



BLACKTOWN
INTERNATIONAL
SPORTSPARK

SIGNPOSTING

Stage 3 - Road safety audit

For:
BLACKTOWN CITY COUNCIL

October 2011
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Report No. 2011399

This audit has been prepared in accordance with the scope of services described in the contract or agreement between TAR Technologies Pty Ltd. ACN 099 564 995 and the Client. As set out in the road safety audit guidelines, responsibility for the road design always rests with the designer/project manager, and not with the auditor. A project manager is under no obligation to accept all the audit findings. Also, it is not the role of the auditor to agree to or approve of the project manager's response to the audit. Rather, the audit provides the opportunity to highlight potential problems and have them formally considered by the project manager, in conjunction with all other project considerations. Furthermore, the report has been prepared solely for use by the Client and TAR Technologies Pty Ltd. accepts no responsibility for its use by other parties.



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Date: 31 October, 2011

TAR Technologies Pty. Ltd. Quality System

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INTRODUCTION

1.1 PURPOSE

TAR Technologies Pty. Ltd. has been commissioned by Blacktown City Council to conduct a Stage 3 (Design Audit) road safety audit of an advertising sign for Blacktown International Sportspark at one of two locations along the M7 motorway in the eastbound direction prior to Eastern Road. The audit is to ensure that the placement of the sign meets the standards required and does not compromise the safety of road users.

The objectives of the road safety audit are to:

- Identify potential road safety problems for road users and others affected by the design plans;
- Ensure that measures to eliminate or reduce road safety problems are fully considered;
- Address issues of layout and the chosen design standards.

1.2 AUDIT METHODOLOGY

The road safety audit was carried out in accordance with Austroads Guide to Road Design and Road Safety documents, and specifically in accordance with the Department of Planning's July 2007 Transport Corridor Outdoor advertising and signage guidelines and its road safety assessment criteria. It includes:

- Sign location and design;
- Consideration of existing traffic types and mix;
- Relevant standards and checklists; and
- Traffic volumes.

ROAD SAFETY AUDIT REPORT

2.1 SCOPE

This safety audit is limited to reviewing design plans prepared by DesignInc at two locations, 1) eastbound approximately 150 metres west of Eastern Road, 2) eastbound at the corner of Eastern Road and the M7, Rooty Hill. It includes both day and night time inspections.

2.2 GENERAL DESCRIPTION AND BACKGROUND

The work includes:

Two static double sided signs front lit, measuring approximately eight metres high to the underside, supported on a single steel pole. The signs would be illuminated with overhead lighting.

2.3 AUDIT TEAM

The existing audit was undertaken by Brett Morrison Level 3 Lead auditor and Diane Morrison Level 1 of TAR Technologies Pty. Ltd. (ABN 68 099 564 995) on 29 October 2011 under both day and night time conditions. Weather conditions at the time of survey were fine.

2.4 CHECKLIST USED

Checklist used was developed from the Transport Corridor Outdoor advertising and signage guidelines and in particular Section 3.1 Road Safety and Road Safety Audit Checklist 3 of the Austroads guidelines.

2.5 RTA AUDIT REQUIREMENTS

The requirements established by the RTA for a road safety audit are as follows:

- The audit provides details of the road safety deficiency, although it shall not contain recommendations to address these problems.
- The audit should not be influenced by the outcomes of the crash analysis study. In this regard, the crash data for the audit section was reviewed after the audit deficiencies had been documented.
- A day and night time inspection consisting of drive-through inspections (both directions).
- The audit deficiencies are to focus on road safety deficiencies for road users, typically motorists and cyclists and not other aspects that may be incorrectly perceived as safety risks.
- Road Safety Audit Checklist 3 of the Austroads Road Safety Guide shall be used. This checklist is intended to serve as a prompt for consideration of the issue. It is not necessary to provide detailed answers to each of the checklist questions.
- The audit team is to be led by an auditor accredited and registered as a Level 3 auditor under the IPWEA accreditation scheme.
- Deficiencies should be rated for their importance according to a three-tiered system based on the following matrix:

Severity/Likelihood	Highly probable	Occasional	Improbable
Major	High	High	Medium
Moderate	High	Medium	Low
Minor	Medium	Low	Low

An explanation of the terms in the matrix above is as follows:

Highly probable: It is likely that a number of these crashes of this type could occur within one year.

Occasional: It is likely that one crash of this type could occur within one year.

Improbable: It is likely that one crash of this type could occur every three years.

Major: The crash is likely to result in death or serious injuries.

Moderate: The crash is likely to result in minor injuries or large scale property damage.

Minor: The crash is likely to result in minor property damage or many *near miss* crash events.

2.6 AUDIT FINDINGS

This section presents the findings of the audit and includes a checklist:

1. Neither sign obstructs the driver's view, other vehicles, cyclists or pedestrians.
2. Neither sign's location distracts a driver at a critical time. The next critical point is at the M4 ramp approximately 1.8 kilometres east.
3. The location of sign 1 is 150m east of Eastern Road, behind an advanced direction sign for access to the M4. This sign does not obstruct the view of any road hazard, intersection, traffic control or emergency access point. However, sign 1 may distract a driver of this advanced direction sign particularly during the night.
4. The distance of sign 2 which appears to be further from the roadway may cause the driver's head to turn away from the road and the components of the traffic stream.
5. Glare from sign 1 glare could extend onto Eastern Road.
6. Details of the luminance have not been provided. However, the level of reflectance is not to exceed the minimum coefficients of luminous intensity per unit area for Class 2 A Material as set out in Australian Standard AS/NZS 1906.1:2007.

Advertising Sign Safety Assessment Section 3 TRANSPORT CORRIDOR OUTDOOR ADVERTISING AND SIGNAGE GUIDELINES						
	← Less Risk	Guide to Risk				More Risk →
Considerations	1	2	3	4	5	Comments
It obscures a view of an object/vehicle/pedestrian that creates a hazard	Does not create a hazard ☒	Partly obscures a road hazard but does not hide the nature of the hazard ☐	Partly obscures a road hazard but adequate warning provided that there may be a hazard ☐	Partly obscures a road hazard and provides no warning that a hazard exists ☐	Creates a road hazard ☐	
Sign positioning relative to travel distance	Sign is over travel lane ☐	Sign within sight lines & glance only appreciation ☐	Sign requires more than glances appreciation ☒	Motorist required to turn away from traffic ahead to view sign ☐	Sign is parallel to direction of travel ☐	
It distracts a driver at a critical time	It is not located near any decision points ☒	It is located within 200 & 300m from decision point ☐	It is located within 100 & 200m from decision point ☐	It is located less than safe sight distance from a decision point ☐	It is located within decision point ☐	
It interferes with the effectiveness and safety of a traffic control device (e.g. traffic signs, traffic signals or other traffic control devices)	Does not interfere with the safety/effectiveness of any traffic control ☒	It interferes with effectiveness and safety of a traffic control device ☐				
Sign clutter	Sign located in an urban environment. No multiple signs visible along given sightline ☐	Sign located in an urban environment. Multiple signs visible along given sightline strategically spaced. Readability acceptable given speed zoning and road environment ☒	Sign located in a rural environment and no other advertising structure visible along sightline ☐	Multiple signs visible along given sightline resulting in multiple competing messages. Information overload ☐		

The brightness and contrast of the sign is inappropriate	The sign is unlit or retroreflective ☐	The sign is set to match the minimum ambient light levels expected. Complies with luminance levels of policy ☐	The sign varies its brightness to match ambient levels. Complies with luminance levels of policy ☐	The sign does not comply with specified luminance levels of policy ☐	No information provided
Electronic variable message signs	The sign is static sign and is not a variable message sign ☒	The speed limit of the Rd is $\leq 70\text{km/h}$. The time to change the display is not greater than 1 second. Sign complies with policy ☐	The sign contains scrolling messages and does not comply with all criteria set out in section 3.2.2 of policy ☐		
Mechanical moving signs (e.g. Tri vision or scrolling bus shelter signs)	The speed limit of the Rd is $\leq 70\text{km/h}$. Display remains completely static from its first appearance to the commencement of a change to another display. Sign complies with policy 3.2.2 ☐	The sign contains scrolling/moving messages and does not comply with section 3.2.3 of policy ☐			

	Grounds for rejection			
Assessment Date	28.10.11			
Auditor	Brett Morrison			
	Diane Morrison			
Summary	Sign requires more than glances appreciation			

Advertising Sign Safety Assessment Section 3 TRANSPORT CORRIDOR OUTDOOR ADVERTISING AND SIGNAGE GUIDELINES

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	Grounds for rejection			
Assessment Date	28.10.11			
Auditor	Brett Morrison			
	Diane Morrison			
Summary	Motorist is required to turn away from traffic ahead to view sign			

Chapter 3

CONCLUDING STATEMENT

This audit has been conducted for the sole purpose of identifying current deficiencies in the proposed design and general site hazards, which potentially affect the safety of all road users.

The identified hazards are provided for your consideration.

Brett Morrison

Lead Road Safety Auditor



Diane Morrison

Level 1 auditor



Date: 30.10.11.....