

## TECHNOLOGY SYSTEMS GENERAL NOTES

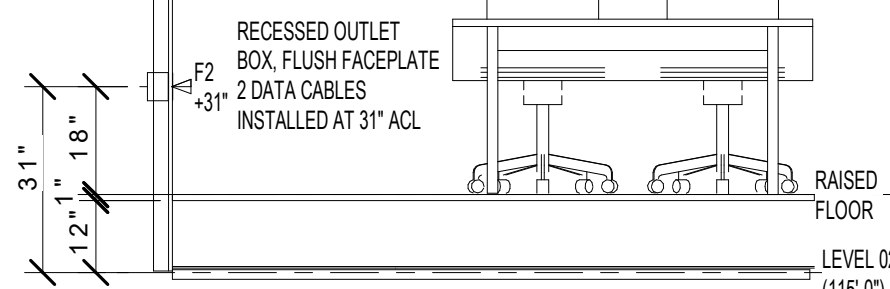
1. REFER TO SPECIFICATION SECTION "TECHNOLOGY GENERAL PROVISIONS" FOR MORE INFORMATION ABOUT DRAWINGS AND BID DOCUMENTS.
2. ANY SYMBOLS INCLUDED IN THIS PROJECT HAVE A TYPE ASSOCIATED WITH THEM. SEE SHEETS WITH DETAILS AND SYMBOL SPECIFICATIONS FOR MORE INFORMATION ON THE DESCRIPTION OF EACH TYPE.
3. ALL CONDUIT FOR TECHNOLOGY SYSTEMS INDOOR ABOVE GRADE SHALL BE EMT AND ALL CONDUIT FOR BELOW GRADE SHALL BE PVC.
4. SEE LIFE-SAFETY PLANS GOING THROUGHOUT THE PROJECT PROVIDE AN APPROVED FIRE STOP SYSTEMS FOR EACH PENETRATION OR CABLE GOING THROUGH A WALL. SEE SPECIFICATIONS "FIRESTOPPING FOR TECHNOLOGY" FOR MORE INFORMATION.
5. WORKING CLEARANCES ABOVE ELECTRICAL EQUIPMENT SHALL BE MAINTAINED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110. COORDINATE EQUIPMENT INSTALLATION TO MAINTAIN REQUIRED CLEARANCES.
6. SYMBOLS USED IN THE TECHNOLOGY DRAWINGS ARE NOT THE SAME SIZE AS THE ACTUAL OBJECT BEING REPRESENTED. THEREFORE LOCATIONS OF THE SYMBOLS ON THE FLOOR PLANS ARE AN APPROXIMATION TO THE ACTUAL LOCATION OF THE DEVICE AND NEED TO BE CAREFULLY COORDINATED WITH OTHER ELEMENTS IN THE VICINITY AS A GENERAL GUIDELINE.
7. A VENTILATED CEILING FOR WORK AREAS SHALL BE INSTALLED WITH 24 INCHES OF A POWER OUTLET INDICATED IN ELECTRICAL DRAWINGS. 8. TV OUTLETS SHALL BE INSTALLED WITHIN 6 FEET OF A POWER OUTLET LOCATED IN ELECTRICAL DRAWINGS.
9. WHEN MULTIPLE TECHNOLOGY SYSTEMS OUTLETS ARE INDICATED NEXT TO EACH OTHER WITH SYMBOLS, THE SPACING BETWEEN OUTLETS SHALL BE COORDINATED WITH THE ELEVATION IS SHOWN. ON THE DRAWINGS.
10. WHEN INSTALLER IS NOT CERTAIN ABOUT SPECIFIC ADVISORIES OF A DEVICE, THE QUESTION SHALL BE ASKED TO THE ENGINEER PRIOR TO INSTALLATION.
11. FOR EXACT LOCATION OF CEILING MOUNTED EQUIPMENT REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN. LOCATIONS OF EQUIPMENT NOT INDICATED ON THE REFLECTED CEILING PLAN SHALL BE COORDINATED WITH THOSE ITEMS SHOWN. COORDINATION OF CEILING MOUNTED EQUIPMENT SHALL BE PRIOR TO ANY FLOORING. NOTIFY ENGINEER OF ANY DISCREPANCY.
12. LOCATIONS OF FLOOR BOXES AND FLOOR PENETRATIONS SHALL NOT BE MEASURED FROM THIS SET OF DRAWINGS. INSTALLER SHALL REQUEST PRECISE LOCATIONS FROM ARCHITECT.
13. EACH VIDEOCASS RECORDER SHALL BE CONNECTED TO A DEDICATED 4P CABLE.
14. THE RESPONSIBILITY OF RACKWAY INSTALLATION SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR, BUT ALL RACKWAYS FOR TECHNOLOGY ARE TO BE INCLUDED IN THIS CONTRACT.
15. WHEN CONDUIT RUNS ARE INDICATED ABOVE GRADE OR BELOW GRADE ON THESE DRAWINGS, NOT EVERY SINGLE JUNCTION BOX OR COMMUNICATIONS WULF REQUIRED IS INDICATED ON THE DRAWINGS. TYPICALLY ONLY END POINT LOCATIONS OR SPECIFIC SPACINGS THROUGH LOCATIONS ARE INDICATED. ALL BOXES ARE SHOWN ON THE DRAWINGS. SEE SPECIFICATION "RACKWAYS FOR TECHNOLOGY" FOR REQUIREMENTS THAT INDICATE ADDITIONAL JUNCTION BOXES OR COMMUNICATION WULFS THAT SHALL BE PROVIDED UNDER THIS CONTRACT. SUCH REQUIREMENTS INCLUDE ADDITIONAL BOXES REQUIRED BECAUSE OF NUMBER OF CONDUIT BENDS OR CHANGES IN LOCATION.
16. SOME SYMBOLS INCLUDED IN THE SYMBOL LEGEND MAY NOT BE USED IN THESE PROJECT DRAWINGS.
17. UNDER NO CONDITIONS, CONDUITS FOR LOW VOLTAGE FOR FLOOR BOXES SHALL BE DAISY CHAINED TOGETHER BETWEEN ADJACENT FLOOR BOXES. ALL CONDUITS FOR FLOOR BOXES SHALL BE HOME RUNS TO NEAREST ACCESSIBLE CABLE CHASE.
18. THIS SET OF DRAWINGS DOES NOT INDICATE ALL GROUNDING AND BONDING REQUIREMENTS FOR TECHNOLOGY SYSTEMS. REFER TO SPECIFICATION SECTION "GROUNDING FOR TELECOMMUNICATION SYSTEM" FOR ADDITIONAL REQUIREMENTS.
19. ALL CABLES FOR TECHNOLOGY SYSTEMS RUN UNDER SLAB OR BELOW GRADE IN CONDUITS STUBBED UP INSIDE THE TELECOM ROOM SHALL BE INDOOR/OUTDOOR RATED.
20. GRAPHICS USED FOR EQUIPMENT IN ELEVATIONS AND CHANNELS (LINE DRAWINGS) DO NOT NECESSARILY REPRESENT THE PART NUMBER OF THE EQUIPMENT SPECIFIED. THE PART NUMBERS LISTED IN THE DRAWINGS AND SPECIFICATIONS ARE TO BE FOLLOWED FOR BASIS OF DESIGN, NOT THE DRAWINGS.
21. THE TECHNOLOGY DRAWINGS DO NOT SHOW ALL REQUIRED CONDUITS/CAWWAYS TO BE PROVIDED UNDER THIS CONTRACT. TYPICALLY CONDUIT SLEEVES SMALLER THAN 4" ARE NOT SHOWN ON THE DRAWINGS. SEE SPECIFICATIONS "RACKWAYS FOR TECHNOLOGY" AND DRAWING CONDUIT ADDITIONAL RACKWAY REQUIREMENTS.
22. DEFINITION OF ACRONYMS USED IN THESE DRAWINGS:  
N/A (N/A) - NOT A CONTRACT  
O/E (O/E) - OWNER FURNISHED EQUIPMENT. SEE RESPONSIBILITY MATRIX FOR MORE INFORMATION.  
C/D (H/D) - OWNER HARDWARE INSTALLER  
U/S (U/S) - UNDER STAIRS SEPARATE CONTRACT  
F/C (F/C) - FINISHED FLOOR. SHALL BE MATCH WITH THE FINISHED CONCRETE DECK. THIS HEIGHT IS BEFORE ANY RAISED FLOORS, TILE, CARPET, RAISED PLATFORMS, STAIR LANDINGS OR OTHER FLOORS.
23. ALL REQUIRED WALL PENETRATIONS, EXISTING AND NEW, SHALL MAINTAIN THE NEW WALL RATINGS AFTER CABLEING HAS BEEN INSTALLED OR REMOVED.
24. ALL SPEAKERS MOUNTED IN A CEILING TILE SHALL BE CENTERED IN THE CEILING TILE.
25. ANY DEVICE THAT REQUIRES INTERACTIONS MUST NOT BE INSTALLED WHERE TOP OF DEVICE IS ABOVE 4" ALE

## SECURITY SYSTEM GENERAL NOTES

- 1 SYMBOLS USED TO REPRESENT DEVICES SUCH AS CCTV CAMERAS, INTERCOM STATIONS, SECURITY WORKSTATIONS, CALL STATIONS, AND EMERGENCY PHONE STATIONS REQUIRE ONE (1) DATA DROP FOR SUCH DEVICE. THIS DATA DROP IS NOT SHOWN ON THE VIDEOCRAFT FLOOR PLANS, BUT SHALL BE PROVIDED FOR ALL. ALL REQUIREMENTS FOR VIDEOCRAFT DROPS INDICATED IN THE DRAWING DETAILS AND IN THE SPECIFICATION "STRUCTURED CABLEB SYSTEM".
- 2 ANY DATA DROPS FOR SECURITY DEVICES EXCEEDING 25FT. OF PERMANENT LINE DISTANCE TO THE TELECOM ROOM WHERE CAMERA WILL BE WIRED TO, SHALL BE WIRED WITH FIBER OPTIC FOR HORIZONTAL CABLEING AND 2 CONDUCTOR (AWG=12 CLP) CABLE. THE FIBER CABLE SHALL BE AS DESCRIBED IN SPECIFICATION "STRUCTURED CABLEB SYSTEM". (IF NO INDICATION IN SUCH SPECIFICATION, FIBER OPTIC CABLE SHALL BE A 2 STRAND OM3 CABLE WITH A SUITABLE JACKET FOR THE APPLICATION).
- 3 ALL DOOR BUZZERS THAT ARE SHOWN WITH TWO DOOR POSITIONS SWITCHES ARE TO RECEIVE (1) DOOR POSITION SWITCH ON EACH DOOR LEAF AND SHALL REPORT AS ONE ALARM POINT.
- 4 ALL CAMERAS, CARD READERS AND KEYPADS DEDICATED FOR ELEVATOR FLOOR SELECTION CONTROL, ARE SHOWN INSIDE THE ELEVATOR CAB ON THE LOWEST LEVEL FLOOR PLAN TO WHICH THE ELEVATOR TRAVELS.
- 5 LOCATION OF SURVEILLANCE CAMERAS SHALL BE CLOSELY COORDINATED WITH OTHER TRADES TO AVOID OBSTRUCTIONS IN THE FIELD OF VIEW. IT IS NOT REQUIRED FOR CAMERAS TO BE MOUNTED IN THE CENTER OF A BUILDING CORE (OR CENTER OF A HALLWAY) IF THAT LOCATION CAUSES AN OBSTRUCTION IN THE FIELD OF VIEW OF THE CAMERA. ALL CAMERAS ARE TO BE INSTALLED AS TO MINIMIZE OBSTRUCTIONS IN THE FIELD OF VIEW WITHIN A 90 DEGREE OF THE SPECIFIED LOCATION.
- 6 SURVEILLANCE CAMERAS INDICATED IN THE CORNER OF A ROOM SHALL BE INSTALLED AS CLOSE AS PHYSICALLY POSSIBLE TO THE CORNER OF THE ROOM TO GAIN THE BEST FIELD OF VIEW FOR THAT CAMERA.
- 7 EACH ACCESS CONTROLLED DOOR ON THE PROJECT HAS A DOOR IDENTIFIER SYMBOL THAT ASSOCIATES THE DOOR TO A CORRESPONDING ROUGH IN DETAIL. IN THE DRAWINGS AND A SPECIFIC FUNCTIONALITY OF THE DOOR IN THE SPECIFICATIONS.

## BUILDING LEVEL ELEVATION CALLOUTS



















FOR BUILDING LEVELS SEE ARCHITECTURAL DRAWING. ALL HEIGHTS INDICATED IN FLOOR PLANS ARE REFERENCED AS "ACL", WHICH STANDS FOR ABOVE CURRENT LEVEL. THE CURRENT LEVEL IS DEFINED BY THE NAME OF THE FLOOR PLAN WHERE THE DEVICE IS LOCATED. SEE EXAMPLE BELOW:



## CONDUIT FILL SCHEDULE

CONDUIT FILL CAPACITY 40% MAX									
CABLE O.D. SIZE	3/4" CONDUIT	1" CONDUIT	1 1/4" CONDUIT	1 1/2" CONDUIT	2" CONDUIT	2 1/2" CONDUIT	3" CONDUIT	4" CONDUIT	CABLE COMMENT
0.23	4	7	11	17	30	47	68	120	
0.25	3	6	10	14	26	40	59	102	
0.375	2	5	7	11	20	31	45	81	
0.30	2	4	6	10	17	27	40	71	
0.365	1	2	4	6	11	18	26	46	ACCESS CONTROL CABLE (BANNANA CABLE)





## BASIC MATERIALS

-  CONDUIT TURNED UP  
 CONDUIT TURNED DOWN  
 CAPPED CONDUIT  
 CONDUIT STUBBED AND BUSHED INTO ACCESSIBLE CEILING CAVITY  
 CONDUIT CONTINUED
- (WALL)  CONDUIT SLEEVES, THROUGH WALL/FLOOR FITTING FIRE STOP/ SMOKE SYSTEM, REFER TO SPECIFICATION 270528 FOR REQUIREMENTS  
 (FLOOR)  X= QTY OF SLEEVES  
 Y= SIZE OF CONDUITS SLEEVES PENETRATING WALL ABOVE CEILING SPACE.  
 Z= RS OR SS = FIRE STOP SYSTEM, SS = SMOKE SYSTEM
-  IF NO QUANTITY INDICATED USE AS MANY SLEEVES AS REQUIRED TO MATCH CROSS SECTIONAL AREA OF CABLE TRAY NEXT TO SLEEVE
-  TUBULAR RUNWAY, HUNG ABOVE CEILING OR AS NOTED  
 CABLE TRAY (TYPE), HUNG ABOVE CEILING OR AS NOTED  
 SURFACE MOUNTED ENCLOSED TECHNOLOGY SYSTEMS. SEE SHEETS WITH DETAILS FOR ADDITIONAL INFORMATION
-  JUNCTION BOX WALL MOUNTED. SIZE PER NEC IF NOT INDICATED ON DRAWING. NEMA 1 FOR INTERIOR, NEMA 4X FOR EXTERIOR USE WITH HINGED COVER AND LOCKING COVER  
 JUNCTION BOX CEILING MOUNTED. SIZE PER NEC IF NOT INDICATED ON DRAWING. NEMA 1 FOR INTERIOR, NEMA 4X FOR EXTERIOR USE WITH HINGED COVER AND LOCKING COVER  
 COMMUNICATIONS GROUND VAULT. SEE DETAILS AND SPECS FOR MORE INFORMATION  
 X= BOX TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 COMMUNICATIONS PULLBOX. SEE DETAILS AND SPECS FOR MORE INFORMATION  
 X= BOX TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 TECHNOLOGY POLE. SEE SHEETS WITH DETAILS FOR ADDITIONAL INFORMATION

## GENERAL

- |       |  |
|-------|--|
| _____ | SOLID DARK LINE - SYMBOLS WITH THIS LINE ARE NEW DEVICES. THIS LINE IS ALSO USED FOR ABOVE GRADE CONDUITS  |
| _____ | HAFTONE LINE - SYMBOLS WITH THIS LINE ARE EXISTING DEVICES TO REMAIN, AND EQUIPMENT REFERRED FROM OTHER DISCIPLINES USED FOR COORDINATION PURPOSES. THIS LINE IS ALSO USED FOR EXISTING CONDUITS ABOVE GRADE |
| ----- | DASHED LINE - SYMBOLS WITH THIS LINE ARE DEVICES TO BE REMOVED (DEMO PLANS). THIS LINE IS ALSO USED FOR UNDERGROUND CONDUITS (NEW PLANS).  |
| ----- | MATCH LINE REFERENCING CONTINUATION ON OTHER DRAWINGS  |
| ----- | CABLE ROUTING BOUNDARY   |












## DRAWING NOTES AND DESIGNATIONS

- |   |                                 |
|---|---------------------------------|
|  | DRAWING KEYED NOTES             |
|  | CABLE ROUTING NOTES             |
|  | DETAIL OR SECTION REFERENCE TAG |
|  | PHOTO REFERENCE                 |

## VOICE AND DATA SYSTEM

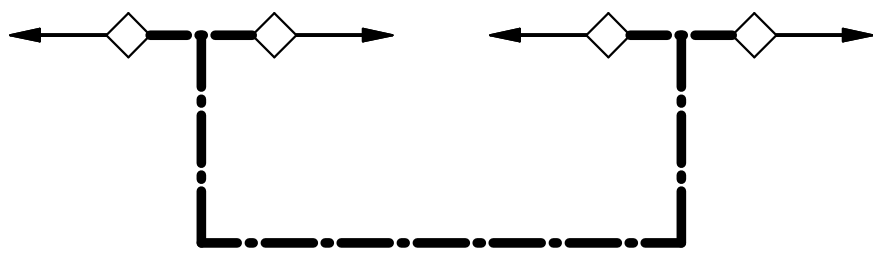
- TELECOMMUNICATION OUTLET
- X= MOUNTING: (E= EXISTING, F= RECESSED OUTLET BOX, FLUSH FACEPLATE, SF= SURFACE MOUNTED OUTLET BOX, S= SURFACE MOUNTED BOX, FLUSH FACEPLATE, M= MODULAR FURNITURE ADAPTER, S= POLE, L= FLOOR, R= RACEWAY)
- N= NUMBER OF DATA CABLES IN THE FACEPLATE
- YS= NOT USED
- Z= NUMBER OF FIBER OPTIC STRANDS IN THE FACEPLATE
- U= USER IF APPLICABLE
- H= INSTALLATION HEIGHT IN INCHES AT CENTER OF OUTLET, COORDINATE WITH ELECTRICAL. IF NOT SHOWN INSTALL AT 18" AGL. IF INSTALLED NEAR TO POWER OUTLETS, THE DATA OUTLET SHALL BE 18" MIN. HEIGHT AND 12" MIN. SPACINGS
- W= WALL TELEPHONE FACEPLATE WITH SUPPORT STUDS, INSTALLED AT 42" AGL AT CENTER OF OUTLET AND 12" FROM EDGE OF WALL AND 9" AROUND ALL SIDES MEASURED FROM CENTER OF OUTLET
- WP= WEATHERPROOF

EXAMPLE: F2 = TWO DATA JACKS IN A SINGLE FACEPLATE, FLUSH MOUNTED







- 
**MECH** OUTLET FOR MECHANICAL/ ELECTRICAL/ FIRE ALARM/ ELEVATOR/ STAIR CONNECTION  
 N= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 H= IF NOT SHOWN, COORDINATE EXACT LOCATION WITH DEVICE
- 
**CEILING** MOUNTED INFORMATION OUTLET, MOUNTED ON FINISHED CEILING  
 XN= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE
- 
**WALL** MOUNTED INFORMATION OUTLET, MOUNTED ON FINISHED WALL  
 XN= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 H= MOUNTING HEIGHT IN INCHES AT CENTER OF OUTLET; IF NOT SHOWN, INSTALL AT 8'-0" ACL
- 
**WALL** MOUNTED INFORMATION OUTLET, MOUNTED ON FINISHED CEILING  
 XN= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE
- 
**FLOOR** BOX FOR TECHNOLOGY SYSTEMS AND POWER OUTLETS. REFER TO POKE-THRU/ FLOOR BOX SCHEDULE FOR MORE INFORMATION  
 F= FLOOR CONDITION (C= CONCRETE TYPE, G= GRADE, R= RAISED FLOOR, W= WOOD)  
 Y= DENOTES # OF GANGS (1,2,3,4)  
 Z= DENOTES PLATE TYPE (A,B,C,...); A= NO AUDIO/VISUAL  
 LN= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE
- 
**POKE-THRU** FOR TECHNOLOGY SYSTEMS AND POWER OUTLETS. REFER TO POKE-THRU & FLOOR BOX SCHEDULE FOR MORE INFORMATION  
 Y= DENOTES POKE-THRU SIZE (4x4, 6x6, 8x8)  
 Z= DENOTES PLATE TYPE (A,B,C,...); A= NO AUDIO/VISUAL  
 LN= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE
- 
**FURNITURE** WALL MOUNTED FURNITURE FEED USED TO FEED CABLES TO MODULAR FURNITURE OR CABLES  
 FLOOR BOX USED TO FEED CABLES TO MODULAR FURNITURE. REFER TO DETAIL SHEET  
 X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 U= POWER RISE FOR CABLED CABLES TO MODULAR FURNITURE. REFER TO DETAIL SHEET  
 X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT
- 
**BACKBOX** INSTALL BEHIND DISPLAY/ CREDENZA RACK, COORDINATE BACKBOX PRIOR TO ROUGH-IN. REFER TO DETAIL & SCHEDULE FOR MORE INFORMATION  
 T= IF NUMBER, DENOTES NUMBER OF GANGS; IF LETTER, DENOTES TYPE. REFER TO DETAIL SHEET FOR DESCRIPTION OF TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 U= AS DESCRIBED FOR TELECOMMUNICATIONS OUTLET SYMBOL ABOVE  
 H= MOUNTING HEIGHT IN INCHES AT CENTER OF DEVICE
- 
**CONSOLE** FOR COMBINED USE - TECHNOLOGY SYSTEMS AND POWER  
 X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT
- 
**FIBER** OUTLETS ROUTING TAG FOR BACKBONE CABLEING  
 N= DENOTES CONNECTION TYPE (P=PRIMARY, S=SECONDARY)  
 XX= DENOTES FIBER STAIN QUANTITY  
 R= DENOTES RUN NUMBER  
 REFER TO FIBER OPTICS RISER FOR MORE INFORMATION.
- 
**NEXT**

## COVERAGE FOR IDF

COVERAGE OF EACH TELECOM ROOM. EACH LINE CORRESPONDS WITH A BOUNDARY FOR EACH TELECOM ROOM. REFER TO THE HORIZONTAL TERMINATION NOTES ON EACH SHEET FOR EXACT REQUIREMENTS. IF NO BOUNDARY LINES OR RHOMBUS SYMBOLS ON THE FLOOR PLAN THAN THE WHOLE SHEET WILL BE TERMINATED IN ONE TELECOM ROOM AND THERE WILL BE A SHEET HORIZONTAL TERMINATION NOTE.


















## DISTRIBUTED ANTENNA SYSTEMS

- |   |  |
|---|--|
|  | DAS ANTENNA, WALL MOUNTED<br>X= ANTENNA TYPE<br>Y= ANTENNA NUMBER<br>Z= SPLITTER NUMBER THE ANTENNA IS ASSOCIATED WITH<br>H= MOUNTING HEIGHT IN INCHES AT CENTER OF DEVICE |
|  | DAS ANTENNA, CEILING MOUNTED<br>X= ANTENNA TYPE<br>Y= ANTENNA NUMBER<br>Z= SPLITTER NUMBER THE ANTENNA IS ASSOCIATED WITH  |
|  | DAS SPLITTER<br>X= SPLITTER NUMBER   |
|  | ROOF ANTENNA, WALL MOUNTED<br>FIBER BDA<br>X= FIBER BDA NUMBER   |
|  | DAS REPEATER   |
|  | DAS FIBER RATED ACCESS PANEL SYSTEM. REFER TO DAS ACCESS PANEL CHASE ELEVATION ON TECHNOLOGY ELEVATION SHEET FOR MORE INFORMATION  |

## AUDIO VISUAL EQUIPMENT

- CEILING MOUNTED SPEAKER  
 X= SPEAKER TYPE  
 Y= SPEAKER ZONE  
 Z= Z= DENOTES SPEAKER # IN ZONE  
 W= DENOTES SPEAKER WATTAGE TAP  
 NO ZONE INDICATES LOCAL ZONE FOR AV SYSTEM IN ROOM  
 WALL MOUNTED SPEAKER  
 X= SPEAKER TYPE  
 Y= SPEAKER ZONE  
 Z= Z= DENOTES SPEAKER # IN ZONE  
 W= DENOTES SPEAKER WATTAGE TAP  
 NO ZONE INDICATES LOCAL ZONE FOR AV SYSTEM IN ROOM  
 VOLUME CONTROL, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 X= REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 INTERCOM STROBE, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 FLIP TOP DEVICE MOUNTED ON TABLE  
 SENS MICROPHONE FOR AMBIENT NOISE, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 SENS MICROPHONE FOR AMBIENT NOISE, CEILING MOUNTED  
 MICROPHONE, DESK MOUNTED  
 X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 MICROPHONE, WALL MOUNTED  
 X= DENOTES TYPE OF OUTLET, IF NOT SHOWN, ONLY ONE TYPE  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 MICROPHONE, CEILING MOUNTED  
 X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 WIRELESS ANTENNA FOR WIRELESS MICROPHONE, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 TOUCH SCREEN FOR AUDIO/VIDEO CONTROL, DESK MOUNTED  
 X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 TOUCH SCREEN FOR AUDIO/VIDEO CONTROL, WALL MOUNTED, INCLUDES BACK BOX  
 X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 ROOM SCHEDULING PANEL, WALL MOUNTED, INCLUDES BACK BOX  
 X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 AV KEYPAD, REFER TO DETAIL SHEETS  
 X= DENOTES TYPE OF OUTLET, SEE DETAIL FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 AV PLATE OUTLET, REFER TO DETAIL SHEETS  
 X= DENOTES TYPE OF OUTLET, SEE DETAIL FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 CAMERA FOR AV SYSTEM, WALL MOUNTED  
 X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 += DENOTES HEIGHT IN INCHES AT CENTER OF OUTLET AS CALLED OUT ON FLOOR PLANS  
 CAMERA FOR AV SYSTEM, CEILING MOUNTED  
 X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE  
 ASSISTED LISTENING TRANSMITTER, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 OCCUPANCY SENSOR, CEILING MOUNTED  
 X= TYPE, C= CRESNET, E= ETHERNET  
 AUDIO VISUAL DISPLAY  
 D= DISPLAY ID NUMBER  
 T= DISPLAY TYPE WITH MOUNT, REFER TO SPECIFICATIONS 274100  
 X= SCREEN SIZE  
 Y= INSTALLATION HEIGHT IN INCHES AT CENTER OF DISPLAY, IF NOT SHOWN INSTALL AT DATA OUTLET LOCATION AT THE DISPLAY, COORDINATE BOTH POWER AND DATA OUTLET WITH WALL MOUNT DETAIL PRIOR TO ROUGH-IN. REFER TO ELECTRICAL SYSTEM DRAWINGS FOR POWER REQUIREMENTS.  
 EXAMPLE: DT - 01 = DISPLAY WITH TUNER BUILT-IN AND DISPLAY 01 OF THE PROJECT  
 INTERACTIVE WHITEBOARD  
 IT= DISPLAY TYPE WITH MOUNT  
 X= SCREEN SIZE  
 Y= HEIGHT TO CENTER OF SCREEN  
 OVERHEAD PROJECTOR WITH MOUNT  
 X= TYPE  
 Y= LENS THROW RATIO  
 PULLDOWN PROJECTION SCREEN  
 X= DIAGONAL DIMENSION IN INCHES  
 MOTORIZED PROJECTION SCREEN  
 X= DIAGONAL DIMENSION IN INCHES  
 WALL MOUNTED SWITCH FOR MOTORIZED SCREEN  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 PODIUM FOR AV EQUIPMENT, REFER TO DETAIL SHEETS  
 X= DENOTES TYPE OF OUTLET, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT  
 SOUND BAR WITH CAMERA, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 ON-AIR SIGN, WALL MOUNTED  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS  
 += REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS












EXAMPLE: DT - 01 = DISPLAY WITH TUNER BUILT-IN AND DISPLAY 01 OF THE PROJECT

- |   |   |
|---|---|
|    | INTERACTIVE WHITEBOARD  |
|    | T= DISPLAY TYPE WITH MOUNT  |
|    | XX= SCREEN SIZE   |
|    | YY= HEIGHT TO CENTER OF SCREEN  |
|    | OVERHEAD PROJECTOR WITH MOUNT   |
|    | X= TYPE   |
|    | Y= LENS THROW RATIO   |
|   | PULLDOWN PROJECTION SCREEN  |
|  | X= DIAGONAL DIMENSION IN INCHES   |
|  | MOTORIZED PROJECTION SCREEN   |
|  | X= DIAGONAL DIMENSION IN INCHES   |
|  | WALL MOUNTED SWITCH FOR MOTORIZED SCREEN  |
|   | *** REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS |
|  | PODIUM FOR AV EQUIPMENT, REFER TO DETAIL SHEETS                                   |
|   | X= DENOTES TYPE OF OUTLET, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT                 |
|  | SOUND BAR WITH CAMERA, WALL MOUNTED   |
|   | *** REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS |
|  | ON-AIR SIGN, WALL MOUNTED   |
|   | X= DENOTES TYPE OF OUTLET, SEE RISER FOR MORE INFO, IF NOT SHOWN, ONLY ONE TYPE   |
|   | *** REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS |

## ELECTRONIC SECURITY SYSTEM

- |     |   |
|-----|---|
|     | CARD READER, WALL MOUNTED   |
|     | CARD READER WITH INTEGRATED KEYPAD, WALL MOUNTED                                    |
| CR  | BIOMETRIC ACCESS CONTROL DEVICE, WALL MOUNTED                                       |
|     | KEYPAD, WALL MOUNTED  |
| EL  | WIRELESS/WIRELESS COMBINATION READER/LOCK, DOOR MOUNTED                             |
|     | DELAYED EGRESS LATCH LOCK   |
|     | DELAYED EGRESS MAG LOCK   |
|     | ELECTRIC MORTISE LOCK OR ELECTRIC TRIM  |
|     | ELECTRIC CYLINDRICAL LOCK   |
|     | ELECTRIC LATCH RETRACTION LOCK  |
|     | ELECTRIC DOOR STRIKE  |
|     | ELECTROMAGNETIC LOCK  |
|     | ELECTRONIC DETENTION LOCK   |
|     | ELECTRIC DOOR OPERATOR (ACTUATOR ARM)   |
|     | DOOR POSITION SWITCH  |
| BS  | BALANCED MAGNETIC SWITCH (DOOR POSITION SWITCH FOR INTRUSION DETECTION SYSTEM)      |
|     | REQUEST TO EXIT DEVICE (IR SENSOR), MOUNT CENTERED ABOVE DOOR FRAME                 |
| LA  | LOCAL ALARM - HORN/STROBE, WALL MOUNTED   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| WH  | WIRELESS LOCK HUB, WALL MOUNTED   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| WV  | WIRELESS LOCK HUB, CEILING MOUNTED  |
|     | DOOR RELEASE BUTTON, WALL MOUNTED   |
|     | WADA ACCESSIBLE - (PALM ACTUATOR), W- HAND WAVE, NO TYPE: REGULAR PUSH BUTTON       |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | DOOR RELEASE BUTTON, DESK MOUNTED   |
| +   | DURESS PANIC BUTTON, WALL MOUNTED   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| D   | DURESS PANIC BUTTON, MOUNTED UNDER DESK   |
|     | DOOR PEDESTAL, REFER TO DETAIL SHEETS FOR ADDITIONAL INFORMATION                    |
|     | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT                                     |
|     | GATE PEDESTAL, REFER TO DETAIL SHEETS FOR ADDITIONAL INFORMATION                    |
| X   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT                                     |
|     | ELECTRIC GATE OPERATOR  |
|     | DOOR TYPE IDENTIFIER  |
| XXX | LINE TYPE (A1,C3,B6...) REFER TO SECURITY DOOR DETAILS                              |
|     | LINE BETWEEN SECURITY DEVICES, INDICATES ASSOCIATED EQUIPMENT                       |
|     | CONTROLLED DOOR INTERLOCK GROUP. PROGRAMMED SO ONLY ONE DOOR CAN BE OPEN AT A TIME. |
|     | ACCESS CONTROL DOOR DIRECTION, A1/A2 - REPRESENTS ACCESS CONTROL PATH               |
| CR  | CR - CARD READER  |
| CR  | CR - CARD READER WITH INTEGRATED KEYPAD   |
| BR  | BR - BIOMETRIC ACCESS CONTROL DEVICE  |
| DE  | DE - DELAYED EGRESS   |
| DO  | DO - ELECTRIC DOOR OPERATOR   |
|     | MONITORED - MONITORED DOOR  |
| LA  | LA - LOCAL ALARM - HORN/STROBE  |
| IC  | IC - INTERCOM/ CALL STATION   |
| MC  | MC - MASTER CONTROL   |
| LC  | LC - LOCAL CONTROL  |
|     | CALL STATION (THROUGH PHONE LINE) FOR BUILDING ENTRY, WALL MOUNTED                  |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | INTERCOM SUBSTATION (DOOR STATION), WALL MOUNTED                                    |
| +   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO RISER FOR TYPE            |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| IC  | INTERCOM MASTER STATION, DESK MOUNTED   |
| +   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO RISER FOR TYPE            |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| AS  | ASSISTANCE STATION, WALL MOUNTED  |
| +   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO SPECIFICATION FOR TYPE    |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| AS  | ASSISTANCE STATION (BLUE LIGHT), TOWER STATION                                      |
| X   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO SPECIFICATION FOR TYPE    |
|     | AREA OF RESCUE INTERCOM STATION, WALL MOUNTED                                       |
| +   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO RISER FOR TYPE            |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | AREA OF RESCUE MASTER STATION, WALL MOUNTED   |
| +   | X= TYPE, IF NOT SHOWN, ONLY ONE TYPE IN PROJECT, REFER TO SPECIFICATION FOR TYPE    |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | ALARM, BLUE LIGHT, WALL MOUNTED   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| EL  | INTRUSION ALARM KEYPAD  |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | MOTION DETECTOR, WALL MOUNTED   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| MD  | MOTION DETECTOR, 360 DEGREE SENSOR, CEILING MOUNTED                                 |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
|     | GLASS BREAK SENSOR, WALL MOUNTED  |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| CS  | GLASS BREAK SENSOR, CEILING MOUNTED   |
|     | SIREN ALARM FOR INTRUSION DETECTION, WALL MOUNTED                                   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| CS  | SIREN ALARM FOR INTRUSION DETECTION, CEILING MOUNTED                                |
|     | TEMPERATURE SENSOR DIGITAL, DISPLAY, WALL MOUNTED                                   |
| +   | ++ REFER TO ROUGH-IN REQUIREMENTS FOR DEVICES DETAIL FOR ADDITIONAL REQUIREMENTS    |
| TH  | TEMPERATURE PROBE SENSOR, INSTALLED IN COOLER/FREEZER                               |

## VIDEO SURVEILLANCE SYSTEMS

- |   |  |
|---|--|
|  | CCTV CAMERA PROPOSED LOCATION AT SCHEMATIC LEVEL. DASHED LINES REPRESENT FIELD OF VIEW. THIS SYMBOL DOES NOT REPRESENTS THE FINAL CAMERA LOCATION AND TYPE.  |
|  | <p>CCTV CAMERA TAG INFORMATION APPLIES TO ALL CAMERA CEILING MOUNTED SYMBOLS<br/>           C = CAMERA NUMBER, X= CAMERA MOUNTING (1,2,3), S= SPECIFIC CAMERA HOUSING (IF NOT SHOWN DOME), REFER TO DETAILS &amp; SPECIFICATION FOR TYPE<br/>           U= USER (IF APPLICABLE)<br/>           += REFER TO CAMERA DETAIL FOR REQUIREMENTS, HEIGHT CALLED OUT IN INCHES, IF NOT SHOWN, INSTALLED AT CEILING</p> |
|  | <p>CCTV CAMERA TAG INFORMATION APPLIES TO ALL CAMERA WALL MOUNTED SYMBOLS<br/>           C = CAMERA NUMBER, X= CAMERA MOUNTING (1,2,3), S= SPECIFIC CAMERA HOUSING (IF NOT SHOWN DOME), REFER TO DETAILS &amp; SPECIFICATION FOR TYPE<br/>           U= USER (IF APPLICABLE)<br/>           += REFER TO CAMERA DETAIL FOR REQUIREMENTS, HEIGHT CALLED OUT IN INCHES, IF NOT SHOWN, INSTALLED AT 8'-0" ACL</p>  |
|  | FIXED CCTV CAMERA  |
|  | PAN/TILT/zoom CCTV CAMERA  |
|  | PANORAMIC DUAL-IMAGER FIXED CCTV CAMERA  |
|  | 180° SINGLE-IMAGER CCTV CAMERA   |
|  | 180° MULTI-IMAGER CCTV CAMERA  |
|  | 360° SINGLE-IMAGER CCTV CAMERA   |
|  | 360° MULTI-IMAGER CCTV CAMERA  |
|  | CCTV FLAT PANEL DISPLAY WITH MOUNT   |
|   | XX= SCREEN SIZE  |
|   | YY= HEIGHT TO CENTER OF SCREEN   |



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HILLSBOROUGH COUNTY SHERIFF OFFICE TRAINING FACILITY					
TECHNOLOGY DESIGN AND CONSTRUCTION RESPONSIBILITIES					
DATE		3-Apr-25			
ITEM	SYSTEM	SCOPE	DESIGN <sub>(1)</sub> RESPONSIBILITY	PROCUREMENT <sub>(2)</sub> RESPONSIBILITY	CONSTRUCTION <sub>(3)</sub> RESPONSIBILITY
1.00	VOICE SYSTEM (TELEPHONE COMMUNICATIONS SYSTEM ALL AREAS)				
1.01	RACEWAYS	Conduit, boxes, cable tray in hallways, etc.	A&E	GC	GC
1.02	INSIDE PREMISE WIRING	Structured cabling system, including patch cords	OWNER-isd	OWNER-isd	OWNER-isd
1.03	OUTSIDE PREMISE WIRING WITHIN PROJECT BOUNDARY LINE	Structured cabling system including innerduct from outside plant fiber	OWNER-isd	OWNER-isd	OWNER-isd
1.04	OUTSIDE PREMISE WIRING FROM SERVICE PROVIDERS	Fiber and copper for services	N. A.	N. A.	N. A.
1.05	PATCHING OF VOICE LINES AT BOTH ENDS OF CABLE	labor only of patching at racks and work areas	OWNER-isd	N.A.	OWNER-isd
1.06	PHONE SWITCH	Equipment selection, sizing, equipment layout, RFP	OWNER-isd	OWNER-isd	OWNER-isd
2.00	DATA SYSTEM (COMPUTER NETWORKS ALL AREAS)				
2.01	RACEWAYS	Conduit, boxes, cable tray in hallways, etc.	A&E	GC	GC
2.02	INSIDE PREMISE WIRING	Structured cabling system, including patch cords	OWNER-isd	OWNER-isd	OWNER-isd
2.03	PATCHING OF DATA LINES AT BOTH ENDS OF CABLE	labor only of patching at racks and work areas	OWNER-isd	N.A.	OWNER-isd
2.04	NETWORKING ACTIVE ELECTRONICS (NETWORKING EQUIPMENT, SWITCHES, SERVERS, ROUTERS)	Equipment selection, sizing, equipment layout, RFP	OWNER-isd	OWNER-isd	OWNER-isd
2.05	WIRELESS MODELING	Modeling to predict location of WAPs, including measured survey after building shell is completed	OWNER-isd	N.A.	OWNER-isd
2.06	WAPs	Wireless access points, including installation labor, support materials, etc.	OWNER-isd	OWNER-isd	OWNER-isd
3.00	TELECOM ROOM OUTFIT				
3.01	PLYWOOD	Plywood for walls	A&E	GC	GC
3.02	FIRE SLEEVES	Fire sleeves for telecom cables going through rated walls. All sizes	MILLER-isd	MILLER-isd	MILLER-isd
3.03	GROUNDING SYSTEM	Ground bar and ground backbone cable	A&E	GC	GC
3.04	RACKS, WIRE MANAGERS, AND LADDER TRAY	Racks and all passive elements, including tubular runway	A&E	OWNER-isd	OWNER-isd
4.00	CATV DISTRIBUTION (CABLE TV FOR ALL AREAS)				
4.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
4.02	INSIDE PREMISE WIRING	Coaxial cable	OWNER-isd/ SPECTRUM	OWNER-isd/ SPECTRUM	OWNER-isd/ SPECTRUM
4.03	DISTRIBUTION DEVICES	TAPS, amplifiers, splitter, DC	OWNER-isd/ SPECTRUM	OWNER-isd/ SPECTRUM	OWNER-isd/ SPECTRUM
4.04	TVs & MOUNTS	TVs, Mounts for the TVs	OWNER-isd	OWNER-isd	OWNER-isd
4.05	PLYWOOD BLOCKING FOR TVs	Plywood blocking for TVs	A&E	GC	GC
5.00	AV SYSTEMS & PAGING SYSTEM				
5.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
5.02	FLIP TOP DEVICES MOUNTED ON TABLES	Flip top device, cable cubbies, etc	OWNER-isd	OWNER-isd	OWNER-isd
5.03	INSIDE PREMISE WIRING	AV wiring for systems	OWNER-isd	OWNER-isd	OWNER-isd
5.04	ACTIVE ELECTRONICS	Projectors, presentation control system, paging system, etc.	A&E	OWNER	OWNER
5.05	DISPLAYS CONNECTED TO AV SYSTEM & MOUNTS	Displays connected to AV system, display mount, plywood blocking for displays	OWNER-isd	OWNER-isd	OWNER-isd
5.06	COMPUTERS FOR AV SYSTEMS	Room PCs, or other PCS based on Windows for the use of the AV system	OWNER-isd	OWNER-isd	OWNER-isd
6.00	ACCESS CONTROL AND INTRUSION DETECTION SYSTEMS				
6.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
6.02	INSIDE PREMISE WIRING	Cables for readers, sensors, etc.	OWNER-FAC	OWNER-FAC	OWNER-FAC
6.03	ACTIVE ELECTRONICS	Access control panels, power supplies, intrusion alarm panels, sensors, readers, etc	OWNER-FAC	OWNER-FAC	OWNER-FAC
6.04	LOCKING DEVICES	Locking devices, electric mortise locks, etc.	A&E	GC	GC
6.05	PROGRAMMING - CONFIGURATION OF HARDWARE	Programming of door operation, Intrusion Alarm Panels	OWNER-FAC	OWNER-FAC	OWNER-FAC
6.06	PROGRAMMING - CONFIGURATION OF PROFILES	Programming of door operation schedule and user profiles	OWNER-FAC	OWNER-FAC	OWNER-FAC
7.00	VIDEO SURVEILLANCE				
7.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
7.02	INSIDE PREMISE WIRING	Cables for cameras	OWNER-isd	OWNER-isd	OWNER-isd
7.03	ACTIVE ELECTRONICS	Cameras, DVRs.	OWNER-isd	OWNER-isd	OWNER-isd
7.04	PROGRAMMING - CONFIGURATION OF HARDWARE	Programming of cameras and DVRs	OWNER-isd	OWNER-isd	OWNER-isd
8.00	EMERGENCY POWER BACKUP (UPS) FOR ACTIVE EQUIPMENT				
8.01	POWER WIRING	Conduit, cables and circuits	A&E	GC	GC
8.02	POWER DISTRIBUTION UNITS	ePDUs to be installed in racks and cabinets	OWNER-isd	OWNER-isd	OWNER-isd
8.03	ACTIVE EQUIPMENT - WORK AREAS	UPS units in work areas	OWNER-isd	OWNER-isd	OWNER-isd
8.04	ACTIVE EQUIPMENT - SMALL UNITS < 10KVA	UPS units in racks or cabinets	OWNER-isd	OWNER-isd	OWNER-isd
9.00	FIRE ALARM AND BUILDING MANAGEMENT SYSTEM				
9.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
9.02	INSIDE PREMISE WIRING	Cabling, grounding	A&E	GC	GC
9.03	ACTIVE ELECTRONICS	Data gathering panels, sensors, etc	A&E	GC	GC
10.00	DISTRIBUTED ANTENNA SYSTEM (PUBLIC SAFETY)				
10.01	SIGNAL SURVEY	Survey to determine if Public Safety DAS system is required.	OWNER-FAC	OWNER-FAC	OWNER-FAC
10.02	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
10.03	INSIDE PREMISE WIRING	Cabling, grounding	OWNER-FAC	OWNER-FAC	OWNER-FAC
10.04	ACTIVE ELECTRONICS	Head end system, BDA, TX/RX and antennas	OWNER-FAC	OWNER-FAC	OWNER-FAC
11.00	DISTRIBUTED ANTENNA SYSTEM (CELL PHONES) - AT OWNER'S OPTION				
11.01	RACEWAYS	Conduit, boxes, cable tray, etc.	A&E	GC	GC
11.02	SIGNAL SURVEY	Signal survey for frequencies and channels used by carriers	A&E	GC	GC
11.03	INSIDE PREMISE WIRING	Cabling, grounding	A&E	GC	GC
11.04	ACTIVE ELECTRONICS	Head end system, BDA, TX/RX and antennas	A&E	GC	GC

ABBRE. A&E: ARCHITECT AND ALL CONSULTANTS WORKING UNDER ARCHITECT, LIKE TLC ENGINEERING SOLUTIONS

GC: GENERAL CONTRACTOR

S.P.: SERVICE PROVIDER

VENDOR: A SYSTEM INSTALLER HIRED DIRECTLY BY THE OWNER FOR A SPECIFIC SYSTEM

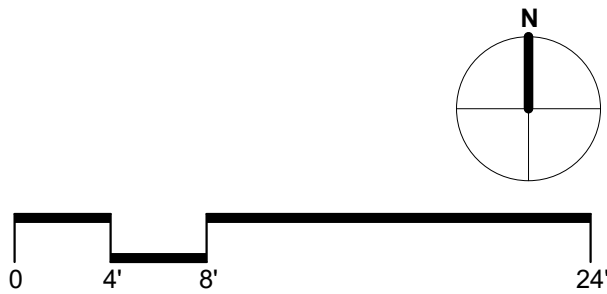
OWNER-FAC: HILLSBOROUGH COUNTY SHERIFF'S OFFICE - FACILITY DEPARTMENT

OWNER-isd: HILLSBOROUGH COUNTY SHERIFF'S OFFICE - ISD DEPARTMENT

N.I.C. NOT IN CONTRACT

N.A.: NOT APPLICABLE

- NOTES
1. DESIGN INCLUDES CAPTURING THE SCORE OF WORK IN A WRITTEN FORMAT SO IT CAN BE BID. IT DOES NOT MEAN WHO IS MAKING PRODUCT SELECTION.
  2. PROCUREMENT INCLUDES SENDING PO OR CONTRACTS AS WELL AS PROVIDING PAYMENT.
  3. CONSTRUCTION INCLUDES PROVIDING LABOR FOR INSTALLATION AND PROGRAMMING (UNLESS SEPARATE LINE ITEM FOR THIS)

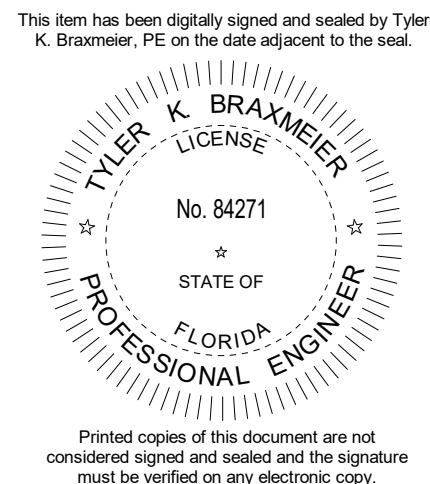


HILLSBOROUGH COUNTY SHERIFF'S OFFICE

TRAINING ACADEMY - PHASE 1  
10210 WINDHORST ROAD, TAMPA, FL 33619

PERMIT DOCUMENTS

Comm. No: 23106.01		
Date: 8/15/2025		
Drawn by: KJ		
Checked by: SB		
Revisions		
No.	Date	Revision Description



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TECHNOLOGY  
RESPONSIBILITY  
MATRIX

T-001



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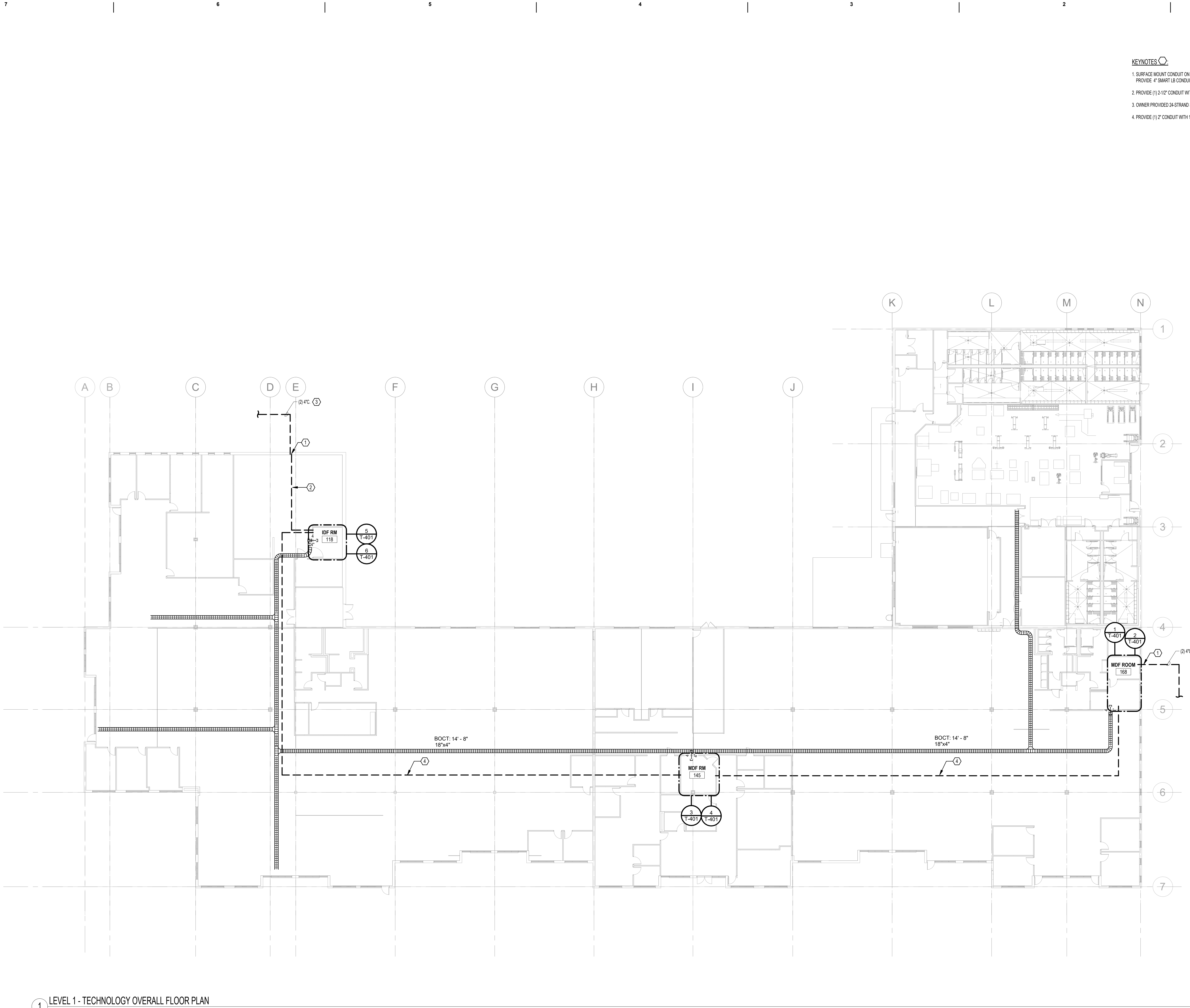
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1 LEVEL 1 - TECHNOLOGY OVERALL FLOOR PLAN  
1/16" = 1'-0"

- KEYNOTES
1. SURFACE MOUNT CONDUIT ON EXTERIOR OF BUILDING AND POKE THROUGH BUILDING ABOVE ACCESSIBLE CEILING LEVEL. PROVIDE 4" SMART LB CONDUIT BODY AT POKE THROUGH LOCATION.
  2. PROVIDE (1) 2-1/2" CONDUIT WITH 24-STRAND SM FIBER OPTIC CABLING THROUGH PLENUM SPACE TO IDF ROOM.
  3. OWNER PROVIDED 24-STRAND SM FIBER OPTIC CABLING TO IDF.
  4. PROVIDE (1) 2" CONDUIT WITH 12-STRAND SM FIBER OPTIC CABLING THROUGH PLENUM SPACE TO IDF ROOM.

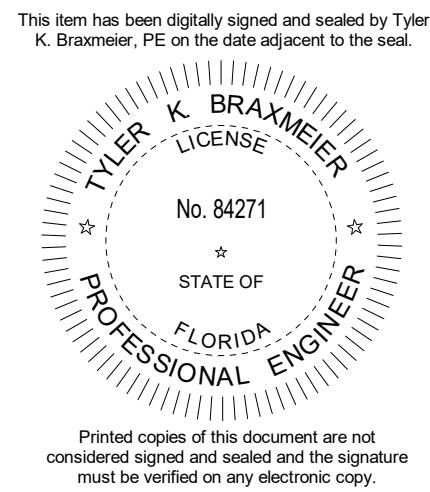
HILLSBOROUGH COUNTY SHERIFF'S OFFICE

TRAINING ACADEMY - PHASE 1

10210 WINDHORST ROAD, TAMPA, FL 33619

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TECHNOLOGY  
OVERALL  
RENOVATION PLAN

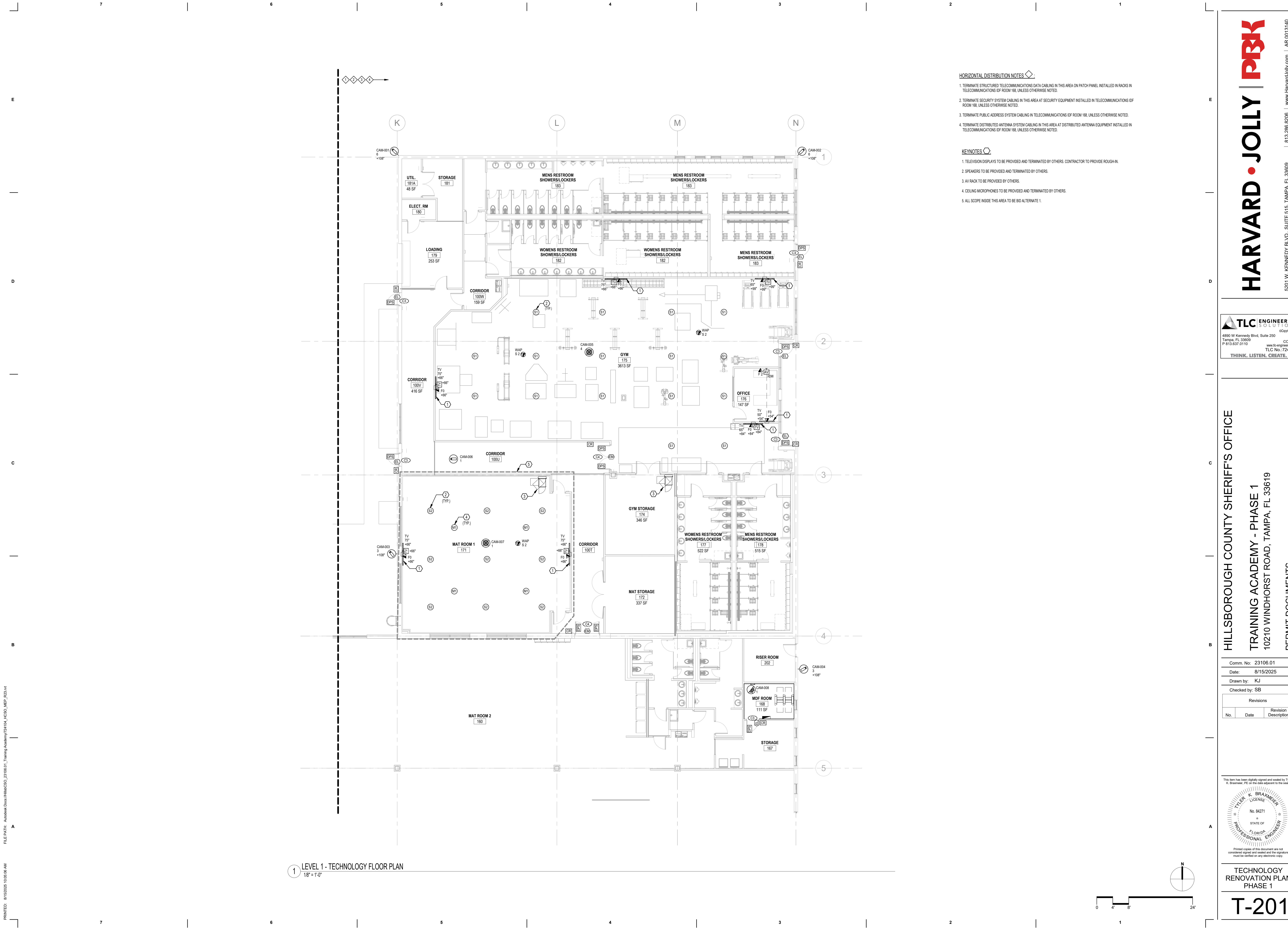
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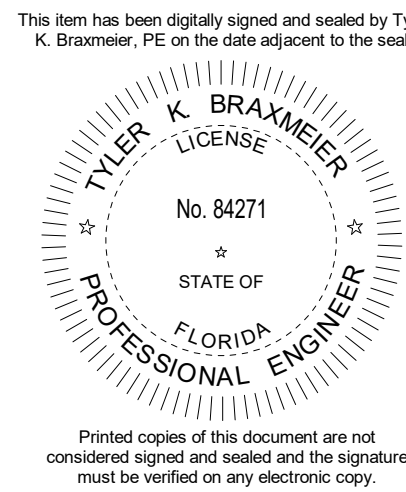
HORIZONTAL DISTRIBUTION NOTES

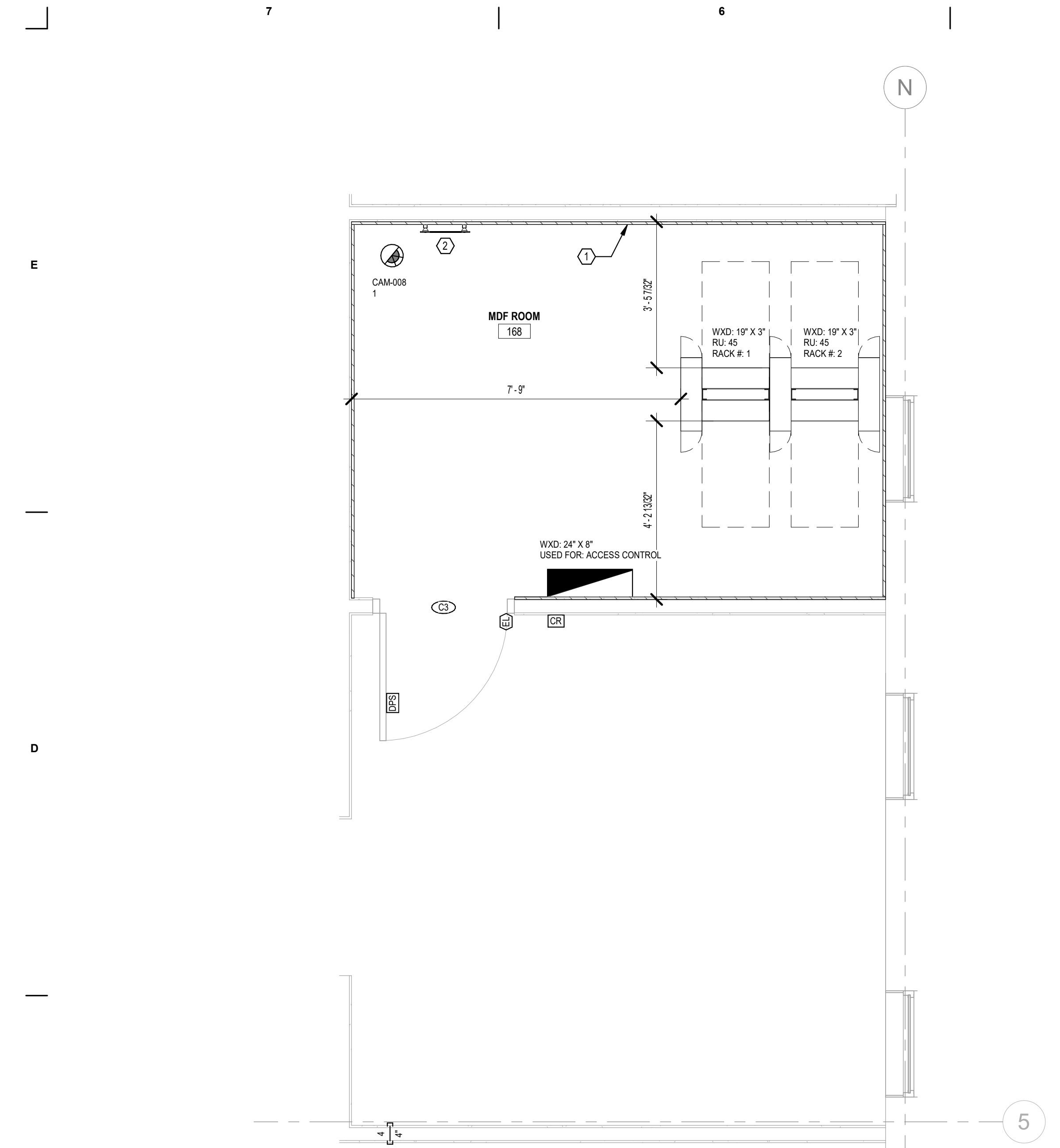
- 1. TERMINATE STRUCTURED TELECOMMUNICATIONS DATA CABLE IN THIS AREA ON PATCH PANEL INSTALLED IN RACKS IN TELECOMMUNICATIONS IDF ROOM 168, UNLESS OTHERWISE NOTED.
- 2. TERMINATE SECURITY SYSTEM CABLE IN THIS AREA AT SECURITY EQUIPMENT INSTALLED IN TELECOMMUNICATIONS IDF ROOM 168, UNLESS OTHERWISE NOTED.
- 3. TERMINATE PUBLIC ADDRESS SYSTEM CABLE IN TELECOMMUNICATIONS IDF ROOM 168, UNLESS OTHERWISE NOTED.
- 4. TERMINATE DISTRIBUTED ANTENNA SYSTEM CABLE IN THIS AREA AT DISTRIBUTED ANTENNA EQUIPMENT INSTALLED IN TELECOMMUNICATIONS IDF ROOM 168, UNLESS OTHERWISE NOTED.

KEYNOTES

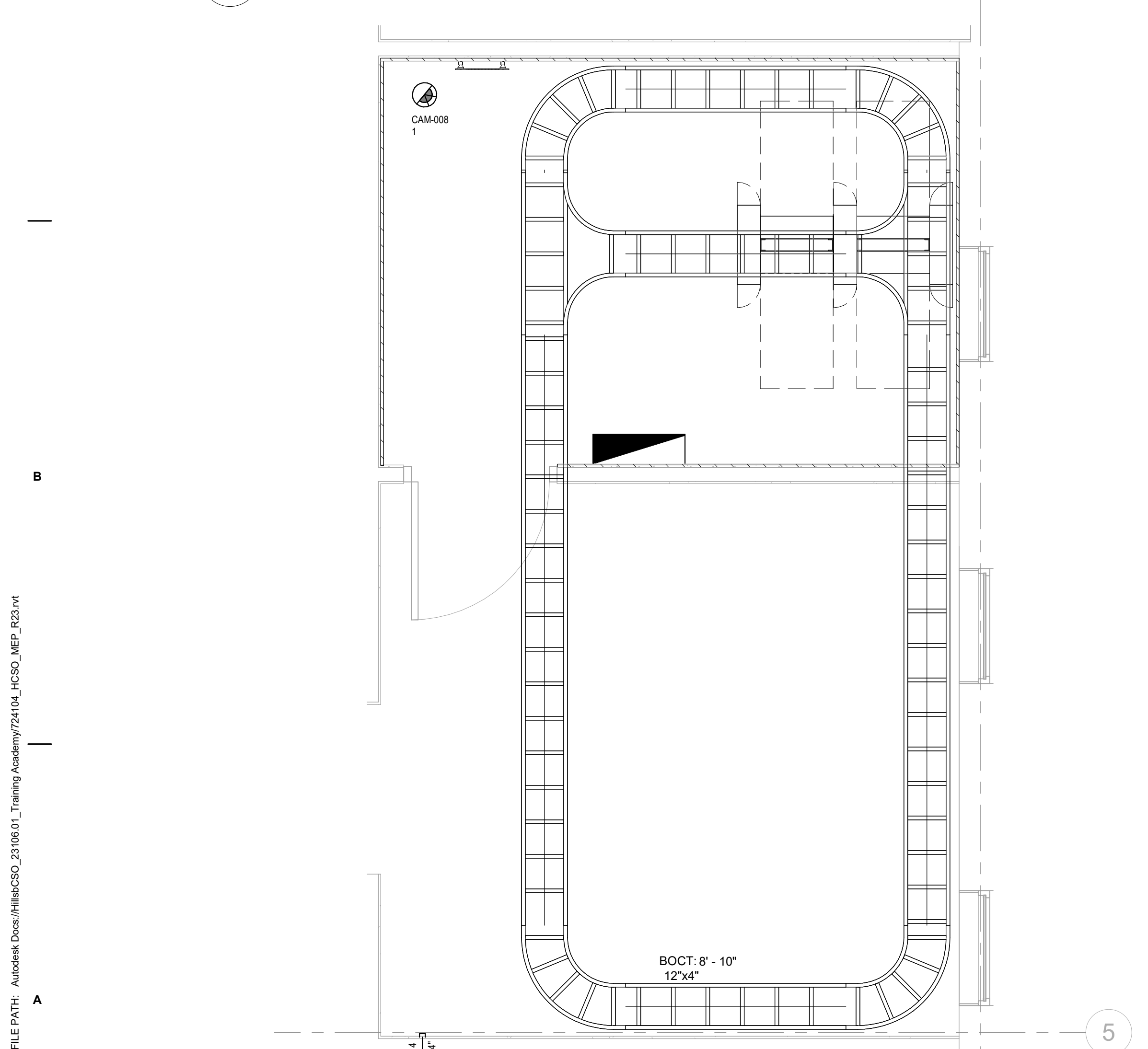
- 1. TELEVISION DISPLAYS TO BE PROVIDED AND TERMINATED BY OTHERS. CONTRACTOR TO PROVIDE ROUGH-IN.
- 2. SPEAKERS TO BE PROVIDED AND TERMINATED BY OTHERS.
- 3. AV RACK TO BE PROVIDED BY OTHERS.
- 4. CEILING MICROPHONES TO BE PROVIDED AND TERMINATED BY OTHERS.
- 5. ALL SCOPE INSIDE THIS AREA TO BE BID ALTERNATE 1.

Comm. No: 23106.01	
Date: 8/15/2025	
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Revisions	
No.	Revision Description

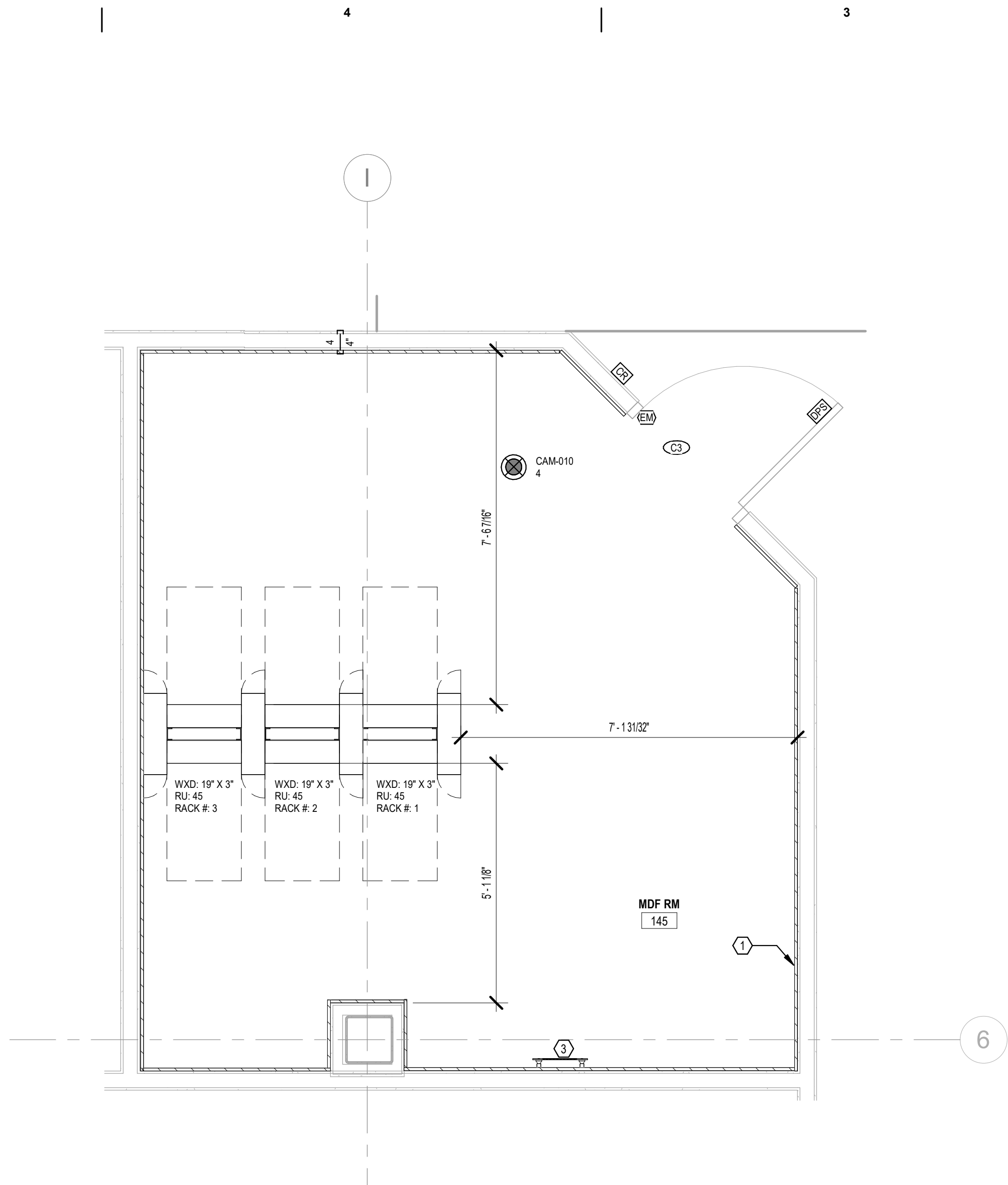




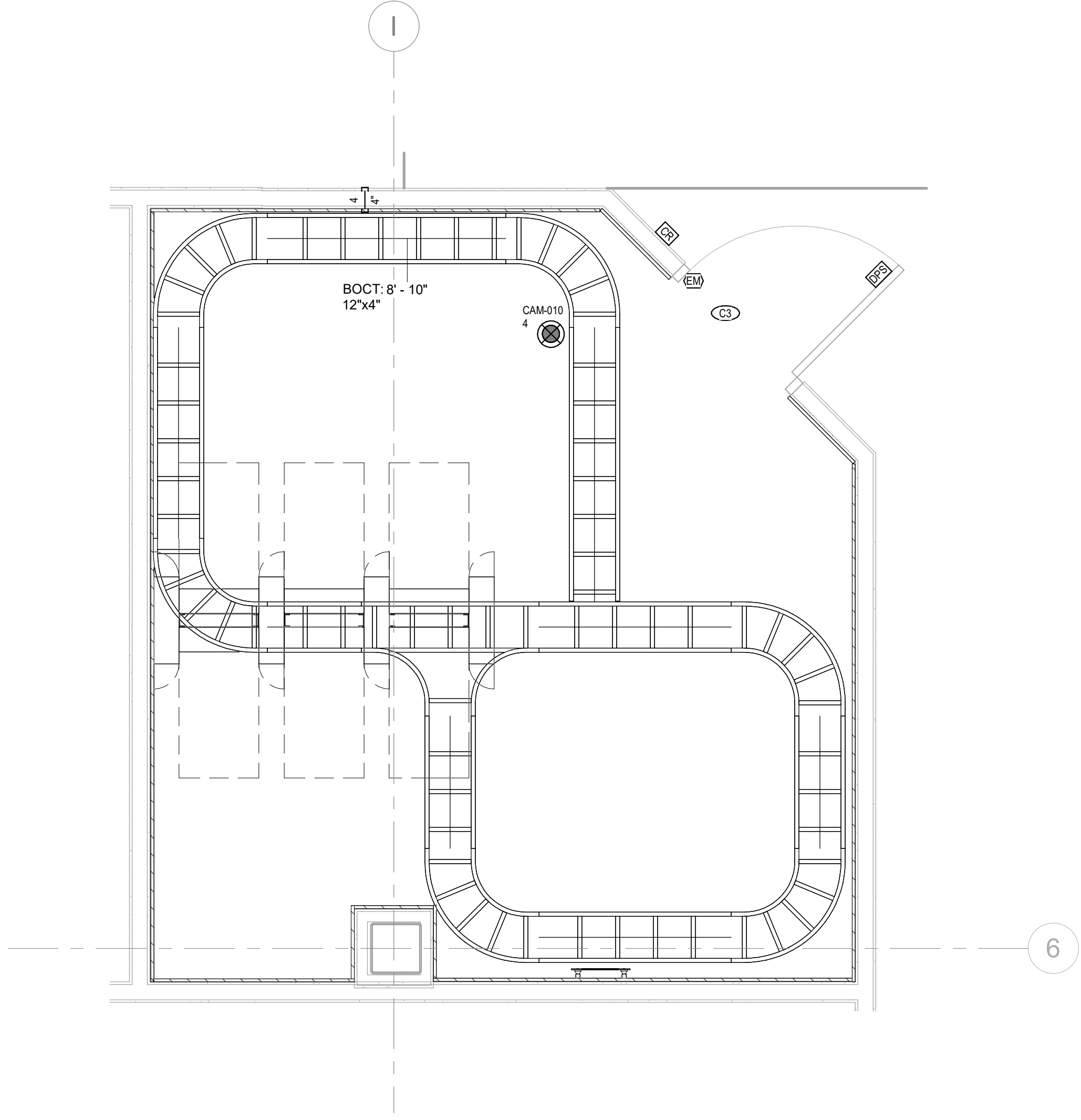
1 LEVEL 1 - TECHNOLOGY ENLARGED IDF ROOM 168 - EQUIPMENT LAYOUT  
1/2" = 1'-0"



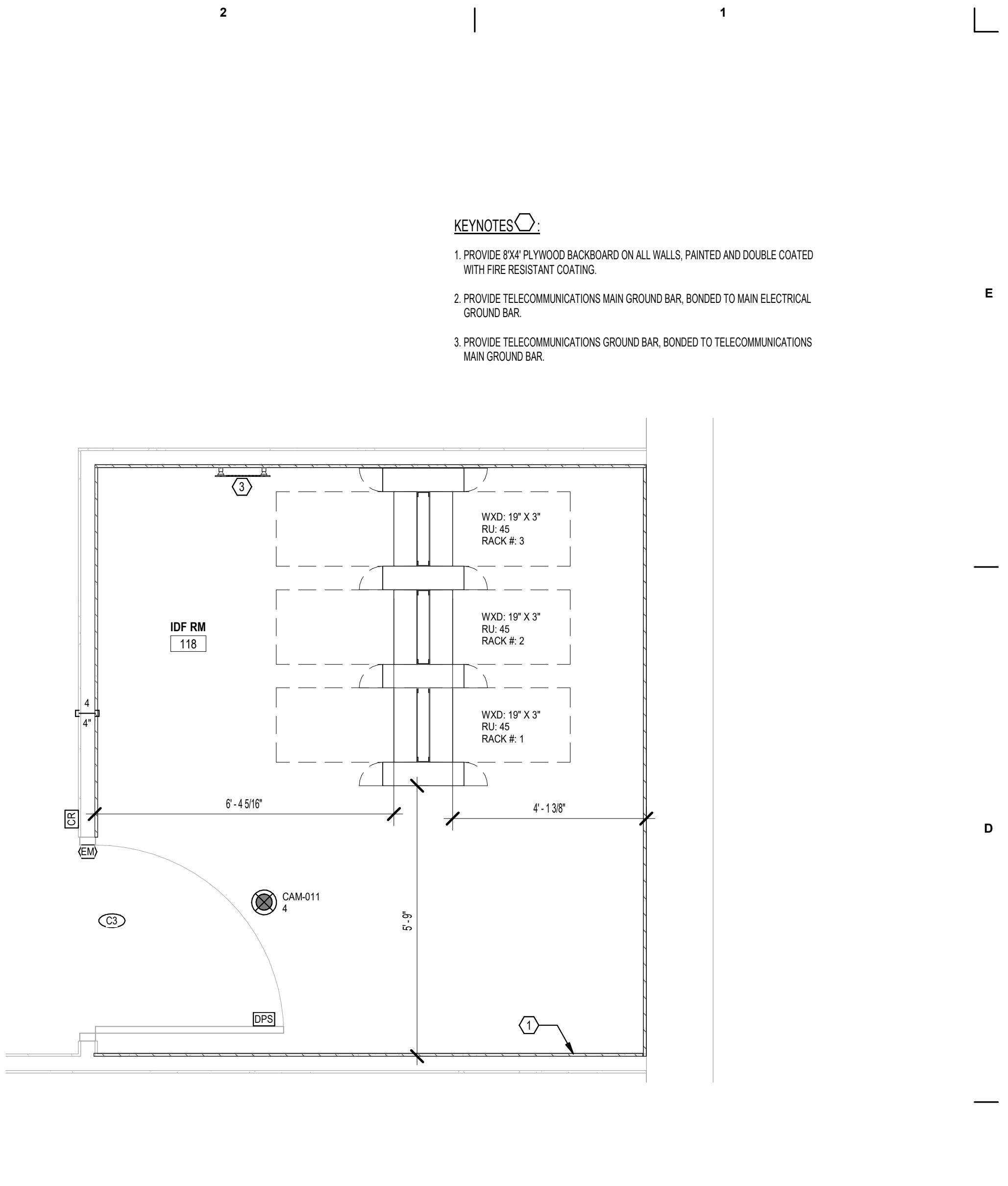
2 LEVEL 1 - TECHNOLOGY ENLARGED IDF ROOM 168 - TUBULAR RUNWAY  
1/2" = 1'-0"



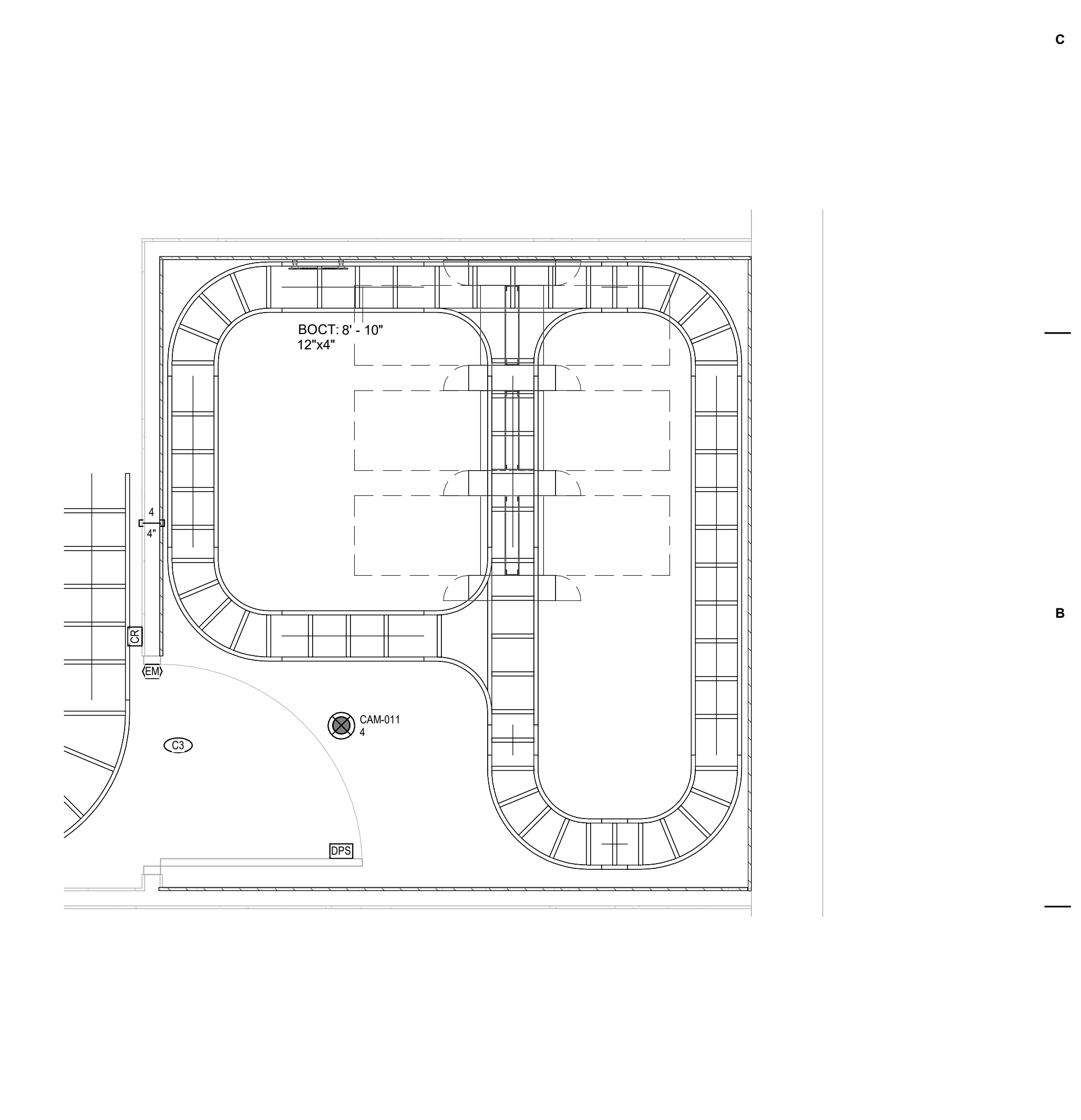
3 LEVEL 1 - TECHNOLOGY ENLARGED MDF 145 - EQUIPMENT LAYOUT  
1/2" = 1'-0"



4 LEVEL 1 - TECHNOLOGY ENLARGED MDF 145 - TUBULAR RUNWAY  
1/2" = 1'-0"

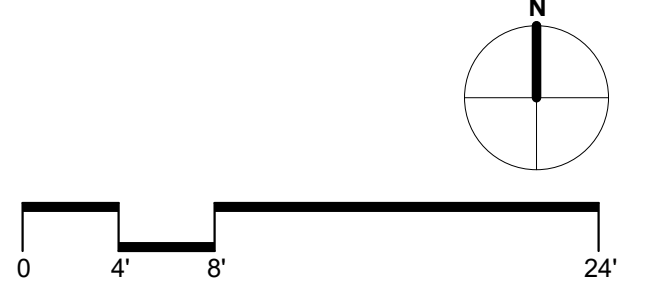


5 LEVEL 1 - TECHNOLOGY ENLARGED MDF 118 - EQUIPMENT LAYOUT  
1/2" = 1'-0"



6 LEVEL 1 - TECHNOLOGY ENLARGED MDF 118 - TUBULAR RUNWAY  
1/2" = 1'-0"

- KEYNOTES:**
1. PROVIDE 3/4" PLYWOOD BACKBOARD ON ALL WALLS, PAINTED AND DOUBLE COATED WITH FIRE RESISTANT COATING.
  2. PROVIDE TELECOMMUNICATIONS MAIN GROUND BAR, BONDED TO MAIN ELECTRICAL GROUND BAR.
  3. PROVIDE TELECOMMUNICATIONS GROUND BAR, BONDED TO TELECOMMUNICATIONS MAIN GROUND BAR.



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Revisions		
No.	Date	Revision Description

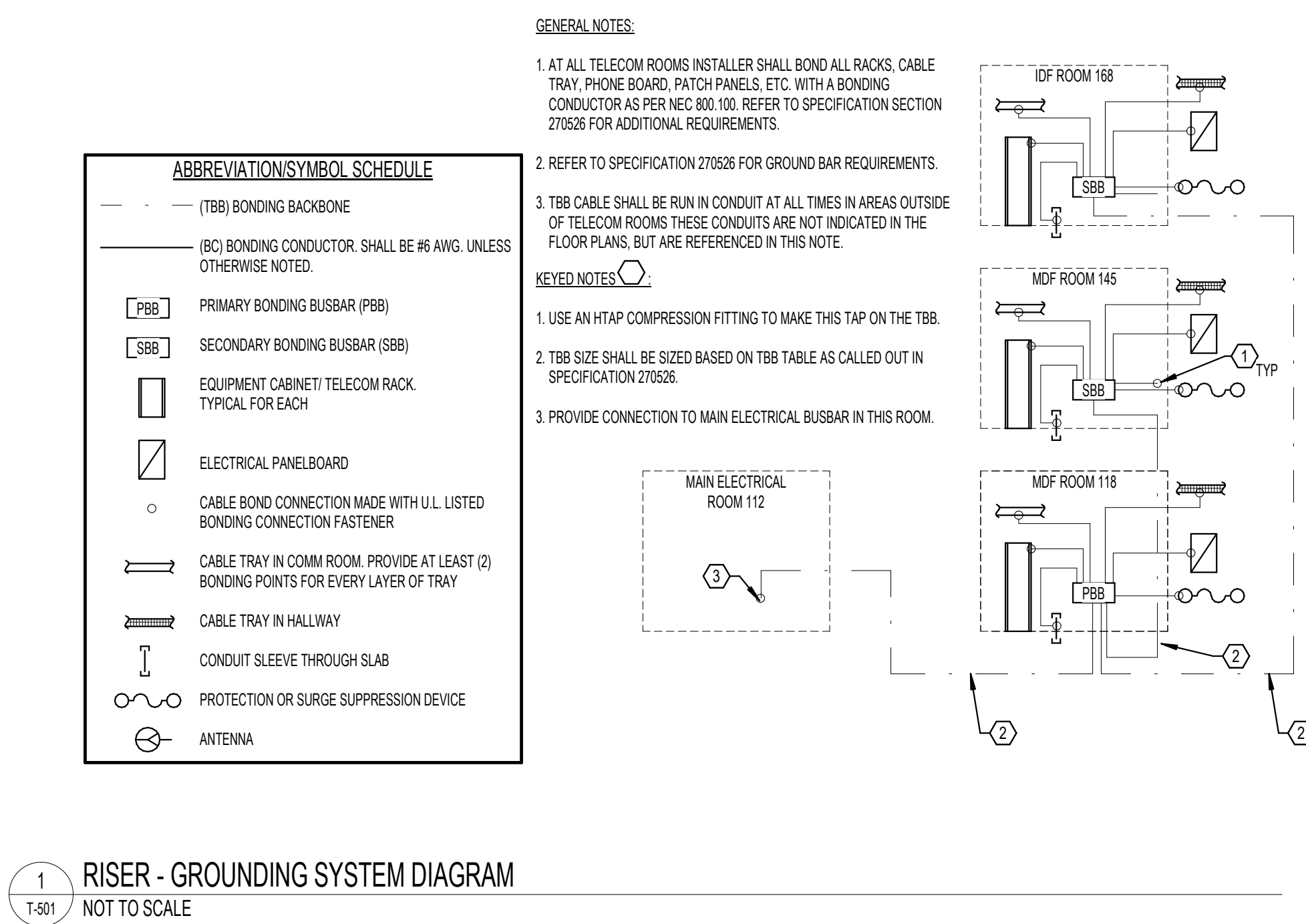
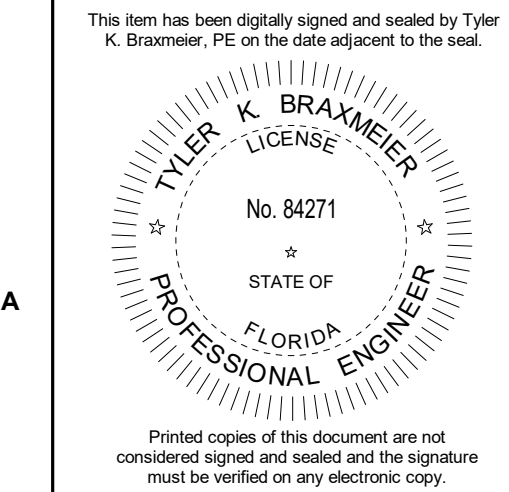
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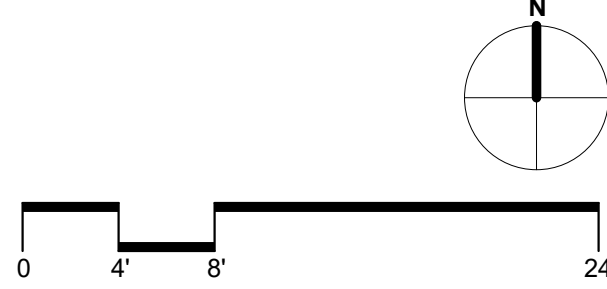
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1  
T-501  
RISER - GROUNDING SYSTEM DIAGRAM  
NOT TO SCALE



1 270526.01 - RACK/CABINET BONDING  
1" = 1'-0"

4 270528.08.2 - DEVICE ROUGH-IN WITH SURFACE MOUNT BOX - J-HOOKS  
1" = 1'-0"

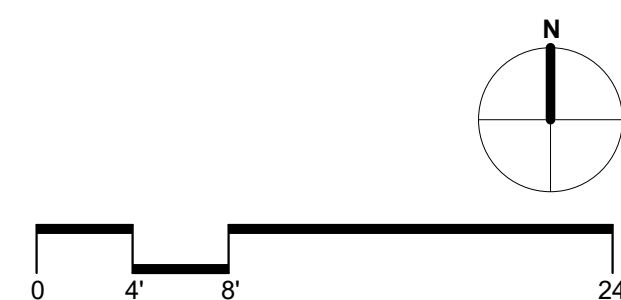
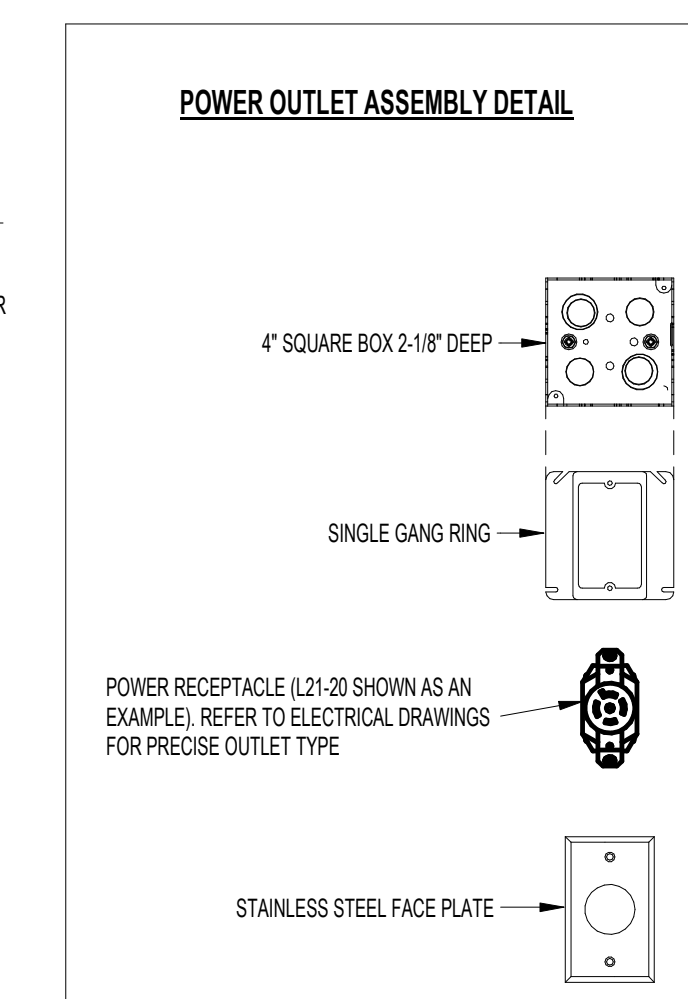
5 271000.01.1 - FLUSH MOUNTED OUTLET  
12" = 1'-0"

8 271126.02.2 - MOUNTING OF POWER OUTLET FOR RACKS AT FLOOR LEVEL  
1:6

7 TV OUTLET  
NOT TO SCALE

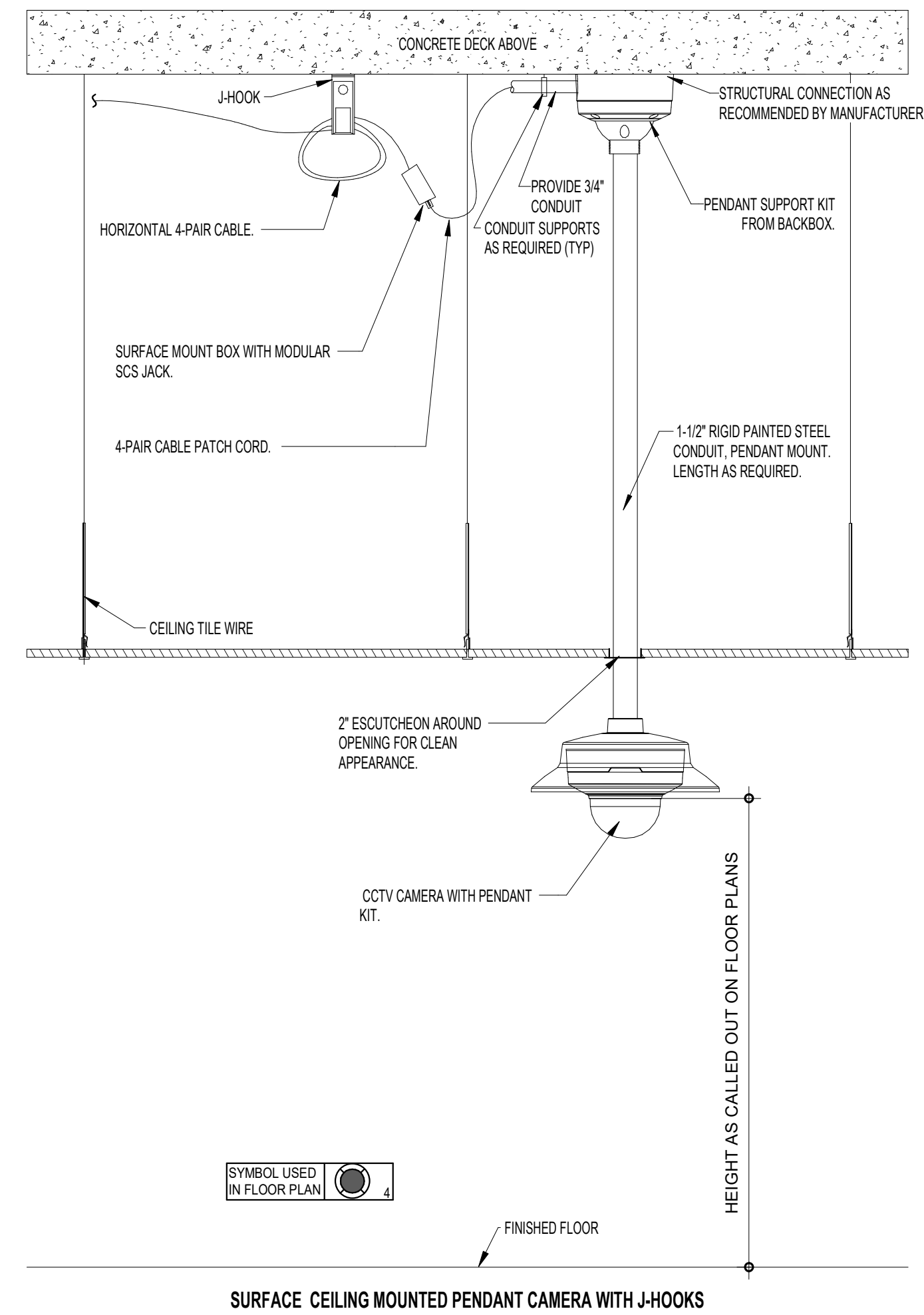
3 270528.06 - CABLE TRAY TRAPEZE MOUNT  
1" = 1'-0"

6 271000.04.2 - WAP FLUSH CEILING MOUNTED, ACCESSIBLE CEILING, UTILIZING J-HOOK PATHWAY  
1 1/2" = 1'-0"

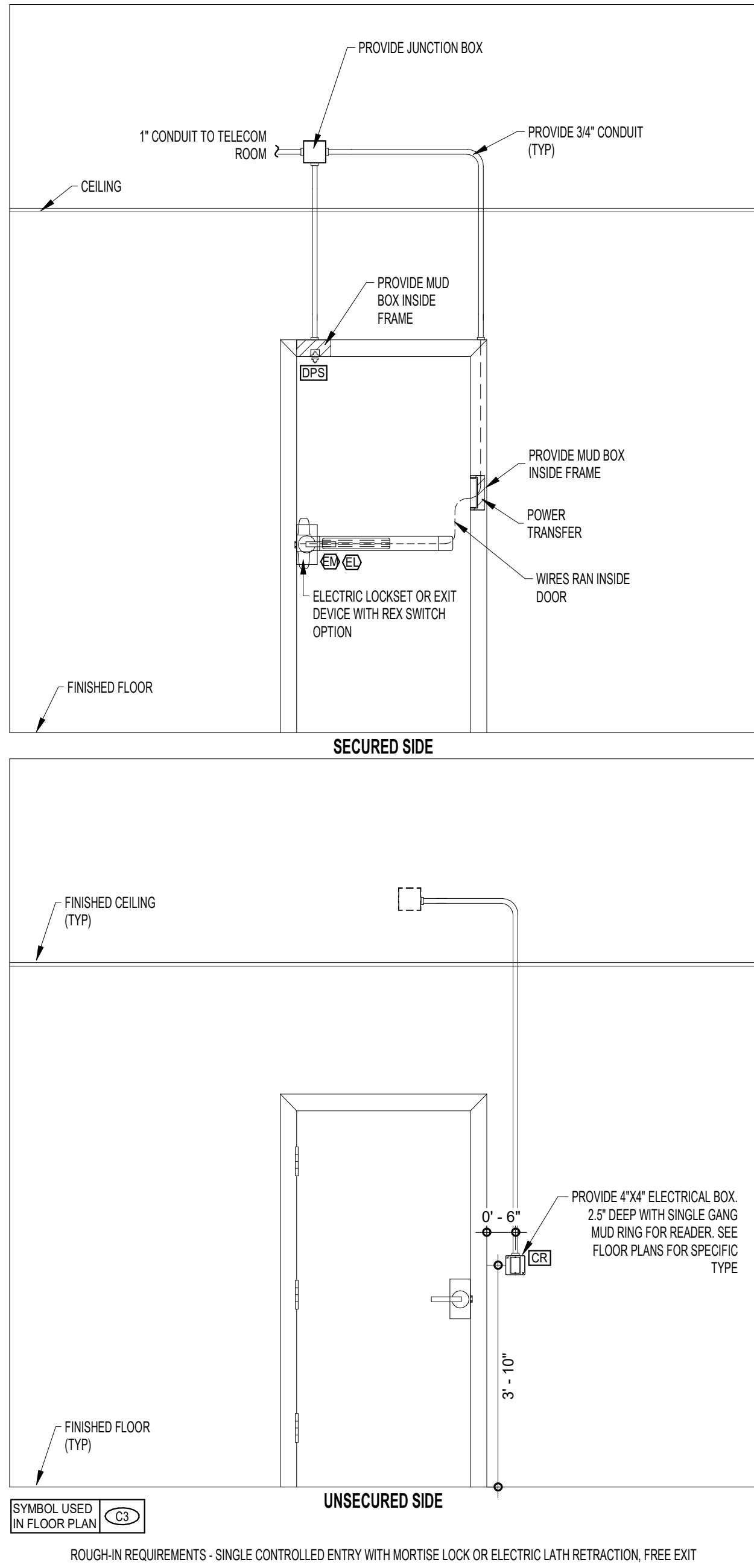




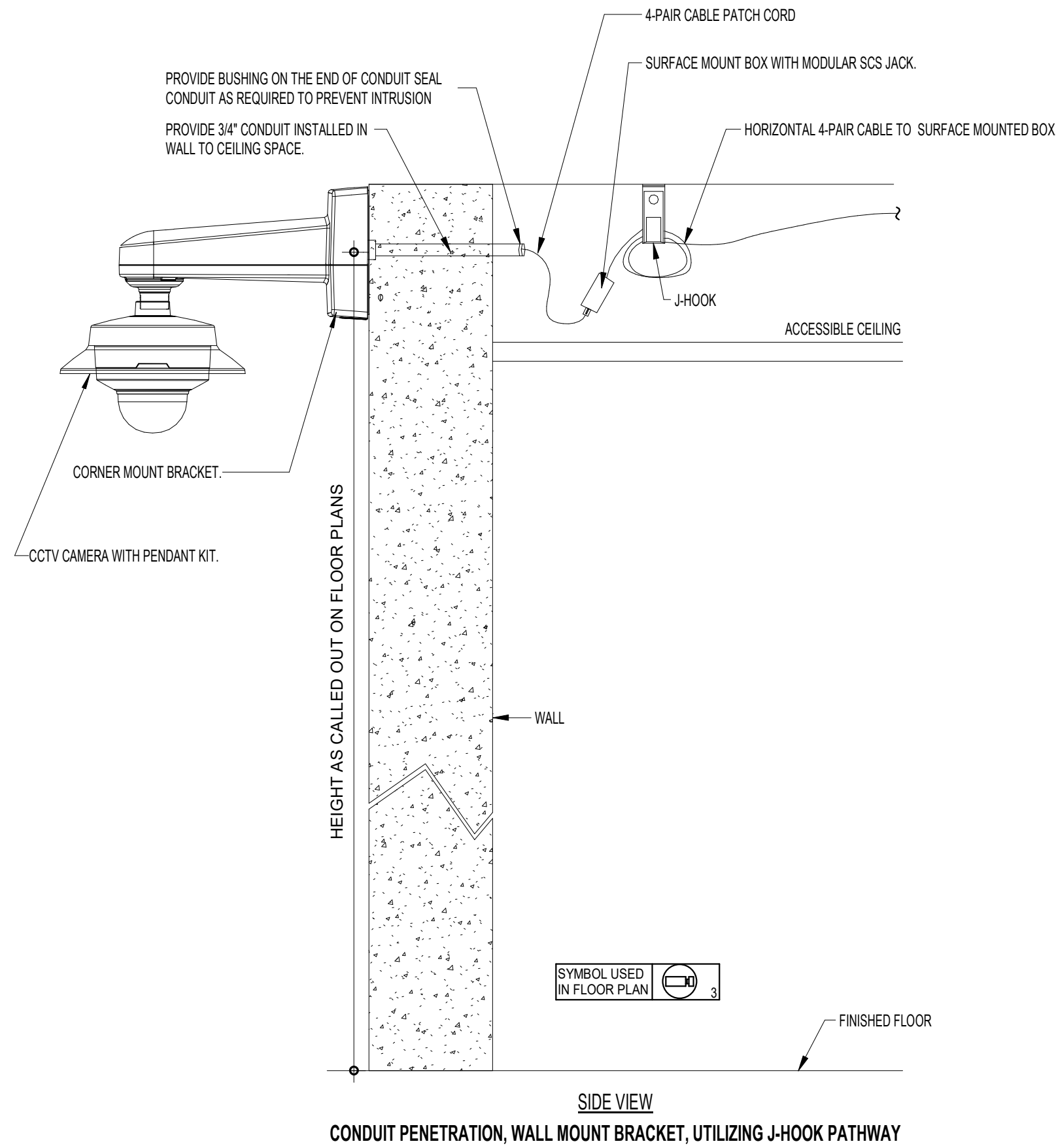
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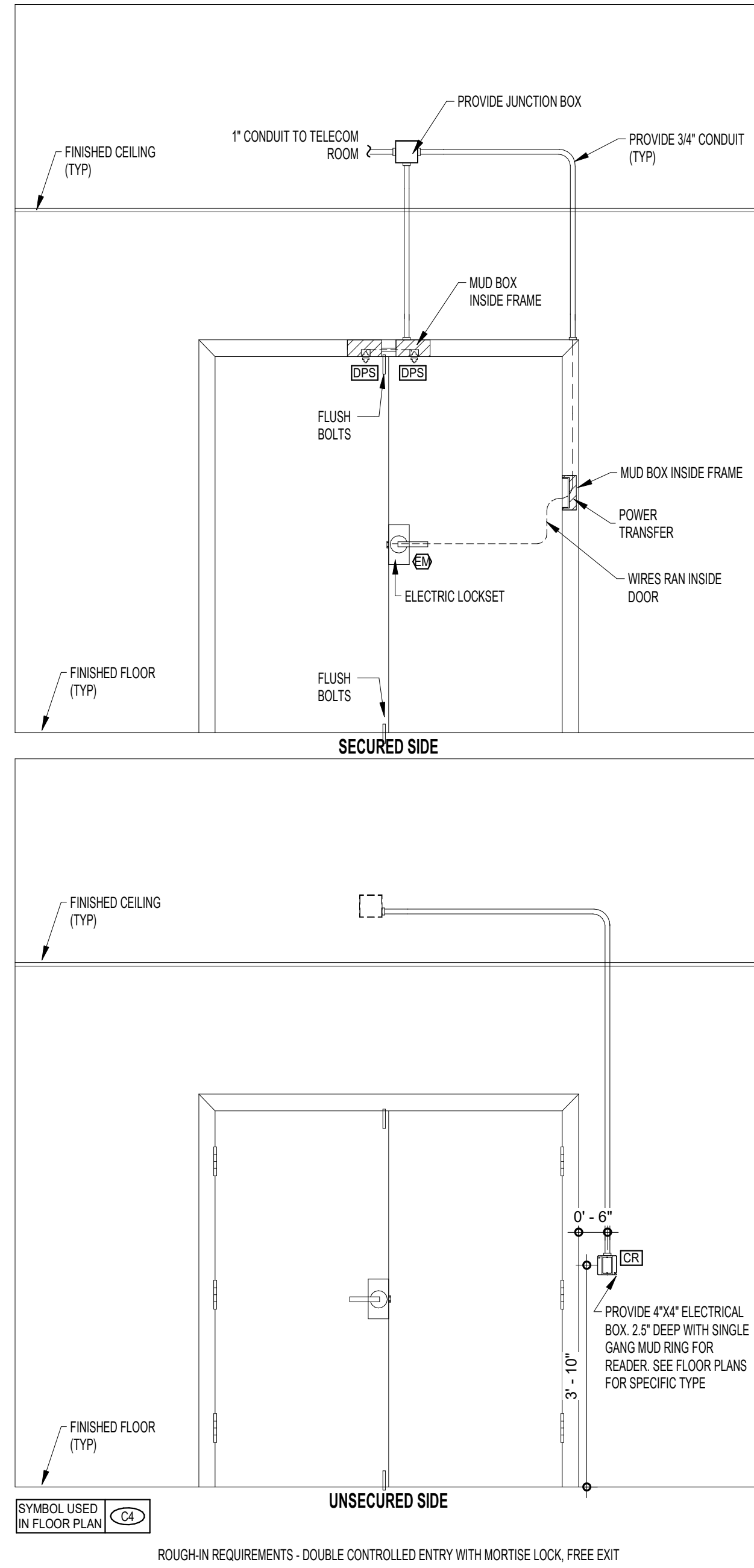
282000.04 - TYPE 4 - PENDANT/SUPEDE CAMERA  
1 1/2\" = 1'-0"



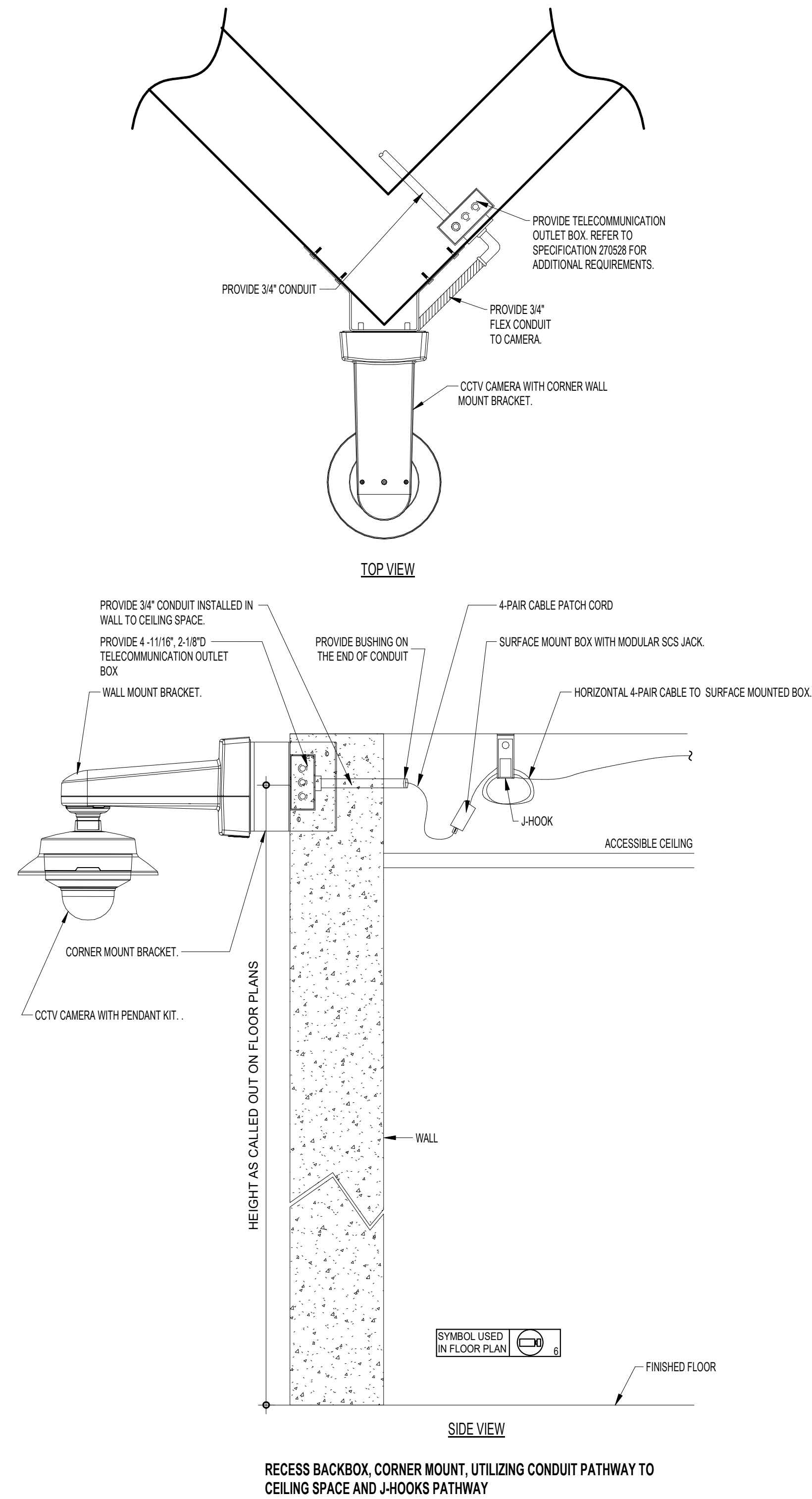
281000.05 - DOOR TYPE C3 ROUGH-IN DETAIL  
1/2\" = 1'-0"



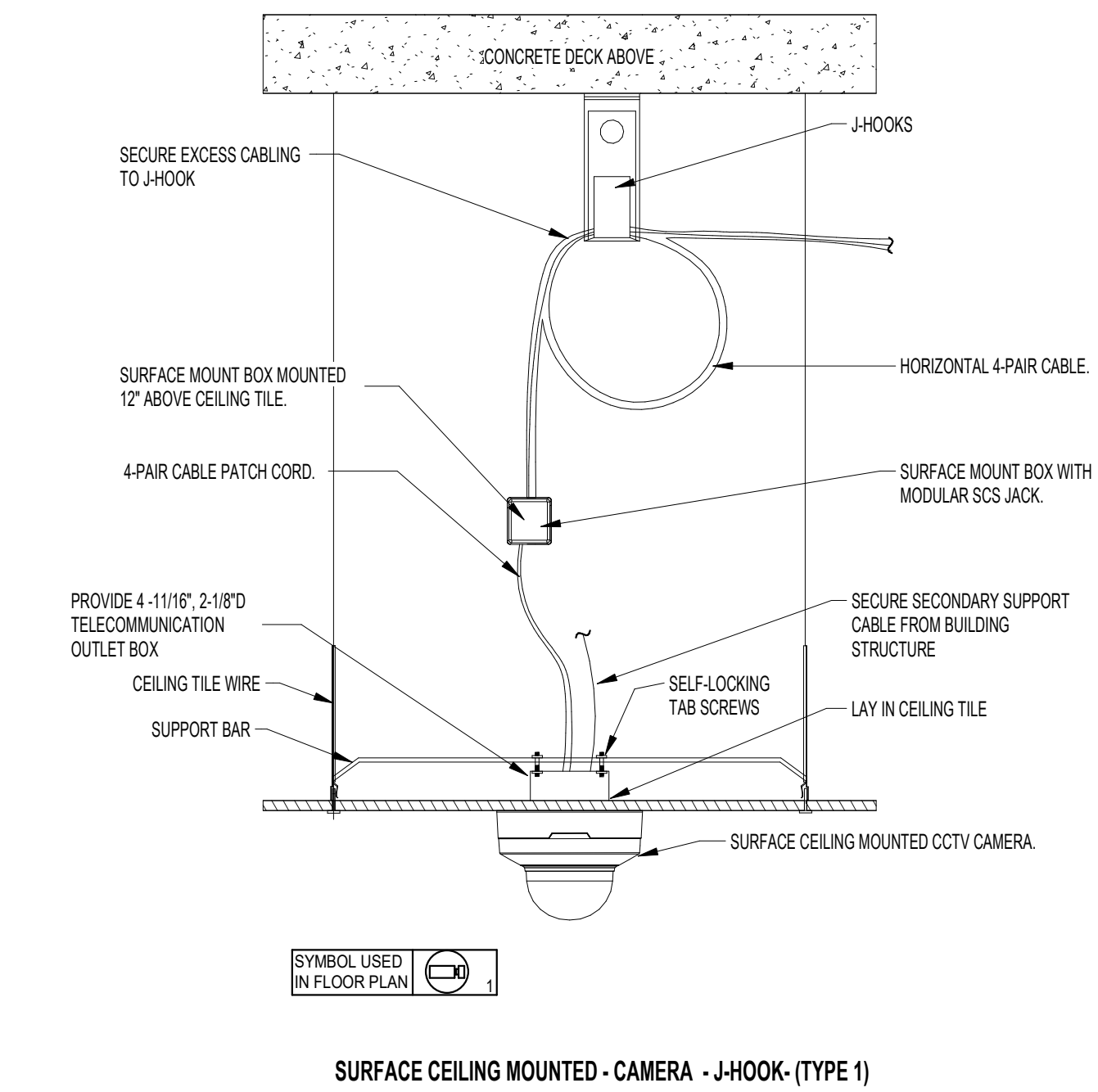
282000.02 - TYPE 2 - WALL MOUNTED CAMERA  
1 1/2\" = 1'-0"



281000.06 - DOOR TYPE C4 ROUGH-IN DETAIL  
1/2\" = 1'-0"



282000.06 - TYPE 6 - CORNER MOUNTED CAMERA  
1 1/2\" = 1'-0"



282000.01 - TYPE 1 - CEILING MOUNTED CAMERA  
1 1/2\" = 1'-0"

HILLSBOROUGH COUNTY SHERIFF'S OFFICE

TRAINING ACADEMY - PHASE 1

10210 WINDHORST ROAD, TAMPA, FL 33619

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TECHNOLOGY  
DETAILS

T-702

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Tampa, FL 33609  
P 813.637.0110  
COA 15  
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