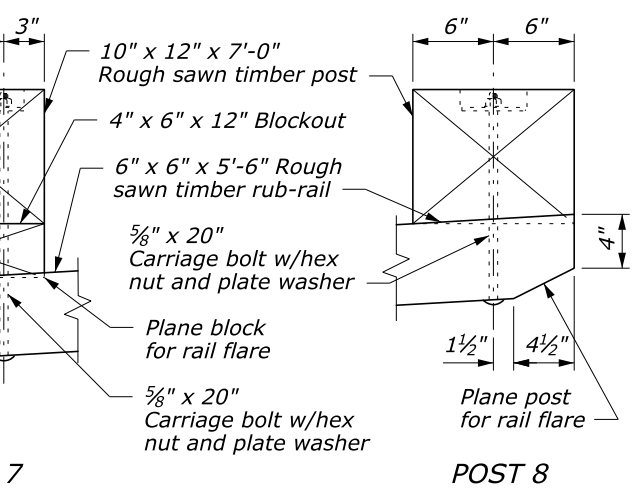
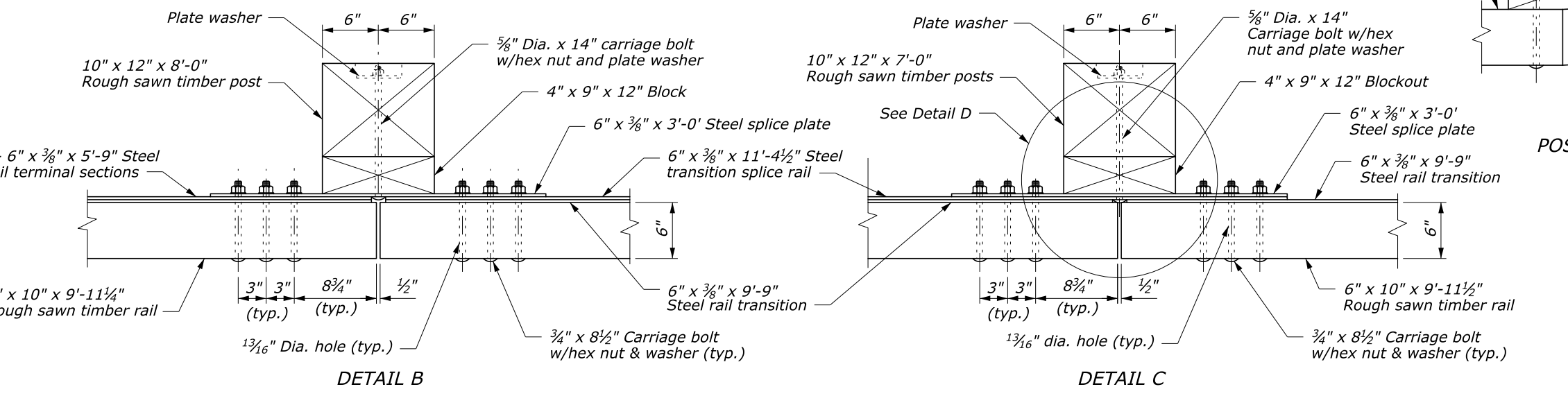
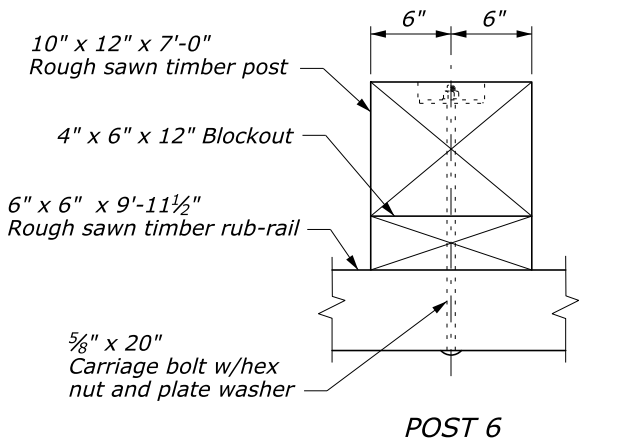
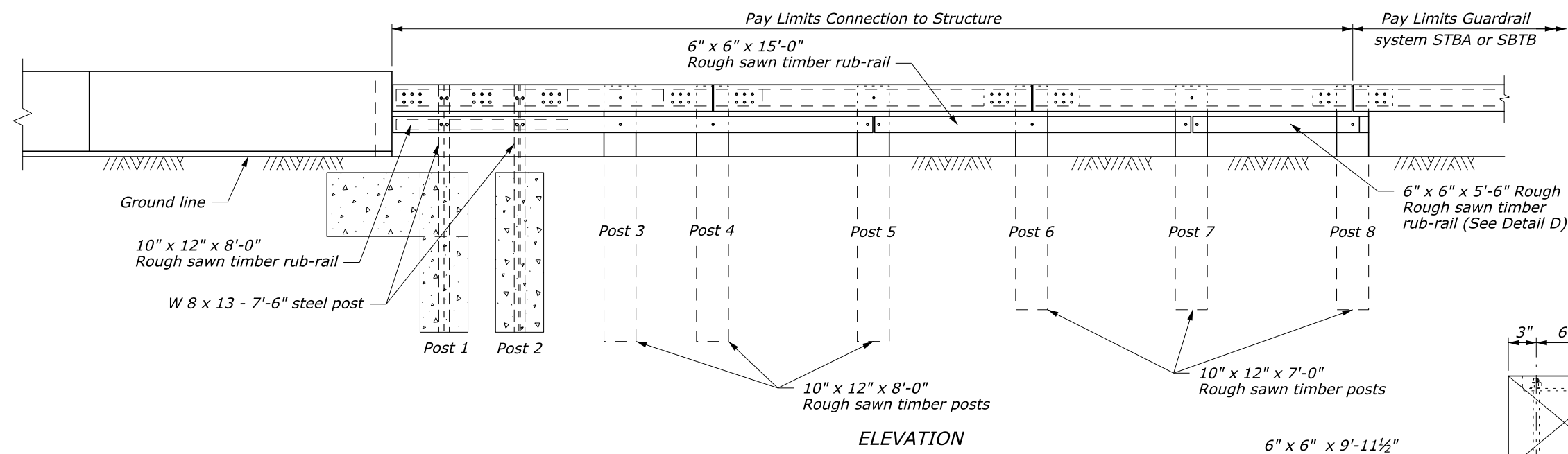


- NOTES:**
1. See the following sheets for Sections A-A through C-C, steel rail layouts, and other details.
 2. Use weathering steel for all structural steel and fastener hardware.
 3. Transition shown for curved end structure. For transition to a straight parapet end, install the timber rail so that the face of the timber rail is offset 1 inch towards the roadway.



RUBRAIL CONNECTION PLAN

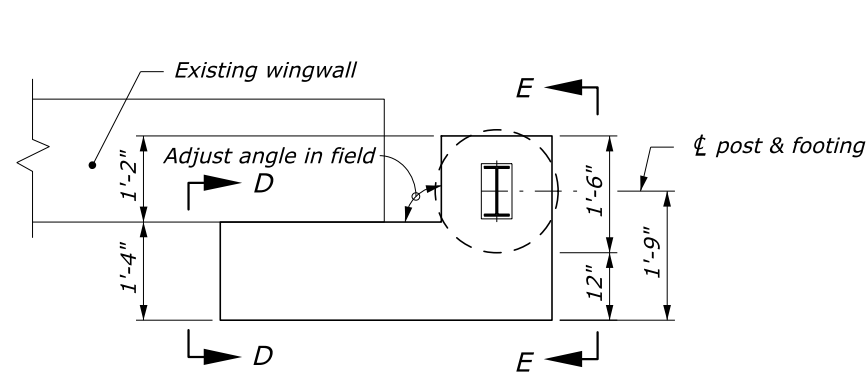
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL
**STEEL-BACKED TIMBER GUARDRAIL
TL-2 TRANSITION TO STRAIGHT
OR CURVED-END STRUCTURE**
Sheet 1 of 3

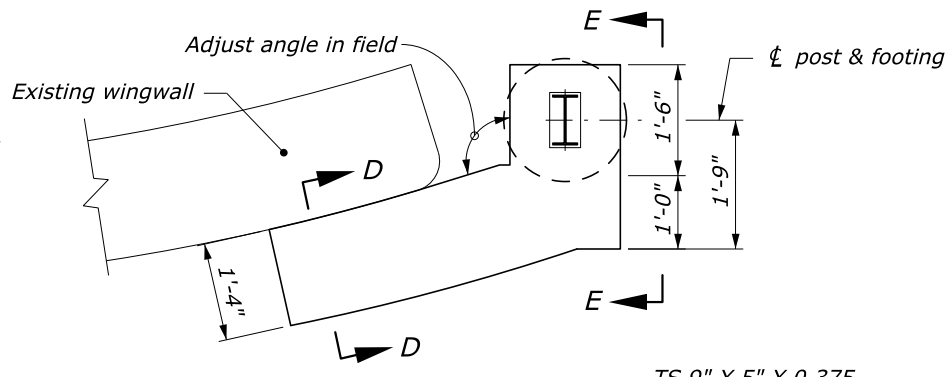
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REVISED: 3/2008 5/2016	ET 617-67

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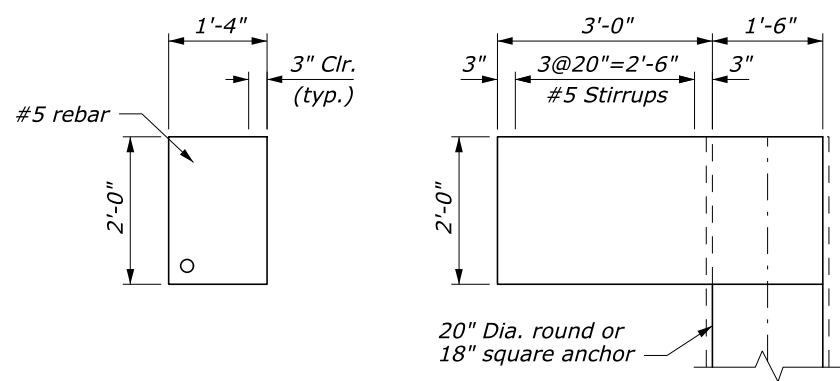
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NON-FLARED WINGWALL

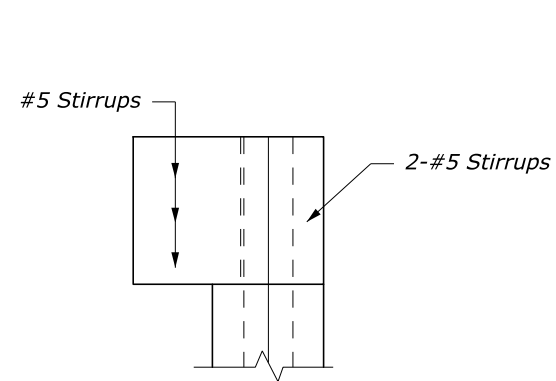


FLARED WINGWALL



SECTION D-D

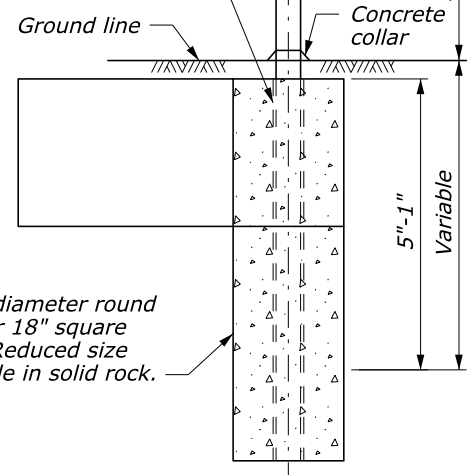
ELEVATION



SECTION E-E

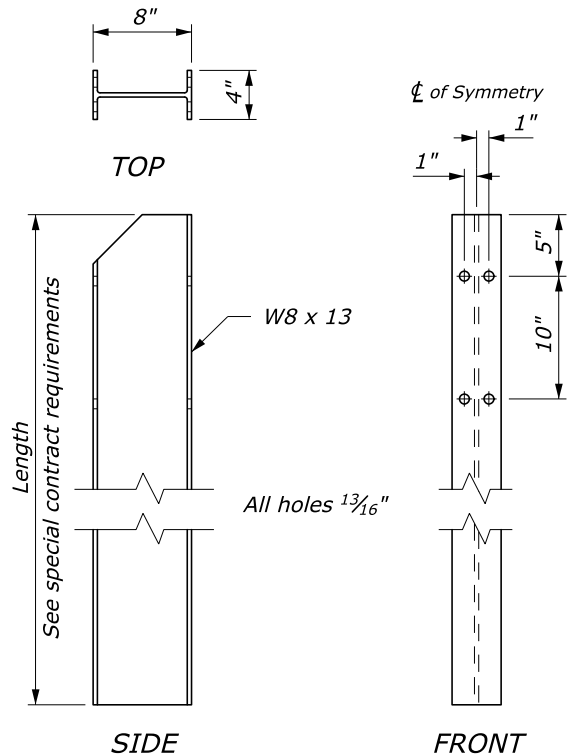
CONNECTION TO CONCRETE ANCHOR

TS 9" X 5" X 0.375
ASTM A500 Grade B or A501



CONCRETE ANCHOR FOR GUARDRAIL POST

Use 20" diameter round anchor or 18" square anchor. Reduced size acceptable in solid rock.



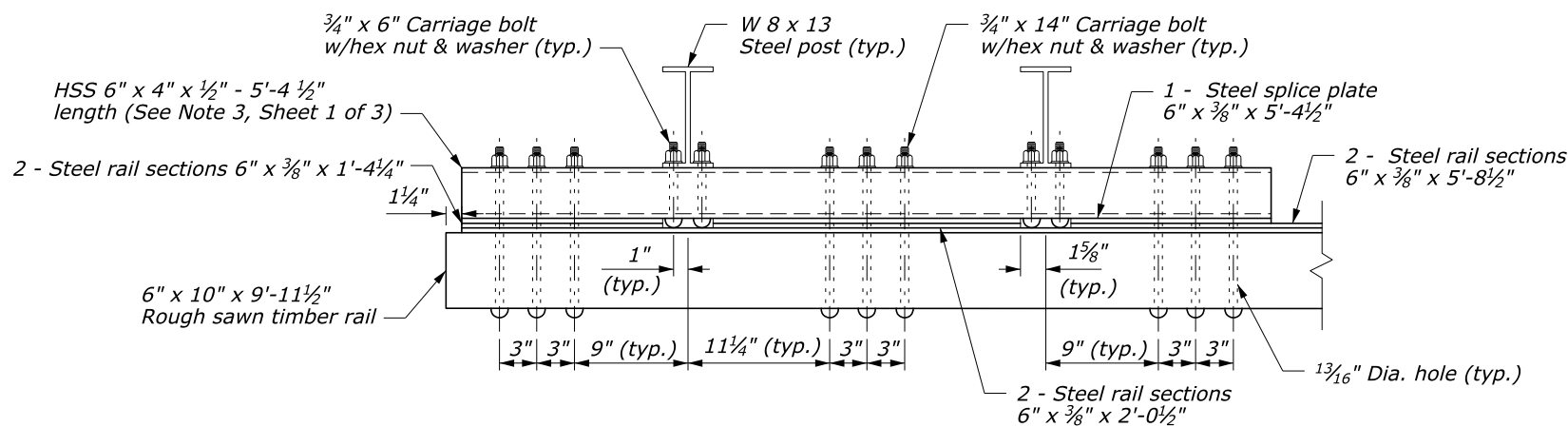
TOP

Length
See special contract requirements

SIDE

CL of Symmetry

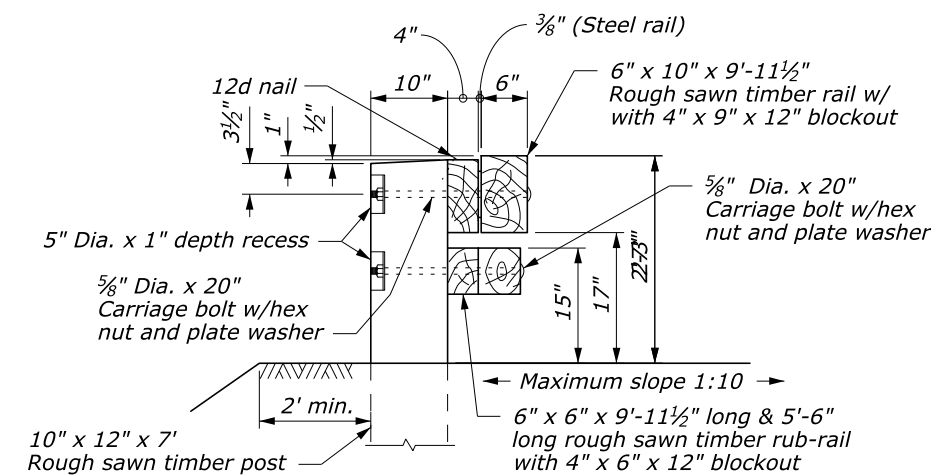
FRONT



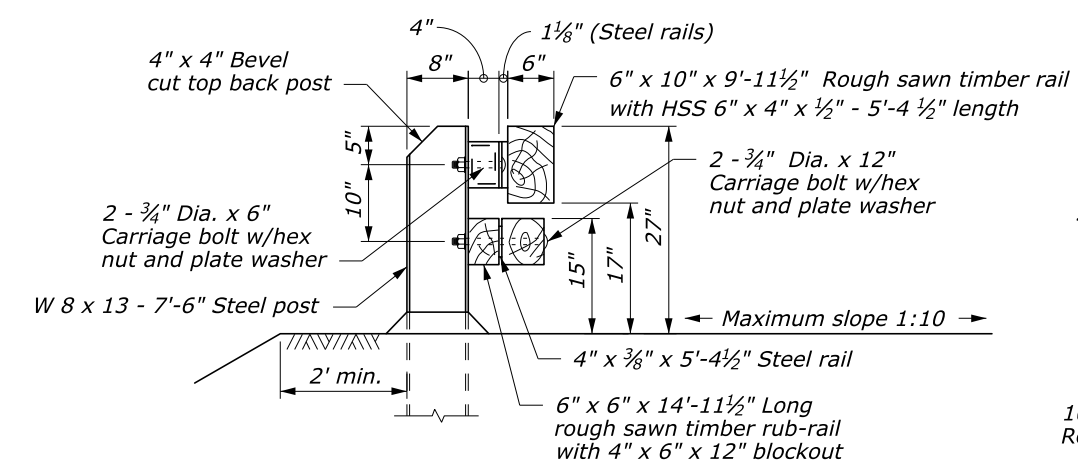
DETAIL A POST CONNECTION PLAN

CONCRETE ANCHOR FOR GUARDRAIL POST

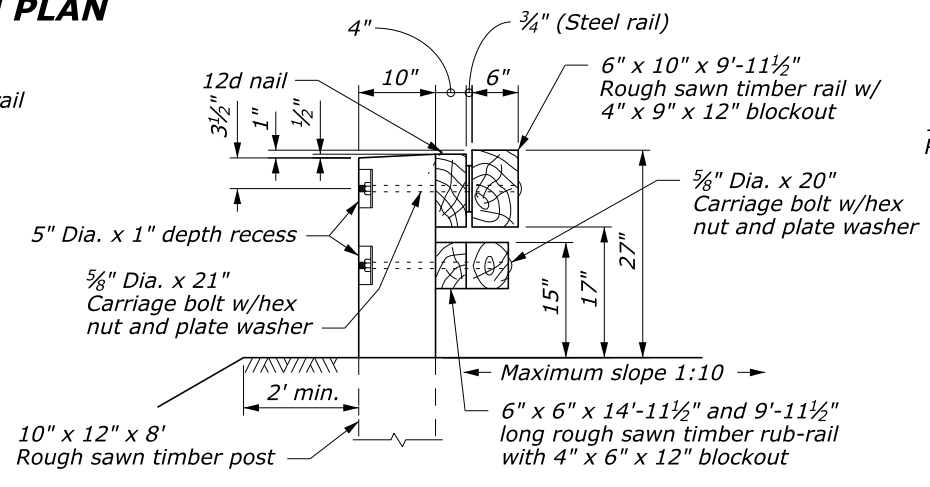
STEEL POST



SECTION C-C



SECTION A-A



SECTION B-B

NO SCALE

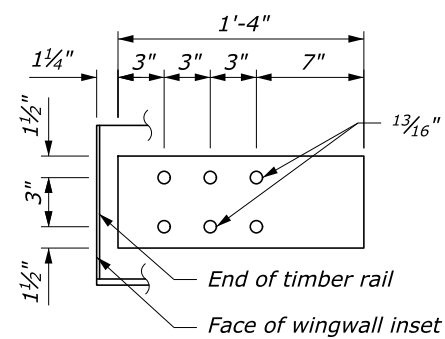
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U.S. CUSTOMARY DETAIL
**STEEL-BACKED TIMBER GUARDRAIL
TL-2 TRANSITION TO STRAIGHT
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Sheet 2 of 3

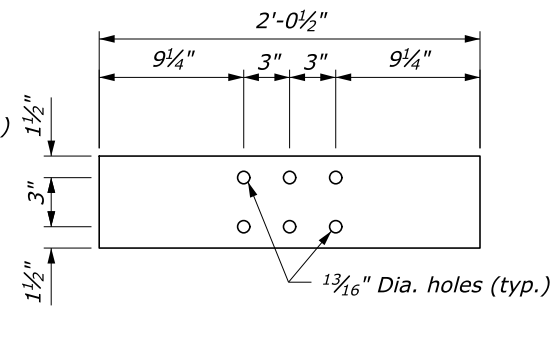
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DETAIL
ET 617-67

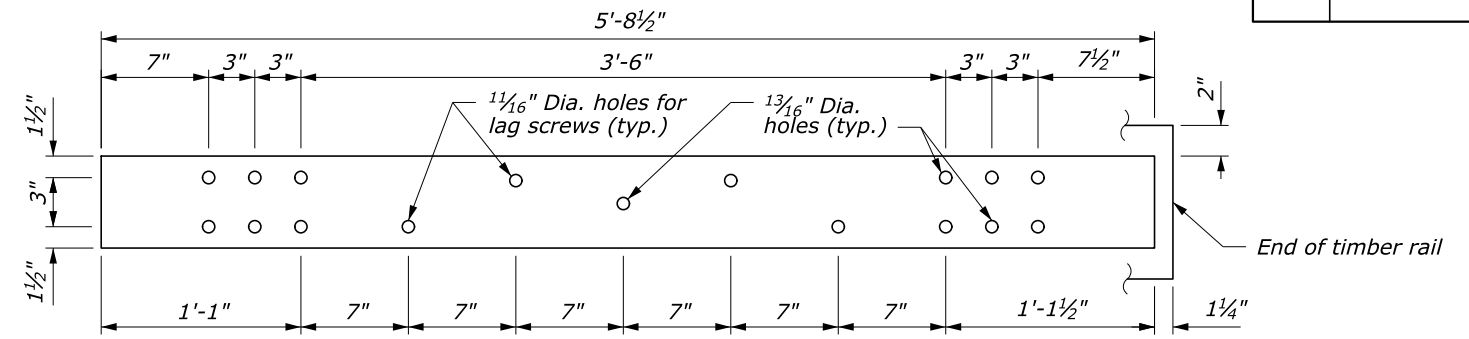
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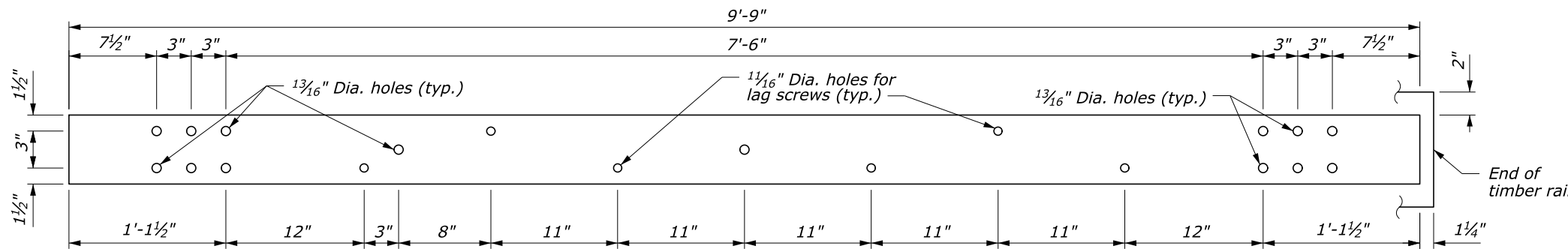
TERMINAL SECTION
6" x 3/8" x 1'-4"



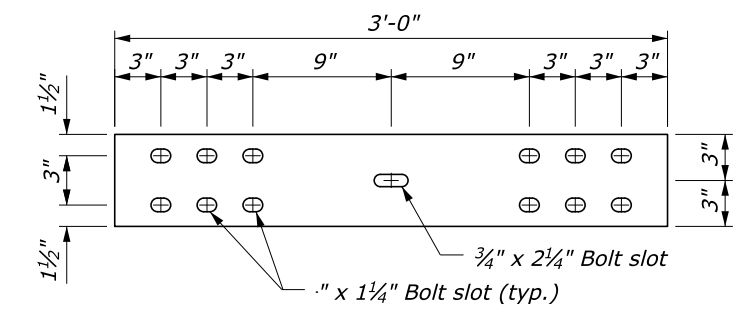
TERMINAL SECTION
6" x 3/8" x 2'-0 1/2"



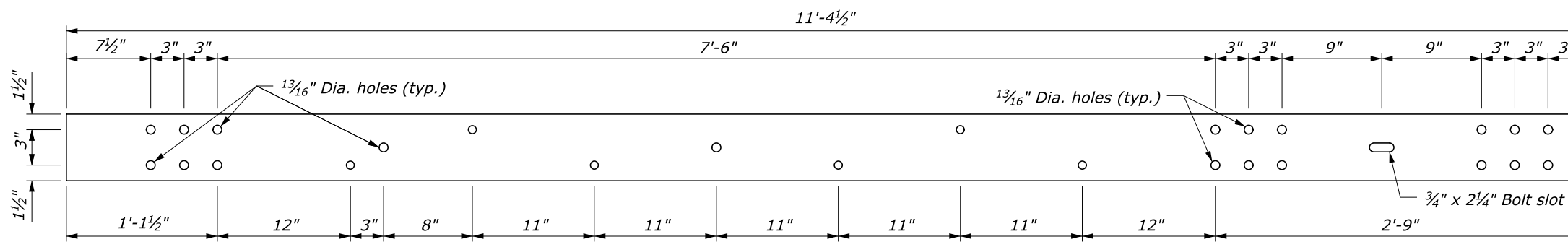
TERMINAL SECTION
6" x 3/8" x 5'-8 1/2"



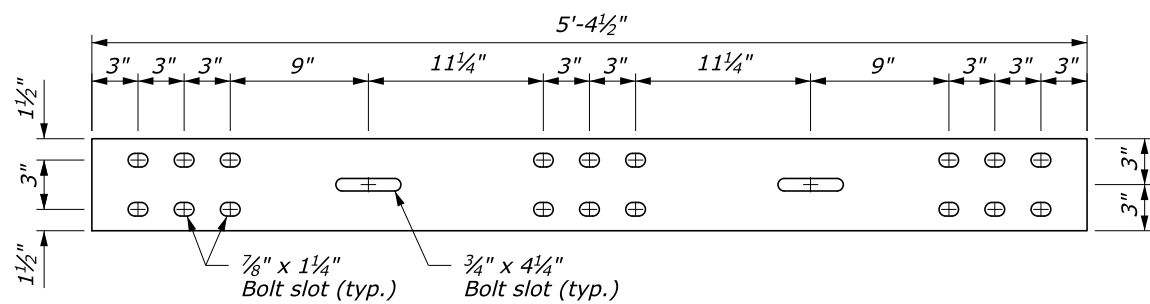
TRANSITION SECTION
6" x 3/8" x 9'-9"



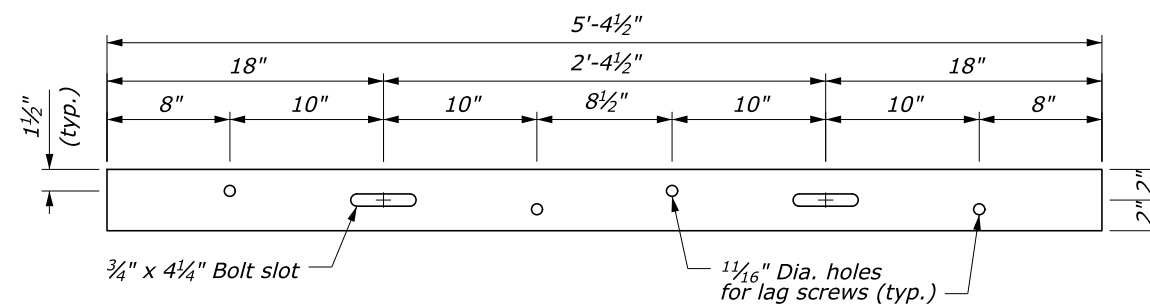
STEEL SPLICE PLATE
6" x 3/8" x 3'-0"



TRANSITION SECTION
6" x 3/8" x 11'-4 1/2"



STEEL SPLICE PLATE
6" x 3/8" x 5'-4 1/2"



RUB-RAIL TRANSITION SECTION
4" x 3/8" x 5'-4 1/2"

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
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EASTERN FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL
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TL-2 TRANSITION TO STRAIGHT
OR CURVED-END STRUCTURE**
Sheet 3 of 3

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