Michael Woodland
Keylan Consulting Pty Ltd

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NORTHBOUND DIGITAL SIGNAGE ON CHURCH ST OVERPASS OVER BURNS BAY RD, HUNTERS HILL

CONSULTANT ADVICE LETTER

Michael,

Our expertise lies in the field of designing architectural lighting installations and assessing the resulting impact of light on people and environments. Over the last five years Electrolight Australia has developed a sub specialisation involving the assessment of the impact of digital signage on residents and motorists. This has led us to undertake over 500 separate lighting impact assessments for digital signage around the country, as well as consult with road authorities, councils and tribunals on how best to frame and apply their guidelines for digital signage. To the best of our knowledge, Electrolight Australia has undertaken more lighting impact assessments for digital signage than any other organisation in Australia. This gives us a unique appreciation of the complexities associated with the lighting impact of digital signage and their use in the urban environment.

We have previously provided a lighting impact assessment report for the proposed northbound digital signage on the overpass over Burns Bay Rd, Hunters Hill.

The report demonstrated that the northbound signage complied with all relevant guidelines and standards when operating at the luminances in tables below:

LUMINANCE LEVELS FOR DIGITAL ADVERTISEMENT SIGN (NORTHBOUND)		
Lighting Condition	Max Permissible Luminance (cd/m2)	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	6000	✓
Morning and Evening Twilight and Overcast Weather	700	✓
Night Time	135	✓

We have since been advised that a minor modification to the northbound signage is proposed, which is increasing the box depth from 850mm wide to 1220mm for OH&S access compliance (an increase of 370mm). All other aspects of the sign i.e. height, orientation, placement, luminance etc remain unchanged.

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We have been asked to review the proposed modification and confirm that the design complies will all relevant requirements and standards outlined in the original Lighting Impact Assessment, including:

- Transport Corridor Outdoor Advertising & Signage Guidelines 2017 - State Environmental Planning Policy (Industry and Employment) 2021
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting

The modified signage (and surrounding environment) was modelled in lighting calculation program AGI32 to determine the effect (if any) of the light spill from the proposed signage. Appendix A shows the lighting model and the results of the calculations. The results confirm that the modified signage complies will all necessary requirements and standards outlined above.

Design Certification

The proposed modified northbound digital signage to be installed on the overpass over Burns Bay Rd, Hunters Hill, if commissioned according to this advice, complies with the following criteria, guidelines and standards:

- Transport Corridor Outdoor Advertising & Signage Guidelines 2017 - State Environmental Planning Policy (Industry and Employment) 2021
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting

M.Des.Sc (Illumination) B.Elec.Eng (Hons)

Registered Professional Engineer - New South Wales (PRE0000868)

Member of the Illuminating Engineering Society of Australia and New Zealand (MIES)

Senior Lighting Designer

Electrolight Australia Pty Ltd

Appendix A – Lighting Calculations

Calculation Summary LIA			
Project: Obtrusive - Sign 2			
Label	CalcType	Units	Max
10 Joubert St_III_Seg1	Obtrusive - III	Lux	0.36
10 Joubert St_III_Seg2	Obtrusive - III	Lux	0.19
12 Joubert St_III_Seg1	Obtrusive - III	Lux	0.41
12 Joubert St_III_Seg2	Obtrusive - III	Lux	0.28
12 Joubert St_III_Seg3	Obtrusive - III	Lux	0.24
14 Joubert St_III_Seg1	Obtrusive - III	Lux	0.27
14 Joubert St_III_Seg2	Obtrusive - III	Lux	0.00
14 Joubert St_III_Seg3	Obtrusive - III	Lux	0.48
14 Joubert St_III_Seg4	Obtrusive - III	Lux	0.55
16 Joubert St_III_Seg1	Obtrusive - III	Lux	0.31
16 Joubert St_III_Seg2	Obtrusive - III	Lux	0.69
16 Joubert St_III_Seg3	Obtrusive - III	Lux	0.00
16 Joubert St_III_Seg4	Obtrusive - III	Lux	0.60
16A-16D Joubert St_III_Seg1	Obtrusive - III	Lux	0.03
16A-16D Joubert St_III_Seg2	Obtrusive - III	Lux	0.10
16A-16D Joubert St_III_Seg3	Obtrusive - III	Lux	0.13
16A-16D Joubert St_III_Seg4	Obtrusive - III	Lux	0.00
3 Durham St_III_Seg1	Obtrusive - III	Lux	0.00
3 Durham St_III_Seg2	Obtrusive - III	Lux	0.11
3 Durham St_III_Seg3	Obtrusive - III	Lux	0.16
3 Durham St_III_Seg4	Obtrusive - III	Lux	0.10
5 Church St_III_Seg1	Obtrusive - III	Lux	0.00
5 Church St_III_Seg2	Obtrusive - III	Lux	0.07
5 Durham St_III_Seg1	Obtrusive - III	Lux	0.15
5 Durham St_III_Seg2	Obtrusive - III	Lux	0.13
6 Joubert St_III_Seg1	Obtrusive - III	Lux	0.23
6 Joubert St_III_Seg2	Obtrusive - III	Lux	0.23
6 Joubert St_III_Seg3	Obtrusive - III	Lux	0.23
6 Joubert St_III_Seg4	Obtrusive - III	Lux	0.25
6 Joubert St_III_Seg5	Obtrusive - III	Lux	0.14
7 Durham St_III_Seg1	Obtrusive - III	Lux	0.10
7 Durham St_III_Seg2	Obtrusive - III	Lux	0.12
8 Joubert St_III_Seg1	Obtrusive - III	Lux	0.32
8 Joubert St_III_Seg2	Obtrusive - III	Lux	0.14

Calculation Summary			
Project: Ti - Sign 2			
Label	CalcType	Units	Max
Burns Bay Rd NB	Obtrusive - TI	%	18.65
Burns Bay Rod NB Off Ramp	Obtrusive - TI	%	5.25
Durham Rd NB	Obtrusive - TI	%	12.54
Joubert Rd NB	Obtrusive - TI	%	0.51