

FIRE ALARM SHEET INDEX

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GENERAL NOTES

- THE FIRE ALARM SYSTEM SHALL CONFORM TO VA FIRE PROTECTION MANUAL VERSION R6.
  - INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED SHOP DRAWINGS AND PRODUCT SUBMITTALS HAVE BEEN APPROVED BY THE DEPARTMENT OF VETERAN AFFAIRS.
  - UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE INSPECTOR OF RECORD (IOR).
- WIRING SHALL CONFORM TO NEC ARTICLE 760. SYSTEM INSTALLATION SHALL CONFORM TO NFPA 72 (2010 EDITION) REQUIREMENTS.
- BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION, THE INSTALLING CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT TO THE RESIDENT ENGINEER TO THE EFFECT THAT THE SYSTEM HAS BEEN INSTALLED AND COMPLETELY TESTED IN ACCORDANCE WITH 2010 EDITION OF NFPA 72 SECTIONS 14.6.2.4.
- AUDIBILITY AND VISIBILITY OF NOTIFICATION APPLIANCES TO BE FIELD VERIFIED. RELOCATION AND/OR REQUIREMENT OF ADDITIONAL APPLIANCES MAY BE BASED ON FIELD TESTING.
- THE CABLE REQUIREMENTS INDICATED ON THESE FIRE ALARM DRAWINGS ARE GENERIC IN NATURE. CABLE REQUIREMENTS FOR FIRE ALARM SYSTEMS ARE BRAND AND MANUFACTURER SPECIFIC. THE CONTRACTOR SHALL INCLUDE IN THEIR BID AND PROVIDE AND INSTALL THE CORRECT CABLES FOR THE BRAND AND MODEL OF THE FIRE ALARM SYSTEM THAT THEY HAVE SELECTED TO PROVIDE AND INSTALL. IN NO CASE SHALL THE WIRE GAUGE BE LESS THAN INDICATED IN THE FIRE ALARM WIRE LEGEND EXCEPT FOR THE PRINTER CABLE.

INSTALLATION NOTES

- ALL FIRE ALARM WIRING SHALL BE INSTALLED PER NFPA/IBC REQUIREMENTS.
- INSTALLATION SHALL CONFORM TO MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING SPECIFICATIONS FOR OPTIMAL SYSTEM OPERATION.
- ALL FIRE ALARM WIRE/CABLE SHALL BE INSTALLED IN DEDICATED CONDUIT.
- UNLESS OTHERWISE SHOWN, ALL CONDUIT SHALL BE MINIMUM 3/4"
- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL NOT INTERMIX ANY HIGH VOLTAGE POWER WIRES (120VAC) WITH ANY SIGNAL OR CONTROL WIRES IN ANY CONDUIT.
- ALL WIRES SHALL BE CONNECTED IN A UNIFORM MANNER. TRANSPOSING OR CHANGING OF COLOR CODES SHALL NOT BE PERMITTED.
- ALL PULL AND JUNCTION BOXES SHALL BE PROVIDED WITH BLANK COVERS. OUTDOOR INSTALLED BOXES AND CONDUITS SHALL BE WEATHERPROOF TYPE.
- ALL ROUTES OF WIRING INDICATED ON BID DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR IS RESPONSIBLE FOR CONDUIT LAYOUT IN BUILDING. ALL CONDUIT SHALL BE CONCEALED EXCEPT IN ELECTRICAL ROOMS AND ELEVATOR EQUIPMENT ROOM.
- THE CONTRACTOR SHALL UNDERTAKE THE WORK IN ITS ENTIRETY IN ACCORDANCE WITH ITS DESIGN AND PURPOSE. ALL WORK SHALL BE CARRIED OUT IN A PROFESSIONAL MANNER WITH MAXIMUM EFFICIENCY AND EXCELLENT WORKMANSHIP.
- IT IS UNDERSTOOD THAT THE CONTRACTOR HAS READ AND UNDERSTOOD FULLY THE PLANS, SPECIFICATIONS, AND ALL RELATED DOCUMENTS ON THIS PROJECT, AND IS WELL FAMILIAR WITH THE SITE AND WORKING CONDITIONS.
- ALL FIRE ALARM CONDUIT, J-BOX, AND COVER PLATES SHALL BE PAINTED RED BEFORE BEING INSTALLED.
- THE CONTRACTOR SHALL CREATE AS-BUILT DRAWINGS WITH THE EXACT ROUTING OF ALL CONDUIT/CABLES. AS-BUILT DRAWINGS SHALL BE TURNED OVER TO THE ENGINEER OF RECORD AT THE TIME OF IN-SERVICE TRAINING.
- \*THE PRIMARY POWER SOURCE FOR THE FACP SHALL BE FROM A DEDICATED CIRCUIT. THIS CIRCUIT SHALL BE LABELED AT BOTH THE ELECTRICAL SUBPANEL AND ON THE INSIDE OF THE FACP DOOR. THE CIRCUIT BREAKER SHALL HAVE A RED MARKING, PROVIDED WITH A CIRCUIT LOCK, AND PROTECTED FROM PHYSICAL DAMAGE PER NFPA72 10.5.5.2.\*

SCOPE OF WORK

- CONTRACTOR SHALL PROVIDE, INSTALL, PROGRAM, CONFIGURE, AND TEST FULLY FUNCTIONAL AND COMPLETELY OPERATIONAL ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH CONTRACT DOCUMENTS INCLUDING CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR SHALL DEMO ALL EXISTING FIRE ALARM DEVICES, CONDUIT, BOXES, AND CABLES.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL WIRING, CABLES, DEVICES, CONNECTIONS, TERMINATIONS, PROGRAMMING, AND COORDINATION REQUIRED FOR FULLY FUNCTIONAL AND COMPLETELY OPERATIONAL FIRE ALARM SYSTEM.
- CONTRACTOR SHALL COORDINATE AND PROVIDE CONNECTIONS AND INTERFACES TO CAMPUS FIRE ALARM MONITORING SYSTEM.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT, SLEEVES, BACK BOXES, JUNCTION BOXES, PULL BOXES, AND UL RATED WALL PENETRATIONS REQUIRED FOR FULLY FUNCTIONAL AND COMPLETELY OPERATIONAL FIRE ALARM SYSTEM IN COMPLIANCE WITH APPLICABLE CODES.
- CONTRACTOR SHALL PROVIDE AND INSTALL ANY CUSTOM BACKBOXES REQUIRED.
- CONTRACTOR SHALL COORDINATE WITH HVAC CONTRACTOR FOR LOCATIONS AND INTERFACES WITH AIR HANDLING SYSTEM.
- CONTRACTOR SHALL COORDINATE WITH FIRE SPRINKLER CONTRACTOR FOR LOCATIONS AND INTERFACES FOR THE MONITORING OF ALL VALVES AND SWITCHES.
- CONTRACTOR SHALL COORDINATE WITH ELEVATOR CONTRACTOR FOR LOCATIONS AND INTERFACES WITH ALL ELEVATOR EQUIPMENT.
- CONTRACTOR SHALL INCLUDE FINAL CONNECTIONS, TERMINATIONS, PROGRAMMING, CUSTOM PROGRAMMING, SYSTEMS INTERFACE PROGRAMMING, CONFIGURATION, TRAINING, COMMISSIONING, AND TESTING OF THE FIRE ALARM SYSTEM. INTERFACE TO THE CAMPUS FIRE ALARM MONITORING STATION SHALL ALSO BE PROGRAMMED AND TESTED.
- CONTRACTOR SHALL INCLUDE ATTENDANCE AT CONSTRUCTION COORDINATION AND OTHER REQUIRED PROJECT MEETINGS.
- CONTRACTOR SHALL INCLUDE COORDINATION OF WORK WITH OTHER DESIGN AND INSTALLATION TRADES.
- CONTRACTOR SHALL INCLUDE COORDINATION OF WORK WITH THE ENGINEER OF RECORD.
- CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS AND OPERATION AND MAINTENANCE MANUALS BEFORE END OF PROJECT.

ENFORCEABLE CODES

- 2012 INTERNATIONAL BUILDING CODE (IBC)
- 2010 NFPA 72 (National Fire Alarm Code)
- 2009 NFPA 101 (Life Safety Code)
- 2010 NEC (National Electrical Code)

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SYSTEM OPERATIONAL INPUT SIGNALS AND OUTPUT FUNCTIONS	SYSTEM OUTPUTS													
	ACTIVATE PANEL ALARM SIGNAL INDICATOR (RED LED)	ACTIVATE PANEL ALARM SIGNAL AUDIBLE (ALARM BUZZER)	ACTIVATE PANEL TROUBLE SIGNAL INDICATOR (AMBER LED)	ACTIVATE PANEL TROUBLE SIGNAL AUDIBLE (TROUBLE BUZZER)	ACTIVATE PANEL SUPERVISORY SIGNAL INDICATOR (AMBER LED)	ACTIVATE PANEL SUPERVISORY SIGNAL AUDIBLE (SUPERVISORY BUZZER)	INDICATE INPUT SIGNAL ON PANEL'S LCD DISPLAY	ACTIVATE VISUAL AND SPEAKERS	TRANSMIT ALARM SIGNAL TO REMOTE ANNUNCIATOR	TRANSMIT TROUBLE SIGNAL TO REMOTE ANNUNCIATOR	TRANSMIT SUPERVISORY SIGNAL TO REMOTE ANNUNCIATOR	TRANSMIT ALARM SIGNAL TO MONITORING COMPANY	TRANSMIT TROUBLE SIGNAL TO MONITORING COMPANY	TRANSMIT SUPERVISORY SIGNAL TO MONITORING COMPANY
<b>SYSTEM INPUTS</b>														
MANUAL BOX (PULL STATION)	X	X					X	X	X			X		X
AREA SMOKE DETECTOR	X	X					X	X	X			X		X
<b>ELEVATOR INTERFACE INPUTS:</b>														
LOBBY SMOKE DETECTOR, EXCEPT LEVEL 1	X	X					X	X	X		X	X	X	
LOBBY SMOKE DETECTOR AT LEVEL 1	X	X					X	X	X		X	X	X	
MACHINE ROOM/SHAFT SMOKE DETECTOR	X	X					X	X	X		X	X	X	X
MACHINE ROOM/SHAFT HEAT DETECTOR				X	X	X				X				X
LOSS OF 120 VOLT POWER AT ELEV. SHUNT TRIP BREAKER				X	X	X				X				
DUCT MOUNTED SMOKE DETECTOR				X	X	X				X				X
WATERFLOW SWITCH	X	X					X	X	X		X	X		
VALVE TAMPER SWITCH				X	X	X				X				
POST INDICATE VALVE				X	X	X				X				
OUTSIDE SCREW AND YOKE VALVE				X	X	X				X				
LOSS OF 120 VOLT POWER AT FACP				X						X		X		
FIRE ALARM SYSTEM LOW BATTERY				X	X			X		X				
<b>INITIATING CIRCUIT:</b>														
OPEN WIRE		X	X				X			X				
GROUNDING WIRE		X	X				X			X				
SHORTED WIRE	X	X					X	X	X					
<b>NOTIFICATION CIRCUIT</b>														
OPEN WIRE		X	X				X			X				
GROUNDING WIRE		X	X				X			X				
SHORTED WIRE		X	X				X			X				
<b>SIGNALING LINE CIRCUIT</b>														
OPEN WIRE		X	X				X			X				
GROUNDING WIRE		X	X				X			X				
WIRE TO WIRE SHORT AND OPEN		X	X				X			X				
WIRE TO WIRE SHORT AND GROUND		X	X				X			X				
OPEN AND GROUND		X	X				X			X				
LOSS OF CARRIER		X	X				X			X				

FIRE ALARM DEVICE LEGEND	
SYMBOLS	DESCRIPTION
	AUTOMATIC DOOR OPENER
	FIRE ALARM CONTROL PANEL
	FIRE ALARM REMOTE ANNUNCIATOR
	FIRE ALARM POWER SUPPLY
	ADDRESSABLE MANUAL PULL STATION
	ADDRESSABLE DUCT DETECTOR WITH CONTROL RELAY
	DUCT SMOKE DETECTOR
	PRINTER
	REMOTE TEST SWITCH
	ADDRESSABLE PHOTO SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	ADDRESSABLE CONTROL RELAY
	ADDRESSABLE CONTROL MULTI-RELAY
	ADDRESSABLE MONITOR MODULE
	ADDRESSABLE MULTI-INPUT MONITOR MODULE
	ADDRESSABLE DUAL MONITOR MODULE
	MULTI-CANDELA SPEAKER STROBE - CEILING MOUNTED
	SPEAKER - CEILING MOUNTED
	STROBE ALARM LIGHT - WALL MOUNTED
	VOLTAGE MONITORING RELAY
	ELECTROMAGNETIC DOOR HOLDER - WALL MOUNTED
	WATERFLOW BELL
	SPRINKLER WATERFLOW SWITCH
	SPRINKLER TAMPER SWITCH
	POST INDICATOR VALVE
	FIRE SMOKE DAMPER
	JUNCTION BOX
	END OF LINE RESISTOR
	TELEPHONE JACK
	FIRE ALARM TERMINAL CABINET

FIRE ALARM WIRE LEGEND*					
DESIGNATION	No. OF CONDUCTORS	SIZE AWG	TYPE	USE	
A	2	12	FPL	VISUAL (STROBE)	
B	1 PAIR	14	FPL	AUDIBLE (SPEAKER)	
C	1 PAIR	18	FPL	SIGNAL LINE CIRCUIT	
D	2	18	FPL	DOOR HOLDER	
E	2	18	FPL	INDICATING DEVICE CIRCUIT	
F	4	18	FPL	DUCT REMOTE TEST	
H	2	18	FPL	HVAC FAN SHUTDOWN	
N	2 PAIR	24	CMR	CAT6	
P	2 PAIR SHIELDED	18	FPL	FIRE ALARM PRINTER	
T	2 PAIR	24	CMR	TELEPHONE LINE	

\* REFER TO NOTE 5 OF GENERAL NOTES.

Revisions:	Date

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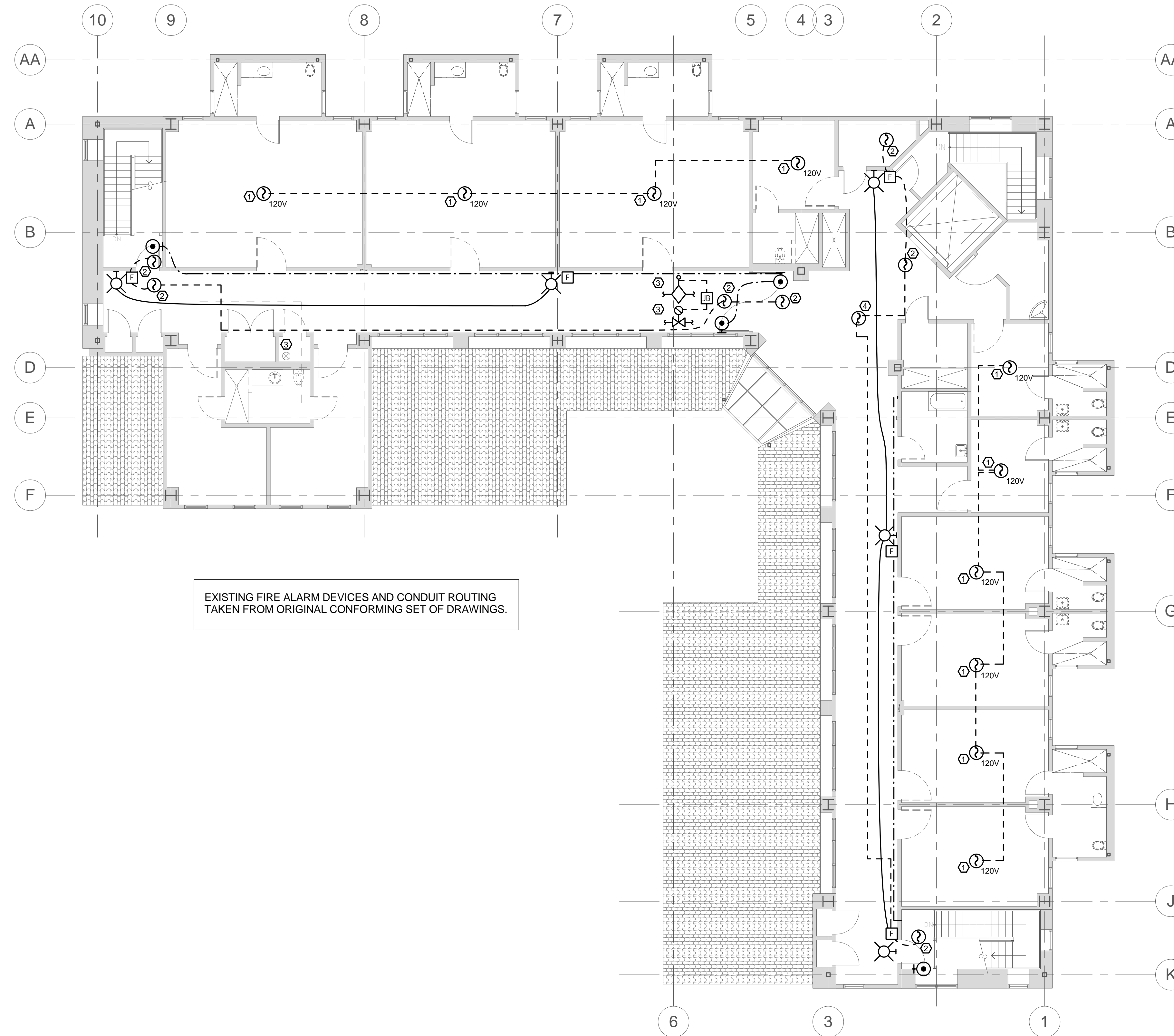
Drawing Title	FIRE ALARM LEGEND AND NOTES
Approved: Project Director	

Project Title	MPD - EXPAND HOMELESS DOMICILIARY OUTPATIENT AND THERAPY PROGRAMS
Project Number	640-382
Building Number	349
Location	795 WILLOW ROAD, MENLO PARK, CA
Date	NOVEMBER 04, 2013
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Drawing Number	<b>FA001</b>
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**SHEET NOTES**

- ① REMOVE (E) 120-VOLT LOCAL SMOKE DETECTOR. CAP OFF WIRES. PROVIDE BLANK FLUSH WALL PLATE TO COVER BACK BOX. BLANK PLATE SHALL STYLE AND COLOR SHALL MATCH RECEPTACLE AND SWITCH PLATES.
- ② REPLACE EXISTING SIMPLEX SMOKE DETECTORS WITH NEW SIMPLEX DETECTORS. MAINTAIN SAME DEVICE ADDRESS.
- ③ REPLACE EXISTING SIMPLEX ZAM MODULES WITH NEW SIMPLEX IAM MODULES. MAINTAIN SAME DEVICE ADDRESS.
- ④ REMOVE EXISTING SMOKE DETECTOR. SPLICE WIRES THROUGH. PROVIDE BLANK FLUSH WALL PLATE TO COVER BACK BOX. BLANK PLATE SHALL STYLE AND COLOR SHALL MATCH RECEPTACLE AND SWITCH PLATES.
- ⑤ REMOVE EXISTING DOOR HOLDER. SPLICE WIRES THROUGH. PROVIDE BLANK FLUSH WALL PLATE TO COVER BACK BOX. BLANK PLATE SHALL STYLE AND COLOR SHALL MATCH RECEPTACLE AND SWITCH PLATES.



**FIRE ALARM SECOND FLOOR DEMOLITION PLAN**

1/8" = 1'-0"

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795 WILLOW ROAD, MENLO PARK, CA

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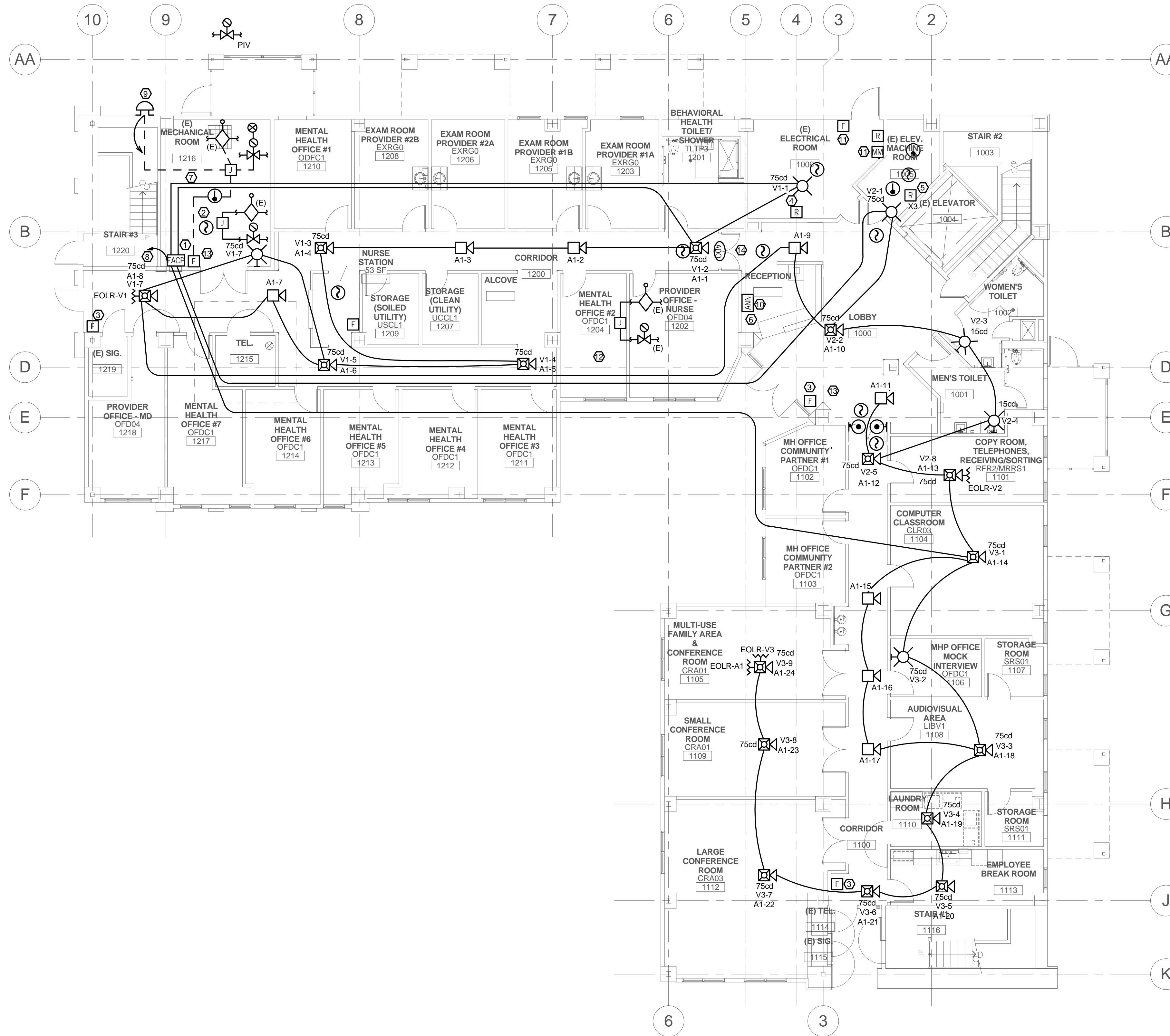


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 three eighths inch = one foot  
 one half inch = one foot  
 three quarters inch = one foot  
 one inch = one foot  
 one and one half inches = one foot  
 one and one half inches = one foot  
 three inches = one foot



**SHEET NOTES**

- ① THE FIRE ALARM CONTROL PANEL LOCATION IS TO REMAIN THE SAME. REUSE THE EXISTING SIMPLEX PANEL BACK BOXES. REMOVE EXISTING SIMPLEX 4100 FIRE ALARM EQUIPMENT AND REPLACE WITH NEW SIMPLEX 4100U FIRE ALARM SYSTEM. REPLACE ALL AMPLIFIERS AND NOTIFICATION APPLIANCE CIRCUIT (NAC) POWER SUPPLIES. ALL EQUIPMENT IN EXISTING BACK BOXES IS TO BE REPLACED WITH NEW. NEW SIMPLEX 4100U SYSTEM SHALL BE CONNECTED TO ALL EXISTING INTERFACE POINTS AND COMMUNICATION POINTS. PROVIDE ADDITIONAL NAC CIRCUITS TO POWER NEW STROBE CIRCUITS AS INDICATED ON DRAWINGS. PROVIDE PANEL-MOUNTED PRINTER WITH NEW SYSTEM. REUSE EXISTING 120V CIRCUIT TO POWER NEW FIRE ALARM EQUIPMENT. IF REQUIRED, REPLACE EXISTING CIRCUIT BREAKER TO ENSURE COMPLIANCE WITH NFPA72.
- ② CEILING MOUNTED SMOKE DETECTOR IS TO BE INSTALLED WITHIN FIVE FEET OF THE FIRE ALARM CONTROL PANEL AND NOT WITHIN THREE FEET OF AN AIR REGISTER.
- ③ MANUAL FIRE ALARM BOXES (PULL STATIONS) SHALL BE INSTALLED WITH FIVE FEET OF EXIT DOORS.
- ④ ADDRESSABLE CONTROL RELAY IS PROVIDED FOR INTERFACE TO SECURITY SYSTEM. PROGRAM CONTROL RELAY TO OPERATE ON ANY ALARM CONDITION, BUT NOT ON SUPERVISORY OR TROUBLE CONDITIONS.
- ⑤ IN THE ELEVATOR MACHINE ROOM, PROVIDE ADDRESSABLE CONTROL RELAYS TO CONTROL PRIMARY RECALL, ALTERNATE FLOOR RECALL, AND PHASE 2 "FIRE HAT". CONTROL RELAYS SHALL BE INSTALLED WITHIN THREE FEET OF ELEVATOR CONTROL EQUIPMENT. INSTALL HEAT DETECTORS WITHIN TWO FEET OF EACH SPRINKLER HEAD. INSTALL SMOKE DETECTOR IN CENTER OF CEILING. ONLY A SINGLE CONDUIT PENETRATION IS ALLOWED INTO THE ELEVATOR MACHINE ROOM FOR ALL FIRE ALARM DEVICES, INCLUDING THE STROBE LIGHT. SEE DETAILS FOR TYPICAL INFORMATION ON ELEVATOR FIRE ALARM CONTROL.
- ⑥ INSTALL NEW SIMPLEX MODEL 4603-9101 REMOTE LCD ANNUNCIATOR AT THE RECEPTION AREA. MAKE CONNECTIONS TO NEW SIMPLEX 4100U FIRE ALARM CONTROL UNIT.
- ⑦ REPLACE SIX EXISTING SIMPLEX ZAM MODULES FOR THE EXISTING FLOW AND TAMPER SWITCHES IN THE MECHANICAL ROOM WITH NEW SIMPLEX AIM MODULES. REUSE EXISTING BACK BOX AND WIRING.
- ⑧ PROVIDE (1) CAT 6 CABLE TO TELEPHONE ROOM 1215 FOR CONNECTION TO EXISTING CAMPUS FIRE ALARM NETWORK.
- ⑨ PROVIDE NEW FIRE ALARM BELL. PROVIDE 24VDC CONNECTION TO FACP AND (E) WATER FLOW SWITCHES.
- ⑩ PROVIDE PERMANENT SIGN ADJACENT TO ANNUNCIATOR IDENTIFYING THE LOCATION OF THE FIRE ALARM CONTROL PANEL.
- ⑪ ELEVATOR SHUNT TRIP RELAY INTERFACE AND SHUNT TRIP POWER MONITOR LOCATION. ENSURE RELAY MODULE IS LOCATED WITHIN 3 FEET FROM THE DEVICE OR CIRCUIT BEING CONTROLLED PER NFPA72 21.2.4, EXISTING ELECTRICAL PANEL 210P1.
- ⑫ REPLACE EXISTING SIMPLEX ZAM MODULES FOR THE EXISTING FLOW AND TAMPER SWITCHES IN THE MECHANICAL ROOM WITH NEW SIMPLEX AIM MODULES. REUSE EXISTING BACKBOX AND WIRING.
- ⑬ REPLACE EXISTING PULL STATION. REUSE EXISTING WIRING. REUSE EXISTING BACKBOX ONLY IF MOUNTING HEIGHT PLACES ACTIVATING LEVER AT 48" AFF. OTHERWISE PROVIDE NEW BACKBOX.
- ⑭ INTERFACE AUTO DOOR OPERATOR WITH FIRE ALARM SYSTEM SUCH THAT DURING FIRE ALARM CONDITION POWER IS DISCONNECTED TO THE AUTO DOOR OPERATOR IS DISCONNECTED, AND CARD READER PUSH-PLATE ACTIVATION IS INHIBITED.



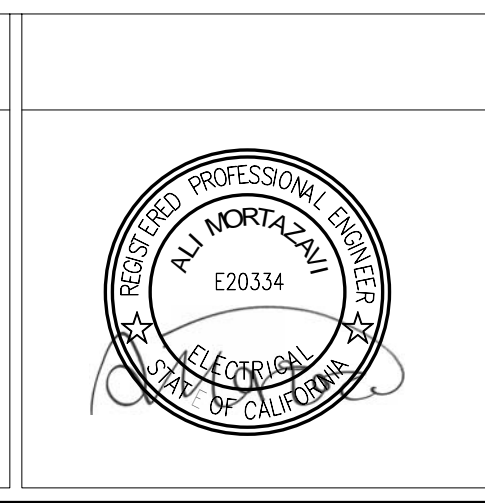
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Drawing Title  
**FIRE ALARM GROUND FLOOR PLAN**

Approved: Project Director

Project Title  
**MPD - EXPAND HOMELESS DOMICILIARY OUTPATIENT AND THERAPY PROGRAMS**

Project Number  
 640-382

Building Number  
 349

Location  
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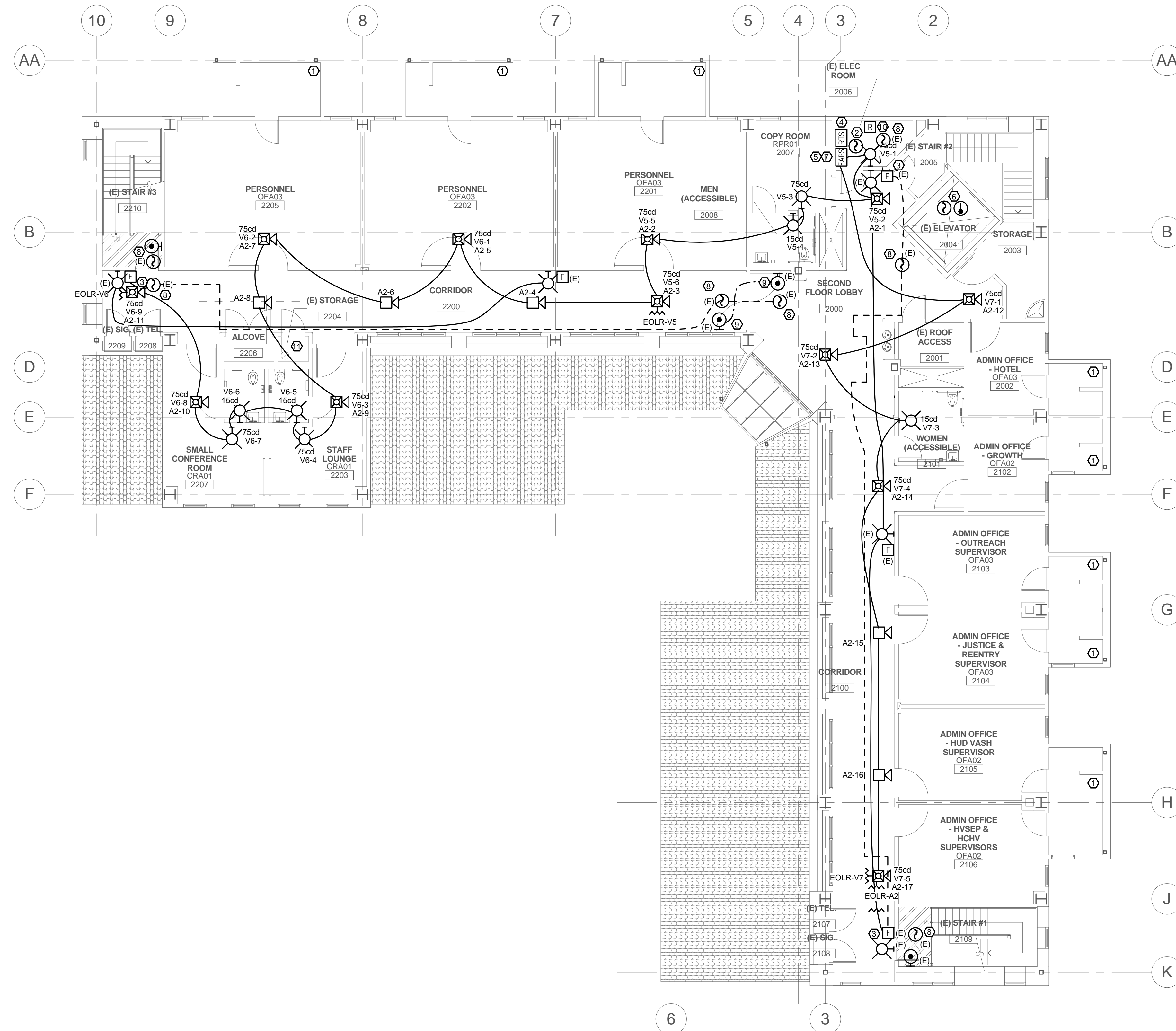
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SHEET NOTES

- ① PER ARCHITECTURAL DRAWING, EXISTING BATHROOMS TO BE ABANDONED IN PLACE.
- ② CEILING MOUNTED SMOKE DETECTOR IS TO BE INSTALLED WITHIN FIVE FEET OF THE FIRE ALARM REMOTE POWER SUPPLY AND NOT WITHIN THREE FEET OF AN AIR REGISTER.
- ③ MANUAL FIRE ALARM BOXES (PULL STATIONS) SHALL BE INSTALLED WITH FIVE FEET OF EXIT DOORS.
- ④ REMOTE TEST SWITCH IS FOR NEW EXTERIOR DUCT DETECTOR INSTALLED ON EXISTING AIR HANDLER AH-1 LOCATED ON THE ROOF.
- ⑤ FIRE ALARM REMOTE POWER SUPPLY SHALL BE ON SAME DEDICATED 20-AMP 120V POWER CIRCUIT AS THE FIRE ALARM CONTROL PANEL AND FIRE ALARM REMOTE POWER SUPPLY LOCATED ON THE FIRST FLOOR.
- ⑥ AT THE TOP OF THE ELEVATOR SHAFT, INSTALL HEAT DETECTORS WITHIN TWO FEET OF EACH SPRINKLER HEAD. INSTALL SMOKE DETECTOR ON CEILING OF SHAFT NEAR ACCESS DOOR TO ALLOW FOR EASE OF ACCESS FOR ANNUAL TESTING. ONLY A SINGLE CONDUIT PENETRATION IS ALLOWED INTO THE ELEVATOR SHAFT FOR ALL FIRE ALARM DEVICES.
- ⑦ INSTALL TWO 3/4" CONDUITS BETWEEN THE THIS FIRE ALARM REMOTE POWER SUPPLY AND THE FIRE ALARM REMOTE POWER SUPPLY ON THE FIRST FLOOR. ONE CONDUIT IS FOR 120V POWER AND THE OTHER IS FOR FIRE ALARM CABLES.
- ⑧ REPLACE EXISTING SIMPLEX SMOKE DETECTOR WITH NEW SIMPLEX SMOKE DETECTOR.
- ⑨ EXISTING ELECTROMAGNETIC DOOR HOLDER.
- ⑩ ADDRESSABLE CONTROL RELAY TO RELEASE SMOKE DOORS WHEN EITHER OF THE TWO SMOKE DETECTORS LOCATED AT THE DOOR GO INTO ALARM. POWER FOR ELECTROMAGNETIC DOOR HOLDERS COMES FROM THE FIRE ALARM REMOTE POWER SUPPLY. PER VA REQUIREMENTS, DOORS ARE TO REMAIN HELD OPEN DURING POWER OUTAGES. POWER REQUIREMENTS FOR DOOR HOLDERS ARE TO BE INCLUDED IN THE FIRE ALARM REMOTE POWER SUPPLY BATTERY CALCULATIONS.
- ⑪ REPLACE TWO EXISTING SIMPLEX ZAM MODULES FOR THE EXISTING FLOW AND TAMPER SWITCHES IN THE SPRINKLER RISER CLOSET WITH NEW SIMPLEX AIM MODULES. REUSE EXISTING BACK BOX AND WIRING.



FIRE ALARM SECOND FLOOR PLAN

1/8" = 1'-0"

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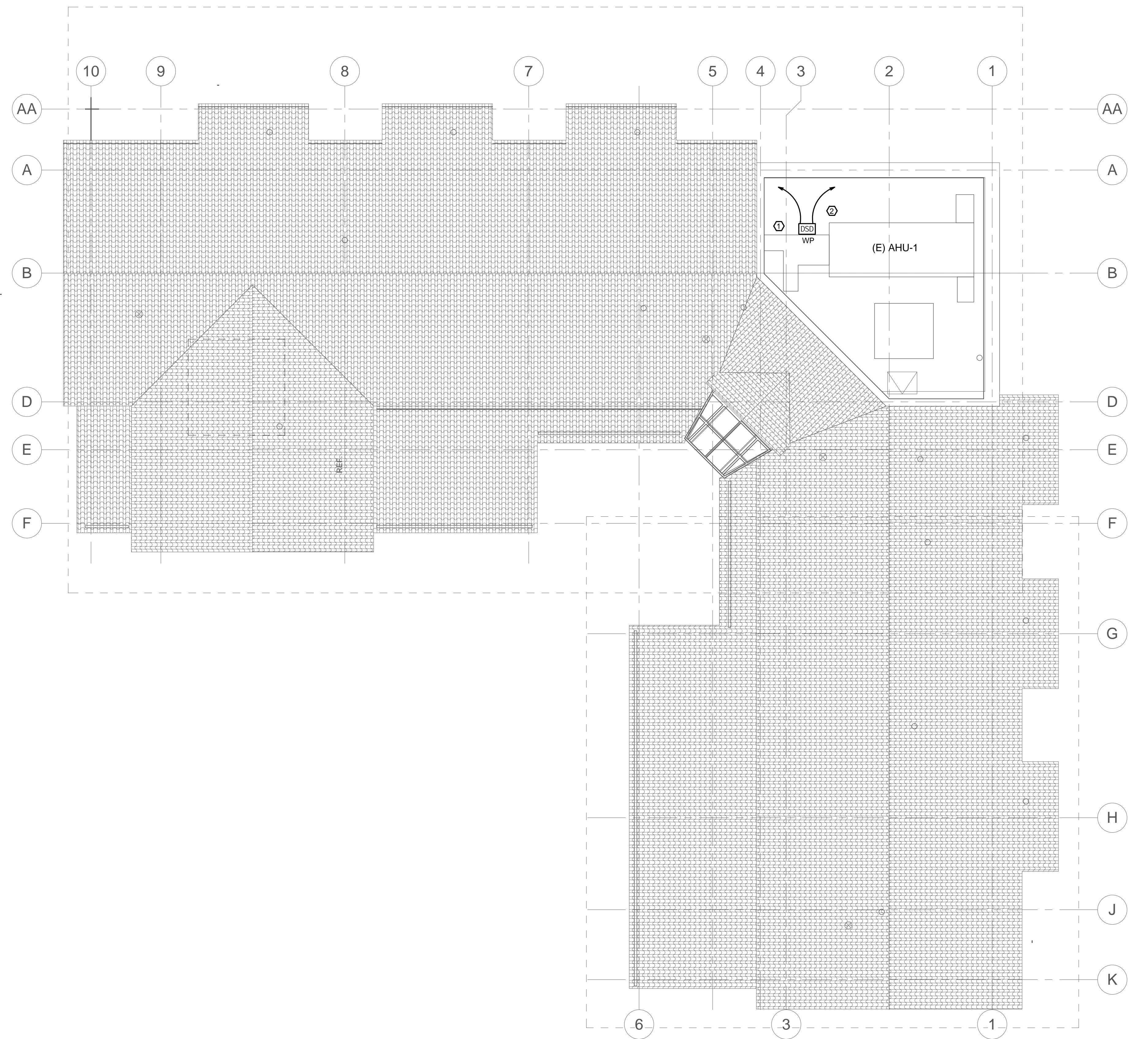
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**SHEET NOTES**

- ① 3/4" CONDUIT FROM WEATHERPROOF DUCT SMOKE DETECTOR TO REMOTE TEST SWITCH IN SECOND FLOOR ELECTRICAL ROOM. INSTALL "C" CABLE AND "F" CABLE.
- ② 3/4" CONDUIT TO HVAC FAN SHUTDOWN LOCATION. COORDINATE WITH HVAC CONTRACTOR. INSTALL "H" CABLE.



**FIRE ALARM ROOF PLAN**  
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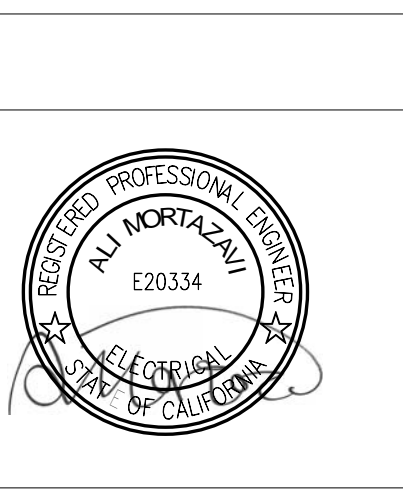
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 sixteen feet = one foot

1	REVISION 1	07/18/2013
Revisions:		Date

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Drawing Title  
FIRE ALARM ROOF PLAN

Approved: Project Director

Project Title  
MPD - EXPAND HOMELESS DOMICILIARY  
OUTPATIENT AND THERAPY PROGRAMS

Project Number  
640-382

Building Number  
349

Location  
795 WILLOW ROAD, MENLO PARK, CA

Date  
NOVEMBER 04, 2013

Checked  
ES

Drawn  
SO

Drawing Number  
**FA203**

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BID SUBMISSION  
NOVEMBER 04, 2013

Office of  
Construction  
and Facilities  
Management

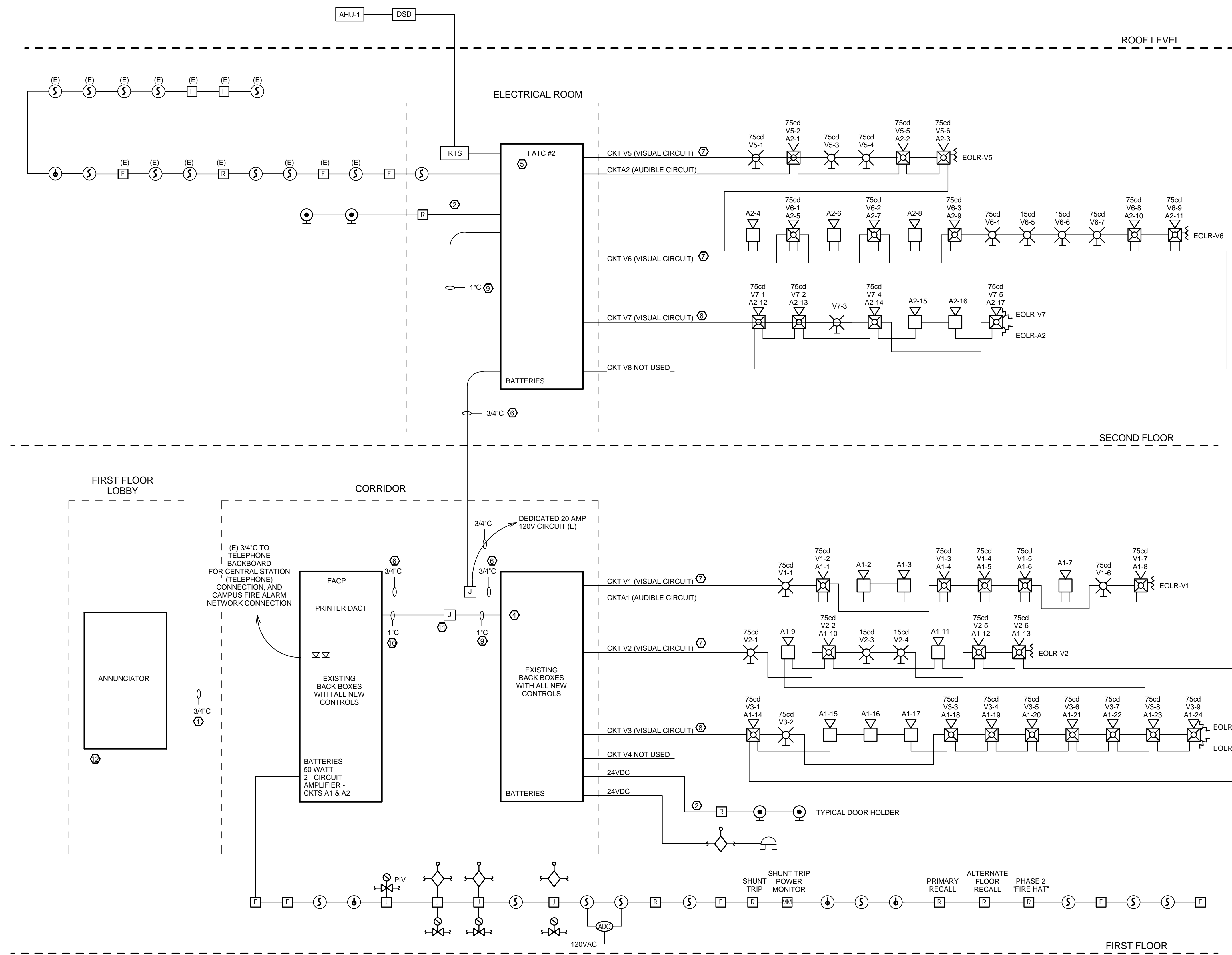
Department of  
Veterans Affairs

**SHEET NOTES**

- ① TWO "P" CABLES AND "K" CABLE.
- ② ONE "C" CABLE AND ONE "K" CABLE.
- ③ NOT USED.
- ④ FIRE ALARM PRINTER MOUNTED ON A PRINTER STAND WITH TRACTOR-FEED PAPER STORED BELOW.
- ⑤ UNSWITCHED, BATTERY BACKED-UP 24VDC FOR ELECTROMAGNETIC DOOR HOLDERS ORIGINATED FROM FAPS #2.
- ⑥ THREE #12 THHN CONDUCTORS FOR 120V POWER.
- ⑦ ONE "A" CABLE AND TWO "B" CABLES.
- ⑧ ONE "A" CABLE AND ONE "B" CABLE.
- ⑨ ONE "A" CABLE, ONE "B" CABLE, AND ONE "C" CABLE.
- ⑩ TWO "A" CABLES, TWO "B" CABLES, TWO "C" CABLES, AND ONE "P" CABLE.
- ⑪ NO SPLICES ALLOWED IN THIS J-BOX. PULL CABLES THROUGH J-BOX TO THEIR FINAL LOCATIONS.
- ⑫ PROVIDE PERMANENT SIGN ADJACENT TO ANNUNCIATOR IDENTIFYING THE LOCATION OF THE FIRE ALARM CONTROL PANEL.

**GENERAL NOTES**

- 1 AUDIO CABLE SHALL BE 16 AWG, TWISTED PAIR, FPL RATED.
- 2 VISUAL CABLE SHALL BE 14 AWG, TWISTED PAIR, FPL RATED.



three inches = one foot  
 one inch = one foot  
 one half inch = one foot  
 three quarters inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot  
 one sixteenth inch = one foot

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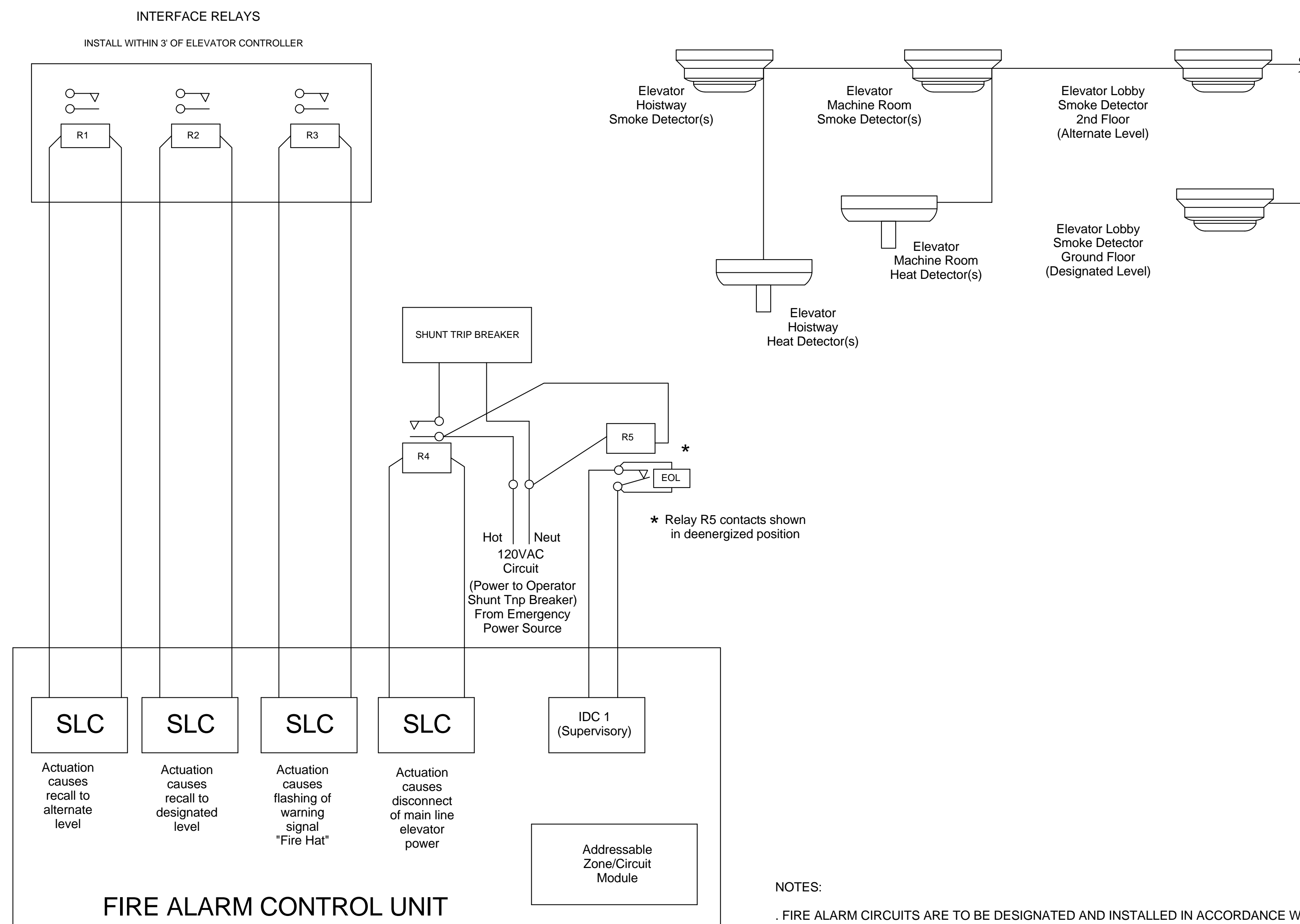
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Drawing Title  
**FIRE ALARM RISER DIAGRAM**  
 Approved: Project Director

Project Title  
**MPD - EXPAND HOMELESS DOMICILIARY OUTPATIENT AND THERAPY PROGRAMS**  
 Project Number  
 640-382  
 Building Number  
 349  
 Location  
 795 WILLOW ROAD, MENLO PARK, CA  
 Date  
 NOVEMBER 04, 2013  
 Checked  
 ES  
 Drawn  
 SO  
 Drawing Number  
**FA301**  
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 NOVEMBER 04, 2013  
**Office of Construction and Facilities Management**  
 Department of Veterans Affairs

PICTORIAL REPRESENTATION OF FIRE ALARM INTERFACE WITH ELEVATORS



NOTES:  
 . FIRE ALARM CIRCUITS ARE TO BE DESIGNATED AND INSTALLED IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM CODE AND NEC 70, NATIONAL ELECTRIC CODE.  
 . REFER TO DETAIL NOTES WHICH PROVIDES EXPLANATION AND DETAILS OF INTENDED OPERATION.

EXPLANATION OF FIRE ALARM INTERFACE WITH ELEVATORS:

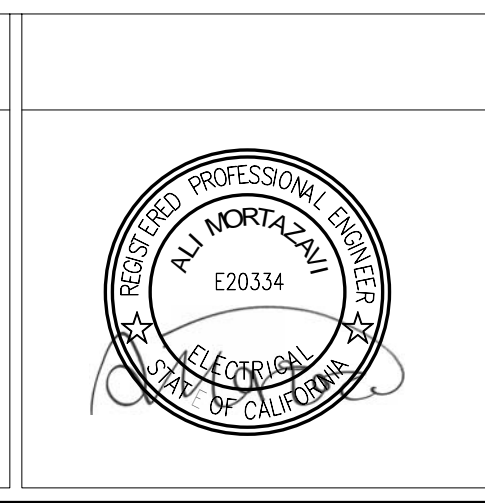
1. THE SMOKE DETECTORS AND HEAT DETECTORS ARE ADDRESSABLE INITIATING DEVICES.
2. THE RELAYS ARE ADDRESSABLE CONTROL DEVICES WITH DRY (UNSUPERVISED) CONTACTS.
3. THE SUPERVISORY INITIATING DEVICE THAT MONITORS THE POWER FOR THE SHUNT TRIP CIRCUIT IS CONNECTED TO A SUPERVISORY IDC (INITIATING DEVICE CIRCUIT).
4. THE SCENARIO FOR THE DETAIL ASSUMES THAT:
  - a. THERE IS A SPRINKLERED ELEVATOR HOISTWAY.
  - b. MEANS TO DISCONNECT THE MAIN POWER TO THE ELEVATOR IS VIA A SHUNT TRIP BREAKER.
  - c. SYSTEM OPERATION IS IN ACCORDANCE WITH NFPA 72.
  - d. RELAY (R5) AND AN IDC HAVE BEEN INCLUDED TO PROVIDE INDICATION (VIA A SUPERVISORY ALARM) OF ABSENCE OF VOLTAGE (POWER) TO OPERATE SHUNT TRIP BREAKER.

COMPONENTS	FUNCTION
R1	SIGNAL TO ELEVATOR CONTROLLER FOR RECALL TO DESIGNATED LEVEL.
R2	SIGNAL TO ELEVATOR CONTROLLER FOR RECALL TO ALTERNATE LEVEL.
R3	SIGNAL TO ELEVATOR CONTROLLER FOR FIREFIGHTER NOTIFICATION (FIRE HAT).
R4	SIGNAL TO ACTIVATE SHUNT TRIP RELAY
R5	SUPERVISORY RELAY TO MONITOR PRESENCE OF VOLTAGE (POWER) TO OPERATE SHUNT TRIP BREAKER.
IDC1	INITIATING DEVICE CIRCUIT TO SUPERVISE R5 CONTACTS (MONITORING POWER TO OPERATE SHUNT TRIP BREAKER).

Scale indicators on the left margin: 1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/2", 3", 3 1/2", 4", 4 1/2", 5", 5 1/2", 6", 6 1/2", 7", 7 1/2", 8", 8 1/2", 9", 9 1/2", 10".

Revisions:	Date

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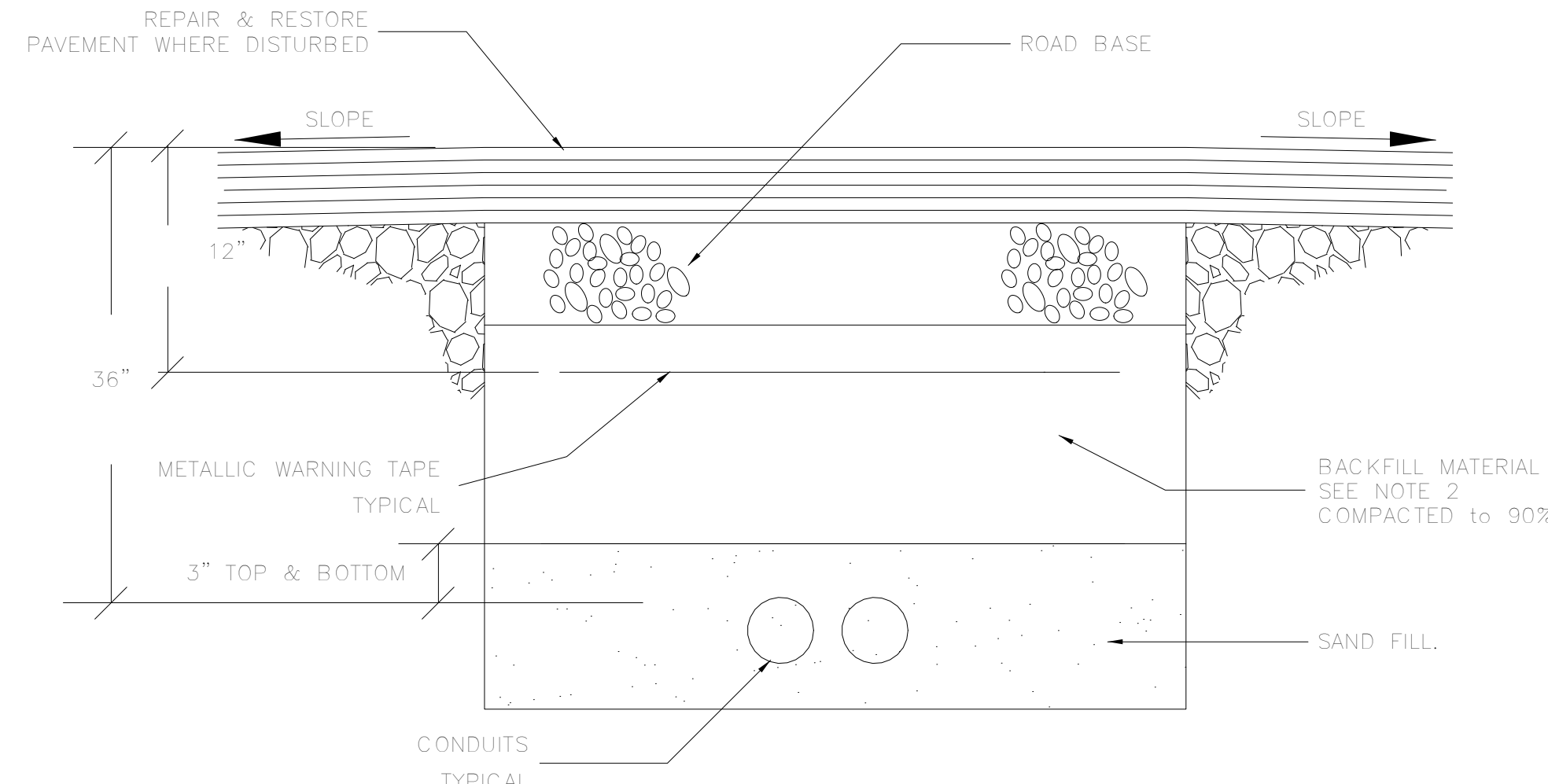
Drawing Title FIRE ALARM DETAIL SHEET
Approved: Project Director

Project Title MPD - EXPAND HOMELESS DOMICILIARY OUTPATIENT AND THERAPY PROGRAMS	Project Number 640-382
Location 795 WILLOW ROAD, MENLO PARK, CA	Building Number 349
Date NOVEMBER 04, 2013	Checked ES
Drawn SO	Drawing Number <b>FA401</b>
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 NOVEMBER 04, 2013

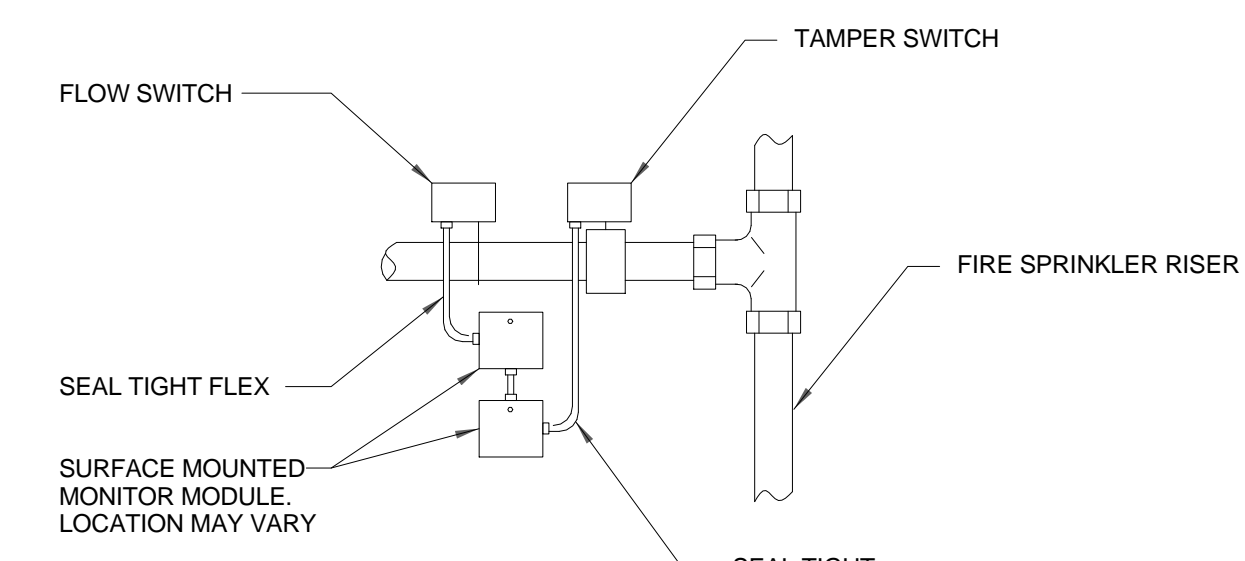
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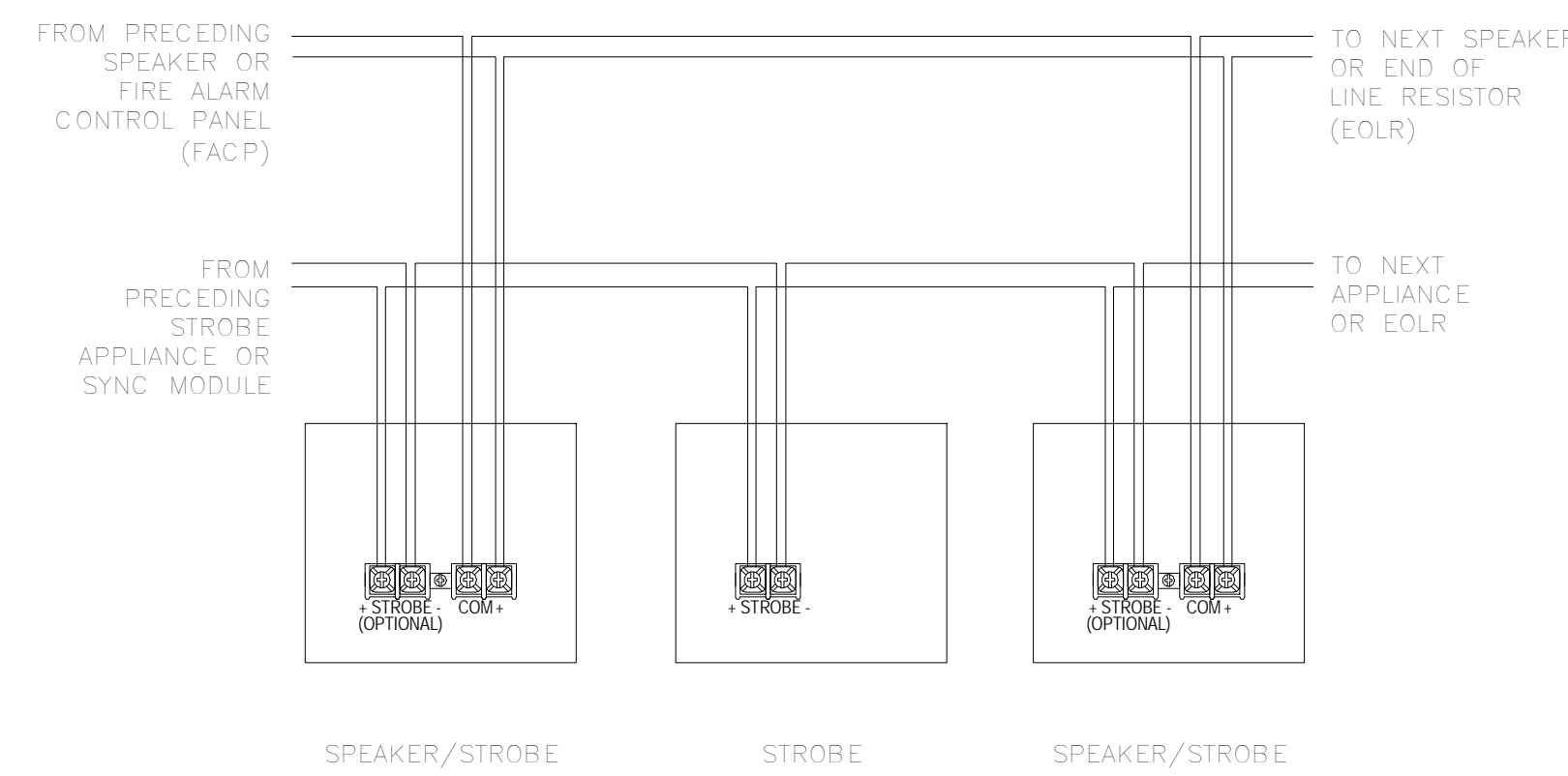


NOTES:  
 1. REPLACEMENT OF CONCRETE AND/OR ASPHALTIC CONCRETE (AC) SHALL CORRESPOND WITH THE EXISTING THICKNESS BUT NOT THINNER THAN 4 INCHES.  
 2. THE BACKFILL ABOVE THE SAND FILL SHALL BE CLASS 2 AB AT 90% COMPACTION.  
 3. THESE REQUIREMENTS SHALL BE USED FOR THE EXCAVATED AREAS FOR TRENCHES, FOUNDATIONS AND EQUIPMENT PADS.

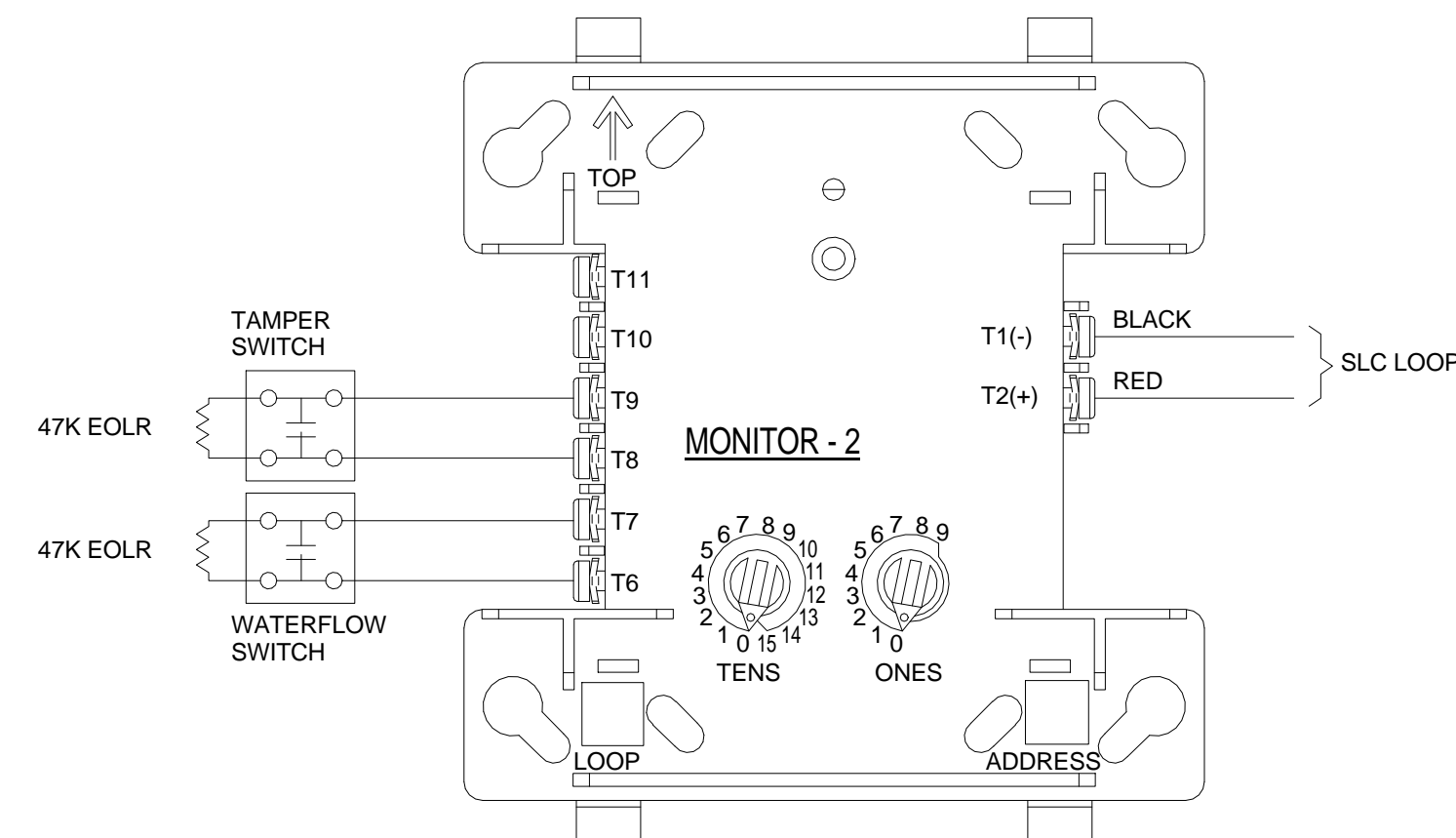
13 TYPICAL UNDERGROUND CONDUIT RUN  
 3' = 1'-0"



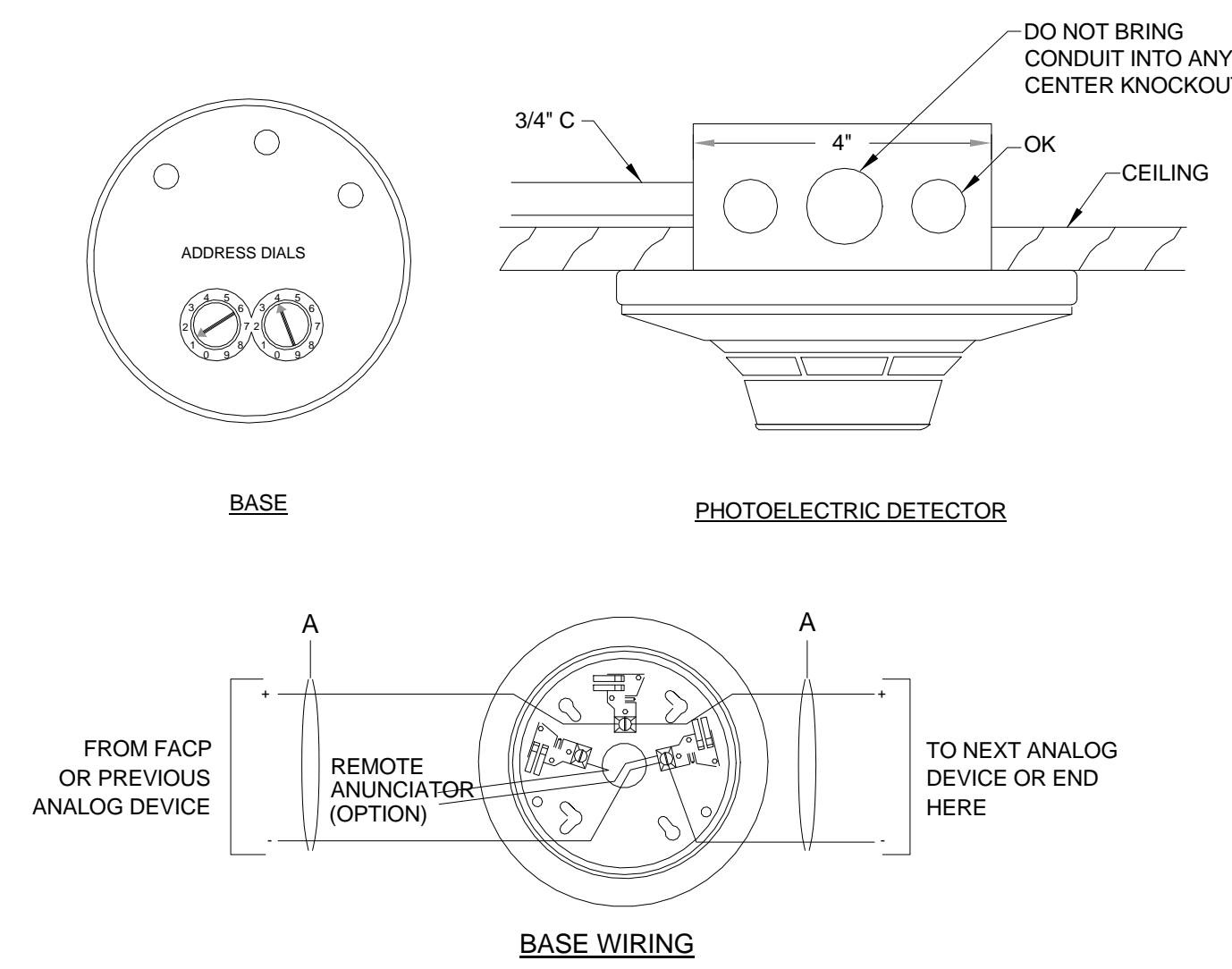
11 TYPICAL SPRINKLER FLOW AND TAMPER SWITCH  
 12" = 1'-0"



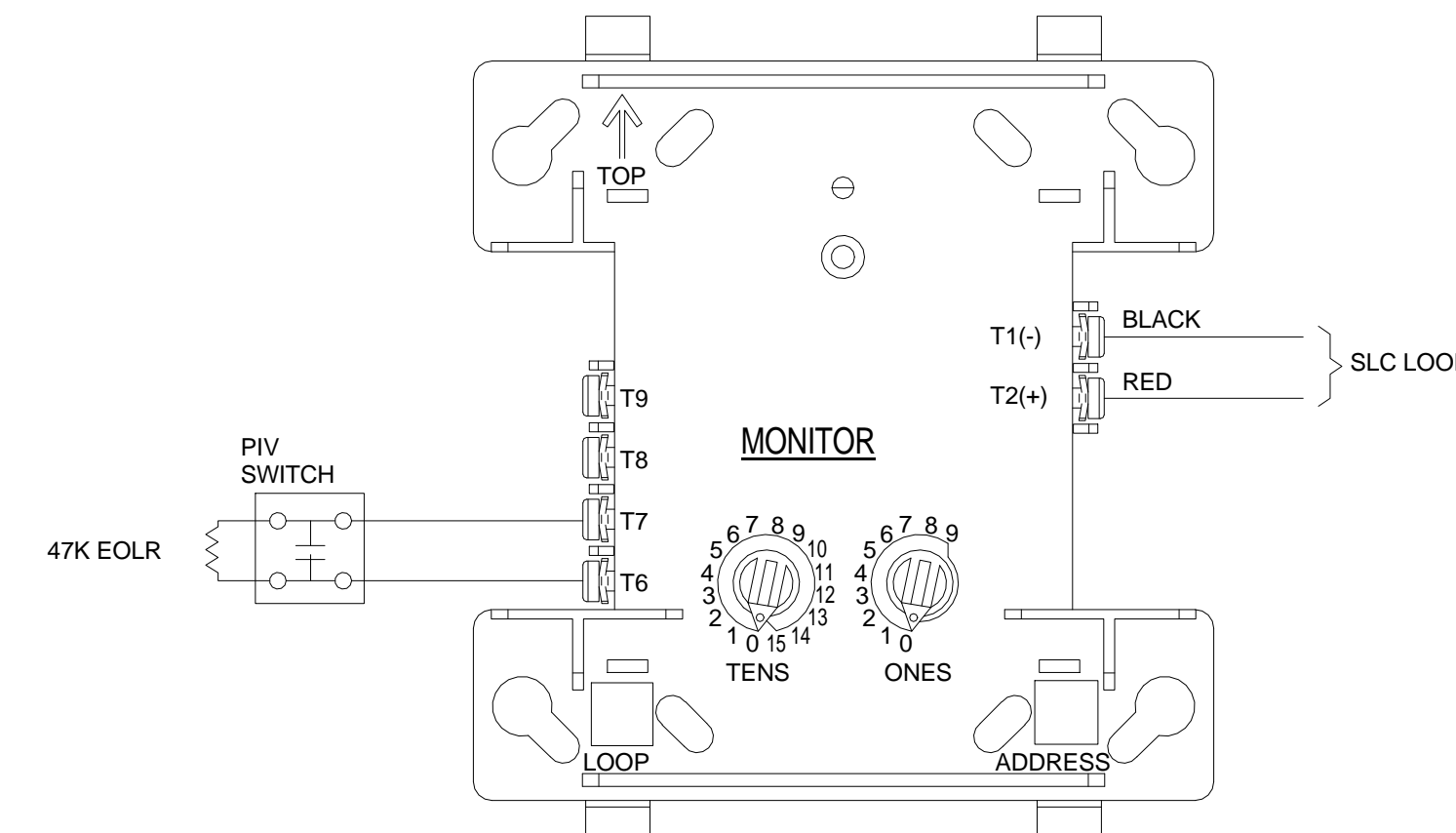
12 SPEAKER-STROBE WIRING DETAIL  
 12" = 1'-0"



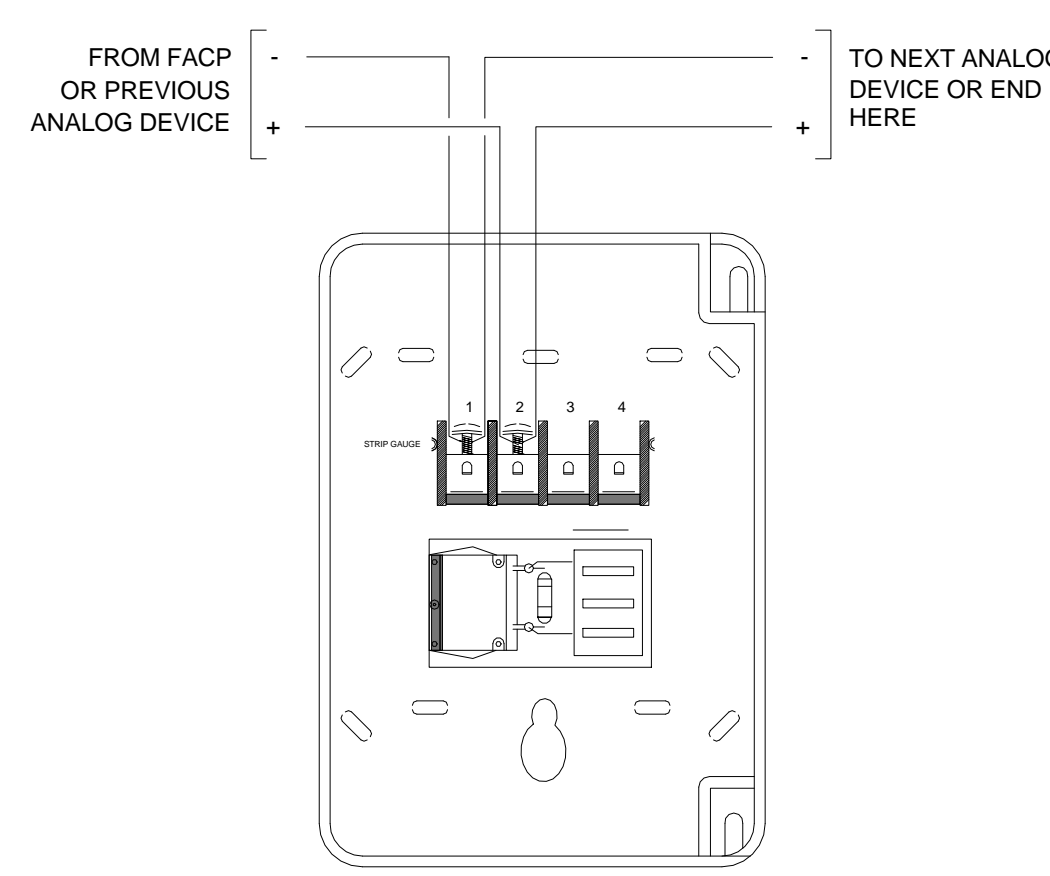
10 TAMPER & WATERFLOW SWITCHES WIRING DETAIL  
 12" = 1'-0"



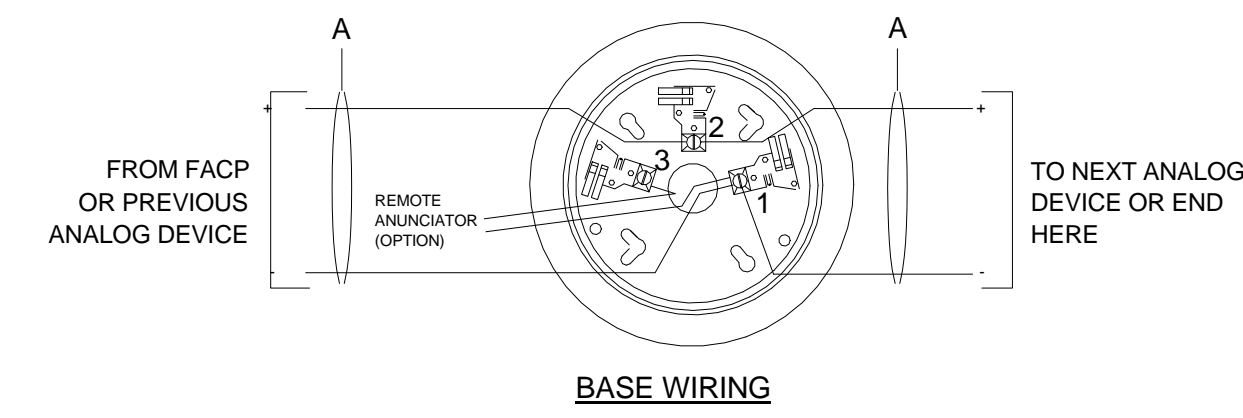
9 SMOKE DETECTOR W/BASE DETAIL  
 12" = 1'-0"



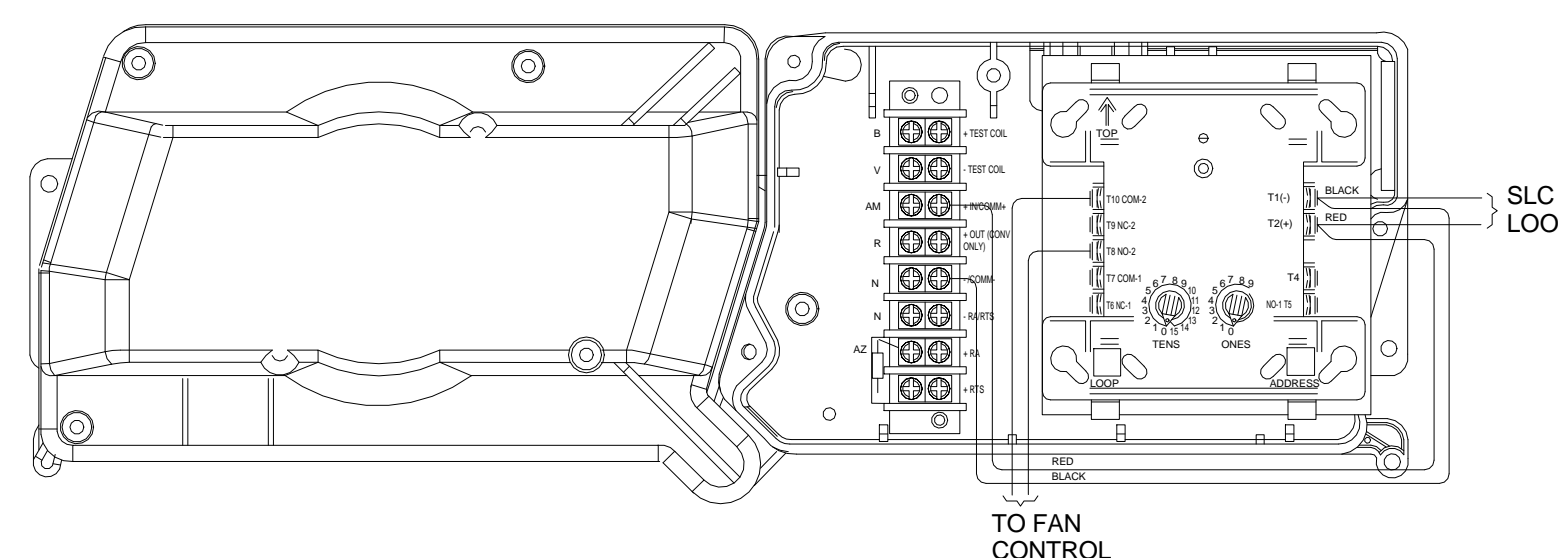
8 PIV SWITCH WIRING DETAIL  
 12" = 1'-0"



7 MANUAL PULL STATION WIRING  
 12" = 1'-0"

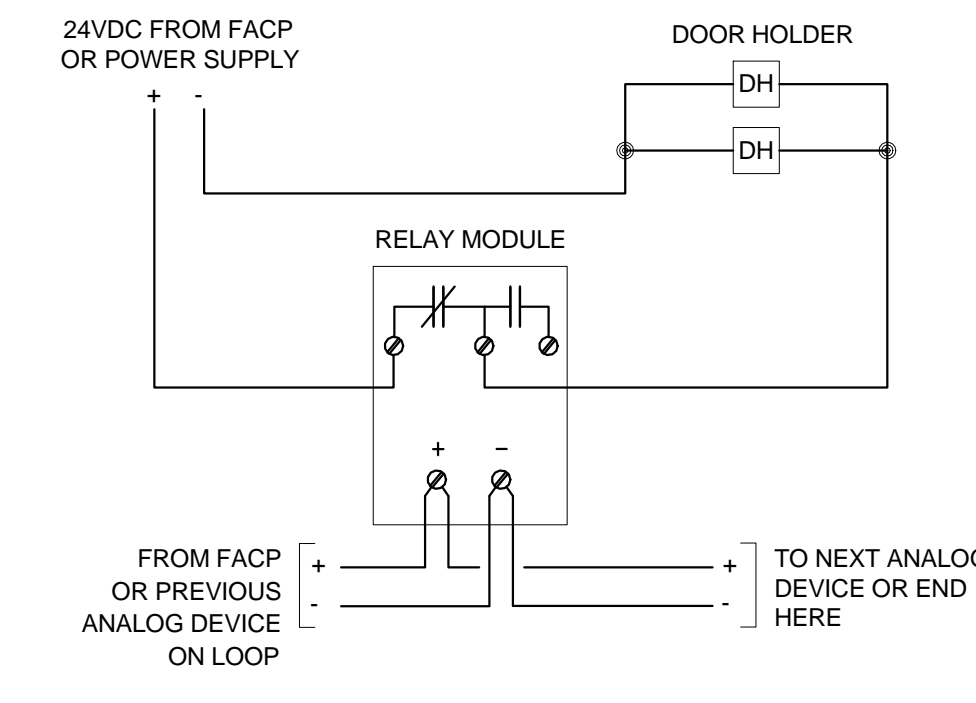


6 HEAT DETECTOR W/BASE DETAIL  
 12" = 1'-0"

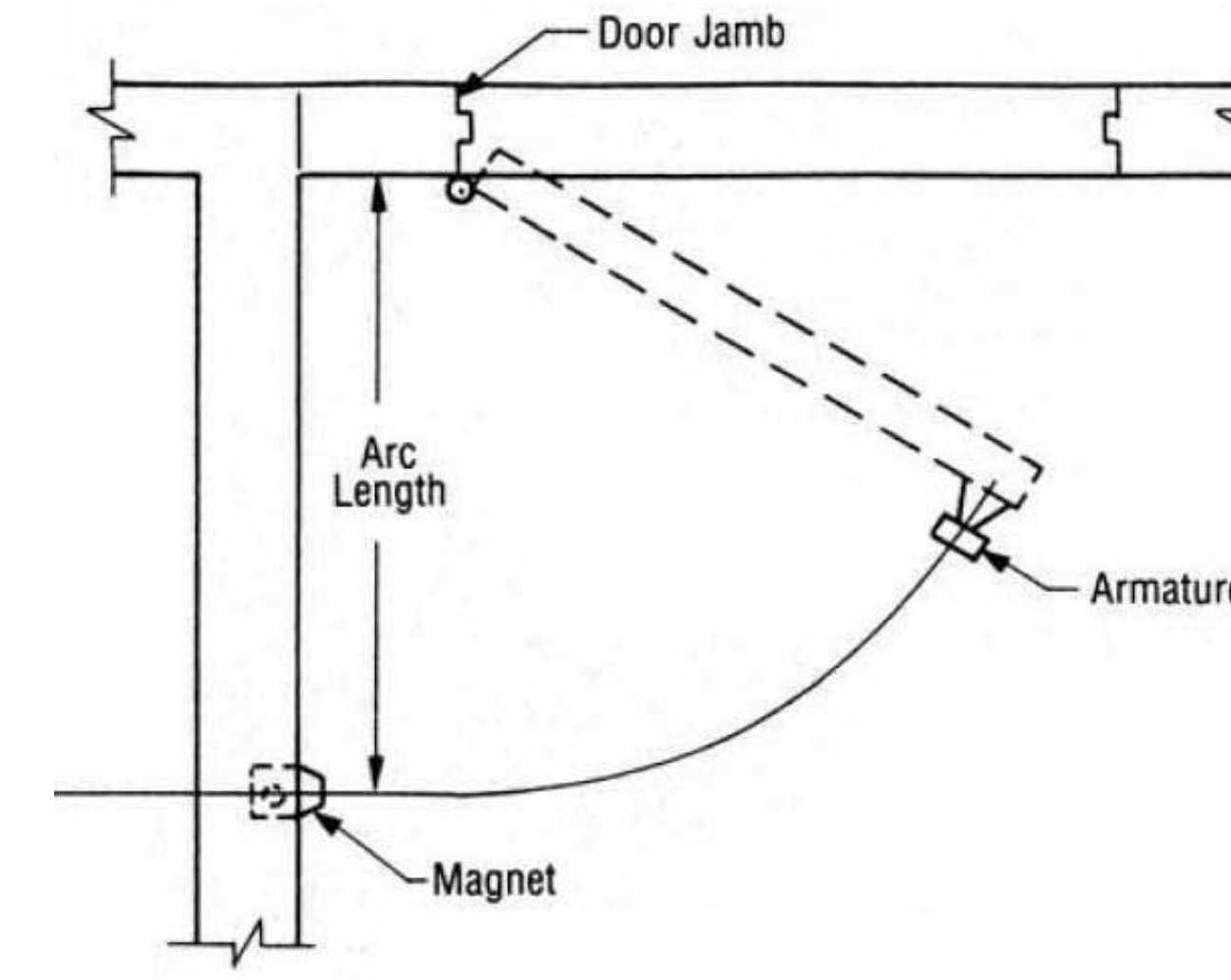


5 DUCT DETECTOR WIRING DETAIL  
 12" = 1'-0"

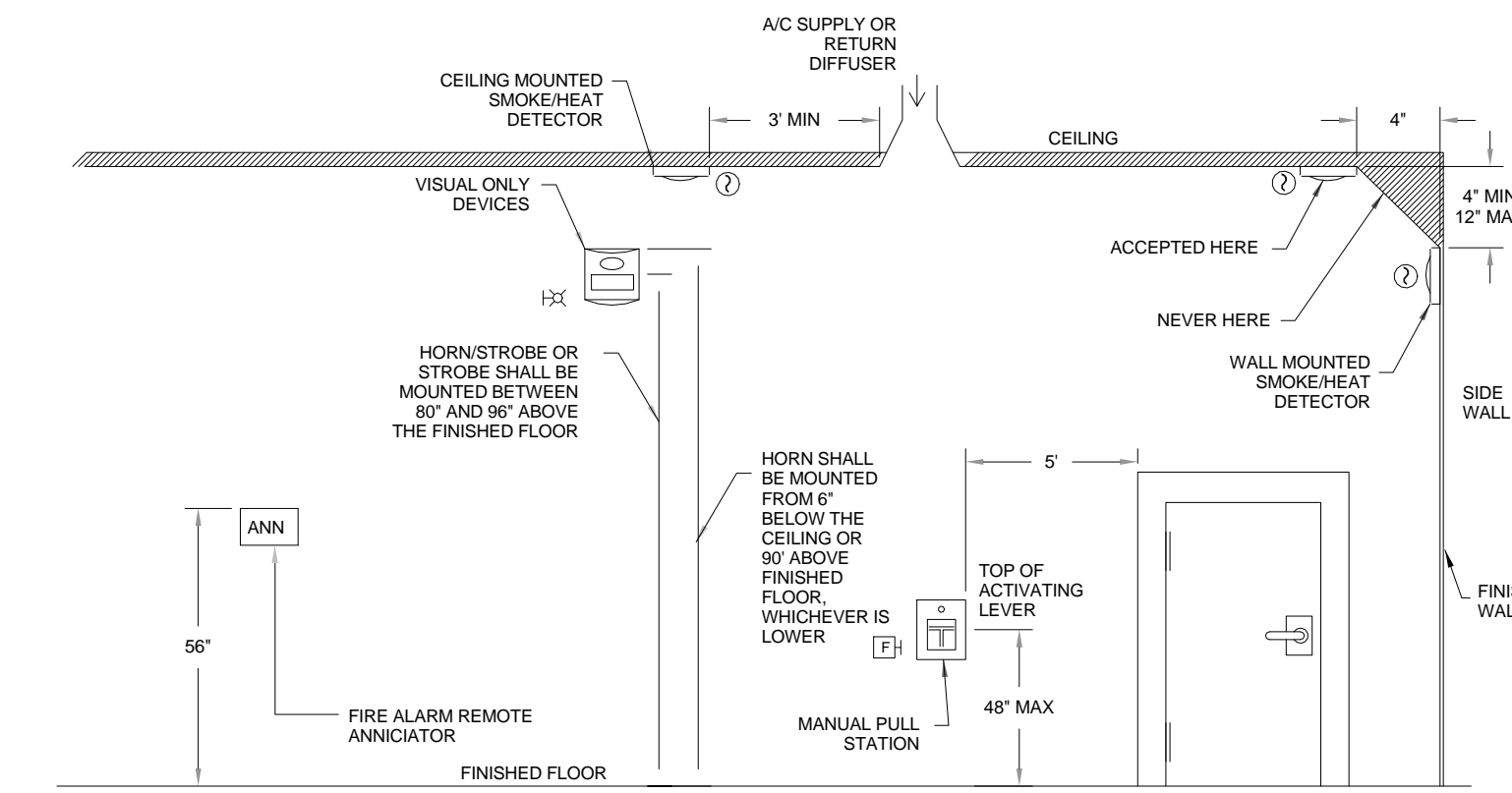
MOUNT ACCORDING TO MANUFACTURER



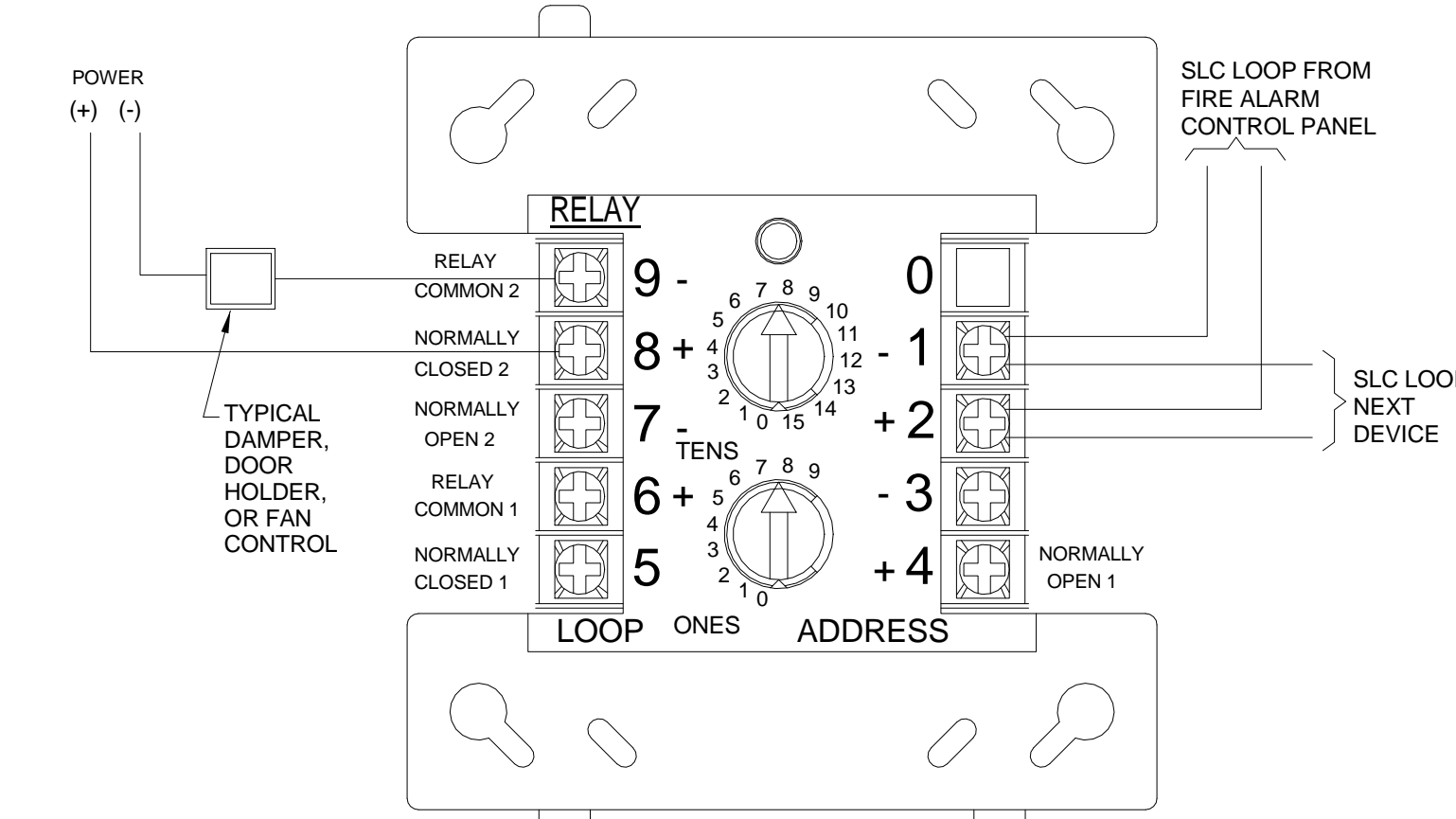
4 DOOR HOLDER WIRING DETAIL  
 12" = 1'-0"



3 DOOR HOLDER MOUNTING DETAIL  
 12" = 1'-0"



2 DEVICE MOUNTING ELEVATIONS  
 12" = 1'-0"



1 CONTROL RELAY MODULE WIRING DETAIL  
 12" = 1'-0"

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