

STRUCTURED CABLING	MOUNTING HEIGHTS	PAGING AND CLOCK NOTES	GENERAL TECHNOLOGY NOTES
DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, SURFACE #MM500 DATAVOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB 4" ABOVE BACKSPASH WIRELESS ACCESS POINT (REFER TO DETAILS) GROUNDING BUS BAR WITH DEDICATED GROUND, (REFER TO DETAILS) CABLE TRAY, (12"x4" UNLESS NOTED OTHERWISE) CLOCK (REFER TO DETAILS) MASTER CLOCK PANEL PAGING SYSTEM HEAD END NETWORK COMMUNICATION RACK - FLOOR STANDING 3' CLEAR ON BOTH SIDES 4X8X3/4" FIRE-RATED PLYWOOD, A/C FINISH, MOUNT VERTICALLY CONDUIT SLEEVE IN ACCESSIBLE CEILING (2" CONDUIT UNLESS NOTED OTHERWISE, ONLY SHOWN ON PLANS INDICATING SPECIFIC CONDITIONS, REFER TO GENERAL NOTES FOR SLEEVES THAT ARE REQUIRED INTO ALL SPACES)	16" 16" 120" TO CENTER 12"	1 FOR CLOCKS REQUIRING A MANUFACTURER-SPECIFIC IN-WALL ROUGH-IN BOX, THE CLOCK CONTRACTOR SHALL PROVIDE THE ROUGH-IN BOX TO ELECTRICIAN FOR WALL INSTALLATION. THE CLOCK CONTRACTOR AND ELECTRICIAN SHALL COORDINATE AHEAD OF SCHEDULED WALL INSTALLATIONS. COORDINATE WITH CONSTRUCTION MANAGER. 2 PAGING AND CLOCK CONTROLLERS SHALL BE PROPERLY CONFIGURED FOR TIME SYNCHRONIZATION WITH OWNER'S NETWORK TIME PROTOCOL (NTP) SOURCE. COORDINATE NTP ADDRESS WITH OWNER. 3 PAGING SPEAKER CABLING SHALL BE SIZED APPROPRIATELY FOR CABLE LENGTH AND POWER LOAD OF A GIVEN CIRCUIT. 4 FOR WIRELESS CLOCK SYSTEMS THAT REQUIRE FCC LICENSURE, THE CLOCK INTEGRATOR SHALL COORDINATE ANY REQUIRED LICENSE APPLICATION FORMS THAT ARE REQUIRED TO BE COMPLETED BY THE OWNER. 5 THE CLOCK INTEGRATOR SHALL BE RESPONSIBLE FOR REVIEW OF THE PROJECT ARCHITECTURAL ELEVATIONS AND ADHERE TO CLOCK PLACEMENT/ALIGNMENT GUIDELINES. ANY PLACEMENT CLARIFICATION REQUESTS SHALL BE MADE BY KPI. 6 FOR INTEGRATION OF NEW PAGING HEADEND HARDWARE TO PRE-EXISTING PAGING CIRCUITS, THE PAGING INTEGRATOR SHALL PERFORM A PRE-INSTALLATION SPEAKER TEST OF ALL EXISTING SPEAKERS. ANY FAULTY EXISTING SPEAKERS SHALL BE NOTED AND COMMUNICATED TO THE CM/ARCHITECT PRIOR TO THE INSTALLATION OF NEW EQUIPMENT. 7 THE PAGING SYSTEM INTEGRATOR SHALL PROVIDE INTERCONNECTION CABLING TO THE PRIMARY FIRE ALARM PANEL TO ALLOW THE FIRE ALARM SYSTEM TO OVERRIDE PAGING. CONNECTION AT THE FIRE PANEL SHALL BE BY THE FIRE ALARM INTEGRATOR. COORDINATE WITH OTHER TRADES. 8 THE PAGING SYSTEM RISER DETAIL IS INTENDED TO BE DIAGRAMMATICAL FOR THE PURPOSE OF UNDERSTANDING THE BASIC SYSTEM ARCHITECTURE. THE PAGING INTEGRATOR SHALL PROVIDE ALL COMPONENTS, CABLES AND ADAPTERS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM, REGARDLESS IF SHOWN ON THE DIAGRAM.	1 TECHNOLOGY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED. 2 TECHNOLOGY CONTRACTOR SHALL COORDINATE WITH G SERIES SHEETS DEVICE COORDINATION DETAIL. DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY AND FOLLOW THE RULES OF THIS DETAIL CONSISTENTLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT. 3 REFER TO TECHNOLOGY, ELECTRICAL AND ARCHITECTURAL DETAILS AND ELEVATIONS FOR SYMBOL INFORMATION AND ELEVATION DETAIL. 4 DEVICES AND EQUIPMENT SHOWN DASHED OR WITH AN "X" ARE TO BE REMOVED. FIXTURES, DEVICES AND EQUIPMENT SHOWN LIGHTLY OR WITH AN "E" ARE EXISTING TO REMAIN UNDISTURBED. 5 DEVICES SHOWN WITH AN "R" ARE EXISTING TO BE REPLACED WITH NEW DEVICE AND COVER/PLATE. 6 TEMPORARILY SUPPORT EXISTING CEILING DEVICES TO REMAIN IN EXISTING CEILINGS TO BE REPLACED. REINSTALL DEVICES INTO NEW CEILING. 7 CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY WIRING TO KEEP SYSTEMS RUNNING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION.
AUDIO/VISUAL		AUDIO SYSTEM NOTES	STRUCTURED CABLING NOTES
TV WALL RECESSED TVSR BACKBOX, (REFER TO DETAILS) AV WALL STATION BOXES, USE FSR MUDRING MUD-2G-1" FOR 2-GANG OPENINGS (REFER TO DETAILS) TECHNOLOGY OR TEACHER'S STATION BOXES, USE FSR MUDRING MUD-2G-1" FOR 2-GANG OPENINGS, (REFER TO DETAILS) WIRELESS MICROPHONE ANTENNA, (REFER TO DETAILS) PAGING CEILING SPEAKER, (REFER TO DETAILS) GYM LOUDSPEAKER CEILING-MOUNTED, (REFER TO DETAILS)		1 AUDIO SYSTEM SHALL BE FREE OF NOISE, RATTLE, HUM, BUZZ, OR ANY OTHER AUDIO DISTORTIONS 2 SECURE CABLES UTILIZING VELCRO STRAPS. WIRE "ZIP TIES" SHALL NOT BE USED 3 ROUTE ALL CABLES IN A MANNER THAT WILL ENSURE SIGNAL INTEGRITY AND WILL NOT INTRODUCE CROSSTALK 4 PROVIDE A SERVICE LOOP FOR RACKS AND EQUIPMENT SUITABLE TO EASILY PLUG AND UNPLUG EQUIPMENT FOR TROUBLESHOOTING OR REPLACEMENT 5 NEATLY DRESS ALL CABLING INSTALLED INSIDE AND OUTSIDE OF RACKS IN A SUITABLE HARNESS TO KEEP CABLES CLEAN, NEAT, AND TIDY 6 COMMISSION AUDIO SYSTEM USING AUDIO MEASUREMENT MICROPHONE AND SOFTWARE (SMART OR EASERA) 7 ADJUST EQ AND CROSSOVER SETTINGS IN AMPLIFIER AND/OR DSP TO PROVIDE FLAT FREQUENCY RESPONSE, FULL RANGE AUDIO WITH PROTECTIVE LIMITING 8 USE SPEECH, HIGH QUALITY REFERENCE AUDIO, AND SINE WAVE SWEEPS TO TEST THE SYSTEM - CORRECT ANY ABNORMALITIES 9 VERIFY PROPER FUNCTION OF ALL INSTALLED EQUIPMENT (NEW AND EXISTING) 10 TURN OVER EXISTING UNUSED EQUIPMENT TO OWNER - NEATLY ORGANIZED 11 COORDINATE WITH OWNER FOR LABELING OF EQUIPMENT AND AUDIO CONSOLE CHANNELS AND BUSES AS WELL AS CONSOLE CONFIGURATION 12 REMOTE MOUNT ALL ANTENNAS AS REQUIRED FOR MAXIMUM PERFORMANCE 13 CONFIGURE DELAYS ON ANY SPEAKERS THAT ARE STAGGERED IN A LISTENING PLANE TO TIME-ALIGN AUDIO 14 CONNECT COMPONENTS TO POWER SEQUENCER IN SUCH A WAY AS TO MITIGATE POPPING AND SYSTEM DAMAGE DURING SYSTEM POWER UP AND POWER DOWN	1 BICSI TECHNICIAN (TECH) CERTIFICATION IS REQUIRED FOR THE LEAD INSTALLER THAT WILL BE ONSITE AT ALL TIMES. 2 EACH INSTALLER IS REQUIRED TO BE CERTIFIED BY THE MANUFACTURER OF THE PRODUCTS THAT ARE INSTALLED (I.E. PANDUIT, BELDEN, HUBBELL, COMMSCOPE, ETC.). 3 VALID BICSI TECH AND MANUFACTURER INSTALLER CERTIFICATES SHALL BE INCLUDED IN SUBMITTAL PACKAGE. 4 ALL CERTIFICATION TEST RESULTS OF THE STRUCTURED CABLING SYSTEM SHALL BE SUBMITTED TO TOWERPINKSTER AS PART OF THE CLOSEOUT PACKAGE. 5 STRUCTURED CABLING INTEGRATOR SHALL PROVIDE A MANUFACTURER'S 25 YEAR WARRANTY AT PROJECT COMPLETION. 6 ALL CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP AT OUTLET LOCATION OR AS NOTED ON DRAWINGS. 7 ALL DATA CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP IN THE TELECOMMUNICATIONS ROOM. 8 DATA CABLES SHALL NOT BE BUNDLED IN GROUPS OF MORE THAN 24 WITHIN A TELECOMMUNICATIONS ROOM. 9 STRUCTURED CABLING INTEGRATOR SHALL PROVIDE THE MINIMUM REQUIRED QUANTITY OF PATCH PANELS NEEDED FOR ALL DATA CABLES PLUS HAVE CAPACITY FOR A MINIMUM OF 20 FUTURE DATA CABLES. 10 ALL DATA FACEPLATES SHALL MATCH THE COLOR, STYLE AND MATERIAL (I.E. STAINLESS STEEL, PLASTIC, ETC.) OF THE ELECTRICAL DEVICE FACEPLATE WITHIN EACH SPACE. 11 ALL HORIZONTAL CABLES (CATEGORY CABLE, COAX, FIBER, ETC.) SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL III CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD. 12 ALL BACKBONE FIBER STRANDS SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL III CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD.
SECURITY SYMBOLS		SECURITY CAMERA NOTES	
SECURITY CAMERA - WALL SECURITY CAMERA - CEILING SECURITY CABLING PATHWAY, 4 SQ, 5G BRUSH PLATE, 1" CONDUIT STUB ACCESS CONTROL PANEL (REFER TO DETAILS) RELEASE BUTTON INTERCOM MASTER STATION LOCKDOWN BUTTON DURESS ALARM PUSH BUTTON - UNDER DESK CARD READER - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB CARD READER, MULLION MOUNT, 3/4" CONDUIT STUB LOCKDOWN STROBE (REFER TO DETAILS) KEY PAD - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB INTERCOM - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB ACCESS CONTROL DETAIL INDICATOR: REFER TO ACCESS CONTROL DETAILS AND SCHEDULE	40" 40" 40" 40"	1 INSTALLATION SHALL BE COMPLETED BY OR OVERSEEN BY A MANUFACTURER CERTIFIED PROFESSIONAL. 2 INSTALL CAMERAS USING ALL APPROPRIATE HANGERS, FASTENERS, ETC. CAMERAS INSTALLED IN GRID/LAY IN CEILING SHALL HAVE SAFETY WIRE TYING THE CAMERA TO STRUCTURE ABOVE. EXTERIOR CAMERAS SHALL HAVE WEATHERTIGHT SEALANT AND SURGE SUPPRESSION INSTALLED. REFER TO CAMERA ROUGH IN DETAILS. 3 PRIOR TO CONNECTION TO OWNER'S NETWORK, DEFAULT USERNAME AND PASSWORD SHALL BE CHANGED. COORDINATE WITH OWNER FOR DEVICE SPECIFIC USERNAMES AND PASSWORDS. 4 CAMERA SHALL BE CONFIGURED BASED ON OWNER'S NETWORK CONFIGURATION AND NAMING STANDARDS. COMPLETE AN IP ADDRESS REQUEST WITH THE OWNER, COORDINATE NAMING CONFIGURATION BASED ON CAMERA COORDINATION SPREADSHEET. 5 INSTALL CAMERAS WITH INITIAL VIEW DEFINED BY THE CAMERA COORDINATION SPREADSHEET OR COVERAGE ANGLES PROVIDED BY ARCHITECT. VARIFOCAL AIMING WHERE REQUIRED TO OBTAIN INTENDED VIEW SHALL BE COMPLETED. 6 FOLLOWING SETTING THE INITIAL VIEW, COORDINATE AIMING MODIFICATIONS WITH ARCHITECT AND OWNER AND OBTAIN SIGN OFF PER CAMERA THROUGH THE CAMERA AIMING COORDINATION SPREADSHEET. 7 CONFIGURE CAMERA TO RECORD TO NVR BASED ON OWNER'S RECORDING CONFIGURATION STANDARDS. RESOLUTION, FRAMES PER SECOND, CONTINUOUS/MOTION ACTIVATED RECORDING, ANALYTICS, AND ANY OTHER FEATURES SHALL BE COORDINATED. 8 LABEL CAMERA HOUSING IN A LOCATION VISIBLE FROM THE GROUND. REFER TO CAMERA LABELING DETAIL FOR REQUIREMENTS. 9 CAMERA SYMBOLS AND COVERAGE ANGLES SHALL BE SET IN VMS MAPS ONCE OWNER AND ARCHITECT HAVE SIGNED OFF ON VIEWS.	
<b>NOTES:</b> MOUNT DEVICES AT HEIGHTS INDICATED UNLESS INDICATED OTHERWISE ON PLANS. HEIGHTS ARE TO BOTTOM OF DEVICE.			

**TOWERPINKSTER**  
Architecture · Engineering · Interiors  
TOWERPINKSTER.COM  
© 2023. ALL RIGHTS RESERVED.

---

**ISSUED FOR** \_\_\_\_\_ **DATE** \_\_\_\_\_

---

**PROJECT TITLE**  
**MS/HS GYM ADDITION**

---

**OWNER**  
**MANISTEE AREA PUBLIC SCHOOLS**

---

**Manistee, Michigan**

---

**SHEET TITLE**  
**TECHNOLOGY SYMBOLS AND GENERAL NOTES**

---

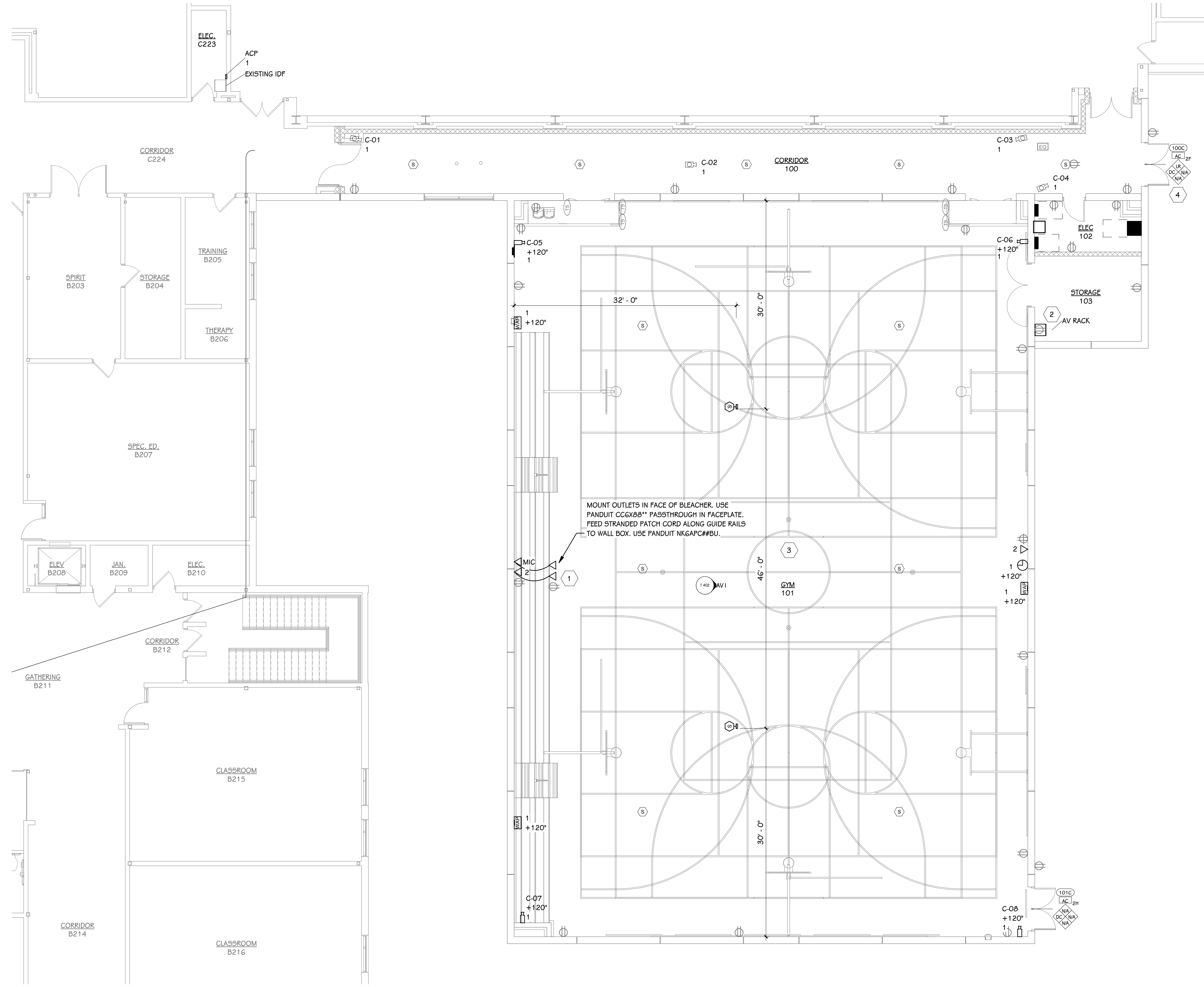
**SHEET NUMBER**  
**T 001**

---

**DATE**  
**AUGUST 21, 2023**

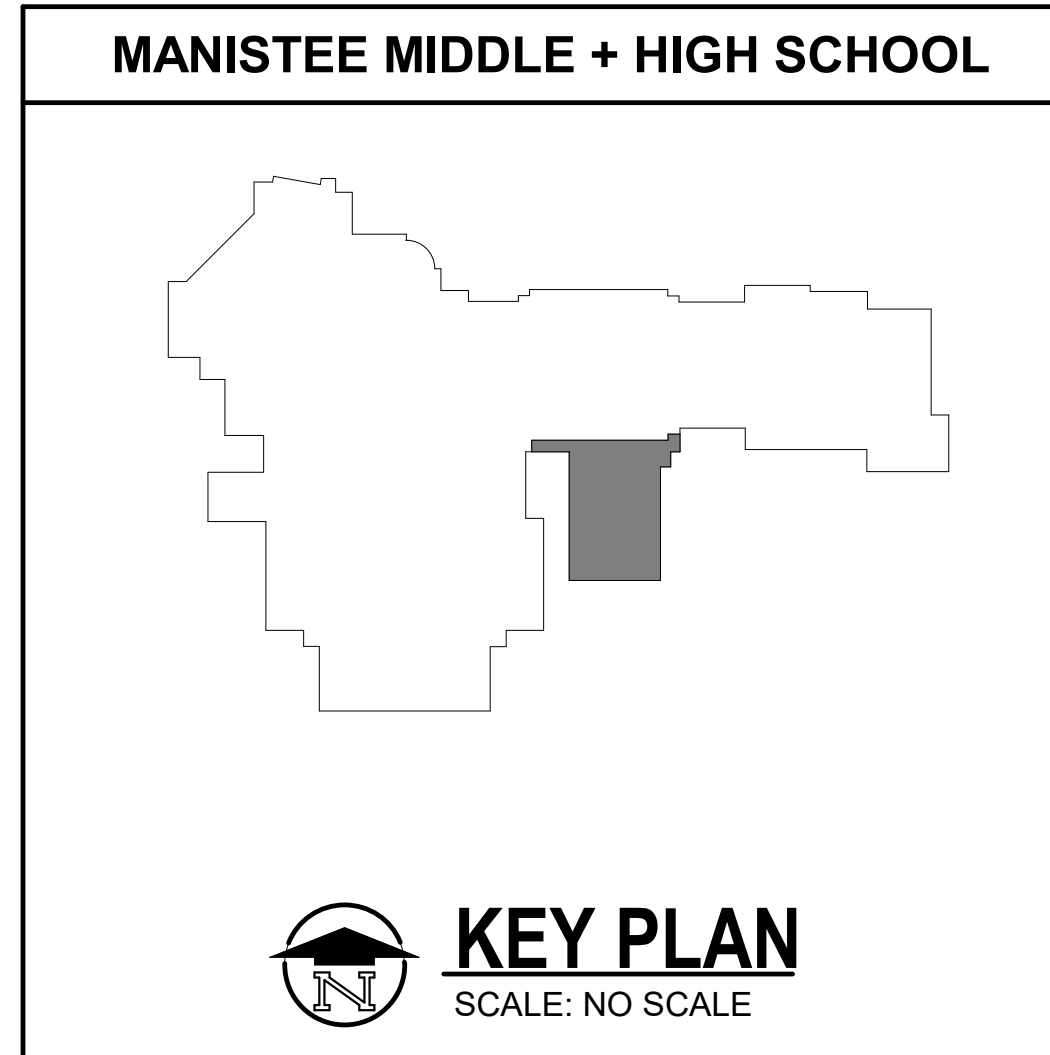
---

**17-177-30**



**FIRST FLOOR TECHNOLOGY PLAN - GYM**  
1/8" = 1'-0"

- TECHNOLOGY KEYED NOTES**
- 1 PROVIDE STAINLESS STEEL COVER PLATES FOR BLEACHER MOUNTED WALL DEVICES.
  - 2 MOUNT AV RACK 4' AFF.
  - 3 PULL ALL DATA CABLES FOR THE GYM ADDITION TO THE EXISTING IDF IN ELEC 223.
  - 4 COORDINATE PROGRAMMING OF DOOR AND LOCK/UNLOCK SCHEDULE WITH OWNER.



SHEET TITLE  
FIRST FLOOR TECHNOLOGY PLAN

OWNER  
MANISTEE AREA PUBLIC SCHOOLS

PROJECT TITLE  
MS/HS GYM ADDITION

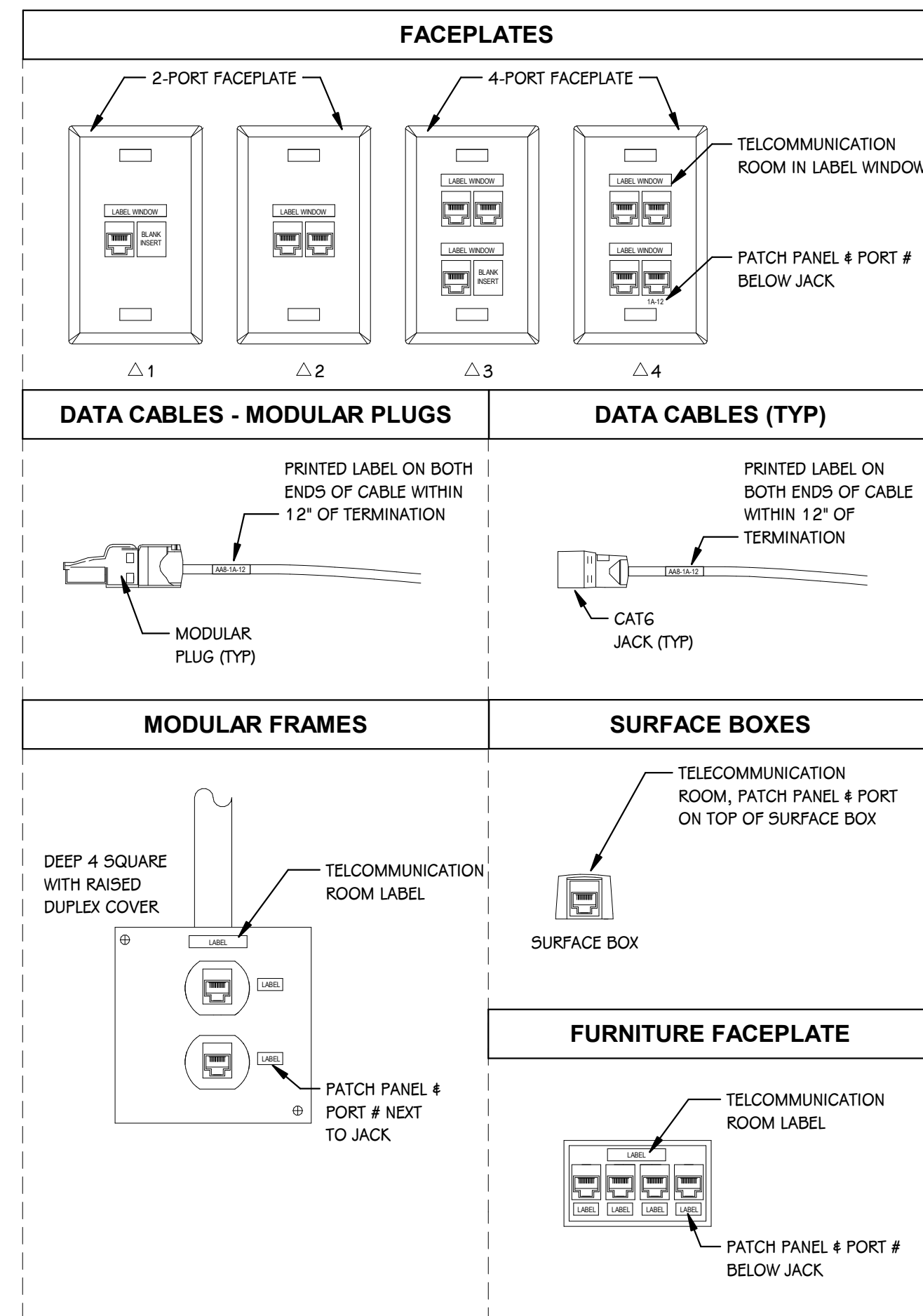
ISSUED FOR

SHEET NUMBER  
**T 101**

DATE  
AUGUST 21, 2023

Manistee, Michigan

DATE



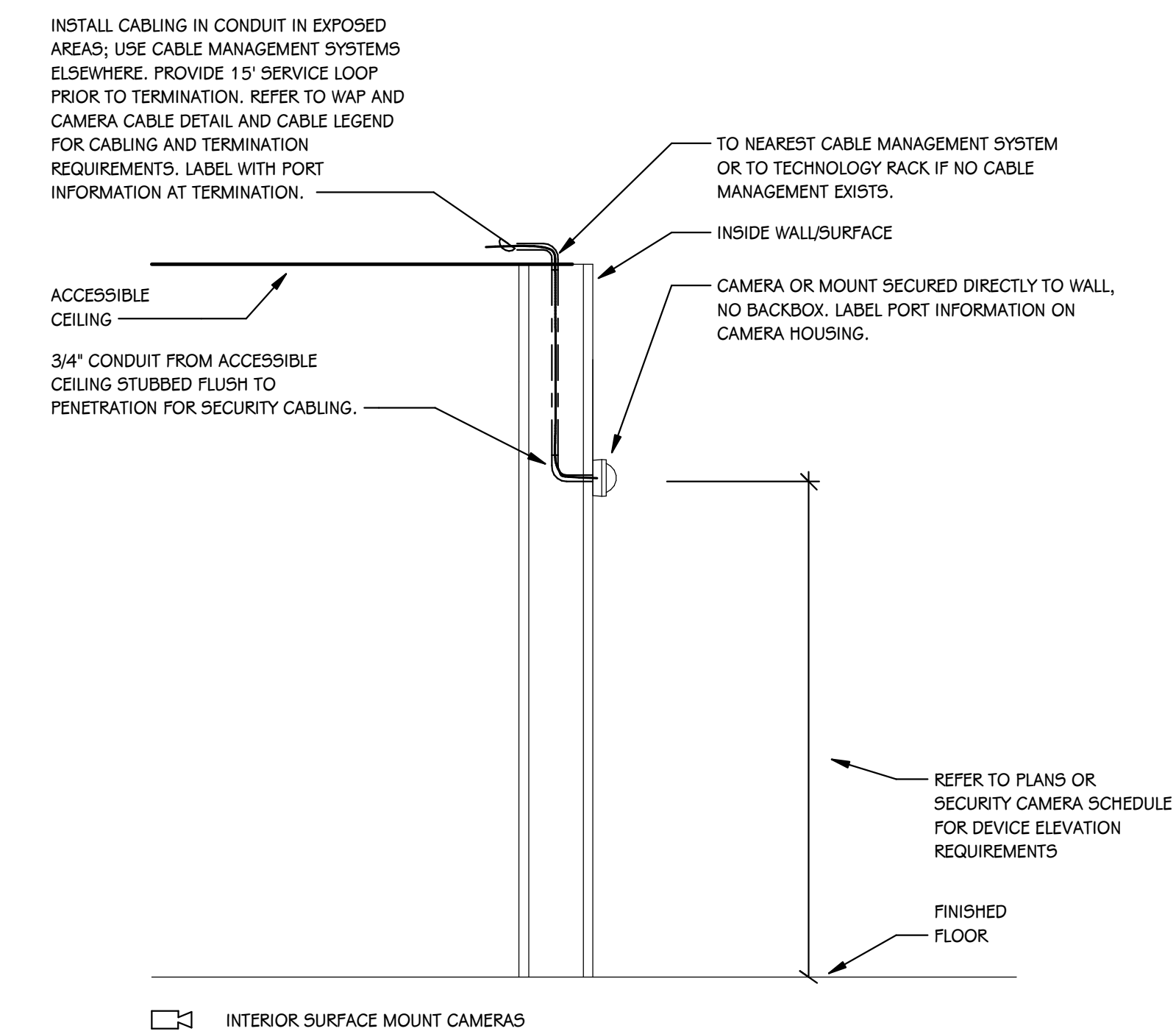
**TYPICAL LABELING DETAIL**  
SCALE: NONE

DATA CABLE SCHEDULE				
CABLE COLOR	DATA CABLE PERFORMANCE LEVEL	CABLE PURPOSE	CABLE MFG.	CABLE PART #
WHITE - PLENUM	CAT6	ALL DATA CABLING	GENERAL CABLE	7131801
WHITE - RISER	CAT6	ALL DATA CABLING	GENERAL CABLE	7133801

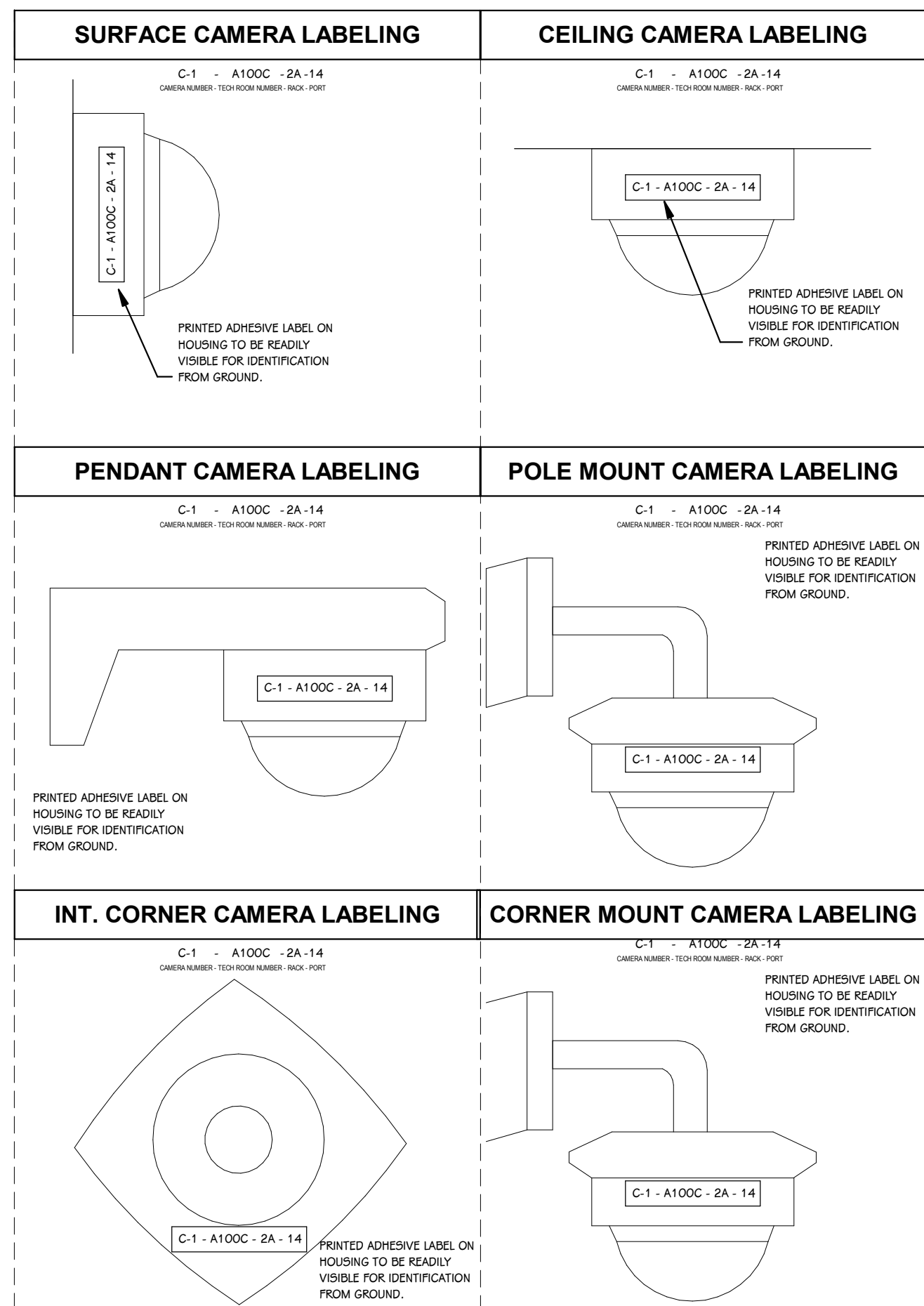
DATA JACK SCHEDULE				
DATA JACK COLOR	CABLE PERFORMANCE LEVEL	PURPOSE	DATA JACK MFG.	DATA JACK PART #
YELLOW	CAT6	WIRELESS ACCESS POINT	PANDUIT	CJ688TGVL
GREEN	CAT6	FACILITIES	PANDUIT	CJ688TGRK
VIOLET	CAT6	SECURITY CAMERAS	PANDUIT	CJ688TGVL
IVORY, WHITE OR OFF-WHITE	CAT6	GENERAL DATA	PANDUIT	CJ688TGIW, **

PATCH CABLE SCHEDULE					
PATCH CABLE COLOR	PATCH CABLE PERFORMANCE LEVEL	PATCH CABLE PURPOSE	PATCH CABLE MFG.	PATCH CABLE PART #	PATCH CABLE QUANTITY
WHITE, NON-PLENUM	CAT6	CROSS-CONNECT IN TELECOM. ROOM	PANDUIT	UTP288P1	1 PER INSTALLED CABLE
WHITE, NON-PLENUM	CAT6	WORKSTATION OR DEVICE	PANDUIT	UTPSP10Y	1 PER INSTALLED CABLE
BLUE, PLENUM	CAT6	INSTALLED IN PLENUM SPACE	PANDUIT	UTPBU*10	1 PER INSTALLED CABLE

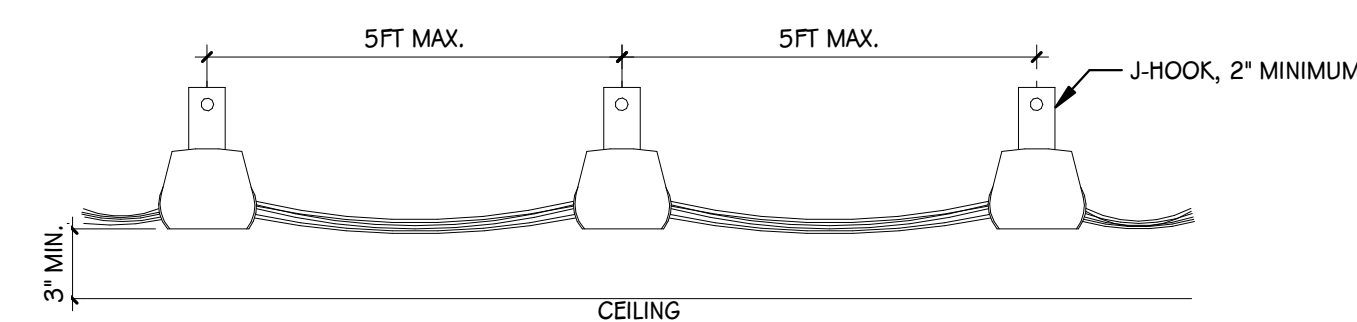
FACEPLATE SCHEDULE				
FACEPLATE COLOR & MATERIAL	FACEPLATE TYPE	FACEPLATE MFG.	FACEPLATE PART #	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	1 PORT, SINGLE-GANG	PANDUIT	PLASTIC - CPFL1**Y, STAINLESS STEEL - NA	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	2 PORT, SINGLE-GANG	PANDUIT	PLASTIC - CPFL2**Y, STAINLESS STEEL - CPFL29Y	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	3 PORT, SINGLE-GANG	PANDUIT	PLASTIC - CPFL3**Y, STAINLESS STEEL - NA	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	4 PORT, SINGLE-GANG	PANDUIT	PLASTIC - CPFL4**Y, STAINLESS STEEL - CPFL49Y	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	6 PORT, SINGLE-GANG	PANDUIT	PLASTIC - CPFL6**Y, STAINLESS STEEL - CPFL69Y	
PLASTIC OR STAINLESS STEEL - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	10 PORT, TWO-GANG	PANDUIT	PLASTIC - CPFL10**Y, STAINLESS STEEL - CPFL109-2GY	
PLASTIC - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	1 PORT SURFACE BOX	PANDUIT	CBX1**AY	
PLASTIC - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	2 PORT SURFACE BOX	PANDUIT	CBX2**AY	
PLASTIC - MATCH ELECTRICAL COLOR & MATERIAL WITHIN SAME ROOM	4 PORT FURNITURE ADAPTER	PANDUIT	MATCH WITH FURNITURE MFG.	



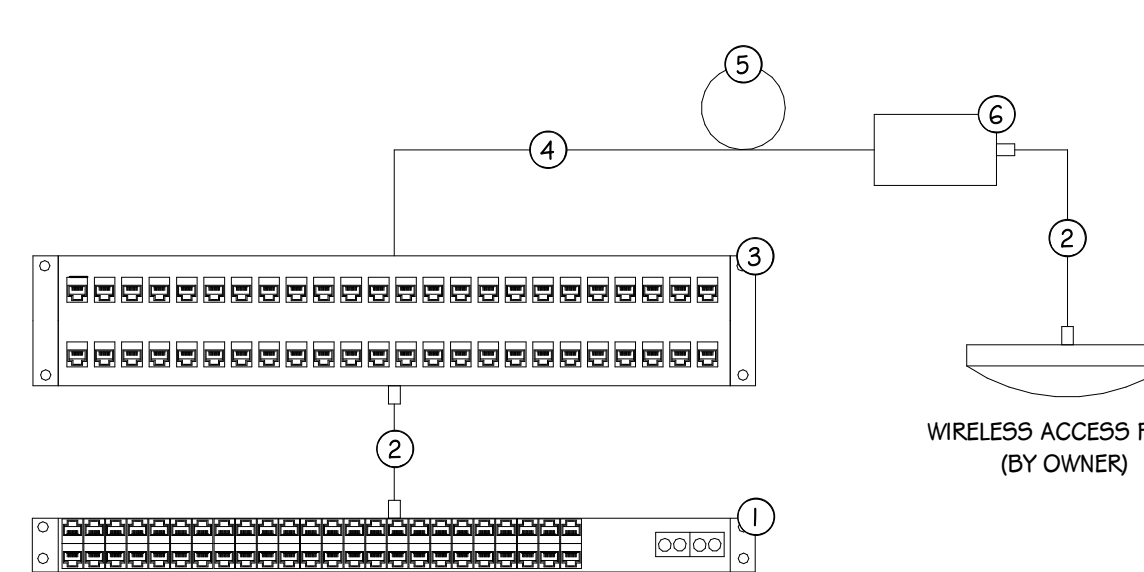
**TYPICAL SECURITY CAMERA ROUGH-IN - INTERIOR WALL**  
SCALE: NONE



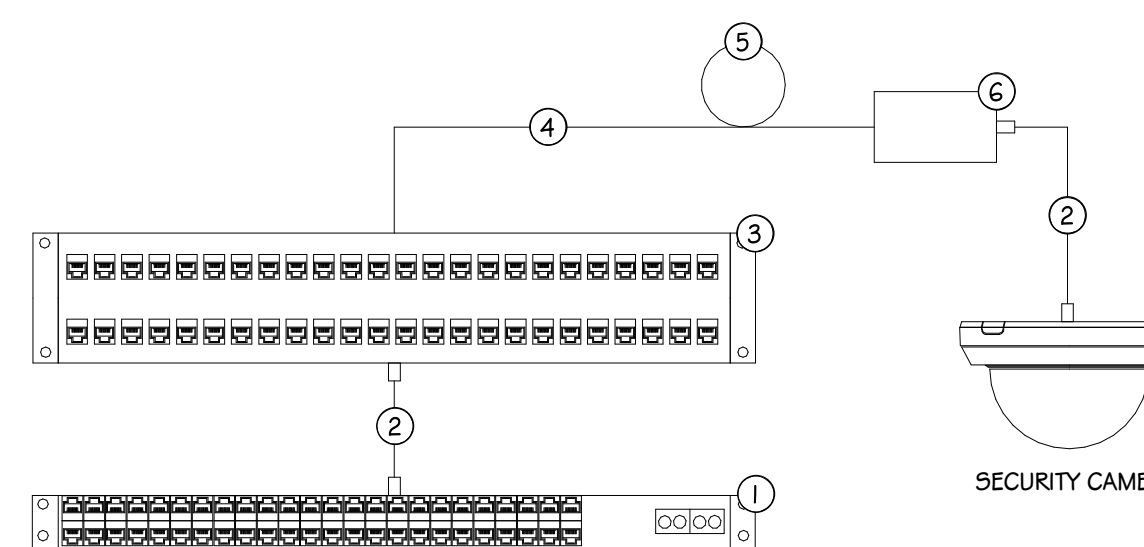
**TYPICAL CAMERA LABELING DETAIL**  
SCALE: NONE



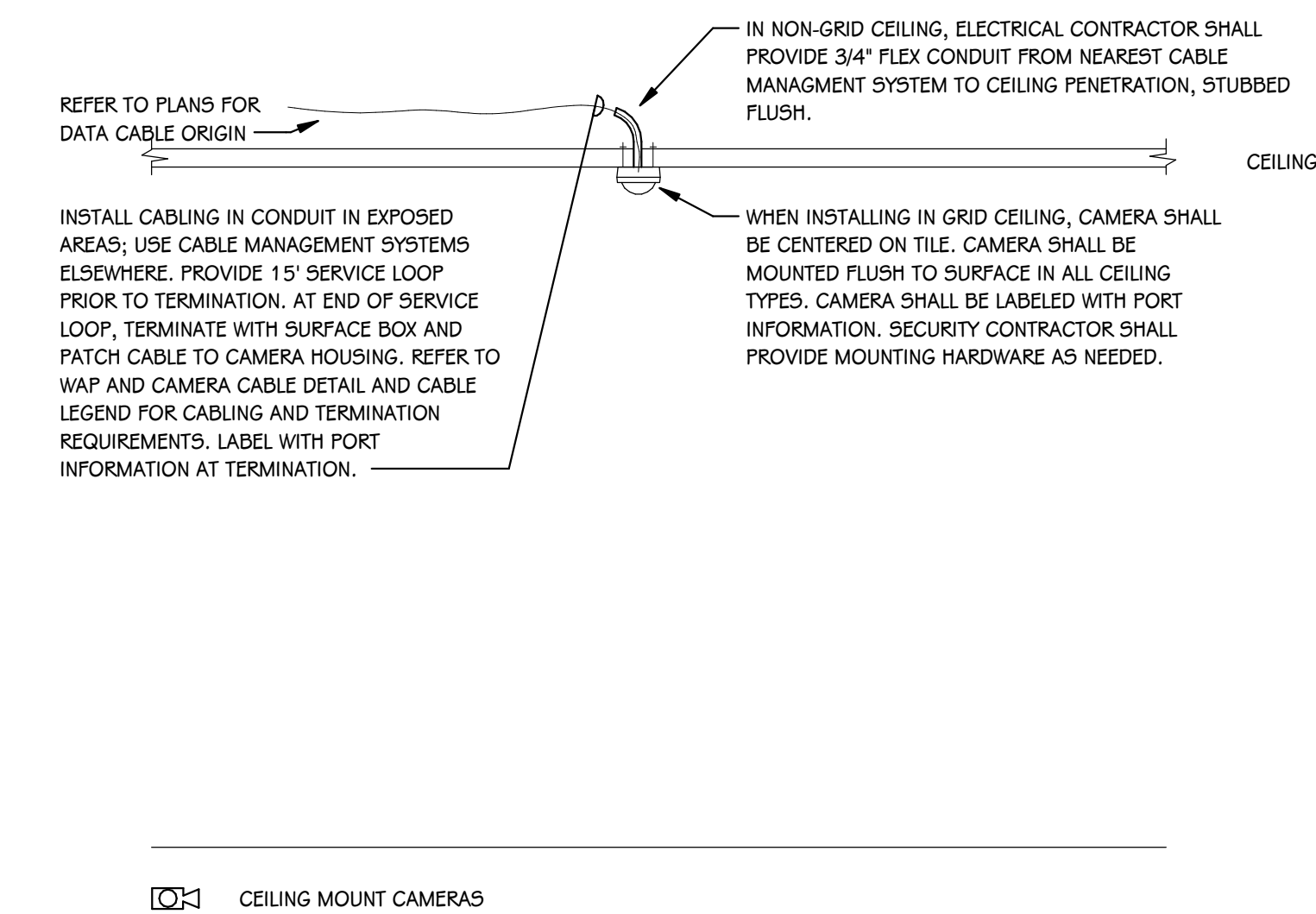
**CABLE SUPPORT DETAIL**  
SCALE: NONE



**WIRELESS ACCESS POINT CABLING DETAIL**  
SCALE: NONE



**INTERIOR SECURITY CAMERA CABLING DETAIL**  
SCALE: NONE



**TYPICAL SECURITY CAMERA ROUGH-IN - CEILING**  
SCALE: NONE

SECURITY CAMERA SCHEDULE					
CAMERA NUMBER	MAKE/MODEL	MOUNTING HEIGHT	MOUNTING TYPE	DATA DROPS	COMMENTS
C-01	I-PRO WV-S22500-F3L		CEILING	1	
C-02	I-PRO WV-B5402-V2L		CEILING	1	
C-03	I-PRO WV-S22500-F3L		CEILING	1	
C-04	I-PRO WV-S22500-F3L		CEILING	1	
C-05	I-PRO WV-S22700-V2L	10' - 0"	WALL	1	
C-06	I-PRO WV-S22700-V2L	10' - 0"	WALL	1	
C-07	I-PRO WV-S22700-V2L	10' - 0"	WALL	1	
C-08	I-PRO WV-S22700-V2L	10' - 0"	WALL	1	

ISSUED FOR DATE

PROJECT TITLE  
MS/HS GYM ADDITION

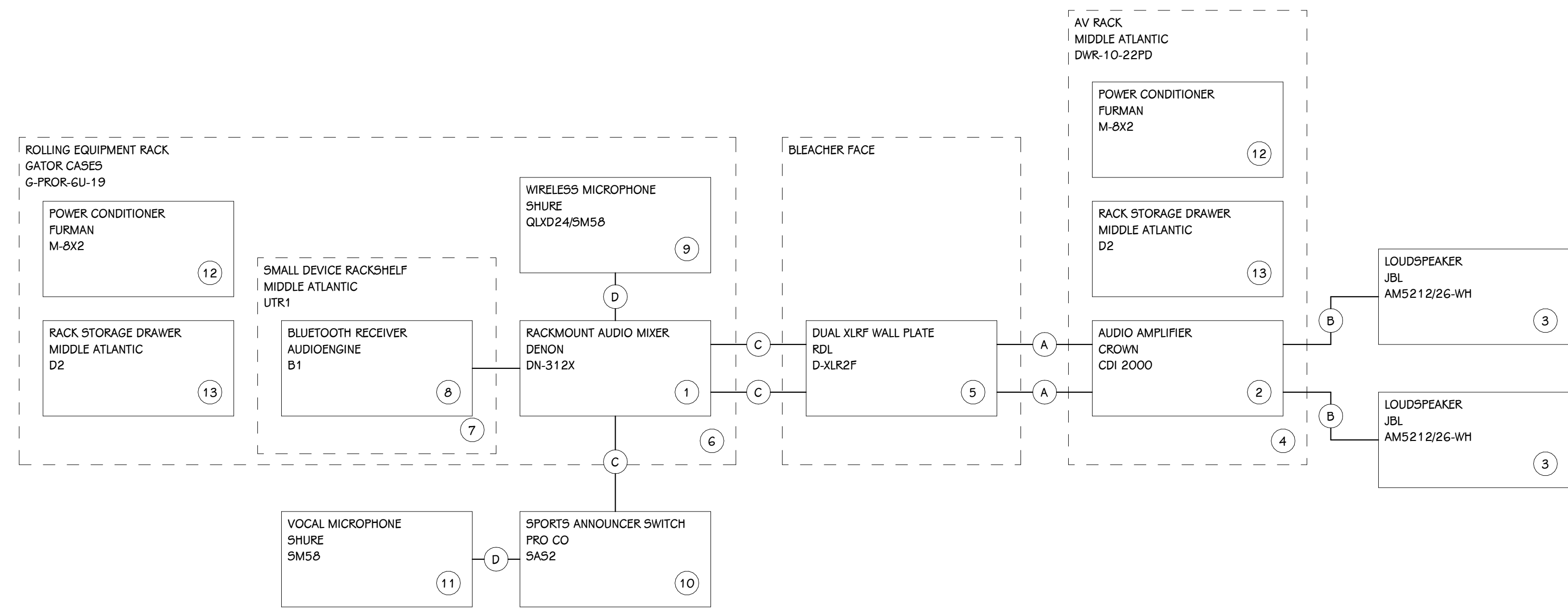
OWNER  
MANISTEE AREA PUBLIC SCHOOLS

Manistee, Michigan

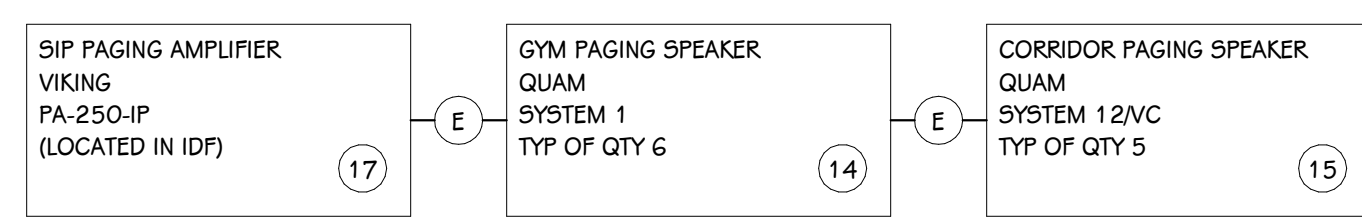
SHEET TITLE  
TECHNOLOGY DETAILS

DATE  
AUGUST 21, 2023

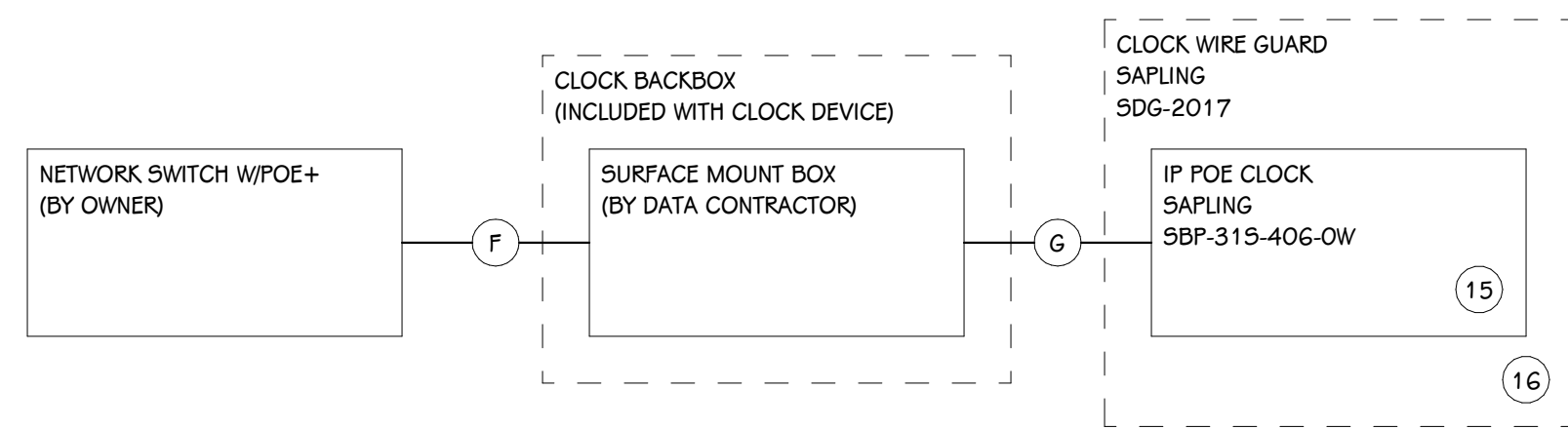
SHEET NUMBER  
T 401  
17-177-30



AV1 GYM AUDIO SYSTEM DIAGRAM  
SCALE: NONE



PAGING DIAGRAM  
SCALE: NONE



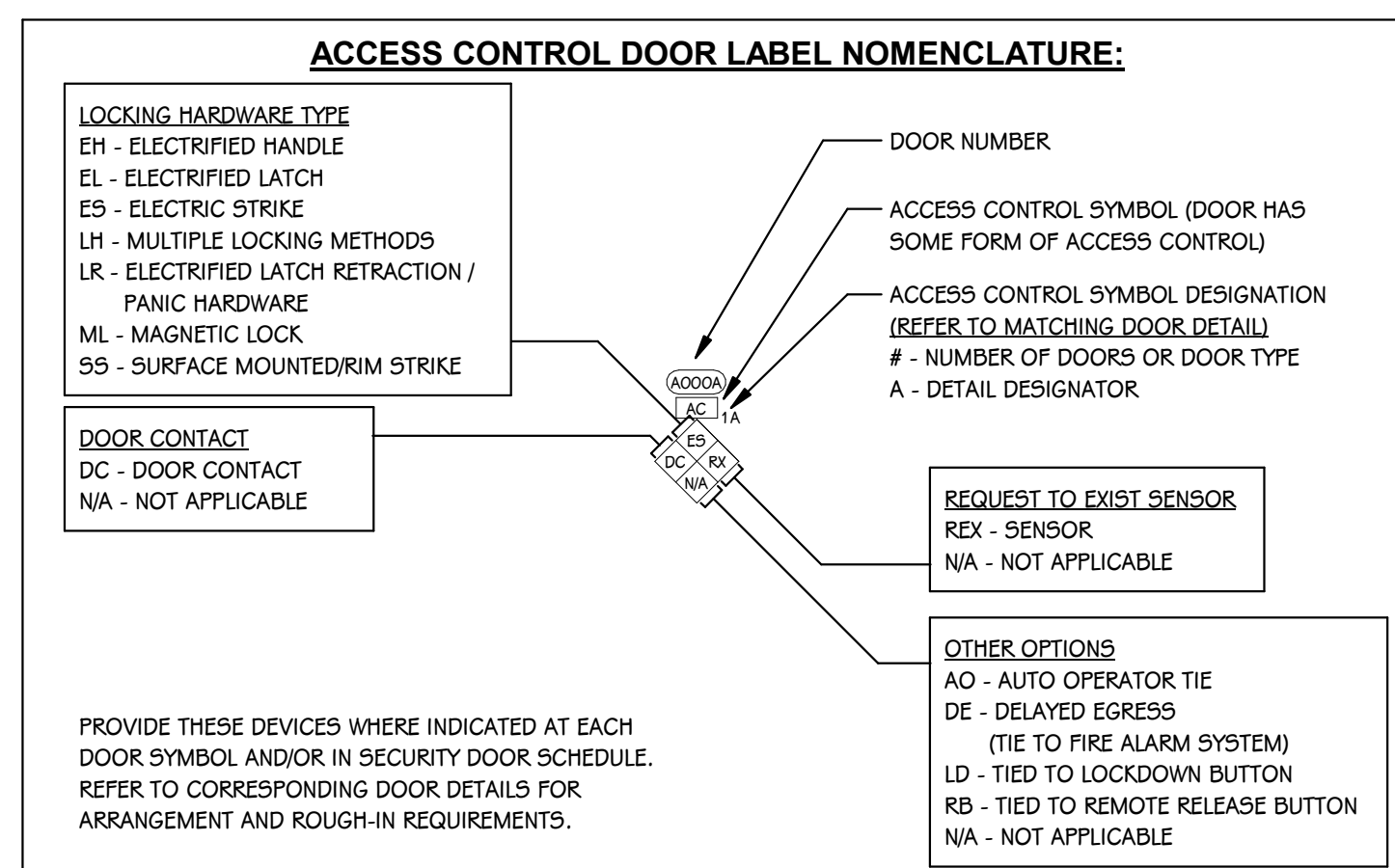
POE CLOCK - RISER DIAGRAM  
SCALE: NONE

AV1 EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	RACKMOUNT AUDIO MIXER	DENON	DN-312X	
2	AUDIO AMPLIFIER	CROWN	CDI 2000	
3	LOUDSPEAKER	JBL	AM5212/26-WH	
4	AV RACK	MIDDLE ATLANTIC	DWR-10-22PD	
5	DUAL XLR WALL PLATE	RDL	D-XLR2P	
6	ROLLING EQUIPMENT RACK	GATOR CASES	G-PROR-6U-19	
7	SMALL DEVICE RACKSHELF	MIDDLE ATLANTIC	UTR1	
8	BLUETOOTH RECEIVER	AUDIOENGINE	B1	
9	WIRELESS MICROPHONE	SHURE	QLXD24/SM58	
10	SPORTS ANNOUNCER SWITCH	PRO CO	SAS2	
11	VOCAL MICROPHONE	SHURE	SM58	
12	POWER CONDITIONER	FURMAN	M-8X2	
13	RACK STORAGE DRAWER	MIDDLE ATLANTIC	D2	
A	LINE LEVEL CABLE	BELDEN	9451P	
B	SPEAKER CABLE	BELDEN	6000UE	
C	25' MICROPHONE CABLE	PRO CO	EXMN-25	
D	1' MICROPHONE CABLE	PRO CO	EXMN-1	

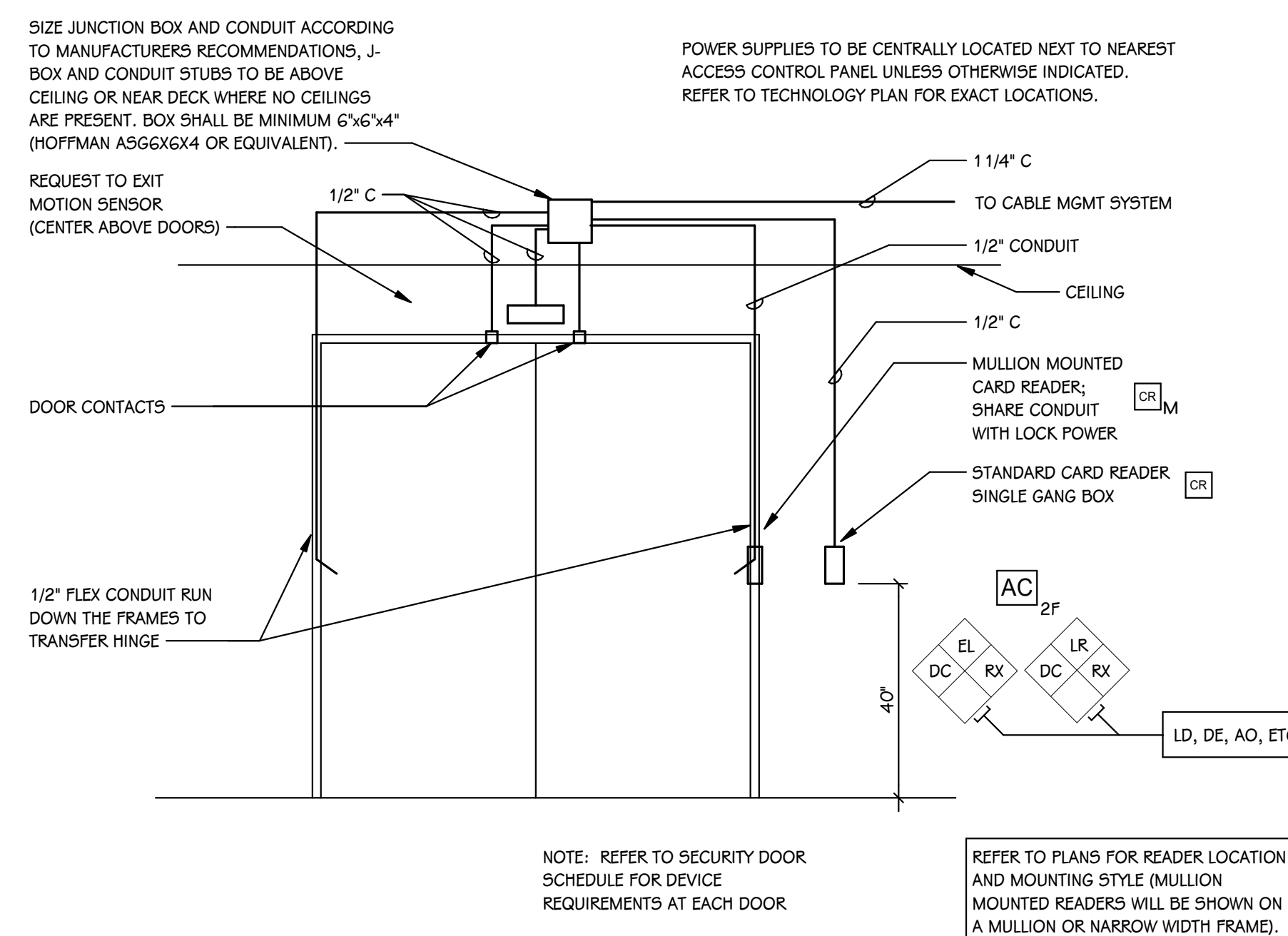
PAGING EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
14	GYM PAGING SPEAKER	QUAM	SYSTEM 1	
15	CORRIDOR PAGING SPEAKER	QUAM	SYSTEM 12/VC	
17	SIP PAGING AMPLIFIER	VIKING	PA-250-IP	
E	PAGING SPEAKER CABLE	BELDEN	6200UE	

CLOCK EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
15	IP POE CLOCK	SAPLING	SBP-31S-40G-0W	
16	CLOCK WIRE GUARD	SAPLING	SDG-2017	
F	BULK CAT6 CABLE	REFER TO DATA CABLE SCHEDULE		
G	CAT6 PATCH CABLE	REFER TO PATCH CABLE SCHEDULE		

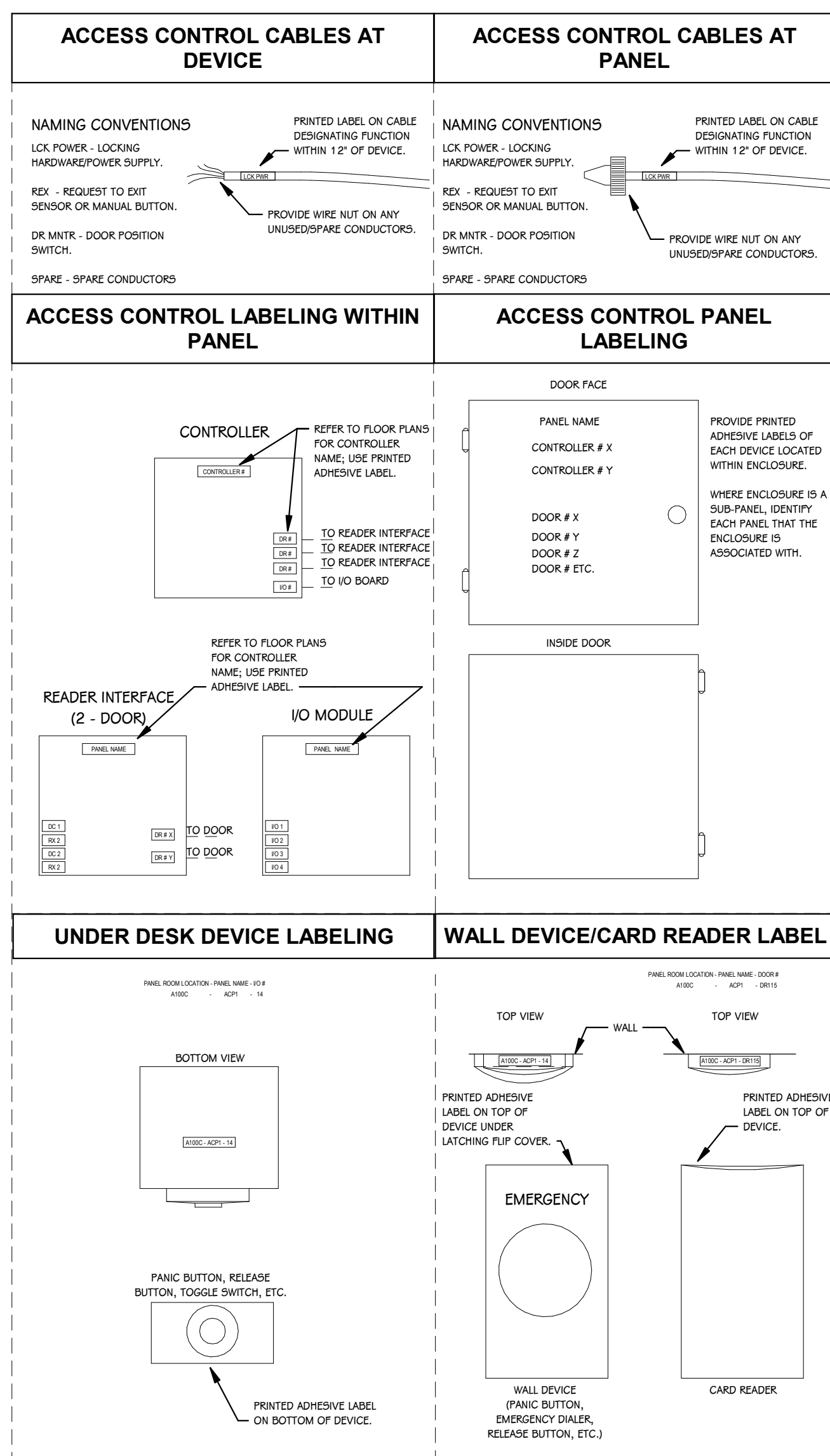
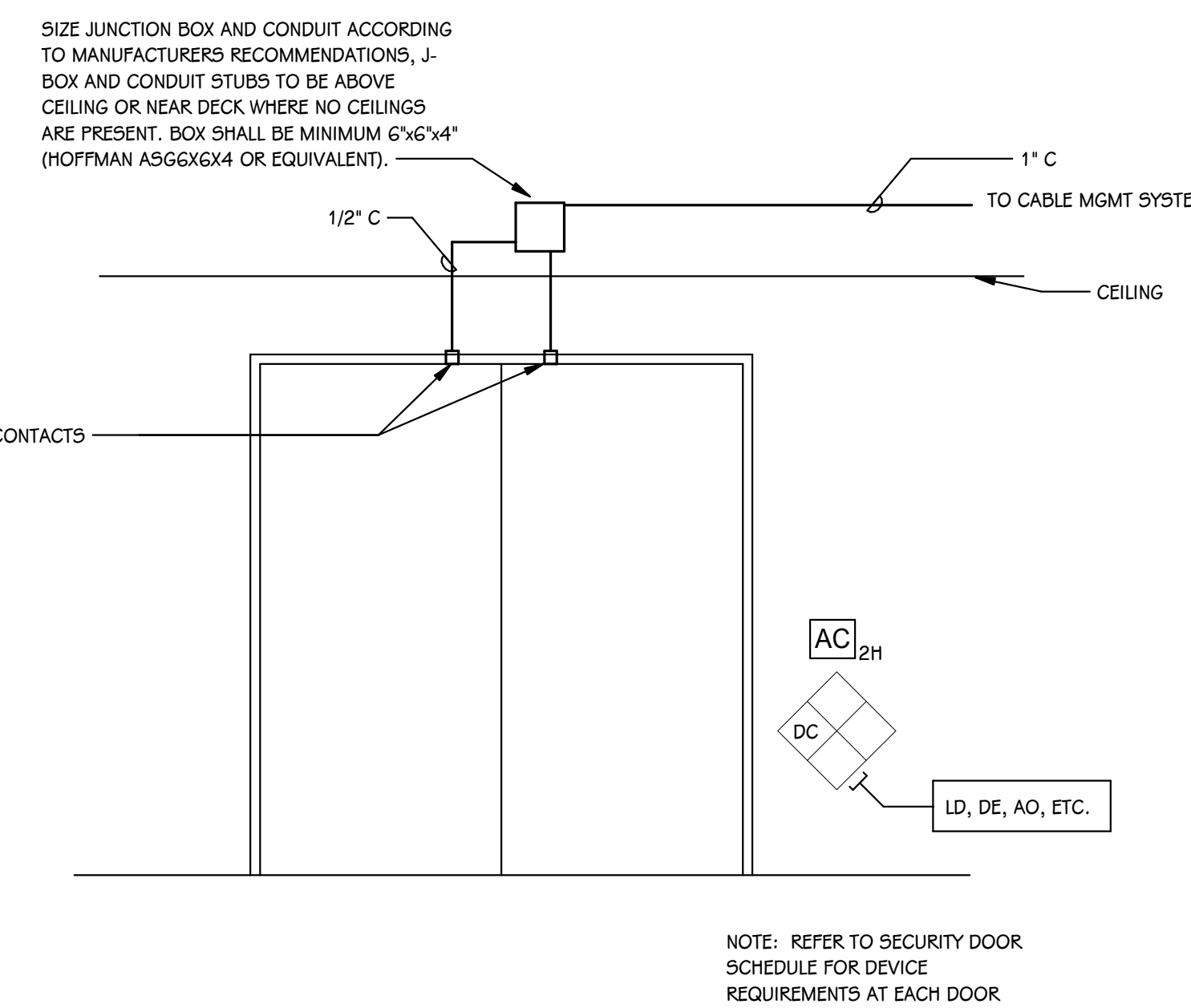




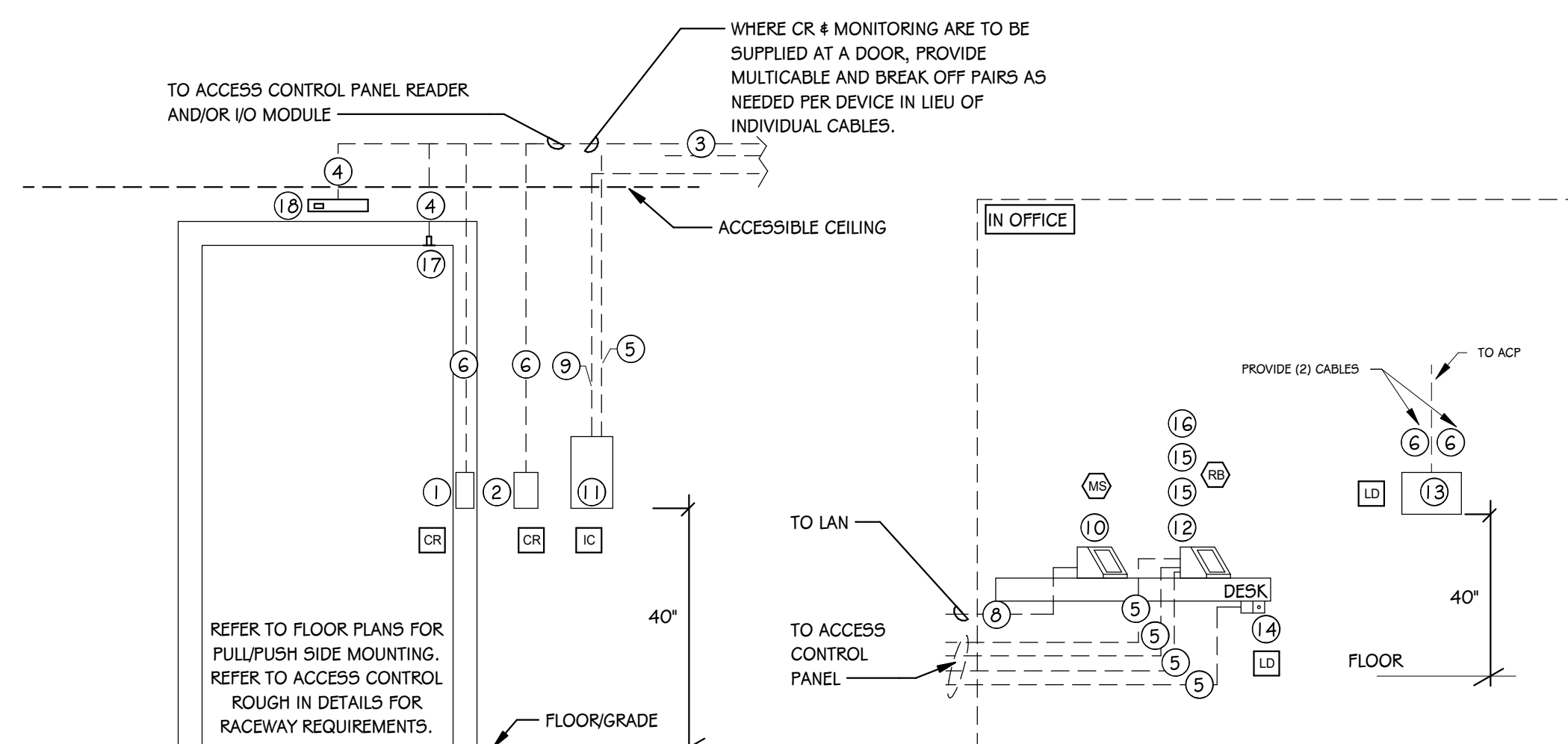
**SYMBOL DESIGNATOR**  
SCALE: NONE



**ACCESS CONTROL ROUGH IN DETAILS - DOUBLE DOOR**  
SCALE: NONE



**TYPICAL SECURITY DEVICE LABELING DETAIL**  
SCALE: NONE



DEVICE	MANUFACTURER/PART #	NOTES
1 CARD READER - MULLION	HID SIGNO 20TKS-00-000000	USE WHEN CR SYMBOL IS SHOWN ON MULLION, FRAME, OR OTHER NARROW-WIDTH MOUNTING APPLICATION.
2 CARD READER - STANDARD	HID SIGNO 40TKS-00-000000	SCHLAGE MTB SERIES ACCEPTABLE EQUIVALENT.
3 CABLE - MULTICABLE	BELDEN 658BAFJ ACCESS CONTROL	USE WHEN DOOR REQUIRES CR AND ANY OTHER DEVICE. OTHERWISE, SEE BELOW CABLES.
4 CABLE - 1/2\"/>		

**SECURITY END OF LINE DEVICE AND CABLING CHART**  
SCALE: NONE

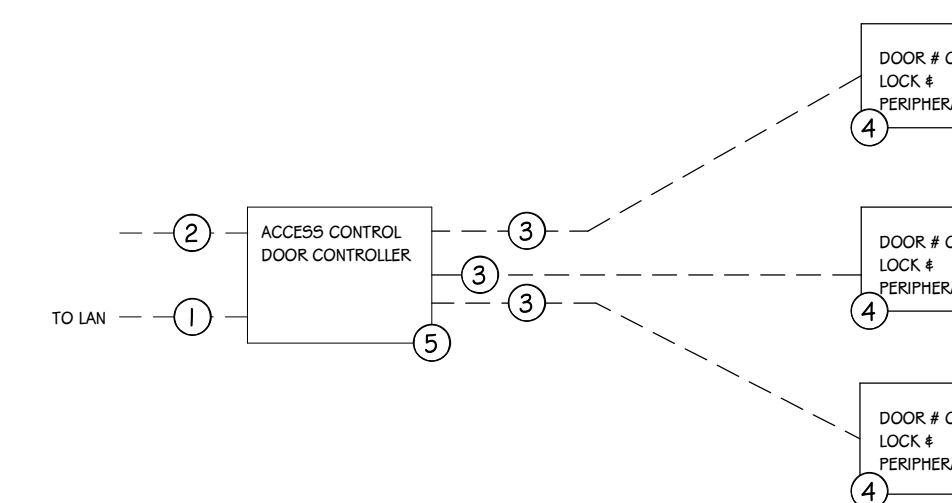
### ACCESS CONTROL DOOR SCHEDULE

NUMBER DOOR	ACCESS CONTROL CARD READER	LOCKING HARDWARE TYPE	DOOR CONTACT	SECURITY INFO			DOOR DETAIL #	PROGRAMMING NOTES
				OTHER	REX			
100C	Yes	LR	DC	N/A	N/A	2F		
101C	No	N/A	DC	N/A	N/A	2H		

### GENERAL NOTES APPLY TO ALL LV CABLE\*

- ALL CABLE SHALL BE PLENUM RATED IN PLENUM SPACE.
- CABLES UTILIZING WIEGAND COMMS SHALL NOT EXCEED 500FT TO ACCESS CONTROL PANEL.
- CABLES UTILIZING OSDP SHALL NOT EXCEED 2000FT.
- CABLE SIZING SHALL BE VERIFIED PRIOR TO INSTALLATION AND UPSIZED AS NECESSARY TO ELIMINATE SIGNAL LOSS.
- CABLES SHALL BE RUN IN CONTINUOUS OR NON-CONTINUOUS CABLE MANAGEMENT SYSTEMS. FREE-RUN CABLING IS NOT ACCEPTABLE ANYWHERE. ZIP TIES, ELECTRICAL TAPE, OR OTHER SIMILAR ADHESIVES ARE NOT ACCEPTABLE.
- WHERE IN EXPOSED AREAS (E.G. UNDER DESK, ALONG COUNTERTOP), CABLES SHALL BE RUN IN MESH CABLE SLEEVE (TECFLEX F942 00-25-BLACK, QUIT TO SIZE).
- ALL DEVICES THAT CONTROL DOOR HARDWARE SHALL BE CABLED TO INTERFACE THROUGH THE ACCESS CONTROL PLATFORM AND NEVER BE DIRECTLY CONNECTED TO THE LOCK POWER.

\*SEE COPPER CABLE DETAIL AND SPECIFICATIONS FOR REQUIREMENTS AND CONDITIONS.



DEVICE	MANUFACTURER/PART #	NOTES
1 CATEGORY CABLE	SEE CABLE DETAIL	PROVIDED BY CONTRACTOR RESPONSIBLE FOR SECTION 27 1513.
2 18AWG2C	SEE SECURITY DEVICE AND CABLING CHART	12-24 VDC CONNECTION TO POWER DIST. MODULE/POWER SUPPLY
3 MULTICONDUCTOR CABLE	SEE SECURITY DEVICE AND CABLING CHART FOR PART #	EACH LAYOUT AND QTY. OF EACH DEVICE PER MODULE SHALL BE SIZED, CONFIGURED, AND SUPPLIED TO SUPPORT # OF DEVICES ON PLANS.
4 CR, RX, DC, LD, RB, 4 OTHER CONTROL INTERFACES		
5 DOOR CONTROLLER	ISONAS IPB2.0 2-DOOR OR 3-DOOR AS NEEDED	PROVIDE DIN RAIL ENCLOSURE FOR CONTROLLERS.

COORDINATE FAIL-SAFE VS. FAIL-SECURE LOCK CONNECTIONS IN COMPLIANCE WITH FIRE CODE AND COORDINATED WITH ACCESS CONTROL SCHEDULE TBD BY OWNER.

**ACCESS CONTROL PANEL AND INTERFACE GENERAL WIRING DIAGRAM**  
SCALE: NONE