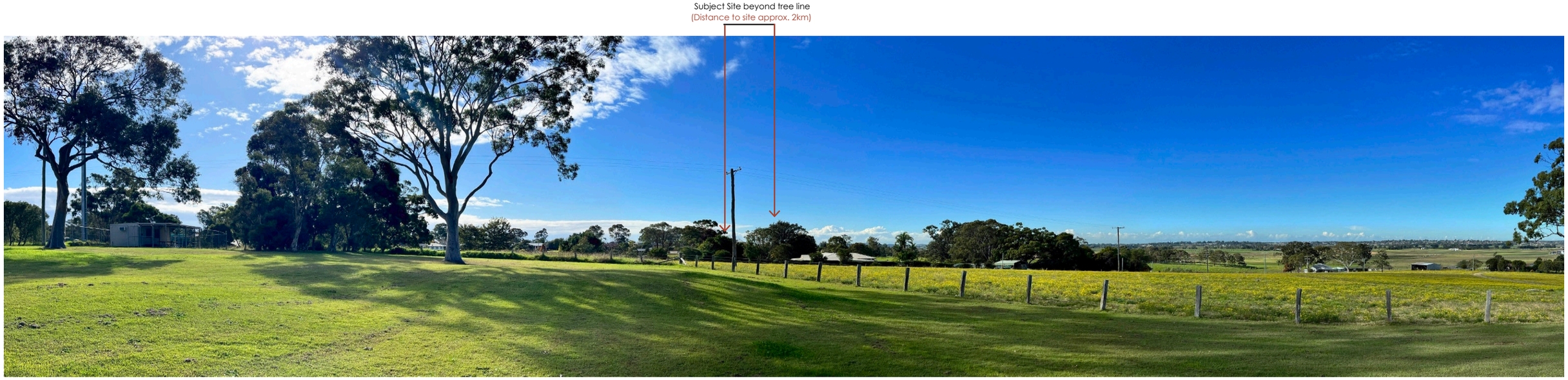


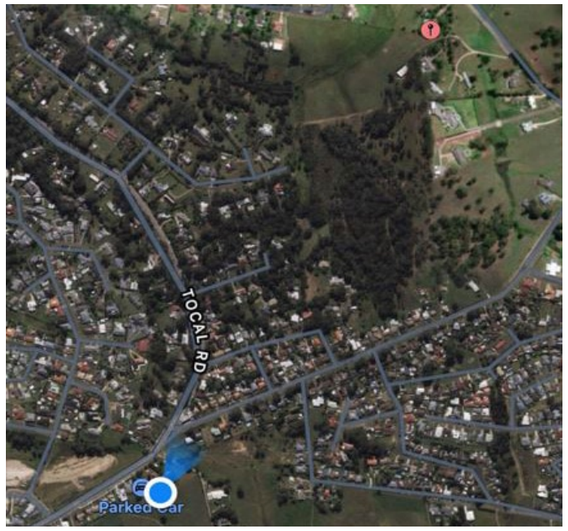
VP 6: Location

VIEWPOINT 6			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Paterson Road, Bolwarra, NSW	Viewing point is from a 2 km radius location on the side of the an unsealed road off Paterson Road, looking in a generally north west direction towards the subject site. Views from this location are dominated by the undulating gardens, fields and tree line, and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.70184,151.58474		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 2 km		
LAND USE	Unsealed Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 7 BOLWARRA LOOKOUT





VP 7: Location

VIEWPOINT 7			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Bolwarra Lookout, Bolwarra, NSW	Viewing point is from a 2 km radius location in a recreational parkland off Paterson Road, looking in a generally north west direction towards the subject site. Views from this location are dominated by the undulating gardens, fields and tree line, and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.70184,151.58474		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 2 km		
LAND USE	Recreation		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

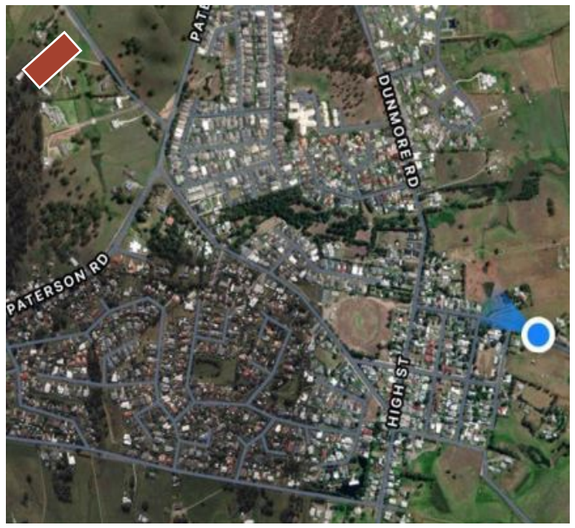
VP 8 PUBLIC LOCAL ROAD ADJACENT TO DALVEEN ROAD & APRIL CIRCUIT, BOLWARRA HEIGHTS

No views were recorded at viewpoint 8, a location on the radius of approximately 1 km distance from the subject site. The viewpoint would be looking in a easterly direction towards the site. Several locations were attempted at this distance along Dalveen Road, however, both sides of the road were dominated by private residences and no landscape or distant viewing opportunities were possible from human street level.

The potential visual impact from this location is NIL.

5.1 VIEWPOINT STUDY

VP 9 PUBLIC LOCAL ROAD ADJACENT TO PHOENIX PARK ROAD, WHIDDON LARGS

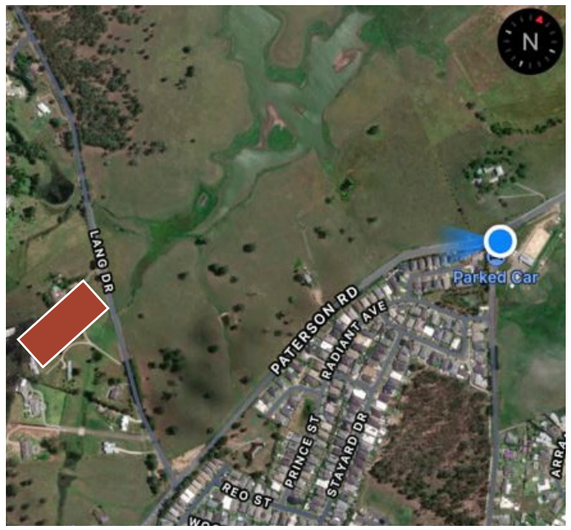


VP 9: Location

VIEWPOINT 9			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Phoenix Park Road, Whiddon Largs, NSW	Viewing point is from a 2 km radius location on the side of the Phoenix Park Road, looking in a generally north west direction towards the subject site. Views from this location are dominated by the agricultural landscape, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	32.70050,151.60852		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North West		
DISTANCE TO SITE	Approx. 2 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 10 PUBLIC LOCAL ROAD ADJACENT TO DUNMORE AND PATERSON ROAD, WHIDDON LARGS



VP 10: Location

VIEWPOINT 10			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Dunmore & Paterson Road, Whiddon Largs, NSW	Viewing point is from a 1 km radius location on the side of the the junction of Dumore Road and Paterson Road, looking in a generally westerly direction towards the subject site. Views from this location are dominated by the residential and agricultural landscape, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.68765,151.59989		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	West		
DISTANCE TO SITE	Approx. 1 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

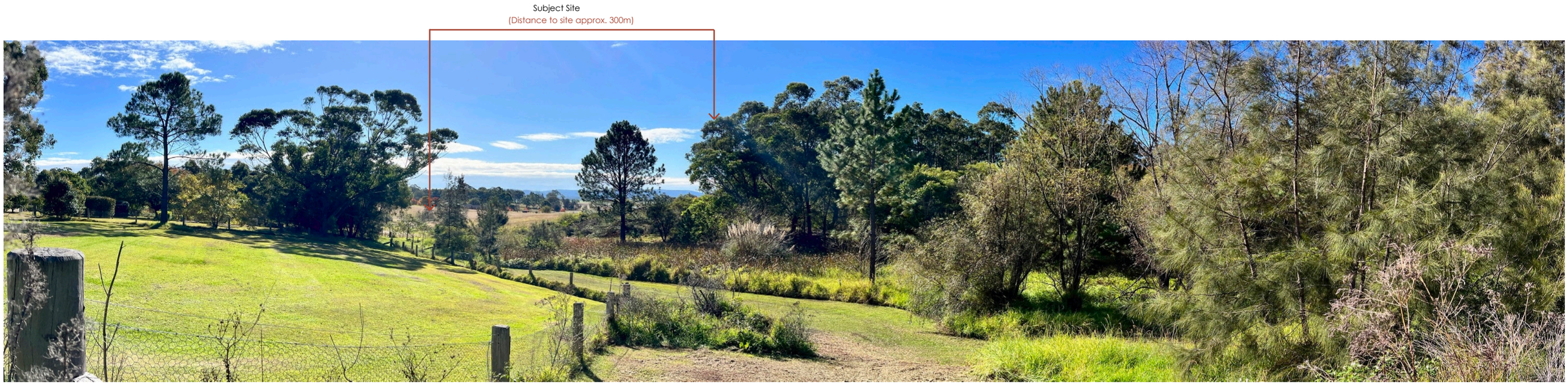
VP 11 PUBLIC LOCAL ROAD ADJACENT TO LARGS AVENUE AND PATERSON ROAD, BOLWARRA HEIGHTS

VP 11: Location

VIEWPOINT 11			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Largs Avenue & Paterson Road, Bolwarra Heights, NSW	Viewing point is from a 500 m radius location on the side of the the junction of Largs Avenue and Paterson Road, looking in a generally SW direction towards the subject site. Views from this location are dominated by the undulating gardens, fields and tree line, and existing vegetation. Despite its close proximity, due to the topography, the site is not visible from this location.	From this location views of the proposed development to the south west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.69585,151.59483		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South West		
DISTANCE TO SITE	Approx. 1 km		
LAND USE	Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 12 PUBLIC RECREATION AREA ADJACENT BROMPTON CLOSE BOLWARRA HEIGHTS

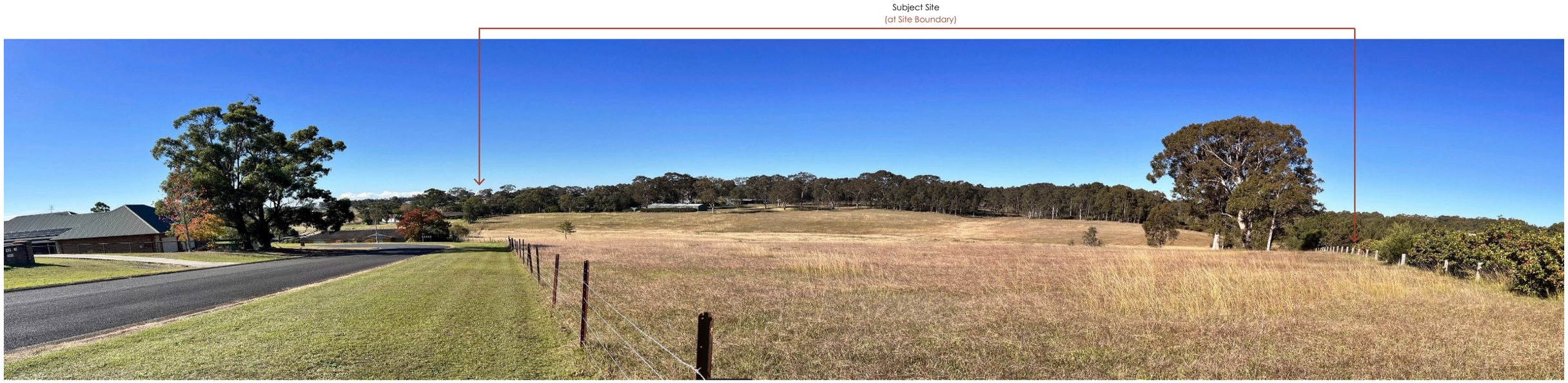


VP 12: Location

VIEWPOINT 12			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Brompton Close, Bolwarra Heights, NSW	Viewing point is from a 300 m radius location on a public recreation reserve adjacent to Brompton Close and Hilldale Drive in Bolwarra Heights, looking in a generally SW direction towards the subject site. Views from this location are dominated by the undulating gardens, fields and tree line, and existing vegetation. The location is in close proximity to the subject site and views are partially screened due to the trees and vegetation within the public reserve. The visual sensitivity of this viewpoint has been rated high due to the land use and proximity to site. Clear views are available from the adjacent gardens.	From this location there will be partial unrestricted views of the proposed development site. The visual magnitude is likely to be High resulting in an overall visual impact of Major-Moderate.
COORDINATES	-32.69545,151.58700		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	North East		
DISTANCE TO SITE	Approx. 300 m		
LAND USE	Public Recreation Area		
VISUAL SENSITIVITY	HIGH		
VISUAL MAGNITUDE	HIGH		
VISUAL IMPACT	MAJOR / MODERATE		

5.1 VIEWPOINT STUDY

VP 13 PUBLIC LOCAL ROAD ADJACENT HILLDALE DRIVE, BOLWARRA HEIGHTS

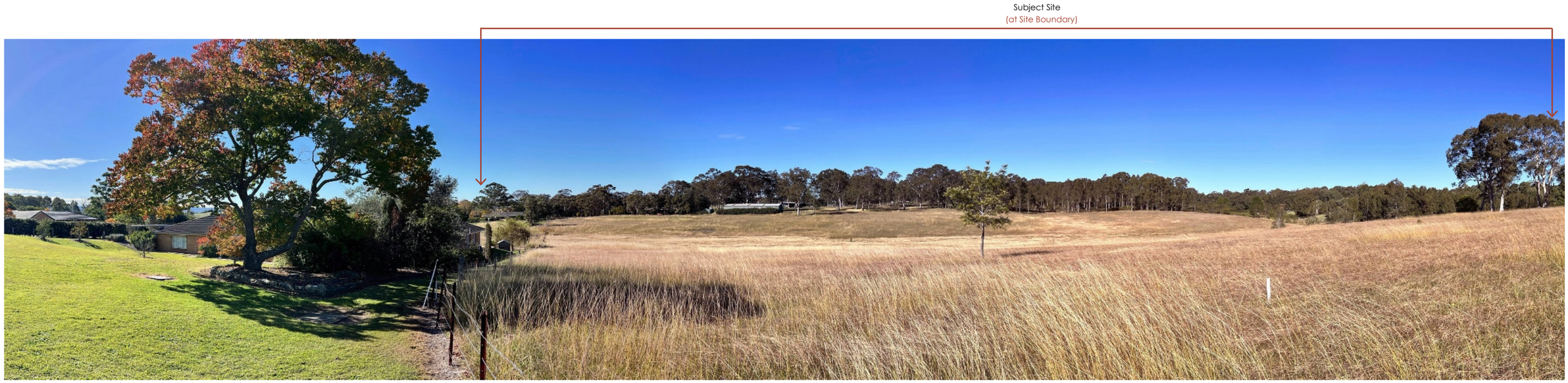


VP 13 Location

VIEWPOINT 13			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Hilldale Drive, Bolwarra Heights, NSW	Viewing point is from the site boundary on a local public road adjacent to Hilldale Drive in Bolwarra Heights, looking in a generally SE direction towards the proposed development site. Views from this location are dominated by the fields, tree line, and existing vegetation. The location is in close proximity to the subject site and the potentially development will be unobstructed, therefore the visual sensitivity of this viewpoint has been rated as high. This is due to the land use and proximity to site. Clear views are available from the adjacent dwellings and gardens.	From this location there will be full and unrestricted views of the proposed development site. The visual magnitude is likely to be Very High resulting in an overall visual impact of Major.
COORDINATES	-32.69194,151.58743		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South East		
DISTANCE TO SITE	Site Boundary		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	HIGH		
VISUAL MAGNITUDE	VERY HIGH		
VISUAL IMPACT	MAJOR		

5.1 VIEWPOINT STUDY

VP 14 PUBLIC LOCAL ROAD CORNER OF HILLDALE DRIVE, BOLWARRA HEIGHTS



VP 14: Location

VIEWPOINT 14			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Corner of hilldale Drive, Bolwarra Heights, NSW	Viewing point is from the corner of Hilldale Road on the site boundary of a local public road in Bolwarra Heights, looking in a generally SE direction across the proposed development site. Views from this location are dominated by the fields, tree line, and existing vegetation. The location is in close proximity to the subject site and the potentially development will be unobstructed, therefore the visual sensitivity of this viewpoint has been rated as high. This is due to the land use and proximity to site. Clear views are available from the adjacent dwellings and gardens.	From this location there will be full and unrestricted views of the proposed development site. The visual magnitude is likely to be Very High resulting in an overall visual impact of Major.
COORDINATES	-32.69203,151.58816		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South East		
DISTANCE TO SITE	Site Boundary		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	HIGH		
VISUAL MAGNITUDE	VERY HIGH		
VISUAL IMPACT	MAJOR		

5.1 VIEWPOINT STUDY

VP 15 PRIVATE RESIDENCE ON HILLDALE DRIVE, BOLWARRA HEIGHTS

Subject Site
(at Site Boundary)

VP 15: Location

VIEWPOINT 15			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Corner of Hilldale Drive, Bolwarra Heights, NSW	Viewing point is from a residents drive on Hilldale Drive. The resident queried our presence during the viewpoint photo gathering on Hilldale Drive and then requested that images were taken from within her garden to get a perspective of how it overlooks site. Images were taken from the private residence garden looking in a generally southern direction across the proposed development site. Views from this location are dominated by the tree line, and existing vegetation. The location is in close proximity to the subject site and views are partially screened due to the trees and vegetation within the public reserve.	From this location there will be partial unrestricted views of the proposed development site. The visual magnitude is likely to be High resulting in an overall visual impact of Moderate.
COORDINATES	32.69094,151.58810		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South East		
DISTANCE TO SITE	Site Boundary		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	MEDIUM		
VISUAL MAGNITUDE	HIGH		
VISUAL IMPACT	MODERATE		

5.1 VIEWPOINT STUDY

VP 16 PUBLIC LOCAL ROAD ADJACENT TO TOCAL ROAD TOWARDS MINDARI STATION

VP 16: Location

VIEWPOINT 16			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Toca Road towards midari Station, NSW	Viewing point is from a 2 km radius location on the side of the Tocal Road, looking in a generally east direction towards the subject site. Views from this location are dominated by the agricultural landscape, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the north west are non existent as a result of the existing vegetation and topography associated with the rural residential location. . The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.67747,151.58494		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	2 km		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

5.1 VIEWPOINT STUDY

VP 17 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

Subject Site
(Distance to site approx. 300m)

VP 17: Location

VIEWPOINT 17			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Lang Drive, NSW	Viewing point is from a 300 m radius location on the side of the Lang Drive, looking in a generally east direction towards the subject site. Views from this location are dominated by the dwelling, tree line, and existing vegetation. The location is in close proximity to the subject site and views are mostly screened due to the trees and vegetation within private land and public areas.	From this location there will be minimal unrestricted views of the proposed development site. The visual magnitude is likely to be low resulting in an overall visual impact of Minor / Negligible.
COORDINATES	-32.68795,151.58810		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	300 m		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	LOW		
VISUAL MAGNITUDE	LOW		
VISUAL IMPACT	MINOR / NEGLIGIBLE		

5.1 VIEWPOINT STUDY

VP 18 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

Subject Site
(Distance to site: Within 100 m

VP 18: Location

VIEWPOINT 18			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Lang Drive, NSW	Viewing point is from a 100 m radius location on the side of the Lang Drive, looking in a generally east direction towards the subject site. Views from this location are dominated by the neighbouring property dam, tree line, and existing vegetation. The location is in close proximity to the subject site and views are partially screened due to the trees and vegetation within private land and public areas.	From this location there will be partial unrestricted views of the proposed development site. The visual magnitude is likely to be High resulting in an overall visual impact of Moderate.
COORDINATES	-32.68932,151.58982		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	East		
DISTANCE TO SITE	100 m		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	MEDIUM		
VISUAL MAGNITUDE	HIGH		
VISUAL IMPACT	MODERATE		

5.1 VIEWPOINT STUDY

VP 19 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

Subject Site
(Distance to site: Site boundary

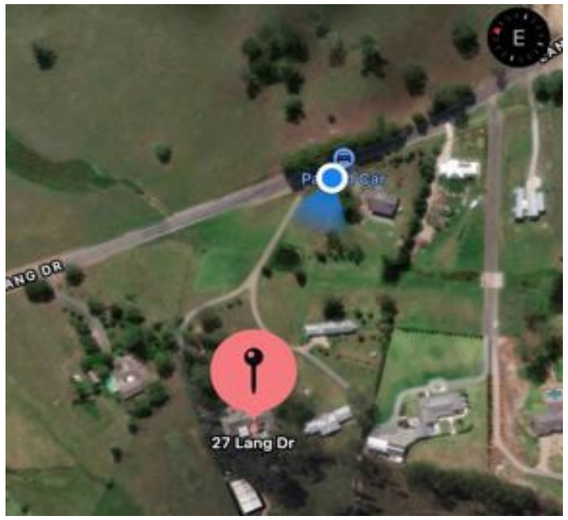
VP 19: Location

VIEWPOINT 19			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Lang Drive, NSW	Viewing point is from the boundary of the site on the side of the Lang Drive, looking in a generally SE direction across the subject site. Views from this location are dominated by the open field, tree line, existing vegetation, and neighbouring dwellings. The location is in close proximity to the subject site and views are not currently screened by trees or vegetation so a panoramic view of the site is fully available to the viewer.	From this location there could be unrestricted views of the proposed development. The visual magnitude is likely to be High resulting in an overall visual impact of Major / Moderate.
COORDINATES	-32.69091,151.59108		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South		
DISTANCE TO SITE	Site Boundary		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	HIGH		
VISUAL MAGNITUDE	HIGH		
VISUAL IMPACT	MAJOR / MODERATE		

5.1 VIEWPOINT STUDY

VP 20 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

Subject Site
(Distance to site: Within 100 m



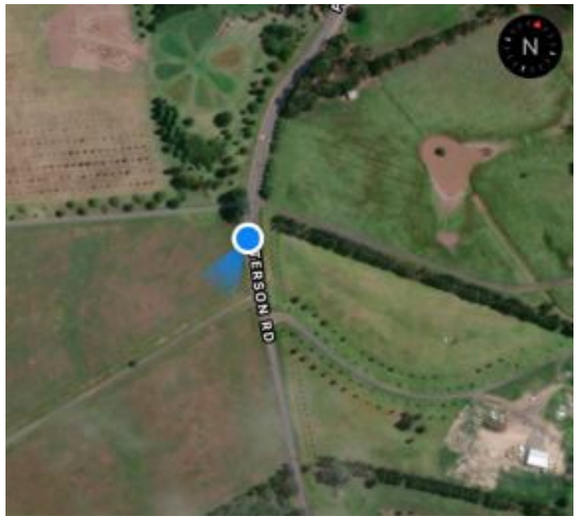
VP 20: Location

VIEWPOINT 20			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Lang Drive, NSW	Viewing point is from a 100 m radius location on the side of the Lang Drive, looking in a generally west direction towards the subject site. Views from this location are dominated by the neighbouring properties, the fence line, tree line, and existing vegetation. The location is in close proximity to the subject site and views are partially screened due to the trees and vegetation within private land and public areas.	From this location there will be partial unrestricted views of some of the proposed development site. The visual magnitude is likely to be High resulting in an overall visual impact of Moderate.
COORDINATES	32.69191,151.59201		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	West		
DISTANCE TO SITE	Within 100 m		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	MEDIUM		
VISUAL MAGNITUDE	HIGH		
VISUAL IMPACT	MODERATE		

5.1 VIEWPOINT STUDY

VP 21 PUBLIC LOCAL ROAD ADJACENT TO SHEPHERD'S CORNER

Subject Site
(Distance to site: approx. 2.5 km



VP 21: Location

VIEWPOINT 21			
SUMMARY OF VIEWPOINTS		VIEWPOINT DESCRIPTION	POTENTIAL VISUAL IMPACT
LOCATION	Lang Drive, NSW	Viewing point is from a 2.5 km radius location close to Shepherd's Crner, looking in a generally South West direction towards the subject site. Views from this location are dominated by the agricultural land-scape, relatively flat topology and existing vegetation. The site is not visible from this location.	From this location views of the proposed development to the south west are non existent as a result of the existing vegetation and topography associated with the rural residential location. The visual magnitude is likely to be NIL resulting in an overall visual impact rating of NIL.
COORDINATES	-32.66659,151.64343		
ELEVATION	Approx 999.0 m		
VIEWING DIRECTION	South West		
DISTANCE TO SITE	2.5 km		
LAND USE	Public Local Road		
VISUAL SENSITIVITY	NIL -LOW		
VISUAL MAGNITUDE	NEGLIGIBLE		
VISUAL IMPACT	NIL		

6.0 PROPOSAL MODELLING & PHOTOMONTAGES

PROPOSAL VISUALISATION DEVELOPMENT

ADW Johnson developed a series of photomontage visualisations pertaining to viewpoint locations where views of the proposed development would be available to the viewer. Viewpoint locations where the site was not visible or that returned a NIL rating did not have a visualisation developed.

The visualisations are based on the superimposition of an image (ie building, road, landscape addition etc) onto a photograph or panorama of images, for the purpose of creating a representation of the proposed or potential changes to a view (Horner and Maclennan et al, 2006). Photomontages have been utilised in this Visual Impact Assessment to assist in the analysis of the proposed subdivision.

PROPOSAL VISUALISATION PROCESS

The photomontages in this report are assumed massing representations of the development that are superimposed onto the viewpoint panorama photograph of the subject site.

A Sketch Up massing model was generated and geolocated for the subject site which provides a wireframe perspective of the potential impact of the development within the subject site area.

The photo simulations that created assumed panorama views for each viewpoint are included within the following analysis section. The images that the photo simulations have been based on have been were captured through a 50mm fixed focal lens which closely represent the central field of vision of the human eye.

The panorama image of the viewpoint was overlaid with the Sketch Up model and used to create a representation that visualises the proposed development within the subject site.

PROPOSAL VISUALISATION SELECTION

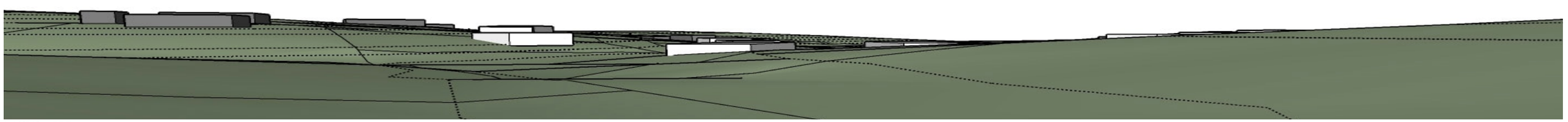
The photomontages selected for inclusion within this section of the report represent views from each compass direction in addition to those that gave the best potential for massing views to be usefully seen. Where the massing model would not be seen due to existing buildings and vegetation, photomontages have not been generated. This report notes that with future development, aspects of the view may change, however, the visualisations in this report are generated with current available information and current physical conditions.

6.1 PROPOSAL PHOTOMONTAGES

VP 12 PUBLIC RECREATION AREA ADJACENT BROMPTON CLOSE BOLWARRA HEIGHTS

EXISTING VIEW

PROPOSED VIEW



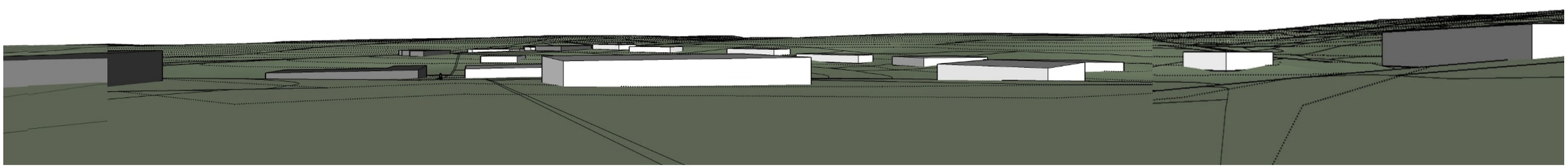
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 13 PUBLIC LOCAL ROAD ADJACENT HILLDALE DRIVE, BOLWARRA HEIGHTS

EXISTING VIEW

PROPOSED VIEW



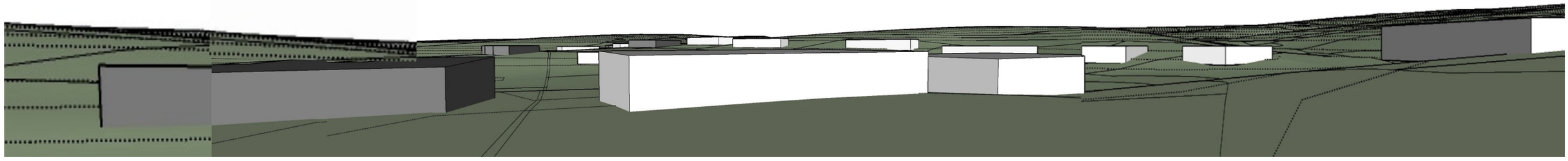
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 14 PUBLIC LOCAL ROAD CORNER OF HILLDALE DRIVE, BOLWARRA HEIGHTS

EXISTING VIEW

PROPOSED VIEW



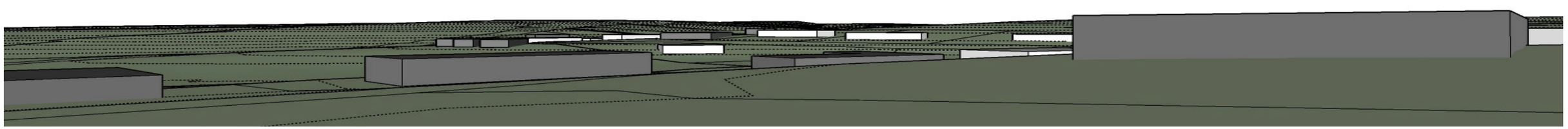
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 15 PRIVATE RESIDENCE ON HILLDALE DRIVE, BOLWARRA HEIGHTS

EXISTING VIEW

PROPOSED VIEW



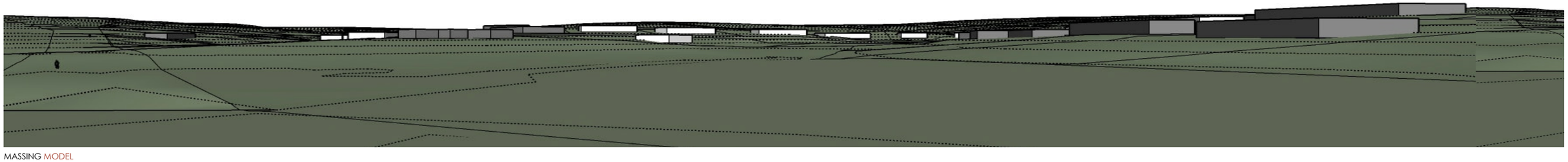
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 18 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

EXISTING VIEW

PROPOSED VIEW



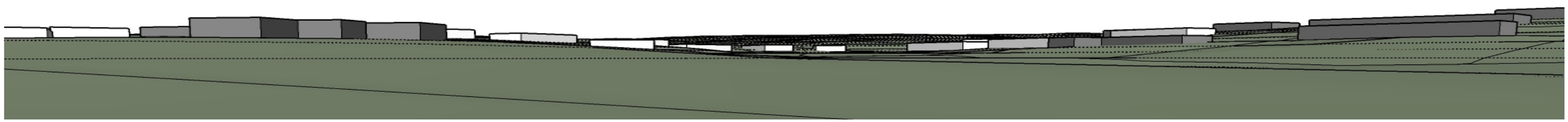
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 19 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

EXISTING VIEW

PROPOSED VIEW



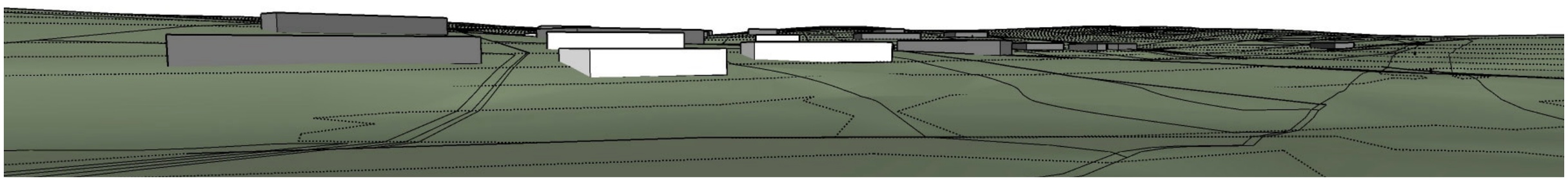
MASSING MODEL

6.1 PROPOSAL PHOTOMONTAGES

VP 20 PUBLIC LOCAL ROAD ADJACENT TO LANG DRIVE

EXISTING VIEW

PROPOSED VIEW



MASSING MODEL

7.0 SUMMARY OF VISUAL IMPACTS

The table below maps the results of the visual impact assessment in relation to the viewpoints considered and the results proposed through each table of significance of visual impact. This assessment is understood and assessed in relation to both the existing scenic quality of an area and the design merits of the proposal itself.

Sensitivity Receptor	Magnitude of Change					
	Very High	High	Medium	Low	Very Low
Very High	Substantial	Major	Major/ Moderate	Moderate	Moderate/ Minor
High	Major	Major/ Moderate	Moderate	Moderate/ Minor	Minor
Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor	Minor/ Negligible
Low	Moderate	Moderate/ Minor	Minor	Minor/ Negligible	Negligible
Very Low	Moderate/ Minor	Minor	Minor/ Negligible	Negligible	Negligible/ None

SIGNIFICANCE OF VISUAL IMPACT: The overall significance of visual impact at this location is judged to be **MODERATE**

The objective of the Visual Impact Assessment is not to determine whether the proposal is visible or not, but to determine how the proposal will impact existing visual amenity and the existing landscape character of the surrounding area. If there is potential for a negative impact on these factors, it must then be investigated to resolve how this impact can be mitigated to the extent that the impact is reduced to an acceptable level.

The existing landscape character of the subject site is predominantly grassland and trees. Existing vegetation around the boundaries, provides a buffer between the site and existing residential areas and due to the height, extent and density of this vegetation surrounding the Site, there are limited opportunities to view the proposal from these locations. The greatest visual impact occurs along Hilldale Drive. In addition the site is visible from Lang Drive, however this is a relatively rapid moving roadway and the proposal will not present a dominant feature for passing vehicles.

It is unlikely the proposal will have significant impact on the overall visual character of the area.

MITIGATION METHOD RECOMMENDATIONS

The proposed mitigation measures attempt to lessen the visual impact of the proposed development whilst enhancing the visual character of the surrounding environment. These design principles have been incorporated into the design and seek to achieve a better visual integration of the proposal and to maintain the existing visual character at both, local and regional scales. Mitigation measures particularly along Hilldale Drive and Lang Drive would include appropriate landscaping with the inclusion of screening trees and vegetation that will reduce and filter the visual impact of the subject site.

Implementation of the following recommendations will assist in reducing any potential visual impacts associated with the proposed development.

- Ensure retention of existing vegetation buffer and most importantly, canopy trees, on and around the site.
- Retain and protect existing vegetation where possible during construction.
- Consideration of construction materials to minimise visual contrast for surrounding residents.

7.1 VIA CONCLUSION

This report sought 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 further designs must include how impacts can be mitigated to the extent that they are reduced to an acceptable level.

The existing landscape character is predominantly rural with some rural residential development. Existing infrastructure including power poles, and roadways form part of the existing landscape character of the area. Although the proposal is a multi- dwelling subdivision, the scale of surrounding built form and existing vegetation is aligned with the scale of the proposal. The location of the proposal within the lot itself is well considered and accessible to public roads. It is likely that a large lot development will incur minimal removal of significant vegetation, and with the scale of existing vegetation within adjoining land parcels, it is unlikely that the proposal will present significant visual alteration of the landscape.

When implemented with appropriate environmental management and employment of the recommended mitigation measures, the proposed development could be undertaken whilst maintaining the character of the area with minimal visual impact on the surrounding visual landscape.

8.0 GLOSSARY OF TERMS

GLVIA	Guidelines for Landscape and Visual Impact Assessment (UK Landscape Institute)
LVIA	Landscape and Visual Impact Assessment
VIA	Visual Impact Assessment
DIPE	Department of Planning Industry & Environment
LEP	Local Environment Plan
DCP	Development Control Plan
Baseline	The existing current condition / character of the landscape or view
Landscape Receptor	The landscape of the development site
Landscape Sensitivity	How sensitive a particular landscape is to change and its ability to accept the development proposals.
Visual Receptor	A group or user experiencing views of the development from a particular location
Visual Sensitivity	The degree to which a particular view can accommodate change arising from a particular development, without detrimental effects.
Viewing Distance	The distance from the point of projection to the image plane to reproduce correct linear perspective.
Magnitude of Change	The magnitude of the change to a landscape receptor or visual receptor
Significance of Impact	How significant an impact is for a landscape or visual receptor