



Western Distributor, Pyrmont Digital Safety Assessment

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Western Distributor, Pyrmont Digital Safety Assessment

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APPENDICES

A. CONCEPT DESIGN PLANS

1 Introduction

1.1 Overview

Sydney Trains is seeking approval for the installation of a LED digital illuminated sign on a monopole (single post) located on the east side of the Western Distributor.

The signage is proposed to be located facing northbound travel lanes on the Western Distributor.

Transport for NSW (TfNSW), formerly Roads and Maritime Services requires a signage safety assessment to be completed for the proposed signage.

The Transport Planning Partnership (TPPP) has been commissioned by Ethos Urban, on behalf of Sydney Trains, to undertake a signage safety assessment. This assessment has been carried out in accordance with Department of Planning's *Transport Corridor Outdoor Advertising and Signage Guidelines*, November 2017 (Guidelines) and State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64). The Guidelines outline best practice for the planning and design of outdoor advertisements in transport corridors. The SEPP 64 sets out rules regarding outdoor advertising signage for permissible locations and exempt developments.

1.2 Purpose of this Report

The aim of this assessment is to determine the suitability of the digital and non-digital signage and provide recommendations on mitigation measures to alleviate impacts on the surrounding road network. This report sets out the findings of TPPP's signage safety assessment for the proposed digital signage located on the east side of the Western Distributor, Pyrmont.

The following items have been considered in this report:

- Potential for the signage to obstruct or distract a driver's view of the road and traffic control devices.
- Distance from upstream or downstream intersections or other decision points, such as merge points and diverging points.
- Potential for the signage to distract at a critical time or for an extended period of time.
- Location relative to the carriageway and its potential to be a physical obstruction for vehicles or other road users.
- Appropriate dwell times based on the speed environment.
- Location in relation to other signage.

1.3 References

In preparing this report, reference has been made to the following:

- An inspection of the signage location from a driving viewpoint along the Western Distributor carried out on 16 December 2020.
- Austroads Guide to Road Design Part 3, Geometric Design, 2016.
- Transport Corridor Outdoor Advertising and Signage Guidelines, November 2017 by Department of Planning and Environment.
- State Environmental Planning Policy No. 64 - Advertising and Signage (SEPP 64).
- Design plans of the proposed digital signage dated 11/12/2020.

2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on a monopole on the east side of the Western Distributor in Pyrmont. The monopole would be located south of Pyrmont Bridge Road as shown in Figure 2.1. Currently, there are no sign boards at this location.

In the vicinity of the proposed signage, Western Distributor has three travel lanes in each of the northbound and southbound directions.

Motorists would travel westbound prior to a horizontal curve before traveling northbound in the vicinity of the sign. The proposed location of the sign is within a 60 km/h speed zone.

An aerial image of the signage location and surrounding environs are shown in Figure 2.1.

Figure 2.1: Signage Location



Basemap source: Nearmap, aerial imagery dated 4 January 2021

2.2 Description of Proposed Signage

The digital signage board will have a length of 12.58 m and height of 3.95 m, and a visual screen with a length of 12.48 m and height of 3.20 m (39.9 m² area). A 50mm black border would surround the visual screen while there would be a 650 mm black skirt at the base of the signage. The monopole upon which the sign boards shall be mounted would be 800 mm in diameter. The digital sign will not cantilever above the roadway.

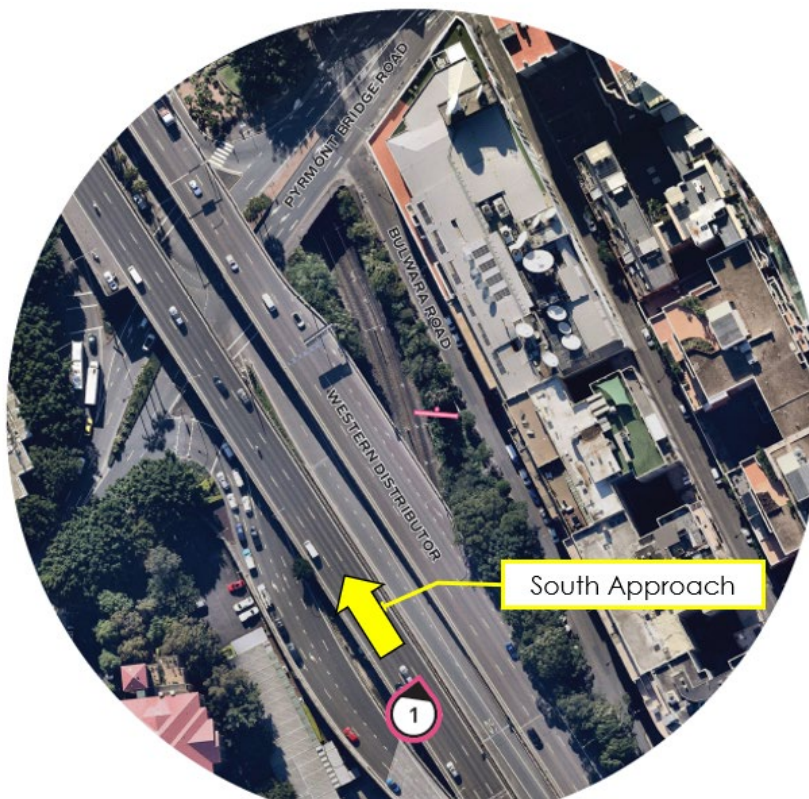
The digital sign with LED panel will be installed on the south side of the monopole to face the northbound travel lanes on Western Distributor.

The proposed signage will be used for promoting Sydney Trains and its sponsors, and third-party advertising. The signage will contain text and images.

2.3 Signage Exposure

The proposed signage would be visible to traffic travelling in the northbound direction on the Western Distributor, as shown in Figure 2.2. A site visit was undertaken on 16 December 2020 to inspect driver sight distances in the northbound direction on approach to the proposed signage location and observe any potential crash hazards likely to result from the proposed signage. A description of the site investigation findings is provided herein.

Figure 2.2: Western Distributor – South Approach

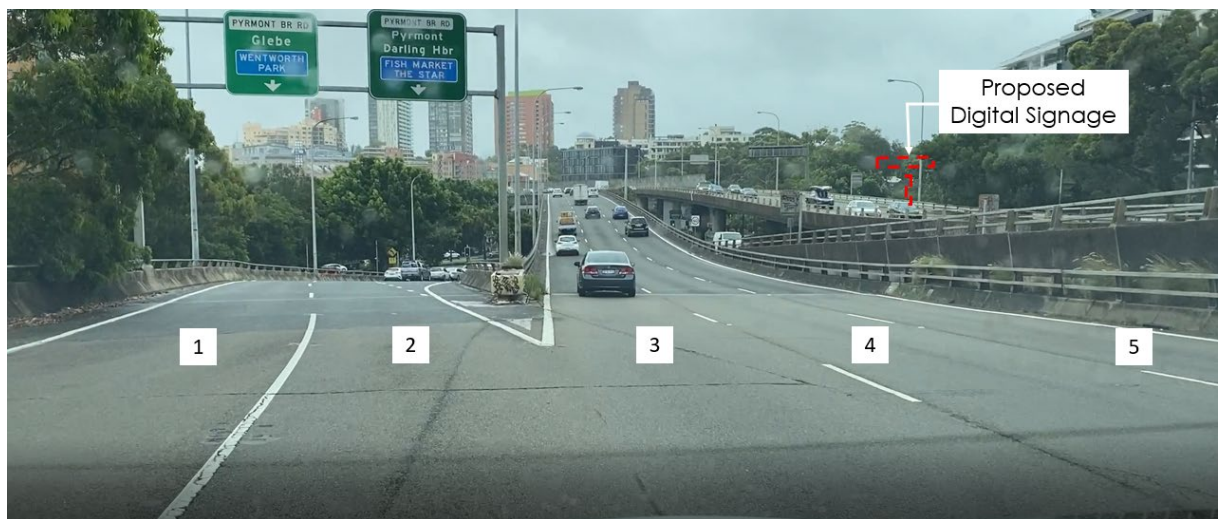


2.3.1 Western Distributor South Approach

The lane configuration on the Western Distributor south approach in the vicinity of the proposed signage location is shown in Figure 2.3.

More than 100 m on approach to the proposed signage, the Western Distributor is four lanes wide. Within the visible distance of the signage, there are five travel lanes; the fifth lane is introduced at the Pyrmont Bridge Road off-ramp. Travel lanes are numbered one to five starting from the kerbside lane, as shown in Figure 2.3.

Figure 2.3: Western Distributor South Approach Lane Configuration



Source: Photograph taken by TTPP on 16/12/2020

- The south facing digital signage would be visible to motorists on the Western Distributor travelling northbound.
- The digital signage would likely be visible in traffic lanes as follows:
 - In Lane 1 (off-ramp), 100 m from the sign on the south approach.
 - In Lane 2 (off-ramp), 85 m from the sign on the south approach.
 - In Lane 3 (Western Distributor through lane), 80 m from the sign on the south approach.
 - In Lane 4 (Western Distributor through lane), 75 m from the sign on the south approach.
 - In Lane 5 (Western Distributor through lane), 73 m from the sign on the south approach.
- In all travel lanes, the digital signage would become out of driving view approximately 10m south of the proposed signage.

Figure 2.4 illustrates a perspective of the designer's impression of the concept design at the proposed signage location. Concept plans are provided in Appendix A. Likely visible distances on the Western Distributor south approach are shown in Figure 2.5 and Figure 2.6.

Figure 2.4: Designer's Impression on Western Distributor South Approach



Source: Ethos Urban Pty Ltd dated 16/12/2020

Figure 2.5: Pyrmont Bridge Off-ramp Signage Exposure – Lane 1



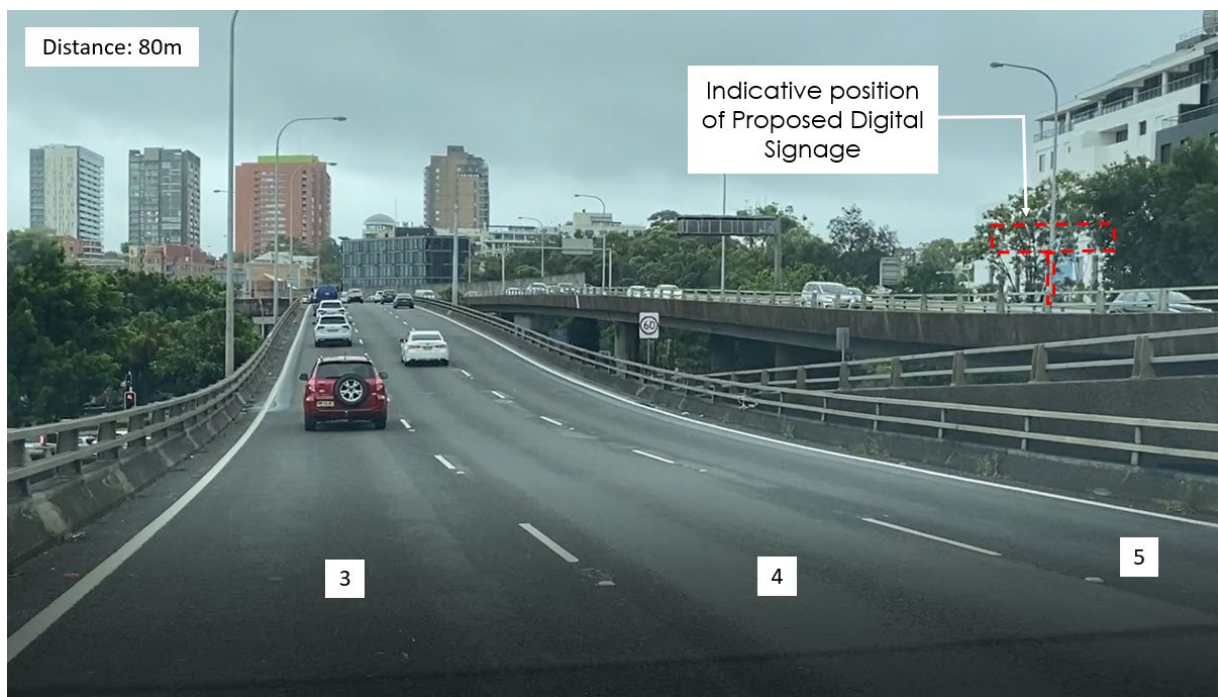
Source: Photograph taken by TTPP on 1/12/2020

Figure 2.6: Pyrmont Bridge off-ramp Signage Exposure – Lane 2



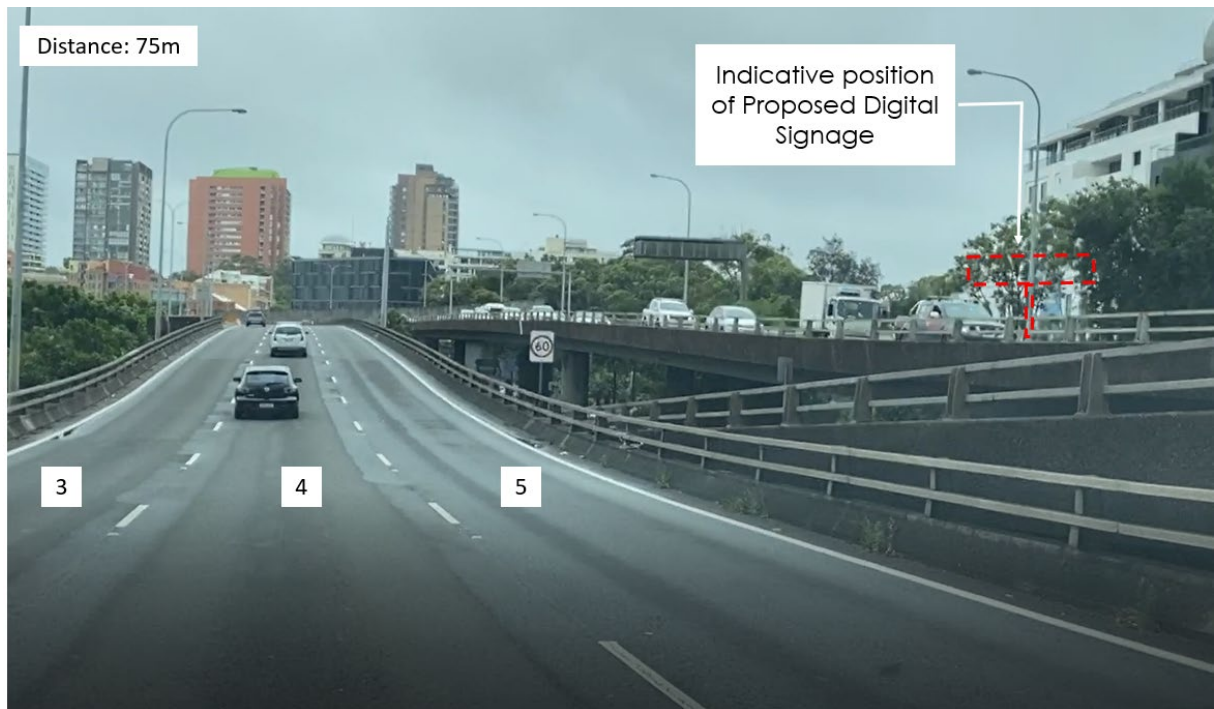
Source: Photograph taken by TTPP on 16/12/2020

Figure 2.7: Western Distributor South Approach Signage Exposure – Lane 3



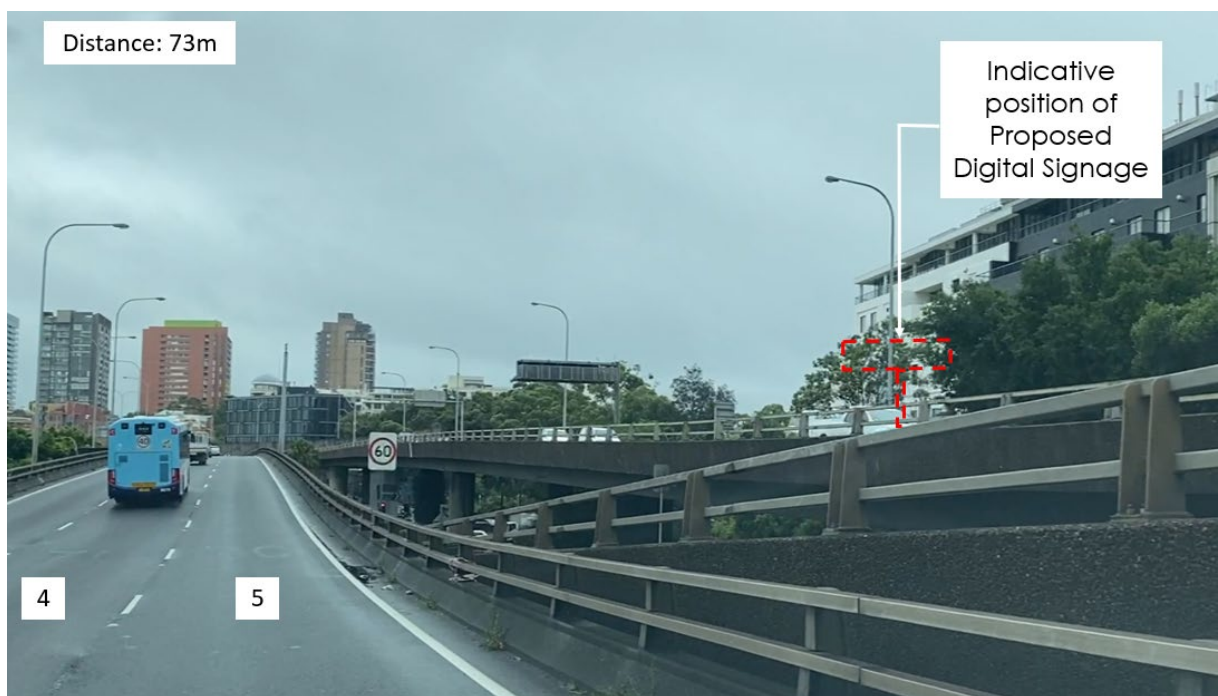
Source: Photograph taken by TTPP on 16/12/2020

Figure 2.8: Western Distributor South Approach Signage Exposure – Lane 4



Source: Photograph taken by TTPP on 16/12/2020

Figure 2.9: Western Distributor South Approach Signage Exposure – Lane 5



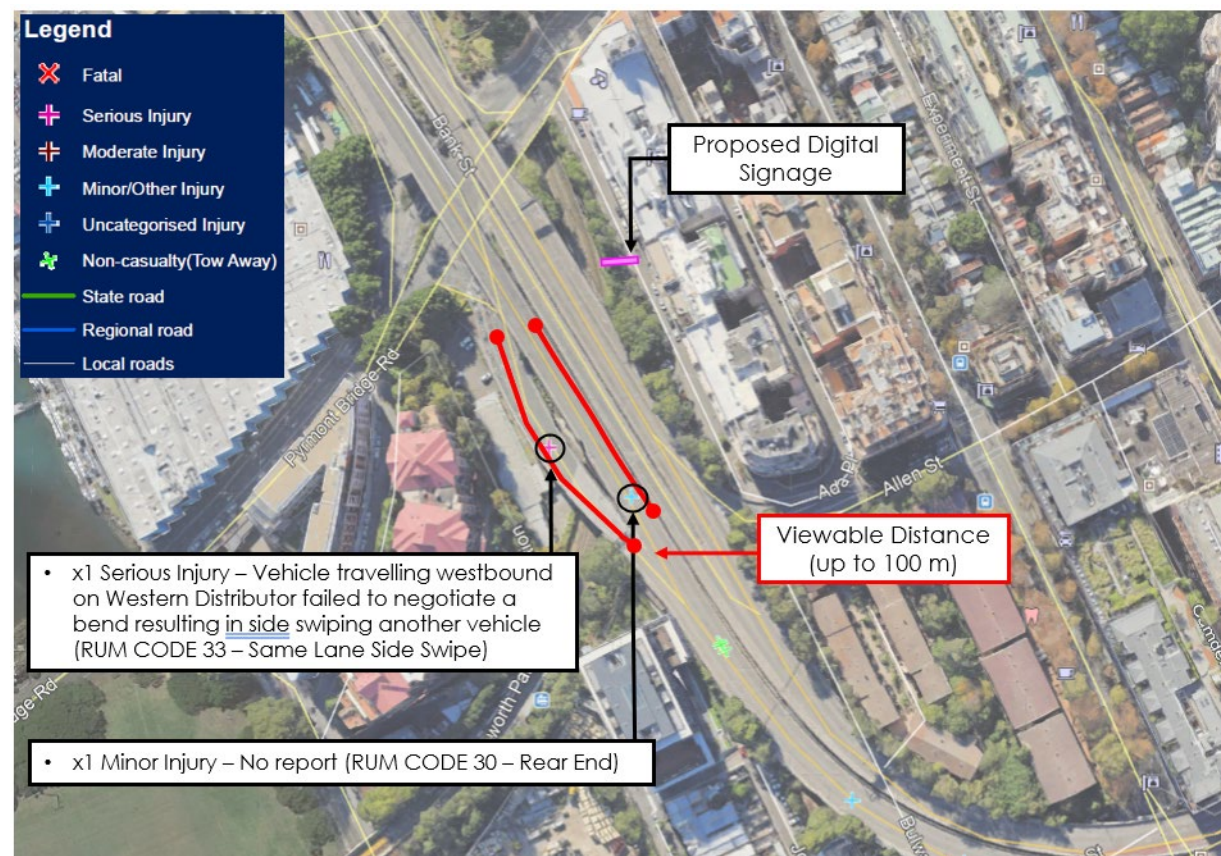
Source: Photograph taken by TTPP on 16/12/2020

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents on the Western Distributor within the visible distance of the proposed signage location. Based on site observations (as detailed in Section 2.3), the proposed signage location is visible from a distance of approximately 100 m away on the Western Distributor south approach.

Crash history data has been assessed on both approaches to the proposed signage location between 1 April 2015 and 31 March 2020 (latest 5-year completed data). The crash locations on Western Distributor within the visible distance are shown in Figure 2.11.

Figure 2.10: Crash Locations in Recent 5-Year Period



Source: Transport for NSW

As shown in Figure 2.11, two incidents were recorded on the Western Distributor within the viewable distance of the proposed signage. The incidents were classified as a serious injury crash and a minor injury crash. The incident on the south approach towards Pymont Bridge Road was recorded as a same lane side swipe (RUM CODE 33) crash type where a vehicle side swiped another vehicle travelling in the same direction. The incident on the south approach towards the Anzac Bridge was recorded as a rear end (RUM CODE 30) crash type involving a vehicle colliding in the rear of another vehicle.

3 Statutory Requirements

This section of the report assesses the compliance with the road safety assessment criteria established in the NSW Guidelines and State Environmental Planning Policy (SEPP) 64 requires analysis as to whether the proposal will reduce the safety of:

- Any public roads
- Pedestrians and cyclists
- Pedestrians by obscuring sight lines from public areas.

The proposed design has been assessed against the relevant statutory requirements and guidelines. In order to assess any new installation against the above key road safety assessment criteria, a series of detailed criteria are set out in Section 0, *Advertisements and Road Safety* of the NSW Guidelines.

3.1 Sign Location Criteria

3.1.1 Road Clearance

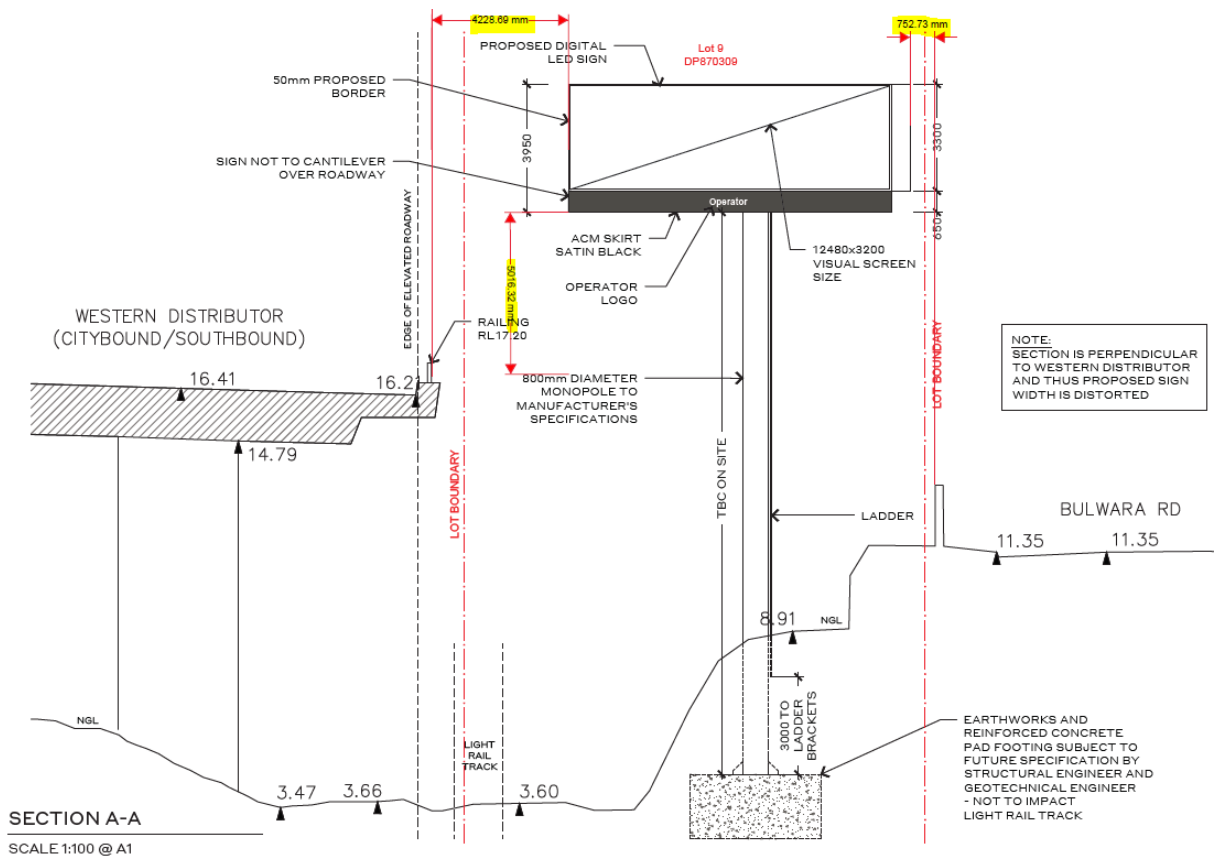
(a) The advertisement must not create a physical obstruction or hazard. For example:

- (i) Does the sign obstruct the movement of pedestrians or bicycle riders? (e.g. telephone kiosks and other street furniture along roads and footpath areas).**
- (ii) Does the sign protrude below a bridge or other structure so it could be hit by trucks or other tall vehicles? Will the clearance between the road surface and the bottom of the sign meet appropriate road standards for that particular road?**
- (iii) Does the sign protrude laterally into the transport corridor so it could be hit by trucks or wide vehicles?**

No footpath facilities or shared path facilities are provided on the Western Distributor. The signage will not physically obstruct any vehicle, pedestrian and cyclist movements as it will be placed to the side of the carriageway. The digital advertising signage would not cantilever over the roadway. The edge of the signage closest to the roadway will be set-back behind an existing traffic barrier.

Also, the signage will be offset from the edge of the Western Distributor by approximately 4.2 m and Bulwara Road by 0.75 m as shown in Figure 3.1. Full-scale drawings of the concept design are contained in Appendix A.

Figure 3.1: Proposed Digital Signage – North East Elevation



(b) Where the sign supports are not frangible (breakable), the sign must be placed outside the clear zone in an acceptable location in accordance with Austroads Guide to Road Design (and RMS supplements) or behind an RMS-approved crash barrier.

The signage is located approximately 4.2 m behind an existing traffic barrier on the Western Distributor north approach which is assumed to be RMS-approved. The signage support is located within the Sydney Trains site boundary and is a sufficient distance away from any public roadway.

- (c) Where a sign is proposed within the clear zone but behind an existing RMS-approved crash barrier, all its structures up to 5.8m in height (relative to the road level) are to comply with any applicable lateral clearances specified by Austroads Guide to Road Design (and RMS supplements) with respect to dynamic deflection and working width.**

The signage will not be located within the clear zone.

The signage would not overhang the roadway, and the monopole upon which the signage will be erected, is to be located approximately 4.2 m from the edge of the roadway i.e. the edge of the nearest travel lane. Furthermore, the monopole structure will be located behind the existing traffic barrier.

- (d) All signs that are permitted to hang over roads or footpaths should meet wind loading requirements as specified in AS1170.1 and AS1170.2. All vertical clearances as specified above are regarded as being the height of the sign when under maximum vertical deflection.**

As part of the detailed design phase, the proposed signage will be designed in accordance with Australian Standards AS1170.2 and AS1170.2 to meet the requirements for wind loading, whilst having consideration for height of the sign boards when under maximum vertical deflection.

3.1.2 Line of Sight

- (a) An advertisement must not obstruct the drivers view of the road particularly of other vehicles, bicycle riders or pedestrians at crossings.**

The proposed signage would be located adjacent to the Western Distributor road corridor and would be positioned approximately 5 m above the roadway (Figure 3.1). In this regard, the proposed signage would not obstruct a drivers view of the road or other vehicles, bicycles riders or pedestrians at crossings.

- (b) An advertisement must not obstruct a pedestrian or cyclist's view of the road.**

There are no footpath or shared path facilities provided on either side of the Western Distributor. On-street cycle facilities are provided on Bulwara Road.

The proposed signage would not obstruct a pedestrian's or cyclist's view of the road when on Bulwara Road.

- (c) The advertisement should not be located in a position that has the potential to give incorrect information on the alignment of the road. In this context, the location and arrangement of signs' structures should not give visual clues to the driver suggesting that the road alignment is different to the actual alignment. An accurate photo-montage should be used to assess this issue.**

The proposed digital signage would be located adjacent to the Western Distributor road corridor and would be positioned approximately 5 m above the roadway. The digital signage would not indicate misleading information or information contrary to the existing roadway. This is supported by the designer's impression of the proposed signage as depicted in Figure 2.4.

- (d) The advertisement should not distract a driver's attention away from the road environment for an extended length of time. For example:**
- (i) The sign should not be located in such a way that the driver's head is required to turn away from the road and the components of the traffic stream in order to view its display and/or message. All drivers should still be able to see the road when viewing the sign, as well as the main components of the traffic stream in peripheral view.**
 - (ii) The sign should be oriented in a manner that does not create headlight reflection in the driver's line of sight. As a guideline, angling a sign five degrees away from right angles to the driver's line of sight can minimise headline reflections. On a curved road alignment, this should be checked for the distance measured back from the sign that a car would travel in 2.5 seconds at the design speed.**

The proposed digital signage would be located within a driver's line of sight for northbound motorists on the Western Distributor with visible distances of between 73 m and 100 m.

Motorists exiting the Western Distributor at the Pymont Bridge Road Off-ramp are unlikely to view the sign due to the significant horizontal displacement between the sign and the driver's direct line-of-sight. The traffic stream ahead and the upcoming Pymont Bridge Road traffic signals would have greater prominence than the proposed digital sign.

Therefore, a driver would not turn away from the road in order to view the digital signage.

Since there is currently no signage at this location, the potential for glare or headlight reflection could not be checked. Notwithstanding this, the orientation of the proposed digital signage would be designed and checked such that headlight reflections do not pose an issue for motorists.

3.1.3 Proximity to Decision Making Points and Conflict Points

(a) A sign should not be located:

- (i) Less than the safe sight distance from an intersection, merge points, exit ramp, traffic control signal or sharp curves.**
- (ii) Less than the safe stopping sight distance from a marked foot crossing, pedestrian crossing, pedestrian refuge, cycle crossing, cycleway facility or hazard within the road environment.**
- (iii) So that it is visible from the stem of a T-intersection.**

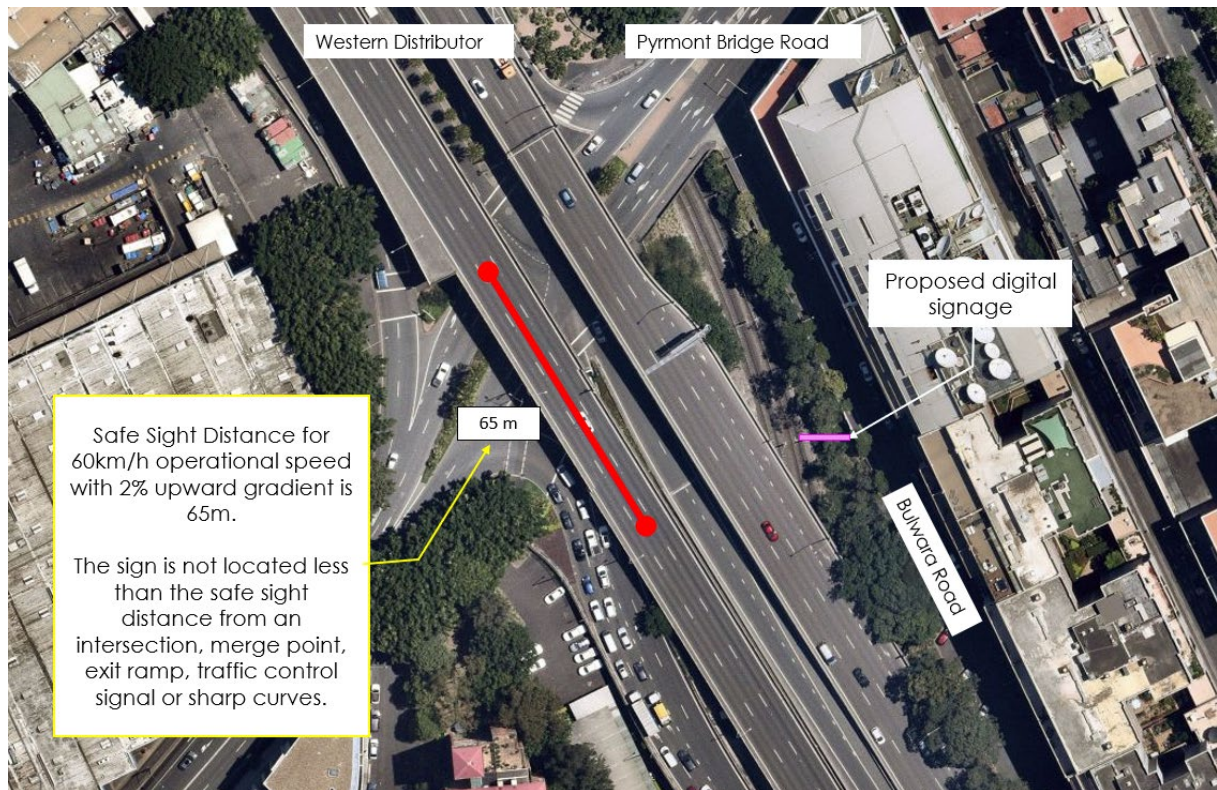
As per Austroads Guide to Road Design Part 4A, the minimum Stopping Sight Distance (SSD) refers to the distance to enable a normally alert driver, travelling at the operating speed on wet pavement, to perceive, react and brake to a stop before reaching a hazard on the road ahead. This distance is dependent on the operating (85th percentile) speed of the road, road gradient and other road characteristics.

For the purpose of this assessment, an operating speed of 60 km/h has been used to calculate the minimum SSD. A 60 km/h speed has been adopted based on the signposted speed limit on the Western Distributor. According to Austroads, the minimum safe stopping sight distance for a 60 km/h speed zone is 64 m.

On the south approach, there is an upward gradient past the proposed signage location which has been taken as approximately 2%. Where there is a slope, the Guidelines specifies a grade correction factor be applied. In this case, a correction of 2 m has been deducted from the 64 m safe sight distance. Therefore, the safe sight distance becomes 65m.

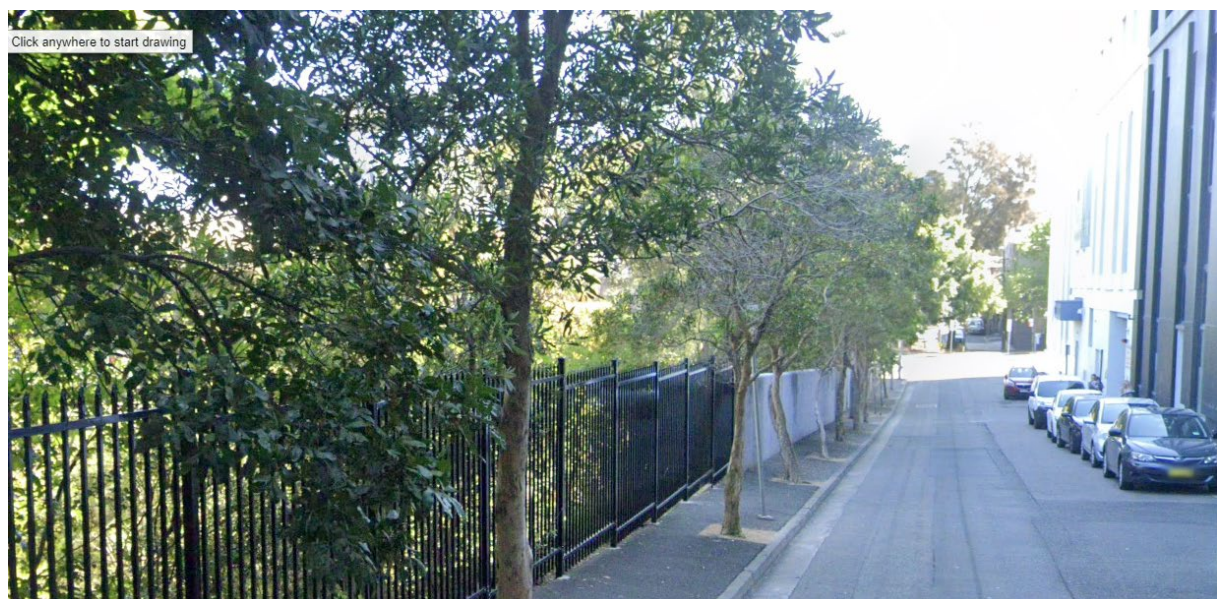
Accordingly, the digital signage would not be located within the safe stopping sight distance of an intersection, merge point, exit ramp, traffic control signal or sharp curve, as shown in Figure 3.2.

Figure 3.2: Safe Stopping Sight Distance: South Approach



Motorists traveling northbound on Bulwara Road would not be able to observe the digital signage as large trees restrict visibility of the sign, as shown in Figure 3.3

Figure 3.3: Bulwara Road – South Approach



- (b) The placement of a sign should not distract a driver at a critical time. In particular, signs should not obstruct a driver's view:**
- (i) Of a road hazard,**
 - (ii) To an intersection,**
 - (iii) To a prescribed traffic control device (such as traffic signals, stop or give way signs or warning signs)**
 - (iv) To an emergency vehicle access point or Type 2 driveways (wider than 6-9 metres) or higher.**

A "critical time" is understood to refer to a point in time when a driver decision is required, implying that a road safety implication could occur if a driver was distracted at this time.

Within the visible distance on the Western Distributor south approach, the proposed digital sign is always positioned well-above the roadway, as shown in Figure 2.4.

There are no nearby intersections along the Western Distributor and digital sign board will not be observed from Bulwara Road.

3.1.4 Sign Spacing

- (a) Sign spacing should limit drivers view to a single sign at any given time with a distance of no less than 150m between signs in any one corridor. Exemptions for low speed, high pedestrian zones or CBD zones will be assessed by RMS as part of their concurrence role.**

There are no other digital signs or static billboards placed within 150 m of the proposed signage in both directions.

3.2 Sign Design and Operation Criteria

3.2.1 Advertising Signage and Traffic Control Devices

- (a) The advertisement must not distract a driver from, obstruct or reduce the visibility and effectiveness of directional signs, traffic signals, prescribed traffic control devices, regulatory signs or advisory signs or obscure information about the road alignment.**
- (b) The advertisement must not interfere with stopping sight distance for the road's design speed or the effectiveness of a traffic control device. For example:**
- (i) Could the advertisement be construed as giving instructions to traffic such as 'Stop', 'Halt' or 'Give Way'?**
 - (ii) Does the advertisement imitate a prescribed traffic control device?**
 - (iii) If the sign is in the vicinity of traffic lights, does the advertisement use red, amber or green circles, octagons, crosses or triangles or shapes or patterns that may result in the advertisement being mistaken for a traffic signal?**

Details of the advertisement/s are not yet known since the project is still within the concept design stage. However, based on the example advertisements as depicted in the designer's impression (Figure 2.4), the signage would not display colours and shapes which could be mistaken for a traffic signal.

Notwithstanding this, it is recommended that the content of the proposed signage be reviewed against Table 5 of the NSW Guidelines to avoid any content that may be construed as imitating a traffic control device.

3.2.2 Dwell Time and Transition Time

- (a) Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (b) below**
- (b) Dwell times for image display must not be less than:**
 - (i) 10 seconds for areas where the speed limit is below 80km/h**
 - (ii) 25 seconds for areas where the speed limit is 80km/h and over.**
- (c) Any digital sign that is within 250 metres of a classified road and is visible from a school zone must be switched to a fixed display during school zone hours.**
- (d) Digital signs must not contain animated or video/movie style advertising or messages of image failure, the default image must be a black screen.**

The digital signage is proposed to contain text and images. Based on the NSW Guidelines, the minimum dwell time for content displayed on the digital signage would be 10 seconds.

3.2.3 Illumination and Reflectance

The following criteria apply to non-digital illuminated signs, including conventional billboards illuminated by fluorescent and/ or incandescent bulbs whether internally illuminated or lit from the exterior:

- (a) Advertisements must comply with the luminance requirements in Table 5 in Transport Corridor Outdoor Advertising and Signage Guidelines**
- (b) For night time use, the sign (whether internally illuminated or lit from its exterior) must not cast a shadow on areas that were previously lit and that a special lighting requirement e.g. pedestrian crossings**
- (c) The light sources for illuminated signs must focus solely on the sign and:**
 - a. be shielded so that glare does not extend beyond the sign**
 - b. with the exception of back lit neon signs, have no light source visible to passing motorists with a light output greater than that of a 15W fluorescent/LED bulb.**
- (d) The level of reflectance of an advertisement, and its content, is not to exceed the 'Minimum coefficients of Luminous intensity per unit area for Class 2A Material', as set out in Australian Standard AS/NZS 1906.1:2007. Flashing illuminated advertisements will not be approved.**

Section 3.3.3 of the NSW Guidelines details assessment criteria to ensure that illumination and reflectance qualities of signage do not cause a road safety hazard. It is understood that these criteria would be addressed in a separate specialist report prepared by a qualified consultant.

The following criteria apply to digital illuminated signs:

- (e) Luminance levels must comply with the requirements in Table 6 in Transport Corridor Outdoor Advertising and Signage Guidelines**
- (f) The image displayed on the sign must not otherwise unreasonably dazzle or distract drivers without limitation to their colouring or contain flickering or flashing content.**

Section 3.3.3 of the NSW Guidelines details assessment criteria to ensure that illumination and reflectance qualities of signage do not cause a road safety hazard. It is understood that these criteria would be addressed in a separate specialist report prepared by a qualified consultant.

3.2.4 Interaction and Sequencing

- (a) The advertisement must not incorporate technology which interacts with in-vehicle electronic devices or mobile devices. This includes interactive technology or technology that enables opt-in direction communication with road users.**
- (b) Message sequencing designed to make a driver anticipated the next message is prohibited across images presented on a single sign and across a series of signs.**

The proposed signage would not contain interactive technology or technology that enables opt-in direction communication with motorists. The digital signage would not be designed to make motorists anticipate information.

3.3 Digital Signs

Transport Corridor Advertising Signage Guidelines specify criteria which are directly applicable to the assessment of digital signs. As such, the criteria applies to the west facing sign only. The criteria have been assessed in Table 3.1.

It is noted that most of the criteria are related to signage content and would need to be addressed by the operator. In addition, these criteria should be included as part of the consent conditions for the proposal to ensure future compliance.

Table 3.1: Digital Signs

Criteria		Comments
A	Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (d) below.	Relates to sign content only.
B	Message sequencing designed to make a driver anticipate the next message is prohibited across images presented on a sign and across a series of signs.	Relates to sign content only.
C	The image must not be capable of being mistaken: <ul style="list-style-type: none"> i. for a prescribed traffic control device because it has, for example, red, amber or green circles, octagons, crosses or triangles or shapes or patterns that may result in the advertisement being mistaken for a prescribed traffic control device, or ii. as text providing driving instructions to drivers. 	Relates to sign content only.
D	Dwell times for image display are: <ul style="list-style-type: none"> i. 10 seconds for areas where the speed limit is below 80 km/h. ii. 25 seconds for areas where the speed limit is 80 km/h and over. 	As detailed in Section 3.2.2, a dwell time of 10 seconds would be suitable for the proposed digital signage.
E	The transition time between messages must be no longer than 0.1 seconds, and in the event of image failure, the default image must be a black screen.	An almost instantaneous transition is likely to reduce the additional distraction potential for digital signs. It is assumed that this operational requirement would be met.
F	Luminance levels must comply with the requirements in Section 3 (Transport Corridor Advertising Signage Guidelines).	This signage would be classified as Zone 3. Note: Zone 3 covers areas with generally medium off-street ambient lighting e.g. small to medium shopping/ commercial centres.
G	The images displayed on the sign must not otherwise unreasonably dazzle or distract drivers without limitation to their colouring or contain flickering or flashing content.	It is assumed that this operational requirement would be met.
H	The amount of text and information supplied on a sign should be kept to a minimum (e.g. no more than a driver can read at a short glance).	Relates to sign content only.
I	Any signs that is within 250 metres of a classified road and is visible from a school zone must be switched to a fixed display during school zone hours.	The sign is not visible from within a school zone.
J	Each sign proposal must be assessed on a case by case basis including replacement of an existing fixed, scrolling or tri-vision sign with a digital sign and in the instance of a sign being visible from each direction, both directions for each location must be assessed on their own merits.	Noted.
K	At any time, including where the speed limit in the area of the sign is changed, if detrimental effect is identified on road safety post installation of a digital sign, RMS reserves the right to re-assess the site using an independent RMS-accredited road safety auditor. Any safety issues identified by the auditor and options for rectifying the issues are to be discussed between RMS and the sign owner and operator.	Noted.

Criteria		Comments
L	Sign spacing should limit drivers' view to a single sign at any given time with a distance of no less than 150m between signs in any one corridor. Exemptions for low speed, high pedestrian zones or CBD zones will be assessed by RMS as part of their concurrence role.	Noted.
M	<p>Signs greater than or equal to 20sqm must obtain RMS concurrence and must ensure the following minimum vertical clearances:</p> <ul style="list-style-type: none"> i. 2.5m from lowest point of the sign above the road surface if located outside the clear zone ii. 5.5m from lowest point of the sign above the road surface if located within the clear zone (including shoulders and traffic lanes) or the deflection zone of a safety barrier if a safety barrier is installed. <p>If attached to road infrastructure (such as an overpass), the sign must be located so that no portion of the advertising sign is lower than the minimum vertical clearance under the overpass or supporting structure at the corresponding location.</p>	The digital signage will be located outside of the clear zone, and greater than 2.5 m from the lowest point of the sign above the road surface.
N	An electronic log of a sign's operational activity must be maintained by the operator for the duration of the development consent and be available to the consent authority and/or RMS to allow a review of the sign's activity in case of a complaint.	Noted.
O	A road safety check which focuses on the effects of the placement and operation of all signs over 20sqm must be carried out in accordance with Part 3 of the RMS Guidelines for Road Safety Audit Practices after a 12-month period of operation but within 18 months of the signs installation. The road safety check must be carried out by an independent RMS-accredited road safety auditor who did not contribute to the original application documentation. A copy of the report is to be provided to RMS and any safety concerns identified by the auditor relating to the operation or installation of the sign must be rectified by the applicant. In cases where the applicant is the RMS, the report is to be provided to the Department of Planning and Environment as well.	Noted.

4 Conclusion

Having consideration for the assessment and discussions presented within this report, the analysis suggests that the installation of a south facing digital sign on the east side of the Western Distributor would be acceptable.

The Guidelines stipulate that the dwell time for an image display must not be less than 10 seconds for areas where the speed limit is below 80 km/h. The digital signage is proposed in an area that is zoned as 60 km/h, and thus, a minimum dwell time of 10 seconds is applicable and acceptable at this location.

This conclusion is made on the basis that the proposed signage would not be expected to:

- Obstruct/ reduce visibility of any traffic control devices, pedestrians or cyclists
- Give incorrect information on the alignment of the road
- Interfere with the safe stopping distance to traffic signals, crossings or directional/ information signage
- Compromise safety for road users in the vicinity.

Appendix A

Concept Design Plans

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