

7050000 HIGHWAY DELINEATORS  
COMMENTS AND RESPONSES FROM INDUSTRY REVIEW

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Comments:

For the high performance delineator, can the base be specified to have reflective sheeting? This would be useful in instances where the post has been knocked off and not yet replaced.

Response:

The shape of the bases precludes installation of reflective sheeting material.

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Comments:

705-1 Description

It seems like the phrase "As indicated in the Design Standards and plans," would cover the types and locations requirements called for in the phrase "of the types and locations called for in the Design Standards or on the plans."

705-3 Installation Requirements

It seems like the phrase "shall be installed in accordance with the Plans and Design Standards," sounds more to the point than "shall be installed at locations identified in the plans and in accordance with the Design Standards."

Response:

Agree, the sentences were rephrased based on your suggestions.

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John Previte  
D1 Specifications Engineer  
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Comments:

A small thing: Specs book has various ways of expressing area. May we standardize?  
For example: in tables: (in<sup>2</sup>), in text: (square inches)

Response:

Corrected in Section 993.

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Alan Lafferty, Gulf Industries, Inc., gulf7@earthlink.net  
Wayne Burger, Gulf Industries, Inc., wayne@gulfindustriesinc.com  
Sue Reiss, Impact Recovery Systems, sreiss1276@aol.com

Thank you for the opportunity to comment on the Departments proposed specification change for section 993, 972 and 705. Gulf Industries is a manufactures representative for Impact Recovery Systems in Florida. We feel it is important to provide the most durable and effective delineation systems available to the motoring public traveling the roads of America. Impact Recovery Systems delineators and products have proven to be a cost effective system for high impact areas as well as work zone and pedestrian applications.

Section 993-2.4.2 Post Base: The base post shall have a replacement feature which allows for the replacement of the post. The base shall be permanently anchored to the separator and be capable of withstanding one hundred vehicle impacts without damage.

Section 993 Comments:

Consider revising to:

The base shall be mechanically anchored to the separator and be capable of withstanding one hundred vehicle impacts without detaching.

Section 993-2.5.1 Dimensions: The post shall have a minimum height of 48 inches above the pavement surface. The post shall have a minimum diameter or width of 3 inches.

Consider revising to:

The post shall have a minimum height of 48 inches above the pavement surface. The post shall have a minimum diameter or width of 2.5 inches.

Section 993-2.5.2 Post Base: The base shall have a replacement feature which allows for the replacement of the post. The base shall be permanently anchored to the roadway and be capable of withstanding one hundred vehicle impacts without damage.

Consider revising to:

The base shall be mechanically anchored to the separator and be capable of withstanding one hundred vehicle impacts without detaching.

Section 993-2.5.4 Retroreflective Sheeting: the reflective sheeting shall be Type IV abrasion resistant sheeting and meet the requirements of Section 994. The reflective sheeting shall have a minimum width of 3 inches and have a minimum area of 30 inch<sup>2</sup>.

The Impact Recovery Systems post is 2.73 inches in diameter. Consider revising to: The reflective sheeting shall be Type IV abrasion resistant sheeting and meet the requirements of Section 994. The reflective sheeting shall have a minimum omnidirectional surface area of 30 inch<sup>2</sup>.

Response:

See Section 993 responses.

Section 705 Comments:

Section 705-2.2 Product Acceptance on the Project. Ensure that delineators, and delineator post assemblies and markers used to delineate guardrail are listed on the Qualified Products List.

This section refers to guardrail only, consider revising to: Ensure that delineator object markers and reflector units for guardrail and barrier wall are listed on the Qualified Products List.

Section 705-5 Basis of Payment.

“Section 705- 11 Delineator – each” lumps recycled flexible post delineators, nonflexible post delineators, high visibility median separator delineators and high performance delineators together.

There are significant manufacturing and performance differences between each of this category’s of products which will affect the cost. A recycled flexible delineator post requires 5 vehicle impact hits at 55 mph and a high performance delineator post requires 100 vehicle impacts at 55 mph. A high visibility median separator delineator requires 230 inch<sup>2</sup> of reflective sheeting which dramatically increases the cost of this system over the two other categories.

Consider revising to:

705- 11 Delineator – each.

705- 12 High Visibility Median Separator Delineator – each.

705- 13 High Performance Delineator – each.

Section 705 Response:

Section 705-2.2 does not refer only to guardrail markers. It refers to delineators, delineator post assemblies, and markers for guardrail & barrier wall. The only thing it does not include is object markers. Object markers are covered by MUTCD.

Section 705-5 gives the basic pay item for object markers and delineators. The Basis of Estimates Manual gives the further breakdown of the pay items by object marker type and delineator type. We are getting away from duplicating the full pay item breakdown in the Specifications and Basis of Estimate Manual.

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