



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

February 12, 2013

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section **544**
Proposed Specification: **5440000 Crash Cushions, REVISED.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification. **Revised language as per FHWA (Felix Delgado), has been highlighted.**

These changes were proposed by John Mauthner, of the State Roadway Design Office, to remove the term, non-redirective, and to clarify test requirements for QPL product acceptance. Also, the change corrects a typo and reference from Section 990 to 993.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to SP965TT or trey.tillander@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4140.

Sincerely,

V. Y. "Trey" Tillander, III, P.E.
State Specifications Engineer

TT/cah

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

CRASH CUSHIONS.(REV ~~211-1276-132~~)

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

**SECTION 544
CRASH CUSHIONS****544-1 Description.**

Install redirective ~~and non-redirective~~ crash cushions ~~(of the sizes and types designated as shown~~ in the Plans. Redirective crash cushions are safety devices with capabilities to redirect the impacting vehicle ~~over~~along the full length of the device. ~~Non-redirective crash cushions allow controlled penetration of the impacting vehicle over 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*~~the evaluation of their crash cushions shall furnish certified test reports showing that their products meet all test~~ requirements of *the National Cooperative Highway Research Program Report 350 (NCHRP 350)* or the Manual for Assessing Safety Hardware 2009 (MASH-09)~~in accordance current with FHWA directives~~. *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 I Object Marker 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.~~Use crash cushions delineated with a Type I Object Marker specified in Section 705 or sheeting in accordance with 990-2Section 993.~~

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.

5440000.D02

All Jobs

Relocation of an existing crash cushion to a permanent location called for in the Plans shall 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.

CRASH CUSHIONS.
(REV 2-12-13)

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 Marker 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 shall 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.

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