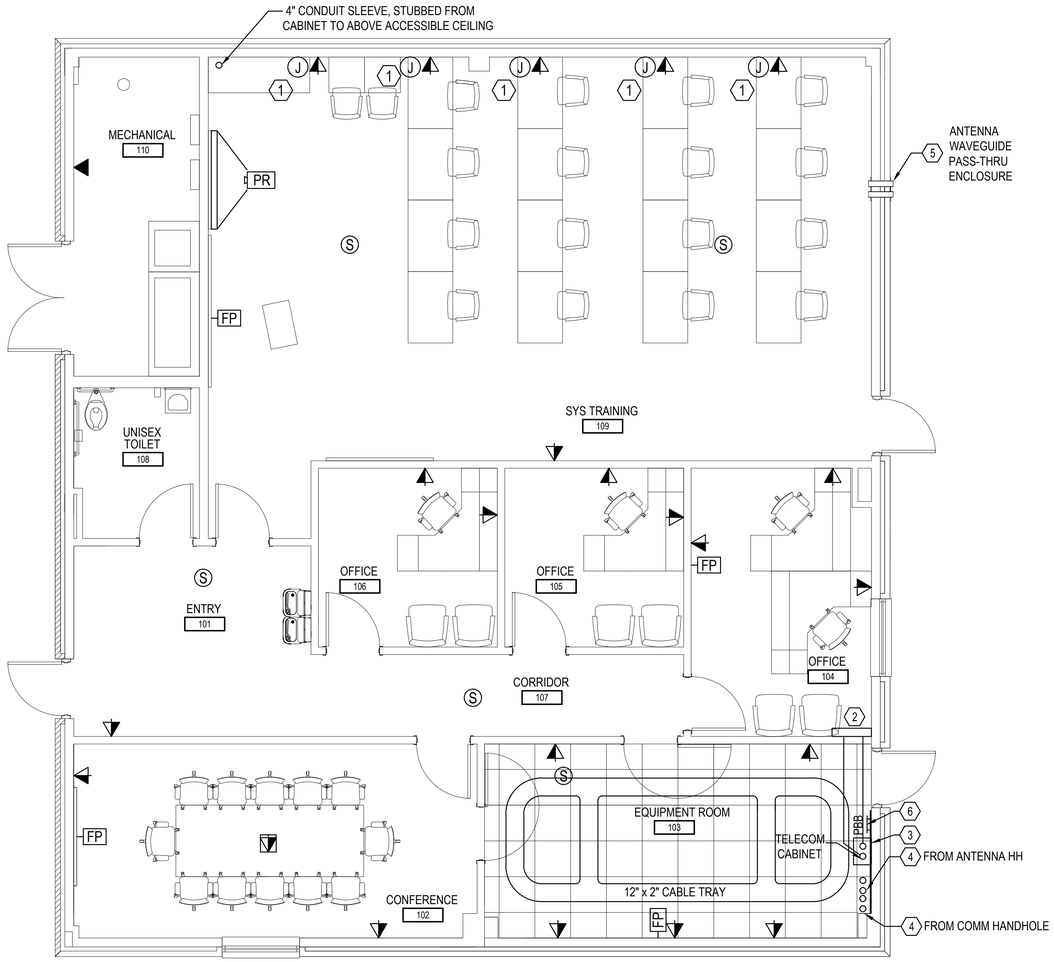


1 T4 T4 TELECOM FLOOR PLAN

4' 0' 4' 8'

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

GROUNDING NOTE

1) PROVIDE CORROSION-RESISTANT GROUNDING BUSBAR SUITABLE FOR INDOOR INSTALLATION IN ACCORDANCE WITH TIA-607B. BUSBARS: PLATED FOR REDUCED CONTACT RESISTANCE. IF NOT PLATED, CLEAN THE BUSBAR PRIOR TO FASTENING THE CONDUCTORS TO THE BUSBAR AND APPLY AN ANTI-OXIDANT TO THE CONTACT AREA TO CONTROL CORROSION AND REDUCE CONTACT RESISTANCE. PROVIDE A TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB) IN THE TELECOMMUNICATIONS ENTRANCE FACILITY AND A TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) IN ALL OTHER TELECOMMUNICATIONS ROOMS AND EQUIPMENT ROOMS.

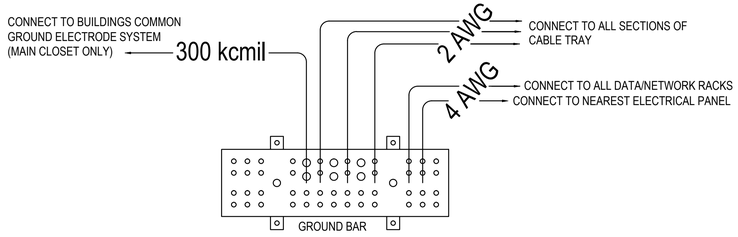
2) GROUND TMGB TO BUILDING MAIN ELECTRICAL SERVICE GROUND WITH #300 kcmil INSULATED (GREEN) COPPER GROUNDING CONDUCTOR AND #300 kcmil TO ALL OTHER TGBs AND GBs. RUN CONDUCTOR FROM BUSBAR LOCATION TO BUILDING SERVICE GROUND IN EMT CONDUIT. PROVIDE INSULATED GROUNDING BUSHING - AT CONDUIT ENDS AND GROUND PER NEC. GROUNDING TO BUILDING STRUCTURE, CONDUITS, UTILITY PIPING, OR ELECTRICAL SUBPANELS IN LIEU OF BONDING TO BUILDING MAIN ELECTRICAL SERVICE GROUND IS NOT ACCEPTABLE.

3) ALL GROUND CONNECTIONS SHALL BE MADE WITH HEAVY DUTY 2 HOLE COMPRESSION LUGS AND SS HEX HEAD CAP SCREWS WITH SS LOCKING NUTS (TWO SCREWS AND NUTS PER 2 HOLE LUG).

4) GROUND ALL COMMUNICATION RACKS WITH #4 AWG INSULATED (GREEN) COPPER GROUNDING CONDUCTOR TO MAIN GROUNDING BUSBAR. GROUND RACKS INDIVIDUALLY TO BUSBAR (DO NOT LOOP GROUNDS). ROUTE CONDUCTOR ALONG RACK REAR AND IN CABLE RUNWAY TO GROUNDING BUSBAR.

5) GROUND EACH CONDUIT AND CONDUIT SUPPORTS STRUTS IN ALL COMMUNICATIONS ROOMS WITH #6 AWG INSULATED (GREEN) COPPER GROUNDING CONDUCTOR TO GROUNDING BUSBAR. ROUTE CONDUCTOR IN CABLE RUNWAY TO GROUNDING BUSBAR.

6) FOR GROUNDING OF CABLE TRAY SYSTEM, PROVIDE NO. 2 AWG BARE COPPER WIRE THROUGHOUT CABLE TRAY SYSTEM, AND BOND TO EACH SECTION, EXCEPT USE NO. 1/0 ALUMINUM WIRE IF CABLE TRAY IS ALUMINUM.



2 TYPICAL COMMUNICATIONS GROUNDING BUSBAR DETAIL

NOT TO SCALE

ENLARGED FLOOR PLAN KEY NOTES

1. 1" CONDUIT STUB UP ABOVE CEILING WITH BOX TYPICAL
2. CONSOLIDATE CONDUITS TO ENCLOSURE ABOVE CEILING, SIZED AS REQUIRED PROVIDE (2) 3" CONDUITS TO TELECOM CABINET.
3. PLYWOOD BACKBOARD, 8'-0" HIGH X FULL LENGTH OF WALL, MOUNTED ON WALLS INDICATED; MOUNT WITH BOTTOM AT 6" ABOVE FINISH FLOOR. ROUGH ALL ELECTRICAL OUTLETS IN BACKBOARD FOR FLUSH MOUNT INSTALLATION OF FACEPLATES. BACKBOARDS SHALL BE 3/4" THICK A-C GRADE FIRE-RATED GRADE PLYWOOD, WITH "A" SIDE OUT. COUNTERSINK ALL SCREWS. COORDINATE WORK WITH ELECTRICAL CONTRACTOR TO ENSURE THAT POWER RECEPTACLES ARE PROPERLY LOCATED AND WITH FACEPLATES FLUSH ON FACE OF BACKBOARD.
4. (2) 4" C. STUBBED UP 4" ABOVE ACCESSIBLE FLOOR.
5. WALL MOUNT ANTENNA WAVEGUIDE PASS-THRU ENCLOSURE, NEMA 4X LOCKABLE ENCLOSURE, W/ALUMINUM ENTRY PANEL CONTAINING (2) 4" PORT SIZE OPENINGS, BUSBAR, BONDING JUMPERS, #3/0 BONDING CABLE IN 3/4" C. BONDING CABLE IN 3/4"C. BONDED TO 3/4" X 10' GROUND ROD. GROUND ROD BONDED TO BUILDING LIGHTNING PROTECTION RING.
6. GROUNDING BUSBAR, WITH TWO ROWS OF 7/16" HOLES AT 1" SPACING EACH WAY. MAKE ALL CONNECTIONS WITH TWO HOLE LONG BARREL COMPRESSION LUGS AND BOND TO BUSBAR WITH TWO 3/8" SS HEX HEAD CAP SCREWS WITH SS LOCKING NUTS. SEE "GROUNDING NOTE" AND "DATA SYSTEM SINGLE LINE DIAGRAM". ROUTE 3/4" EMT CONDUIT TO BUILDING MAIN ELECTRICAL PANEL FOR GROUNDING CONDUCTOR WITH INSULATED GROUNDING BUSHING.

DAVID M. BAGWELL LICENSED No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER 2/10/17

FINAL-FOR CONSTRUCTION

REV #	DATE	DESCRIPTION	APP'D

APPROVED
CHIEF ENGINEER
APPROVED
CIVIL ENGINEER

CONSTRUCT TRAINING FACILITY 2 CWSS
BUILDING 91068

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

TELECOM FLOOR PLAN

DATE: 14 FEB 2017
DESIGNED BY: JAL
DRAWN BY: JDB
BUILDING NO.: 91068
PROJECT NO.: FETV16-1066
SHEET REF.: T4
SHEET NO.: 44 OF 48