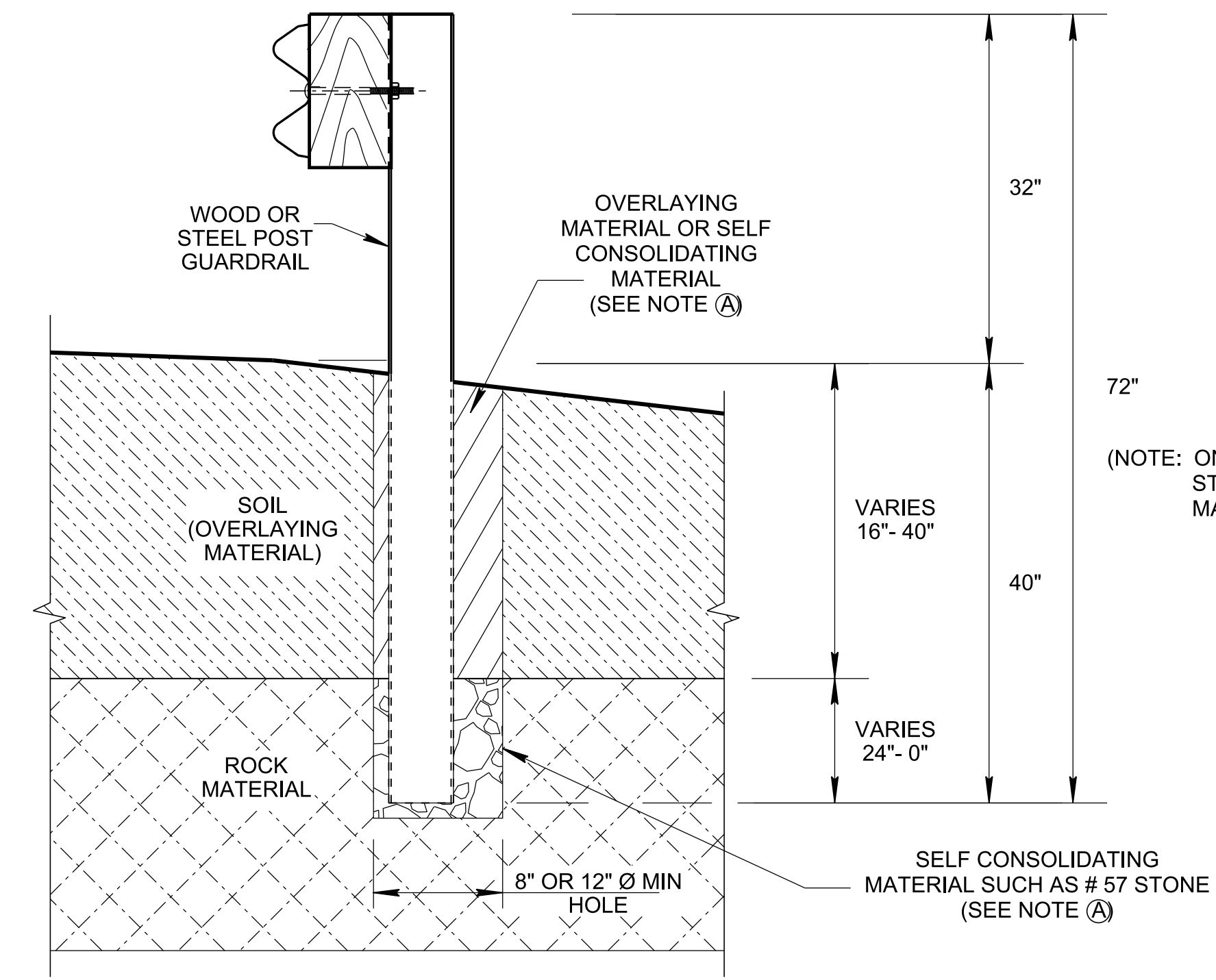
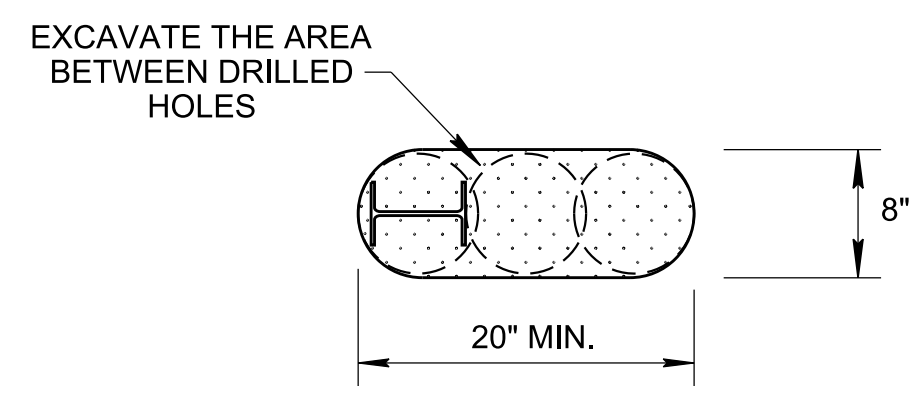


**ELEVATION**  
**GUARDRAIL POST IN ROCK**  
**INSTALLATION DETAIL**  
 (WHEN SOIL DEPTH IS 16" OR LESS)



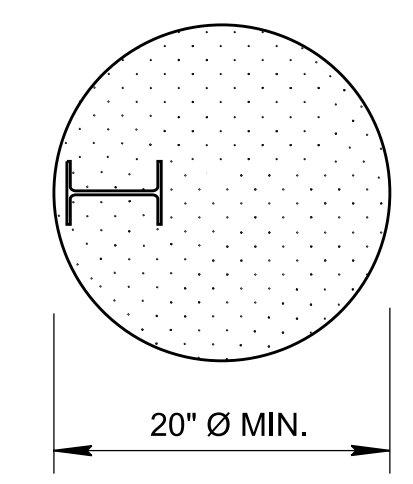
**ELEVATION**  
**GUARDRAIL POST IN ROCK**  
**INSTALLATION DETAIL**  
 (WHEN SOIL DEPTH IS GREATER THAN 16")

(NOTE: ON FILL SLOPES 2:1 OR  
 STEEPER 8' GUARDRAIL  
 MAY BE USED)



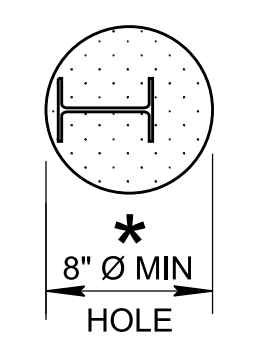
**3- OVERLAPPING HOLES 8" Ø**

**PLAN VIEW**  
**FOR STEEL POST**

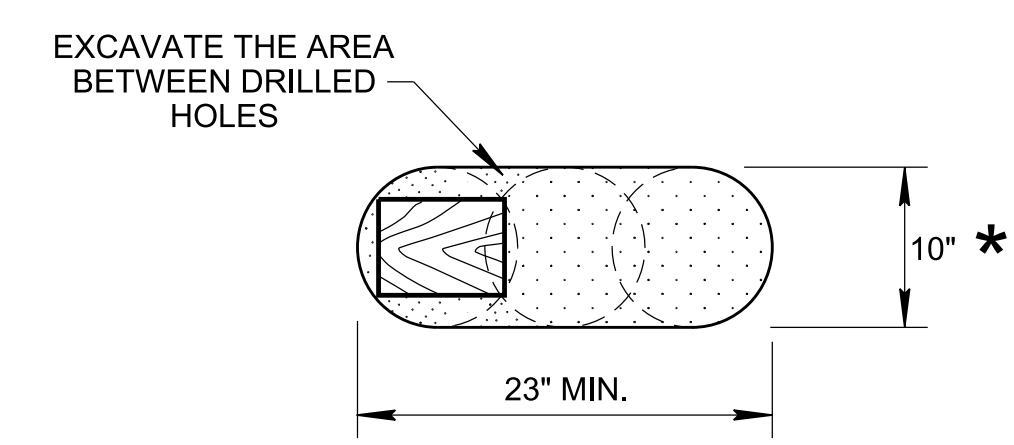


**ALTERNATIVE**  
**SINGLE 20" Ø HOLE**

\* THIS WIDTH MAY BE INCREASED  
 TO 15 IN. TO ACCOMMODATE  
 CONSTRUCTION TOLERANCES.

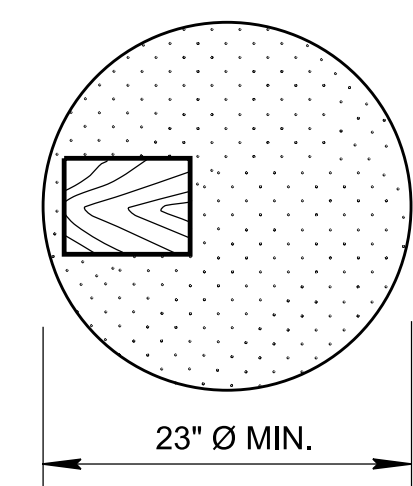


**PLAN VIEW**  
**FOR STEEL POST**

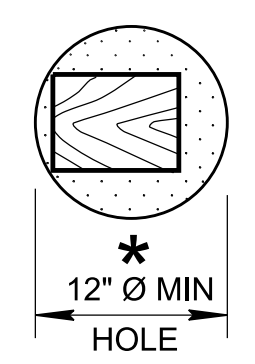


**3- OVERLAPPING HOLES 10" Ø**

**PLAN VIEW**  
**FOR WOOD POST**



**ALTERNATIVE**  
**SINGLE 23" Ø HOLE**



**PLAN VIEW**  
**FOR WOOD POST**

GENERAL NOTES	
(A)	DURING INSTALLATION OF GUARDRAIL POSTS IN ROCK, GUARDRAIL POSTS SHALL NOT BE CUT.
(B)	USE THIS STANDARD DRAWING WHEN POSTS CANNOT BE EMBEDDED TO THE MINIMUM DEPTH SHOWN ON STANDARD DRAWING S-GR31-1C.
(C)	UNLESS OTHERWISE SPECIFIED USE EITHER THE CIRCULAR OR THE OBLONG HOLE CONFIGURATION WHEN THE SOIL DEPTH IS 16 INCHES OR LESS.
(D)	ANY EXCESS POST LENGTH, AFTER MEETING THESE DEPTHS, MAY BE FIELD CUT TO ENSURE PROPER GUARDRAIL MOUNTING HEIGHT AND TREAT FIELD CUT GALVANIZED STEEL POST SURFACES THAT EXPOSE THE BASE METAL WITH TWO COATS OF ZINC-OXIDE PAINT.
(E)	PLACEMENT OF GUARDRAIL POSTS IN ROCK HAS BEEN EVALUATED BY THE MIDWEST ROADSIDE SAFETY FACILITY AND MEET MASH TL-3 STANDARDS, AND THE EVALUATION HAS BEEN DOCUMENTED IN THE MIDWEST ROADSIDE MIDWEST STATES POOLED FUND RESEARCH REPORT NO. TRP-03-119-03.
(F)	SEE STANDARD DRAWINGS S-PL-6 FOR GUARDRAIL PLACEMENT AND S-GR31-1 SERIES FOR GUARDRAIL DETAILS.
(G)	PAYMENT OF ROCK DRILLING INCLUDING MINERAL AGGREGATE BACKFILL WILL BE MADE PER TDOT STANDARD SPECIFICATION SUBSECTION 705.10 BASIS OF PAYMENT.

3/16/2023 2:43:30 PM P:\StandDraw\DESIGN STANDARDS\Standards Drawings Library\Standard Roadway Drawings - CURRENT\In Progress\10-106.00 Safety Design and Guardrails IP\106.04 Guardrail Details IP\SGR311D-20230301