

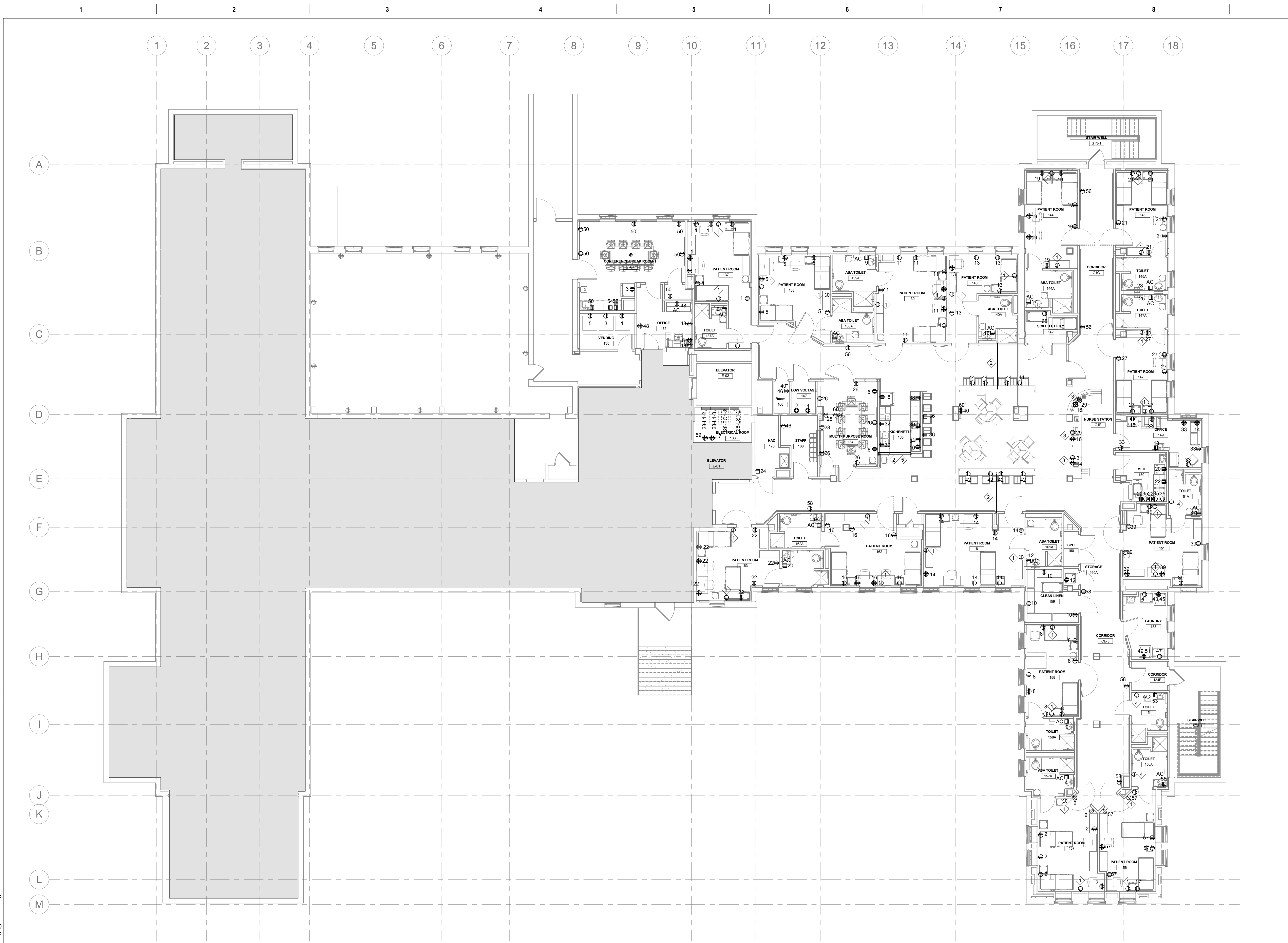
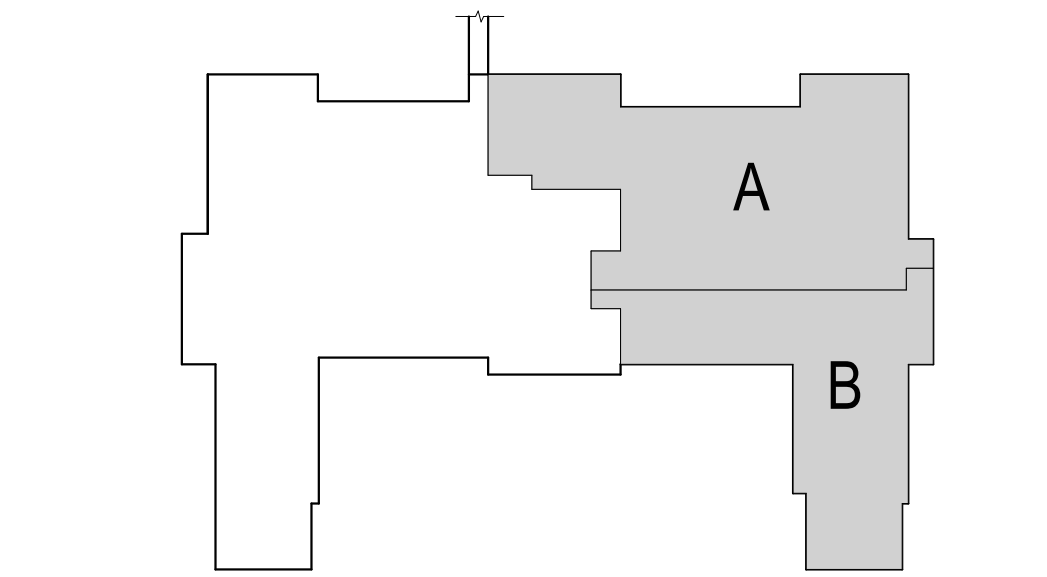
GENERAL NOTES:

- A. BUILDING WILL BE IN USE DURING CONSTRUCTION. SCHEDULE AND CARRY OUT THE WORK IN SUCH A MANNER AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE DUE TO SERVICE INTERRUPTION. TEMPORARY SERVICES (FEEDER, BRANCH CIRCUIT, AND SIGNAL SYSTEMS) SHALL BE INSTALLED IF ONE AREA OR PHASE OF CONSTRUCTION DISRUPTS SERVICE TO ANOTHER AREA OF THE BUILDING(S) OR IF THE EQUIPMENT, CONDUITS, OR FEEDERS HAVE TO BE RELOCATED TO ALLOW CONSTRUCTION TO PROGRESS. SERVICE INTERRUPTIONS SHALL BE CONFINED TO THE SMALLEST AREA POSSIBLE AT ANY ONE TIME AND INTERRUPTIONS SHALL BE SCHEDULED WITH THE OWNER'S SITE REPRESENTATIVE. THERE SHALL BE DESIGNATED AREAS WHERE INTERRUPTIONS LIMITED TO AND SHALL BE CONDUCTED AFTER HOURS (8:00 PM - 6:00 AM) MONDAY THROUGH SATURDAY. AFTER SERVICE HAS BEEN RESTORED FOLLOWING AN INTERRUPTION, INSPECT AREAS AFFECTED BY THE INTERRUPTION AND BE RESPONSIBLE FOR RETURNING AUTOMATICALLY CONTROLLED EQUIPMENT TO THE SAME OPERATING CONDITION WHICH EXISTED PRIOR TO THE INTERRUPTION.
- B. SIGNIFICANT NOISE PRODUCING WORK SHALL BE CONDUCTED AFTER HOURS (8:00 PM - 6:00 AM) AND WEEKENDS.
- C. DO NOT REUSE EXISTING WIRING. PROVIDE NEW HOME RUNS UNLESS NOTED OTHERWISE. PROVIDE DEDICATED NEUTRALS AS REQUIRED BY THE NEC. HANDLE TIES OR MULTI POLE BREAKERS FOR SINGLE PHASE LOADS ARE UNACCEPTABLE.
- D. COORDINATE LOCATION AND INSTALLATION OF CEILING MOUNTED EQUIPMENT WITH THE VA PRIOR TO ROUGH-IN.
- E. INSTALL MINIMUM #10 AWG FOR ALL 120V CIRCUIT HOMERUNS IN EXCESS OF 75'.
- F. ROUTE CONDUITS IN A MANNER TO CONCEAL WHERE POSSIBLE.
- G. DEVICES SHOWN BACK-TO-BACK ARE FOR INTENT PURPOSES ONLY. DO NOT INSTALL BACK-TO-BACK TO PREVENT NOISE TRAVEL. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- H. ALL FURNITURE LAYOUTS ARE SHOWN FOR DESIGN INTENT ONLY. FINAL LOCATIONS OF FURNITURE AND ASSOCIATED POWER/DATA OUTLETS TO BE COORDINATED WITH OWNER.
- I. REFER TO MECHANICAL ELECTRICAL (ME) SCHEDULES FOR ELECTRICAL CONNECTION REQUIREMENTS TO MECHANICAL EQUIPMENT.
- J. COORDINATE RECEPTACLE DEVICES NEXT TO COMMUNICATION DEVICES, SUCH THAT THE DEVICES ARE MOUNTED NEXT TO EACH OTHER.
- K. UNLESS NOTED OTHERWISE, NORMAL POWER-FED DEVICES AND EQUIPMENT ARE CIRCUITED TO PANEL 28-L1-3. CRITICAL POWER-FED DEVICES AND EQUIPMENT ARE CIRCUITED TO PANEL 28-EC1-2.

KEY NOTES:

- ① PROVIDE DOUBLE GANG DEEP JUNCTION BOX WITH SINGLE GANG MUDRING, BLANK COVER PLATE AND A 3/4" CONDUIT STUB TO CABLE TRAY FOR FUTURE USE.
- ② PROVIDE CONDUIT(S) UNDER FLOOR BELOW TO DEVICES IN ISLANDS.
- ③ MOUNT DEVICES TO OWNER PROVIDED FURNITURE.
- ④ PROVIDE CONNECTION FOR EBR-01 WALL HEATER.
- ⑤ PROVIDE SEPERATE CONDUIT FOR CRITICAL POWER.

KEY PLAN



1 FIRST POWER FLOOR PLAN
1/8" = 1'-0"

Revision#	Description	Date:

CONSULTANT

DUNHAM

50 South Sixth Street / Suite 1100
 Minneapolis, Minnesota 55402-1540
 Phone: 612.465.7550 Fax: 612.465.7551
 Website: dunhameng.com
 mechanical + electrical consulting engineering
 652959-007-00

ARCHITECT/ENGINEER OF RECORD

ANDERSON

13605 1st Ave. N. #100 Plymouth, MN 55441
 P 763.412.4000 | F 763.412.4090 | ae-mn.com
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Name: Curtis D. Barlage, P.E.
 Date: 05/22/2020 Reg. No. 45914

Project Title RENOVATE BUILDING 28 FIRST FLOOR EAST RTTP			Project Number 656-19-306		
Location SAINT CLOUD, MN			Building Number 28		
Phase CONSTRUCTION DOCUMENTS			Drawing Number EP111		
Drawing Title FIRST POWER FLOOR PLAN			Issue Date MAY 22, 2020		
Checked CB	Drawn BZ				

U.S. Department of Veterans Affairs

Veterans Health Administration

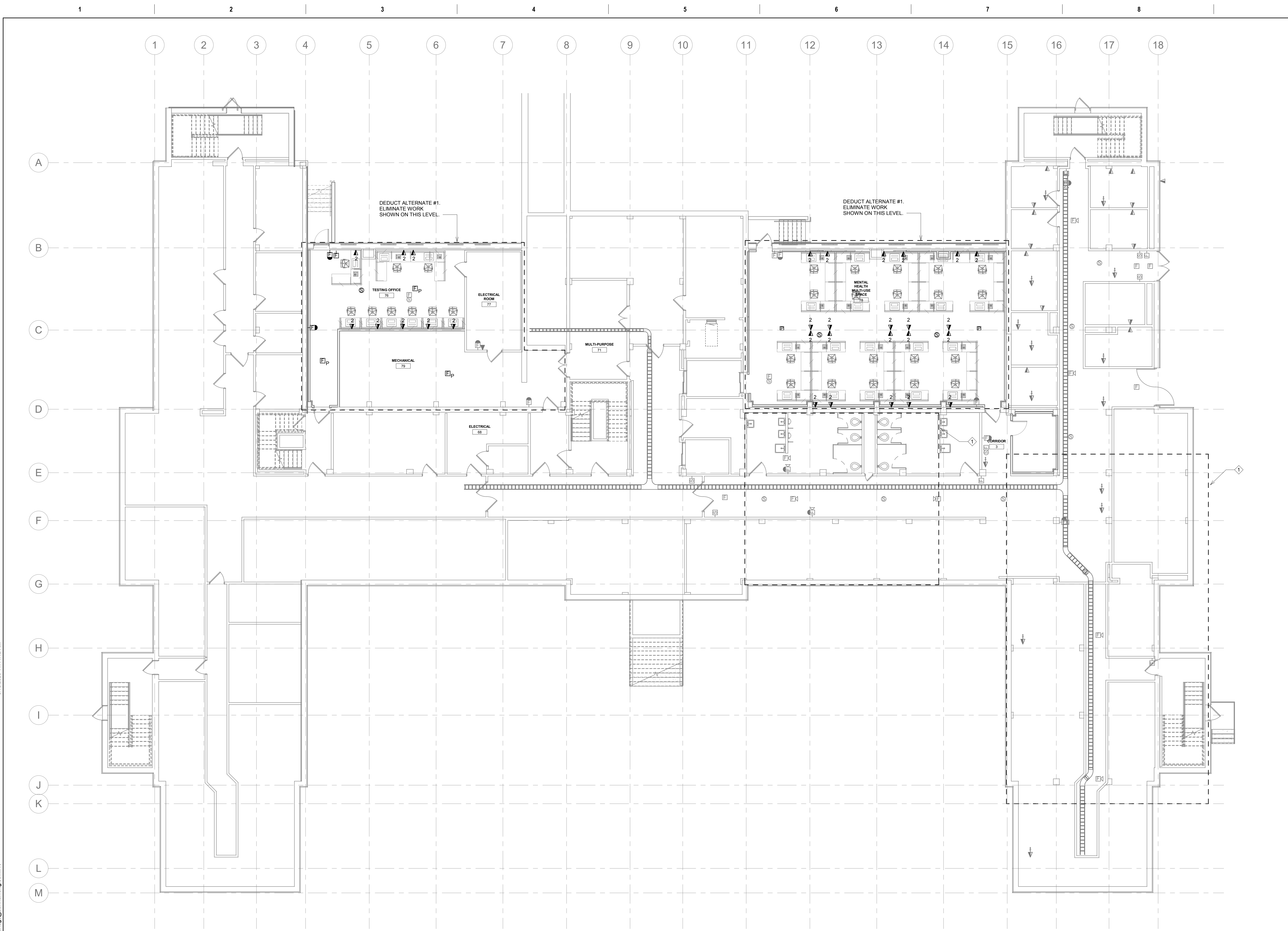
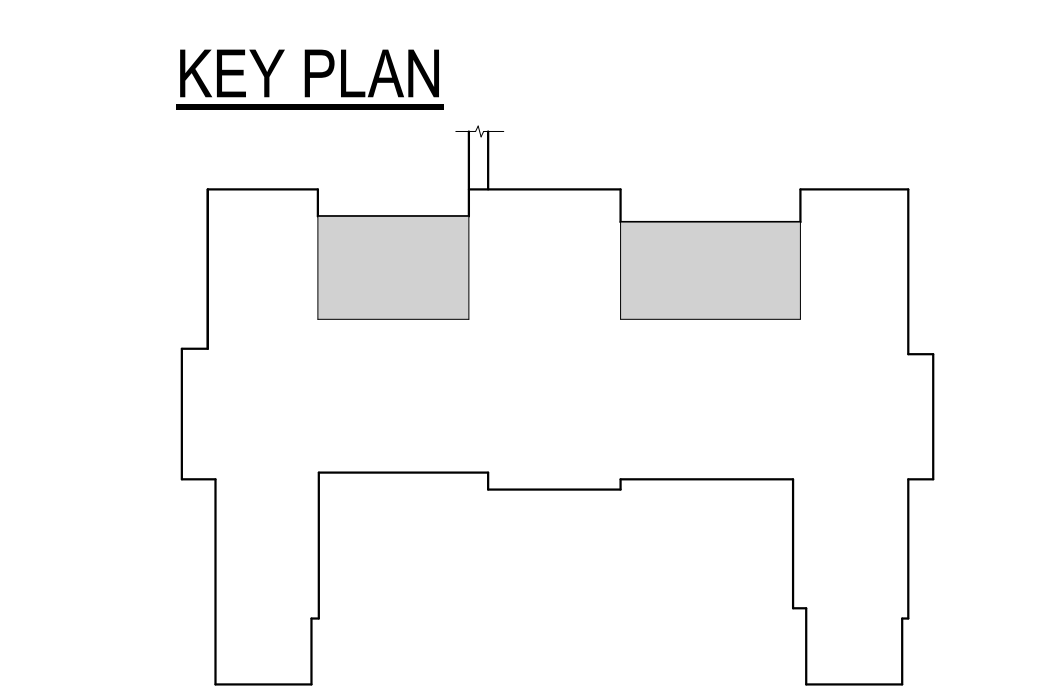
St. Cloud VA Health Care System

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- I. ROUTE LOW VOLTAGE CABLE TO DATA ROOM AS INDICATED ON DRAWINGS. PROVIDE CABLE COUNT AS INDICATED. ROUTE VOICE/DATA CABLE IN INDICATED CABLE TRAYS. CABLE NOT IN CABLE TRAY SHALL BE INSTALLED IN CONDUIT.
- J. PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND (1) 1" CONDUIT ROUTED TO ADJACENT CABLE TRAY FOR LOW VOLTAGE ROUGH-IN.
- K. COORDINATE COMMUNICATION DEVICES NEXT TO RECEPTACLE DEVICES SUCH THAT THE DEVICES ARE MOUNTED NEXT TO EACH OTHER.
- L. INSTALL SMOKE DETECTORS A MINIMUM OF 3' FROM SUPPLY DIFFUSERS.
- M. COORDINATE DURESS BUTTON WALL-MOUNTED LOCATION WITH THE CONTRACTING OFFICER REPRESENTATIVE(COR) PRIOR TO ROUGH-IN.

KEY NOTES:

- ① CEILING TO BE REMOVED AND REINSTALLED FOR MECHANICAL WORK. REMOVE AND REINSTALL ELECTRICAL EQUIPMENT AS REQUIRED.



1 BASEMENT SYSTEMS FLOOR PLAN
1/8" = 1'-0"

Revision#	Description	Date:

CONSULTANT

DUNHAM

50 South Sixth Street / Suite 1100
 Minneapolis, Minnesota 55402-1540
 Phone: 612.465.7550 Fax: 612.465.7551
 Website: dunhaminc.com
 mechanical + electrical consulting engineering
 652950-007-00

ARCHITECT/ENGINEER OF RECORD

ANDERSON

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 P 763.412.4000 | F 763.412.4090 | ae-mn.com
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Name: Curtis D. Barlage, P.E.
 Date: 05/22/2020 Reg. No. 45914

Project Title RENOVATE BUILDING 28 FIRST FLOOR EAST RTTP			Project Number 656-19-306		
Location SAINT CLOUD, MN			Building Number 28		
Phase CONSTRUCTION DOCUMENTS			Drawing Number ES101		
Drawing Title BASEMENT SYSTEMS FLOOR PLAN			Issue Date MAY 22, 2020	Checked CB	Drawn BZ

U.S. Department of Veterans Affairs
 Veterans Health Administration
 St. Cloud VA Health Care System

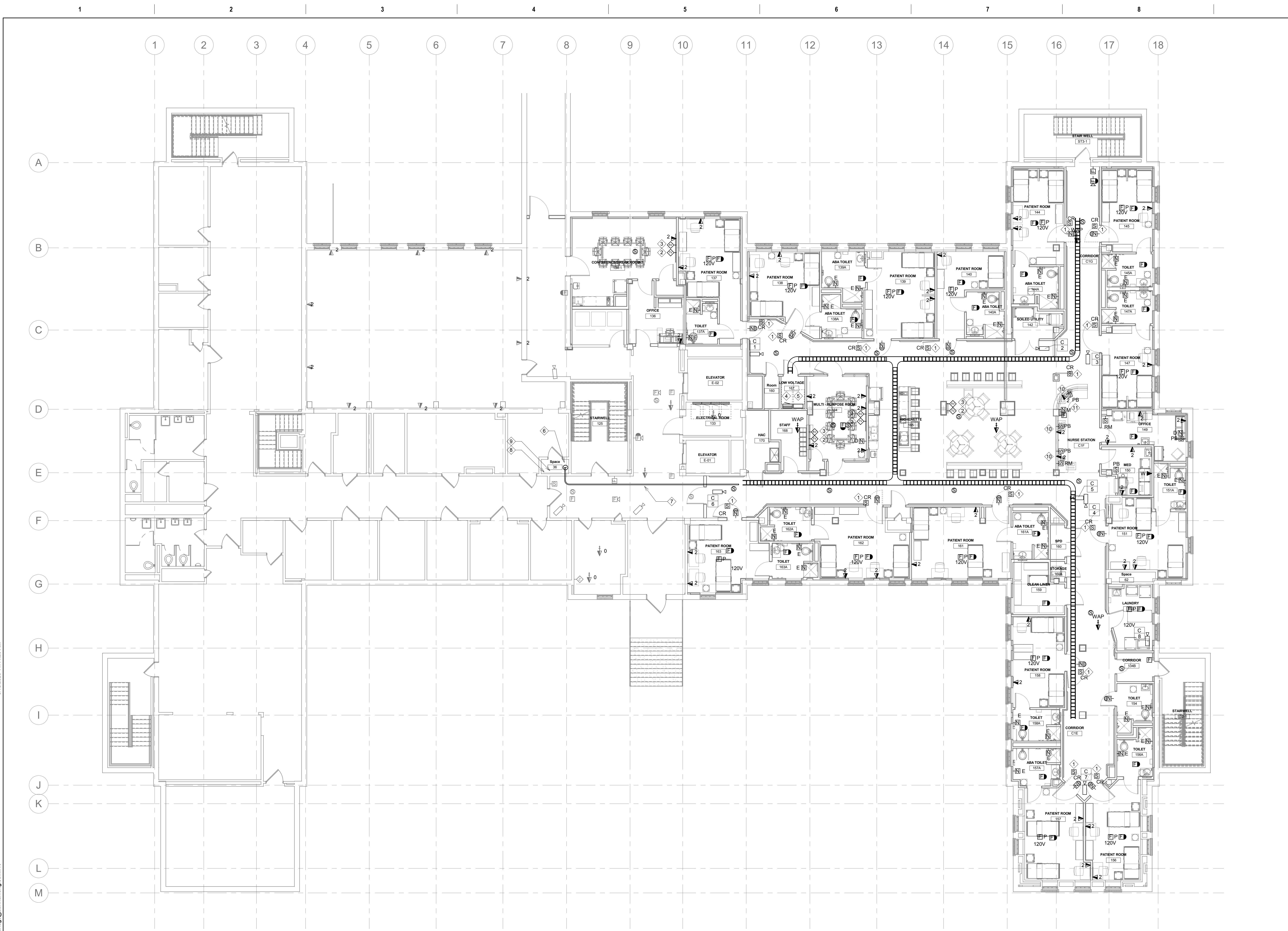
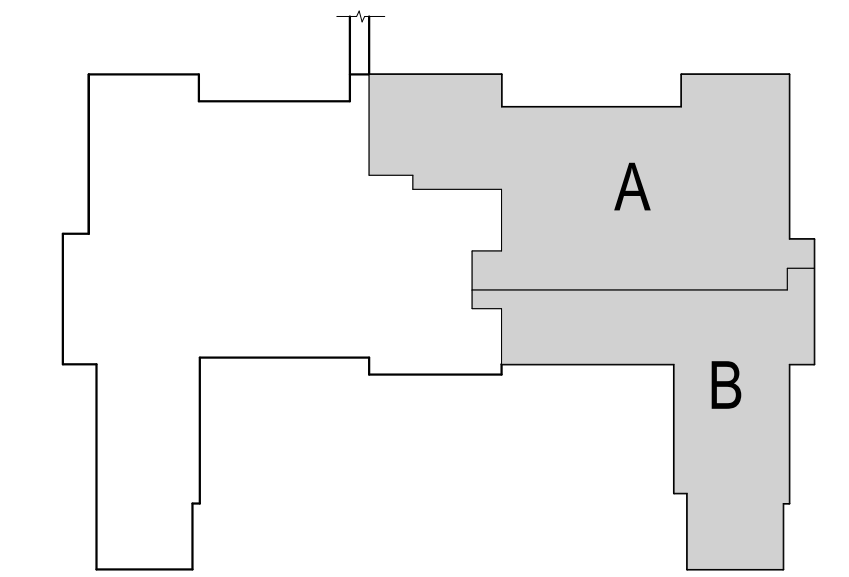
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- D. COORDINATE LOCATION AND INSTALLATION OF CEILING MOUNTED EQUIPMENT WITH THE VA PRIOR TO ROUGH-IN.
- E. INSTALL MINIMUM #10 AWG FOR ALL 120V CIRCUIT HOMERUNS IN EXCESS OF 75'.
- F. ROUTE CONDUITS IN A MANNER TO CONCEAL WHERE POSSIBLE.
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- J. PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG MUDRING AND (1) 3/4" CONDUIT ROUTED TO ADJACENT CABLE TRAY FOR LOW VOLTAGE ROUGH IN.
- K. COORDINATE COMMUNICATION DEVICES NEXT TO RECEPTACLE DEVICES SUCH THAT THE DEVICES ARE MOUNTED NEXT TO EACH OTHER.
- L. INSTALL SMOKE DETECTORS A MINIMUM OF 3' FROM SUPPLY DIFFUSERS.
- M. COORDINATE DURESS BUTTON WALL-MOUNTED LOCATION WITH THE CONTRACTING OFFICER REPRESENTATIVE(COR) PRIOR TO ROUGH-IN.

KEY NOTES:

- 1. PROVIDE INTEGRATED DOOR MOUNTED STAND-ALONE BATTERY OPERATED CARD READER AT EACH DOOR LOCATION SHOWN THAT CONNECT VIA WIRELESS COMMUNICATION TO CARD ACCESS SYSTEM IN LOW VOLTAGE EQUIPMENT ROOM.
- 2. PROVIDE ONE (1) RG-6U COAXIAL CABLE, F-TYPE CONNECTOR AND TELEVISION LCD MONITOR AT TV OUTLET TO LOCATION SHOWN. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT TO CABLE TRAY FROM CABLE. EXTEND RG-6 CABLE TO CATV CONNECTION POINT IN ROOM 72 (ACCESS HATCH IN TUNNEL). PROVIDE SPLITTERS AND TAPS.
- 3. PROVIDE LOW AUDIOVISUAL OUTLET WITH HDMI, VGA, C-VIDEO, AUDIO L/R CABLES ROUTED TO TV OUTLET FOR CONNECTION OF OWNER EQUIPMENT TO TV MONITOR. ELECTRICAL CONTRACTOR TO PROVIDE (2) 1" CONDUITS TO CABLE TRAY FROM DEVICE.
- 4. PROVIDE RAU/LND RESPONDER 5000 NURSE CALL PANEL. PROVIDE BACKBONE CABLING TO NURSE CALL HEAD END ON SECOND FLOOR. PROVIDE PROGRAMMING TO INTEGRATE NEW DEVICES INTO EXISTING SYSTEM.
- 5. PROVIDE SECURITY PANEL. PROVIDE BACKBONE CABLING TO SECURITY HEAD END IN EXISTING FIRST FLOOR DATA ROOM. PROVIDE PROGRAMMING TO INTEGRATE NEW DEVICE INTO EXISTING SYSTEM. PROVIDE DVR WITH 500GB STORAGE.
- 6. PROVIDE (3) THREE CONDUIT SLEEVES UP TO SECOND LEVEL IT ROOM.
- 7. PROVIDE (3) 3" CONDUITS FOR IT CABLE PATHWAY TO SECOND FLOOR IT ROOM.
- 8. EXISTING PA SYSTEM AMPLIFIER. EXTEND TO ALL NEW SPEAKERS.
- 9. EXISTING SECURITY SYSTEM HEAD END. EXPAND AND EXTEND TO NEW PANEL.
- 10. MOUNT DEVICES TO OWNER PROVIDED FURNITURE.
- 11. PRIMARY MASTER STATION FOR FIRST FLOOR NURSE CALL DEVICES. DEVICES SHALL ALSO REPORT TO SECOND FLOOR, EAST SIDE NURSE STATION.

KEY PLAN



1 FIRST SYSTEMS FLOOR PLAN
1/8" = 1'-0"

Revision#	Description	Date:

CONSULTANT

DUNHAM

50 South Sixth Street / Suite 1100
 Minneapolis, Minnesota 55402-1540
 Phone: 612.465.7550 Fax: 612.465.7551
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 Mechanical + electrical consulting engineering
 042959-007-00

ARCHITECT/ENGINEER OF RECORD

ANDERSON

13605 1st Ave. N. #100 Plymouth, MN 55441
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Name: Curtis D. Barlage, P.E.
 Date: 05/22/2020 Reg. No. 45914

Project Title
 RENOVATE BUILDING 28
 FIRST FLOOR EAST RTPT

Location
 SAINT CLOUD, MN

Phase
 CONSTRUCTION DOCUMENTS

Drawing Title
 FIRST SYSTEMS FLOOR PLAN

Issue Date
 MAY 22, 2020

Checked
 CB

Drawn
 BZ

Project Number
 656-19-306

Building Number
 28

Drawing Number
 ES111

VA

U.S. Department of Veterans Affairs

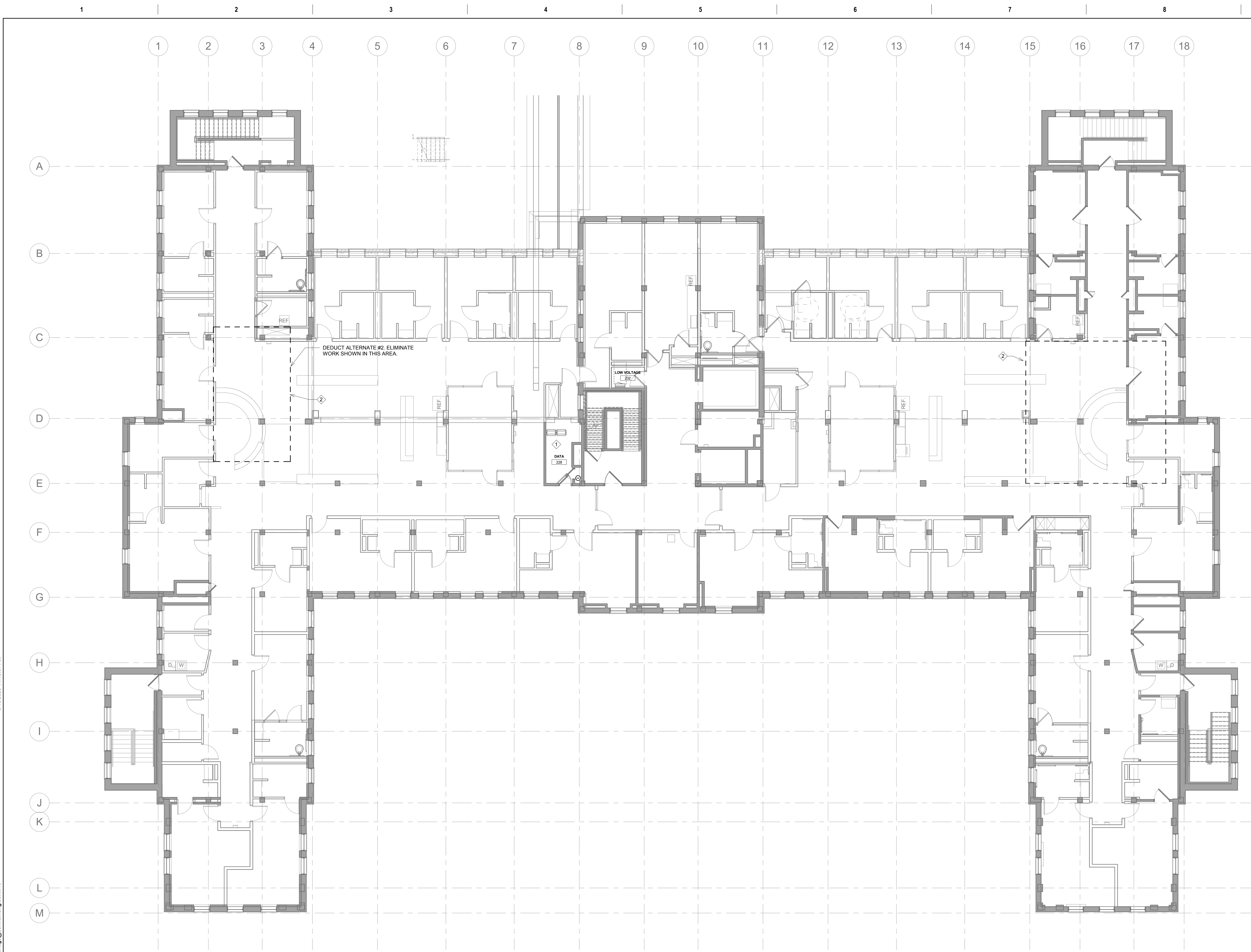
Veterans Health Administration
 St. Cloud VA Health Care System

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- D. COORDINATE LOCATION AND INSTALLATION OF CEILING MOUNTED EQUIPMENT WITH THE VA PRIOR TO ROUGH-IN.
- E. INSTALL MINIMUM #10 AWG FOR ALL 120V CIRCUIT HOMERUNS IN EXCESS OF 75'.
- F. ROUTE CONDUITS IN A MANNER TO CONCEAL WHERE POSSIBLE.
- G. WHERE LIGHTING CONTROL DEVICES (OCCUPANCY / VACANCY SENSORS, RELAY MODULES, ETC) ARE SHOWN ON PLANS, LOCATE DEVICES IN EACH SPACE PER DEVICE TYPE AND MANUFACTURER RECOMMENDATIONS. INSTALL ALL RELAYS AND/OR POWER PACKS IN NEMA 1 ENCLOSURES TO ACHIEVE PLENUM RATINGS.
- H. LIFE SAFETY LIGHTING SHALL BE UNSWITCHED UNLESS NOTED OTHERWISE.

KEY NOTES:

- ① PROVIDE THREE (3) 48 PORT PATCH PANELS IN EXISTING DATA RACKS FOR FIRST FLOOR UTP CABLING. EXTEND DEVICE CABLING TO SECOND FLOOR IT ROOM. PROVIDE 25'-0" SERVICE LOOP FOR UTP CABLING.
- ② CEILING TO BE REMOVED AND REINSTALLED FOR MECHANICAL WORK. REMOVE AND REINSTALL ALL ELECTRICAL EQUIPMENT AS REQUIRED. TEMPORARILY SUSPEND EQUIPMENT AS REQUIRED.



1 SECOND FLOOR ELECTRICAL PLAN
1/8" = 1'-0"

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CONSULTANT

DUNHAM

DUNHAM
50 South Sixth Street / Suite 1100
Minneapolis, Minnesota 55402-1540
PHONE: 612.465.7550 FAX: 612.465.7551
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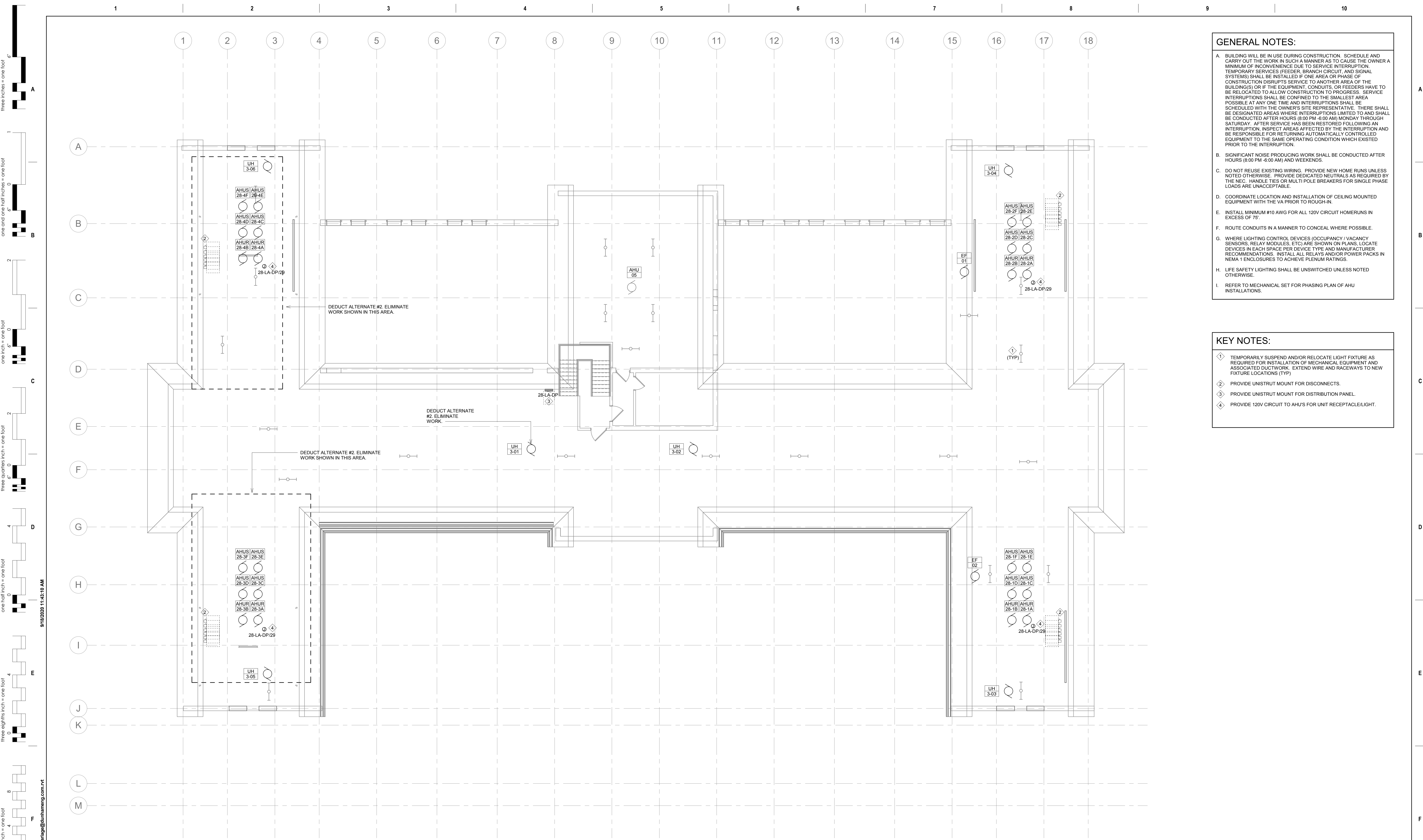
Name: Curtis D. Barlage, P.E.
Date: 05/22/2020 Reg. No. 45914

Project Title RENOVATE BUILDING 28 FIRST FLOOR EAST RTTP			Project Number 656-19-306		
Location SAINT CLOUD, MN			Building Number 28		
Phase CONSTRUCTION DOCUMENTS			Drawing Number EE121		
Drawing Title SECOND FLOOR ELECTRICAL PLAN					
Issue Date MAY 22, 2020	Checked CB	Drawn BZ			

VA

U.S. Department of Veterans Affairs

Veterans Health Administration
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 - H. LIFE SAFETY LIGHTING SHALL BE UNSWITCHED UNLESS NOTED OTHERWISE.
 - I. REFER TO MECHANICAL SET FOR PHASING PLAN OF AHU INSTALLATIONS.

- KEY NOTES:**
- ① TEMPORARILY SUSPEND AND/OR RELOCATE LIGHT FIXTURE AS REQUIRED FOR INSTALLATION OF MECHANICAL EQUIPMENT AND ASSOCIATED DUCTWORK. EXTEND WIRE AND RACEWAYS TO NEW FIXTURE LOCATIONS (TYP)
 - ② PROVIDE UNISTRUT MOUNT FOR DISCONNECTS.
 - ③ PROVIDE UNISTRUT MOUNT FOR DISTRIBUTION PANEL.
 - ④ PROVIDE 120V CIRCUIT TO AHU'S FOR UNIT RECEPTACLE/LIGHT.

1 ATTIC FLOOR ELECTRICAL PLAN
1/8" = 1'-0"

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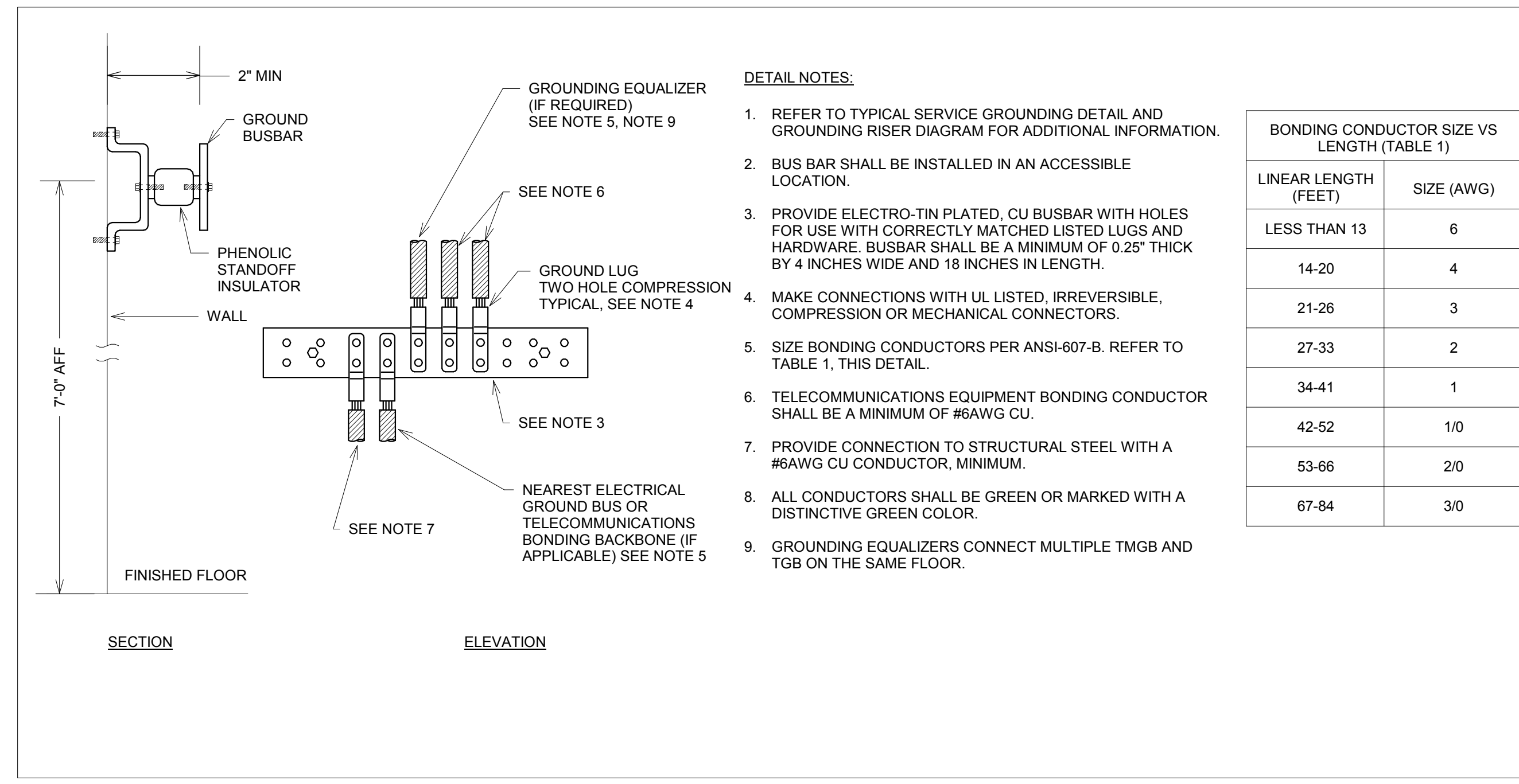
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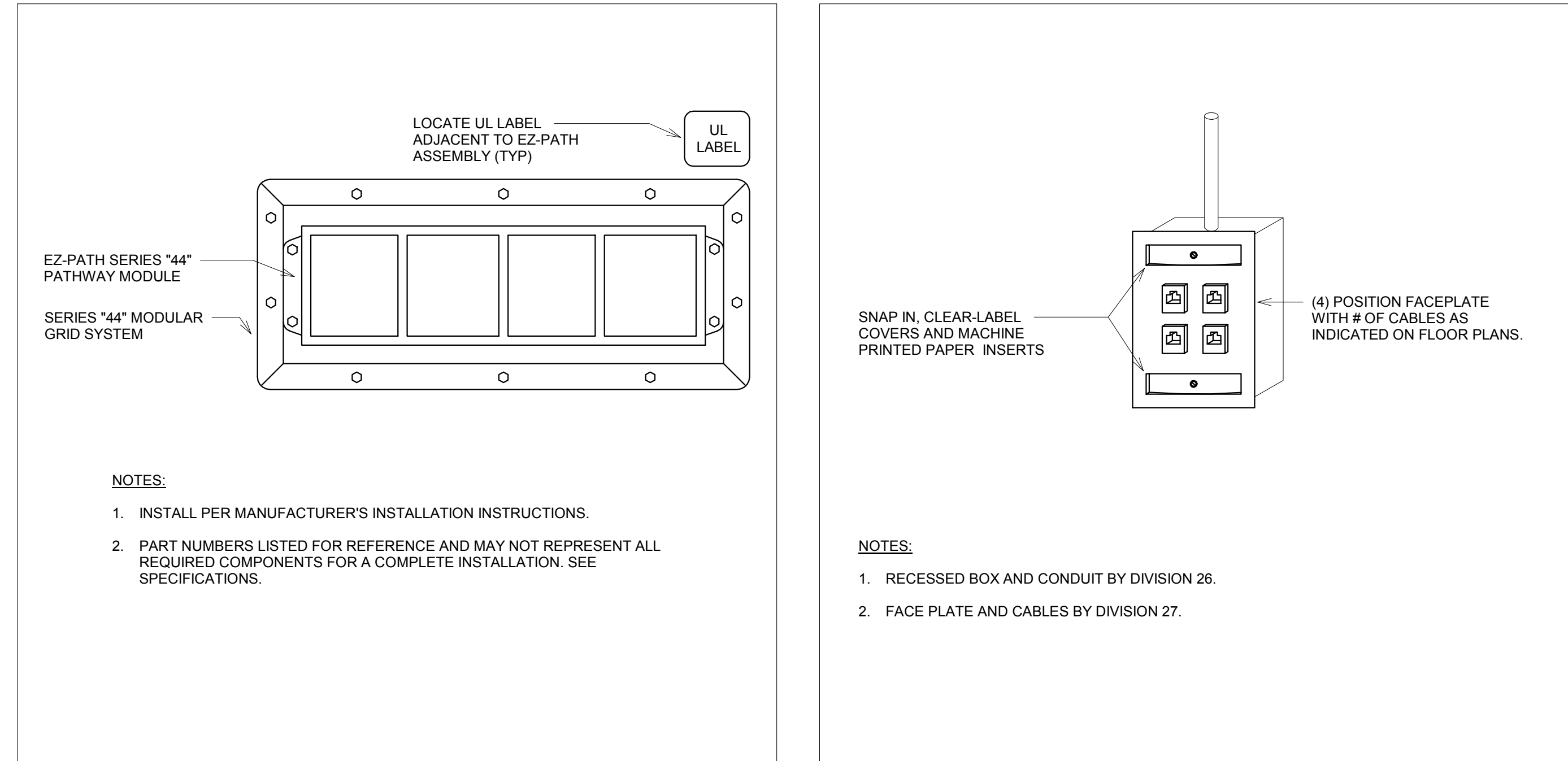
Project Title RENOVATE BUILDING 28 FIRST FLOOR EAST RTTP			Project Number 656-19-306
Location SAINT CLOUD, MN			Building Number 28
Phase CONSTRUCTION DOCUMENTS			Drawing Number EE131
Issue Date MAY 22, 2020	Checked CB	Drawn BZ	

VA  **U.S. Department of Veterans Affairs**

Veterans Health Administration
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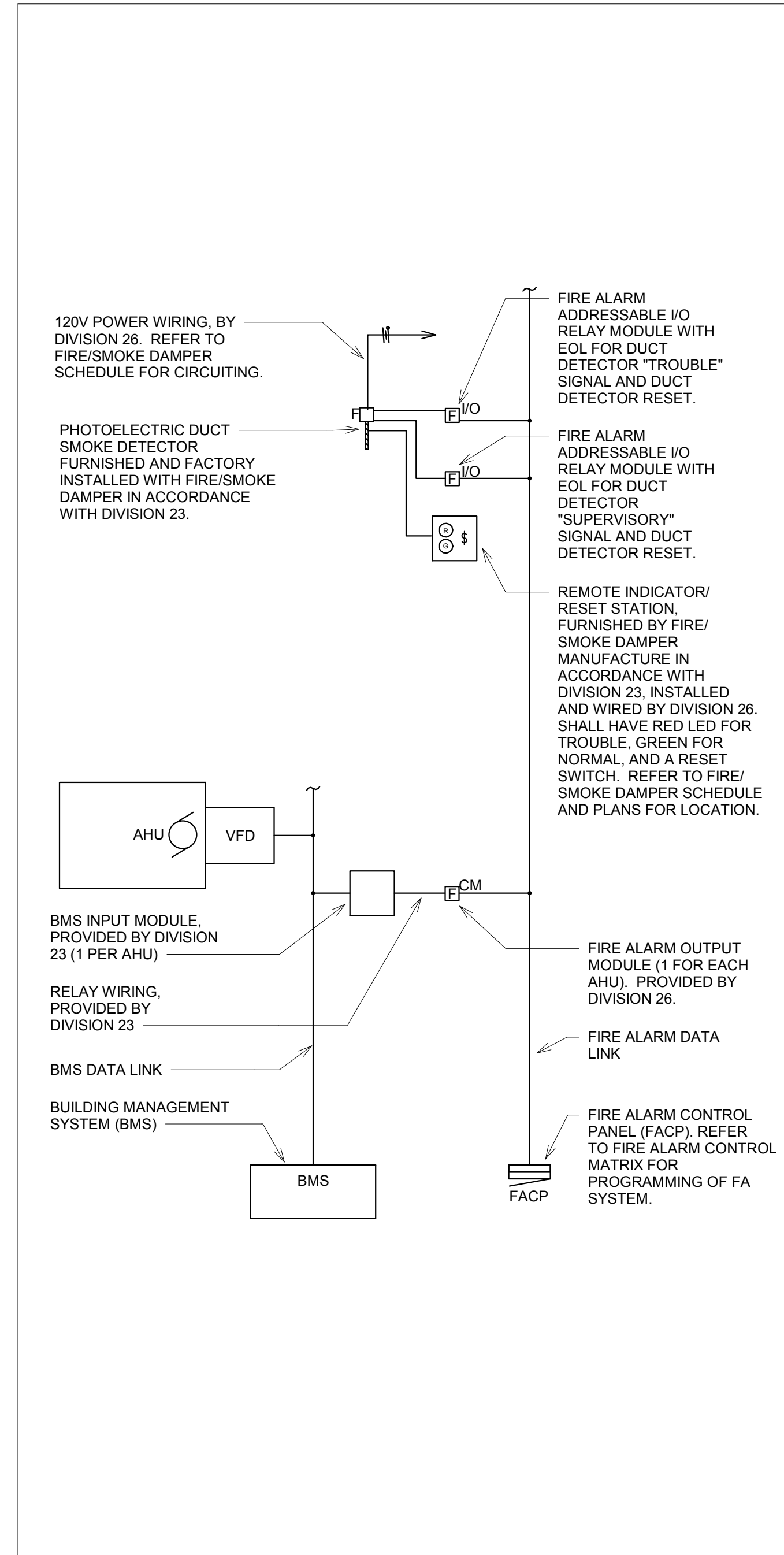


1 TELECOMMUNICATIONS GROUND BAR DETAIL (TGB)
NO SCALE

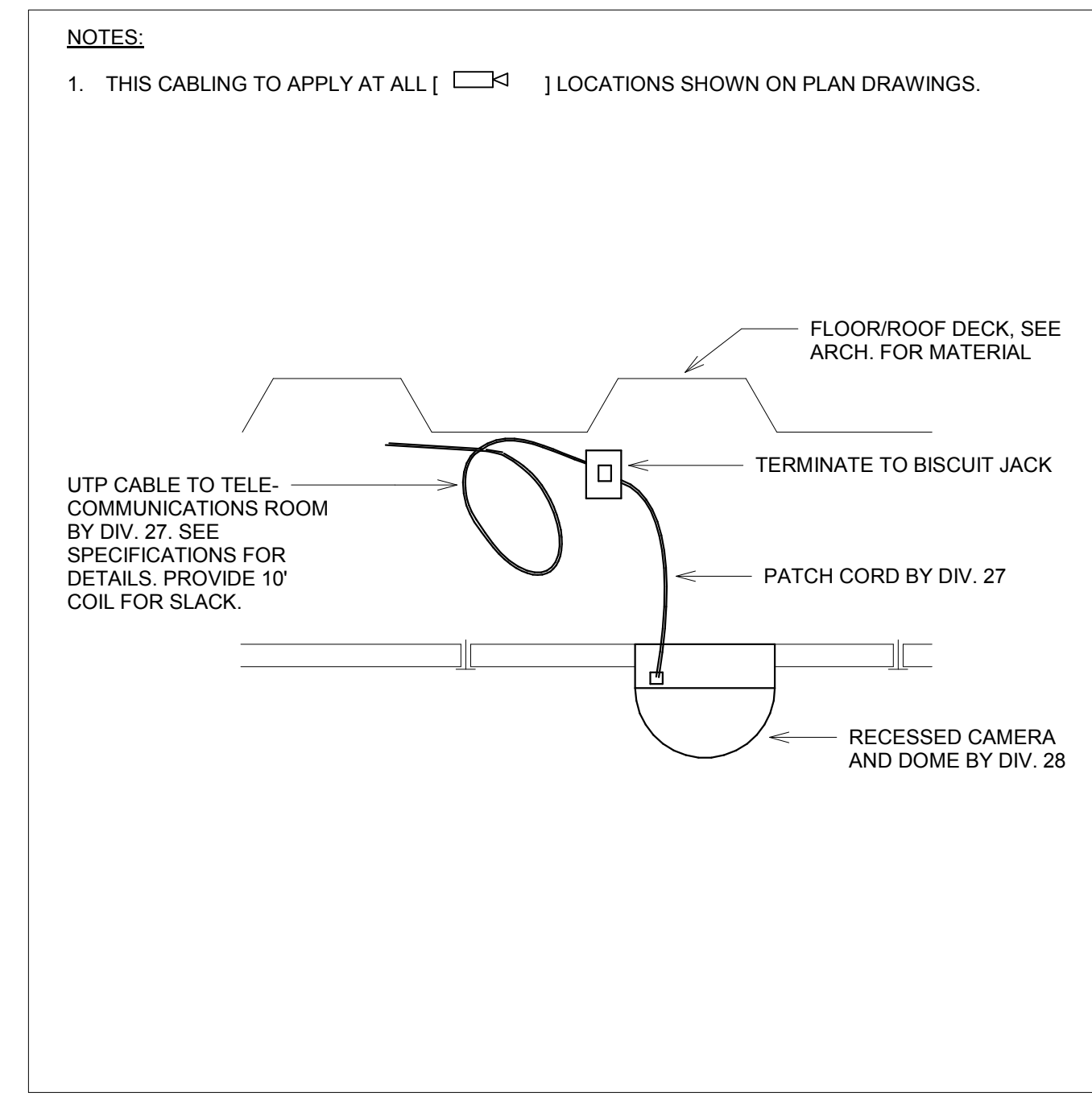


2 FIRE STOP DETAIL - CORRIDOR PENETRATION
NO SCALE

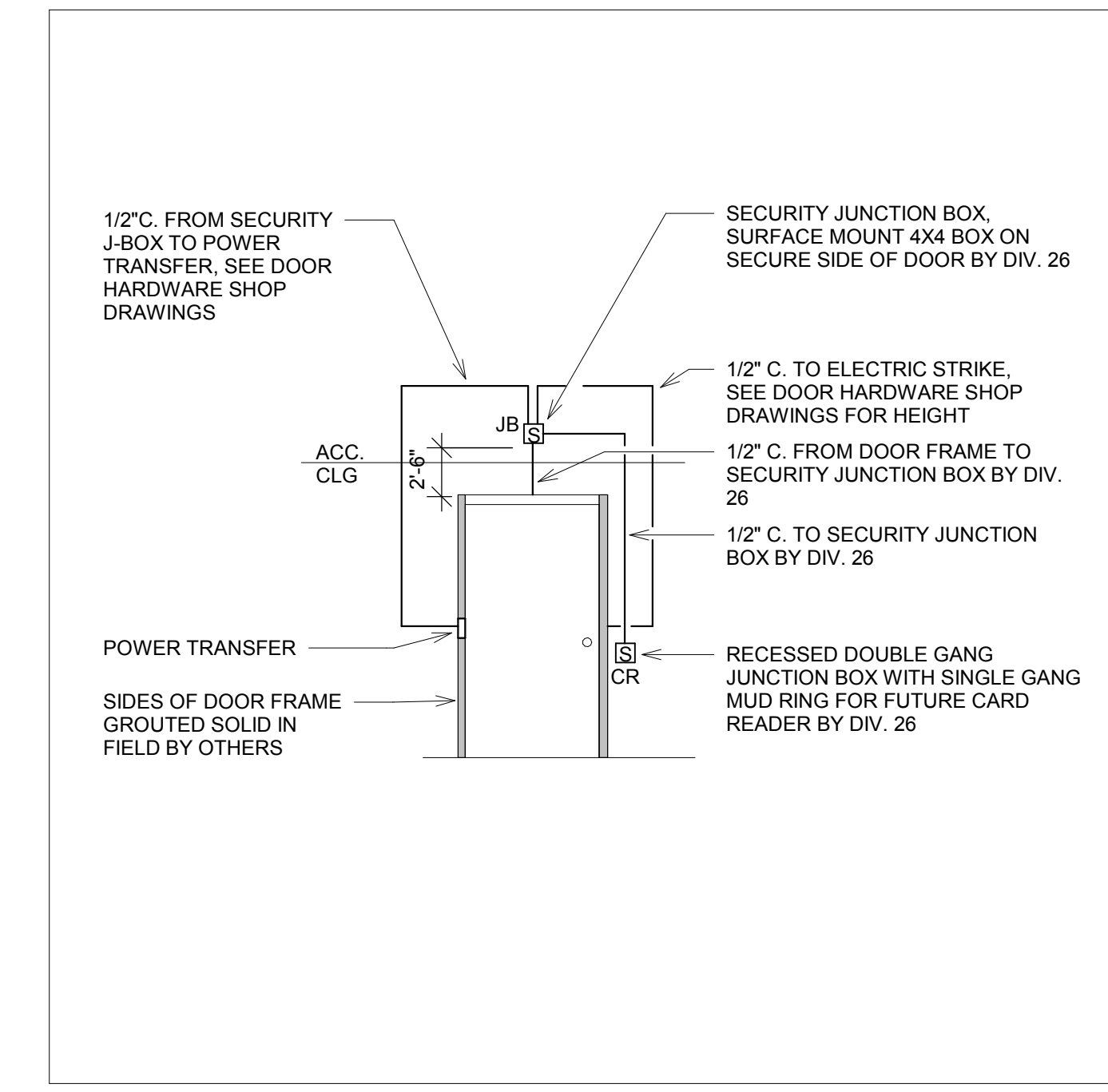
3 VOICE/DATA OUTLET LOCATION DETAIL
NO SCALE



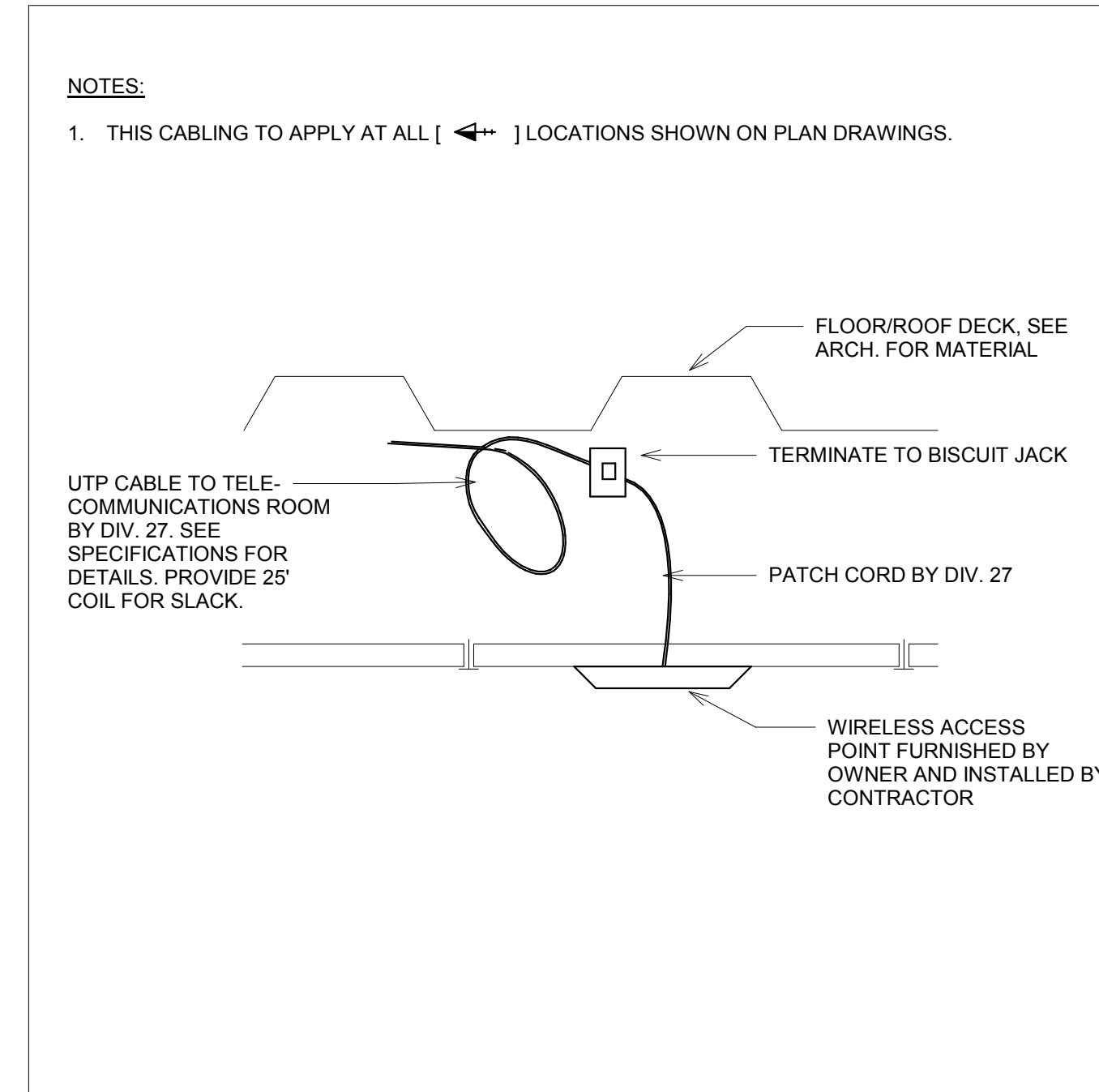
4 DUCT DETECTOR DETAIL
NO SCALE



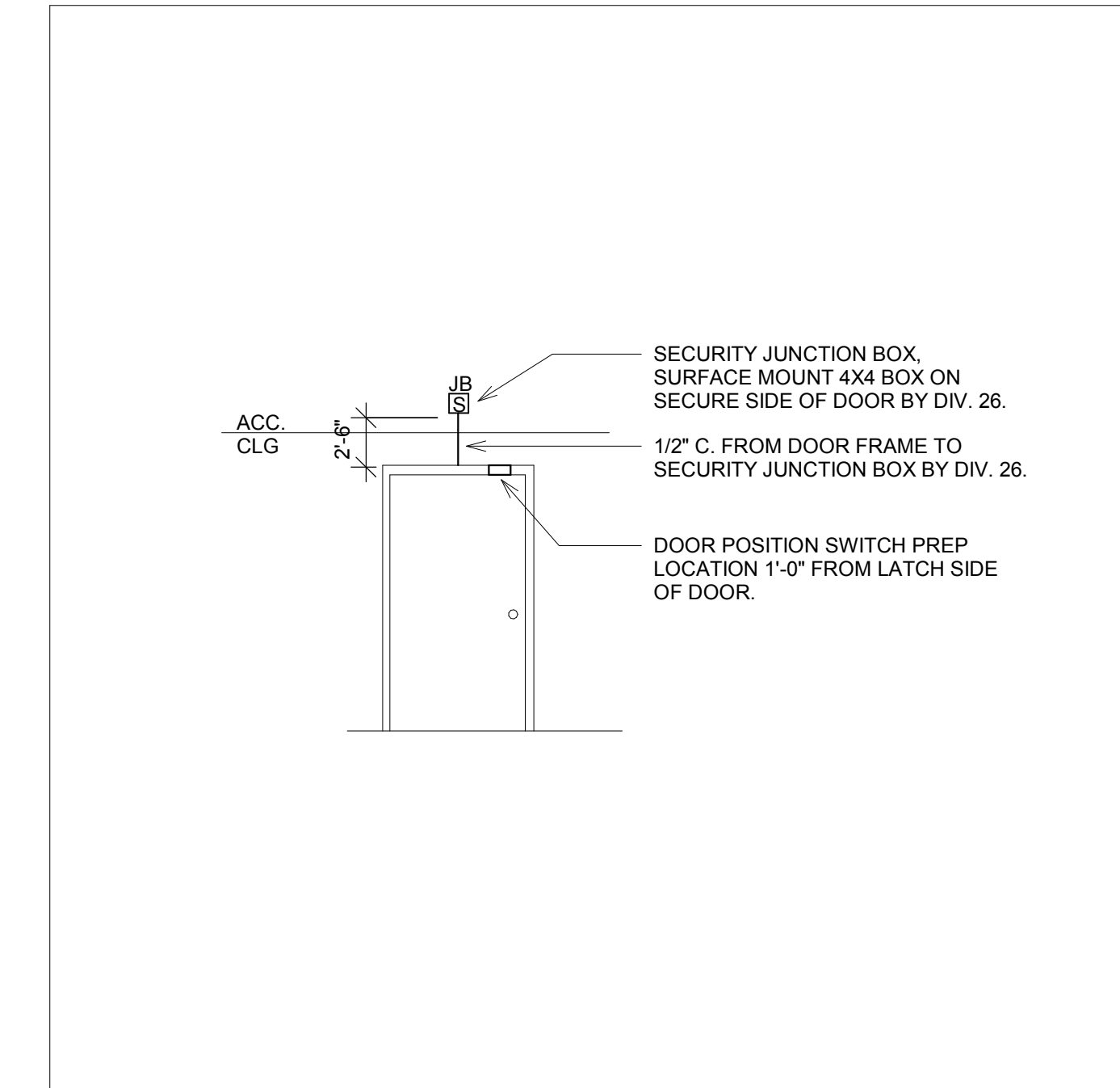
5 SURVEILLANCE CAMERA CEILING MOUNTED WIRING DETAIL
NO SCALE



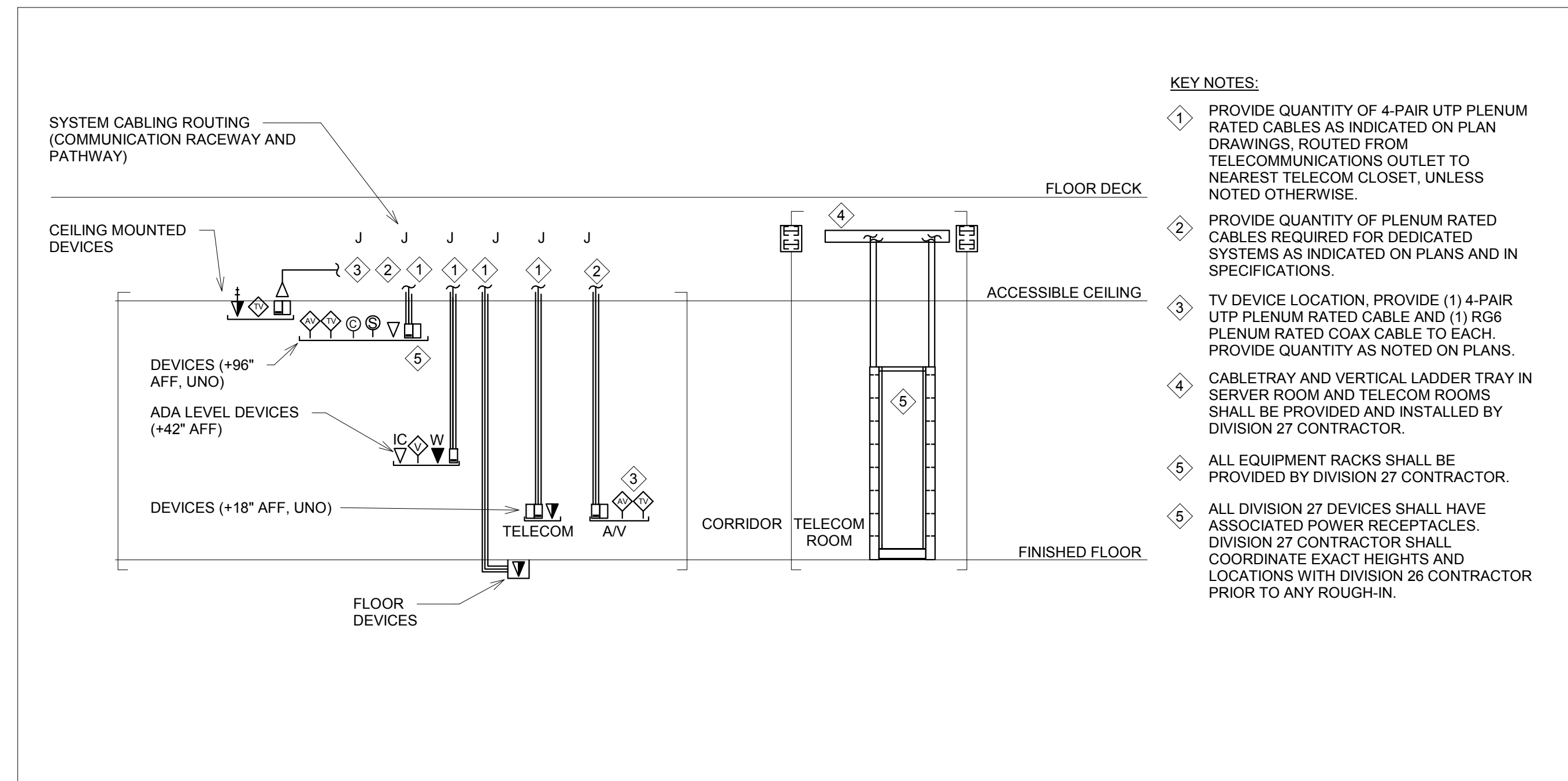
7 CARD READER ROUGH-IN DETAIL - HEALTH CARE
NO SCALE



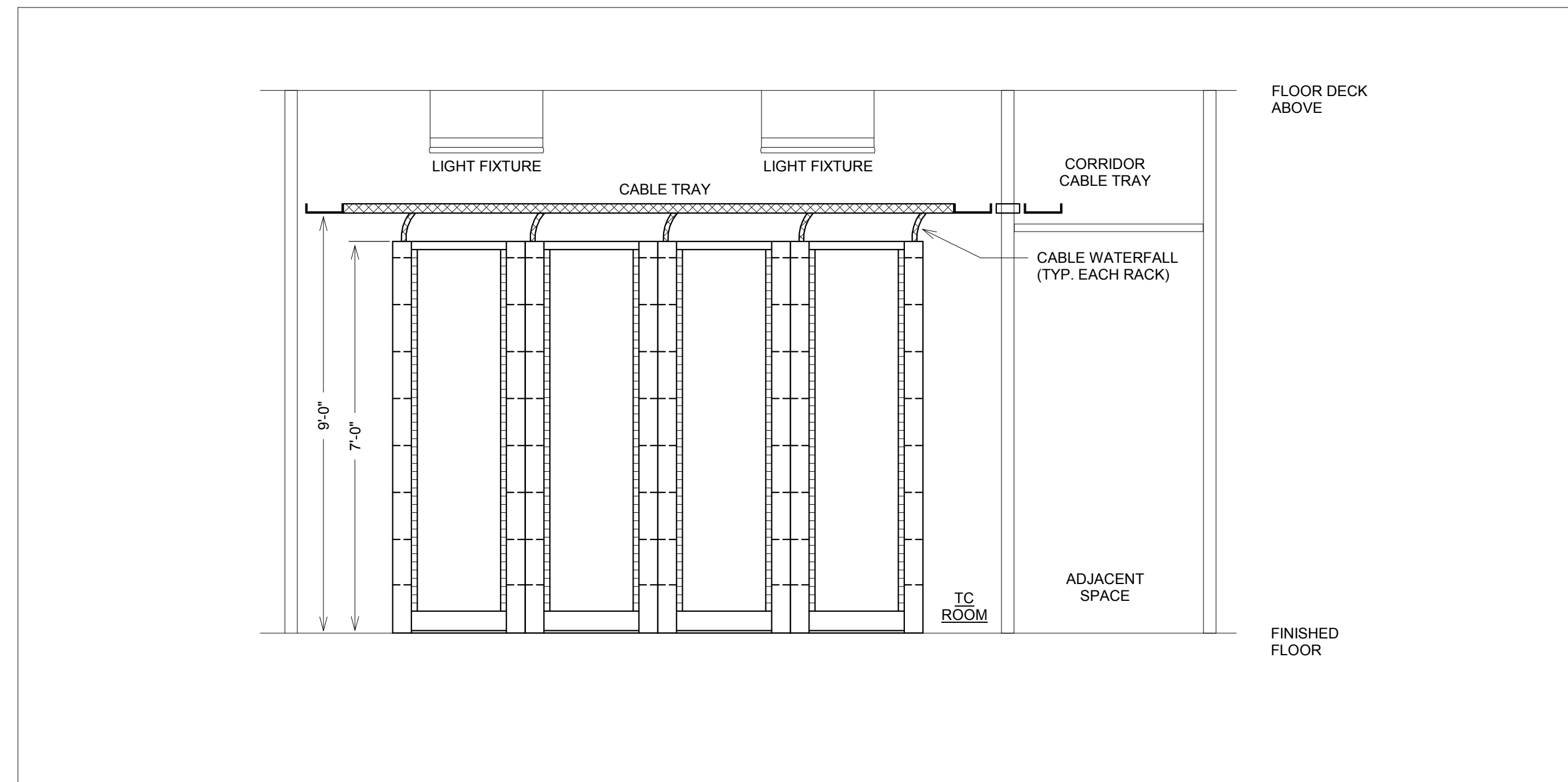
6 WIRELESS ACCESS POINT MOUNTING DETAIL
NO SCALE



8 DOOR POSITION SWITCH ROUGH-IN DETAIL
NO SCALE



9 HORIZONTAL CABLING DETAIL
NO SCALE



10 TELECOMMUNICATIONS ROOM EQUIPMENT ELEVATION
NO SCALE

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DUNHAM
50 South Sixth Street / Suite 1100
Minneapolis, Minnesota 55402-1540
Phone: 612.465.7550 Fax: 612.465.7551
www.dunhaminc.com
mechanical • electrical consulting engineering
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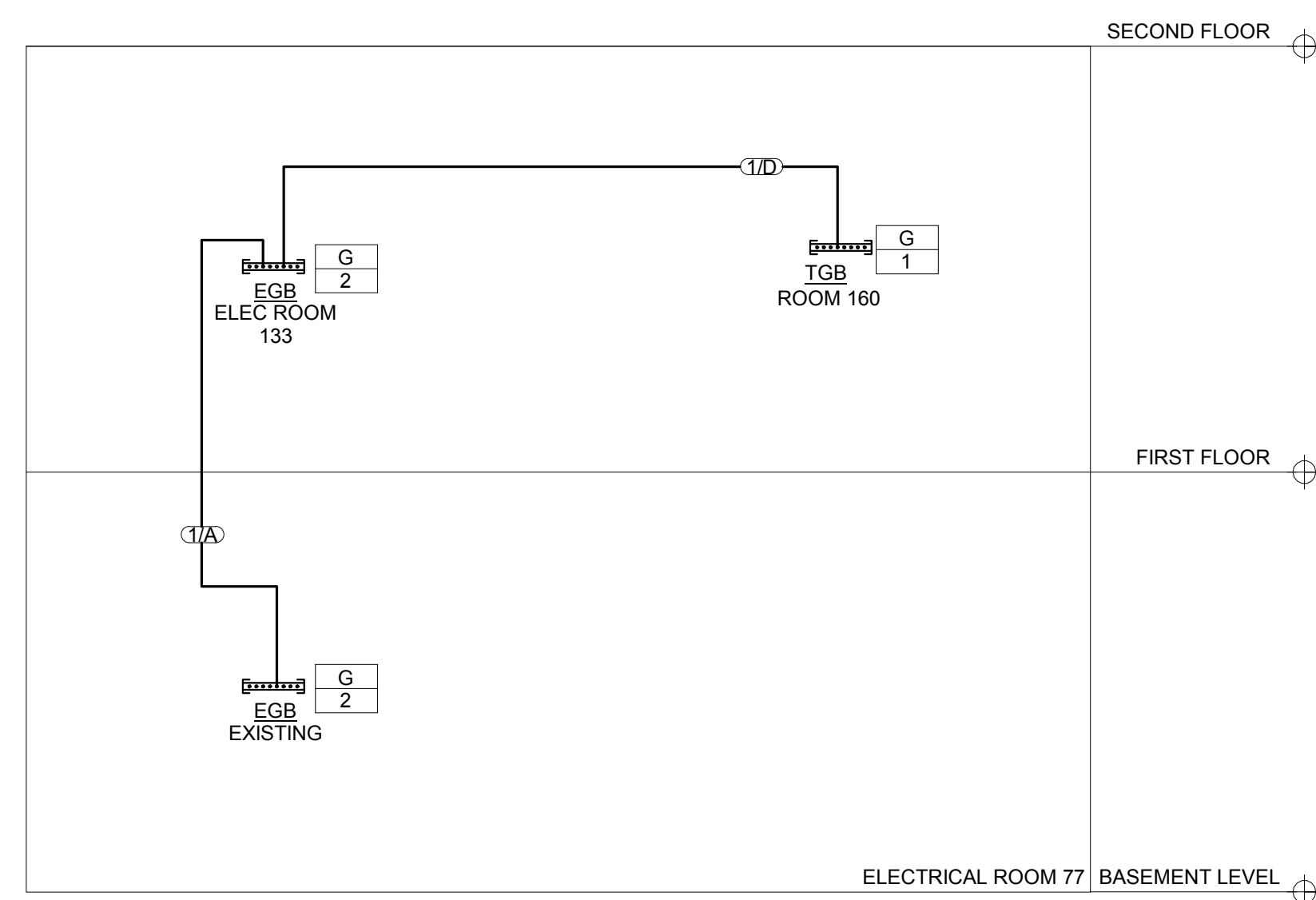
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FIRST FLOOR EAST RRTP
Location
SAINT CLOUD, MN
Phase
CONSTRUCTION DOCUMENTS
Drawing Title
ELECTRICAL DETAILS
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MAY 22, 2020
Checked
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BZ

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656-19-306
Building Number
28
Drawing Number
EE500

VA U.S. Department of Veterans Affairs
Veterans Health Administration
St. Cloud VA Health Care System

three inches = one foot
 one and one half inches = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



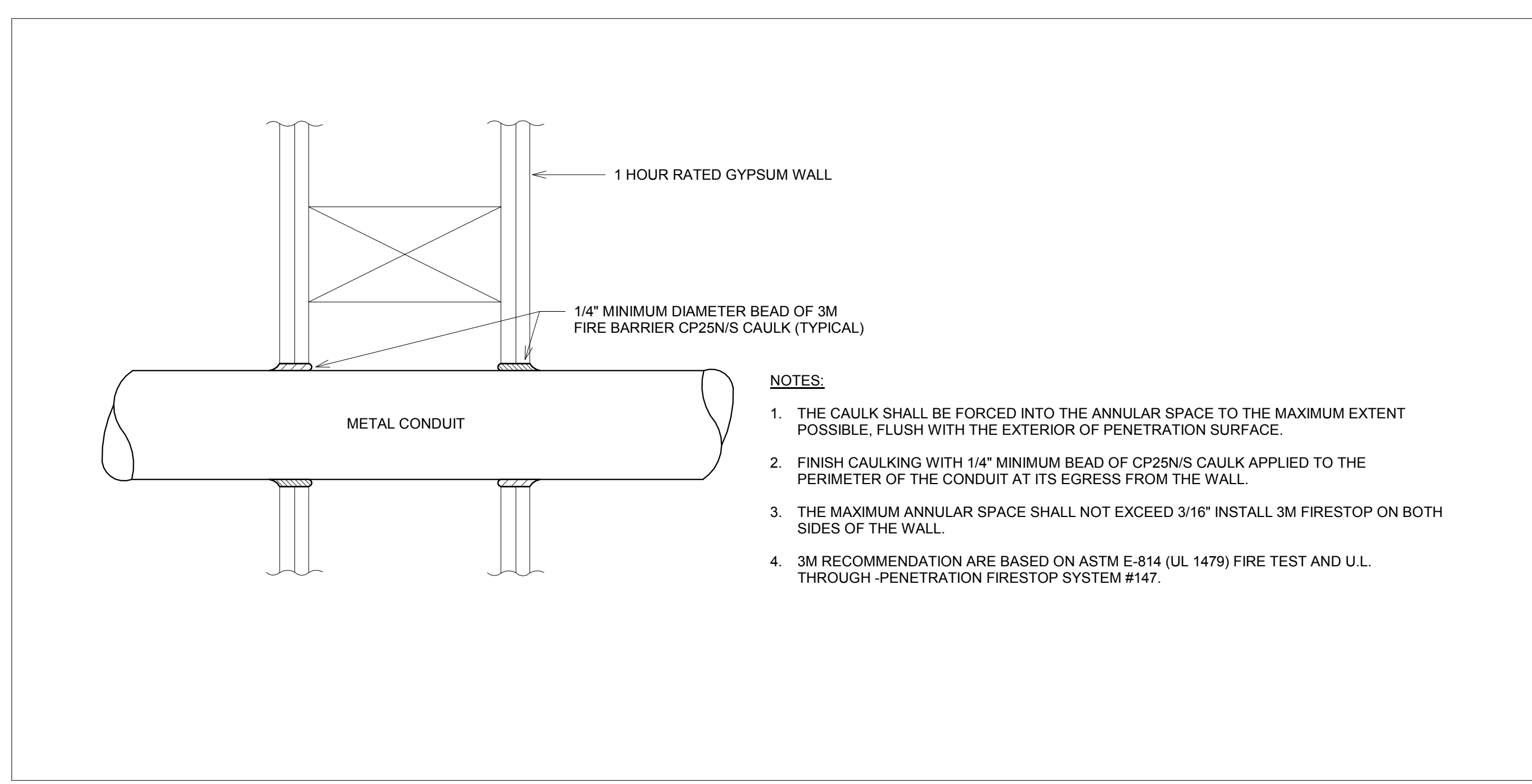
1 GROUNDING RISER DIAGRAM
NO SCALE

GENERAL NOTES:
 A. ALL CABLING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE.
 B. ALL BONDING BACKBONE CABLING WORK BY DIVISION 26.
 C. DIVISION 26 TO PROVIDE PULL STRING IN ALL CONDUIT RUNS.
 D. REFER TO GROUNDING DETAILS FOR ADDITIONAL DIRECTION.

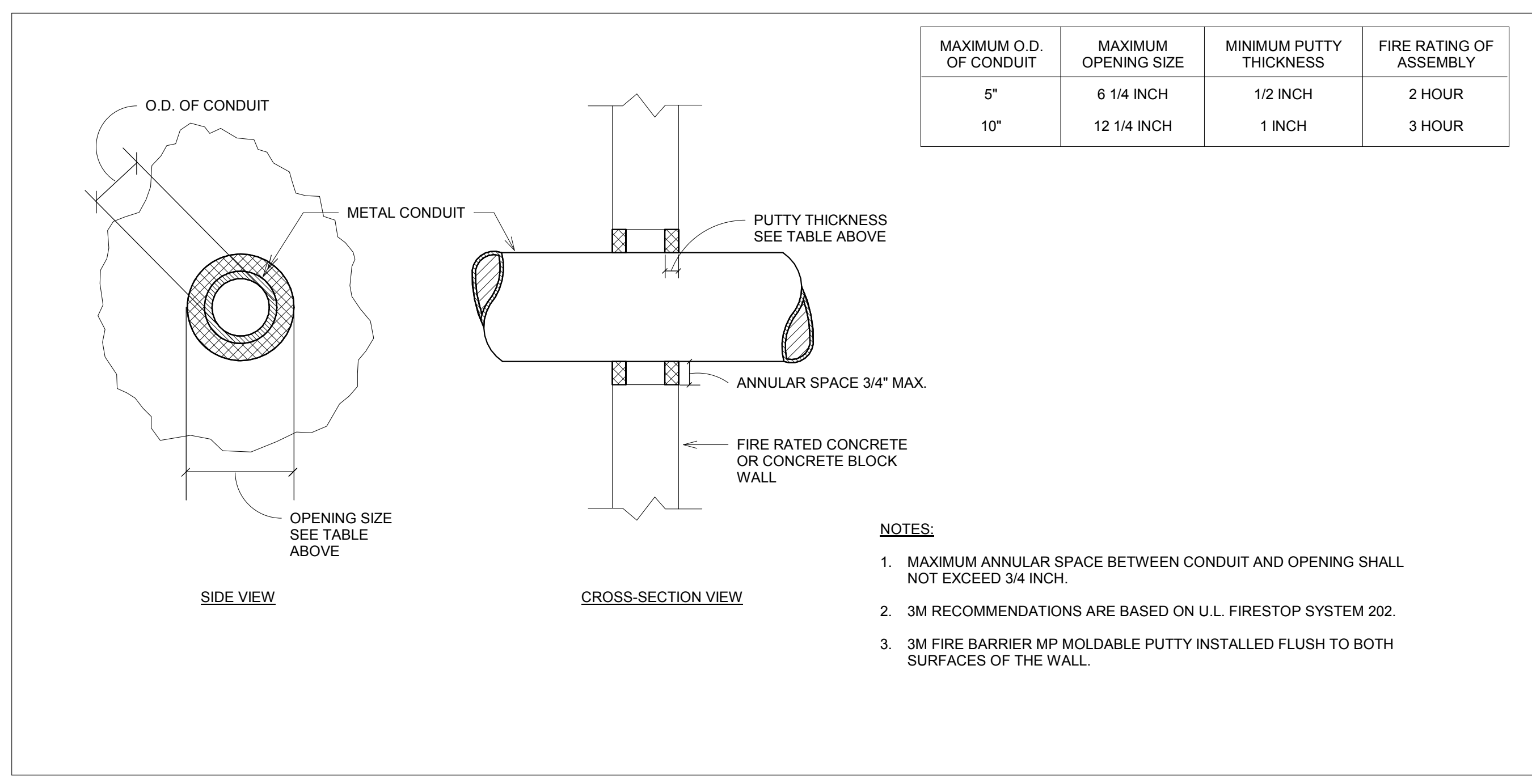
KEY NOTES:
 NOTE NOT USED.

EQUIPMENT:
 G 1 DEVICE TYPE CALLOUT INDIVIDUAL DEVICE CALLOUT
 G 2 TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) PROVIDED AND INSTALLED BY DIVISION 26. SEE DETAILS FOR ADDITIONAL DIRECTION.
 G 2 ELECTRICAL ROOM GROUNDING BUS BAR (EGB) PROVIDED AND INSTALLED BY DIVISION 26. SEE DETAILS FOR ADDITIONAL DIRECTION.

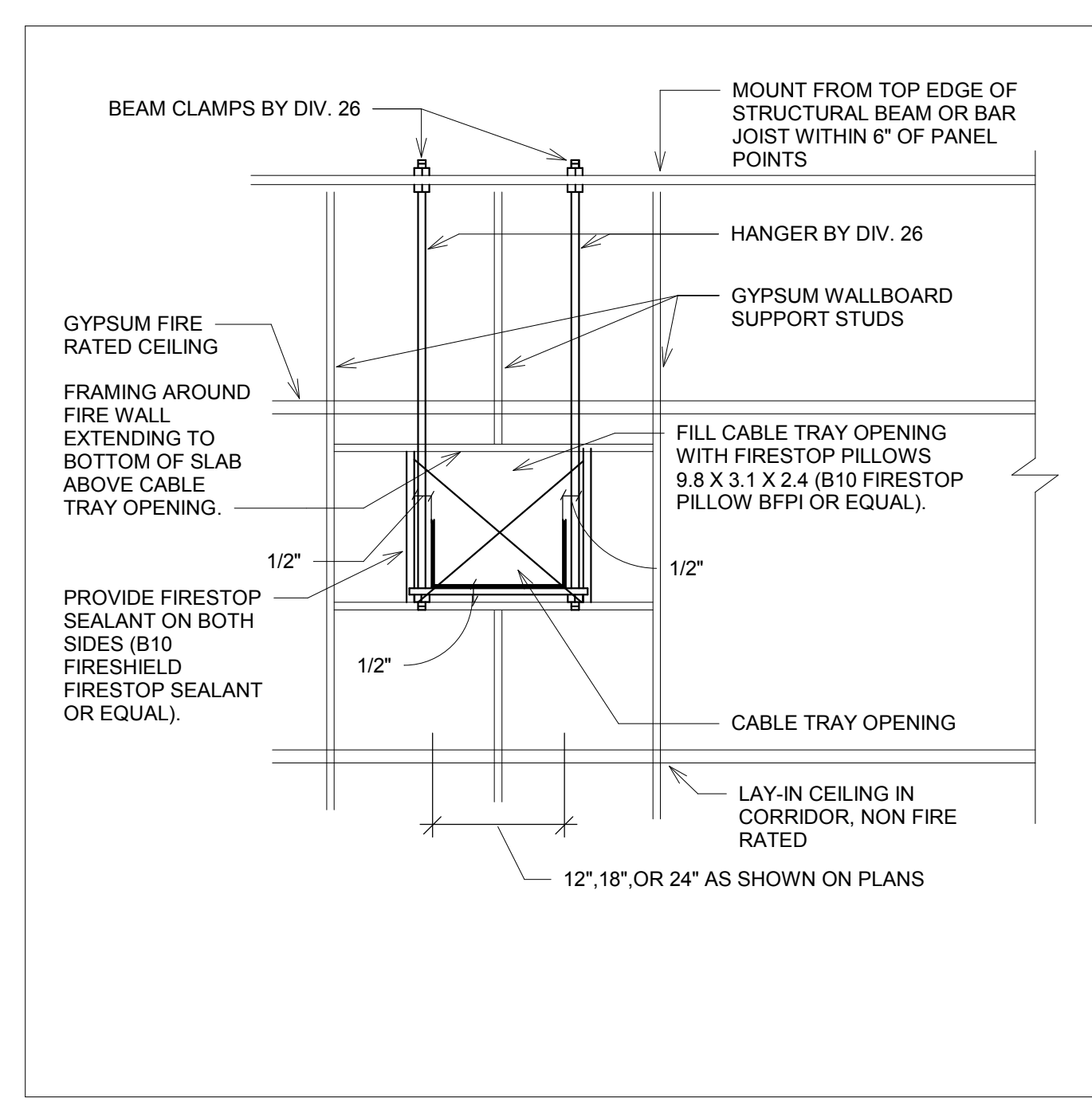
CABLE TYPE:
 #1A CABLE TYPE CALLOUT
 CABLE QUANTITIES
 #1A #500 AWG CABLE [GROUND BONDING CONDUCTOR]. PROVIDE EXOTHERMIC WELDS TO ALL GROUND BUS BARS.
 #1B #350 AWG CABLE [TELECOMMUNICATION BONDING].
 #1C #410 AWG CABLE [BONDING BACKBONE].
 #1D #1 AWG CABLE [TELECOMMUNICATION BONDING].
 #1E #6 AWG CABLE [COMMON BONDING CONDUCTOR].



2 PENETRATION FIRESTOP FOR CONDUIT THROUGH GYPSUM WALL (1 HOUR) DETAIL
NO SCALE



3 PENETRATION FIRESTOP FOR CONDUIT THROUGH CONCRETE WALL (2, 3 HOUR) DETAIL
NO SCALE



4 PENETRATION FOR CABLE TRAY THROUGH FIRE RATED WALL DETAIL
NO SCALE

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DUNHAM
 50 South Sixth Street / Suite 1100
 Minneapolis, Minnesota 55402-1540
 Phone: 612.465.7550 Fax: 612.465.7551
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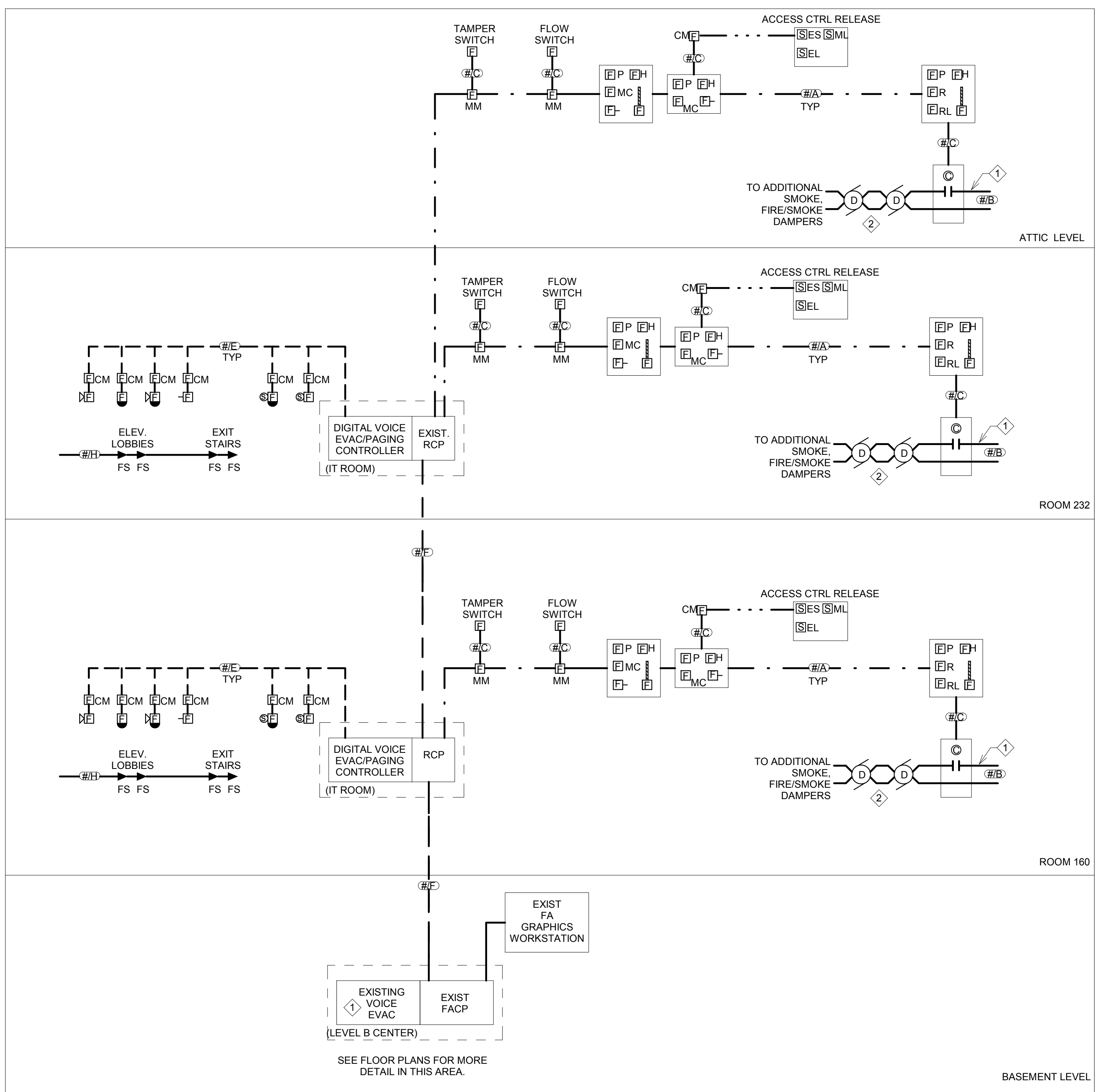
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FIRE ALARM CONTROL MATRIX

ACTION	FIRE ALARM DEVICE							
	NOTES	MANUAL PULL STATION	AREA SMOKE DETECTOR	DEDICATED DOOR HOLD SMOKE DETECTOR	AHU DUCT DETECTOR	FIRE ALARM PANEL/ CIRCUIT TROUBLE	SPEAKER AMP OR TONE GENERATOR TROUBLE	PRIMARY & SECONDARY POWER MONITOR
SEND ALARM SIGNAL TO FACP	1	XX	XX	XX				
SEND SUPERVISORY SIGNAL TO FACP	1				XX			
SEND TROUBLE SIGNAL TO FACP	1					XX	XX	XX
SHUT DOWN ENTIRE SMOKE COMPARTMENT SUPPLY, RETURN, AND EXHAUST FANS, & CLOSE ASSOCIATED SMOKE DAMPERS			XX		XX			
ACTIVATE NOTIFICATION DEVICES ON ALL FLOORS	3	XX	XX					
ACTIVATE NOTIFICATION DEVICES ON FLOOR OF ACTIVATION, FLOOR ABOVE, AND FLOOR BELOW	3							
RELEASE DOOR HOLDS, POWERED FIRE DOORS, AND POWERED SECURITY DOORS THROUGHOUT BUILDING		XX						XX
RELEASE DOOR HOLDS, POWERED FIRE DOORS, AND POWERED SECURITY DOORS IN SMOKE COMPARTMENT OF INITIATION ONLY			XX	XX				
RECALL CORRESPONDING ELEVATOR/ELEVATOR BANK TO PRIMARY LEVEL	6							
RECALL CORRESPONDING ELEVATOR/ELEVATOR BANK TO ALTERNATE LEVEL(S)	6							

- NOTES:**
2 4 2 5,7
- GENERAL NOTES:**
A. REFER TO DIVISION 28 SPECIFICATIONS FOR ADDITIONAL FIRE ALARM SYSTEM REQUIREMENTS.
B. ALL ACTIONS SHALL INDICATE A SPECIFIC DEVICE AND LOCATION TO THE CONTROL PANEL(S), ANNUNCIATOR PANEL(S), DACT, AND SYSTEM PRINTER.
C. NOT ALL DEVICES MAY BE REQUIRED. REFER TO PLANS FOR ACTUAL DEVICES.
- SPECIFIC NOTES:**
1. SEND SIGNAL TO REMOTE ALARM RECEIVING STATION.
2. FOR SMOKE TYPE DETECTORS FOR SMOKE DAMPER CONTROL, FACP SHALL SEND SIGNAL TO BUILDING MANAGEMENT SYSTEM TO SHUT DOWN ONLY SUPPLY, RETURN, AND EXHAUST FANS FOR ENTIRE AFFECTED SMOKE COMPARTMENT (10) SECONDS PRIOR TO CLOSING ASSOCIATED FIRE/SMOKE DAMPERS. REFER TO AHU ZONING PLANS.
3. ACTIVATE ALL EXTERIOR NOTIFICATION DEVICES.
4. RELEASE DOOR HOLD FOR ASSOCIATED DOOR ONLY. REFER TO PLANS FOR DEDICATED DOOR HOLD SMOKE DETECTOR LOCATIONS.
5. FOR OVERHEAD COILING DOORS, PROVIDE TIME DELAY OF AT LEAST 15 SECONDS AFTER LOSS OF POWER BEFORE DOOR HOLDS ARE RELEASED.
6. ELEVATOR RECALL SHALL NOT RECALL ELEVATOR/ELEVATOR BANK TO SAME FLOOR AS FLOOR WITH ACTIVATED INITIATING DEVICE.
7. DACT PRIMARY POWER TROUBLE SIGNAL SHALL BE SENT WHEN BATTERY CAPACITY IS BETWEEN 25 & 50%.

② Fire Alarm Control Matrix
NO SCALE



① FIRE ALARM CABLING RISER DIAGRAM
NO SCALE

GENERAL NOTES

- THE WIRING DIAGRAM IS CONCEPTUAL ONLY AND DOES NOT INDICATE ALL DEVICES, DEVICE TYPES OR QUANTITY OF LOOPS. REFER TO FLOOR PLANS FOR DEVICE QUANTITIES AND LOCATIONS.
- THE SYSTEM DIAGRAM IS BASED ON A DIGITAL ADDRESSABLE FIRE ALARM SYSTEM.
- ALL WIRING AND CABLING SHALL BE IN CONDUIT (MINIMUM 3/4" C.) EMT CONDUIT USED FOR FIRE ALARM WIRING SHALL INCLUDE FACTORY-APPLIED RED TOPCOAT UL-LISTED FOR FIRE ALARM USE.
- THE INSTALLATION SHALL BE FROM DRAWINGS THAT HAVE BEEN SUBMITTED, REVIEWED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION.
- EACH SIGNALING CIRCUIT SHALL ALLOW 15% SPARE CAPACITY TO ADD ADDITIONAL AUDIO, VISUAL OR COMBINATION AUDIO/VISUAL SIGNALING DEVICES TO ANY OF THESE CIRCUITS.
- PROVIDE THE CONTROL WIRING FROM FIRE ALARM CONTROLLER TO THE HVAC CONTROLLER.
- ALL SPRINKLER HEADS, LOCATED IN ELEVATOR SHAFTS AND ELEVATOR EQUIPMENT ROOMS, ARE TO HAVE A HEAT DETECTOR MOUNTED WITHIN TWO (2) FEET OF HEAD FOR ACTIVATION OF SHUNT TRIP POWER DEVICE. VERIFY QUANTITY ON SITE.
- REFER TO FIRE ALARM CONTROL MATRIX FOR ALL CONTROL REQUIREMENTS.

KEY NOTES

- LIFE SAFETY BRANCH CIRCUIT (REFER TO POWER PLAN DWGS)
- FIRE/SMOKE AND SMOKE DAMPER MOTORS ARE SHOWN ON MECHANICAL PLANS. VERIFY QUANTITIES AND LOCATIONS. PROVIDE FIRE ALARM CONNECTIONS TO RELAY SO THAT THE FIRE/SMOKE AND SMOKE DAMPERS CLOSE UPON LOSS OF POWER. (DIV. 28 SHALL PROVIDE RELAY AND CIRCUITING. SEE POWER PLANS FOR 120V CIRCUITING, RELAY LOCATIONS, ETC.) PROVIDE ONE (1) FIRE ALARM CONTROL MODULE PER FIRE/SMOKE DAMPER AND (1) ADDITIONAL FIRE ALARM CONTROL MODULE PER SMOKE ZONE FOR INTEGRATION WITH SMOKE EVACUATION SEQUENCE OF OPERATIONS. SEE ARCH. LIFE SAFETY PLANS FOR SMOKE ZONES.

CABLE TYPE

CABLE TYPE CALLOUT	CABLE QUANTITIES
①A INITIATING LINE CIRCUIT	---
②B BRANCH CIRCUIT	---
③C CONTROL CIRCUIT	---
④E SIGNAL LINE CIRCUIT	---
⑤F TWO-HOUR RATED PRIMARY BACKBONE (CLASS A)	---

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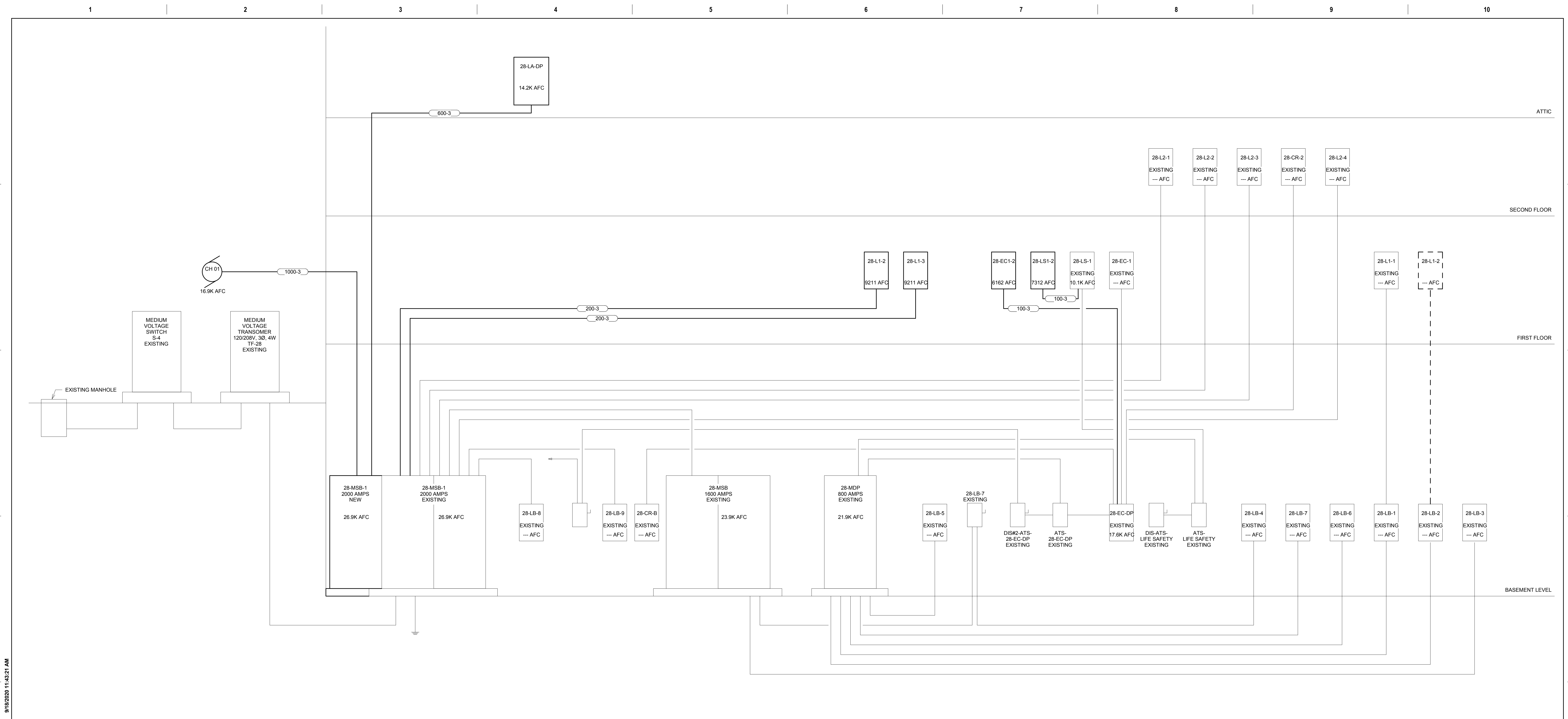


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Location SAINT CLOUD, MN		Building Number 28	
Phase CONSTRUCTION DOCUMENTS		Drawing Number EE502	
Issue Date MAY 22, 2020	Checked	Drawn	

VA U.S. Department of Veterans Affairs
Veterans Health Administration
St. Cloud VA Health Care System



1 ELECTRICAL RISER DIAGRAM
NO SCALE

FEEDER SCHEDULE	
FEEDER	FEEDER DESCRIPTION
100-3	1-1/4" C, 4#3 + #8 G
200-3	2" C, 4#3/0 + #6 G
600-3	(2) 3" C, 4#350KCMIL + #1 G
1000-3	(3) 3" C, 4#400KCMIL + #2/0 G

-2	SINGLE PHASE
-3	THREE PHASE
S	SERVICE SECONDARY
D	SIZED FOR VOLTAGE DROP
P	PVC
U	UNDERGROUND
L	ALUMINUM
N	ADDED NEUTRAL
T	THREE WIRE ONLY, NO NEUTRAL

GENERAL NOTES:
A - NOMENCLATURE DEFAULTS WITH A SINGLE NEUTRAL AND A GROUND.

NOTES:

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FIRST FLOOR EAST RTTP

Location
SAINT CLOUD, MN

Phase
CONSTRUCTION DOCUMENTS

Drawing Title
ELECTRICAL RISER DIAGRAM

Issue Date
MAY 22, 2020

Checked
CB

Drawn
BZ

Project Number
656-19-306

Building Number
28

Drawing Number
EE600

VA

U.S. Department of Veterans Affairs

Veterans Health Administration
 St. Cloud VA Health Care System

LIGHTING CONTROL SEQUENCE SCHEDULE

LIGHTING CONTROL SEQUENCE	VACANCY SENSOR	OCCUPANCY SENSOR	AUTO OFF TIME (MINUTES)	LIGHT SWITCHING % (MIN 50%)	DIMMING TYPE	DIMMING LEVEL	MANUAL ON/OFF	NOTES
LC 01	YES	NO	15	50	0-10V	1%	AUTO/NO	

GENERAL NOTES:
 A. PROVIDE ALL PARTS AND PIECES NECESSARY TO MAKE A FUNCTIONAL LIGHTING CONTROL SYSTEM WITH ALL CONTROLS AS MARKED ABOVE.
 B. SUPPLIER TO PROVIDE COMPLETE WIRING DIAGRAM PRIOR TO INSTALLATION.
 C. IF DIMMING IS CALLED FOR IN SCHEDULE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND PROVIDE ALL NECESSARY PARTS, BALLASTS, DRIVERS, ETC. TO PROVIDE THE DIMMING FUNCTION.
 D. CONTRACTOR TO PROVIDE ALL WIRING NECESSARY INCLUDING ANY 0-10V CONTROL WIRING AS REQUIRED.
 E. CONTRACTOR MUST COMPLY WITH THE CONTROLS INTENT AS INDICATED ON THE DRAWINGS.
 F. AT MINIMUM, CONTRACTOR SHALL HOLD TWO PRE CONSTRUCTION MEETINGS PRIOR TO BID, WITH THEIR SELECTED LIGHTING CONTROLS VENDOR OR SUPPLIER.
 G. THE INTENT OF (F) PRE CONSTRUCTION MEETINGS IS TO DEVELOP AN UNDERSTANDING OF THE CONTROLS SYSTEM TO ACCURATELY ACCOUNT FOR ALL POWER, CONTROLS, CABLING, EQUIPMENT AND CONNECTION REQUIREMENTS.
 H. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS, ACCESSORIES AND ASSOCIATED LABOR FOR THEIR SELECTED LIGHTING CONTROLS SYSTEM.

ELECTRICAL NOTES:

LIGHT FIXTURE SCHEDULE

FIXTURE LETTER	FIXTURE STYLE	VOLTAGE	MOUNTING	LAMPS		BALLAST/ DRIVER	FIXTURE MAX VA	CONTROL MEDIA (LENS, LOUVER, ETC.)	MANUFACTURER'S SERIES NUMBER	FIXTURE DESCRIPTION	NOTES
				TYPE	COLOR						
A	2X4 LED VOLUMETRIC TROFFER	120	RECESSED GYP-BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 4800 LUM MIN	4000K	DIMMING TO 10% (0-10V)	38.4 VA	0.125" MINIMUM ACRYLIC LINEAR PRISMATIC LENS	LITHONIA ZVTL4 SERIES METALUX #ST 24C22 COLUMBIA LCAT HE WILLIAMS PT SERIES	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABRICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER.	
A1	2X2 LED LENSED TROFFER	120	RECESSED GYP-BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 3000 LUM MIN	4000K	DIMMING 0-10V	26.3 VA	0.125" MINIMUM ACRYLIC LINEAR PRISMATIC LENS	LITHONIA ZVTL2 SERIES METALUX #ST 22C22 COLUMBIA LCAT HE WILLIAMS PT SERIES	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABRICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER.	
B	2X4 LED VOLUMETRIC TROFFER	120	RECESSED GYP-BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 7200 LUM MIN	4000K	DIMMING TO 1% (0-10V)	59 VA	0.125" MINIMUM ACRYLIC LINEAR PRISMATIC LENS	LITHONIA ZVTL4 SERIES METALUX #ST 24C22 COLUMBIA LCAT HE WILLIAMS PT SERIES	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABRICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER.	
D	2" LINEAR FLUSH MOUNT	120	SURFACE	LED 2200 LUM MIN	4000K		25 VA	EXTRUDED ACRYLIC DIFFUSER	LITHONIA FMLCCL SERIES METALUX CWPLD APX PIERCE HE WILLIAMS SLF SERIES	UV STABILIZED IMPACT-RESISTANT POLYCARBONATE DIFFUSER. FLANKED BY DECORATIVE BRUSHED NICKEL STEEL END CAPS	
D02	6" ROUND DIAMETER DIMMABLE DOWNLIGHT	120	RECESSED GYP-BOARD AND/OR LAY-IN GRID INVERTED TEE	LED 1700 LUM MIN	4000K	DIMMING 0-10V	19.7 VA	OPEN CLEAR SELF FLANGED MEDIUM DISTRIBUTION	GOTHAM LIGHTING EVO SERIES PORTFOLIO #LDB8 PRESOLITE LITESTRY INTENSE IHO. SERIES OR EQUAL	WHITE SELF FLANGED TRIM. PRE-PAINTED WHITE ALUMINUM HOUSING. PRE-WIRED J-BOX. TWO 27" HANGER BARS	
E1	LED EXIT SIGN - SINGLE FACE. AC ONLY	120	RECESSED WALL/CEILING	LED	RED	N/A	4 VA	MOLDED STENCIL LETTERS	LITHONIA LE SERIES SURE-LITES CX SERIES DUALITE SE SERIES LIGHT ALARMS XD SERIES OR EQUAL	DIE CAST, BRUSHED ALUMINUM FACE. BLACK HOUSING. RED LETTERS, FACES AND ARROWS AS SHOWN ON PLANS. AC ONLY UL924	
E2	LED EXIT SIGN - DOUBLE FACE. AC ONLY	120	RECESSED WALL/CEILING	LED	RED	N/A	5 VA	MOLDED STENCIL LETTERS	LITHONIA LE SERIES SURE-LITES CX SERIES DUALITE SE SERIES LIGHT ALARMS XD SERIES OR EQUAL	DIE CAST, BRUSHED ALUMINUM FACE. BLACK HOUSING. RED LETTERS, FACES AND ARROWS AS SHOWN ON PLANS. DIE CAST, BRUSHED ALUMINUM FACE. BLACK HOUSING. RED LETTERS, FACES AND ARROWS AS SHOWN ON PLANS. AC ONLY UL924	
F	PATIENT ROOM LED NIGHT LIGHT	120	SURFACE	LED 39 LUM MIN	4000K		1.2 VA	VANITY LIGHT	HEALTHCARE-LIGHTING # PATHFINDER HNL810 SERIES OR EQUAL	DIE CAST ALUMINUM HOUSING. POWDERCOAT FINISH (BRONZE). WET LOCATION WITH INTEGRAL PHOTOCELL	
F01	4' INDUSTRIAL	120	SURFACE/ CHAIN HUNG	LED 1800 LUM MIN	4000K	DIMMING 0-10V	14 VA	SEMI FROSTED ACRYLIC LENS	EATON METALUX SNLED SERIES COLUMBIA LCL SERIES LITHONIA CLX SERIES H.E. WILLIAMS T5S SERIES	STEEL CHANNEL, WHITE POWDER COAT	
K	SURFACE MOUNT LED WALL PACK	120	SURFACE MOUNTED	LED 2508 LUM MIN	5000K	NA	18 VA	LED WALL PACK EXTERIOR FIXTURE. DIE-CAST ALUMINUM HOUSING. 10 WATT HIGH OUTPUT LED LIGHT ENGINE. WET LOCATION LISTED. BRONZE FINISH. COOL WHITE TEMPERATURE. INTEGRAL PHOTOCELL CONTROL	RAB WPLED 18 SERIES. PROVIDE \$300 MATERIAL ALLOWANCE.	FLAT WHITE, INTEGRATED PHOTOCELL.	

GENERAL ELECTRICAL NOTES:
 A. REFER TO SPECIFICATION SECTIONS 285100 AND 285600 FOR LUMINAIRE REQUIREMENTS.
 B. BRING CONFLICTS BETWEEN THE MANUFACTURER'S CATALOG NUMBER AND DESCRIPTIONS TO THE ATTENTION OF THE ENGINEER.
 C. PROVIDE LAMPS AND LUMINAIRES FROM THE SAME MANUFACTURER TO ENSURE MATCHING COLOR AND APPEARANCE. LAMPS SHALL HAVE COLOR TEMPERATURE 3500K WITH MINIMUM CRI OF 80 UNLESS OTHERWISE NOTED.
 D. UNLESS A SPECIFIC CATALOG NUMBER OR SERIES IS NAMED, THE MANUFACTURER'S NAMED ALTERNATES MUST SUBMIT CATALOG CUT SHEETS AND IES FORMATTED PHOTOMETRIC REPORT TO THE ENGINEER FOR APPROVAL AT LEAST 10 DAYS PRIOR TO BID DATE. THE ENGINEER MAY REQUEST SAMPLE OF LUMINAIRE TO BE SUPPLIED.
 E. MINIMUM LUMENS LISTED FOR SOLID STATE LIGHT LUMINAIRES ARE DELIVERED LUMENS BASED ON PHOTOMETRIC TESTING COMPLETED IN ACCORDANCE WITH IES LM-79 STANDARDS.
 F. SUBSTITUTE LUMINAIRE SUBJECT TO ARCHITECT/ENGINEER APPROVAL.

NOTES:

SYSTEMS - VIDEO SURVEILLANCE SCHEDULE

CAMERA	ROOM NAME	ROOM #	HOUSING TYPE	MOUNTING	NOTES
FIRST FLOOR					
C 1	CORRIDOR	CE-2	DOME	CEILING	
C 2			DOME	CEILING	
C 3			DOME	CEILING	
C 4	CORRIDOR	CE-3	DOME	CEILING	
C 5	CORRIDOR	CE-3	DOME	CEILING	
C 6	CORRIDOR	CE-3	DOME	CEILING	
C 7	CORRIDOR	C1E	DOME	CEILING	
C 8	LAUNDRY	153	DOME	CEILING	

GENERAL ELECTRICAL NOTES:
 A. UPON COMPLETION, RECALIBRATE CAMERA VIEWS WITH OWNER TO ENSURE DESIRED CONTENT IS CAPTURED.

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