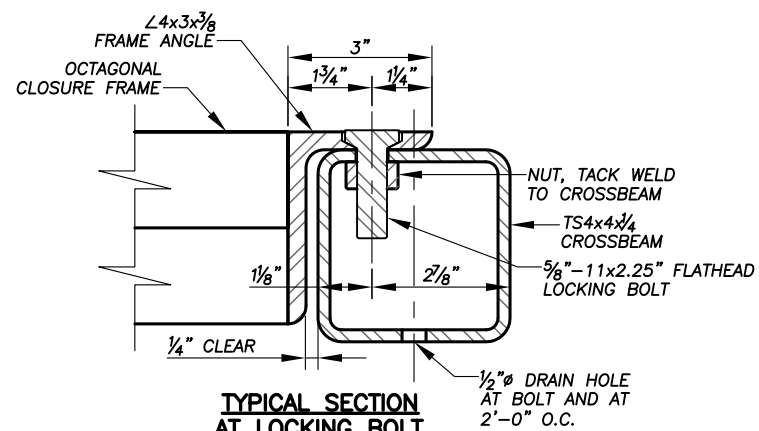


TYPICAL PLAN - OPENING FOR REMOVABLE ACCESS HATCH
(REMOVABLE HATCH NOT SHOWN)
(SYMMETRICAL AROUND CENTERLINES)
SCALE: 1" = 1'-0"

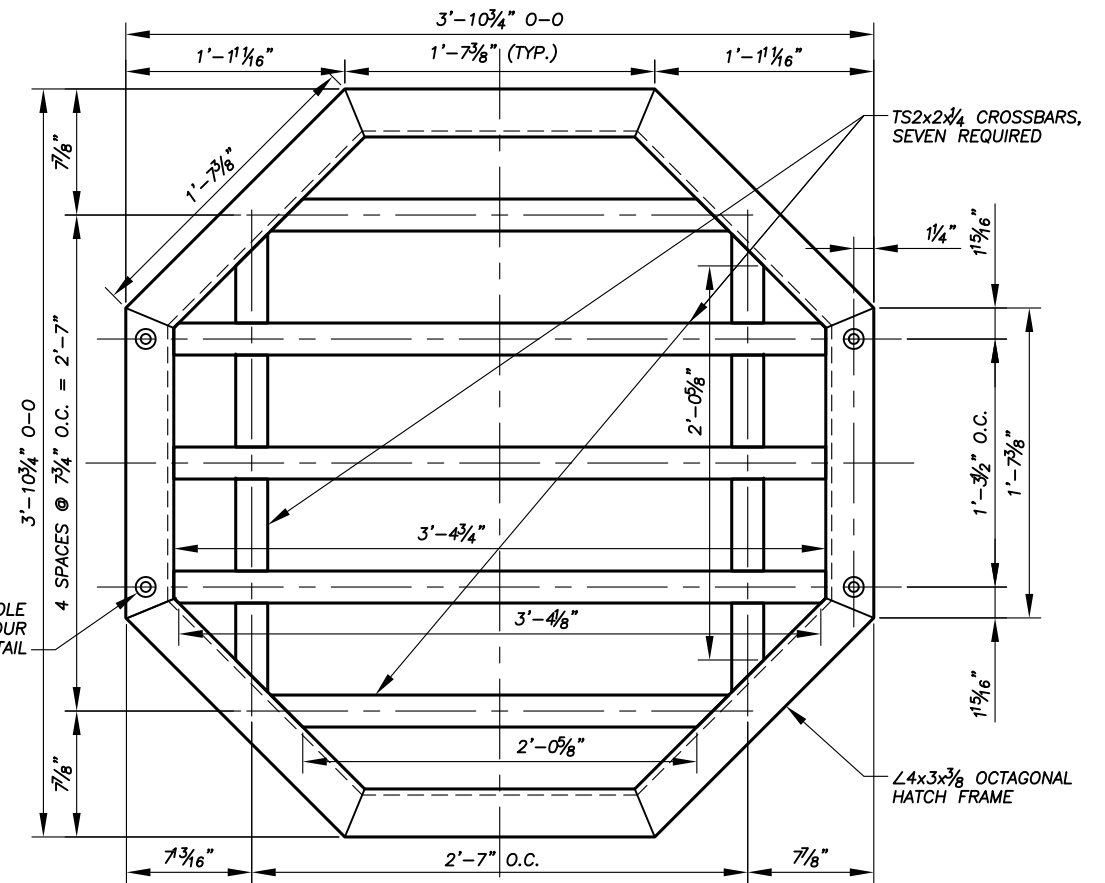


TYPICAL SECTION AT LOCKING BOLT
(ACCESS HOLE FOR NUT NOT SHOWN)
SCALE: 3" = 1'-0"

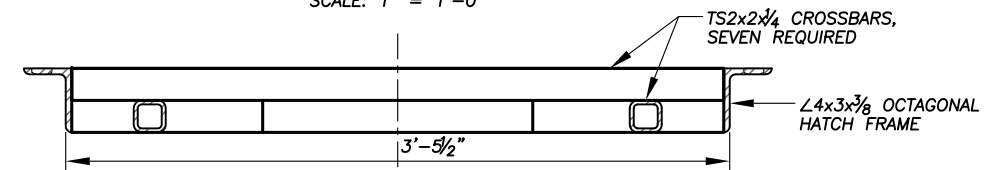
NOTES FOR LOCKING BOLTS:

1. FIRST DRILL AN $1\frac{1}{8}$ " ϕ HOLE THROUGH THE FRAME ANGLE.
2. THEN USE A $1\frac{1}{4}$ " ϕ 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 $\frac{3}{16}$ " SO THAT THE TOP OF THE BOLT WILL BE SLIGHTLY ABOVE THE TOP OF THE ANGLE.
3. 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.
4. GREASE THREADS OF BOLTS AND INSTALL FIRMLY WITH 50 TO 75 POUNDS OF TORQUE.

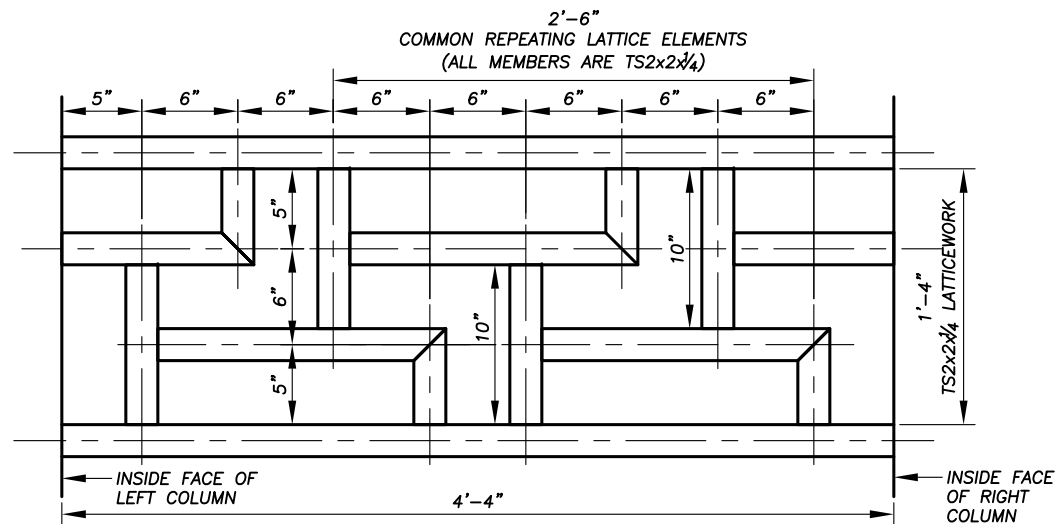
COUNTERBORED HOLE FOR LOCKING BOLT, FOUR REQUIRED; SEE DETAIL



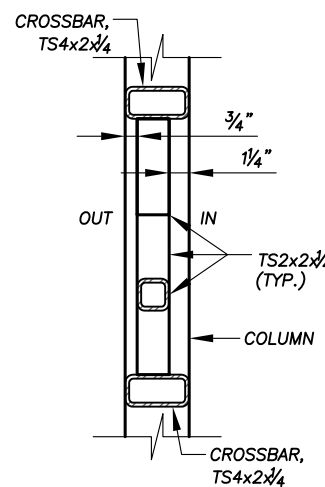
PLAN - OCTAGONAL REMOVABLE HATCH
(SYMMETRICAL AROUND CENTERLINES)
SCALE: 1" = 1'-0"



SECTION
SCALE: 1" = 1'-0"



TYPICAL ELEVATION
(VIEW FROM OUTSIDE)



SECTION

LATTICEWORK DETAIL
SCALE: 1" = 1'-0"

GENERAL NOTES:

1. STEEL PLATES AND SHAPES SHALL BE WEATHERING STEEL. WELD ALL JOINTS. CONSTRUCT THE CLOSURE FRAME AND REMOVABLE 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.
2. AT EACH BOLT HOLE LOCATION AT THE OPENING FOR THE REMOVABLE ACCESS HATCH, CUT A SMALL ACCESS HOLE THROUGH THE INSIDE FACE OF THE CROSSBEAM TO PLACE AND TACK WELD THE NUT. FOR DRAINAGE DRILL A $1\frac{1}{2}$ " ϕ 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).

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN
DATE: SEPT. 3, 2009

DRAWN BY: JAK/JRS
REVISED:

LATTICEWORK & HATCH DETAILS

LAKE VALLEY MINE SAFEGUARD PROJECT - PHASE IV DRAWING NUMBER: FIGURE 35