

5440000 CRASH CUSHIONS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Barry Smith
414-4776
barry.smith@dot.state.fl

Comment: (11-26-12)

544-3 Construction. Handle and install manufactured materials or articles in accordance with the manufacturer's instructions and the Design Standards. Use crash cushions delineated with a Type I 1 Object Marker specified in Section 705 or sheeting in accordance with 990-2Section 993.

Suggest 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 1 Object Marker as specified in Section 705 or as an alternative, the contractor may install Type III, IV or VII reflective sheeting on the nose of the of the crash cushion. This reflective sheeting shall meet the requirements of Section 994, be listed on the QPL and shall be a minimum of 360 in² in area with a minimum height of 15 inches.

544-3 Construction.

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

Delineate Use crash cushions delineated with a Type I-1 Object Marker as specified in Section 705 or as an alternative, the Contractor may install Type III, IV or VII reflective sheeting on the nose of the crash cushion. This reflective sheeting in must meet the requirements of accordance with 990-2Section 9934, be listed on the QPL and be a minimum of 360 square inches in area with a minimum height of 15 inches.

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.

Response: Revised the wording to state, "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 in accordance with Section 994 and the QPL drawings." *Change Made..*

Chester Henson
414-4117
chester.henson@dot.state.fl.us

Comment: (11-26-12) The requirements for permanent crash cushions should not be different. Recommend that crash cushions have the same requirements, meet the requirements of National Highway Research Program Report (NCHRP 350) or the Manuel for Assessing Safety Hardware 2009 (MASH) and current FHWA directives".

Response: Revised the wording to state, "Manufacturers seeking approval must meet the requirements of National Cooperative Highway Research Program Report 350 (NCHRP 350) or the Manual for Assessing Safety Hardware 2009 (MASH 09) and current FHWA directives." *Change Made..*

D4 Const

Comment: (12-17-12) D4 Const. has no comments on the proposed spec. We have the following comment on the Standard Index 430 referenced in the spec.: The placement of the Object Marker centered 3 feet in advance of the cushion nose (General Note 8 Index 430 Sheet 1) is sometimes a problem due to turning radii of large trucks at underpasses and intersections. Suggest allowance be made for the object marker to be placed on the cushion nose in some instances.

Response: Thank you. We will share this comment with the appropriate staff in Roadway Design for their consideration.
No change made.

Debbie Toole

414-4114

deborah.toole@dot.state.fl.us

Comment: (12-21-12)

Remove the changes to 544-3 and insert text highlighted below. (Object markers are specified in Section 705, reflective sheeting for temporary and permanent crash cushions must be in accordance with Section 994.)

544-3 Construction.

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

Use crash cushions delineated with a Type I-1 Object Marker **specified in accordance with** Section 705. **As an alternative, the Contractor may install or reflective sheeting on the nose of the crash cushion in accordance with Section 994**~~990-2~~**Section 993 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.

Response: Revised the wording to state, "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 in accordance with Section 994 and the QPL drawings." *Change Made..*
