



TYPICAL LAYOUT FOR ASYMMETRICAL BULLNOSE FOR SYSTEM WIDTHS GREATER THAN 24'

~ NOTES ~

- 201 DIMENSIONS ARE MEASURED FROM THE GUARDRAIL CENTER OF POSTS TO THE SYMMETRY LINE OF SLOTTED THRIE BEAM RAIL E2.  
 ON THE PLAN SHEETS, THE DESIGNER MUST INCLUDE THE STATION AND OFFSET MEASUREMENTS FOR THE CENTER OF THE GUARDRAIL POSTS OF THE BULLNOSE. REFER TO SHEET 3 FOR DETAILS.  
 REFER TO DETAIL A FOR MORE INFORMATION.
- 202 BEND THE RAIL IN THE FIELD AS NEEDED TO MAKE CONNECTIONS. THE MAXIMUM DEFLECTION ANGLE IS 4.7° (3.63° SHOWN).
- 203 SAW, DRILL, OR PUNCH THE RAIL AS REQUIRED. DO NOT TORCH-CUT. REPAIR GALVANIZED COATINGS IN ACCORDANCE WITH ASTM A780 (THIS IS INCIDENTAL). SPACING BETWEEN INDIVIDUAL POSTS FROM POST 1 TO POST 7 IS 3'-1 1/2"
- 204 PARTS E1 THROUGH E4 ARE THRIE BEAM RAILS. SEE SHEET 8 FOR DETAILS.
  - E1 UNBENT STANDARD THRIE BEAM RAIL (POST 8 AND BEYOND)
  - E2 SLOTTED THRIE BEAM RAIL (POST 1B TO POST 1A)
  - E3 SLOTTED THRIE BEAM RAIL (POST 5 TO POST 8)
  - E4 SLOTTED THRIE BEAM RAIL (POST 1 TO POST 5) WITH A RADIAL OPTION ON THE APPROACH SIDE AND A TANGENT OPTION ON THE OPPOSING SIDE.
- 205 BEYOND POST 12 - CAN CONSTRUCT W-BEAM GUARDRAIL OR THRIE BEAM GUARDRAIL. FOR W-BEAM INSTALLATIONS, TRANSITION THE RAIL FROM POST 12 TO 13 BY USING A THRIE BEAM CONNECTOR (INCIDENTAL TO THE BULLNOSE TERMINAL BID ITEM) FOLLOWED BY A STANDARD POST AND BLOCK, SPACED AT 3' - 1 1/2". CONTINUE BARRIER SYSTEM WITH STANDARD 6' - 3" POST SPACING, AND TRANSITION THE BULLNOSE RAIL HEIGHT TO 31" OVER A 12' - 6" BEAM. FOR ADDITIONAL DETAILS SEE RBR-001, RBR-005 AND THE DETAIL ABOVE.  
 FOR THRIE BEAM INSTALLATIONS BEYOND POST 12, TRANSITION THE BULLNOSE RAIL HEIGHT TO 33" OVER A 12' - 6" BEAM LENGTH.
- 206 SEE SHEET 4 FOR MEDIAN GRADING.
- 207 MINIMUM WORKING WIDTH 4'-2". GRADING INSIDE THE THRIE BEAM TERMINAL BEYOND POST 13 MAY BE ADJUSTED FOR DRAINAGE, PROVIDED THERE IS A MINIMUM OF 2 FEET OF FILL BEHIND THE POSTS TO ENSURE ADEQUATE SUPPORT FOR THE SYSTEM.
- 208 U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- 209 NOSE CABLE WITH SWAGGED END BUTTONS.
- 210 NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- 211 THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- 212 FOR MEDIANS WIDER THAN 24', TAPER THE OPPOSING SIDE BEFORE TAPERING THE APPROACH SIDE, AS SHOWN.
- 213 EXTEND THE RAIL BEYOND POST 12 AT A TAPER RATE OF 15:1 OR FLATTER, AS NEEDED. THE REQUIRED EXTENSION LENGTH WILL DEPEND ON THE MEDIAN WIDTH OR THE WORKING WIDTH REQUIREMENTS.
- 214 IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER.
- 215 SEE SHEET 5 FOR DETAILS ON THE INSTALLATION OF DELINEATOR REFLECTORS.
- 216 SEE SHEET 3 FOR INSTALLATION LAYOUT DETAILS OF THE BULLNOSE TERMINAL.