

# Hastings Secondary College, Port Macquarie

Private Views - Visual Impact Photomontage and Methodology Report

VIRTUAL IDEAS

## 1. INTRODUCTION

This document was prepared by Virtual Ideas to demonstrate the visual impact of the proposed development at Hastings Secondary College, Port Macquarie 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. PHOTOMONTAGE METHODOLOGY

The following describes the process that we undertake to create the photomontage 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 point using the MGA 56 co-ordinates system.

We have used a variety of data from various sources to create the 3D scene including a building 3D model and a site survey. A detailed description of the various data sources used in this report can be found in Appendix A.

All data has been imported into the 3D scene at real world scale and positioned to a common reference point. This common reference point is established by using the MGA-56 co-ordinates system. When we receive data sources that are not positioned to MGA-56 co-ordinates, we use common points in the data sources that can be aligned to points in other data sources that are positioned at MGA-56. 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 3.4.

### 3.2 SITE PHOTOGRAPHY

The site photography was captured from locations that were nominated by Ethos Urban, School Infrastructure NSW and DFP Planning.

Camera lenses for each photograph were selected taking a variety of factors into consideration including the distance from the site and the size of the proposed development with respect to the existing built form and landscape.

In some cases, a specific lens requirement set by planning authorities may not produce a photomontage that is effective for visual impact assessment. In the cases where we are required to satisfy a specific lens stipulation and we consider that this is not effective for assessment of visual impact, we will outline the extent of the longer lens on the photomontage.

Full metadata of the photographs was recorded during the site photography. The critical data we extracted was date, time and lens width or field of view.

### 3.3 SITE AND PHOTOGRAPHY LOCATION SURVEY

To correctly adjust the digital cameras in our 3D scenes to match the positions of the site photography, we used the relevant information provided in the site survey drawing (at MGA 56 co-ordinates) and a 3D model was created from drawings provided from FJMT.

### 3.4 ALIGNMENT OF 3D SCENE TO PHOTOGRAPHY

To align the 3D scene to the photograph, we first imported the site and photography location survey data into the 3D scene.

We then loaded the photograph into the background of the corresponding 3D scene camera view, ensuring that the aspect ratio and lens setting match.

The 3D scene camera was moved to the correct position and rotated so that the surveyed feature locations match the same features in the photograph.



Image showing proposed survey drawing(in red lines) aligned to architectural drawing(in yellow lines)

### 3.5 RENDERING AND PHOTOMONTAGE 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 the photograph. This was done using the software sunlight system that matches the angle of the sun using location data and time and date information. This data was extracted from the metadata of the site photographs.

For the photomontages, we were requested to apply a basic white material to the proposed development.

Trees being proposed for removal were also removed from the photography where this was achievable and trees easily identifiable. We referenced the supplied documentation included as Appendix E and F to ascertain the locations of such trees.

We also placed future proposed trees into the 3D model referring the proposed tree managment plan included as Appendix G. Proposed trees are shown in the images as semi-transparent with a green overlay.

Images were then rendered from the software and layered over the photograph. Additional linework was added to show where built form occurs behind existing built form and landscape.

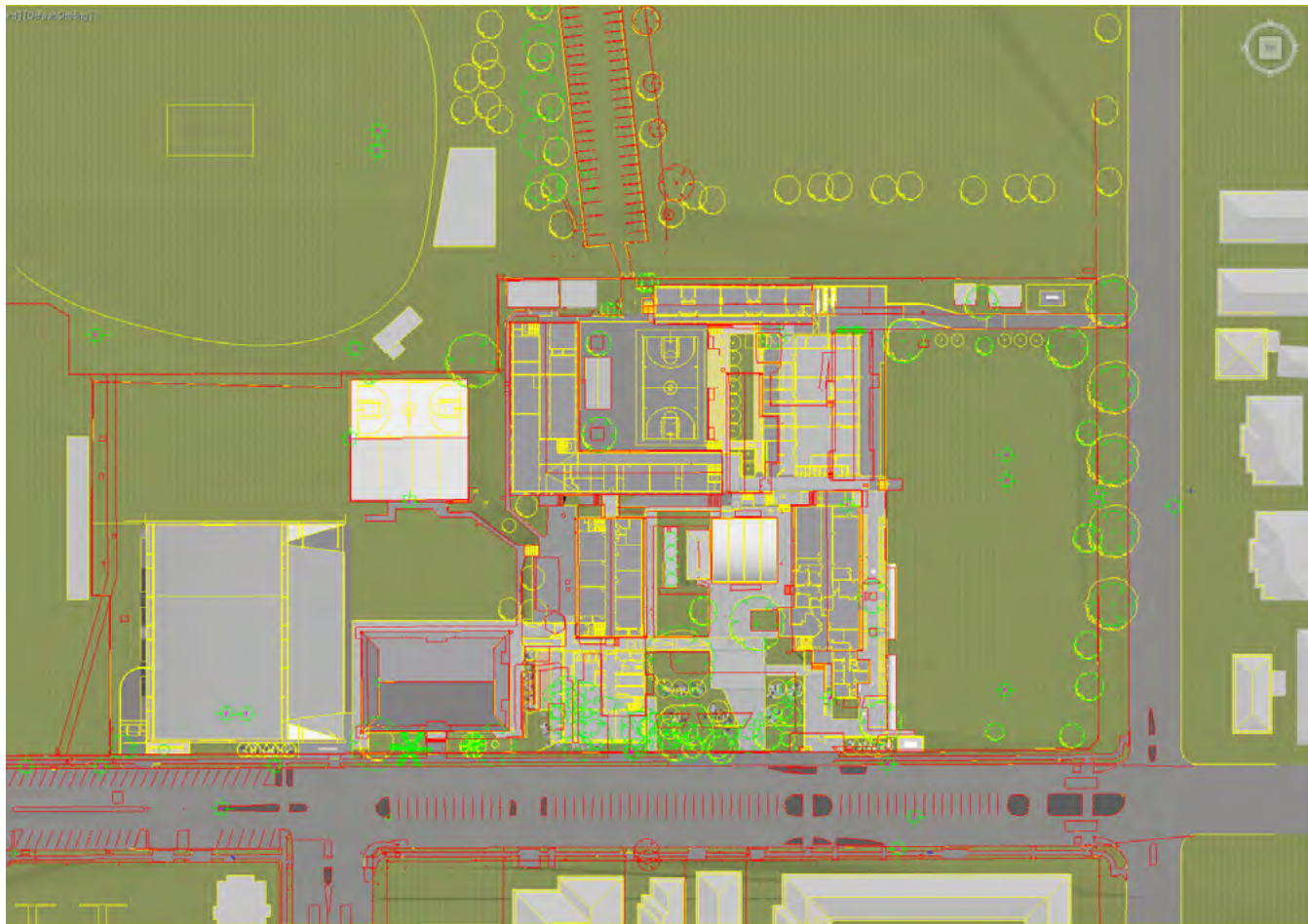


Image showing building model aligned to survey and architectural drawings



4. MAP OF PHOTOGRAPHY LOCATIONS

PLAN ILLUSTRATING PRIVATE VIEW CAMERA LOCATIONS FOR VISUAL IMPACT PHOTOGRAPHY OF HASTING SECONDARY SCHOOL, PORT MACQUARIE NSW





5.1 CAMERA POSITION 01 - 21 OWEN ST

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	22nd July 2021
Camera Used:	Canon EOS 80D
Camera Lens:	EF-S18-55mm f/3.5-5.6 IS STM
Focal length in 35mm Film:	33.6mm



## 5.1 CAMERA POSITION 01 - 21 OWEN ST

### ORIGINAL PHOTOGRAPH





5.1 CAMERA POSITION 01 - 21 OWEN ST

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.2 CAMERA POSITION 02 - LA MER UNIT 4

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	23rd July 2021
Camera Used:	Canon EOS 80D
Camera Lens:	EF-S18-55mm f/3.5-5.6 IS STM
Focal length in 35mm Film:	33.6mm



5.2 CAMERA POSITION 02 - LA MER UNIT 4

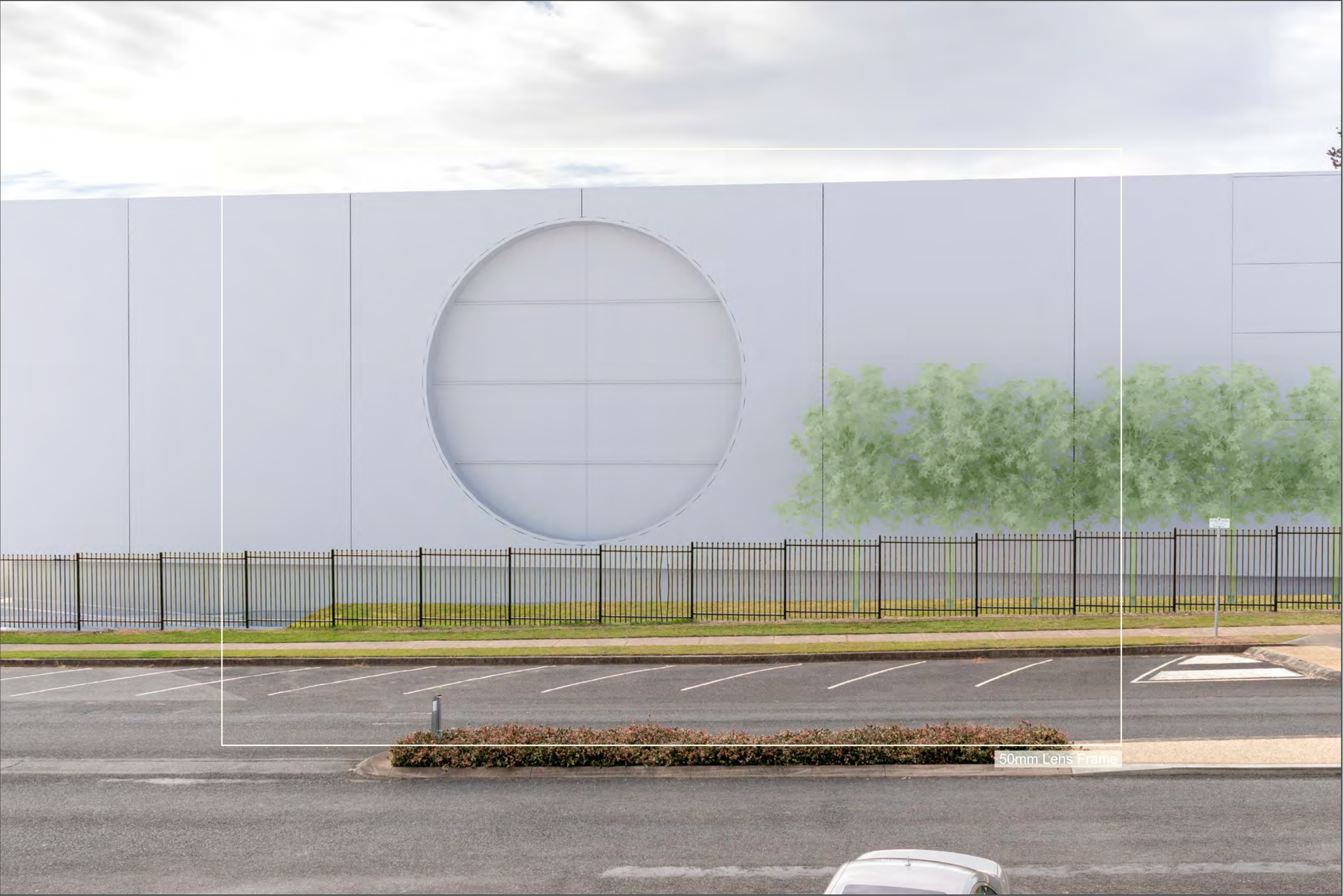
ORIGINAL PHOTOGRAPH





5.2 CAMERA POSITION 02 - LA MER UNIT 4

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.3 CAMERA POSITION 03 - LA MER UNIT 6

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	23rd July 2021
Camera Used:	Canon EOS 80D
Camera Lens:	EF-S18-55mm f/3.5-5.6 IS STM
Focal length in 35mm Film:	33.6mm



5.3 CAMERA POSITION 03 - LA MER UNIT 6

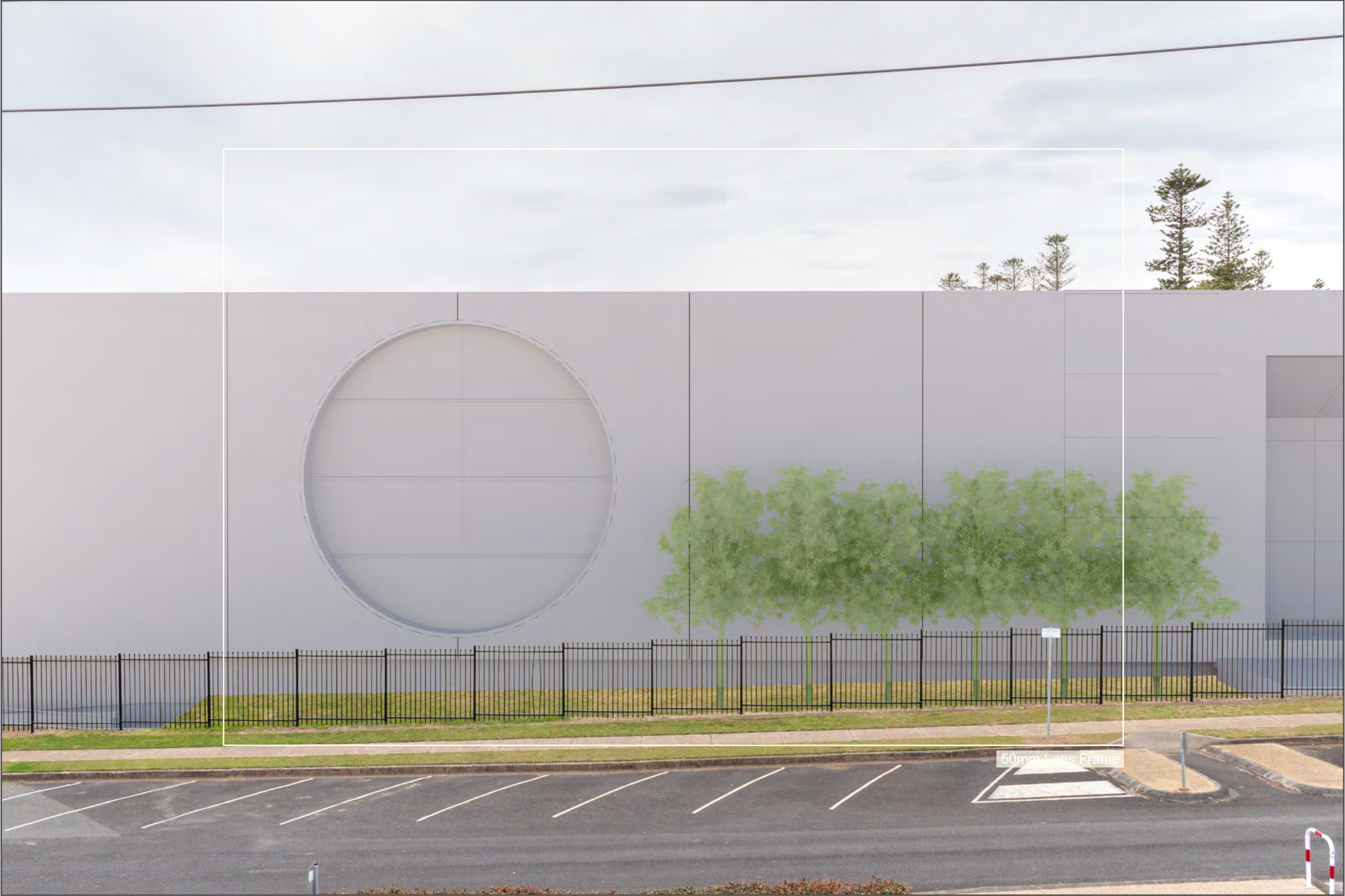
ORIGINAL PHOTOGRAPH





5.3 CAMERA POSITION 03 - LA MER UNIT 6

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.4 CAMERA POSITION 04 - LA MER UNIT 14

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	21st July 2021
Camera Used:	Canon EOS 80D
Camera Lens:	EF-S10-18mm f/4.5-5.6 IS STM
Focal length in 35mm Film:	24mm



5.4 CAMERA POSITION 04 - LA MER UNIT 14

ORIGINAL PHOTOGRAPH





5.4 CAMERA POSITION 04 - LA MER UNIT 14

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.5 CAMERA POSITION 05 - MAINSAIL UNIT 9

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	23rd July 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF-S10-18mm f/4.5-5.6 IS STM
Focal length in 35mm Film:	24mm



## 5.5 CAMERA POSITION 05 - MAINSAIL UNIT 9

### ORIGINAL PHOTOGRAPH





5.5 CAMERA POSITION 05 - MAINSAIL UNIT 9

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.6 CAMERA POSITION 06 - MAINSAIL UNIT 10

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	21st July 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF-S10-18mm f/4.5-5.6 IS STM
Focal length in 35mm Film:	20.8mm



## 5.6 CAMERA POSITION 06 - MAINSAIL UNIT 10

### ORIGINAL PHOTOGRAPH





5.6 CAMERA POSITION 06 - MAINSAIL UNIT 10

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



5.7 CAMERA POSITION 07 - MAINSAIL UNIT 11

ORIGINAL PHOTOGRAPH



PHOTOMONTAGE OF PROPOSED DEVELOPMENT



ALIGNMENT OF SURVEYED POINTS



PHOTOGRAPH DETAILS

Photo Date:	21st July 2021
Camera Used:	Canon EOS 5DS R
Camera Lens:	EF-S10-18mm f/4.5-5.6 IS
Focal length in 35mm Film:	24mm



## 5.7 CAMERA POSITION 07 - MAINSAIL UNIT 11

### ORIGINAL PHOTOGRAPH





5.7 CAMERA POSITION 07 - MAINSAIL UNIT 11

PHOTOMONTAGE OF PROPOSED DEVELOPMENT



Proposed landscape      Proposed building design



# 6.1 APPENDIX A: 3D SCENE DATA SOURCES

## A.1 - 3D Model of the proposed development

File Name: HSPM Hastings Schools Port Macquarie Model  
Author: FJMT  
Format: DIN3D  
Scene Alignment: MGA GDA2020

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

File Name: 55819-2B DETAIL.dwg  
Author: YSCO GEOMATICS  
Format: Autocad DWG  
Alignment: MGA GDA2020

## A.2 - Survey of camera location and alignment positions - refer to Appendix C for details

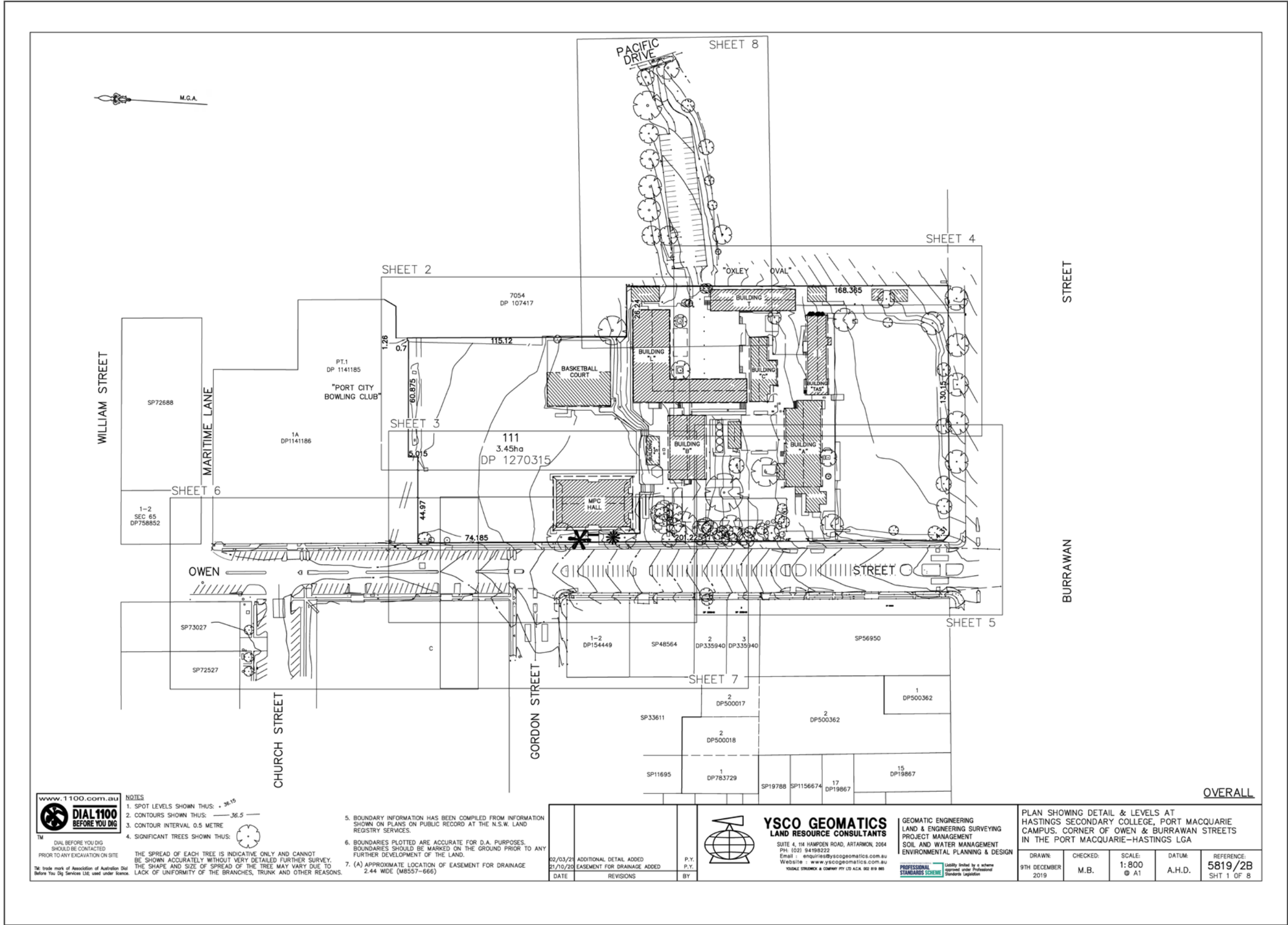
File Name: 6661\_Survey.dwg  
Author: King & Campbell  
Format: Autocad DWG  
Alignment: MGA GDA2020



Proposed building      Proposed landscape



6.2 APPENDIX B: SITE SURVEY SUPPLIED BY YSCO GEOMATICS





6.3 APPENDIX C: PHOTOGRAPHY SURVEY SUPPLIED BY KING & CAMPBELL

Project: HASTINGS SECONDARY COLLEGE, PORT MACQUARIE  
VISUAL IMPACT ASSESSMENT - Survey & Coordination of Photo Control Points

KING & CAMPBELL Ref: 6661 (rev A)  
Dates of Survey: 21-23 JULY 2021

- Notes:
- Coordinates have been shown in MGA2020 coordinates (ground coordinates related to PM11959)
  - Reduced Levels (RL) are related to Australian Height Datum (AHD)
  - Points surveyed using total station observations
  - This table to be used in conjunction with the .dwg file (Ref 6661\_Survey), and the data contained in this hard copy table takes precedence over any co-ordinate interpolated from the CAD file or EXCEL spreadsheet

Point ID	Easting	Northing	REDUCED LEVEL A.H.D.	Description
	MGA 2020 ground coordinates (origin PM11959)			
CAM 4	492356.58	6522461.73	15.69	CAMERA VIEW UNIT 4 (11 OWEN ST)
CAM 6	492356.55	6522461.71	18.34	CAMERA VIEW UNIT 6 (11 OWEN ST)
CAM 14	492356.53	6522461.76	28.96	CAMERA VIEW UNIT 14 (11 OWEN ST)
CAM 21	492363.88	6522346.91	16.62	CAMERA VIEW UNIT 21 OWEN ST
CAM 9A	492361.03	6522361.41	22.50	CAMERA VIEW A UNIT 9 (17-19 OWEN ST)
CAM 9B	492362.10	6522360.28	22.44	CAMERA VIEW B UNIT 9 (17-19 OWEN ST)
CAM 9C	492362.72	6522358.79	22.49	CAMERA VIEW C UNIT 9 (17-19 OWEN ST)
CAM 10	492361.66	6522369.58	22.43	CAMERA VIEW UNIT 10 (17-19 OWEN ST)
CAM 11	492356.70	6522383.75	22.42	CAMERA VIEW UNIT 11 (17-19 OWEN ST)
900	492578.42	6522631.09	20.66	ROOF RIDGE
901	492403.26	6522578.94	17.74	CORNER OF PARAPET
902	492388.35	6522537.26	17.84	TOP OF FLAG POLE
903	492361.14	6522520.07	19.81	TOP OF POWER POLE
904	492438.13	6522510.20	13.14	CORNER OF BUILDING GUTTER
905	492363.78	6522477.77	20.77	TOP OF POWER POLE
906	492364.38	6522448.79	21.57	TOP OF POWER POLE
907	492376.41	6522469.01	11.60	TOP OF SIGN IN MEDIAN
908	492428.46	6522432.82	14.92	CORNER OF BUILDING GUTTER
909	492403.45	6522462.73	13.68	CORNER OF GOAL POST (SOUTH)
910	492403.34	6522463.58	16.70	TOP OF GOAL POST (SOUTH)
911	492403.03	6522469.27	16.70	TOP OF GOAL POST (NORTH)
912	492403.04	6522470.23	13.67	CORNER OF GOAL POST (NORTH)
913	492490.17	6522470.25	16.20	TOP OF GOAL POST (SOUTH)
914	492517.65	6522396.50	22.32	CORNER OF BUILDING GUTTER
915	492465.73	6522421.41	20.98	ROOF RIDGE
916	492395.57	6522411.57	14.98	TOP OF FENCE POST
917	492395.84	6522407.47	15.15	TOP OF FENCE POST
918	492416.17	6522406.58	21.68	TOP OF DOME
919	492416.65	6522399.15	21.72	TOP OF DOME
920	492416.71	6522394.44	21.41	ROOF RIDGE
921	492397.75	6522378.77	16.35	TOP OF FENCE POST
922	492398.85	6522361.73	18.29	CORNER OF ROOF GUTTER
923	492399.28	6522354.89	18.28	CORNER OF ROOF GUTTER
924	492395.98	6522352.17	18.12	TOP OF SIGN POST
925	492380.60	6522359.35	14.92	END OF LINEMARKING
926	492381.49	6522346.41	15.64	END OF LINEMARKING
927	492371.59	6522355.25	17.16	CORNER OF CABLE CLAMP
928	492362.57	6522372.52	22.06	CORNER OF BALUSTRADE



6.4 APPENDIX D: ARCHITECTURAL PLANS SUPPLIED BY FJMT



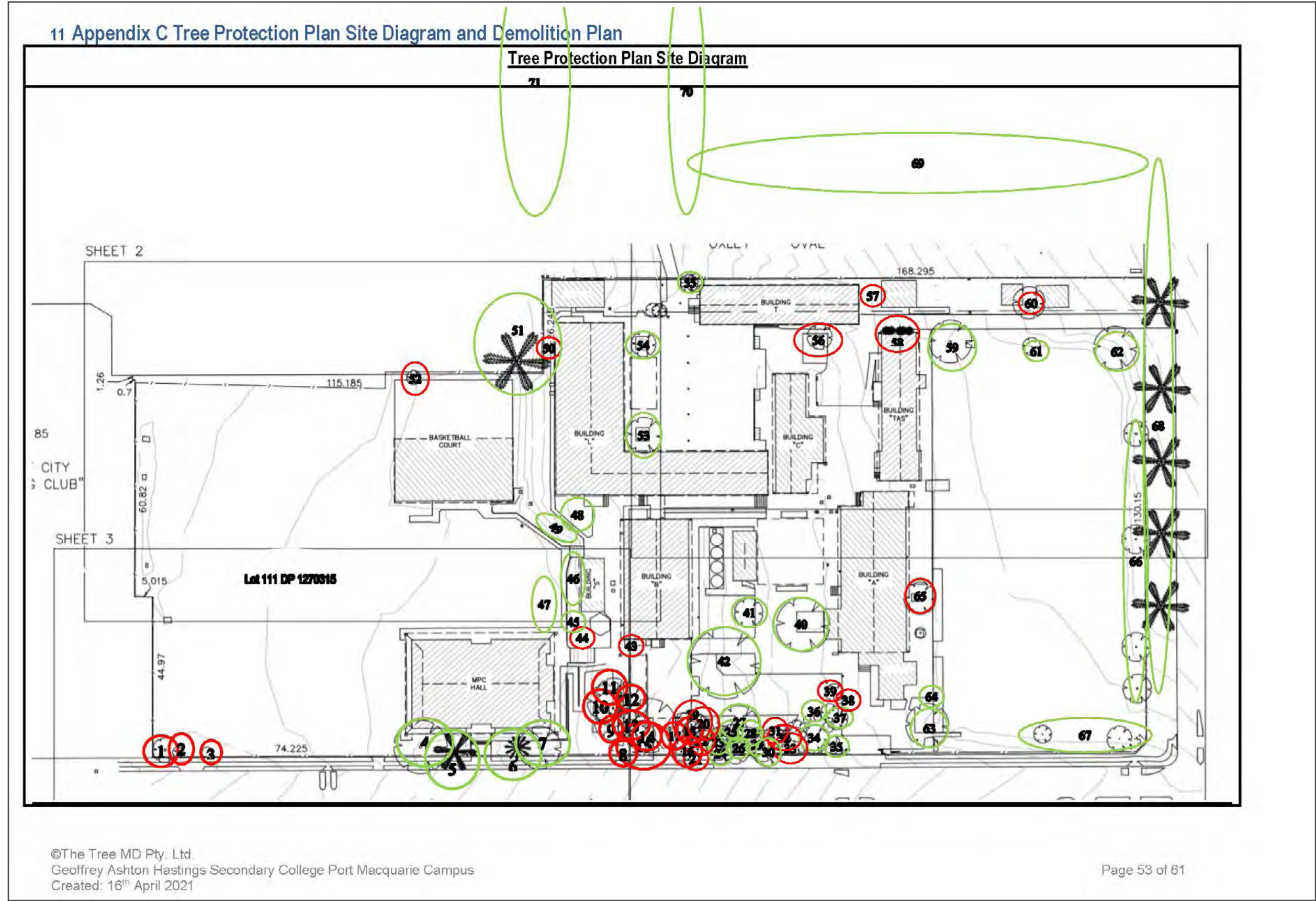


## 6.5 APPENDIX E: TREE REMOVAL PLAN SUPPLIED BY FJMT





6.6 APPENDIX F: TREE REMOVAL PLAN CREATED BY THE TREE MD PTY LTD





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