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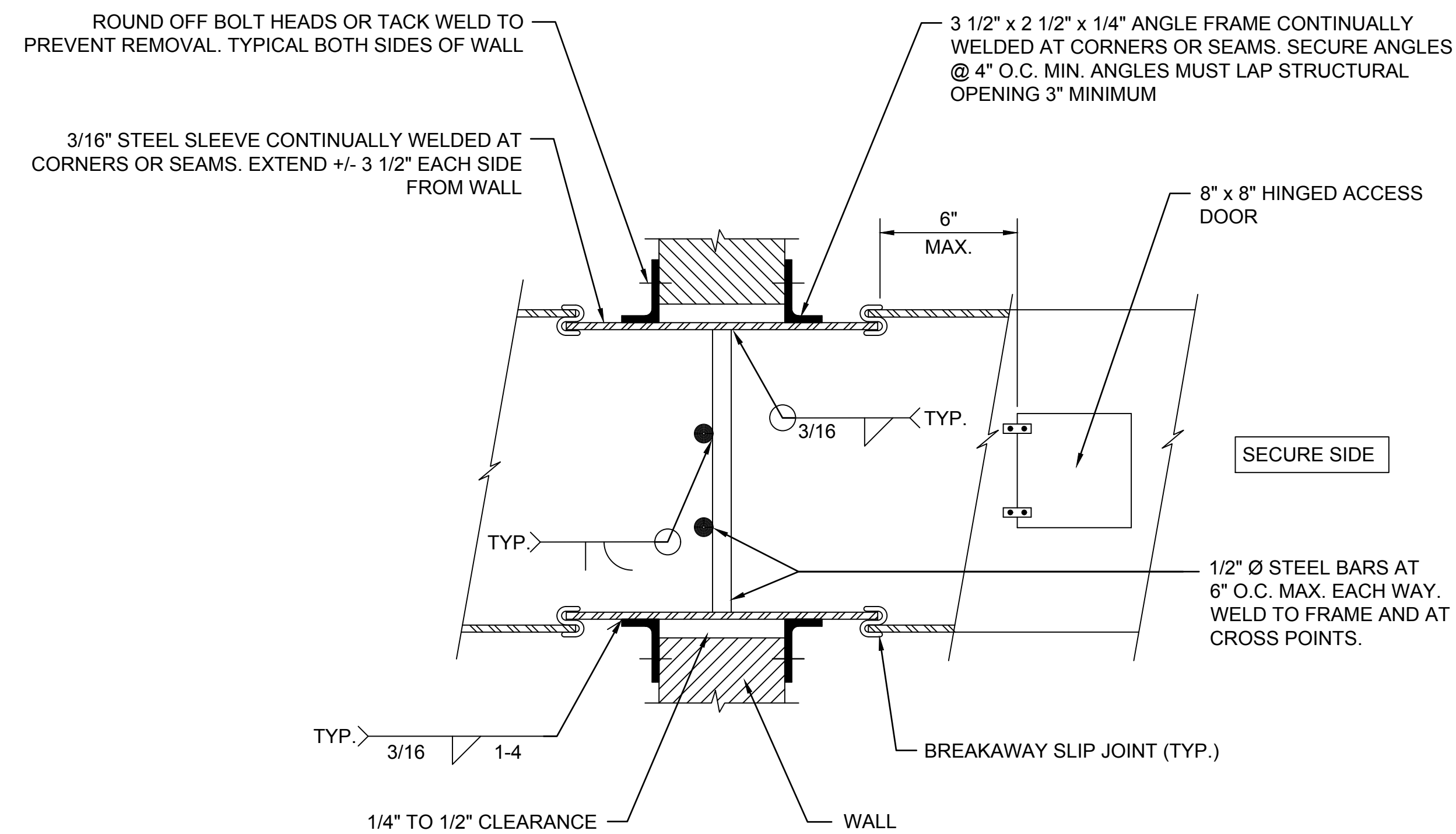
C

B

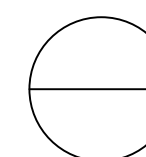
A

GENERAL NOTES:

1. ANCHORAGE TO CONCRETE WALL OR SOLID BRICK, USE HILTI KWIK BOLT II EXPANSION ANCHORS 3/8" Ø (MIN.)
2. ANCHORAGE TO HOLLOW CONCRETE BLOCK, USE HILTI TOGGLE BOLT(CARBON STEEL) 1/2" Ø (MIN.)
3. ANCHORAGE TO METAL STUDS AND GYP. BOARD WALLS, USE CARBON STEEL THROUGH BOLT, 3/8" Ø (MIN.)
4. PROVIDE CARBON STRUCTURAL STEEL ANGLES, BARS & SHEETS PER ASTM A36.
5. WELD PER AWS D1.1, STRUCTURAL STEEL.



DRAWING DEVELOPED FOR ML-3/ ML-4 PROJECTS. FOR ML-1/ ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).



HVAC DUCT SECURITY BARS DETAIL

SCALE: NONE

NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM MECHANICAL POC.
2. SECURITY BARS ARE REQUIRED WHEN DUCT IS GREATER THAN 96 SQ. INCHES AND MORE THAN 6 INCHES IN ITS SMALLEST DIMENSION.
3. IT IS PREFERRED TO LOCATE ACCESS DOOR IN SECURED AREA. PROVIDE ACCESS DOOR WITH LOCK HASP WHEN DOOR IS LOCATED IN NON SECURED AREA.

00% REVIEW
NOT FOR CONSTRUCTION

2	07-06-2017	UNCLASS	TO	ADMIN. CHANGES TO CAD STD. REV#5 FORMAT	JB	AJ	ML	ML	TO
1	09-16-2004	U	LB	GENERAL REVISION	RP	KM	MN	CD	TO
NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING STANDARDS

MECHANICAL				DRAWN	R.PEARSON
HVAC DUCT SECURITY BARS DETAIL				DESIGN	DETAIL
				CHECKED	R.TROUT
				DATE	03-10-04
TA- XX		BLDG- XX			
SUBMITTED DISCIPLINE POC: CHARLES DUPRE			APPROVED FOR RELEASE STANDARDS MANAGER: TOBIN ORUCH		
Los Alamos NATIONAL LABORATORY				SHEET 1	
PO Box 1663 Los Alamos, New Mexico 87545				1 OF 2	
D.C.: U		REVIEWER: LARRY BAYS		DATE: 03-10-04	
PROJECT ID CHAPTER 6		DRAWING NO ST-D3040-6		REV 2	