ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for lettings on or after September 1, 2017.
- This EI does not supersede any other issuance.
- The revisions issued with this EI will be incorporated into the Standard Specifications effective September 1, 2017.

PURPOSE: The purpose of this EI is to issue new specifications and usage guidance for standardized transition options between TCB (Temporary Concrete Barrier) and Box Beam Guide Rail.

TECHNICAL INFORMATION:

- This Engineering Instruction is being issued in conjunction with EB 17-005, “Standard Sheet 619-01: Transitions between Temporary Concrete Barrier and Box Beam Guide Rail”, which issues new sheets 4 and 5."
- Four new items are introduced:
  - Box Beam to Flared Temporary Concrete Barrier Transition
  - Box Beam to Unflared Temporary Concrete Barrier Transition
  - Temporary Concrete Barrier Face to Box Beam Transition
  - Temporary Concrete Barrier Back to Box Beam Transition

IMPLEMENTATION:

- The following new contract pay items are approved:
  - 619.1720 Box Beam to Flared Temporary Concrete Barrier Transition Each
  - 619.1721 Box Beam to Unflared Temporary Concrete Barrier Transition Each
  - 619.1722 Temporary Concrete Barrier Face to Box Beam Transition Each
  - 619.1723 Temporary Concrete Barrier Back to Box Beam Transition Each

TRANSMITTED MATERIALS: Revisions are attached to cover changes to the USC version of the Standard Specifications.

BACKGROUND: Situations have frequently arisen where it has been desirable to install Temporary Concrete Barrier in a location where there is an existing run of box beam guide rail. No standard transition details have been available to show how to connect the two systems to make a continuous barrier with compatible deflection characteristics. The subject sheets were developed to indicate some, but not the only, acceptable means of accomplishing the transitions.

CONTACT: Direct questions regarding this issuance to Terry Hale of the Office of Design at (518) 485-7009 or via e-mail at Terry.Hale@dot.ny.gov.
Make the following change to the (US Customary) Standard Specifications that will be effective on September 1, 2017:

**REPLACE** Section 619-1.12 Temporary Concrete Barrier with the following:

‘619-1.12 Temporary Concrete Barrier. Work shall consist of furnishing, installing, moving, maintaining, and removing temporary concrete barrier, including barrier warning lights and transitions to and from guide rail where specified, as shown in the contract documents or as directed by the Engineer.’

**ADD** the following to the end of Section 619-2.12:

“Where transitions between Temporary Concrete Barrier and box beam are required, the box beam shall be in accordance with the requirements of §710-21 Box Beam Guide Railing and Median Barrier. Where required, the Transition End Pieces shall be precast concrete units in accordance with the Standard Sheets and shall be produced in accordance with the requirements of §704-05 Precast Concrete Barrier with a legible permanent marking.”

**ADD** the following to the end of Section 619-3.12:

**C. Box Beam Guide Rail to Temporary Concrete Barrier Transition.** Where required, the Contractor shall install the Transition from Box Beam to Flared Temporary Concrete Barrier or the Transition from Box Beam to Unflared Temporary Concrete Barrier in accordance with the details shown on the Standard Sheets. With the approval of the Engineer, the Contractor may choose to switch options, at no additional cost to the State.

Where the Contractor elects or is required to bolt the box beam to the face of the Temporary Concrete Barrier, the pieces of box beam thus bolted shall be removed from the job and become the Contractor’s property when the Temporary Concrete Barrier is removed. The Contractor shall replace any box beam having holes in its face with new pieces of box beam, as needed. After removal of the Temporary Concrete Barrier, any rail and posts removed to facilitate placement of the Temporary Concrete Barrier transition shall be promptly replaced with new posts and new or acceptable reset box beam guide rail.

When an unflared box to Temporary Concrete Barrier transition is removed, the heavy posts, blockouts, rub rail, and Transition End Piece and associated hardware shall become the property of the Contractor and shall be removed from the project before its completion.

**D. Temporary Concrete Barrier to Box Beam Guide Rail Transition.** Where required, the Contractor shall install Temporary Concrete Barrier Face to Box Beam Transition or Back of Temporary Concrete Barrier Back to Box Beam Transition in accordance with the details shown on the Standard Sheets. When the box beam is mounted to the traffic-side face, a tapered box beam end piece shall be used. When the box beam is behind the Temporary Concrete Barrier, the Contractor shall bolt to the Temporary Concrete Barrier or shall provide an overlap of box beam extending upstream past four segments of the downstream end of the Temporary Concrete Barrier.

When box beam is required to be bolted to the Temporary Concrete Barrier, or the Contractor elects to do so, the necessary positions for the bolts shall be located on the Temporary Concrete Barrier and drilled in the field. The pieces of box beam thus bolted shall be removed from the job and become the Contractor’s property when the Temporary Concrete Barrier is removed. The Contractor shall replace any box beam having holes in its face with new pieces of box beam, as needed. After removal of the Temporary Concrete Barrier, any rail and posts removed to facilitate placement of the Temporary Concrete Barrier transition shall be promptly replaced with new posts and new or acceptable reset box beam guide rail.”
ADD the following to the end of §619-4.12 Temporary Concrete Barrier:

“The quantity to be measured for payment of Box Beam to Flared Temporary Concrete Barrier Transition will be the number of such transitions installed.

The quantity to be measured for payment of Box Beam to Unflared Temporary Concrete Barrier Transition will be the number of such transitions installed.

The quantity to be measured for payment of Temporary Concrete Barrier Face to Box Beam Transition will be the number of such transitions installed.

The quantity to be measured for payment of Temporary Concrete Barrier Back to Box Beam Transition will be the number of such transitions installed.”

ADD the following after the fourth paragraph of §619-5.12 Temporary Concrete Barrier:

“The unit price bid for Box Beam to Flared Temporary Concrete Barrier Transition shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including removal and replacement or resetting of existing rail; placement and removal of the temporary berm; seeding of the disturbed area; and replacement of rail with holes in its face. No separate payment will be made for box beam used to provide an overlap.

The unit price bid for Box Beam to Unflared Temporary Concrete Barrier Transition shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including removal and replacement or resetting of existing rail; furnishing of Transition End Pieces, rub rail heavy posts and blockouts; and replacement of rail with holes in its face.

The unit price bid for Temporary Concrete Barrier Face to Box Beam Transition shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including removal and replacement or resetting of existing rail and furnishing of box beam tapered end piece.

The unit price bid for Temporary Concrete Barrier Back to Box Beam Transition shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, including removal and replacement or resetting of existing rail and replacement of rail with holes in its face. No separate payment will be made for box beam used to provide an overlap.”

In the item list for Section 619- WORK ZONE TRAFFIC CONTROL, ADD the following four items:

“619.1720 Box Beam to Flared Temporary Concrete Barrier Transition Each
619.1721 Box Beam to Unflared Temporary Concrete Barrier Transition Each
619.1722 Temporary Concrete Barrier Face to Box Beam Transition Each
619.1723 Temporary Concrete Barrier Back to Box Beam Transition Each”