



Radio Frequency Systems

2-HOUR FIRE CABINET INSTALLATION INSTRUCTIONS



Model 2HB-DS-BOX

ConQuest
FLAMEBAR

REV. 01 | 2022.12



Installation Instructions for 2HB-DS-BOX

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PRODUCT INFORMATION

UL 263 and ASTM E1725 Electrical Cabinet. Patent Pending V071422.

Flamebar® Cabinets are UL 263 Certified, meet NFPA 72 & NFPA 1221 when used with UL 2196 certified RFS DragonSkin™ Fire Resistive Coaxial Cable and Standard RFS Components.



SHIPPING COMPONENTS

- Electrical cabinet
 - Body
 - Lid
- 4 pcs 3/8" diameter corner bolts
- Black 3M tape
- Installation Instructions

SUPPLIED BY CUSTOMER

- Cables, connectors, splitters, tappers, terminal blocks, panels and electrical devices.
- STI SpecSeal Tube Putty (Model #SSP100) for cable penetration firestop.
- Hanging rods, angles, channels etc.
- #10 sheet metal screws, minimum 3/4" long, for lid connection.

OVERVIEW OF INSTALLATION STEPS

The fire rated cabinet has pre-set sleeves for cables.

Do not drill or create new openings through cabinet.

Do not penetrate cabinet sides, top or bottom with fasteners.

1. Layout and permanent position of cabinet.
2. Hang box (see vertical and horizontal hanging section)
3. Install cable through sleeved openings.
4. Wrap 3M tape around cable 6" in length.
5. Final connection of cable inside cabinet.
6. Putty interior sleeves.
7. Close lid.
8. Install 4 corner bolts.
9. Install sheet metal screws 3" on center on lid to cabinet flange.
10. Putty exterior sleeves.

Installation Instructions for 2HB-DS-BOX

LAYOUT AND PERMANENT POSITION OF THE CABINET

The Flamebar cabinet is not a pull box.

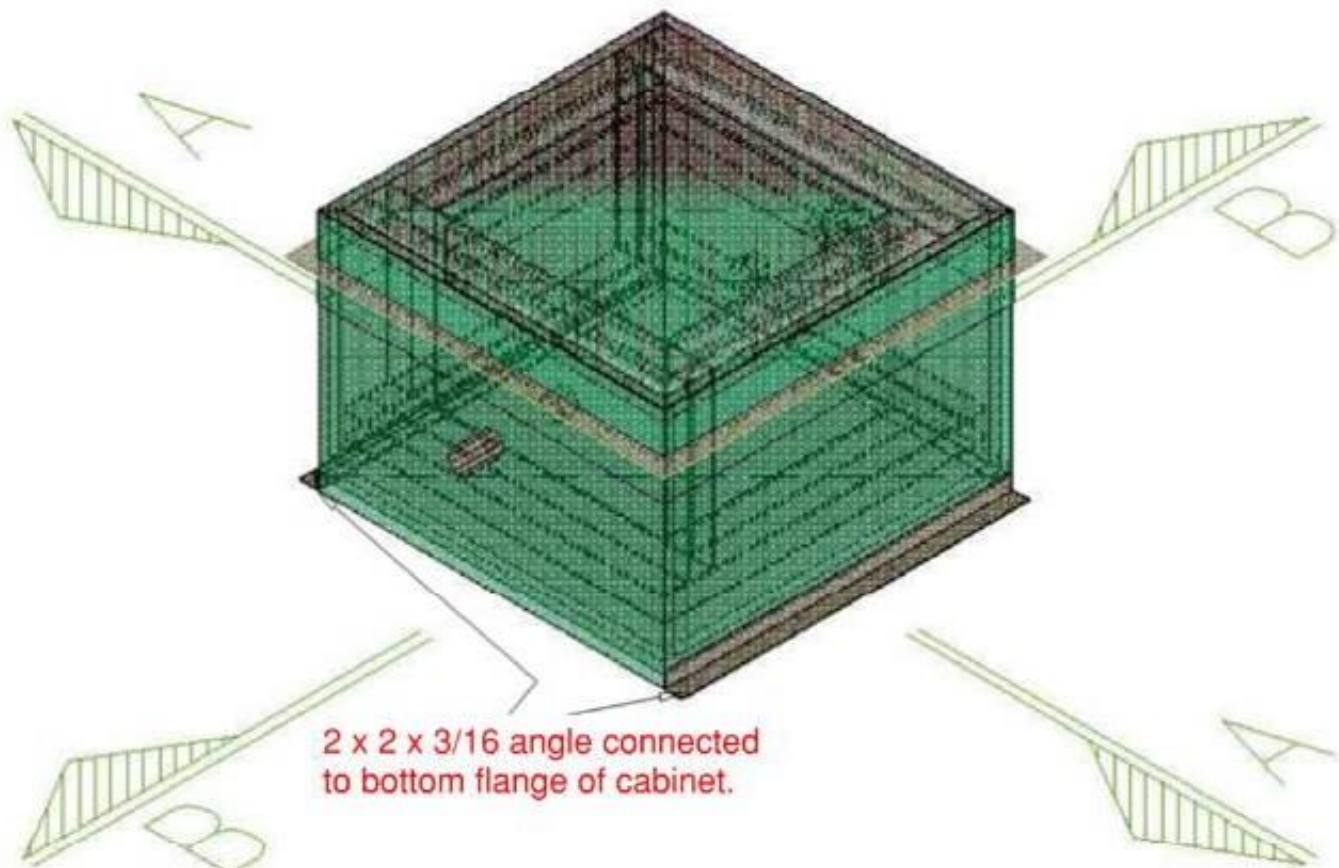
- The listed cabinet may be installed in any location or orientation within building without any additional fire protection.
- The cabinet must be mounted to a 2-hour rated assembly with 2-hour anchors.
- If a pull box is needed, it must be inserted on either side of the Flamebar cabinet.
- **See Figure A**



FIGURE A

FIELD INSTALLATION OF THE CABINET

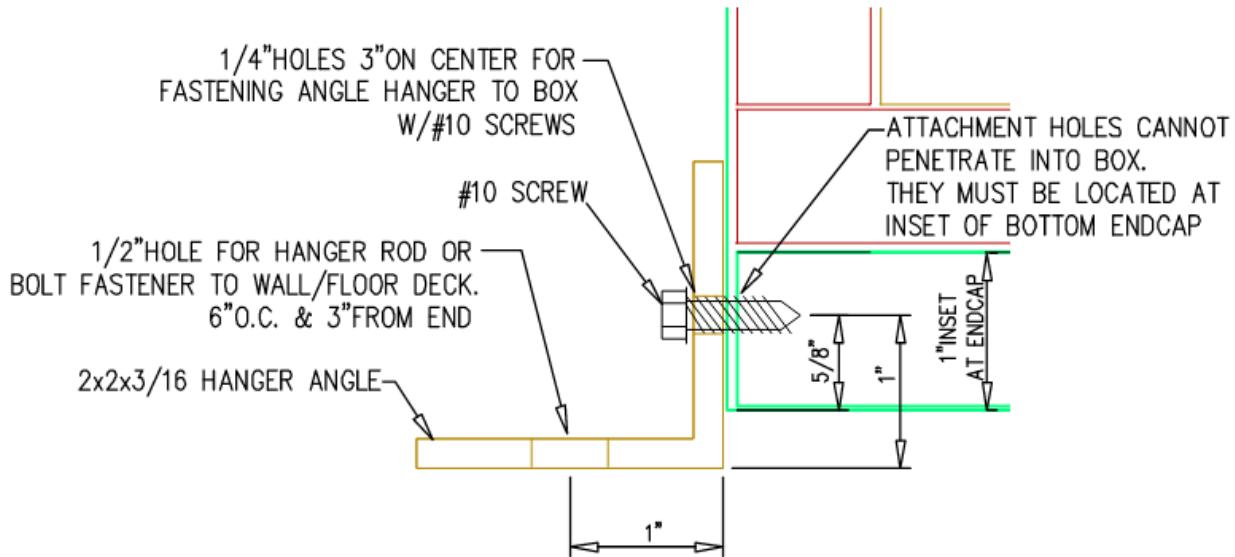
Installing contractor shall screw into the bottom flange of the cabinet 2 @ 2 x 2 x 3/16 galvanized mounting angles with 1.25" #10 sheet metal screws 3" on center on 2 sides. Mounting screws must not penetrate the body of the box and must be mounted to the 1" external bottom flange. (See **Figures B and C**)



ISOMETRIC ASSEMBLED VIEW

FIGURE B

Installation Instructions for 2HB-DS-BOX



HANGER ATTACHMENT

FIGURE C – Angle Mounting

Mount Cabinet to 2-hour structure following the **Details A - I** (see pages 10-18):

- 2-hour structural slab (underside), # D, E, F, and G
- 2-hour wall or column, # A, B and C
- 2-hour floor, # H and I

INSERT CABLE INTO CABINET

- **The Flamebar fire rated cabinet has 3 sleeved penetrations for cables. Do not drill or create new openings through cabinet.**
- **Do not penetrate cabinet sides, top or bottom with fasteners.**
- If a sleeve is not utilized, the opening must be fire-stopped with the STI putty the full depth of the 2" diameter conduit sleeve on both interior and exterior sides.
- Insert cable(s) through the sleeve and opening(s) provided.

WRAP CABLE WITH 3M TAPE

- Wrap cable with the 3M tape (**Figure D**), maximum length (6in) to cover the cable as it penetrates the walls of the cabinet. (**Figure E**)
- Set cable in cabinet with wrapped portion within the cabinet body. (**Figure F**)

Installation Instructions for 2HB-DS-BOX



FIGURE D



FIGURE E

6 inches tape length

Wrap 3M Tape around cable 6" in length. Area of 3M tape shall overlap where cable penetrates cabinet walls. For example, the cabinet steel walls are 5.25" thick and the tape will overlap 0.375 inches on each side.

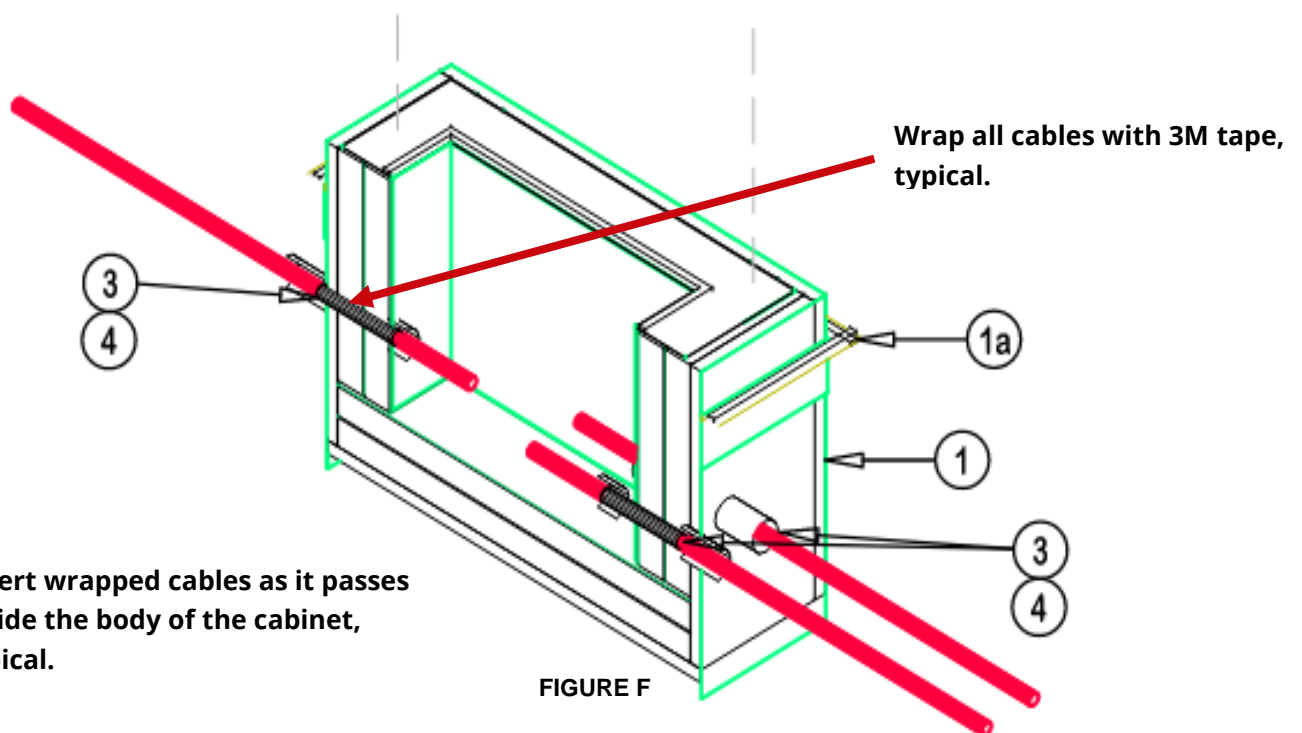


FIGURE F

Installation Instructions for 2HB-DS-BOX

FINAL STEPS PRIOR TO LID CLOSURE

- Make final connections to splitter, connector or device inside cabinet. **(Figure G)**
- Install STI SpecSeal putty inside annular space between the cable and 2" diameter conduit sleeve on the inner penetration. **(Figure H)**

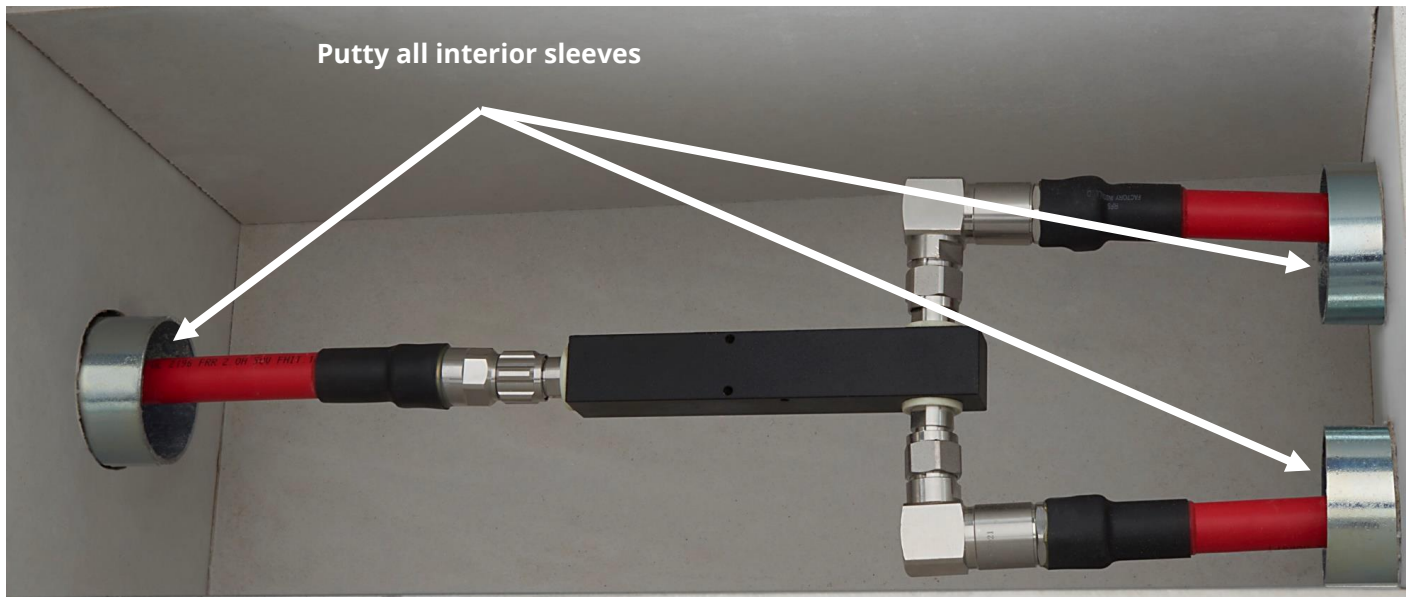
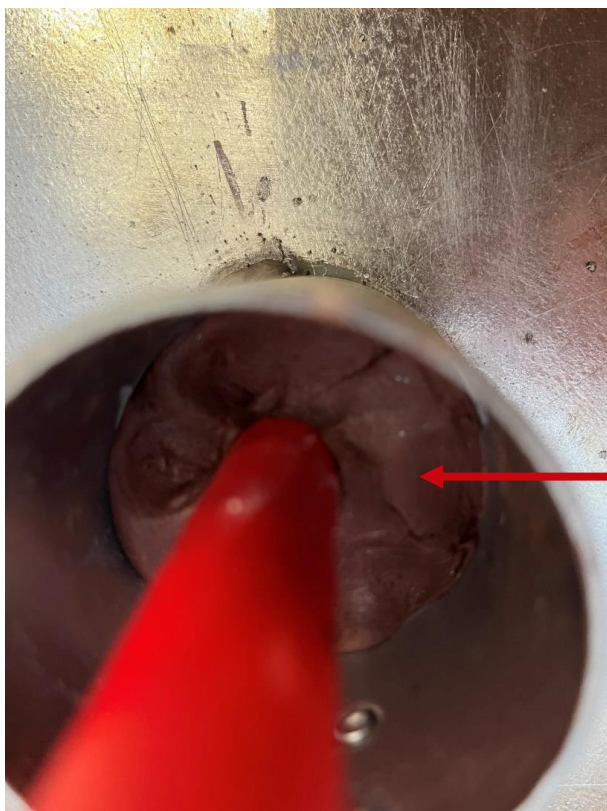


FIGURE G – Final Connections



Prior to closing lid compress putty into interior sleeve 50% of the sleeve depth, $\frac{3}{4}$ " minimum.

After lid is closed compress putty into exterior sleeve 50% of the sleeve depth, 1.5" minimum.

STI SpecSeal Putty

FIGURE H – Putty Penetration



Installation Instructions for 2HB-DS-BOX

FINAL CONNECTIONS

- Set lid in place for final closure.
- Lower lid until flanges touch.
- Factory installed Flamebar gasket will be continuous at flange. (Fig. I)
- Tighten 4 corner 3/8" bolts with wrench until tight. (Fig. J).
- Screw sheet metal screws around perimeter of flange 3" on center. (Fig. K).
- Install STI SpecSeal Putty in annular space between cable and 2" conduit sleeves on exterior of cabinet. (Fig. H).
- Installation complete.



FIGURE I – Factory Installed Gasket

Installation Instructions for 2HB-DS-BOX



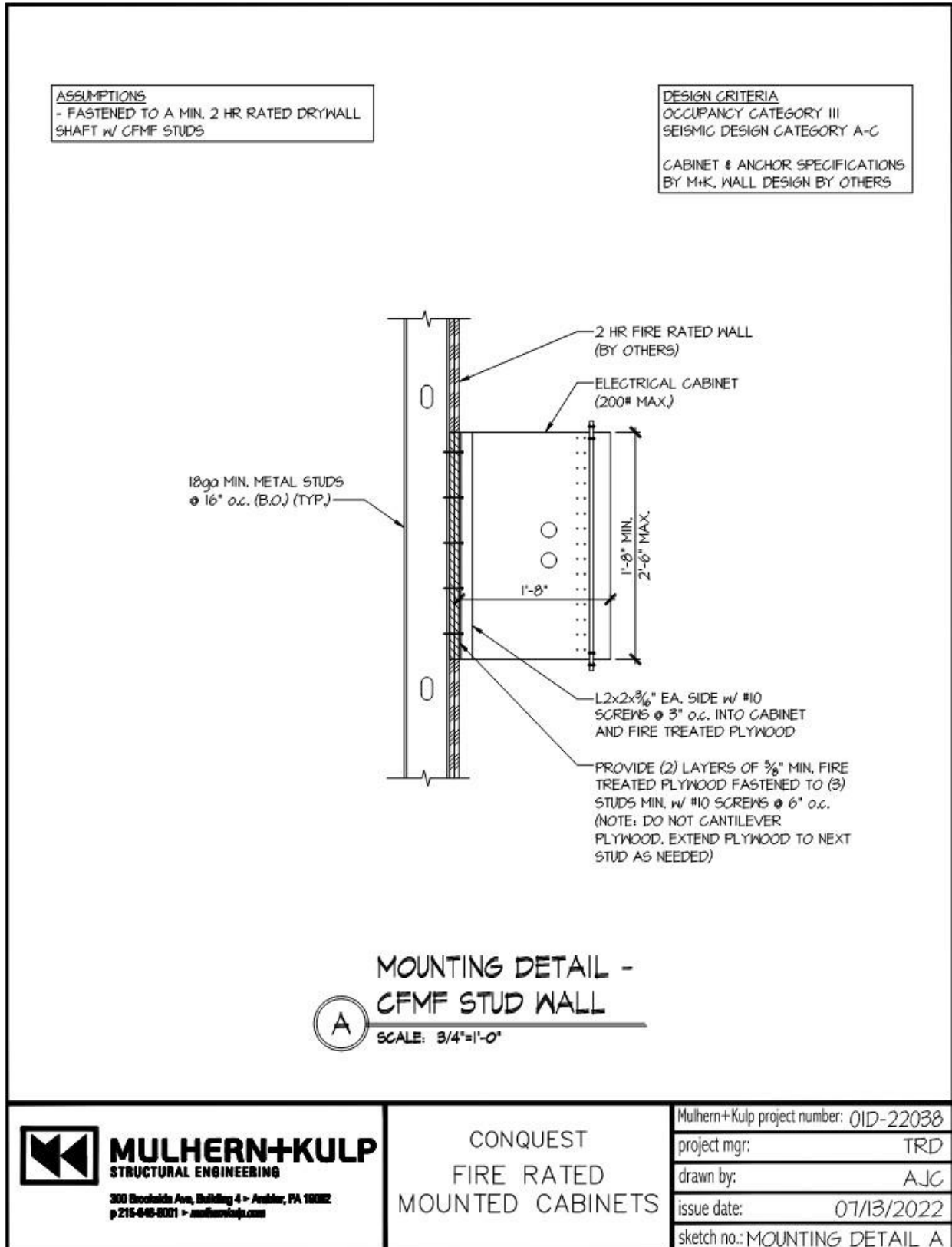
FIGURE J – Corner bolts wrench tight 25lbs



FIGURE K – #10 sheet metal screws 3" o.c.

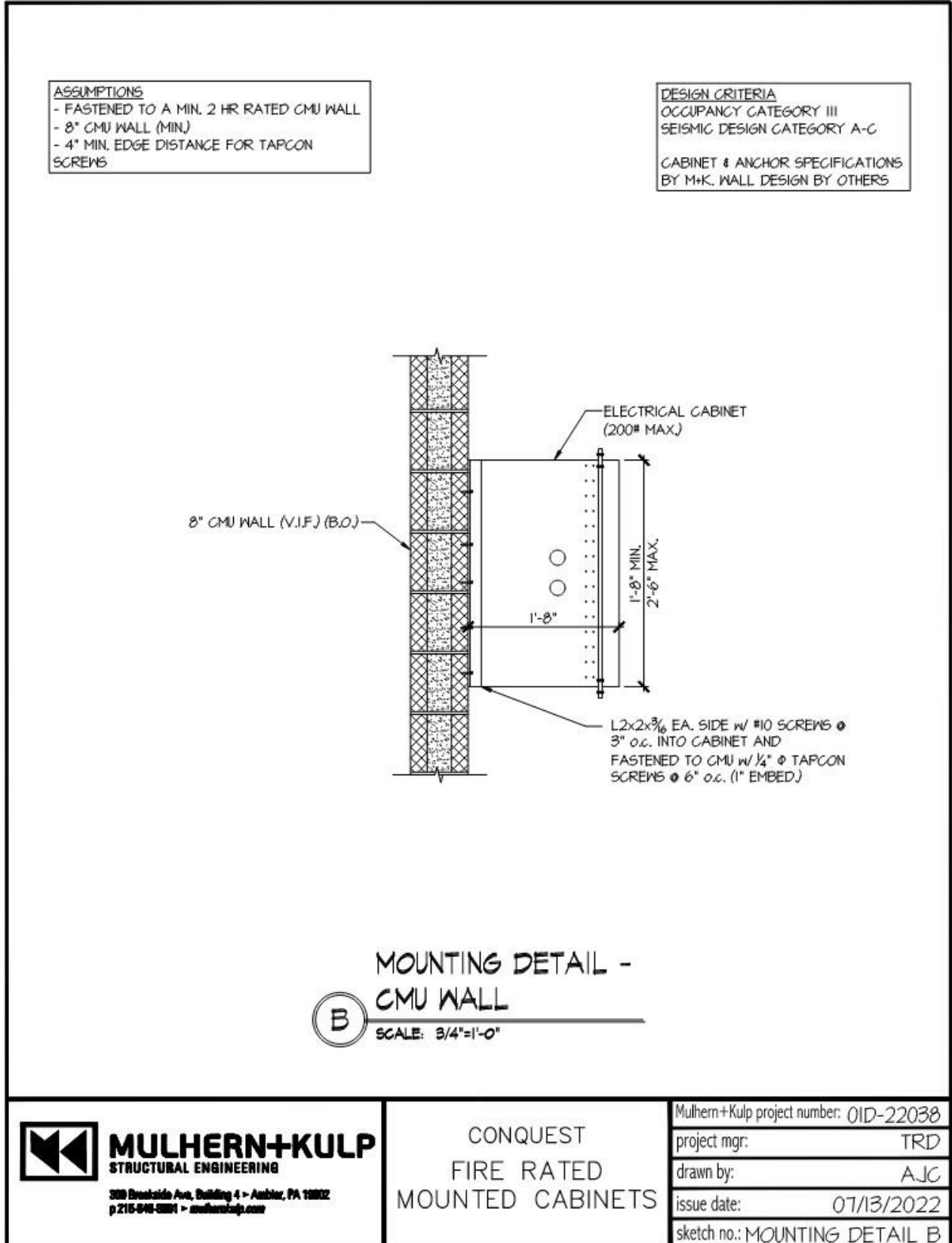
Installation Instructions for 2HB-DS-BOX

MOUNTING TO DRYWALL PARTITION, DETAIL A



Installation Instructions for 2HB-DS-BOX

MOUNTING TO CMU WALL, DETAIL B



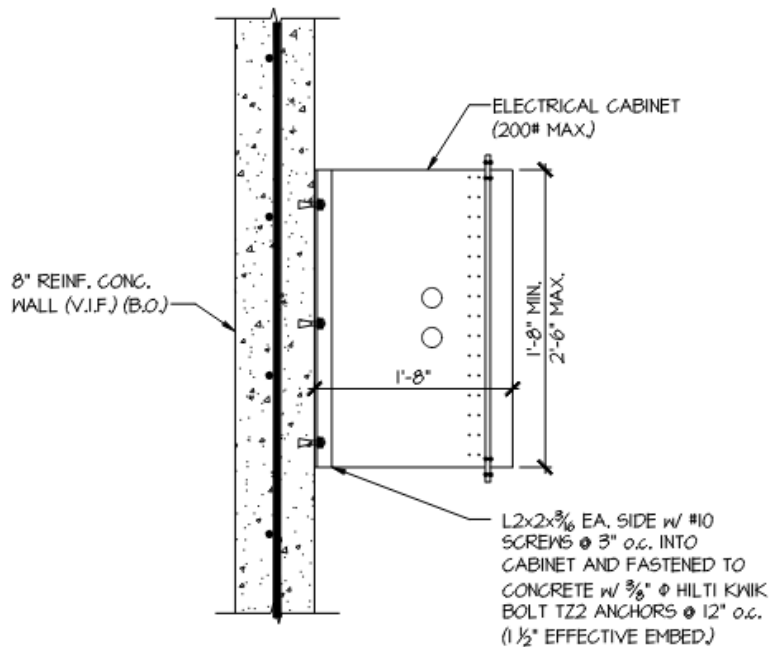
Installation Instructions for 2HB-DS-BOX

MOUNTING TO CONCRETE WALL, DETAIL C

ASSUMPTIONS
 - FASTENED TO A MIN. 2 HR RATED CONCRETE WALL
 - 8" CONC. WALL (MIN.)
 - 3000 PSI (MIN.) CONCRETE

DESIGN CRITERIA
 OCCUPANCY CATEGORY III
 SEISMIC DESIGN CATEGORY A-C

 CABINET & ANCHOR SPECIFICATIONS
 BY M+K, WALL DESIGN BY OTHERS



**MOUNTING DETAIL -
 CONCRETE WALL**
 SCALE: 3/4"=1'-0"

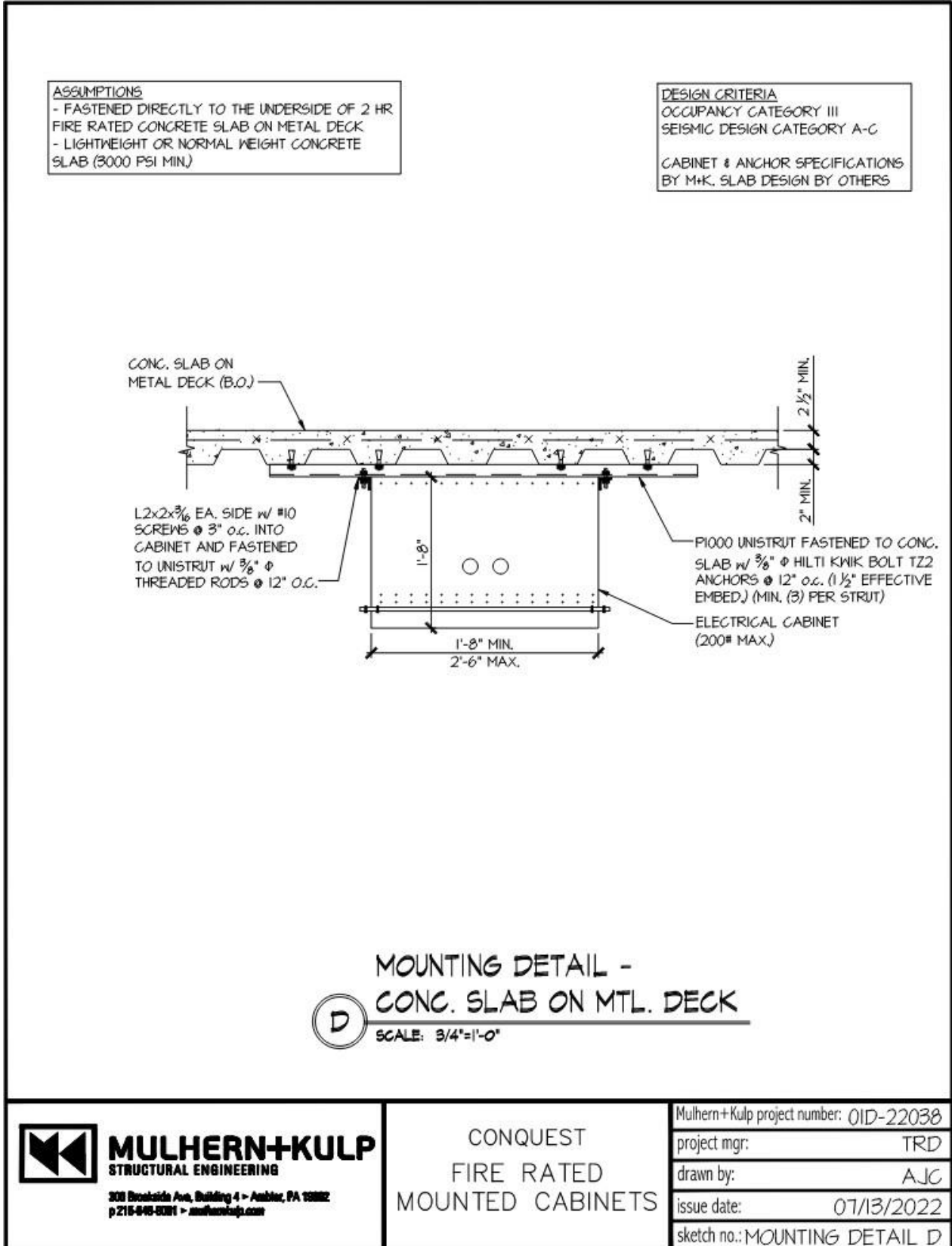
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CONQUEST
 FIRE RATED
 MOUNTED CABINETS

Mulhern+Kulp project number:	OID-22038
project mgr:	TRD
drawn by:	AJC
issue date:	07/13/2022
sketch no.:	MOUNTING DETAIL C

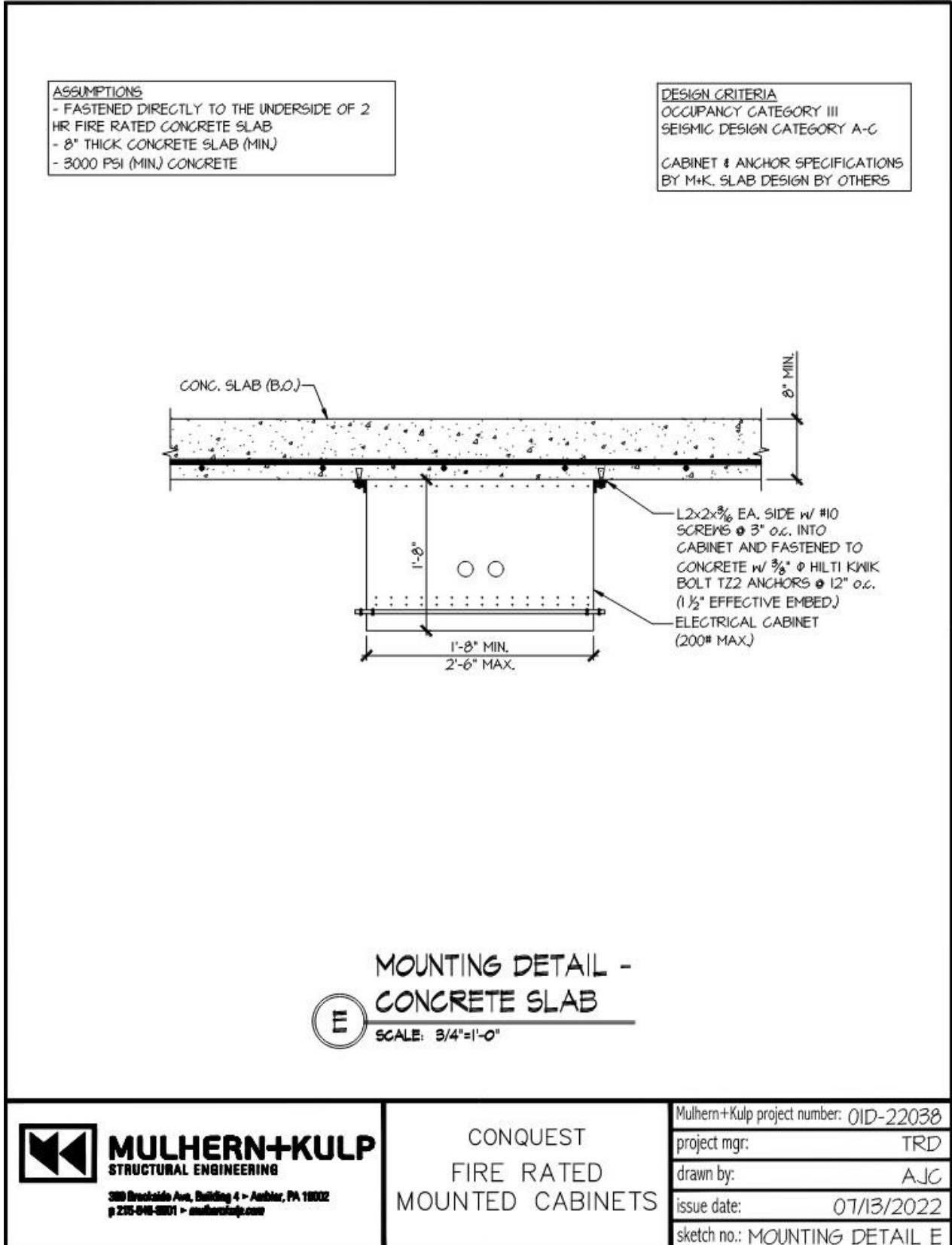
Installation Instructions for 2HB-DS-BOX

MOUNTING TO DECK, DETAIL D



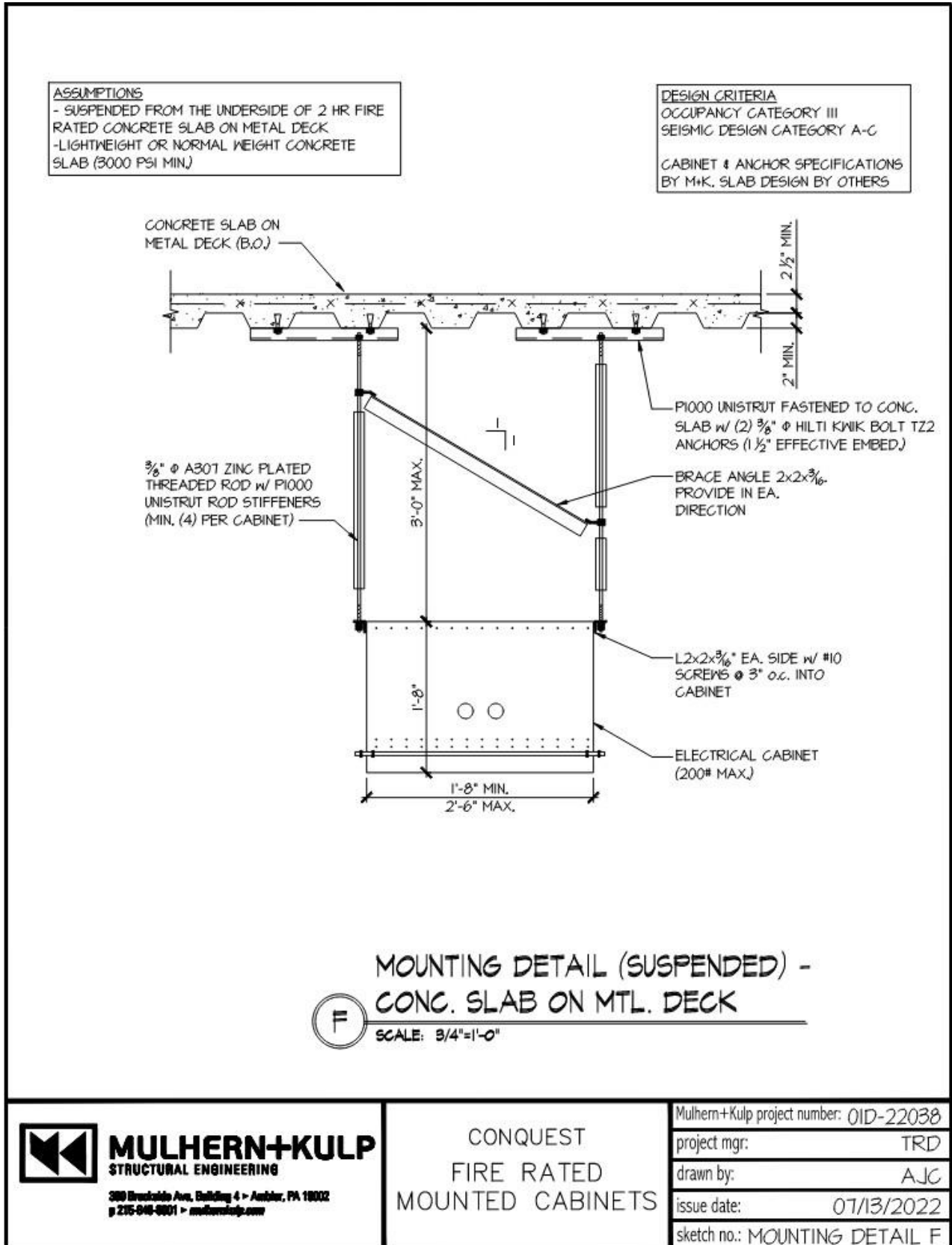
Installation Instructions for 2HB-DS-BOX

MOUNTING TO DECK, DETAIL E



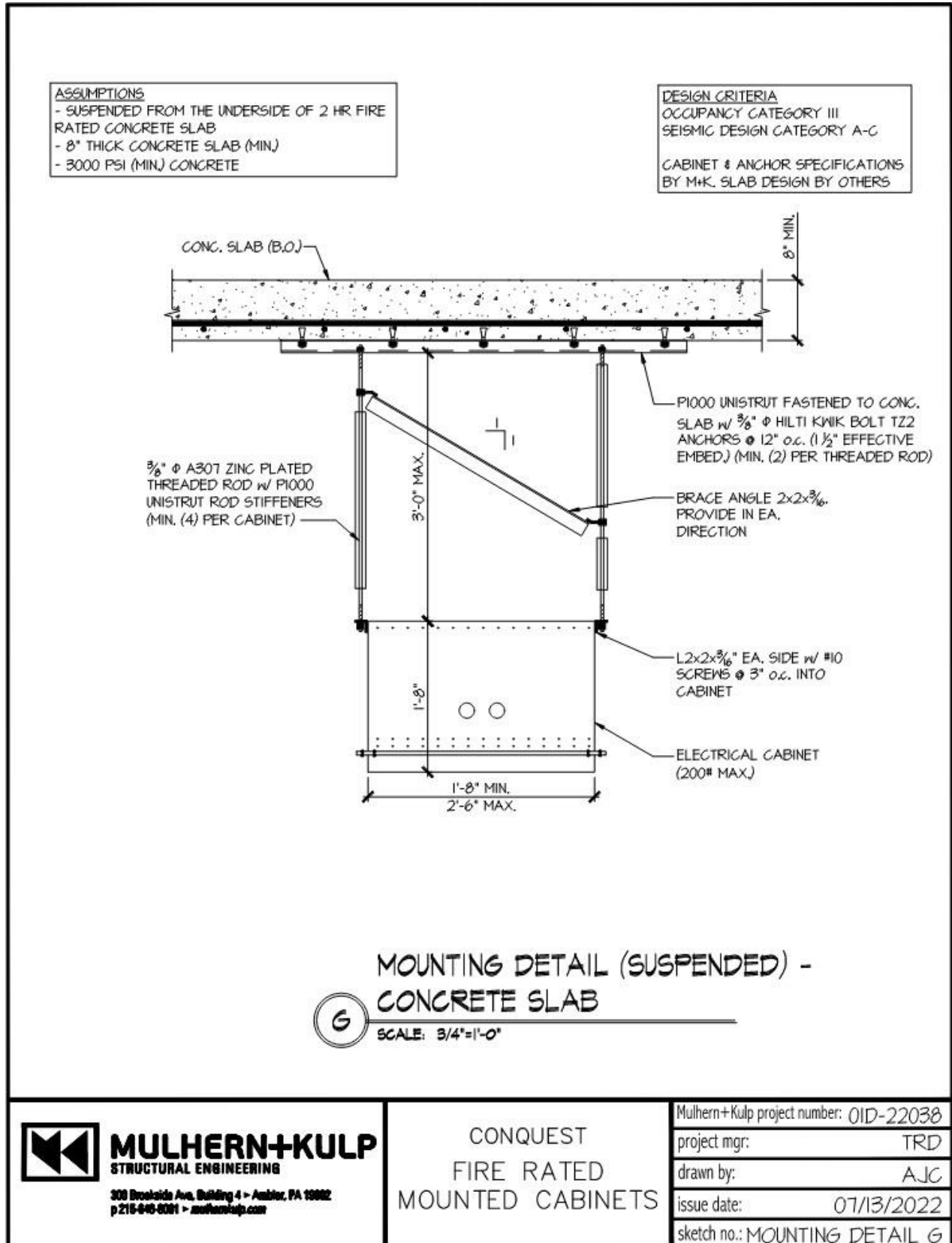
Installation Instructions for 2HB-DS-BOX

MOUNTING TO DECK, DETAIL F



Installation Instructions for 2HB-DS-BOX

MOUNTING TO DECK, DETAIL G



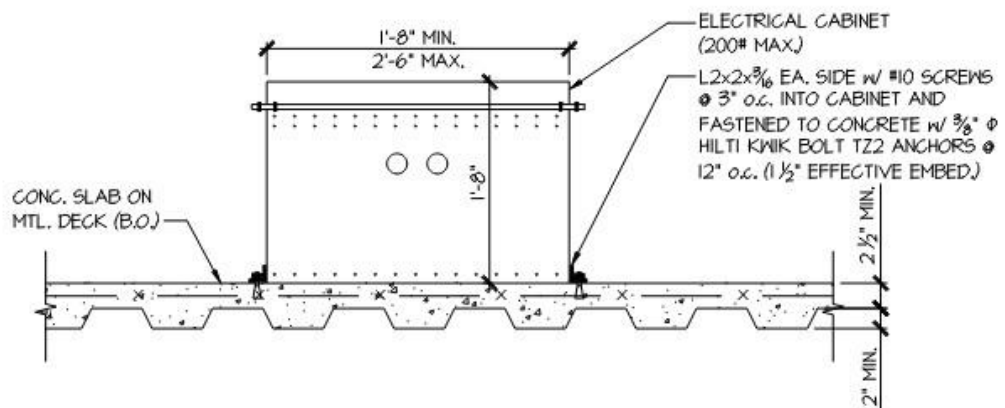


Installation Instructions for 2HB-DS-BOX

MOUNTING TO FLOOR, DETAIL H

ASSUMPTIONS
 - CABINET MOUNTED 24" MAX. ABOVE THE FINISHED FLOOR W/ 2 HR FIRE RATING
 - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE SLAB (3000 PSI MIN.)

DESIGN CRITERIA
 OCCUPANCY CATEGORY III
 SEISMIC DESIGN CATEGORY A-C
 CABINET & ANCHOR SPECIFICATIONS BY M+K. SLAB DESIGN BY OTHERS



**MOUNTING DETAIL (FLOOR) -
 CONG. SLAB ON MTL. DECK**
 H SCALE: 3/4"=1'-0"



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FIRE RATED
MOUNTED CABINETS

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project mgr:	TRD
drawn by:	AJC
issue date:	07/13/2022
sketch no.:	MOUNTING DETAIL H

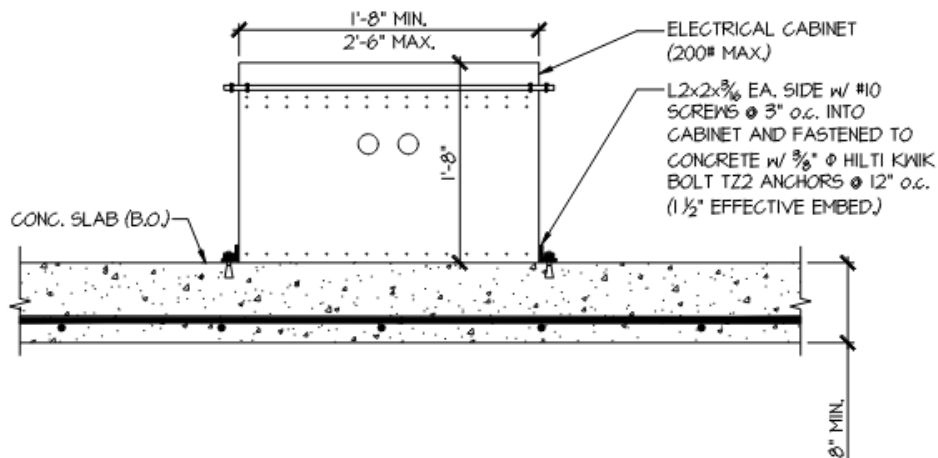
Installation Instructions for 2HB-DS-BOX

MOUNTING TO FLOOR, DETAIL I

ASSUMPTIONS
 - CABINET MOUNTED 24" MAX. ABOVE THE FINISHED FLOOR w/ 2 HR FIRE RATING
 - 8" THICK CONCRETE SLAB (MIN.)
 - 3000 PSI (MIN.) CONCRETE

DESIGN CRITERIA
 OCCUPANCY CATEGORY III
 SEISMIC DESIGN CATEGORY A-C

 CABINET & ANCHOR SPECIFICATIONS BY M+K. SLAB DESIGN BY OTHERS



MOUNTING DETAIL (FLOOR) -
1 CONCRETE SLAB

SCALE: 3/4"=1'-0"



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 MOUNTED CABINETS

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project mgr:	TRD
drawn by:	AJC
issue date:	07/13/2022
sketch no.:	Exhibit 1



Installation Instructions for 2HB-DS-BOX

ABOUT RFS

Radio Frequency Systems (RFS) delivers the end-to-end RF solutions and expert services needed to evolve wireless and broadcast networks today and tomorrow. Our cables, connectors, antenna systems and RF conditioning products are based on more than 120 years of experience delivering cutting-edge RF solutions and industry firsts. As a result, our solutions are recognized globally for their innovation, superior performance, and unmatched quality.

As an ISO-compliant company with global operations, we bring our customers world-class engineering and manufacturing skills backed with comprehensive local support services. Our customers know they can rely on our expertise and commitment to excellence from initial design to final delivery and beyond — whether they're looking to support 5G, deploy small cells, empower smart cities or improve indoor coverage in the most challenging locations.

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