New Jersey Department of Transportation

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Baseline Document Change Announcement

ANNOUNCEMENT: BDC23S-02

DATE: March 13, 2023

SUBJECT: MUTCD & Standard Highway Signs and Markings Book compliance

- Revision to the 2019 Standard Specifications for Road and Bridge

Construction, Sections 159, 702, 911, and 1001.

Sections 159, 702, 911, and 1001 of the 2019 Standard Specifications for Road and Bridge Construction have been updated in order for the specifications of several items to be compliant with the MUTCD and to provide updated references to the 2004 Edition of Standard Highway Signs and Markings Book, and its 2012 Supplement.

The following revisions have been incorporated into the 2019 Standard Specifications via 2019 Standard Inputs, SI2019:

159.02.02 Equipment

THE FOLLOWING EQUIPMENT IS CHANGED TO:

159.03.02 Traffic Control Devices

PART 3 IS CHANGED TO:

3. Arrow Board. Provide an arrow board as specified in 1001.01.

159.03.08 Traffic Direction

PART A IS CHANGED TO:

A. Flagger. Provide a flagger that has received formal training in flagging operations and the proper use of the STOP/SLOW paddle. The flagger must be able to demonstrate the abilities indicated in the current MUTCD and, when requested, demonstrate competency to the RE. Immediately replace flaggers who fail to demonstrate competency with a competent flagger. Ensure that flaggers wear a 360 degree high-visibility retroreflective orange safety garment meeting ANSI/ISEA Class 3, Level 2 standards. Ensure that the flagger is equipped with a STOP/SLOW paddle and follows MUTCD flagging procedures.

159.04 MEASUREMENT AND PAYMENT

THE FOLLOWING PAY ITEM IS CHANGED TO:

Item			Pay Unit
ARROW BOARD.	' X	•	UNIT

702.03.07 Push Button

THE FIRST PARAGRAPH IS CHANGED TO:

Install a push button that operates on logic ground including its housing, and instruction signage. Install cable from the push button to the foundation and make connections. Ensure the traffic signal pedestrian and bicycle actuation sign complies with the MUTCD.

911.01.02 Fabrication

A. Sign Panels.

THE SECOND PARAGRAPH IN PART A IS CHANGED TO:

Fabricate flat sheet signs from a single piece of sheet aluminum without joints, using the thicknesses specified in <u>Table 911.01.02-1</u>. Drill or punch 3/8 inch diameter holes in the sign blank for attachment to sign supports. Locate holes according to the 2004 Edition of Standard Highway Signs and Markings Book. If the panel is larger than 5 feet in any dimension, reinforce the panel with z-bars.

C. Legends and Borders.

THE FIRST PARAGRAPH IN PART C IS CHANGED TO:

The legend for each sign consists of letters, numerals, shields, and other symbols. Use Series E Modified 2000 lettering that conforms to the 2004 Edition of Standard Highway Signs and Markings Book . Ensure that the lettering is aligned, spaced and sized according to 2004 Edition of Standard Highway Signs and Markings Book, its 2012 Supplement, and the working drawings. Apply the legend and borders using the following methods:

911.01.04 Acceptance Inspection

THE FIRST PARAGRAPH IS CHANGED TO:

Notify the ME at least 3 days before shipping to the Project so that arrangements for inspection can be made. The ME will reject signs not fabricated according to the 2004 Edition of Standard Highway Signs and Markings Book, its 2012 Supplement, and the Plans. The ME will ensure that finished signs are clear and legible without smudging, blisters, delamination, loose edges, or other blemishes. The ME will also ensure that the colors have a consistent chromaticity across all signs of the same color.

1001.01 FLASHING ARROW BOARD

SUBSECTION HEADING AND THE ENTIRE TEXT ARE CHANGED TO:

1001.01 ARROW BOARD

Provide either Type A or Type C or both types of arrow boards. Ensure the arrow board elements conform to the MUTCD and the following requirements:

- 1. Non-reflective, black boards equipped with battery-operated amber lights.
- 2. A minimum peak luminous intensity of 8,800 candelas and equipped with photocells that will automatically reduce the luminous intensity to 1,500 candelas when the ambient light level drops to 5 foot-candles.
- 3. A light on the rear face of the board to indicate that the lights are operating.
- 4. Solid state controls with polarity and surge protection.
- 5. Panel operation controls mounted in a lockable enclosure.

Ensure the arrow boards are equipped with a diesel charged battery system. Do not use gasoline powered systems. With RE approval, the Contractor may use the arrow boards equipped with solar charged battery systems in non-moving operations. The Department may require a solar charged battery system in noise sensitive areas.

Securely mount arrow boards on a manufacturer-approved 2 wheeled towing trailer.

1001.03 TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHIONS

THE ENTIRE SUBSECTION IS CHANGED TO:

Provide a truck affixed with a bed-mounted type C arrow board, as specified in 1001.01, and a rear mounted crash cushion. Ensure the weight of the truck with the type C arrow board and the rear mounted crash cushion is minimum total weight of 10 tons. The Contractor may use ballast to meet the weight requirement. When using ballast, ensure that it is securely fastened to the truck. Provide crash cushions that conforms to the following requirements:

- 1. Meets crash-worthiness requirements as specified in <u>159.03.02</u>.
- 2. Designed to be attached to the rear of a truck.
- 3. Equipped with a 90 degree hydraulic tilt system to raise and lower the crash cushion. The tilt system shall have a locking mechanism to secure the crash cushion when in the raised position.
- 4. If equipped with energy absorbing modules, ensure that they are painted yellow.
- 5. Displays alternating 6 inch wide black and yellow bands, composed of Type III-retroreflective sheeting, as specified in ASTM D 4956, in an inverted "V" chevron pattern on the surface of the rear module that faces traffic. When in the raised position, ensure that the surface of the rear facing module also displays the chevron pattern.
- 6. Equipped with standard trailer lighting systems, including brake lights, taillights, and turn signals that are visible in the raised and lowered positions.

Implementation Code R (ROUTINE)

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Changes must be implemented in all applicable Department projects scheduled for Final Design Submission at least one month after the date of the BDC announcement. This will allow designers to make necessary plan, specifications, and estimate/proposal changes without requiring the need for addenda or postponement of advertisement or receipt of bids.

Recommended By:

Paul F. Schneider

Director

Capital Program Support

Approved By:

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