To: SUPERSEDED BY EB 02-024 EFFECTIVE 7/11/02		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 99-035

Title: **PLASTIC AND SYNTHETIC BLOCK-OUTS USED WITH HEAVY POST BLOCKED-OUT CORRUGATED GUIDE RAIL & MEDIAN BARRIER**

Distribution:

- ☒ Manufacturers (18)
- ☒ Main Office (30)
- ☒ Local Govt. (31)
- ☒ Regions/Agencies (32)
- ☒ Surveyors (33)
- ☒ Consultants (34)
- ☒ Contractors (39)
- ☒ _____( )

Approved:

P.J. CLARK, Deputy Chief Engineer
Design Division

11/19/99
Date

ADMINISTRATIVE INFORMATION. This EI does not supersede any previous issuances. It is effective with projects submitted for letting on or after 05/04/00. The contents of this instruction ultimately will be incorporated into the Standard Specifications and Standard Sheets. If designers wish to permit the use of block-outs discussed herein with a project having an earlier letting date, they must include the shelf note established in this EI in the PS&E as a special note.

PURPOSES. This EI issues information and specifications for plastic and synthetic block-outs as a substitute for timber block-outs for use with Heavy Post Blocked-Out (HPBO) Corrugated Guide Rail and Median Barrier.

TRANSMITTED MATERIALS. This instruction transmits a shelf note with changes to the Standard Specifications for Heavy Post Blocked-Out Corrugated Rail Systems, by adding section §710-26. This shelf note will be a main office insert into contract proposals from the effective date of this instruction.

BACKGROUND. EI 97-016 was issued earlier to transmit a number of revisions with regard to HPBO guide rail and median barrier. One of the changes made was to replace steel block-outs with timber block-outs. This was necessitated due to the failure of steel block-outs during a crash test performed for the FHWA. The Materials Bureau at NYSDOT has recently evaluated plastic and synthetic guiderail block-outs from three different companies and concluded that these block-outs would perform satisfactorily. These guiderail block-outs were manufactured with predominantly recycled material. Considering the satisfactory performance of these block-outs in crash testing, low prices and the desire to promote the use of recycled material, these products will now be allowed as a substitute for timber block-outs as part of the HPBO corrugated rail system.

CONTACT PERSON. Arvind Salgam, Design Quality Assurance Bureau, M.O. Bldg 5, Room 410, (518)-457-5855.

PLASTIC AND SYNTHETIC BLOCK-OUTS FOR HEAVY POST GUIDERAIL SYSTEMS

Make the following changes to the *Standard Specifications of January 2, 1995*:

Page 6-21, line 43 thru Page 6-22, line 2, ***delete*** entirely and replace with the following:

"606-2.09 Heavy Post Blocked-Out Corrugated Beam Guide Railing and Median Barrier. The material requirements for § 710-20 Corrugated Beam Guide Railing and Median Barrier shall apply except that posts, timber, plastic or synthetic block-outs, soil plates, expansion anchors and hardware and fasteners shall be as detailed on the Standard Sheets for Heavy Post Blocked-Out Corrugated Beam Guide Railing and Median Barrier. The Wood and Timber Posts and Timber Block-Outs shall conform to § 710-13. The Plastic and Synthetic Block-Outs for Heavy Post Guiderail Systems shall conform to § 710-26."

Page 7-115, line 3, ***change*** "710-26" to "710-27"

Page 7-115, line 3, ***add*** the following:

"710-26 PLASTIC AND SYNTHETIC BLOCK-OUTS FOR HEAVY POST GUIDERAIL SYSTEMS

SCOPE. This specification describes plastic and synthetic material block-outs used to provide uniform offset distance from the corrugated beam rail to the heavy post.

GENERAL. The block-out shall have the same general dimensions as detailed in the department standard sheets. The block-out shall not contain excessive voids that would compromise its physical strength. The material shall be designed for outdoor exposure and shall include chemical additives to resist UV degradation. If the product contains recycled materials, they shall be environmentally friendly and non-hazardous. It shall contain no materials that will negatively affect its field performance such as materials that absorb moisture.

BASIS OF ACCEPTANCE. Manufacturers or suppliers may submit their product for evaluation to the Director of the Materials Bureau. This submission shall include copies of drawings, specifications, test reports, the quality control procedure and Federal Acceptance Letters. At the Departments discretion, the material will be evaluated for conformance to these specifications and product samples will be tested in accordance with procedural directives of the Materials Bureau.

The product will be accepted at the job site based on its appearance on the Approved List. In addition, the contractor shall provide manufacturer certification that the supplied product has the same chemical composition, mechanical properties as the product used in the testing accepted for Federal Approval. Modifications to this product are acceptable provided the resulting product is an equivalent or of higher level of quality, and supporting documentation is provided.

Addendum No. 2, Page VI-8, ***delete*** lines 29 and 34 in their entirety.