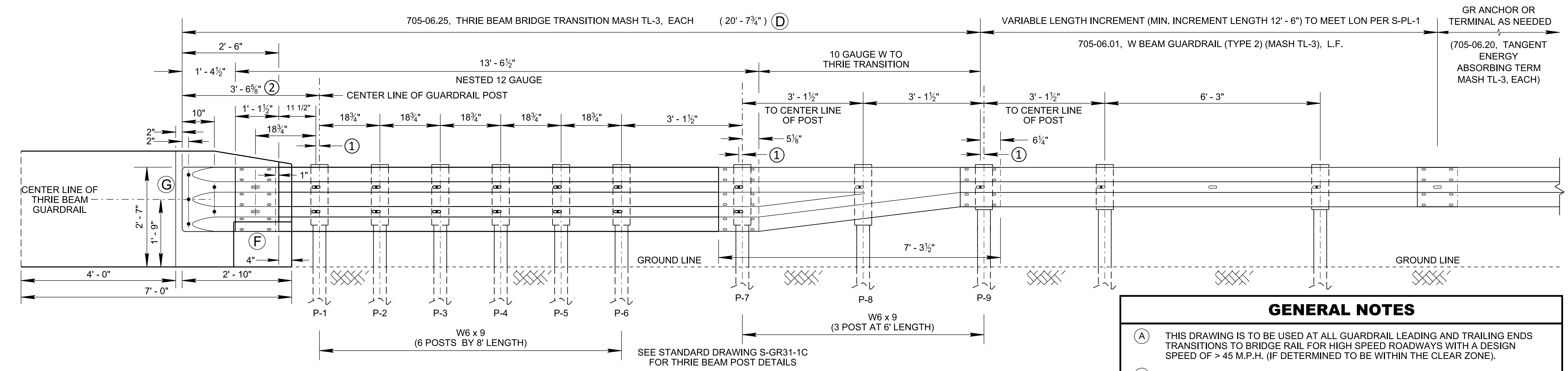
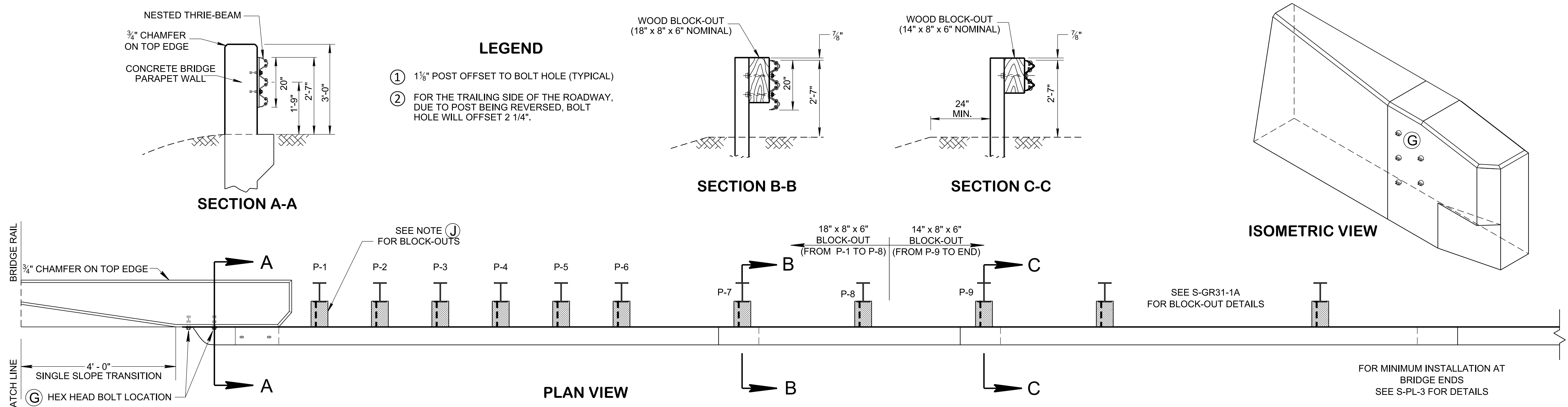


7/5/2023 2:26:22 PM P:\StandDraw\DESIGN STANDARDS\Standards Drawings\Standard Roadway Drawings - CURRENT\In Progress\10-106.00 Safety Design and Guardrails IP\106.05 Guardrail Connections IP\SGRC4-202307

REV. 02-28-20: REVISED GENERAL NOTE (A).
 REV. 10-16-20: RELOCATED SECTION C-C AND ADDED BLOCK-OUT NOTES ON PLAN VIEW. ADDED POST NUMBERS. ADJUSTED THE NUMBER OF POSTS ON ELEVATION VIEW. REVISED GENERAL NOTES (D), (E) AND (G).
 REV. 06-15-21: REVISED PLAN AND ELEVATION VIEWS AND GENERAL NOTE (D). REVISED LEGEND NOTE 2.
 REV. 07-07-23: GENERAL NOTE (J) WAS ADDED.



GENERAL NOTES

(A) THIS DRAWING IS TO BE USED AT ALL GUARDRAIL LEADING AND TRAILING ENDS TRANSITIONS TO BRIDGE RAIL FOR HIGH SPEED ROADWAYS WITH A DESIGN SPEED OF > 45 M.P.H. (IF DETERMINED TO BE WITHIN THE CLEAR ZONE).

(B) CONNECTION TO BRIDGE RAIL SHOWN. FOR CONNECTION TO CONCRETE MEDIAN BARRIER WALLS, SEE STANDARD DRAWING S-SSMB-6F.

(C) SEE STANDARD DRAWINGS STD-1 SERIES FOR BRIDGE RAILING DETAILS. S-GR31-1 SERIES FOR ALL OTHER GUARDRAIL DETAILS AND MATERIAL PROPERTIES NOT SHOWN AND S-PL-3 FOR MINIMUM LENGTH AND DELINEATOR REQUIREMENTS.

(D) INSTALLATION OF GUARDRAIL CONNECTOR TO THE BRIDGE RAIL SHALL BE INCLUDED UNDER ITEM 705-06.25, THRIE BEAM BRIDGE TRANSITION MASH TL-3, PER EACH. COMPONENTS INCLUDE BUT NOT LIMITED TO, THRIE BEAM TERMINAL CONNECTION, THRIE BEAM RAIL, THRIE BEAM TRANSITION PANEL, ALL COMPONENTS REQUIRED FOR ATTACHMENT OF THE THRIE BEAM RAILS TO THE BRIDGE RAIL AND POSTS.

(E) BUTTON HEAD "POST" BOLTS (ASTM A307) SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT (ASTM A563) AND WASHER AND NOT MORE THAN 1" BEYOND IT. BUTTON HEAD "SPLICE" BOLTS (ASTM 307), 5/8" DIA. X 2" (AT THRIE-BEAM RAIL SPLICES) WITH 5/8" DOUBLE RECESSED NUTS.

(F) GALVANIZED WASHERS USED WITH THE 5/8" DIA. POST BOLTS SHALL BE TYPE A 1-3/4" O. D. WASHERS.

(G) USE INSERT ASSEMBLY TO CONNECT THE THRIE BEAM GUARDRAIL TO THE BRIDGE RAIL USING 5 HEX HEAD BOLTS AT 7/8" Ø X 2" AND WASHERS.

(H) SAFETY PERFORMANCE OF THIS DEVICE HAS BEEN EVALUATED PER TRB 2672(39) 41-51 DEVELOPMENT OF A STANDARDIZED BUTTRESS FOR APPROACH GUARDRAIL TRANSITIONS AND TTI REPORT 9-1002-12-3, FOR MASH TL-3.

(I) TRANSITION TO 36" MAY BE ELIMINATED WHEN 32" PARAPET WALL DESIGN IS USED.

(J) WHEN BRIDGE END DRAIN FLUME IS REQUIRED, USE 12 INCH DEEP BLOCK-OUTS SEE STANDARD DRAWINGS D-FLU-2 AND D-FLU-2A FOR DETAILS.

APPROVED BY FHWA (ALL OTHERS APPROVED BY TDOT)

STATE OF TENNESSEE
 STANDARD DRAWING
 DEPARTMENT OF TRANSPORTATION

GUARDRAIL CONNECTION TO BRIDGE RAILING CONCRETE PARAPET

06-28-2019 S-GRC-4

NOT TO SCALE

CONCRETE BRIDGE PARAPET WALL DETAILS

INSERT ASSEMBLY
 CAST IN PLACE THREADED STEEL INSERT WITH 7/8" x 2" HEX HEAD GALVANIZED BOLTS (A307) HOT DIP ZINC COATING ASTM A153