Raw Square, Strathfield
Digital Sign Safety Assessment

Prepared for:

JCDecaux

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The Transport Planning Partnership

Raw Square, Strathfield

Digital Sign Safety Assessment

Client: JCDecaux

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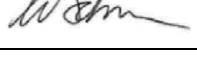
V03	10/02/22	Santi Botross	Wayne Johnson	Wayne Johnson	

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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 Raw Square in Strathfield. The proposed sign is to be located on the south side of the railway bridge, facing northbound travel lanes on Raw Square.

The Transport Planning Partnership (TTPP) 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 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 proposed digital sign and provide recommendations on mitigation measures to alleviate impacts on the surrounding road network. This report sets out the findings of TTPP's safety assessment for the proposed digital sign above Raw Square in Strathfield.

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 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 sign location from a driving viewpoint along Raw Square and Albert Road cross-street carried out on Friday 29 October 2021.
- 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).
- Concept design plans of the proposed digital sign dated 18/11/2021.

2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on the southern side of the overhead railway bridge across Raw Square in Strathfield. Currently, there is a non-digital (static) sign on the railway bridge which predominantly sits above the southbound travel lanes and partially above Lane 2 in the northbound direction. The existing static sign has a width of 12.660 m and a height of 3.350 m (42.41 m^2 area).

There is a slight horizontal curve in the road alignment along Raw Square on the southern approach to the proposed digital sign. The location of the proposed digital sign is within a 60 km/h speed zone.

In the vicinity of the proposed sign, Raw Square has two travel lanes in the northbound direction. To the south of the Albert Road cross-street signalised intersection, there is a third travel lane which forms the dedicated right-turn lane from Raw Square to Albert Road.

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 04 October 2021

2.2 Description of Proposed Signage

As per the SEPP 64, the advertising display area is defined as follows:

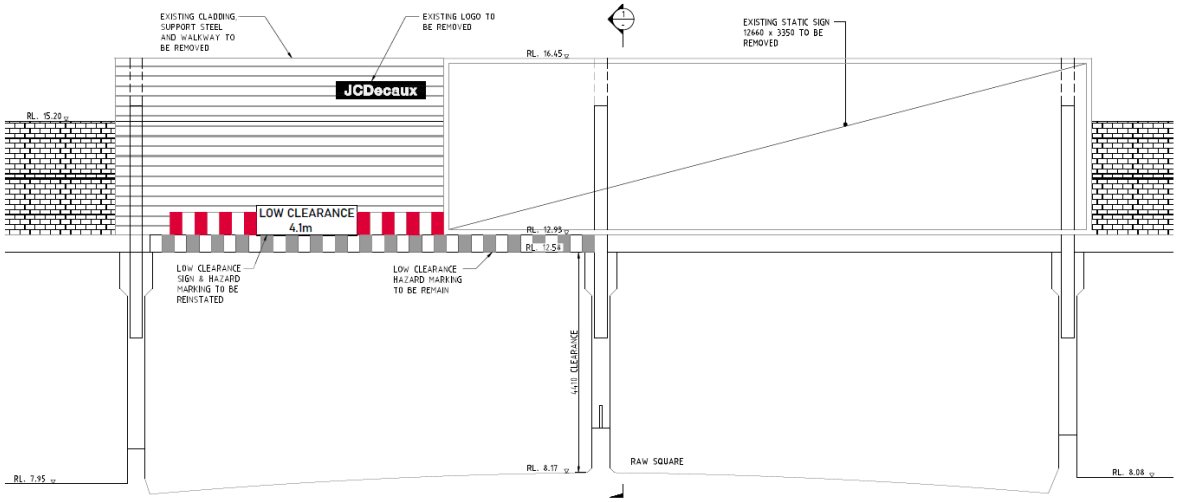
> *"advertising display area means, subject to subclause (2), the area of an advertisement or advertising structure used for signage, and includes any borders of, or surrounds to, the advertisement or advertising structure, but does not include safety devices, platforms or lighting devices associated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

On the above basis, the advertising display area of the proposed digital sign would be 17.79 m^2 (7.986 m width by 2.348 m height plus "JCDecaux" logo 1.083 m width by 0.220 m height). The visual display area (the screen alone) would be 16.25 m^2 (7.936 m width by 2.048 m height).

The digital screen would be set upon a new black (Monument) perforated mesh cladding which would visually appear as a plain background around the visual screen. The current vertical clearance to the underside of the railway bridge would be maintained. The general layout of the existing sign and proposed sign are illustrated in Figure 2.2 and Figure 2.3, respectively.

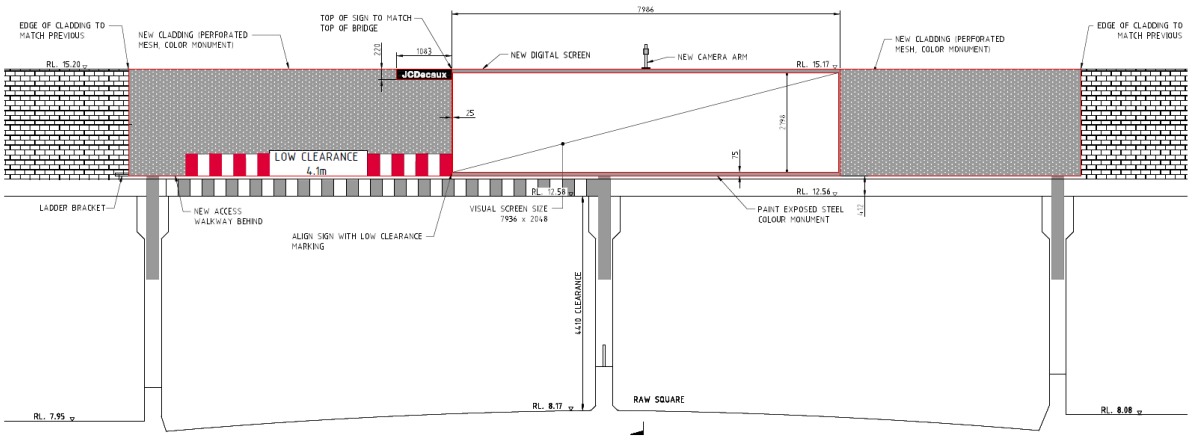
The digital sign with LED panel would be installed on the south side of the railway bridge to face the northbound travel lanes on Raw Square. The proposed digital sign would be used for promoting JCDecaux and its sponsors, and third-party advertising. The digital sign would contain text and images.

Figure 2.2: Existing Static Sign (Elevation Plan)



Source: JCDecaux dated 12/11/2021

Figure 2.3: Proposed Digital Sign (Elevation Plan)



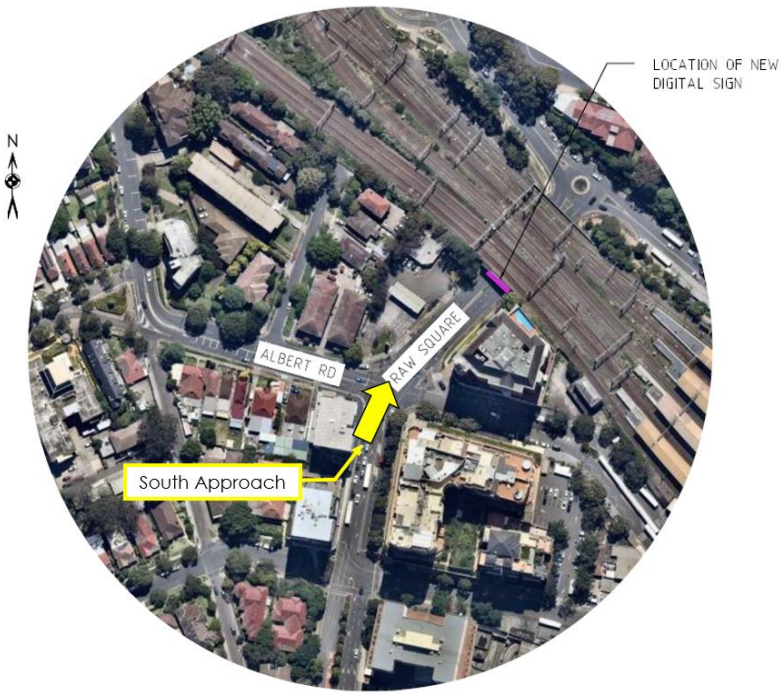
Source: JCDecaux dated 18/11/2021

2.3 Signage Exposure

The proposed digital sign would be visible to traffic travelling northbound on Raw Square on the south approach, as shown in Figure 2.4.

A site visit was undertaken on Friday 29 October 2021 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.

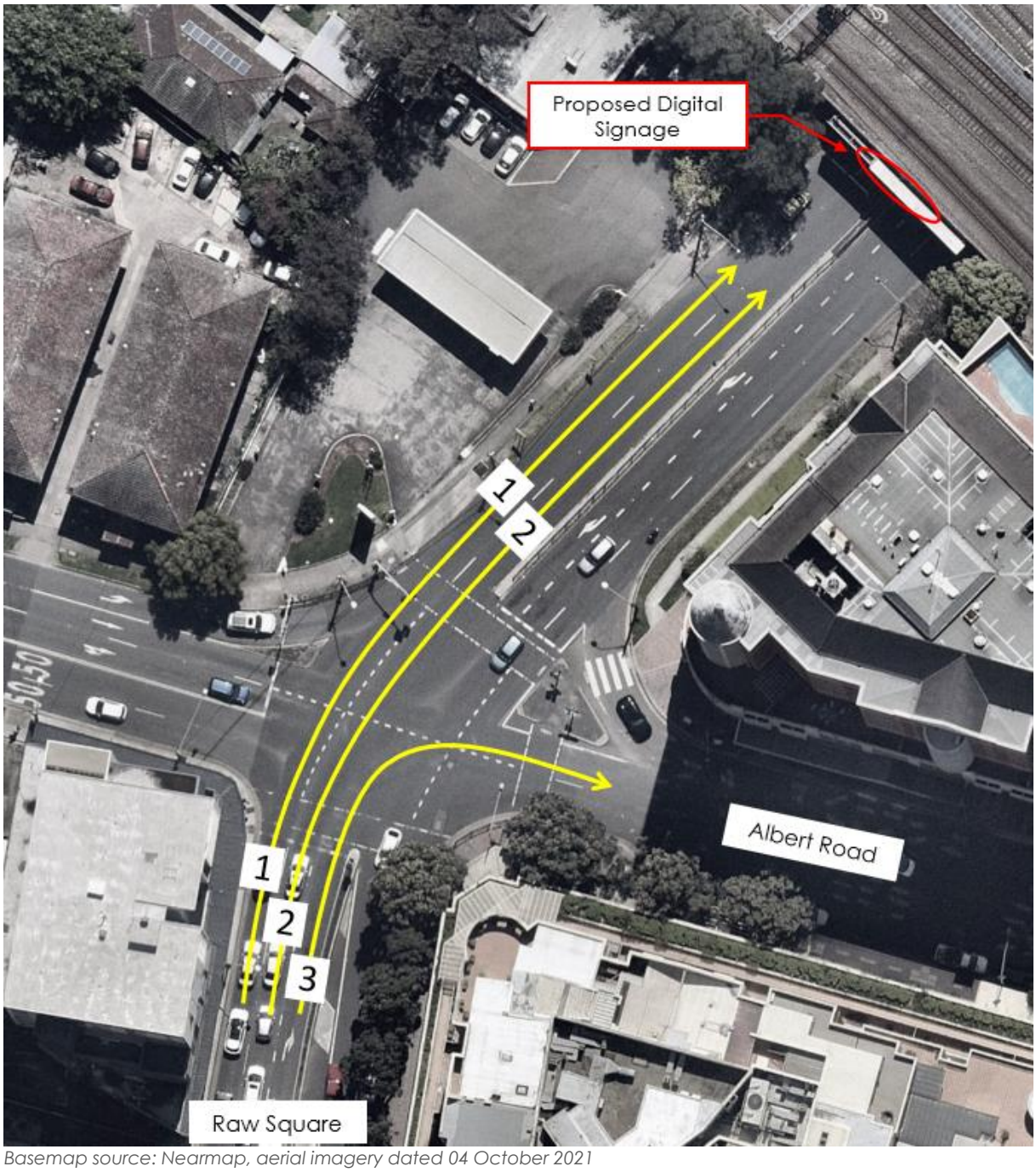
Figure 2.4: Raw Square South Approach



2.3.1 Raw Square South Approach

To the north of the Albert Road cross-street signalised intersection, there are two travel lanes on approach to the proposed sign location. South of Albert Road, there is a third travel lane which forms the dedicated right-turn lane from Raw Square south approach to Albert Road east approach, as shown in Figure 2.5.

Figure 2.5: Raw Square South Approach Lane Configuration



Basemap source: Nearmap, aerial imagery dated 04 October 2021

- There is an existing static sign on the overhead bridge where the digital sign is proposed to be located. The static sign would be removed to enable installation of the proposed digital sign with new cladding (see Section 2.2 for details of cladding).
- The south facing digital sign would be visible to motorists on Raw Square travelling northbound.
- To the south of the sign location, Raw Square is intersected by Albert Road in the east-west direction.
- Treating the observed conditions during the site inspection as the typical conditions in the area, the digital sign would likely be **visible** in traffic lanes as follows:
  - In Lane 1 (through lane), 110 m from the sign on the south approach.
  - In Lane 2 (through lane), 110 m from the sign on the south approach.
  - In Lane 3 (right-turn lane to Albert Road), 100 m from the sign on the south approach.

    Comparatively, the proposed digital sign would be 2.4 times smaller than the existing static sign (17.79 m^2 versus 42.41 m^2, respectively). As a result of the smaller display, the readable distance of the proposed digital sign would be reduced in comparison to the existing static sign. Having consideration for the text font and sizing presented by the designer's impression of the proposed digital sign, the **readable** distance for the proposed digital sign would be approximately 60 m in Lane 1 and Lane 2, where there are no vehicles travelling in adjacent lanes which could impede driver visibility to the sign.
- In Lane 1 and Lane 2, the digital sign would become out of driving view approximately 8 m south of the proposed sign.

Figure 2.6 shows the existing static sign while Figure 2.7 illustrates the perspective of the designer's impression of the proposed digital sign.

The likely visible distance and readable distance in each lane on Raw Square south approach are shown in Figure 2.8 to Figure 2.10.

Figure 2.6: Existing Static Sign

Source: Photograph taken by TTPP dated 29/10/2021

Figure 2.7: Designer's Impression of Proposed Digital Sign

Source: JCDecaux

Figure 2.8: South Approach Sign Exposure – Lane 1

Source: Photograph taken by TTPP dated 29/10/2021

Figure 2.9: South Approach Sign Exposure – Lane 2

Source: Photograph taken by TTPP dated 29/10/2021

Figure 2.10: South Approach Sign Exposure – Lane 3

Source: Photograph taken by TTPP dated 29/10/2021

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents along Raw Square within the readable distance of the proposed sign location. Based on site observations, the proposed digital sign would be readable from approximately up to 60m away.

Crash history data has been assessed on the south approach to the proposed digital sign (and thus, the existing static 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 2020.

Four crashes were recorded in the northbound direction within 60 m (visible distance) of the proposed digital sign. Of these four incidents, one crash resulted in moderate injury, and the remaining incidents were classified as minor injury.

The most common crash type was a rear-end crash type (RUM CODE 30). The crash that resulted in a moderate injury occurred between a vehicle and a pedestrian emerging from the driveway of the Shell Coles Express petrol station on the west side of Raw Square.

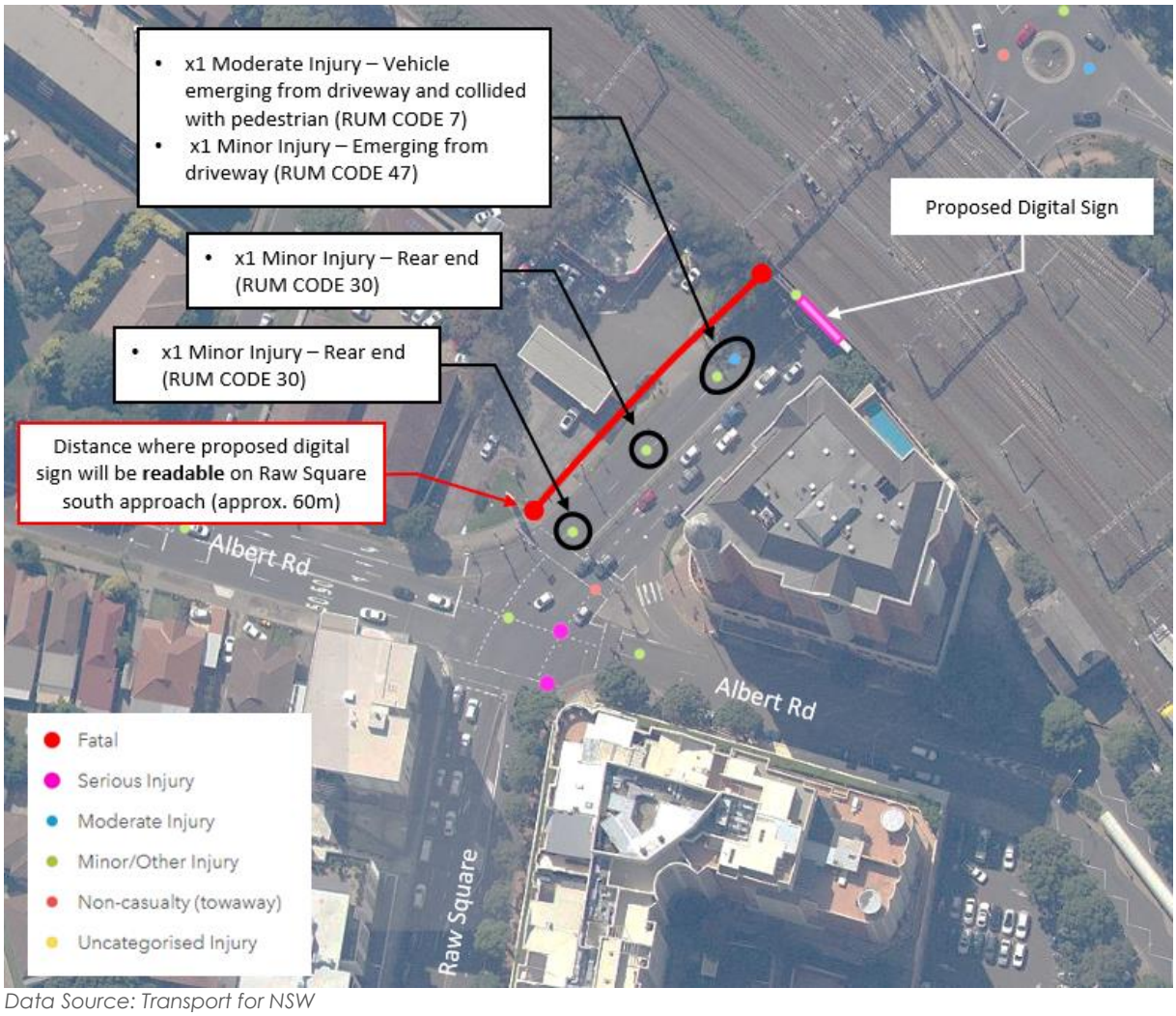
A summary of crashes in the vicinity of the proposed digital sign is presented in Table 2.1, while the crash location and incident description are illustrated in Figure 2.11.

Table 2.1: Crash Type and Severity

Location	Crash Type	Crash Severity (No. of Crashes)				
		Fatality	Serious Injury	Moderate Injury	Minor Injury	Non-casualty (tow-away)
Within **readable** distance of digital sign on Raw Square (up to 60 m away from proposed digital sign)	Driveway (RUM CODE 7)			1		
	Rear End (RUM CODE 30)				2	
	Emerging from Driveway (RUM CODE 47)				1	
	Sub-total	**Nil.**	**Nil.**	**1**	**4**	**Nil.**

Data Source: Transport for NSW

Figure 2.11: Crash Locations



Data 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 State Environmental Planning Policy (SEPP) 64. 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 SEPP 64 Schedule 1

Clauses 1 to 7 of the SEPP 64 – Schedule 1 refer to aspects that are unrelated to road safety, as outlined in Appendix B. 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 southern side of the railway bridge across Raw Square is unlikely to reduce safety for motorists, pedestrians, or cyclists.

It is important to note that there is currently a static advertising sign in this location which has not been the cause of any significant crashes in the vicinity as per crash history information.

Furthermore, the proposed sign would have a display area that is 2.4 times smaller than the existing advertising sign. As such, the readable distance of the proposed digital would be reduced in comparison to the existing sign, and any potential safety impact would be reduced in comparison with existing conditions.

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 less than 20 m² Display Area	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:* *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:* *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 3.3.2.2, a dwell time of 10 seconds would be suitable for the proposed digital sign on the south approach.
E	*The transition time between messages must be no longer than 0.1seconds, 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 sign 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.
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 a school zone, and therefore, would not be required to be conditioned as so.

	Criteria, for Signs less than 20 m² Display Area	Comments
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.*	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².
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.*	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².
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.*	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².
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.*	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².

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? Would 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 southern side of the railway bridge directly above Raw Square. 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.

The concept design for the proposed sign and its positioning on the south side of the railway bridge is shown in Appendix A.

(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 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 boards 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 boards 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.

Based on TfNSW's Cycleway Finder online app, there are no on-road or off-road cycle facilities along this section of Raw Square.

Notwithstanding this, the proposed sign would not obstruct a cyclist's view of the road when cycling on the road.

(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 the road when on the street level.

(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 sign would be positioned at the same height as the existing railway bridge which would not impede a driver's visibility on the alignment of the road. The proposed digital sign would not indicate misleading information or information contrary to the existing roadway. This is supported by the designer's impression of the proposed sign as depicted in Figure 2.7.

(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 line of sight on the Raw Square south approach with a viewable distance similar to the existing sign (up to 110 m) and reduced readable distance (up to 60 m). In addition, the digital sign would be placed above the road, therefore, a driver would not be required to turn away from the road in order to view the digital sign.

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 along Raw Square 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.

The proposed sign (and existing sign) is located beyond the Albert Road traffic signals, and therefore, the sign would not be located less than the safe stopping sight distance from the intersection.

Beyond the sign location is the Everton Road – Leicester Avenue roundabout, which is located 56m north of the proposed sign. However, at the 64 m mark (8 m back from the sign), the digital sign would be out of driving view as shown in Figure 3.1. As such, motorists would

not observe the digital sign within the safe stopping distance of the roundabout ahead. In this regard, motorists would have sufficient reaction and braking time to stop safely on approach to the intersection at Everton Road – Leicester Avenue.

Furthermore, it is reinforced that there is an existing static sign at this location which has a display area that is 2.4 times greater than the digital sign display. One of the key findings of the Eyetracker Report Outdoor Media Association: Driver Attention Study is that whilst digital signage attracted more fixations than static signage, on average, there was no difference in the duration of these fixations between these two types of signage. In fact, the results showed that the fixation on a traffic sign (215 ms) is slightly greater than a digital sign (211 ms).

There are no pedestrian crossing facilities on the Raw Square south approach to the roundabout.

Figure 3.1: Driving View 8 m Prior to Sign

Source: Photograph taken by TTPP dated 29/10/2021

From the Albert Road west approach, the proposed digital sign would not be visible on approach to the intersection. From the position of the first vehicle at the stop line, visibility to the proposed sign (and existing sign) is obstructed by surrounding street side traffic signal posts and streetlight posts in Lane 1 as shown in Figure 3.2. From Lane 2, the advertising sign would not be within a driver's peripheral vision, and therefore, the sign exposure for such drivers would be low. From the position of the second vehicle and further back, the digital sign would not be visible.

Figure 3.2: Albert Road West Approach Sign Exposure – Lane 1

(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's decision is required implying that a road safety implication could occur if a driver was distracted at this time. On the south approach, the proposed digital sign would be positioned beyond the traffic signals at Albert Road, and as such, the proposed digital sign would not obstruct the motorist's view of traffic signal lanterns at any time.

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 would be assessed by RMS as part of their concurrence role.

In built-up urban areas, it is impracticable to limit the spacing of signage at 150 m apart. Especially within Sydney Metropolitan, drivers can be exposed to many signs at any given time.

Noting this, there are no other advertising signs placed within 150 m of the proposed 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, based on the example advertisement that is depicted in the designer's impression (Figure 2.7) the sign 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 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.
(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.

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

Whilst Raw Square is an RMS-classified road, the proposed sign would not be visible from within a school zone. For motorists travelling northbound on the Raw Square south approach, End School Zone signage is located 252 m away from the proposed sign; this is 140 m further south of the point where the digital sign would become visible as shown in Figure 3.3.

Figure 3.3: Raw Square End School Zone

Basemap source: Nearmap, aerial imagery dated 04 October 2021

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 no 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 south side of the railway bridge above Raw Square in Strathfield.

The proposal has been assessed against the statutory requirements for digital advertising signage outlined in the following:

- Section 3, *Advertisements and Road Safety* of the NSW Guidelines,
- State Environmental Planning Policy (SEPP) 64.

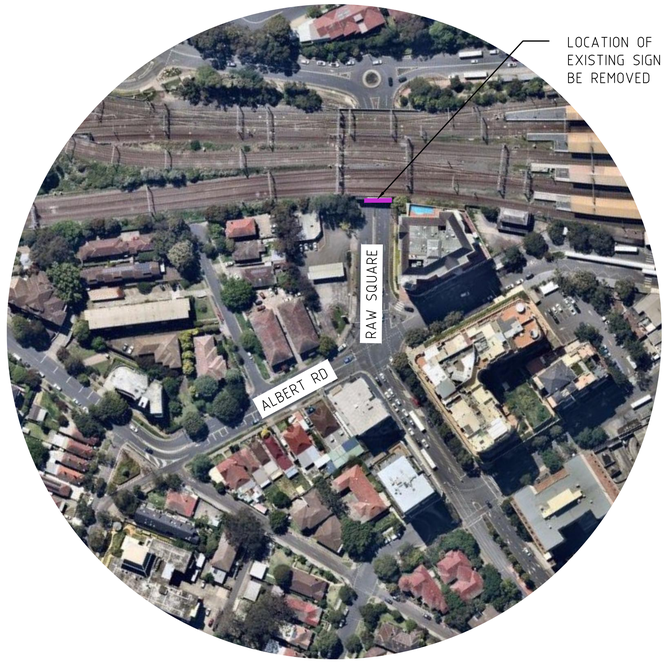
The following findings and conclusions are made from the signage safety assessment:

- Four crashes have occurred on the Raw Square south approach to the digital sign 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 would be located within a driver's peripheral vision for motorists travelling on the Raw Square south approach, and does not require motorists to turn their head away from the roadway ahead. Sign exposure to the sign from the Albert Road west approach would be low.
- The proposed sign would not be located within the safe stopping distance to traffic signals, crossings or directional/ information signage or any other decision point.
- Raw Square has a posted speed limit of 60 km/h. As such, a dwell time of 10 seconds for the digital sign is suitable.
- The proposed sign would not compromise safety for road users in the vicinity.

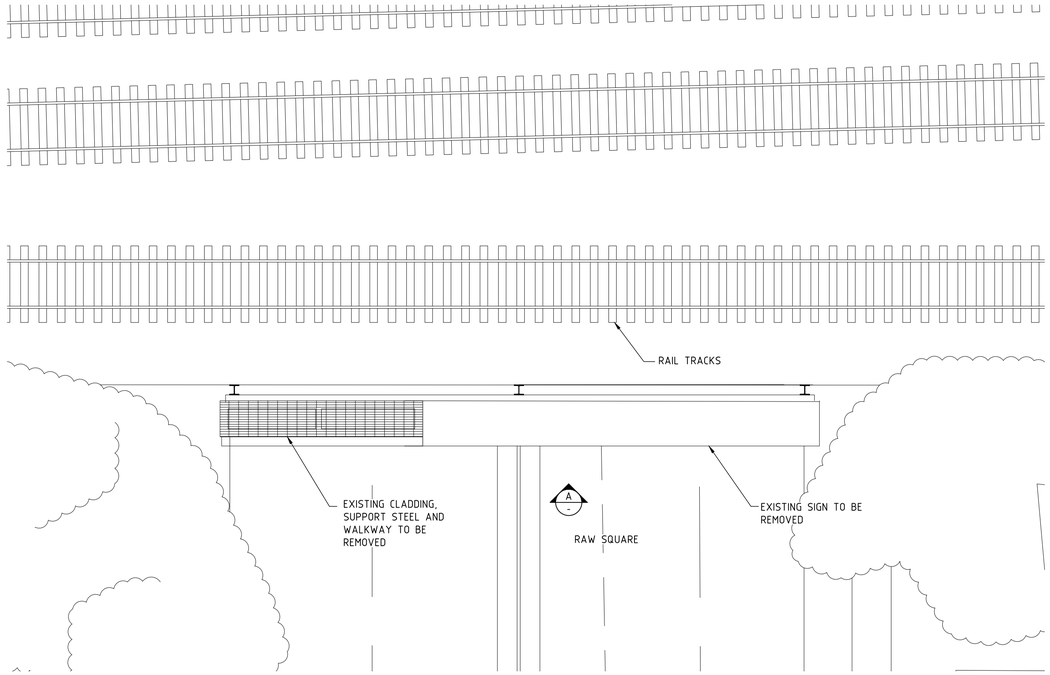
Having consideration for the signage safety assessment and discussions presented within this report, the analysis suggests that the installation of a digital sign on the south side of the existing rail bridge across Raw Square would be acceptable.

Appendix A

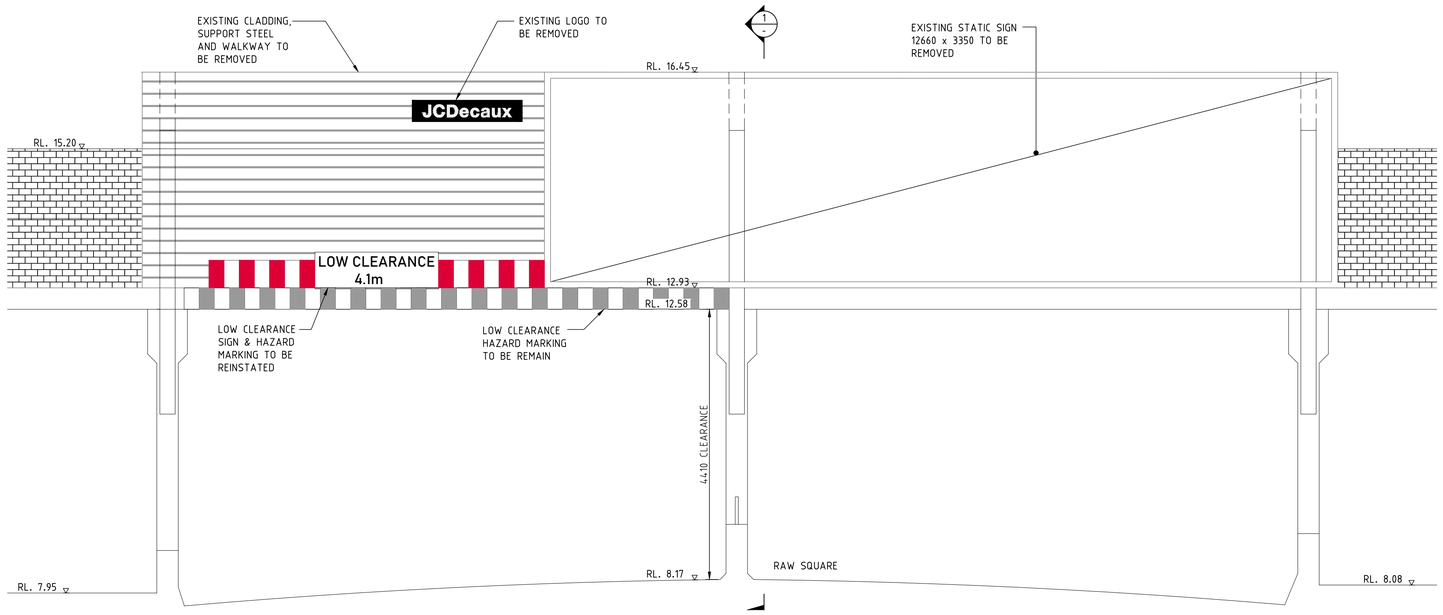
Concept Design Plans



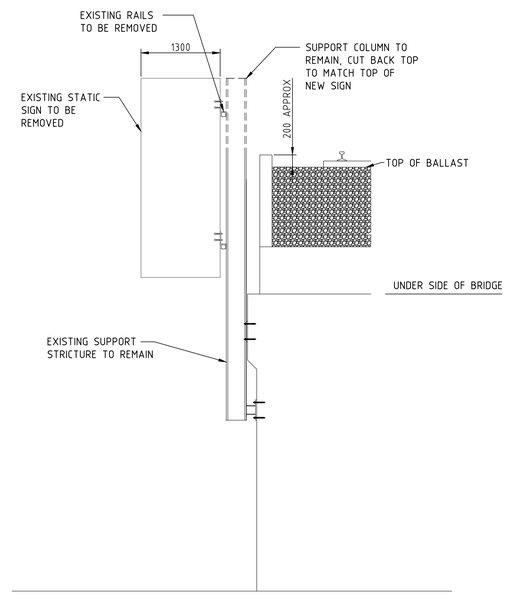
AERIAL PHOTO
NTS



SITE PLAN
SCALE 1:100



ELEVATION A
SCALE 1:50



SECTION 1
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	03/11/21	ISSUED FOR APPROVAL
B	10/11/21	ISSUED FOR APPROVAL
C	12/11/21	ISSUED FOR APPROVAL

Dennis Bunt Consulting Engineers Pty Ltd
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ABN 23 039 013 724

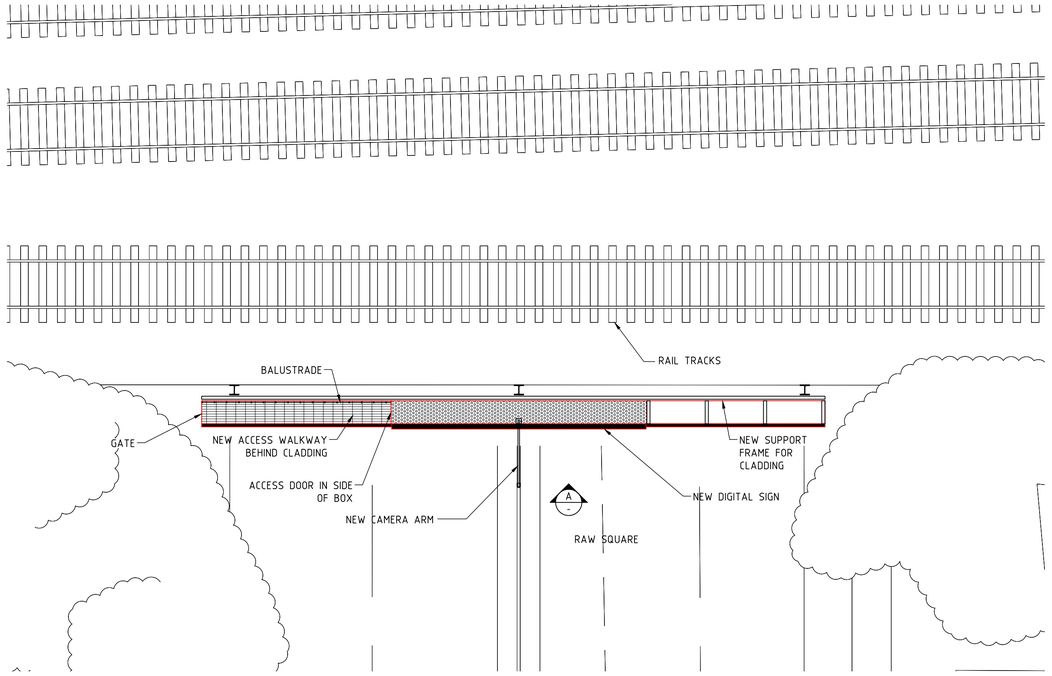
CLIENT: JCDecaux

PROJECT: RAW SQUARE OVERPASS
STRATHFIELD, SUPER 8, NORTHBOUND

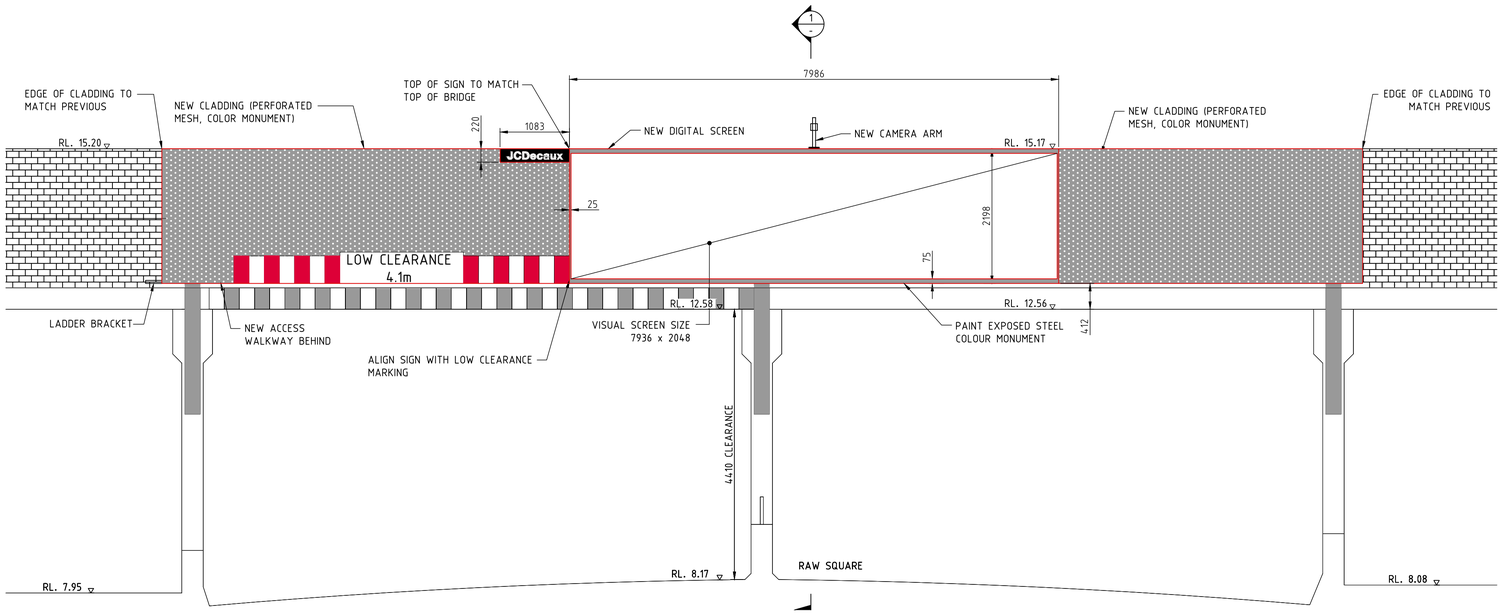
TITLE: EXISTING
GENERAL ARRANGEMENT &
SITE PLAN

DRAWN A.T	DESIGN J.L	DATE: OCT 21
JOB NO: 21257		DWG NO: DA01
SCALE @ A1: AS SHOWN		REV: C

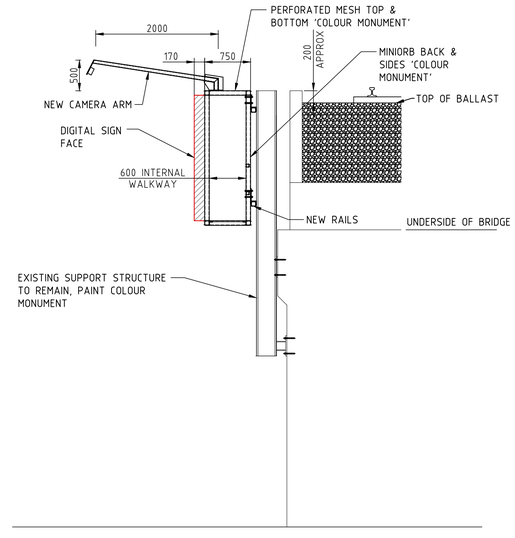
AERIAL PHOTO
NTS



SITE PLAN
SCALE 1:100



ELEVATION A
SCALE 1:50



SECTION 1
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	03/11/21	ISSUED FOR APPROVAL
B	10/11/21	ISSUED FOR APPROVAL
C	12/11/21	ISSUED FOR APPROVAL
D	18/11/21	ISSUED FOR APPROVAL

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Email: info@dbce.com.au
ABN 23 039 013 724

CLIENT: JCDecaux

PROJECT: RAW SQUARE OVERPASS
STRATHFIELD, SUPER 8, NORTHBOUND

TITLE: PROPOSED DIGITAL SIGN
GENERAL ARRANGEMENT &
SITE PLAN

DRAWN A.T	DESIGN J.L	DATE: OCT 21
JOB NO: 21257		DWG NO: DA02
SCALE @ A1: AS SHOWN		REV: D

Appendix B

State Environmental Planning Policy (SEPP) 64 – Schedule 1

State Environmental Planning Policy No 64—Advertising and Signage (2001 EPI 199)

Current version for 22 January 2021 to date (accessed 16 November 2021 at 12:18)

New South Wales

Schedule 1 Assessment criteria

(Clauses 8, 13 and 17)

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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