



## Florida Department of Transportation

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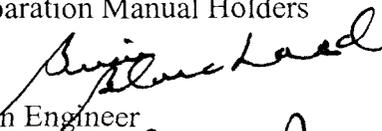
DENVER J. STUTLER, JR.  
SECRETARY

Mail Station 32

### ROADWAY DESIGN BULLETIN 05-07

**DATE:** August 9, 2005

**TO:** District Design Engineers, District Construction Engineers, District Maintenance Engineers, Plans Preparation Manual Holders

**FROM:** Brian Blanchard, PE   
State Roadway Design Engineer

Ananth Prasad, PE   
Director, Office of Construction

Sharon Holmes, PE   
Director, Office of Maintenance

**COPIES:** Robert Greer, William Nickas, Duane Brautigam, Greg Davis, Russell Daly, Elwin Broome

**SUBJECT:** Index 400 Modified Thrie Beam  
Requirement for Thrie Beam Backup Plate at Non-splice Posts

The Modified Thrie Beam Guardrail System detailed in Index 400 requires the installation of a backup plate at all non-splice post locations. The backup plate is a manufactured 12" section of Thrie Beam as shown in the attached drawing. This backup plate requirement is not specifically addressed in the 2004 Design Standards Index 400, nor is it addressed in the Design Standards Modifications. Districts are requested to take the actions below to insure the backup plate requirement is met. This only applies to Modified Thrie Beam guardrail systems with the Steel Modified Thrie Beam Offset Block. This does not apply to standard Thrie Beam systems with standard offset blocks, Bridge Traffic Railing (Thrie Beam Retrofit), and Thrie Beam Guardrail Approach Transitions to Bridge Traffic Rails. Note that use of the Modified Thrie Beam guardrail system throughout the state appears to be limited. Available pay item records indicate this guardrail system has only been used in District 7. However, these pay item records do not reflect possible installations made by Lump Sum contract.

**District Design:**

For projects including Modified Thrie Beam guardrail system that have not been let as of this date, include the following note in the plans as a footnote to the Summary of Guardrail table:

A 12 gage Thrie Beam Back-Up Plate, 12" x 20", (Rail Component RTB01a detailed in AASHTO-AGC-ARTBA "A Guide to Standardized Highway Barrier Hardware") is required at all post locations where a splice does not occur.

The Guide referenced in the above note includes a detail of the backup plate. Guardrail system suppliers are well aware of this document. It is therefore not necessary to include a detail in the plans.

This note is not necessary on projects let after July 1, 2006 as provisions for the backup plate have been included in the 2006 edition of Design Standards Index 400.

**District Construction:**

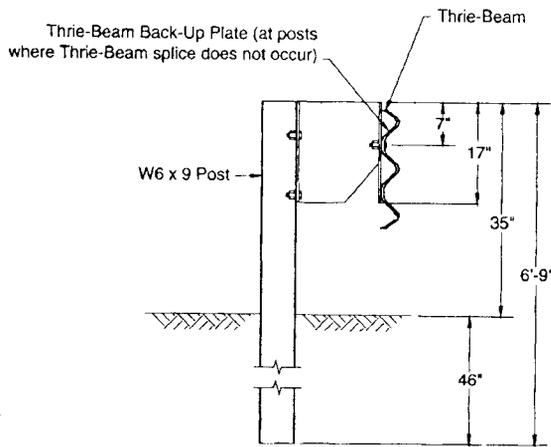
For projects with Modified Thrie Beam guardrail system that are under contract, take appropriate steps to insure the contractor includes the backup plate at non-splice posts. Be aware that guardrail suppliers know that the backup plate is a standard component of the Modified Thrie Beam system and some make it a standard practice to include this component when filling orders.

For active construction projects with Modified Thrie Beam guardrail, determine if the supplier and/or contractor has provided the backup plates. If they have not been supplied, request them of the contractor and make reference to these backup plates being a standard component of the Modified Thrie Beam guardrail system. If the Contractor request compensation for the backup plates, request copies of the invoices from the supplier to ensure that the backup plates were not included in the purchase. If the invoices support that the backup plates were not included in the purchase, negotiate compensation with the Contractor and make payment via Work Order or Supplemental Agreement.

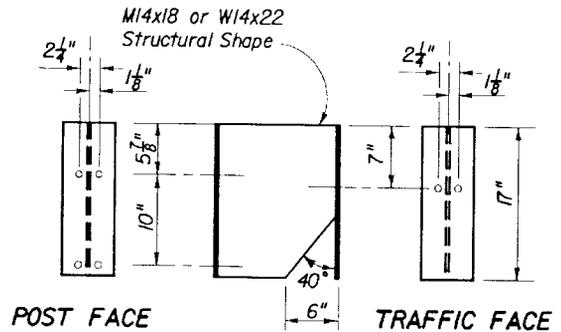
**District Maintenance:**

Inspect all existing installations of Modified Thrie Beam for the presence of backup plates, within Department maintained transportation facilities. Transmit this information to the Office of Maintenance by September 30, 2005. The Office of Maintenance will coordinate with the District Maintenance Offices and the Office of Design to develop a reasonable plan to address missing backup plates at non-splice posts, after the results of the initial inspections are compiled.

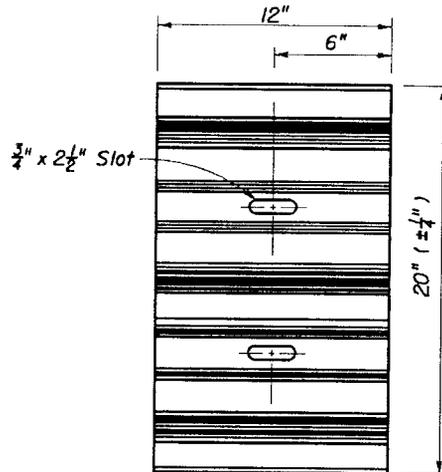
If you have any questions, please contact Andy Keel, 850-414-4334, Suncom 994-4334.



**Modified Thrie Beam**



**SIDE VIEW**  
 All Holes Are  $\frac{15}{16}$ "  $\varnothing$   
**STEEL MODIFIED THRI-BEAM  
 OFFSET BLOCK**



*Back-up plate required behind rail elements at intermediate (non-splice) posts when steel offset block used.*

**THRI-BEAM BACK-UP PLATE**