



## Accepted Safety Barrier Products - GD 300

### Safety Barrier Products

Safety barriers are intended to safely redirect the majority of vehicles that have left the roadway.

The Austroads Safety Barrier Assessment Panel (ASBAP) assesses the crashworthiness and suitability of road safety barriers, systems and devices for deployment on roads managed by Australian/New Zealand road agencies in line with AS/NZS 3845.

### Performance

AS/NZS 3845.1:2015 and AS/NZS 3845.2:2017 outlines AASHTO Manual for Assessing Safety Hardware (MASH) as the current basis for crash testing protocol. In line with AS/NZS 3845, ASBAP has updated its product submission criteria and is transitioning the current suite of accepted products.

DIT is adopting MASH as the nominal standard for road safety hardware in line with ASBAP and AS/NZS 3845.

MASH testing results will be used as the primary performance criteria in promoting any road safety hardware. Therefore it is a DIT requirement to select products, if possible, that have undergone the full suite of MASH testing.

### National Scheme

A national scheme is being developed to ensure the people who design, install, and maintain road safety barriers on Australia and New Zealand's road network are appropriately trained. Austroads has partnered with Lantra (UK) to develop a national accreditation scheme that will require the certification of all people engaged in the design, installation, and maintenance of any road safety barrier system used in New Zealand or Australia.

### Legacy Products

No new installations are permitted. Existing installations may be maintained until the end of their service. When replacements of existing installations are required, it is recommended that new accepted MASH-tested products are to be installed. MASH tested products provide an increased level of safety to road users.



## 1. BARRIERS – PERMANENT

### 1.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Concrete Single Slope Barrier</a>	TL3 - TL5	Public Domain
<a href="#">BarrierGuard 800 Steel Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">BarrierGuard MDS Steel Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">Brifen Wire Rope Barrier</a>	TL3	Safe Direction
<a href="#">Dolre Low Stress Parapet</a>	TL4	LB Australia
<a href="#">EZY-Guard 4 Steel Rail Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">EZY-Guard High Containment Steel Rail Safety Barrier</a>	TL4	Ingal Civil Products
<a href="#">EZY-Guard Smart Steel Rail Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">MashFlex Wire Rope Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">RAMSHIELD Steel Safety Barrier</a>	TL3	Safe Direction
<a href="#">Safety Roller Steel Rail Safety Barrier</a>	TL3 - TL4	KSI Global Australia
<a href="#">Sentry Median Steel Rail Safety Barrier</a>	TL3	Australian Construction Products
<a href="#">Sentry Thrie-Beam Safety Barrier</a>	TL3 – TL4	Australian Construction Products
<a href="#">Sentry W-Beam Steel Rail Safety Barrier</a>	TL3	Australian Construction Products
<a href="#">Sentryline-M Wire Rope Barrier</a>	TL3 – TL4	CSP Pacific

### 1.2 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">QUICKCHANGE Reactive Tension Concrete Safety Barrier</a>	TL3	Lindsay Transportation Solutions

### 1.3 NCHRP 350 Tested Products – Conditionally Accepted

System Name	Test Level	Supplier
* <a href="#">Flexfence - 4 Wire Rope</a>	NCHRP TL4 MASH TL3	Ingal Civil Products
* <a href="#">Sentryline II - 4 Wire Rope</a>	NCHRP TL4 MASH TL3	Australian Construction Products

In line with the changes to AS/NZS 3845 and the recommendation of the Austroads Safety Barrier assessment Panel, DIT is transitioning the current suite of accepted safety barrier systems and devices to MASH test protocol. MASH tested products provide an increased level of safety to road users.

As at 1 January 2020 these acceptance conditions will be updated in line with MASH reference points. Consequently, these products will be accepted at MASH Test Level 3 with a dynamic deflection and working width of 3.0 metres.

\* **Phase out** – Please note: new installations are only permitted on the classified road network until 30 September 2020. Any new installation post this date will require a MASH tested product.

### 1.4 LEGACY Products

System Name	Test Level	Supplier
<a href="#">Flexfence - 3 Wire Rope</a>	TL3	Ingal Civil Products
<a href="#">Flexfence - 4 Wire Rope</a>	TL3	Ingal Civil Products
<a href="#">Thrie-Beam Steel Rail Safety Barrier</a>	TL3	Public Domain
<a href="#">W-Beam Steel Rail Safety Barrier</a>	TL3	Public Domain

## 2. BARRIERS – TEMPORARY

### 2.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Armorzone Plastic Water Filled System</a>	TL2	Ingal Civil Products
<a href="#">BarrierGuard 800 Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">BarrierGuard MDS Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">DB80 K150 Concrete Safety Barrier</a>	TL3	Orange Hire
<a href="#">Defender Barrier 70 Safety Barrier</a>	TL2	Safe Barrier
<a href="#">Defender Barrier 100 HC Safety Barrier</a>	TL3 – TL4	Safe Barrier
<a href="#">Defender Barrier 100 FS Safety Barrier</a>	TL3	Safe Barrier
<a href="#">Defender Barrier 100 LDS Safety Barrier</a>	TL3	Safe Barrier
<a href="#">HighwayGuard Safety Barrier</a>	TL3 – TL4	Highway Care International
<a href="#">HighwayGuard LDS Safety Barrier</a>	TL3	Highway Care International
<a href="#">HV2 Longitudinal Barrier</a>	TL3 – TL4	Saferoads
<a href="#">6 Metre JJ Hooks Safety Barrier</a>	TL3	Australian Road Barriers
<a href="#">Lo-Ro Cable Water Barrier System</a>	TL2	Jaybro Group
<a href="#">PIN and LOOP Barrier</a>	TL3	Retsel Holdings Pty Ltd
<a href="#">Ricochet Plastic Water Filled System</a>	TL1	TFH Hire Services
<a href="#">Safezone Safety Barrier</a>	TL3 – TL4	Laura Metaal
<a href="#">Safezone LDS Safety Barrier</a>	TL3 – TL4	Laura Metaal
<a href="#">Shield I Water Filled Safety Barrier System</a>	TL1	National Plastics
<a href="#">T-LOK MASH F-Type Concrete Safety Barrier</a>	TL3	Saferoads
<a href="#">Zoneguard Steel Safety Barrier</a>	TL3	Hill and Smith
<a href="#">Zoneguard MDS Steel Safety Barrier</a>	TL3	Hill and Smith
<a href="#">3.6 Metre JJ Hooks Safety Barrier</a>	TL3	Australian Road Barriers



## 2.2 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">BarrierGuard LDS Safety Barrier</a>	TL3	Ingal Civil Products
<a href="#">Ironman Hybrid Steel Safety Barrier</a>	TL3	Saferoads
<a href="#">T-Lok 350 F-Type Concrete Safety Barrier</a>	TL2	Saferoads
<a href="#">BG800 LDS Steel Safety Barrier</a>	TL3 – TL4	Highway Care International
<a href="#">BG800 MDS Steel Safety Barrier</a>	TL3	Highway Care International
<a href="#">BG800 Steel Safety Barrier</a>	TL2 – TL4	Highway Care International



### 3. TERMINALS – PERMANENT

#### 3.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">ET-SS Terminal</a>	TL2 - TL3	Ingal Civil Products
<a href="#">Max Tension Guardrail Terminal</a>	TL2 - TL3	Australian Construction Products
<a href="#">MSKT-MASH Sequential Kinking Terminal</a>	TL3	Safe Direction
<a href="#">Trailing Steel Rail Terminal</a>	TL3	Public Domain

#### 3.2 LEGACY Products

System Name	Test Level	Supplier
<a href="#">ET2000 Plus Steel Rail</a>	TL2 - TL3	Ingal Civil Products
<a href="#">Fleat 350 Steel Rail</a>	TL2 – TL3	Safe Direction
<a href="#">Fleat-SP Steel Rail</a>	TL3	Safe Direction
<a href="#">SKT 350 Steel Rail</a>	TL2 – TL3	Safe Direction
<a href="#">SKT-SP Steel Rail</a>	TL3	Safe Direction
<a href="#">Trend 350 Steel Rail</a>	TL3	Ingal Civil Products
<a href="#">X-Tension 350 Steel Rail</a>	TL3	Australian Construction Products



#### 4. TERMINALS – TEMPORARY

##### 4.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Absorb-M Crash Cushion</a>	TL3	Australian Construction Products
<a href="#">SLED Plastic Water Filled End Terminal – Temporary</a>	TL3	Saferoads

##### 4.2 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Absorb 350 Plastic Terminal</a>	TL3	Australian Construction Products

## 5. CRASH CUSHIONS

### 5.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Hercules</a>	TL3	Safe Barriers
<a href="#">Quadguard CZ</a>	TL3	Ingal Civil Products
<a href="#">Quadguard M10</a>	TL2 – TL3	Ingal Civil Products
<a href="#">Quadguard Elite M10</a>	TL3	Ingal Civil Products
<a href="#">SMART Steel</a>	TL2 – TL3	LB Australia
<a href="#">Universal TAU-M</a>	TL2 – TL3	Australian Construction Products

### 5.2 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Universal TAU II – Temporary</a>	TL3	Australian Construction Products

### 5.3 LEGACY Products

System Name	Test Level	Supplier
<a href="#">Quadguard Steel Rail – Permanent</a>	TL3	Ingal Civil Products
<a href="#">Tracc Steel Rail</a>	TL3	Ingal Civil Products
<a href="#">Universal TAU II – Permanent</a>	TL3	Australian Construction Products



## 6. MOBILE BARRIER SYSTEMS

### 6.1 MASH Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Mobile Barriers MBT-1</a>	TL3	Mobile Barriers LLC
<a href="#">Scorpion II</a>	TL2	A1 Roadlines
<a href="#">Scorpion II</a>	TL3	A1 Roadlines
<a href="#">Scorpion II Truck Mounted Attenuator</a>	TL3	A1 Roadlines
<a href="#">Verdegro Blade</a>	TL3	Innov8 Equipment
<a href="#">TTMA-200 Trailer Truck Mounted Attenuator</a>	TL3	Gregory Industries

### 6.2 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">JL-D-0850 Stuer-Egghe</a>	TL3	J1-LED Intelligent Transport Systems
<a href="#">Scorpion TMA</a>	TL3	A1 Roadlines

#### Important Notes:

1. Products not listed may still be operationally acceptable under existing arrangements.
2. Operators are recommended to select devices which are fit for purpose to their total requirements. Crashworthiness is just one aspect to consider.

## 7. GATES

### 7.1 NCHRP 350 Tested Products – Accepted

System Name	Test Level	Supplier
<a href="#">Armorguard Gate</a>	TL3	Australian Construction Products
<a href="#">BG800 Gate</a>	TL3	Ingal Civil Products
<a href="#">VEVA 3 Median Steel Gate</a>	HC2	Traffic Tech Pty Ltd

## 8. MOTORCYCLIST PROTECTION

System Name	Test Level	Supplier
<a href="#">Biker-Shield Motorcyclist Rub Rail</a>	Level 2 Severity	Safe Direction
<a href="#">Ingal MPR(Motorcyclist Protection Rail)</a>	Level 1 Severity	Ingal Civil Products
<a href="#">HIASA Motorcyclist Protection Device</a>	Level 1 Severity	Australian Construction Products

## 9. BOLLARDS & POLE PROTECTION DEVICES

System Name	Test Level	Supplier
<a href="#">Energy Absorbing Bollard (EAB)</a>	AS3845 TL0	Roadside Services and Solutions Pty Ltd Impact Absorbing Systems Pty Ltd Automotive Safety Engineering Pty Ltd
<a href="#">OMNI STOP Ultra</a>	AS3845: 1999 Test Level 0	Saferoads
<a href="#">Raptor Pole Protector</a>	NCHRP TL1	Valmont Highway Distribution

## 10. TRANSITIONS

The following standard drawings show approved transitions:

Drawing No.	Sheet No.	Ref No.	Document Name
S-4064	1		<a href="#">810mm High TL4 Road Concrete Barrier</a>
S-4064	2		<a href="#">1070mm High TL5 Road Concrete Barrier</a>
S-4064	3		<a href="#">Concrete Barrier Installation</a>
S-4050	37	GD201	<a href="#">Steel Beam Guardfence Installation Adjacent to Rigid Barriers</a>
S-4050	39	GD203	<a href="#">Steel Beam Guardfence W/Thrie Beam Installation Detail 2</a>
S-4050	45	GD209	<a href="#">Steel Beam Guardfence Posts, Blockouts &amp; Delineators</a>
S-4050	46	GD210	<a href="#">Steel Beam Guardfence Posts, Blockouts &amp; Anchor Assembly</a>

## TEST LEVELS:

Level	MASH – Designed Containment	NCHRP 350 – Designed Containment
TL5	1,100 kg & 2,270 kg at 100 km/h 36,000 kg at 80 km/h	820 kg at 100 km/h & 2,000 kg at 100 km/h 36,000 kg at 80 km/h
TL4	1,100 kg & 2,270 kg at 100km/h 10,000 kg at 90 km/h	820 kg at 100 km/h & 2,000 kg at 100km/h 8,000 kg at 80 km/h
TL3	1,100 kg & 2,270 kg at 100km/h	820 kg at 100 km/h & 2,000 kg at 100km/h
TL2	1,100 kg & 2,270 kg at 70km/h	820 kg at 70 km/h & 2,000 kg at 70km/h
TL1	1,100 kg & 2,270 kg at 50km/h	820 kg at 50 km/h & 2,000 kg at 50km/h



**REVISION:**

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v1	January 2020	HJ	PM
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