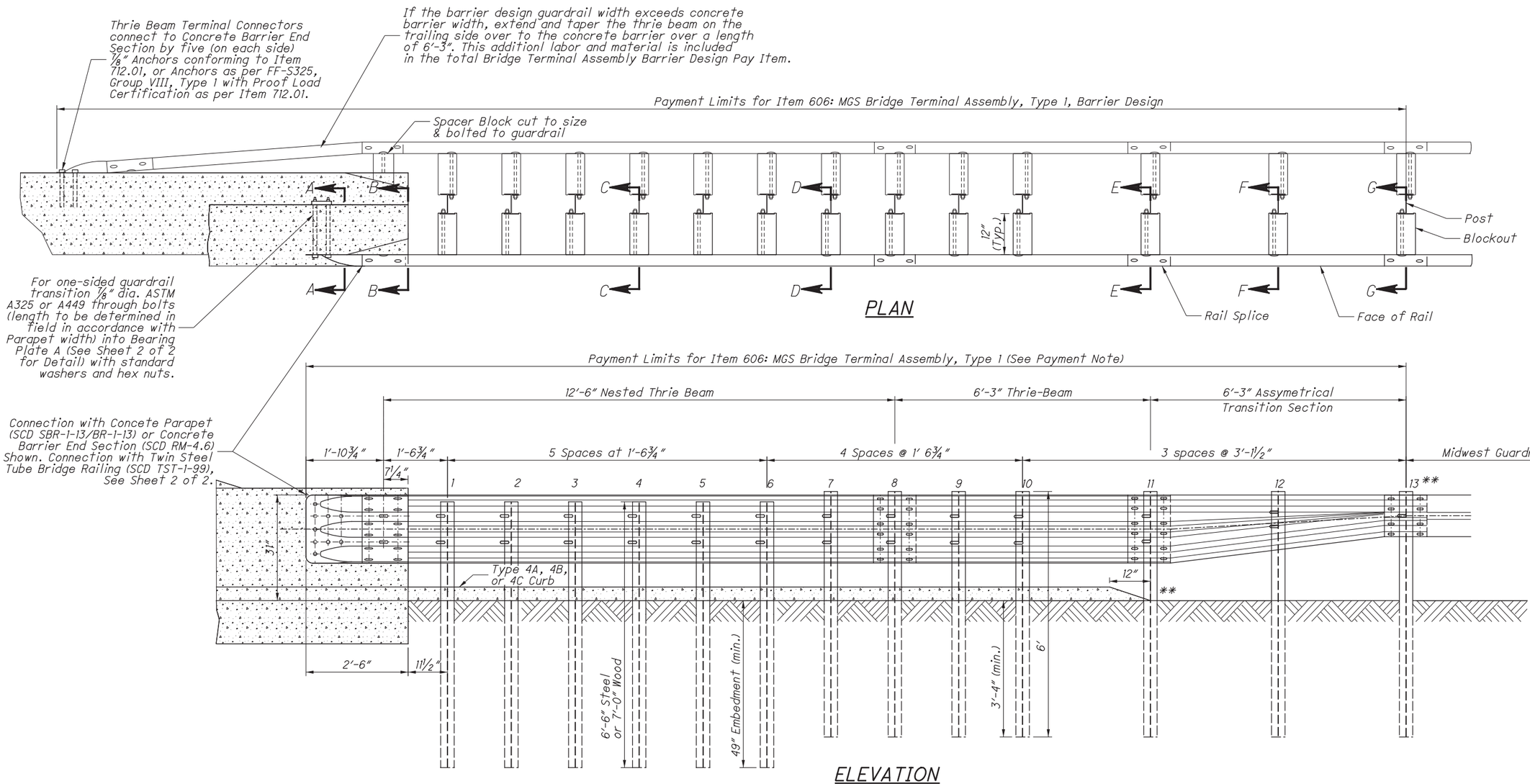


## NOTES

***GENERAL:*** *For additional rail details, see* ***SCD MGS-1.1****. For barrier guardrail details see* ***SCD MGS-2.1****. See Sheet 2 for Sections (single sided BTA shown).*

***APPLICATION:*** *Use Type 1 MGS Bridge Terminal Assembly to connect guardrail runs to bridges having deflector Parapet Type Bridge Railing (see Structural Engineering's* ***SCD SBR-1-13, BR-1-13, TST-1-99****) and for runs to the approach ends of Concrete Barrier (see* ***SCD RM-4.6****).*

*This BTA should also be used to connect guardrail runs to bridges with Twin Steel Tube Railing (see Structural Engineering's* ***SCD TST-1-99****). Connection details for the TST are shown on Page 2.*

***THRIE BEAM:*** *An 18'-9" Section of Thrie beam may be substituted for one of the 12'-6" panels and the 6'-3" section as shown. When attaching this BTA to preexisting walls/parapets, a longer thrie beam panel or a short (approx. 1'-6") panel is permitted to reach the available bolt hole locations.*

***THRIE BEAM TRANSITION:*** *Asymmetrical W-Beam to Thrie Beam transition panel shall be 10 gauge.*

***POSTS:*** *Use standard steel or 6"x8"x72" wood posts per* ***SCD MGS-2.1*** *for Posts No. 7-13. Posts may be set in drilled holes or driven to grade. Posts No. 1-6 are 6'-6" W6x9 steel or 6"x8"x84" wood.*

*Use the same post material throughout the length of the transition unless otherwise specified in the plans or permitted by the Engineer (steel posts shown in this drawing).*

*Wood posts shall be fabricated and pressure-treated for approved species as per CMS 710.12. Bore bolt holes and, if required, trim the tops of posts after the posts are set.*

***BLOCKOUTS:*** *Use 6"x12"x19" (or 6"x12"x22") wood blockouts at Posts No. 1-12. The standard MGS 6"x12"x14" blockout is used at Post 13. Approved Alternate Blockouts can be found on the Office of Roadway Engineering's website. Steel Blockouts are not permitted.*

***FLARED GUARDRAIL:*** *The MGS guardrail should be tangential within 25 ft. of the BTA.*

***CURB:*** *Type 4A, 4B, or 4C Curb per* ***SCD BP-5.1*** *is required under the thrie-beam portion of this transition when connecting to concrete barrier or parapet, but shall not extend past Post No. 11. Curb is NOT required when connecting to TST Bridge Rail.*

***** Where curb must extend upstream of Post No. 11 for drainage purposes, an extra 12'-6" panel of 12 guage w-beam must be nested prior to the transition (upstream of Post No. 13). This added component shall be included as incidental to the cost of the BTA.***

***PAYMENT: Item 606 - MGS Bridge Terminal Assembly, Type 1, Each*** *or* ***Item 606 - MGS Bridge Terminal Assembly, Type 1, Barrier Design, Each****, includes the cost of all components including additional and different size of posts and blockouts, nested Thrie-Beam, transition and connector sections, Bearing Plate, bolts, washers, nuts, and other hardware.*

*Curb is paid separately under* ***Item 609 - Curb, Type 4__, in feet****.*

** Place the first post of the MGS 3'-1½" past the BTA, then every 6'-3" thereafter to keep posts offset from the rail splices. A minimum of 12'-6" of MGS Guardrail should be placed between the BTA and end anchor.*

*THIS DRAWING REPLACES MGS-3.1 DATED 7-21-2017*

REVISION DATE 1-19-2018

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR David L. Holstein

STDS. ENGINEER D. Fisher

OFFICE OF ROADWAY ENGINEERING

STANDARD ROADWAY CONSTRUCTION DRAWING

**MIDWEST GUARDRAIL SYSTEM**

**MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1**

SCD NUMBER **MGS-3.1**