Portable Traffic Control Devices

The Department of Transport and Main Roads (TMR) is committed to improving the safety of road users and all road workers at our roadwork sites. As part of this commitment the department has been working with industry over the last three years to investigate and implement options to improve safety for traffic controllers. Through this collaboration the option of portable traffic control devices has been identified as a means of allowing traffic controllers to perform their roles at a safe distance from traffic in high risk environments.

Type 1 Portable Traffic Signal Systems (PTSS) were introduced in the November 2016 Supplement to the Manual of Uniform Traffic Control Devices Part 3: Works on roads (MUTCD). While manually controlled Type 2 PTSS and boom barriers have always been recognised in the MUTCD, the recent focus has been on the development of remotely controlled light weight portable traffic control devices to remove traffic controllers from high risk locations during short term works.

These devices provide a number of benefits:

- significant workplace health and safety improvements (as well as being out of harm’s way, traffic controllers can locate themselves in the shade, where it is cooler and they have reduced skin cancer risk)
- in many situations, ability to manage traffic with one less traffic controller
- lower cost and ease of installation and operation, when compared with Type 2 PTSS

Four portable traffic control devices have been approved for use:

- Portaboom – a remotely controlled boom barrier (approved nationally via the ARRB TIPES approval system)
- eSTOP – a lightweight Type 1 PTSS (type approved in Qld under MRTS254)
- AEI/ExcelTech Barrow – a lightweight barrow mounted Type 2 PTSS (type approved in Qld under MRTS254)
- AEI/ExcelTech Trailer – a trailer mounted Type 2 PTSS (type approved in Qld under MRTS254)

As other products are type approved, they will also become available for use.

Product rollout

Recognising that these new products are new to the market, and that a lead time will be required to purchase the equipment and familiarise staff with its deployment and use, the department has chosen to allow a staggered transition for their introduction, with an ultimate vision that traffic controllers (using STOP/SLOW bats) are rarely deployed in high risk situations:

- From 1 July 2017, it is recommended that portable traffic control devices be used in lieu of traffic controllers using STOP/SLOW bats on roads with AADT exceeding 1000 veh/day at which the approach speed (prior to the works occurring) is 90 km/h or faster. Any decisions not to use portable traffic control devices in these situations will need to be supported by a risk assessment.
- From 1 July 2018, it is proposed that the requirement be elevated to include roads with AADT exceeding 1000 veh/day at which the approach speed (prior to the works occurring) is 80 km/h or faster.

The requirements will be monitored and reviewed to measure effectiveness over time and refinements made to address operational feedback.

While the requirements will not affect existing contracts, TMR proposes to nominate when portable traffic control devices must be used in its Provision for Traffic Specification Annexure – MRTS02.1, in order to achieve a ‘level tender playing field’.
Training requirements
The January 2017 Traffic Controller Accreditation Scheme Approved Procedure recognises that a TMR approved traffic control device may be used in lieu of a traffic controller using a STOP/SLOW bat. Such a device must be operated in accordance with the TMR approved procedure for that particular device, where an approved procedure has been released. Only a traffic controller is authorised to operate manually controlled portable traffic signals or a boom barrier.

A traffic controller must not be placed in control of portable traffic signals or a boom barrier unless the traffic controller has been trained and is competent in the operation of the device. Traffic control devices shall be operated in accordance with the manufacturer’s operating procedures and instructions.

Application
Clause 4.11-1 of the Supplement to MUTCD Part 3 outlines where Type 1 and Type 2 PTSS can be used (http://www.tmr.qld.gov.au/-/media/busind/techstdpubs/Trafficmanagement/Manual-of-Uniform-Traffic-Control-Devices/MUTCDSupPart3.pdf?la=en). Portaboom can be used in lieu of Type 1 PTSS.

Type 1 PTSS or boom barriers shall only be used instead of traffic controllers manually controlling with STOP/SLOW bats when single-lane operation is required.

For more information please contact TrafficEngineering.Support@tmr.qld.gov.au