

Specifications for Road and Bridge Construction and addition of Subsection 913.04 to the 2007 Standard Specifications.

REFERENCE:
Revision to the Design Manual – Roadway, Section 13 page 13-18 and Section 14 BDC13MR-08 dated May 20, 2015
Revision to CD-159-3, CD-159-4, CD-159-5 and TCD-2 of the 2007 Standard Roadway - Traffic Control - Bridge Construction Details BDC14D-04 dated May 21, 2015

Subparts 159.02.01 and 159.03.02 of *the 2007 Standard Specifications have been revised and 913.04 added* to conform NCHRP 350 and the Manual for Assessing Safety Hardware (MASH). Since these changes will result in using only one type (old type 4) of Construction Barrier Curb, it is proposed to discontinue referring to the Construction Barrier Curb types 1 and 4, instead, simply refer to the term "Construction Barrier Curb".

This BDC announcement must be read in conjunction with the referenced BDC Announcements.

The following revisions have been incorporated into the Standard Input SI2007 as of May 22, 2015.

159.02.01 Materials

THE FOLLOWING IS ADDED TO THE LIST OF MATERIALS REFERENCES:

Box Beam for Construction Barrier Cu	b	.913.04

159.03.02 Traffic Control Devices

2. Construction Barrier Curb. THE ENTIRE TEXT IS CHANGED TO:

Alternate A or B construction barrier curb may be used interchangeably in any location. The Contractor may use construction barrier curb that is constructed using gray or white concrete. Do not place different colors of

construction barrier curb in a continuous run. Do not use construction barrier curb having any of the following deficiencies:

- 1. Exposed steel at the connector flangeway.
- 2. Exposed reinforcement steel.
- 3. Cracking through the cross section.
- 4. An area of concrete missing larger than a 3-inch by 3-inch right triangle.
- 5. Debris in the keyway.
- 6. Non-functioning anchor bolt holes.
- 7. Non-functioning anchor rod hole.
- 8. Paint applied to the surface.
- 9. Objects protruding from the surface.
- 10. Previous repairs.
- 11. Do not use damaged, kinked or bent connection key or box beam stiffener.

At least 30 days before delivering construction barrier curb to the Project Limit, provide the RE notice that the barrier curb is available for inspection. The RE will inspect the barrier curb and approve individual pieces for delivery to the Project Limits.

Ensure that anchor pins do not project above the plane of the barrier curb. Installed the Construction Barrier Curb stiffened with box beams as indicated in the contract documents.

Replace construction barrier curb that does not meet the specified requirements. Do not patch or repair construction barrier curb.

Provide top and side mounted flexible delineators on the construction barrier curb. For delineators located on the right side when facing in the direction of traffic, ensure that the retroreflective sheeting is white. For delineators located on the left side when facing in the direction of traffic, ensure that the retroreflective sheeting is yellow. Attach flexible delineators according to the manufacturer's recommendations.

Starting at the beginning of the construction barrier curb section mount top delineators at 100-foot intervals on tangent sections, or curves of radii greater than 1,910 feet, and at 50-foot intervals on curves of radii of 1,910 feet or less.

Mount side delineators at the lead end of each barrier segment with the top of the delineator 3 inches from the top of the barrier.

SECTION 913 – GUIDE RAIL, FENCE, AND RAILING

THIS SECTION IS RENAMED TO:

SECTION 913 – GUIDE RAIL, FENCE, RAILING AND BOX BEAM

THE FOLLOWING SUBSECTIONS IS ADDED:

913.04 BOX BEAM FOR CONSTRUCTION BARRIER CURB.

Ensure that the box beam is made of cold-formed welded and seamless structural tubing. Ensure that the box beam conforms to ASTM A500, Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes, Grade B.

Ensure that the box beam is tested in accordance with ASTM E436 on a 2 x 9 inch galvanized specimen at -0.4°F and provide certified test result to the ME.

The Department will reject the material if the average percent shear area falls below 50.

Ensure that the identification number/information is placed on the material at an interval of 4 feet or less.

Ensure that the box beam is galvanized in accordance with ASTM A123. Fasteners are galvanized and conform to the following unless specified otherwise in the contract documents: Bolts ASTM A307 Grade A, nuts ASTM A563 Grade A or better, and washers ASTM F844.

Implementation Code S (Special)

Changes must be implemented in all applicable Department projects scheduled for Final Design Submission after one month of the date of the BDC announcement where these changes do not result in any one of the following to the project:

- Significant delay in the project delivery
- Significant increase in the construction costs of the project
- Acquisition of additional ROW
- Significant environmental impacts
- Significant alteration of the construction staging
- Necessity for detours where none previously existed

Changes must be implemented in all applicable Department projects currently in Preliminary Engineering or earlier stages and in which these changes do not result in the following:

- Acquisition of additional ROW that would significantly delay the project.
- Significant environmental impacts

Recommended By:

Approved By:

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