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**Your reference:** Cleveland St-Regent St (Outbound) RFI

**22 June 2023**

JCDecaux  
Level 6, 1 York Street  
Sydney NSW 2000

Attention: **Timothy Brosnan**

Sent via email: timothy.brosnan@jcdecaux.com

Dear Timothy,

**RE: CLEVELAND STREET / REGENT STREET, CHIPPENDALE  
PROPOSED DIGITAL SIGN – OUTBOUND LOCATION (DA22/6816)  
RESPONSE TO DPE REQUEST FOR ADDITIONAL INFORMATION**

## **1.0 INTRODUCTION**

Bitzios Consulting (Bitzios) was engaged by JCDecaux to undertake a traffic safety assessment for a proposed digital LED advertising sign on the south-western corner of the Cleveland Street / Regent Street signalised intersection in Chippendale (ref: P5392.006R Cleveland St-Regent St Redfern OB Digital Sign TSA, dated 14 February 2023).

### **1.1. TfNSW Comments**

In its letter of 11 May 2023 (Ref: SYD22/00390), **TfNSW** stated that it was not a concurrence agency for this application but in any case did not reject the proposal as one that created traffic safety issues. Instead, TfNSW recommended a number of conditions to be included in any consent issued for it. The first of these conditions stated:

*“The proposed signs shall be in accordance with the Transport Corridor Outdoor Advertising and Signage Guidelines 2017”.*

TfNSW's proposed conditions are not contentious to an approval.

### **1.2. DPE Comments**

In its letter of 7 June 2023, the **Department of Planning and Environment (DPE)** requested additional information under five items in its Schedule 1 to the letter. Item 2 in Schedule 1, was relevant to road safety and is reproduced as follows:

#### **“2. Road Safety**

*The Department raises concern with the location of the proposed sign at the Cleveland/Regent intersection. As such, it is requested that you identify any road safety issues and mitigating measures associated with the location and design of the proposed signage relative to the signalised intersection, including the consideration of line of sight, decision/conflict points, minimum sign placing distance and any other relevant requirements of the Signage Guidelines.”*

### 1.3. CoS Comments

The **City of Sydney (CoS)** responded to the application via its letter (undated, reference R/2023/11). Under the heading of “Traffic Impacts” the letter stated:

*“Concern is raised regarding the location of the sign being on the opposite side of the road to the drivers who will be able to see it, resulting in drivers viewing the sign longer than if it was adjacent to them.”*

Our response to each agency’s comments are provided below.

## 2.0 ADDITIONAL INFORMATION IN RESPONSE

### 2.1. TfNSW Response

The digital sign will be located where it can be viewed within the stopping distance of the signalised intersection of Cleveland Street and Regent Street. The signage guidelines state that:

*“The sign should not be located less than the safe sight distance from an intersection....”*

That is, digital signs can, and usually are, located less than the safe sight distance from an intersection. There is no basis in science for this guideline requirement. Traffic movements approaching an intersection (braking, changing lanes, observing signal changes etc.) occur from well beyond the stopping distance which are locations where digital signs can typically still be viewed from.

There are hundreds of signs in such locations across Australia that have been in place for over a decade without any “groundswell” of feedback on their distraction influence on crashes. Further information on distraction influences are provided in the response to DPE’s comments below.

### 2.2. DPE Response

Many of the additional information items in DPE’s request were already addressed in the Traffic Safety Assessment (*the TSA report*) of 7 June 2023. References to this information are provided below along with further details in response to each issue raised by DPE:

- **Line of sight considerations to traffic signals:** There are no line of sight impacts. The proposed digital sign does not block line of sight to any traffic signal for any driver (see Figure 5.1 of the TSA report)
- **Decision/conflict points:** Despite what is published in the Signage Guidelines, there is no specific location that can be pointed to on the southbound approach to the Cleveland Street / Regent Street intersection that is a “decision point”. Decisions are made by drivers continuously at all locations on approach to the intersection depending on prevailing traffic conditions and signal phase. On approach to this intersection from Regent Street southbound, the decisions to be made include: (1) to diverge into the left turn pocket to turn left at the intersection, or to stay in the other three lanes to go straight ahead and (2) whether to brake or not. These two decisions are made with unimpeded sight lines over multiple seconds on approach to the intersection and any back of queue and are decisions that impose a minimal cognitive load on the driver. The proposed digital sign in the background would have absolutely no influence on the ability of a driver to make those decisions in the same way and at the same time that they currently do. Furthermore, the southbound approach to the intersection has a very low crash rate for such a high volume road (Table 5.1 of the TSA report) reinforcing that the approach to the intersection (and hence to the digital sign) is not a complex section of road for drivers.

- **Signage Guidelines and sign location distances from intersections:** The signage guidelines discourage locating digital signs with the stopping sight distance of intersections. There is no basis in science or logic to this requirement. Stopping sight distance to an intersection is misused in this context because its basis is to prevent physical blocking of vision of a location that a vehicle may need to stop at including blockages due to road alignments, trees or buildings. It has absolutely nothing to do with glances away from the forward roadway which occur continuously in all locations as humans move and scan their environments consciously or sub-consciously. There are hundreds of digital signs near signalised intersections across Australia with no research identifying higher crash rates due to digital signs.
- **Other Signage Guidelines considerations:** The digital sign does not sit behind traffic signals as suggested by the guidelines as being important. Furthermore, when the traffic signals change (say from green to amber) on the southbound approach to the intersection a driver in a lead vehicle position of the platoon would be confronted by four signal lanterns changing at exactly the same time in multiple points in the foreground of their field of view range. Such a visual event would be exceedingly more 'attention-grabbing' than a change in a digital sign display in one location in the background. Also, drivers approaching the intersection and glancing to the digital sign (mean glance duration = 0.5 seconds) would instantaneously recognise brake lights ahead because they would be in the same field of view as the glance and be prominent within it due to the proximity of that forward vehicle. For this reason, there would be no change whatsoever to driver reaction times to brake lights in front of them

### 2.3. CoS Response

The comment raised by CoS is inconsistent with research into glance duration and frequency to digital signs. The research suggests that the glance duration in urban areas is consistently 0.5 seconds (mean) to 0.75 seconds (maximum) for drivers of moving vehicles regardless of where the sign is in the driver's field of view. What does change is the saccade time which is the fractions of a second it takes for the eyes to move from one glance location to another.

In the eastbound direction, the proposed digital sign is at a very small angle to the ordinary forward view to traffic ahead meaning that saccade times would be well below 0.1 of a second for each glance. They would probably be longer if the digital sign was on the left side of the intersection at this location (eastbound) because due to the curve in the eastbound approach, the glance angle would be marginally greater (although still insignificant).

### 3.0 CONCLUSION

Considering the above supplementary information, we contend that there is no reasonable basis to refuse the application based on traffic safety grounds.

Yours faithfully



**Damien Bitzios**

**Director**

**BITZIOS CONSULTING**