



Castlereagh Road, Penrith Digital Sign Safety Assessment

Prepared for:
JCDecaux

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The Transport Planning Partnership

Castlereagh Road, Penrith

Digital Sign Safety Assessment

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APPENDICES

A. STATE ENVIRONMENTAL PLANNING POLICY (INDUSTRY AND EMPLOYMENT) – SCHEDULE 5

1 Introduction

1.1 Overview

JCDecaux is seeking approval for the installation of a LED digital illuminated sign on an existing overhead railway bridge above Castlereagh Road in Penrith. The proposed digital sign is to be located on the north side of the railway bridge, facing southbound travel lanes on Castlereagh Road.

The Transport Planning Partnership (TPPP) has been commissioned by JCDecaux 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 the State Environmental Planning Policy - Industry and Employment (Industry and Employment SEPP).

The Guidelines outline best practice for the planning and design of outdoor advertisements in transport corridors. The Industry and Employment SEPP 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 proposed digital sign 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 above Castlereagh Road in Penrith.

The following items have been considered in this report:

- Potential for the sign to obstruct or distract a driver's view of the road, traffic control devices, and signalised mid-block pedestrian crossing.
- Distance from upstream or downstream intersections or other decision points, such as merge points and diverge points.
- Potential for the sign 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 time 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 sign location from a driving viewpoint along Castlereagh Road was carried out on Tuesday 25 October 2022.
- 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 - Industry and Employment (Industry and Employment SEPP).

2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on the north side of the overhead railway bridge across Castlereagh Road in Penrith. Currently, there are no sign boards placed on the railway bridge.

In the vicinity of the proposed sign, Castlereagh Road has four travel lanes in the southbound direction. There is a slight horizontal curve in the road alignment on the north approach towards the overhead bridge. The posted speed limit in this location is 60 km/h.

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

Figure 2.1: Sign Location



Basemap source: Nearmap, aerial imagery dated 03 November 2022

2.2 Description of Proposed Signage

As per the Industry and Employment SEPP, the advertising display area is defined as follows:

“advertising display area means, subject to subclause (2), the area of an advertisement or advertising structure used for signage, and includes any borders of, or surrounds to, the advertisement or advertising structure, but does not include safety devices, platforms or lighting devices associated with advertisements or advertising structures.”

On the above basis, the advertising display area of the proposed digital sign would be 41.98 m² (12.530 m width by 3.350 m height). The visual display area (the screen alone) would be 39.94 m² (12.480 m width by 3.200 m height).

The digital sign LED panel would be installed on the north side of the railway bridge to face the four southbound travel lanes (including the left turn slip lane) on Castlereagh Road. The base of the sign board would be slightly elevated in comparison to the base of the railway bridge. Thus, the current vertical clearance to the underside of the railway bridge would be maintained. Additionally, a strip of cladding shall be provided along the top of the bridge parapet so that the sign does not protrude over the top of the bridge.

The proposed digital sign would be used for promoting JCDecaux, third-party advertising and road safety campaigns. The digital sign would contain text and images.

2.3 Signage Exposure

The proposed digital sign would be visible to traffic travelling southbound on Castlereagh Road on the north approach, as shown in Figure 2.2.

A site visit was undertaken on Tuesday 25 October 2022 to inspect driver sight distances on approach to the proposed digital sign location and observe any potential crash hazards likely to result from the proposed digital sign. A description of the site investigation findings is provided herein.

2.3.1 Castlereagh Road North Approach (Southbound Direction)

The lane configuration on the Castlereagh Road southbound approach of the proposed sign is shown in Figure 2.2. There are four travel lanes, including three through lanes and the left turn lane to Jane Street on approach to the proposed sign location. Travel lanes are numbered 1 to 4 from left to right.

Figure 2.2: Castlereagh Road Southbound Approach Lane Configuration



Source: Photograph taken by TTPP on 25/10/2022

The key findings are summarised below:

- The north facing digital sign would be visible to motorists on Castlereagh Road travelling southbound.
- Treating the observed conditions during the site inspection as typical conditions in the area, the digital sign would likely be readable approximately 100 m on approach to the sign across all travel lanes on approach except for Lane 1 which is a short lane which has a length of 75 m on approach to the sign.
- There is no existing signage at this location, and therefore, the readable distance is based on the text font and sizing which is displayed in the designer's impression as shown in Figure 2.3.
- In all lanes, the digital sign would become out of driving view approximately 10 m north of the proposed sign.

Figure 2.3 shows the perspective of the designer's impression of the concept design at the proposed sign location. Likely visible distances on Castlereagh Road southbound approach are shown in Figure 2.4 to Figure 2.7.

Figure 2.3: Designer's Impression on Southbound Approach



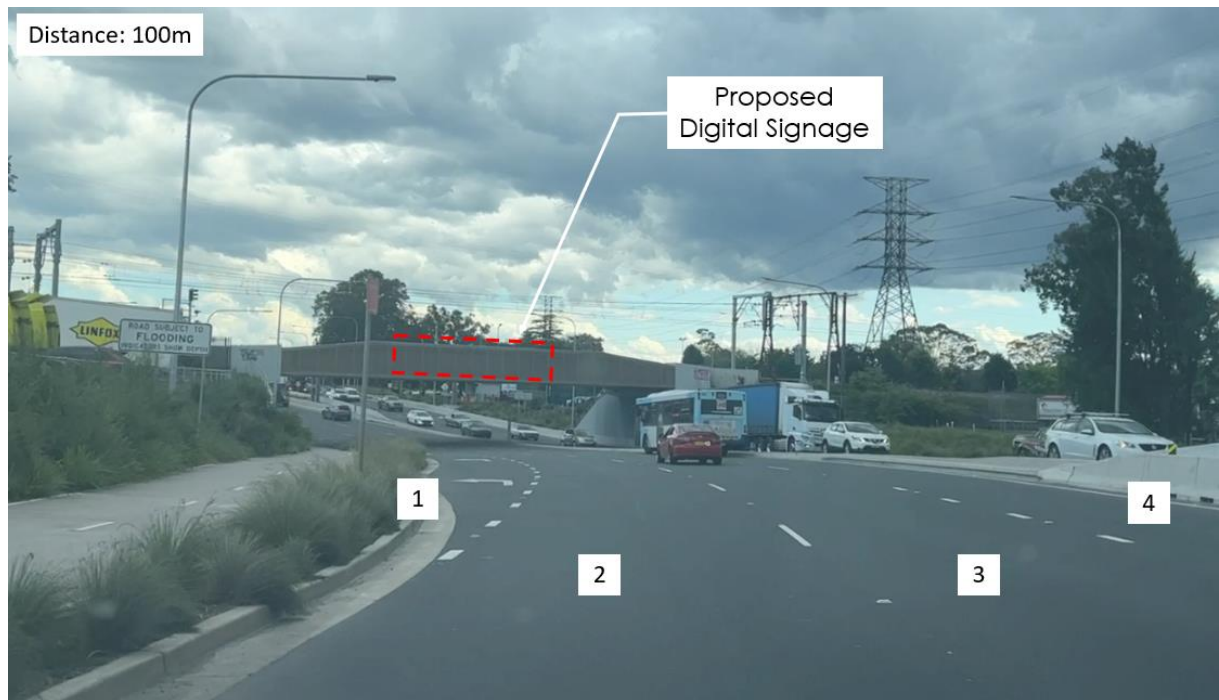
Source: JCDecaux, dated 30/10/2023

Figure 2.4: Southbound Approach Sign Exposure – Lane 1



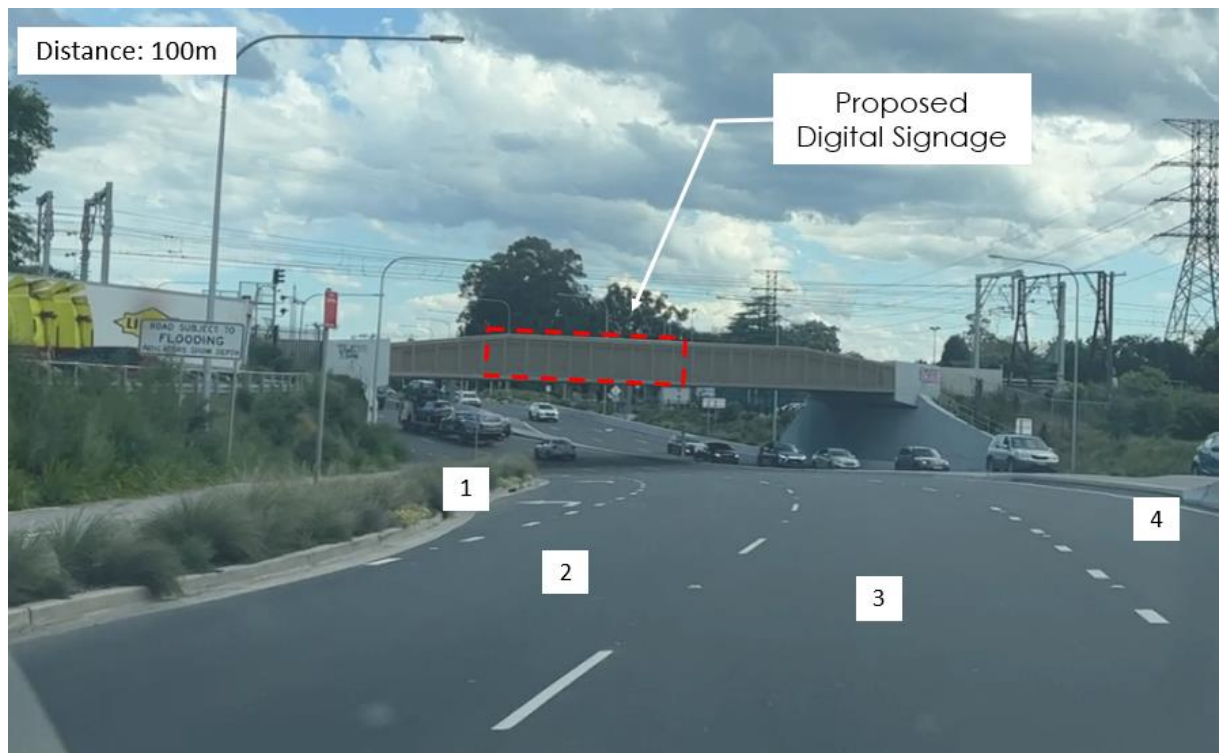
Source: Photograph taken by TPPP dated 25/10/2022

Figure 2.5: Southbound Approach Sign Exposure – Lane 2



Source: Photograph taken by TTPP dated 25/10/2022

Figure 2.6: Southbound Approach Sign Exposure – Lane 3



Source: Photograph taken by TTPP dated 25/10/2022

Figure 2.7: Southbound Approach Sign Exposure – Lane 4



Source: Photograph taken by TTPP dated 25/10/2022

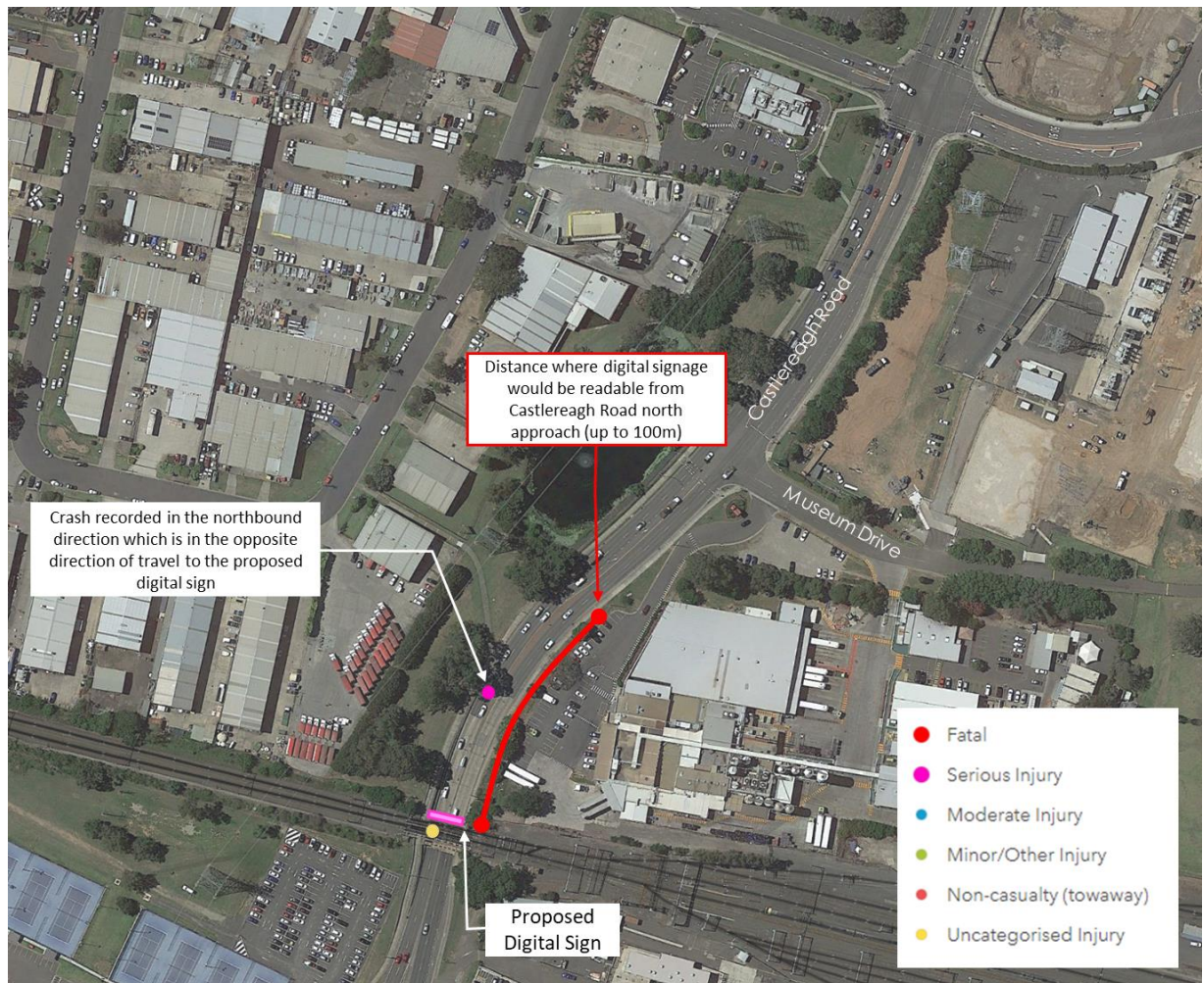
2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents on Castlereagh Road within the readable distance of the proposed digital sign of approximately 100m away.

Crash history data has been assessed on the north approach to the proposed digital sign for the most recent five-year period for data collated and published by TfNSW. This period is between 1 January 2016 and 31 December 2021 (5-year confirmed dataset). It is noted that the most recent 5 years of crash data (i.e. 1 January 2017 to 30 June 2022) was requested from TfNSW, however, has not yet been finalised by TfNSW for distribution.

There were no recorded crash incidents within the visible distance on approach to the proposed digital sign (southbound direction) as shown in Figure 2.8. It is noted that there was a serious injury crash incident recorded on the northbound carriageway of Castlereagh Road. However, it is acknowledged that this crash occurred in the opposite direction of the proposed digital sign and the future conditions in the northbound direction would not be impacted by the proposal.

Figure 2.8: Crash Locations in Recent 5-Year Period



Source: Transport for NSW

3 Statutory Requirements

This section of the report assesses the compliance with the safety assessment criteria established in the NSW Guidelines and the State Environmental Planning Policy – Industry and Employment (Industry and Employment SEPP). It requires analysis as to whether the proposal would 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 key safety assessment criteria, a series of detailed criteria are set out in Section 3, *Advertisements and Road Safety* of the NSW Guidelines.

3.1 Industry and Employment SEPP – Schedule 5

Clauses 1 to 7 of the Industry and Employment SEPP – Schedule 5 refer to aspects that are unrelated to road safety, as outlined in Appendix A. However, Clause 8 is related to road safety, and thus, is covered under this signage safety assessment as follows:

- (a) Would the proposal reduce the safety for any public road?**
- (b) Would the proposal reduce the safety for pedestrians or bicyclists?**
- (c) Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas.**

Provision of a digital advertising sign on the north side of a railway bridge across Castlereagh Road is unlikely to reduce safety for motorists, pedestrians or cyclists.

Assessment of the proposal in accordance with the Department of Planning's *Transport Corridor Outdoor Advertising and Signage Guidelines* has been undertaken in the following Section.

3.2 Transport Corridor Outdoor Advertising and Signage Guidelines - Digital Signs Criteria (Section 2 of Guidelines)

Transport Corridor Outdoor Advertising and Signage Guidelines specify criteria which are directly applicable to the assessment of digital signs. 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, this criteria should be included as part of the consent conditions for the proposal to ensure future compliance.

Table 3.1: Digital Sign Criteria (Section 2 of Guidelines)

Criteria, for Signs greater than or equal to 20 m ²		Comments
A	<i>Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (d) below.</i>	Relates to sign content only.
B	<i>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.</i>	Relates to sign content only.
C	<i>The image must not be capable of being mistaken:</i> i. <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</i> ii. <i>as text providing driving instructions to drivers.</i>	Relates to sign content only.
D	<i>Dwell times for image display are:</i> i. <i>10 seconds for areas where the speed limit is below 80 km/h.</i> ii. <i>25 seconds for areas where the speed limit is 80 km/h and over.</i>	As detailed in Section 3.3.2.2, a dwell time of 10 seconds would typically be suitable for the proposed digital sign on the southbound approach.
E	<i>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.</i>	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	<i>Luminance levels must comply with the requirements in Section 3 (Transport Corridor Advertising Signage Guidelines).</i>	This signage would be classified as Zone 3. Zone 3 covers areas with generally medium off-street ambient lighting e.g. small to medium shopping/ commercial centres. Refer to the lighting assessment report for further information.
G	<i>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.</i>	It is assumed that this operational requirement would be met.
H	<i>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).</i>	Relates to sign content only.

Criteria, for Signs greater than or equal to 20 m ²		Comments
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.
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 would be assessed by RMS as part of their concurrence role.	Drivers' view would be limited to a single sign at any given time within a distance of 150m minimum between signs.
M	Signs greater than or equal to 20sqm must obtain RMS concurrence and must ensure the following minimum vertical clearances: 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. 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.	The proposed digital signage would maintain the same vertical clearance as the existing railway bridge which is 4.6m.
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.

3.3 Transport Corridor Outdoor Advertising and Signage Guidelines (Section 3 of Guidelines)

3.3.1 Sign Location Criteria

3.3.1.1 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?**

The digital sign would not physically obstruct any vehicle, pedestrian and cyclist movements as it would be placed on the side of the railway bridge above the carriageway on Castlereagh Road. The digital sign would not protrude below the underside of the railway bridge, and hence the vertical clearance would be maintained as per existing conditions.

(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 digital sign board would be installed on the side of the railway bridge, which is positioned above the carriageway and outside of the clear zone. Hence, it would not require an RMS-approved crash barrier.

(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 digital sign would not be located within the clear zone.

The existing available vertical clearance between the road surface and the underside of the railway bridge would be maintained.

(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 digital sign would 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 board when under maximum vertical deflection.

3.3.1.2 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 digital sign would be installed on the overhead rail bridge and would not obstruct a driver's visibility towards other vehicles. The nearest crossing locations are at the side road of Museum Drive or Jane Street which would not be obstructed by the proposed digital sign given they are not within close proximity to the overhead rail bridge.

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

The proposed digital sign would not obstruct pedestrian and cyclist's view of Castlereagh Road and the shared path beside the carriageway. A view of the shared path in the vicinity of the proposed sign is shown in Figure 3.1.

Figure 3.1: Shared Path (Facing south)



- (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.**

While travelling in the southbound direction (which is also in the direction of the proposed sign), the roadway alignment is clear to motorists and would not be impacted by the digital sign. The position of the digital sign would not cause any misconstruction of the road alignment for motorists travelling on Castlereagh Road.

The sign itself 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 2.3.

- (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 sign would be located within a driver's peripheral vision whilst travelling southbound on Castlereagh Road. Motorists would not be required to turn their heads when spotting the sign, and all motorists would be able to see the road simultaneously when viewing the sign.

Southbound motorists on Castlereagh Road would be able to view traffic queuing in all four lanes on approach to Great Western Highway and the proposed digital sign within their peripheral view, as shown in Figure 3.2. As such, there is unlikely to be any impact to road safety.

Figure 3.2: Peripheral View of Great Western Highway traffic signals



The positioning and angle of the sign would not be expected to result in headlight reflection or glare.

3.3.1.3 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.**

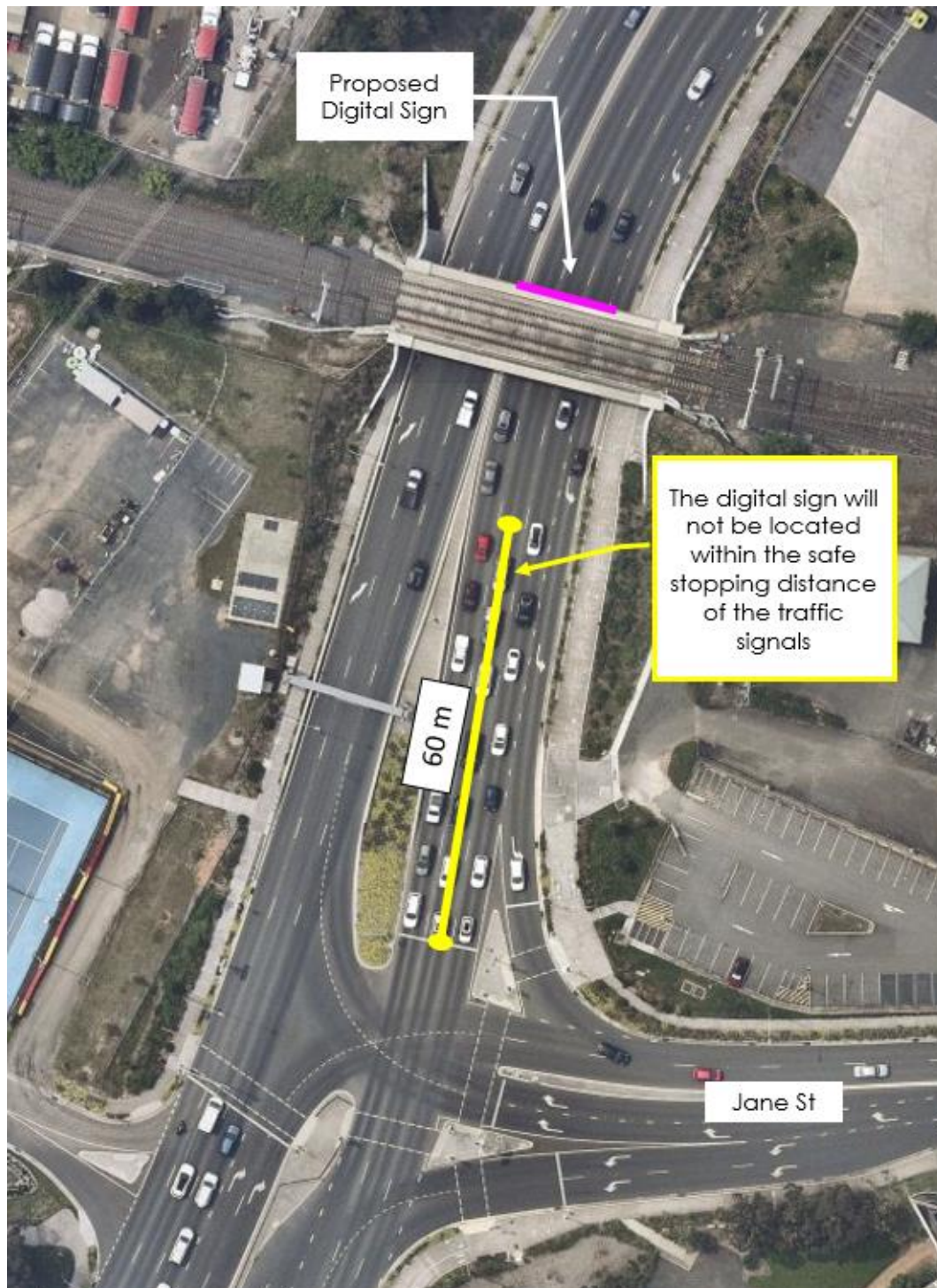
As referenced in the Guide to Road Design, Part 3, sight distance refers to the distance required to enable a driver to react and stop before reaching a hazard. This distance is dependent on the operating (85th percentile) speed of the road, road gradient and other road characteristics.

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 Castlereagh Road as well as the speed limit which motorists were observed to be driving during the site inspection. According to Austroads, the minimum safe stopping sight distance for a 60 km/h speed zone is 64 m.

On approach to the Castlereagh Road – Jane Street traffic signals, there is an upward slope of approximately 5% (as measured off Nearmap). Where there is a slope within the safe stopping distance, the Guidelines specifies a grade correction factor be applied and then the SSD be rounded up to the nearest to the nearest 5m. In this case, a correction of 5 m is deducted from the 64 m safe sight distance. Therefore, the safe sight distance becomes 59 m rounded up to 60m.

On the above basis, the proposed signage should not be located within 60 m on approach to the traffic signals. The proposed signage would be located well-beyond the SSD to the stop line at Jane Street as shown in Figure 3.1. In this regard, motorists would have sufficient reaction and braking time to stop safely on approach to the signalised intersection.

Figure 3.3: Safe Stopping Sight Distance



A digital sign should not be located less than the safe stopping distance from a sharp curve. Castlereagh Road comprises a slight horizontal and vertical curve in the road alignment on approach to the proposed digital sign, as shown Figure 3.4 and Figure 3.5. However, given the change in alignment is slight, there is unlikely to be any impact to road safety.

Figure 3.4: Castlereagh Road – Curved Road Alignment (View A)



Figure 3.5: Castlereagh Road – Curved Road Alignment (View B)



(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.**

The proposed sign is elevated above the road level such that a driver's view to the traffic signals, warning signage or any potential road hazards would be maintained at all times in the vicinity of the digital sign.

A driver's visibility to the 'low clearance' signage and directional signage on Castlereagh Road would not be impeded by the digital sign as the street signage is located well before the digital sign at a distance where the digital sign is unlikely to be readable by motorists. Given the further distance of the digital sign, the driver's attention would be on the street signage located within the foreground of the driving view as shown in Figure 3.6 and Figure 3.7.

In this regard, the proposed sign would not distract a driver at a critical time.

Figure 3.6: Existing Street Signage



Figure 3.7: Existing Street Signage



3.3.1.4 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 advertising billboards located within 150 m of the proposed digital sign.

3.3.2 Sign Design and Operation Criteria

3.3.2.1 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, the Applicant agrees to ensure that the signage content does not interfere with existing traffic devices and will comply with any development conditions in relation to this concern.

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

3.3.2.2 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.**

Based on the NSW Guidelines, the minimum dwell time for content displayed on the digital signage would be 10 seconds.

- (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.**

There are no school zones within visible distance to the proposed digital sign.

- (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, which would be in a static manner without any motion for this dwell time. The transition between content would be almost instantaneous.

3.3.2.3 *Illumination and Reflectance*

(a) Luminance levels must comply with the requirements in Table 6 in Transport Corridor Outdoor Advertising and Signage Guidelines

(b) 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.

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

4 Conclusion

JCDecaux is proposing to install a digital sign on the north side of a railway bridge on Castlereagh Road, Penrith.

The proposal has been assessed in accordance with the following statutory requirements for digital advertising signs:

- Transport Corridor Outdoor Advertising and Signage Guidelines.
- State Environmental Planning Policy (Industry and Employment).

The following findings and conclusions are made from the signage safety assessment:

- No crashes have occurred on approach to the digital sign location for the most recent five years (for which TfNSW has aggregated data).
- The proposed sign would not obstruct and/or reduce visibility of any traffic control devices, signage, pedestrians or cyclists.
- The proposed sign would not give incorrect information on the alignment of the road.
- The sign is located within the driver's peripheral vision, and does not require motorists to turn their head away from the roadway ahead.
- The proposed sign would not be located within the safe stopping distance to traffic signals, crossings or directional/ information signage or any other decision/ conflict point.
- Castlereagh Road has a posted speed limit of 60 km/h, and therefore, a dwell time of 10 seconds would typically be suitable for the proposed digital sign.
- The proposed sign would not compromise safety for road users in the vicinity.

Having consideration for the signage safety assessment and discussions presented within this report, the analysis shows that the installation of a digital sign on the northern side of an existing railway bridge across Castlereagh Road would be acceptable from a road safety perspective.

Appendix A

State Environmental Planning Policy (Industry and Employment) – Schedule 5

State Environmental Planning Policy (Industry and Employment) 2021

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Schedule 5

Schedule 5 Assessment criteria

sections 3.6, 3.11 and 3.15

1 Character of the area

- Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?
- Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?

2 Special areas

- Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?

3 Views and vistas

- Does the proposal obscure or compromise important views?
- Does the proposal dominate the skyline and reduce the quality of vistas?
- Does the proposal respect the viewing rights of other advertisers?

4 Streetscape, setting or landscape

- Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?
- Does the proposal contribute to the visual interest of the streetscape, setting or landscape?
- Does the proposal reduce clutter by rationalising and simplifying existing advertising?
- Does the proposal screen unsightliness?
- Does the proposal protrude above buildings, structures or tree canopies in the area or locality?
- Does the proposal require ongoing vegetation management?

5 Site and building

- Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?
- Does the proposal respect important features of the site or building, or both?

- Does the proposal show innovation and imagination in its relationship to the site or building, or both?

6 Associated devices and logos with advertisements and advertising structures

- Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?

7 Illumination

- Would illumination result in unacceptable glare?
- Would illumination affect safety for pedestrians, vehicles or aircraft?
- Would illumination detract from the amenity of any residence or other form of accommodation?
- Can the intensity of the illumination be adjusted, if necessary?
- Is the illumination subject to a curfew?

8 Safety

- Would the proposal reduce the safety for any public road?
- Would the proposal reduce the safety for pedestrians or bicyclists?
- Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?

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