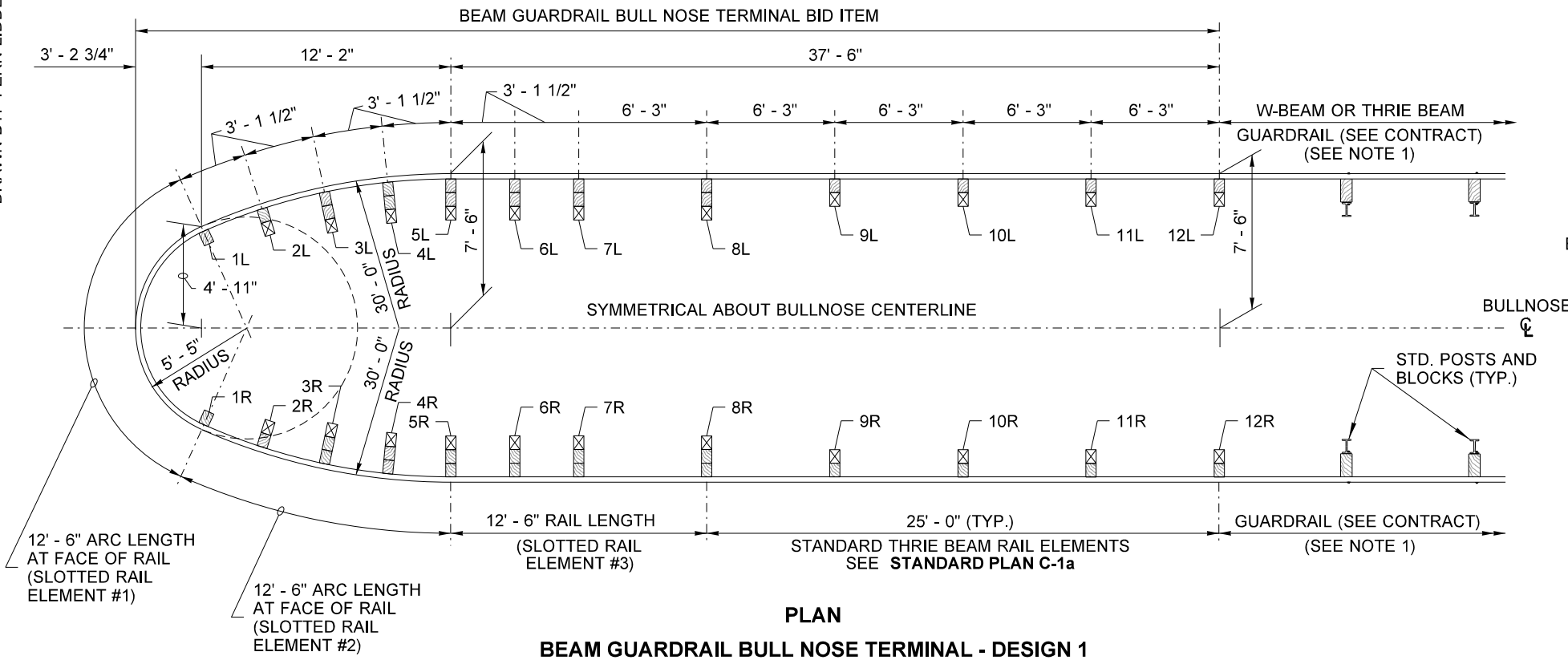
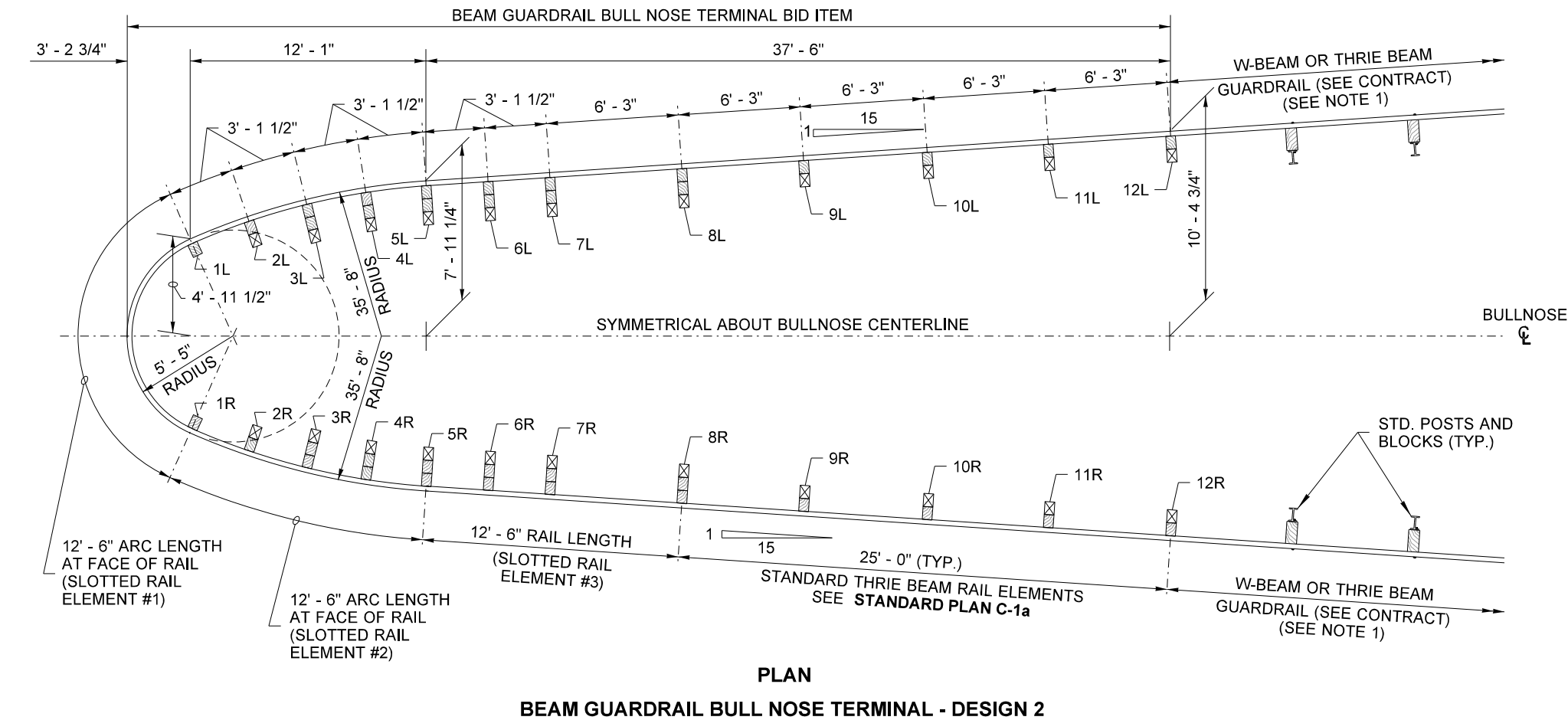


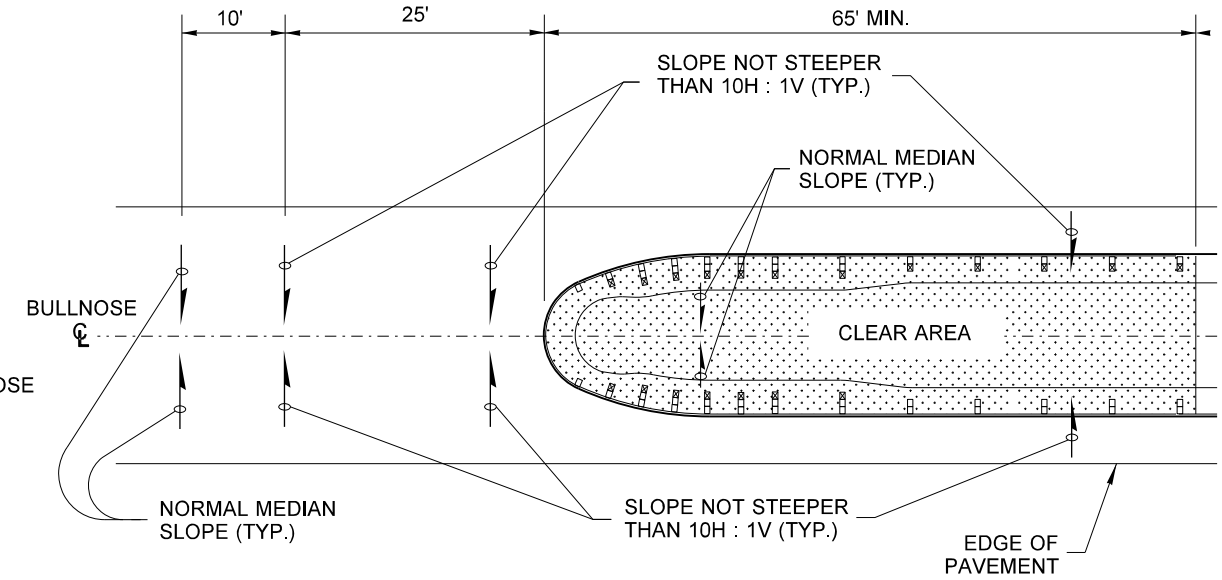
DRAWN BY: FERN LIDDELL



**PLAN  
BEAM GUARDRAIL BULL NOSE TERMINAL - DESIGN 1**



**PLAN  
BEAM GUARDRAIL BULL NOSE TERMINAL - DESIGN 2**



**BULL NOSE GRADING PLAN**

**NOTE**

1. For W-Beam applications extend the rail from the bull nose terminal by using a "Reducer Element Type C" followed by a standard Post and Block, spaced at 3' - 1 1/2". Continue runs with standard 6' - 3" post spacing. For additional Details see **Standard Plans C-20.10** and **C-25.80**.



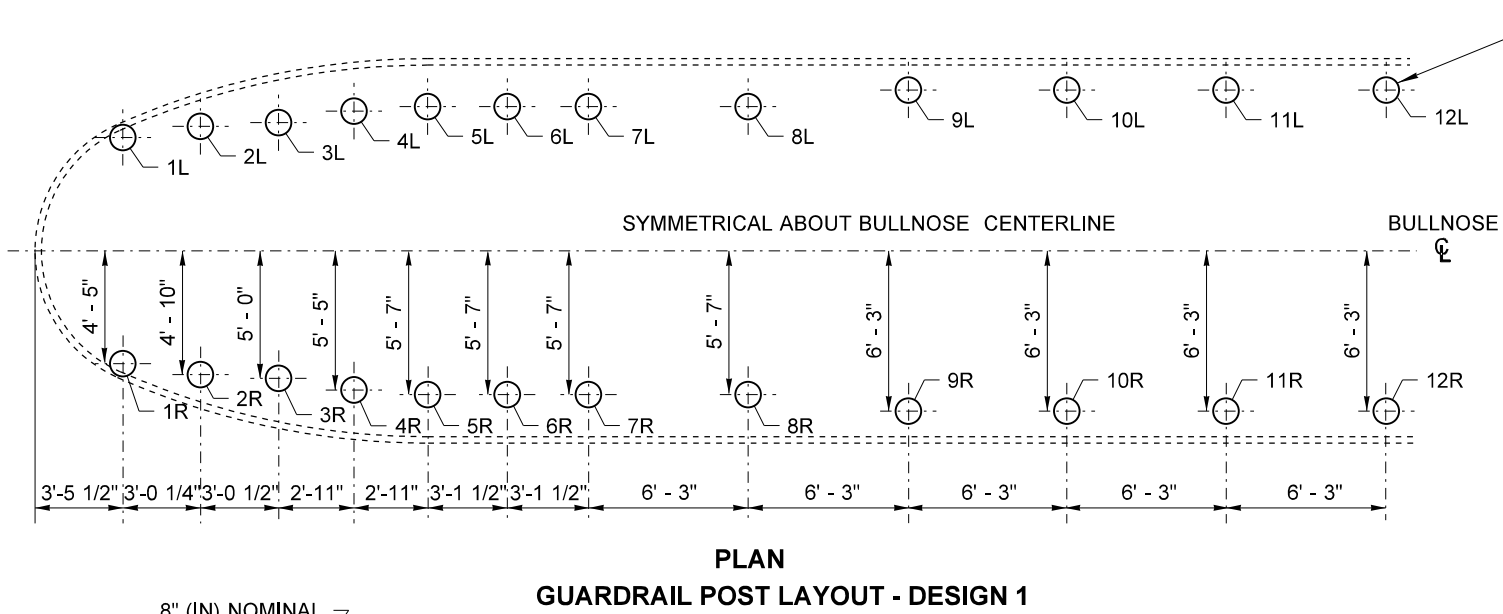
**BEAM GUARDRAIL  
BULL NOSE TERMINAL  
STANDARD PLAN C-4f**

SHEET 1 OF 4 SHEETS

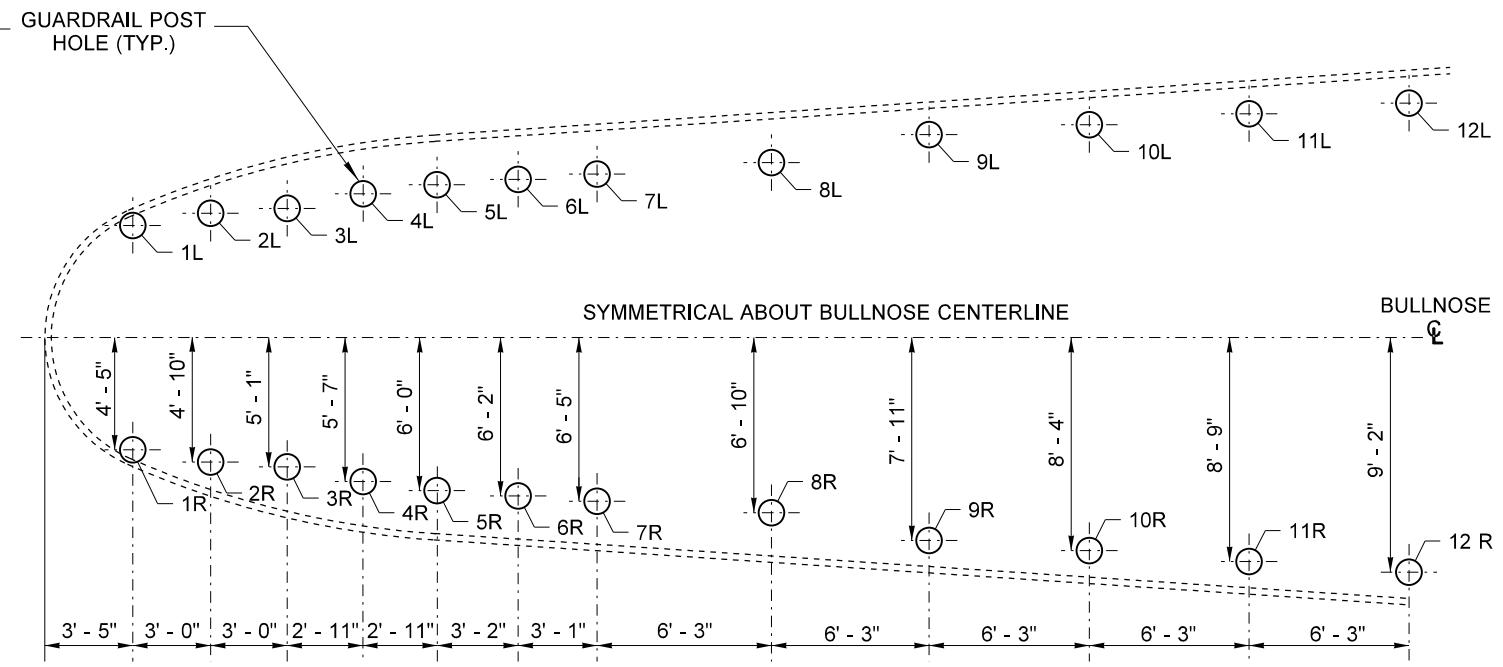
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER  
Washington State Department of Transportation

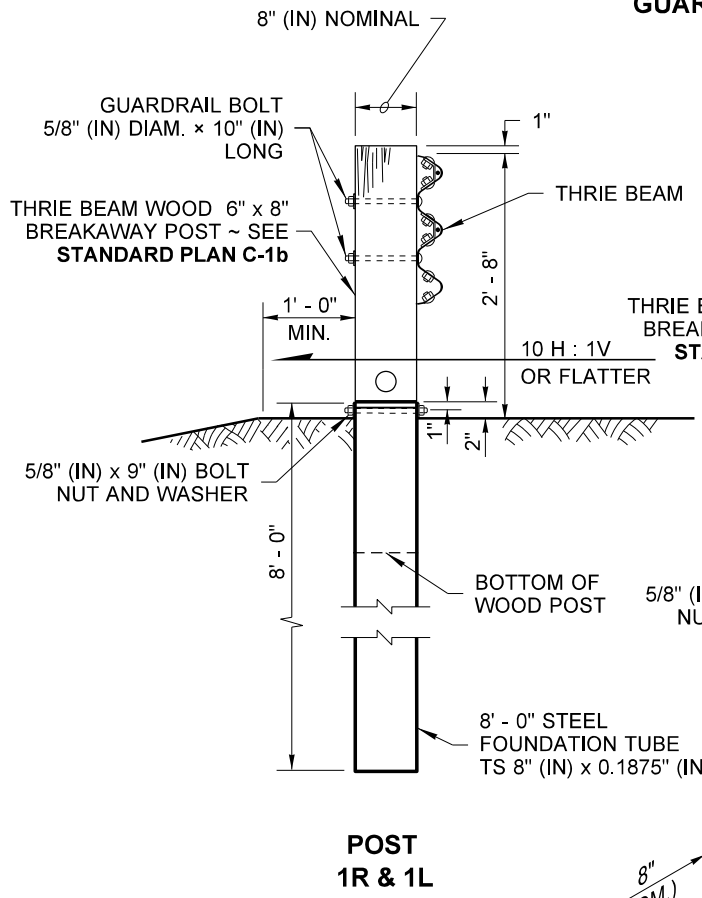
DRAWN BY: FERN LIDDELL



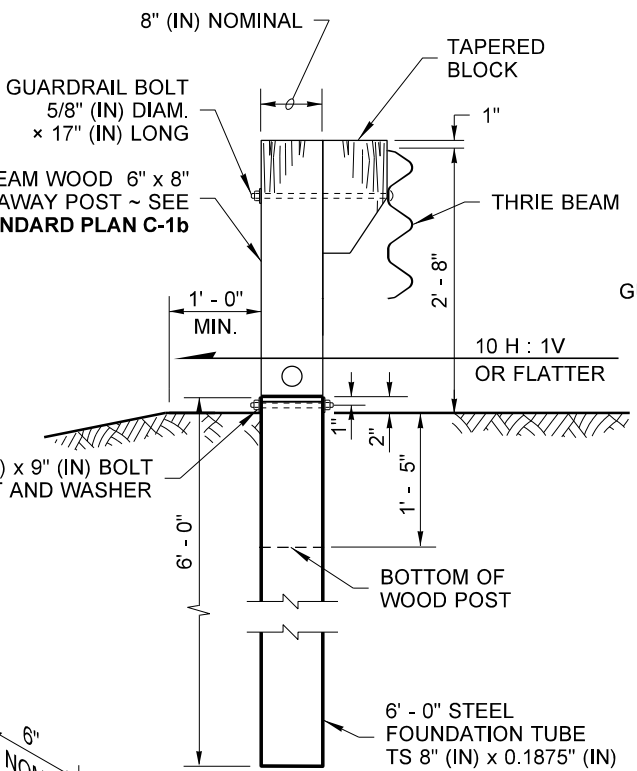
**PLAN  
GUARDRAIL POST LAYOUT - DESIGN 1**



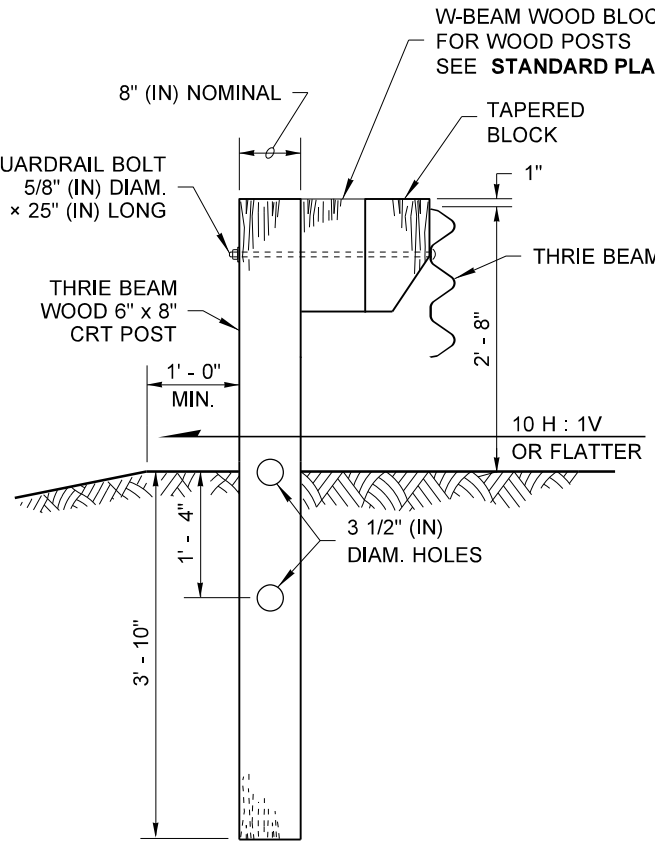
**PLAN  
GUARDRAIL POST LAYOUT - DESIGN 2**



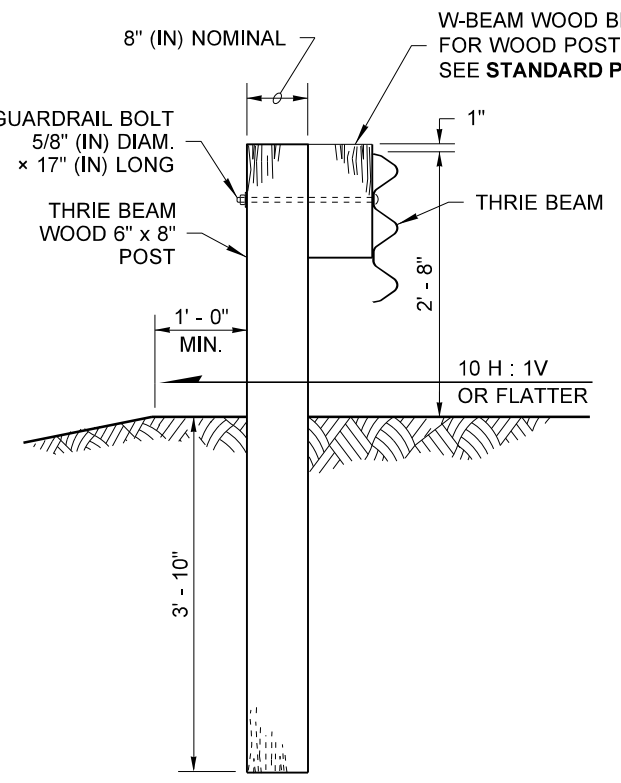
**POST  
1R & 1L**



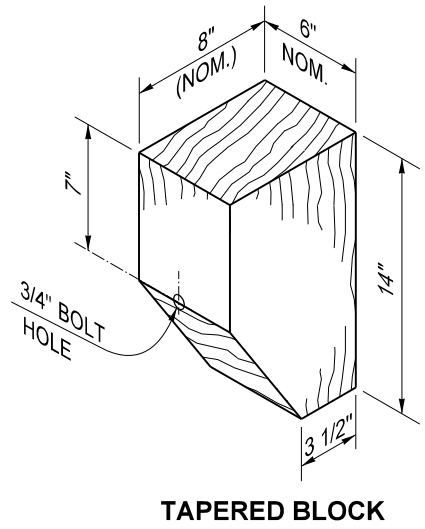
**POST  
2R & 2L**



**POST  
3R TO 8R  
3L TO 8L**



**POST  
9R TO 12R  
9L TO 12L**



**TAPERED BLOCK**

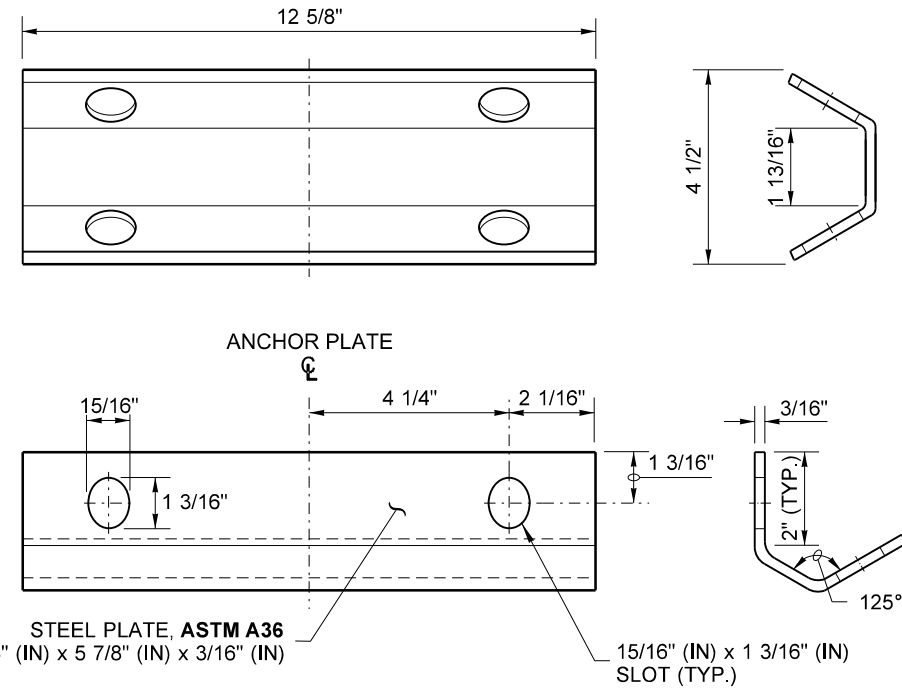
NOTE :  
CABLE BEARING PLATE  
NOT SHOWN



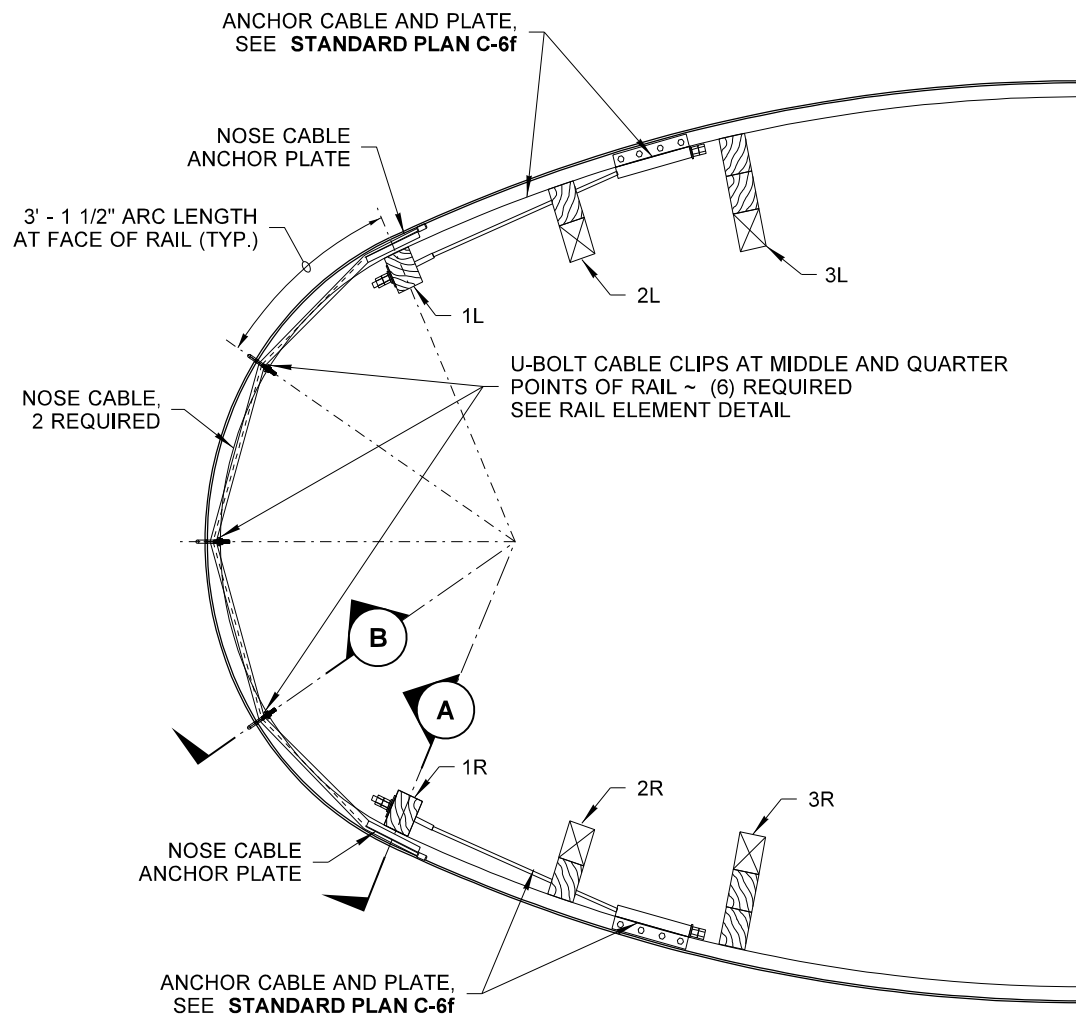
**BEAM GUARDRAIL  
BULL NOSE TERMINAL  
STANDARD PLAN C-4f**

SHEET 2 OF 4 SHEETS

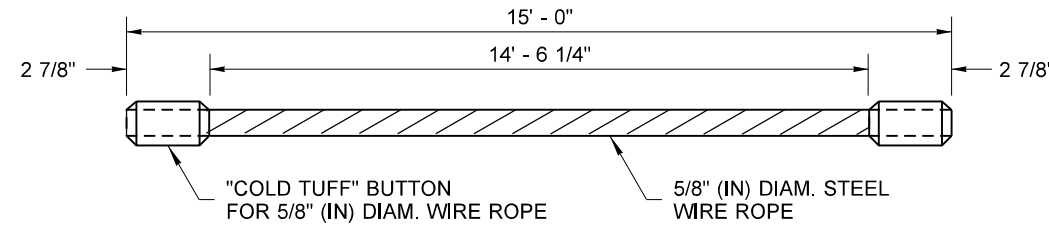
APPROVED FOR PUBLICATION



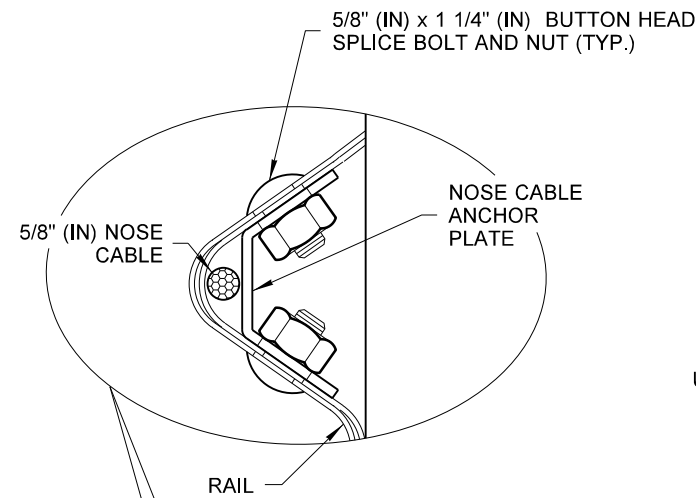
**NOSE CABLE ANCHOR PLATE**



**PLAN - THRIE BEAM NOSE**

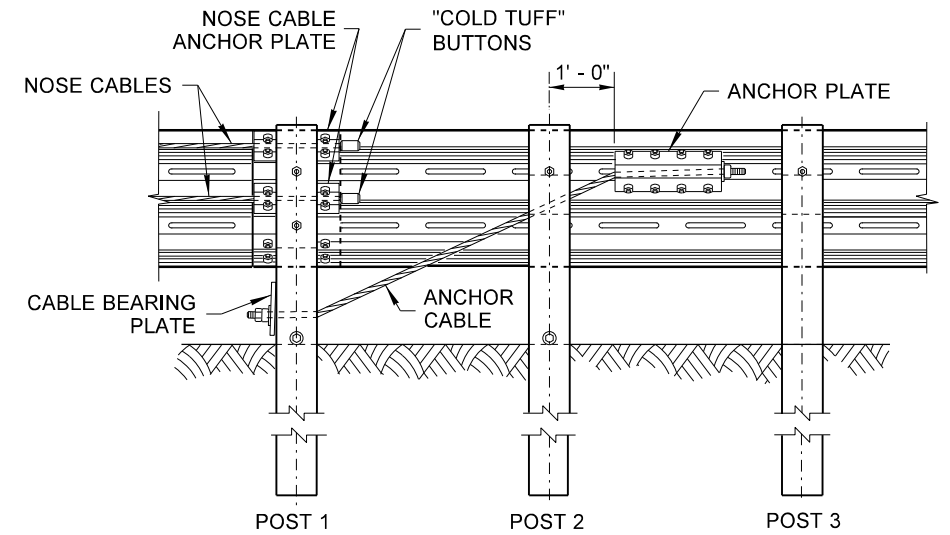
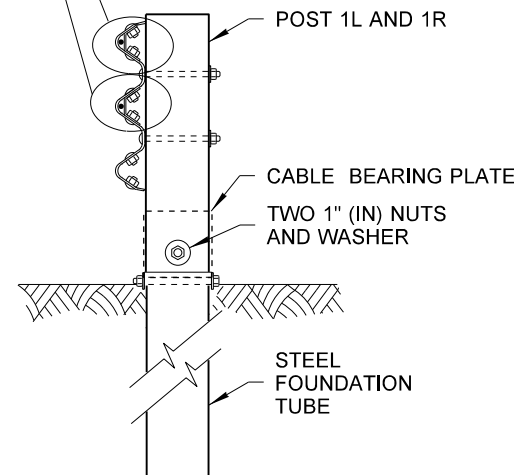


**NOSE CABLE**

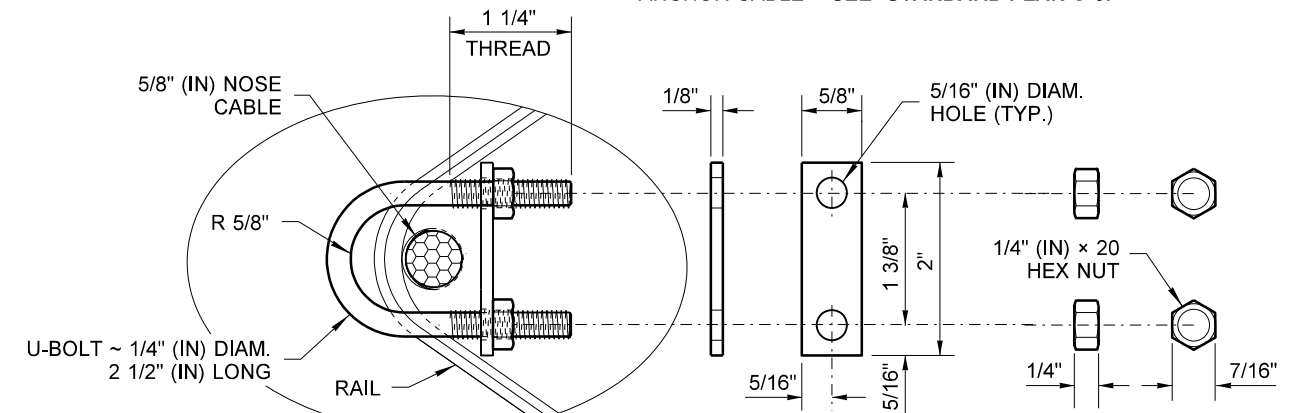


**NOSE CABLE ASSEMBLY**

**SECTION A**



**CABLE ANCHOR & BRACKET ASSEMBLY**  
FOR ANCHOR PLATE, CABLE BEARING PLATE, AND ANCHOR CABLE ~ SEE STANDARD PLAN C-6f



**U-BOLT PLATE WASHER**

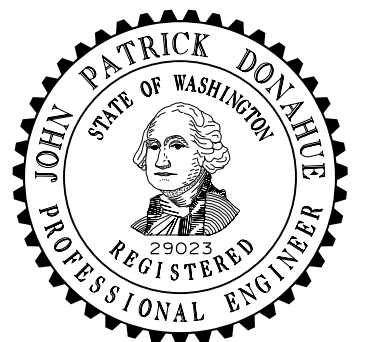
THE U-BOLT SHALL BE MADE FROM ASTM A307 STEEL AND GALVANIZED ACCORDING TO STANDARD SPECIFICATION, SECTION 9-16.3(3).

THE NUT SHALL BE ASTM A307 STEEL, AND GALVANIZED ACCORDING TO STANDARD SPECIFICATION, SECTION 9-16.3(3).

THE U-BOLT PLATE WASHER SHALL BE MADE FROM ASTM A36 OR A36M PLATE STEEL, AND GALVANIZED ACCORDING TO STANDARD SPECIFICATION SECTION 9-16.3(3).

**U-BOLT CABLE CLIP ASSEMBLY**

**SECTION B**

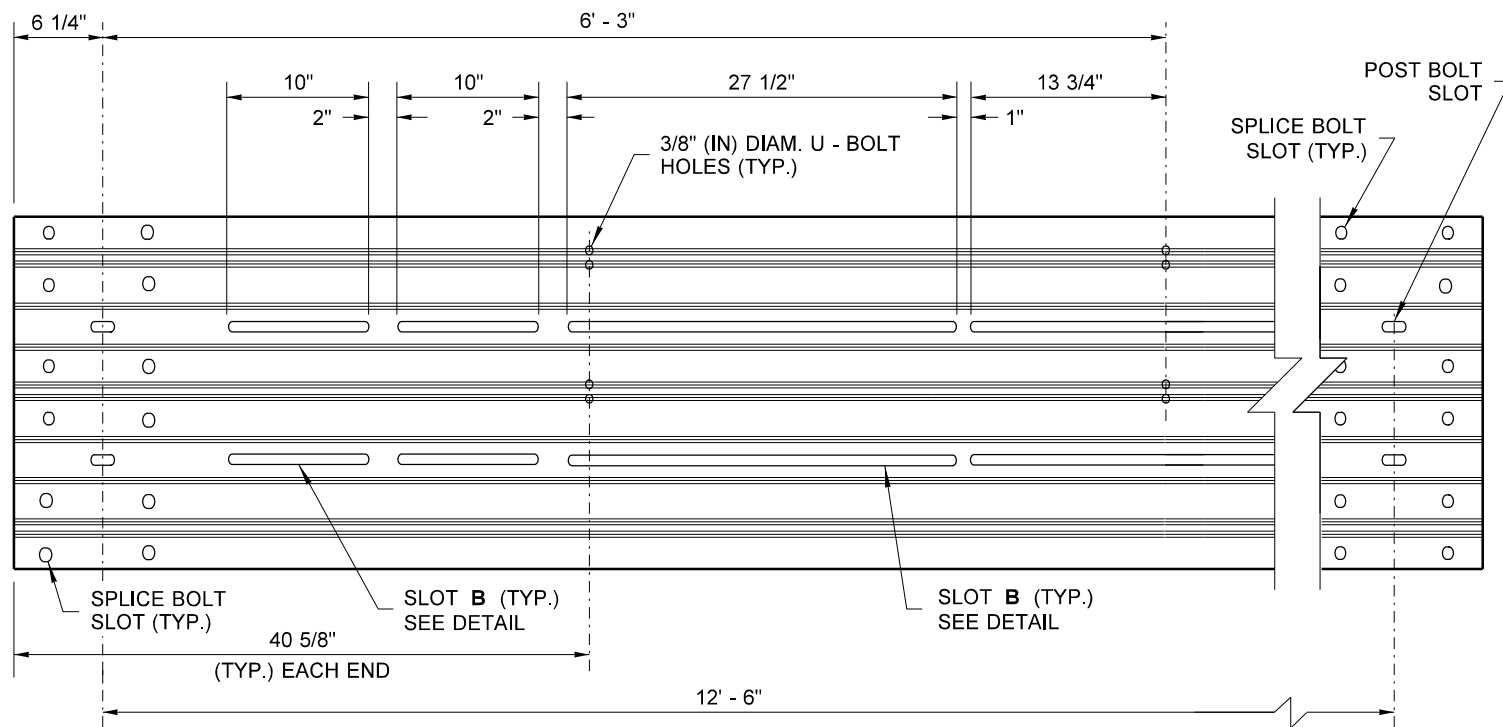


**BEAM GUARDRAIL  
BULL NOSE TERMINAL  
STANDARD PLAN C-4f**

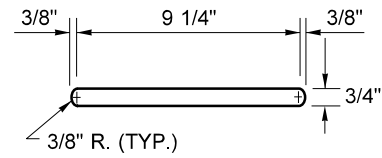
SHEET 3 OF 4 SHEETS

APPROVED FOR PUBLICATION

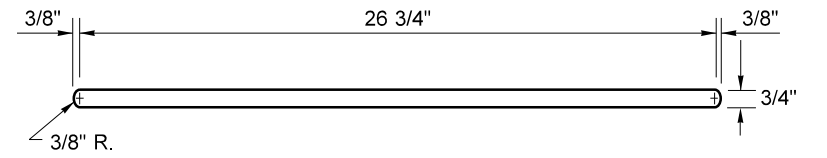
DRAWN BY: FERN LIDDELL



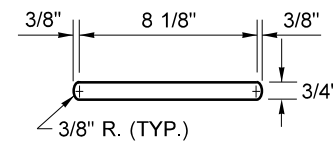
**SLOTTED THRIE BEAM RAIL ELEMENT #1**  
SEE STANDARD PLAN C-1a FOR RAIL ELEMENT DETAILS  
(RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO RADIUS SHOWN IN PLAN)



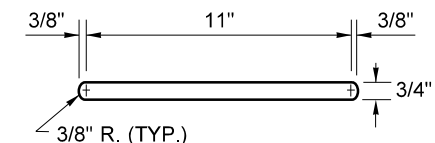
**SLOT A DETAIL**



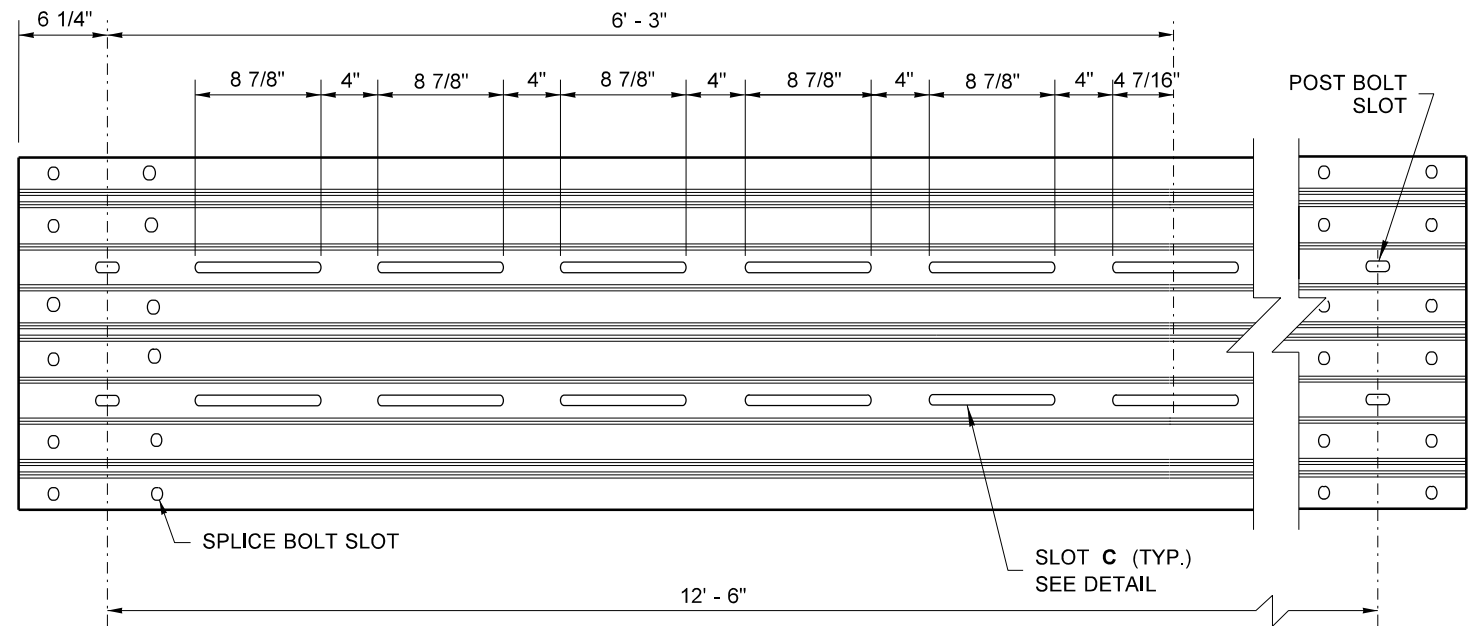
**SLOT B DETAIL**



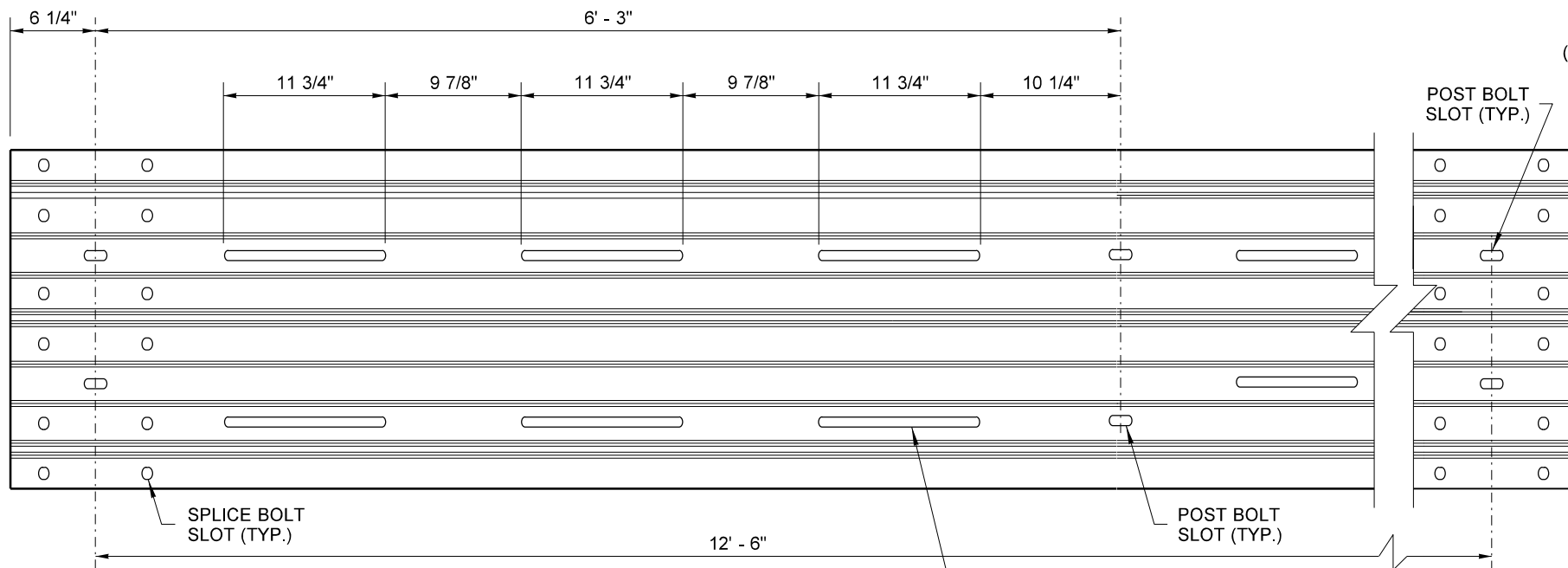
**SLOT C DETAIL**



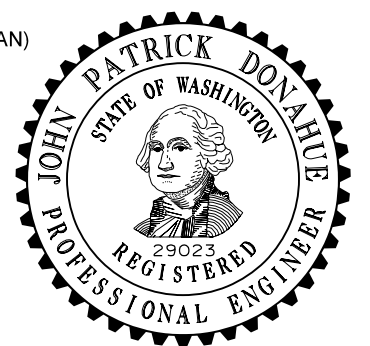
**SLOT D DETAIL**



**SLOTTED THRIE BEAM RAIL ELEMENT #2**  
SEE STANDARD PLAN C-1a FOR RAIL ELEMENT DETAILS  
(RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO RADIUS SHOWN IN PLAN)



**SLOTTED THRIE BEAM RAIL ELEMENT #3**  
SEE STANDARD PLAN C-1a FOR RAIL ELEMENT DETAILS



**BEAM GUARDRAIL  
BULL NOSE TERMINAL  
STANDARD PLAN C-4f**

SHEET 4 OF 4 SHEETS

APPROVED FOR PUBLICATION