ADMINISTRATIVE INFORMATION:

- Effective Date: This Engineering Bulletin (EB) is effective beginning with projects submitted for lettings on or after May 1, 2020.
- Superseded Issuances: No issuances are superseded.
- Disposition of Issued Materials: The revisions issued with the EB will be incorporated into the Standard Sheets Book that will be effective on May 1, 2020.

PURPOSE: The purpose of this EB is to announce the issuance of revised details on several guide rail and concrete barrier sheets.

TECHNICAL INFORMATION:

1. 606-04, Sheet 2: The “anchor post” used on box beam end pieces traditionally had two slots in the post and one slot in the inclined seat angle to facilitate fitting and connecting the two. During testing, the length of the slots in the narrow flanges of the posts made it easy for the bolts to deform the slots and pull out. To strengthen the connection, each flange now has one hole and one slot. Each flange is a mirror of the other so that the posts may be used on either side of the road. A second bolt has been added to the anchorage so there will be one through the slot and one through the hole. Detail C has been added to clarify the position and number of slots and holes in top of the anchor post.

2. 606-04, Sheet 3. Note 5 is revised along the lines of Note 1 on 606-04, sheet 1, relative to fastening posts to the rail on short runs.

3. 606-07, Sheet 2: On the Connection Detail, the former bolt length, 2-3/8”, is hard to find and unnecessarily long. That bolt is being shortened to the much more common length of 2”.

4. 606-13, 606-14, and 606-15: Occasionally, concrete pavement has been poured against concrete median barrier. This has resulted in several cases of the pavement rupturing when the concrete experienced thermal expansion and had no place to move to. The specifications were previously revised to require that a ½” thick Premolded Resilient Joint Filler be glued against the full height of the toe of the concrete median barrier whenever a concrete pavement will be poured over to the barrier. To reduce the chance that this requirement will be missed, a note referencing the requirement is being added to the drawings.

5. 606-20: The transition from box beam to W-beam includes a piece of sheet steel that is wrapped around the box beam and connected to it with a single bolt. When tested, the transition passed, but the single bolt was sheared off. To improve its durability and reduce the chance that the bent sheet might snag on an impacting vehicle, the size of that bolt is being increased from 9/16” diameter to ¾” diameter. Additionally, a post that was erroneously shown very close to that bolt has been removed.

6. 606-20, 606-21: The anchor blocks are to match the standard anchor blocks for 606-01, cable guide rail. The anchor angles are also to be the same as shown on 606-24, Sheet 2. However,
no post is to be mounted on the anchor block. Anchor bolts for that post's support base are neither required nor prohibited.

7. 606-24, Sheet 1: Increased size of anchor block to match the details of the block on 606-01 and added a note to reference 606-01, Sheet 2.

8. 606-24, Sheet 2: Like the above, the bolt connecting the leading ends of the cover plates to the median box beam has been increased in diameter from ½” to ¾” to provide a stronger bolt at a critical location.

9. 606-24, Sheet 2: To allow for consistent anchor blocks, Detail “E”, the anchor block detail on 606-24 is being deleted. (A reference has been added on Sheet 1 to the anchor block detail on 606-01, Sheet 2.)

10. 606-24, Sheet 2: The anchor angle, Detail “D”, is being revised to eliminate the possibility of interference between the anchor bolts and the cable end bolts.

11. 606-25: Corrected reference to Box Beam End Piece on 606-04.

12. 606-36, 606-37: The Jersey-shape barrier is no longer a desirable option for new installations, so the drawings are being marked as “OUTMODED – MAINTENANCE SUPPORT ONLY”.

IMPLEMENTATION:


- **Designers** – When locating transitions between box beam and W-beam systems, avoid placing the anchor block in a constricted location, if possible. When specifying box beam runs of 130 feet or less, backup posts are to be fastened to the rail, except at splice locations, and pay items 606.4809 or 606.4811 for the individual backup posts should be included in the contract.

- **Contractors and Inspectors** – In the Standard Specifications, Section 606-3.05 Concrete Barrier, subsections A.4, B.8, and C.7, there is a requirement that Premolded Resilient Joint Filler be placed between the base of concrete barrier and adjoining concrete pavement to prevent crushing of the pavement due to thermal expansion. To minimize the chances of this being missed during construction, the need for the material is being noted on Standard Sheets 606-13, 606-14, and 606-15.

BACKGROUND: Changes are explained in the Technical Information section.

CONTACT: Questions regarding this EB may be addressed to Terry.Hale@dot.ny.gov, or by phone at (518) 485-7009.