

**Gold Coast Office**

**S:** Suite 26, 58 Riverwalk Avenue  
Robina QLD 4226  
**M:** PO Box 5102 Q Super Centre  
Mermaid Waters QLD 4218  
**P:** (07) 5562 5377  
**F:** (07) 5562 5733  
**W:** www.bitziosconsulting.com.au

**Brisbane Office**

**S:** Level 2, 428 Upper Edward Street  
Spring Hill QLD 4000  
**M:** Level 2, 428 Upper Edward Street  
Spring Hill QLD 4000  
**P:** (07) 3831 4442  
**F:** (07) 3831 4455  
**E:** admin@bitziosconsulting.com.au

**Sydney Office**

**S:** Studio 203, 3 Gladstone Street  
Newtown NSW 2042  
**M:** Studio 203, 3 Gladstone Street  
Newtown NSW 2042  
**P:** (02) 9557 6202  
**F:** (02) 9557 6219

**Your reference:** Help Street, Chatswood - RtS and RFI

**19 August 2022**

JCDecaux  
Level 6, 1 York Street  
Sydney NSW 2000

Attention: **Timothy Brosnan**

*Sent via email: timothy.brosnan@jcdecaux.com*

Dear Timothy,

**RE: HELP STREET, CHATSWOOD – PROPOSED DIGITAL SIGN  
WILLOUGHBY CITY COUNCIL COMMENTS AND RESPONSES**

**1.0 INTRODUCTION**

Bitzios Consulting (Bitzios) has been engaged by JCDecaux to undertake a traffic safety assessment for the installation of a digital LED advertising sign on the south-western corner of the Help Street/ Orchard Road signalised intersection in Chatswood (*P5392.005R Help Street Chatswood Digital Sign TSA*, dated 17 May 2022).

On 28 July 2022, Willoughby City Council (Council) provided comments on the above proposal based on Council Traffic Officer feedback, citing significant concerns on safety grounds. “The proposal will reduce safety for all road and pathway users at this intersection as a result of the high level of distraction to all road transport users in a complex location requiring a high level of concentration from all road transport users.”

This letter provides Bitzios’ responses to Council’s comments.

## 2.0 RESPONSES TO WILLOUGHBY CITY COUNCIL'S COMMENTS

Bitzios' responses to Council's comments are provided in Table 2.1.

**Table 2.1: Willoughby City Council Comments and Responses**

Comment	Bitzios Response
<p>The proposal is located within an existing heavily utilised intersection within Chatswood CBD. High numbers of pedestrians, motor cars, buses and commercial / service vehicle movements use this intersection at all times of the day. The intersection is also part of Council's bicycle network with links through the intersection into/ out of the Chatswood CBD and northern destinations.</p>	<p>Presumably the inference in Council's comment is that the presence of multiple modes of transport at all times of the time means that this location has an inherently higher background risk of crashes and should be treated with extra caution when considering digital signs within it. The Help Street approach to the intersection recorded zero crashes over the 5 years assessment period between 2016-2020. Whilst it is a busy intersection with multiple modes of transport, the data shows that it is not an inherently unsafe intersection most probably because all off the multiple movements and modes are very well-controlled in dedicated lanes and phases at the signals.</p>
<p>The intersection and land uses provide a road environment requiring high levels of attention and Austroads (2013) notes that "Advertising devices should not be located so that they are visible at the approach to, or from, an intersection, pedestrian crossing, tram stop or in any location that is likely to be highly demanding of attention."</p>	<p>If generalising, yes, some parts of the intersection involve a high cognitive load imposed on drivers with multiple decisions needing to be made in quick succession. The Help Street approach to the intersection is not one of them.</p> <p>The curved alignment along Help Street towards the intersection is not complex, and simple driving decisions to go or stop are made at a relatively slow speed because of the alignment. All decision triggers are in the forward field of view and a glance to the digital sign would not distract from them.</p> <p>Beyond 50m to the proposed digital sign on approach to the intersection, the sign could not be seen because of the sharp concave bend in the Help Street which means that the buildings to the left and their awnings, and trees, would obscure it from view. As such, drivers would not see the sign on approach to the signal stop line, and hence any decision to stop at, or to pass through the signalised crossing would occur before drivers are in view of the sign. That is, no decisions in relation to the signals are required where the sign is visible.</p> <p>Additionally, it was observed on-site that a red arrow stopping left turns from Help Street into Orchard Road is displayed during both the walk time and the clearance time for the pedestrian crossing across Orchard Road (a total of 22 seconds), providing full protection for pedestrians making this movement.</p>

Comment	Bitzios Response
<p>It is considered that the design and operation of the proposed digital sign will be very conspicuous to road users. Austroads (2013) notes that “A significant emerging safety issue is the use of digital display technology for outdoor advertising signs. This new technology will enable the advertising industry to display more attention-getting messages that are likely to cause drivers to be less attentive to the driving task.”</p>	<p>The subsequent Wachtel (2009) excerpt cited in Austroads (2013) claims that the newest digital billboards are capable of ‘interacting’ with approaching drivers, such as triggering personalised messages and encouraging drivers to ‘text’ a message or call a number displayed on the billboard. The proposed digital sign does not do this.</p> <p>Furthermore, the contention that the sign could potentially cause drivers to be less attentive to the driving task has no basis in the research around how drivers prioritise driving-critical tasks over all other tasks when in a moving vehicle, the fact that drivers have maximum glance times to digital signs of 0.5 seconds and that drivers, having already glanced to the sign on approach, would have a diminishing need to do so when much higher driving motivations and motivations for self-preservation exist.</p>
<p>In regards to safety impacts it is considered that the proposed digital sign will increase road user distraction and reduce the level of safety at this heavily utilised intersection. It is noted that Austroads (2013) advises that “It is now widely recognised that distraction is a significant contributor to crashes. While there has been a focus on in-vehicle distraction, especially from mobile phone use, in recent years there has been a growing recognition that distraction may arise from sources outside the vehicle. In particular, roadside advertising has been suggested to have the potential to create a crash risk in this way. With the emergence of digital technology it is now the case that advertising scenes can change frequently and may even contain motion and it is this potential for movement in the visual scene that is of special concern from a distraction perspective.” It is also noted that Austroads (2021) advises that “Distracted road users are subject to higher crash risk. Distractions are events and activities that divert driver attention away from the driving task such as dialling on a handheld phone or changing the radio channel.”</p>	<p>Most of the research focuses on in-vehicle distractions because these are (by far) the leading cause of distraction-related crashes. A digital sign has no negative influence on in-vehicle distractions and may (logically) have some positive influence.</p> <p>Driver inattention, as reported by Austroads (2013 and 2021) is poorly correlated to driver distraction due to external stimuli and is more closely related to in-vehicle distractions and the mental state of drivers processing thoughts unrelated to driving, whilst driving. This also applies to pedestrians.</p> <p>The term distraction has been misinterpreted in this context. Distraction events should be interpreted as events that take a driver’s eye away from the forward roadway so that drivers are unable to observe driving critical stimuli in the forward view. This proposed digital sign does not do this because it is in the forward view.</p>
<p>It is recommended that NSW Department of Planning and Environment Transport Corridor Outdoor Advertising and Signage Guidelines Assessing Development Applications Under SEPP 64 (2017) be met, and if not specifically relating to this proposal, than the intent and criteria of the safety approach indicated in this Guideline via “To minimise distraction near decision making points and conflict points, and ensure there is sufficient distance for a driver to recognise, react and, if required, stop safely before reaching one of these points’ should be met.</p>	<p>See above responses.</p> <p>Additionally, with the location of the sign in the forward view on Help Street its location will “ensure there is sufficient distance for a driver to recognise, react and, if required, stop safely before reaching one of these points”.</p>

Comment	Bitzios Response
The proposal also fails to achieve the safety objectives in Part G.5 (Advertisements and Advertising Structures) of the Willoughby DCP. One objective of Part G.5 is that signage <i>does not cause distraction to motorists by means of flashing, moving/changing or the like</i> . For the reasons set out above, it is submitted that the proposal will not achieve this objective.	Although a digital LED sign is proposed, the display of content will be completely static (i.e. not involve flashing or moving/changing images) for a minimum dwell time of 10 seconds with a transition time of no more than 0.1 seconds. It will not cause distraction away from the forward roadway which means the intent of the strategy.
It is noted that the Land and Environment Court recently refused an application for digital signage on Pacific Highway on safety grounds ( <a href="https://www.caselaw.nsw.gov.au/decision/1818932f43934efc17a56ce1">https://www.caselaw.nsw.gov.au/decision/1818932f43934efc17a56ce1</a> ). Council has similar safety concerns in the current matter.	This location has a completely different context to the Pacific Highway example. Also, there are many other cases throughout Australia in similar CBD-type environments that have been approved by the court, or have been operating for many years without any correlation to crashes.

### 3.0 CONCLUSIONS

On review of Willoughby City Council's comments, it is concluded that:

- The Help Street westbound approach to the Orchard Road intersection recorded zero crashes over the 5-year assessment period. As such, this busy intersection is not inherently unsafe as the multiple modes of transport using it are well-controlled through dedicated lanes and signal phases, including full pedestrian protection
- The Help Street westbound approach does not involve a high cognitive load and simple driving decisions (all of which are in the forward field of view) are made at a relatively slow speed because of the curved alignment. A glance to the digital sign would not distract from them
- No decisions in relation to the traffic signals are required where the sign is visible as this only occurs after drivers have decided to stop at, or to pass through the signals
- The proposed digital sign will not be capable of 'interacting' with approaching drivers and there is no basis in the research around how drivers do not prioritise driving-critical tasks over all other tasks when in a moving vehicle
- Most of the research on distraction focuses on in-vehicle distractions which are expected to be (by far) the leading cause of distraction-related crashes. A digital sign has no negative influence on in-vehicle distractions. This also applies to pedestrians
- With the location of the sign in the forward view on Help Street, its location will "ensure there is sufficient distance for a driver to recognise, react and, if required, stop safely before reaching one of these points" as stated in the *Signage Guidelines*
- The display of content on the digital sign will be completely static, will not involve flashing or moving/changing images and will not cause distraction away from the forward roadway.

Given the above conclusions, we maintain our position that there is no reasonable basis to refuse the application based on traffic safety concerns.

Yours faithfully



**Damien Bitzios**

**Director**

**BITZIOS CONSULTING**