GEOSCAPES
LANDSCAPE ARCHITECTS

ORICA WAREHOUSE ESTATE
STATE SIGNIFICANT DEVELOPMENT - SSD9691 - RESPONSE TO SUBMISSIONS

LOT 9 - 28 MCPHERSON STREET, BANKSMEADOW, NSW

VISUAL IMPACT ASSESSMENT STUDY

Report Ref: **180829_SSD_RPT_LVIA01**

Prepared for:

ORICA

Prepared by

Ben Gluszkowski
Director
Registered Landscape Architect #5868

GEOSCAPES Landscape Architecture
Suite 215, 284 Victoria Avenue
Chatswood NSW 2067

Geoscapes Pty Ltd
ABN 84 620 205 781
ACN 620 205 781

Document Status

REV	Description	Initial	Date
-	DRAFT Issue for Review	BG	3.07.2020
A	Issued for SSD	BG	29.07.2020

CONTENTS

1.0 INTRODUCTION

1.1 Project Background

This Visual Impact Assessment (VIA) relates to the proposed development of the Orica Warehouse Estate, located at Lot 9, 28 Mcpherson Street, Banksmeadow NSW. The proposal includes a suspended concrete platform over an existing basin, to support two warehouses with offices, hardstand areas, parking, retention of existing boundary landscaping, new landscaping and entry from Mcpherson Street.

An EIS was prepared and placed on public exhibition. Submissions were received and further information was requested by the DIPE and Bayside Council regarding any potential visual impacts generated by the development. The specific comments are:

DIPE Comments:

10. Landscaping/visual impacts
- A greater level of assessment of the visual impacts of the proposed development is required with reference to surrounding building heights, bulk and scale, setbacks, materials, colours and landscaping.

Bayside Council Comments:

Urban Design/Visual Impact
- A visual impact assessment should be included in the EIS which examines the development layout and design having regard to any potential views from surrounding residential areas or other sensitive sites.

This VIA report aims to satisfy the above requests.

1.2 This Report and Author

Geoscapes Pty Ltd has been commissioned by Orica to produce a Visual Impact Assessment (VIA) for the above mentioned development. This VIA has been written by Ben Gluszkowski (Geoscapes 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 several LVIA's and VIA's for some of the largest industrial developments in Sydney. These were either submitted as part of an Environmental Impact Statement (EIS) for State Significant Development (SSD) to the DIPE, or to local council. Clients have included Snackbrands Australia, Jaycar, Frasers, Altis, DCI, ESR, Charter Hall and Airtrunk.

2.0 METHODOLOGY OF ASSESSMENT

2.1 Guidelines

VIA 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, it's 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 industrial warehousing 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 VIA written by Geoscapes is considered to use a methodology and approach that is appropriate to this type of development.

2.2 Computer Generated Visualisations - Photomontages

It is possible that any receptor with a view towards 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, public open space, cycleway, footpath or road within the project view-shed. Instead a selection of locations have been selected to represent all categories where applicable.

Photography for the photomontages was generated by using a combination of Goolge Streetview and Google Earth Pro. Each of the viewpoints selected therefore, are from the road network in the immediate vicinity of the site.

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 proposed site and build forms.

The horizontal field of view (FOV) within the photomontages exceeds the parameters of normal human vision. While the human eye FOV is understood to be approximately 160°, the actual amount of detail in focus is much less and deteriorates towards the outer extents of the FOV. The 'Cone of Visual Attention' of the human eye is thought to be 55° however, in reality the eyes, head and body can all move and, under normal conditions, the human brain would 'see' a broad area of landscape within a panoramic view. A single photographic image from a 50mm lens has a horizontal viewing angle of 39.6°. Whilst a photomontage can provide an image that illustrates a representation of a development in relation to its proposed location and scale relative to the surrounding landscape, it must be acknowledged that large scale objects in the landscape can appear smaller in photomontages 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 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, travelers on a highway may be considered likely to be more sensitive due to a high level of surrounding 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 below.

Table 1: 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 in the table 2 to determine the magnitude of change.

Table 2: 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.

2.4 Significance of the Impact

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 proposed development in isolation only.

2.5 Site Visit and Analysis of Zone of Visibility

A site visit was conducted on the 1st July 2020 by Geoscapes. The consultant team carried out a site inspection to verify the results of 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. Photographs taken at eye-level within the site only allow a partial judgement on which residential properties, commercial properties, public open spaces and public rights of way (classed as visual receptors) in the immediate vicinity, may see the development from ground level to the top of warehouse buildings. This is also limiting due to the presence of existing development, topography and surrounding vegetation, therefore, it is not possible to gain a complete understanding of the visual envelope.

As a result of the above, a 3D model and Google Earth Pro software has been used to test the visibility of the built forms. By analyzing topography, existing built forms and using Google Streetview locations, an understanding of the visibility can be reached. It is important to note, that it is simply unfeasible to test and record every single possible view corridor to and from the site.

The analysis allows a judgement to be made on which receptors in the wider context will be able to see the upper parts of the development, if not the all of the development. Not all residential/commercial properties or public open spaces that potentially would experience a view of the development are shown on Figure 2. However, the locations that have been shown will provide an indication of receptors within the surrounding context that the development will be most visible to. In some cases it is reasonable to assume for example, that a number of properties close to a selected receptor would experience a very similar type of view. I.e. adjacent properties with similar aspect or those one or two streets away.

It is not possible to visit individual residential properties to take photographs from second floor windows looking back at the site. Therefore, views are taken from Google Streetview immediately in front of properties, these are judged to be similarly representative with consideration for the additional viewing height of second story windows. A judgement has then been made on the likely visual impacts from a selection of the receptors identified in Figure 2 (refer to section 7.0).

2.6 Selected Viewpoints – Receptor Locations

The symbols and numbering in Figure 2 (page 7), indicate the viewpoints that have been selected for a Visual Impact Assessment (VIA). All viewpoints have been generated from publicly accessible areas.

A sample of receptors which are closest in proximity to the proposed development and those with vantage points at higher elevations have been selected. This follows guidance as set out by the DIPE SEARs and Bayside Council. It would be impractical to provide a VIA for every single possible visual receiver of the development, therefore a sample has been selected. For visual receptors where individual viewpoint assessment is not possible (i.e. from inside a private dwelling), a representative view for that location has been assessed in terms of a likely significance of visual impact.

From viewpoint locations, a development overlay or a photomontage image has been generated to represent as closely as possible, views of the proposed development following construction. Refer to the visual impact assessment at Section 7.0 of this report and the corresponding Figures 18 to 24.

2.7 Photographic Recording

From desktop study and site visits, 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 may have been intentionally chosen to test and provide evidence that from those receptors there are no significant visual impacts.

Photographs were taken from Google Streetview from the selected viewpoints looking towards the development site. GPS recordings were noted and locations marked using digital mapping software. This information was later used to create the overlays and photomontages.

2.8 Visualisation of the Development

Using Trimble SketchUp and Adobe Photoshop, Geoscapes created overlays and photomontages. A 3D model was supplied by Morphmedia which included all elements of the built forms. This was then imported in Google Earth Pro to generate the images.

Proposed elements within the CGI's have not been created to a photo-real standard. The photomontages are purely a tool to supplement this visual assessment and are intended to demonstrate a predicted likely visual appearance.

Eye-level photomontages are intended to be printed at A3 and to be held at a comfortable distance by the viewer, this is generally accepted by current guidelines to be anywhere from 300mm to 500mm away from the eyes and held in a flat projection.

2.9 Assessment of Visual Impact

As is clearly visible in photography taken from within the site and aerial mapping, the site is well surrounded by existing industrial development. This essentially blocks the majority of view corridors towards the site. Therefore, this report is predominately focused on demonstrating that the development is not highly visible from any residential receptors and is only predominately visible to less sensitive receptors (motorists and occasional pedestrians). These receptors are those that would experience views immediately adjacent to the development on Mcpherson Street.

In order to demonstrate that the development does create any significant visual impacts for those residential receptors in closest proximity to the development, the following locations have been selected:

- Adjacent to 66 Stephen Road, Botany (VP2)*
- Adjacent to 1 Dent Street, Botany (VP3)*
- Adjacent to 18 Perry Street, Matraville (VP6)*
- Adjacent to 48 Denison Street, Hillsdale (VP7)*

* Note the locations selected above are representative of a number of properties within Botany that are in the closest proximity to the proposed development site. Although no two views are identical and factors such as dwelling height, aspect, built form and vegetation will vary the prominence of the development, it is assumed that they will generally share a similar type of view and visual impact. As described in earlier sections of this report, it would be unfeasible and ultimately impossible to take photographs from every single residential property in the immediate vicinity of the development site.

Other potential visual receptors regarded to have less sensitivity which have also been considered and assessed are:

- Adjacent to 26 Mcpherson Street, Banksmeadow (VP1)*
- Foreshore Road Close to Botany Road (VP4)*
- Junction of Botany Road and Beauchamp Road (VP5)*

*See section 2.4, 7.1, 7.4 and 7.5 for justification regarding sensitivity ratings at these locations.

In total 7 viewpoint locations have been selected for assessment. It is noted that to the north of the proposed development a significant amount of industrial development exists within Botony Industrial Park. This area has a high density of industrial buildings and therefore, is judged to not be particularly sensitive to the proposed development. No viewpoints have been selected from within this area due to the low sensitivity rating and lack of publicly accessible areas.

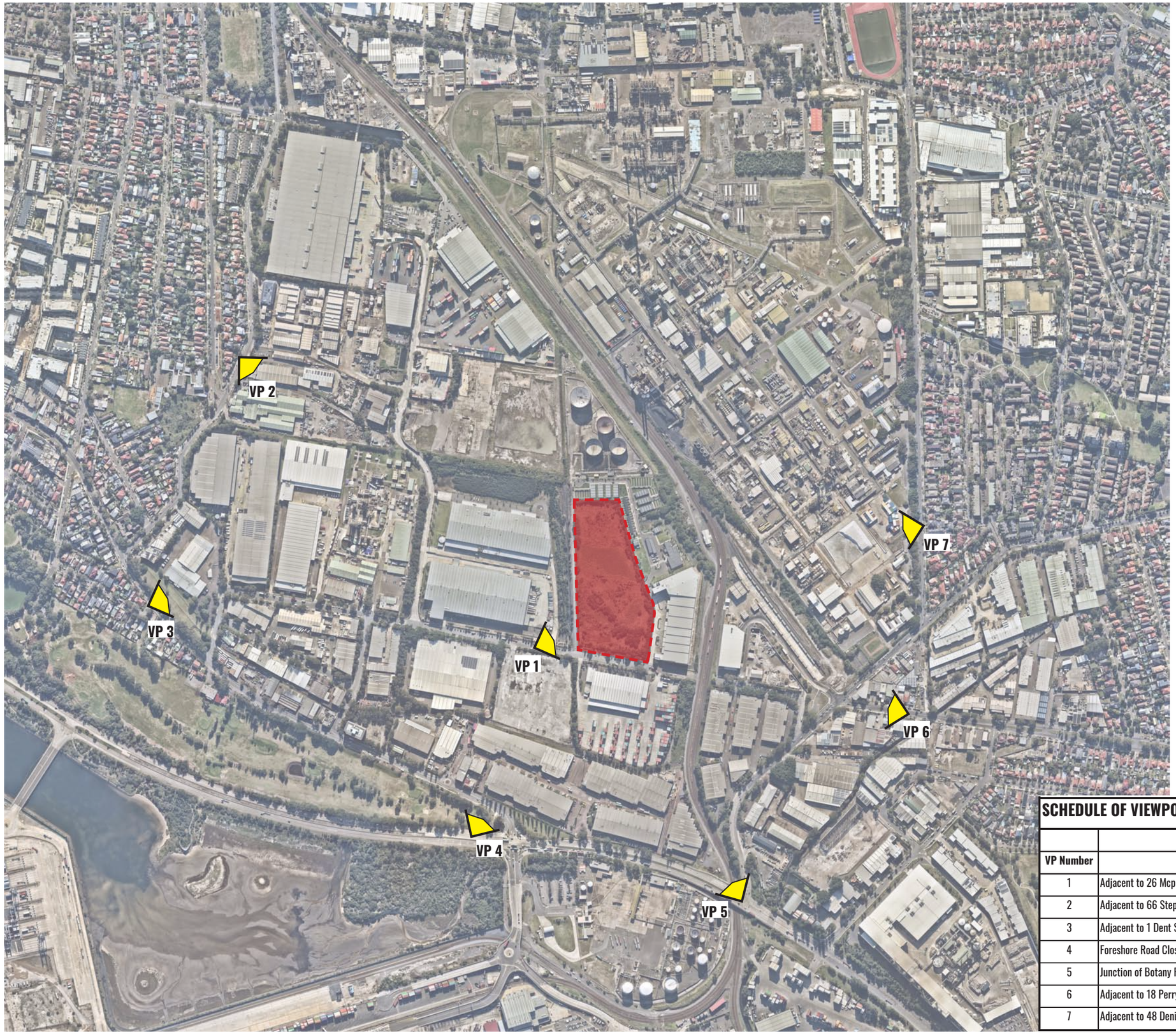
Refer to section 7.0 for a detailed visual impact assessment from the receptors.

Legend

Site Boundary

Ground
Eye Level
Positions 1 & 2

Figure 1: Eye-Level Panoramic Photograph Positions



LEGEND

- SITE BOUNDARY
- VP — VIEWPOINT LOCATION WITH VIEWPOINT NO.

SCHEDULE OF VIEWPOINTS

VP Number	Address	Southings	Eastings	Elevation AHD
1	Adjacent to 26 Mcpherson Street, Banksmeadow	33°57'30"S	151°12'55"E	4.8m
2	Adjacent to 66 Stephen Road, Botany	33°57'10"S	151°12'31"E	15.7m
3	Adjacent to 1 Dent Street, Botany	33°57'26"S	151°12'24"E	5.4m
4	Foreshore Road Close to Botany Road	33°57'42"S	151°12'49"E	4.6m
5	Junction of Botany Road and Beauchamp Road	33°57'46"S	151°13'10"E	5.4m
6	Adjacent to 18 Perry Street, Matraville	33°57'34"S	151°13'23"E	8.4m
7	Adjacent to 48 Denison Street, Hillsdale	33°57'22"S	151°13'25"E	12.9m

Figure 2: Viewpoint Locations

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

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

Figure 5: On Site Position 1 at Eye-Level - Looking South

Figure 6: On Site Position 1 at Eye Level - Looking West

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

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

Figure 9: On Site Position 2 at Eye-Level - Looking West

3.0 THE SITE AND ENVIRONS

3.1 Location

The proposed development is located within Lot 9 DP1205673, 28 McPherson Street, Banksmeadow NSW. The total site is approximately 4.1 hectares and falls within the Bayside Council Local Government Area.

Figure 11 provides the site's location. Figure 12 provides the site's context.

3.2 Site Description

The site description is summarised in the Figure below.

Figure 10 – Site Description

Component	Description
Owner	Orica Australia Pty Ltd
Address	28 McPherson Street, Banksmeadow, NSW. LOT 9 - DP1205673
Site area	Total 41,290 sqm (4.1ha)
Current use	Existing compensatory flood storage area, zoned IN1 General Industrial.

3.3 Context

The site is located centrally within the Botany industrial precinct which serves Port Botany and Sydney Kingsford Airport. Located 10 kilometres' south of Sydney's CBD, the precinct is already a well established economic foundation of Port Botany, with numerous commercial, bulky goods retailing and industrial developments.

The site is surrounded by the following specific land uses:

- Directly to the northern boundary of the site is the Australian Border Protection Detector Dog Facility and Qenos Tank Farm. Further north is Botany railway goods line and other industrial developments that extend up to Wentworth Avenue and to the suburb of Pagewood.

- To the south of the site is Mcpherson Street and the Toll facility. This industrial character extends down to Port Botany and the shoreline.

- Directly to the east of the site at 28B, is the recently constructed Banksmeadow Industrial Park which contains the Archie Rose distillery. Further beyond is Botany railway goods line and the suburb of Matraville. The closest residential dwellings to the site within Matraville, are located at a distance of approximately 500-600m.

- To the west is the Toll priority facility, Jewel Fine Foods and the United Initiators site. Further west is the continuation of large scale industrial development that is bounded by Stephen Road. The suburb of Botany contains residential dwellings in this area and the closest of these is located approximately 700 - 800m from the site boundary.

By using the summary above of land use above, it is apparent that potentially the most sensitive visual receivers of the development are likely to be located in the east and west from within the residential suburbs of Matraville and Botany. However, these are located at the edges of the industrial precinct and therefore, clear unobstructed view corridors towards the proposed development are unlikely.

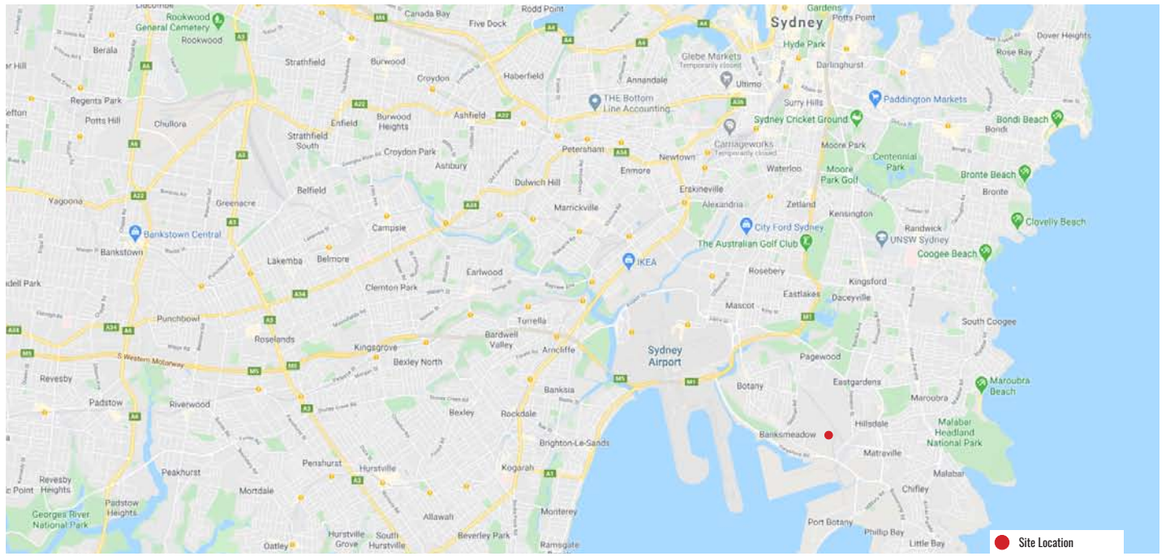


Figure 11 Site Location (Source: Google Maps)

Figure 12: Site Context (Source: Nearmap 2020)

4.0 BASELINE DESCRIPTION

4.1 Planning Context

The following local and state current planning documents have been considered in preparation of this report. These are:

State Environmental Planning Policy (Three Ports) 2013
Botany Bay Local Environmental Plan 2013
Botany Bay Development Control Plan 2013

The site is currently designated as IN1 in the State Environmental Planning Policy (Three Ports) 2013 Land Zoning Map as indicated in Figure 13 below.

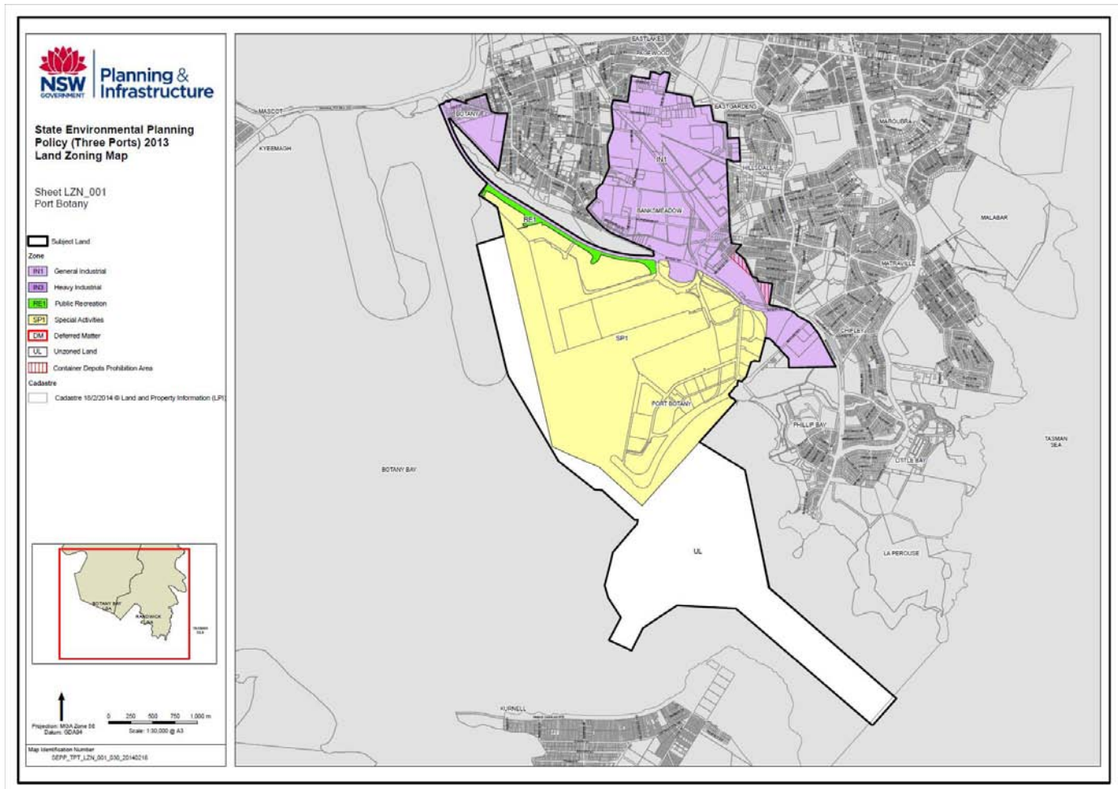


Figure 13: Land Zoning Map (Source: DIPE)

4.2 Landscape Character

As can be seen by using aerial digital mapping the development site is located centrally within the Botony Bay/Port Botany Industrial precinct. Much of the surrounding land is zoned as IN1 industrial lands or SP1 special activities associated with Port Botany. To the east, west and north, low density residential suburbs bound the industrial precinct.

4.3 Potential Visual Cumulative Effects

The objective of a cumulative visual 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. It is evident that due to the surrounding character, the addition of the proposed development will make a negligible contribution to the cumulative situation and this equate to effectively a 'no change' situation. The pattern and components of what is seen within views would essentially remain the same, due to the type and use of the development proposed.

5.0 DEVELOPMENT PROPOSALS

The following information is based on an assessment of drawings provided by Axis Architectural. Shown in the figure below is the site and ground floor plan.

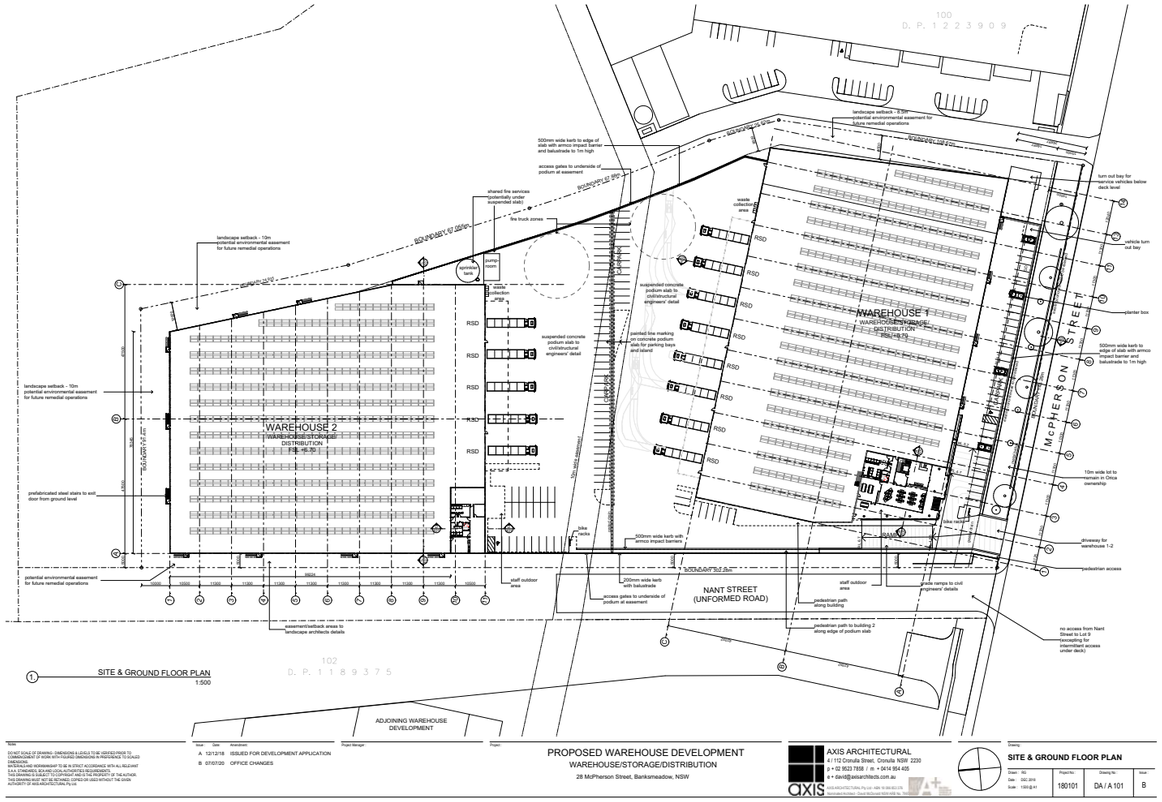


Figure 14: Proposed Site Plan (Source: AXIS Architectural)

5.1 Overall Design Proposals

Due to a Restriction on the Use of Land and Positive Covenant affecting the site, the Estate will consist of two Orica warehouses to be constructed on a suspended concrete platform approximately above the existing flood detention basin. The development will therefore, be designed to ensure no impact on the site's existing flood storage capacity. Access to the underside of the deck will be provided from Nant Street.

The suspended deck will support truck access, vehicular parking and two offices. During a previous approvals process landscaping was implemented accross the site. The landscaping along the development frontage and around the site perimeter to the north, east and south is intended to be retained. Further planting proposed to compensate loss on the western boundary.

5.2 Height / Scale / Levels

The main concrete deck is proposed at RL6.7 this is approximately 3m above the existing grade. Piers will hold up the deck with access under for maintenance of the flood basin.

The ridge height of both warehouses is proposed to be RL20.4m which is 13.7m above the warehouse floor and approximately 16.7m above existing grade. The height is similar to that seen elsewhere in the industrial precinct. To the east the Archie Rose Distillery has a measured ridge height of approximately 16m, the neighboring Goodman development on the western boundary has a ridge height of 13.7m. The Quenos tanks to the north have an approximate measured height of 26m.

The scale and footprint is similar to that of the Toll facility to the south and smaller than the Goodman warehousing to the west.

5.3 Colour / Materials and Finishes

Facade materials and colors will be similar to adjacent developments with a mix of grey tones including colorbond Monument, Shale Grey and Surfmist. Paneling is intended to break up long facade and blend into the surround industrial character of the precinct. Offices and signage will be highlighted with more striking colors to help with way finding.

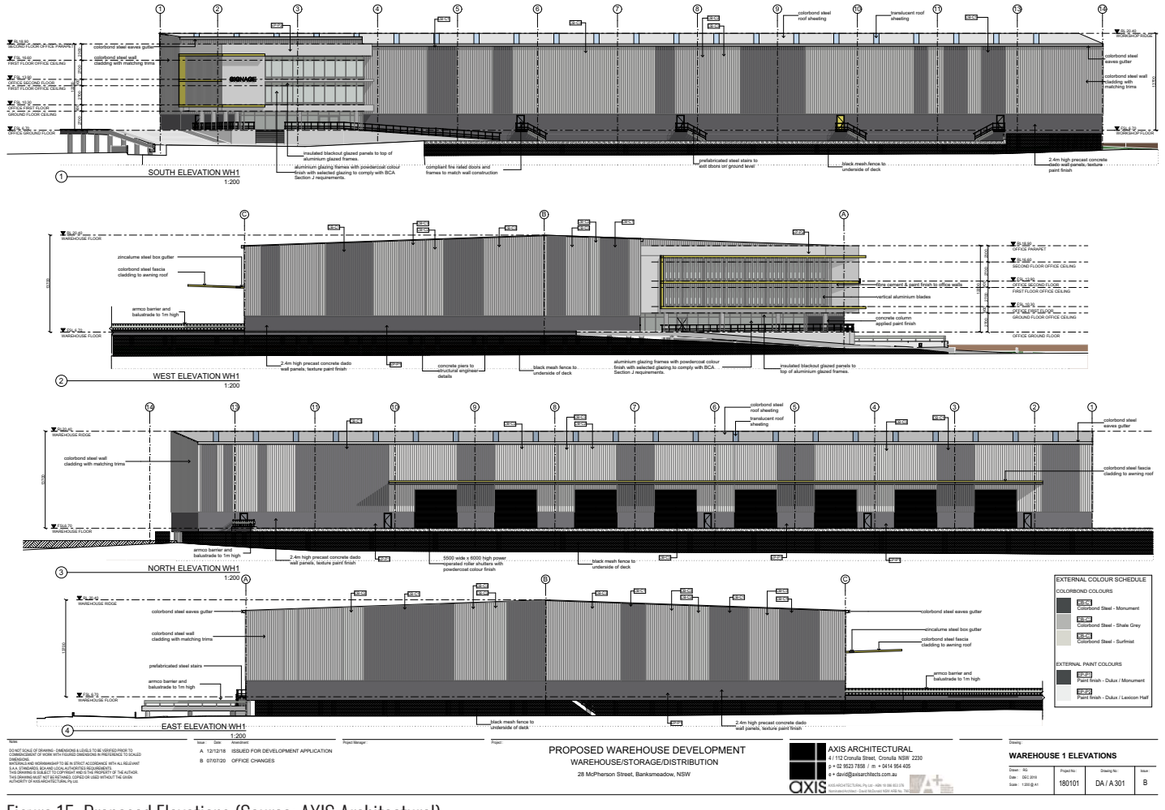


Figure 15: Proposed Elevations (Source: AXIS Architectural)

Figure 16: 3D Artists Impression (Source: Morphmedia)

5.4 Signage and Lighting

Signage will not form a large or dominate component of the development. Any signs will be subtle, will not be visually obtrusive and will most likely represent the style of other signage in the industrial area.

Lighting will be restricted to allow access at night, this is likely to be general lighting to the carpark areas and entry point to the building. This should not adversely increase light spill or affect nearby visual receivers.

5.5 Conclusion

The proposed design of the built form is complementary and in character with the style seen in the surrounding industrial estate. Materials and colours used will not be visually obtrusive from Mcpherson Street or from any location which may receive partial views of the development. The scale and height of the development is smaller than other developments in the area and well below the height of adjoining industrial infrastructure.

6.0 LANDSCAPE STRATEGY, DESIGN AND MITIGATION

6.1 Strategy and Mitigation

Situated in the figure below is the Landscape Site Masterplan prepared by Geoscapes. The primary focus is to retain as much of the existing vegetation along the site boundaries as possible. This native vegetation was introduced in 2015 as part of earthworks for the flood basin.

The original approval (Orica Southlands Remediation & Warehouse Development Project - MP 06_0191) included landscape design drawings and a landscape management plan (LMP) prepared by Jocelyn Ramsay & Associates.

A site visit was conducted by Geoscapes to determine areas of planting that had failed or where gaps in the vegetation had occurred due to natural attrition. Landscape plans were then prepared to propose additional planting using the species selected from the original approval. Further planting is also proposed along a 5m strip to the western boundary adjacent to Nant St and canopy trees between carparking spaces to the south. All planting in the southern GTP infrastructure zone will be retained.

For further details refer to Geoscapes Landscape design drawings SSD-00 to SSD-07.

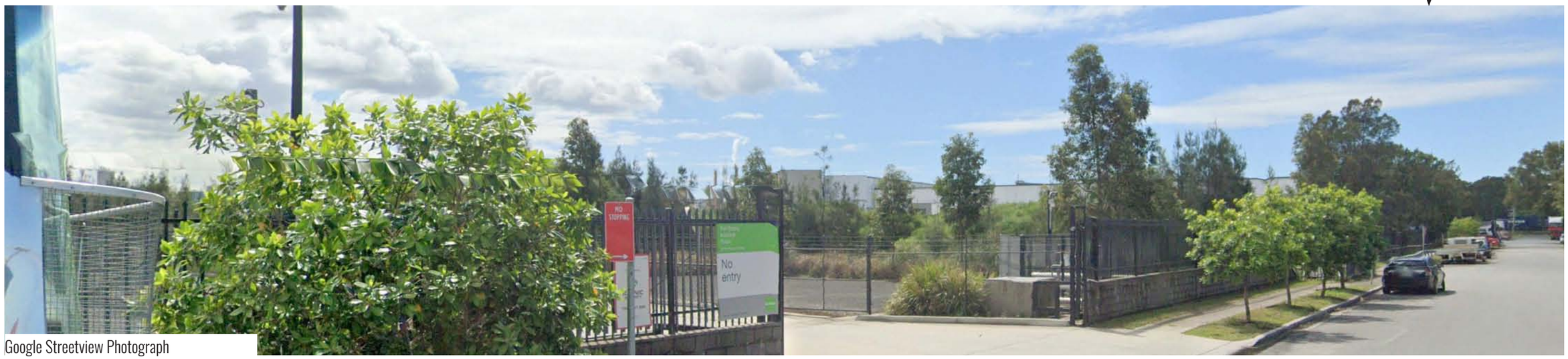
Figure 17: Landscape Site Masterplan (Geoscapes Landscape Architects)

7.0 VISUAL IMPACT ASSESSMENT

7.1 Viewpoint 1

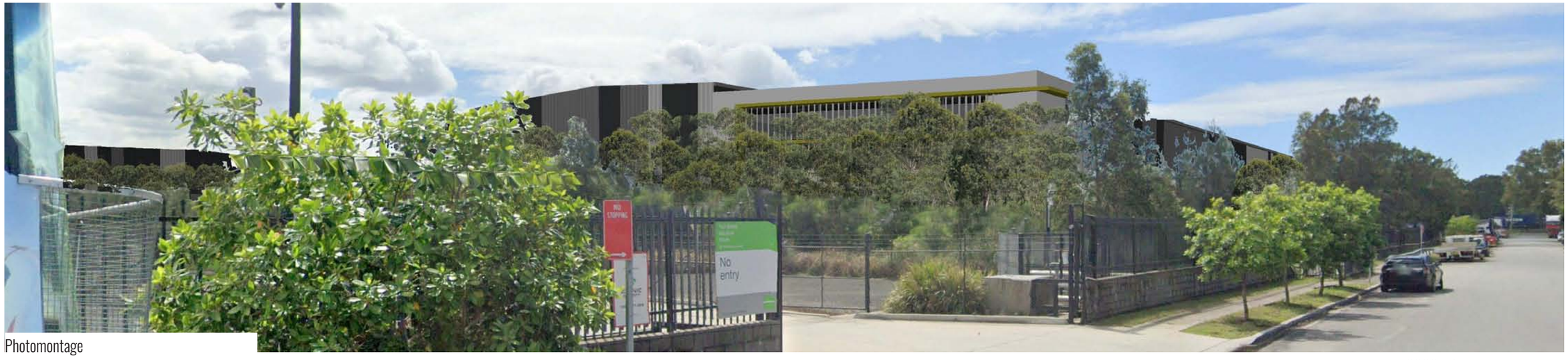
Viewing Location	Adjacent to 26 Mcpherson Street, Banksmeadow - Looking Northeast
GPS	33°57'30"S, 151°12'55"E
Elevation	4.8m AHD
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 18
Visual Description	
Approx. Viewing Distance from Site Boundary	60m
View description & prominence of the development	This viewpoint was taken along Mcpherson street on approach to the proposed development. It is intended to represent visual receptors such as motorists and to a lesser extent pedestrians, traveling in a west to east direction. In the baseline streetview photograph the entry to 26 Mcpherson Street is visible, this contains the Toll and Goodman warehouses. The development site can be seen behind existing vegetation associated with No 26 and the No 28. The view is fairly typical of those seen within the industrial estate, which contain warehousing, landscaping, street trees and footpaths.
Visual Receptor Sensitivity	As visual receptors are mostly motorists at this location and traveling through a dense industrial area, they are unlikely to place any significant value on the baseline view. It is judged therefore, that the sensitivity for these receptors to the development would be **low.**
Magnitude of Change	The development will form a new and recognisable element within the view which will be recognised by the receptor. There will be a noticeable change in the horizontal and vertical extent of the view, however this would not be out of character with existing development that is seen within the estate. The existing vegetation does provide some screening of the development and 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 **minor.**

Extent of Proposed Development



Google Streetview Photograph

Google Earth Terrain and Massing Model



Photomontage

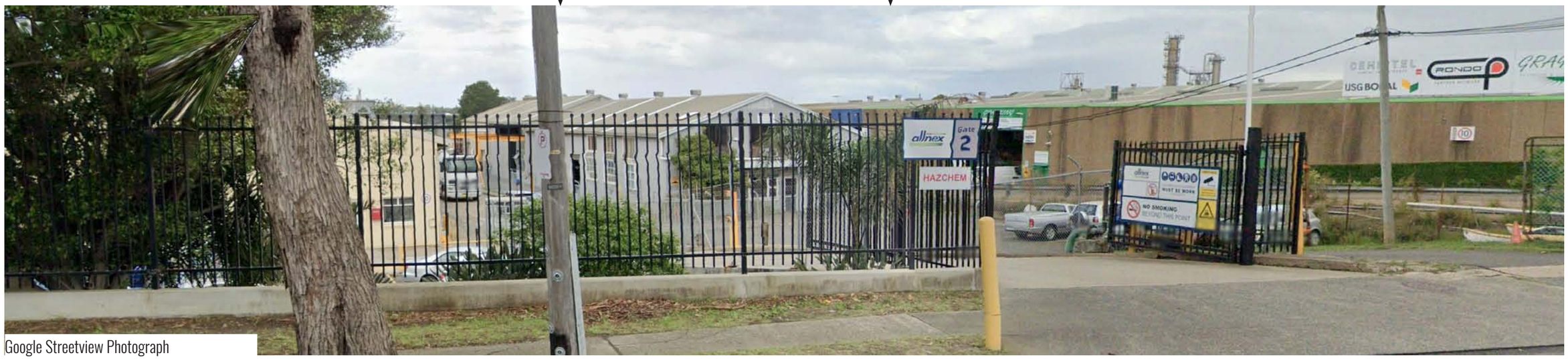
Figure 18: Viewpoint 1 - Adjacent to 26 Mcpherson Street, Banksmeadow - Looking Northeast (Photomontage)

Approx Panoramic Angle of View - 67°

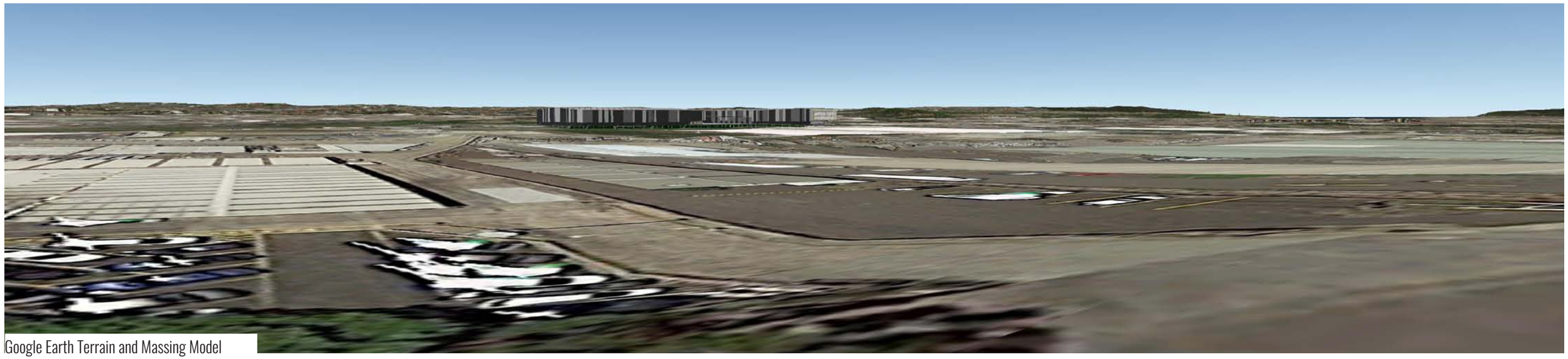
7.2 Viewpoint 2

Viewing Location	Adjacent to 66 Stephen Road, Botany - Looking Southeast
GPS	33°57'10"S, 151°12'31"E
Elevation	15.7m AHD
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 19
Visual Description	
Approx. Viewing Distance from Site Boundary	750m
View description & prominence of the development	This viewpoint was taken from Stephen Road, as the top windows of some properties have the potential to look over existing development towards the site. The road has a higher elevation than the site.
Visual Receptor Sensitivity	Residential visual receptors are usually more critical regarding their view, however, the properties located along Stephen Road are situated at the edge of a large industrial precinct. Their views are already heavily affected by the industrial use of land in close proximity to them. Two story dwellings would overlook large areas of industrial development to the east and south. On this basis, it is judged that the sensitivity for this receptor to the development would be **low.**
Magnitude of Change	As demonstrated in the photographic overlay in Figure 29, the development at ground level will screened by other buildings. There is a possibility that a small number of two story properties along Stephen Road would see the very top of the roof line of the proposed development. However, this would form a barely noticeable component of the view and would in essence be very similar to the existing view currently experienced. 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 **negligible.**

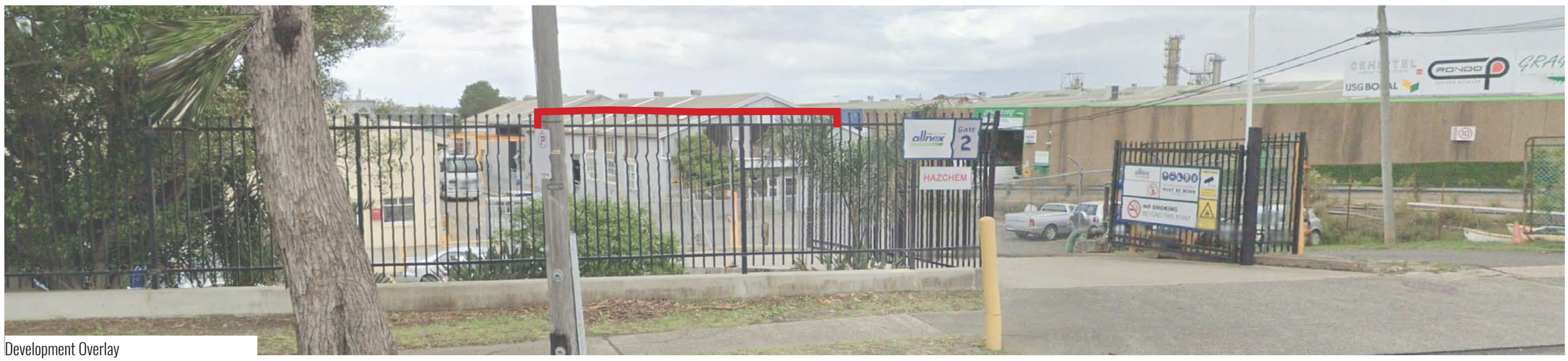
Extent of Proposed Development



Google Streetview Photograph



Google Earth Terrain and Massing Model



Development Overlay

Figure 19: Viewpoint 2 - Adjacent to 66 Stephen Road, Botany - Looking Southeast (Photomontage)

Approx Panoramic Angle of View - 67°

7.3 Viewpoint 3

Viewing Location	Adjacent to 1 Dent Street, Botany - Looking East
GPS	33°57'26"S, 151°12'31"E
Elevation	5.4m AHD
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 20
Visual Description	
Approx. Viewing Distance from Site Boundary	880m
View description & prominence of the development	This view is taken on Botany Road adjacent to No. 1 Dent Street.
Visual Receptor Sensitivity	Residential visual receptors are usually more critical regarding their view, however, the properties in this location are situated at the edge of a large industrial precinct. Their views are already heavily affected by the industrial use of land in close proximity to them. On this basis, it is judged that the sensitivity for this receptor to the development would be **low.**
Magnitude of Change	As demonstrated by the Google Earth massing model and photographic overlay of the position of the proposed development, existing development will completely screen any views of the proposed warehousing. Therefore, the magnitude of change is judged to be **no change.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **none.**

Extent of Proposed Development

Google Streetview Photograph

Google Earth Terrain and Massing Model

Development Overlay

Figure 20: Viewpoint 3 - Adjacent to 1 Dent Street, Botany - Looking East (Photomontage)

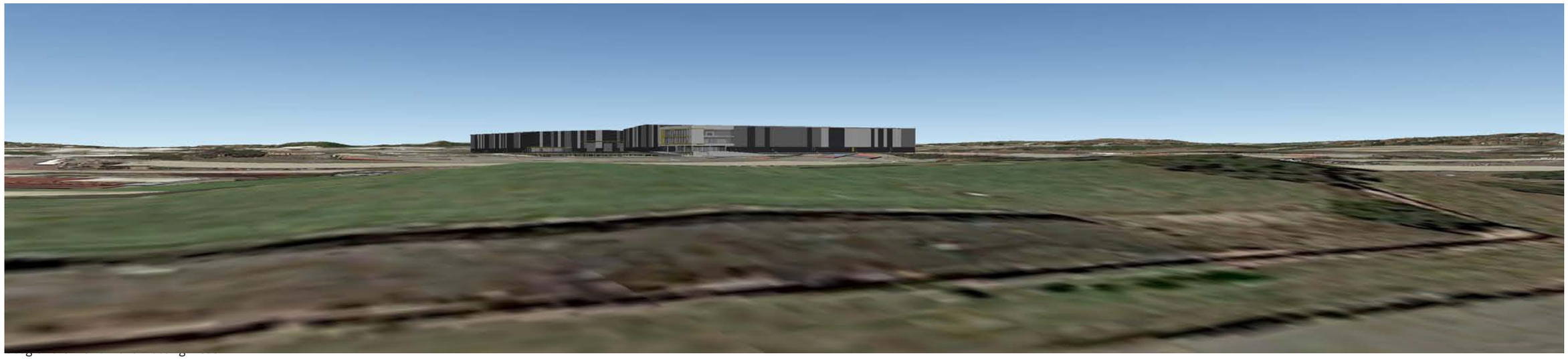
Approx Panoramic Angle of View - 67°

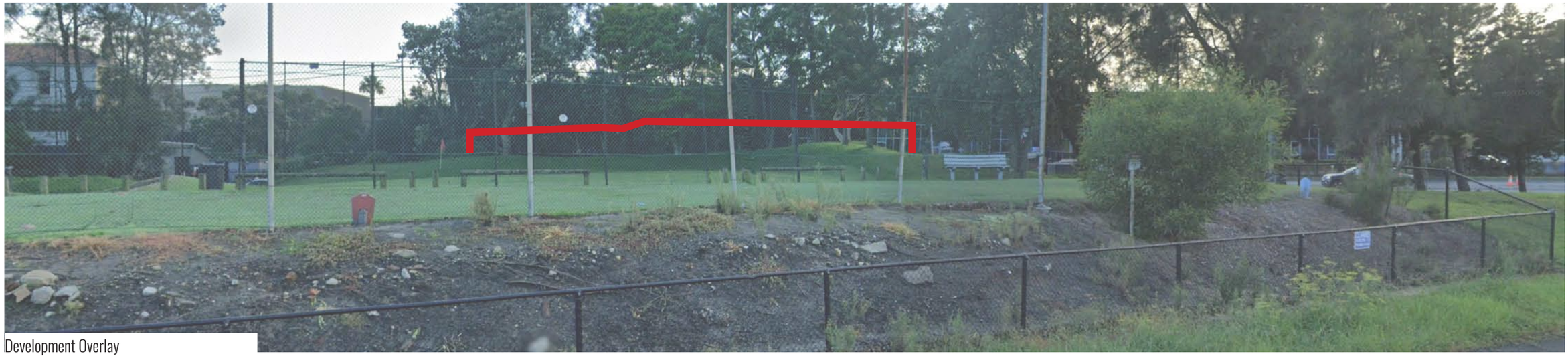
7.4 Viewpoint 4

Viewing Location	Foreshore Road Close to Botany Road - Looking Northeast
GPS	33°57'42"S, 151°12'49"E
Elevation	4.6m AHD
Date of Photo (Google Streetview)	Mar 2020
Google Earth Street View and Overlay Figure	Figure 21
Visual Description	
Approx. Viewing Distance from Site Boundary	430m
View description & prominence of the development	This viewpoint is located to the south side of Botany Golf course along Foreshore Road.
Visual Receptor Sensitivity	Motorists at this location are extremely unlikely to place a high level of importance regarding their view. Although Botany Golf Course does provide green open space, the view beyond is one that is typical of an industrial area and therefore, it is judged that the sensitivity for this receptor to the development would be **low.**
Magnitude of Change	As demonstrated by the Google Earth massing model and photographic overlay of the position of the proposed development, existing development will completely screen any views of the proposed warehousing. Therefore, the magnitude of change is judged to be **no change.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **none.**

Extent of Proposed Development

Google Streetview Photograph





Development Overlay

Figure 21: Viewpoint 4 - Foreshore Road Close to Botany Road - Looking Northeast (Photomontage)

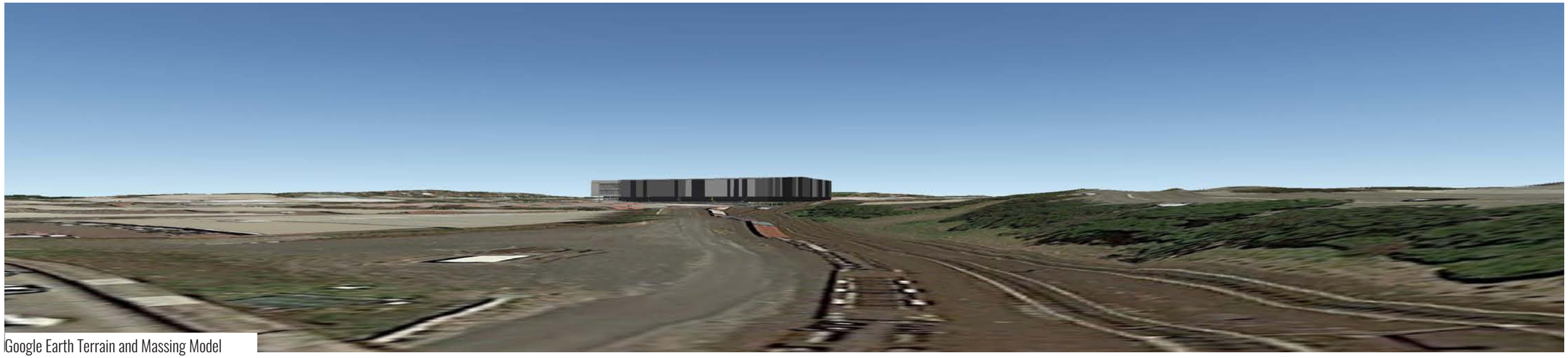
Approx Panoramic Angle of View - 67°

7.5 Viewpoint 5

Viewing Location	Junction of Botany Road and Beauchamp Road - Looking Northeast
GPS	33°57'46"S, 151°13'10"E
Elevation	5.4m
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 22
Visual Description	
Approx. Viewing Distance from Site Boundary	500m
View description & prominence of the development	This view was taken at the bridged intersection of Botany and Beauchamp Road above the Botany goods railway line. It is a view that would be experienced by motorists traveling predominately east to west. The view looks towards the industrial precinct and is typical of those seen in the area.
Visual Receptor Sensitivity	Motorists at this location are extremely unlikely to place a high level of importance regarding their view. The view is one that is typical of an industrial area and therefore, it is judged that the sensitivity for this receptor to the development would be **low.**
Magnitude of Change	As demonstrated in the photographic overlay opposite, the development will predominately be screened by a combination of vegetation and other industrial development. Only the top of the warehousing would be seen above the shipping creates in the baseline image. This would form a barely noticeable component of the view and would be very similar to the existing view currently experienced. 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 **negligible.**

Extent of Proposed Development

Google Streetview Photograph



Google Earth Terrain and Massing Model

Photomontage

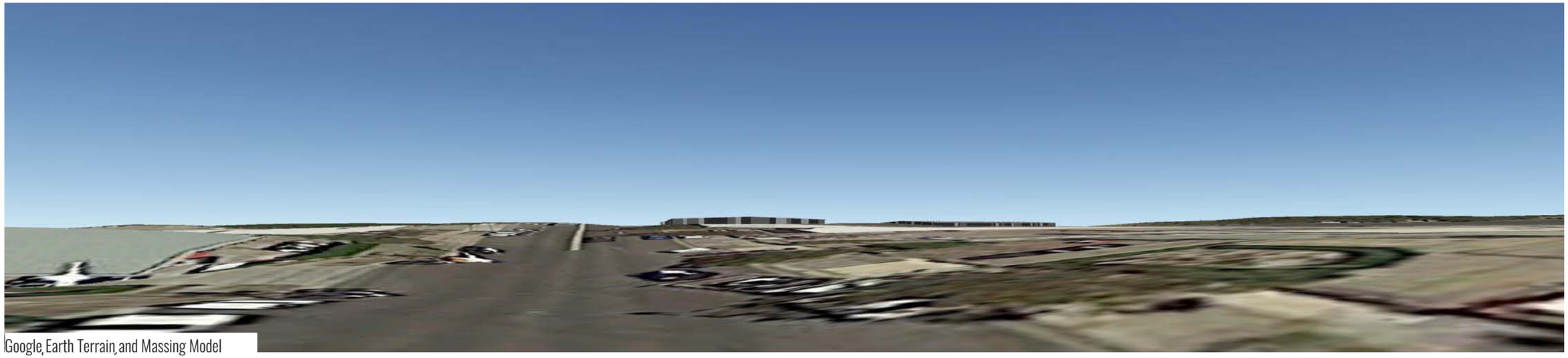
Figure 22: Viewpoint 5 - Junction of Botany Road and Beauchamp Road - Looking Northeast (Photomontage)

Approx Panoramic Angle of View - 67°

7.6 Viewpoint 6

Viewing Location	Adjacent to 18 Perry Street, Matraville - Looking West
GPS	33°57'34"S, 151°13'23"E
Elevation	8.4m AHD
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 23
Visual Description	
Approx. Viewing Distance from Site Boundary	520m
View description & prominence of the development	This view is taken adjacent to the closest residential receptor to the east of the development within Matraville. Although at the edge of Botany Industrial Park, large scale industrial development is not seen within the view, however there are smaller scale commercial units situated closer to Beauchump Road.
Visual Receptor Sensitivity	The view is not presently heavily affected by large scale industrial development and there is a presence of vegetation along the streetscape. It is judged that the visual sensitivity for this receptor to the development would be **medium.**
Magnitude of Change	As demonstrated by the Google Earth massing model and photographic overlay of the position of the proposed development, existing development will completely screen any views of the proposed warehousing. Therefore, the magnitude of change is judged to be **no change.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **none.**

Extent of Proposed Development



Google Earth Terrain and Massing Model

Development Overlay

Figure 23: Viewpoint 6 - Adjacent to 18 Perry Street, Matraville - Looking West (Photomontage)

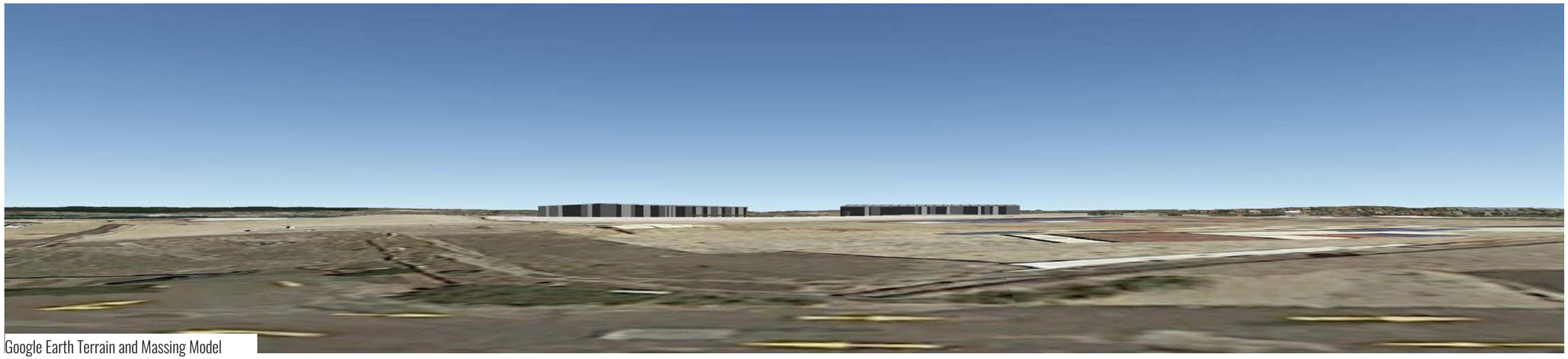
Approx Panoramic Angle of View - 67°

7.7 Viewpoint 7

Viewing Location	Adjacent to 48 Denison Street, Hillsdale - Looking West
GPS	33°57'22"S , 151°13'25"E
Elevation (Eye-level)	12.9m AHD
Date of Photo (Google Streetview)	March 2020
Google Earth Street View and Overlay Figure	Figure 24
Visual Description	
Approx. Viewing Distance from Site Boundary	580m
View description & prominence of the development	This viewpoint taken from Denison Street which forms the boundary of the suburb of Hillsdale and is on the edge of Botony Industrial Park. There are a number of two storey properties along this location which face west towards the proposed development and overlook large areas of industrial development. An example of this is seen within the baseline image opposite, with the Indorama site highly prominent within the view.
Visual Receptor Sensitivity	Residential visual receptors are usually more critical regarding their view, however, the properties located along Denison Street are situated at the edge of a large industrial precinct. Their views are already heavily affected by the adjacent industrial use. Two story dwellings would overlook large areas of industrial development to the east. On this basis, it is judged that the sensitivity for this receptor to the development would be **low.**
Magnitude of Change	As demonstrated by the Google Earth massing model and photographic overlay of the position of the proposed development, existing development will completely screen any views of the proposed warehousing. Therefore, the magnitude of change is judged to be **no change.**
Significance of Visual Impact	The significance of the visual impact at this location is judged to be **none.**

Extent of Proposed Development

Google Streetview Photograph



Google Earth Terrain and Massing Model

Development Overlay

Figure 24: Viewpoint 7 - Adjacent to 48 Denison Street, Hillsdale - Looking West (Photomontage)

Approx Panoramic Angle of View - 67°

8.0 CONCLUSIONS AND SUMMARY

This Visual Impact Assessment (VIA) is to support a State Significant Development application for the proposed Orica Warehouse Estate.

The report was written to provide the following, as part of a response to submissions on the EIS for the project:

• An assessment and description of both the existing and proposed views of representative viewpoints utilising qualitative and quantitative criteria; and;
• A recording of an overall visual impact rating for each viewpoint based on best practice guidelines.

The above is supported by on-site analysis, desktop study, site photography, development overlays and photomontages of the proposal.

Potential visual impacts have been assessed for a select number of viewpoints that are in close proximity to the development site. Overall the proposed development is expected to be completely screened from the vast majority of these locations. For the small number of these locations that do experience views of the development, only minimal visual impacts would be received. These include a small number of properties along Stephen Road.

As described in the methodology section of this report (section 2.0). It would be unfeasible to provide a visual impact assessment for every individual residential property or publicly accessible location that may experience a view of the development. However, from analysis conducted within this report, it is clear that in the areas surrounding of development only a very small number locations would experience any view of the development.

Residential towers at East Gardens which is over 1.2km from the development would also be subject to views. If views are experienced, then the visual impact is likely to be negligible.

Conclusions of visual impacts generated by the development and received at the locations assessed, have been summarised in the text below.

Through analysis conducted within this report, the following location is judged to receive **minor** visual impacts from the proposed development.

- Adjacent to 26 Mcpherson Street, Banksmeadow (VP1)

The following residential locations are judged receive to **negligible** visual impacts from the proposed development:

- Adjacent to 66 Stephen Road, Botany (VP2)
- Junction of Botany Road and Beauchamp Road (VP5)

The following locations and are judged to have receive **no** visual impact from the proposed development:

- Adjacent to 1 Dent Street, Botany (VP3)
- Foreshore Road Close to Botany Road (VP4)
- Adjacent to 18 Perry Street, Matraville (VP6)
- Adjacent to 48 Denison Street, Hillsdale (VP7)

All visual impacts given have been based on the residual effects of the development, i.e those which are likely to remain on completion of the development and are to be given the greatest weight in planning terms.

9.0 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
DIPE	Department of Planning Industry & Environment
LEP	Local Environment Plan
DCP	Development Control Plan
Baseline	The existing current condition / character of the landscape or view
Landscape Receptor	The landscape of the development site
Landscape Sensitivity	How sensitive a particular landscape is to change and its ability to accept the development proposals.
Visual Receptor	A group or user experiencing views of the development from a particular location
Visual Sensitivity	The degree to which a particular view can accommodate change arising from a particular development, without detrimental effects.
Viewing Distance	The distance from the point of projection to the image plane to reproduce correct linear perspective.
Magnitude of Change	The magnitude of the change to a landscape receptor or visual receptor
Significance of Impact	How significant an impact is for a landscape or visual receptor