

Pennsylvania Department of Transportation

**SPECIFICATION FOR TYPE A BREAKAWAY SYSTEM  
WITH W AND S BEAM POSTS**

August 2, 1995

**1. MATERIAL REQUIREMENTS**

**1.1 W Beam and S Beam Posts.** Type A36 steel, or Type A441 or A572 Grade 50 steel, as specified.

**1.2 Low-Profile Breakaway Units.** These units shall be Transpo Industries Incorporated Type B-525-LP or B-650-LP or an approved equal. The units shall come complete with anchors, brackets, hinge plates, shims, couplings, washers, bolts, nuts, and all other items necessary for the field installation and erection on a concrete caisson or other Department approved footing.

**1.3 Slip-Base Retrofit Breakaway Units.** These units shall be Transpo Industries Incorporated Type B-525 (S/B) or Type B-650 (S/B), or approved equal. The units shall come complete with retrofit plate, brackets, hinge plates, shims, couplings, washers, bolts, nuts, and any other items necessary for the field retrofit on existing slipbase post stubs. The brackets shall be Bracket #1, #2, or #3 as specified.

**1.4 Breakaway Unit Accessories.**

**1.4.1 Brackets.** Brackets shall be Transpo Industries Type B-525-LP or B-650-LP System and shall be stamped #1, #2, #3, as specified.

**1.4.2 Template Jig Hardware.** Any necessary hardware required for use with a template jig for spacing and alignment of the anchors shall be provided.

**1.4.3 Coupling Bolts.** These bolts shall be Transpo Industries, Incorporated, Part # SBCSBB or SBCSBA, as specified. 1-8UNC threads, ASTM-A325, galvanize in accordance with ASTM B-695.

**1.4.4 Breakaway Couplings.** Transpo Industries, Incorporated Part #SDCB1B, SBCB2B, SBCA1B or

SBCA2B, as specified. AMS 6378D alloy steel galvanized in accordance with ASTM-A153.

-1-

1.4.5 **Hinge Plates.** Transpo Industries, Incorporated Part # SBHB1B or SBHB2B or equivalent, as specified. Galvanize in accordance with ASTM-A123.

## 2. **FABRICATION**

2.1 **Cutting and Drilling.** W beam or S beam posts shall be cut to proper length and shall have holes drilled for brackets and hinge plates prior to galvanizing.

2.2 **Carbon Content.** A certification or statement showing the carbon content of the W or S beam shall be furnished.

2.3 **Galvanization.** In accordance with ASTM-A120, B633, B695, A392, ASTM-B454, AASHTO-M111 (ASTM-A123), or AASHTO-M-232 (ASTM-A153), as applicable.

2.4 **Identification.** The top and bottom sections of all posts shall be clearly identified to ensure the proper combination and orientation of posts for field erection.

## 3. **SHIPMENT**

Complete installation instructions shall be included with each shipment of breakaway hardware.