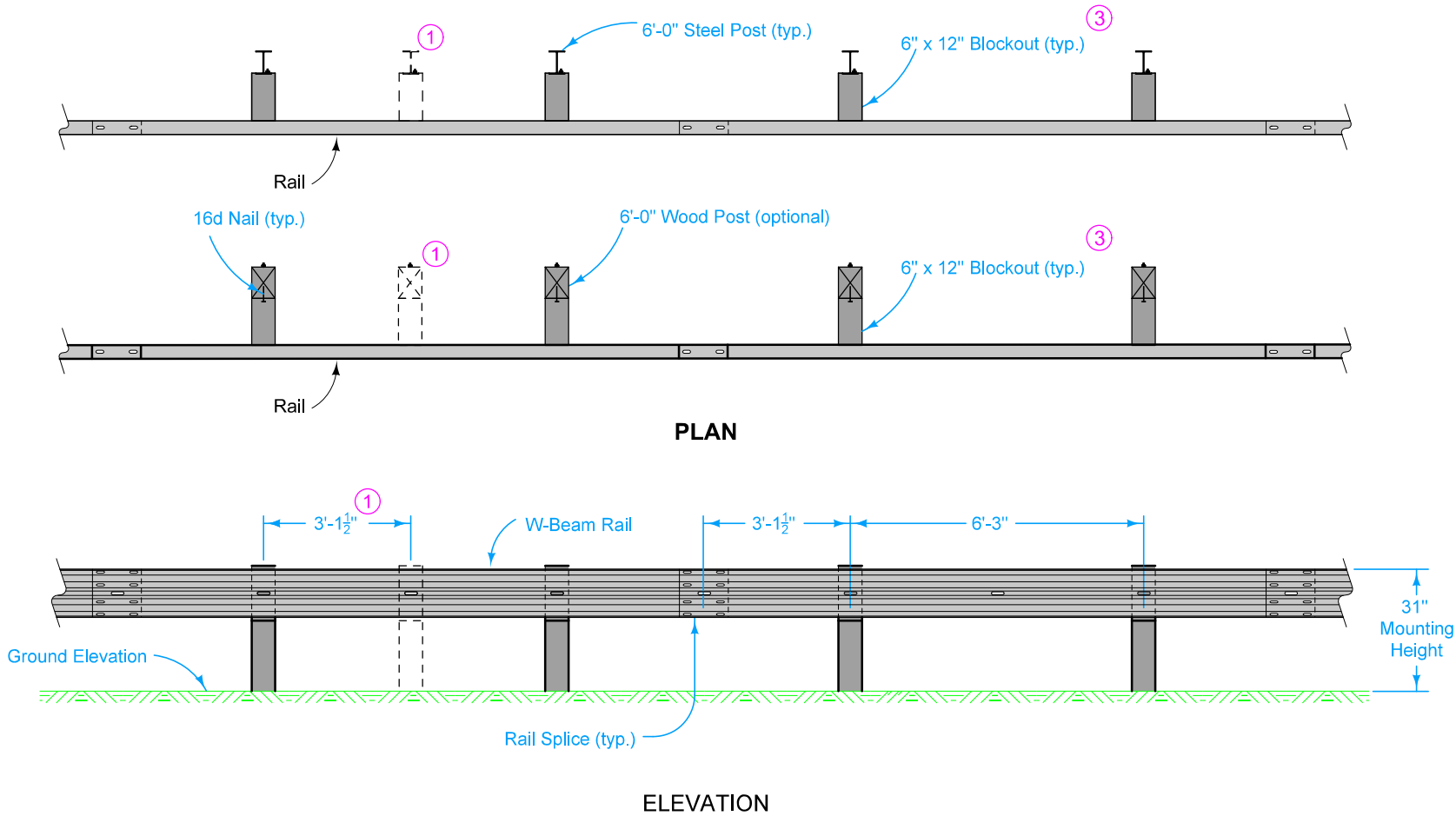
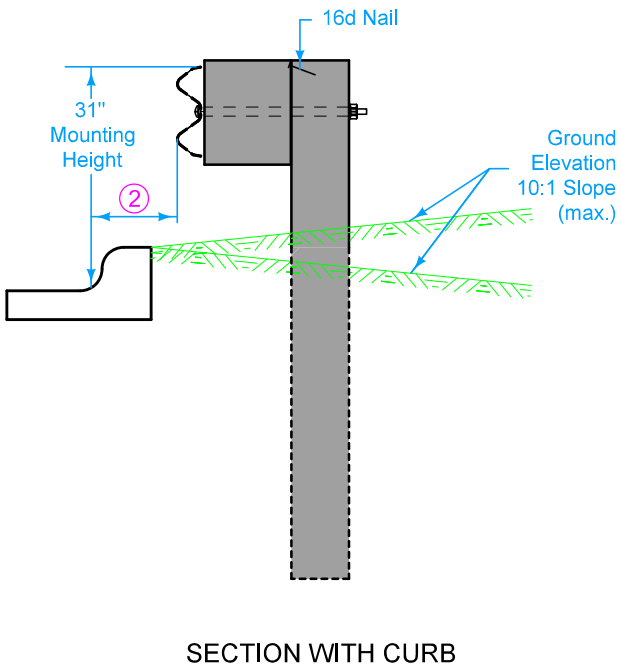
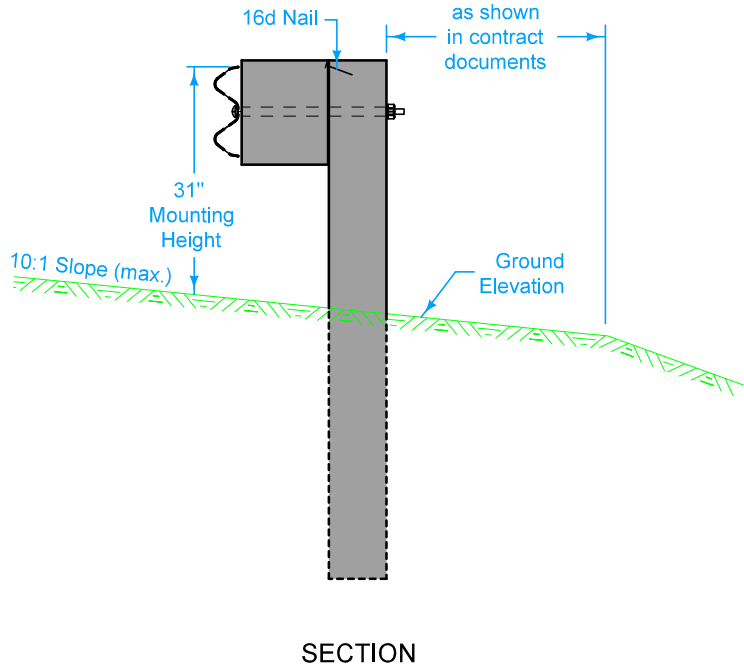
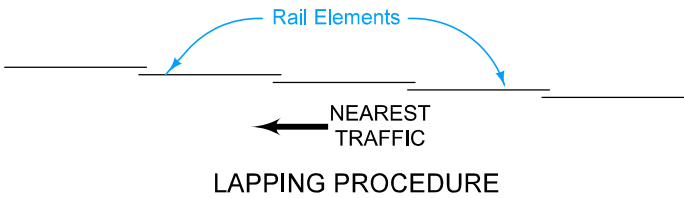




At Bridge End Drains, cut Scour Protection (Transition Mat and Turf Reinforcement Mat) or remove rock as required to place post(s) such that Bridge End Drains abut post(s).

- 1 When specified by the contract documents, install posts at 3'-1 1/2" spacing.
- 2 6" maximum for 6" Standard or 6" Sloped curbs and for non-standard curbs.
- 3 Wood or composite only. Steel blockouts will not be allowed.

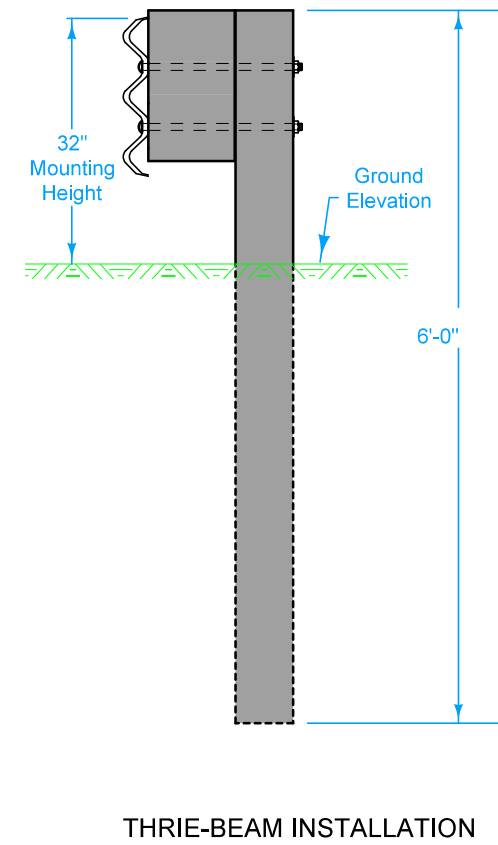
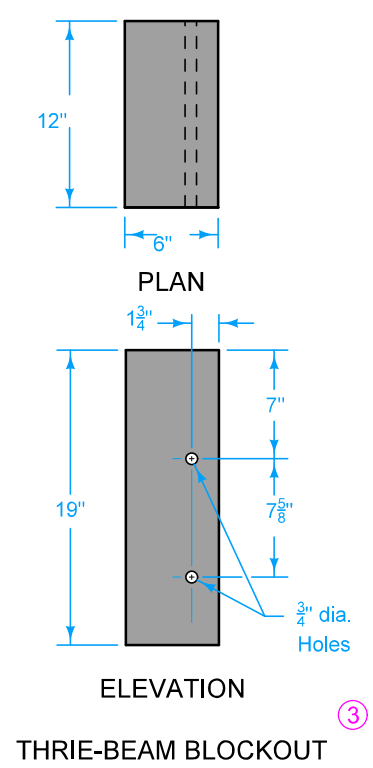
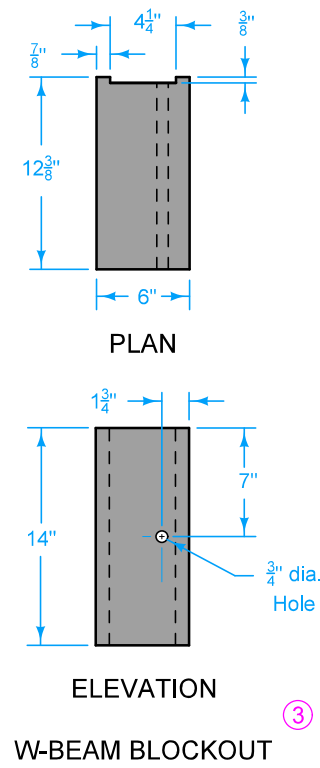
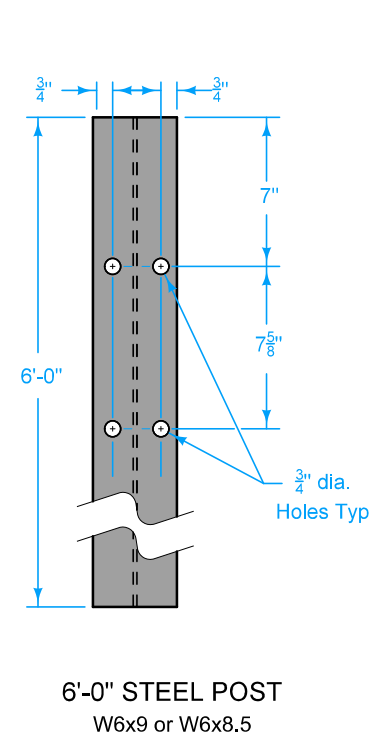


Possible Contract Item:  
Steel Beam Guardrail

|                                                                                                  |          |          |
|--------------------------------------------------------------------------------------------------|----------|----------|
|  IOWA   DOT | REVISION |          |
|                                                                                                  | 8        | 04-21-26 |
|                                                                                                  | BA-200   |          |
| STANDARD ROAD PLAN                                                                               |          |          |
| SHEET 1 of 4                                                                                     |          |          |
| REVISIONS: Added SYMMETRICAL TRANSITION SECTION detail.                                          |          |          |
|             |          |          |
| APPROVED BY DESIGN METHODS ENGINEER                                                              |          |          |
| STEEL BEAM GUARDRAIL COMPONENTS                                                                  |          |          |

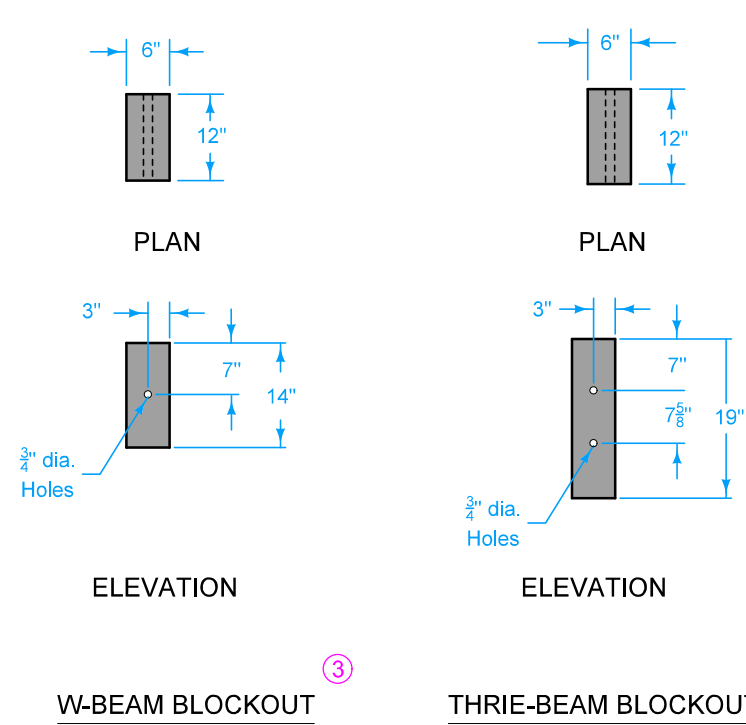
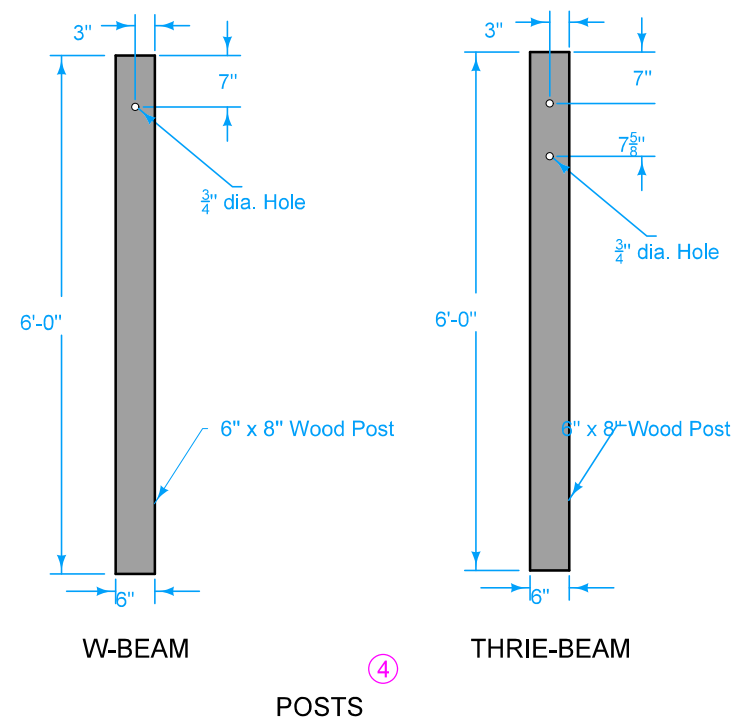
W-BEAM INSTALLATION

STEEL POST AND BLOCKOUT DETAILS

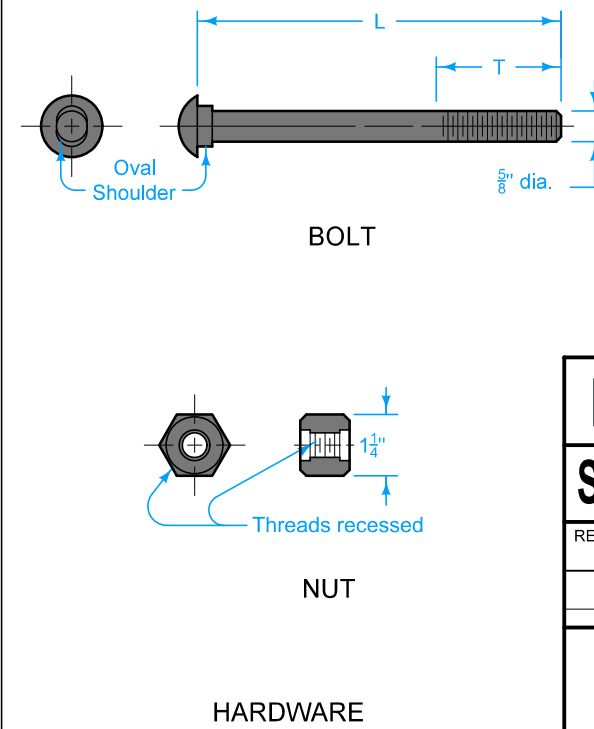


- ③ Wood or composite only. Steel blockouts will not be allowed.
- ④ Thrie-beam post may be substituted for W-beam post.

WOOD POST AND BLOCKOUT DETAILS



BOLT DETAILS



| APPLICATION                           | T       | L      |
|---------------------------------------|---------|--------|
| Splice Bolt                           | 1 1/16" | 1 1/4" |
| Bolt for Steel Post with 8" Blockout  | 2 1/2"  | 10"    |
| Bolt for Steel Post with 12" Blockout | 2 1/2"  | 14"    |
| Bolt for Wood Post with 8" Blockout   | 2 1/2"  | 18"    |
| Bolt for Wood Post with 12" Blockout  | 2 1/2"  | 22"    |

T = Min. Thread Length      L = Bolt Length

**IOWA DOT**

**STANDARD ROAD PLAN**

REVISIONS: Added SYMMETRICAL TRANSITION SECTION detail.

APPROVED BY DESIGN METHODS ENGINEER

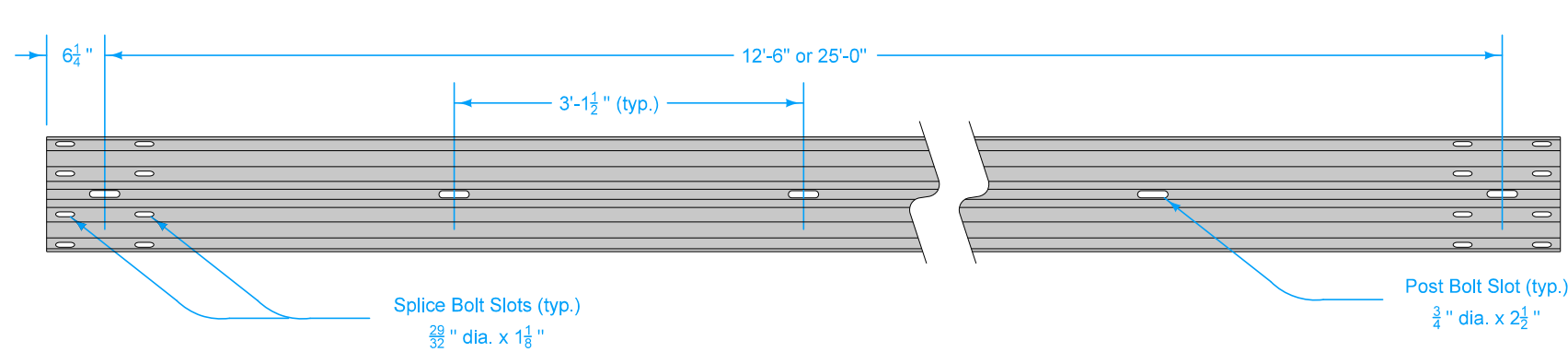
REVISION

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**BA-200**

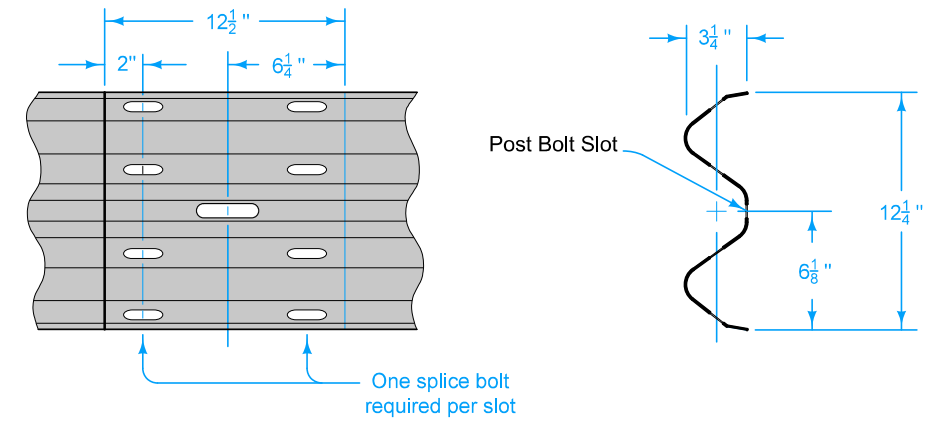
SHEET 2 of 4

**STEEL BEAM GUARDRAIL COMPONENTS**



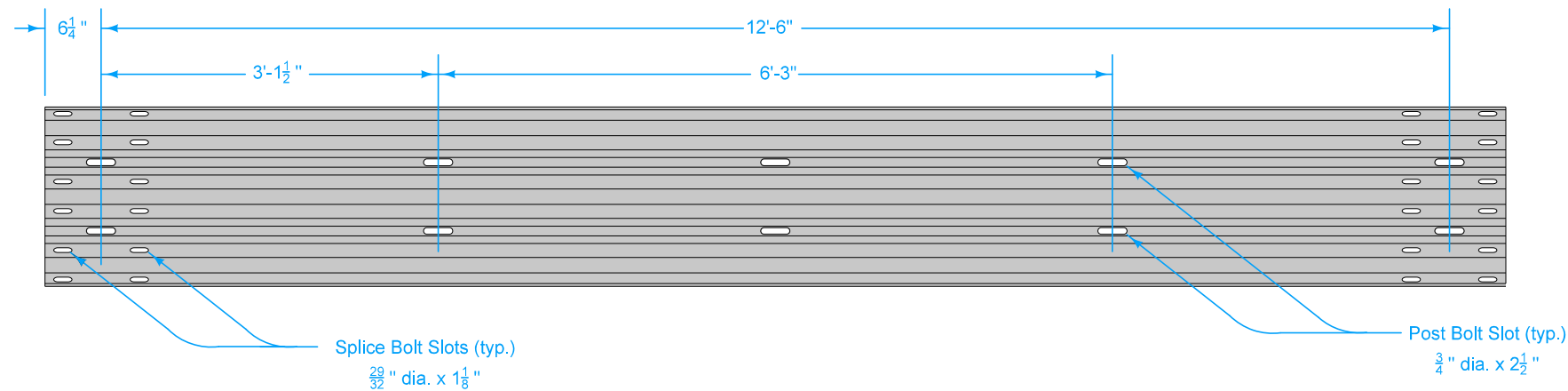
ELEVATION

W-BEAM RAIL



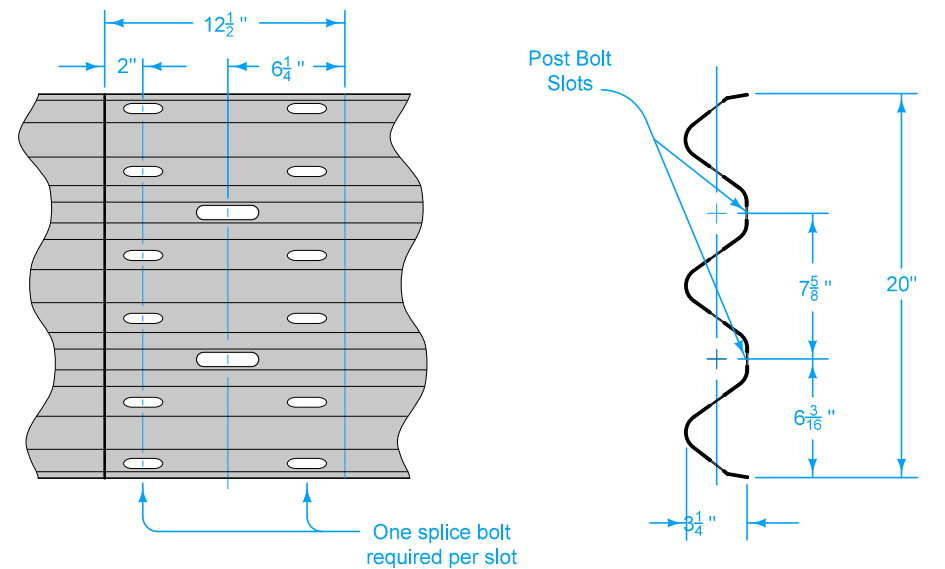
RAIL SPLICE

SECTION



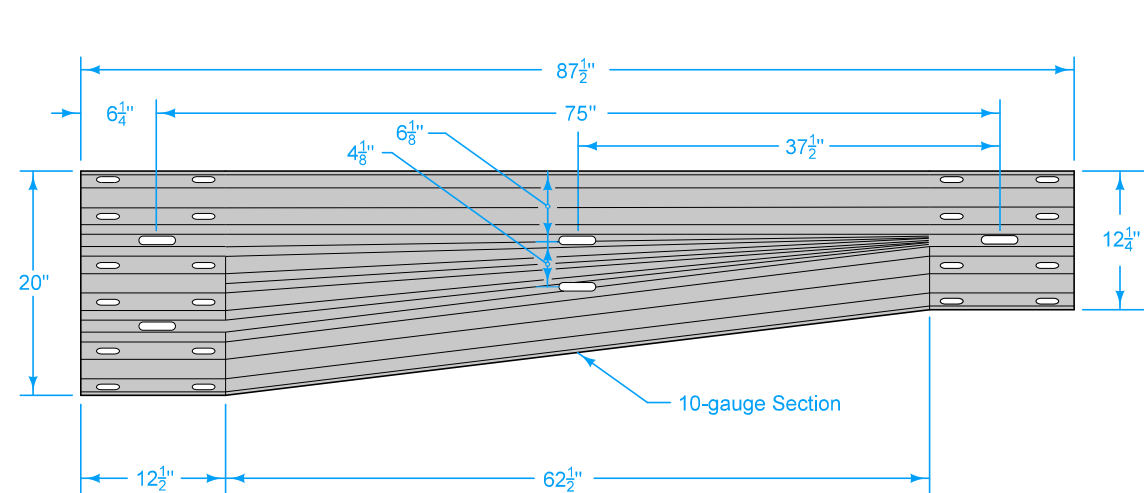
ELEVATION

THRIE-BEAM RAIL

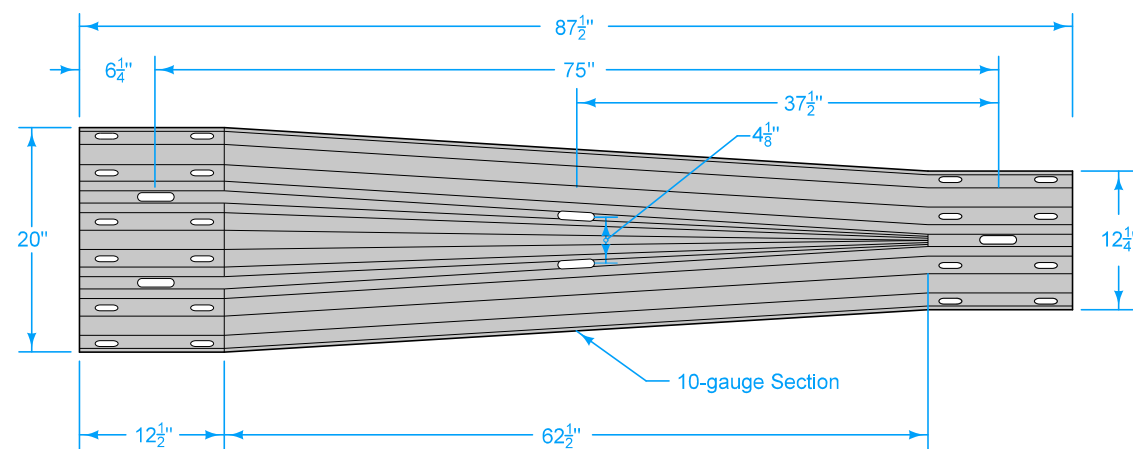


RAIL SPLICE

SECTION

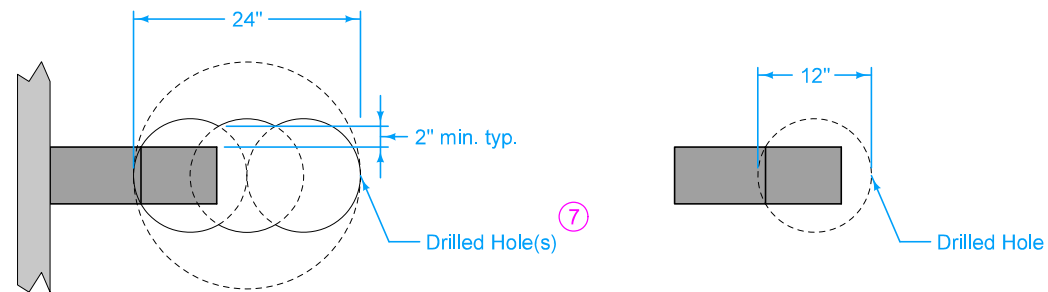
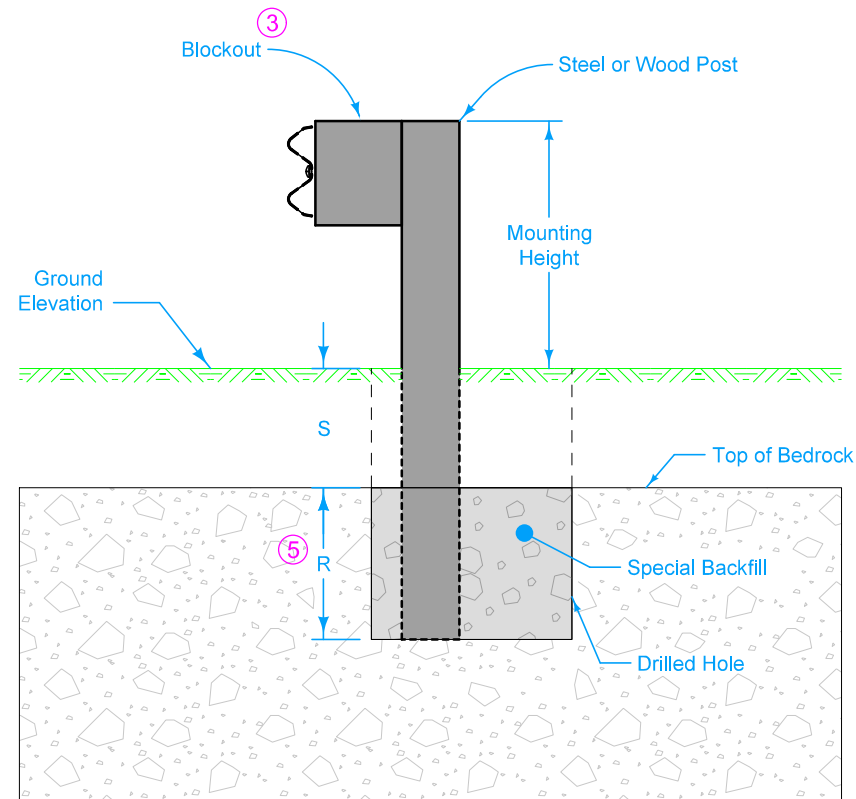


ASYMMETRICAL TRANSITION SECTION



SYMMETRICAL TRANSITION SECTION

|                                                              |              |          |
|--------------------------------------------------------------|--------------|----------|
| <div>IOWA IDOT</div> <div>STANDARD ROAD PLAN</div>           | REVISION     |          |
|                                                              | 8            | 04-21-26 |
|                                                              | BA-200       |          |
|                                                              | SHEET 3 of 4 |          |
| REVISIONS:      Added SYMMETRICAL TRANSITION SECTION detail. |              |          |
| <div>Shawn Miller</div>                                      |              |          |
| APPROVED BY DESIGN METHODS ENGINEER                          |              |          |
| STEEL BEAM GUARDRAIL COMPONENTS                              |              |          |

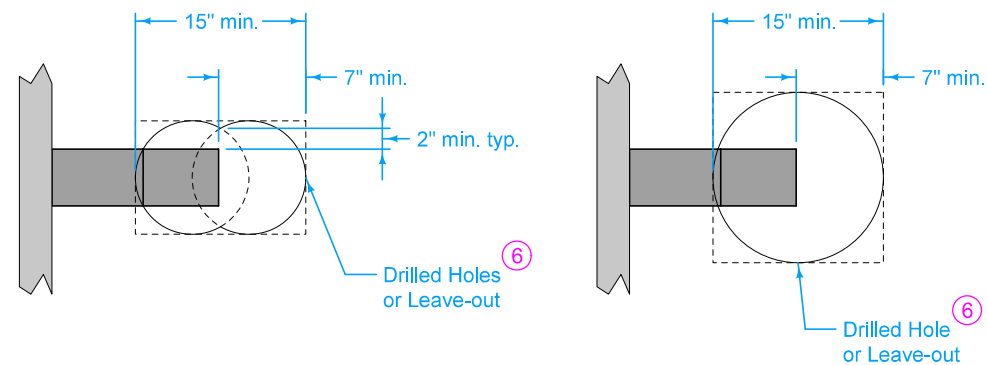
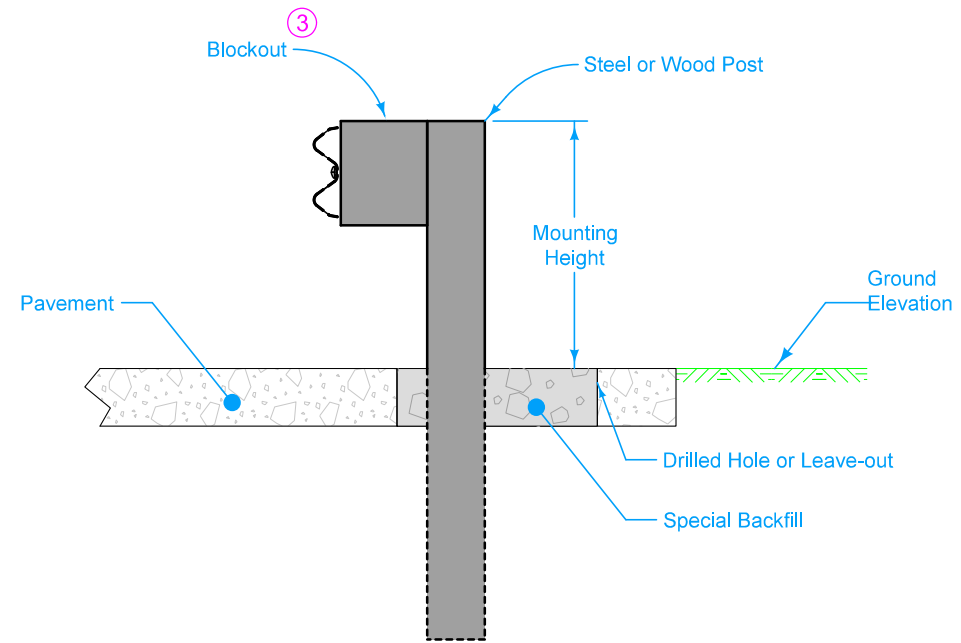


PLAN - CASE A

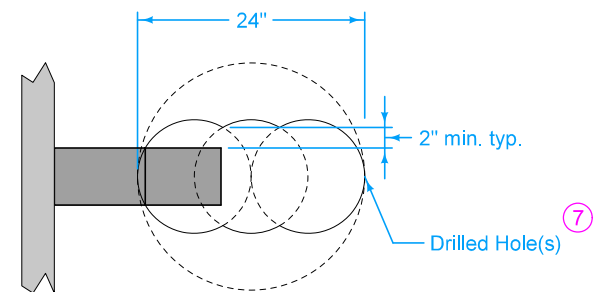
PLAN - CASE B

| Post Embedment (5) |                  |                                       |
|--------------------|------------------|---------------------------------------|
| Case               | Depth to Bedrock | Minimum Depth to Drill into Bedrock   |
| A                  | S = 0" to 16"    | R = 24"                               |
| B                  | S = 16" to 52"   | R = Post Length - Mounting Height - S |

POST INSTALLED IN BEDROCK



PLAN - PAVEMENT THICKNESS  $\leq 8"$   
Either approach is acceptable.



PLAN - PAVEMENT THICKNESS  $> 8"$

POST INSTALLED IN PAVEMENT

Installation information applies to both wood and steel posts.

- (3) Wood or composite only. Steel blockouts will not be allowed.
- (5) Post extends to bottom of hole in all cases. Trim top of post as required and treat with preservative according to Section 4161 of the Standard Specifications.
- (6) Use a 12 inch bit with two drills or a 15 inch bit with one drill. If placing post before paving, provide required leave-out area. If placing post after paving, drill or cut required area. Leave-out may be round or square.
- (7) Use a 12 inch bit with three drills or a 24 inch bit with one drill.

| IOWA DOT           |  | REVISION     |          |
|--------------------|--|--------------|----------|
| STANDARD ROAD PLAN |  | 8            | 04-21-26 |
|                    |  | BA-200       |          |
|                    |  | SHEET 4 of 4 |          |

REVISIONS: Added SYMMETRICAL TRANSITION SECTION detail.

*Shawn Miller*  
APPROVED BY DESIGN METHODS ENGINEER

STEEL BEAM GUARDRAIL COMPONENTS