

ABBREVIATIONS:	
A	AMPERE
AF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANN	ANNUNCIATOR
AP	ACCESS POINT
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BICSI	BUILDING INDUSTRY CONSTRUCTION SERVICE INTERNATIONAL
BLDG	BUILDING
C	CONDUIT
CAB	CABINET
CAT	CATEGORY
CATV	CABLE TELEVISION
CD	CANDELA
CFCI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CL	CENTER LINE
CO	CARBON MONOXIDE
DN	DOWN
(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING
EOL	END OF LINE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FTC	FIRE TERMINAL CABINET
GRC	GALVANIZED RIGID CONDUIT
G OR GB	GROUND BOX
IACP	INTRUSION ALARM CONTROL PANEL
IDF	INTERMEDIATE DISTRIBUTION FRAME
IMC	INTERMEDIATE METAL CONDUIT
J OR JB	JUNCTION BOX
MEP	MECHANICAL / ELECTRICAL / PLUMBING
MDP	MAIN DISTRIBUTION FRAME
MPOE	MINIMUM PONT OF ENTRY
(N)	NEW
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
OFE	OWNER FURNISHED EQUIPMENT
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED/OWNER INSTALLED
OSP	OUTSIDE PLANT
PVC	POLYVINYL CHLORIDE
RCDD	REGISTERED COMMUNICATION DISTRIBUTION DESIGNER
RCWY	RACEWAY
RM	ROOM
SR	SURFACE RACEWAY
Typ	TYPICAL
UG	UNDERGROUND
UL	UNDERWRIGHTERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
W	WATT
WP	WEATHERPROOF

TECHNOLOGY SYMBOL LEGEND: ALL EQUIPMENT AND MATERIALS ARE CONTRACTOR FURNISHED, INSTALLED AND CONFIGURED (UNO)				
SYMBOL	DESCRIPTION	MANUFACTURER	PART NUMBER	NOTES / DETAIL REFERENCES
	(N) SURFACE MOUNTED CONDUIT	COMMERCIAL GENERIC	N/A	GREY = EXISTING
	(E) UNDERGROUND CONDUIT	N/A	N/A	N/A
	(N) MEDIUM CAPACITY SURFACE MOUNTED CABLE RACEWAY	WIREMOLD	WM2300	GREY = EXISTING
	(N) HIGH CAPACITY SURFACE MOUNTED CABLE RACEWAY	WIREMOLD	WM5400	GREY = EXISTING
	(N) CONDUIT STUB	COMMERCIAL GENERIC	N/A	GREY = EXISTING
	(E) CONDUIT RISER	N/A	N/A	N/A
	(E) DATA RACK	EXISTING	EXISTING	N/A
	(E) GROUND BOX	N/A	N/A	N/A
	(N) JUNCTION BOX	COMMERCIAL GENERIC	N/A	GREY = EXISTING
	(E) MINIMAL POINT OF ENTRY	EXISTING	EXISTING	N/A
	(E) INTRUSION KEYPAD	EXISTING	EXISTING	N/A
	(N) CAT6A DATA DROP LOCATION	SEE 27 10 00	SEE 27 10 00	QTY: AS PER PLAN
	(N) CAT6A DATA DROP LOCATION (QTY = 2) - WIRELESS ACCESS POINT (T-BAR)	SEE 27 10 00	SEE 27 10 00	N/A
	(N) CAT6A DATA DROP LOCATION - EXTERIOR WIRELESS ACCESS POINT	SEE 27 10 00	SEE 27 10 00	N/A
	NETWORK SECURITY CAMERA (1X5MP SENSORS)	I-PRO	WV-S25500-V3L	OFCI
	NETWORK SECURITY CAMERA (2X4MP SENSORS)	I-PRO	WV-U85402-V2L	OFCI
	NETWORK SECURITY CAMERA (3X4MP SENSORS)	I-PRO	OFCI	N/A

PRE-CON MEETING REQUIREMENTS:
1. PRIOR TO BEGINNING ANY SITE WORK, INCLUDING DEMO, AN ON-SITE PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE LOW VOLTAGE DESIGNER. ANY SITE WORK COMMENCED PRIOR TO THIS MEETING SHALL BE AT THE CONTRACTOR'S SOLE RISK.

JOB SPECIFIC STANDARDS FOR LOW VOLTAGE:
SEE SPECIFICATIONS DIVISION 27 AND 28 FOR COMPLETE REQUIREMENTS.
1. CONDUIT BODIES, CONDULETS, PULLING ELBOWS, AND/OR "LB" FITTINGS ARE PROHIBITED IN ANY PATHWAY CONTAINING DATA CABLING (COPPER OR FIBER).
2. SINGLE HOLE CONDUIT STRAPS ARE PROHIBITED.
3. ALL WIRE AND CABLE PASSING THROUGH METALWORK SHALL BE SLEEVED WITH AN APPROPRIATE GROMMET OR BUSHING.

SCOPE OF WORK:
1. THE CONTRACTOR SHALL REWORK THE (E) IDF AND MDF LOCATIONS, INCLUDING INSTALLATION OF (N) OWNER-FURNISHED DATA NETWORK SWITCHES, AS NOTED.
2. THE CONTRACTOR SHALL PROVIDE AND PERFORM OTHER DATA NETWORK INSTALLATION AND REWORK AS NOTED.
3. SYSTEMS ON THIS PROJECT REQUIRE CERTIFIED INSTALLERS. CONTRACTOR SHALL COMPLY WITH ALL CERTIFICATION REQUIREMENTS AS A CONDITION OF BID.
4. ALL EQUIPMENT SHALL BE NEW AND CONTRACTOR FURNISHED, UNO.
5. AFTER CUTOVER TO NEW SYSTEMS, THE CONTRACTOR SHALL REMOVE OLD OR ABANDONED DATA NETWORK, AUDIOVISUAL, ANALOG TELEPHONE, ANALOG INTERCOM, ANALOG CLOCK, AND COAX CABLING AND DEVICES AS NOTED.
6. THE PROJECT WILL REQUIRE SWING AND/OR GRAVEYARD AND/OR WEEKEND AND/OR HOLIDAY WORK SCHEDULES IN ORDER TO MEET THE PROJECT REQUIREMENTS AND MINIMIZE DISRUPTION TO THE ACTIVE USE OF THE SITE.
7. THE CONTRACTOR SHALL CAREFULLY COORDINATE CUTOVERS AND ACTIVATION/COMMISSIONING OF NEW SYSTEMS WITH THE DISTRICT REPRESENTATIVE.
8. THE CLOCK/INTERCOM SYSTEM AND ALL DATA NETWORK SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES THAT SCHOOL IS IN SESSION.
9. INSTALL I-PRO CAMERAS AND COMPONENTS. SEAL AND WEATHER PROOF ALL EXTERIOR CAMERAS / PENETRATIONS.
10. REVIEW ALL (N) AND (E) CAMERA VIEWS WITH SITE ADMINISTRATION AND DISTRICT OR ITS REPRESENTATIVE AND MAKE ADJUSTMENTS AS REQUIRED PRIOR TO PROJECT COMPLETION.

CONTRACTOR FURNISHED DOCUMENTS:
(SHOP DRAWINGS / PRODUCT SUBMITTALS / QUALIFICATIONS)
1. ORDERING AND INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL THE FOLLOWING:
1.1. CONTRACTOR FURNISHED SHOP DRAWINGS ARE RECEIVED AND APPROVED BY THE DESIGNER.
1.2. PRODUCT SUBMITTAL DOCUMENTS ARE RECEIVED AND APPROVED BY THE DESIGNER.
1.3. APPLICABLE QUALIFICATION DOCUMENTATION ARE RECEIVED AND APPROVED BY THE DESIGNER.
2. ANY DESIGN AND/OR INSTALLATION DISCREPANCIES/CHANGE ORDER REQUESTS ARE TO BE ADDRESSED AT TIME OF SHOP DRAWING CREATION. CHANGE ORDERS AFTER APPROVED SHOP DRAWINGS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. ALTERNATIVE PRODUCTS ARE TO SUBMITTED WITH A FORMAL SUBSTITUTION REQUEST AND THE CONTRACTOR IS RESPONSIBLE FOR DEMONSTRATING PRODUCT FULL EQUIVALENCY.
4. IT SHALL BE UNDERSTOOD THAT THE DRAWINGS, DETAILS, AND ONE-LINES PROVIDED WITH THE DESIGN PACKAGE ARE DIAGRAMMATIC. INFORMATION PRESENTED IN DESIGN DRAWINGS ARE AS ACCURATE AS POSSIBLE, BUT ACCURACY IS NOT GUARANTEED AND FIELD VERIFICATION OF ALL DIMENSIONS, ROUTING, ETC., BY THE CONTRACTOR IS REQUIRED.
5. DRAWINGS AND SPECIFICATIONS ARE PROVIDED TO SHOW THE INTENT OF THE DESIGN TO ASSIST THE CONTRACTOR IN SUBMITTING AN ACCURATE BID. CONTRACTOR IS DIRECTED TO MAKE FIELD SURVEYS AS PART OF THEIR WORK PRIOR TO SUBMITTING SYSTEM LAYOUT DRAWINGS (SHOP DRAWINGS). THE CONTRACTOR SHALL MAKE ALLOWANCE IN THE PROPOSAL TO COMPLY WITH THE INTENT OF THE DESIGN.
6. IN CASE OF DOUBT OF WORK INTENDED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REQUEST INSTRUCTIONS FROM THE DESIGNER OR OWNER PRIOR TO BID.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE, OPERABLE, AND FULLY FUNCTIONING SYSTEM.

TECHNOLOGY GENERAL PROJECT NOTES:
1. UPON COMPLETION OF THE INSTALLATION OF THE SYSTEMS, THE CONTRACTOR SHALL PROVIDE A SATISFACTORY TEST OF THE ENTIRE SYSTEMS IN THE PRESENCE OF THE ARCHITECT/DESIGNER, INSPECTOR, AND THE OWNER.
2. A STAMPED SET OF APPROVED SYSTEM DESIGN DOCUMENTS, AND CONTRACTOR FURNISHED SHOP DRAWINGS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. THE CONTRACTOR SHALL INCORPORATE ANY AND ALL REVISIONS TO DRAWINGS SETS AS REQUIRED. ANY DEVIATION FROM APPROVED DESIGN DOCUMENTS, INCLUDING THE SUBSTITUTION OF DEVICES, SHALL BE APPROVED BY THE ARCHITECT/DESIGNER AND THE OWNER PRIOR TO INSTALLATION.
3. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/DESIGNER PRIOR TO INSTALLATION.
4. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH THROUGH PENETRATION FIRST STOP SYSTEMS WITH A "T" RATING EQUAL TO THE ASSEMBLY PENETRATED. SEE DETAILS ON SHEET T001 FOR MORE INFORMATION.
5. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH DEVICE. DO NOT SPlice THE WIRE. THERE MUST BE AT LEAST 6" OF LEAD WIRE FROM THE BOX TO THE DEVICE.
6. ALL CLOCK, BELL, AND INTERCOM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY, OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CABLES ARE ONLY PERMITTED IF INDICATED ON DESIGN DOCUMENTS AS "EXPOSED".
7. LOW VOLTAGE PANELS, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURER'S SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT FOR 20 lbs., WITHOUT SPECIAL MOUNTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/DESIGNER AT A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO FINAL INSPECTION FOR FINAL PUNCH ALL ITEMS ON PUNCH LIST MUST BE COMPLETE FOR JOB TO FINAL.
9. PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE ALL PROJECT AS-BUILT DRAWINGS AND MANUALS PER SPECIFICATIONS.
10. THE CONTRACTOR SHALL ALSO PROVIDE A TYPED RECORD OF COMPLETION. A FINAL WILL NOT BE GRANTED UNTIL THE ABOVE IS APPROVED BY THE OWNER.
11. THE TERM "PROVIDE" SHALL MEAN TO FURNISH, INSTALL AND MAKE FULLY OPERATIONAL.

PROJECT CODES AND STANDARDS:
PARTIAL LIST OF APPLICABLE CODES AND STANDARDS EFFECTIVE : JANUARY 1, 2023:
2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), CCR, TITLE 24, PART 1
2022 CALIFORNIA BUILDING CODE (CBC), CCR, TITLE 24, PART 2 (2018 INTERNATIONAL BUILDING CODE WITH CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ELECTRICAL CODE (CEC), CCR, TITLE 24, PART 3 (2017 NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS)
2022 CALIFORNIA MECHANICAL CODE (CMC), CCR, TITLE 24, PART 4 (2018 UNIFORM MECHANICAL CODE, WITH CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ENERGY CODE, CCR, TITLE 24, PART 6
2022 CALIFORNIA FIRE CODE (CFC), CCR, TITLE 24, PART 9 (2018 INTERNATIONAL FIRE CODE WITH CALIFORNIA AMENDMENTS)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, CCR, TITLE 24, PART 11
2022 CALIFORNIA REFERENCED STANDARDS CODE, CCR, TITLE 24, PART 12
2022 NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE, NATIONAL FIRE PROTECTION ASSOCIATION

ANCHORAGE AND BRACING NOTES:

APPLICABLE CODE: 2022 CBC

REVISED: 12/23/2024

MEP COMPONENT ANCHORAGE NOTE:

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 THRU 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.

2. TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.

3. TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCT/WORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENTS.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTION SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL. IN GENERAL, RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCT/WORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCT/WORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7 SECTION 13.3 AS DEFINED IN ASCE 7 SECTIONS 13.6.5, 13.6.6, 13.6.7, AND 13.6.8; AND 2022 CBC SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. THE MEP DESIGN PROFESSIONAL ENGINEER RESPONSIBLE FOR CONTENT ON THESE SHEETS HAS VERIFIED THAT THE DESIGN METHODS IDENTIFIED BELOW ARE IN ACCORDANCE WITH DSA IR 16-13.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E)

MP : MD : PP : E : OPTION 1: PROJECT-SPECIFIC DESIGN.

MP : MD : PP : E : OPTION 2: DESIGN BASED ON OSHDP OPM, WITHIN PROJECT SUBMITTAL.

MP : MD : PP : E : OPTION 3: DESIGN BASED ON OSHDP OPM, DEFERRED SUBMITTAL.

SHEET INDEX:
SHEET DESCRIPTION
T000 CYBER SECURITY COVER SHEET
T010 CYBER SECURITY SITE PLAN - DEMO
T100 CYBER SECURITY SITE PLAN - NEW
T400 CYBER SECURITY RACK ELEVATIONS
T401 CYBER SECURITY RACK ELEVATIONS
T402 CYBER SECURITY RACK ELEVATIONS
T800 CYBER SECURITY DETAILS
T801 CYBER SECURITY CCTV DETAILS
T802 CYBER SECURITY FIRE STOP DETAILS
T900 CYBER SECURITY CCTV PICTURES



KMM SERVICES, INC
TECHNOLOGY & FIRE LIFE SAFETY

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SHEET REVISIONS

DELTA	DESCRIPTION	DATE

SITE KEY PLAN

PROJECT
SACRAMENTO
CITY USD
LEONARDO DA VINCI K-8
NETWORK REPLACEMENT
4701 JOAQUIN WAY
SACRAMENTO, CA 95822

SHEET TITLE
CYBER SECURITY
COVER SHEET

DRAWING STATUS

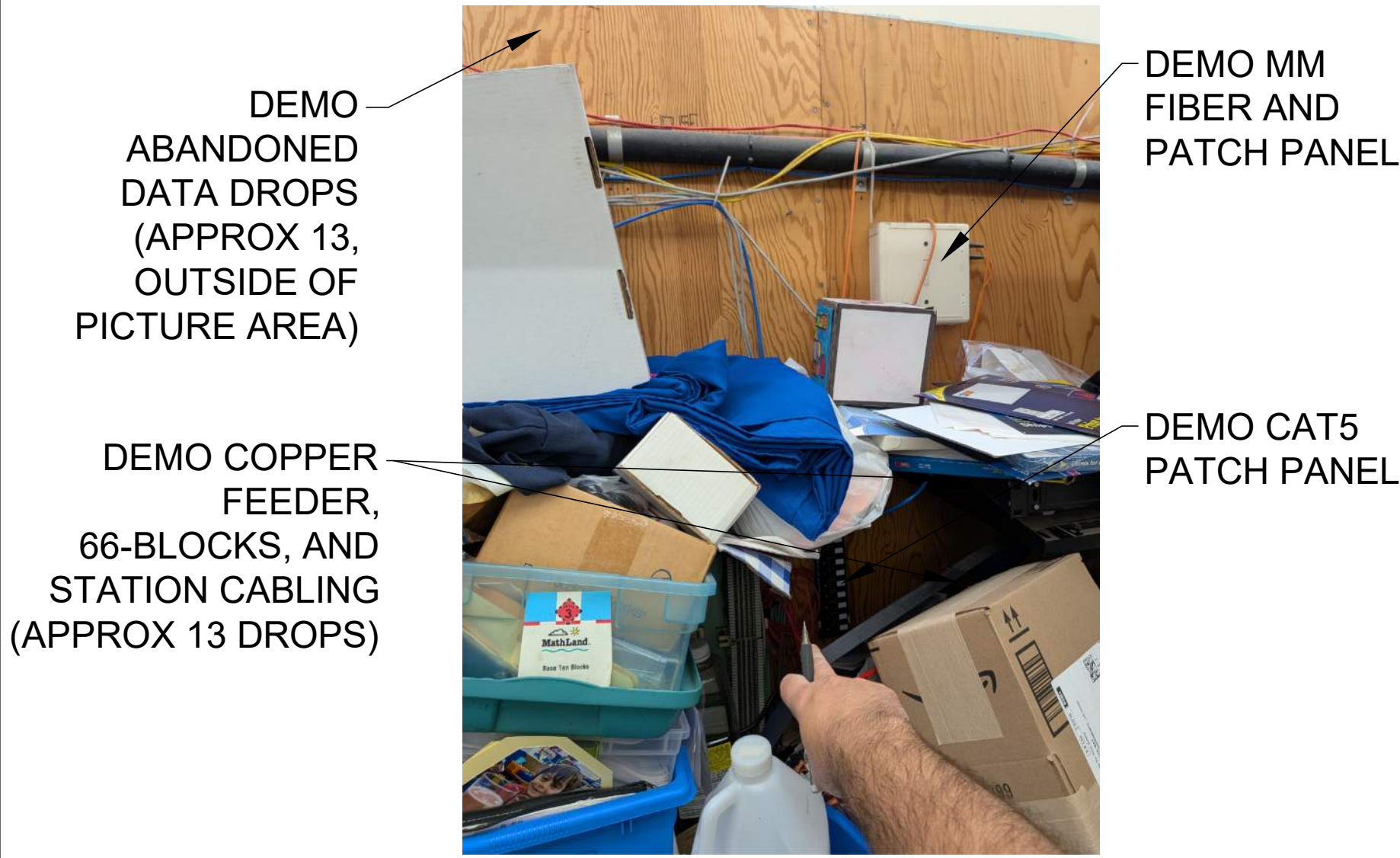
CONSTRUCTION DOCUMENTS

PROJECT NO:	-
BID PACKAGE:	426-LDV
DESIGNED BY:	RWCS
CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

SHEET

T000

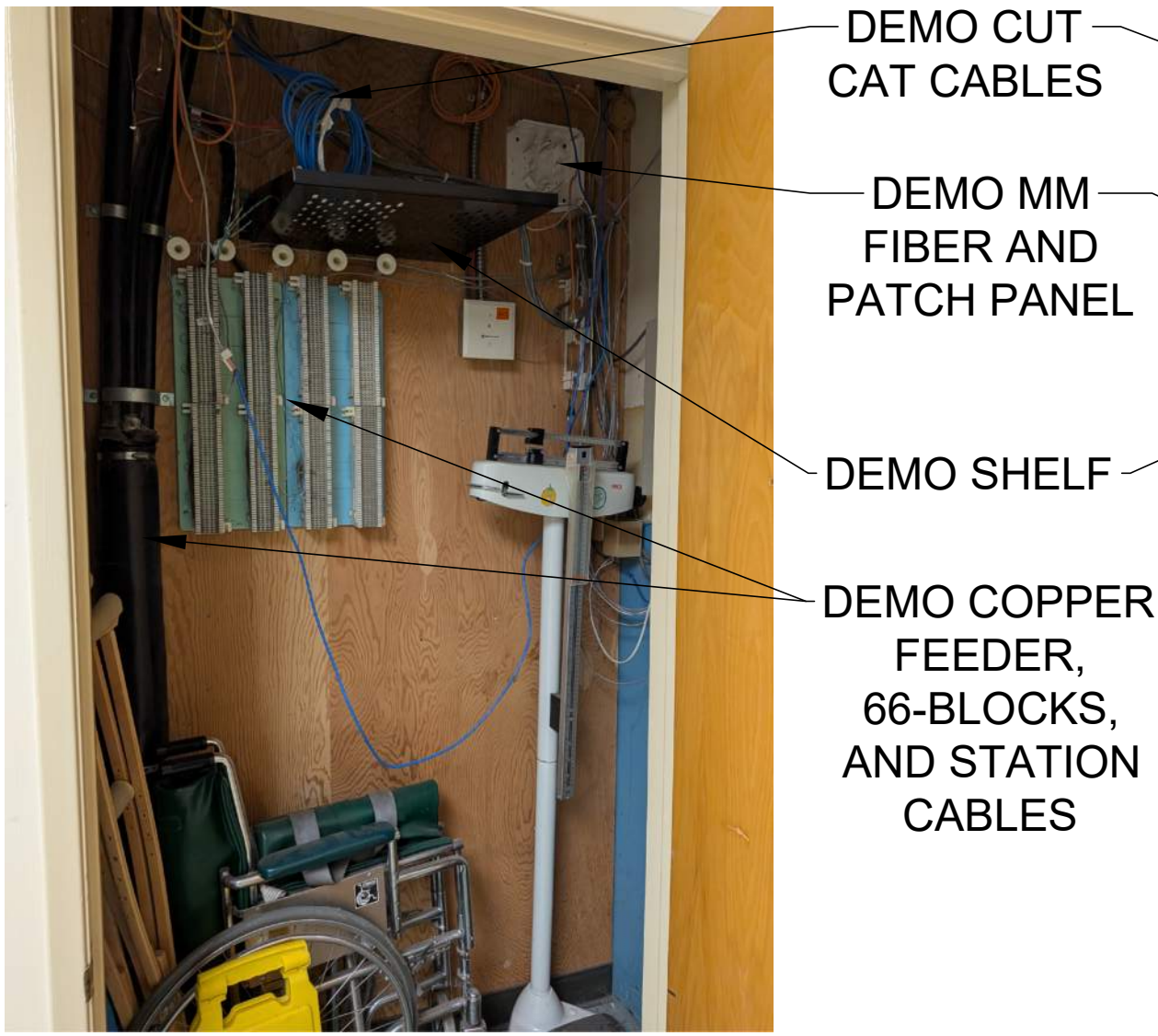


DEMO ABANDONED DATA DROPS (APPROX 13, OUTSIDE OF PICTURE AREA)

DEMO COPPER FEEDER, 66-BLOCKS, AND STATION CABLING (APPROX 13 DROPS)

DEMO MM FIBER AND PATCH PANEL

DEMO CAT5 PATCH PANEL

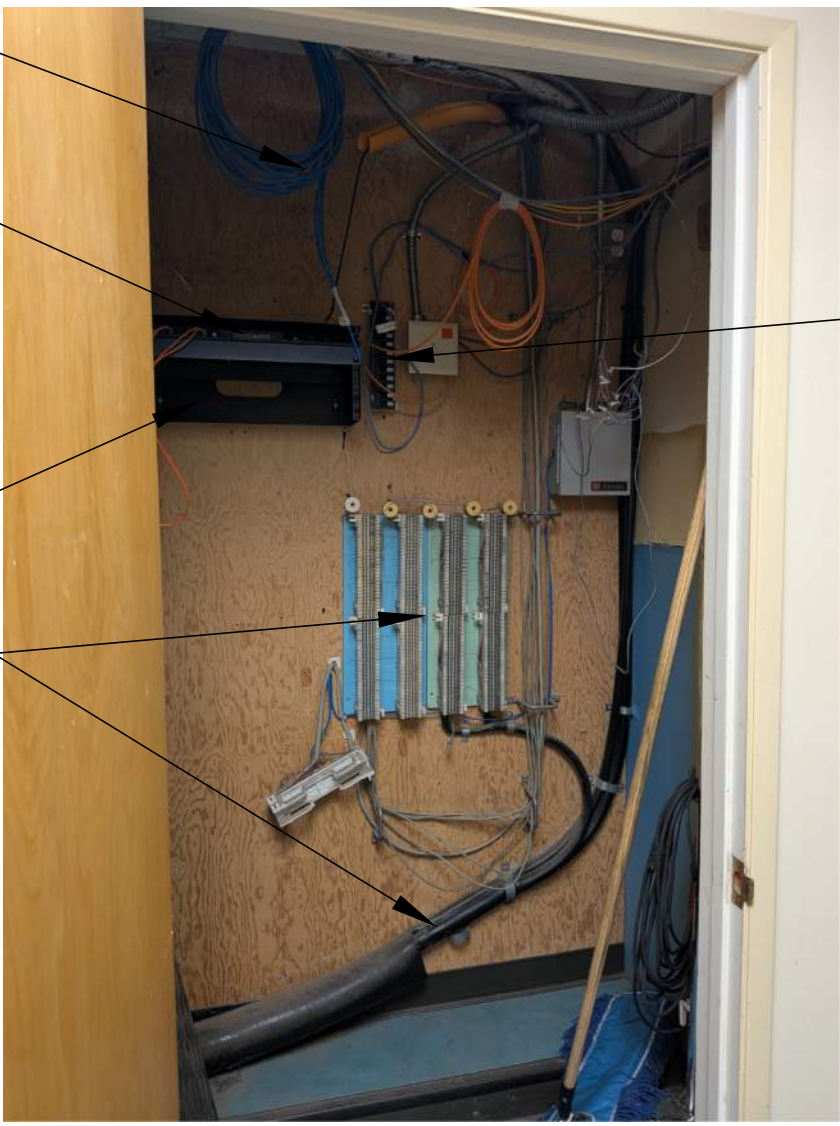


DEMO CUT CAT CABLES

DEMO MM FIBER AND PATCH PANEL

DEMO SHELF

DEMO COPPER FEEDER, 66-BLOCKS, AND STATION CABLES



DEMO CAT5 PATCH PANEL AND STATION CABLES

DEMO COPPER FEEDER, 66-BLOCKS, AND STATION CABLES



DEMO MM FIBER AND PATCH PANEL

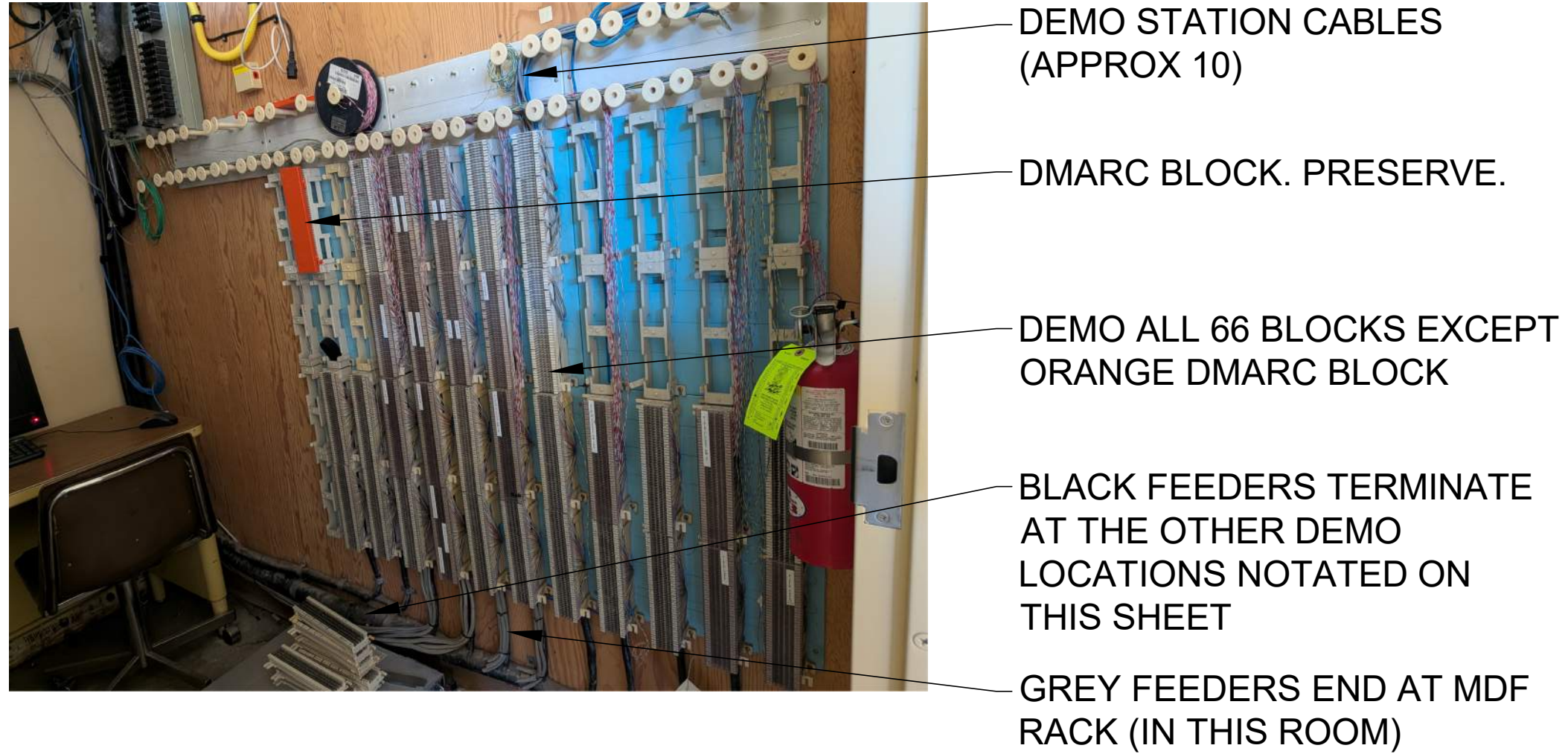
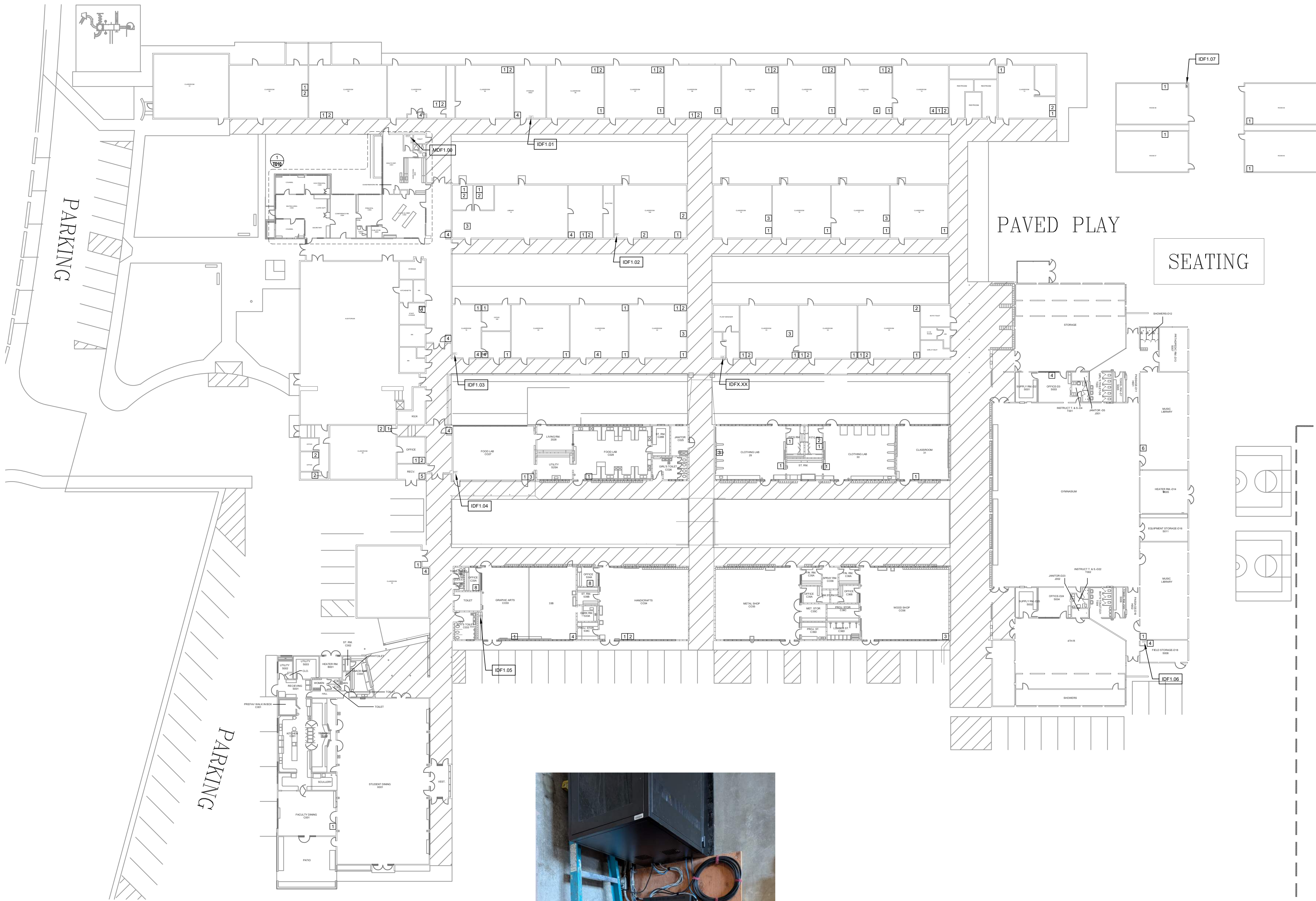
- GENERAL NOTES:
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- SHEET NOTES:
- 1 DEMO ANALOG PHONE LOCATION AND CABLE TO SOURCE.
 - 2 DEMO ABANDONED DATA DROP AND RACEWAY.
 - 3 DEMO CRT TV AND MOUNT.
 - 4 DEMO CUT/ABANDONED CABLE(S) AT THIS LOCATION.
 - 5 DEMO CLOCK POWER SUPPLY AND SAFE OFF 120V POWER.
 - 6 DEMO 66-BLOCK AND 25 PAIR FEEDER.
 - 7 DEMO ABANDONED RACEWAY.
 - 8 DEMO ABANDONED INTERCOM SPEAKER.

1 - PIC. DETAIL RM 4 CLOSET DEMO

2 - PIC. DETAIL RM 14 CLOSET DEMO

3 - PIC. DETAIL RM 19 CLOSET DEMO

4 - PIC. DETAIL RM 27 CLOSET DEMO



DEMO STATION CABLES (APPROX 10)

DMARC BLOCK. PRESERVE.

DEMO ALL 66 BLOCKS EXCEPT ORANGE DMARC BLOCK

BLACK FEEDERS TERMINATE AT THE OTHER DEMO LOCATIONS NOTATED ON THIS SHEET

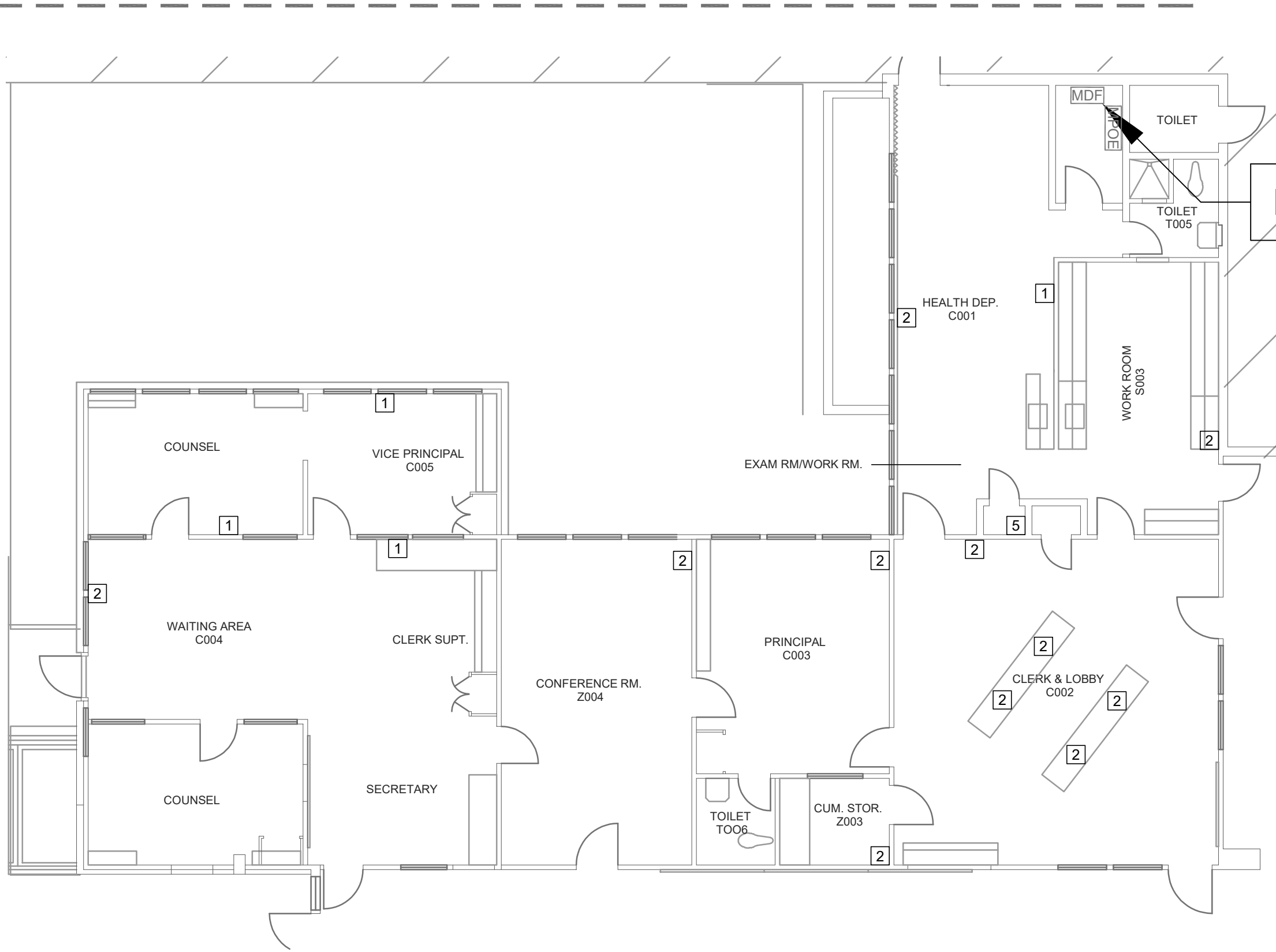
GREY FEEDERS END AT MDF RACK (IN THIS ROOM)

5 - PICTURE DETAIL MDF DEMO



DEMO COPPER FEEDERS, 66 BLOCKS, AND STATION CABLING.

6 - PICTURE DETAIL GYM STORAGE DEMO



1 ENLARGED FLOOR PLAN - DEMO - ADMIN

SCALE: 1/8"=1'-0"

CYBER SECURITY SITE PLAN - DEMO

SCALE: 1"=30'-0"



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SITE PLAN - DEMO

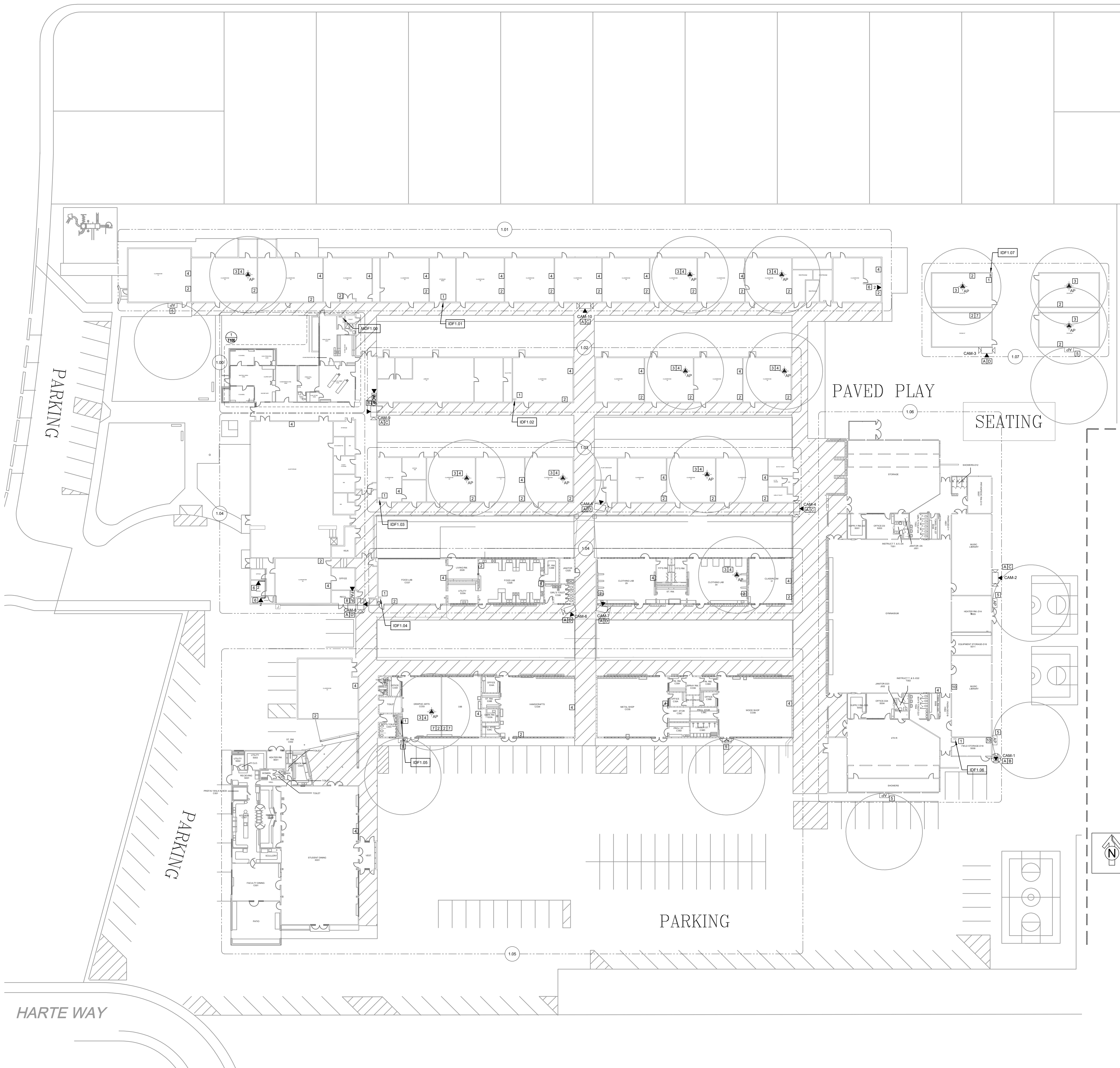
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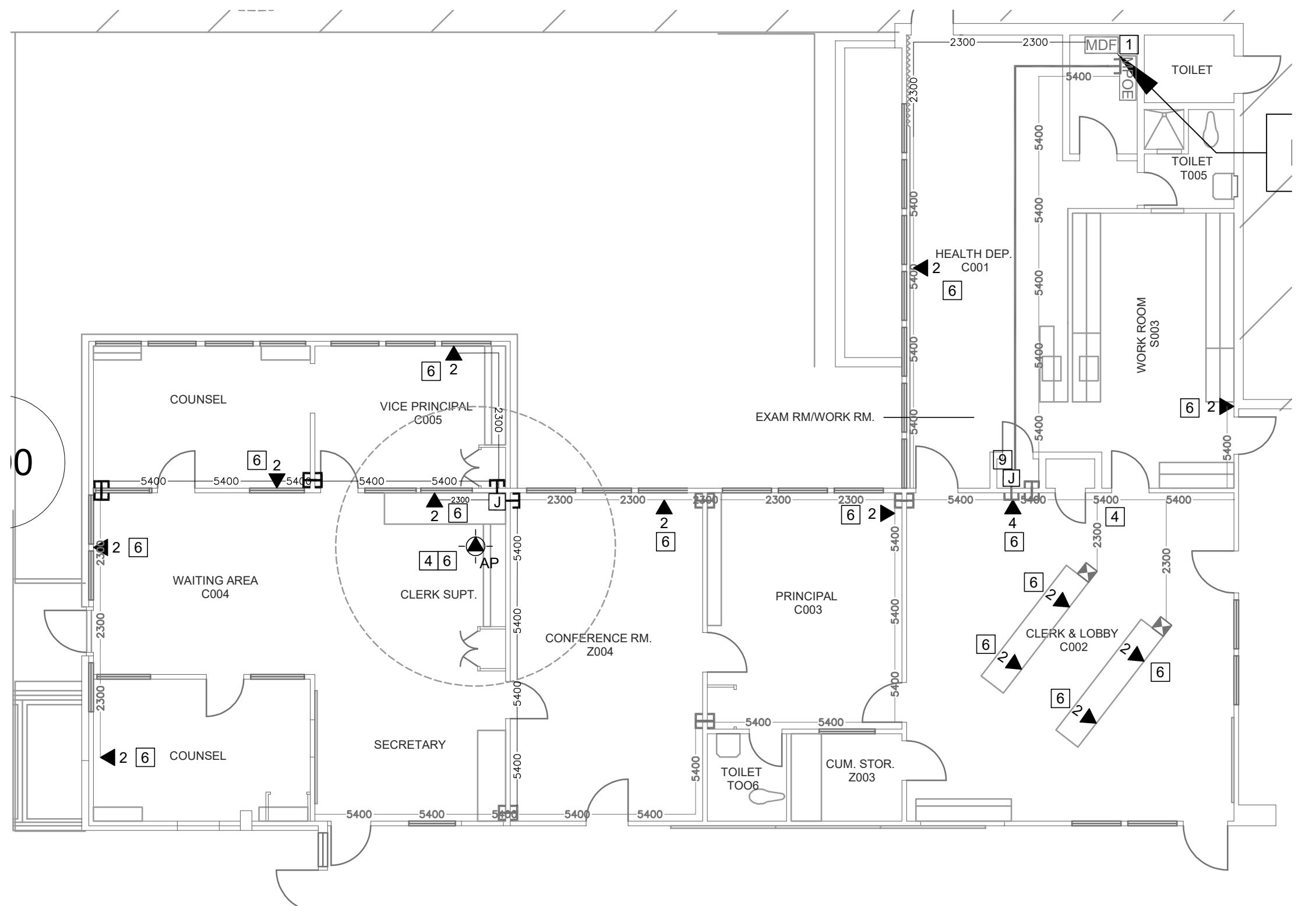
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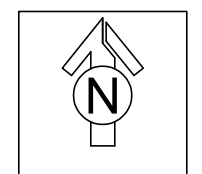


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- SHEET NOTES:
- REWORK MDF/IDF RACK PER ELEVATION. SEE T400/T401.
 - PROVIDE (N) WALL MOUNT KIT CISCO P/N DP-8800-WMK AND MOUNT (E) PHONE AT WALL DATA LOCATION.
 - INSTALL (N) OWNER-FURNISHED AP AT (E) AP LOCATION.
 - PROVIDE (N) RIGHT ANGLE WALL MOUNT AT (E) AP, OBERON P/N 1008-COAP1936.
 - AT EXTERIOR AP LOCATION, REWORK (E) DATA DROP AND PROVIDE REQUIRED COMPONENTS PER DETAIL 27800. INSTALL (N) OWNER-FURNISHED EXTERIOR AP.
 - PROVIDE (N) CAT6A DATA DROP, QTY INDICATED.
 - PROVIDE (N) ORTRONICS DATA PLATE AT WALL PHONE LOCATION.
 - AT IACP/FACP, PROVIDE (N) 1 EA. CAT6A DATA DROP AND (N) 2 EA. 4-PAIR COPPER FEEDERS FOR ANALOG PHONE AND RELAY CLOSURE. CABLE TO MDF VIA (E) PATHWAY.
 - AFTER DEMO OF OLD DATA CABLES, REWORK (E) 2" CONDUIT INTO (N) J-BOX TO ELIMINATE EXPOSED CABLING AT THIS LOCATION.
 - RE-SECURE (E) WIREMOLD FALLING OFF WALL.
 - INSTALL (N) OFCI EXTERIOR NETWORK SECURITY CAMERA. PROVIDE 1 EA. (N) CAT6A DATA DROP.
 - MOUNT CAMERA ON CORNER OF BUILDING.
 - MOUNT CAMERA ON WALL.
 - MOUNT CAMERA ON WALL AT BUILDING CORNER.

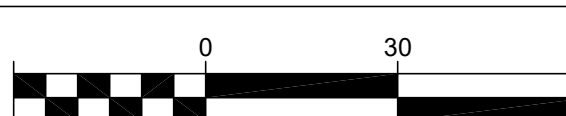


1 ENLARGED FLOOR PLAN - NEW - ADMIN
SCALE: 1/8"=1'-0"



CYBER SECURITY SITE PLAN - NEW

SCALE: 1"=30'-0"



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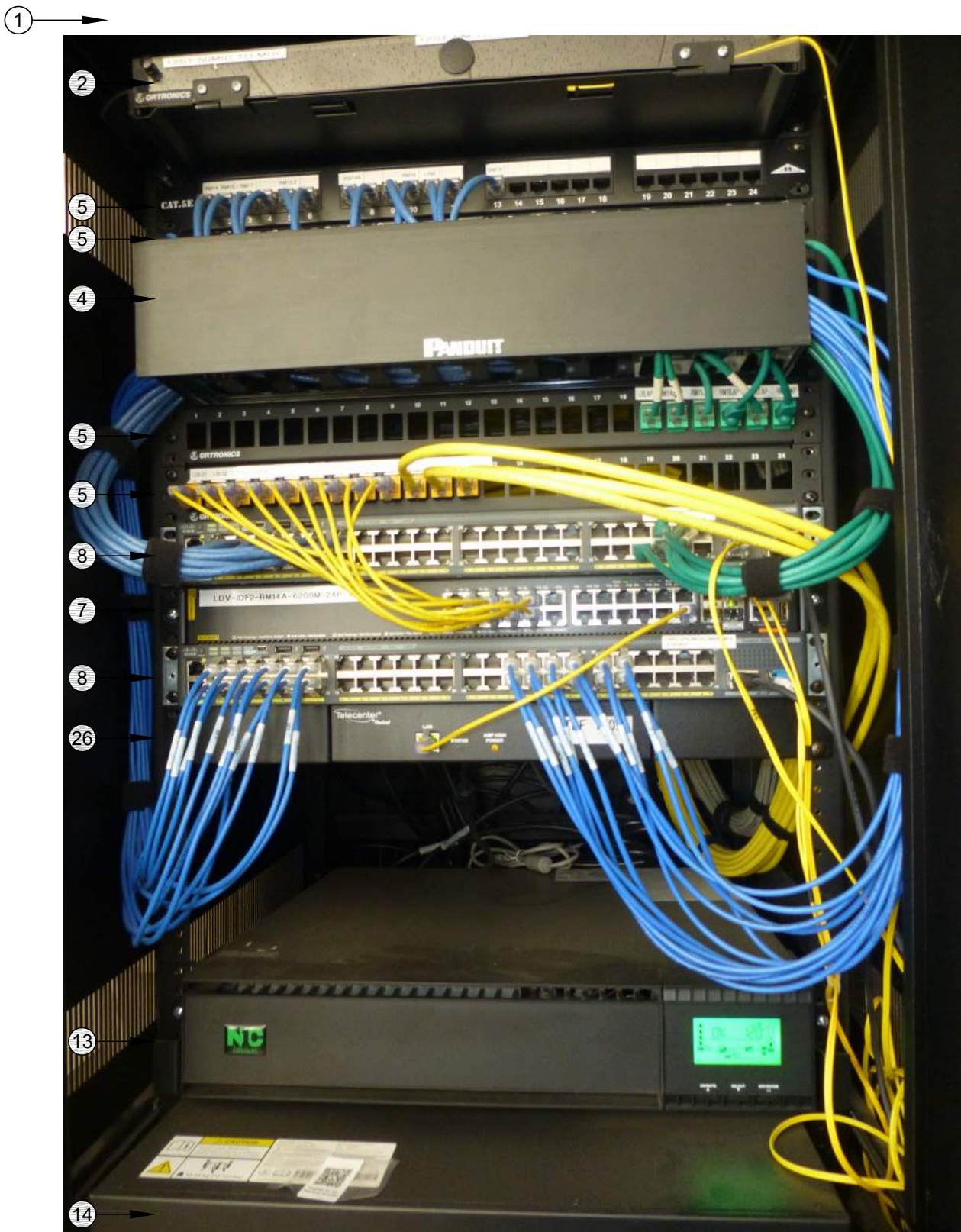
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DESIGNED BY:	RW/CS
CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

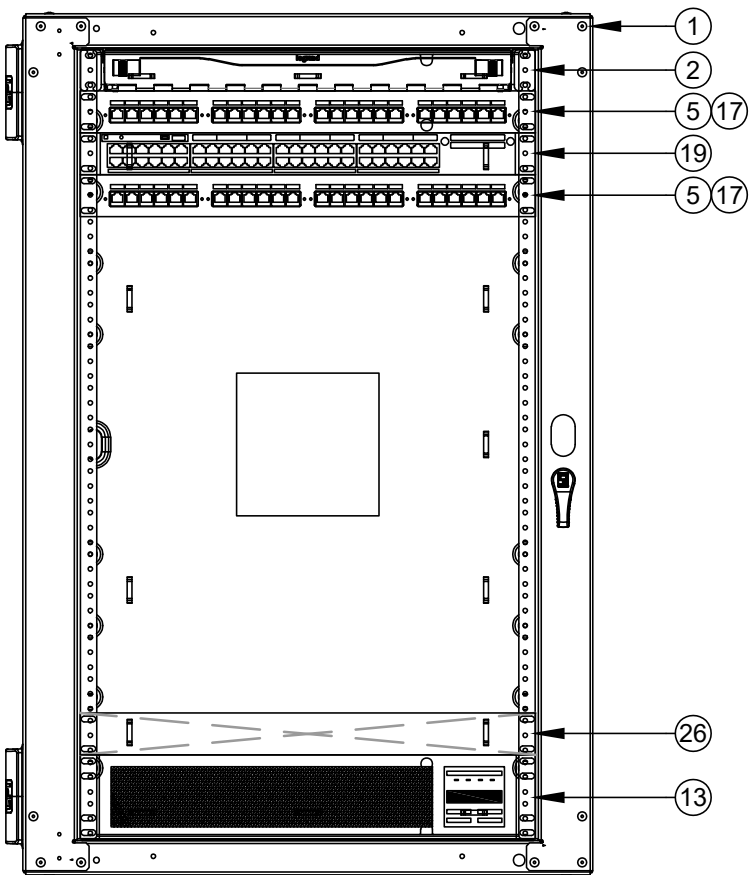
SHEET
T100

SCOPE OF WORK - IDF 1.02
1. DEMO THE CAT5 PATCH PANEL AND APPROX. 13 DROPS TO FIELD.
2. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
3. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE



RACK - FINAL LAYOUT

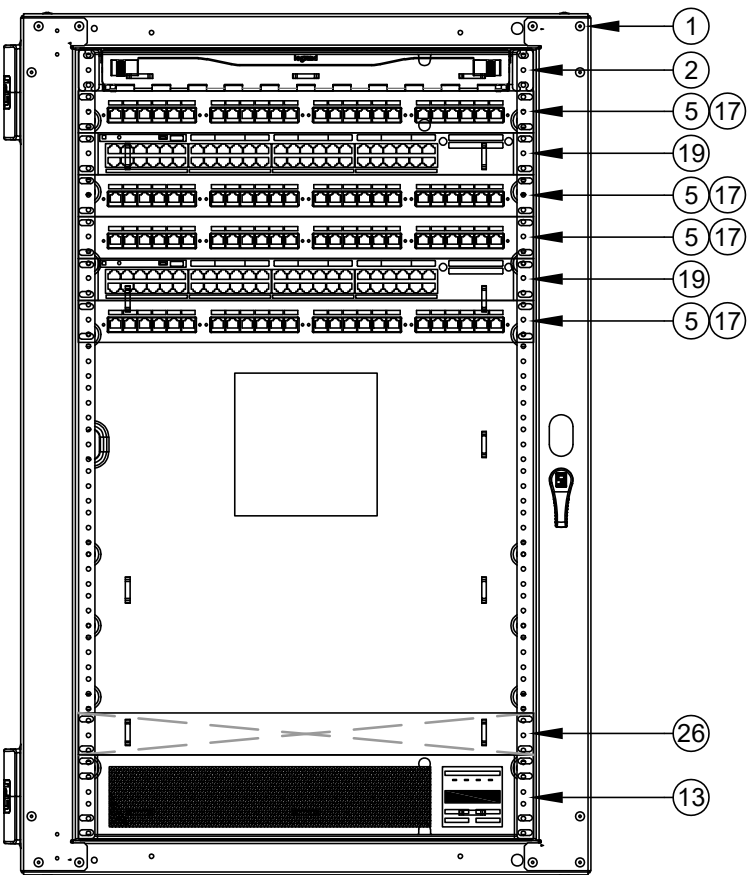
SCALE: NONE

SCOPE OF WORK - IDF 1.01
1. DEMO THE CAT5 PATCH PANEL AND APPROX. 16 DROPS TO FIELD.
2. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
3. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE

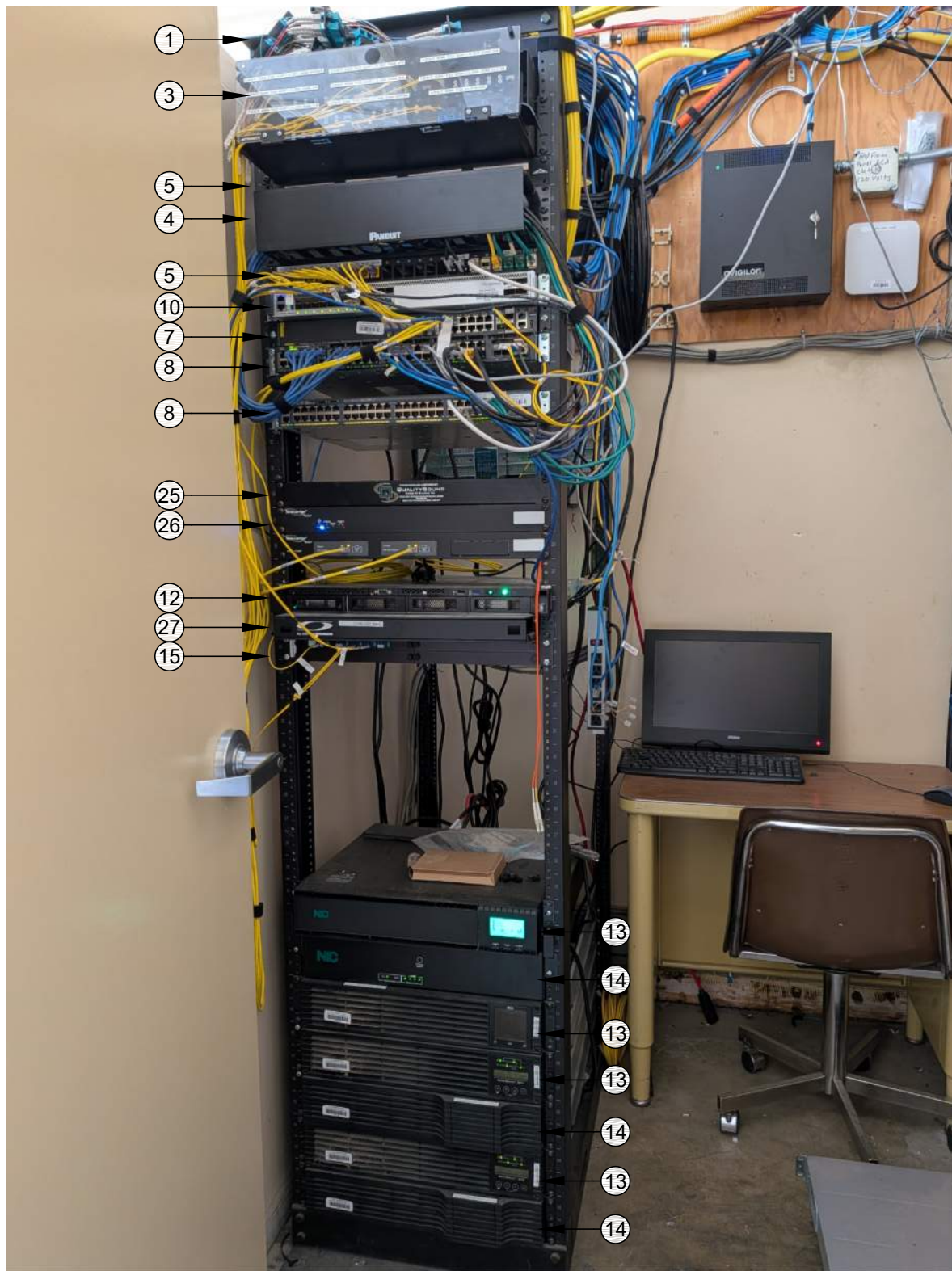


RACK - FINAL LAYOUT

SCALE: NONE

GENERAL SCOPE OF WORK: (ALL IDF/MDF)
1. REMOVE ALL (E) RACK-MOUNTED CABLE MANAGER(S).
2. PROVIDE (N) REAR CABLE MANAGEMENT BAR(S) AT EACH PATCH PANEL AND DRESS (E) CABLES FOR STRAIN RELIEF PER 10T800.
3. RELOCATE (E) DEVICES PER THE ELEVATION.
4. INSTALL (N) OWNER-FURNISHED SWITCHES PER THE ELEVATION.
5. PROVIDE (N) 6" SLIMLINE CAT6A PATCH CABLES TO REPLACE ALL (E) PATCH CABLES AND FOR ALL (N) DROPS, COLOR CODED TO DISTRICT STANDARD.

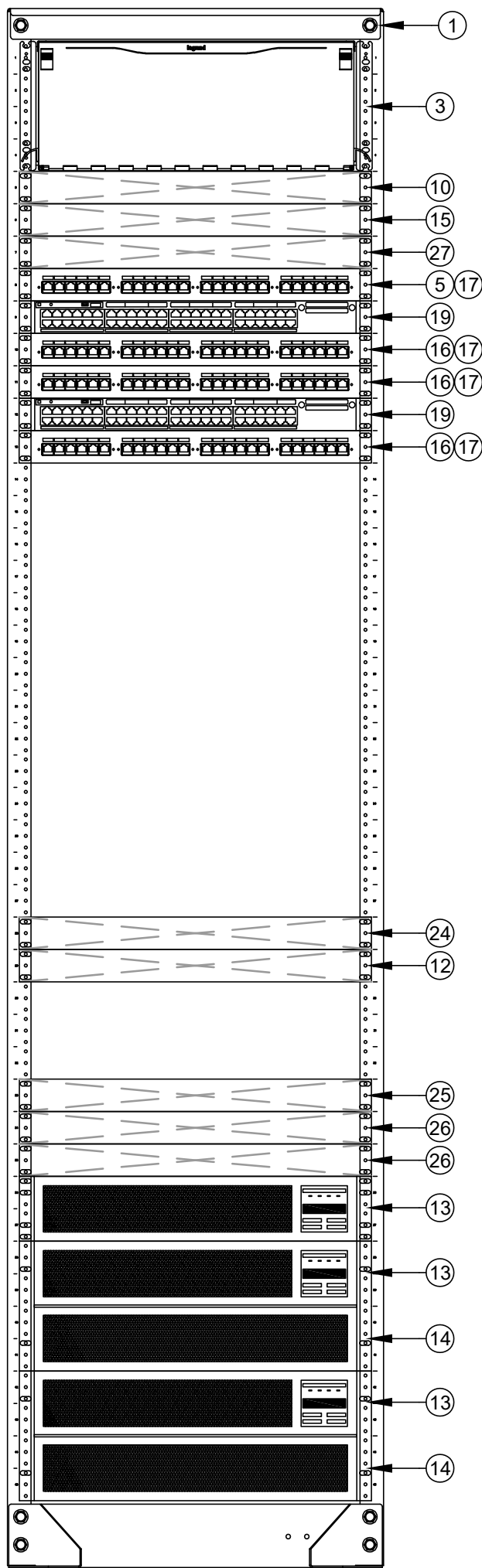
SCOPE OF WORK - MDF 1.00
1. DEMO THE CAT5 PATCH PANEL AND APPROX. 16 DROPS TO FIELD.
2. DEMO 8 EA. ABANDONED MM FIBER CABLES.
3. PROVIDE (N) 24P PATCH PANELS PER THE ELEVATION.
4. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE

EQUIPMENT SCHEDULE: ALL EQUIPMENT AND MATERIALS ARE CONTRACTOR FURNISHED, INSTALLED AND CONFIGURED (UNO)				
SYMBOL	DESCRIPTION	MFG	PART NUMBER	NOTES / DETAIL REFERENCES
①	RACK CABINET	EXISTING	EXISTING	N/A
②	(E) 1U FIBER LIU	EXISTING	EXISTING	N/A
③	(E) 4U FIBER LIU	EXISTING	EXISTING	N/A
④	(E) 2U CABLE MANAGER	EXISTING	EXISTING	DEMO
⑤	(E) 1U 24P PATCH PANEL	EXISTING	EXISTING	RELOCATE PER ELEVATION
⑥	(E) 2U 48P PATCH PANEL	EXISTING	EXISTING	RELOCATE PER ELEVATION
⑦	(E) 24P SWITCH	EXISTING	EXISTING	DEMO
⑧	(E) 48P SWITCH	EXISTING	EXISTING	DEMO
⑨	(E) CCTV SWITCH AND PSU	EXISTING	EXISTING	DEMO
⑩	(E) CORE SWITCH	EXISTING	EXISTING	N/A
⑪	(E) VOIP GATEWAY	EXISTING	EXISTING	DEMO
⑫	(E) NVR	EXISTING	EXISTING	N/A
⑬	(E) UPS	EXISTING	EXISTING	N/A
⑭	(E) UPS BATTERY	EXISTING	EXISTING	N/A
⑮	(E) CWDM CHASSIS	EXISTING	EXISTING	N/A
⑯	(N) 1U 24P PATCH PANEL	ORTRONICS	SPKSU24	N/A
⑰	(N) REAR CABLE MANAGEMENT BAR	ORTRONICS	OR-CMBFR0RU	N/A
⑱	(E) TELECENTER ZONE AMP	EXISTING	EXISTING	RELOCATE PER ELEVATION
⑲	(N) 48P SWITCH	CISCO	0FCI	N/A
⑳	(N) UPS - 1500VA	NIC	N1C.L1500	N/A
㉑	NOT USED	NOT USED	NOT USED	N/A
㉒	NOT USED	NOT USED	NOT USED	N/A
㉓	NOT USED	NOT USED	NOT USED	N/A
㉔	(N) 1U RACK MOUNT MONITOR	TRIPP LITE	8021-000-19-HD2	N/A
㉕	(E) TELECENTER CONTROLLER	EXISTING	EXISTING	N/A
㉖	(E) TELECENTER MODULE	EXISTING	EXISTING	N/A
㉗	(E) SERVICE PROVIDER LIU	EXISTING	EXISTING	N/A



RACK - FINAL LAYOUT

SCALE: NONE



KMM SERVICES, INC
TECHNOLOGY & FIRE LIFE SAFETY

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SHEET REVISIONS

DELTA	DESCRIPTION	DATE

SITE KEY PLAN

PROJECT
SACRAMENTO
CITY USD
LEONARDO DA VINCI K-8
NETWORK REPLACEMENT
4701 JOAQUIN WAY
SACRAMENTO, CA 95822

SHEET TITLE
CYBER SECURITY
RACK ELEVATIONS

DRAWING STATUS

CONSTRUCTION DOCUMENTS

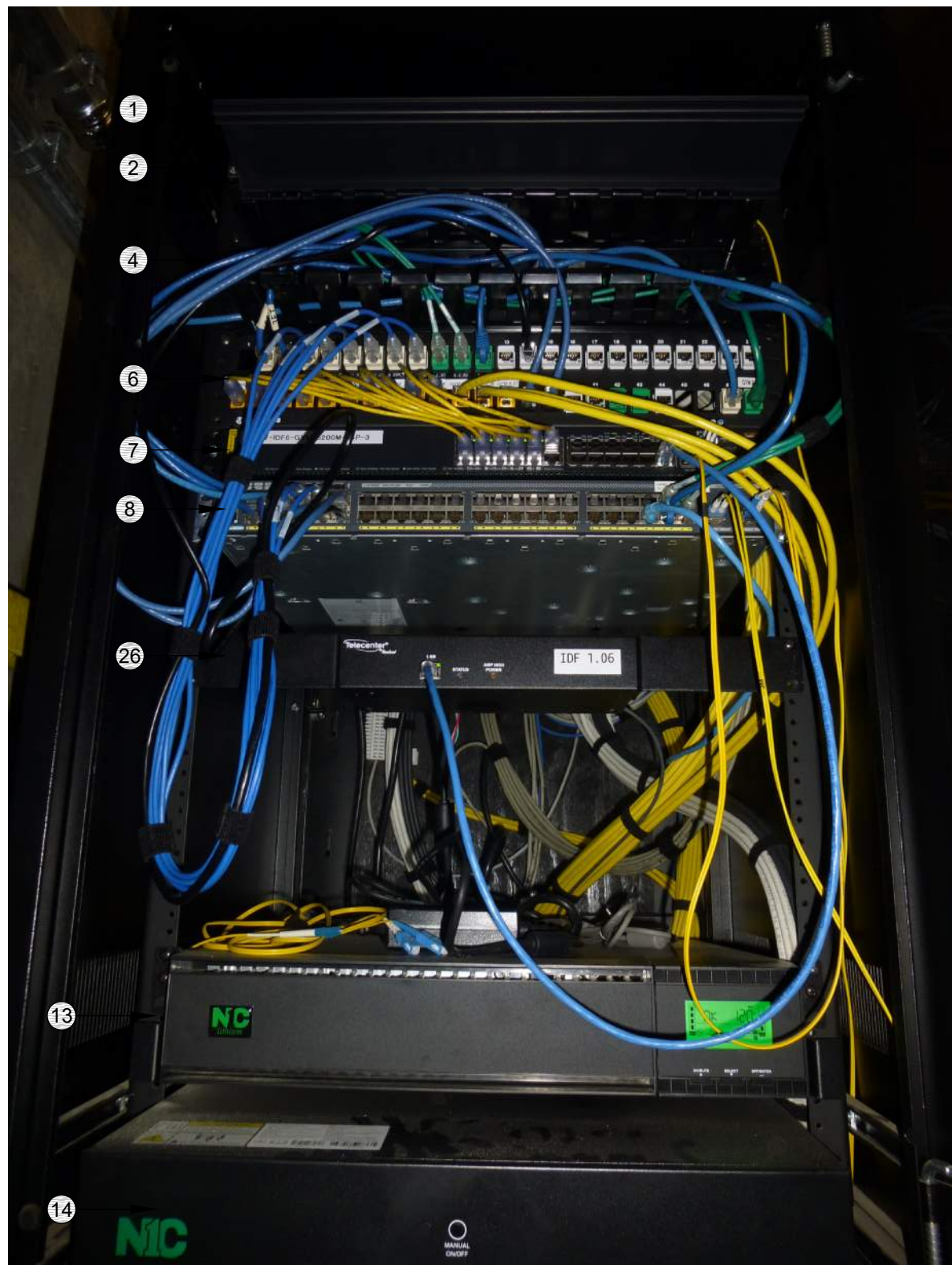
PROJECT NO:	-
BID PACKAGE:	426-LDV
DESIGNED BY:	RWCS
CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

SHEET

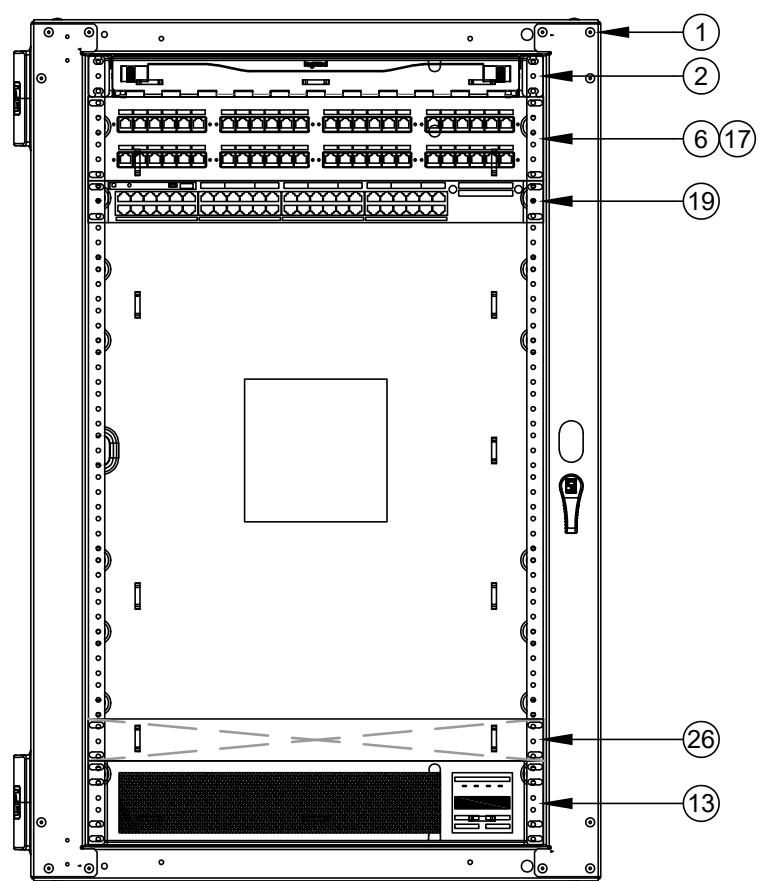
T400

SCOPE OF WORK - IDF 1.06
1. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10/T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
2. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE



RACK - FINAL LAYOUT

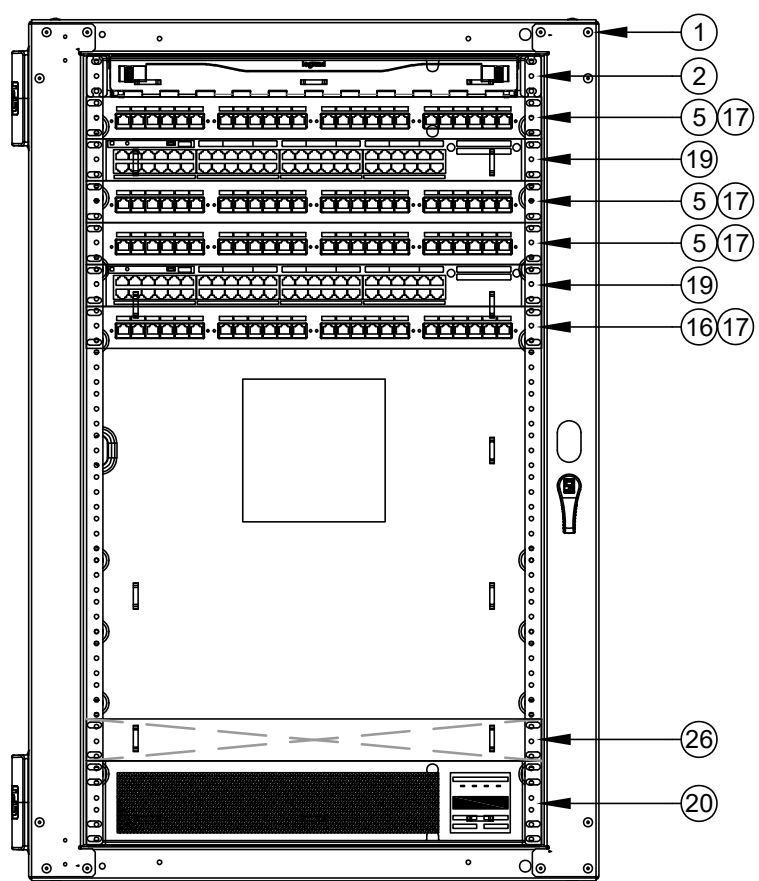
SCALE: NONE

SCOPE OF WORK - IDF 1.05
1. IDENTIFY (6) DATA DROPS ON THE CAT5 PATCH PANEL SERVING ROOMS 33 AND 33B. RE-TERMINATE ON (N) WHITE KEYSTONES.
2. DEMO THE CAT5 PATCH PANEL AND THE REMAINING (APPROX. 15) DROPS TO FIELD.
3. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10/T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
4. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

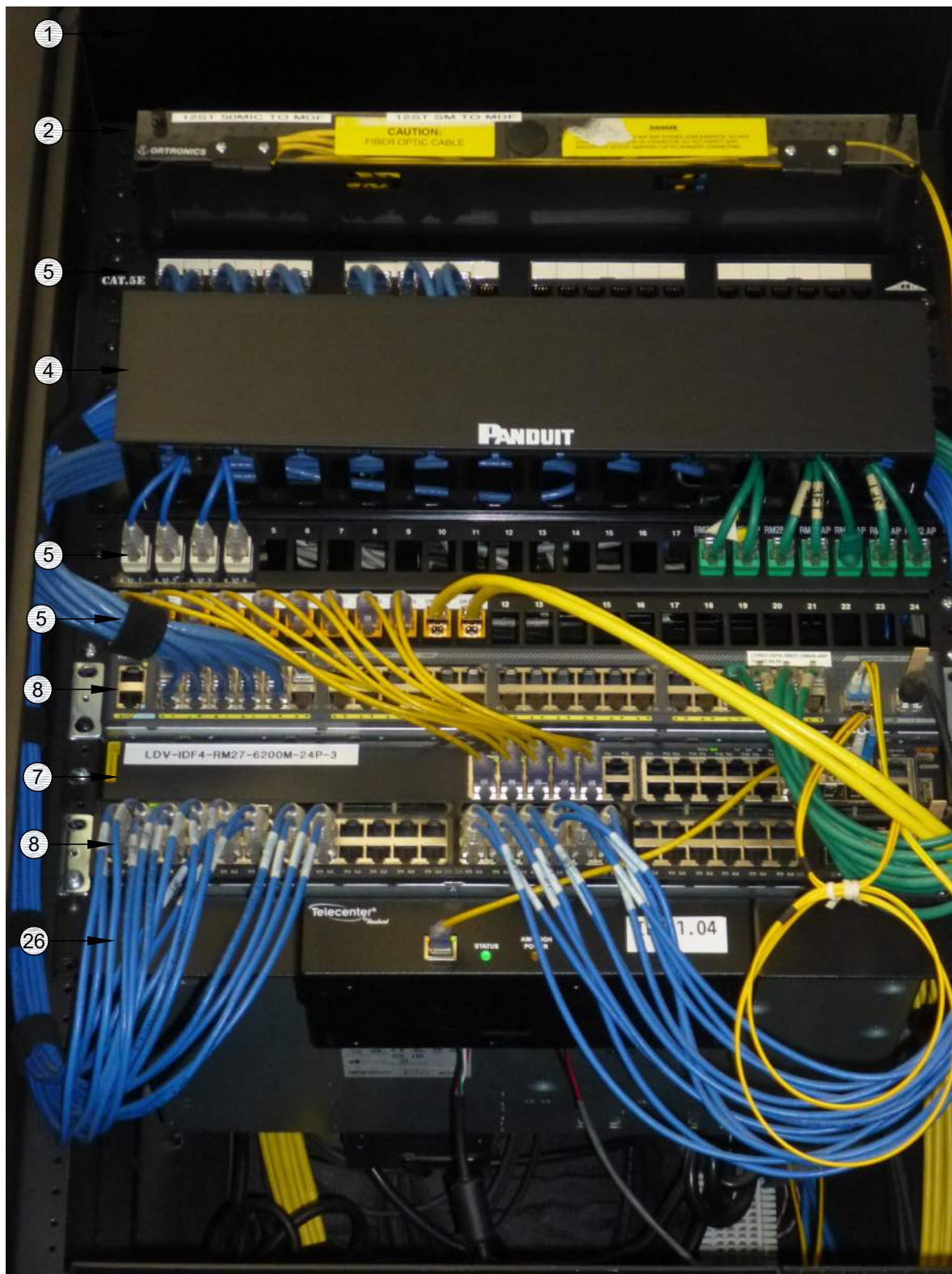
SCALE: NONE



RACK - FINAL LAYOUT

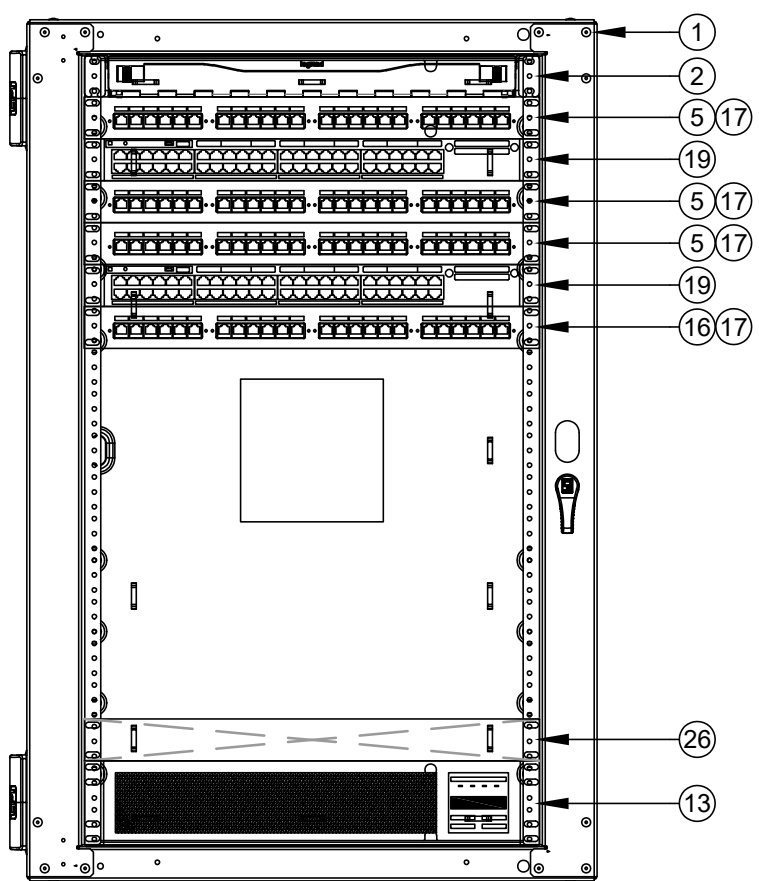
SCALE: NONE

SCOPE OF WORK - IDF 1.04
1. DEMO THE CAT5 PATCH PANEL AND APPROX. 11 DROPS TO FIELD.
2. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10/T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
3. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE

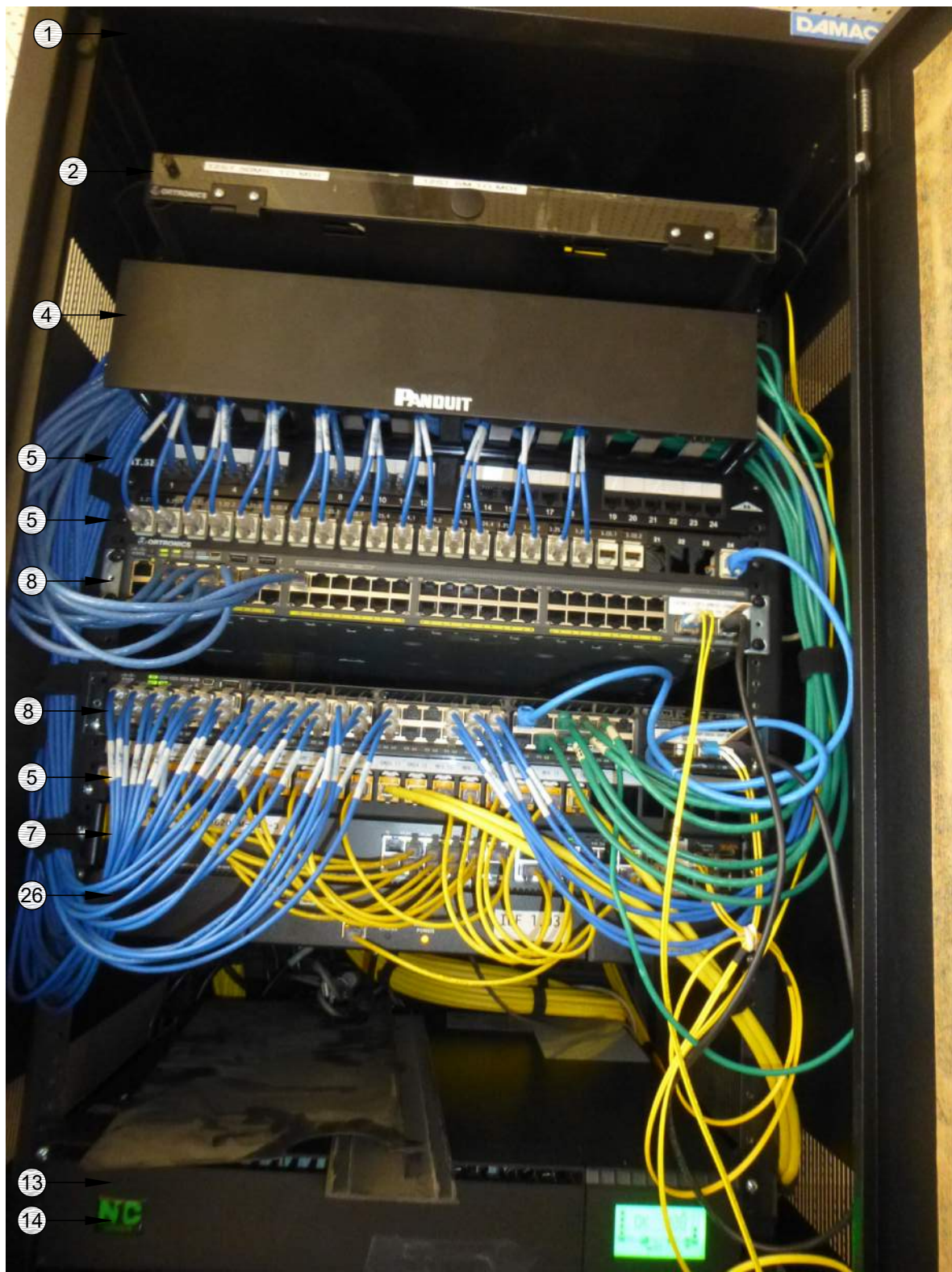


RACK - FINAL LAYOUT

SCALE: NONE

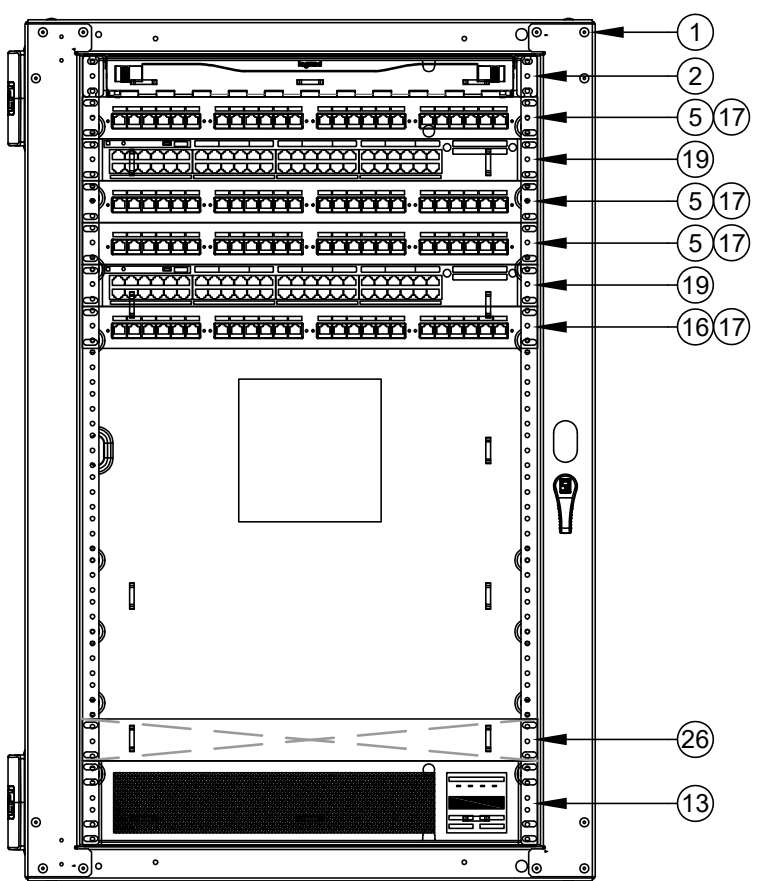
REFER TO SYMBOL LEGEND ON T400 FOR ALL DEVICES ON THIS SHEET

SCOPE OF WORK - IDF 1.03
1. DEMO THE CAT5 PATCH PANEL AND APPROX. 12 DROPS TO FIELD.
2. RE-ORDER AND RE-LABEL ALL REMAINING DROPS PER 10/T800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
3. ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE



RACK - FINAL LAYOUT

SCALE: NONE

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SHEET REVISIONS		
DELTA	DESCRIPTION	DATE

SITE KEY PLAN

PROJECT
SACRAMENTO
CITY USD
LEONARDO DA VINCI K-8
NETWORK REPLACEMENT
4701 JOAQUIN WAY
SACRAMENTO, CA 95822

SHEET TITLE
CYBER SECURITY
RACK ELEVATIONS

DRAWING STATUS
CONSTRUCTION DOCUMENTS

PROJECT NO:	-
BID PACKAGE:	426-LDV
DESIGNED BY:	RWCS
CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

SHEET	T401
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REFER TO SYMBOL LEGEND ON T400 FOR ALL DEVICES ON THIS SHEET

- SCOPE OF WORK - IDF 1.07
1.

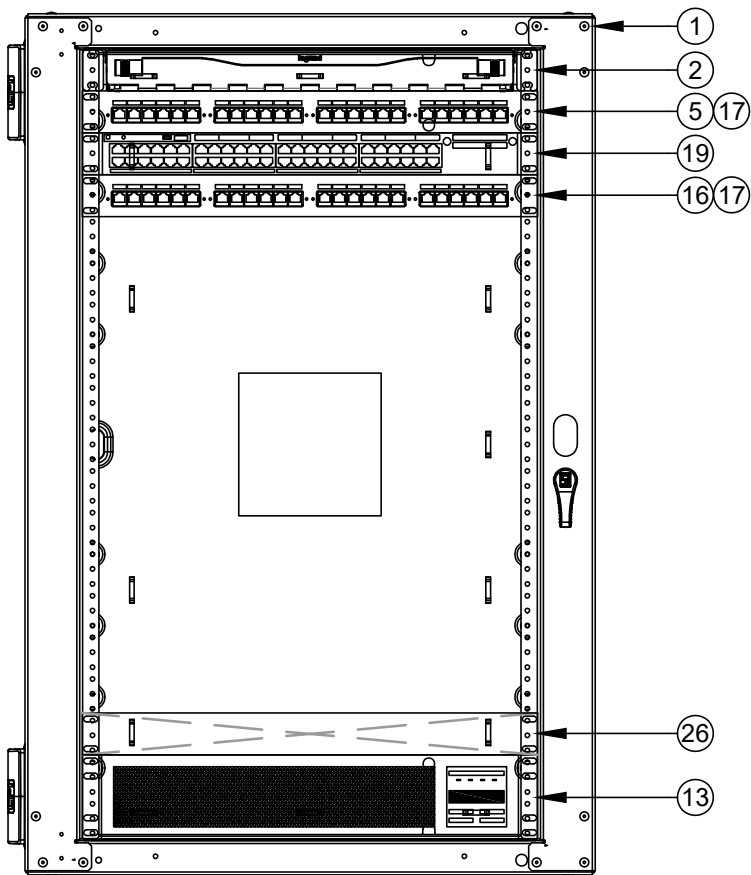
RE-LABEL ALL DROPS PER 10/7800. REPLACE ALL LABELS AT PANEL AND FIELD AND BOTH ENDS OF CABLE.
2.

ROUTE POWER FOR ALL RACK COMPONENTS SO THEY ARE PROTECTED BY THE UNINTERRUPTIBLE POWER SUPPLIES.



RACK - EXISTING CONDITION

SCALE: NONE



RACK - FINAL LAYOUT

SCALE: NONE



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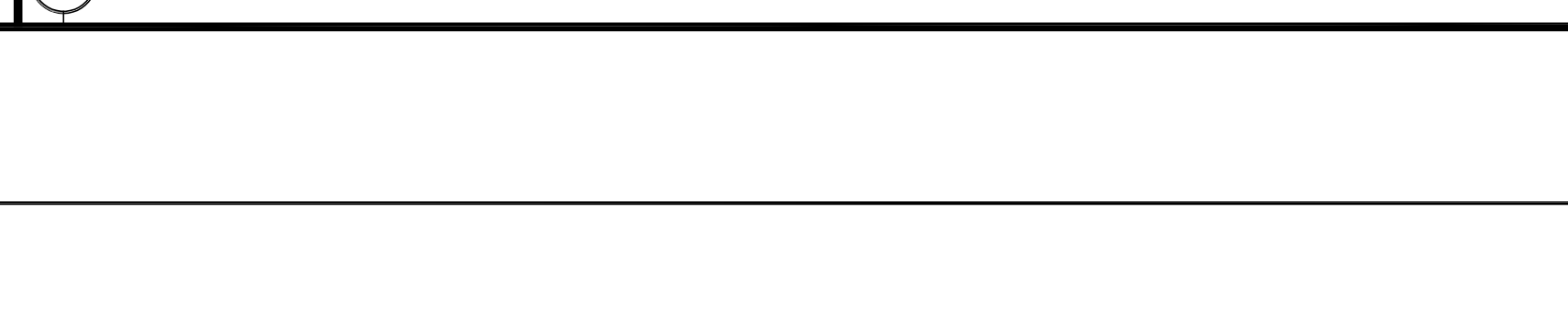
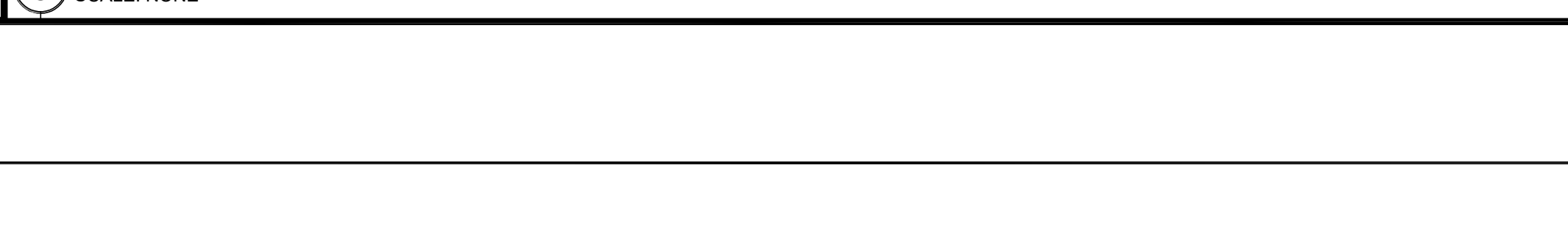
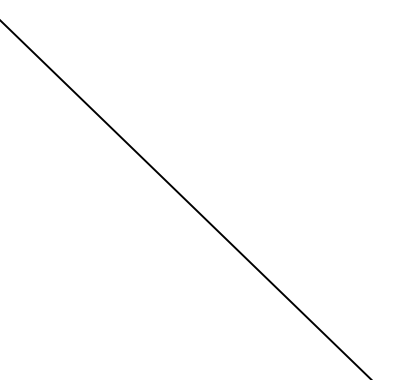
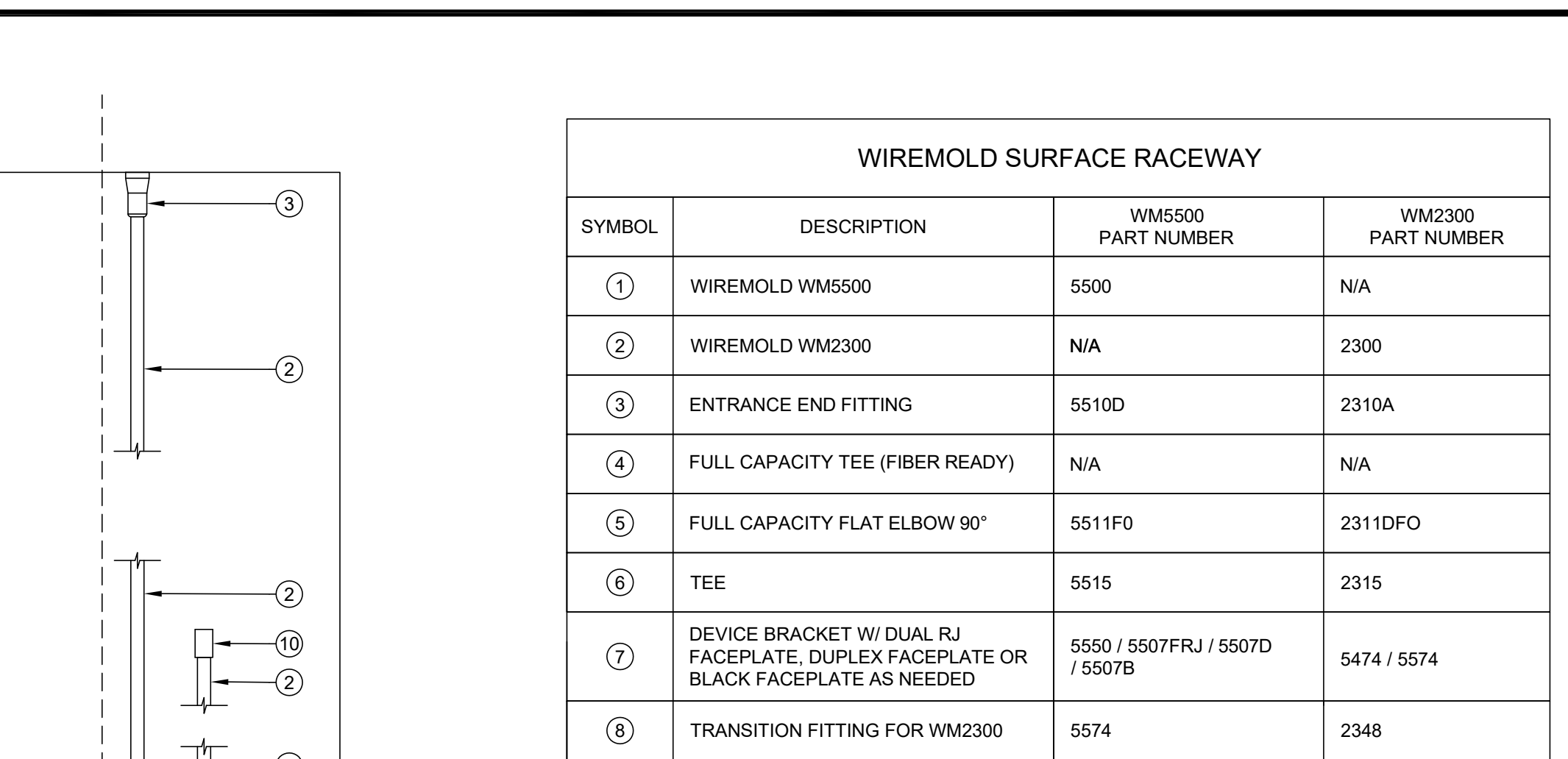
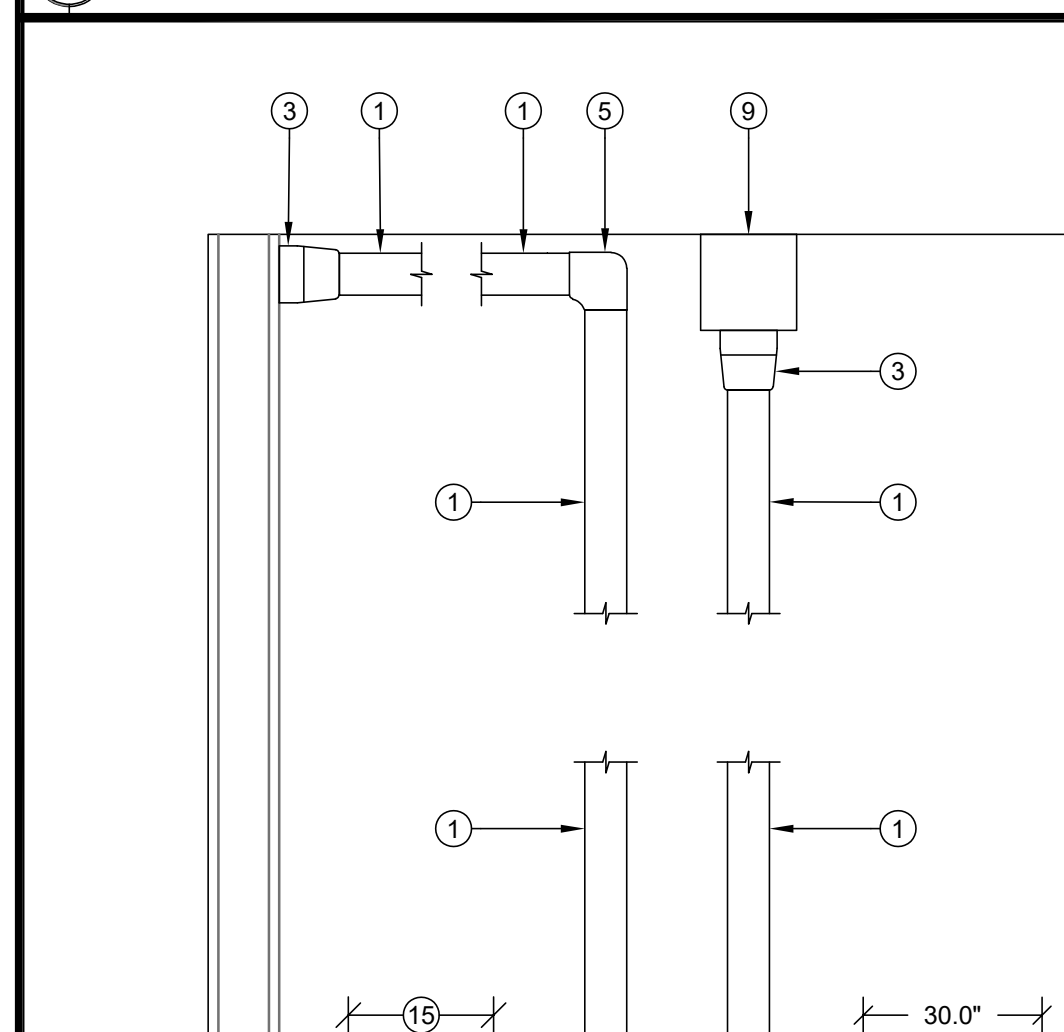
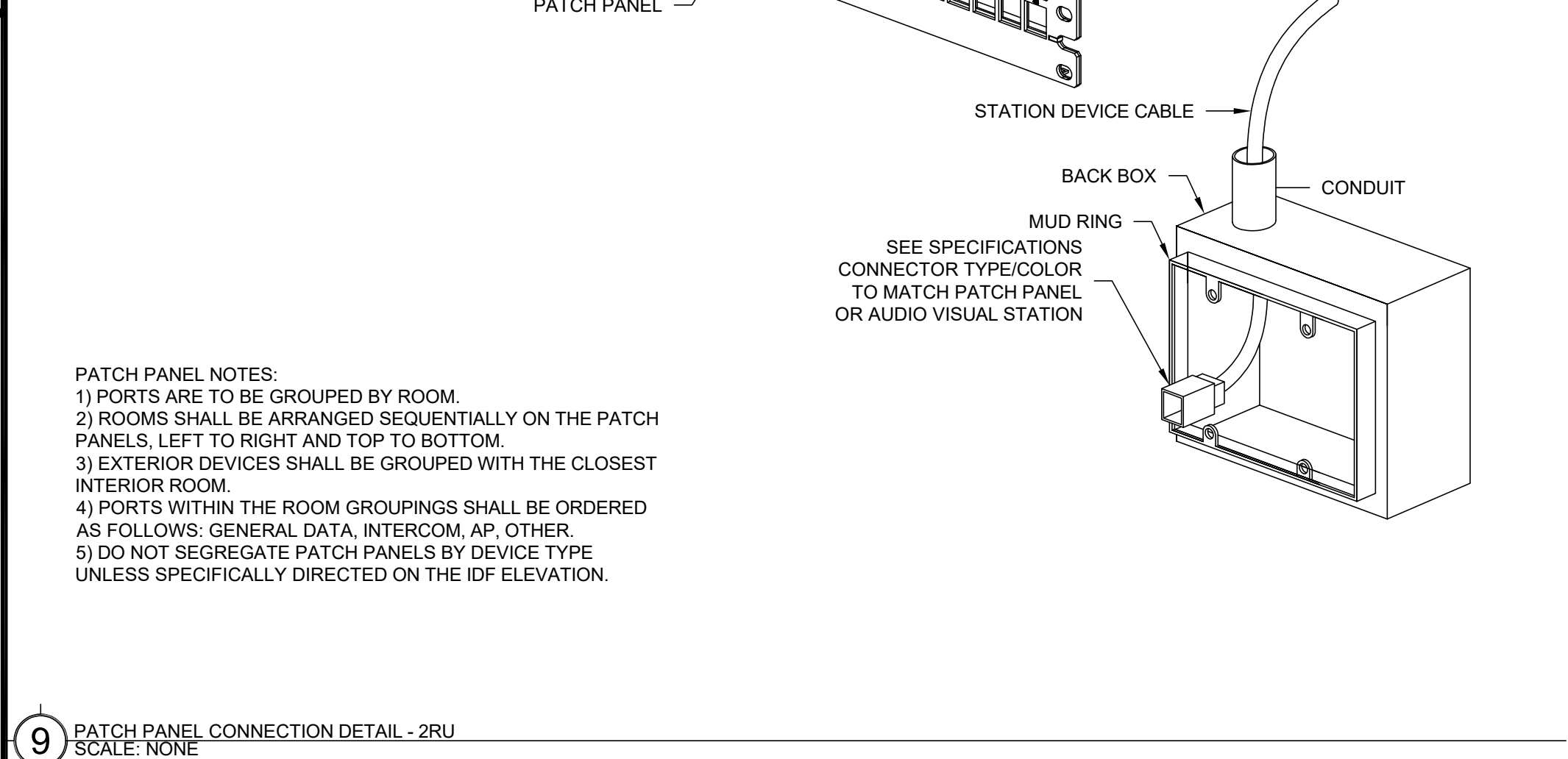
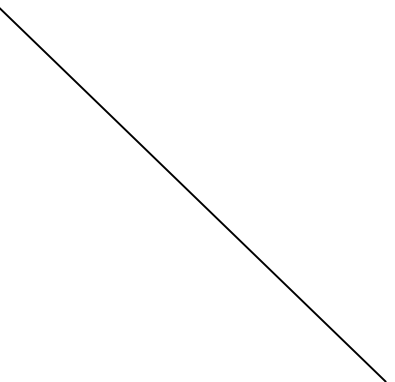
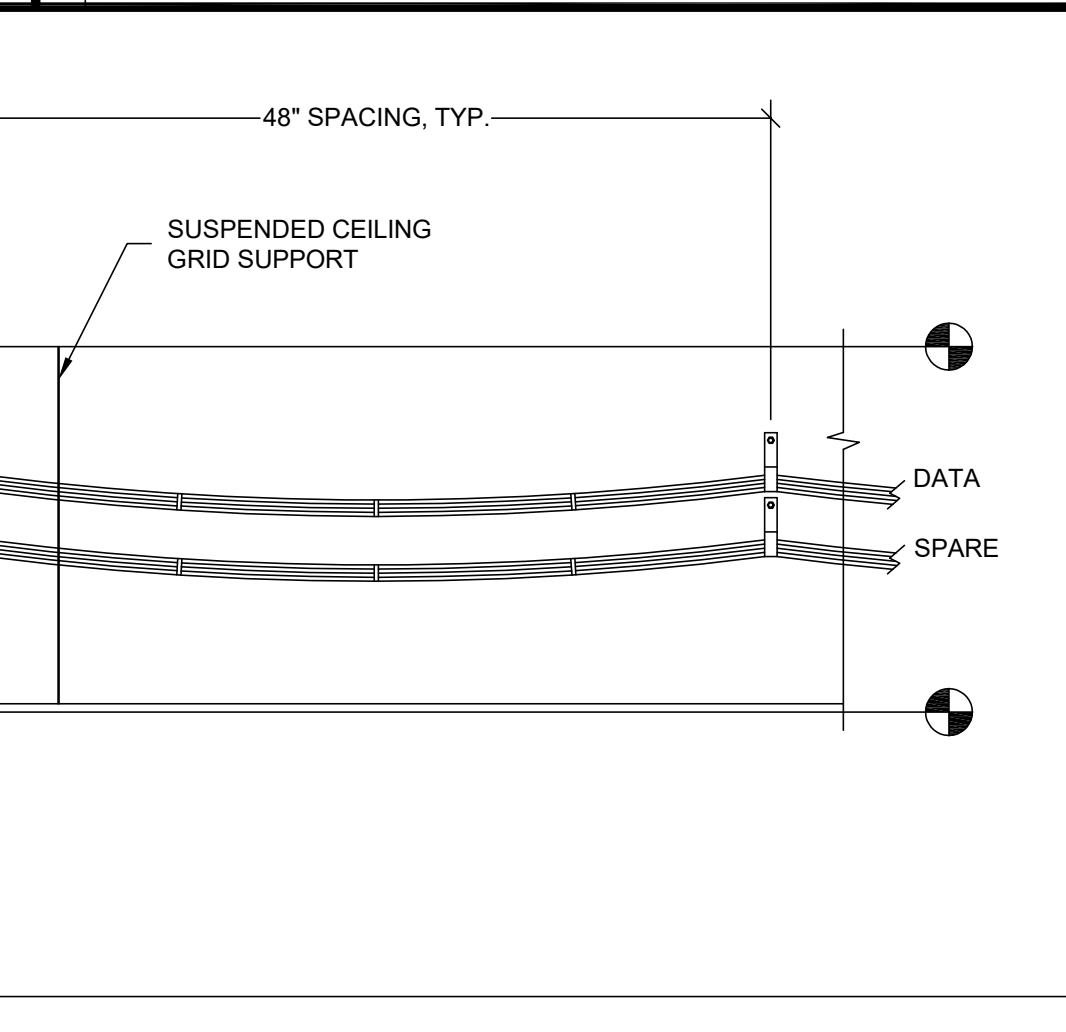
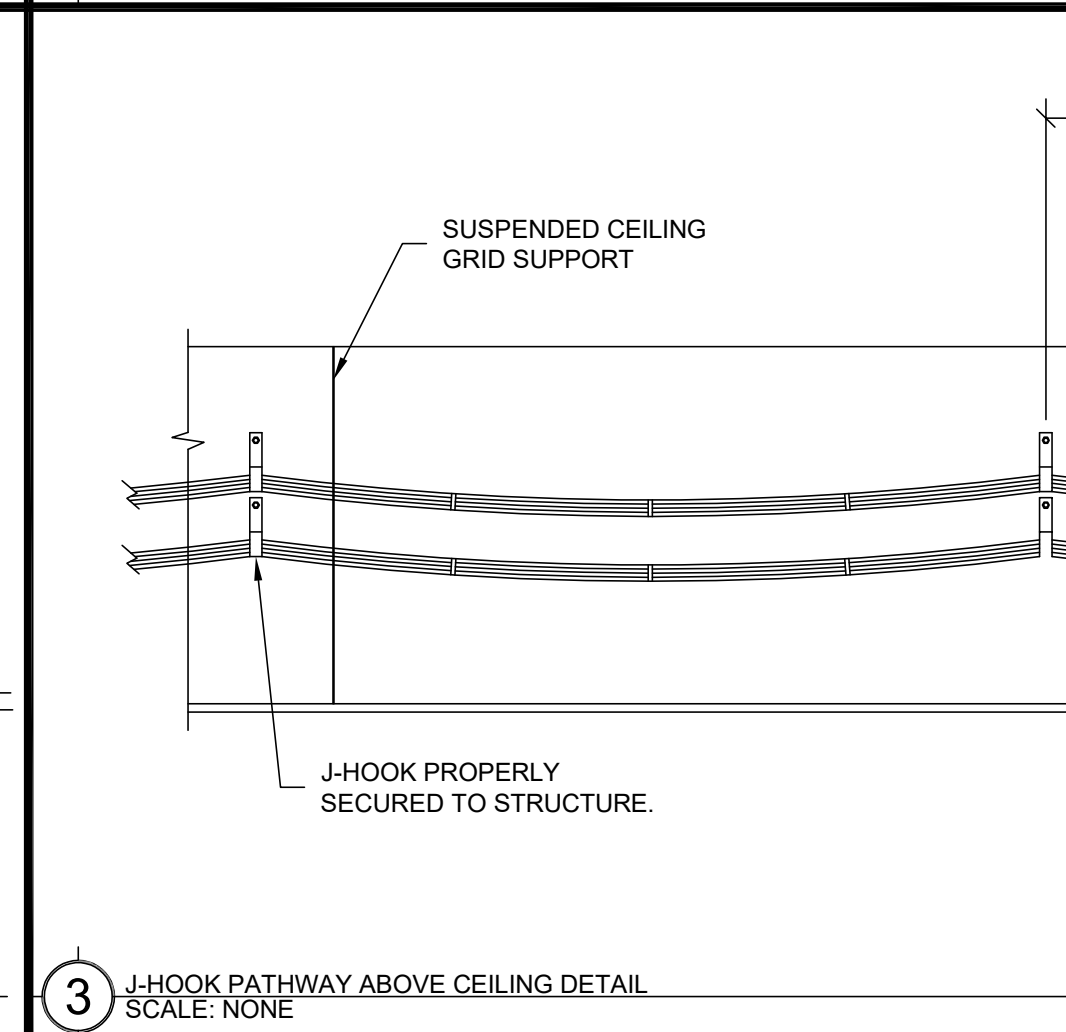
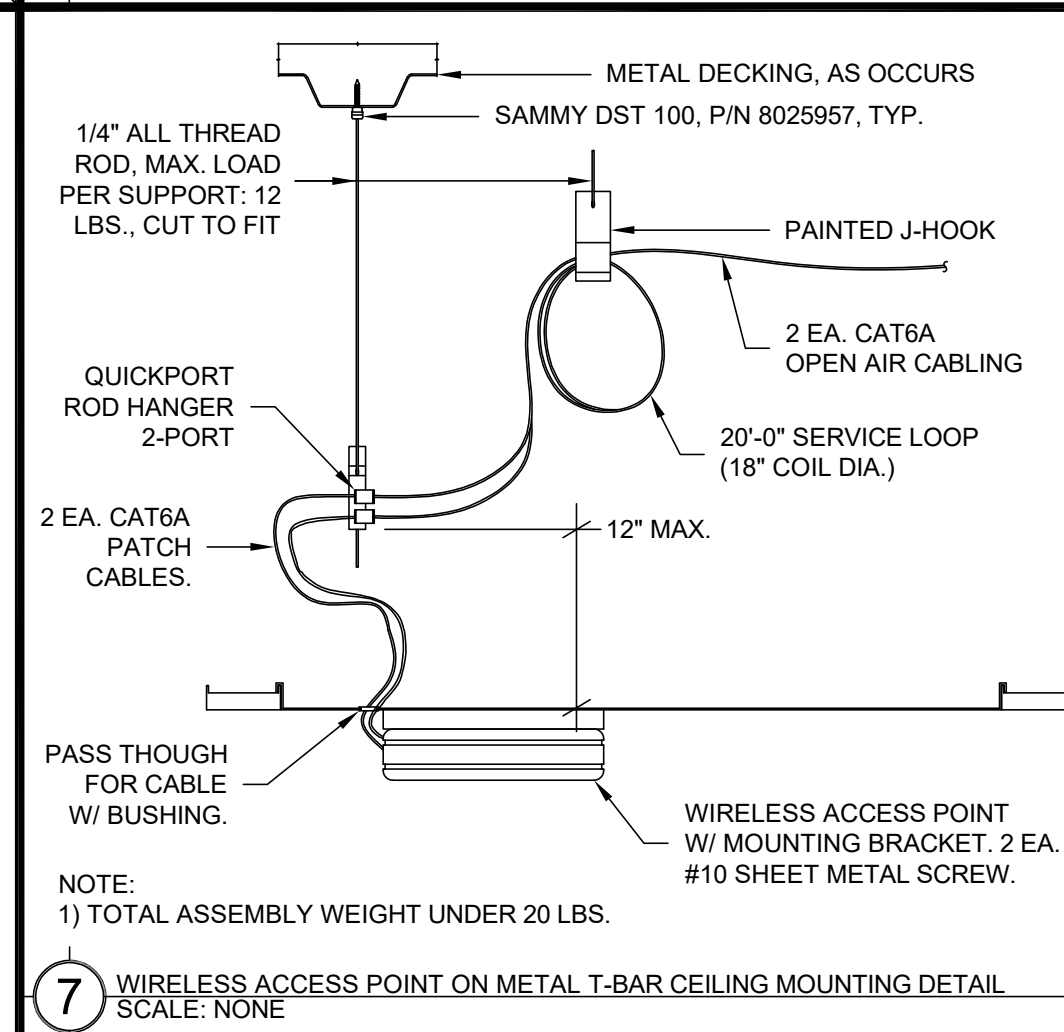
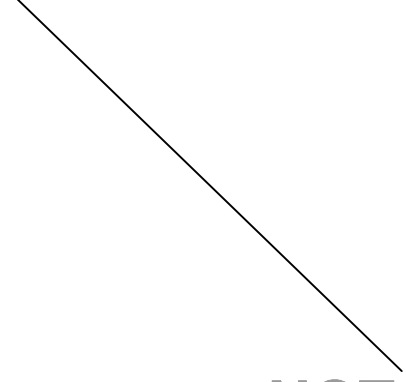
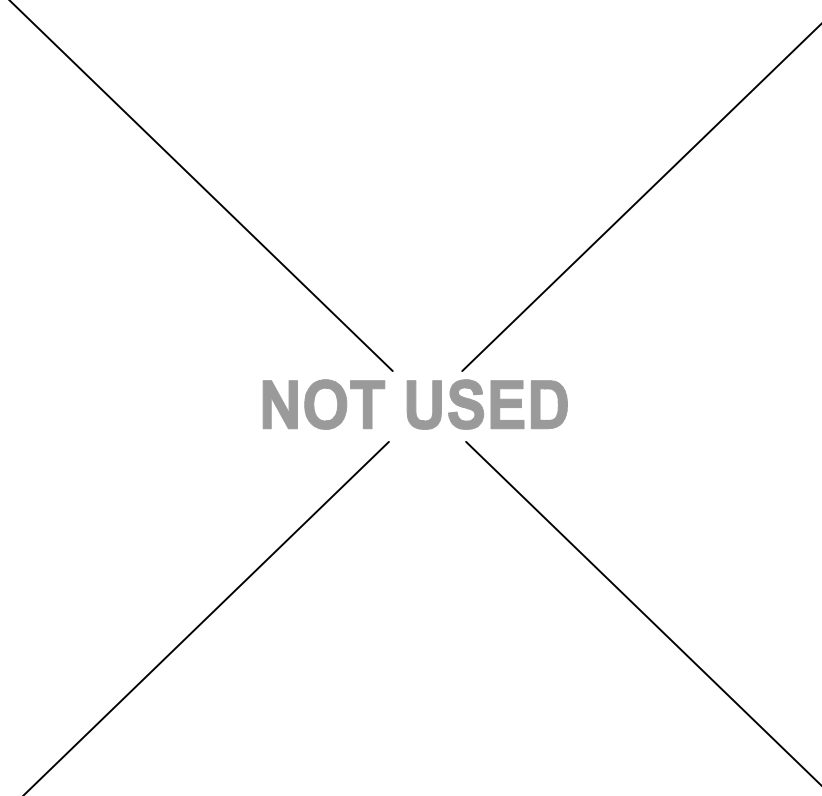
PROJECT NO:	-
BID PACKAGE:	426-LDV
DESIGNED BY:	RWCS
CHECKED BY:	SD
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REVISION

SHEET

T402

NOT USED



NOT USED

NOT USED

NOT USED

NOT USED

NOT USED

2300 ENTRANCE
END FITTING

2300 ENTRANCE
END FITTING

CAMERA DOME

FREE AIR CABLE IN
ABOVE CEILING SPACE

CEILING

2300 WIREMOLD,
COLOR = WHITE

INSIDE WALL, AS
OCCURS.

5

CCTV CAMERA WALL MOUNTING - INTERIOR

SCALE = NONE

NOT USED

NOT USED

NOT USED

NOT USED

NOT USED

Attach the sunshade to the upper side of the camera and fix it on the sunshade mount bracket with the screws on the left and right of the sunshade using the bit (accessory).
Recommended tightening torque: 0.78 N·m (0.58 lbf·ft)

Sunshade

Camera

Sunshade
mount bracket
(accessory)

Screws on the left and
right of the sunshade

4

CCTV CAMERA SUN SHADE MOUNTING DETAIL

SCALE = NONE

NOT USED

NOT USED

NOT USED

NOT USED

NOTE: PAINT ALL CONDUIT AND UNISTRUT TO MATCH WALLS.

EXTERIOR CEILING

(N) 1 EA. 3/4" CONDUIT

UNISTRUT P1000T W/ 1/4"x1-1/2" WOOD SCREW, EMBED INTO CEILING FRAMING MEMBER

180° / 360° EXTERIOR RATED, VANDAL RESISTANT PANORAMIC CAMERA W/IR

EXTERIOR CEILING

(N) 1 EA. 3/4" CONDUIT

UNISTRUT P1000T W/ 1/4"x1-1/2" WOOD SCREW, EMBED INTO CEILING FRAMING MEMBER

EXTERIOR RATED, VANDAL RESISTANT DOME CAMERA W/IR

6

CCTV EXTERIOR CEILING TO EXTERIOR HORIZONTAL BACKBONE DETAIL

SCALE = NONE

NOT USED

NOT USED

NOT USED

NOT USED

GROMMET.

FREE AIR CABLE ABOVE T-BAR.

411 BACKBOX.

T-BAR TILE BRIDGE.

T-BAR TILE.

2 GANG MUD-RING.

CCTV CAMERA.

3

CCTV CAMERA T-BAR SUPPORT DETAIL

SCALE = NONE

NOT USED

NOT USED

NOT USED

NOT USED

EXISTING BUILDING FRAMING SHOWN FOR REFERENCE ONLY

EXTERIOR LIGHT AS OCCURS PER LOCATION

CAULK AND SEAL FOR WATER TIGHT CONNECTION.

BACK BOX AND CONDUIT.

4'-0" MAX. SPACING

J-HOOK(S)

CEILING

SUSPENDED CEILING TILE

FINISHED FLOOR.

2

CCTV EXTERIOR WALL MOUNTING DETAIL

SCALE = NONE

NOT USED

NOT USED

NOT USED

NOT USED

EXTERIOR CORNER WALL, AS OCCURS.

CAMERA, MOUNTING ARM AND CORNER MOUNT, AS PER PLAN. INSTALL AS PER MFG'S INSTRUCTIONS.

HEIGHT AS PER PLAN

3/4" FLEX CONDUIT, WEATHER SEAL ALL OPENINGS.

FINISHED FLOOR

SURFACE-MOUNTED SINGLE GANG BOX WITH 5 3/4" OUTLETS AND BLANK SINGLE GANG COVER PLATE. WEATHER SEAL ALL OPENINGS.

WEATHERPROOF CONNECTION.

CAMERA MOUNTING SIDE VIEW

1

MULTI-SENSOR CAMERA EXTERIOR CORNER WALL MOUNTING DETAIL

SCALE = NONE

NOTE: TOTAL ASSEMBLY WEIGHT = 18.8 LBS.

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SACRAMENTO
CITY USD
LEONARDO DA VINCI K-8
NETWORK REPLACEMENT
4701 JOAQUIN WAY
SACRAMENTO, CA 95822

SHEET TITLE
CYBER SECURITY
CCTV DETAILS

DRAWING STATUS
CONSTRUCTION DOCUMENTS

PROJECT NO:	-
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CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

SHEET

T801

Classified by Underwriters Laboratories, Inc. to ANSI/UL 1479 (ASTM E814) and ANSI/UL263 (ASTM E119)

CLIV R14288
Wall-opening Protective Materials

SpecShield Power Shield Box Inserts. For use with flush device UL Listed Metallic Outlet Boxes without internal clamps installed with steel stud rings in framed wall assemblies. When protective material is used in outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610 mm) provided that the boxes are not installed back-to-back. Installation shall comply with the National Electrical Code (NFPA 70). The max outlet box dimensions, hourly rating, type of stud, use of stud cavity insulation and type of fasteners are indicated below. Additional general construction features shall comply as follows:

- A. **Studs** - Unless otherwise specified, the minimum stud width is 3-1/2 in. (89 mm).
- B. **Stud Cavity Insulation** - Where indicated in the table below, stud cavity insulation to consist of min 1-1/2 in. (38 mm) thick fiberglass (min 0.5 pcf or 8 kg/m3) or mineral fiber (min 4 pcf or 64 kg/m3). Unless indicated as required, stud cavity insulation is optional.
- C. **Wall Design** - Stud composition is indicated in the table below. Wall construction shall comply with the individual U300, U400 or V400 Series Wall and Partition Design in the Fire Resistance Directory.

D. **Product Dimensions** - The minimum dimensions in the insert pad are shown in the table below. Pads may be cut to achieve dimensions shown in table and partial insert pads may be utilized.

Product	Max Outlet Box Size (in. mm)	Outlet Box Type	Outlet Box Mfr.	Prod Size (in. mm)	Rating hr	Stud	Cavity Insulation	Face Plate Type	Putty Ball
EP 23	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	2	Steel	No	Steel	-
EP 23	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	2	Steel	Yes	Plastic	-
EP 23	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	1	Steel or Wood	Yes	Plastic or Steel	-
EP 24	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	2	Steel	No	Steel	-
EP 24	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	2	Steel	Yes	Plastic	-
EP 24	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	1-7/8 x 2-3/4 (48.3 x 60.3)	1	Steel or Wood	Yes	Plastic or Steel	-
EP 44	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	2	Steel	No	Steel	-
EP 44	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	2	Steel	Yes	Plastic	-
EP 44	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	1	Wood	Yes	Steel	-
EP 45	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	1 or 2	Wood	Yes	Steel	-
EP 45	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	1 or 2	Wood	Yes	Steel	-
EP 45	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	3-3/4 x 3-3/4 (95.2 x 95.2)	1 or 2	Wood	Yes	Steel	-

SpecShield Putty Pads. For use with flush device UL Listed Metallic Outlet Boxes installed with steel stud rings or UL Listed Nonmetallic Outlet Boxes in framed wall assemblies. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610 mm) provided that the boxes are not installed back-to-back. Installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thickness of putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box. When nonmetallic box is used with steel (Item 2), a (5 mm) thickness of putty shall be formed around the cable at its connection to the box and extending a min of 1 in. (25 mm). The box composition, max device dimensions, hourly rating, type of stud and type of fasteners are indicated below. Additional general construction features shall comply as follows:

- A. **Studs** - Unless otherwise specified, the minimum stud width is 3-1/2 in. (89 mm).
- B. **Stud Cavity Insulation** - Unless indicated as required, stud cavity insulation is optional and may consist of min 3-1/2 in. (89 mm) thick fiberglass (min 0.5 pcf or 8 kg/m3) or mineral fiber (min 4 pcf or 64 kg/m3).
- C. **Wall Design** - Stud composition is indicated in the table below. Wall construction shall comply with the individual U300, U400 or V400 Series Wall and Partition Design in the Fire Resistance Directory.



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CLIV
PAGE 1 OF 3

SpecShield Putty Pads. For use with flush device UL Listed Metallic Outlet Boxes installed with steel stud rings or UL Listed Nonmetallic Outlet Boxes in framed wall assemblies. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610 mm) provided that the boxes are not installed back-to-back. Installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thickness of putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box.

SpecShield EP23, EP24 and EP44 Power Shield Box Inserts and SpecShield Putty Pads. For use with maximum 4 by 4 by 2-1/8 in. (102 by 102 by 54 mm) deep flush device UL Listed Metallic Outlet Boxes installed with steel stud rings and with steel fasteners in 1 hr or 2 hr fire rated gypsum board wall assemblies constructed with min 5-1/2 in. (140 mm) wide wood or steel studs and with stud cavities filled with fiberglass (min 0.5 pcf or 8 kg/m3) or mineral fiber (min 4 pcf or 64 kg/m3) insulation. When protective material is used on outlet boxes on both sides of the wall as directed, the boxes may be installed back-to-back provided that the boxes on opposite sides of the wall are not interconnected with conduit or, when interconnected, the open end of the conduit within the outlet box is filled with a ball of putty installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box.

Model	Max Outlet Box Size (in. mm)	Outlet Box Type	Outlet Box Mfr.	Prod Size (in. mm)	Rating hr	Stud	Cavity Insulation	Face Plate Type	Putty Ball
-	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	-	1	Steel or Wood	-	Steel	No
-	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Plastic	Yes
-	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	4 1/2 x 2 1/8 (113 x 54.1)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	10 1/2 x 10 1/2 x 5 1/2 (265 x 265 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes
-	11 1/2 x 11 1/2 x 5 1/2 (292 x 292 x 139.7)	Steel	N.A.	-	1 or 2	Wood	-	Steel	Yes

SpecShield Putty Pads. For use with maximum 4 by 4 by 2-1/8 in. (102 by 102 by 54 mm) deep flush device UL Listed Metallic Outlet Boxes installed with steel stud rings and with steel fasteners in 1 hr or 2 hr fire rated gypsum board wall assemblies constructed with min 5-1/2 in. (140 mm) wide wood or steel studs and with stud cavities filled with fiberglass (min 0.5 pcf or 8 kg/m3) or mineral fiber (min 4 pcf or 64 kg/m3) insulation. When protective material is used on outlet boxes on both sides of the wall as directed, the boxes may be installed back-to-back provided that the boxes on opposite sides of the wall are not interconnected with conduit or, when interconnected, the open end of the conduit within the outlet box is filled with a ball of putty installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box.

SpecShield EP23, EP24 and EP44 Power Shield Box Inserts and SpecShield Putty Pads. For use with maximum 4 by 4 by 2-1/8 in. (102 by 102 by 54 mm) deep flush device UL Listed Metallic Outlet Boxes installed with steel stud rings and with steel or plastic fasteners in 1 hr or 2 hr fire rated gypsum board wall assemblies constructed with 3-1/2 in. (89 mm) wide wood or steel studs. When both protective materials are used with outlet boxes on both sides of the wall as directed, the boxes may be installed back-to-back provided that the backs of the boxes are minimum 1/2 in. (13 mm) apart and provided that the boxes are not interconnected. Installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box. An insert pad shall be installed to completely cover the back inside surface of each outlet box.



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CLIV
PAGE 2 OF 3

SpecShield Putty Pads. For use with max 5 by 5 by 2 7/8 in. (127 by 127 by 73 mm) deep flush device UL Listed Metallic Outlet Boxes or UL Listed Communications-Circuit Accessories manufactured by Rand Industries Inc for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. (92 mm) wide wood or steel studs and constructed as specified in the individual U300, U400, or V400 or W400 Series Wall and Partition Design in the Fire Resistance Directory. Metallic outlet boxes are to be installed to completely cover the exterior surface of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box.

SpecShield EP55 Power Shield Box Inserts. For use with max 5 by 5 by 2 7/8 in. (127 by 127 by 73 mm) deep flush device UL Listed Metallic Outlet Boxes or UL Listed Communications-Circuit Accessories manufactured by Rand Industries Inc for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. (92 mm) wide wood or steel studs and constructed as specified in the individual U300, U400, or V400 or W400 Series Wall and Partition Design in the Fire Resistance Directory. Metallic outlet boxes are to be installed to completely cover the exterior surface of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box. An insert pad shall be installed to completely cover the back inside surface of each outlet box.

SpecShield EP55 Power Shield Box Inserts. For use with max 5 by 5 by 2 7/8 in. (127 by 127 by 73 mm) deep flush device UL Listed Metallic Outlet Boxes or UL Listed Communications-Circuit Accessories manufactured by Rand Industries Inc for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. (92 mm) wide wood or steel studs and constructed as specified in the individual U300, U400, or V400 or W400 Series Wall and Partition Design in the Fire Resistance Directory. Metallic outlet boxes are to be installed to completely cover the exterior surface of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each Type MC cable, electrical metallic tube (EMT) or conduit to the box. An insert pad shall be installed to completely cover the back inside surface of each outlet box.



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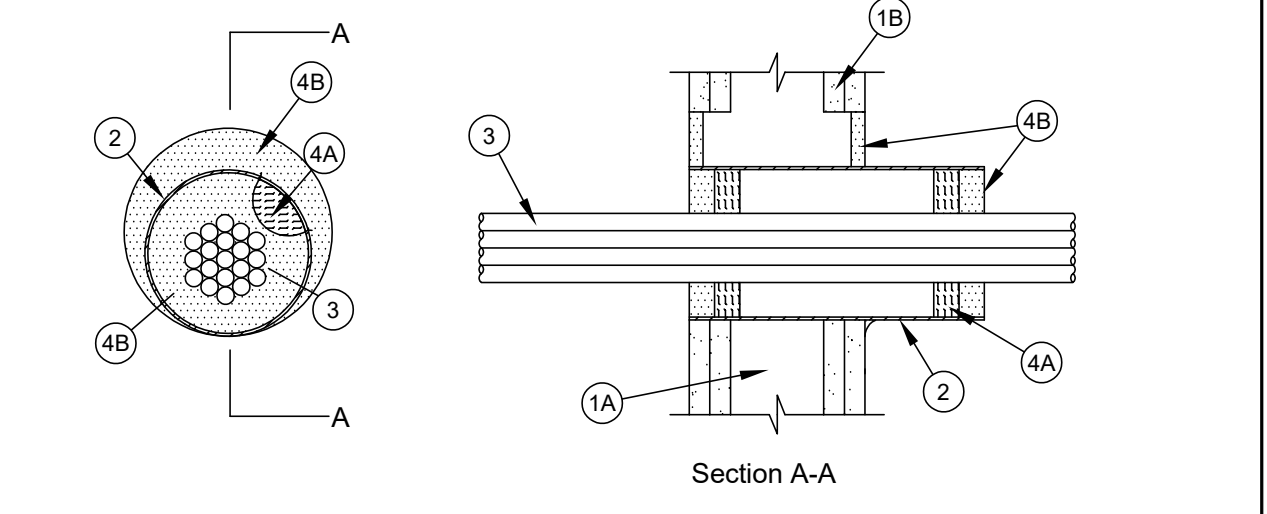
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CLIV
PAGE 3 OF 3

ANSI/UL1479 (ASTM E814)	CANULC S115
F Ratings - 1 and 2 Hr (See Item 1)	F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 3/4 Hr	FT Rating - 3/4 Hr
L Rating at Ambient - Less Than 1 CFM/sq ft (See Items 3 and 4B)	FH Ratings - 1 and 2 Hr (See Item 1)
L Rating at 400°F - Less Than 1 CFM/sq ft (See Items 3 and 4B)	FTH Rating - 3/4 Hr
	L Rating at Ambient - Less Than 5.1 L/S/m ² (See Items 3 and 4B)
	L Rating at 204°F - Less Than 5.1 L/S/m ² (See Items 3 and 4B)



- Wall Assembly** - The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U300, U400, V400, or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
 - Gypsum Board** - Thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, V300, U400, V400 or W400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 6-1/2 in. (165 mm) when steel (Item 2) is installed. Max diam of opening 4 in. (102 mm) when sleeve is not used.
- The hourly F and FH Rating of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
- Steel Sleeve - (Optional)** - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT), steel conduit, Schedule 5 (or heavier) steel pipe sleeve or min 0.016 in. thick (0.41 mm), No. 28 galv steel sleeve installed flush with wall surface. The annular space between the steel sleeve and periphery of opening shall be min 0 in. (0 mm) continuous joint contact) to 2 in. (51 mm). When Schedule 5 steel pipe or EMT is used, sleeve may be installed flush or extend up to 18 in. (460 mm) beyond one or both wall surfaces. Steel sleeve may be installed at an angle not greater than 45 degrees from perpendicular. Schedule 5 steel pipe or EMT sleeves may extend continuously beyond one wall surface. Sleeve to be rigidly supported when extending from the wall surfaces.



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W-L-3210
PAGE 1 OF 2

- Cables** - Aggregate cross-sectional area of cables in opening when a steel sleeve (Item 2) is not used, or within steel sleeve to be max 48 percent of the aggregate cross-sectional area of the opening or sleeve. Cables to be bundled and rigidly supported on both sides of wall assembly. When the sleeve is installed, the annular space between the cables and the sleeve shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). When the sleeve (Item 2) is not used, the annular space between the cables and the opening shall be a min 1/8 in. (point contact) to a max 1/2 in. (13 mm). When L Ratings for penetrants are required, min separation between cables and periphery of opening or sleeve of 1/8 in. (3 mm). Cable bundle, using cables described below, may penetrate the wall at an angle not greater than 45 degrees. Any combination of the following types and sizes of copper conductor cable may be used:
 - Max 200 pair No. AWG (or smaller) copper conductor cable with polyvinyl chloride (PVC) or plenum-rated jacketing and insulation.
 - Max 3/8 No. 20 AWG (or smaller) aluminum or copper conductor service entrance cable with PVC insulation and jacket.
 - Max 3/8 No. 8 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.
 - Max 7/8 No. 12 AWG (or smaller) multiconductor power and control cables with XLPE or PVC insulation and XLPE or PVC jacket.
 - Max RGU (or smaller) coaxial cable with fluorinated ethylene or plenum-rated insulation and jacketing.
 - Max 62.5/48 fiber optic cable with PVC or plenum-rated insulation and jacketing.
 - Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with PVC or plenum-rated insulation and jacket.
 - Max 4/8 No. 20 aluminum or copper conductor aluminum or steel Metal-Clad or Armored-Clad cable.
 - Max 3/4-in. (19 mm) diam copper ground cable with or without a PVC jacket.
- Firestop System** - The firestop system shall consist of the following:
 - Packing Material** - When required (See table in Item 4B), min 1 in. (25 mm) thickness of min 4.0 pcf (64 kg/m³) mineral wool batt insulation firmly packed into each end of sleeve (Item 2) as a permanent form. Packing material to be recessed from each end of sleeve as required to accommodate the required thickness of fill material. When the sleeve is not used, the packing material is not required.
 - Fill, Void or Cavity Material** - Sealant or Putty - When sleeve (Item 2) is used, fill material applied to appropriate thickness within steel sleeve as shown in the table below. Flush with edges of steel sleeve on both surfaces of wall. Min 1/2 in. (13 mm) thickness of fill material installed into annular space between sleeve and wall flush with both surfaces of the wall. Min 1/2 in. (13 mm) diam bead of sealant or "topp" of putty shall be applied around the perimeter of the sleeve on each side of the wall when sleeve extends beyond surface of wall and is installed at continuous joint contact. When sleeve is not used, a min 5/8 in. (16 mm) thickness of fill material shall be applied within the annulus. Flush with both surfaces of the wall. At point contact location, apply min 1/4 in. (6 mm) diam bead of fill material at cable/gypsum board interface on both sides of the wall.

Sealant or Putty Type	Thickness, in. (mm)	Packing Material Required
SpecShield Series SSS Sealant - of LCI Sealant	1/2 in. (13)	Yes
SpecShield Series SSS Sealant - of LCI Sealant	1 in. (25)	No
SpecShield Putty	1 in. (25)	No

SPECIFIED TECHNOLOGIES INC. - SpecShield Series SSS Sealant, SpecShield LCI Sealant or SpecShield Putty
L Ratings apply only when SpecShield Series SSS or SpecShield LCI Sealants are used.
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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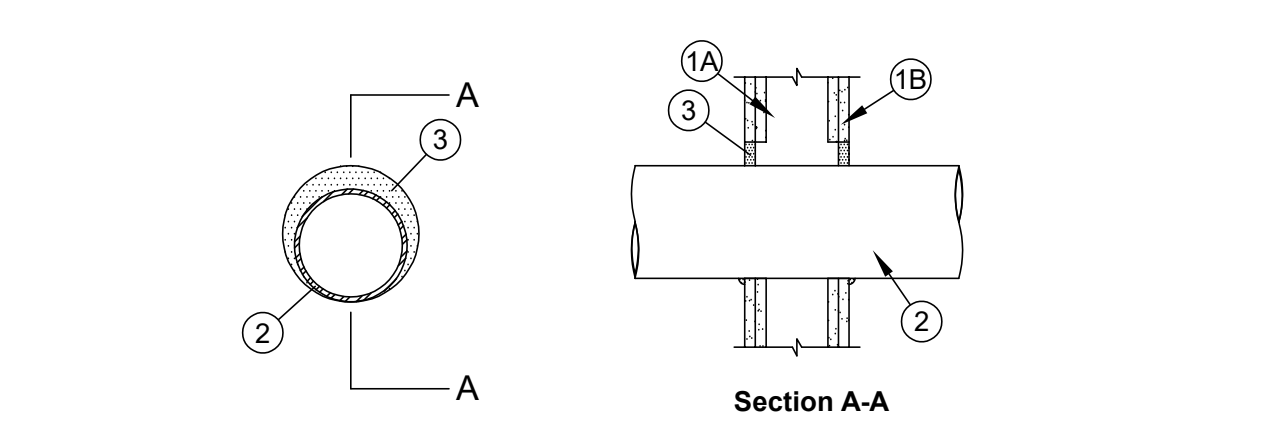


W-L-3210
PAGE 2 OF 2

Classified by Underwriters Laboratories, Inc. to ANSI/UL 1479 (ASTM E814) and CANULC S115

System No. W-L-1049

ANSI/UL1479 (ASTM E814)	CANULC S115
F Ratings - 1 and 2 Hr (See Item 1)	F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 0 Hr	FT Rating - 0 Hr
L Rating at Ambient - Less Than 1 CFM/sq ft	FH Ratings - 1 and 2 Hr (See Item 1)
L Rating at 400°F - Less Than 1 CFM/sq ft	FTH Rating - 0 Hr
	L Rating at Ambient - Less Than 5.1 L/S/m ²
	L Rating at 204°C - Less Than 5.1 L/S/m ²



- Wall Assembly** - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, V300, U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
 - Gypsum Board** - 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, V300, U400, V400 or W400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 38 in. (965 mm) for steel stud walls. Max diam of opening 14-1/2 in. (368 mm) for wood stud walls.
- The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
- Steel Sleeve - (Optional, Not Shown)** - Cylindrical sleeve fabricated from min 0.016 in. (0.41 mm) to max 0.105 in. (2.7 mm) thick sheet steel. Length of steel sleeve to be equal to the thickness of wall. Longitudinal seam of sleeve welded and overlapped min 1 in. (25 mm). The ends of the steel sleeve shall be flush or recessed max 1/4 in. (6 mm) from wall surfaces.



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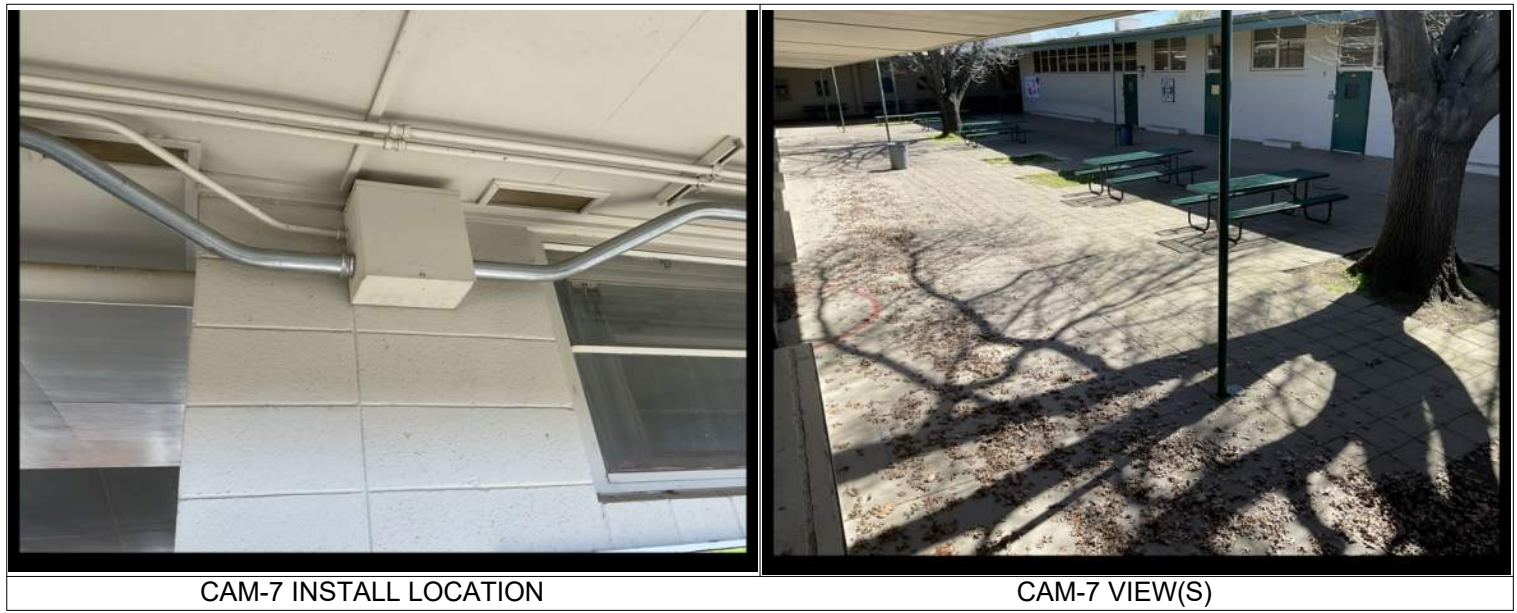
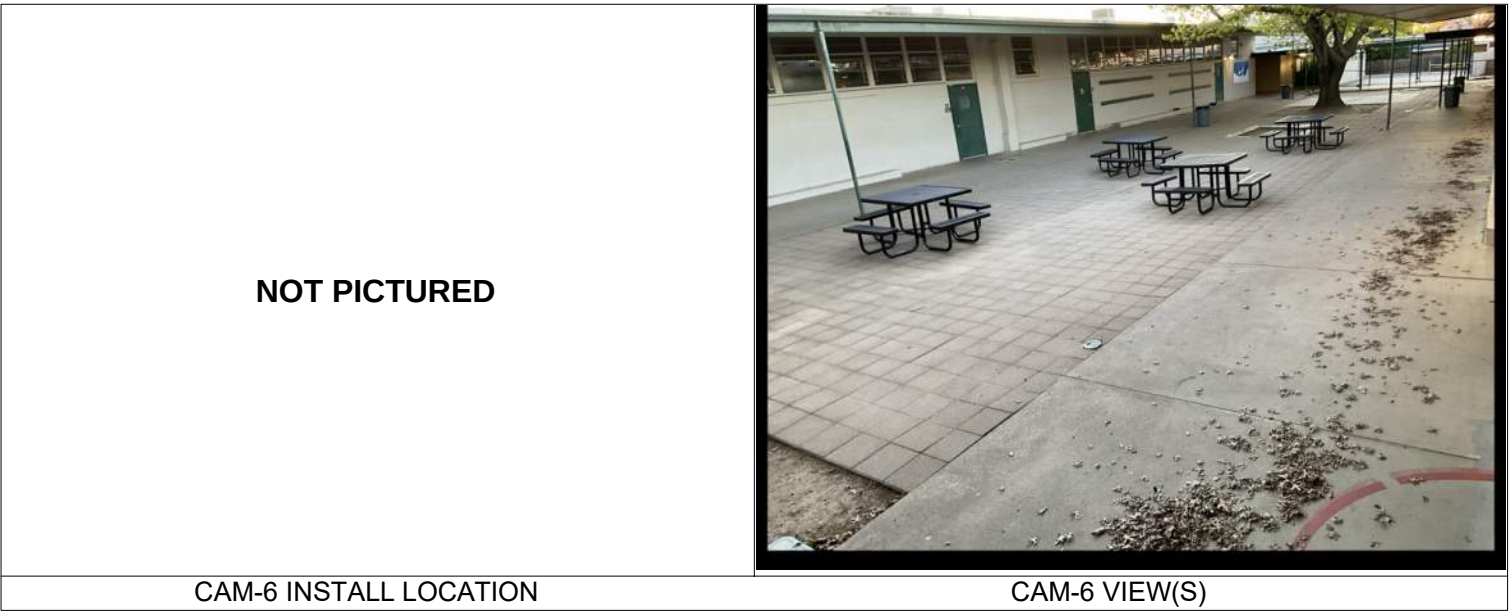
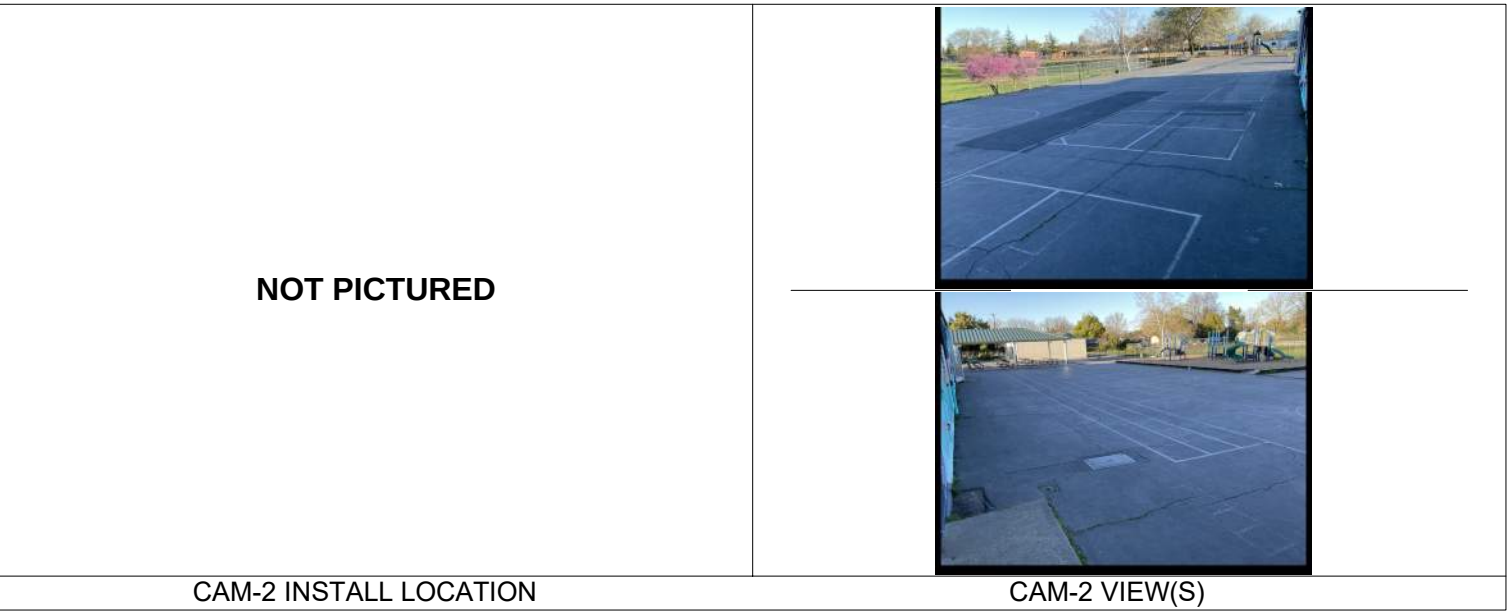
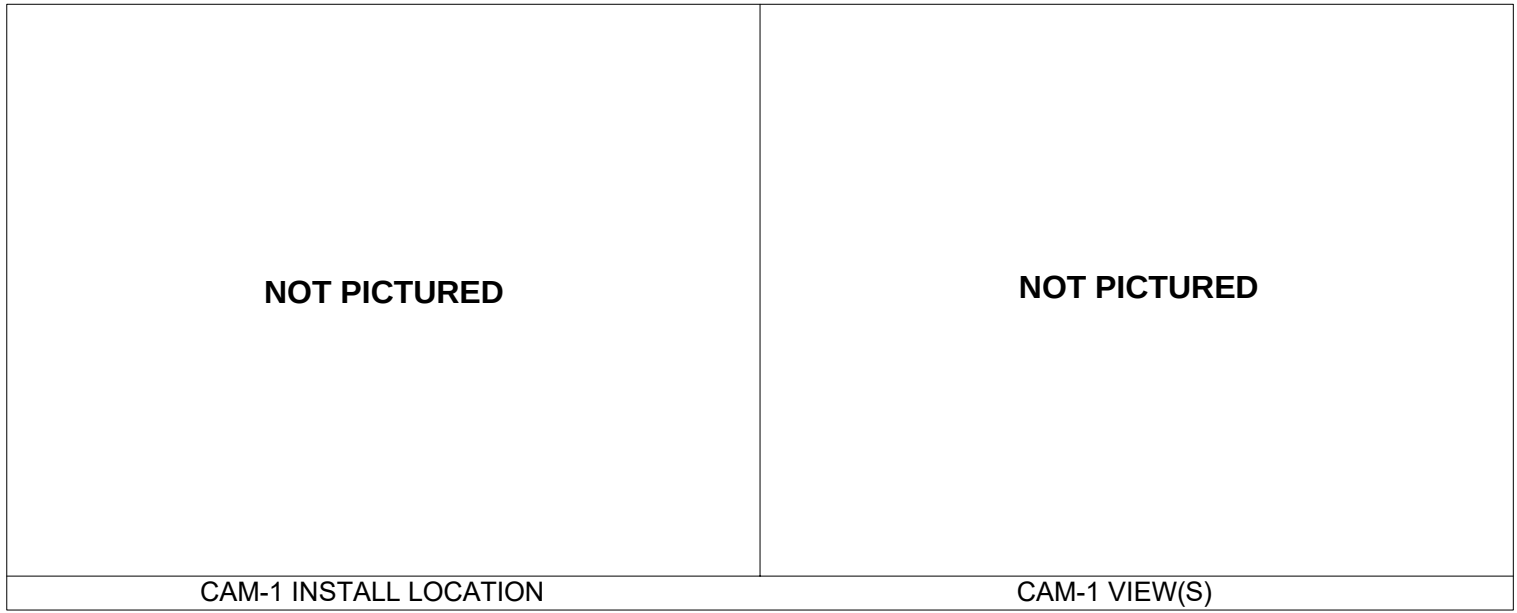
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W-L-1049
PAGE 1 OF 1

- Through Penetrant** - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - Steel Pipe - Nom 3/8 in. (9.4 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe - Nom 3/8 in. (9.4 mm) diam (or smaller) cast or ductile iron pipe.
 - Conduit - Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit, Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 4 in. (102 mm) diam (or smaller) flexible steel conduit.
 - Copper Tubing - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - Copper Pipe - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - Stainless Steel Pipe - Nom 3/8 in. (9.4 mm) diam (or smaller) Schedule 10 (or heavier) stainless steel pipe.
- Through Penetrating Product - Flexible Metal Piping** - As an alternate to Item 2, one nom 2 in. (51 mm) diam (or smaller) steel flexible metal pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Pipe to be rigidly supported on both sides of the wall assembly.

OMEGA FLEX INC
GATEFLEX, DIV OF
TITEXTECH WARD MFG CO LLC
Fill, Void or Cavity Material - Sealant - Min 5/8 in. (16 mm) thickness of fill material applied within annulus. Flush with both surfaces of wall. At point contact location, between through-penetrant and gypsum board, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the gypsum board/through-penetrant interface on both surfaces of wall.



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SHEET REVISIONS

DELTA	DESCRIPTION	DATE

SITE KEY PLAN

PROJECT
SACRAMENTO
CITY USD
LEONARDO DA VINCI K-8
NETWORK REPLACEMENT
4701 JOAQUIN WAY
SACRAMENTO, CA 95822

SHEET TITLE
CYBER SECURITY
CCTV PICTURES

DRAWING STATUS
CONSTRUCTION DOCUMENTS

PROJECT NO:	-
BID PACKAGE:	426-LDV
DESIGNED BY:	RWCS
CHECKED BY:	SD
ISSUE DATE:	2026-06-04
WORKING DATE:	2026-07-22

REVISION

SHEET

T900