T-39 Thriebeam - Permanent

NOTE: T-39 THRIEBEAM STATUS IS LEGACY IN VICTORIA. EXISTING UNITS MAY CONTINUE TO BE USED UNTIL THE END OF SERVICE LIFE, BUT NO NEW UNITS TO BE INSTALLED.

Details
Category: Longitudinal Barrier
Sub-category: Semi-Rigid
Gating/Non-Gating: N/A
Redirective/Non-Redirective: Redirective
Permanent/Temporary: Permanent

Description
The T-39 Thriebeam Barrier is a proprietary semi-rigid longitudinal system, consisting of Thriebeam rail attached to specially engineered Steel Yielding Line Posts (SYLPs). The SYLPs are designed to prevent wheel snagging thereby eliminating the requirement for blocking pieces.

The T-39 has been fully crash tested and evaluated according to Test Level 3 (TL-3) and Test Level 4 (TL-4) of NCHRP Report 350.

The top of the thriebeam rail is positioned above the posts to eliminate dangerous snag points for vehicles and motorcyclists.

Product Specifications
The T-39 Thriebeam Specifications as outlined in the Product Manual have been summarised in Table 1.

<table>
<thead>
<tr>
<th>T-39 Specifications</th>
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<tbody>
<tr>
<td>Post Length:</td>
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<tr>
<td>Rail Height Above Ground Level:</td>
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<tr>
<td>Post Height Above Ground Level:</td>
</tr>
<tr>
<td>Post Spacing:</td>
</tr>
<tr>
<td>System Width:</td>
</tr>
<tr>
<td>TL3 Crash Test Dynamic Deflection:</td>
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<tr>
<td>TL4 Crash Test Working Width:</td>
</tr>
</tbody>
</table>

Table 1: T-39 Thriebeam Manual (Release 01/11)

Design, Installation, and Maintenance
- Design, installation, and maintenance shall be in accordance with the T-39 Thriebeam Product Manual.
- Where T-39 Thriebeam is being installed adjacent to a trafficable lane, it is recommended that work commence at the end closest to approaching traffic.
- In the case of an impact, any undamaged section may be reused.

<table>
<thead>
<tr>
<th>Installation Tolerances</th>
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<tbody>
<tr>
<td>Height of barrier:</td>
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<tr>
<td>Line of barrier:</td>
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<tr>
<td>Departure from upright axis at the top of the barrier:</td>
</tr>
<tr>
<td>Post spacing:</td>
</tr>
</tbody>
</table>

Table 2: T-39 Installation Tolerances
Deflection & Vehicle Roll

- The T-39 Thriebeam Product Manual provides both dynamic deflection and working width values to be used as required.

- Working width allows for the dynamic deflection and roll of an impacting vehicle. It should be adopted where the T-39 is specified as a TL-4 system and is required to shield a rigid vertical object, such as an overhead/cantilever sign support.

End Terminals/Transitions

- At the time of publishing, no terminals have been accepted for use directly with the T-39 Thriebeam system.

- All T-39 Thriebeam installations must betransitioned to another accepted safety barrier system for termination. For example, T-39 Thriebeam can be transitioned to Type-B Public Domain Guard Fence, shown below.

- All transitions shall be in accordance with the T-39 Thriebeam Technical Drawings. Refer to the supplier’s website for more information.

Limitations

- Cannot be used in narrow median applications.

- Cannot be used on crossfalls steeper than 10%.

- Minimum acceptable distance to the batter hinge point is 600mm.

References

- T-39 Product Manual - contact supplier or find on their website

- VicRoads Road Design Note 06-04 Accepted Safety Barrier Products

- VicRoads Supplement to Austroads Guide to Road Design – Part 6

For further information please contact:

VicRoads Safe System Design team
60 Denmark Street
Kew, Vic, 3101
Telephone: 03 8391 7192
Email: SafeSystemDesign@roads.vic.gov.au

Ingal Civil Products (Australian Supplier)
57-65 Airds Road, Minto MSW 2566
Telephone: 02 9827 3333
Fax: 02 9827 3300
Website: http://www.ingalcivil.com.au/

Trinity Industries, Inc. (Owner)
2525 Stemmons Freeway, Dallas, Texas 75207
Website: www.trin.net

Accepted safety barrier products are subject to periodic review and the information provided in this document may be superseded. Please refer to Road Design Note 06-04 – Accepted Safety Barrier products for the current VicRoads acceptance status.
**Detail Sheet – Update Summary**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Approved</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>November 2014</td>
<td>M-SSD</td>
<td>Revision 1 (First Edition)</td>
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<tr>
<td>September 2017</td>
<td>M-SSD</td>
<td>Second edition</td>
</tr>
<tr>
<td>November 2019</td>
<td>M-SSE</td>
<td>Third edition Updated to legacy status</td>
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