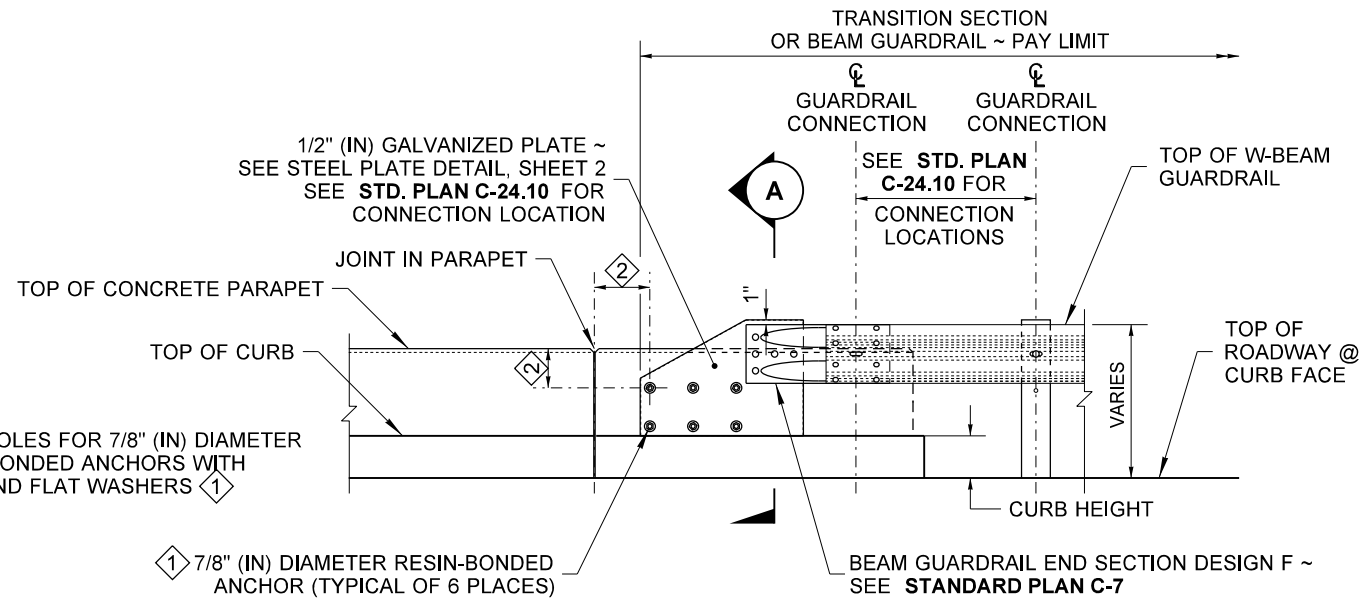
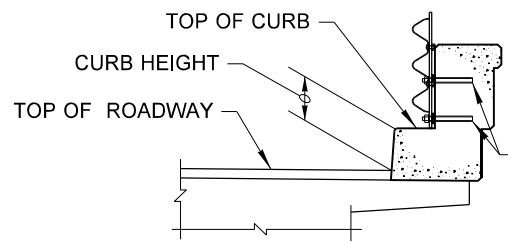


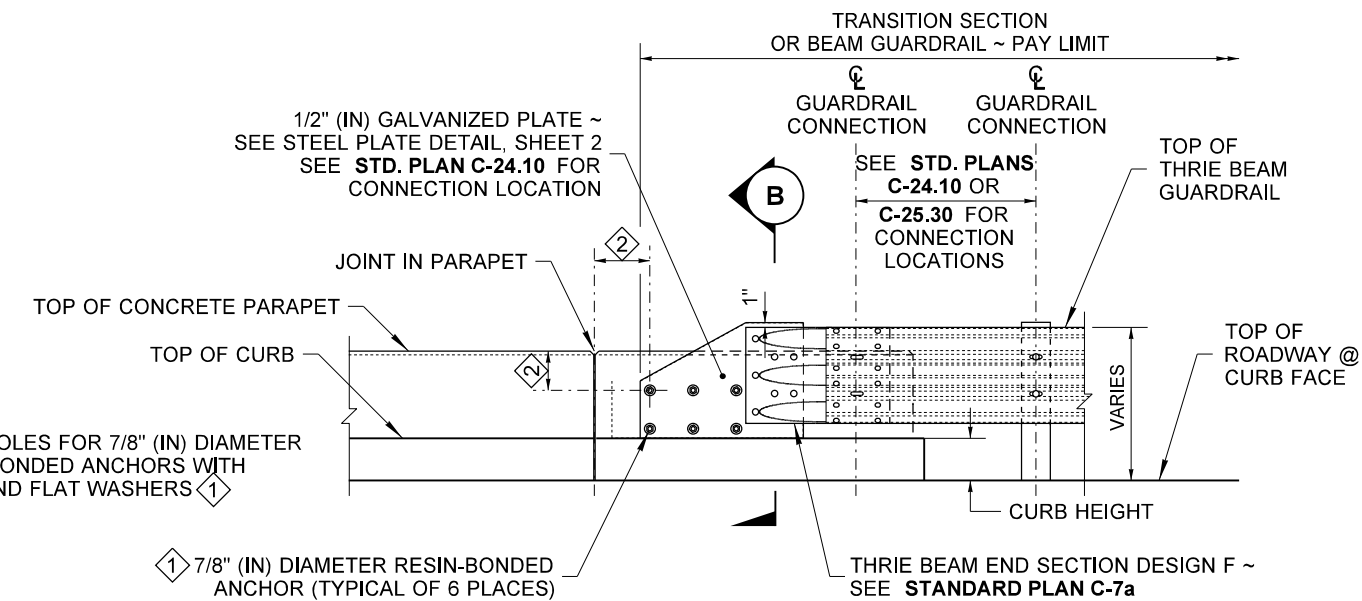
SECTION A
(CURB SHOWN, SIDEWALK SIMILAR)



ELEVATION VIEW
W-BEAM GUARDRAIL CONNECTION

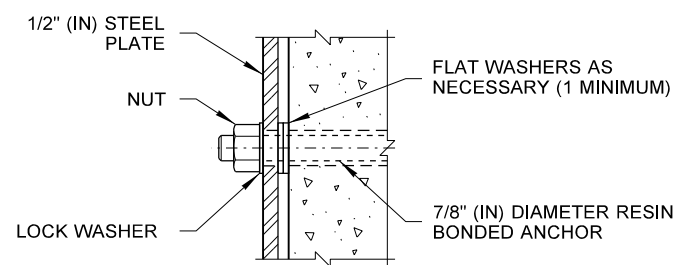


SECTION B
(CURB SHOWN, SIDEWALK SIMILAR)



ELEVATION VIEW
THRIE BEAM GUARDRAIL CONNECTION

- KEY NOTES**
- ① Embedment and hole diameter per Manufacturer's recommendation, except embedment shall be 7 7/8" (in) min. ~ See "Hardware Assembly Detail". Do not damage existing reinforcement. Core drilling allowed if existing reinforcement is located prior to drilling. Roughen edges of core drilled holes.
 - ② Center of resin bonded anchors shall be a minimum of 4" (in) from concrete joints and edges.
 - ③ Hole locations may be adjusted horizontally to avoid existing reinforcement. \varnothing of holes shall have 1" (in) clearance minimum from plate and guardrail end section edges and shall be spaced a minimum of 6" (in) apart. Holes may be field drilled, in which case they shall be painted with two coats of paint conforming to **Standard Specification Section 9-08.1(2)B**.



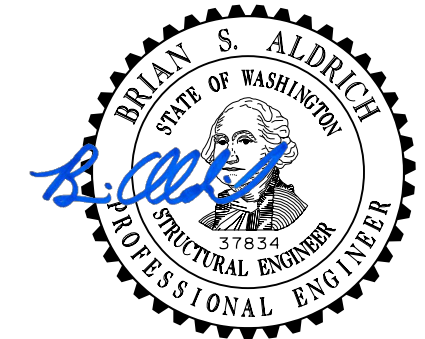
HARDWARE ASSEMBLY
DETAIL

NOTES

1. All material and quality of work shall be in accordance with requirements of the current edition of the **WSDOT Standard Specifications for Road, Bridge and Municipal Construction (M 41-10)**.
2. Material Specifications:
Steel shapes & Plates.....**ASTM A 36**

Bolts, Nuts & Washers, unless otherwise noted.....**Standard Specification Sections 9-16.3(3) & 9-16.3(4)**

Resin Bonded Anchors (all thread).....**ASTM A 193** Grade B7, or **ASTM A 449**
-See Contract Special Provisions for material and construction requirements
3. All steel plates shall be galvanized in accordance with **AASHTO M 111**, after fabrication. Bolts and hardware shall be galvanized in accordance with **AASHTO M 232**.
4. All bolt holes shall be 1/16" (in) larger than the bolt diameter unless otherwise specified. Use template to locate holes in concrete. Bolt lengths not shown shall be sized to provide 1/4" (in) minimum of thread exposed beyond the nut.
5. Remove existing anchors in accordance with **Standard Specification Section 8-11.3(1)D** (Typical).
6. Resin bonded anchor grouping for a steel plate shall not bridge over a bridge deck expansion joint.

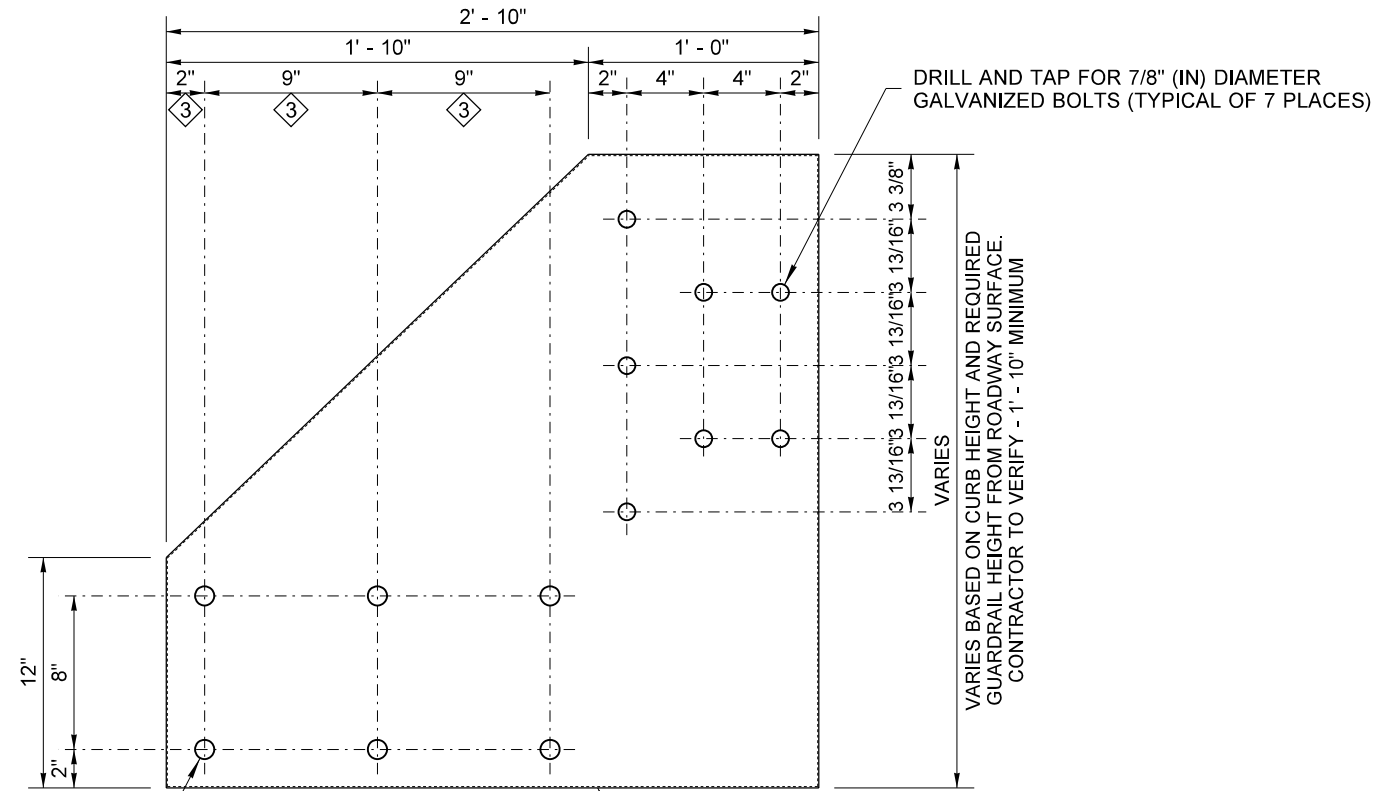


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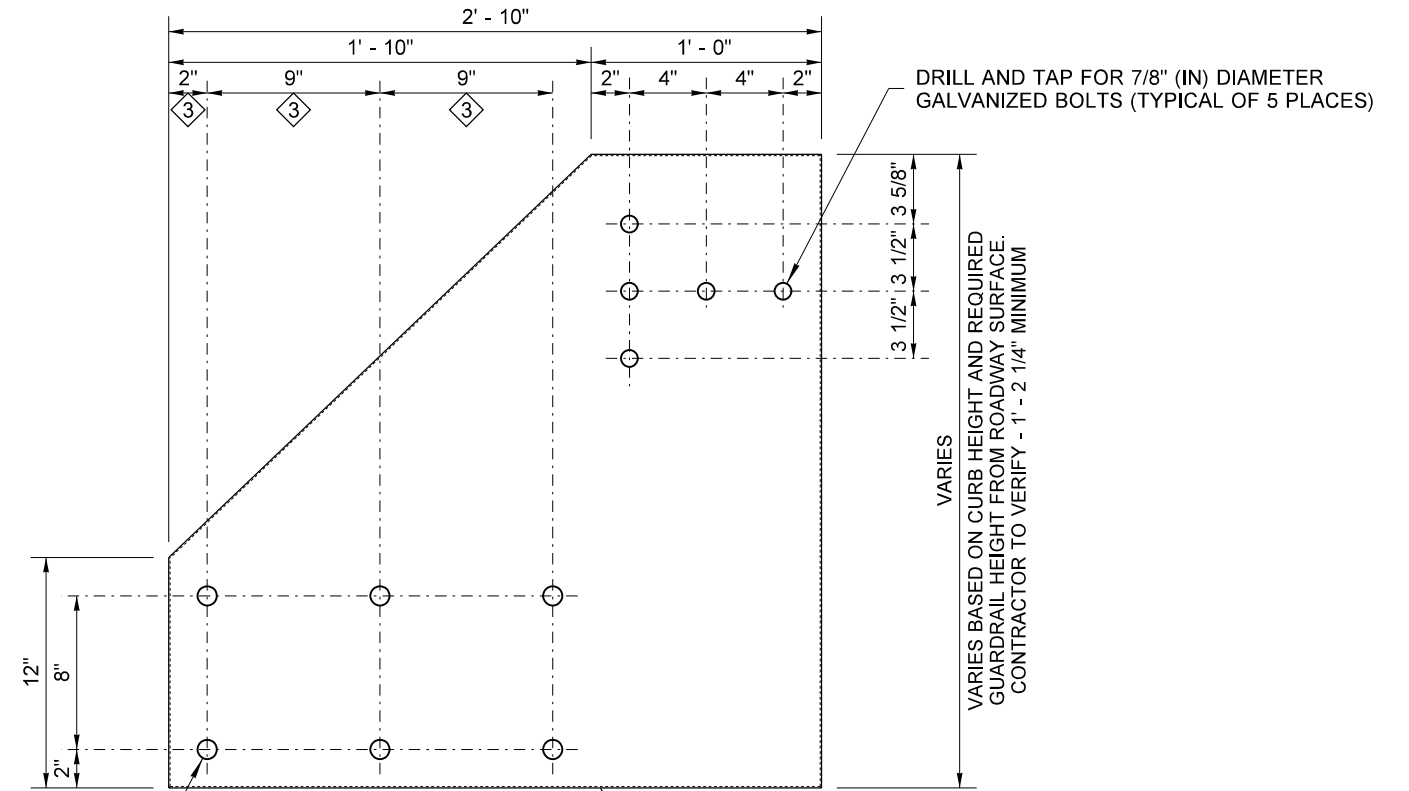
BEAM GUARDRAIL CONNECTION TO STRUCTURE ~ ADAPTER PLATE
STANDARD PLAN C-24.15-00

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION
Mark Gaines
Mark Gaines (Mar 20, 2022 15:48 PDT) Mar 20, 2022
STATE DESIGN ENGINEER
Washington State Department of Transportation



THRIE BEAM



W-BEAM

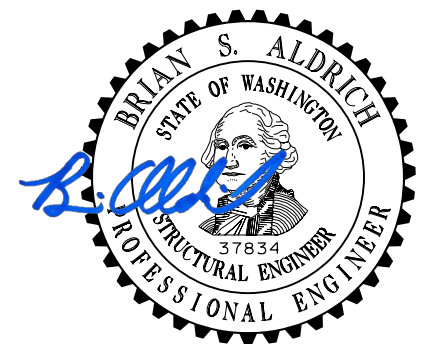
STEEL PLATE DETAIL

1" (IN) DIAMETER HOLES FOR 7/8" (IN) DIAMETER RESIN BONDED ANCHORS (TYPICAL OF 6 PLACES)

ROUND ALL EXTERIOR EDGES WITH A MINIMUM OF 1/8" (IN) RADIUS

1" (IN) DIAMETER HOLES FOR 7/8" (IN) DIAMETER RESIN BONDED ANCHORS (TYPICAL OF 6 PLACES)

ROUND ALL EXTERIOR EDGES WITH A MINIMUM OF 1/8" (IN) RADIUS



Mar 17, 2022

**BEAM GUARDRAIL
CONNECTION TO STRUCTURE
~ ADAPTER PLATE
STANDARD PLAN C-24.15-00**

SHEET 2 OF 2 SHEETS

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