

**544 CRASH CUSHIONS.**  
**(REV 2-12-13) (FA 2-13-13) (7-13)**

SECTION 544 (Page 703) is deleted and the following substituted:

**SECTION 544**  
**CRASH CUSHIONS**

**544-1 Description.**

Install redirective crash cushions as shown in the Plans. Redirective crash cushions are safety devices with capabilities to redirect the impacting vehicle along the full length of the device.

**544-2 Qualified Products List (QPL).**

Use crash cushions listed on the QPL. Manufacturers seeking approval must submit and meet all crash testing requirements of the National Cooperative Highway Research Program Report 350 (NCHRP 350) or the Manual for Assessing Safety Hardware 2009 (MASH-09). Any new or revised highway safety hardware review request submitted to and received by FHWA after January 1, 2011 shall meet all crash test requirements of MASH-09.

**544-3 Construction.**

Handle and install manufactured materials or articles in accordance with the manufacturer's instructions and the Design Standards.

Delineate crash cushions with a Type 1 Object Markers in accordance with Section 705. As an alternative, the Contractor may install Type III, Type IV or Type VII reflective sheeting on the nose of the crash cushion in accordance with Section 994 and the QPL drawings.

Perform repairs necessary due to defective material, work, or operations without additional cost to the Department.

Restore crash cushions damaged by the traveling public after the installation is completed, accepted and serving its intended purpose on an open section of bridge or roadway within 24 hours.

**544-4 Compensation.**

Price and payment will be full compensation for the complete system or module in place and accepted, including object marker or sheeting. Payment for restoring damaged crash cushions will be the manufacturer's/distributor's invoice price for the new materials/parts plus 20% markup. The 20% markup is compensation for all necessary work, including but not limited to labor, equipment, supplies and profit, as authorized by the Engineer.

Relocation of an existing crash cushion to a permanent location called for in the Plans will be paid for at the Contract unit price for relocating existing systems. Price and payment will be full compensation for relocating and reinstalling the system in accordance with the manufacturer's instructions and the Design Standards.

Payment will be made under:

- |                   |                                |
|-------------------|--------------------------------|
| Item No. 544- 74- | Relocate Crash Cushion - each. |
| Item No. 544- 75- | Crash Cushion - each.          |

