

SHIELD I

REVISION REGISTER

Revision	Description	Date
1	Issued for use.	21/05/2018

The Shield I Barrier is a portable water filled longitudinal temporary barrier. It can be used in worksites with design speeds up to 50 km/h (i.e. posted speed up to 40 km/h).

The barrier units are nominally 2.0m long and orange in colour. The barrier units include plastic covered hard foam infill panels that are attached by metal strapping. Adjacent barrier units are connected by galvanised steel joining pins.

The end treatments consist of two barrier units that are yellow in colour, do not contain water and do not have infill panels (which are empty).

Images / Drawings.



Figure 1: Photograph of Shield I Barrier and Terminal units

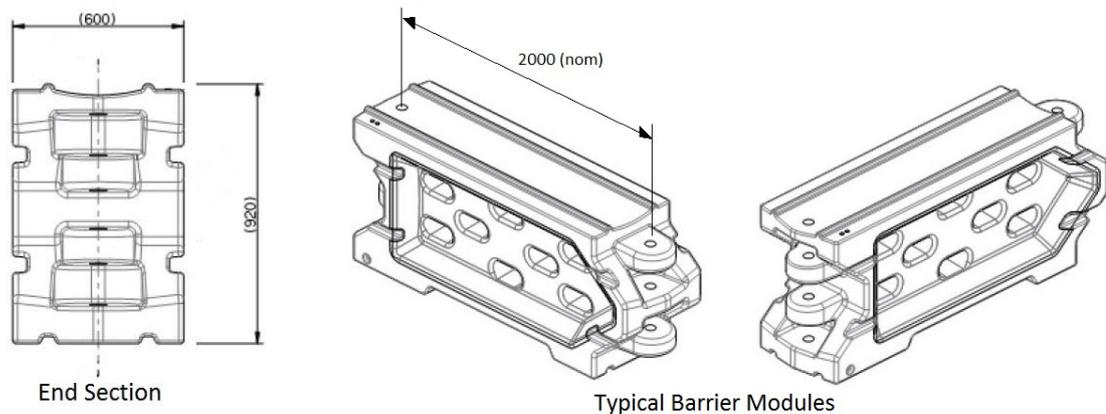


Figure 2: Typical Details of Shield I Barrier

SHIELD I

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Supplier: National Plastics Group
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Ph: (07) 3807 0055
<http://www.nationalplasticsgroup.com.au>

Test Level: Tested in accordance with MASH to TL1 (2,270kg at 50km/h and 25°).

Test Deflection: 2.2 m under MASH TL1 conditions.

Note that this deflection was measured in a crash test performed under controlled conditions. The deflection recorded is the horizontal offset between the face of the barrier units measured prior to and following vehicle impact. Designers should be aware that the deflection published as a test result may not be the deflection value achieved in the field for all impacts by errant vehicles.

Working Width: 2.8 m under MASH TL1 conditions.

Configuration:

Units must be interconnected with Shield I™ joining pins (60.3mm dia. 940mm long galvanised steel) and requires a sufficient length to resist impact.

Design:

- Design to be in accordance with the Shield I™ Safety Barrier TL-1 Product and Installation Manual (version 1.1).
- Barrier should be placed a minimum of 250 mm from the edge of travelled way to avoid nuisance impacts.
- The barrier has its own end terminals which must be installed.
- Barrier length must be sufficient to adequately protect the hazard. The minimum length of barrier to be installed is 44 m (excluding terminals).
- Plant, personnel or roadside hazards should not be located within the hazard free and deflection area as shown in Figure 3.

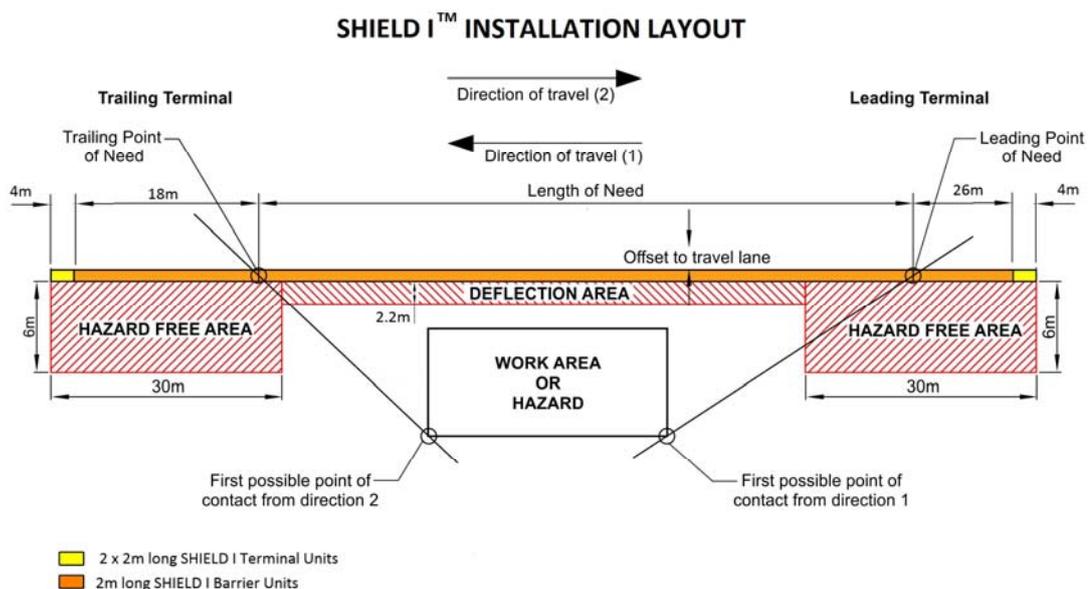


Figure 3: SHIELD I Layout Diagram

(Not to Scale)

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Limitations:

- Not to be used on longitudinal slopes or crossfalls greater than 5%.
- Cannot be used on radii smaller than 29m.
- Cannot be placed adjacent to kerbs or other objects which may prevent lateral displacement.

Installation and Maintenance Requirements:

In accordance with the Shield I™ Safety Barrier TL-1 Product and Installation Manual (version 1.1).

Parts to be Replaced after Impact:

Units may need to be repaired after impact or replaced depending on the extent of damage.

Parts Typically Re-Useable after Impact:

Undamaged units.

References:

Item	Description
1	Barrier system tested to MASH Test Level TL 1. A copy of the test reports can be found on Main Roads file 17/4257.
2	Terminal tested to MASH Test Level TL 1. A copy of this testing can be found on Main Roads file 17/4257.