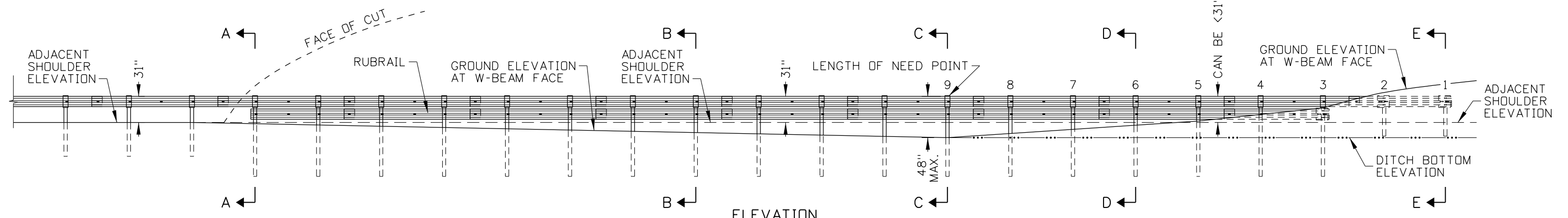
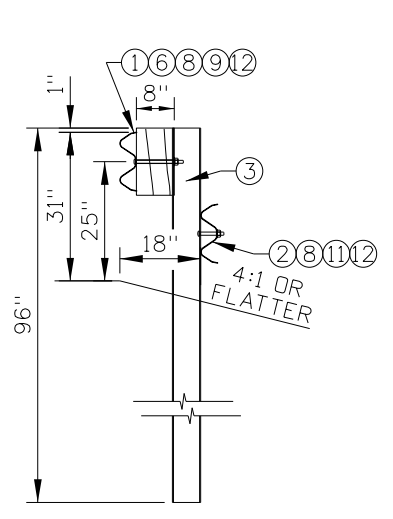


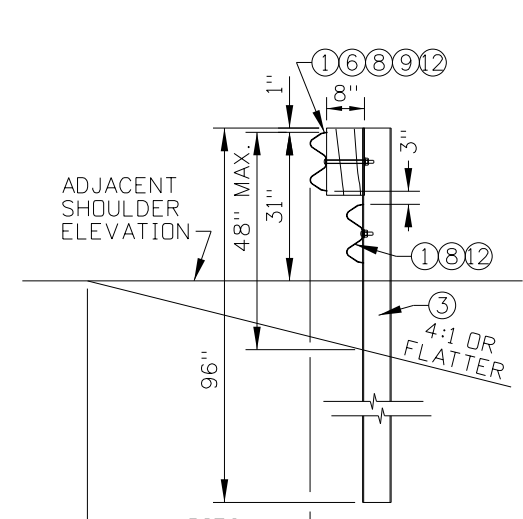
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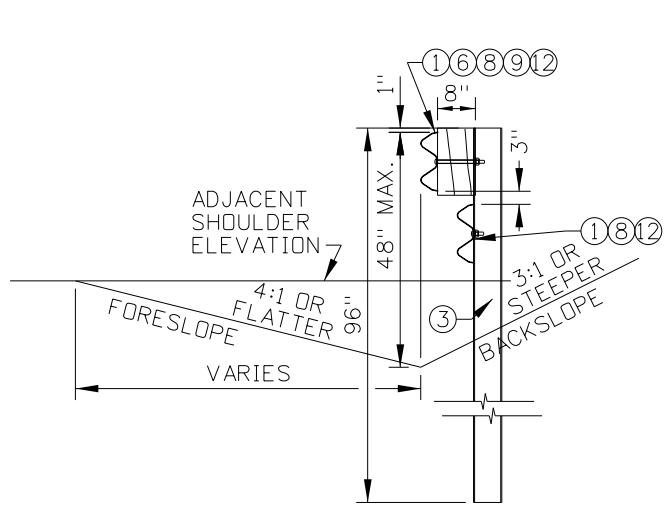
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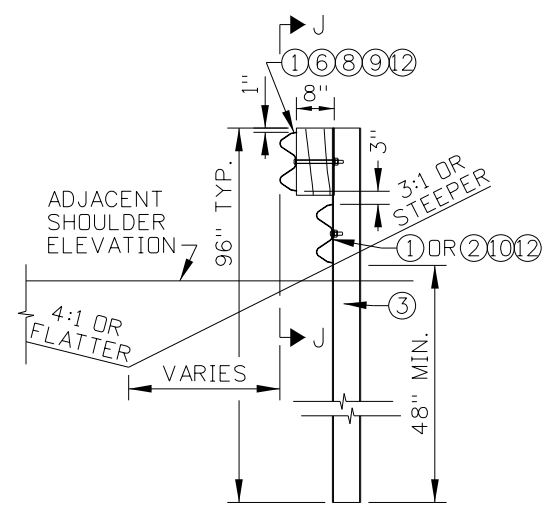
SECTION A-A



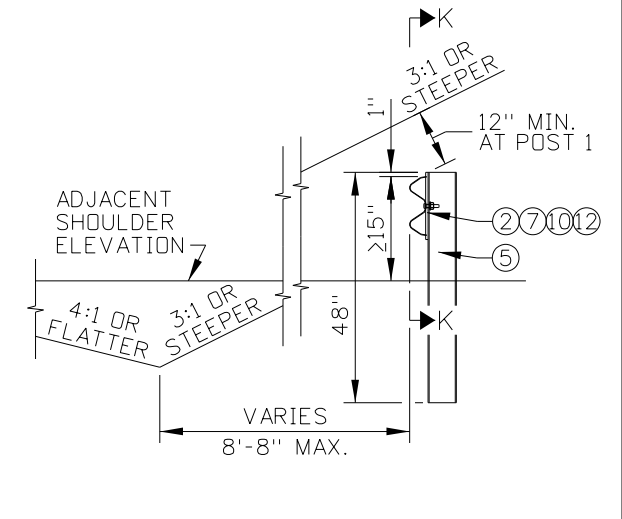
SECTION B-B



SECTION C-C  
POST 9



SECTION D-D  
POSTS 3 TO 8  
(SEE NOTE NO. 7)



SECTION E-E  
POSTS 1 TO 2

USE WHEN DITCH FORESLOPE IS 4:1 OR FLATTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	PBH						

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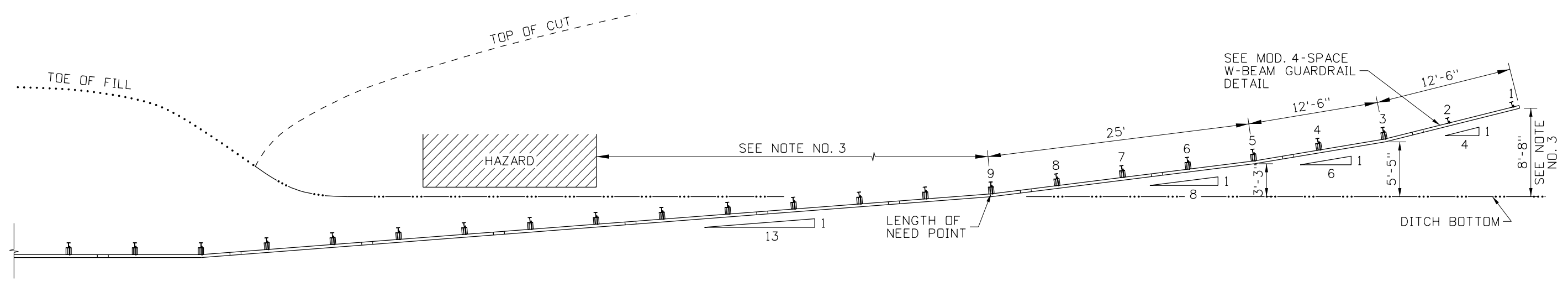
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**GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE**

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

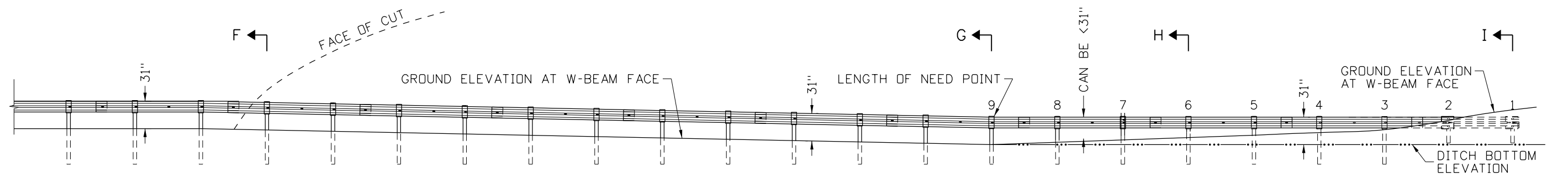
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STANDARD DRAWING NO. 612-6

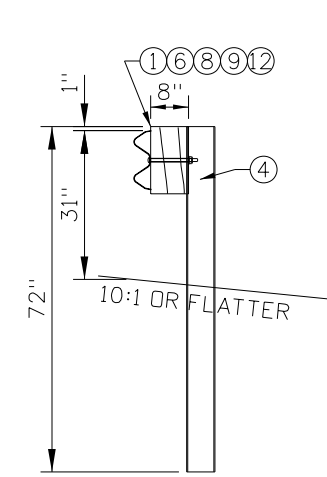
SHEET 1 OF 3



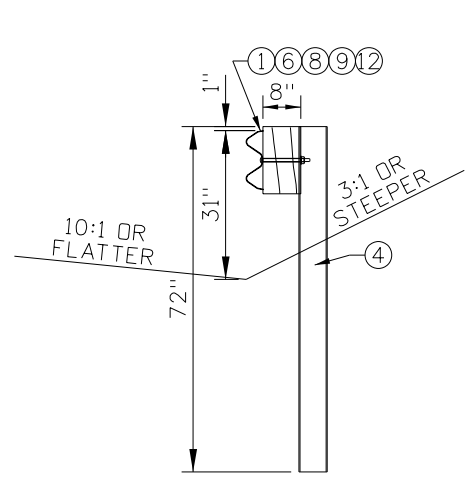
PLAN



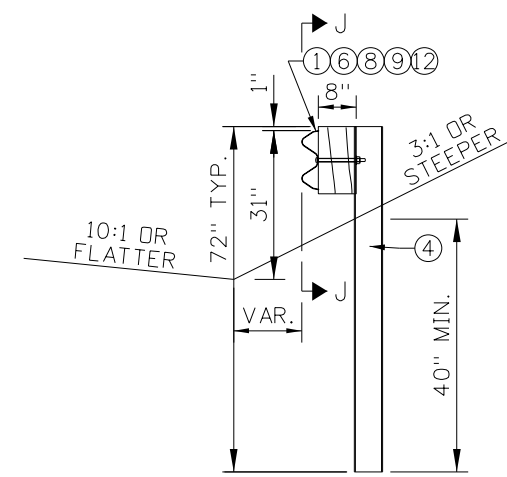
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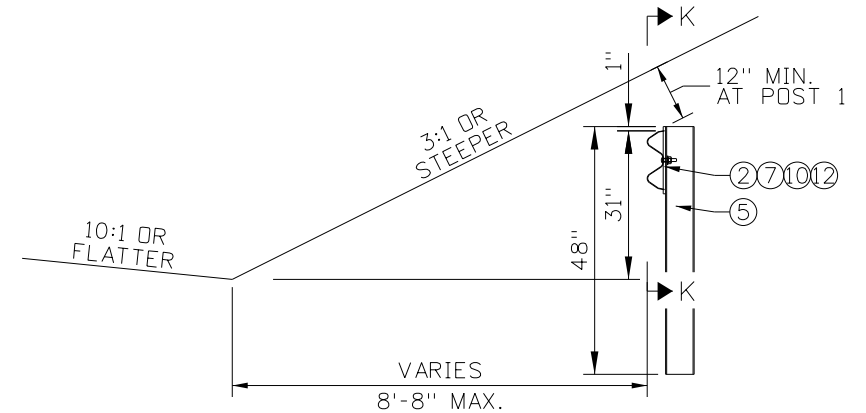
SECTION F-F



SECTION G-G  
POST 9



SECTION H-H  
POSTS 3 TO 8  
(SEE NOTE NO. 7)



SECTION I-I  
POSTS 1 TO 2

USE WHEN DITCH FORESLOPE IS 10:1 OR FLATTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	PBH						

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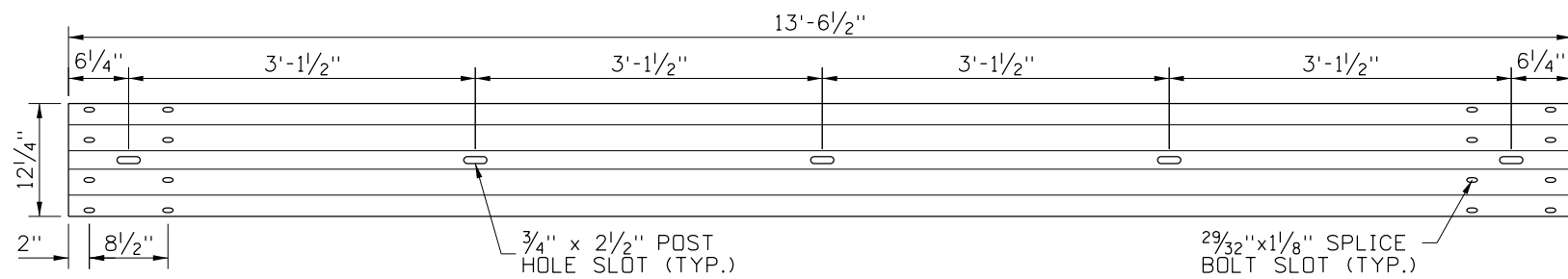
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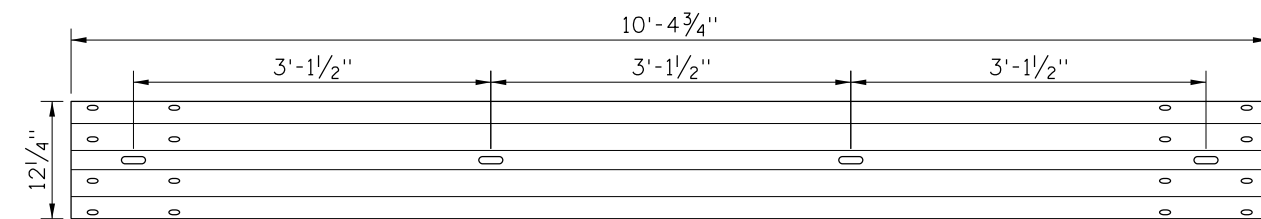
STANDARD DRAWING  
**GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE**

**English**  
STANDARD DRAWING NO.  
**612-6**  
SHEET 2 OF 3

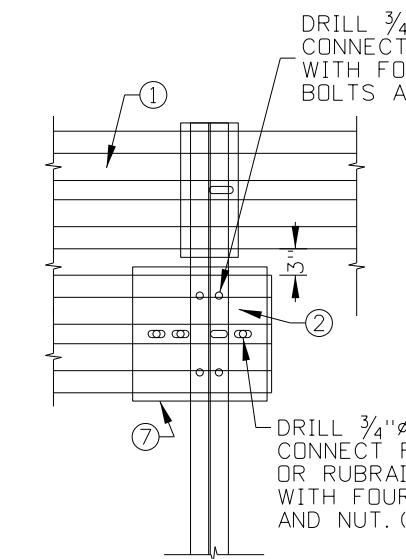
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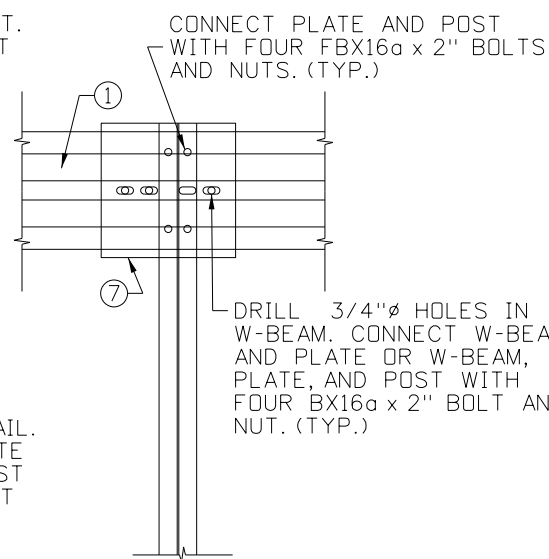
① 4-SPACE W-BEAM GUARDRAIL  
RWM04a



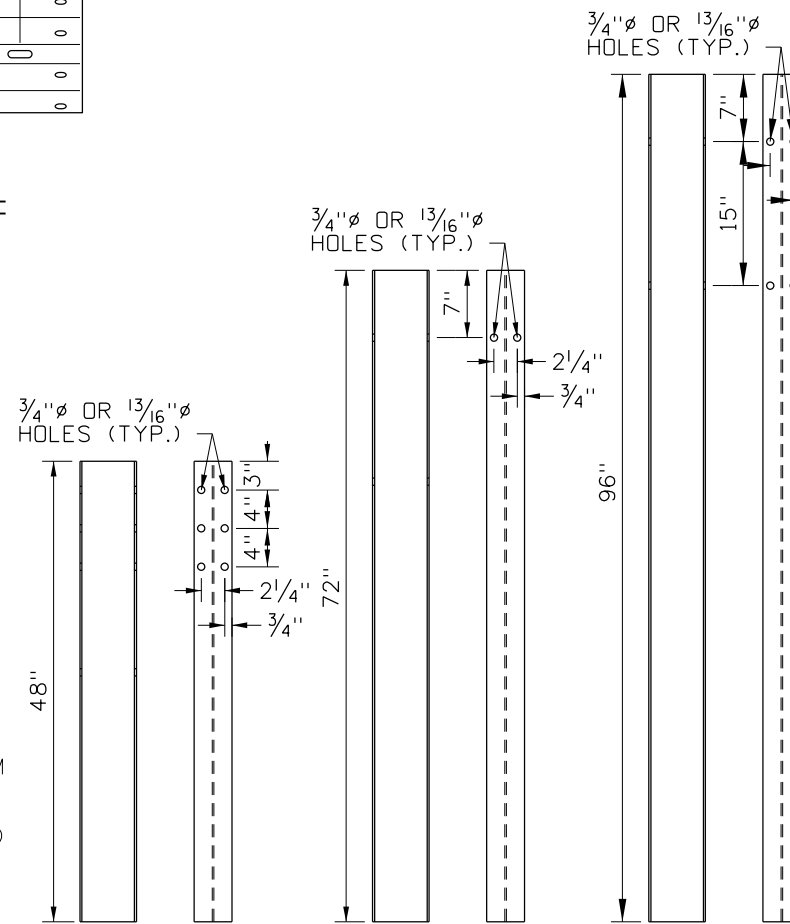
② MODIFIED 4-SPACE W-BEAM GUARDRAIL DETAIL  
RWM04a (MODIFIED)  
(DIMENSIONS NOT SHOWN ARE UNMODIFIED FROM RWM04a)



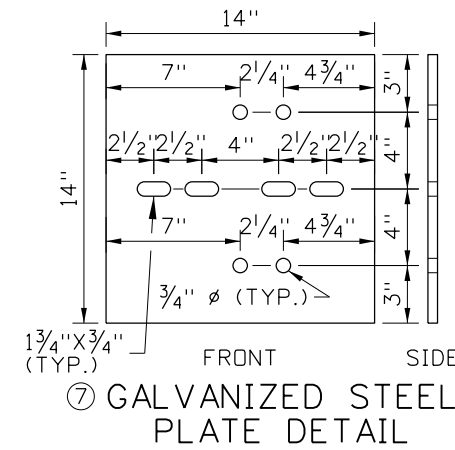
SECTION J-J  
POST 3 ONLY  
NO BOLTS SHOWN FOR CLARITY  
(OMIT RUBRAIL FOR SHEET 2 DESIGN)



SECTION K-K  
POSTS 1 AND 2  
NO BOLTS SHOWN FOR CLARITY



③④⑤ WIDE-FLANGE POST DETAILS



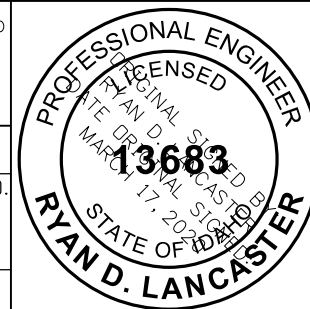
⑦ GALVANIZED STEEL PLATE DETAIL

BURIED-IN-BACKSLOPE TERMINAL HARDWARE COMPONENTS TABLE		
ITEM NO.	COMPONENT DESCRIPTION	TF-13 NAME
①	4-SPACE W-BEAM GUARDRAIL (W-BEAM)	RWM04a
②	MOD. 4-SPACE W-BEAM GUARDRAIL (RUBRAIL)	RWM04a
③	96" WIDE-FLANGE GUARDRAIL POSTS	PWE--
④	72" WIDE-FLANGE GUARDRAIL POSTS	PWE01
⑤	48" WIDE-FLANGE GUARDRAIL POSTS	PWE--
⑥	W-BEAM BLOCKOUT	PDB01b OR POLYETHYLENE
⑦	GALVANIZED STEEL PLATE	-
⑧	5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT	FBB01
⑨	5/8" GUARDRAIL BOLT AND RECESSED NUT	FBB03
⑩	5/8" X 2" HEX HEAD BOLT & NUT	FBX16a
⑪	5/8" X 5" HEX HEAD BOLT & NUT	FBX16a
⑫	5/8" FLAT WASHER	FWC16a

NOTES

- USE THE BURIED-IN-BACKSLOPE GUARDRAIL TERMINAL WHERE A BACKSLOPE IS REASONABLY CLOSE TO THE POINT WHERE THE BARRIER IS INTRODUCED OR TERMINATED. THE BURIED-IN-BACKSLOPE GUARDRAIL TERMINAL ELIMINATES THE POSSIBILITY OF AN END-ON IMPACT WITH THE GUARDRAIL END AND REDUCES THE LIKELIHOOD OF VEHICULAR INTRUSION BEHIND THE BARRIER. THE BURIED-IN-BACKSLOPE TERMINAL DESIGNS SHOWN ARE MASH TEST LEVEL 3 TERMINAL DESIGNS.
- THE SHEET 1 DESIGN CAN BE USED WHENEVER THE DITCH FORESLOPE IS 4:1 OR FLATTER. THE SHEET 2 DESIGN CAN BE USED WHEN THE DITCH FORESLOPE IS 10:1 OR FLATTER.
- THE HAZARD MAY BE THE SLOPE EMBANKMENT OR OTHER ROADSIDE HAZARD. PROVIDE THE FOLLOWING TERMINAL LENGTHS BETWEEN THE LENGTH OF NEED POINT AND THE HAZARD FOR THE FOLLOWING BACKSLOPE CONDITIONS:
  - 2:1 BACKSLOPE - 75' OR MORE TO HAZARD
  - 2.5:1 OR FLATTER BACKSLOPE - PROVIDE LENGTH OF NEED CALCULATED BY FORMULA
  - 1:1 OR STEEPER BACKSLOPE - ANCHOR AS SOON AS PRACTICAL
- THE FLARE RATES SHOWN CAN BE FLATTENED IF POST 1 CAN BE BURIED 12" DEEP WHILE KEEPING THE TOP OF THE W-BEAM RAIL PARALLEL TO THE ROADWAY (OR DITCH) ELEVATION.
- SPACE POSTS 6'-3". SPLICE W-BEAM AND RUBRAIL SECTIONS (WHEN APPLICABLE) BETWEEN POSTS.
- INSTALL THE GUARDRAIL TERMINAL AT THE FOLLOWING HEIGHTS:
  - 4:1 OR FLATTER DITCH FORESLOPE DESIGN (SHEET 1) - ENSURE THAT THE TOP OF THE GUARDRAIL IS 31" ABOVE THE ADJACENT SHOULDER ELEVATION UNTIL THE DISTANCE BETWEEN THE TOP OF THE GUARDRAIL AND THE DITCH SURFACE DIRECTLY BENEATH THE GUARDRAIL IS 48". BEYOND THAT POINT, REDUCE THE HEIGHT OF THE GUARDRAIL RELATIVE TO THE SHOULDER ELEVATION TO ENSURE 48" MAXIMUM GUARDRAIL HEIGHT. THE HEIGHT OF THE GUARDRAIL BETWEEN POSTS 8 AND 1 MAY BE REDUCED, IF NECESSARY AND ON A STRAIGHT TAPER, TO ENSURE THE GUARDRAIL IS BURIED 12" DEEP AT POST 1 AND THE RUBRAIL END IS BURIED AT POST 3.
  - 10:1 OR FLATTER DITCH FORESLOPE DESIGN (SHEET 2) - ENSURE THAT THE TOP OF GUARDRAIL IS 31" ABOVE THE SURFACE DIRECTLY BENEATH THE GUARDRAIL UNTIL CROSSING THE DITCH BOTTOM AT POST 9. FOR POSTS 8 THROUGH 1, INSTALL THE GUARDRAIL PARALLEL WITH THE DITCH BOTTOM AND ENSURE THAT THE GUARDRAIL IS BURIED 12" DEEP AT POST 1.
- POSTS 3 THROUGH 8 CAN BE SHORTENED IF THE GUARDRAIL HEIGHT IS IN ACCORDANCE WITH NOTE NO. 5 AND AT LEAST 40" OF THE POST IS EMBEDDED IN SOIL.
- WHEN APPLICABLE, FIELD BEND AND ATTACH THE RUBRAIL TO THE BACK OF THE LAST 96" POST.
- PAINT DRILLED HOLES WITH TWO THICK APPLICATIONS OF ZINC-RICH PAINT THAT MEETS MIL-P-21035.
- DRAWING NOT TO SCALE.

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BOISE IDAHO

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DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING  
GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE

English  
STANDARD DRAWING NO. 612-6  
SHEET 3 OF 3