TAU-II

#### **REVISION REGISTER**

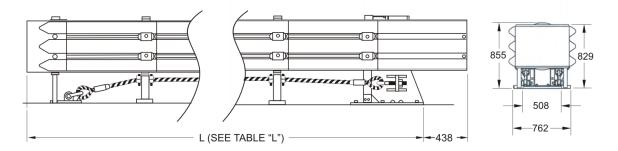
Issue & Revision	Description	Date
1	Issued for use.	23/2/2004
1 A	Minor revisions and addition of wide TAU and flush mount backstop.	03/03/2006
1 B	Supplier details amended.	12/06/2007
1 C	General design sheet update.	29/05/2018
1 D	TAU II no longer accepted for new installations after phase out period.	20/04/2020
1 E	Supplier updated.	12/01/2024

The TAU II system is fully re-directive and non-gating crash attenuator, and is suited for both narrow and wide hazards (hazards up to 2.6 m wide).

With the acceptance of the TAU-M crash cushion on 20 April 2020, the TAU-II system will no longer be accepted for new installations after a "phase out" period of six months from this date (i.e. phase out period ends on 20/10/2020).

### **Drawing Example:**

TAU-II WITH COMPACT BACKSTOP



Ownership: Lindsay Corporation, Omaha, Nebraska U.S.A

www.barriersystemsinc.com

Supplier: Safe Direction Pty Ltd

5 Simpson Close, Smeaton Grange, NSW 2567

Ph: (02) 4648 0394

Website - http://www.safedirection.com.au/

**Test Level:** NCHRP Report 350, test level 3 (100 km/h)

NCHRP Report 350, test level 2 (70 km/h)

System Speed Capacity (km/hr – Test Level)	Number of Bays	L(min) (mm)*
50	2	2934
60	3	3797
70 - TL 2	4	4661
80	5	5525
90	7	7264
100 - TL 3	8	8128
110	10	9868

**Typical Narrow Bay System Configurations** 

\*Measurement based on "Compact Backstop". These lengths are for the narrow bay (867 mm wide) system configurations only. For wide units or different backstops refer to Product & Installation Manual (October 2015).

#### Design:

- The Design Speed should match the product System Speed Capacity, except when the Design Speed equals the Posted Speed (up to and including 100 km/h), then the crash attenuator adopted must have a System Speed Capacity 10 km/h higher than the Design Speed.
- Design to be undertaken in accordance with Product & Installation Manual (October 2015).
- No item that can affect the height at which a vehicle could impact the unit at shall be placed 15 m prior to the unit or along the length of the unit to the rear of the backstop. For kerbing in this area it's Main Roads preference is to use Mountable Type M kerbing (i.e. flush), however Mountable Type A kerbing is permitted if required for drainage purposes.
- The unit has a number of different backstop options with each having its own limitations in terms of widths of hazard that can be protected.
- Designer to select appropriate backstop based on site conditions.
- As the panels slide rearward during an impact the hazard width must not prevent the panels from this movement. The panels can through the use of a variable width diaphragm be angled at 5 degrees to allow the unit to protect a wider hazard.
- Two foundation options acceptable to Main Roads for the narrow TAU-II are:
  - 1. Concrete pad 150 mm thick reinforced 28 MPa. Refer Product & Installation Manual (October 2015).
  - Concrete anchor blocks 914 mm deep reinforced 28 MPa with connecting concrete pad 100 mm thick non-reinforced 28MPa. Refer Product & Installation Manual (October 2015) drawings A040117 and A040115.
- Foundation for wide TAU-II is to be in accordance with Barrier Systems Drawing A040108.
- Wide variety of locally produced transitions available depending on the hazard being protected.
- Designers should investigate the use of a narrow TAU unit, which may require modifications to barriers or the hazard being protected prior to adopting the wide TAU, which is considerably more expensive, than the narrow TAU unit.

#### Limitations:

- Not to be used on crossfalls steeper than 8%.
- Units with more than one cartridge at the leading edge of the system are not accepted by Main Roads.

#### Installation:

Installation to be in accordance with Product & Installation Manual by ACP (October 2015).

## Parts to be Replaced After impact:

Damaged cartridges, diaphragms and slider panels.

#### Parts Typically Re-useable After Impact:

Undamaged cartridges, diaphragms & most slider panels.

# TAU-II

## References:

Relevant FHWA Approval Letters (Refer to website <u>FHWA - Safety</u>.

Code	Description
CC-75	TL3 approval 8 bay, TL2 approval 4 bay
CC-75B	Approval for "wide" TAU-II that can protect hazards up to 2.56 m in width.
CC-75C	Approval of flush mount backstop.