



Western Sydney University

Visual impact photomontage and methodology report

14th November 2025

VIRTUAL IDEAS

1. INTRODUCTION

This document was prepared by Virtual Ideas to demonstrate the visual impact of the proposed developments for Western Sydney University, NSW with respect to the existing built form and site conditions.

2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is an architectural visualisation company that has over 15 years experience in preparing visual impact assessment content and reports on projects of major significance that meet the requirements for relevant local and state planning authorities.

Our reports have been submitted as evidence in proceedings in both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has been an expert witness in the field of visual impact assessment in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have been inspected by various court appointed experts in relation to previous visual impact assessment submissions, and have always been found to be accurate and acceptable.

3. RENDERINGS METHODOLOGY

The following describes the process that we undertake to create the renderings that form the basis of this report.

3.1 DIGITAL 3D SCENE CREATION

The first step in our process is the creation of an accurate, real world scale digital 3D scene that is positioned at a common reference points using the MGA 56 GDA 2020 coordinates system.

We have used data including existing, approved and proposed building 3D models as well as a site survey to create the 3D scene. A detailed description of the data sources used in this report can be found on page 30.

When we receive data sources that are not positioned to MGA-56 GDA 2020 coordinates, we use common points in the data sources that can be aligned to points in other data sources that are positioned at MGA-56 GDA2020. This can be data such as site boundaries and building outlines.

Descriptions of how we have aligned each data source can also be found in Section 3.3.

3.2 SITE PHOTOGRAPHY

The site photography was captured by Virtual Ideas. The viewpoint locations are shown on the viewpoint maps in Section 4 of this document.

Camera lenses for photography were chosen taking a variety of factors into consideration. This included the distance of the camera position from the site and the size of the proposed development with respect to the existing built form and landscape.

In some cases, photography using a 50mm lens may produce the most effective photomontage for view impact assessment, as a 50mm lens is often considered to have the closest representation of distance perception to the human eye. In other cases, a 50mm lens provides too narrow a field of view and does not capture sufficient surrounding context to evaluate visual impact. In these cases using a wider lens is more appropriate.

In the case of the public domain photomontages contained in this report, it was considered appropriate to use a combination of 24, 35 and 50mm lenses, as using only a 50mm lens would limit visibility of the immediate context and provide an inadequate understanding of the viewing impact presented by the proposed development.

Full metadata of all photographs is recorded during the site photography. The critical data we extract from each photos is the date, time and lens information.

3.3 ALIGNMENT OF 3D SCENE

To align the 3D scene to the correct geographical location, we used the following data:

Using the site survey drawing (supplied at MGA-56 GDA 2020) we were able to align the site boundaries and existing buildings in the 3D model to the site survey.

Cameras were aligned to surveyed positions that were supplied by CMS Surveyors at MGA-56 GDA 2020.

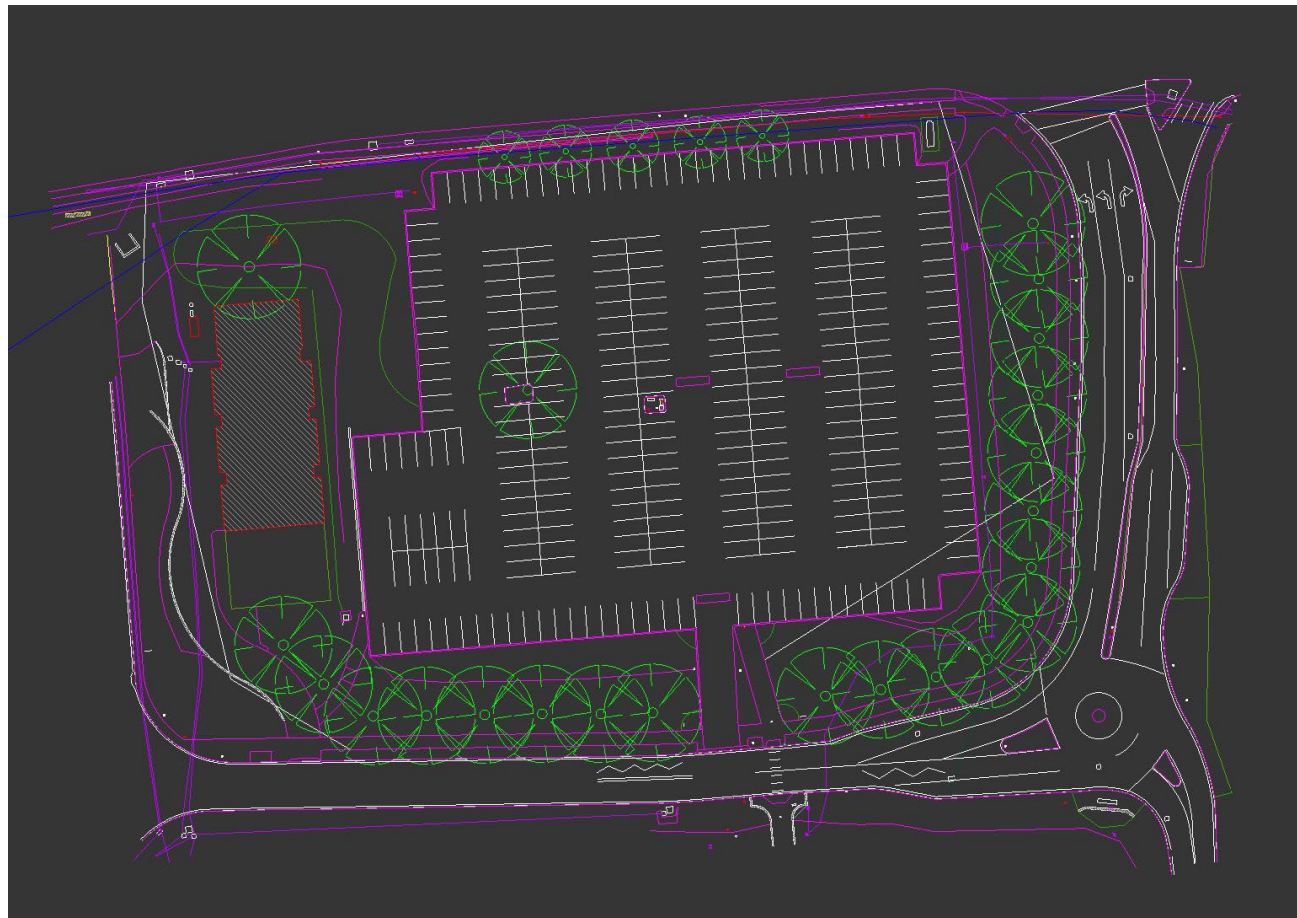


Image showing the survey drawing from LTS Surveyors supplied at MGA 56 GDA2020

3.4 RENDERING CREATION

After the completing the camera alignment, we add lighting to the 3D scene.

A digital sunlight system was added in the 3D scene to match the lighting direction of the sun in Sydney, NSW. This was done using the software's sunlight system that matches the angle of the sun using location data and time and date information.

For the renderings, we applied a basic white material to the proposed building.

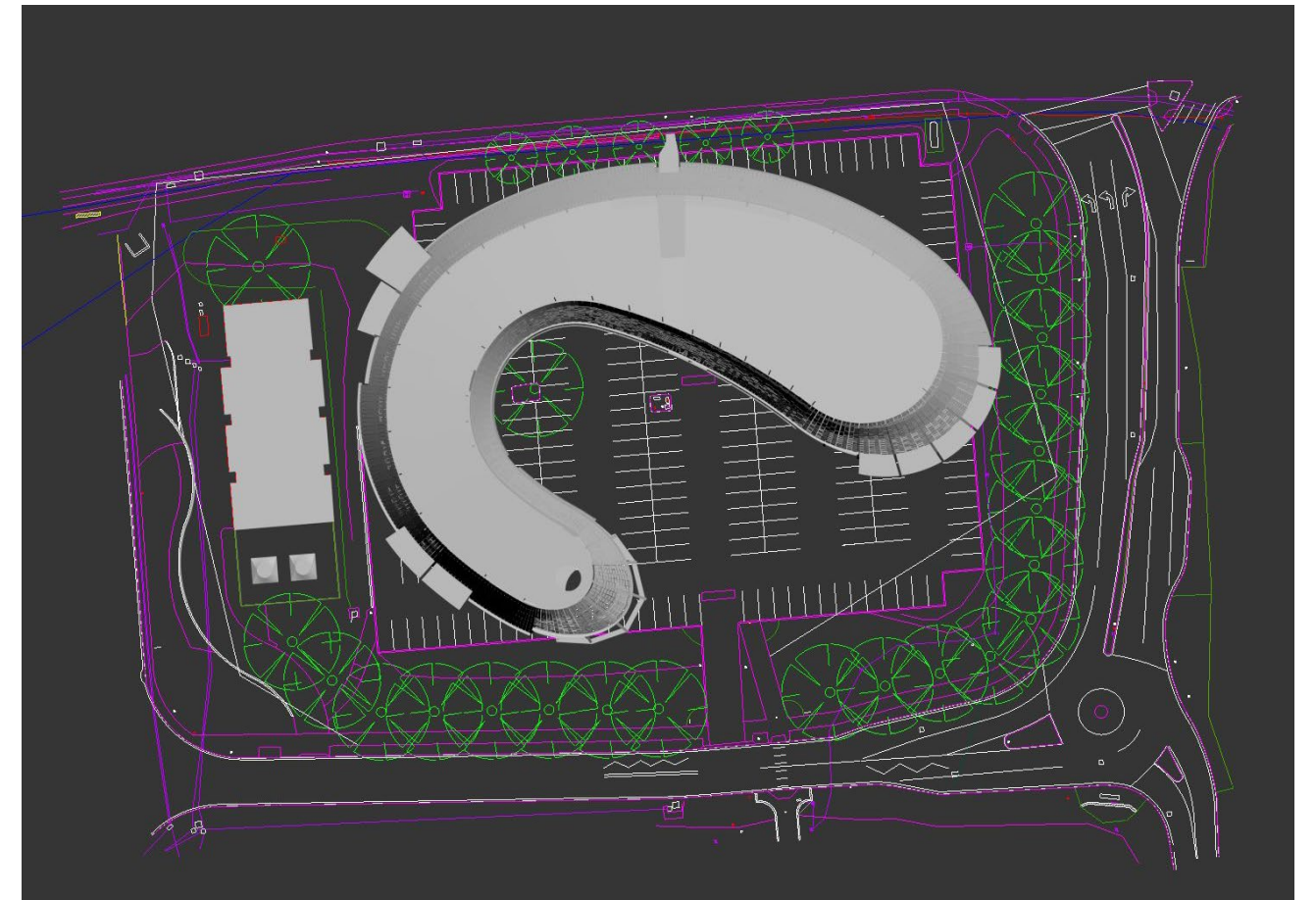
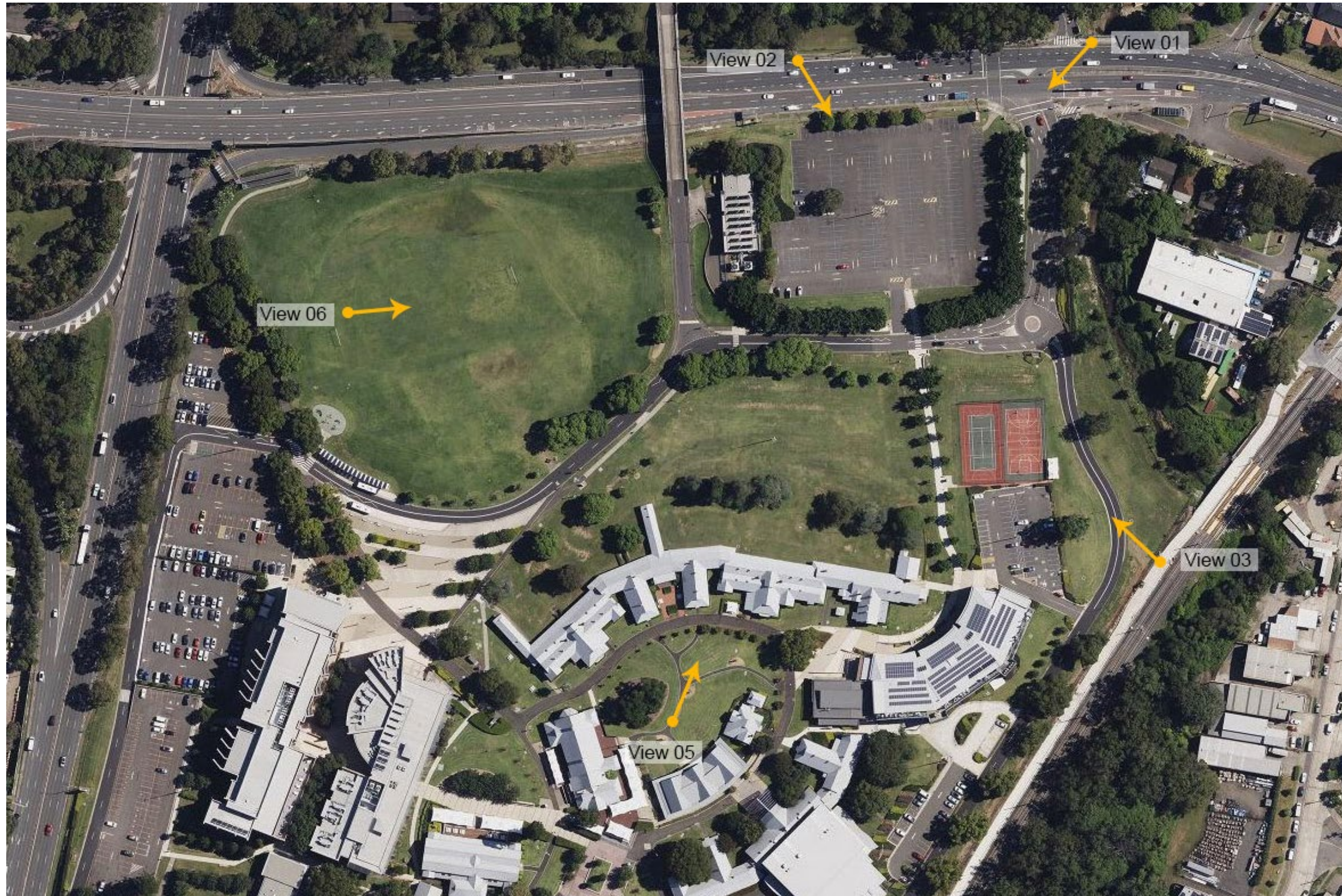


Image showing the 3D model of both the existing and proposed building from JCB aligned to the site survey

4.1 MAP OF 3D CAMERA LOCATIONS



4.2 MAP OF 3D CAMERA LOCATIONS

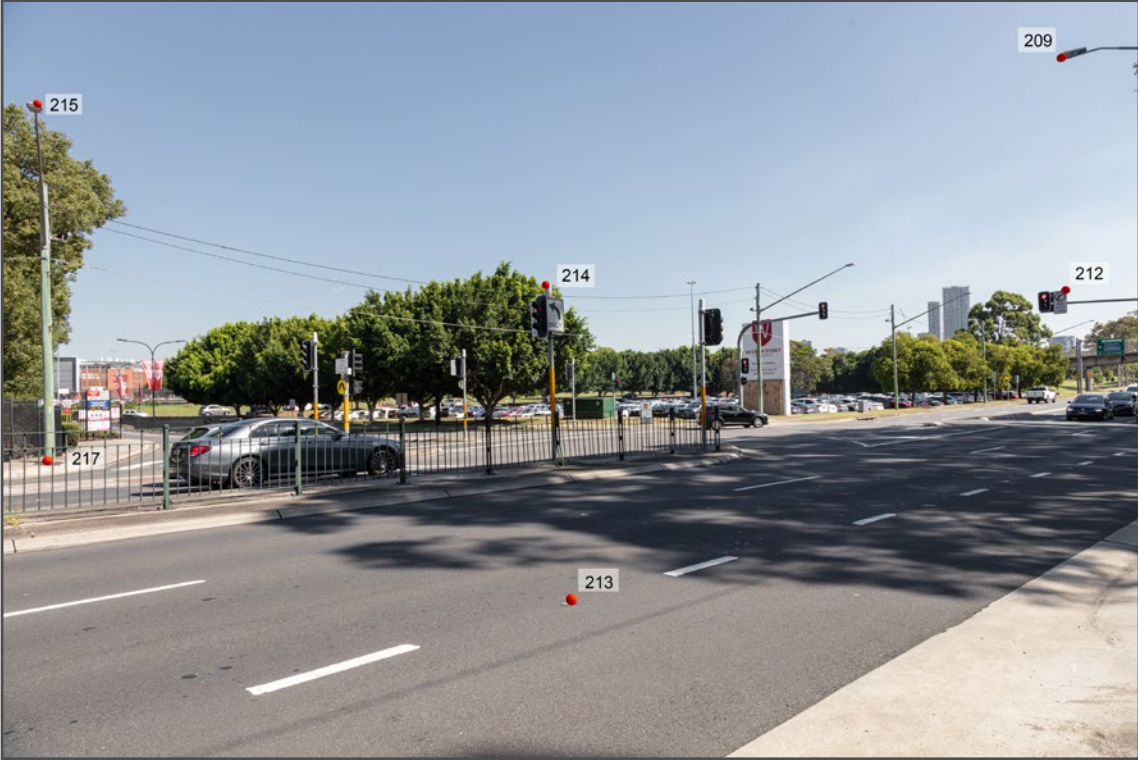


5.1 Viewpoint 01 - Victoria Road (East)

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



PHOTOGRAPH DETAILS

File Name: View 01-B_24mm_01
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 2:55PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 24mm

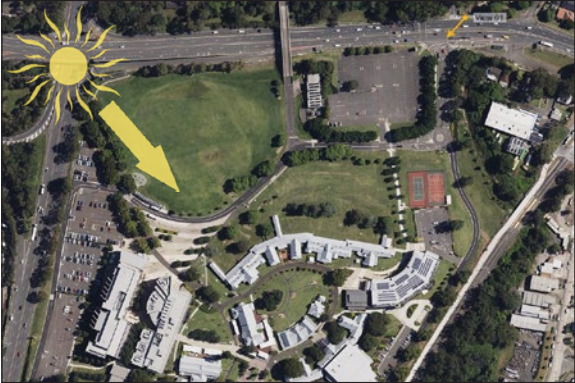
PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)

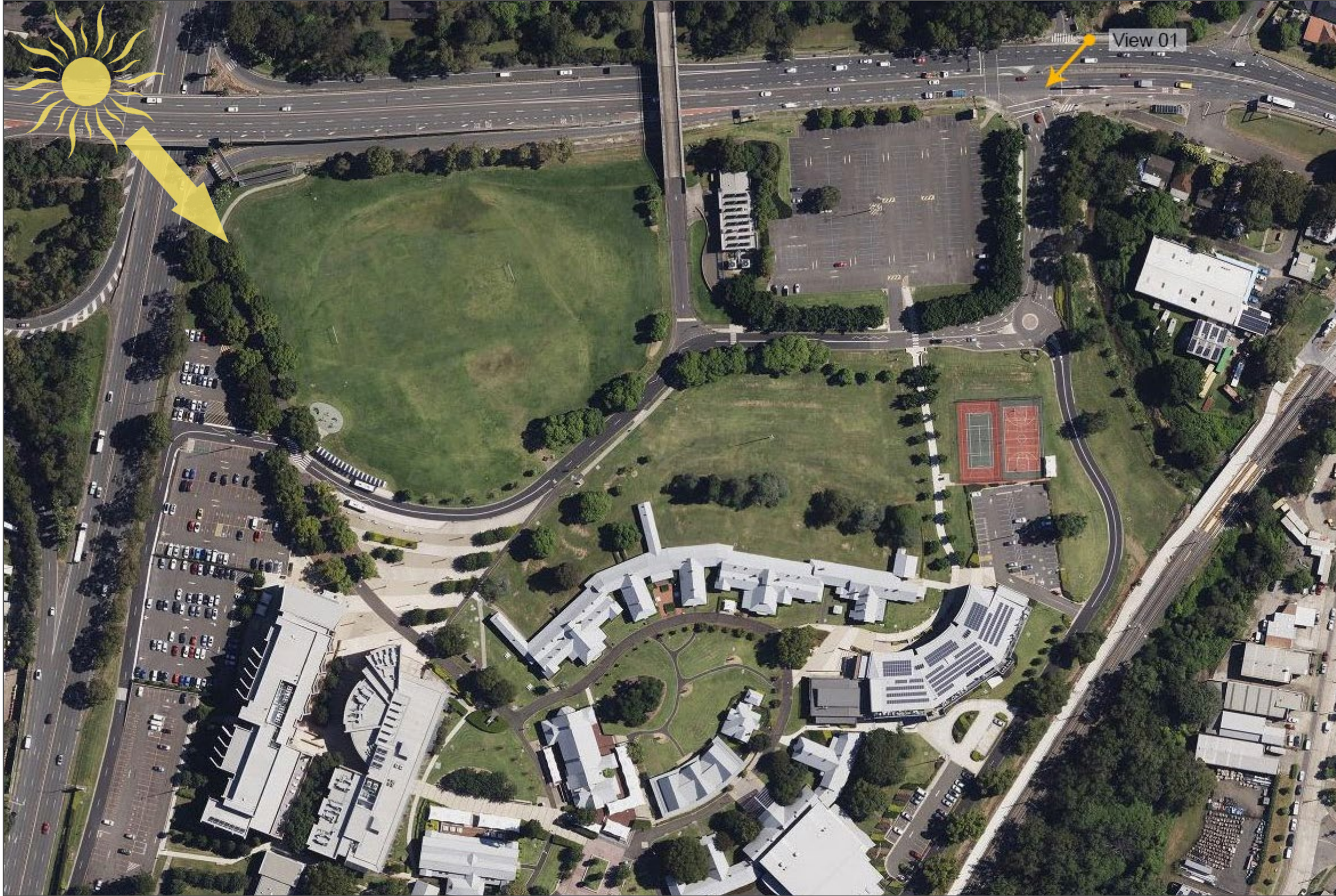


VIEWPOINT LOCATION



5.2 Viewpoint 01 - Victoria Road (East)

VIEWPOINT LOCATION



5.3 Viewpoint 01 - Victoria Road (East)

PHOTOGRAPH SHOWING EXISTING CONDITION



5.4 Viewpoint 01 - Victoria Road (East)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



5.5 Viewpoint 01 - Victoria Road (East)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



5.6 Viewpoint 01 - Victoria Road (East)

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



6.1 Viewpoint 02 - Victoria Road (West)

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



PHOTOGRAPH DETAILS

File Name: View 02-C_24mm_01
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 3:11PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 24mm

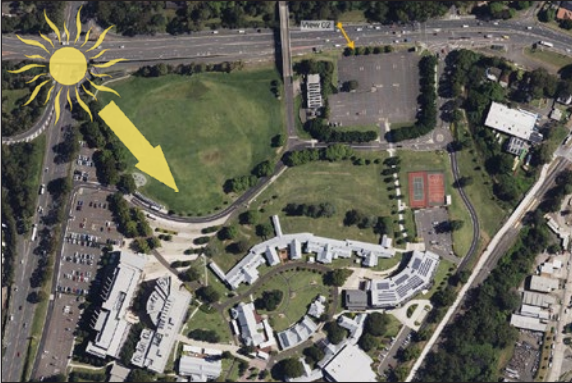
PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)

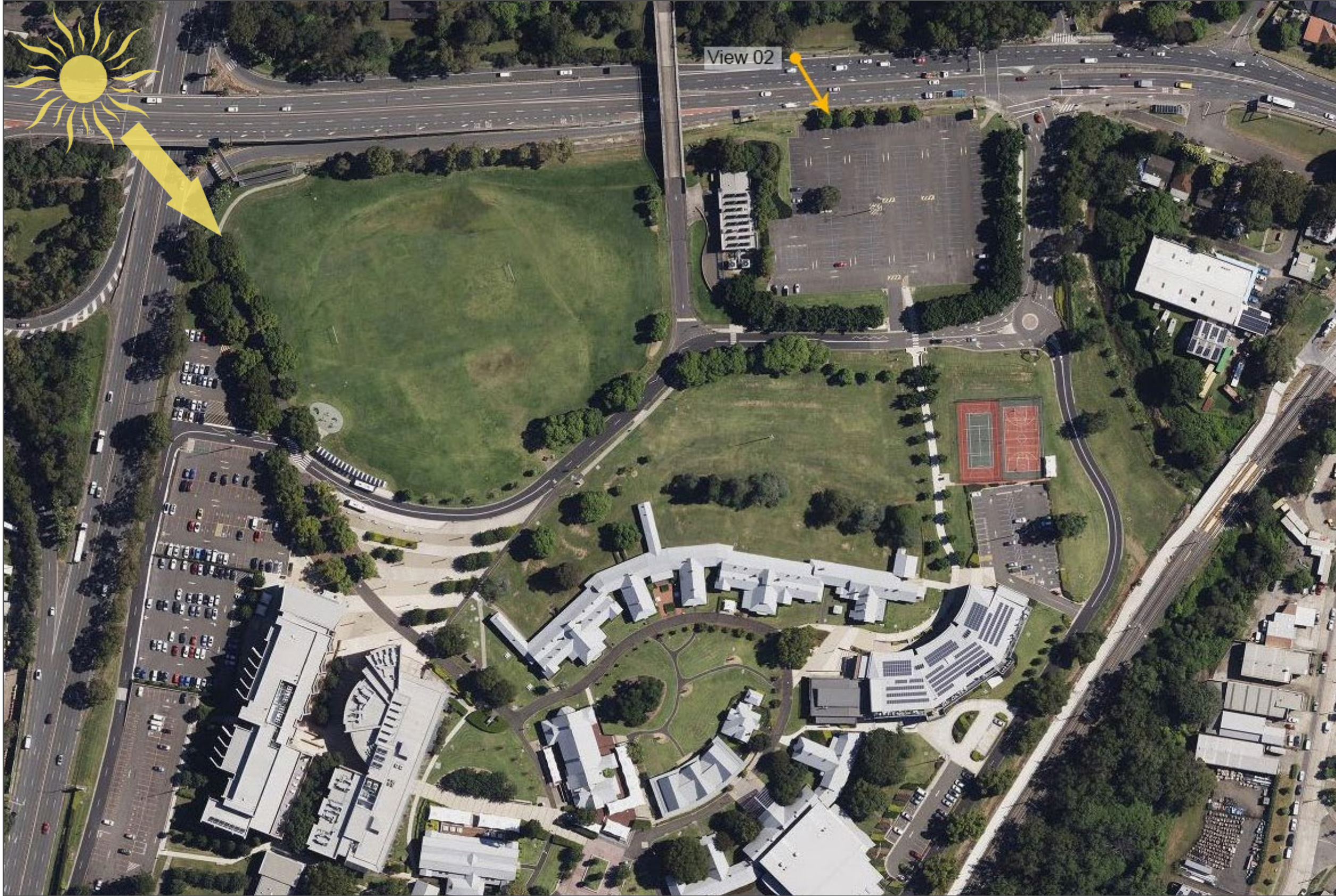


VIEWPOINT LOCATION



6.2 Viewpoint 02 - Victoria Road (West)

VIEWPOINT LOCATION



6.3 Viewpoint 02 - Victoria Road (West)

PHOTOGRAPH SHOWING EXISTING CONDITION



6.4 Viewpoint 02 - Victoria Road (West)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



6.5 Viewpoint 02 - Victoria Road (West)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



6.6 Viewpoint 02 - Victoria Road (West)

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



7.1 Viewpoint 03 - Yallamundi Lightrail Stop

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



PHOTOGRAPH DETAILS

File Name: View 03_35mm_02
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 4:42PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 35mm

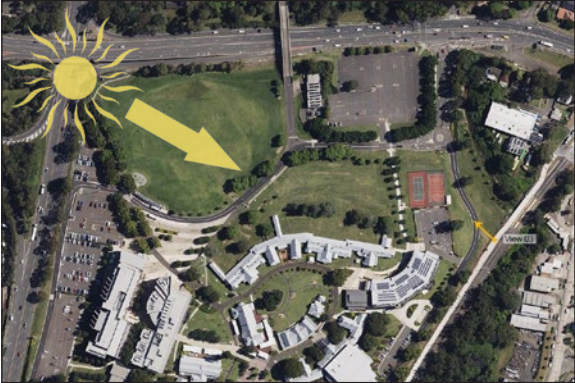
PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)

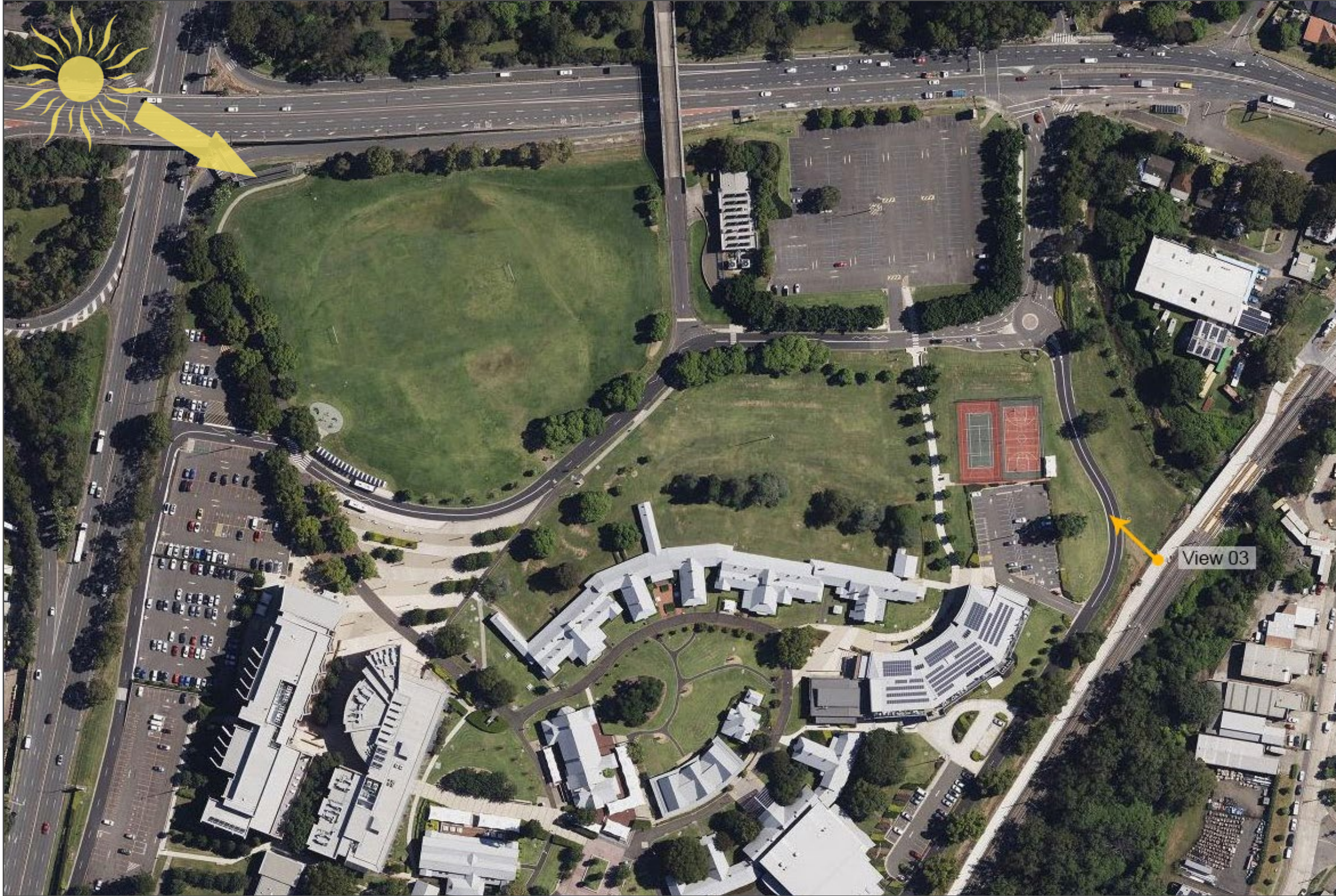


VIEWPOINT LOCATION



7.2 Viewpoint 03 - Yallamundi Lightrail Stop

VIEWPOINT LOCATION



7.3 Viewpoint 03 - Yallamundi Lightrail Stop

PHOTOGRAPH SHOWING EXISTING CONDITION



7.4 Viewpoint 03 - Yallamundi Lightrail Stop

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



7.5 Viewpoint 03 - Yallamundi Lightrail Stop

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



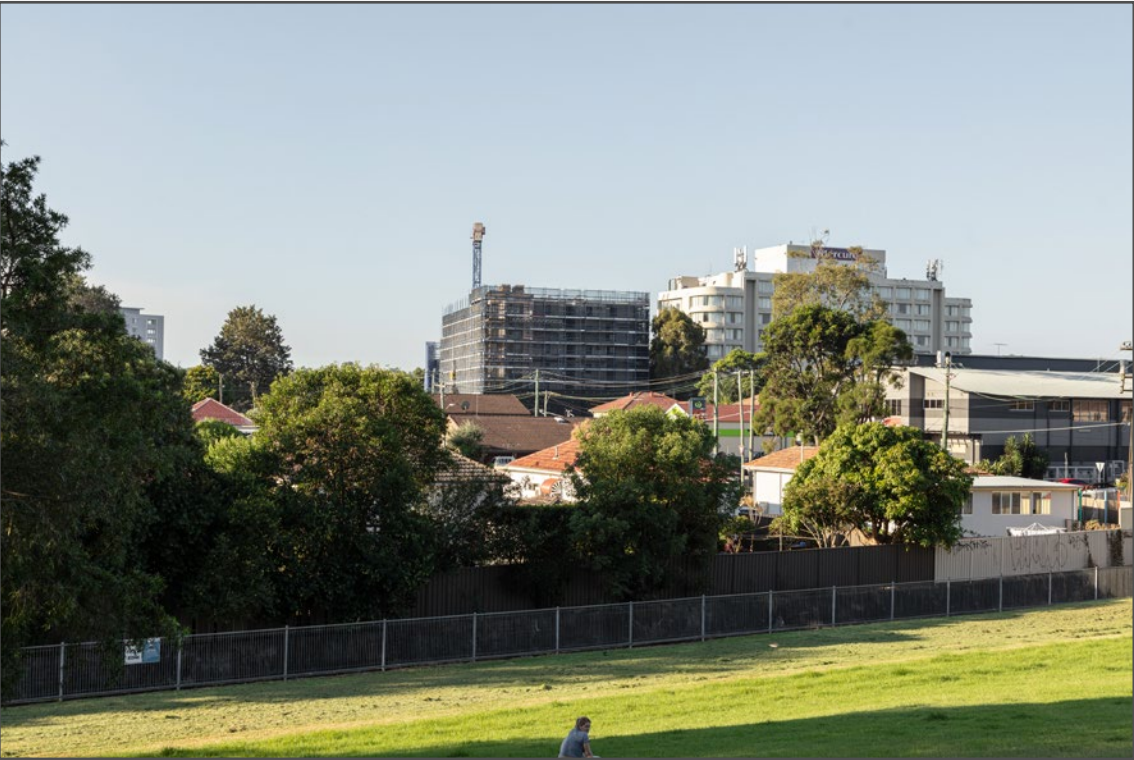
7.6 Viewpoint 03 - Yallamundi Lightrail Stop

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



8.1 Viewpoint 04 - Elizabeth Farm

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



PHOTOGRAPH DETAILS

File Name: View 04-A-Option 02_50mm_04
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 5:30PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 50mm

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



VIEWPOINT LOCATION



8.2 Viewpoint 04 - Elizabeth Farm

VIEWPOINT LOCATION



8.3 Viewpoint 04 - Elizabeth Farm

PHOTOGRAPH SHOWING EXISTING CONDITION



8.4 Viewpoint 04 - Elizabeth Farm

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



8.5 Viewpoint 04 - Elizabeth Farm

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



8.6 Viewpoint 04 - Elizabeth Farm

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



9.1 Viewpoint 05 - Western Sydney University (Sixth Street)

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT

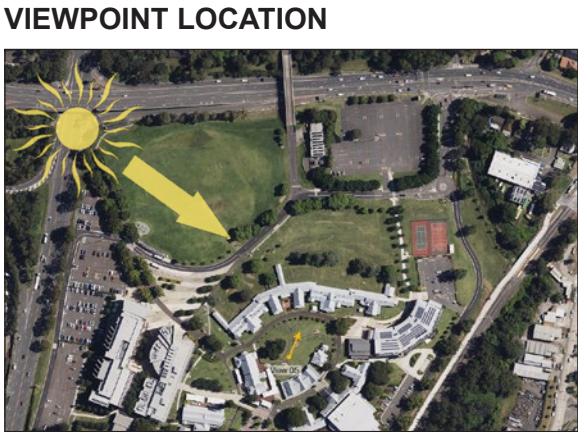


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File Name: View 05_24mm
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 4:06PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 24mm

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)

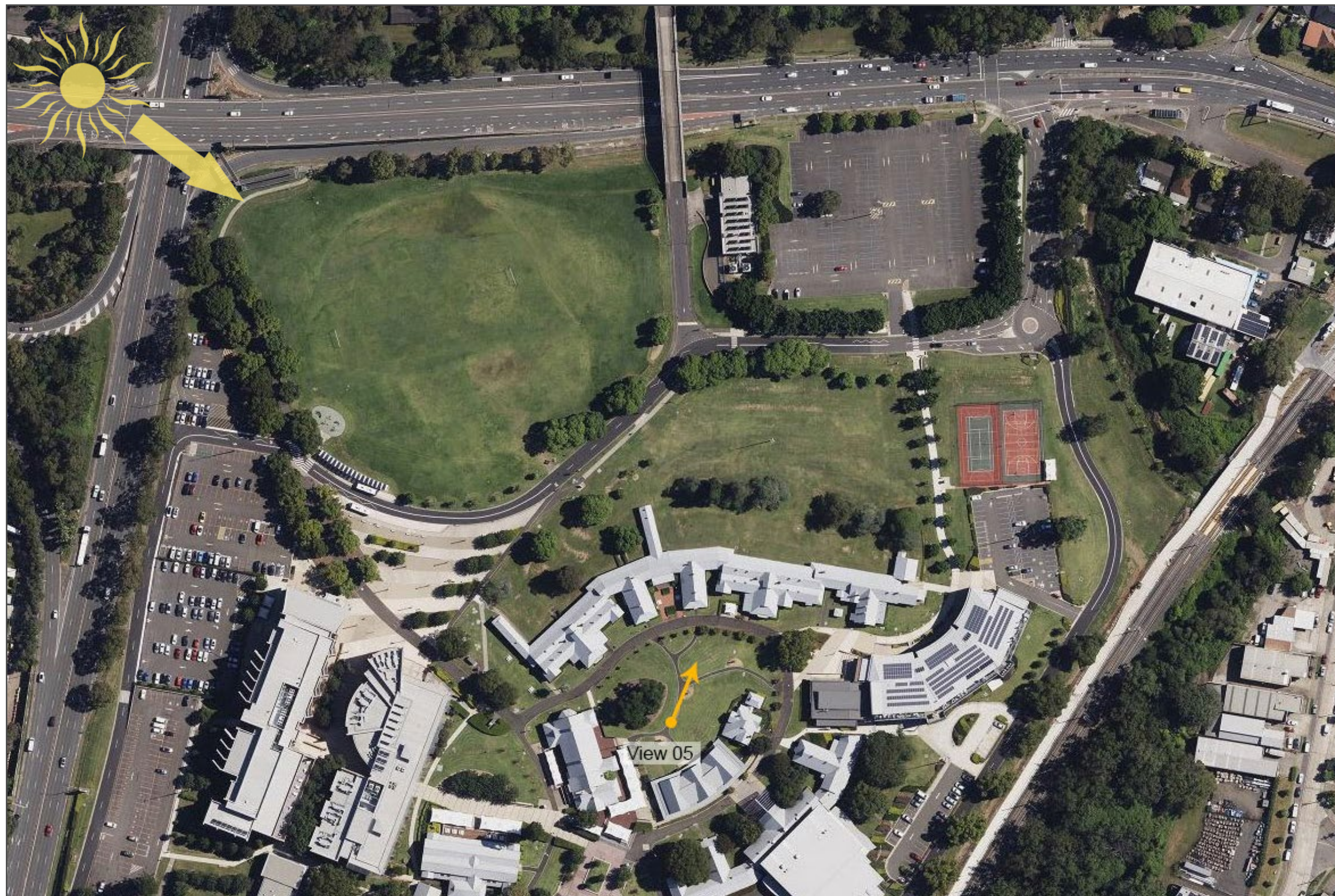


PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



9.2 Viewpoint 05 - Western Sydney University (Sixth Street)

VIEWPOINT LOCATION



9.3 Viewpoint 05 - Western Sydney University (Sixth Street)

PHOTOGRAPH SHOWING EXISTING CONDITION



9.4 Viewpoint 05 - Western Sydney University (Sixth Street)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



9.5 Viewpoint 05 - Western Sydney University (Sixth Street)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



9.6 Viewpoint 05 - Western Sydney University (Sixth Street)

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



10.1 Viewpoint 06 - Western Sydney University (The Oval)

PHOTOGRAPH SHOWING EXISTING CONDITION



SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT

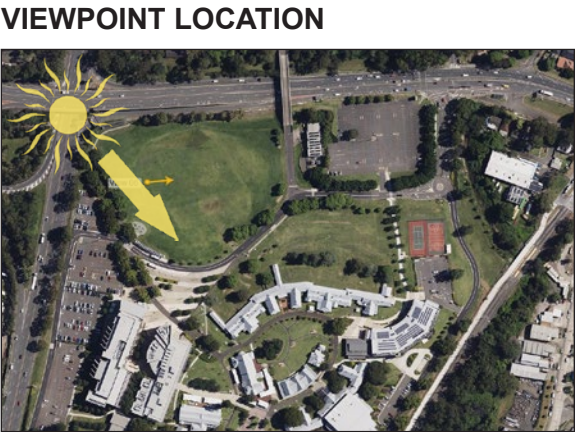


PHOTOGRAPH DETAILS
File Name: View 06_35mm
Author: Virtual Ideas
Format: CR2
Date: 26th March 2024
Time: 3:42PM
Lens: EF24-105mm f/4L IS USM
Model: Canon EOS 5DS R
Sensor: Full frame
Focal length: 35mm

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)

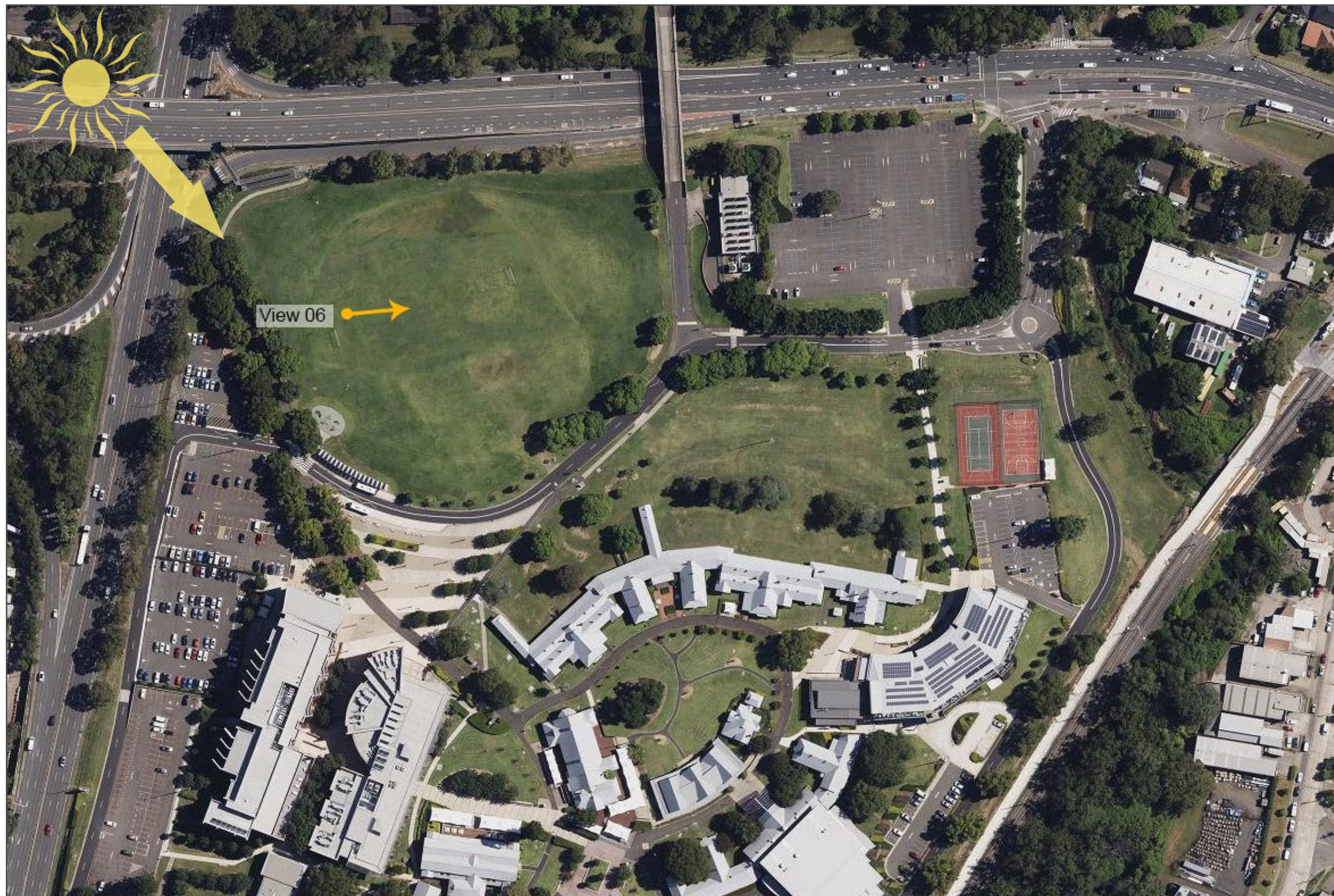


PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



10.2 Viewpoint 06 - Western Sydney University (The Oval)

VIEWPOINT LOCATION



10.3 Viewpoint 06 - Western Sydney University (The Oval)

PHOTOGRAPH SHOWING EXISTING CONDITION



10.4 Viewpoint 06 - Western Sydney University (The Oval)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND PREVIOUS PROPOSED DEVELOPMENT (APRIL 2025)



10.5 Viewpoint 06 - Western Sydney University (The Oval)

PHOTOMONTAGE SHOWING EXISTING CONDITION AND CURRENT PROPOSED DEVELOPMENT (NOVEMBER 2025)



10.6 Viewpoint 06 - Western Sydney University (The Oval)

SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT



11.1 3D SCENE DATA SOURCES

A.1 - 3D Model of the proposed - refer to Appendix A

File Name: 23-032_WSU ICOE_3D MODEL FOR VIA_251112
Author: Jackson Clements Burrows Architects
Format: FBX
Alignment: MGA 56 GDA2020

A.2 - Site Survey - refer to Appendix B for details

File Name: CC24019-D-240326
Author: LTS Surveyors
Format: Autocad DWG
Alignment: MGA 56 GDA2020

A.3 - Site Photography Survey - refer to Appendix C for details

File Name: 22481Aphotolocations 1
Author: CMS
Format: Autocad DWG
Alignment: MGA 56 GDA2020

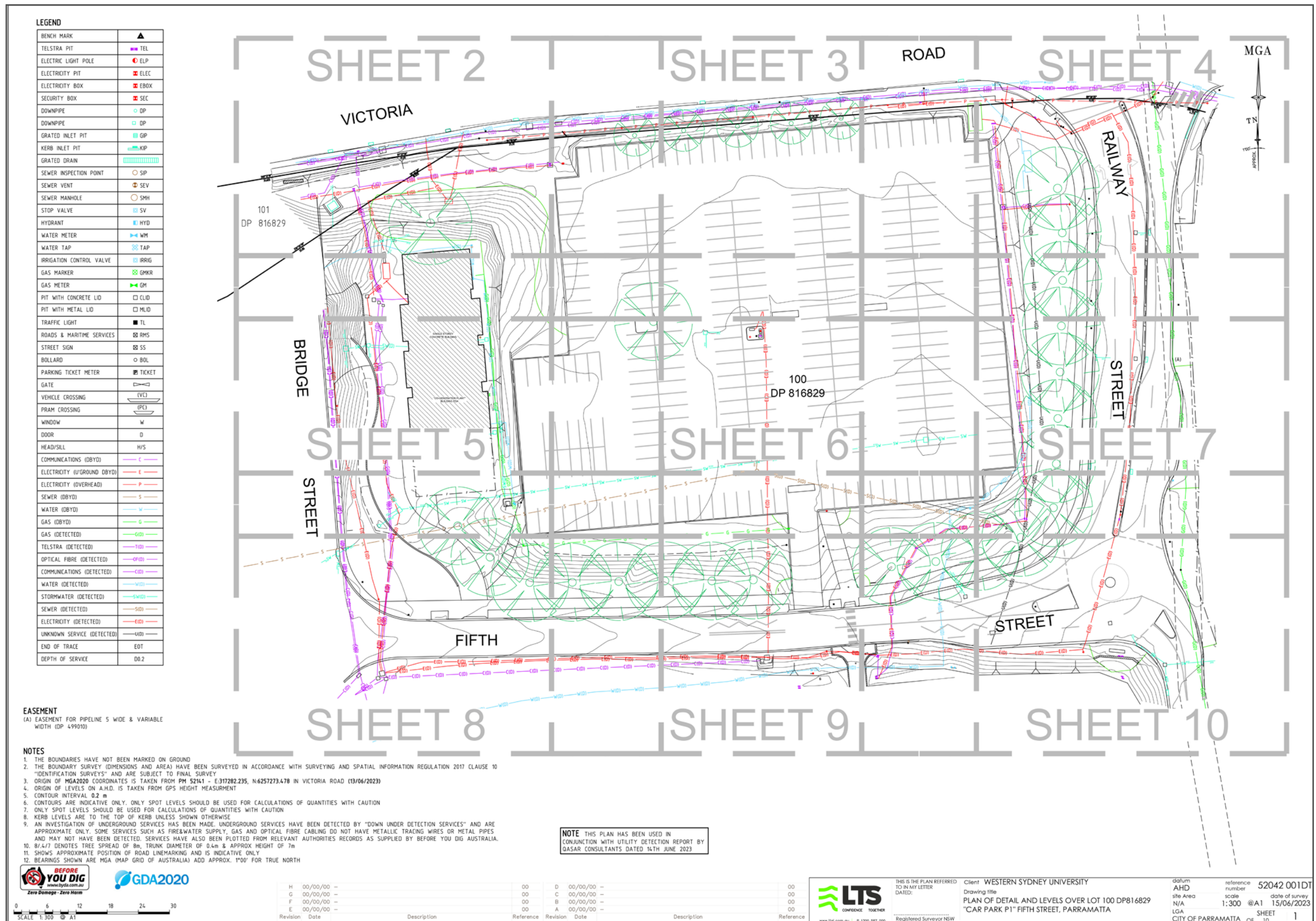
A.4 - Photogrammetric city model

File Name: Aerometrex Sydney model
Author: Aerometrex
Format: obj/3DS Max
Alignment: MGA 56 GDA2020

11.2 APPENDIX A: 3D MODEL SUPPLIED BY JACKSON CLEMENTS BURROWS ARCHITECTS



11.3 APPENDIX B: SITE SURVEY SUPPLIED BY LTS SURVEYORS



CMS Surveyors Pty Limited

A.B.N. 79 096 240 201

LAND SURVEYING, PLANNING & DEVELOPMENT CONSULTANTS

Page 1 of 2

Date: 05/04/2024

Our Ref: 22481A Photo Locations

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Rick Mansfield,

RE: PHOTO LOCATIONS – Western Sydney University Parramatta Campus

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations for Western Sydney University Parramatta Campus.

Co-ordinates are MGA 56 (GDA 2020) and elevation to Australian Height datum (AHD).

Measurements were taken using theodolite measurement and GNSS measurements by CORSNET. MGA and AHD derived from SSM 76270, PM 34074 & SSM 77012.

DWG of locations has also been supplied.

Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
54	317282.636	6256983.713	13.525	VIEWPOINT 5 CAMERA POSITION SIXTH STREET
55	317280.400	6257021.528	13.273	BASE OF TREE
56	317293.071	6257037.994	20.854	ROOF RIDGE
58	317323.294	6257036.133	21.374	ROOF RIDGE
60	317328.152	6257007.085	13.308	BOTTOM OF HYDRANT
62	317317.671	6256998.986	16.993	TOP OF GUTTER
64	317289.875	6256996.873	13.544	BOTTOM OF POST
100	317259.697	6257122.981	10.304	BASE OF TREE
101	317132.122	6257155.456	8.706	VIEWPOINT 6 POSITION THE OVAL
102	317276.551	6257237.125	13.368	UNDERSIDE OF BRIDGE PYLON
104	317302.264	6257188.827	14.667	TOP OF WALL
107	317221.183	6257163.842	18.317	TOP OF POST
110	317224.175	6257151.109	8.568	BOTTOM OF POST
112	317325.030	6257108.375	30.397	TOP OF LIGHT TOWER
200	317339.339	6257272.981	8.321	RED ROAD REFLECTOR
201	317334.726	6257269.11	8.465	WHITE ROAD REFLECTOR
202	317341.688	6257254.294	18.765	TOP OF STREET LIGHT

HEAD OFFICE
2/99A South Creek Rd, DEE WHY NSW 2099
PO Box 463, DEE WHY NSW 2099
Ph: 02 9971 4802 Fax: 02 9971 4822
Email: info@cmssurveyors.com.au
Web: www.cmssurveyors.com.au

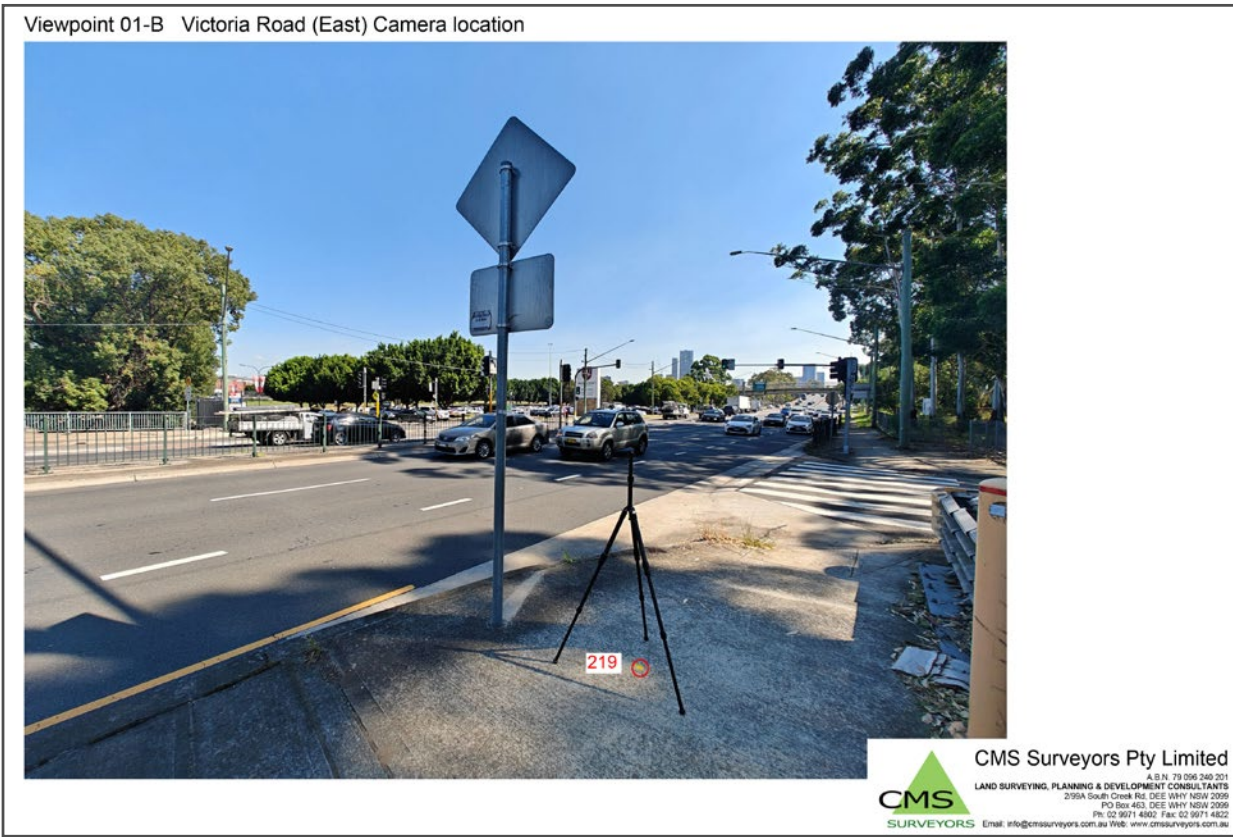
INCORPORATING
A.C. GILBERT & Co.
(Roseville)
MBS GREEN & ASSOCIATES
(Mona Vale)

COOTAMUNDRA
Incorporating PENGELLY & GRAY
90 Wallendoon St, COOTAMUNDRA NSW 2590
Ph: 02 6942 3395 Fax: 02 6942 4046
Email: coota@cmssurveyors.com.au

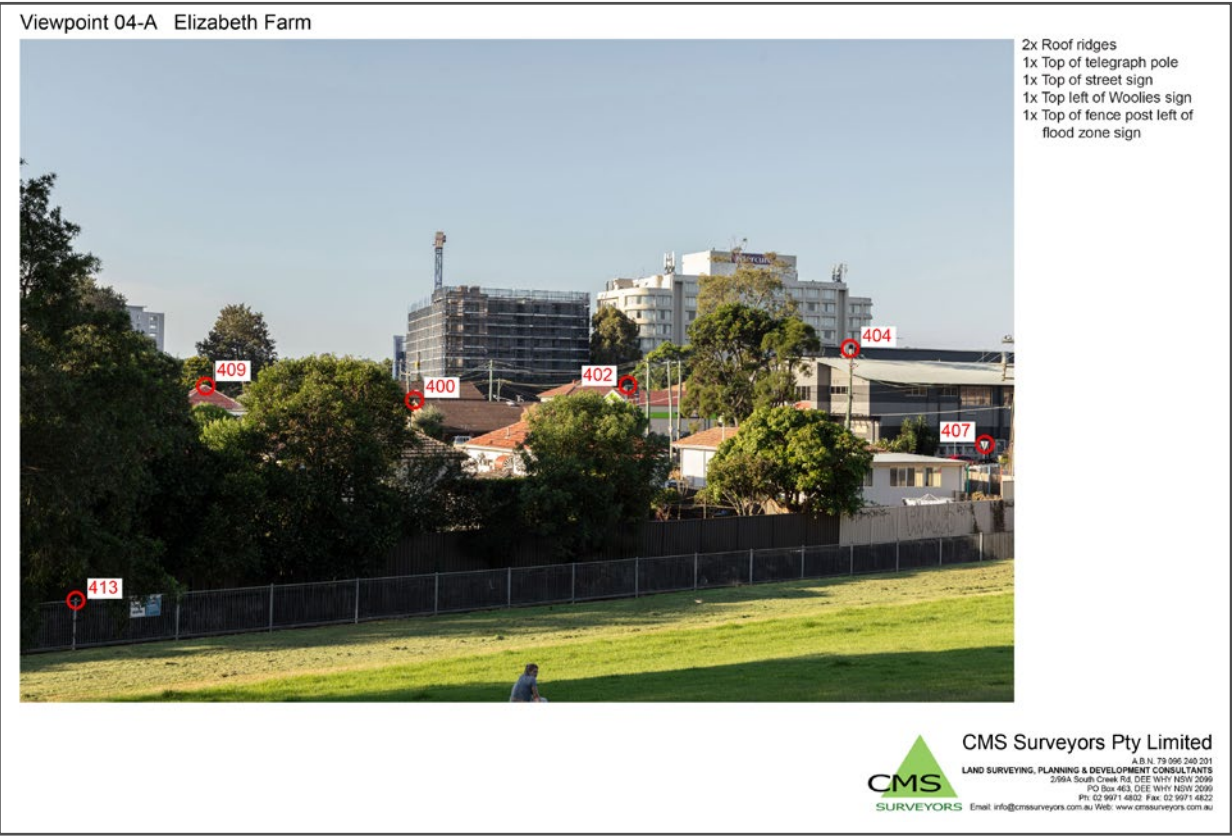
Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
203	317367.147	6257256.488	18.333	TOP OF STREET LIGHT
205	317356.853	6257271.155	18.053	TOP OF STREET LIGHT
206	317333.534	6257275.376	8.561	VIEWPOINT 02-C VIC RD WEST
207	317410.623	6257252.016	15.545	TOP LEFT OF ENTRY TOTEM
209	317438.912	6257277.882	18.164	TOP OF STREET LIGHT
212	317414.789	6257271.134	15.161	TOP RIGHT OF SIGN
213	317455.45	6257278.526	8.52	WHITE ROAD REFLECTOR
214	317447.92	6257269.26	12.992	TOP OF TRAFFIC LIGHT
215	317456.900	6257258.736	18.378	TOP OF STREET LIGHT
217	317455.9432	6257252.78	8.39	BASE OF STREET LIGHT
219	317459.63	6257283.501	8.784	VIEWPOINT 01-B VIC RD EAST
301	317494.178	6257059.204	7.876	VIEWPOINT 03 LIGHTRAIL STOP
304	317466.017	6257153.981	11.139	FORK OF TREE BRANCH
306	317457.313	6257129.88	11.148	TOP OF SIGN
308	317454.174	6257117.735	16.508	TOP OF STREET LIGHT
311	317472.603	6257080.781	16.65	TOP OF STREET LIGHT
313	317470.434	6257080.091	8.755	BOTTOM OF STREET LIGHT
314	317458.166	6257073.418	13.252	FORK OF TREE BRANCH
400	316645.963	6256072.016	9.829	ROOF RIDGE
402	316690.449	6256104.672	11.985	TOP OF STREET SIGN
404	316683.064	6256054.331	15.194	TOP OF TELEGRAPH POST
407	316684.05	6256038.894	7	TOP OF STREET SIGN
409	316646.945	6256143.853	11.271	ROOF RIDGE
413	316599.972	6255992.545	4.402	TOP OF FENCE POST
415	316591.831	6255952.106	8.54	VIEWPOINT 04-A ELIZABETH FARM

Yours faithfully,
CMS Surveyors Pty Limited
Patrick Butterworth

11.5 APPENDIX C: SITE PHOTO SURVEY SUPPLIED BY CMS



11.6 APPENDIX C: SITE PHOTO SURVEY SUPPLIED BY CMS



11.7 APPENDIX C: SITE PHOTO SURVEY SUPPLIED BY CMS



11.8 APPENDIX D: TREE MANAGEMENT PLAN SUPPLIED BY JCB

