Frequently Asked Questions – Public Domain Barrier Status

The design of Public Domain road safety barrier systems is currently covered in TMR's Standard Drawings, with the technical requirements covered in TMR's technical specification, MRTS14.

In 1990, these systems were assessed as "deemed to meet" the requirements under AS/NZS 3845:1999, however the barrier test standards have been superseded by US Manual for Assessment of Safety Hardware (MASH) which better reflects the vehicles of today.

Austroads Board has accepted the MASH as testing standard and TMR will be updating MRTS14 to reflect these changes from March 2021.

Why is TMR changing the acceptance status of Public Domain steel road safety barriers?

Public Domain road safety barrier systems have been assessed as "deemed to comply" with the US National Cooperative Highway Research Project Report 350 (NCHRP350) test standard.

In 2009, the US Manual for Assessing Safety Hardware (MASH) was published, superseding the NCHRP350 for the purposes of testing and evaluating new safety hardware on the US highways network. Subsequently, in April 2018, the Austroads Board accepted the Australasian Safety Barrier Assessment Panel's recommendation to transition to MASH tested products progressively.

Although states are starting from slightly different legacy positions, under our DG's leadership as chair of Austroads, there is genuine commitment to reaching consensus on a national approach to make it easier for industry to conduct business and to make our roads safer.

This change aligns Queensland with other Australian states and territories, whilst also providing compliance with MASH standard as well as the latest changes to AS/NZS 3845.

What are the changes that I need to be aware of?

Public Domain steel road safety barrier systems are proposed to be no longer accepted for use on new projects or installations within the TMR road network. Maintaining existing public domain steel barrier system will be acceptable where repairs and replacements can be reasonably and readily undertaken.

Will Public Domain concrete road safety barriers continue to be allowed?

There has been no equivalent proprietary system submitted for permanent or temporary single slope concrete barriers. Therefore, at this stage Public Domain concrete road safety barriers are allowed for use on new projects or installations.

If this advice changes in future, our Approved Products List document will be promptly updated to reflect that decision and announced accordingly.

In MRTS14 section 20.1 it says "reasonably and readily undertaken" in relation to maintaining existing Public Domain installations What is TMR's interpretation of this?

Maintaining existing public domain steel barrier system will be acceptable where repairs and replacements can be reasonably and readily undertaken. Local conditions and circumstances are different throughout the state. Therefore no standard definition for "reasonably and readily undertaken" has been proposed. Each region or district has been provided with the flexibility to define what constitutes "reasonably and readily undertaken" for their purpose and may be changed depending on the circumstance.

MRTS14 section 20.1 talks about a new project or installation how is that defined?

A new installation would involve the design or installation of a road safety barrier system in a permanent application where none previously existed.

Will TMR's Regions and Districts have the flexibility to apply these requirements to the multitude of situations that exist on our road network?

Regions and Districts have the flexibility to determine the level and type of barrier system replacement that will be required based upon the technical requirements. Advice on compatibility of retrofitting barrier products is provided in the TMR Approved Products List Document. Further information can also be sought from suppliers and manufacturers of proprietary barrier products. It should be noted that compliance with the Road Planning and Design Manual (RPDM) and MRTS 14 are still required as usual.

Will TMR require to upgrade existing Public Domain road safety barriers to MASH tested barriers, if the current system is still functioning as designed and meets NCHRP 350 standard?

The implementation of the above changes does not require replacement of public domain barriers currently installed on our road, unless it is damaged significantly such that repairs or replacements cannot be reasonably and readily undertaken.

Will the repair components still available?

It has been acknowledged that the ability to repair installations will be dependent on the availability of repair components. There are a number of suppliers listed by TMR for supply of public domain steel barriers components in QLD. Please refer to TMR's current Standing Offer Arrangement (SOA) and Registered Suppliers List on TMR website. These suppliers can continue to be engaged for maintenance and repair purposes.

Are non-public domain barriers expensive to purchase?

Non-public domain steel barriers (MASH TL3) typically use 30% less steel when compared to public domain barriers and are therefore cheaper. The costs of non-public domain terminals, due to higher re-direction capacity requirements, however are approximately 10% higher. In overall, the higher terminal costs should be more than offset by the lower steel barrier costs.

Where can I go for more information?

If you have further questions or would like to comment on this FAQ, please email Road Design Unit at pooya.z.saba@tmr.qld.gov.au

Are there any other major changes coming up in the road safety barriers space?

Road Design unit is also working through the details of withdrawing the proprietary (non-Public Domain) road safety barrier systems that have not been tested to the MASH standard, as agreed through Austroads. We will be undertaking a separate consultation in near future with industry and stakeholders to finalise the timeframe.