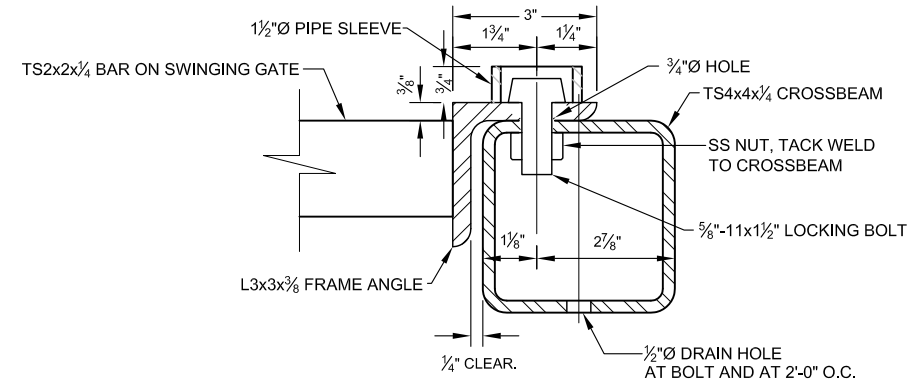


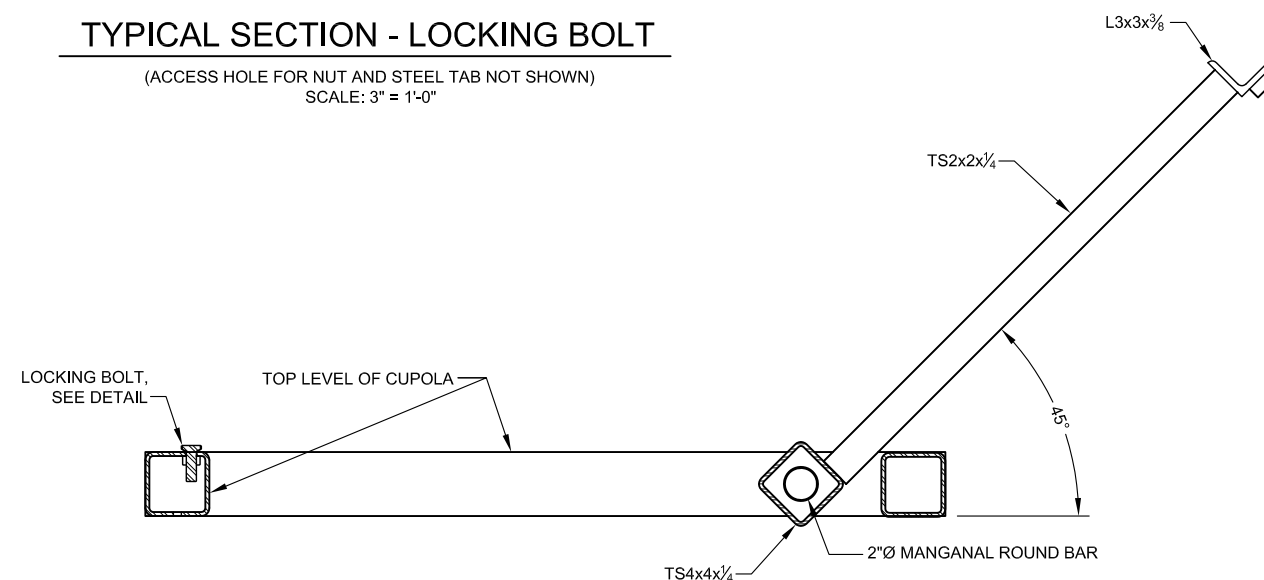
**PLAN - FRAME FOR OPENABLE HATCH**

SCALE: 1" = 1'-0"



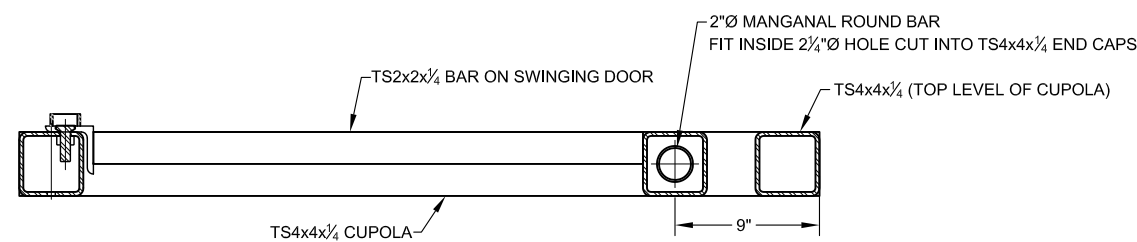
**TYPICAL SECTION - LOCKING BOLT**

(ACCESS HOLE FOR NUT AND STEEL TAB NOT SHOWN)  
SCALE: 3" = 1'-0"



**SECTION IN OPEN POSITION**

SCALE: 1" = 1'-0"



**SECTION IN CLOSED POSITION**

SCALE: 1" = 1'-0"

**NOTES FOR LOCKING BOLTS:**

- FIRST DRILL AN  $1\frac{1}{8}$ " HOLE THROUGH THE FRAME ANGLE.
- THEN USE A  $1\frac{1}{4}$ " DRILL BIT TO MAKE A COUNTERBORE INTO THE TOP OF THE FRAME ANGLE THAT WILL FORM A BEARING SURFACE FOR THE BOLT HEAD. DRILL TO A DEPTH OF  $\frac{5}{16}$ " SO THAT THE TOP OF THE BOLT WILL BE SLIGHTLY ABOVE THE TOP OF THE ANGLE.
- WHILE DRILLING THE COUNTERBORE, THE BIT SHALL NOT GO COMPLETELY THROUGH THE FRAME ANGLE. THE BOLT SEATING AREA SHALL BE ON THE ANGLE WHEN INSTALLED.
- GREASE THREADS OF BOLTS AND INSTALL FIRMLY WITH 50 TO 75 POUNDS OF TORQUE.
- THE PROJECT MANAGER WILL PROVIDE THE LOCKING BOLTS.

**GENERAL NOTES:**

- STEEL PLATES AND SHAPES SHALL BE WEATHERING STEEL. WELD ALL JOINTS. CONSTRUCT THE CLOSURE FRAME AND SWINGING HATCH TO ELIMINATE SURFACES ON WHICH MOISTURE OR DEBRIS CAN BE TRAPPED. PLIES OF MATERIAL SHALL BE TIGHT TO PREVENT THE INCURSION OF MOISTURE. ALL TUBULAR MEMBERS SHALL BE HERMETICALLY SEALED TO PREVENT THE INCURSION OF MOISTURE, EXCEPT AS OTHERWISE NOTED. ROUND OR CHAMFER ALL EXPOSED SHARP CORNERS AND EDGES.
- AT EACH OF THE TWO REMOVABLE BOLT LOCATIONS, CUT A SMALL ACCESS HOLE THROUGH THE INSIDE FACE OF THE CROSSBEAM TO PLACE AND TACK WELD THE NUT. FOR DRAINAGE DRILL A  $\frac{1}{2}$ " HOLE THROUGH THE BOTTOM CENTER OF THE CROSSBEAM AT EACH ACCESS HOLE AND AT 2'-0" O.C. ALONG THE FULL LENGTH OF THE BEAM. THE PROJECT MANAGER WILL PROVIDE THE LOCKING BOLTS. THE CONTRACTOR SHALL PROVIDE THE NUTS ( $\frac{5}{8}$ "-11 UNC CLASS 2A THREAD). NUTS SHALL BE STAINLESS STEEL.

<b>ABANDONED MINE LAND PROGRAM</b>			
MINING AND MINERALS DIVISION NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT			
SCALE: AS SHOWN	AML 42.10	DRAWN BY: MWT	
DATE: 10/06/11		REVISED BY:	
SWINGING HINGED HATCH DETAILS			
FILE:	OROGRANDE MINE DISTRICT MAINTENANCE PROJECT	FIGURE: 3	