Maribyrnong
CITY COUNCIL

Planning Enquiries
Phone: (03) 9688 0200
Web: www.maribyrnong.vic.gov.au

Office Use Only

Application No.: Date Lodged: 20 / 03 / 2025

Application for a **Planning Permit**

If you need help to complete this form, read MORE INFORMATION at the end of this form.

⚠ Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the Planning and Environment Act 1987. If you have any questions, please contact Council planning department.

⚠ **Questions marked with an asterisk (*) must be completed.**

⚠ **If the space provided on the form is insufficient, attach a separate sheet**

ⓘ Click for further information.

The Land ⓘ

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No:	St. No.: 303	St. Name: Williamstown Road
Suburb/Locality: YARRAVILLE		Post Code: 3013

Formal Land Description *

Complete either A or B.

⚠ This information can be found on the certificate of title

If this application relates to more than one address, attach a separate sheet setting out any additional property details.

A Vol.: 10386 | Folio.: 725 | Suburb.: Yarraville

OR

Lot No.: 2 | Type.: Title Plan

B Crown Allotment No.: | Section No.:

Parish/Township Name:

The Proposal

⚠ You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application

ⓘ **For what use, development or other matter do you require a permit?** *

Construct and display a double sided electronic promotion sign

Provide additional information about the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

ⓘ **Estimated cost of any development for which the permit is required** *

50000.00 ⚠ You may be required to verify this estimate. Insert '0' if no development is proposed.

If the application is for land within **metropolitan Melbourne** (as defined in section 3 of the Planning and Environment Act 1987) and the estimated cost of the development exceeds $1.093 million (adjusted annually by CPI) the Metropolitan Planning Levy must be paid to the State Revenue Office and a current levy certific e **must** be submitted with the application.
Visit www.sro.vic.gov.au for information.

Existing Conditions

Describe how the land is used and developed now *

For example, vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Bus shelter with static signage

Provide a plan of the existing conditions. Photos are also helpful.

Title Information

Encumbrances on title *

Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

- ( ) Yes (If 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ( ) No
- (•) Not applicable (no such encumbrance applies).
- ( ) Not Sure

Provide a full, current copy of the title for each individual parcel of land forming the subject site.The title includes: the covering 'sregister search statement', the title diagram and the associatedtitle documents, known as 'instruments', for example, restrictive covenants.

Applicant and Owner Details

Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Name:

Title: CO | First Name: Ooh! | Surname: Pty

Organization (if applicable):

Unit No: 831 | St. No: PO BOX | St. Name:

Suburb: SOUTH MELBOURNE | State: VIC | Postcode: 3205

Business phone: 0410083733 | Email: signage@glossopco.com.au

Mobile phone: | Home:

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Contact person's details*

Name: Same as applicant ☑

Title: CO | First Name: Ooh! | Surname: Pty

Organization (if applicable):

Unit No: 831 | St. No: PO BOX | St.Name:

Suburb: SOUTH MELBOURNE | State: VIC | Postcode: 3205

Business phone: 0410083733 | Email: signage@glossopco.com.au

Mobile phone: | Home:

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organization.

Name: Same as applicant ☑

Title: CO | First Name: Ooh! | Surname: Pty Ltd

Organization (if applicable):

Postal Address: If it is a P.O. Box, enter the details here:

Unit No: 831 | St. No: PO BOX | St. Name:

Suburb: SOUTH MELBOURNE | State: VIC | Postcode: 3205

Business Phone: 0410083733 | Email: signage@glossopco.com.au

Mobile phone: | Home:

Declaration

This form must be signed by the applicant *

⚠ Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit.

I declare that I am the applicant; and that all the information in this application is true and correct; and the owner (if not myself) has been notified of the permit application.

Signature: Ooh! Pty Ltd

Date 20 / 03 / 2025
day / month / year

Need help with the Application?

General information about the planning process is available at planning.vic.gov.au

Contact Council's planning department to discuss the specific requirements for his application and obtain a planning permit checklist. Insufficient or unclear information may delay your application

Has there been a pre-application meeting with a council planning officer

(•) No ( ) Yes Officer Name:

Date: day / month / year

Checklist

Have you:

- [x] Filled in the form completely?
- [x] Paid or included the application fee? ⚠ Most applications require a fee to be paid. Contact Council to determine the appropriate fee.
- [x] Provided all necessary supporting information and documents?
  - [x] A full, current copy of title information for each individual parcel of land forming the subject site
  - [ ] A plan of existing conditions.
  - [x] Plans showing the layout and details of the proposal.
  - [x] Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
  - [ ] If required, a description of the likely effect of the proposal (for example, traffic, noise, environmental impacts)
  - [ ] If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it i issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void
- [x] Completed the relevant council planning permit checklist?
- [x] Signed the declaration?

Lodgement

Lodge the completed and signed form, the fee and all documents with:

Maribyrnong City Council
PO Box 58
Footscray VIC 3011
Cnr Napier and Hyde Streets
Footscray VIC 3011

Contact information:

Phone: (03) 9688 0200
Email: email@maribyrnong.vic.gov.au
DX: 81112

Deliver application in person, by post or by electronic lodgement.

MORE INFORMATION

The Land

Planning permits relate to the use and development of the land. It is important that accurate, clear and concise details of the land are provided with the application.

How is land identified

Land is commonly identified by a street address, but sometimes this alone does not provide an accurate identification of the relevant parcel of land relating to an application. Make sure you also provide the formal land description - the lot and plan number or the crown, section and parish/township details (as applicable) for the subject site. This information is shown on the title.

See **Example 1.**

The Proposal

Why is it important to describe the proposal correctly?

The application requires a description of what you want to do with the land. You must describe how the land will be used or developed as a result of the proposal. It is important that you understand the reasons why you need a permit in order to suitably describe the proposal. By providing an accurate description of the proposal, you will avoid unnecessary delays associated with amending the description at a later date.

⚠ Planning schemes use specific definitions for different types of use and development. Contact the Council planning office at an early stage in preparing your application to ensure that you use the appropriate terminology and provide the required details.

How do planning schemes affect proposals?

A planning scheme sets out policies and requirements for the use, development and protection of land. There is a planning scheme for every municipality in Victoria. Development of land includes the construction of a building, carrying out works, subdividing land or buildings and displaying signs.

Proposals must comply with the planning scheme provisions in accordance with Clause 61.05 of the planning scheme. Provisions may relate to the State Planning Policy Framework, the Local Planning Policy Framework, zones, overlays, particular and general provisions. You can access the planning scheme by either contacting Council's planning department or by visiting Planning Schemes Online at planning-schemes.delwp.vic.gov.au

⚠ You can obtain a planning certificate to establish planning scheme details about your property. A planning certificate identifies the zones anoverlays that apply to the land, but it does not identify all of the provisions of the planning scheme that may be relevant to your application. Planning certificates for land in metropolitan areas and most rural areas can be obtained by visiting www.landata.vic.gov.au Contact your local Council to obtain a planning certificate in Central Gol fields, Corangamite, MacedonRanges and Greater Geelong. You can also use the free Planning Property Report to obtain the same information.

See **Example 2.**

Estimated cost of development

In most instances an application fee will be required. This fee must be paid when you lodge the application. The fee is set down by government regulations.

To help Council calculate the application fee, you must provide an accurate cost estimate of the proposed development. This cost does not include the costs of development that you could undertake without a permit or that are separate from the permit process. Development costs should be calculated at a normal industry rate for the type of construction you propose.

Council may ask you to justify your cost estimates. Costs are required solely to allow Council to calculate the permit application fee. Fees are exempt from GST.

⚠ Costs for different types of development can be obtained from specialist publications such as Cordell Housing: Building Cost Guide or Rawlinsons: Australian Construction Handbook

⚠ Contact the Council to determine the appropriate fee. Go to planning.vic.gov.au to view a summary of fees in the Planning and Environment (Fees) Regulations.

Metropolitan Planning Levy refer Division 5A of Part 4 of the Planning and Environment Act 1987 (the Act). A planning permit application under section 47 or 96A of the Act for a development of land in metropolitan Melbourne as defined in section 3 of the Act may be a leviable application. If the cost of the development exceeds the threshold of $1 million (adjusted annually by consumer price index) a levy certificatemust be obtained from the State Revenue Office after payment of thelevy. A valid levy certificate must be submitted to the responsible planningauthority (usually council) with a leviable planning permit application. Refer to the State Revenue Office website at www.sro.vic.gov.au for more information. A leviable application submitted without a levy certificate is void

Existing Conditions

How should land be described?

You need to describe, in general terms, the way the land is used now, including the activities, buildings, structures and works that exist (e.g. single dwelling, 24 dwellings in a three-storey building, medical centre with three practitioners and 8 car parking spaces, vacant building, vacant land, grazing land, bush block)

Please attach to your application a plan of the existing conditions of the land. Check with the local Council for the quantity, scale and level of detail required. It is also helpful to include photographs of the existing conditions.

See **Example 3.**

Title Information

What is an encumbrance?

An encumbrance is a formal obligation on the land, with the most common type being a mortgage. Other common examples of encumbrances include:

- **Restrictive Covenants:** A restrictive covenant is a written agreementbetween owners of land restricting the use or development of the landfor the benefit of others, (eg. a limit of one dwelling or limits on types obuilding materials to be used).
- **Section 173 Agreements:** A section 173 agreement is a contractbetween an owner of the land and the Council which sets outlimitations on the use or development of the land.
- **Easements:** An easement gives rights to other parties to use the landor provide for services or access on, under or above the surface of theland.
- **Building Envelopes:** A building envelope defines the developmenboundaries for the land.
- signed the declaration on the last page of the application form

Aside from mortgages, the above encumbrances can potentially limit or even prevent certain types of proposals.

What documents should I check to find encumbrances

Encumbrances are identified on the title (register search statement) under the header encumbrances, caveats and notices. The actual details of an encumbrance are usually provided in a separate document (instrument) associated with the title. Sometimes encumbrances are also marked on the title diagram or plan, such as easements or building envelopes.

What about caveats and notices?

A caveat is a record of a claim from a party to an interest in the land. Caveats are not normally relevant to planning applications as they typically relate to a purchaser, mortgagee or chargee claim, but can sometimes include claims to a covenant or easement on the land. These types of caveats may affect your proposal.

Other less common types of obligations may also be specified on title inthe form of notices. These may have an effect on your proposal, such as a notice that the building on the land is listed on the Heritage Register.

What happens if the proposal contravenes an encumbrance on title?

Encumbrances may affect or limit your proposal or prevent it from proceeding. Section 61(4) of the *Planning and Environment Act 1987* for example, prevents a Council from granting a permit if it would result in a breach of a registered restrictive covenant. If the proposal contravenes any encumbrance, contact the Council for advice on how to proceed.

Planning Report

Williamstown Road (east side), north of Francis Street, Yarraville

Construct and display a double sided electronic promotion sign on the bus shelter

Glossop Quality System			
Author	**ChG**	**Checked By**	**EL**
Date Issue	**March 2025**	**Revision Number**	**0**

1. Introduction

This planning report accompanies an application to construct and display a double-sided electronic promotion sign on the bus shelter at Williamstown Road (east side), north of Francis Street, Yarraville.

The bus shelter is located within the road reserve, adjacent to 303 Williamstown Road, Yarraville.

1.1 Plans and Supporting Documentation

This report should be read in conjunction with the following:

- Site plan, prepared by oOh!media and dated 25 February 2025;
- Elevation Plan, prepared by oOh!media and dated 19 December 2024;
- Luminance assessment including a certification, signed by a suitably qualified Lighting Consultant, stating that the design complies with DTP Requirements and Guidelines for Illuminated Outdoor Advertising Signage, prepared by Electrolight and dated 13 March 2025; and
- A Completed 'Appendix A – Information Requirements' of the Digital Advertising Signs in Bus Shelters Policy.

1.2 Planning History

Planning Permit TP112/2008 was granted on 23 April 2008. It allows for the display of one electronic sign and one static sign. These signs are existing and have been displayed since the issue of the planning permit.

1.3 Proposal

This application seeks to replace the existing static sign with a double sided electronic sign with a dwell time of 10 seconds.

2. Planning Analysis

This application seeks approval to replace the existing promotion signs with a double sided electronic promotion sign on the bus shelter.

It is important to acknowledge that the existing signs have been displayed on the land for many years. In this respect, the signage forms part of the existing streetscape context and its character.

This planning analysis considers the appropriateness of the conversion of the static sign to an electronic sign, in line with the key guidance set out in the Maribyrnong Planning Scheme, acknowledging the presence of the existing sign.

2.1 Clause 52.05 Assessment

Clause 52.05 provides the primary planning scheme guidance for applications which seek to construct and put up for display a sign.

An assessment against the relevant decision-making framework within Clause 52.05 is provided in the table below.

Signage Category	The land is within the Transport 2 Zone (TRZ2). The nearest adjoining zone is the General Residential Zone – Schedule 1 (GRZ1). Land within the GRZ1 is within **Category 3 – High Amenity Areas – Medium Limitation.** The Purpose for signage in Category 3 areas is: *To ensure that signs in high-amenity areas are orderly, of good design and do not detract from the appearance of the building on which a sign is displayed or the surrounding area.*
Characterisation of the sign and permit requirements	As per Clause 73.02 'Sign terms', the proposed sign can be described as an electronic promotion sign. Pursuant to Clause 52.05-13, a planning permit is required to construct or put up for display an electronic sign. <u>Referral</u> The application must be referred to the Head, Transport for Victoria pursuant to: ▪ Clause 52.05-3 - An application to construct or put up for display an animated or electronic sign within 60 metres of a freeway or arterial road declared under the *Road Management Act 2004* must be referred in accordance with section 55 of the Act to the Head, Transport for Victoria. ▪ Clause 66.02-11 - Any alteration or development of public transport infrastructure or stops, unless undertaken for the Head, Transport for Victoria, must be referred to the Head, Transport for Victoria.
The character of the area	▪ The proposed sign is located along a main road that comprises a double carriageway. The immediately adjoining properties are residential in nature. The character of the area is influenced by this robust road environment.

	▪ The proposed sign is not located in a sensitive area in terms of the natural environment, waterways, open space or a rural landscape. ▪ While there is adjoining residential development, the properties are not within the faces of the sign, which are oriented towards the road reserve. It follows that adjoining dwellings will have only very limited (if any) views towards the sign. The views reflect the existing conditions. ▪ The proposed sign forms an important part of the character of the area. Additionally, the bus shelter serves an important amenity and safety function, providing all weather protection for bus patrons along Route 472.
Impact on views and vistas	▪ The Maribyrnong Planning Scheme does not identify any important views from the public realm or significant public views within or surrounding this location. It follows that the proposed sign will not obscure or compromise any important or significant views. ▪ The proposed sign will not dominate the skyline, being of a maximum height of 2 metres above natural ground level. ▪ The proposed sign will not impede any views towards existing signs.
Relationship to the streetscape, setting or landscape	▪ The proposed sign is located within an existing bus shelter that is of an appropriate scale and form relative to the streetscape. Williamstown Road is a significant road reserve, at approximately 35 metres in width. The width of the road reserve reduces the scale of any built form in the streetscape, including the existing bus shelter. It follows that the proposed sign is of an appropriate scale within the streetscape. ▪ The proposed sign will not protrude above existing buildings or landscape and natural elements.
Relationship to the site and building	▪ The proposed sign is to be housed within an existing bus shelter. The sign is to be housed within an integrated part of the bus shelter structure that serves as a support for the roof element of the shelter and assists in providing weather protection, in the form of a windbreak. ▪ The proposed sign is integrated with the bus shelter and is therefore appropriate in terms of its scale and proportion to the broader structure. ▪ The proposed sign housing is typical of bus shelters across Victoria and represents best practice and innovative approaches to patron protection and advertising display. ▪ The proposed sign does not require the removal of any vegetation.
The impact of structures associated with the sign	▪ The proposed sign's structure is an integrated part of the bus shelter and does not have a significant impact on the surrounding environment.
The impact of any illumination	▪ The proposed sign is internally illuminated through light emitting diode (LED) technology. ▪ The lighting intensity and glare associated with the sign are controlled to respond to atmospheric light conditions and will maintain acceptable levels of illumination in accordance with the relevant Australian Standard. ▪ A certification, signed by a suitably qualified Lighting Consultant, stating that the design complies with DTP Requirements and Guidelines for Illuminated Outdoor Advertising Signage has been provided with this application
The impact of any logo box associated with the sign	▪ A small logo box which consists of the advertiser's corporate branding is located at the top of the sign and appropriately integrated with the overall bus shelter structure. ▪ The logo box is of a suitable size and is necessary for identification purposes.

The impact on road safety	▪ The proposed sign will not visually dominate or obstruct traffic light signals. It is located approximately 67 metres north from the nearest traffic lights. ▪ The planning permit can include conditions controlling the illumination of the size as well as conditions with prevent the sign from distracting drivers. ▪ The proposed sign is not located at an area where particular driver attention or concentration is required. Williamstown Road is a well regulated road context, with a white solid line marking the median separating traffic in either direction. ▪ The proposed sign is not in a location known as a 'decision point'. There are no merging lanes, turning lanes, stop signs, roundabouts or other traffic infrastructure in proximity to the sign that would require a driver's full attention. It follows that the proposed sign is acceptable on traffic safety grounds.

The sign can be favourably assessed against the decision guidelines of Clause 52.05.

It is an entirely appropriate planning outcome and a planning permit should be granted.

Digital Advertising Signs in Bus Shelters Policy, July 2024

This policy has been prepared by the Department of Transport and Planning to guide bus shelter digital advertising arrangements.

The Policy focuses on the safety of all road users while also being cognisant of the safety, accessibility and amenity of bus users. The Policy particularly focuses on minimising driver distraction, while considering accessibility, amenity, existing environs, and ensuring an efficient and working transport network, including bus shelter infrastructure.

In this respect, we note that the bus shelter is existing. This application does not propose any changes to the bus shelter itself, which was built to the requirements of the Department of Transport at the time of construction.

The proposed amendment is consistent with the general requirements of the policy (insofar as they are relevant to the assessment of a permit application) for the following reasons:

Location

- The digital sign replaces an existing static sign which does not obstruct access to the bus shelter or the surrounding footpath. The proposed digital sign will maintain current access to the bus shelter and surrounding footpath. This is illustrated on the site card.
- The proposed digital sign will not reduce the visibility of the road. This is illustrated in the site card and elevation plan.
- The proposed digital sign is located a sufficient distance from decision making point and conflict points. There are no merging lanes, turning lanes, stop signs, roundabouts or other traffic infrastructure in proximity to the sign that would require a driver's full attention.
- The bus shelter is not located in a school zone or within 250m of a school.
- The bus shelter is not located within 100 metres of a rural railway level crossing.

- No roof mounted advertising is proposed.
- The digital sign is at a 90 degree angle to the road.
- The proposed digital sign does not compromise wayfinding information or seating within the shelter.
- The placement of the digital sign will not impede the safety and free movement of pedestrians and the Disability Standards for Accessible Public Transport are met.

Image not mistaken for traffic signs

- Conditions can be included on the planning permit requiring the sign to not be confused for traffic signs.

Dwell Times

- The proposed dwell time of 10 seconds remains consistent with the policy.
- This part of Williamstown Road has a speed limit of 50km/h. Pursuant to the policy, the appropriate dwell time in areas where the speed limit is below 80km/h is 10 seconds.

Transition time and malfunctioning

- Conditions can be included on the planning permit requiring transition time to be instantaneous.
- Conditions can be included on the planning permit to address circumstances of sign malfunction.

Message sequencing

- Conditions can be included on the planning permit to prevent message sequencing.

Movement of content

- Conditions can be included on the planning permit preventing the use of moving or animated content. The proposed digital sign is static and not animated or moving.

Luminance levels

- A certification, signed by a suitably qualified Lighting Consultant, stating that the design complies with DTP Requirements and Guidelines for Illuminated Outdoor Advertising Signage has been provided with this application.

Power Supply

- It is not proposed to connect the digital sign to the DTP's power supply.

Content, drivers not unreasonably distracted

- Conditions can be included on the planning permit requiring that the signs not contain any flashing, blinking, brightening or fading elements that create the illusion of movement or change.
- Conditions can be included on the planning permit requiring that the sign not dazzle or distract road users due to its colouring or content.
- The proposed sign does not require sound or movement to activate content and does not emit any sound which interactive with road users.
- The content displayed on the proposed sign complies with applicable law, is not offensive or demeaning and does not damage the reputation of the DTP or the State. The displayed content complies with the Advertising Content Policy prepared by the Outdoor Media Association.

Contact information

- Owner contact information is already included within the bus shelter.

A completed **Appendix A – Information Requirements** has been submitted with this application.

Other matters can be managed by conditions on the planning permit or through other mechanisms.

Dwell Time

Having regard to the above analysis, the 10 second dwell time of the sign is consistent with DTP's policy, which requires a dwell time of 10 seconds on roads of less than 80km/h.

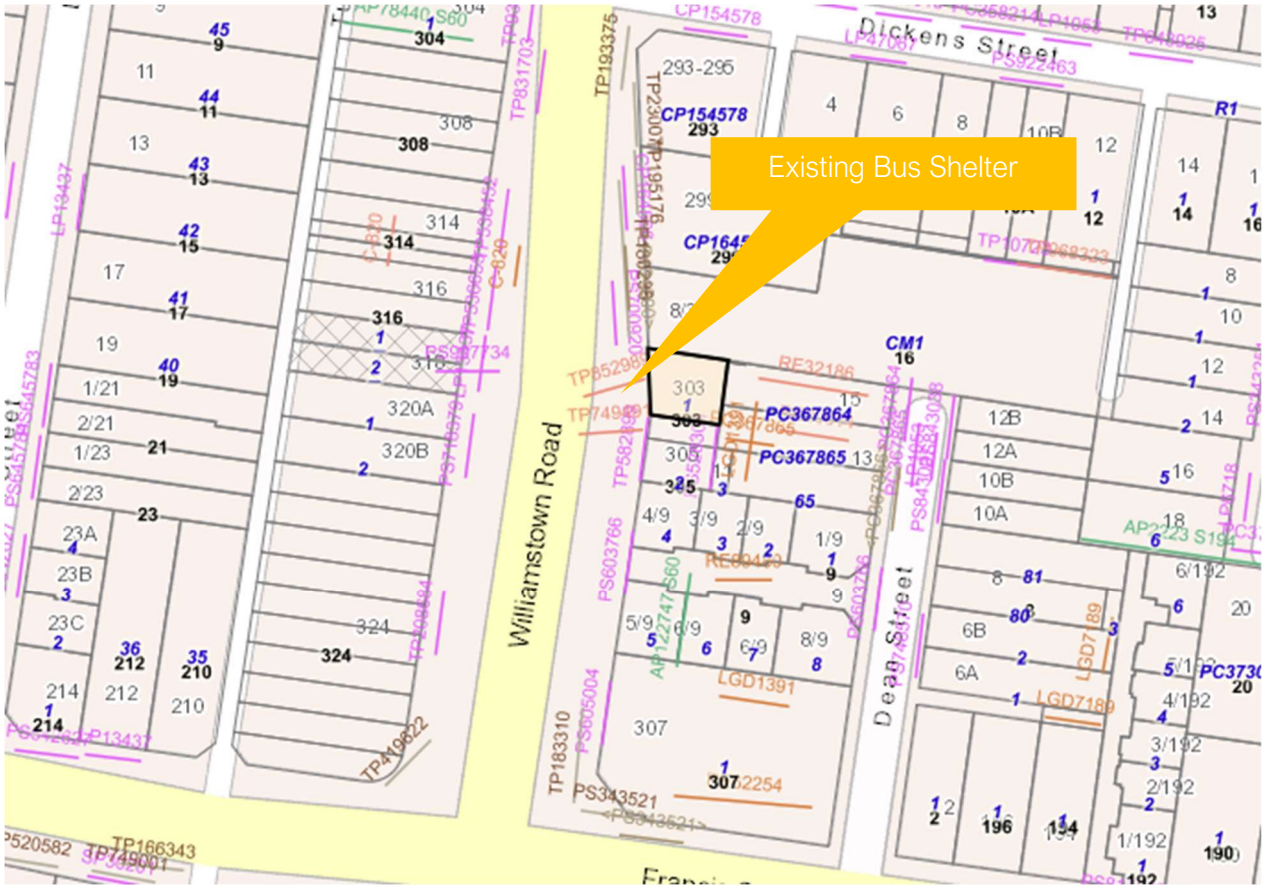
3. The Site and Surrounds

3.1 The Subject Site

The subject site is located on the east side of Williamstown Road, approximately 73 metres north of its intersection with Francis Street, Yarraville.

The subject site is within the road reserve of Williamstown Road, which is an arterial road under the control of the Department of Transport.

The site is to the immediate west of 303 Williamstown Road, Yarraville.



Cadastral Map of Williamstown Road, Yarraville (Source: Land and Survey Spatial Information)

The site is currently developed with a bus shelter associated with Bus Route 472 – Moonee Ponds via Footscray.

The bus shelter comprises a Colorbond roof for all weather protection. The existing shelter also includes a double sided internally illuminated static sign.

View of the subject site from Williamstown Road, Yarraville (source: Google Streetview)

View of the subject site from Williamstown Road, Yarraville (source: Google Streetview)

3.2 Surrounding Area

The bus shelter is located in a residential context. Land to the immediate east and west comprise single and double storey dwellings with some apartment buildings.

The existing signage character is mostly of promotional signs affixed to bus shelters. The scale of these signs is comparable to the proposed sign.

Williamstown Road is a double carriageway comprising two lanes of traffic in either direction, separated by a concrete centre median. The nearest traffic lights are located approximately 67 metres to the south of the subject site.

4. Conclusion

The proposal seeks to construct and display a double sided electronic promotion sign affixed to the bus shelter with a dwell time of 10 seconds.

The proposal is an appropriate outcome in its context for the following reasons:

- The proposed signage is consistent with the provisions of the Maribyrnong Planning Scheme, including the Planning Policy Framework and Clause 52.05.
- The proposed signage replaces an existing static and digital sign which has been an acceptable part of the area's character for several years.
- There are no adverse traffic safety or amenity impacts which arise from the proposal.
- The luminance of the proposed digital signs will be controlled to a degree that will not lead to unreasonable light spill or glare.
- The proposed dwell time is consistent with DTP Policy.

It follows that a planning permit should be granted for the proposal.

Glossop Town Planning

March 2025

Department of Transport

GPO Box 2392
Melbourne, VIC 3001 Australia
Telephone: +61 3 9651 9999
www.transport.vic.gov.au
DX 201292

Jeynelle Leffaue
Commercial Director – Victoria
oOh!Media

Via email: *charlotte@glossopco.com.au*

Dear Jeynelle

OOH!MEDIA BUS SHELTERS ADVERTISING

oOh!Media has an existing contract with the Department of Transport and Planning (DTP) to construct and display promotional signage on existing bus shelters.

We understand that as part of this contract, oOh!Meida seeks to amend planning permission for existing static advertising signage affixed to bus shelters to digital advertising, including a new permit or where a permit modification is required.

In accordance with Clause 36.04-3 of the Victorian Planning Provisions, an application for a permit in a Transport 2 Zone by a person other than a relevant transport manager must be accompanied by the written consent of the Head, Transport for Victoria (**Head, TfV**).

Pursuant to Clause 36.04-3 of all Victorian planning schemes, the Head, TfV consents to the application for permit being made for all DTP approved existing bus shelter promotion signs.

Note that this letter only provides the Head, TfV's consent to lodge a planning permit application and **is not**:

- A referral response where the Head, TfV is a referral authority for the planning permit application.
- The Head, TfV's approval of the development proceeding. Additional approvals from the Head, TfV or other public authorities may be required.

Should you have any queries, please contact Glenda Fortuna at Glenda.fortuna@transport.vic.gov.au.

Yours sincerely

Chantelle Lovell

Chantelle Lovell
Senior Manager Leasing and Land
Delegate of Head, Transport for Victoria
13 May 2024

VICTORIA State Government

There is no title for this site.

Appendix A – Standard Requirements and Checklist for Digital Advertising in Bus Shelters

Notes:

1. Information required from an applicant is listed below but this list may not be exhaustive. Standard application requirements contained in Clause 52.05-6 of the VPP should also be met.
2. Where information is hard to display on a plan and when information requirements are not specified, a written statement can be provided setting out the relevant technical details. In the case where information requirements are not specified in the table below (or set out in standard application requirements contained in Clause 52.05-6 of the VPP) a completed checklist the checklist items can be checked as 'yes' to show that the applicant meets the requirements.
3. For items where the 'condition required' field is checked, statutory planners acting under delegation from the Head, Transport for Victoria will include the requirement as a standard permit condition.

Outdoor Advertising Aspect	Standard Requirements	Information required from applicant	Requirement met?		Condition required?
			Yes	No	
Location	The advertising device does not obstruct access to the bus shelter and the surrounding footpaths.	Plan or written statement (with measurements) showing/describing the location, size and orientation of the proposed signage, in relation to the bus shelter and surrounding footpaths, access and circulation points.	✔	☐	☒
	The advertising device location should maximise visibility of the road and minimise the time a driver's attention is directed away from the road or impede the driver's line of sight.	Plan, sketch, photomontage images or written statement showing/describing the proposed sign from a driver's perspective (with approximate distances) from any locations where drivers would be able to view the proposed sign.	✔	☐	☒
	The advertising device is located a sufficient distance away from decision making points and conflict points (outlined in the Policy and referred to in *Austroads Guide to Road Design*).	Plan, sketch, panoramic photographs with marked measurements of the proposed site or written statement, including: • horizontal curvature, • length of vertical curve for a 1% change in grade, • a distance of at least 7.0m from a vehicle at the stop line of an intersection to a vehicle approaching on the left and the right relative to the sign, • distance of the sign to the centrelines of the adjacent lane and perpendicular lane (if at an intersection), • distance of sign to kerb on a horizontal curve (see *Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections* Fig 3.2, Fig 3.3, 3.6 and 3.7 for examples of types of plans, sketches or diagrams),	✔	☐	☒

Outdoor Advertising Aspect	Standard Requirements	Information required from applicant	Requirement met?		Condition required?
			Yes	No	
	Any sign within a school zone or within 250 m of a school is switched to a fixed display during school zone hours.	Map showing a 250m radius of the sign showing location of any school zone signs or school	✔	☐	☒
	The advertising device is not within 100 m of a rural railway level crossing.	If in a rural area, a map showing a 100 m radius of the sign marking the location of any railway level crossings Note a railway level crossing is considered rural if it is in an area where the speed limit is more than 60 km/h *and* there is no street lighting or no buildings on land next to the road at intervals not exceeding 100m for a distance of at least 500m (or the length of the road if the road is less than 500m long)	✔	☐	☒
	The advertising device does not obstruct the view of the bus driver of anyone waiting in the bus shelter (on the approach side)	Plan, sketch or diagram with measurements marked or written statement showing/describing layout and widths of footpaths, access points and circulation points around the proposed location of the sign within the shelter and mark the direction of an oncoming bus	✔	☐	☒
	No roof mounted advertising devices are being proposed.		✔	☐	☒
	The advertising device is placed at a 90-degree angle to the road.		✔	☐	
	The advertising device is placed so that bus service and wayfinding information within the bus stop is easily seen by bus passengers.		✔	☐	☒
	The configuration or provision of seating within a shelter is not compromised in order to facilitate the advertising device.		✔	☐	☒
	The advertising device is placed so that it does not impede the safety and free movement of pedestrians and the Disability Standards for Accessible Public Transport are met.	Plan, sketch or diagram with measurements marked or written statement showing/describing layout and widths of footpaths, access points and circulation points around the proposed location of the sign within the shelter	✔	☐	☒

Outdoor Advertising Aspect	Standard Requirements	Information required from applicant	Requirement met?		Condition required?
			Yes	No	
Image not mistaken for traffic signs	There is no content present that resembles traffic signals, traffic signs or instruction signs. Examples include red, amber, or green circles, octagons, crosses or triangles or shapes or patterns.		☐	☐	✓
Dwell times	The minimum time while a single advertisement is displayed on the device is: • 10 seconds in areas where the speed limit is below 80 km/h • 25 seconds in areas where the speed limit is 80 km/h and above Longer dwell times may be required in more complex situations.		☐	☐	✓
Transition time and malfunction occurring	The transition time between displays is less than 0.1 seconds.		☐	☐	✓
	Display changes do not use movement such as 'fly in' or 'scroll'.		☐	☐	✓
	In the event of equipment failure or a hacking, the display defaults to a blank black screen.		☐	☐	✓
Message sequencing	There is no correlation or association between consecutive displays per single advertising panel.		☐	☐	✓
	There is no correlation or association between displays across multiple panels.		☐	☐	✓
Movement of content	Displayed content does not contain animated or video/movie style advertising or messages including live television, satellite, internet or similar broadcasts.		☐	☐	✓
	There is no other movement or illusion of movement such as a change in brightness, flashing or scrolling of images.		☐	☐	✓

Outdoor Advertising Aspect	Standard Requirements	Information required from applicant	Requirement met?		Condition required?
			Yes	No	
Luminance levels	Brightness level changes are performed during message transitions.	Details of any form of illumination, including details of baffles, the times at which the sign would be illuminated, and the proposed luminance levels.	✓	☐	☒
	Luminance levels comply with the values presented in *DTP Requirements and Guidelines for Illuminated Outdoor Advertising Signage*.	A certification, signed by a suitably qualified Lighting Consultant, stating that the design complies with *DTP Requirements and Guidelines for Illuminated Outdoor Advertising Signage*.	✓	☐	☒
Power Supply	Where the advertising device needs to be connected to the DTP's power supply, agreement must be obtained from DTP to connect power supply.	Endorsed Agreement from DTP to connect to DTP power supply.	☐	✓ N/A	☒
Content, drivers not unreasonably distracted	The content does not include any flashing or flickering content.		☐	☐	✓
	The advertising device does not require sound or movement to activate content and does not emit any sound to interact with road users.		☐	☐	✓
	The content displayed on the advertising device: • complies with applicable law, • is not offensive or demeaning, • does not damage the reputation of the DTP or the State.		✓	☐	☒
Contact information	Owner-information is provided at advertising devices listing emergency contact telephone numbers for cases where the sign has been damaged or has otherwise become unsafe		✓	☐	☒

oOh! Media
Ref: 3767.4

LIGHTING IMPACT ASSESSMENT
OUTDOOR SIGNAGE FOR
DTP BUS SHELTER ROLLOUT - BATCH 4

DATE	REV	COMMENT	PREPARED BY	CHECKED BY
12/03/25	REV A	For Information	NL	RS

Electrolight Australia
ABN: 44 600 067 392
australia@electrolight.com
www.electrolight.com

4/414 Bourke St
Surry Hills, NSW 2010
T + 61 2 9267 4777

CONTENTS

1. INTRODUCTION

Electrolight have been appointed by oOh! Media to undertake a Lighting Impact Assessment for the proposed digital signage to be installed in the existing DTP Bus Shelter Structures in "Batch 4" of the rollout , which is located within the Maribyrnong City Council area. Refer to Appendix A for the list of sites included in Batch 4 (**proposed signage**). The objective of the assessment is to report on compliance with the Department of Transport and Planning Requirements and Guidelines for Illuminated Outdoor Advertising Signage and AS/NZS 4282:2023 Control of the Obtrusive Effects of Outdoor Lighting.

2. DEFINITIONS

2.1 Illuminance

The physical measure of illumination is illuminance. It is the luminous flux arriving at a surface divided by the area of the illuminated surface. Unit: lux (lx); 1 lx = 1 lm/m2.

(a) Horizontal illuminance (Eh) The value of illuminance on a designated horizontal plane
(b) Vertical illuminance (Ev) The value of illuminance on a designated vertical plane

Where the vertical illuminance is considered in the situation of potentially obtrusive light at a property boundary it can be referred to as environmental vertical illuminance (Eve).

2.2 Luminance

The physical quantity corresponding to the brightness of a surface (e.g. a lamp, luminaire or reflecting material such as the road surface) when viewed from a specified direction. SI Unit: candela per square metre (cd/m2) – also referred to as "nits".

2.3 Luminous Intensity

The concentration of luminous flux (perceived light power) emitted in a specified direction. Unit: candela (cd).

2.4 Dynamic content

Where the luminous image, pattern, colour or direction of light changes over an interval of less than 60 seconds.
Note: Definition source is AS4282.

2.5 Obtrusive Light

Spill light which, because of quantitative or directional attributes, gives rise to annoyance, discomfort, distraction, or a reduction in ability to see essential information such as transport signals.
Note: Obtrusive light includes the impact on humans and environmental receivers.

2.6 Threshold Increment

The measure of disability glare expressed as the percentage increase in luminance contrast threshold required between an object and its background for it to be seen equally well with a source of glare present.
Note: The required value is a maximum for compliance of the lighting scheme.

2.7 Environmentally Sensitive Area (ESA)

Area of ecological value including, bushland, waterways and marine and coastal areas.
Note: Definition source is AS4282.

2.8 AGI32 Light Simulation Software

AGI32 (by U.S. company Lighting Analysts/Revalize) is an industry standard lighting simulation software package that can accurately model and predict the amount of light reaching a designated surface or workplane. AGi32 has been independently tested against the International Commission On Illumination (CIE) benchmark, CIE 171:2006, Test Cases to Assess the Accuracy of Lighting Computer Programs.

2.9 Upward Light Ratio Luminaire (ULR_L)

The ratio of the luminous flux of a luminaire that is emitted, at and above the horizontal, divided by the total luminaire flux when the luminaire is mounted in its designed position, and excluding reflected light from surfaces or obstructions.

Note: Definition source is AS4282.

2.10 Environmental Receiver

Any identified living species (plants, animals and other organisms) and their locations indicated, that may be impacted by the proposed lighting system.

Note: Definition source is AS4282.

2.11 Lambertian Emitters/Surfaces

A Lambertian emitter/surface is one whose luminance towards an observer is independent of the viewing direction - i.e. the emitter/surface appears uniformly bright from all directions.

2.12 Residential Exclusion Zone (REZ)

A Residential Exclusion Zone is defined as the region within which the vertical illuminance levels to habitable windows of residential properties may exceed the maximum allowable limit.

3. SITE DESCRIPTION AND SCOPE

The proposed digital signage is to be installed within the existing “Batch 4” Bus Shelter Structures as nominated in Appendix A. The Bus shelters are located in various urban and suburban areas throughout Melbourne, Victoria. The digital signage reviewed in this assessment is affixed to the Bus Shelter Structure and is comprised of two Liquid Crystal Displays (LCD) in a “back to back” configuration, located on one side of the structure. For the purpose of this assessment the LCD mounted to the inner face of the Bus Shelter Structure is nominated as “Side A”, and the LCD mounted on the outer face of Bus Shelter Structure is nominated as “Side B”. The active display area of the 75 inch display is approximately 1.54m2 and is 935mm wide and 1648mm high. Refer Appendix B for the drawings of the proposed Bus Shelter Structures and proposed signage.

The proposed signage within the Bus Shelters shall operate 24 hours a day, with a content dwell time of 10 seconds when located on a road with a maximum speed limit of 80km/h, and a dwell time of 25 seconds when located on a road with a maximum speed limit over 80km/h. As the dwell time for both roadway conditions is less than 60 seconds, the proposed signage is defined as displaying dynamic content (see Section 2.4).

Liquid Crystal Display (LCD) digital signage, such as the ones used in this application, do not include baffles or louvres and appear similarly bright from most directions of view. The specification details for the front and rear screens can be found in Appendix C. The maximum luminance (“brightness”) of the signage is 3500cd/m2. The brightness of the signage can be varied by a lighting control system to provide upper and lower thresholds based on the time of day and display location. The Bus Shelter Structure shall have a light sensor that is embedded in the display. The sensor shall change the brightness of the signage in small increments over time so that no dramatic change in luminance level is experienced.

Environmental impact assessments, including the management of artificial light for the protection of specific entities protected by environmental legislation, is beyond the scope of this assessment.

4. DESIGN GUIDELINES AND STANDARDS

The Lighting Impact Assessment will review the proposed signage against the following Criteria, Design Guidelines and Standards:

- Department of Transport and Planning Requirements and Guidelines for Illuminated Outdoor Advertising Signage 4th October 2023 (**DTP Guidelines**)
- AS/NZS 4282:2023 Control of the Obtrusive Effects of Outdoor Lighting (**AS4282**)

5. LUMINANCE ASSESSMENT

DTP Guidelines Assessment

The DTP outlines maximum permissible luminance limits for various lighting conditions as per Table 1 below:

TABLE 1 - ILLUMINATED OUTDOOR ADVERTISING SIGNAGE						
	CATEGORY A MAXIMUM VALUES OF LIGHT TECHNICAL PARAMETERS			CATEGORY B MAXIMUM VALUES OF LIGHT TECHNICAL PARAMETERS		
Lighting Condition	Max Average Luminance (cd/m2)	Threshold Increment Note 1		Max Average Luminance (cd/m2)	Threshold Increment Note 1	
		Max %	Adaptation Luminance		Max %	Adaptation Luminance
Full sun on face of signage	No limit	-	-	No limit	-	-
Daytime Luminance	6000	-	-	4000	-	-
Morning and evening twilight and overcast weather (see Note 2)	700	-	-	400	-	-
Night Time - High District Brightness	350	20%	5	200	15%	5
Night Time - Medium District Brightness	250	20%	1	150	15%	1
Night Time - Low District Brightness	150	20%	0.25	Not Permitted	N/A	N/A

Note 1: Threshold increment as defined and calculated in AS4282.

Note 2: Twilight is a defined as the period when the sun is below the horizon but light from the sun is still indirectly visible. When the sun is 18 degrees or more below the horizon, the amount of visible light is very low and this is defined as Night time.

The proposed signage within the Bus Shelter Structures are to be installed across urban and suburban areas throughout Melbourne, Victoria. The signage is classified as “Category B” illuminated advertising signage. Therefore the maximum permissible daytime luminance limits under the guidelines are: unlimited (maximum brightness) when full sun strikes the face of the sign, 4000 cd/m2 during normal daytime operation, and 400 cd/m2 during twilight and overcast weather. The maximum allowable night time luminance is dependent on the existing illumination conditions. Where the proposed signage is located in a High District Brightness area the maximum night time luminance is 200cd/m2, and where the proposed signage is located in a Medium District Brightness area the maximum night time luminance is 150cd/m2.

AS4282 Luminance Assessment

AS4282 outlines maximum luminance limits for signage during night time operation only, its scope does not include lighting impacts associated with daytime operation. The maximum permissible night time luminance of the signage is determined by the existing lighting environment of its surroundings. AS4282 outlines maximum average luminances for different Environmental Zones as shown in Table 2 below:

TABLE 2 - AS4282 MAXIMUM AVERAGE NIGHT TIME LUMINANCE FOR SIGNAGE		
	Description	Max Average Luminance (cd/m2)
A4	High district brightness e.g. Town and city centres and other commercial areas, residential areas abutting commercial areas, industrial and Port areas and Transport Interchanges	350
A3	Medium district brightness e.g. Suburban areas in towns and cities, generally roadways with streetlighting through suburban, rural or semi-rural areas	250
A2	Low district brightness e.g. Sparsely inhabited rural and semi-rural areas, generally roadways without streetlighting through suburban, rural or semi-rural areas other than intersections	150
A1	Dark e.g. Relatively uninhabited rural areas (including terrestrial, marine, aquatic and coastal areas), generally roadways without streetlighting through rural areas	50
A0	Intrinsically Dark e.g. UNESCO Starlight Reserve, IDA: Dark Sky Parks, Reserves or Sanctuaries, major optical observatories, other accreditations for dark sky places for example astrotourism, heritage value, astronomical importance, wildlife/ecosystem protection, lighting for safe access may be required	0.1

The proposed signage within the Bus Shelter Structures are to be installed across urban/suburban areas throughout Melbourne, Victoria, meaning the proposed signage will be classified as being in either an Environmental Zone A4 or an Environmental Zone A3, depending on the existing illumination conditions.

Luminance Limits Summary - Side A & Side B

Table 3 outlines the maximum luminance levels for the proposed signage to comply with the DTP Guidelines and AS4282 for the various lighting conditions listed below:

TABLE 3 - MAXIMUM LUMINANCE LEVELS FOR BUS SHELTER SIGNAGE - BATCH 4		
Lighting Condition	Max Permissible Luminance (cd/m2)#	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	4000	✓
Morning and Evening Twilight and Overcast Weather	400	✓
Night Time High District Brightness (Zone A4)	200	✓
Night Time Medium District Brightness (Zone A3)	150	✓

The signage is to be dimmed on site to ensure the maximum luminance nominated above is not exceeded.

The proposed signage must comply with the luminance limits outlined in Table 3 above to ensure compliance with the findings of this lighting impact assessment.

The maximum operational luminance levels outlined in Table 3 will be used for the purposes of assessing the proposed signage.

6. AS4282 & DTP THRESHOLD INCREMENT ASSESSMENT

The proposed signage has been assessed against the lighting criteria and requirements outlined in AS4282.

AS4282 provides limits for different obtrusive factors associated with dark hours (night time) operation of outdoor lighting systems. Two sets of limiting values for spill light are given based on whether the lighting is operating before a curfew (known as "pre-curfew" operation) or operating after a curfew (known as post-curfew or curfewed operation). Pre-curfew spill lighting limits are higher than post-curfew values, on the understanding that spill light is more obtrusive late at night when residents are trying to sleep. Under AS4282, the post-curfew period is taken to be between 11pm and 6am daily. As the signage operates all night, the signage will be assessed against the more stringent post-curfew limits.

Spill light to any adjacent Environmentally Sensitive Areas (ESA) is also assessed against the more stringent post-curfew limits, as outlined in Clause 3.2.1 of AS4282.

Illuminance Assessment - Side A & Side B

The AS4282 assessment includes a review of nearby residential dwellings and ESAs and a calculation of the amount of vertical illuminance (measured in Lux) that the properties are likely to receive from the signage during night time operation.

The acceptable level of vertical illuminance will in part be determined by the night time lighting environment around the dwellings. AS4282 categorises the night time environment into different zones with maximum lighting limits as shown in Table 4 below:

TABLE 4 - AS4282 MAXIMUM VALUES OF VERTICAL ILLUMINANCE

	Max Vertical Illuminance (lx)		Description
	Pre-curfew	Post-curfew	
A4	25	5	High district brightness e.g. Town and city centres and other commercial areas, residential areas abutting commercial areas, industrial and Port areas and Transport Interchanges
A3	10	2	Medium district brightness e.g. Suburban areas in towns and cities, generally roadways with streetlighting through suburban, rural or semi-rural areas
A2	5	1	Low district brightness e.g. Sparsely inhabited rural and semi-rural areas, generally roadways without streetlighting through suburban, rural or semi-rural areas other than intersections
A1	2	0.1	Dark e.g. Relatively uninhabited rural areas (including terrestrial, marine, aquatic and coastal areas), generally roadways without streetlighting through rural areas
A0	0	0	Intrinsically Dark e.g. UNESCO Starlight Reserve, IDA: Dark Sky Parks, Reserves or Sanctuaries, major optical observatories, other accreditations for dark sky places for example astrotourism, heritage value, astronomical importance, wildlife/ ecosystem protection, lighting for safe access may be required

Where the signage displays dynamic content (a dwell time less than 60 seconds) and is located within 100m of residential dwelling/s with potential views to the signage, then the maximum allowable vertical illuminance limits to the impacted dwellings are 50% of those outlined in Table 4 above. Where the dwellings are further than 100m from the signage, the maximum vertical limits are those values shown in Table 4.

The proposed signage within the Bus Shelter Structures are to be installed across urban/suburban areas throughout Melbourne, Victoria. As such, the proposed signage will be classified as being either in an Environmental Zone A4 or an Environmental Zone A3, depending on the existing illumination conditions. The maximum illuminance to residential properties located within 100m of the signage is 2.5 Lux for Zone A4 and 1 Lux for Zone A3.

Threshold Increment - Introduction

Threshold Increment (T.I.) is a measure of disability glare to motorists (sometimes referred to as "dazzle") as a result of the light emitted from the signage.

The impact of the disability glare (and the resulting T.I.) from the proposed signage is dependent on the existing ambient lighting environment. The darker the ambient environment, the greater the impact of the glare and the higher the resulting Threshold Increment. The luminance level that the eye is adapted to in a particular ambient environment is known as the "Adaptation Luminance". A dark ambient environment will result in a lower Adaptation Luminance level for the observer than a brighter ambient environment.

Threshold Increment Assessment - AS4282

AS4282 provides guidance on different ambient lighting environments and their associated Adaptation Luminances and Threshold Increment limits as described in Table 5 below:

TABLE 5 - AS4282 THRESHOLD INCREMENT LIMITS

Environmental Zone	Description	Adaptation Luminance (cd/m2)	Max Threshold Increment
A4	High district brightness e.g. Town and city centres and other commercial areas, residential areas abutting commercial areas, industrial and Port areas and Transport Interchanges	5	20%
A3	Medium district brightness e.g. Suburban areas in towns and cities, generally roadways with streetlighting through suburban, rural or semi-rural areas	1	20%
A2	Low district brightness e.g. Sparsely inhabited rural and semi-rural areas, generally roadways without streetlighting through suburban, rural or semi-rural areas other than intersections	0.25	20%
A1	Dark e.g. Relatively uninhabited rural areas (including terrestrial, marine, aquatic and coastal areas), generally roadways without streetlighting through rural areas	N/A	N/A
A0	Intrinsically Dark e.g. UNESCO Starlight Reserve, IDA: Dark Sky Parks, Reserves or Sanctuaries, major optical observatories, other accreditations for dark sky places for example astrotourism, heritage value, astronomical importance, wildlife/ecosystem protection, lighting for safe access may be required	N/A	N/A

The proposed signage within the Bus Shelter Structures are to be installed across urban/suburban areas throughout Melbourne, Victoria. As such, the signage will be classified as being either in a A4 Environmental Zone or an A3 Environmental Zone. The maximum Threshold Increment is therefore not to exceed 20%, with a maximum Adaptation Luminance of 5cd/m2 for Zone A4 areas and 1cd/m2 for Zone A3 areas.

Threshold Increment Assessment - DTP Guidelines

The DTP Guidelines also provides adaption luminance levels and associated Threshold Increment limits for different ambient environments as outlined in Table 1 of Section 5. As the proposed signage is to be installed either within a High District Brightness Area or a Medium District Brightness area, the maximum Threshold increment is not to exceed 15%, with a maximum Adaptation Luminance of 5cd/m2 for a High District Brightness area and a maximum Adaptation Luminance of 1cd/m2 for a Medium District Brightness area.

Threshold Increment Summary

The maximum Threshold Increment to comply with AS4282 and the DTP Guidelines is outlined in Table 6 below:

TABLE 6 - AS4282 & DTP THRESHOLD INCREMENT LIMITS		
Lighting Condition	Max Threshold Increment	Adaptation Luminance (cd/m2)
Night Time - High District Brightness	15%	5
Night Time - Medium District Brightness	15%	1
Night Time - Low District Brightness	N/A	N/A

Luminous Intensity

The luminous intensity limits nominated in the standard are not applicable for internally illuminated signage.

AS4282 & DTP Guidelines - Upward Waste Light Assessment

In order to reduce light pollution and associated environmental impacts, AS4282 and the DTP Guidelines include requirements that limit upward waste light into the night sky from signage.

The proposed signage uses Liquid Crystal Display Technology, which uses a backlight source that is analogous to an internally illuminated sign, rather than a typical digital billboard sign, which uses LEDs that are directly viewable. As such, for the purposes of the Upward Waste Light assessment the proposed signage is classified as an internally illuminated sign under AS4282.

Clause 3.3.3.a) of AS4282 states that internally illuminated signage and other internally illuminated objects shall have an Upward Waste Light Ratio (ULRL) of not more than 0.50 (50%). The proposed signage therefore complies with this requirement.

Section 9 of the DTP Guidelines requires that the ULR of electronic signage is less than 50% and the design must include facilities (such as integral baffles) to mitigate upward waste light. This requirement is relevant to larger format digital billboard signs rather than small format signs like the ones in this assessment. Large format digital billboard signs by their nature, emit a significant amount of light due to their inherently large size and require more rigorous control of potential spill light in order to mitigate spill light into the environment. Further to this, large format billboards have much larger viewing distances (sometimes in the hundreds of metres), which means the “pitch” of the pixels (distance between LEDs) that form the display can be quite large without affecting the image quality. For example large format billboards can have LED pixel pitches of between 6mm-16mm. This gap between LED pixels allows baffles/louvres to be installed between each LED that restrict the horizontal and vertical viewing angles of the signage. These baffles work particularly well when the signage is significantly elevated above the normal viewing direction/s of the signage, as the view of the image remains unrestricted by the baffles when viewed from below the signage. Conversely, the minimum viewing distance of the proposed bus shelter signage is very small (less than 1m), which necessitates an image with a very high resolution (very low pixel pitch) in order for the image to be clearly seen without identifying the individual pixels. This very small pixel pitch does not allow sufficient space for the installation of integral baffles/louvres to limit upward light spill. In addition, the low mounting height of the signage means that even if some form of baffle/louvre was devised, there is potential that these would partially obscure the image when viewed from particular directions (for eg., when standing and looking down towards the bottom of the sign image). For the reasons stated above this requirement is not appropriate for the signage within this assessment and the AS4282 ULR limit of 50% has been adopted for the proposed signage.

Compliant Bus Shelter Locations

Using the lighting limits outlined in Tables 3, 4, 5 and 6, it is possible to calculate standardised locations for the proposed signage that result in an installation that is compliant with all of the stated lighting requirements.

For the Vertical Illuminance (spill lighting) requirement to habitable windows, a Residential Exclusion Zone (REZ) was calculated. A REZ is defined as the region within which the Vertical Illuminance levels to residential properties may exceed the maximum allowable limit. The REZ plans for the Bush Shelter signs for the various Environmental Zones are included in Appendix D. Where the REZ intersects with a residential property/habitable window, a site specific assessment (and associated lighting calculations) is required to be undertaken to demonstrate compliance. Where no residential properties/habitable windows fall into a REZ, the site is deemed compliant with the Vertical Illuminance limits.

The REZ limits above also apply to Environmentally Sensitive Areas (ESAs). Where the REZ intersects with an Environmentally Sensitive area, a site specified assessment (and associated lighting calculations) is required to be undertaken.

For the Threshold Increment, a minimum offset from the centre of the adjacent traffic lane to the edge of the proposed signage was calculated in order to determine compliance for the different Environmental Zones and bus shelter configurations - see Appendix D. Where the actual signage offset is equal to or larger than the minimum value shown, the signage will have a maximum Threshold Increment limit less than or equal to the maximum value shown and will comply with AS4282 and the DTP Guidelines. Where the actual signage offset is less than the mininmum offset shown in Appendix D, the signage will not comply.

Calculations for the above were undertaken in lighting program AGI32. Utilising the Luminance values as outlined in Table 3, the Vertical Illuminance (spill lighting) and Threshold Increment were calculated based on a 100% white diffused surface (approximating a lambertian emitter).

If the proposed signage within the Bus Shelter Structures comply with the requirements above they are deemed to be compliant with all necessary requirements outlined in this assessment.

Summary

The proposed Bus Shelter Structure signage, if designed, operated and installed as per this report, will comply with the relevant requirements of AS4282 and the DTP Guidelines.

7. SUMMARY

- The proposed signage to be affixed to the Bus Shelter Structures of Batch 4 in the Maribyrnong City Council area, shall be commissioned on site to yield the following maximum luminances:

COMPLYING LUMINANCE LEVELS FOR BUS SHELTER SIGNAGE - BATCH 4		
Lighting Condition	Max Permissible Luminance (cd/m2)#	Compliant
Full Sun on face of Signage	No Limit	✓
Day Time Luminance (typical sunny day)	4000	✓
Morning and Evening Twilight and Overcast Weather	400	✓
Night Time (High Disrict Brightness Zone A4)	200	✓
Night Time (Medium District Brightness Zone A3)	150	✓

- The proposed signage if designed, operated and installed as per this report, will comply with all relevant requirements of AS4282 and DTP Guidelines.
- In complying with the above requirements, the proposed signage shall not result in unacceptable glare nor shall it adversely impact the safety of pedestrians, residents or vehicular traffic. Additionally, the signage shall not cause any unacceptable amenity impacts to nearby residential dwellings, accommodation or environmental receivers.

8. DESIGN CERTIFICATION

The proposed signage to be affixed to the Bus Shelter Structures of Batch 4 in the Maribyrnong City Council area, if designed, operated and installed according to this report, will comply with the following criteria, guidelines and standards:

- Department of Transport and Planning Requirements and Guidelines for Illuminated Outdoor Advertising Signage 4th October 2023[#]
- AS/NZS 4282:2023 Control of the Obtrusive Effects of Outdoor Lighting

Ryan Shamier MIES

M.Des.Sc(Illumination) B.Eng (Elec)
Registered Professional Engineer - Victoria (AMR Ref PE0006091)

Senior Lighting Designer
Electrolight Sydney
12/03/25

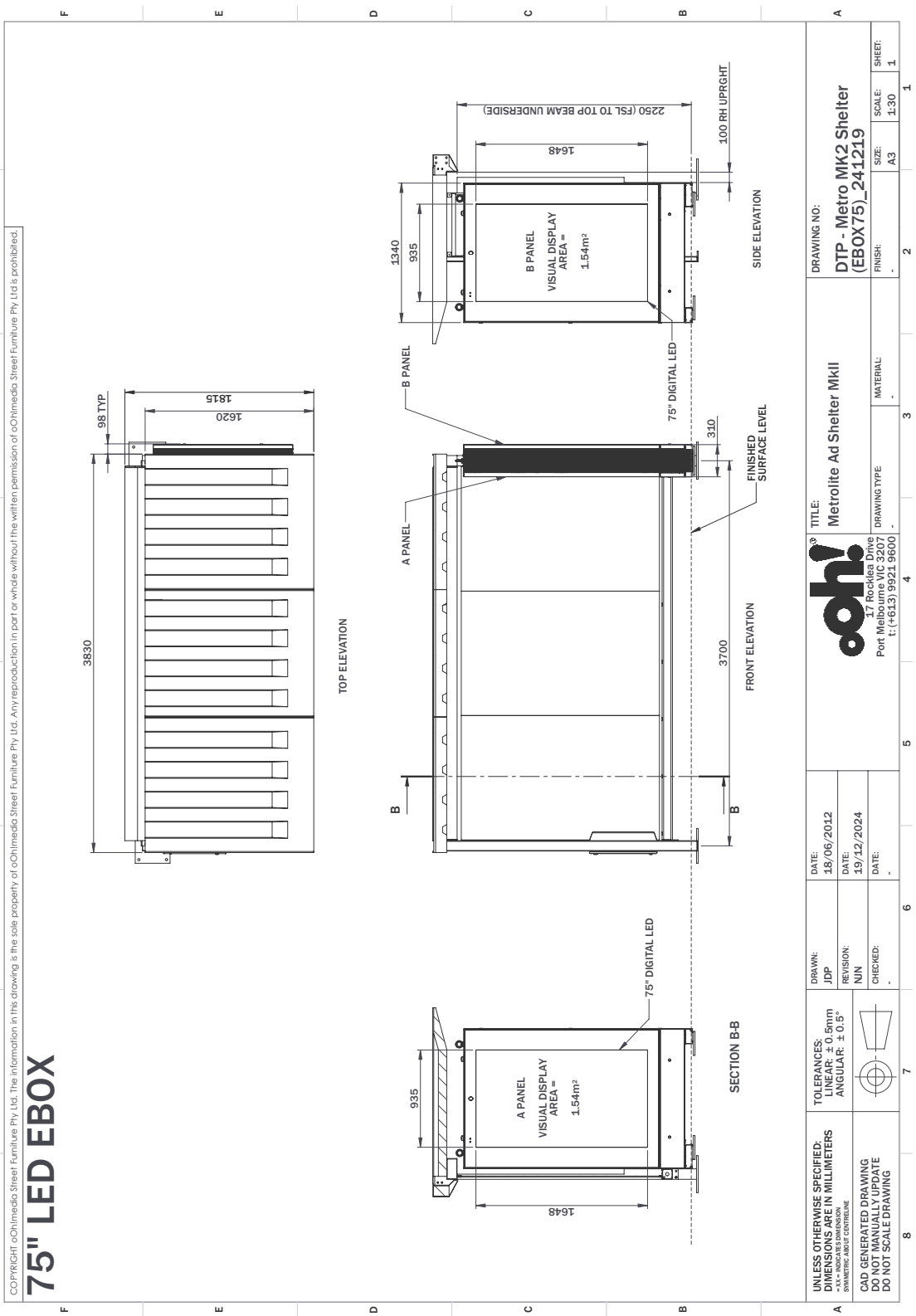
[#]The operator of the signage is responsible for complying with the Department of Transport's ongoing Operational Requirements including providing Compliance Records/Reports upon request.

APPENDIX A
BATCH 4 SITE LOCATIONS

Metlink_ID	Site_Number	Advertising	Shelter Type	Latitude	Longitude	Location_Description	Suburb	Council_Full_Name	Proposed Digital Asset Type
6449	31115	Yes	METRO MK2	-37.819415	144.882449	Williamstown Rd N/O Francis St E/S	YARRAVILLE	Maribymong City Council	Digital - Digital / Digital
10229	31130	Yes	METRO MK2	-37.814684	144.897032	Hyde St S/O Sommerville Rd W/S	YARRAVILLE	Maribymong City Council	Digital - Digital / Digital
14894	31107	Yes	METRO MK2	-37.812934	144.862316	Geelong Rd S/O Mitford Pde O/S 478 N/S	BROOKLYN	Maribymong City Council	Digital - Digital / Digital
14895	31108	Yes	METRO MK2	-37.811651	144.866871	Geelong Rd W/O Sommerville Rd N/S	BROOKLYN	Maribymong City Council	Digital - Digital / Digital
14900	31109	Yes	METRO MK2	-37.805434	144.879686	Geelong Rd N/O Robbs Rd N/S	FOOTSCRAY WEST	Maribymong City Council	Digital - Digital / Digital

APPENDIX B

METRO MK2 SHELTER - DETAIL DRAWINGS



APPENDIX C
DIGITAL SIGNAGE SPECIFICATIONS

75" LED P1.50mm Specification

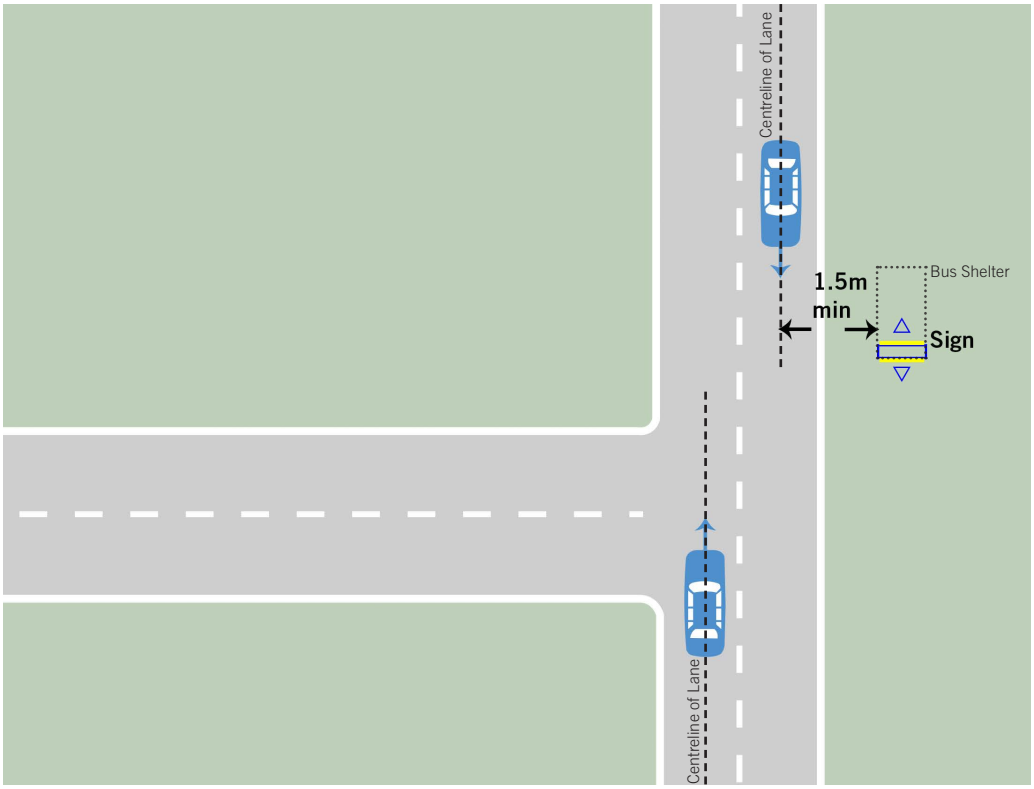
Project Name	VK Series					
Led Type	MicroX LEDs					
Power Supply	Hwawan (Common Cathode PSU)					
Cabinet	Aluminum	6.0 Kg				
Driving Chip	ICN2169	30 scan for P1.5				
Warranty	**Three YEARS**					
Brightness	>3,500cd/m²					
Environment	IP65/IP54					
Max Consumption	620	Watt/m²				
Avg Consumption	207	Watt/m²				
Viewing Angle	160°/160°	Angle				
Viewing Distance	1.5	Meter and more				
Frequency	>60	Hz				
Temperature	T-20 to +65°C					
Refresh Rate	>3840	Hz				
Life Time	100000	Hours				
MTBF	5000	Hours				
White Balance	6500	K				
Grayscale	14-16	Level				
Contrast Ratio	5000:1	Ratio				
Aspect Ratio	1:1	Ratio				
Module Size	240	mm Width	270	mm Height		
Cabinet Dimension	480mm	Width	270mm	Height	55mm	Thick
Environment	IP65	Front	IP54	Back		Outdoor

APPENDIX D
OBTRUSIVE LIGHTING TO VEHICULAR TRAFFIC THRESHOLD INCREMENT CALCULATIONS

COMPLIANT SIGN POSITIONS FOR HIGH DISTRICT BRIGHTNESS - 75 Inch Screen

"High district brightness" defined as Town and city centres, commercial areas, and residential areas abutting commercial areas

Signs adjacent to straight roads (not near intersections) Note 1



Position 1 - Perpendicular: Sign must be located 1.5m or greater from the centreline of the approach lane when the sign is parallel with the road.

Note 1: Signs located directly on intersections (within 2m) facing oncoming traffic may be subject to a site specific assessment to determine compliance

Note 2: All distances shown are measured to the edge of the sign

TI Calculation results - Night (200cd/m2 Sign Luminance and 5cd/m2 Adaptation Luminance)

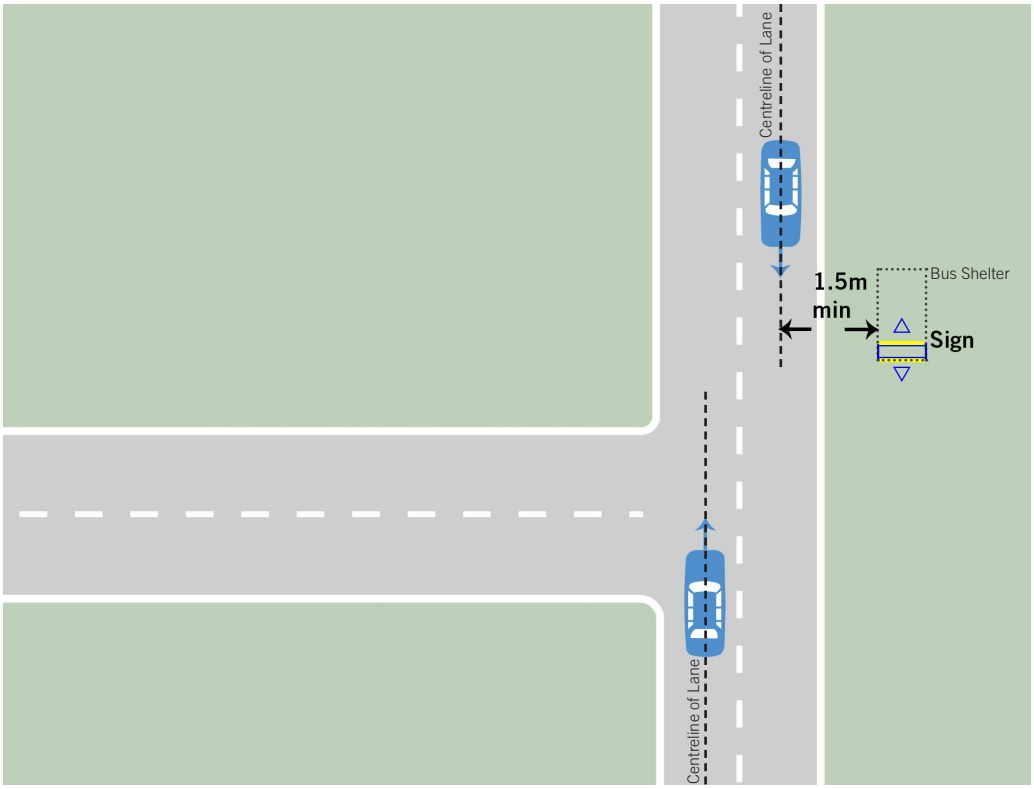
Calculation Summary			
Project: Ti - 75 Inch Screen			
Label	CalcType	Units	Max
Approach one (south)	Obtrusive - TI	%	4.50
Approach two (north)	Obtrusive - TI	%	0.81

APPENDIX D
OBTRUSIVE LIGHTING TO VEHICULAR TRAFFIC THRESHOLD INCREMENT CALCULATIONS

COMPLIANT SIGN POSITIONS FOR MEDIUM DISTRICT BRIGHTNESS - 75 Inch Screen

"Medium district brightness" defined as Suburban areas in towns and cities, generally roadways with streetlighting through suburban, rural or semi-rural areas

Signs adjacent to straight roads (not near intersections) Note 1



Position 1 - Perpendicular: Sign must be located 1.5m or greater from the centreline of the approach lane when the sign is parallel with the road.

Note 1: Signs located directly on intersections (within 2m) facing oncoming traffic may be subject to a site specific assessment to determine compliance

Note 2: All distances shown are measured to the edge of the sign

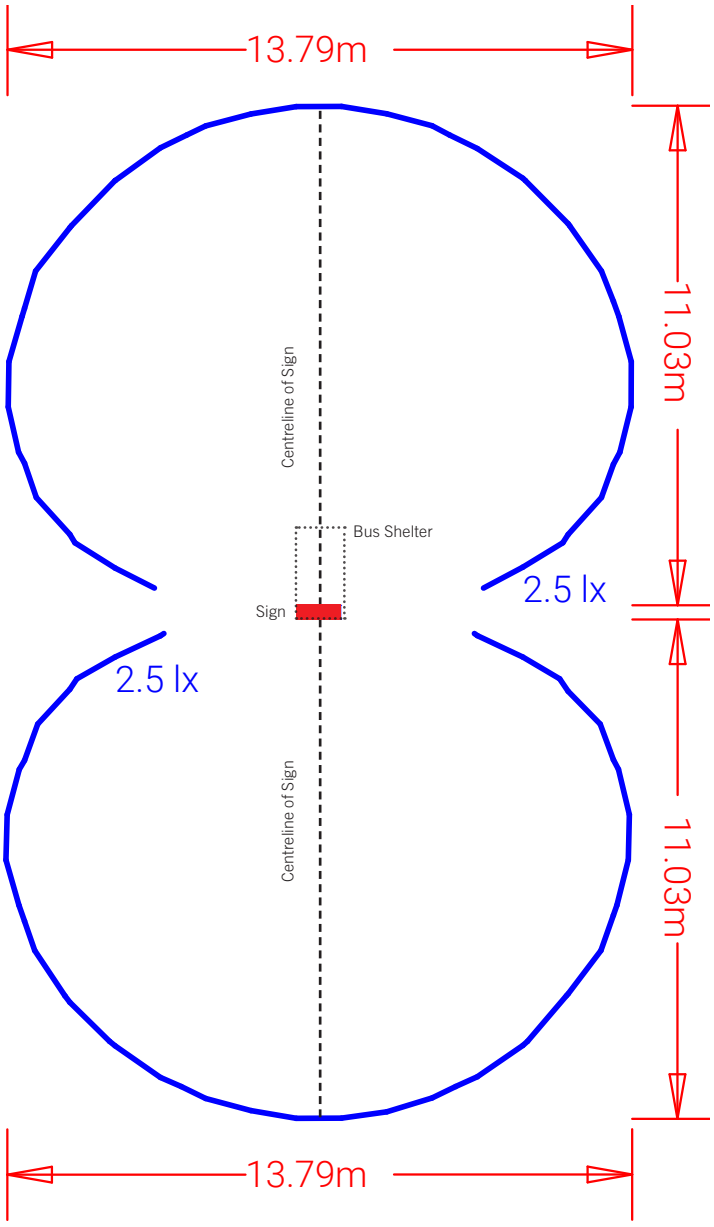
TI Calculation results - Night (150cd/m2 Sign Luminance and 1cd/m2 Adaptation Luminance)

Calculation Summary			
Project: Ti - 75 Inch Screen			
Label	CalcType	Units	Max
Approach one (south)	Obtrusive - TI	%	12.26
Approach two (north)	Obtrusive - TI	%	2.21

APPENDIX D
OBTRUSIVE LIGHTING - RESIDENTIAL SPILL EXCLUSION ZONES ILLUMINANCE CALCULATIONS

FOR HIGH DISTRICT BRIGHTNESS 75 INCH SIGNAGE (200cd/m2)

- High district brightness (Zone A4 in AS4282) e.g. Town and city centres and other commercial areas, residential areas abutting commercial areas, industrial and Port areas and Transport Interchanges



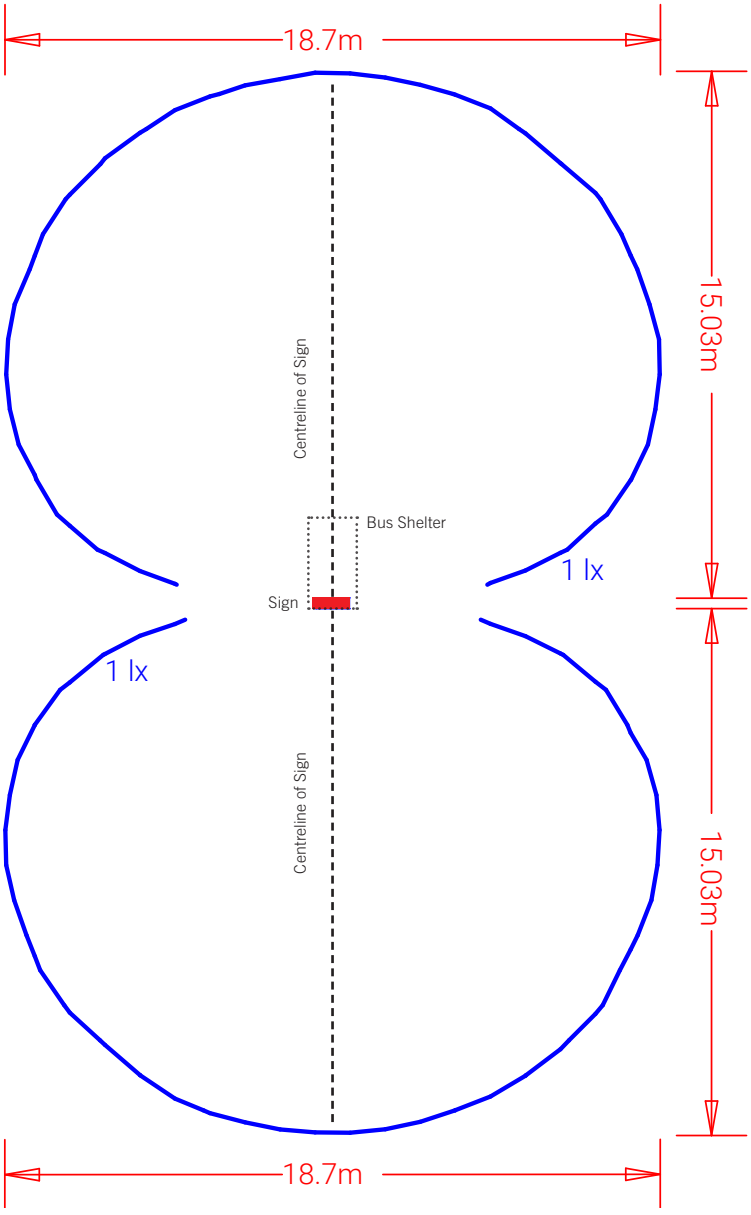
If residential dwellings (with potential views of the signage) or ESAs are located within the 2.5 lux exclusion zone than a site specific lighting assessment must be undertaken to ensure compliance.

Note 1: Isolux lines represent vertical illuminance in a radial configuration, centred on the midpoint of the signage.

APPENDIX D
OBTRUSIVE LIGHTING - RESIDENTIAL SPILL EXCLUSION ZONES ILLUMINANCE CALCULATIONS

FOR MEDIUM DISTRICT BRIGHTNESS 75 INCH SIGNAGE (150cd/m2)

- Medium district brightness (Zone A3 in AS4282) e.g. Suburban areas in towns and cities, generally roadways with streetlighting through suburban, rural or semi-rural areas



If residential dwellings (with potential views of the signage) or ESAs are located within the 1 lux exclusion zone than a site specific lighting assessment must be undertaken to ensure compliance.

Note 1: Isolux lines represent vertical illuminance in a radial configuration, centred on the midpoint of the signage.