Kemps Creek Industrial Facility, Kemps Creek - SSD 9522

LANDSCAPE AND VISUAL IMPACT ASSESSMENT REPORT FOR PROPOSED INDUSTRIAL DEVELOPMENT

Report Ref: **LVIA-01**

Prepared for

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1.0 INTRODUCTION

1.1 Project Background

This Landscape and Visual Impact Assessment (LVIA) relates to the proposed development at 657-769 Mamre Road, Kemps Creek. This comprises of a warehouse and distribution centre, including 9 warehouses with ancillary office spaces, internal roads, hard stand areas, and associated earthworks and landscaping. The premises will be used by a variety of single user tenants who are currently being identified by the applicant.

A request for Secretary's Environmental Assessment Requirements (SEARs) was submitted to the Department of Planning and Environment (DoPE) in Aug 2018. SEARs were provided by the DoPE on the 14th September 2018. The SEARs relevant to this assessment include:

Urban Design and Visual :

- a visual impact assessment (including photomontages and perspectives) of the development layout and design (buildings and storage areas), including height, colour, scale, building materials and finishes, signage and lighting, having regard to surrounding residential receivers and clause 23 of the State Environmental Planning Policy (Western Sydney Employment Area) 2009, particularly in terms of potential impacts on:

  - nearby public and private receivers
  - significant vantage points in the broader public domain including Mamre Road

This assessment seeks to satisfy the above requirement.

1.2 This Report and Author

Geoscapes Pty Ltd, has been commissioned by Frasers Property Industrial Constructions and Altis Property Partners, to produce a Landscape and Visual Impact Assessment (LVIA) for the above mentioned development. This LVIA has been written by Ben Gluszkowski (Director and Registered Landscape Architect) who has over 15 years' experience in the field of Landscape Architecture. He has previously been involved in high profile LVIAs on developments within the UK, including the M1 & M62 motorway road widening, several wind farms and energy from waste facilities (EFW).

Within Australia, Ben has completed LVIA's for Logos Property Group. These were submitted as part of an Environmental Impact Assessment (EIA) for State Significant Development (SSD) to the Department of Planning and Environment. He has also recently written an LVIA for Snackbrands Australia and Jaycar. All developments were industrial, with three projects containing high-bay elements.

Habit8 have prepared landscape design drawings. These documents detail landscape treatments to the site exterior, and should be read in conjunction with this report.

2.0 METHODOLOGY OF ASSESSMENT

2.1 Guidelines

LVIA does not follow prescribed methods or criteria. This assessment is based on the principles established and broad approaches recommended in the following documents:

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

In accordance with GLVIA3 the assessment methodology is tailored to the specific requirements of the Proposed Development, its specific landscape context and its likely significant effects. The methodology used for this assessment reflects the principal ways in which the Proposed Development is considered likely to interact with existing landscape and visual conditions as a result of:

· The permanent introduction of an industrial type building/s into the existing landscape/townscape and visual context.

Landscape 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. Changes may result in adverse (negative) or beneficial (positive) effects.

The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above, information and data analysis techniques, uses subjective professional judgement and quantifiable factors wherever possible, and is based on clearly defined terms (refer to glossary).

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 consensus on methods and techniques. It is not intended to be prescriptive, in that it does not follow a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances."

This LVIA written by Geoscapes is considered to use a methodology and approach that is appropriate to this type of industrial development.

2.2 Computer Generated Visualisations - Photomontages

It is possible that any receptor with a view toward the development, could potentially receive visual impacts with a resulting high, moderate or low impact. However, it is not feasible or practical to prepare a photomontage for each and every residential dwelling within the project viewshed.

Photography for the photomontages was undertaken by Geoscapes using a tripod mounted Canon 60D (DSLR) camera. A 50 mm focal length prime lens was attached to the Canon.

Photomontages have been prepared to create "simulated" views of the proposed development. Although these do not claim to exactly replicate what would be seen by the human eye, they provide a useful "tool" in analysing potential visual impacts from receptor locations.

Those viewpoints selected for photomontages, have been presented in this report as before and after images on the same sheet for ease of comparison. The computer-generated images include a representation of landscape mitigation both immediately following installation (which have been described as year 0) and at a mature age of 15 years. It is important to note, that the year 15 images are simulations of how proposed landscaping may appear at a selected viewpoint. The final appearance of landscape mitigation will be based on many factors, including growth rates, maintenance and environmental conditions.

The assessment undertaken at year 15 assumes that such mitigation has had the opportunity to establish, mature and become effective. For the purposes of most LVIAs, year 15 effects are also taken to be the 'residual effects' of the development. Residual effects are those which are likely to remain on completion of the development and are to be given the greatest weight in planning terms. Any visual impacts determined from viewpoint locations (which have been assessed in section 8.0 of this report), are based on the year 15 residual effects. Cumulative photomontages are simulated at year 15 only.

The horizontal field of view within the photomontages exceeds the parameters of normal human vision. 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. Each of the Kemps Creek photomontage, panoramas has a horizontal viewing angle of 67°, a single photographic image from a 50mm lens has a horizontal viewing angle of 39.6°.

Whilst a photomontage can provide an image that illustrates a photo realistic representation of an industrial development, in relation to its proposed location and scale relative to the surrounding landscape, it must be acknowledged that large scale objects in the landscape can appear smaller in photomontage than in real life. This is partly due to the fact that a flat image does not allow the viewer to perceive any information relating to depth or distance.

An extract taken from the Photography and Photomontage in Landscape and Visual Impact Assessment, Landscape Institute Advice Note 01/11 states that:

'it is also important to recognise that two-dimensional photographic images and photomontages 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'.

2.3 Sensitivity of the Landscape Resource

A number of factors influence professional judgement when assessing the degree to which a particular landscape receptor can accommodate change arising from a particular development. Sensitivity is made up of judgements about the value attached to the receptor determined at baseline stage and the susceptibility of the receptor to the type of change arising from the development proposal.

The table below provides an indication of the criteria by which the sensitivity of any landscape receptor is determined by combining judgements of the value of the receptor and its susceptibility to the type of change or development proposed. A degree of professional judgement applies in arriving at the sensitivity for receptors. Wherever sensitivity is judged, the specific combinations of factors that have influenced that judgement are described. The table has been adapted from the GVLIA with terms used as more appropriate for assessment of Australian landscape.

Table: Landscape Receptor Sensitivity Criteria

Category	Landscape Receptor Criteria
Very High	Nationally designated/valued landscape and landscape features; strong/distinctive landscape characteristics: absence of landscape detractors. Rare receptor in excellent condition. A landscape receptor extremely sensitive to disturbance or change in character due to the development proposals. No potential or very limited potential for substitution or replacement.
High	Locally designated valued landscape and features: many distinctive landscape characteristics: very few landscape detractors. Uncommon receptor in good condition. A landscape receptor sensitive to disturbance or change in character due to the development proposals. Limited potential for substitution or replacement.
Medium	Undesignated landscape and features: some distinctive landscape characteristics: few landscape detractors. A relatively common receptor in fair condition. A landscape receptor with a moderate level of sensitivity to disturbance or change in character due to the development proposals. Some potential for substitution or replacement.
Low	Undesignated landscape and features: few distinctive landscape characteristics: presence of landscape detractors. A common receptor in poor condition. A landscape receptor with limited sensitivity to disturbance or change in character due to the development proposals. Clear potential for substitution or replacement.
Very Low	Undesignated landscape and features: absence of distinctive landscape characteristics: presence of many landscape detractors. A common receptor in very poor condition. A landscape receptor with very limited sensitivity to disturbance or change in character due to the development proposals. Good potential for substitution or replacement.

The magnitude of change is determined through a range of considerations particular to each receptor and effect. In line with the GLVIA, the three main attributes considered are:

1. Scale of Change
2. Geographical Extent
3. Duration and reversibility

The table on the right provides an indication of the criteria by which the magnitude of change as a result of the development proposed upon a landscape receptor is judged within this assessment. These criteria provide a framework for assessment, and final conclusions are reached through clear and transparent use of reasoned professional judgement, taking into account a range of factors as described above.

Table: Landscape Receptor of Change Criteria

Category	Definition
Very High	Total loss of or major alteration to key elements/features/characteristics of the baseline condition. Addition of elements which strongly conflict with the key characteristics of the existing landscape. Large scale effects influencing several landscape types or character areas.
High	Notable loss or alteration to on or more key elements/features/characteristics of the baseline condition. Addition of elements that are prominent and may conflict with the key characteristics of the of the existing landscape. Effects at the scale of the landscape type or character areas within which the proposal lies.
Medium	Partial loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may be evident but do not necessarily conflict with the key characteristics of the of the existing landscape. Effects within the immediate landscape setting of the site.
Low	Minor loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may not be uncharacteristic within the existing landscape. Effects at the site level (within the development itself)
Very Low	Very Low Barely discernible loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements not uncharacteristic within the existing landscape. Effects only experienced on parts of the site at a very localised level.

2.4 Visual Receptor Sensitivity

People's (visual receptors) overall visual sensitivity has been assessed by combining consideration of their visual susceptibility with the value or importance that they are likely to attribute (or not) to their available views.

Factors which influence professional judgement when assessing the degree to which a particular view can accommodate change arising from a particular development, without detrimental effects would typically include:

- Judgements of value attached to views take into account recognition of the value attached to particular views e.g. heritage assets or through planning designations; and

• Judgements of susceptibility of visual receptors to change is mainly a function of the occupation or activity of people experiencing the view at particular locations; and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.

Assessment of the sensitivity of visual receptors may be modified (either up or down) by consideration of whether any particular value or importance is likely to be attributed by people to their available views. For example, travellers on a highway may be considered likely to be more sensitive due to its scenic context or residents of a particular property may be considered likely to be less sensitive due to its degraded visual setting.

Typically, sensitivity of visual receptors may be judged to be very high, high, medium, low or very low. Definitions of these indicative categories as appropriate to this assessment are set out in the table opposite.

Table: Visual Receptor Sensitivity

Category	Definition
Very High	Designed 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 recognised in planning policy designation [LEP, DCP, DoPE]. 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. Views from the secondary living space of residential properties and recreational receptors where there is some appreciation of the landscape e.g. golf and fishing. Local public rights of way and access land. Road and rail routes promoted in tourist guides for their scenic value.
Medium	View is not promoted or recorded 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 e.g. football and soccer. 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	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.

For the visual receptors identified, the factors above are examined and the findings judged in accordance with the indicative categories below in the table to determine the magnitude of change.

Table: Visual Receptor Magnitude of Change Criteria

Category	Definition
Very High	There would be 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 form a minor constituent of the view being 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	The proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation. Long range views with a negligible part of the view affected.

In some cases, there may be no magnitude of change and the baseline view will be unaffected by the development (e.g development would be fully screened existing woodland). In this case a category of 'no change' will be used.

2.5 Significance of the Impact - Development in Isolation

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. Having taken such a wide range of factors into account when assessing sensitivity and magnitude at each receptor, the level of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in the table below:

Receptor for Sensitivity	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

In all cases, where overall effects are predicted to be moderate or higher (shaded grey), this will result in a prediction of a significant effect in impact terms. All other effects will be not significant. If a view from a receptor is judged to be 'no change' in the category of Magnitude of Change, then the significance of impact will automatically be none.

In certain cases, where additional factors may arise, a further degree of professional judgement may be applied when determining whether the overall change in the view or effect upon landscape receptor will be significant or not and, where this occurs, it is explained in the assessment.

Visual effects are more subjective as people's perception of development varies through the spectrum of negative, neutral and positive attitudes. In the assessment of visual effects, Geoscapes will exercise objective professional judgement in assessing the significance of effects and will assume, unless otherwise stated, that all effects are adverse, thus representing the worst-case scenario. The significance of visual impacts are assessed against the Kemps Creek development in isolation only.

2.6 Cumulative Impacts

For all viewpoint locations assessed in section 8.0 of this report, a judgement of cumulative impact has also been given. Cumulative visual effects are the combined effects that arise through the interaction of two or more developments, future or existing. Cumulative photomontages have been produced at year 15, which include all other known proposed developments within the view corridor from a given receptor location. This is to allow all

proposed landscape mitigation to be considered and shown at expected maturity.

Cumulative effects occur as a result a number of developments, which individually might not be significant, but when considered together could create a significant cumulative effect upon a receptor, and will include developments separate from and related to the proposed development.

The methodology of Cumulative Visual Impact Assessment (CVIA) guidance began in the assessment of onshore wind farms, however, the principle of cumulative effects remains the same regardless of the type of development.

As with the assessment of effects of the proposed development itself, the significance of cumulative effects is determined through a combination of the sensitivity of the landscape receptor or view and the magnitude of change upon it. The sensitivity of landscape receptors and views is the same in the cumulative assessment as for the proposed development in isolation. However, the cumulative magnitude of change is assessed differently.

The cumulative magnitude of change is an expression of the degree to which landscape receptors and views will be changed by the addition of the proposed development to other developments that are operational, consented or proposed within the study area. This is dependent on a number of variables as follows:

- The location of the proposed development in relation to other developments within the study area. If the proposed development is seen in a part of the view that is not affected by another development, this will generally increase the cumulative magnitude of change as it will extend its influence into an area that is currently unaffected. Conversely, if the proposed development is seen in the context of other developments, the cumulative magnitude of change may be lower as it is not extending development to hitherto undeveloped parts of the outlook. This is particularly true where the scale and layout of the proposed development is similar to that of the other sites, as where there is a high level of integration and cohesion with an existing site, the various development may appear as a single co-ordinated site;

- The extent of the developed skyline. If the proposed development will add notably to the developed skyline in a view, the cumulative magnitude of change will tend to be higher, as the nature of the skyline has a particular influence on both views and landscape receptors;

- The number and scale of the developments seen simultaneously, successively, or sequentially. Generally, the greater the number of visible developments, the higher the cumulative magnitude of change will be. Furthermore, the addition of the proposed development to a view where a greater number of smaller developments are apparent will usually generate a higher cumulative magnitude of change than a view of one or two large developments as this can lead to the impression of a less co-ordinated or strategic approach;

- The size and scale comparison between all of the proposed development. If the proposed development is of a similar scale to other visible and relevant developments, particularly those seen in closest proximity to it, the cumulative magnitude of change will generally be lower as it will have more integration with the other sites and will be less apparent as an addition to the cumulative situation;

- The distance of the proposed development from the viewpoint or receptor. As in the assessment of the site itself, the greater the distance, the lower the cumulative magnitude of change will tend to be; and

- The magnitude of change of the proposed development in isolation. The lower this is assessed to be, the lower the cumulative magnitude of change is likely to be. Where the proposed development itself is assessed to have a negligible magnitude of change on a landscape and visual receptor there will not be a cumulative effect as the contribution of the proposed development will equate to the 'no change' situation.

Definitions of cumulative magnitude of change are provided within Table opposite to ensure that the assessment process is transparent.

Table: Cumulative Magnitude of Change Criteria

Category	Definition
Very High	The addition of the proposed development will make a substantial contribution to the cumulative situation in a landscape receptor view.
High	The addition of the proposed development will make a clearly apparent contribution to the cumulative situation in a landscape receptor view.
Medium	The addition of the proposed development makes a notable contribution to the cumulative situation and its cumulative addition is readily apparent.
Low	The addition of the proposed development will make a minor contribution to the overall cumulative situation, and its cumulative addition is only slightly apparent.
Very Low	The addition of the proposed development will make a negligible contribution to the cumulative situation and this equates to effectively a 'no change' situation.

Significance of cumulative effects

The objective of the cumulative assessment is to determine whether any effects that the proposed development would have on views and landscape receptors when seen or perceived in conjunction with other existing and proposed sites will be significant or not significant.

A significant cumulative effect will occur where the addition of the proposed development to other existing and proposed relevant developments would result in a landscape or view that is defined by the presence of more than one major development and is characterised primarily by large scale development so that other patterns and components are no longer definitive.

If the proposed development itself is assessed to have a significant effect on a landscape or visual receptor, it does not necessarily follow that the cumulative effect will also be significant. If the joint effect of the two or more development does not result in the perception of a landscape defined by large scale development, the cumulative effect will be not significant, even if the effect of the proposed development itself in isolation is considered to be significant.

2.7 Site Visit and Analysis of Zone of Visibility

Site visits were conducted on the 29th August at 12.00pm, 7th September at 8.00am and 10th September at 11.00am by Geoscapes. The consultant team carried out a site inspection to verify the results of a desktop study and to evaluate the existing visual character of the area. Analysis from inside the site boundary and at vantage points from the surrounding landscape was undertaken to approximate the Zone of Visibility. Figures 1 to 8 show panoramic photographs taken at eye level by Geoscapes from two locations within the site either side of Bakers Lane looking north, south, east and west. These photographs allow a partial judgement on which properties in the immediate vicinity will see the development from ground level to the top of warehouse ridge lines. However, this is limiting due to the presence of existing warehouses and surrounding vegetation, it is not possible to gain a complete understanding of visibility without the additional use of drone photography.

A drone was used to take panoramic photographs looking north, south, east and west, at five separate locations within the site boundary. A height was flown by the drone to generally represent the approximate top of warehouses (refer to figures 9 to 29). The flight was performed on the 29th August 2018 by Pixel Media Productions. These photographs allowed a judgement to be made on which receptors in the wider context, will be able to see the tops of warehousing. Not all residential properties/public spaces are highlighted on figures 9 to 29, as due to the resolution of the imagery, it was sometimes difficult to ascertain an exact property address or location at greater distances from the drone camera. However, the properties or publicly accessible parks and open space that have been shown, will provide an indication of receptors within the surrounding context, that the development

will be most visible to. It is important to note that it is simply unfeasible to photograph every single possible view corridor to and from the site. In some cases, it was not possible to visit an identified receptor to take photographs looking back at the site (e.g. within private property, private gardens or windows where access was denied). In these cases, views have been taken from publicly accessible areas that are judged to be similarly representative, or a judgement has been made on the likely visual impacts from a selection of the receptors identified in figures 1 to 29 (refer to section 8.0).

As with any LVIA, due to the number of receptors that may have views of the development, it is not possible to provide viewpoints for every single possible visual receiver (refer to section 2.8 and 4.8 for details on viewpoint selection).

2.8 Viewpoint Selection and Photographic Recording

From desktop study, site visits and photography, several locations were identified that would potentially be subject to visual impacts from the proposal. These viewpoints were selected in consultation with the project team. Some viewpoints have been intentionally chosen to demonstrate and provide evidence to those receptors that there are no visual impacts at all.

Photographs were taken by Geoscapes Landscape Architects from the selected viewpoints using a Canon 60D DSLR Camera and a 50mm lens. Photographs were stitched together using an automated software process, however, no perspective fixing was used. GPS recordings were taken and locations mapped using topographical survey data. This information was later used to create the photomontages.

In Figures 9 to 33 drone photography has also been stitched together to increase the field of view. As the Drone uses a wide-angle lens, in some images there is quite distinct distortion where two images join. However, as these images are used only for analysis and identifying potential visual receptors, this does not affect the validity of their use within this report.

2.9 Visualisation of the Development

Morphmedia were engaged to develop a digital three-dimensional model using Autodesk 3Ds Max. The model included all aspects of the proposed development combined with the landscape design and mitigation proposed by Habit8. For the purposes of a cumulative assessment of visual impacts, Morphmedia were also asked to include the entire First Estate development adjoining the Kemps Creek site. This includes future warehouse buildings that are currently undergoing an approval process, such buildings are modeled in the proposed view to show likely massing and general building form only. Building 7 which includes the high-bay element within Stage 1 of the First Estate, is modeled to a high standard of detail.

Views were generated from the model that matched the camera positions of photographs taken from selected viewpoints. These were then combined with the photographs to create simulated views of the proposal.

Photomontage figures 42a,b & c to 59a, b & c are intended to be printed at A3 and to be held at a comfortable distance by the viewer, this is generally accepted to be anyway from 300mm to 500mm away from the eyes and held in a flat projection.

2.10 Assessment of Visual Impact

The visual impact from receptors has been assessed based on the criteria described in Section 2.4. The following list of visual receptors are judged to potentially have the highest sensitivity to the development:

- Old Macdonald's Child Care Centre (VP1)
- Rear of 43 Mandalong Close (VP2)
- Mandalong Stud Farm (VP3)
- Public Reserve, Twin Creeks (VP7)
- 799 Mamre Road, Kemps Creek (VP9)
- Front of 707A Mamre Road, Kemps Creek (VP10)
- 864 Mamre Road, Kemps Creek (VP12)
- 201 Adlington Road, Kemps Creek (VP13)
- 127 Adlington Road, Kemps Creek (VP14)
- 784-786 Mamre Road, Kemps Creek (VP15)
- Emmaus Catholic College (VP17)
- 654-674 Mamre Road, Kemps Creek (VP18)

Receptors which are regarded to have less sensitivity but have also been assessed are:

- 226 Luddenham Road, Orchard Hills (VP4)
- 275 Luddenham Road, Orchard Hills (VP5)
- 713 Luddenham Road, Luddenham (VP6)
- 26 Medinah Ave, Twin Creeks (VP8)
- 826-842 Mamre Road, Kemps Creek (VP11)
- Bakers Lane in front of 706-752 Mamre Road, Kemps Creek (VP16)

In total 18 viewpoint locations have been selected for photomontage.

It is noted that the site will most likely be screened by the First Estate for some properties in the north and to the west by vegetation along South Creek. Properties located in St Clair are situated behind the existing Erskine Business Park, for the majority of properties in this location, the existing estate will prevent views to the Kemps Creek Development.

The suburbs of Mount Vernon, Horsley Park, parts of Kemps Creek and parts of Orchard hills were considered to be too far from the development to experience any adverse visual impacts.

A view of the development may be possible from areas on the perimeter of the Blue Mountains. However, this is approximately 12km from the development site. The visual impact from the Blue Mountains is assessed to be negligible/none.

Refer to section 8.0 for a detailed visual impact assessment from the receptors.

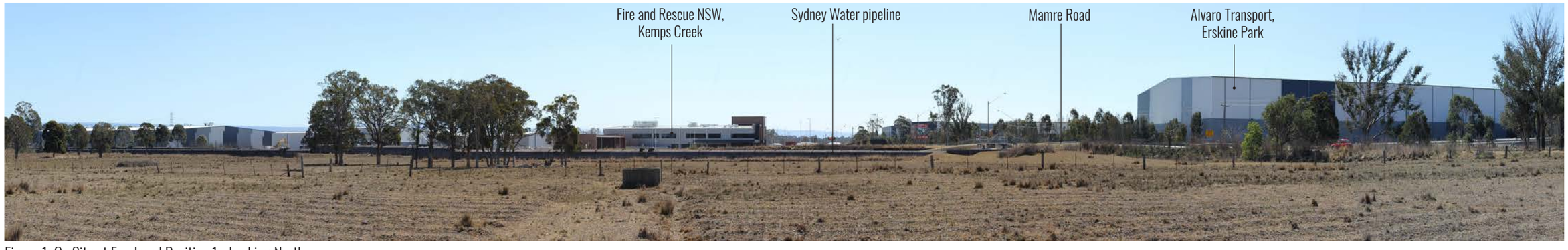


Figure 1: On Site at Eye-Level Position 1 - Looking North

Figure 2: On Site at Eye Level Position 1 - Looking East

Figure 3: On Site at Eye-Level Position 1 - Looking South

Figure 4: On Site at Eye Level Position 1 - Looking West

Figure 5: On Site at Eye-Level Position 2 - Looking North

Figure 6: On Site at Eye Level Position 2 - Looking East

Figure 7: On Site at Eye-Level Position 2 - Looking South

Figure 8: On Site at Eye Level Position 2 - Looking West

Legend

- Site Boundary
- ① Drone Position 1
  33° 49’ 40.26” S
  150° 46’ 42.65” E
- ② Drone Position 2
  33° 49’ 50.89” S
  150° 46’ 44.31” E
- ③ Drone Position 3
  33° 49’ 56.23” S
  150° 46’ 38.64” E
- ④ Drone Position 4
  33° 50’ 02.17” S
  150° 46’ 47.10” E
- ⑤ Drone Position 5
  33° 50’ 06.09” S
  150° 46’ 38.06” E

- 1 Ground Eye Level Position 1
- 2 Ground Eye Level Position 2

Figure 9: Ground Level & Drone Panoramic Photograph Positions

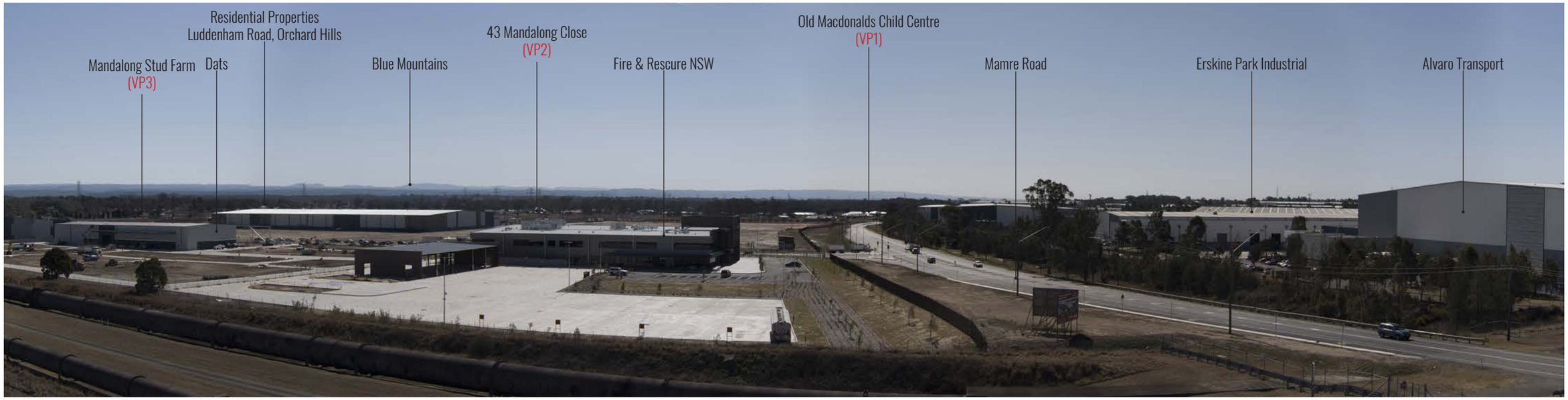


Figure 10: Drone Position 1 looking North

Figure 11: Drone Position 1 looking East

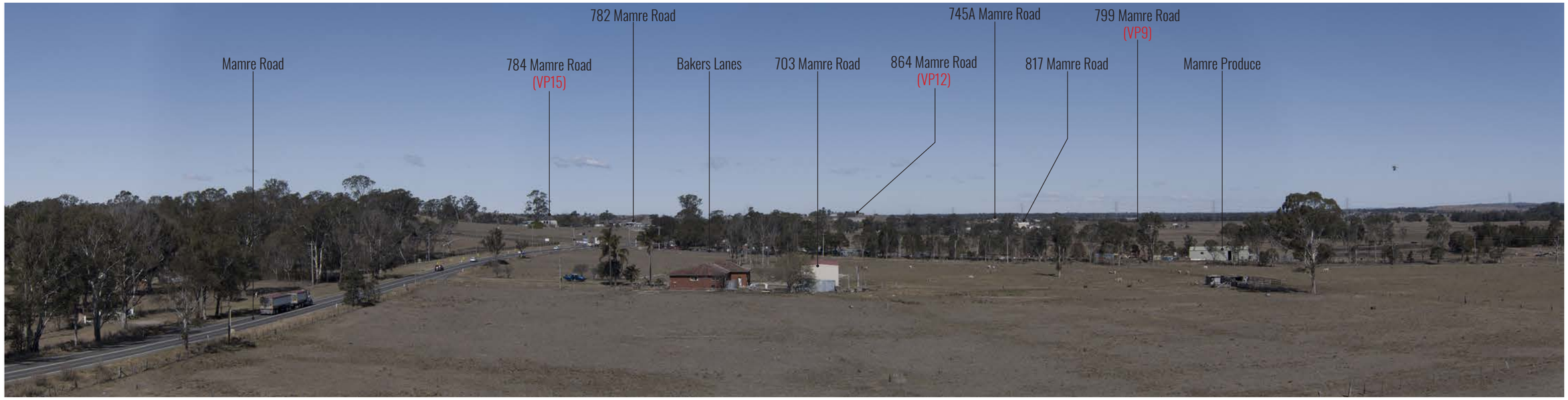


Figure 12: Drone Position 1 looking South

Figure 13: Drone Position 1 looking West

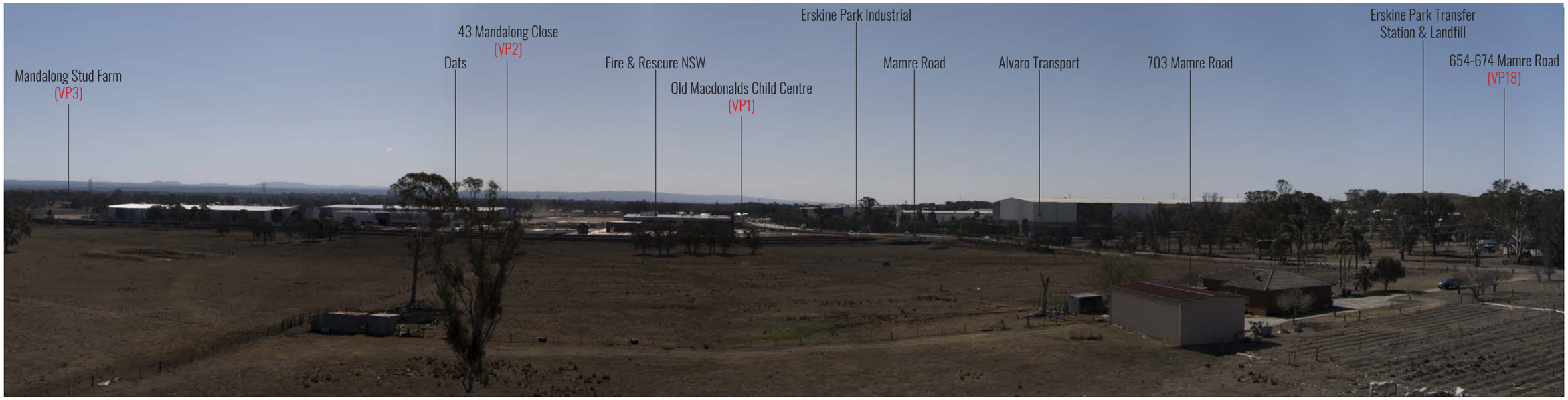


Figure 14: Drone Position 2 looking North

Figure 15: Drone Position 2 looking East

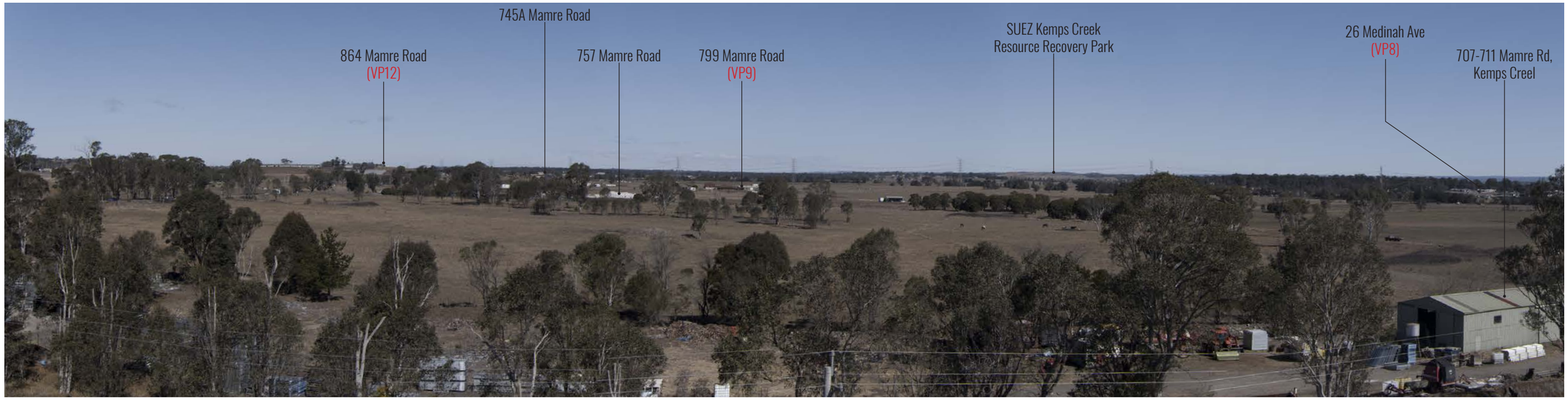


Figure 16: Drone Position 2 looking South

Figure 17: Drone Position 2 looking West

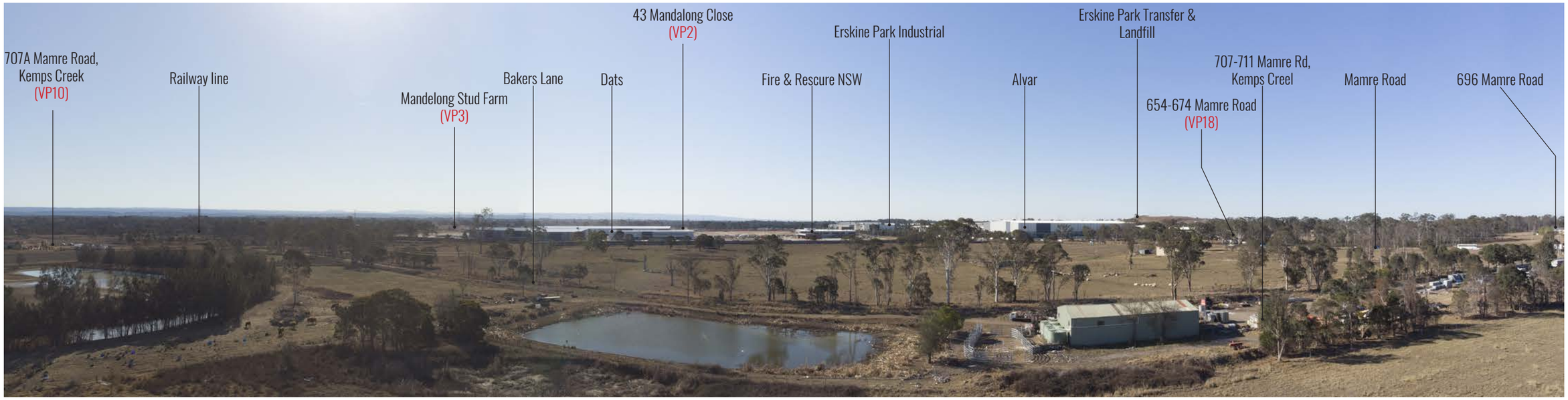


Figure 18: Drone Position 3 looking North

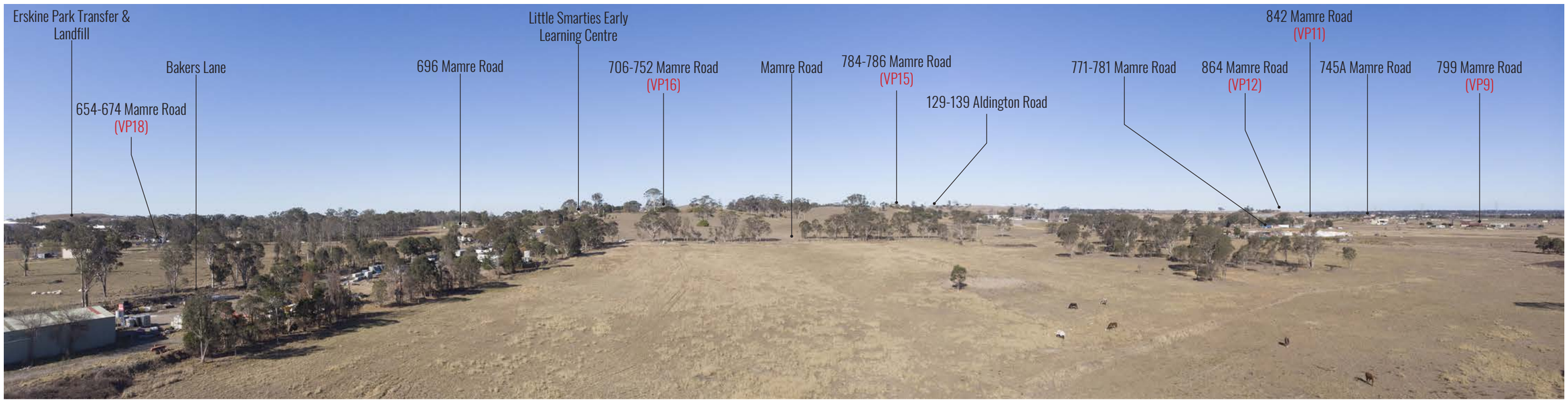


Figure 19: Drone Position 3 looking East

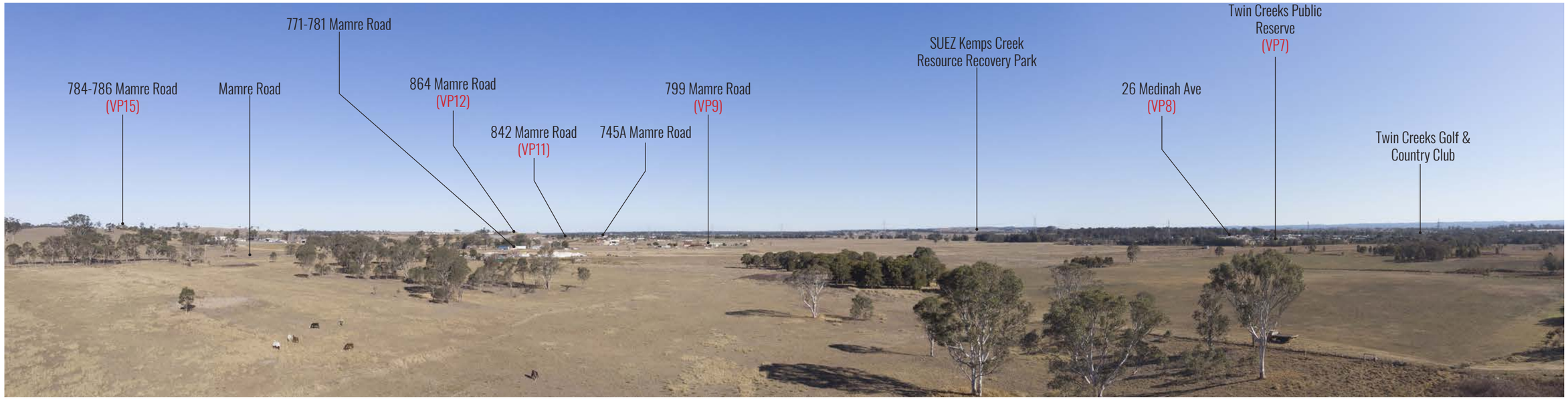


Figure 20: Drone Position 3 looking South

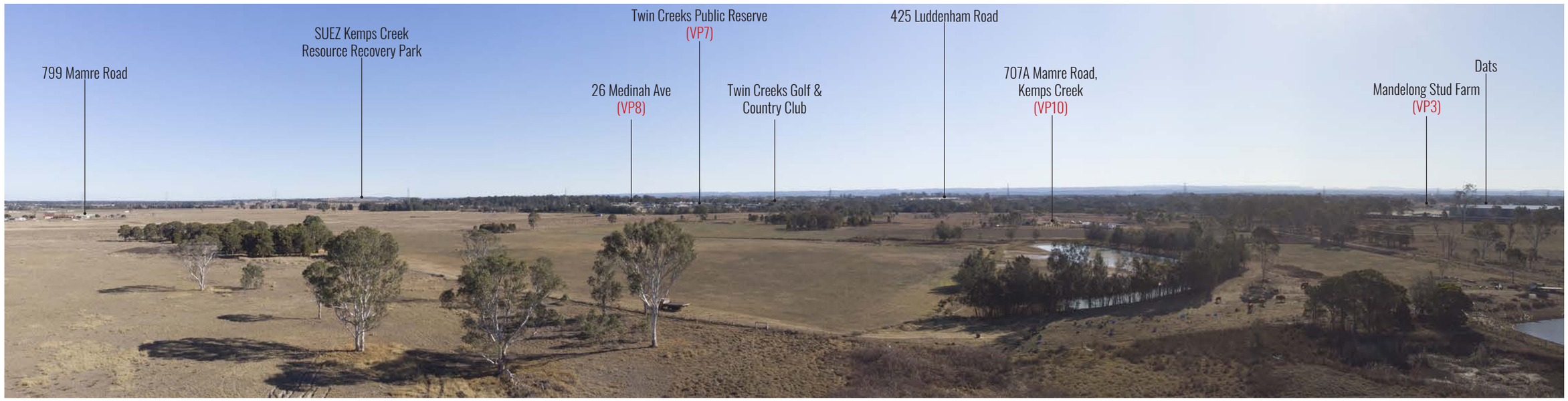


Figure 21: Drone Position looking West

Figure 22: Drone Position 4 looking North

Figure 23: Drone Position 4 looking East

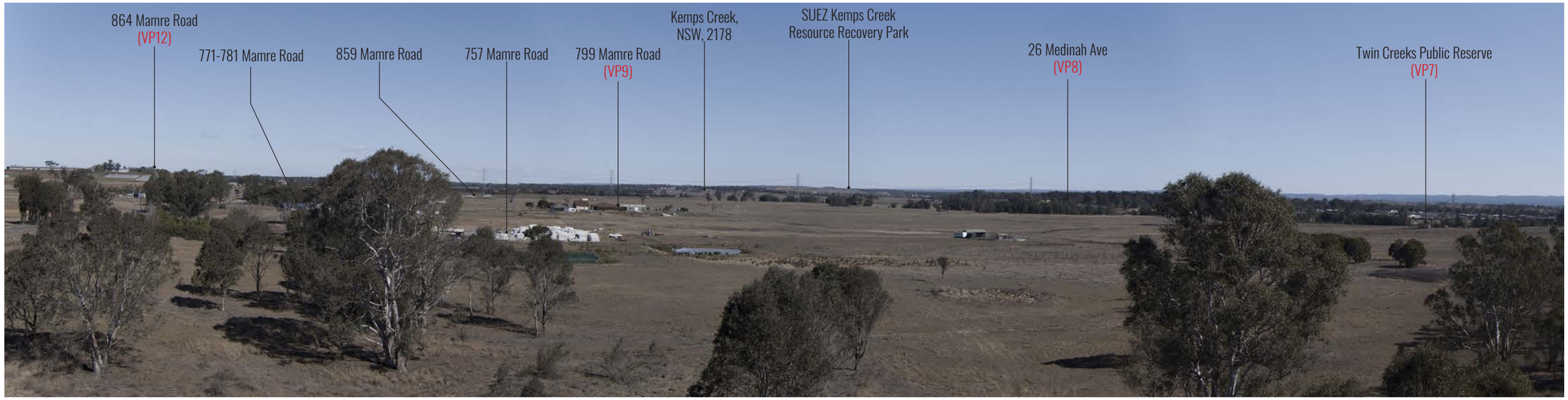


Figure 24: Drone Position 4 looking South

Figure 25: Drone Position 4 looking West

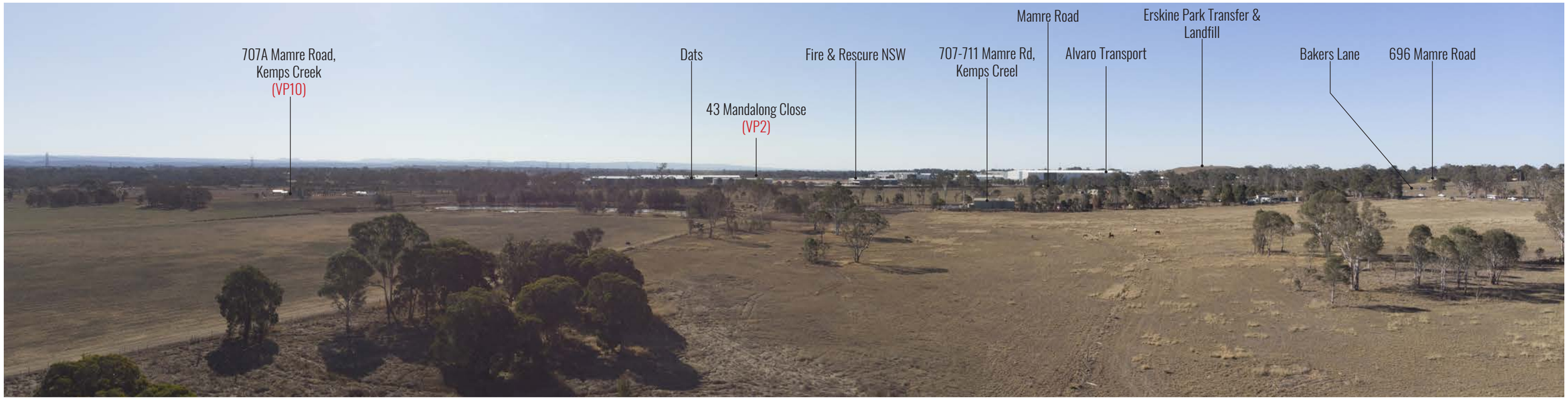


Figure 26: Drone Position 5 looking North

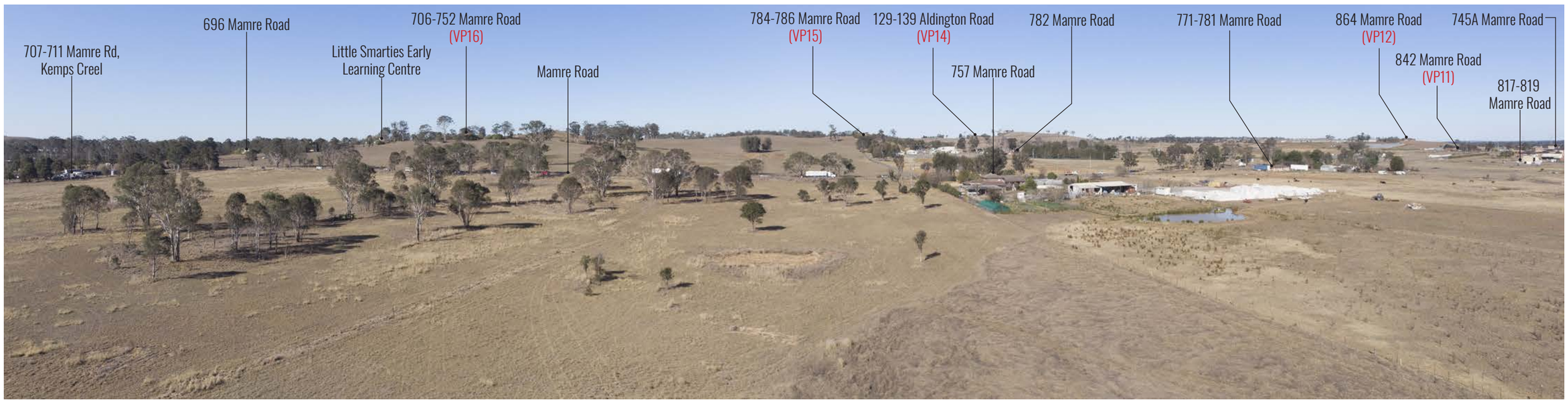


Figure 27: Drone Position 5 looking East

Figure 28: Drone Position looking South

Figure 29: Drone Position 5 looking West

Figure 30: Drone at 120m AGL looking North

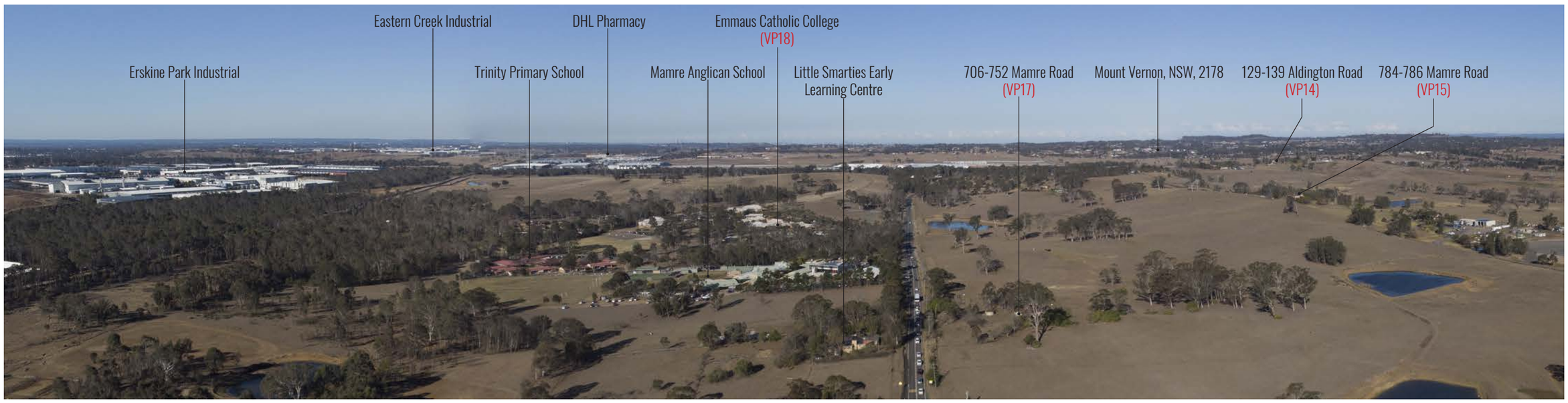


Figure 31: Drone at 120m AGL looking East

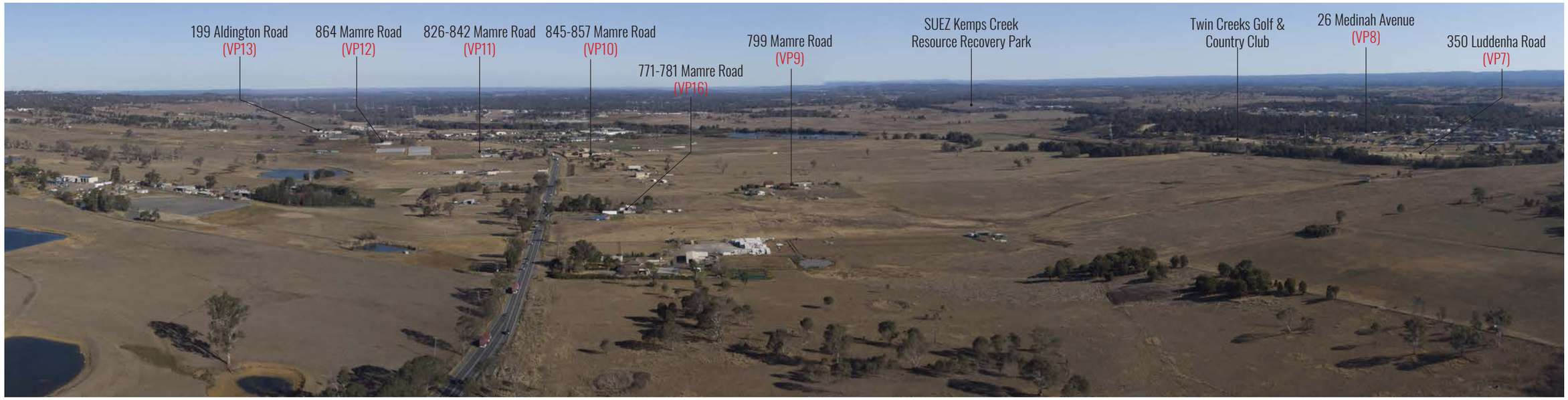


Figure 32: Drone at 120m AGL looking South

Figure 33: Drone at 120m AGL looking West

3.0 THE SITE AND ENVIRONS

3.1 Location

The site is located at 657-769 Mamre Rd, Kemps Creek. It has an area of approximately 31 hectares and is located within the Penrith City Council Local Government Area. Figure 35 provides the site's location. Figure 36 provides the site's context.

3.2 Site Description

The site description is summarised in the Figure below.

Figure 34 – Site Description

Component	Description
Address	657-769 Mamre Road, Kemps Creek
Legal description	Lot 34 in DP1118173, Lot X in DP421633 Lot 1 in DP1018318, Lot Y in DP421633 Lot 22 in DP258414
Site area	30,920sqm (30.9ha)
Current use	The surrounding site is currently under industrial construction with previous rural/agricultural land uses.

3.3 Context

The site is located to the south of the First Estate and Erskine Park Industrial Precincts, located 40 kilometres' west of Sydney's CBD. It is 7km from the M7 Motorway and 4km from the M4. The precinct is already a major economic foundation for the Western Sydney Employment Area, with numerous commercial, bulky goods retailing and industrial developments emerging in the locality.

The site is surrounded by the following specific land uses:

- Directly north of the site is the Altis First Estate Industrial Park. Between the development and First Estate, lies the WaterNSW Trunk Pipeline which runs from the Warragamba Dam to Prospect Reservoir. Further north is the Old Macdonald's Child Care Centre and properties along Mandalong Close
- Directly south of the site, individual residential dwellings and agricultural farms are scattered throughout the landscape. The residential suburbs of Twin Creeks, Badgerys Creek and the SUEZ Kemps Creek Resource Recovery Park are located further south at 1.2km, 7km and 3.3km respectively.
- Directly to the east are scattered residential properties and farmland. To the north east of the site is the extensive Erskine Business Park which contains bulky goods and industrial land uses recently developed. In the center of the Erskine Estate is a waste disposal service and landfill. This mound is clearly dominant in the skyline and is seen from many locations. Further east is the suburb of Horsely Park.
- Directly west of the site are existing agricultural land uses, residential dwellings and the vegetated creekline of South Creek.

3.4 Aerial Photography

During the Drone photography that was carried out within the site boundary on the 29th August 2018, (refer to section 2.6) aerial shots were also taken at an AGL of 120m. These prove useful in the following ways:

- Demonstrating the site context in which the development sits;
- Highlighting key features of the surrounding landscape;
- Analysing the existing landscape character;
- Identifying locations of potential individual receptors.

See figures 30-33.

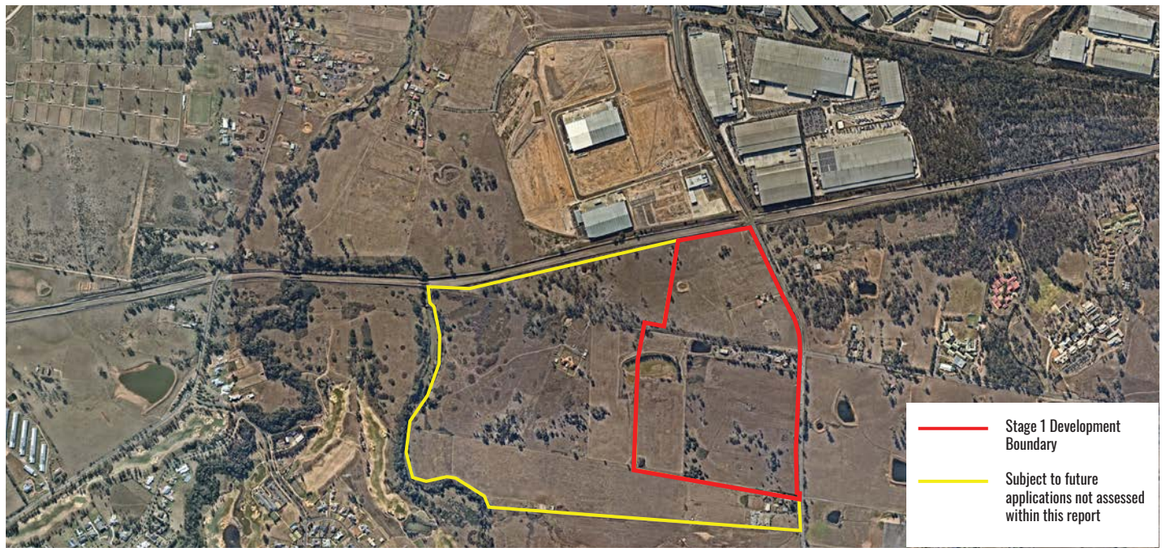


Figure 35: Site Location (Source: Nearmap 2018)

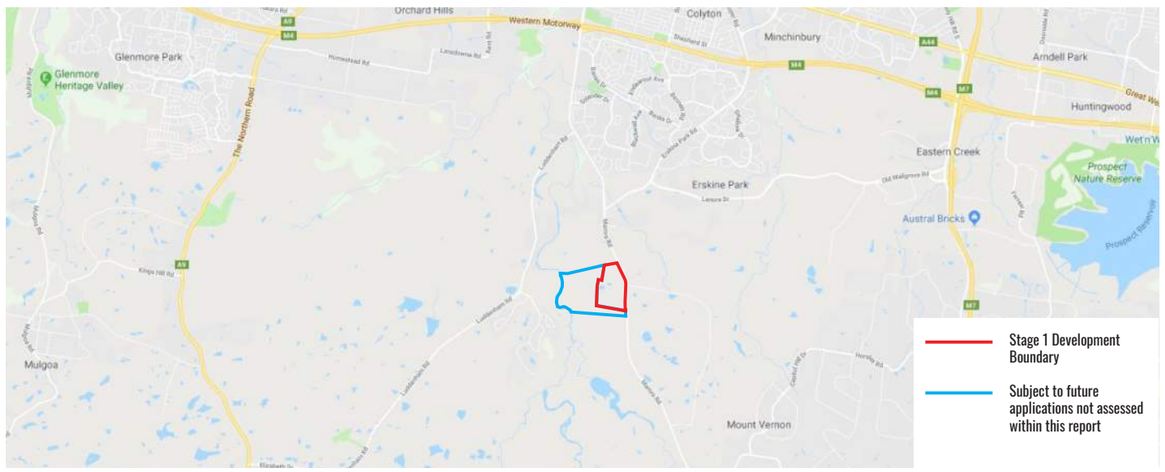


Figure 36: Site Context (Source: Google Maps)

4.0 BASELINE DESCRIPTION

4.1 Planning Context

The following current and draft Commonwealth, State, Regional and Local planning controls and policies have been considered in the preparation of this Report:

Penrith Local Environmental Plan 2010 (LEP)
Western Sydney Employment Area - State Environmental Planning Policy (WSEA SEPP)
Environmental Planning and Assessment Act 1979;
Environmental Planning & Assessment Regulation 2000;
The Western City District Plan
Land Use and Infrastructure Implementation Plan (LUIIP)

The site is included within 'Precinct 11- Broader Western Sydney Employment Area' under the provisions of SEPP WSEA and is presently unzoned land. The site is identified as having scenic and landscape values under clause 7.5 of Penrith LEP 'Protection of Scenic Character and Landscape Values'. It is not proposed to invoke PLEP2010 for the Proposed Development as the Proposal will rely on permissibility pursuant to Clause 12 of SEPP WSEA. As such, consideration of the development standards and zoning contained within PLEP is not required.

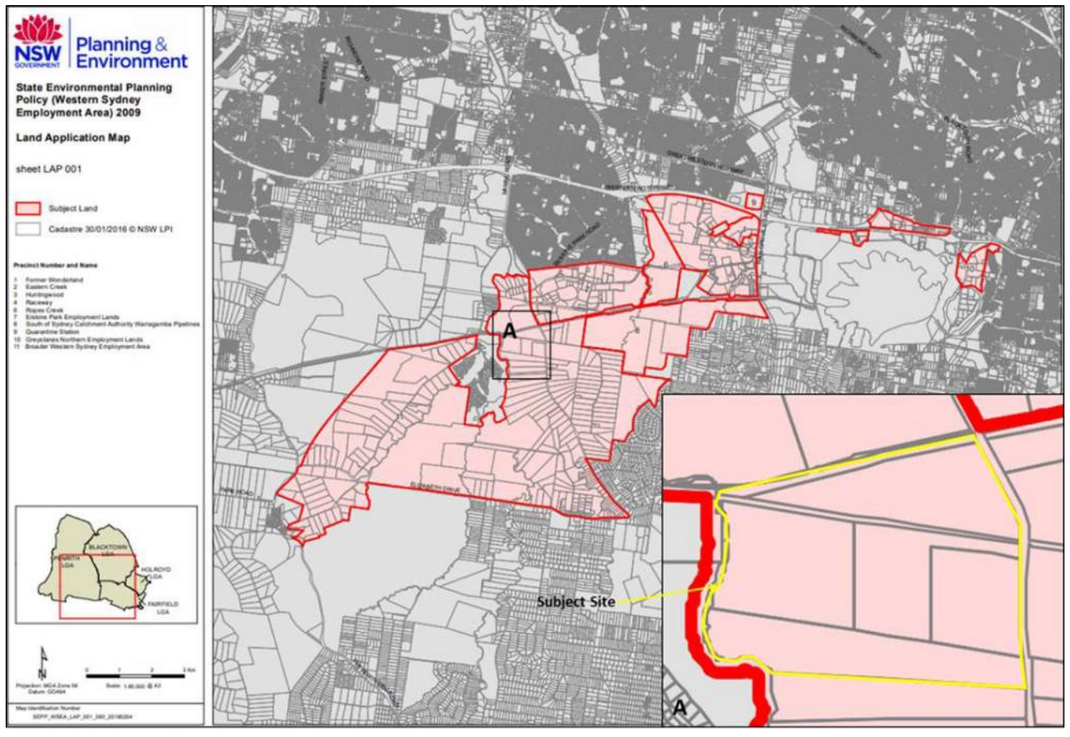


Figure 37: Land Application Map (Source: NSW Legislation 2018)

4.2 Current Approvals

An application (SSD 15_7173) for the Altis Warehouse and Logistics Hub was approved by the DoPE on the 15th December 2016. This forms part of First Estate immediately adjacent to the site in the north. The original Stage 1 SSD submission contained three warehouses and associated infrastructure. Of the three warehouses, to date, one has been completed and this is home to N&A and Spec. Three other warehouses have been completed within the First Estate, these include the DATS and FRNSW Training Academy.

A new SSD application, SSD 18_9429 Snack Brands Warehouse and Distribution Facility, has recently been submitted for building 7 within the First Estate Site which is proposed to include a 36m high-bay. An LVIA was prepared by Geoscapes for SSD 18_9429 and is available on the DoPE Major Projects website.

4.3 Proposed Kemps Creek SSD Plan

Situated in the figure below is the current SSD plan. This plan is used for the purpose of assessment within this LVIA report. For detailed information regarding the built forms, refer to section 5.0.

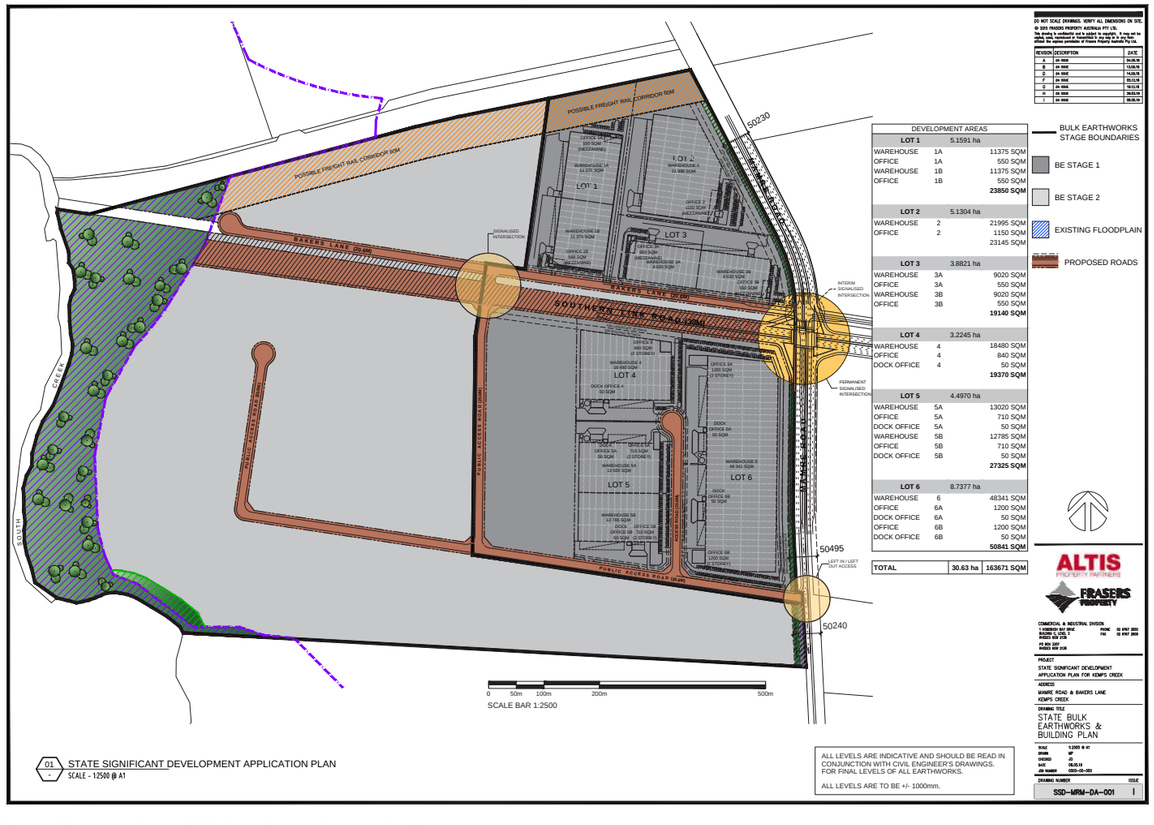


Figure 38: Kemps Creek SSD Plan (Source: Frasers & Altis)

4.4 Future Industrial Development in the Surrounding Area

Figure 39 below shows the First Estate masterplan. Buildings from 5A through to 6C are currently either under development assessment by Penrith Council or will be part of future development applications. All buildings whether approved or proposed have been modeled for cumulative assessment purposes within the LVIA (see section 2.6 & 2.9).

Figure 39: First Estate Masterplan (Source: Nettletontribe Architects)

4.5 Landscape Character

The site is predominately cleared of vegetation and covered with pasture grasses and scattered copses of trees and scrub.

The northern boundary is defined by the WaterNSW Trunk Pipeline and First Estate. To the west of the site is South Creek, South Creek runs from Kemps Creek in the south joining the Hawkesbury River near Windsor. A layer of established native vegetation surrounds the creek running the entire length of the western boundary.

To the eastern boundary is Mamre road, east from here, the topography becomes more elevated with farm land and scattered residential properties. Similarly to the south, scattered residential farm land and properties are located along Mamre Road.

On a clear day views to the Blue Mountains are possible. From the aerial photography and land mapping information, the character of the area can be described as a mix of rural, agricultural low density residential and industrial .

Following initial investigations described in Willow Tree Planning's 'Request for Secretary's Environmental Assessment Requirements', it is indicated that there is no critical flora or fauna habitat on the site. The same document also states that 'The Proposal does not adversely affect any area of heritage or archaeological significance'.
Due to a presence of industrial buildings to the north and north east of the site the overall baseline can be described as one that is influenced by industrial development.

4.6 Sensitivity of the Landscape

There are no current statutory designations within the WSEA SEPP for the site. As described in Section 4.1, this development will not invoke PLEP2010 as the proposal will rely on permissibility pursuant to Clause 12 of SEPP WSEA. This report has still considered that the Penrith LEP 2010 has identified the land as being within 'Land with Scenic and Landscape Values', however, the current character of the surrounding landscape is one that has been influenced by industrial and commercial development, especially to the north and north east. The land currently has an agricultural use, therefore, the original landscape has already been modified by man made intervention and this is true of the many parcels of land within the area.

It is also important to note, that the majority of surrounding land has been marked for employment under the governments strategic plans, namely the Western Sydney District Plan 2017.

A local value may be attributed to the existing site by a few visual receptors that have close range direct views, or overlook the site out to views of the Blue Mountains. This would apply to 707A Bakers Lane and could somewhat apply to 425 Luddenham Road, 706-752 Bakers Lane, Emmaus Catholic College, some properties within the suburb of Twin Creeks, Twin Creeks Golf and Country Club and residential properties to the south located along Mamre Road. These views are likely to be based on perceptual aspects such as wilderness, tranquillity, land use, environmental value and green open space. Several industrial and commercial developments have been built or are currently under construction adjacent to the proposed development.

South Creek is located to the west of the site boundary and would remain unaffected by the development.

Many native tall canopy trees will be planted within all designated landscape areas. Almost all planting within the development is proposed to be native with a substantial proportion of endemic species. This will increase the vegetated area of the site from the existing condition. Refer to Habit8 landscape plans for detailed proposals.

The conclusion drawn from the assessment of landscaper character (see section 4.5) and the analysis above, would suggest that the sensitivity of the landscape to be **low.**

4.7 Selected Viewpoints – Receptor Locations

The symbols and numbering in Figure 40, indicates the viewpoints and photomontages that have been selected for a Visual Impact Assessment (VIA). Viewpoints have been taken from publicly accessible areas and also from private individual properties.

A sample of receptors which are closest in proximity to the proposed development, those with vantage points at higher elevations and those with views at further distances have been selected. 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 not selected for an individual viewpoint assessment (i.e. from inside a private dwelling), a general assessment for that location has been undertaken in terms of a likely significance of visual impact. Refer to Section 8.0.

From viewpoint locations, photomontages have been generated to represent as closely as possible views of the proposed development following construction at year 0 and at year 15. Year 15 photomontages are used to simulate proposed landscape mitigation at maturity. For cumulative assessment purposes, all approved and proposed development as part of the First Estate, have also been represented in the photomontages. This also includes any proposed landscape mitigation for any new development.

Refer to the visual impact assessment at Section 8.0 of this report and the corresponding viewpoints 1 to 18.

5.0 DEVELOPMENT PROPOSALS

5.1 General

Within the Stage 1 development, a total of 9 warehouses are proposed. Four are proposed to the south of the link road and five to the north. Each warehouse will have road infrastructure, offices, car parking facilities, loading areas and landscaping setbacks.

5.2 Height / Scale

The height and scale of the Industrial Precinct is to be uniform and representative of the facilities within the Western Sydney Employment Area directly adjacent the site. Eight Warehouses have heights of 13.7m at the ridge with a 3 degree roof pitch land an eaves height of 11.5m. Warehouse No. 2 has a height of 26.7m at the ridge with a pitched roof and an eaves height of 22.5m. Warehouse 2 is to be located adjacent to the proposed High-Bay at First Estate, thus ensuring that the tallest warehouse proposed in Stage 1 is situated in the best position to uniformly match scale and heights within First Estate. By using a pitched roof on Warehouse 2, this helps to reduce scale for visual receptors as the building will appear lower depending on the view angle.

5.3 Colour / Materials & Finishes

Colour tones have been chosen to help sit the building more comfortably into the surrounding context. A palette of whites and greys including, Danpalon, Surfmist, Pale Eucalypt and Gully are typically used on the four building facades. This helps to make the buildings more recessive into the skyline and is consistent with adjacent developments within First Estate. The use of an brown coloured accent materials at feature corners, makes reference to earth tones and sits well against surrounding farm lands and paddocks. The use of natural materials on office buildings such as Corten and timber will make the development less visually obtrusive in close up and distant views.

Offices entry frontages will include landscaping in and around carparking areas. Glazing will also use tensile steel wires and climbing plants.

5.4 Signage & Lighting

Within Stage 1, three signage estate entry locations have been identified within the Architectural design. These will consist of a 8m x 1.6m pylon. There are also several tenant identification signs and tenant directional signs. Visually, signage will only become apparent in close up views mostly while travelling by road to the estate. Viewpoint 16 is likely to see estate signage as well as potentially partial views from Viewpoint 18.

Lighting has been designed to be in compliance with the latest version of AS1158 and AS4282 (INT) - Control of Obtrusive Effects of Outdoor Lighting.

- Lighting has been provided in accordance with the requirements of Australian Standard 1158.3.1-1999 and the recommendations contained therein.
- Glare and spill lights has been limited by the selection of fittings and is in accordance with The Australian Standard 4282-1987
- Light fittings are LED wall mounted, pole mounted and mounted on the face of the awning and directed in such a manner that they do not cause nuisance to surrounding properties or the public road network.

5.5 Noise Screening

As per the recommendations of the Operational Noise Assessment.

5.6 Summary

The design of buildings has addressed the need to make the development visually less obtrusive within the landscape. Of most importance from a visual impact perspective, are the height, scale, colour and finishes. The height is consistent with other nearby industrial developments which helps to create a uniform development when viewed from distance and reduces cumulative impacts (refer to section 2.6). The colours selected for the building facades, help to blend the development more effectively into the skyline and surrounding landscape.

6.0 LANDSCAPE STRATEGY, DESIGN AND MITIGATION

6.1 Strategy and Mitigation

To help mitigate views from the north, south, east and west, native endemic planting has been introduced to help provide screening of the development. This will allow for large endemic canopy tree planting and this would be expected to reach a mature height of between 15m to 25m. This will help to screen the development from potential visual receivers.

6.2 Detailed Landscape Proposals

Please refer to landscape design documentation prepared by Habit8, for detailed landscape proposals.

7.0 LANDSCAPE IMPACT ASSESSMENT

7.1 Significance of Impact

The sensitivity of the landscape has been assessed within the baseline to be **low** (see section 4.0). From understanding the development proposals, mitigation and the existing industrial / commercial character of adjacent landscape, the magnitude of change is judged to be **medium**. The introduction of the development is not uncharacteristic of the surrounding industrial context in which it will sit. The significance of landscape impact therefore, is judged to be **minor.**

Figure 40: Viewpoint Locations

8.0 VISUAL IMPACT ASSESSMENT

8.1 Viewpoint 1

Viewing Location	Old Macdonald's Child Care Centre, Orchard Hills - Looking South
GPS	33°49'8.94" S, 150°46'28.67" E
Elevation (Eye-level)	36m
Date and Time	10th July 2018 - 8.25am
Baseline Photo and Massing & Topography Figure	Figures 41a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1 km
View description & prominence of the development	This visual receptor is located at a distance of 1km to the Site boundary and located to the north of the Altis First Estate. The view is taken from the rear of the Child Care Centre within a staff car parking area, similar views would be experienced from windows within the centre and also in the covered outdoor play space. The baseline view contains agricultural paddocks in the foreground and the property at 573 Mamre Road. The N&A and Spec buildings within First Estate are clearly visible as well as the DATS building and FRNSW Training Academy in the background. The olive tree lined driveway to Mandalong Stud Farm crosses the view in a east to west direction. The Kemps Creek development would be located directly behind First Estate and there are a number of mature scattered trees between this receptor and both industrial estates.
Visual Receptor Sensitivity	This location is in close proximity to the development site and although this receptor is not a residential dwelling, it is a child care centre where children and adults will potentially experience views of the development. It is judged that the sensitivity for this receptor to the development would be **high**.
Magnitude of Change	The development would be located behind First Estate, only the proposed warehouses 1 and 2 can be seen in the photomontage. Following the maturity of proposed landscape planting, it will form a barely noticeable component of the view and the view would be highly similar to the existing baseline, Therefore, the magnitude of change for this visual receptor is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The pattern of the view will not be changed significantly with the introduction of the new development combined with existing development. The significance of cumulative impact is judged to be **minor.**

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 41a: Viewpoint 1 - Old Macdonald's Child Care, Orchard Hills - Looking South (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Photomontage - Year 15

Figure 41b: Viewpoint 1 - Old Macdonald's Child Care, Orchard Hills - Looking South (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 41c: Viewpoint 1 - Old Macdonald's Child Care, Orchard Hills - Looking South (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.2 Viewpoint 2

Viewing Location	Rear Of 43 Mandalong Close, Orchard Hills - Looking South
GPS	33°49'2.00" S, 150°46'15.43" E
Elevation (Eye-level)	34m
Date and Time	10th July 2018 - 8.45am
Baseline Photo & Photomontage Figure	Figures 42a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.3 km
View description & prominence of the development	This view has been taken at the rear fence of a residential property at 43 Mandalong Close, it has a similar view corridor to that of viewpoint 1. This visual receptor is located directly north of the development and beyond First Estate. The existing baseline photograph contains agricultural land and scattered trees in the foreground. The background contains First Estate, and the completed the development of FRNSW, N&A and Spec buildings can clearly be seen. The Olive tree lined driveway to Mandalong Stud Farm crosses the view in a east to west direction. The Kemps Creek development would be situated behind First Estate in this view.
Visual Receptor Sensitivity	Due to the close proximity of this receptor and the potential for direct views from primary or secondary living spaces, it is judged that the sensitivity for this receptor to the development would be **high.**
Magnitude of Change	The magnitude of change would be similar to viewpoint 1. The development would be located behind First Estate, with only the proposed warehouses No's 2 and 1 seen in the photomontage. It will form a barely noticeable component of the view and the view would be highly similar to the exiting baseline, Therefore, the magnitude of change for this visual receptor is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The pattern of the view will not be changed significantly with the introduction of the new development combined with existing development. The significance of cumulative impact is judged to be **minor.**

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 42a: Viewpoint 2 - Rear Of 43 Mandalong Close, Orchard Hills - Looking South (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 42b: Viewpoint 2 - Rear Of 43 Mandalong Close, Orchard Hills - Looking South (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 42c: Viewpoint 2 - Rear Of 43 Mandalong Close, Orchard Hills - Looking South (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.3 Viewpoint 3

Viewing Location	Mandalong Stud Farm, Orchard Hills - Looking Southeast
GPS	33°49'23.84" S, 150°45'59.35" E
Elevation (Eye-level)	33.4m
Date and Time	10th July 2018 - 9.21am
Baseline Photo & Photomontage Figure	Figures 43a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1 km
View description & prominence of the development	Mandalong Stud Farm is located directly northwest of the development and is accessed via a private driveway from Mamre Road. It will experience views of the Kemps Creek development and already experiences views of the entire First Estate. Residential dwellings within the farm are approximately 1km from the Kemps Creek site boundary. The view is taken directly in front of the main office building with the Olive tree lined entry driveway seen in the centre of the image. In the foreground there is fencing delineating paddocks belonging to the farm. The completed buildings of DATS, N&A and Spec can be seen in the background, with warehouses to the Erskine Business Park Estate also visible. The Kemps Creek development is located to the right of First Estate in the image.
Visual Receptor Sensitivity	This view has been modified by man made interventions over the last few decades. Industrial development is highly evident in the view, with First Estate, Erskine Park Landfill and WaterNSW trunk pipeline seen. There are some scenic qualities in the foreground of the view with paddocks, scattered trees and existing vegetation. As views to the development may be possible from residential living spaces. It is judged that the sensitivity for this receptor to the development would be **high.**
Magnitude of Change	Due to the presence of existing scattered and copsed trees, combined with proposed landscape planting to the north and north-east of the development, the change in the view is likely to be small. From the photomontage opposite at year 0, it indicated that partial views to warehousing numbers 1 and 2 is likely. However, following the maturity of proposed vegetation at year 15, views to these buildings are expected to be screened or filtered. Therefore, the magnitude of change for this visual receptor is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The proposed development, should be in most part screened and there is a high level of integration with the size and scale of the existing First Estate and Erskine park industrial developments. The significance of cumulative impact is judged to be **minor.**

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

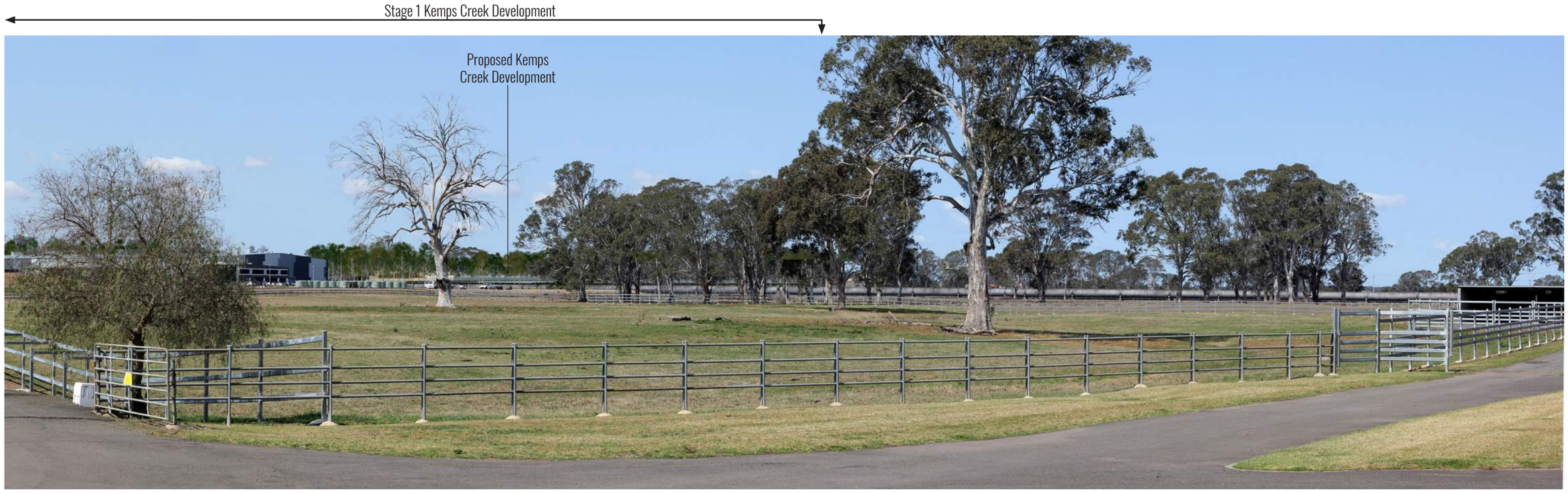
Figure 43a: Viewpoint 3 - Mandalong Stud Farm, Orchard Hills - Looking East (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 43b: Viewpoint 3 - Mandalong Stud Farm, Orchard Hills - Looking East (Cumulative Photomontage - Left)

Approx Angle of View - 50°



Cumulative Photomontage - Year 15

Figure 43c: Viewpoint 3 - Mandalong Stud Farm, Orchard Hills - Looking East (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.4 Viewpoint 4

Viewing Location	226 Luddenham Road, Orchard Hills - Looking Southeast
GPS	33°49'12.20" S, 150°45'43.93" E
Elevation (Eye-level)	35.3m
Date and Time	9th July 2018 - 15.16pm
Baseline Photo & Photomontage Figure	Figures 44a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.5 km
View description & prominence of the development	This viewpoint is representational of the view that properties might experience to the northwest of the development site, close to this location along Luddenham Road. Between the development site and this property lies South Creek, which runs north to south in the view. The density of the vegetation along the creek varies, which allows some locations to have more open views of First Estate, as seen in the baseline photo in Figure 45a. The property contains a residential dwelling and farm land, it is within flood prone land. The existing view contains several prominent features in the landscape, including the landfill and warehousing at Erskine Park Industrial Estate. Completed development to First Estate can be seen including N&A and Spec, FRNSW and DATS.
Visual Receptor Sensitivity	This receptor is in close proximity to the development, however there are a number of scattered trees to the rear of the property and in adjacent land, that would be expected to potentially screen views from primary or secondary living spaces. Views are possible from the garden and within working areas of the property, however, the existing view has already been affected by industrial development. It is judged that the sensitivity for this receptor to the development would be **medium.**
Magnitude of Change	As can be seen in the photomontages, partial views of the northern part of the development at Kemps Creek will be possible at year 0. However, at year 15, proposed landscape planting is expected to mature and help to mitigate any visual impacts. Therefore, the residual magnitude of change is expected to be **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The proposed development should be in most part screened and there is a high level of integration with the size and scale of the existing First Estate industrial development. The significance of cumulative impact is judged to be **minor.**

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

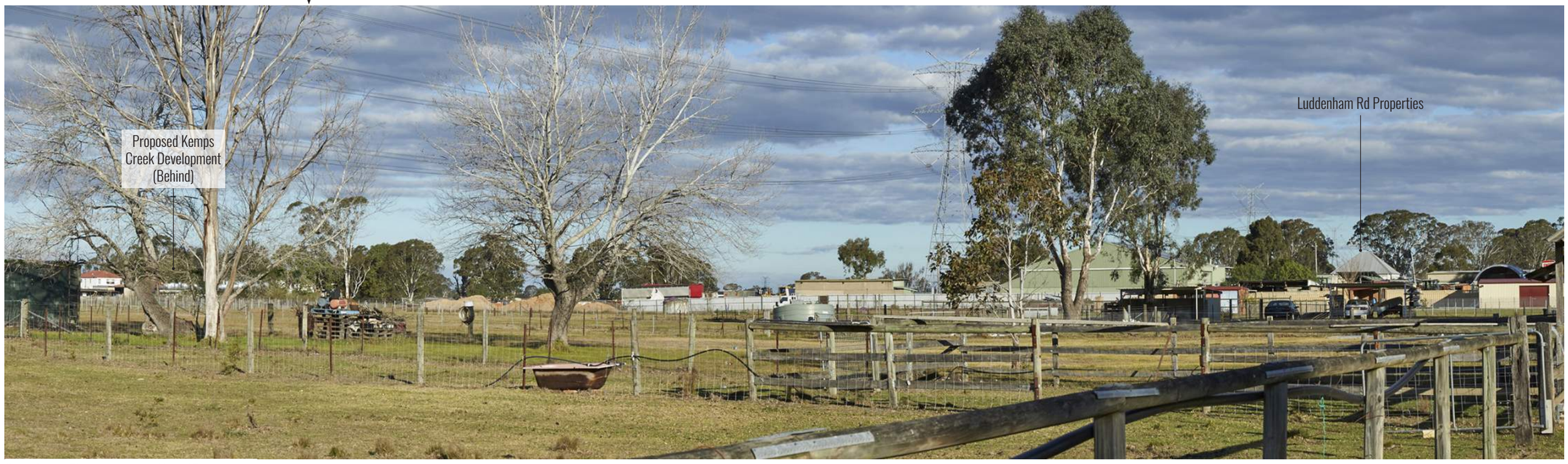
Figure 44a: Viewpoint 4 - 226 Luddenham Road, Orchard Hills - Looking Southeast (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 44b: Viewpoint 4 - 226 Luddenham Road, Orchard Hills - Looking Southeast (Cumulative Photomontage - Left)

Approx Angle of View - 50°



Cumulative Photomontage - Year 15

Figure 44c: Viewpoint 4 - 226 Luddenham Road, Orchard Hills - Looking Southeast (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.5 Viewpoint 5

Viewing Location	275 Luddenham Road, Orchard Hills - Looking Southeast
GPS	33°49'28.6"S 150°45'32.0"E
Elevation (Eye-level)	35.8m
Date and Time	10th Sep 2018 - 3.40pm
Baseline Photo & Photomontage Figure	Figures 45a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.5km
View description & prominence of the development	This receptor was identified during the drone analysis (see section 2.7) conducted from within the site, when looking west. It is believed that this property could experience partial views of the development within certain view corridors. The view is taken from the porch of the residential property, there are also second floor windows that may experience a clear view due to the higher elevation. In foreground of the image, the property grounds are seen with orchard planting. In the background of the image, the Erskine Park Landfill and Transfer Station is clearly seen, along with filtered views of warehouse buildings within First Estate. There is a large copse of existing vegetation to the right of the image.
Visual Receptor Sensitivity	At a distance of 1.5km, this visual receptor is reasonably close to the development. There are landscape detractors present in the view, including the landfill at Erskine Park Industrial Estate and several electricity pylons. Warehouse buildings within First Estate, including the DATS building, are visible. It can be judged that the sensitivity for this receptor to the development would be **medium.**
Magnitude of Change	As shown in the photomontage, the Kemps Creek development would be screened by existing vegetation. There maybe a small view corridor possible to the development site, from the second floor windows as highlighted by the drone analysis. The proposed development would form a barely noticeable component of the view, which would be similar to the baseline situation. Therefore, the magnitude of change is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor negligible.**
Significance of Visual Cumulative Impact	The proposed development, should be in most part screened and there is a high level of integration with the size and scale of the existing First Estate industrial development. The significance of cumulative impact is judged to be **negligible.**

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 45a: Viewpoint 5 - 275 Luddenham Road, Orchard Hills - Looking Southeast (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 45b: Viewpoint 5 - 275 Luddenham Road, Orchard Hills - Looking Southeast (Cumulative Photomontage - Left)

Approx Angle of View - 50°

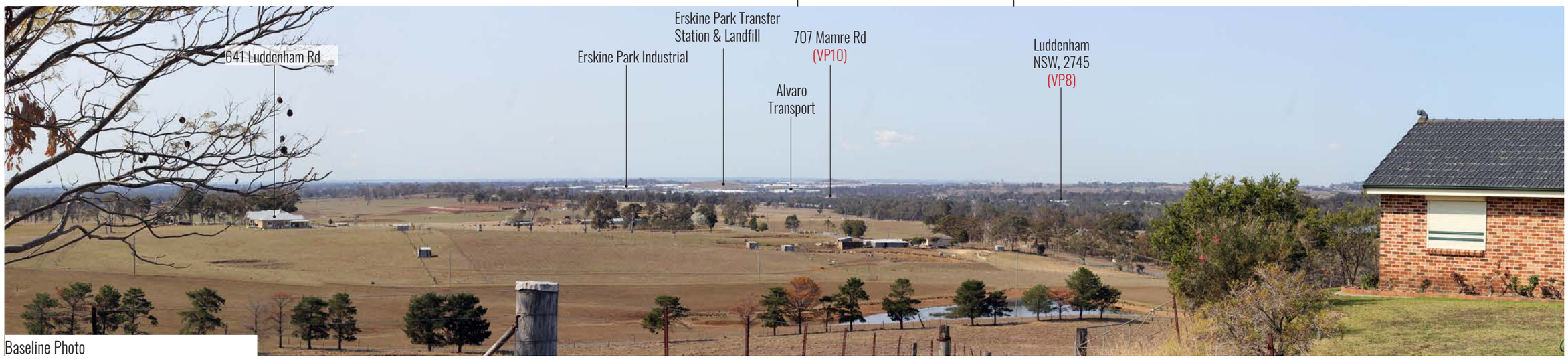
Cumulative Photomontage - Year 15

Figure 45c: Viewpoint 5 - 275 Luddenham Road, Orchard Hills - Looking Southeast (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.6 Viewpoint 6

Viewing Location	713 Luddenham Road, Luddenham - Looking Northeast
GPS	33°51'07.3"S 150°43'36.0"E
Elevation (Eye-level)	95.2m
Date and Time	10th Sep 2018 - 3.01pm
Baseline Photo & Photomontage Figure	Figures 46a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	5km
View description & prominence of the development	This residential property is elevated at a height of 95.2m AHD and has extensive views over the landscape in 360 degrees. It is accessed via a driveway along Luddenham Road. Located at 5km from the site boundary, this visual receptor is at a significant distance away from the development. In the foreground of the image is the residential property, associated gardens and entry. Farm land and scattered residential dwellings, are visible within the immediate surrounding landscape context. Central to the baseline view in the distance, Erskine Park and First Estate industrial developments can be seen together with the prominent mound of Erskine Transfer Landfill station. Further to the right sits Eastern Creek Industrial Estate. The development will be situated behind South Creek within the view.
Visual Receptor Sensitivity	This receptor is at a significant distance away from the subject site at 5km. It is in an elevated position and has extensive views out into the landscape. The view is expected to be held in some value by the residents of the dwelling. However, the baseline has been affected over time by man made intervention, through various infrastructure and industrial developments seen on the horizon. Therefore, it can be judged that the sensitivity for this receptor to the development would be **medium.**
Magnitude of Change	Due to existing extensive vegetation which runs along South Creek, the development will be largely screened within this view. Partial views of warehouse buildings maybe possible, these views however, are at long range. The baseline, although slightly altered, would remain similar to the view presently seen. Therefore, the magnitude of change is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor negligible.**
Significance of Visual Cumulative Impact	The development will further extend industrial development into the landscape and view corridor, however, the proposed development is at a significant distance away from the visual receptor. It should, in most part be screened by existing and proposed vegetation at year 15. There is also a high level of integration with the size and scale of the existing Erskine Park and First Estate industrial developments. This should present an appearance from this location of a single coordinated site. The significance of cumulative impact is judged to be **minor.**



Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 46a: Viewpoint 6 - 713 Luddenham Road, Luddenham - Looking Northeast (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 46b: Viewpoint 6 - 713 Luddenham Road, Luddenham - Looking Northeast (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 46c: Viewpoint 6 - 713 Luddenham Road, Luddenham - Looking Northeast (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.7 Viewpoint 7

Viewing Location	Public Reserve, Twin Creeks - Looking Northeast
GPS	33°50'15.9"S 150°45'55.0"E
Elevation (Eye-level)	36.8m
Date and Time	10th Sep 2018 - 3.19pm
Baseline Photo & Photomontage Figure	Figures 47a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1 km
View description & prominence of the development	This view is close to Twin Creeks Country Club and Golf Course. It is situated in a public reserve and electrical easement to the west of course hole 12. It would be expected that users of the golf course would, at times, be subject to similar types of views of the proposed development as per this location. This viewpoint is also close to the back of several properties along Medinah Avenue, that have rear gardens facing the reserve. In the foreground of the image, is an electric pylon and further towers are visible to the north. Fairways, bunkers and greens can be seen from the Twin Creek Golf Course. To the rear of the baseline image, is existing vegetation associated with South Creek. The development site is located to the left and right of the electricity pylon behind South Creek.
Visual Receptor Sensitivity	This receptor is in close proximity to the development. Even with the presence of landscape detractors such as the electrical easement and pylons, the view from this location is likely to be held in high regard by local residents and users of the golf facilities. It is judged that the sensitivity for this receptor to the development would be **high.**
Magnitude of Change	South Creek is situated between the proposed development and potential visual receptors at the golf course and residential dwellings close to this location. The presence of established vegetation along the creek, will screen views of the development in the majority. Some partial views of warehouse building maybe possible, from a particular view corridor or angle. Therefore, the magnitude of change is judged to be **very low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The development, will in the vast majority, be screened by existing vegetation, therefore, the significance of cumulative impact is judged to be **negligible .**

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 47a: Viewpoint 7 - Public Reserve, Twin Creeks - Looking Northeast (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 47b: Viewpoint 7 - Public Reserve, Twin Creeks - Looking Northeast (Cumulative Photomontage- Left)

Approx Angle of View - 50°

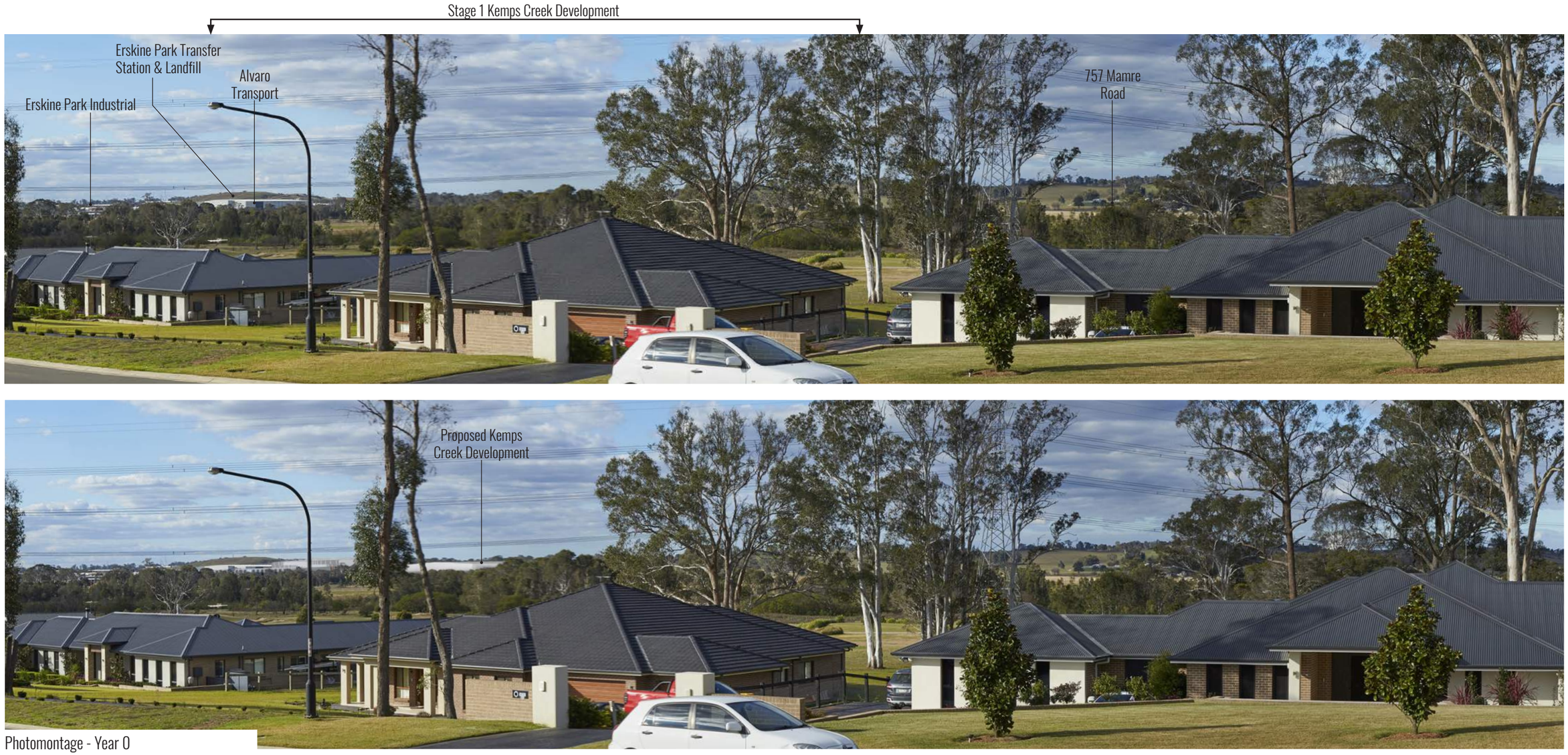
Cumulative Photomontage - Year 15

Figure 47c: Viewpoint 7 - Public Reserve, Twin Creeks - Looking Northeast (Cumulative Photomontage- Right)

Approx Angle of View - 50°

8.8 Viewpoint 8

Viewing Location	26 Medinah Ave, Twin Creeks - Looking Northeast
GPS	33°50'25.81" S, 150°45'52.98" E
Elevation (Eye-level)	44.9m
Date and Time	9th July 2018 - 14.19pm
Baseline Photo & Photomontage Figure	Figures 48a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.2km
View description & prominence of the development	This viewpoint is taken in front of an elevated residential property on Medinah Avenue, Twin Creeks. It is one of the higher elevated proprieties within the Twin Creeks Estate. In the foreground of the baseline image are other residential dwellings located along Medinah Avenue and vegetation running along South Creek can be seen behind these properties. In the background of the view, is a landfill facility and warehousing located within Erskine Business Park. There are also landscape detractors in the form of electric pylons. The development would be located to the left of image.
Visual Sensitivity	Views to the Kemps Creek development may be possible from primary or secondary living spaces, from within some of the dwellings situated close to this viewpoint. The view does have some scenic qualities, however, these have been modified to some degree already by the Erskine Business Park on Mamre Road. The transfer and landfill station is also visible on the horizon. It is therefore, judged that the sensitivity of this visual receptor is **medium.**
Magnitude of Change	As shown in the photomontages, partial views of warehouses maybe possible beyond the vegetation running along South Creek. However, the large majority of the development is likely to be screened by existing vegetation. The proposed development would therefore form a minor constituent of the view. The magnitude of change is judged to be **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The development, will in the vast majority, be screened by existing vegetation and any views combined with existing development would appear integrated and cohesive. Therefore, the significance of cumulative impact is judged to be **minor negligible.**



Photomontage - Year 0

Photomontage - Year 15

Figure 48a: Viewpoint 8 - 26 Medinah Ave, Twin Creeks - Looking Northeast (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 48b: Viewpoint 8 - 26 Medinah Ave, Twin Creeks - Looking Northeast (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 48c: Viewpoint 8 - 26 Medinah Ave, Twin Creeks - Looking Northeast (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.9 Viewpoint 9

Viewing Location	799 Mamre Road, Kemps Creek - Looking North
GPS	33°50'23.43" S, 150°46'40.91" E
Elevation (Eye-level)	46.3m
Date and Time	9th July 2018 - 13.44pm
Baseline Photo & Photomontage Figure	Figures 49a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	500m
View description & prominence of the development	This view is taken from the north side of a residential dwelling at 799 Mamre Road, it is in close proximity to the subject site. This viewpoint is also representational of 783 Mamre Road. This property contains a significant amount of agricultural farm land, which is seen in the view. In the foreground of the baseline photo, appears to be an old shed structure and garden allotments. In the background is a belt of existing vegetation, which in the majority, screens views to the First Estate and Erskine Business Park. The Kemps Creek development, would be prominent and extensive within the view horizon from this location.
Visual Sensitivity	Due the aspect and the elevation, views to the Blue Mountains are not as prominent and there are landscape detractors in the foreground. However, the view from this receptor has some scenic qualities and these may be held in high regard by the owner. Views of the development are expected from within residential living spaces, due to the proximity of the site. It is therefore, judged that the sensitivity of this visual receptor is **medium***
Magnitude of Change	Following maturity at year 15, proposed landscape mitigation should help to filter views of the main warehouse buildings. However, as this receptor is only 500m from the proposed development, there will be a significant change of view at year 0. A large proportion of warehousing in the south would be seen, including parts of the development to the north. It is judged that the magnitude of change would be **high.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate**
Significance of Visual Cumulative Impact	The proposed development, will in the majority, block views to other existing or known planned development. The high-bay from First Estate, is likely to be seen above the Kemps Creek development. The combined significance of cumulative effect on this receptor is considered to be **moderate**

***NOTE : This visual receptor is located within land which has been marked for employment under government strategic plans. Therefore, this receptor may not exist at a future point in time. Should the land be acquired in the short to medium term and the property removed, any visual impacts would no longer be of any relevance. This has been taking into account when judging visual sensitivity at this location.**

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 49a: Viewpoint 9 - 799 Mamre Road, Kemps Creek - Looking North (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 49b: Viewpoint 9 - 799 Mamre Road, Kemps Creek - Looking North (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 49c: Viewpoint 9 - 799 Mamre Road, Kemps Creek - Looking North (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.10 Viewpoint 10

Viewing Location	Front of 707A Mamre Road, Kemps Creek - Looking East
GPS	33°49'54.1"S 150°46'20.1"E
Elevation (Eye-level)	38.7m
Date and Time	10th Sep 2018 - 13.30pm
Baseline Photo & Photomontage Figure	Figures 50a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	400m
View description & prominence of the development	This view has been taken from the garden of two residential dwellings at 707A Mamre Road. At a distance of 400m to the proposed site boundary, this visual receptor is one of the closest residential dwellings to the development. The baseline image shows the garden and an existing marque structure. Beyond the tree line, the Sydney Water Trunk Pipeline is visible running adjacent to the development site and First Estate. The existing DATS warehouse and FRNSW facility can be seen through the tree line. A field with scattered trees, sits between the development site and this visual receptor.
Visual Sensitivity	This land will be acquired as part of the development, therefore there is no visual sensitivity to judge.
Magnitude of Change	This land will be acquired as part of the development, therefore there is no magnitude of change to judge.
Significance of Visual Impact	There would be **no** visual impacts received by the receptor.
Significance of Visual Cumulative Impact	There would be **no** cumulative visual impacts received by the receptor.

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 50a: Viewpoint 10 - Front of 707A Mamre Road, Kemps Creek - Looking East (Photomontage)

Approx Angle of View - 67°

Stage 1 Kemps Creek Development

Cumulative Photomontage - Year 15

Figure 50b: Viewpoint 10 - Front of 707A Mamre Road, Kemps Creek - Looking East (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Stage 1 Kemps Creek Development

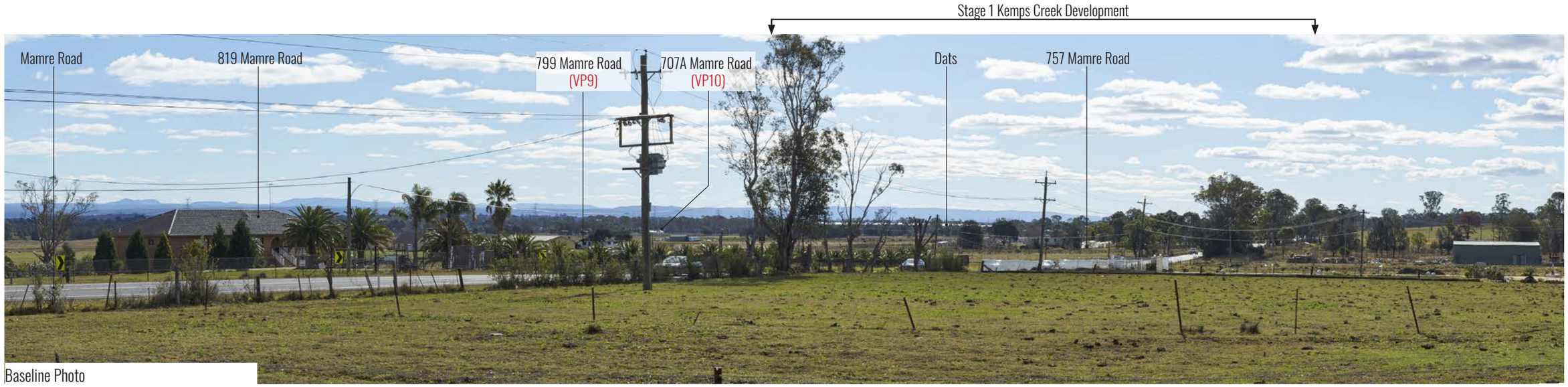
Cumulative Photomontage - Year 15

Figure 50c: Viewpoint 10 - Front of 707A Mamre Road, Kemps Creek - Looking East (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.11 Viewpoint 11

Viewing Location	826-842 Mamre Road, Kemps Creek - Looking North
GPS	33°50'36.90" S, 150°46'54.13" E
Elevation (Eye-level)	47.7m
Date and Time	9th July 2018 - 13.04pm
Baseline Photo & Photomontage Figures	Figures 51a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	900m
View description & prominence of the development	This viewpoint is taken from the front of a residential property at 826-842 Mamre Road. There are a number of properties that are close to this location either side of Mamre Road, and this view is typical representational of them. In the foreground are grazed paddocks, with a number of residential dwellings and farm land, dotted throughout the surrounding landscape. The tops of existing warehousing from First Estate, is just visible behind an existing belt of vegetation. There are a number of detractors in the view, including overhead wires and associated telegraph and electricity poles. The development is located centrally within this view.
Visual Sensitivity	Due to the orientation of dwellings to the road, it is unlikely that views to the development site are frequent from primary or secondary living spaces. Views to the Blue Mountains are possible, but a number of landscape detractors do exist, to slightly alter the scenic qualities. It is therefore, judged that the sensitivity of this visual receptor is **medium.**
Magnitude of Change	As can been seen in the photomontages opposite, proposed warehouses 5 and 6 are likely to be seen from this receptor location. The development will form a recognisable element and a small horizontal extent of the view is likely to be affected. Landscape mitigation should help to soften views, therefore, the magnitude of change is judged to be **medium.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate/minor.**
Significance of Visual Cumulative Impact	The development will, in the vast majority, be screened by existing vegetation and any views combined with existing development would be restricted. Therefore, the significance of cumulative impact, is judged to be **moderate/minor.**



Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

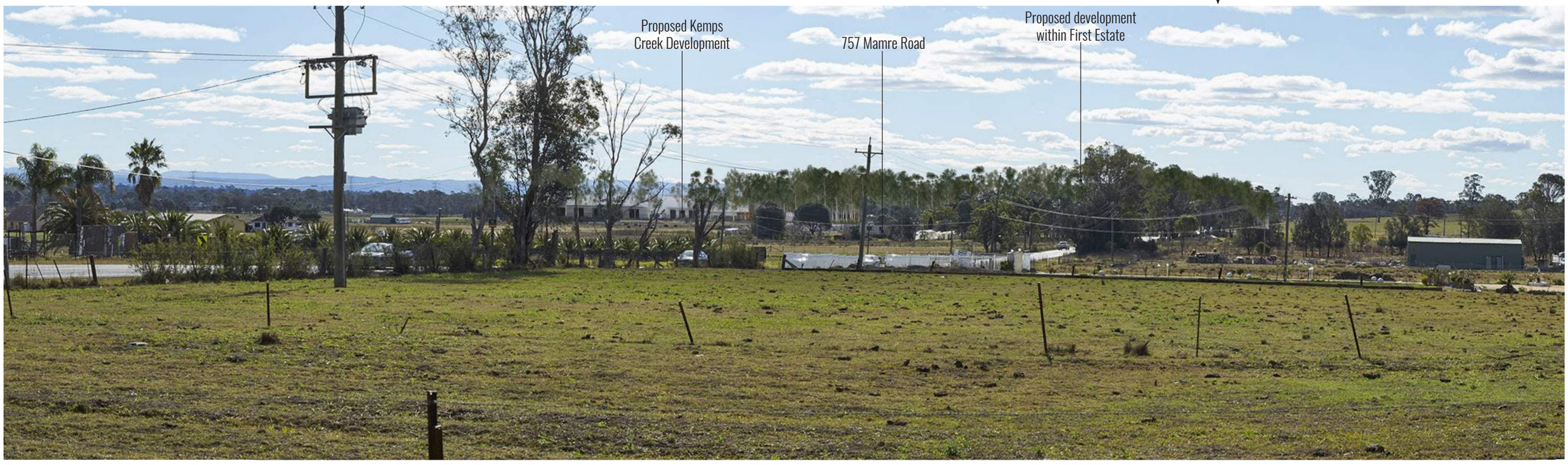
Figure 51a: Viewpoint 11 - 826-842 Mamre Road, Kemps Creek - Looking North (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 51b: Viewpoint 11 - 826-842 Mamre Road, Kemps Creek - Looking North (Cumulative Photomontage - Left)

Approx Angle of View - 50°



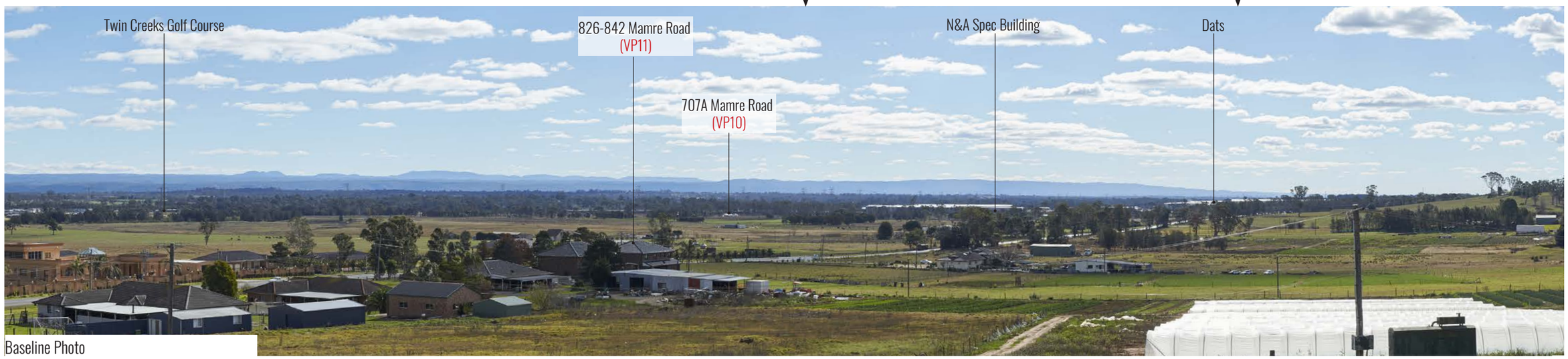
Cumulative Photomontage - Year 15

Figure 51c: Viewpoint 11 - 826-842 Mamre Road, Kemps Creek - Looking North (Cumulative Photomontage - Right)

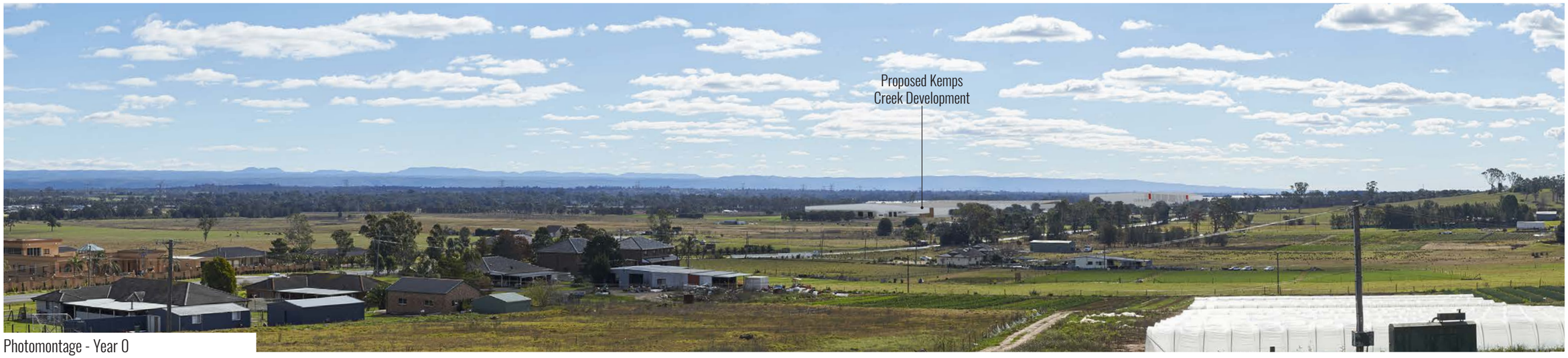
Approx Angle of View - 50°

8.12 Viewpoint 12

Viewing Location	864 Mamre Road, Kemps Creek- Looking Northwest
GPS	33°50'45.0"S 150°47'02.7"E
Elevation (Eye-level)	69.5m
Date and Time	9th July 2018 - 12.54pm
Baseline Photo & Photomontage Figure	Figures 52a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.2km
View description & prominence of the development	This view is taken from an elevated residential dwelling and working farm at 864 Mamre Road. The baseline photo contains an expansive view over the surrounding landscape and out to the Blue Mountains. In the foreground are a collection of residential dwellings close to Viewpoint 11, and agricultural paddocks. Mamre Road can be seen running north to the development site. In the background the First Estate can be partially seen through the tree line, with DATS and the FRNSW buildings visible. Warehouses to Erskine Business Park are visible to the right of Mamre Road. The residential suburb of Twin Creeks is located to the left of the image.
Visual Sensitivity	Due to the orientation of dwellings to the road, it is unlikely that views to the development site are frequent, from primary or secondary living spaces. The baseline does have some scenic qualities due to its high elevation, however, this has somewhat been modified in the foreground by residential and industrial development. It is therefore, judged that the sensitivity of this visual receptor is **high.**
Magnitude of Change	As can be seen in the photomontage opposite, views of the development will be possible from this location. However, existing vegetation along the eastern side of Mamre Road and proposed landscape planting to the eastern and southern boundaries of the site, will help to filter and mitigate visual impacts. Following the maturity of proposed planting, it expected that there will be a small change to the horizontal component of the view, views to the Blue Mountains should remain unaffected. Therefore, it is judged that the residual magnitude of change is **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate/minor.**
Significance of Visual Cumulative Impact	The development, will in the vast majority, be screened by existing vegetation and any views combined with existing development would be restricted. Therefore, the significance of cumulative impact is judged to be **moderate/minor.**



Baseline Photo



Photomontage - Year 0

Photomontage - Year 15

Figure 52a: Viewpoint 12 - 864 Mamre Road, Kemps Creek- Looking Northwest (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 52b: Viewpoint 12 - 864 Mamre Road, Kemps Creek- Left (Cumulative Photomontage)

Approx Angle of View - 50°

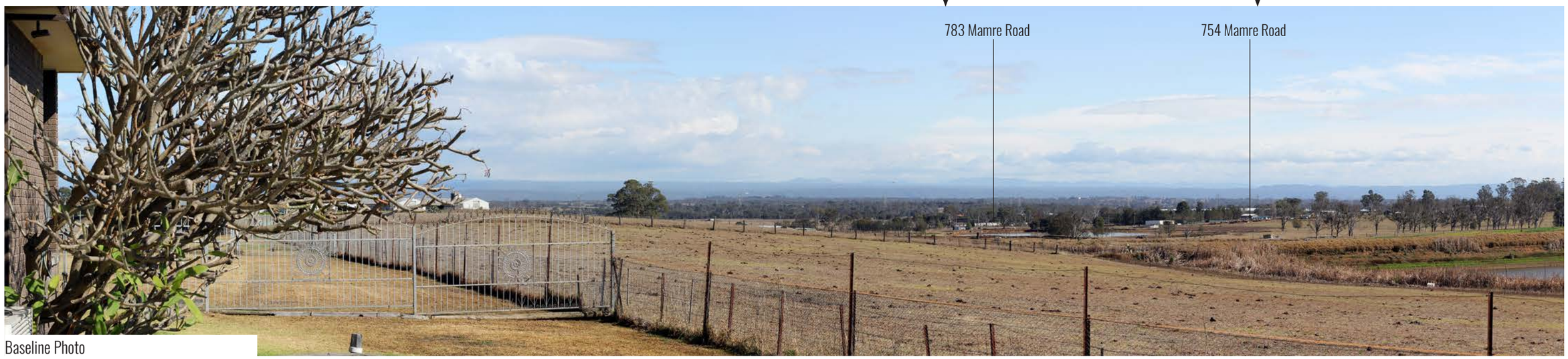
Cumulative Photomontage - Year 15

Figure 52c: Viewpoint 12 - 864 Mamre Road, Kemps Creek- Right (Cumulative Photomontage)

Approx Angle of View - 50°

8.13 Viewpoint 13

Viewing Location	201 Adlington Road, Kemps Creek - Looking Northwest
GPS	33°50'47.8"S 150°47'29.3"E
Elevation (Eye-level)	67.8m
Date and Time	7th September 2018 - 10.54am
Baseline Photo & Photomontage Figure	Figures 53a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.6km
View description & prominence of the development	This visual receptor was identified during drone analysis, as potentially having partial views of the proposed development. It is situated to the southeast of the site, at an elevated position of approximately 68m AHD. It can be argued that the current baseline has some scenic value, with farm paddocks and scattered vegetation in the foreground and distant views to the blue mountains in the background. Partial views of industrial buildings within First Estate are possible, but these are mostly obscured by existing vegetation.
Visual Sensitivity	The baseline does have some scenic qualities due to its elevated position and having distant views to the Blue Mountains. As this location is a residential dwelling, it is inferred that this view will hold some value by its residents. Therefore, it is judged that the sensitivity of this visual receptor is **high.**
Magnitude of Change	From the year 0 photomontage, it is possible that some warehouse buildings will be partially visible from the development, however, this would form a minor constituent of the view. At year 15 following the maturity of proposed landscaping, the development should be barely noticeable and be similar to the baseline situation. Therefore, it is judged that the residual magnitude of change is **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **minor.**
Significance of Visual Cumulative Impact	The development will not add significant visual impacts when combined with other operational or future planned developments. Landscape planting along site boundaries should help to soften and mitigate visual impacts. Long distance views are preserved. Therefore, the significance of cumulative impact is judged to be **minor.**



Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 53a: Viewpoint 13 - 201 Aldington Road, Kemps Creek - Looking Northwest (Photomontage)

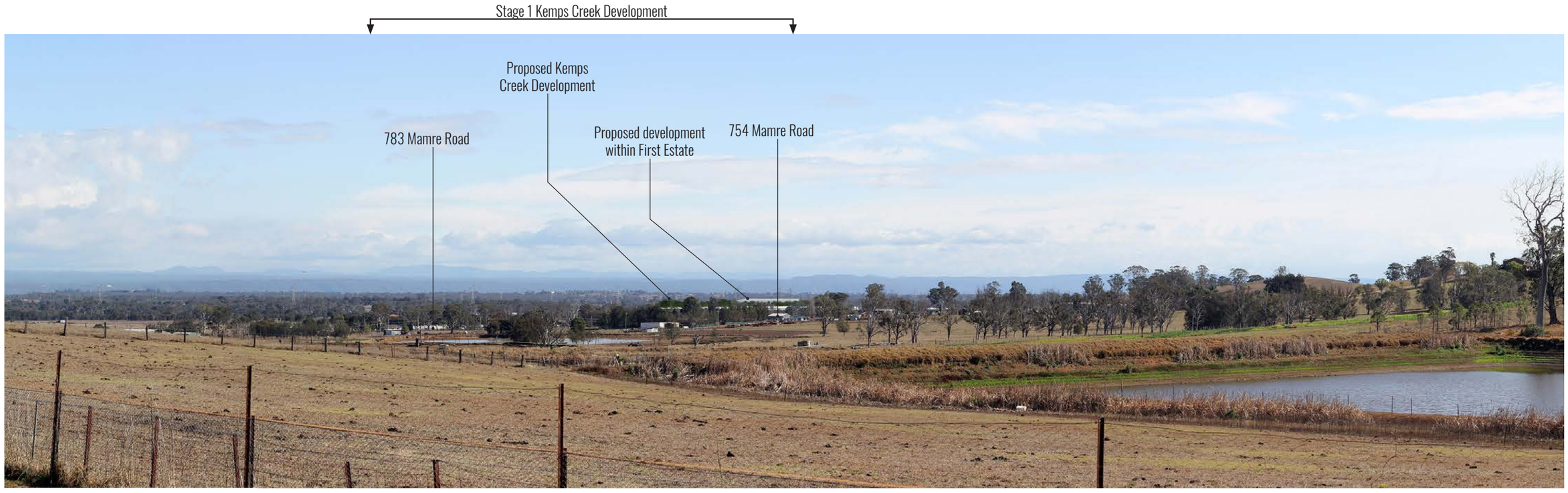
Approx Angle of View - 67°

Stage 1 Kemps Creek Development

Cumulative Photomontage - Year 15

Figure 53b: Viewpoint 13 - 201 Aldington Road, Kemps Creek - Looking Northwest (Cumulative Photomontage - Left)

Approx Angle of View - 50°



Cumulative Photomontage - Year 15

Figure 53c: Viewpoint 13 - 201 Aldington Road, Kemps Creek - Looking Northwest (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.14 Viewpoint 14

Viewing Location	127 Adlington Road, Kemps Creek - Looking Northwest
GPS	33°50'28"S 150°47'42"E
Elevation (Eye-level)	91.7m
Date and Time	7th September 2018 - 10.28am
Baseline Photo & Photomontage Figure	Figures 54a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.5km
View description & prominence of the development	This view is taken from a paddock to the rear of this residential property. Access was first attempted at No. 141 Aldington Road, which is situated 10m higher in elevation and has more open views towards the development site, however, the landowner declined for a photograph to be taken. The baseline view can be described as having rolling paddocks, with copses of scattered trees. In the distance the Blue Mountains are seen. To the right of the image Viewpoint 15 can be seen.
Visual Sensitivity	The view is likely to be held in high regard by the landowner for its scenic qualities. There are some landscape detractors, but these are either at some distance or of small scale. Therefore, it is judged that the sensitivity of this visual receptor is **high.**
Magnitude of Change	At year 0, it is clear that parts of the southern warehouse buildings would be seen in the view. As a result of proposed landscape mitigation planting, combined with existing vegetation in the background, the proposed development is expected to form a minor component within the view. The view would be similar to the baseline situation, with a small horizontal extent affected. Therefore, it is judged that the magnitude of change is **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate/minor.**
Significance of Visual Cumulative Impact	The development will extend into an area that is currently unaffected by industrial development. However, significant proposed landscape mitigation along the eastern boundary of the development site, should help mitigate visual impacts. Therefore, the significance of cumulative impact is judged to be **moderate/minor.**

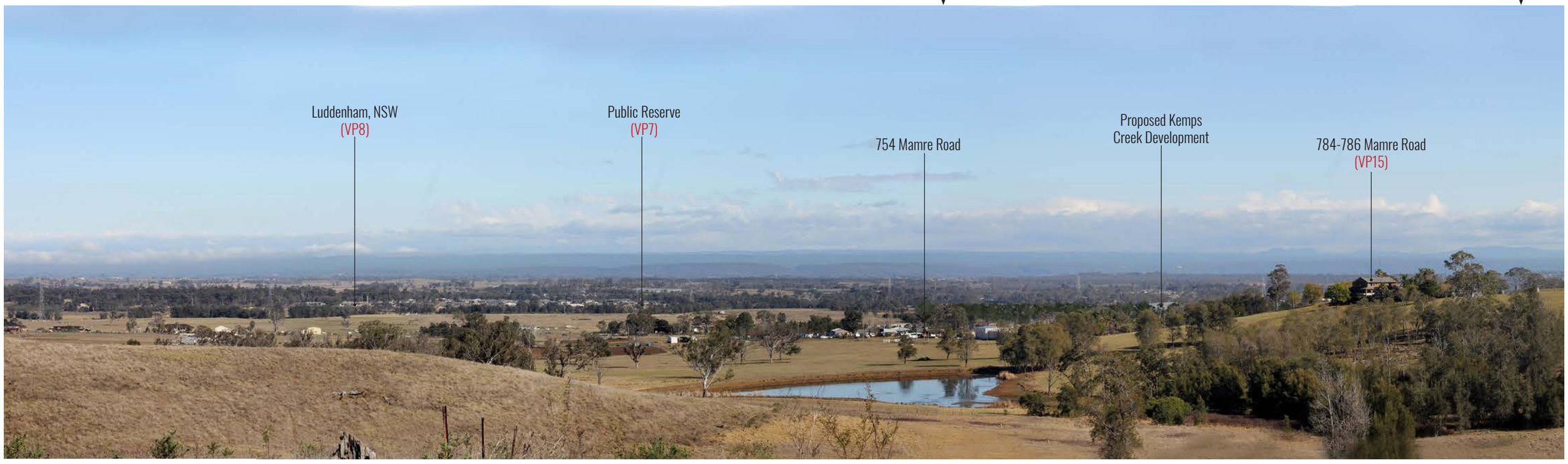
Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 54a: Viewpoint 14 - 127 Aldington Road, Kemps Creek - Looking Northwest (Photomontage)

Approx Angle of View - 67°



Cumulative Photomontage - Year 15

Figure 54b: Viewpoint 14 - 127 Aldington Road, Kemps Creek - Looking Northwest (Cumulative Photomontage -Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 54c: Viewpoint 14 - 127 Aldington Road, Kemps Creek - Looking Northwest (Cumulative Photomontage -Right)

Approx Angle of View - 50°

8.15 Viewpoint 15

Viewing Location	784-786 Mamre Road, Kemps Creek - Looking Northwest
GPS	33°50'14.5"S 150°47'20.4"E
Elevation (Eye-level)	81.7m
Date and Time	7th September 2018 - 12.04pm
Baseline Photo & Photomontage Figure	Figures 55a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	700m
View description & prominence of the development	This view is taken from the driveway of a residential dwelling, set back from Mamre Road. The house has a balcony on level one, however, access to this location was not possible. The balcony would potentially have more open views of the development, due to its slightly higher elevation than the baseline photo opposite. The view has a pleasant aspect, with fields, scattered trees, a water body in the foreground and distant views of the horizon and Blue Mountains in the background. Industrial development from First Estate can be seen through existing vegetation to the right center of the photograph.
Visual Sensitivity	The view is likely to be held in high value by the owner, despite the recent introduction of industrial development. Views of the development site would be possible from secondary living spaces, such as the western facing level 1 balcony. Therefore, it is judged that the sensitivity of this visual receptor is **high.**
Magnitude of Change	The proposed development will form a new and recognisable element within the view, that is likely to be recognised by the receptor. With the addition of landscape planting at year 15 maturity, the development should sit more comfortably in the landscape and blend into the tree line beyond at South Creek. Views to the Blue mountains in the distance will remain unaffected. Therefore, it is judged that the magnitude of change is **low.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate/minor.**
Significance of Visual Cumulative Impact	The First Estate development can be partially seen to the right of the baseline view, and the proposed Kemps Creek development provides a cohesive extension to the existing industrial development, within the adjacent areas. Therefore, the significance of cumulative impact is judged to be **moderate/minor.**

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 55a: Viewpoint 15 - 784-786 Mamre Road, Kemps Creek - Looking Northwest (Photomontage)

Approx Angle of View - 67°

Cumulative Photomontage - Year 15

Figure 55b: Viewpoint 15 - 784-786 Mamre Road, Kemps Creek - Looking Northwest (Cumulative Photomontage -Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 55c: Viewpoint 15 - 784-786 Mamre Road, Kemps Creek - Looking Northwest (Cumulative Photomontage -Right)

Approx Angle of View - 50°

8.17 Viewpoint 16

Viewing Location	Bakers Lane in front of 706-752 Mamre Road, Kemps Creek
GPS	33°49'54.8"S 150°47'00.6"E
Elevation (Eye-level)	64.7m
Date and Time	7h September 2018 - 12.55pm
Baseline Photo & Photomontage Figure	Figures 56a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	300m
View description & prominence of the development	This view is taken on Bakers Lane in front of 706-752 Mamre Road, it is thought that the adjacent property is currently vacant, however access was not possible on the day. This view is representational of the dwelling and also people traveling by car, in a westerly direction along Bakers Lane. The view is typical of ones experienced in the area, with farmland and scattered trees present in the foreground and views to the Blue Mountains on the horizon. Buildings within the First Estate can be partially seen through existing vegetation to the right of the baseline image.
Visual Sensitivity	Even though there is a clear presence of industrial development within the baseline view, this is partially screened and it could be argued that it has some scenic value due to its elevated position and distant views to the horizon. It is therefore, judged that the sensitivity of this visual receptor is **medium.**
Magnitude of Change	At year 15, proposed tree and shrub planting are expected to filter and break up views of the development site. This will help to sit the development into the surrounding landscape and tie into the green vegetated backdrop of South Creek. Distant views to the Blue mountains should be maintained. However, the proposed development will be clearly seen in the center of the view and extends from the right of Bakers Lane to the far left of the photomontage. There are notable changes over a horizontal extent and therefore, it is judged that the magnitude of change is **high.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate.**
Significance of Visual Cumulative Impact	The proposed development is seen within a large majority of the view that is not currently affected by other industrial developments, therefore, extending influence into a currently unaffected area. The significance of cumulative impact is judged to be **moderate.**

Stage 1 Kemps Creek Development

Baseline Photo

Photomontage - Year 0

Photomontage - Year 15

Figure 56a: Viewpoint 16 - Bakers Lane in front of 706-752 Mamre Road, Kemps Creek (Photomontage)

Approx Angle of View - 67°

Stage 1 Kemps Creek Development

Cumulative Photomontage - Year 15

Figure 56b: Viewpoint 16 - Bakers Lane in front of 706-752 Mamre Road, Kemps Creek (Cumulative Photomontage - Approx Angle of View - 50°

Cumulative Photomontage - Year 15

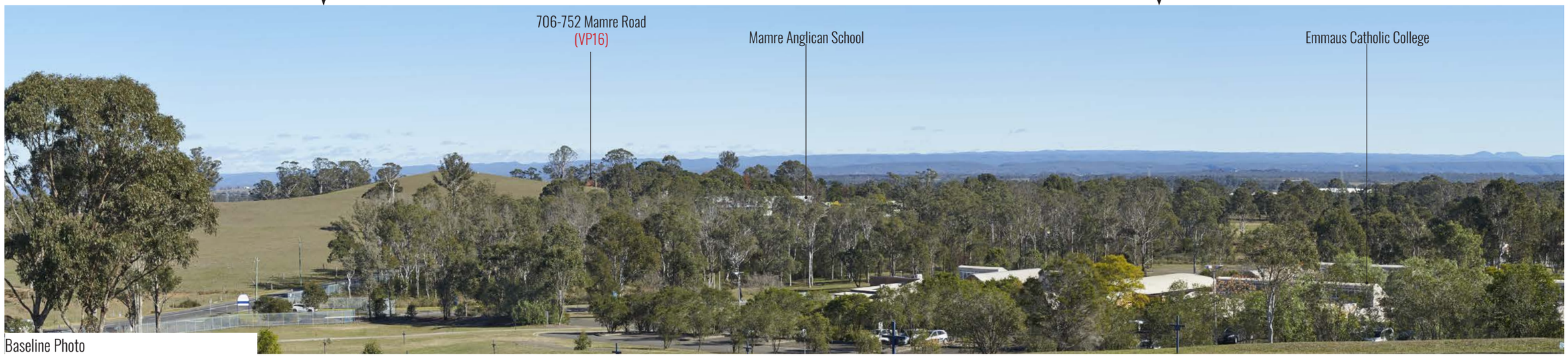
Figure 56c: Viewpoint 16 - Bakers Lane in front of 706-752 Mamre Road, Kemps Creek (Cumulative Photomontage - Right)

Approx Angle of View - 50°

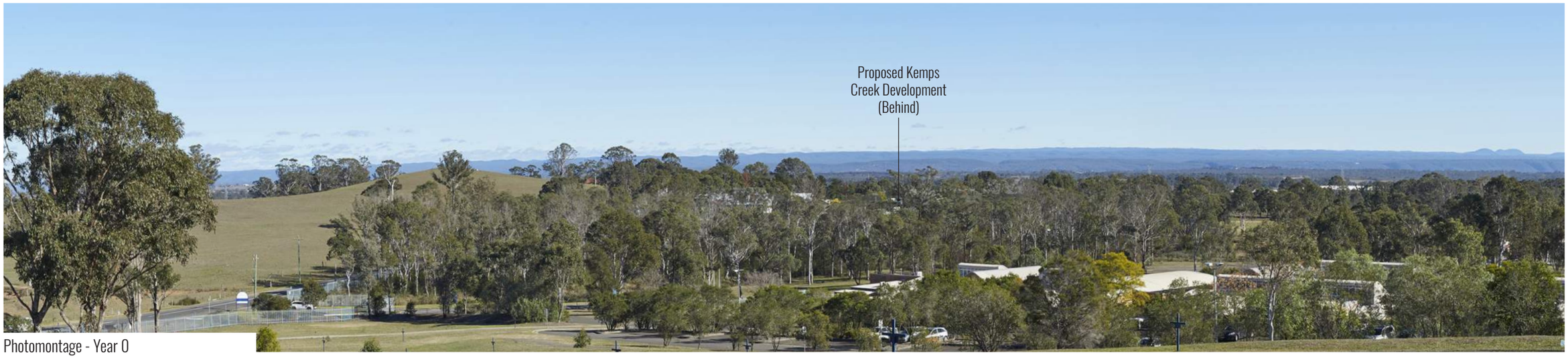
8.18 Viewpoint 17

Viewing Location	Emmaus Catholic College - Looking Northwest
GPS	33°49'55.08" S, 150°47'34.09" E
Elevation (Eye-level)	78.3m
Date and Time	9th June 2018 - 10.42am
Baseline Photo & Photomontage Figure	Figures 57a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	1.1km
View description & prominence of the development	The main school buildings are expected to have any potential views of the development, screened due to the presence of significant existing vegetation. This view has been taken from an elevated position on a hill within the grounds of the Emmaus Catholic College. At the top of the hill is monument and cross which may hold some religious significance. In the foreground are the school buildings, to the left of the image is the property at 706-752 Bakers Lane (Viewpoint 16) and another hill with a survey point. On the horizon the Blue Mountains can clearly be seen in a wide angle of view. The top of the DATS building within the First Estate can partially be seen, together with the top of a warehouse from the Erskine Industrial Estate.
Visual Sensitivity	It can be argued that this view is of clear scenic value to the Catholic College, but is not formally recognised in any planning policy. There would likely be a high degree of interest and attention of the landscape while activities take place at this location. However, it is not publicly accessible and the views would only be experienced by students and staff at the college. Existing industrial development can be partially seen in the baseline image, with the tops of some warehouse buildings visible. This elevated position does experience extensive views and therefore, it is judged that the sensitivity of this visual receptor is **high.**
Magnitude of Change	It has been demonstrated by the baseline phototograph and the photomontage opposite, that any views to the development would be blocked by the presence of existing mature woodland to the east of the development. The existing baseline view would remain visually unaffected by the development and therefore, there would be **no** magnitude of change.
Significance of Visual Impact	There would be **no** visual impacts received by the receptor.
Significance of Visual Cumulative Impact	There would be **no** cumulative impacts received by the receptor.

Stage 1 Kemps Creek Development



Baseline Photo

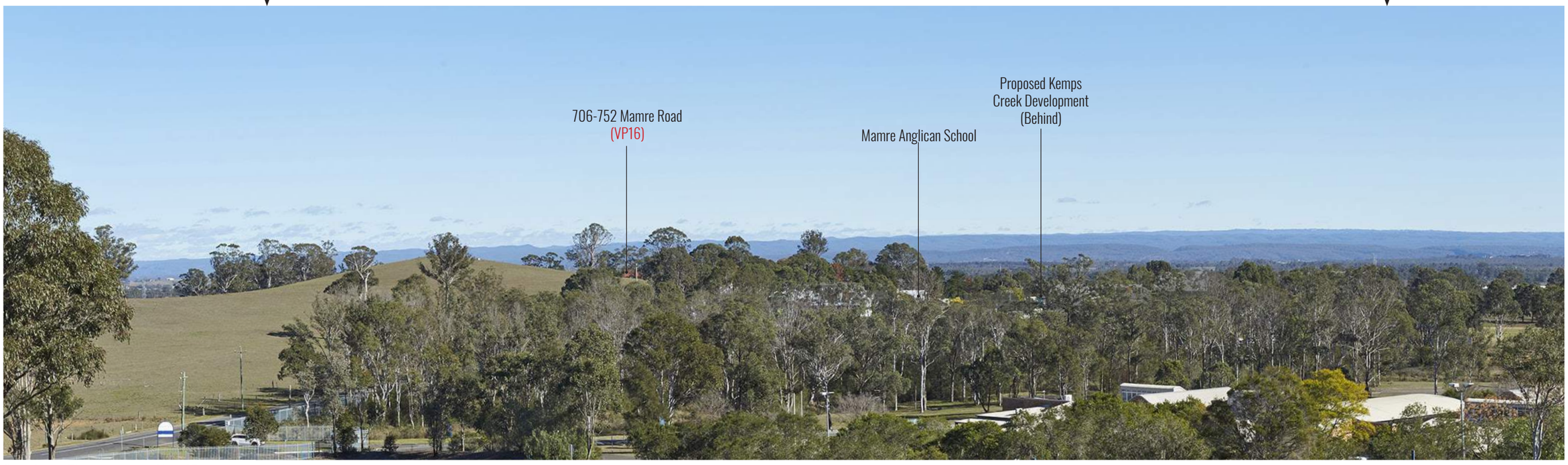


Photomontage - Year 0

Photomontage - Year 15

Figure 57a: Viewpoint 17 - Emmaus Catholic College - Looking Northwest (Photomontage)

Approx Angle of View - 67°



Cumulative Photomontage - Year 15

Figure 57b: Viewpoint 17 - Emmaus Catholic College - Looking Northwest (Cumulative Photomontage - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 57c: Viewpoint 17 - Emmaus Catholic College - Looking Northwest (Cumulative Photomontage - Right)

Approx Angle of View - 50°

8.19 Viewpoint 18

Viewing Location	654-674 Mamre Road, Kemps Creek Looking West
GPS	33°49'42.1"S 150°46'51.8"E
Elevation (Eye-level)	44.8m
Date and Time	10th September 2018 - 12.37pm
Baseline Photo & Photomontage Figure	Figures 58a, b and c
Visual Description	
Approx. Viewing Distance from Site Boundary	100m
View description & prominence of the development	At a distance of only 100m to the site boundary, properties at this location are the closest residential visual receivers of the development. Erskine Park and First Estate industrial buildings can be seen and the proposed Kemps Creek development is directly opposite, behind Mamre Road. As this location is at the same approximate ground level of the development site, views to the horizon and Blue Mountains are not as prominent, due to the presence of an existing belt of vegetation associated with South Creek. Farm land and agricultural land are seen in the foreground and within the development site.
Visual Sensitivity	Due to the very close proximity of the viewpoint location to the development site, combined with direct views from residential dwellings, it is judged that the sensitivity of this visual receptor is **medium***
Magnitude of Change	The proposed development will be clearly noticeable and the view would be fundamentally altered by its presence. There would be noticeable changes over a horizontal extent within the view. Landscape planting to the eastern boundary should help to screen and mitigate impacts. Therefore it is judged that the magnitude of change is **high.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **moderate.**
Significance of Visual Cumulative Impact	The proposed development will make a clearly apparent contribution to the cumulative situation in the view. It is of similar scale to the First Estate development and due to its proximity to other developments, it would be expected to have a high level of integration. Therefore, the significance of cumulative impact is judged to be **moderate.**

***NOTE : This visual receptor is located within land which has been marked for employment under government strategic plans. Therefore, this receptor may not exist at a future point in time. Should the land be acquired in the short to medium term and the property removed, any visual impacts would no longer be of any relevance. This has been taking into account when judging visual sensitivity at this location.**

Stage 1 Kemps Creek Development

Baseline Photo

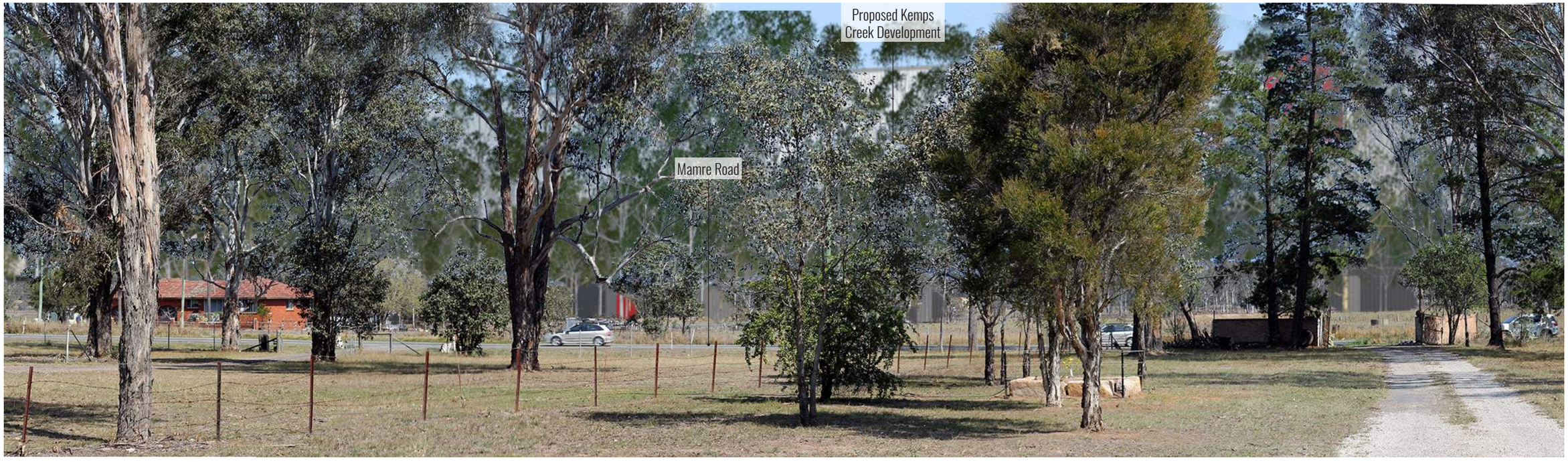
Photomontage - Year 0

Photomontage - Year 15

Figure 58a: Viewpoint 18 - 654-674 Mamre Road, Kemps Creek Looking West (Photomontaged)

Approx Angle of View - 67°

Stage 1 Kemps Creek Development



Cumulative Photomontage - Year 15

Figure 58b: Viewpoint 18 - 654-674 Mamre Road, Kemps Creek Looking West (Cumulative Photomontaged - Left)

Approx Angle of View - 50°

Cumulative Photomontage - Year 15

Figure 58c: Viewpoint 18 - 654-674 Mamre Road, Kemps Creek Looking West (Cumulative Photomontaged - Right)

Approx Angle of View - 50°

9.0 CONCLUSIONS AND NON-TECHNICAL SUMMARY

The main purpose of this Landscape and Visual Impact Assessment, is to address the relevant Secretary's Environmental Assessment Requirements, that were provided by the Department of Planning, for an industrial development at 657-769 Mamre Road, Kemps Creek. Potential visual impacts have been assessed for a number of locations that are either in close vicinity to the proposed development, or at higher elevations with vantage points overlooking the site.

The landscape value of the development site itself, has been assessed based upon local planning designations, landscape ecological value and the character and context in which it is located. It has been concluded that the significance of the impact upon the landscape at the development site is **minor**. Although the site does present some scenic qualities, this has to be considered against the immediate surrounding landscape character and context. Directly to the north and north-east of the site is industrially zoned land, this has created a landscape character which has been heavily influenced by industrial and commercial development.

It is concluded that the proposed Stage 1 Kemps Creek Industrial development, will create visual impacts for several user groups who will experience views of the development. These visual impacts are predominately for people who are located in close proximity to the development.

The conclusions of potential visual impacts have been determined by site visits, desktop study, photographic and photomontage visual analysis. Where moderate visual impacts are identified, locations that receive these impacts are on land that is marked for employment under the government strategic plans for the region. The development achieves the objectives of the Greater Sydney Strategic Plans, The Western City District Plan and the Land Use and Infrastructure Implementation Plan (LUIIP).

Through analysis conducted within this report, the following residential locations are judged to receive **moderate** visual impacts from the Stage 1 Development.

- 799 Mamre Road, Kemps Creek
- 654-674 Mamre Road, Kemps Creek
- Bakers Lane in front of 706-752 Mamre Road, Kemps Creek

The following locations are judged to have **moderate/minor** visual impacts:

- 826-842 Mamre Road, Kemps Creek
- 864 Mamre Road, Kemps Creek
- 127 Adlington Road, Kemps Creek
- 784-786 Mamre Road, Kemps Creek

The following locations and are judged to have **minor** visual impacts:

- Old Macdonald's Child Care Centre, Orchard Hills
- Rear of 43 Mandalong Close, Orchard Hills
- Mandalong Stud Farm, Orchard Hills
- 226 Luddenham Road, Orchard Hills
- Public Reserve, Twin Creeks
- 26 Medinah Avenue, Twin Creeks
- 201 Adlington Road, Kemps Creek

The following locations and are judged to have **minor negligible** visual impacts:

- 275 Luddenham Road, Orchard Hills
- 713 Luddenham Road, Luddenham

The following properties are judged to have **no impacts**:

- Front of 707A Mamre Road, Kemps Creek
- Emmaus Catholic College

The highest cumulative impacts are judged to be received at:

- 799 Mamre Road, Kemps Creek
- Front of 707A Mamre Road, Kemps Creek
- Bakers Lane in front of 706-725 Mamre Road, Kemps Creek

Three locations have been assessed as having moderate visual impacts from the development. This is largely based on the close proximity of the residential properties or locations to the site.

Generally locations to the north and west have less open views towards the development, with a few exceptions including 707A Mamre Road.

The report demonstrates that proposed landscape planting at the development site, can be effective in helping to reduce visual impacts for a number of properties and public locations. This is particularly important for the east and southern boundaries of the development site. This will be most effective after 15 years and for those receptors who experience direct views at close to medium range. Mature landscape planting should effectively screen view corridors to many of the warehouse elements.

10.0 GLOSSARY OF TERMS

Term	Definition
SEARs	Secretary's Environmental Assessment Requirements
GLVIA	Guidelines for Landscape and Visual Impact Assessment (UK Landscape Institute)
LVIA	Landscape and Visual Impact Assessment
VIA	Visual Impact Assessment
DoPE	Department of Planning and 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
Cumulative Impact	Cumulative landscape or visual impacts are the combined effects that arise through the interaction of two or more developments, whether of the same type or not.