Operational Instruction

Warning Signs and Warning Signals at Fire Stations
### Warning Signs and Warning Signals at Fire Stations - 2.30

#### AMENDMENT RECORD

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<th>Date</th>
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<td>15/03/01</td>
<td>Prep by B. Zhang &amp; R. Dodson</td>
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<td>Al.B</td>
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Manager, Traffic Services  
20 / 03 / 2017

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Warning Signs and Warning Signals at Fire Stations

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1. Scope

This document provides a uniform approach to the use of the Advance Fire Station warning signs (W5-36) and warning signs with built in alternating flashing yellow lights (TES 13697) at locations throughout the State.

This Operational Instruction will address the use of both the warning sign and warning devices.

This Operational Instruction does not address the use of Emergency Vehicle Traffic signals, which stop traffic at signals.

2. Background

The safety of both regular road users and fire station personnel during emergency operations has long been an issue recognised by the Department of Planning, Transport and Infrastructure (DPTI) and attempts have been made to address it. A number of different configurations of standard warning signs have been used in the past, in addition to some specialised designs developed by DPTI.

3. Standard Warning Signs

3.1 Application for Warning Sign

All applications for signs on roads maintained by DPTI should be directed to the Manager, Traffic Operations. All costs associated with the sign manufacture, installation, relocation or removal of these standard signs shall be met by DPTI.

3.2 Description of Warning Sign

The standard Fire Station warning sign (W5-36) is the preferred sign that shall be used.
3.3 Guidelines to the Use of Warning Signs

The sign is only to be used in advance of the entrance to a fire station, Metropolitan Fire Services (MFS) or Country Fire Services (CFS), where it may not be readily apparent that a station exists, to warn traffic in time to avoid an emergency vehicle that may exit suddenly from the station.

Under no circumstances should the signs be used for intersections that are used by general road users. In such cases, intersection warning signs should be considered where the stopping sight distance cannot be achieved (refer to AS1742.2-2009 Table 2.3).

3.4 Sizes of Standard Warning Signs

The W5-36 sign can be specified in two (2) sizes as detailed in Table 1:

<table>
<thead>
<tr>
<th>85th percentile speed (km/h)</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 90</td>
<td>750 (‘B’)</td>
</tr>
<tr>
<td>≥ 90</td>
<td>900 (‘C’)</td>
</tr>
</tbody>
</table>

*Table 1: Size of Warning Signs*

3.5 Installation of Signs

The signs can be used at any location as described in Section 3.3. The W5-36 sign shall be erected prior to the entry points used by the emergency vehicles at the appropriate distance shown in Table 2:

<table>
<thead>
<tr>
<th>85th percentile speed (km/h)</th>
<th>Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 75</td>
<td>80 – 120</td>
</tr>
<tr>
<td>75 - 90</td>
<td>120 – 180</td>
</tr>
<tr>
<td>≥ 90</td>
<td>180 - 250</td>
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</table>

*Table 2: Location of Warning Signs*

For sign mounting and erection details refer to DPTI Master Specification Part 240 ‘Installation of Signs’. Where the sign is located on a multi lane divided road, it may be duplicated on the median if considered necessary.

4. Alternating Flashing Yellow Light (AFYL) Warning Sign

4.1 Application for AFYL Warning Sign

All applications for AFYL warning signs on roads maintained by DPTI should be directed to the Manager, Traffic Operations. All costs associated with manufacturing, installation, relocation and removal of the AFYL warning signs shall be the responsibility of the fire authority. The
maintenance of these AFYL warning signs will be undertaken by DPTI and all associated costs are to be met by the fire authority.

The fire authority should be advised of the operating procedures as detailed in this instruction, refer to Section 4.6.

4.2 Description of AFYL Warning Sign

TES 13697 is the only sign available for use at locations which meet the criteria detailed in Section 4.3. Sign details can be found in Appendix A.

4.3 Guidelines to the Use of AFYL Warning Sign

AFYL warning signs shall only be used where there is historical evidence (e.g. crash data) that the standard warning signs have not been successful (due to safe stopping distance, sight distance, topography of the area, other roadside distractions etc).

AFYL warning signs should not be provided where the emergency vehicle is clearly visible from the distances shown in Table 2.

Under no circumstances should the AFYL warning sign be used for intersections that are used by general road users. In such cases intersection warning signs should be considered where the stopping sight distances cannot be achieved (refer to AS1742.2-2009 Table 2.3).

4.4 Sizes of AFYL Warning Signs

TES 13697 sign details can be found in Appendix A. A smaller ‘s’ size is available for locations with site restrictions, refer to Appendix B.

Flashing light supplementary plate details can be found in Appendix C.
4.5 Installation of AFYL Warning Signs

The AFYL warning sign may be used on the approach to any fire station as described in Section 4.3. If chosen, technical drawing TES 13697 shall be erected prior to the entry point used by the fire vehicles at a distance shown in Table 2. The AFYL warning sign should only be installed on the approaches necessary. It need not be installed on both approaches.

For other installation details, Asset Management Unit of DPTI (Metropolitan Region) will need to be contacted, to determine the correct post, selection of cabling, ducting etc.

4.6 Operation of AFYL Warning Sign

An operating procedure for the AFYL warning sign shall be developed in conjunction with DPTI, and the fire station shall be responsible to ensure that any persons who operate the signs have been given safe work instructions in regards to operating the sign and working near the road. Note that the AFYL shall not be operated in non-emergency situations.

DPTI shall be responsible for ongoing maintenance of the devices and roads under its care.
Appendix A  TES 13697

Transport Services Division
Traffic & Access Standards Section
Specific Road Signs - Specifications, South Australia

Refer TES18580 for flashing light detail

Black
Yellow class 1
Yellow class 2

Scale: 1:20
ALL DIMENSIONS ARE IN MILLIMETRES
Total Sign Area: 1.44 sqm
Sign Type: Warning
Location: Various

Drawn: A. Simister
Edition: A  Rev: 3
Date: 25 September, 2013

Authorisation:
Date: 

TES 13697
Appendix B  TES 13697s

Transport Services Division
Traffic & Access Standards Section
Specific Road Signs - Specifications, South Australia

Refer TES13580 for flashing light detail

Black
Yellow class 1
Yellow class 2

Scale: 1:20
ALL DIMENSIONS ARE IN MILLIMETRES
Total Sign Area: 1.10 sqm
Sign Type: Warning
Location: Various

Drawn: A. Simister  Authorisation:  
Edition: A  Rev: 5  Date: 25 September, 2013  Date:  

TES 13697s
Appendix C  TES 18580

Transport Services Division
Traffic & Access Standards Section
Specific Road Signs - Specifications, South Australia

TES 18580 may be mounted above back board signs or regulatory signs to provide additional warning (Refer AS 1742.2–2009).

NOTE:
TES 18580 only to be produced in widths ≥ 900mm (multiples of 150mm).

Black
Scale: 1:15
ALL DIMENSIONS ARE IN MILLIMETRES
Total Sign Area: Varies
Sign Type: Warning (Flashing Lights)
Location: Various

Drawn: A. Simister  Authorisation:  
Edition: A  Rev: 2  Date: 6 June, 2012  Date:  

TES 18580