



Hume Highway, Ashfield Digital Signage Safety Assessment

Prepared for:
JCDecaux

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The Transport Planning Partnership

Hume Highway, Ashfield

Digital Signage Safety Assessment

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APPENDICES

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1 Introduction

1.1 Overview

JCDecaux is seeking approval for the installation of a LED digital illuminated sign on the south side of Hume Highway in Ashfield. The digital sign is proposed to be located on the south-eastern corner of the Hume Highway and Grosvenor Crescent intersection within the vegetated area of the rail corridor. The sign would face motorists travelling north-east on Hume Highway.

Transport for NSW (TfNSW), formerly Roads and Maritime Services require 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 Chapter 3 of State Environmental Planning Policy (Industry and Employment) 2021. 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 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 signage safety assessment for the proposed digital sign on the south side of Hume Highway in Ashfield.

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 pedestrian crossings.
- Distances 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:

- Site inspections of the sign location from a driving viewpoint along Hume Highway were carried out on Friday 14 January 2022 and Thursday 10 March 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) 2021.
- Design plans of the proposed digital sign dated 25/03/2022.

2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on the south-eastern corner of the Hume Highway and Grosvenor Crescent intersection in Ashfield. Hume Highway is a classified State arterial road with two traffic lanes in both directions.

In the immediate vicinity of the proposed sign, the posted speed limit on Hume Highway is 60 km/h. A 40 km/h school zone is located on Hume Highway approximately 160 m west of the proposed digital sign.

The proposed digital sign would be located within the vegetated area adjacent to the railway corridor.

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

Figure 2.1: Sign Location



Map Source: Nearmap, aerial imagery dated 21 December 2021

2.2 Description of Proposed Sign

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

“advertising display area means, subject to subsection (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.”

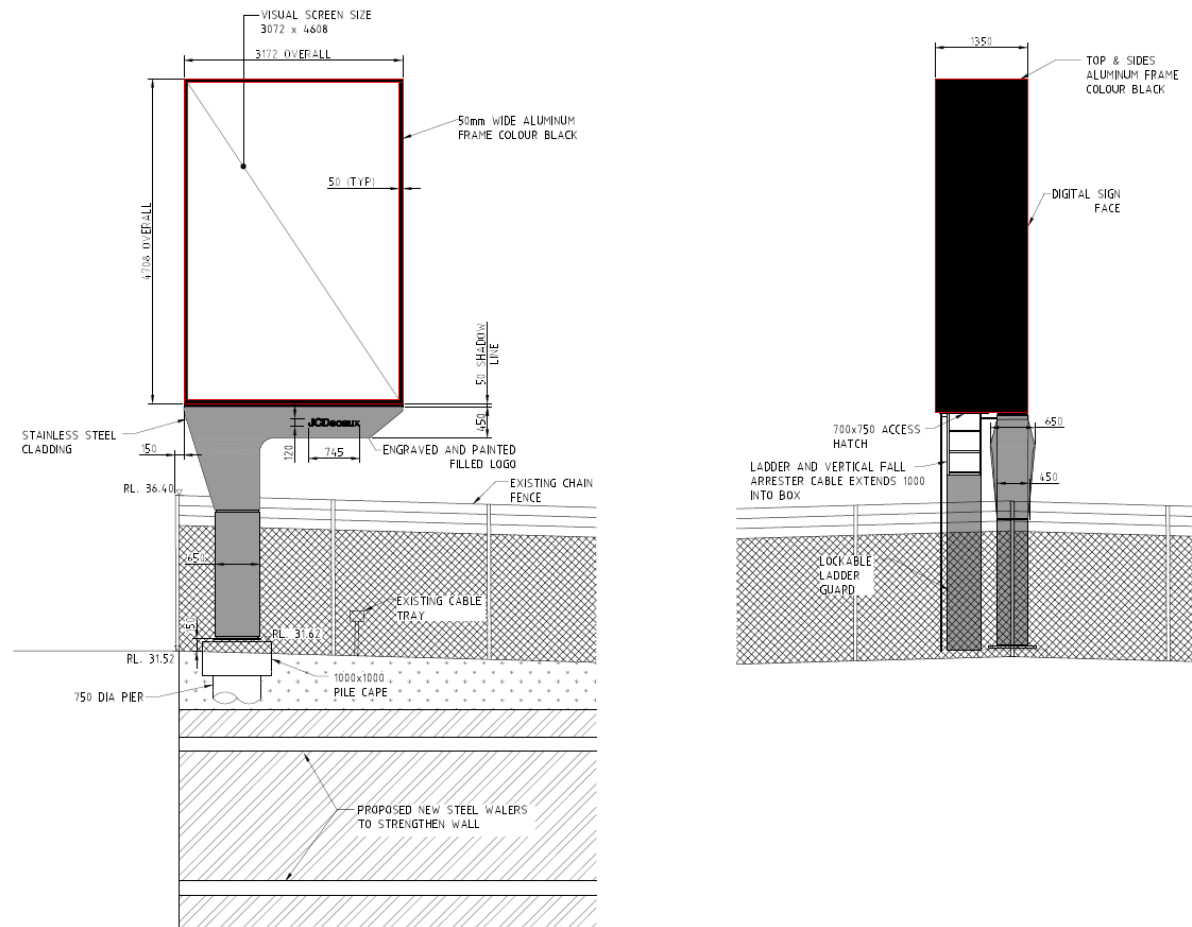
On the above basis, the advertising display area of the proposed digital sign would be 14.93 m² (3.172 m width by 4.708 m height) and mounted on a “7” shaped support column with a height of 3.35 m. The support column would be imprinted with the “JCDecaux” logo. The visual display area (the screen alone) would be 14.16 m² (3.072 m width by 4.608 m height).

The digital sign and support column would be installed on top of a new 1 m² pile cap and 0.75 m diameter pier driven into the ground soil for structural stability.

The proposed digital sign would be used by JCDecaux to promote its sponsors and third-party advertising. The digital sign would contain text and images.

The general layout and specifications of the proposed digital sign are illustrated in Figure 2.2.

Figure 2.2: Proposed Digital Sign (Elevation Plan)



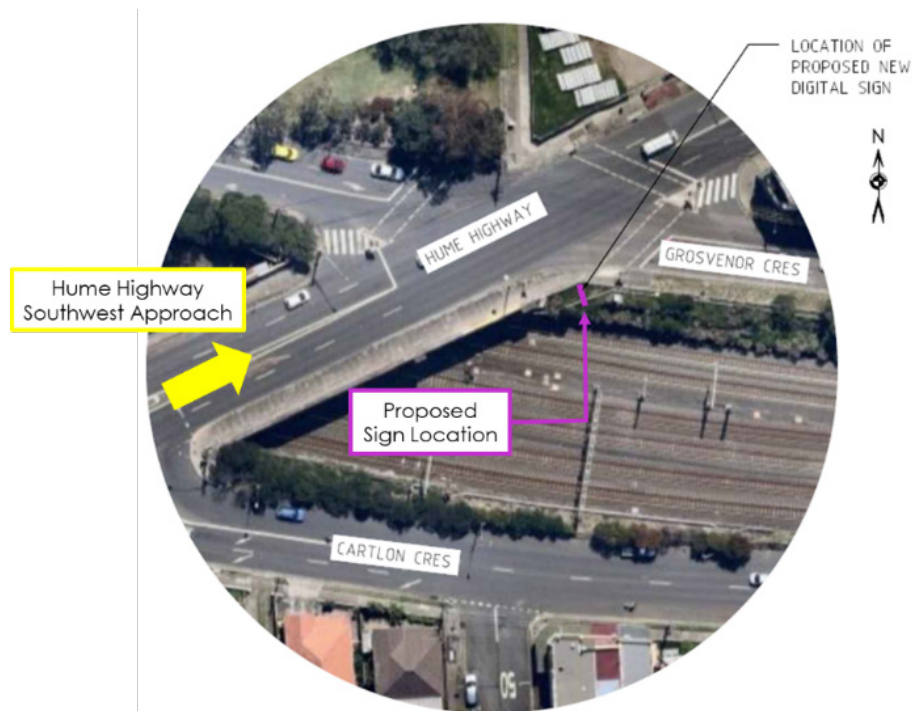
Source: JCDecaux dated 25/03/2022

2.3 Signage Exposure

The proposed digital sign would be visible to traffic on the Hume Highway south-west approach as shown in Figure 2.3.

A site visit was undertaken on Friday 14 January 2022 and Thursday 10 March 2022 to inspect driver sight distances on approach to the proposed digital sign. A description of the site investigation findings is provided herein.

Figure 2.3: Hume Highway South-West Approach



Source: JCDecaux

2.3.1 Hume Highway South-west Approach

The lane configuration on Hume Highway south-west approach is shown in Figure 2.4. Travel lanes are numbered 1 to 2 from left to right.

In addition, there is a short right turn lane to Carlton Crescent on the Hume Highway south-west approach to the proposed sign.

Figure 2.4: Hume Highway Southwest Approach Lane Configuration



Source: Photograph taken by TTPP dated 10/03/2022

The key findings are summarised below:

- The digital sign would be visible to motorists on the Hume Highway travelling in the north-east direction.
- Treating the observed conditions during the site inspection as typical conditions in the area, the digital sign would likely be visible in travel lanes as follows:
 - In Lane 1 (through lane), 160 m from the sign on approach.
 - In Lane 2 (through lane), 160 m from the sign on approach.
- In Lane 1, Lane 2, and the short right-turn lane to Carlton Crescent, the digital sign would likely be readable at 110 m on approach.

Figure 2.5 illustrates the perspective of the designer's impression of the proposed digital sign.

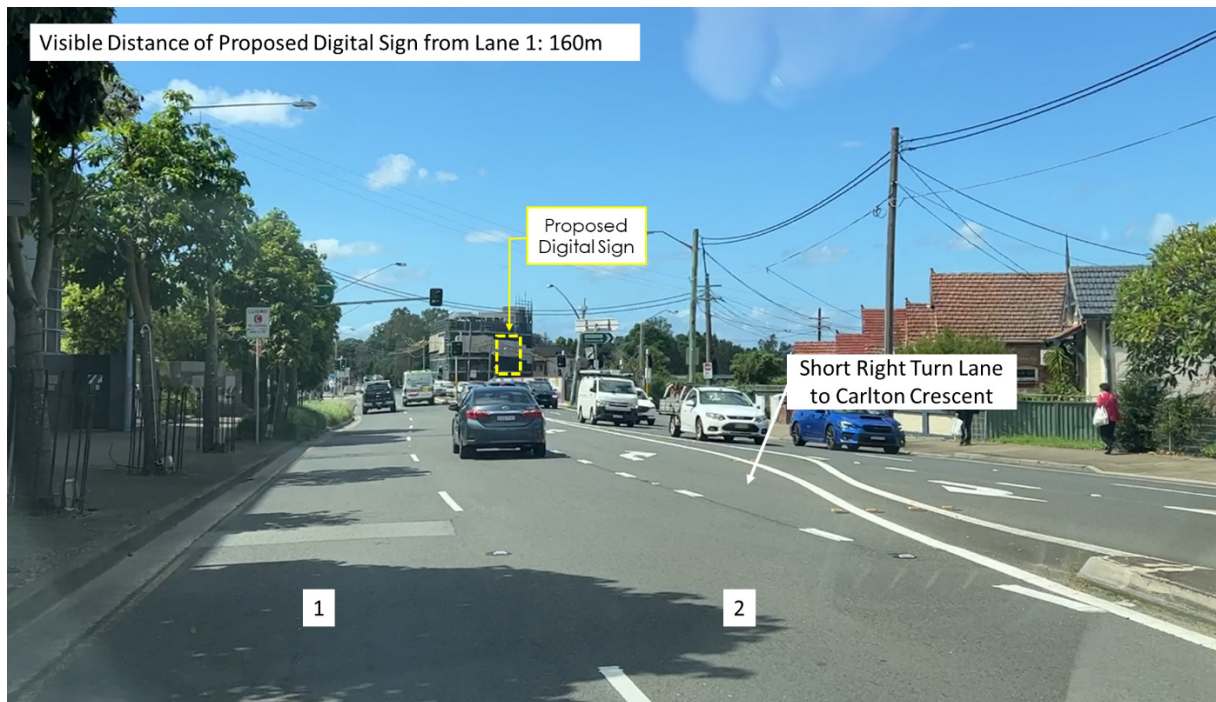
The likely visible distance and readable distance in each lane on approach to the digital sign are shown in Figure 2.6 to Figure 2.8.

Figure 2.5: Designer's Impression on South-West Approach



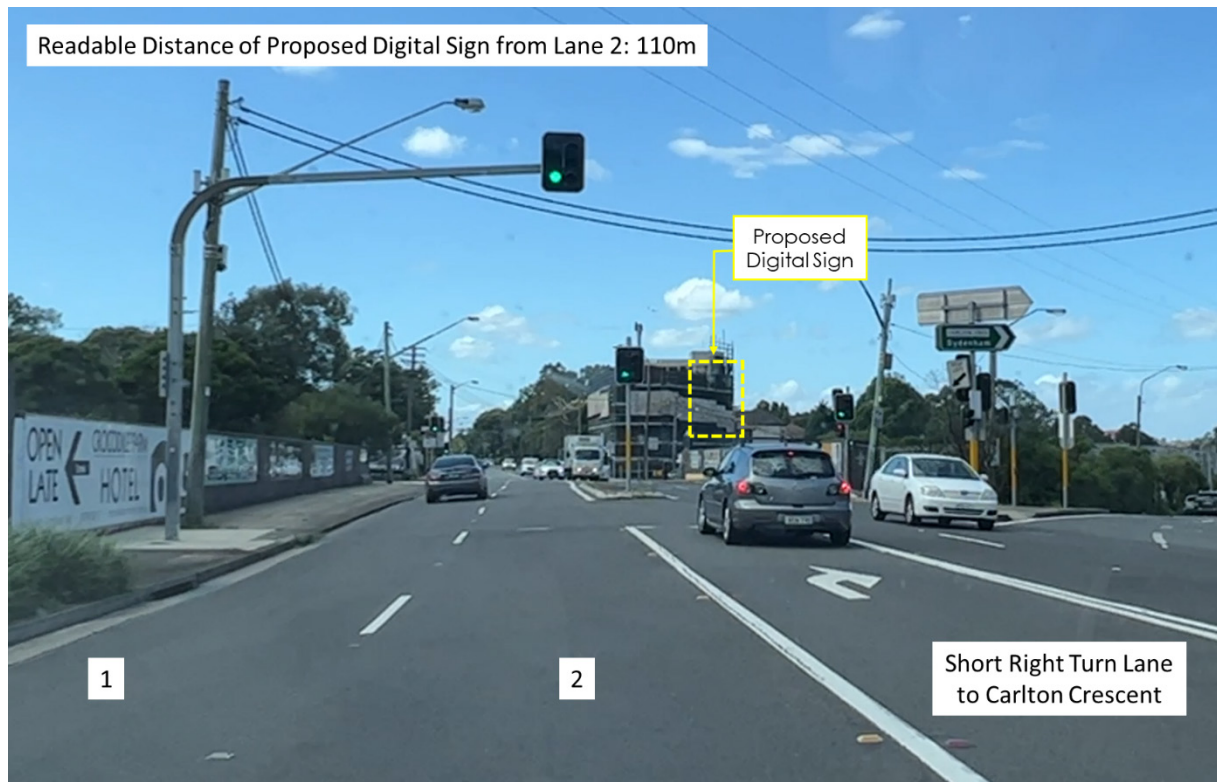
Source: JCDecaux

Figure 2.6: South-West Approach Sign Exposure – Lane 1



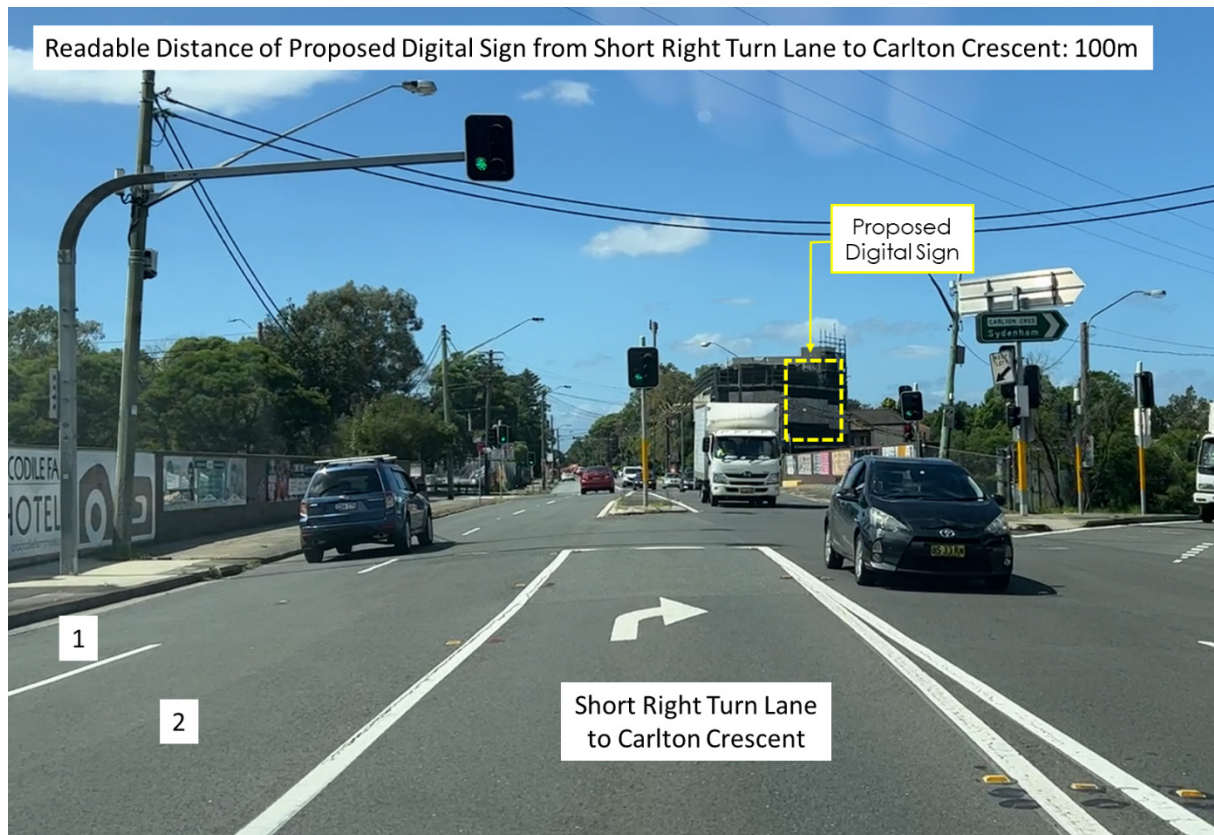
Source: Photograph taken by TPPP dated 10/03/2022

Figure 2.7: South-West Approach Sign Exposure – Lane 2



Source: Photographs taken by TTPP dated 10/03/2022

Figure 2.8: South-West Approach Sign Exposure – Right-Turn Lane to Carlton Crescent



Source: Photograph taken by TTPP dated 10/03/2022

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents on the Hume Highway southwest approach to the proposed digital sign. Crash history has been assessed 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.

Crash data has been reviewed within the visible distance of the sign location which is up to approximately 160 m away on the southwest approach, as observed on-site.

Six crashes were recorded at the Hume Highway - Elizabeth Street - Grosvenor Crescent intersection. Of these six incidents, three crashes were cross-traffic related resulting in two serious injuries and one moderate injury. In addition, three rear-end crashes were recorded at the intersection resulting in a serious or minor injuries, respectively.

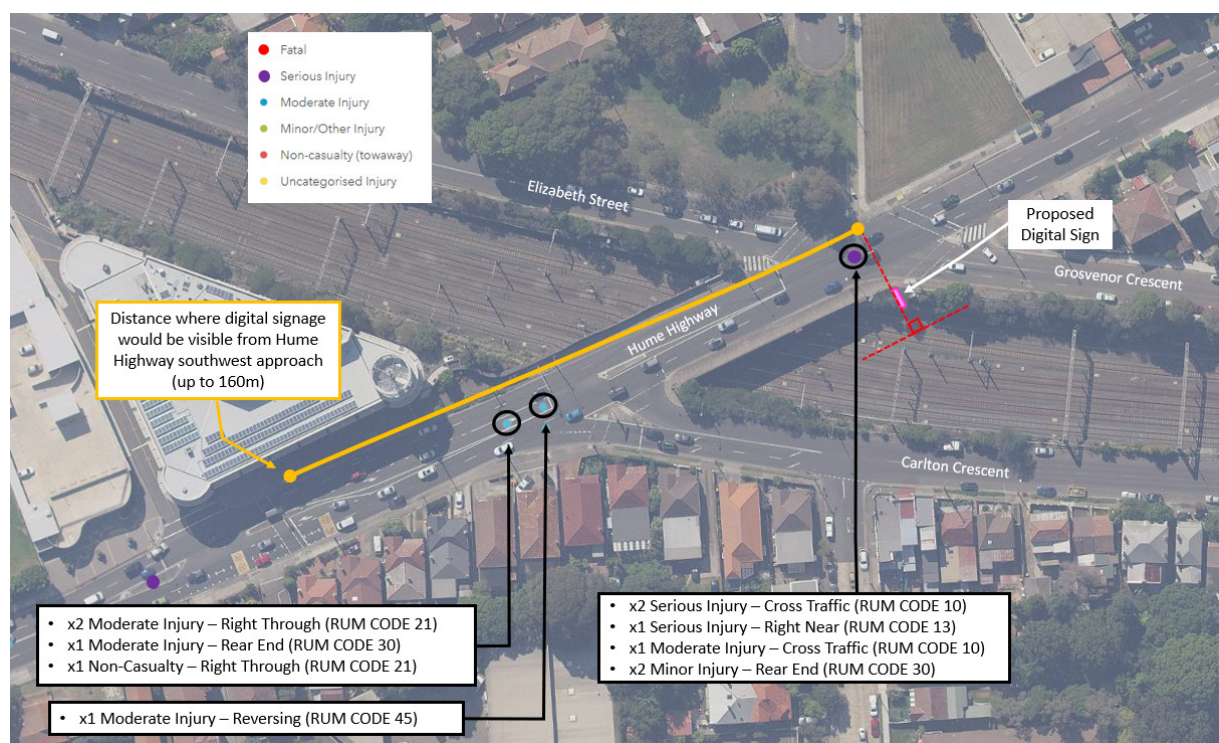
Five crashes were recorded on the Hume Highway short right-turn lane to Carlton Crescent. Of the five incidents, four crashes resulted in moderate injuries and one crash resulting in a vehicle being towed away. Recorded crash types include three cross-traffic incidents, one rear-end incident, and one reversing incident.

A summary of the crashes recorded 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 2.9.

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 visible distance of digital sign on Hume Highway (up to 160 m away from proposed digital sign)	Cross Traffic (RUM CODE 10)		2	1		
	Right Near (RUM CODE 13)		1			
	Right Through (RUM CODE 21)			2		1
	Rear End (RUM CODE 30)			1	2	
	Reversing (RUM CODE 45)			1		
Total		Nil.	3	5	2	1

Figure 2.9: 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 Industry and Employment State Environmental Planning Policy (SEPP) Schedule 5. 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 3.2 Advertisements and Road Safety of the NSW Guidelines.

3.1 Industry and Employment SEPP 2021 Schedule 5

Clauses 1 to 7 of the Industry and Employment SEPP 2021 – Schedule 5 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 corner of the Hume Highway and Grosvenor Crescent is unlikely to reduce safety for motorists, pedestrians, and 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 sections below.

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 m ² Display Area		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 be suitable for the proposed digital sign on the southwest approach. However, it is proposed to increase the dwell time to 15 seconds given that the digital sign will be in close proximity to traffic signals. Further detail is provided in Section 3.3.2.2.
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 4. Zone 4 covers areas with low levels of off-street ambient lighting e.g., most rural areas or areas that have residential properties nearby.
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.

Criteria, for Signs less than 20 m ² Display Area		Comments
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 would be visible after the "End School Zone" sign on Hume Highway. Further detail is provided in Section 3.3.2.2.
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 20m ² . Criteria is applicable to signs greater than 20 m ² .
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 20m ² . Criteria is applicable to signs greater than 20 m ² .
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 20m ² . Criteria is applicable to signs greater than 20 m ² .
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 20m ² . Criteria is applicable to signs greater than 20 m ² .

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 will not physically obstruct any vehicle, pedestrian and cyclist movements as it will be placed on the southern corner of Hume Highway and Grosvenor Crescent. The digital sign will not protrude over the footpath and road carriageway.

The concept design for the proposed sign and its positioning on the southern corner of the Hume Highway and Grosvenor Crescent is provided 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.

(c) Where a sign is proposed within the clear zone but behind an existing RMS-approved crash barrier, all its structure 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.

In accordance with Austroads Guide to Road Design Part 6, the clear zone requirement for a 60 km/h road is 5 m from the edge of the road carriageway. The proposed digital sign would be located approximately 4 m south of the edge of the carriageway which is 1 m within the clear zone requirement.

Noting this, it is generally difficult to maintain the required clear zone for roads in urban built-up areas.

In addition, the crash history analysis (Section 2.4) indicates there are no incidents which have occurred where a vehicle has run-off from the roadway and/or collided with a road-side object. Hence, the likelihood of a vehicle colliding into the proposed sign is considered to be low.

- (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 sign will be designed in accordance with Australian Standards AS1170.1 and AS1170.2 to meet the requirements for wind loading, whilst having consideration for the 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 will be positioned on the south-east corner of the Hume Highway and Grosvenor Crescent intersection. As such, the digital sign will not obstruct motorists' view of Hume Highway.

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

The proposed digital sign will not obstruct pedestrian and cyclist's view of Hume Highway.

- (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 photomontage should be used to assess this issue.**

The proposed sign is located to the side of the road carriageway within motorists' peripheral vision. On approach to the proposed sign, the road alignment of the Hume Highway is straight. Therefore, the digital sign or advertisement displayed on the sign would not indicate misleading information contrary to the existing roadway. This is supported by the designer's impression of the proposed sign as depicted in Figure 2.5.

- (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 the right 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 the motorist's peripheral view when travelling in the north-east direction with visible distances of up to 160 m. 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.

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 ramps, 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 is visible from the stem of a T-intersection.**

As referenced in the Austroads 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 safe stopping sight distance. A 60 km/h speed has been adopted based on the signposted speed limit on the Hume Highway as well as the speed which motorists were observed to be driving during the site inspection. According to the Austroads guide, the minimum safe stopping sight distance for a 60 km/h speed zone is 64 m.

The proposed digital sign would be located beyond the stop line at the Hume Highway south-west approach. Therefore, the digital sign would not be located within the SSD of the stop line at the Hume Highway - Elizabeth Street - Grosvenor Crescent intersection, as shown in Figure 3.1.

Figure 3.1: Minimum Safe Stopping Sight Distance on South-West Approach



Map Source: Nearmap, aerial imagery dated 21/12/2021

- (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.

The proposed digital sign would be positioned beyond the traffic signals at the Hume Highway south-west approach. 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 will be accessed by RMS as part of their concurrence role.**

There are no other digital signs or static billboards placed 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 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, it is proposed that the sign would not display colours and shapes which could be mistaken for a traffic signal or traffic signs.

Notwithstanding this, it is recommended that the content of the proposed sign be reviewed against Table 5 of the 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 sign would be 10 seconds.

Notwithstanding this, increasing the minimum dwell time could be considered a measure to mitigate any preserved safety risk of the proposed sign located in the vicinity of traffic signals. Thus, it is suggested that the dwell time is increased to a minimum of 15 seconds for the sign.

The basis for this recommendation is the Land and Environment Court Case, Outdoor Systems Pty Ltd v Georges River Council and Roads and Maritime Services [2017] NSWLEC 1505. In this case, a digital sign was proposed to be installed at the intersection of the Princes Highway and Rocky Point Road in Kogarah. The applicant proposed to modify the dwell time of the digital signage to 15 seconds (from 24 hours, as previously approved by RMS as the minimum dwell time). The LEC deemed the reduced dwell time to 15 seconds appropriate on the basis

that the crash history at the proposed signage location did not suggest that it was a “crash hotspot”. This decision was driven by expert evidence provided by registered psychologist and RMS accredited Level 3 Road Safety Auditor, Carolyn Samsa, who spent five years working in the NSW Centre for Road Safety at the RTA and nine years in the industry advising associations representing outdoor advertising.

The LEC decision was further supported by the fact that during a 3-month period where the digital signage operated with a 10 second dwell time, there were no crashes reported in the vicinity of the sign. Furthermore, it was acknowledged in the court case that there were other digital billboards that were previously approved and operational at signalised intersections within the Sydney basin with dwell times of approximately 10 seconds and yet there were no reported incidents of drivers being distracted by these signs as far as Samsa had been aware.

On this basis, a dwell time of 15 seconds, a five second increase on the minimum 10 seconds dwell time prescribed by the Guidelines, is deemed to be an appropriate measure for consideration.

(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.

The Hume Highway is an RMS-classified road, and the proposed digital sign would become visible after the “End School Zone” sign has been passed approximately 160m west of the proposed sign, as shown in Figure 3.2.

Although the advertising sign board would be visible from this point, the sign content would not be visible to motorists given the long distance. Figure 3.3 illustrates the designer's impression of the proposed sign 160 m away from the sign, just after the End School Zone sign, where the digital sign contents are not distinguishable. Furthermore, visibility of the proposed sign would occasionally be obstructed by passing vehicles as the sign would be located on the far side of the carriageway. As such, maintaining the standard operation of the display of would not adversely impact motorists at this location.

Figure 3.2: End School Zone Sign



Map Source: Nearmap, aerial imagery dated 21/12/2021

Figure 3.3: Motorist's View at End School Zone Sign



Source: JCDecaux

- (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 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.

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 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 digital 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 new digital sign on the southern corner of the Hume Highway and Grosvenor Crescent in Ashfield.

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) 2021.

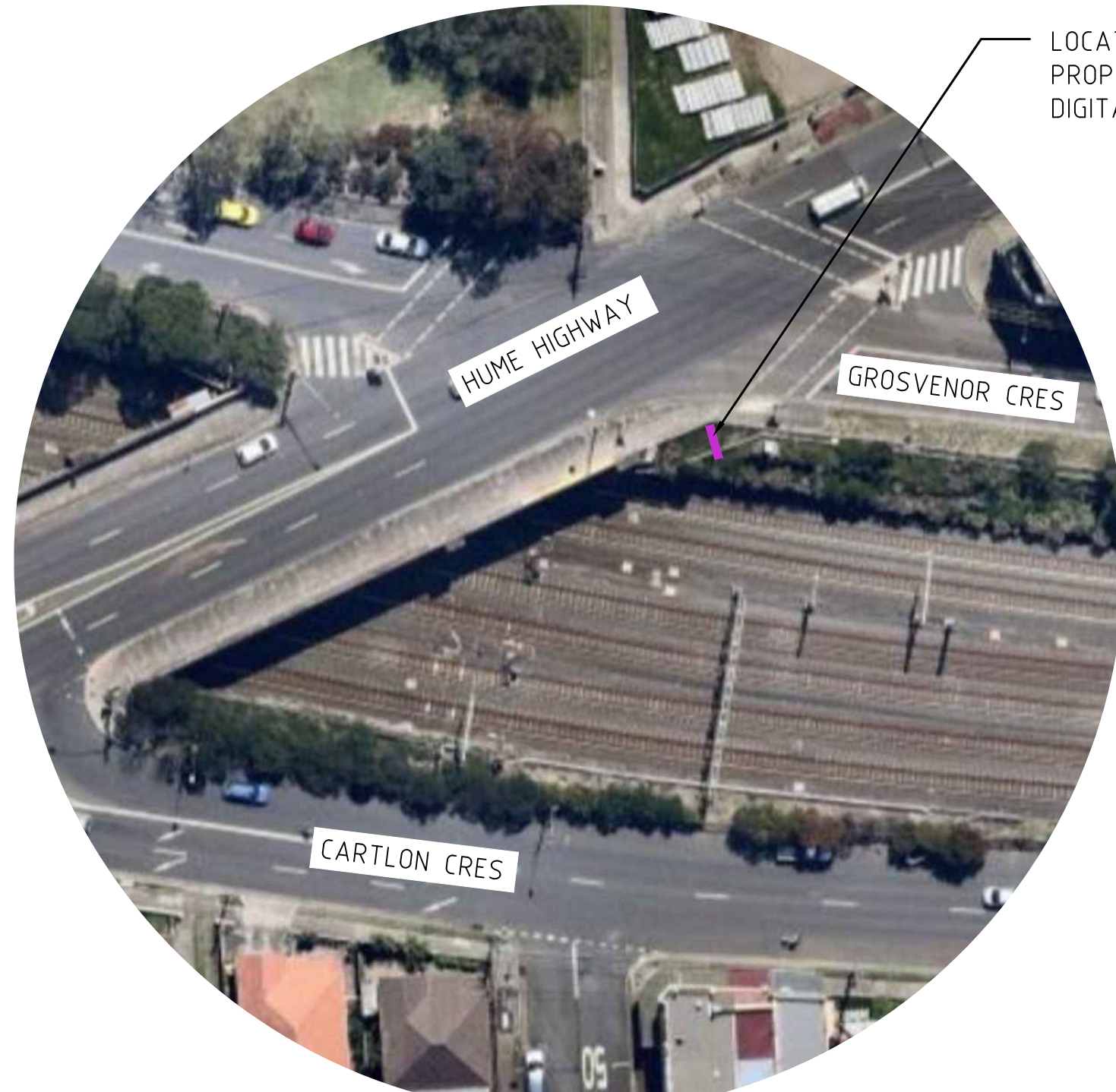
The following findings and conclusions are made from the signage safety assessment:

- The proposed sign would face the Hume Highway south-west approach within the motorists' peripheral vision.
- A total of 11 crashes have been recorded within the visible distance of the proposed digital sign on the Hume Highway south-west approach in the most recent five years that data was collated and published by TfNSW.
- The proposed digital sign would not obstruct/reduce visibility of any traffic control devices, signage, pedestrians, or cyclists.
- The proposed sign would not give incorrect information on the road alignment.
- The proposed sign would not be located within the safe stopping sight distance to traffic signals, crossings or directional/information signage or any other decision point.
- 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 one digital sign on the south side of Hume Highway would be acceptable.

Appendix A

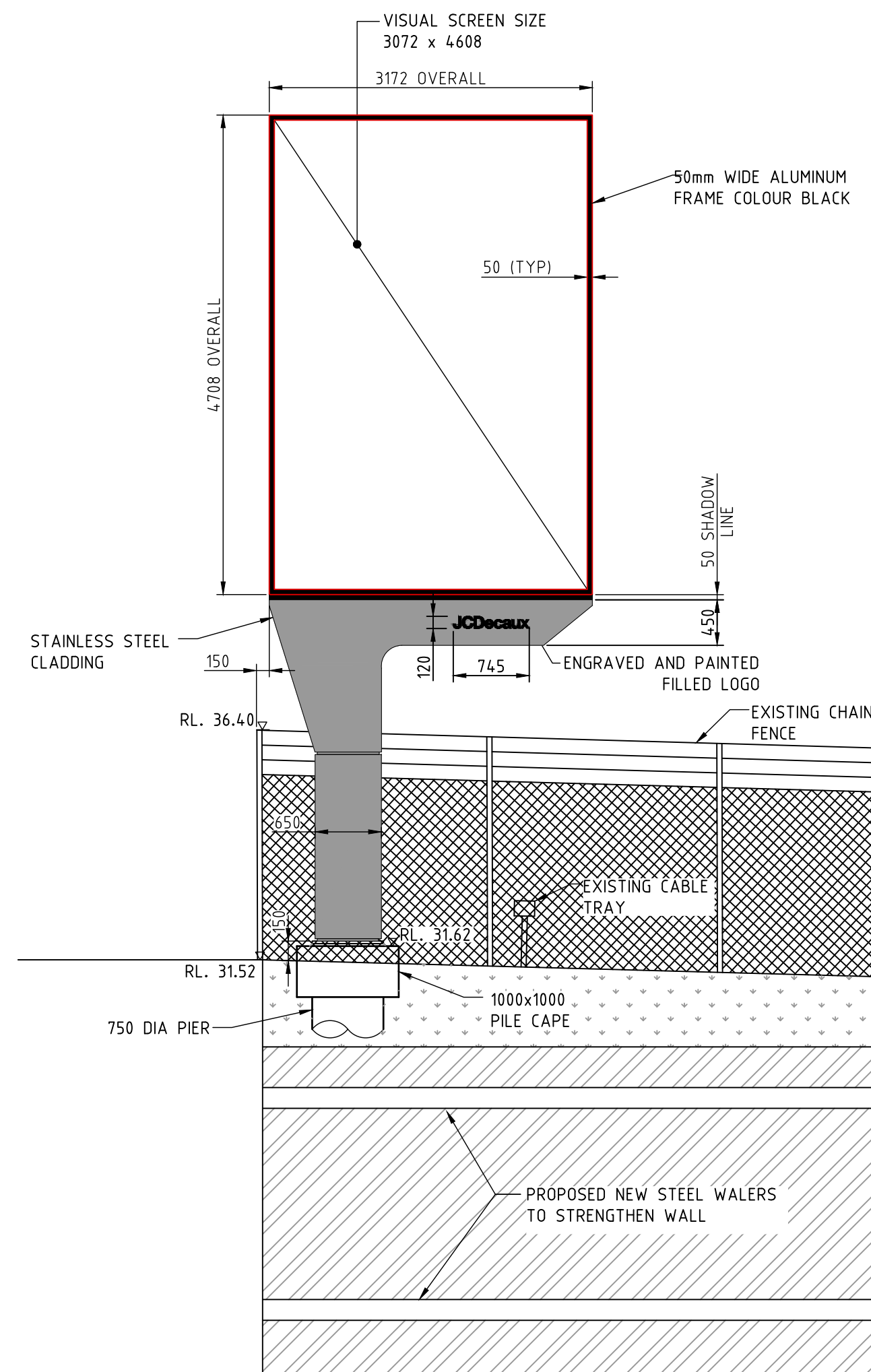
Concept Design Plans



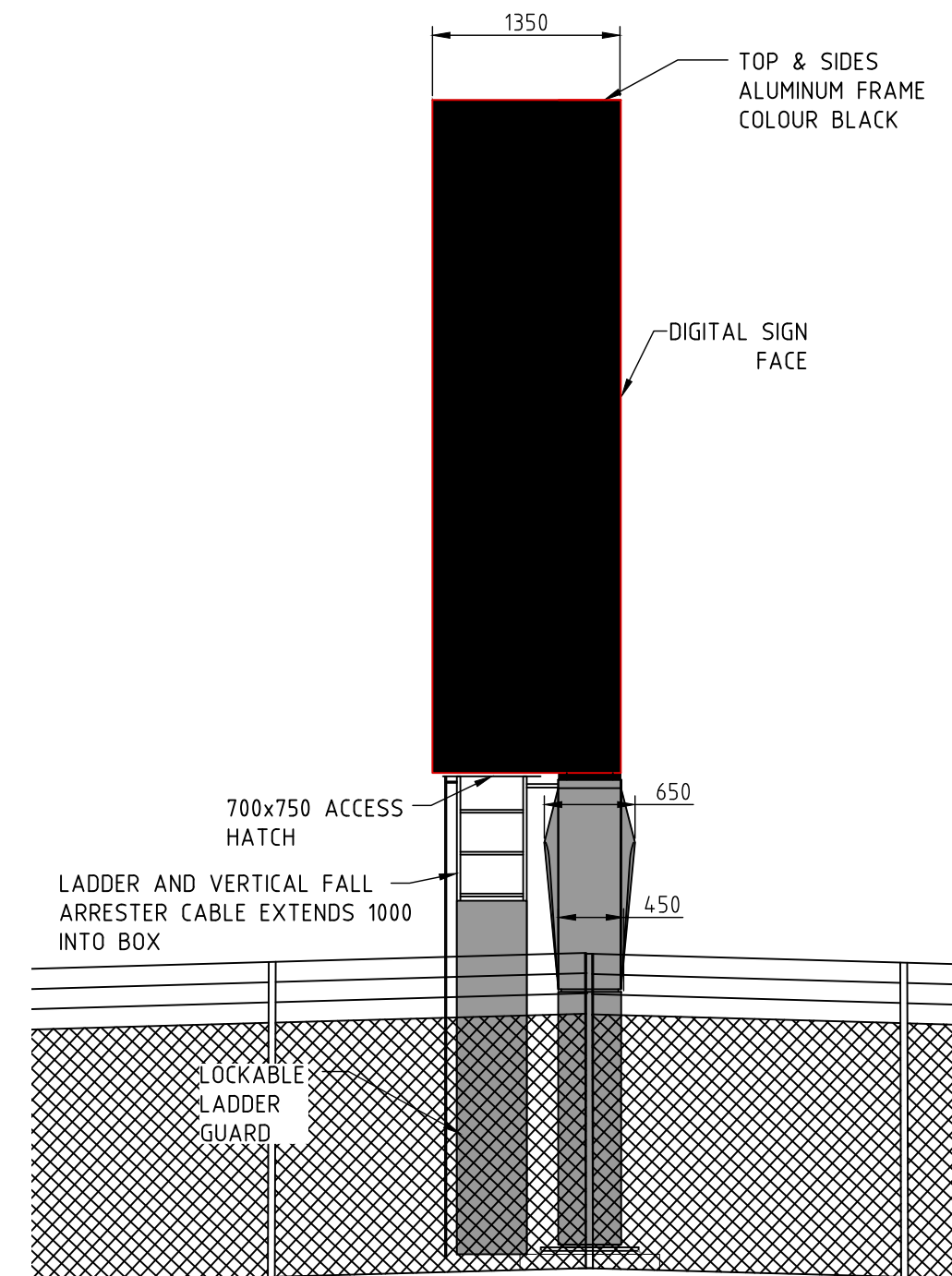
LOCATION OF
PROPOSED NEW
DIGITAL SIGN



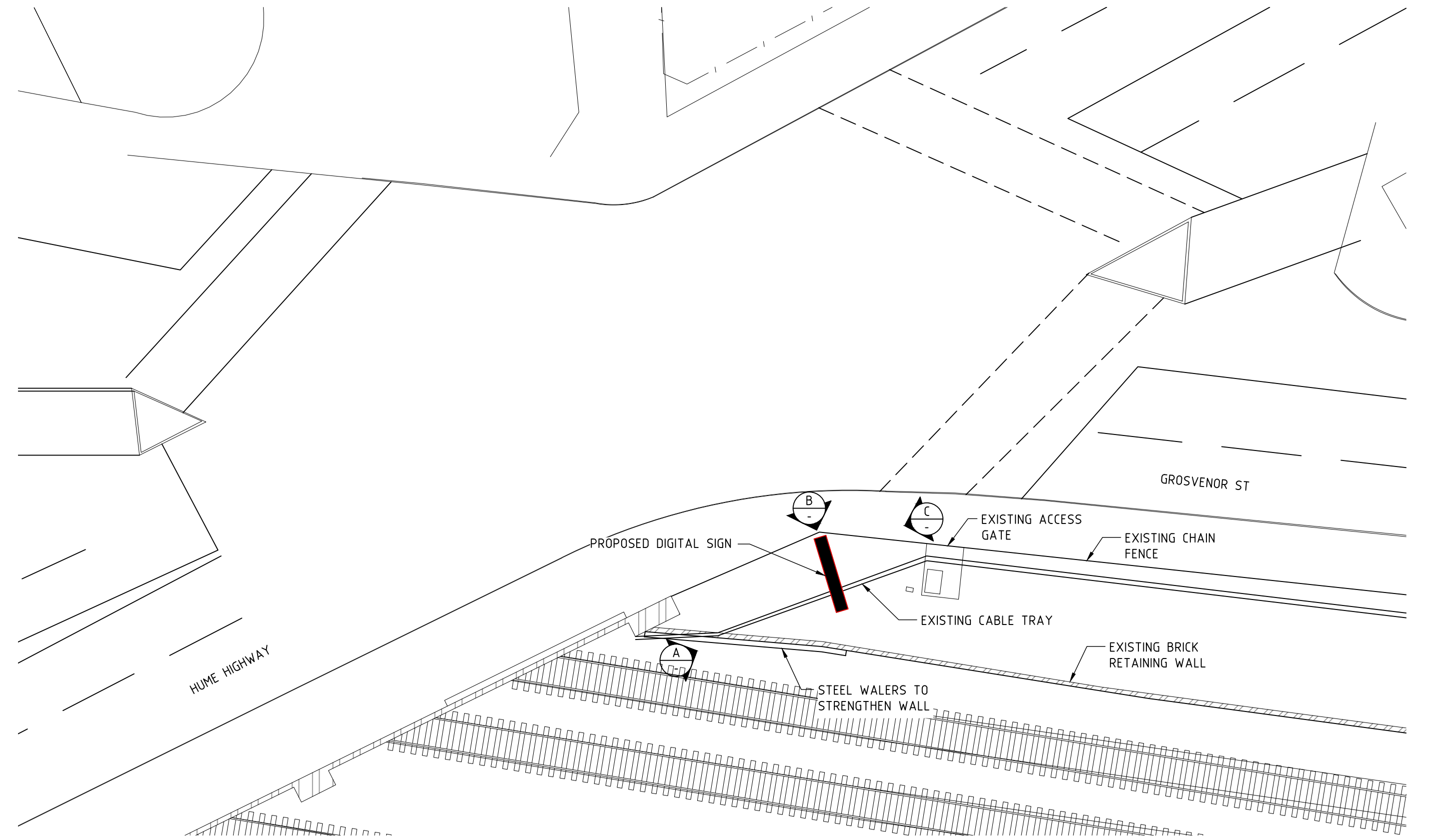
AERIAL PHOTO
NTS



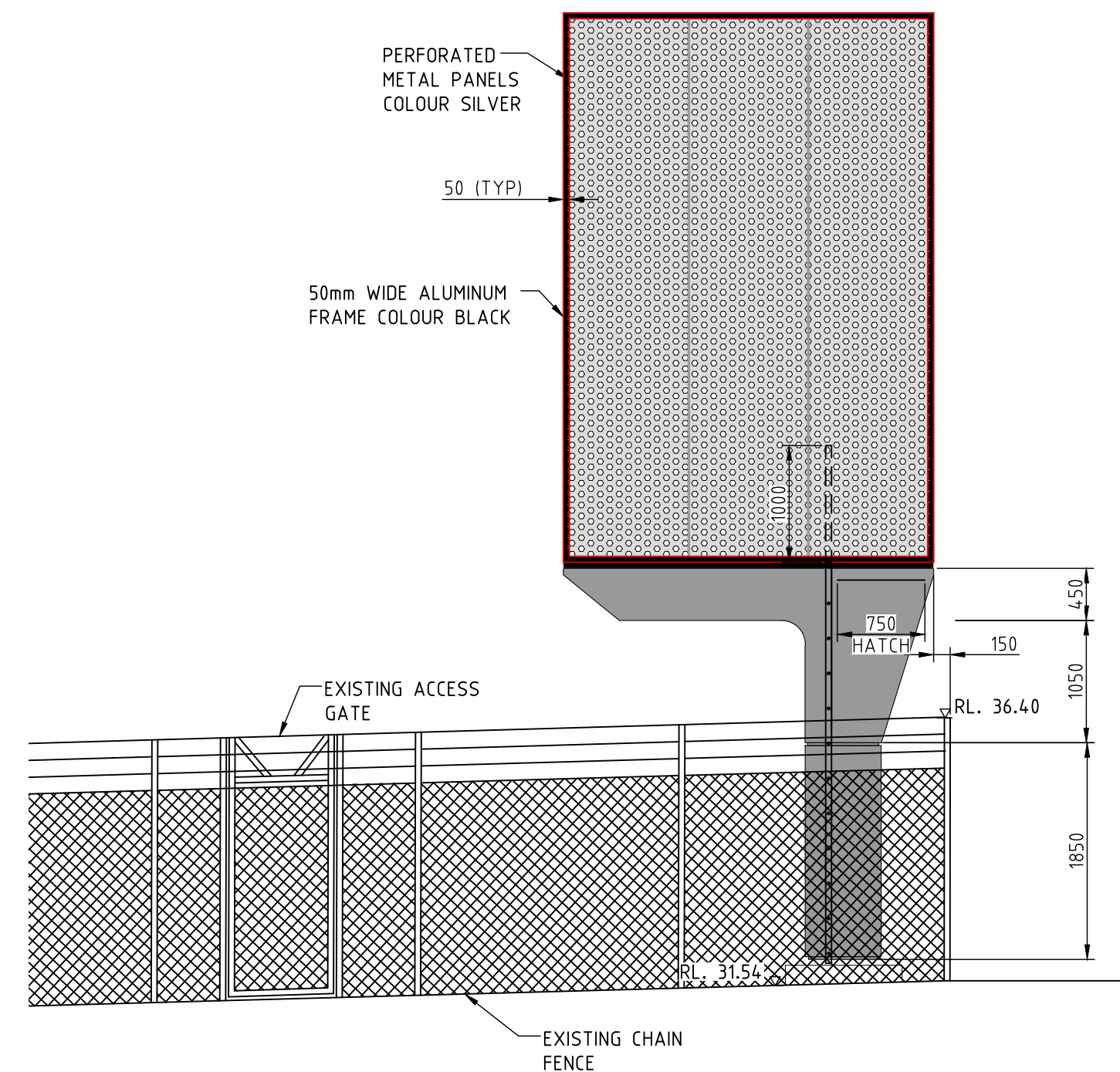
ELEVATION A
SCALE 1:50



ELEVATION B
SCALE 1:50



SITE PLAN
SCALE 1:150



ELEVATION C
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	22/12/21	ISSUED FOR APPROVAL
B	25/02/22	ISSUED FOR APPROVAL
C	18/03/22	ISSUED FOR APPROVAL
D	25/03/22	ISSUED FOR APPROVAL



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CLIENT:
JCDecaux
PROJECT:
HUME HWY, ASHFIELD
PORTRAIT 50

TITLE:
PROPOSED DIGITAL SIGN
GENERAL ARRANGEMENT &
SITE PLAN

DRAWN A.T.	DESIGN J.L.	DATE: DEC' 21
JOB NO: 21325	DWG NO: DA01	
SCALE @ A1: AS SHOWN	REV: D	

Appendix B

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

State Environmental Planning Policy (Industry and Employment) 2021

Current version for 1 March 2022 to date (accessed 22 March 2022 at 15:07)

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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