VIRTUAL IDEAS

Telopea, NSW

Stage 1 DA Visual Impact Photomontage and Methodology Report

Visual Impact Photomontage and Methodology Report - Telopea, NSW

BACKGROUND

This document was prepared by Virtual Ideas and includes a methodology of the processes used to create the visual impact photomontages and illustrate the accuracy of the results.

Virtual Ideas is an architectural visualisation company that is highly experienced at preparing visual impact assessment media to a level of expertise that is suitable for both council submission and use in court. Virtual Ideas is familiar with the court requirements to provide 3D visualisation media that will accurately communicate a proposed development's design and visual impact.

Virtual Ideas' methodology and results have been inspected by various experts in relation to previous visual impact assessment submissions and have always been found to be accurate and acceptable.

OVERVIEW

The general process of creating accurate photomontage renderings involves the creation of an accurate, real world scale digital 3D model.

We capture site photographs from specified positions on location. The camera positions are surveyed to identify the MGA coordinates at each position. Additional reference points are also surveyed at each camera location to assist in aligning our 3D camera to the real world camera position.

Cameras are then created in the 3D scene to match the locations and height of where the photographs were taken from. The lens data stored in the metadata of the photograph is also referenced for accuracy.

The cameras are then aligned in rotation so that the surveyed points of the 3D model align with the corresponding objects that are visible in the photograph.

A realistic sun and sky lighting system is then created in the 3D scene and matched to the precise time and date of when each photograph was taken.

3D renderings of the indicative new building or envelope are then created from the selected cameras at the exact pixel dimensions and aspect ratio of the original digital photograph.

The 3D renderings are then placed into the digital photography to show the envelope of the proposed building in context.

DESCRIPTION OF COLLECTED DATA

To create the 3D model and establish accurate reference points for alignment to the photography, a variety of information was collected.

This includes the following:

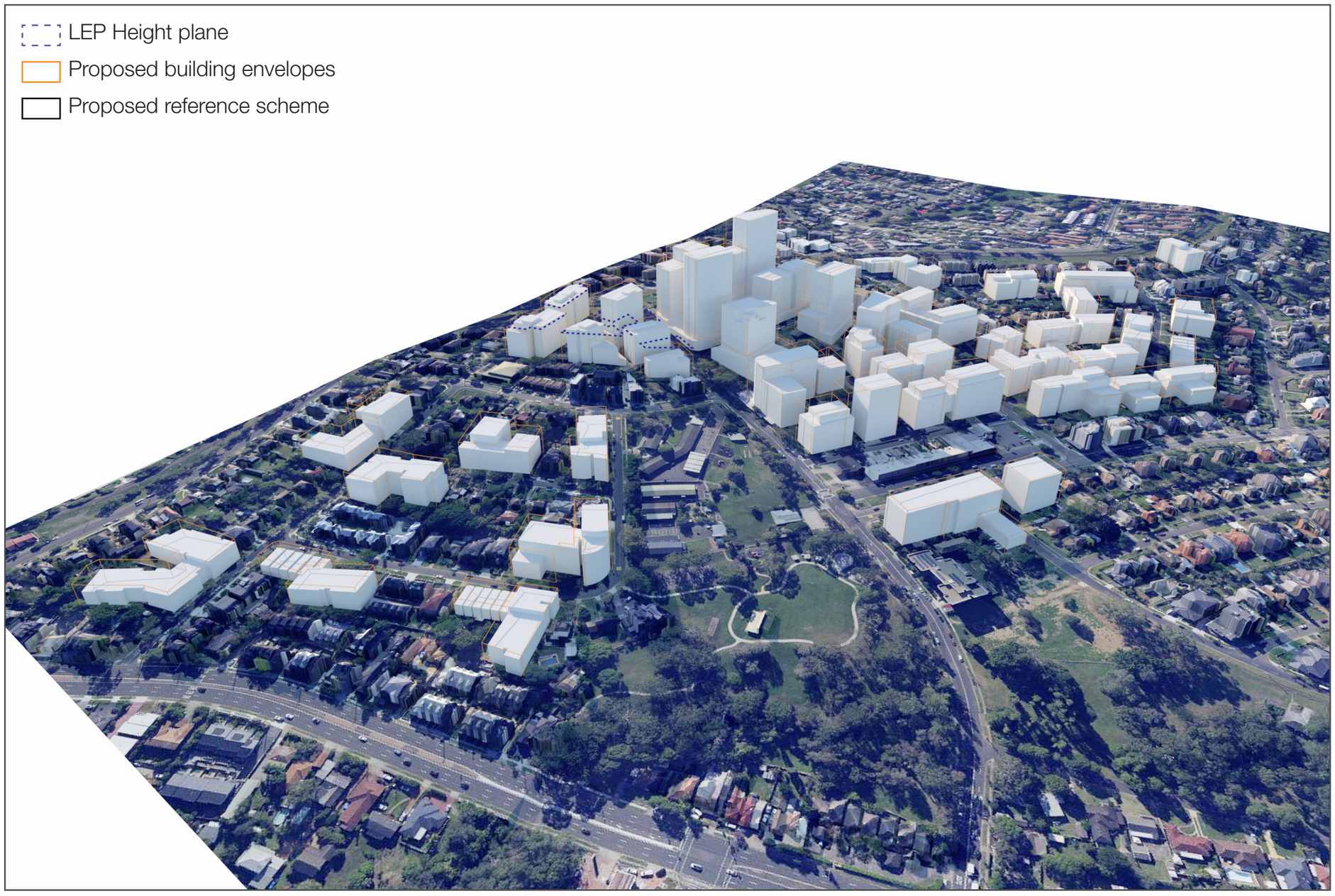
1) 3D models of proposed building envelope
   - Supplied by: Bates Smart Architects and Plus Architecture
   - Format: Sketchup and FBX files

2) Camera location and alignment point surveyed data (Appendix A)
   - Created by: CMS Surveyors
   - Format: PDF and DWG files

3) Site Survey (Appendix B)
   - Created by: Craig & Rhodes
   - Format: DWG files

4) Site photography
   - Created by: Virtual Ideas
   - Format: JPEG and NEF files

Overview of development showing proposed building envelopes and indicative buildings



The proposed building envelopes shown in this report were extruded to the LEP height plane with the exception of the Stage 1a site which exceeds it. Where this occurs it has been marked with a dashed blue line indicating the LEP height plane in that area.

Source:SIXMaps

METHODOLOGY

Site Photography

Site photography was taken from predetermined positions as directed by the planning consultant, Urbis. The photographs were taken using a Nikon D810 digital camera.

The positions of the photographs were surveyed and then plotted onto a survey drawing in DWG format.

3D Model

Using the imported surveyed data into our 3D software (3DS Max) as reference, we then imported the supplied 3D model of the indicative building envelope.

Alignment

The positions of the real world photography were located in the 3D scene. Cameras were then created in the 3D model to match the locations and height of the position from which the photographs were taken from. They were then aligned in rotation so that the points of the 3D model aligned with their corresponding objects that are visible in the photograph.

Renderings of the building massing were then created from the aligned 3D cameras and montaged into the existing photography at the same location. This produces an accurate representation of the scale and position of the proposed building envelope with respect to the existing surroundings.

In conclusion, it is my opinion as an experienced, professional 3D architectural and landscape renderer, that the images provided accurately portray the level of visibility and impact of the proposed indicative building design.

Yours sincerely,

Grant Kolln

CV of Grant Kolln, Director of Virtual Ideas

Personal Details

Name:	Grant Kolln
DOB:	07/09/1974
Company Address:	Suite 71, 61 Marlborough St, Surry Hills, NSW, 2010
Phone Number:	02 8399 0222

Relevant Experience

2003 - Present	Director of 3D visualisation studio Virtual Ideas. During this time, Grant has worked on many visual impact studies for council and planning submission for projects across various different industries including architectural, industrial, mining, landscaping, and several large public works projects. This experience has assisted Grant to develop a highly accurate methodology for the creation of visual impact media and report creation.
1999 - 2001	Project Manager for global SAP infrastructure implementation - Ericsson, Sweden
1999 - 1999	IT Consultant - Sci-Fi Channel, London
1994 - 1999	Architectural Technician, Thomson Adsett Architect, Brisbane QLD.

Relevant Education / Qualifications

1997	Advanced Diploma in Architectural Technology, Southbank TAFE, Brisbane, QLD


22
25
43
27
4
45
46
41
40
44
38
18

Original photograph

Photomontage of proposed reference scheme

Photograph details

Photo Date
22nd June 2020

Camera Used
Nikon D810

Camera Lens
Tamron SP 24-70mm F/2.8 Di VC USD G2 AO32N

Focal length
35mm in 35mm Film

Original photo indicating surveyed reference points

Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop

Photograph details

Photo Date
22nd June 2020

Camera Used
Nikon D810

Camera Lens
Tamron SP 24-70mm F/2.8 Di VC USD G2 AO32N

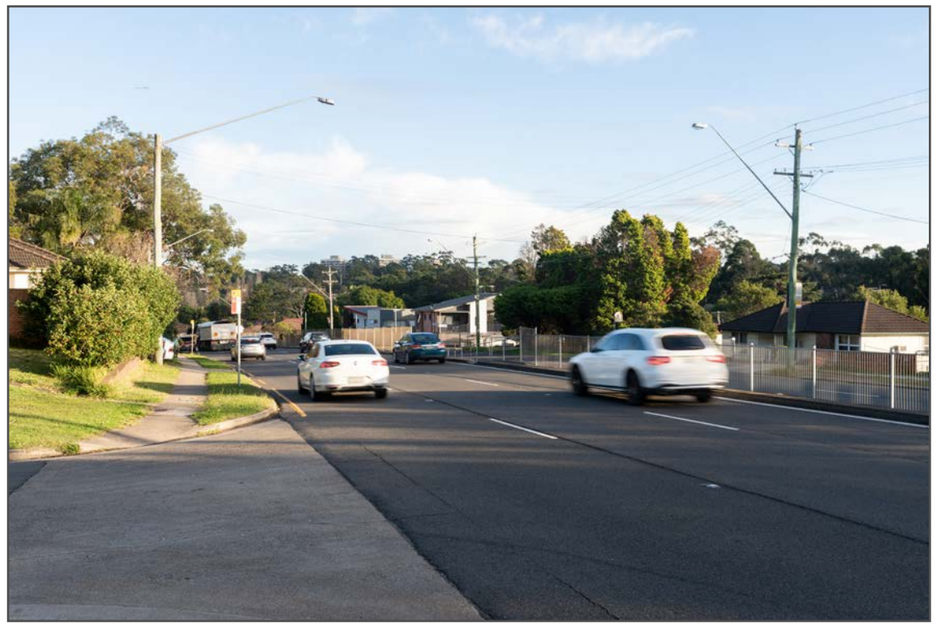
Focal length
50mm equivalent


Proposed building envelopes
Proposed reference scheme


80
81
82
83


Proposed building envelopes
Proposed reference scheme

Original photograph



Photomontage of proposed reference scheme

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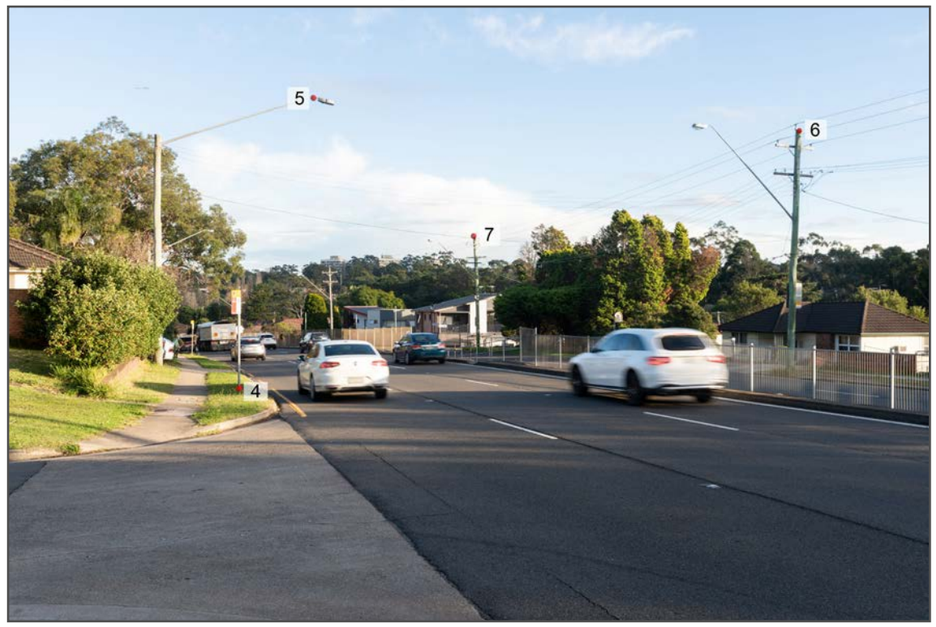
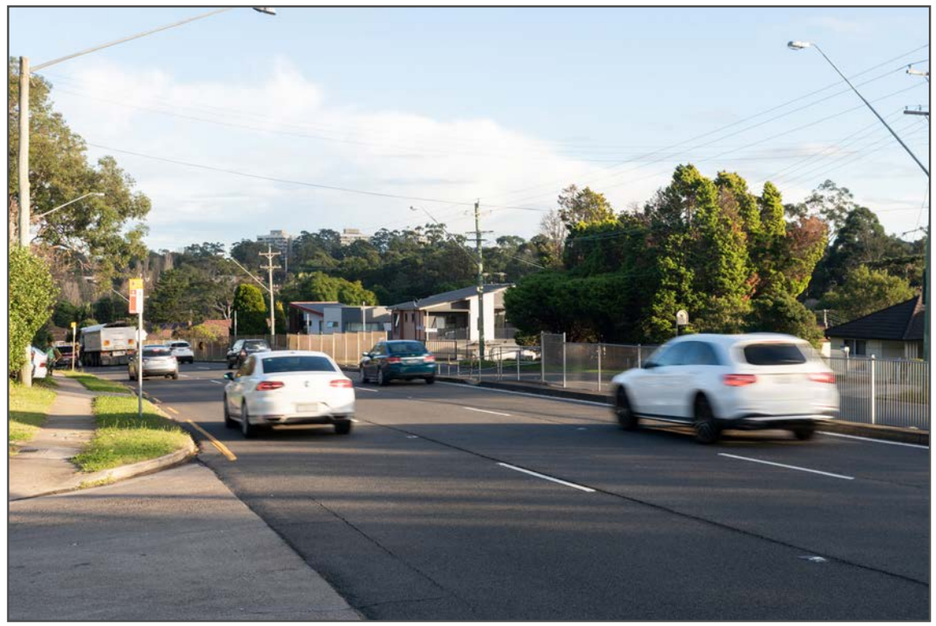


Original photograph with 50mm crop



Photomontage of proposed reference scheme with 50mm crop

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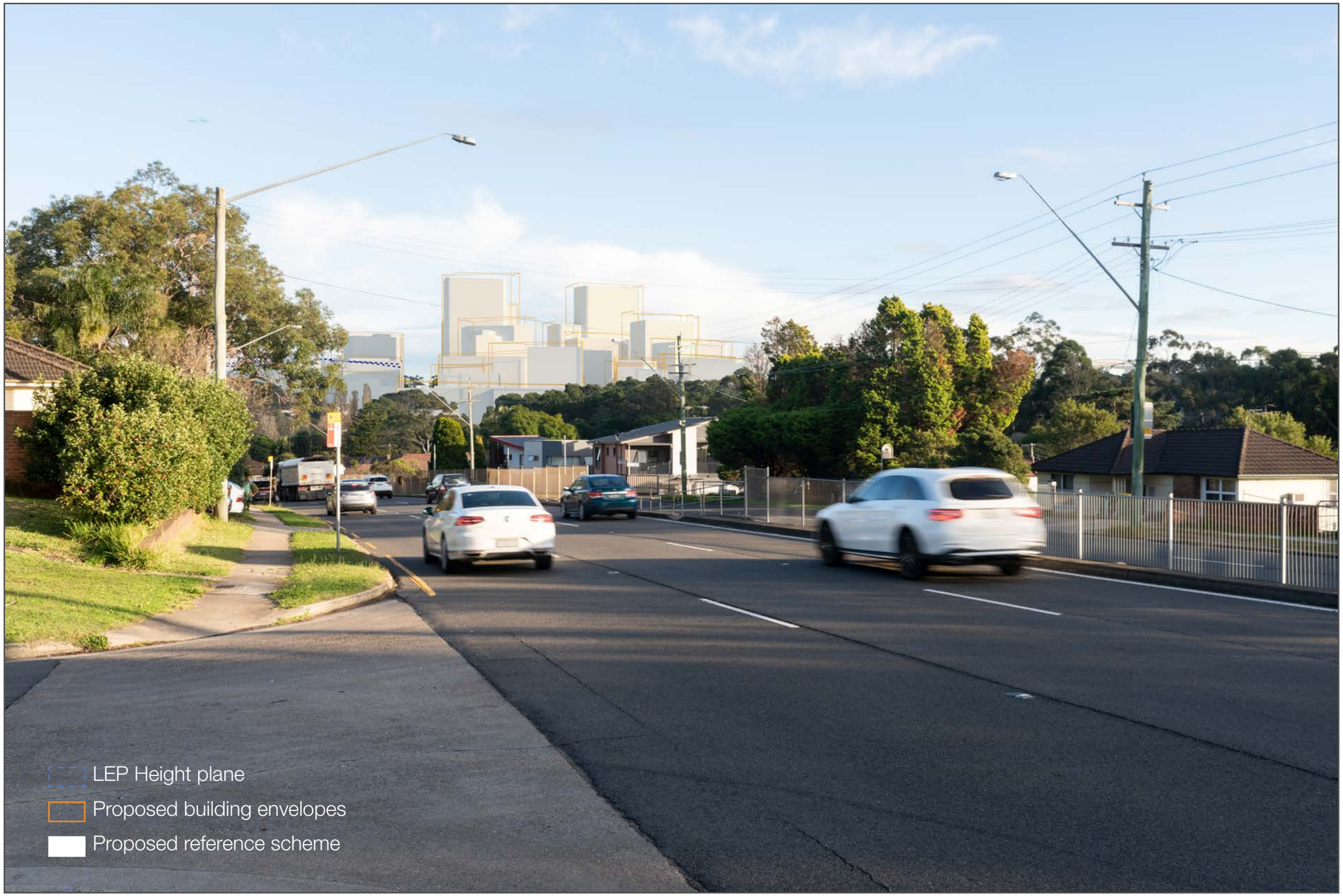
LEP Height plane
Proposed building envelopes
Proposed reference scheme


5
6
7
4


LEP Height plane
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme

Photograph details

Photo Date
22nd June 2020

Camera Used
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Camera Lens
Tamron SP 24-70mm F/2.8 Di VC USD G2 AO32N

Focal length
24mm in 35mm Film

Original photo indicating surveyed reference points

Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop

Photograph details

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22nd June 2020

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Focal length
50mm equivalent

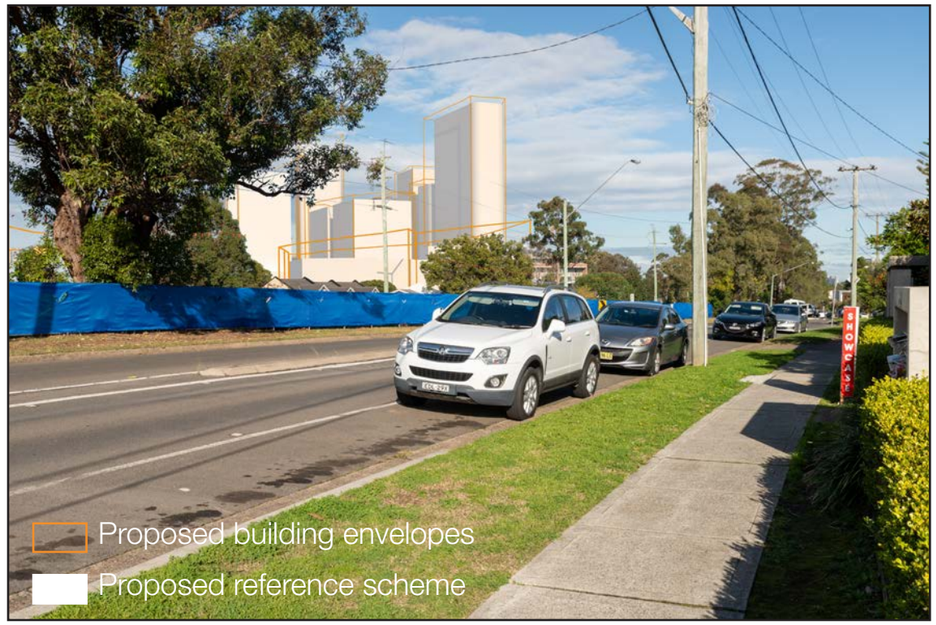

LEP Height plane
Proposed building envelopes
Proposed reference scheme


25
26
27
24


LEP Height plane
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme



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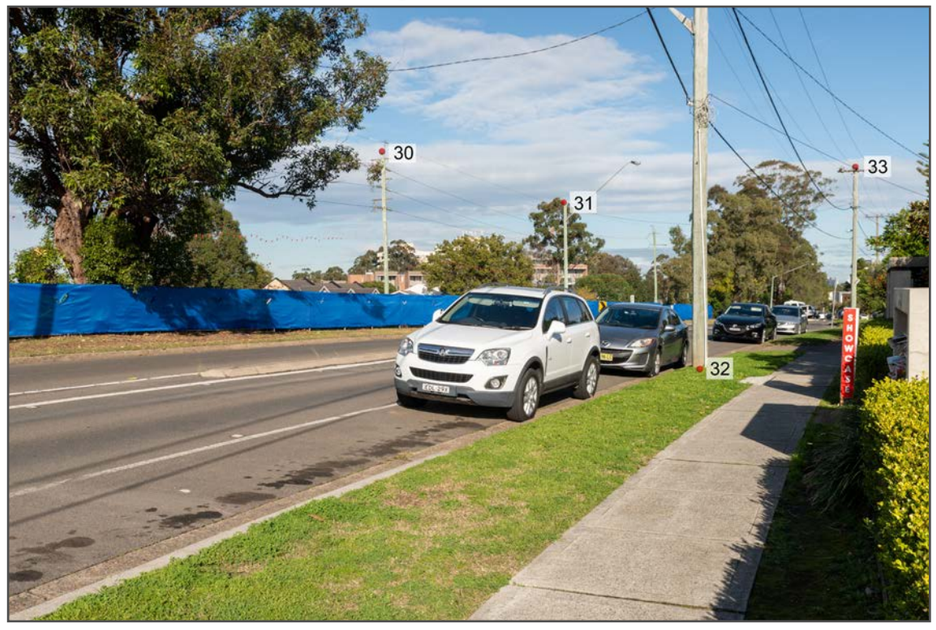
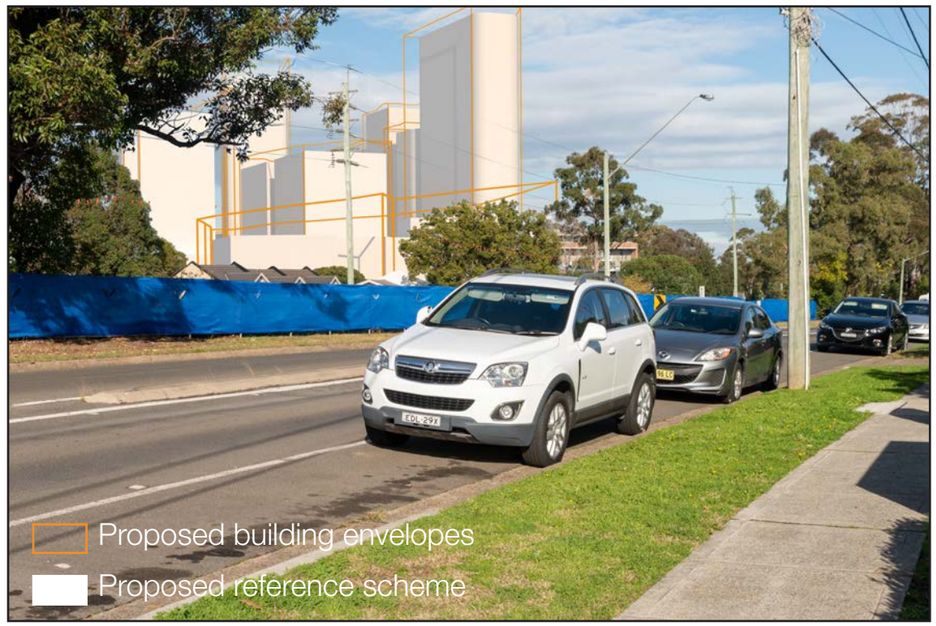


Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop



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Focal length
50mm equivalent


EDL 29X
SHOWCASE


SHOWCASE
EDL-29X
Proposed building envelopes
Proposed reference scheme


30
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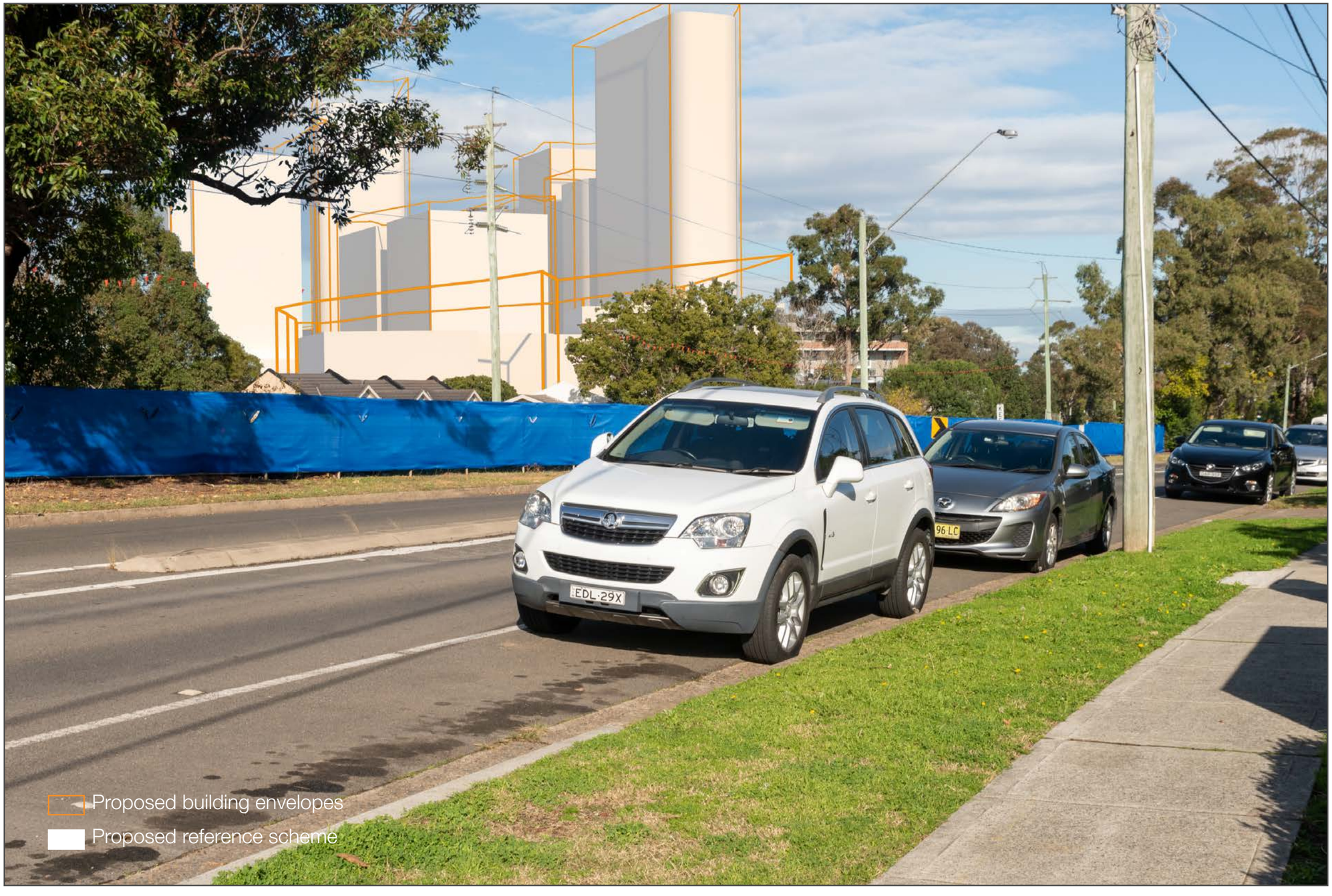
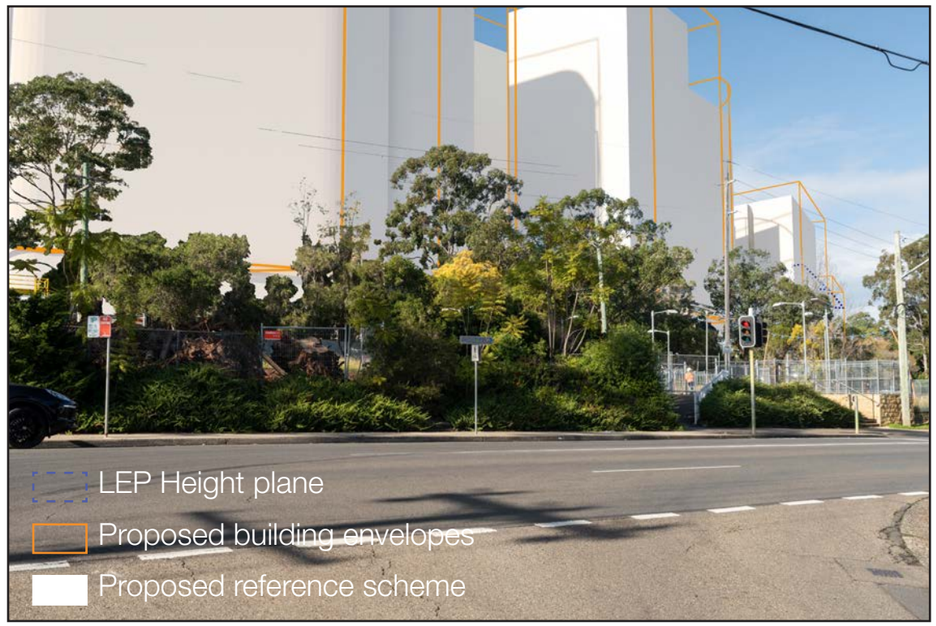
EDL-29X
SHOWCASE


EDL·29X
96 LC


EDL·29X
96 LC
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme



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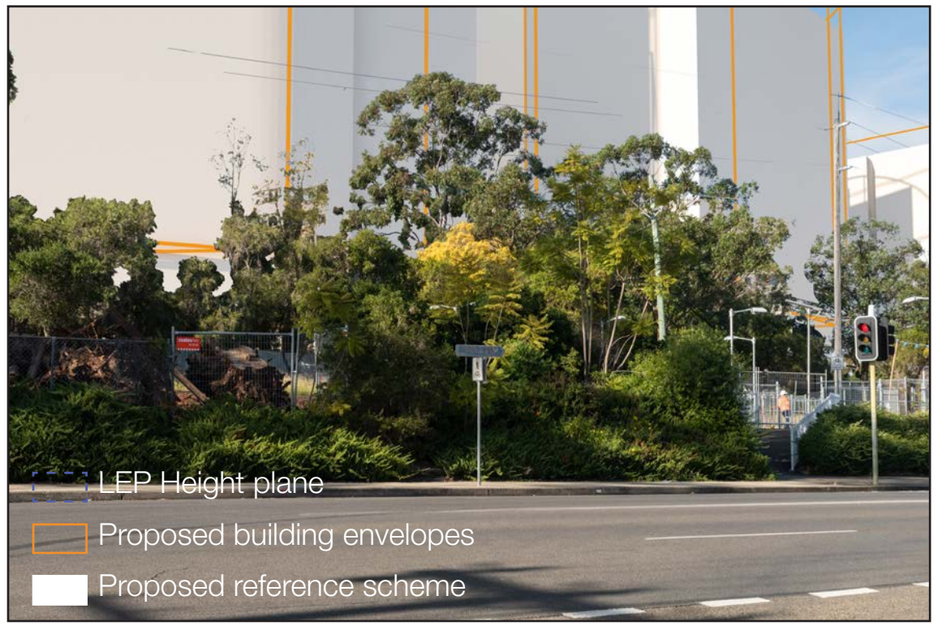
Focal length
35mm in 35mm Film

Original photo indicating surveyed reference points

Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop



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LEP Height plane
Proposed building envelopes
Proposed reference scheme


39
40
37
36


LEP Height plane
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme

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Focal length
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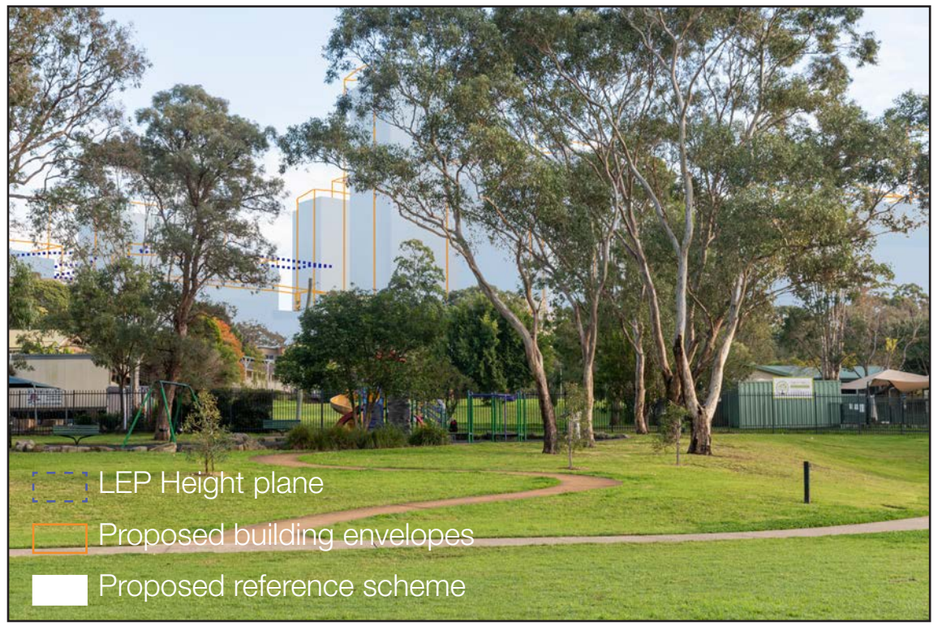
Original photo indicating surveyed reference points

Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop



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50mm equivalent


LEP Height plane
Proposed building envelopes
Proposed reference scheme


11
12
10
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LEP Height plane
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme

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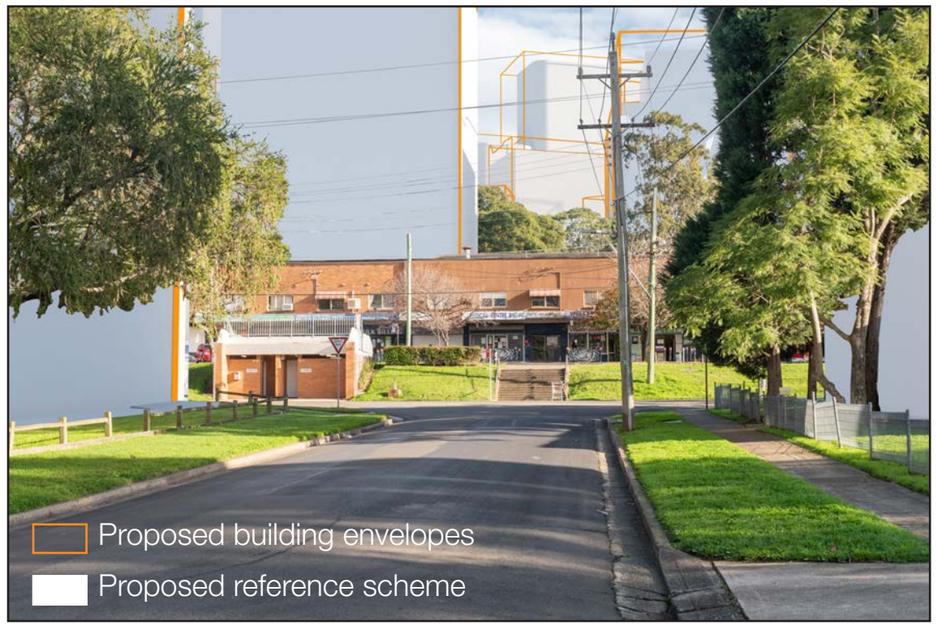
Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop



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Focal length
50mm equivalent


DHL


Proposed building envelopes
Proposed reference scheme


19
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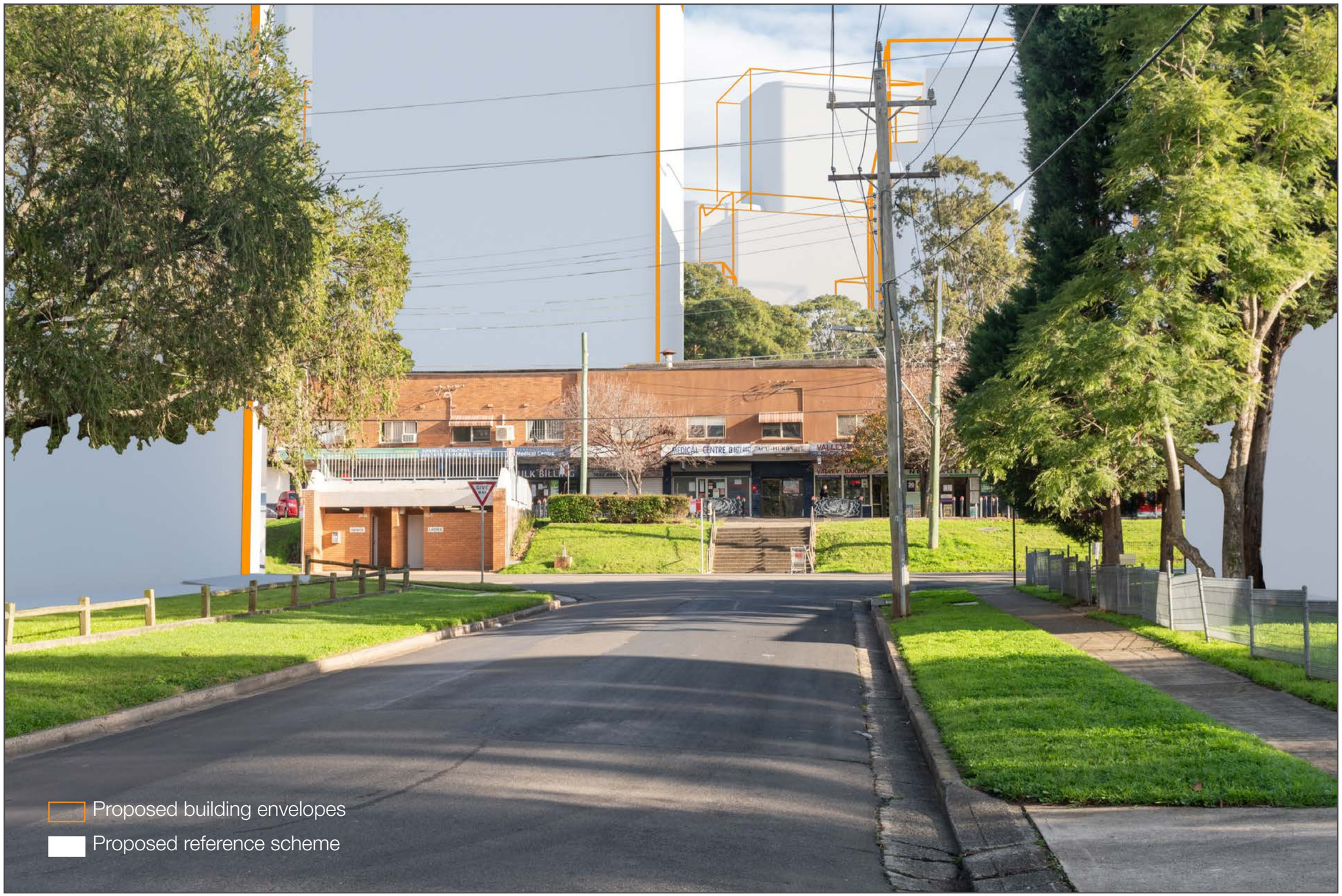
DHL
MILK BILLING
GIVE WAY
MEDICAL CENTRE
ACU-HERBS
VALLEY


Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme

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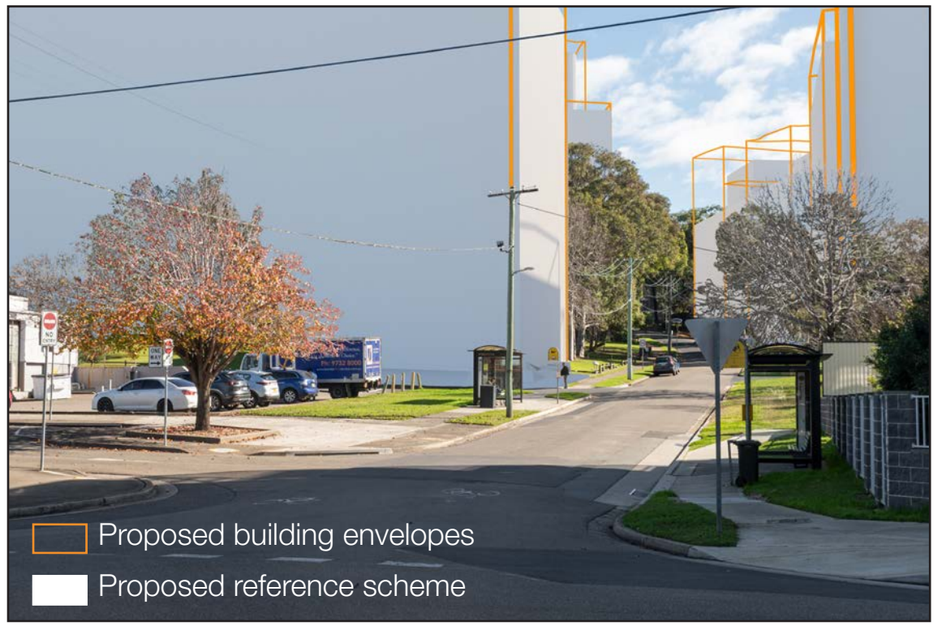
Original photograph with 50mm crop

Photomontage of proposed reference scheme with 50mm crop



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Focal length
50mm equivalent


SHORTLAND ST
BENAUD PL
NO ENTRY
ONE WAY
Parramatta
RD
545
Ph: 9732 8000


SHORTLAND ST
BENAUD PL
NO ENTRY
ONE WAY
Ph: 9732 8000
Proposed building envelopes
Proposed reference scheme


70
71
68
SHORTLAND ST
BENALLA PL


NO ENTRY
ONE WAY
Ph: 9732 8000


NO ENTRY
ONE WAY
Ph: 9732 8000
Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed reference scheme

Photograph details

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Focal length
50mm equivalent


SHOWCASE
LEASED
SHOWCASE


SHOWCASE
LEASED
SHOWCASE
Proposed building envelopes
Proposed reference scheme


74
76
75
77
SHOWCASE
LEASED
SHOWCASE


Proposed building envelopes
Proposed reference scheme

Original photograph

Photomontage of proposed building design

Photograph details

Photo Date
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Focal length
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49
50
51
52

Original photograph

Photomontage of proposed building design

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Focal length
50mm equivalent


55
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57
58


RESIDENTS
PARKING
ONLY

Original photograph

Photomontage of proposed building design

Photograph details

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Focal length
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Photomontage of proposed building design with 50mm crop

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Tamron SP 24-70mm F/2.8 Di VC USD G2 AO32N

Focal length
50mm equivalent


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POLDING PL
NO
THRU ST

CMS Surveyors Pty Limited
A.B.N. 79 096 240 201
LAND SURVEYING, PLANNING & DEVELOPMENT CONSULTANTS

CMS SURVEYORS

Date: 26-06-2020
Our Ref: 19451 Photo Locations

Virtual Ideas
Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

RE: Photo Locations – 57 Adderton Road, Telopea

Dear Rick Mansfield

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations for 57 Adderton Road, Telopea.

Coordinates are MGA zone 56 (GDA 2020) and elevation to Australian Height datum (AHD).

Measurements were taken using GNSS and theodolite.

DWG of locations has also been supplied.

Point Number	Easting	Northing	Reduced Level Ground (RL)	Photo Point
1	319540.883	6258453.001	39.73	VIEW 18
2	319534.480	6258453.441	39.58	VIEW 18.2
8	318996.896	6258545.226	31.51	VIEW 38
15	319087.802	6258716.399	29.94	VIEW 40
21	318806.106	6259560.277	66.59	VIEW 22
28	318938.678	6259236.012	68.11	VIEW 25
34	318657.601	6258990.883	57.32	VIEW 27
42	318598.063	6258870.856	54.48	VIEW 47
47	318573.206	6258546.202	53.53	VIEW 44
53	318667.358	6258829.828	59.05	VIEW 45
59	318755.546	6258779.051	55.30	VIEW 46
66	319099.557	6258832.563	33.59	VIEW 41
72	318943.893	6259121.121	58.78	VIEW 43
78	319420.703	6258944.181	62.61	VIEW 4
4	319510.842	6258461.294	38.86	BOTTOM OF SIGN
5	319501.018	6258467.684	49.50	ANGLE ON LIGHT POLE
6	319509.924	6258486.724	48.73	TOP OF LIGHT POLE
7	319464.622	6258499.415	47.47	TOP OF LIGHT POLE
10	318983.961	6258570.827	33.38	TOP OF TAP
11	318970.109	6258565.741	33.35	BOTTOM OF TREE TRUNK

Consulting Surveyors NSW
ISNSW THE INSTITUTION OF SURVEYORS NSW INC

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

ISO 9001:2008 REGISTERED FIRM

Point Number	Easting	Northing	Reduced Level Ground (RL)	Photo Point
12	318975.135	6258574.301	33.35	BOTTOM OF TREE TRUNK
13	318977.970	6258597.518	32.73	BOTTOM OF POST
17	319033.856	6258724.014	34.59	TOP OF SIGN
18	319041.881	6258731.473	31.58	BOTTOM OF SIGN
19	319017.884	6258743.784	42.15	TOP OF POWER POLE
20	319058.786	6258734.203	30.85	BOTTOM OF POWER POLE
23	318837.151	6259503.914	65.37	BOTTOM OF LIGHT POLE
24	318768.058	6259508.322	65.53	BOTTOM OF LIGHT POLE
25	318816.213	6259504.246	69.60	TOP CORNER OF FENCE
26	318786.828	6259505.947	69.83	TOP CORNER OF FENCE
27	318797.783	6259508.548	65.90	TOP OF TRAFFIC CONE
30	318902.606	6259165.848	81.92	TOP OF POWER POLE
31	318902.558	6259191.837	75.11	TOP OF POWER POLE
32	318924.964	6259223.692	67.96	BOTTOM OF POWER POLE
33	318885.755	6259201.922	77.42	TOP OF POWER POLE
36	318668.529	6258970.132	57.84	BOTTOM OF SIGN
37	318663.110	6258960.159	61.84	TOP OF TRAFFICE LIGHT
38	318657.411	6258949.652	60.69	TOP OF TRAFFIC LIGHT
39	318720.089	6258924.959	87.33	CORNER OF ROOF
40	318696.371	6258829.932	86.11	CORNER OF ROOF
41	318650.267	6258935.901	68.81	TOP OF POWER POLE
44	318586.206	6258850.003	63.55	TOP OF POWER POLE
45	318585.156	6258820.279	53.11	BOTTOM OF TREE TRUNK
46	318602.987	6258852.688	56.93	TOP OF SIGN
49	318592.967	6258566.497	65.35	TOP OF POWER POLE
50	318599.730	6258576.439	57.56	TOP OF SIGN
51	318616.739	6258603.464	57.90	TOP OF SIGN
52	318592.447	6258580.711	55.00	BOTTOM OF SIGN
55	318670.038	6258811.429	61.88	TOP OF SIGN
56	318665.414	6258811.137	61.21	TOP OF SIGN
57	318656.415	6258808.325	62.43	TOP OF LIGHT POLE
58	318682.339	6258790.289	59.01	BOTTOM OF LIGHT POLE
61	318735.543	6258766.440	58.76	CORNER OF SUBSTATION
62	318710.250	6258759.163	60.93	TOP OF SIGN
63	318716.716	6258773.944	61.20	TOP OF SIGN
64	318688.251	6258774.297	63.75	TOP OF LIGHT POLE
65	318737.006	6258754.435	67.20	ROOF RIDGE
68	319085.008	6258840.028	36.15	TOP OF SIGN
69	319077.357	6258829.284	44.11	TOP OF POWER POLE
70	319050.629	6258848.726	43.78	TOP OF POWER POLE
71	319022.679	6258824.845	40.48	CORNER OF GUTTER
74	318919.653	6259095.655	63.32	TOP OF POWER POLE

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Email: coota@cmssurveyors.com.au

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Point Number	Easting	Northing	Reduced Level Ground (RL)	Photo Point
75	318923.999	6259110.131	59.80	TOP OF SIGN
76	318892.750	6259099.481	66.29	PARAPET RIDGE
77	318935.056	6259103.136	58.28	TOP OF FENCE POST
80	319378.266	6258923.692	68.55	TOP OF POWER POLE
81	319337.529	6258930.768	62.97	TOP OF POWER POLE
82	319361.772	6258951.283	68.08	TOP OF POWER POLE
83	319338.051	6258970.389	63.26	ROOF RIDGE

Note: Ground level of camera positions are surveyed. Camera height of 1.65m to be added if required.

Consulting Surveyors NSW
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ISO 9001:2008 REGISTERED FIRM

Yours faithfully,
CMS Surveyors Pty Limited

Damon Roach

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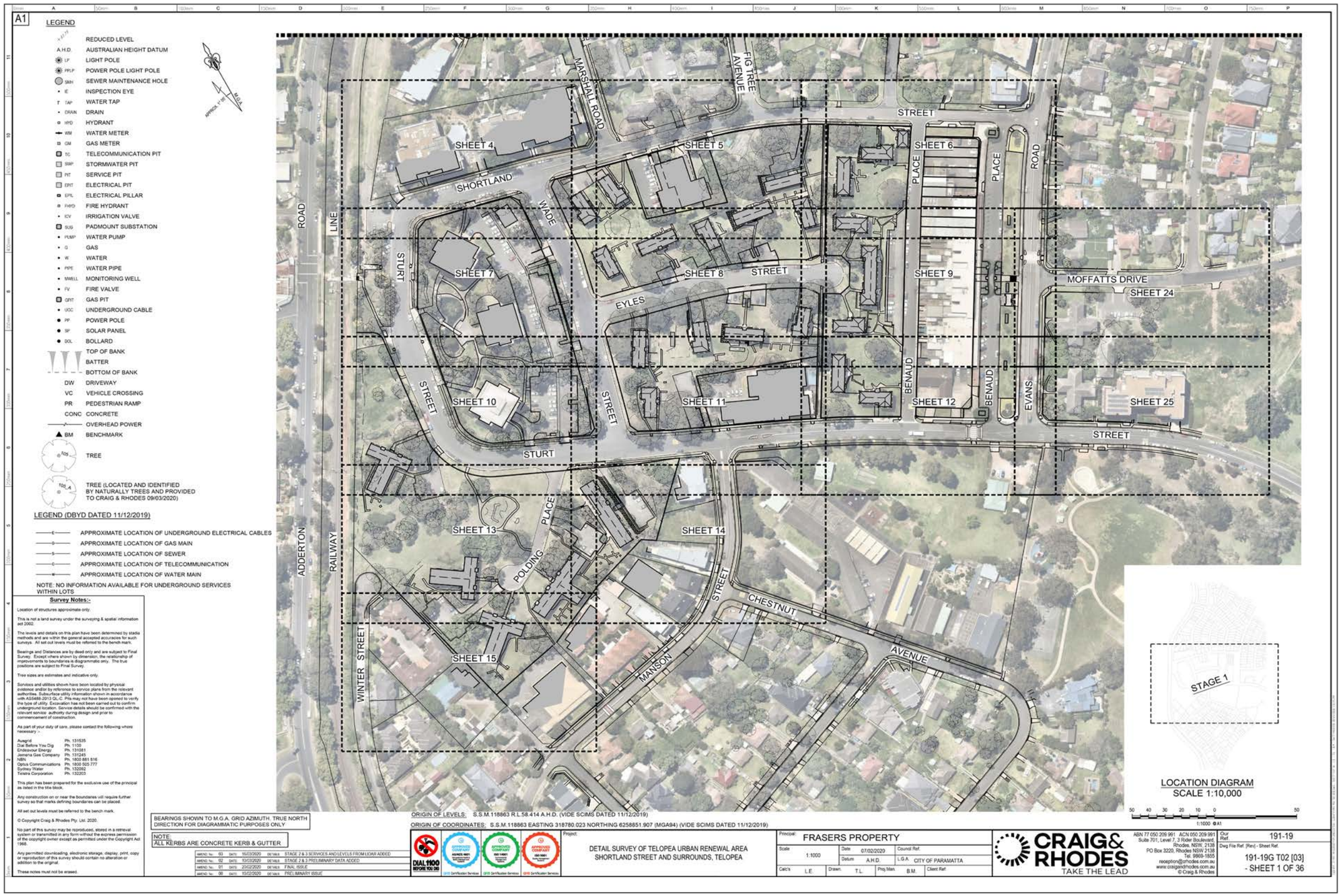
A1
LEGEND
REDUCED LEVEL
A.H.D. AUSTRALIAN HEIGHT DATUM
LP LIGHT POLE
PPLP POWER POLE LIGHT POLE
SMH SEWER MAINTENANCE HOLE
IE INSPECTION EYE
T TAP WATER TAP
DRAIN DRAIN
HYD HYDRANT
WM WATER METER
GM GAS METER
TC TELECOMMUNICATION PIT
SWP STORMWATER PIT
PIT SERVICE PIT
EPIT ELECTRICAL PIT
EPIL ELECTRICAL PILLAR
FHYD FIRE HYDRANT
ICV IRRIGATION VALVE
SUS PADMOUNT SUBSTATION
PUMP WATER PUMP
G GAS
W WATER
PIPE WATER PIPE
MWELL MONITORING WELL
FV FIRE VALVE
GPIT GAS PIT
UGC UNDERGROUND CABLE
PP POWER POLE
SP SOLAR PANEL
BOL BOLLARD
TOP OF BANK
BATTER
BOTTOM OF BANK
DW DRIVEWAY
VC VEHICLE CROSSING
PR PEDESTRIAN RAMP
CONC CONCRETE
OVERHEAD POWER
BM BENCHMARK
TREE
TREE (LOCATED AND IDENTIFIED BY NATURALLY TREES AND PROVIDED TO CRAIG & RHODES 09/03/2020)
LEGEND (DBYD DATED 11/12/2019)
APPROXIMATE LOCATION OF UNDERGROUND ELECTRICAL CABLES
APPROXIMATE LOCATION OF GAS MAIN
APPROXIMATE LOCATION OF SEWER
APPROXIMATE LOCATION OF TELECOMMUNICATION
APPROXIMATE LOCATION OF WATER MAIN
NOTE: NO INFORMATION AVAILABLE FOR UNDERGROUND SERVICES WITHIN LOTS
Survey Notes:-
Location of structures approximate only.
This is not a land survey under the surveying & spatial information act 2002.
The levels and details on this plan have been determined by stadia methods and are within the general accepted accuracies for such surveys. All set out levels must be referred to the bench mark.
Bearings and Distances are by deed only and are subject to 'Final Survey'. Except where shown by dimension, the relationship of improvements to boundaries is diagrammatic only. The true positions are subject to Final Survey.
Tree sizes are estimates and indicative only.
Services and utilities shown have been located by physical evidence and/or by reference to service plans from the relevant authorities. Subsurface utility information shown in accordance with AS5488-2013 Cl.C. Pits may not have been opened to verify the type of utility. Excavation has not been carried out to confirm underground location. Service details should be confirmed with the relevant service authority during design and prior to commencement of construction.
As part of your duty of care, please contact the following where necessary :-
Ausgrid Ph. 131535
Dial Before You Dig Ph. 1100
Endeavour Energy Ph. 131081
Jemena Gas Company Ph. 131245
NBN Ph. 1800 881 816
Optus Communications Ph. 1800 505 777
Sydney Water Ph. 132092
Telstra Corporation Ph. 132203
This plan has been prepared for the exclusive use of the principal as noted in the title block.
Any construction on or near the boundaries will require further survey so that marks defining boundaries can be placed.
All set out levels must be referred to the bench mark.
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BEARINGS SHOWN TO M.G.A. GRID AZIMUTH. TRUE NORTH DIRECTION FOR DIAGRAMMATIC PURPOSES ONLY
NOTE: ALL KERBS ARE CONCRETE KERB & GUTTER
AMEND No. 03 DATE 15/03/2020 DETAILS STAGE 2 & 3 SERVICES AND LEVELS FROM LIDAR ADDED
AMEND No. 02 DATE 13/03/2020 DETAILS STAGE 2 & 3 PRELIMINARY DATA ADDED
AMEND No. 01 DATE 23/02/2020 DETAILS FINAL ISSUE
AMEND No. 00 DATE 15/02/2020 DETAILS PRELIMINARY ISSUE
ORIGIN OF LEVELS: S.S.M.118863 R.L.58.414 A.H.D. (VIDE SCIMS DATED 11/12/2019)
ORIGIN OF COORDINATES: S.S.M.118863 EASTING 318780.023 NORTHING 6258851.907 (MGA94) (VIDE SCIMS DATED 11/12/2019)
DIAL 1100 BEFORE YOU DIG
Project: DETAIL SURVEY OF TELOPEA URBAN RENEWAL AREA SHORTLAND STREET AND SURROUNDS, TELOPEA
Principal: FRASERS PROPERTY
Scale 1:1000 Date 07/02/2020 Council Ref.
Datum A.H.D. L.G.A. CITY OF PARAMATTA
Calc's L.E. Drawn T.L. Proj.Man. B.M. Client Ref.
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Our Ref. 191-19
Dwg File Ref. [Rev] - Sheet Ref.
191-19G T02 [03]
- SHEET 1 OF 36
SHEET 4
SHEET 5
SHEET 6
SHEET 7
SHEET 8
SHEET 9
SHEET 10
SHEET 11
SHEET 12
SHEET 13
SHEET 14
SHEET 15
SHEET 24
SHEET 25
MARSHALL ROAD
FIG TREE AVENUE
SHORTLAND
WADE
STURT
EYLES
POLDING
MANSON
CHESTNUT
MOFFATTS DRIVE
STREET
PLACE
ROAD
LINE
ADDERTON
RAILWAY
WINTER
BENAUD
EVANS
AVENUE
STAGE 1
LOCATION DIAGRAM
SCALE 1:10,000
1:1000 @ A1

DIGITAL CAMERA LENSES FOR PHOTOMONTAGES AND VISUAL IMPACT ASSESSMENTS

The intention of a photomontage rendering is to visually communicate how proposed built form sits in respect to its surroundings. To achieve this, a digitally rendered image from a digital 3D model is superimposed into a digital photograph to provide an accurate representation in terms of light, material, scale, and form.

Camera lens selection also plays an important part in creating a photomontage that communicates visual impact. There are several things to consider with respect to lens selection.

Field of View of the Human Eye

The field of view of the human eye is a topic that varies depending on the source of information. In many cases, the field of view of the eye is stated to be 17mm. Other opinions claim a smaller field of view of around 22-24mm.

Whichever the case, it is accepted that the human eye has a wide field of view. When a person stands close to a subject - for instance a building - their field of vision can potentially read all of the top, sides and bottom of the building simultaneously in a single glance.

In addition to this, the human eye can change focus and target direction extremely rapidly, allowing a person to view a large structure in a very short period of time, effectively making the perceived field of view even larger.

The Perspective of the human eye

It is difficult to accurately reproduce what the human eye sees by the means of a printed image. The eye's image sensor - the retina - is curved along the back surface of the eyeball, whereas the sensor on a camera is flat. Consequently, the perspective of a photograph can look quite different to how a person views a scene in the real world, especially when comparing to a photo captured with a wide camera lens.

In digital photography circles, it is widely accepted that using a longer lens (approximately 50mm) reduces the amount of perspective in an image and therefore more closely replicates what the human eye would see in reality. This, however, only addresses how the eye perceives perspective and does not consider the field of view of the eye.

If a photo is taken of a scene using a 50mm camera lens, printed out and then held up in front of the viewer against the actual view at the same location as the photo was taken, it is unmistakable that the human eye can see much more of the surrounding context than is captured within the photo.

DIGITAL CAMERA LENSES FOR PHOTOMONTAGES AND VISUAL IMPACT ASSESSMENTS

Changing the field of view on a digital camera

The main difference in using a longer lens vs a wider lens is the amount of information that is displayed at the edges of the subject. Changing the lens to a smaller FOV produces the same result as cropping in on the wide angle image, providing that the position and the angle of the camera remains constant while taking the photographs.

In short, a lens with a wider field of view does not create an image that has incorrect perspective, it simply means that the perspective is extended at the edges of the image showing more of the surrounds in the image.

Summary

With regards to visual assessment, there is no definitive solution for camera lens selection.

Longer lenses produce images that are more faithful to the perspective of the human eye, though the field of view is more limited, making it difficult to capture the entirety of a subject or enough of the surrounding context in which the subject resides.

Conversely, the perspective of wider camera lenses can make subjects appear further away than they would appear through the perspective of the human eye. This also limits a persons ability to accurately assess visual impact.

For these reasons, Virtual Ideas has taken the view that it is not possible to exactly replicate the real world view of the human eye in an image created with a camera and for visual impact photomontages, camera lenses are selected that strike a balance between these two considerations and can accurately display the built form in its surroundings.

The most effective way to accurately gauge visual impact and achieve a real world understanding of scale, is to take prints of the photomontages to the exact site photography locations and compare the prints with the scale of the existing built form.