September 8, 2000

Mr. Rodney A. Boyd
Trinity Industries, Inc.
2525 Stemmons Freeway
Post Office Box 568887
Dallas, Texas 75356-8887

Refer to : HSA-CC54A

Dear Mr. Boyd:

In his August 2 letter to Mr. Richard Powers of my staff, Mr. James Albritton requested the Federal Highway Administration's (FHWA) acceptance of a reduced-length TRACC crash cushion as an National Cooperative Highway Research Program (NCHRP) Report 350 test level 2 (TL-2).

The original design, accepted at the TL-3 level in my November 13, 1998 letter to Mr. Don Johnson, was 6.4 meters long. The proposed TL-2 unit is 4.33 meters long. Both the second and third stages of the TL-3 TRACC were shortened approximately 1 meter for the TL-2 design. There were no other changes made. A drawing of the TL-2 design is enclosed.

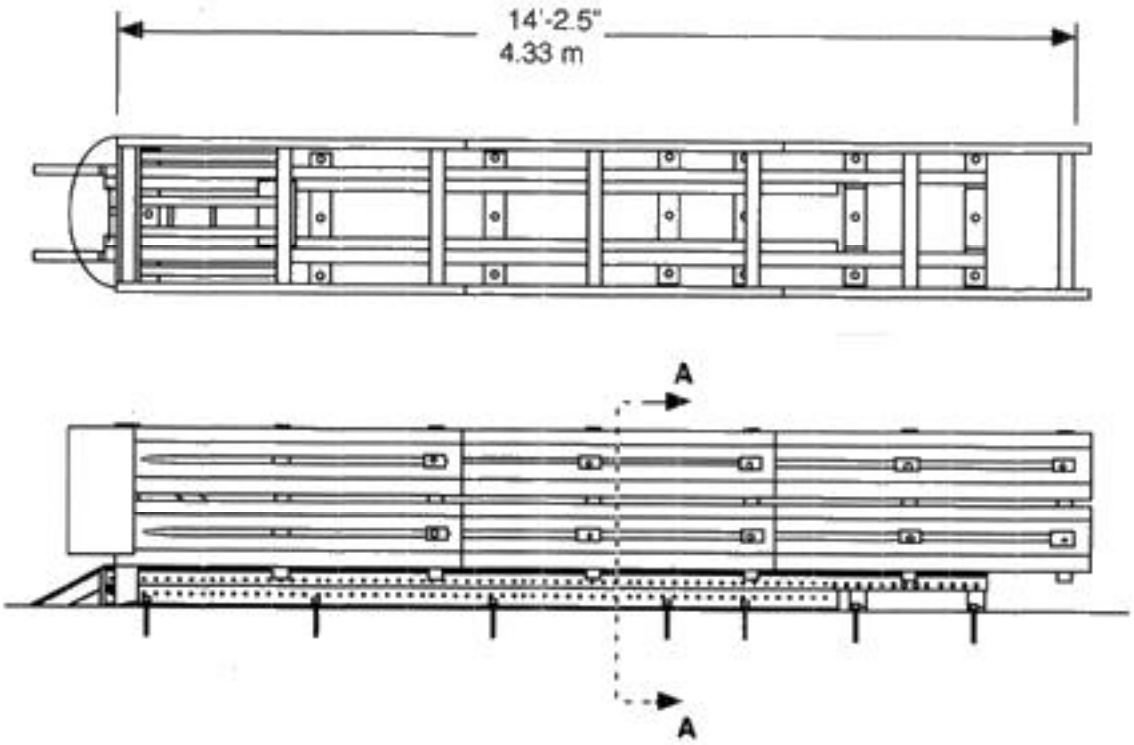
In reviewing the original test series, we noted that the 820 kg car was stopped in approximately 3 meters. Because the first stage of the TRACC was not modified, occupant impact velocity (OIV) is not likely to be increased by shortening stages 2 and 3, nor are the subsequent ride-down accelerations likely to exceed 20 Gs at the reduced impact speed of 70 km/h. Similarly, based on the remaining "stroke" in stage 3 in the 100 km/h TL-3 certification test with the pickup truck and the reduced energy associated with a 70 km/h TL-2 test, we would not anticipate adverse effects with the 2000-kg vehicle with the shorter TRACC unit.

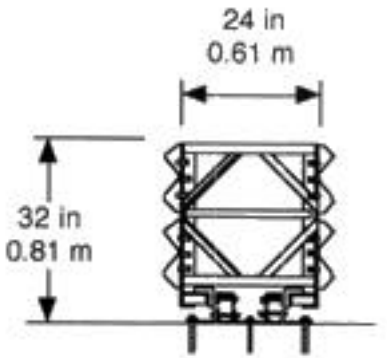
Therefore, the 4.33 m long TRACC may be considered acceptable for use on the National Highway System as a TL-2 attenuator when such use is requested by a State or local transportation agency. As with all TL-2 devices, it should not be used in locations where expected impact speeds are likely to be significantly higher than 70 km/h.

Sincerely yours,

Frederick G. Wright, Jr.
Program Manager, Safety

Enclosure





Section A-A

TRACC
Trinity Attenuating Crash Cushion
Test Level 2 System

Trinity Industries, Inc.
Highway Safety Products Division
2525 Stemmons Freeway
Dallas, Texas 75207

James R. Albritton, P.E.
Exodyne Technologies, Inc.
Fort Worth, Texas
8-2-2000

Enclosure