

DETAIL SHEET

TRACC CRASH CUSHION

Details

Category:	End Treatment
Sub Category:	Crash Cushion
Main Material:	Steel
Gating/Non Gating:	Non-Gating
Redirective/Non- Redirective:	Redirective
Permanent/Temporary:	Permanent

Ownership

Trinity Industries
 USA
www.highwayguardrail.com

Supplier

Ingal Civil Products
 57-65 Airds Road, Minto NSW 2566
 Phone: +61 2 9827 3333
<http://www.ingalcivil.com.au/>

Accepted Test Level

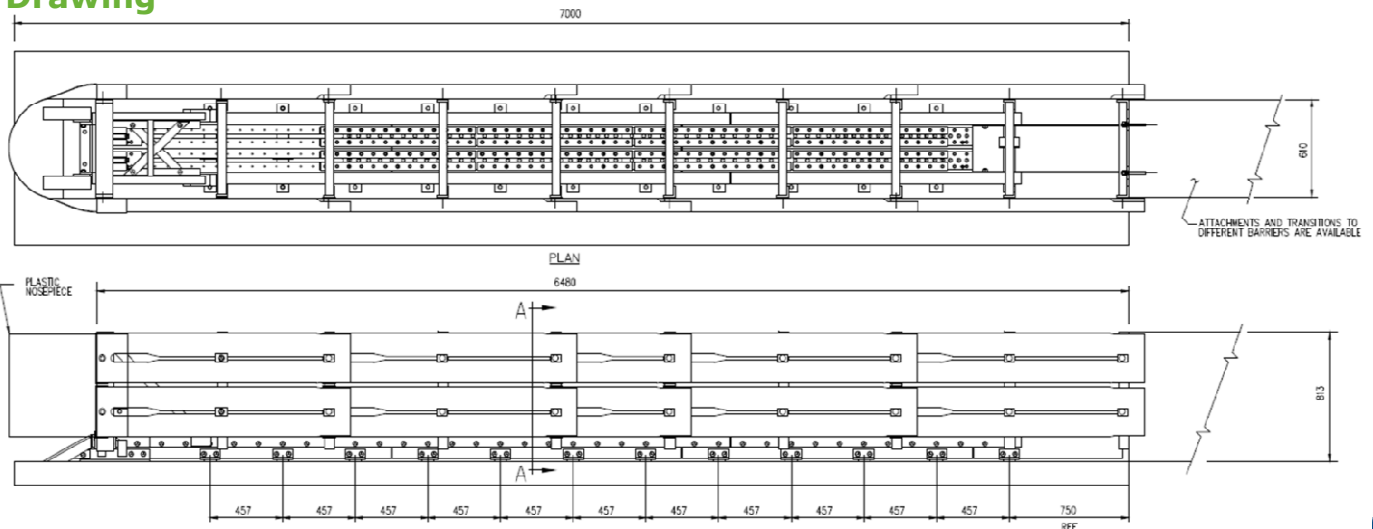
NCHRP 350 Test Level 2 (TL2): 70km/hr

Description

The TRACC (Trinity Attenuating Crash Cushion) system is fully re-redirective, non-gating, bi-directional, energy absorbing crash attenuator. It consists of a pair of guidance tracks, an impact 'sled', intermediate steel frames, and W-Beam fender panels. A concrete pad and rigid back up are required.



Drawing



Design

- Design to be in accordance with the Supplier TRACC Crash Attenuation Cushion Product Manual.
- The design must allow the side panels at the rear of the unit to retract 1500mm during an end on impact.
- System comes in various widths ranging from 610mm to 1470mm. Designer must determine width required. Refer Table 1 below.
- Designer should also identify what nose markings are to be applied.
- Unit is generally to be installed on a 150mm thick reinforced or 200mm thick unreinforced concrete pad. Other foundation options are contained in the product manual produced by the supplier.

Configuration

- The TRACC family of crash cushions are available in several configurations. These can be seen in Table 1 below.

System	Test Level	Width (mm)	Length (m)
TRACC	3	610	6.5
ShorTRACC	2	610	4.3
FasTRACC	3+ ¹	610	7.9
WideTRACC - B	3	1470	6.5 ²
WideTRACC - L	3	1040	6.5 ³
WideTRACC - R	3	1040	6.5 ³

Table 1: TRACC Configurations

1. TL3+ indicates that the FasTRACC has been crash tested at 110km/h
2. Width can be increased by adding wing extensions on both sides. Refer Product Manual.
3. Width can be increased by adding wing extensions on one side. Refer Product Manual

Transition Requirements

- Installation of the TRACC system and its transitions depends on the traffic pattern and the backup structure at the particular location.
- Transition type must be specified by the Designer.
- For further information on transition types refer to the Supplier TRACC Family System Manual.

Unidirectional Applications

- Requires no transition, provided the unit is installed beyond the clear zone of opposing traffic.

Bidirectional Applications

- For installations that face oncoming traffic from the reverse direction, appropriate transitions should be installed on the end of the backup structure to prevent vehicle pocketing.
- The Designer has the choice of the following transitions: W-beam median barrier, Thrie-beam median barrier, or concrete barriers.

Downstream Zone

- The TRACC should be installed so that a 1500mm clear space is present on both sides of the backup structure for the side panels to retract during an end-on impact.

Limitations

- No elevated kerbs, islands, drainage structures, or any other item that can affect the height at which a vehicle could impact the unit at, shall be placed 15m prior to the unit or along the length of the unit to the rear of the backup. Only flush kerbing shall be permitted around the unit.
- Cannot be used on crossfalls steeper than 8%. If cross slope is larger than 8% then a concrete levelling pad may be required.
- Unit to be installed on reinforced concrete pad. Asphalt foundation is not acceptable

Installation & Maintenance

- The unit shall be installed and repaired after impact in accordance with the TRACC Crash Attenuation Cushion: Product Manual, provided by the supplier.
- Parts to be Replaced after Impact: Rip plates for end on impacts and for redirective impacts, side panels may need to be replaced.
- Parts Typically Re-Usable After Impact: Undamaged rip plates and side panels.

References

- Supplier TRACC Crash Attenuation Cushion: Product Manual

