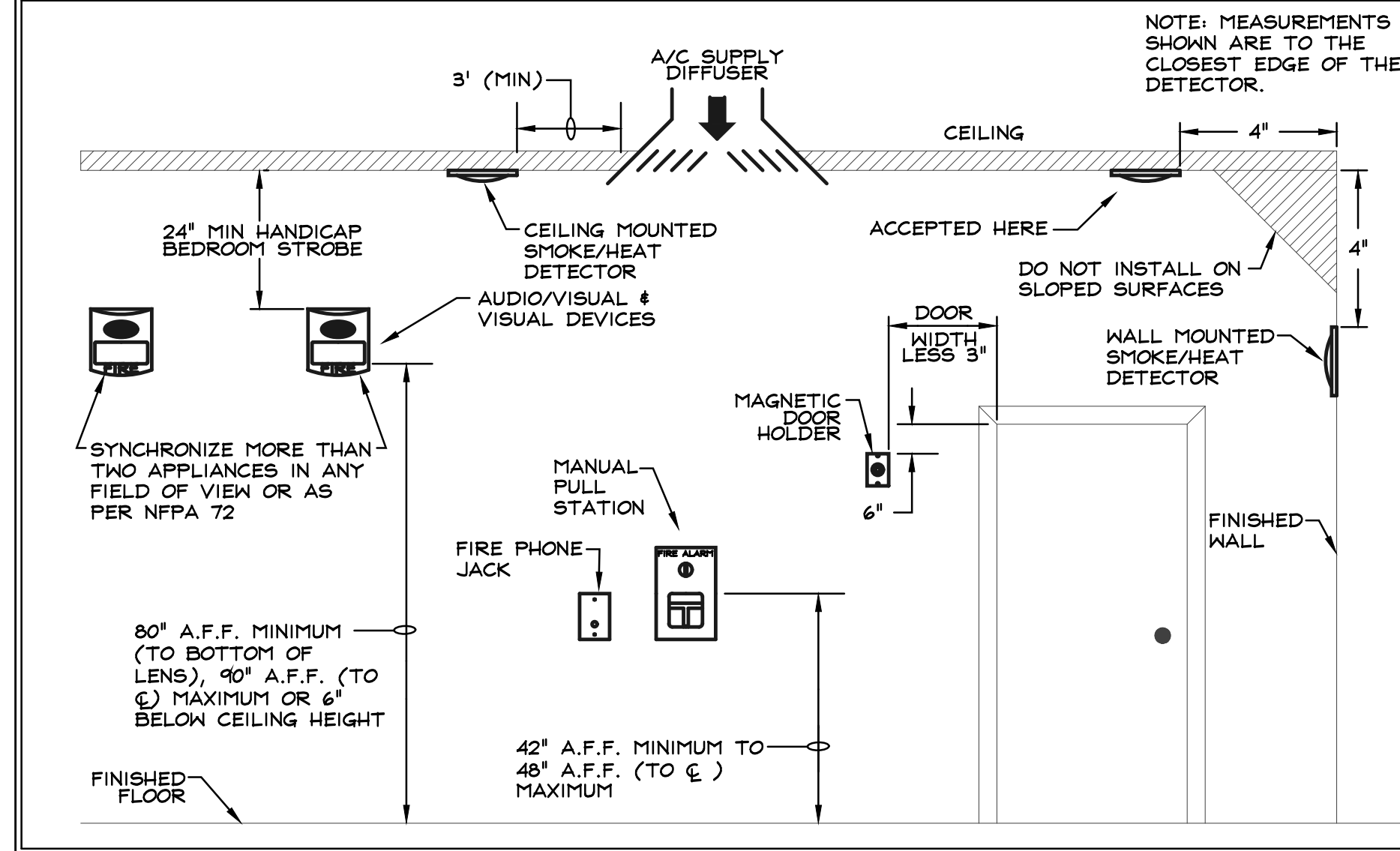


FIRE ALARM SEQUENCE OF OPERATIONS

- NOTE: THE SCOPE OF WORK FOR THIS PROJECT INVOLVES A NEW ADDRESSABLE FIRE ALARM SYSTEM FOR THE NEW HOTEL BUILDING.
- THE SYSTEM ALARM OPERATION, SUBSEQUENT TO THE ALARM ACTIVATION OF ANY MANUAL STATION, ADDRESSABLE COMMON AREA SMOKE DETECTOR, SPRINKLER WATER FLOW SWITCH DUCT SMOKE DETECTOR OR OTHER INITIATING DEVICE IS AS FOLLOWS (EC TO CONFIRM DUCT SMOKE SIGNAL PROGRAMMING REQUIREMENTS WITH PORTLAND FIRE PREVENTION).
 - THE UL CENTRAL MONITORING STATION WILL RECEIVE ALL GENERAL ALARM SIGNALS AND NOTIFY THE PORTLAND FIRE DEPARTMENT AND OWNER REPRESENTATIVE OF THE GENERAL ALARM SIGNAL.
 - ANNUNCIATE THE ALARM AT THE FIRE ALARM CONTROL PANEL.
 - ACTIVATE THE TEMPORAL 3 EVACUATION ON AUDIO/VISUAL DEVICES
 - TEMPORAL 3 PATTERN SHALL SOUND UNTIL SIGNAL SILENCE IS ACTIVATED AT THE CONTROL PANEL.
 - THE VISUAL DEVICES SHALL BE ON UNTIL SIGNAL SILENCE IS ACTIVATED AT THE CONTROL PANEL.
 - RELEASE ALL DOOR HOLDERS TO CLOSE THE FIRE DOORS.
 - ACTIVATE EXTERIOR BEACON.
 - ANY ELEVATOR LOBBY SMOKE DETECTOR AND/OR ELEVATOR MACHINE ROOM SMOKE DETECTOR WILL, IN ADDITION TO THE ABOVE, RECALL THE ELEVATORS AS FOLLOWS:
 - IF THE DETECTOR IN ALARM IS LOCATED ON ANY FLOOR OTHER THAN THE MAIN LEVEL OF EGRESS, THE ELEVATORS WILL BE RECALLED TO THE MAIN LEVEL OF EGRESS.
 - IF THE DETECTOR IN ALARM IS LOCATED ON THE MAIN LEVEL OF EGRESS, THE ELEVATORS WILL BE RECALLED TO THE ALTERNATE RECALL FLOOR AS PRE-DETERMINED BY THE PORTLAND FIRE DEPARTMENT.
 - ALL LOCAL ADDRESSABLE SYSTEM SMOKE DETECTORS SHALL HAVE A INTEGRAL 24V SOUNDER BASE THAT WILL SOUND IN THE UNIT WITH A TEMPORAL 3 PATTERN ON GENERAL ALARM.
 - IN HEARING IMPAIRED UNITS STROBES WILL ALSO IDENTIFY TO H.I. RESIDENCE SYSTEM GENERAL ALARM.
 - THE ACTIVATION OF ANY STANDPIPE WATER FLOW OR SPRINKLER TAMPER SWITCH, DUCT SMOKE DETECTOR AND/OR COMMON AREA CARBON MONOXIDE DETECTOR WILL CAUSE THE FOLLOWING ACTIONS TO TAKE PLACE:
 - THE UL CENTRAL MONITORING STATION WILL RECEIVE ALL SIGNALS AND NOTIFY THE OWNER REPRESENTATIVE OF THE SIGNAL, AND THE PORTLAND FIRE DEPARTMENT OF GENERAL ALARM AND POSSIBLY MAY WANT TO RECEIVE THE SUPERVISORY SIGNAL. EC TO CONFIRM PRIOR TO PROGRAMMING.
 - A SUPERVISORY PIEZO ON THE PANEL WILL SOUND AND THE SUPERVISORY LED WILL LIGHT. THE PIEZO CAN BE SILENCED BY PRESSING THE SUPERVISORY SERVICE ACKNOWLEDGE KEY WHILE MAINTAINING THE SUPERVISORY LED ON. RESTORING THE DEVICE TO THE NORMAL POSITION SHALL CAUSE THE SUPERVISORY PIEZO TO PULSE TO INDICATE THE RETURN TO THE NORMAL POSITION. PRESSING THE SUPERVISORY SERVICE ACKNOWLEDGE KEY WILL SILENCE THE PIEZO.
 - LOCAL SYSTEM CARBON MONOXIDE DETECTORS SHALL SOUND IN THE UNITS VIA THE 24V SOUNDER BASE INTEGRAL TO THE DEVICE IN A TEMPORAL 4 PATTERN. THE HEARING IMPAIRED UNITS SHALL HAVE A STROBE TO INDICATE TO THE RESIDENTS OF THE CARBON DETECTOR INITIATION. GUEST BATH STROBES SHALL BE CLEAR LENS, LABELED. TYPICAL FOR ALL H.I. ROOMS. GUESTROOM STROBES SHALL BE CLEAR LENS, LABELED. 177ed IF LOCATED WITHIN 24" OF CEILING. TYPICAL FOR ALL H.I. ROOMS.
 - ACTIVATION OF A TROUBLE SIGNAL SUCH AS AN OPEN CIRCUIT, POWER LOSS OR GROUND WILL.
 - THE UL CENTRAL MONITORING STATION WILL RECEIVE ALL TROUBLE SIGNALS AND NOTIFY THE OWNER REPRESENTATIVE OF THE TROUBLE SIGNAL. THE PORTLAND FIRE DEPARTMENT MAY WANT TO RECEIVE THE TROUBLE SIGNAL. EC TO CONFIRM PRIOR TO PROGRAMMING.
 - DISPLAY THE LOCATION OF THE DEVICE ON LED DISPLAYS OR DESCRIPTION OF TROUBLE CONDITION.
 - A/V AUDIBLE TONE FROM THE PANEL WILL SOUND AND WILL NEED TO BE ACKNOWLEDGED TO CLEAR.

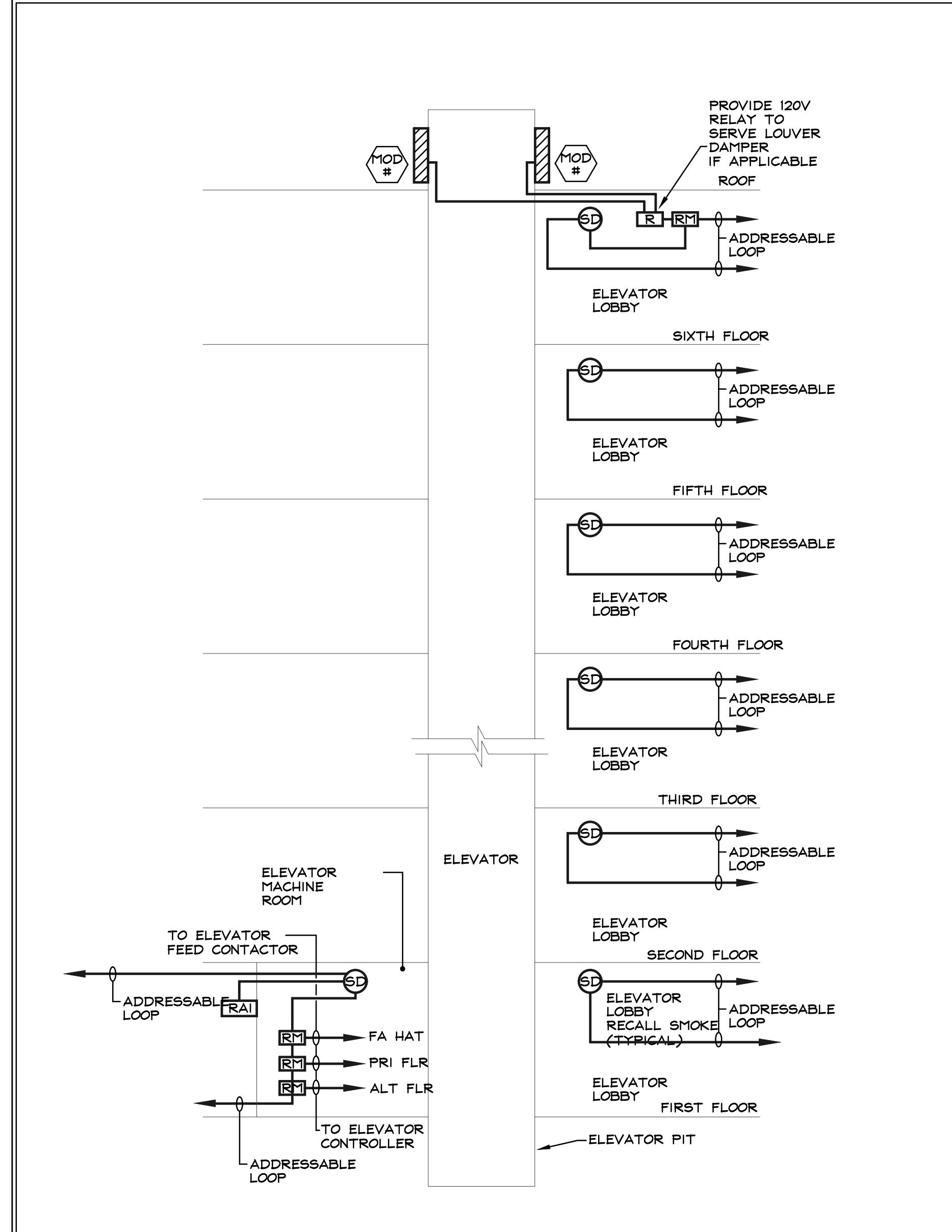
TYPICAL FIRE ALARM SYSTEM DEVICE MOUNTING HEIGHT DETAIL



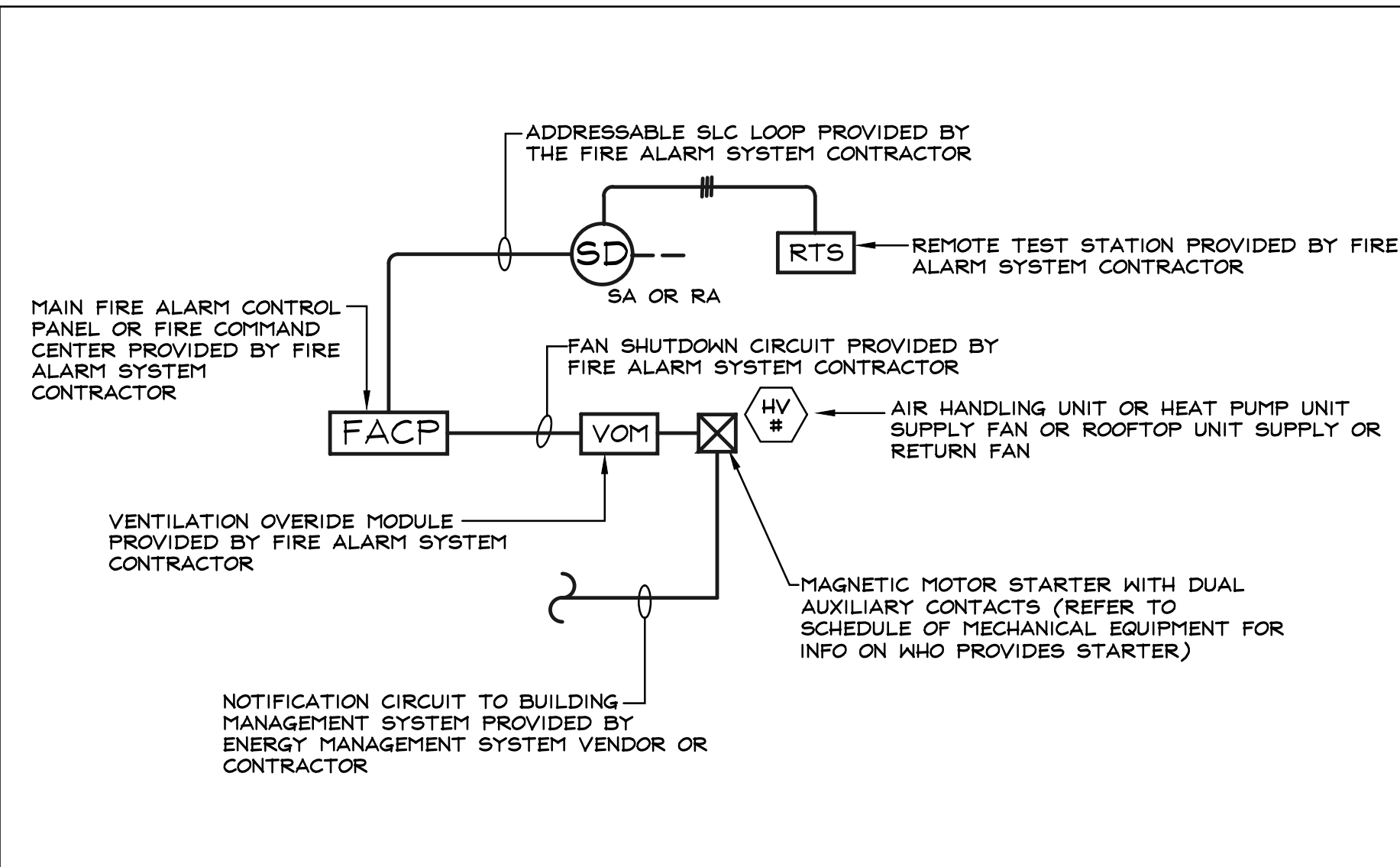
FIRE ALARM LEGEND

- [FACP] FIRE ALARM CONTROL PANEL
- [AVPS] AUDIO/VISUAL POWER SUPPLY
- [MPS] MANUAL PULL STATION - M.H. 48" TO C. A.F.F. - "S" INDICATES MANUAL STATION WITH STOPPER COVER
- [H/S] HORN/STROBE UNIT - M.H. 80" AFF OR 6" BELOW CEILING - CANDELA RATING AS INDICATED
- 520 [S] FIRE ALARM 520HZ SOUNDER - M.H. 80" AFF OR 6" BELOW CEILING
- [S] STROBE UNIT - M.H. 80" A.F.F. OR 6" BELOW CEILING - CANDELA RATINGS AS INDICATED
- [KK] KEY KEEPER - LOCK BOX - 10 KEY CAPACITY
- [DC] HEAT DETECTOR - COMBINATION TYPE - "DC" INDICATES DUAL CONTACTS
- [FT] HEAT DETECTOR - FIXED TEMPERATURE TYPE
- [SD] SMOKE DETECTOR - "DC" INDICATES DUAL CONTACTS
- [WMSD] WALL MOUNTED SMOKE DETECTOR
- [SLS] SINGLE OR MULTISTATION LOCAL 120V PHOTOELECTRIC TYPE WALL MOUNTED SMOKE DETECTOR WITH INTERNAL LOW FREQUENCY AUDIBLE DEVICE AND BATTERY BACKUP
- [SLSL] SINGLE OR MULTISTATION LOCAL 120V PHOTOELECTRIC TYPE SMOKE DETECTOR WITH INTERNAL LOW FREQUENCY AUDIBLE DEVICE AND BATTERY BACKUP
- [SLSL] SINGLE OR MULTISTATION LOCAL 120V CARBON MONOXIDE DETECTOR WITH INTERNAL LOW FREQUENCY AUDIBLE DEVICE AND BATTERY BACKUP
- [SA] DUCT MOUNTED CO2 DETECTOR - COORDINATE INSTALLATION, FURNISHED & WIRED BY ELECT. CONTR.
- [SA] DUCT MOUNTED SMOKE DETECTOR - INSTALLED BY HVAC CONTR., FURNISHED & WIRED BY ELECT. CONTR.
- [RTS] REMOTE INDICATING AND TESTING STATION WITH LED INDICATING LIGHT
- [SB] STANDBY BATTERY UNIT
- [WFS] WATER FLOW SWITCH - FURNISHED AND INSTALLED BY SPRINKLER CONTR., WIRED BY ELECTRICAL CONTR.
- [TS] TAMPER (SUPERVISORY) SWITCH - FURN. & INSTALLED BY SPRINKLER CONTR., WIRED BY ELEC. CONTR.
- [PIV] TAMPER SWITCH - POST INDICATOR VALVE - FURNISHED & INSTALLED BY SPRINKLER CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR
- [PS] PRESSURE SWITCH - FURNISHED AND INSTALLED BY SPRINKLER CONTR., WIRED BY ELECTRICAL CONTR.
- [RAI] REMOTE ALARM INDICATOR
- [RDP] REMOTE DIGITAL DISPLAY UNIT
- [DH] MAGNETIC DOOR HOLDER
- [RF] RED EXTERIOR FLASHING BEACON
- [@FA] FIRE ALARM MONITORING RELAY
- [FAB] FIRE ALARM BELL - FURNISHED AND INSTALLED BY SPRINKLER CONTR., WIRED BY ELECTRICAL CONTR.
- [MM] MONITOR MODULE
- [CM] CONTROL MODULE
- [VOM] VENTILATION OVERRIDE MODULE
- [RMB] RADIO MASTER BOX. COORDINATE EXACT LOCATION AND ASSOCIATED ANTENNA AND CABLING IN FIELD.
- [SDT] SMOKE DETECTOR WITH INTEGRAL THERMAL ELEMENT
- 177 [SLS] SINGLE OR MULTISTATION LOCAL 120V PHOTOELECTRIC TYPE SMOKE DETECTOR WITH INTERNAL LOW FREQUENCY AUDIBLE AND VISUAL DEVICE AS WELL AS BATTERY BACKUP. CANDELA RATING AS INDICATED.
- [CO] [SLS] SINGLE OR MULTISTATION LOCAL 120V PHOTOELECTRIC TYPE SMOKE DETECTOR WITH INTEGRAL CARBON MONOXIDE DETECTOR, INTERNAL LOW FREQUENCY AUDIBLE DEVICE AND BATTERY BACKUP
- [CO] [SLS] COMBINATION SMOKE DETECTOR (PHOTOELECTRIC) AND CARBON MONOXIDE DETECTOR WITH THERMAL AND INFRARED HEAT DETECTION
- [SLS] SYSTEM PHOTOELECTRIC SMOKE DETECTOR WITH VERIFICATION FEATURE
- [SB] [SLS] SYSTEM PHOTOELECTRIC SMOKE DETECTOR WITH VERIFICATION FEATURE AND 520HZ SOUNDER BASE
- [CO] [SLS] COMBINATION SMOKE DETECTOR (PHOTOELECTRIC) AND CARBON MONOXIDE DETECTOR WITH THERMAL AND INFRARED HEAT DETECTION, VERIFICATION FEATURE AND 520HZ SOUNDER BASE
- [FA] [MV] MULTI-VOLTAGE RELAY - 120V TO 24V DC
- [SD] SMOKE/FIRE DAMPER FURNISHED AND INSTALLED BY OTHERS, WIRED BY THE ELECTRICAL CONTRACTOR

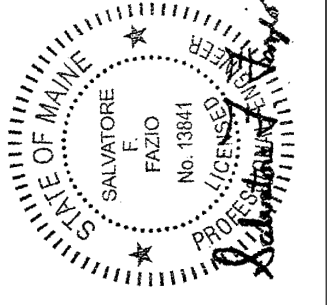
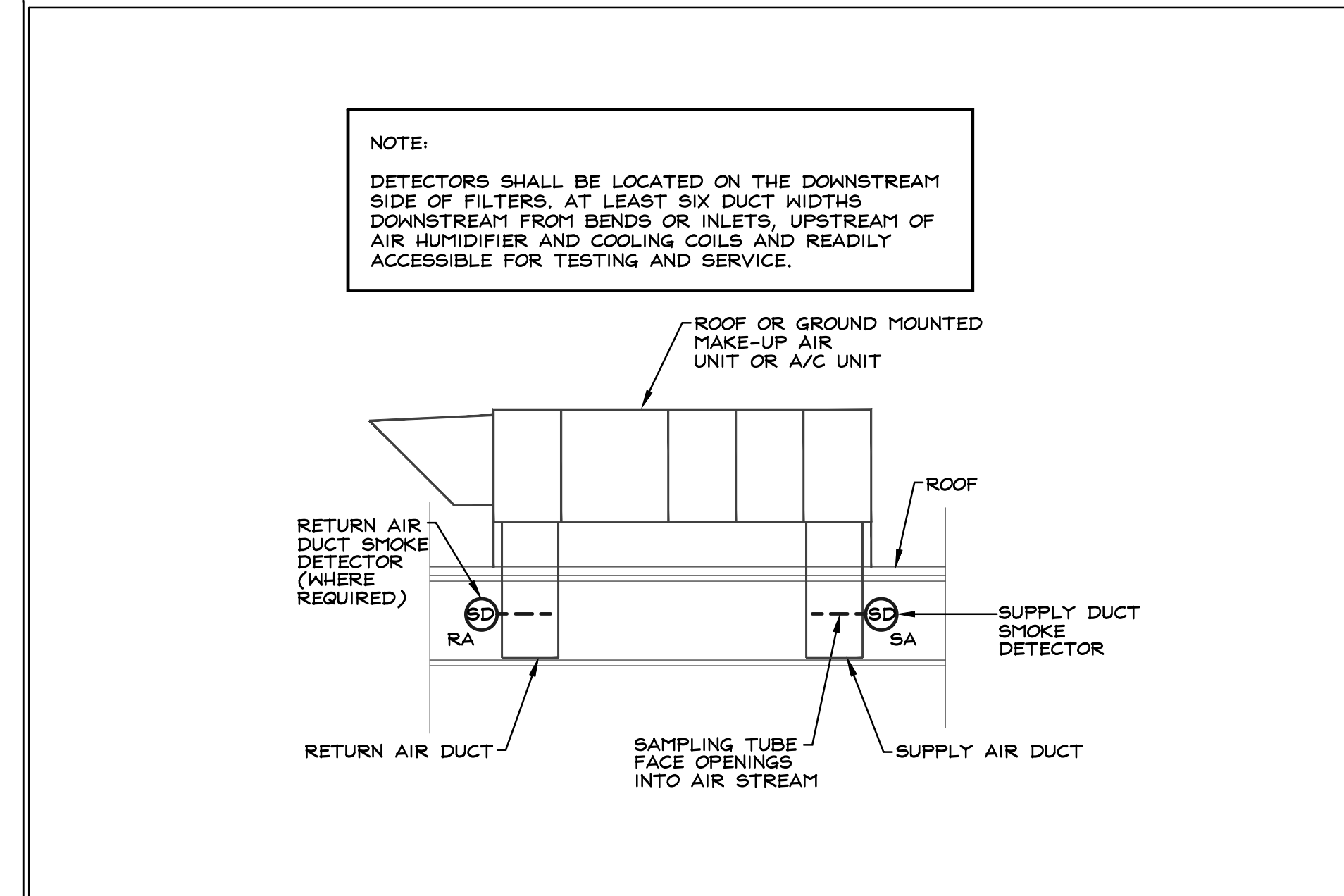
TYPICAL ELEVATOR RECALL WIRING DIAGRAM



TYPICAL AIR HANDLING SYSTEM SHUTDOWN WIRING DIAGRAM



TYPICAL DUCT SMOKE DETECTOR INSTALLATION DETAIL @ ROOFTOP UNIT



Engineer:
Contractor:

| REVISIONS | Description | Date | Approved |
|-----------|-------------|------|----------|
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Project Name: **ALOFT HOTEL**
383 COMMERCIAL STREET
PORTLAND, ME 04101

Title: **FIRE ALARM LEGEND AND DETAILS**

Drawn: BL
Checked: SF/RFG
Date: 03/20/20
Scale: NTS
Project No.: 219247
File No.:

Drawing No.: **FA0.01**

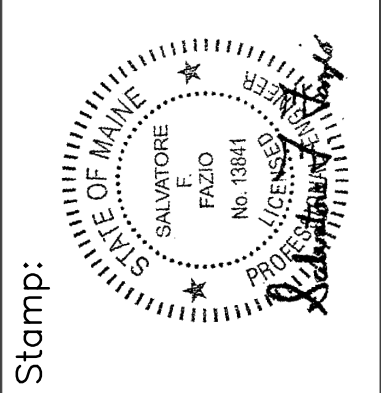
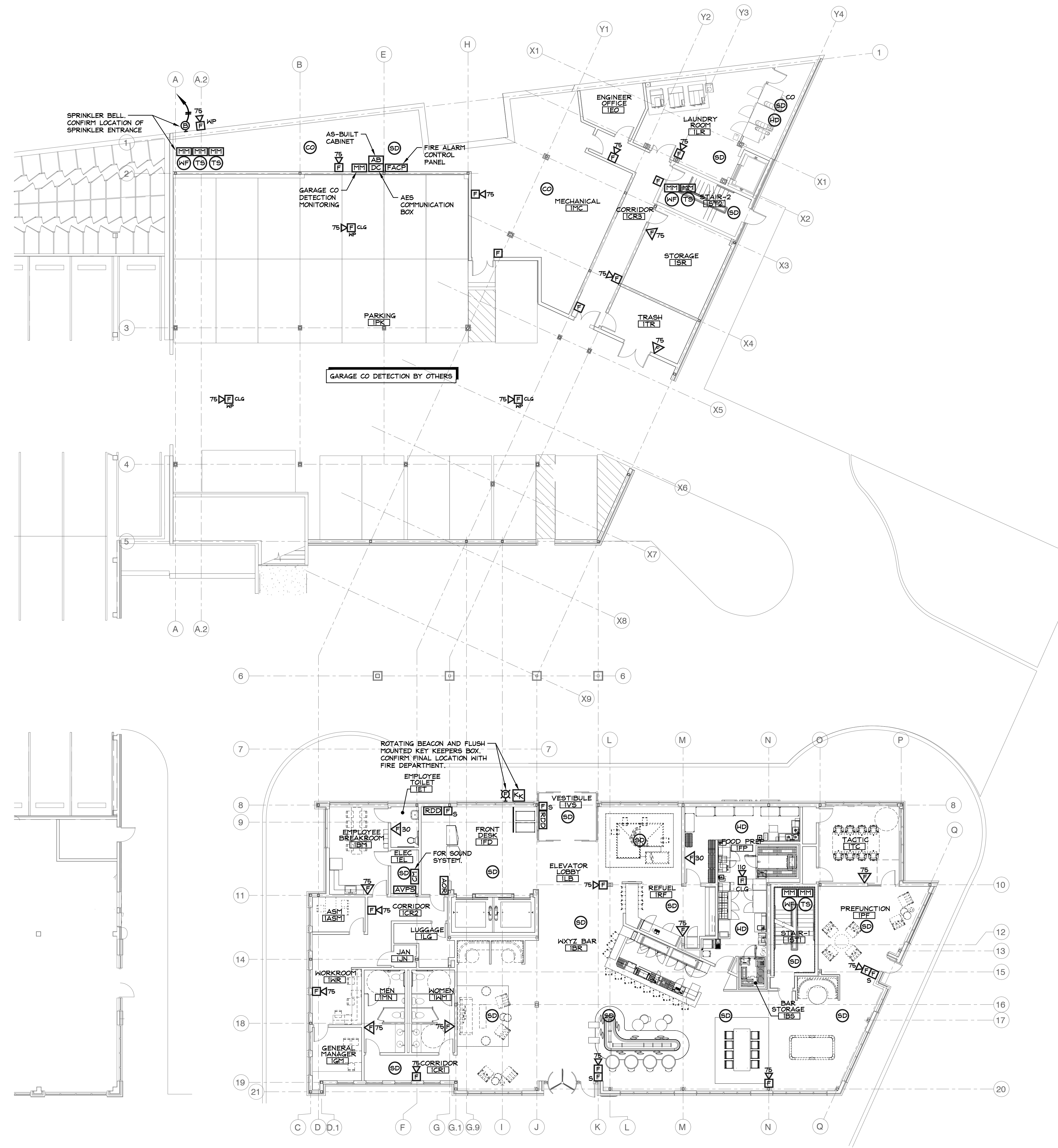


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

05/27/2020

FIRE ALARM PLAN NOTES

1. THE ELECTRICAL CONTRACTOR SHALL OBTAIN A FIRE ALARM PERMIT FROM THE PORTLAND FIRE DEPARTMENT PRIOR TO COMMENCING WORK.
2. AT THE COMPLETION OF THE PROJECT, THE FIRE ALARM SYSTEM SHALL BE TESTED TO THE SATISFACTION OF THE PORTLAND FIRE DEPARTMENT.
3. ALL INDICATING DEVICES SHALL BE SYNCHRONIZED TO COMPLY WITH INTERNATIONAL BUILDING CODE 2015 EDITION AND NFPA 72 2014 ANNEX A.10.5.5.2(2) REQUIREMENTS.
4. ONCE ACTIVATED, NO PORTION OF THE FIRE ALARM SYSTEM SHALL BE PERMITTED TO REMAIN OUT OF SERVICE OVERNIGHT.
5. ALL NEW DEVICES MUST BE REFLECTED AT THE FIRE ALARM CONTROL PANEL VIA LABELING, PROGRAMMING, ETC.



Engineer:
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Contractor:
Eastern Services
 Electrical Contractor LLC
 40 Lowell Street
 Salem, NH

| REVISIONS | |
|-----------|-------------|
| Date | Description |
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Project Name:
ALOFT HOTEL
 383 COMMERCIAL STREET
 PORTLAND, ME 04101

Title:
**FIRST FLOOR
 FIRE ALARM
 PLAN**

Drawn: BL
 Checked: SF/RFG
 Date: 03/20/20
 Scale: 3/32"=1'-0"
 Project No.: 219247
 File No.:

Drawing No.:
FA1.01

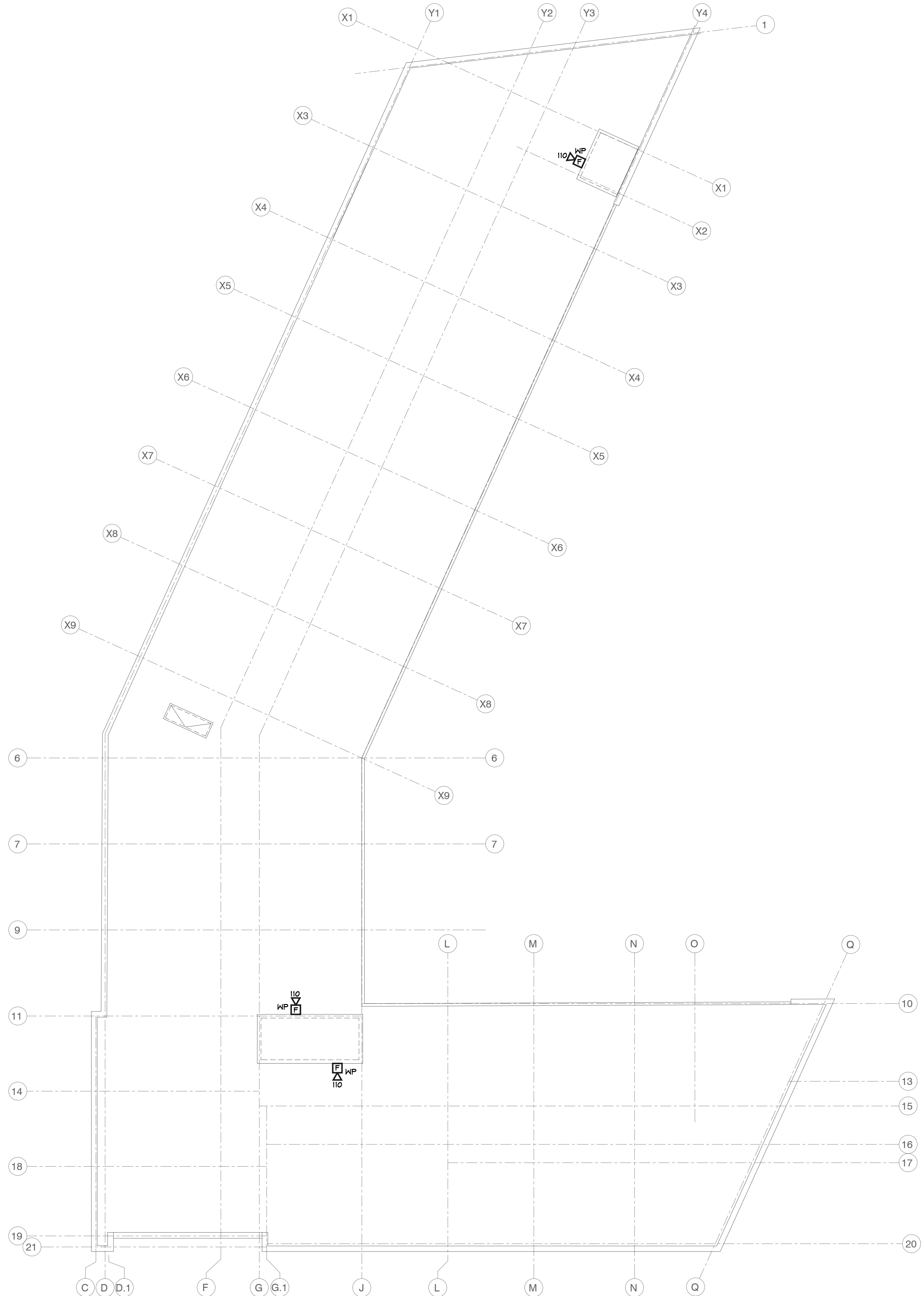
FILED IN THE OFFICE OF THE ENGINEER, 1000 STATE ST., PORTLAND, ME 04101. DATE 05/27/2020. TIME 1:00:22 AM.



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 05/27/2020

FIRE ALARM PLAN NOTES

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5. ALL NEW DEVICES MUST BE REFLECTED AT THE FIRE ALARM CONTROL PANEL VIA LABELING, PROGRAMMING, ETC.



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 Wednesday, October 24, 2019 1:00:22 AM



Reviewed for Code Compliance
 Permitting and Inspections Department
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05/27/2020

Stamp:

Engineer:

 22 MANCHESTER ROAD, SUITE 8A
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Contractor:

 40 Lowell Street
 Salem, NH

| REVISIONS | | |
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| Date | Description | Approved |
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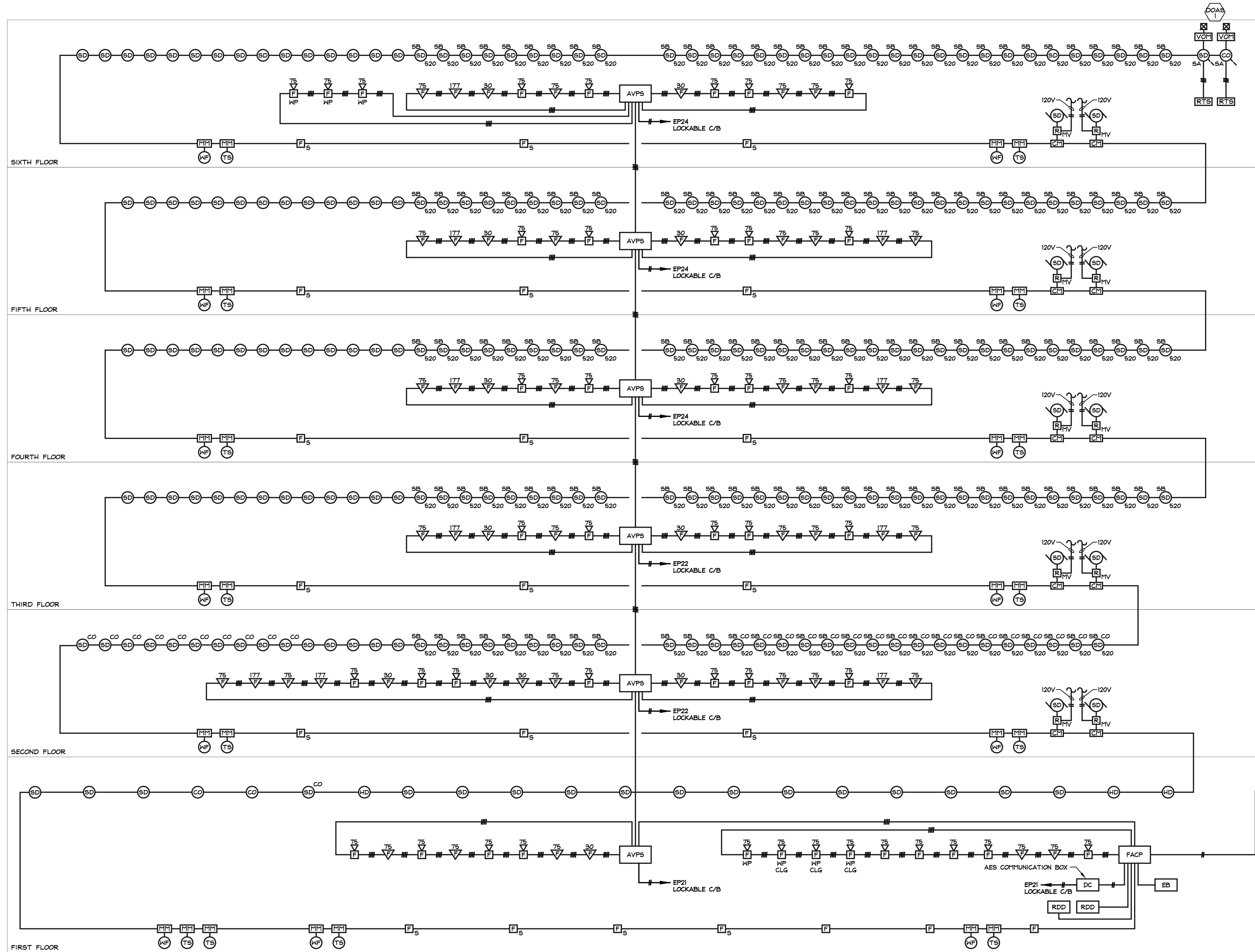
Project Name:
ALOFT HOTEL
 383 COMMERCIAL STREET
 PORTLAND, ME 04101

Title
ROOF FIRE ALARM PLAN

Drawn: BL
 Checked: SF/RFG
 Date: 03/20/20
 Scale: 3/32"=1'-0"
 Project No.: 219247
 File No.:

Drawing No.:
FA1.07

FIRE ALARM SYSTEM RISER DIAGRAM



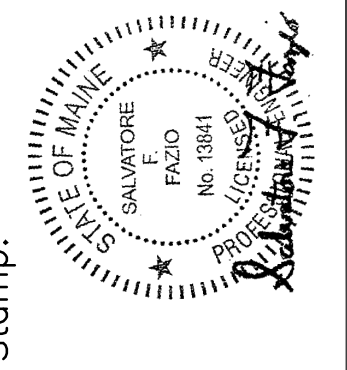
FIRE ALARM SYSTEM RISER DIAGRAM NOTES

- OR // INDICATES # OF FIRE ALARM CONDUCTORS IN APPROPRIATELY SIZED CONDUIT. ALL FIRE ALARM CONDUCTORS MUST BE COPPER.
- INDICATES TO PROVIDE THE APPROPRIATE QUANTITY OF CONDUCTORS RECOMMENDED BY THE SYSTEM MANUFACTURER.
- THE ELECTRICAL CONTRACTOR SHALL SUBMIT PLANS, SHOP DRAWINGS, BATTERY CALCULATIONS AND SPECIFICATIONS TO THE PORTLAND FIRE DEPARTMENT ON THE LOCATION OF DEVICES AND THE SYSTEM ITSELF BEFORE COMMENCING WORK ON THIS PROJECT.
- PROVIDE #6 CU. GROUND IN A 3/4" C TO THE MAIN METALLIC WATER SERVICE.
- THE FIRE ALARM CONTROL PANEL AND ALL SYSTEM DEVICES SHALL BE ADDRESSABLE TYPE AND UL LISTED.
- PROVIDE ISOLATOR, CONTROL, VENTILATION OVERRIDE, AND MONITOR MODULES AS REQUIRED AND AS NECESSARY.
- AUDIO/VISUAL UNITS SHALL BE SYNCHRONIZED AS PER THE 2015 INTERNATIONAL BUILDING CODE AND NFPA 72 2013 ANNEX A 16.4.2.5 REQUIREMENTS.
- THE TELECOM VENDOR SHALL PROVIDE DUAL-LEASED TELEPHONE LINES FROM THE MAIN TELEPHONE TERMINAL BOARD TO THE DIGITAL COMMUNICATOR.
- ALL DESIGNATED ROOFTOP UNIT SUPPLY AND RETURN AIR FANS SHALL BE AUTOMATICALLY SHUT DOWN WHEN THE FIRE ALARM SYSTEM IS ACTIVATED INTO "ALARM" CONDITION.
- THE FIRE ALARM CONTROL PANEL SHALL BE EQUIPPED WITH INTEGRAL SURGE PROTECTION DEVICES.
- ALL SMOKE AND HEAT DETECTOR BASES AND HEADS SHALL BE LABELED AS IDENTIFIED IN THE FIRE ALARM CONTROL PANEL.
- DUCT MOUNTED SMOKE DETECTORS SHALL BE AUTOMATICALLY RESET WHEN THE MAIN FIRE ALARM CONTROL PANEL IS RESET.
- FIRE ALARM SYSTEM WIRING SHALL BE ISOLATED FROM ALL OTHER CONDUCTORS AND MUST TEST FREE OF ALL GROUNDS.
- ALTERNATING CURRENT CARRYING CONDUCTORS SHALL NOT BE INSTALLED CLOSE TO, OR IN THE SAME RACEWAY WITH, THE FIRE ALARM CONDUCTORS.
- ALL FIRE ALARM SYSTEM WIRING SHALL BE COPPER AND SHALL BE UL LISTED AS PER N.E.C. 760.
- THE FIRE ALARM WIRING METHOD SHALL BE EITHER TYPE MC FIRE ALARM CABLE OR THHN 18 GAUGE (MINIMUM) CONDUCTORS INSTALLED IN EMT CONDUIT ONLY WHERE EXPOSED OR PORTLAND FIRE DEPARTMENT APPROVED METHOD.
- ALL FIRE ALARM DEVICES SHALL BE INSTALLED IN A JUNCTION, WORK OR BACKBOX.
- ALL FIRE ALARM SYSTEM RACEWAYS AND BOXES SHALL BE FIELD OR FACTORY PAINTED RED.
- THERE SHALL BE NO "T" TAPPING ALLOWED ON ANY FIRE ALARM CIRCUITS.
- ALL SMOKE AND HEAT DETECTORS SHALL BE LOCATED A MINIMUM OF 36" AWAY FROM SUPPLY AIR DIFFUSERS OR OUTLETS.
- PROVIDE A MINIMUM OF 20% SPARE CAPACITY ON THE NOTIFICATION APPLIANCE CIRCUITS FOR POTENTIAL FUTURE VISIBLE NOTIFICATION DEVICES TO ACCOMMODATE HEARING IMPAIRED INDIVIDUALS.
- IF THE PORTLAND FIRE DEPARTMENT REQUIRES THE SUBMISSION OF AN INPUT/OUTPUT MATRIX AS PART OF THE PERMIT OR APPROVAL PROCESS, THEN THE INPUT/OUTPUT MATRIX SHALL BE PREPARED AND SUBMITTED TO THE PORTLAND FIRE DEPARTMENT BY THE FIRE ALARM SYSTEM SUPPLIER.
- PROVIDE AVPS AS REQUIRED BY SYSTEM CURRENT DRAW.

- WP 75 ROTATING BEACON. LOCATE PER FIRE DEPARTMENT DIRECTION.
- 120V SPRINKLER BELL
- FLUSH MOUNTED KEY KEEPERS BOX



Reviewed for Code Compliance
Permitting and Inspection Department
Approved with Conditions
05/27/2020



Stamp:
Engineer:
ELECTRICAL SYSTEMS ENGINEERING, INC.
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T: 603.870.9009 F: 603.432.4255

Contractor:
Eastern Services
Electrical Contractor LLC
40 Lowell Street
Salem, NH

| REVISIONS | | Approved |
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| Description | Date | |
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Project Name:
ALOFT HOTEL
383 COMMERCIAL STREET
PORTLAND, ME 04101

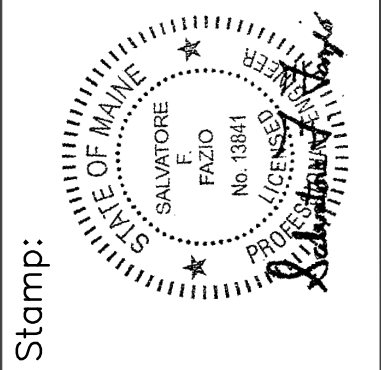
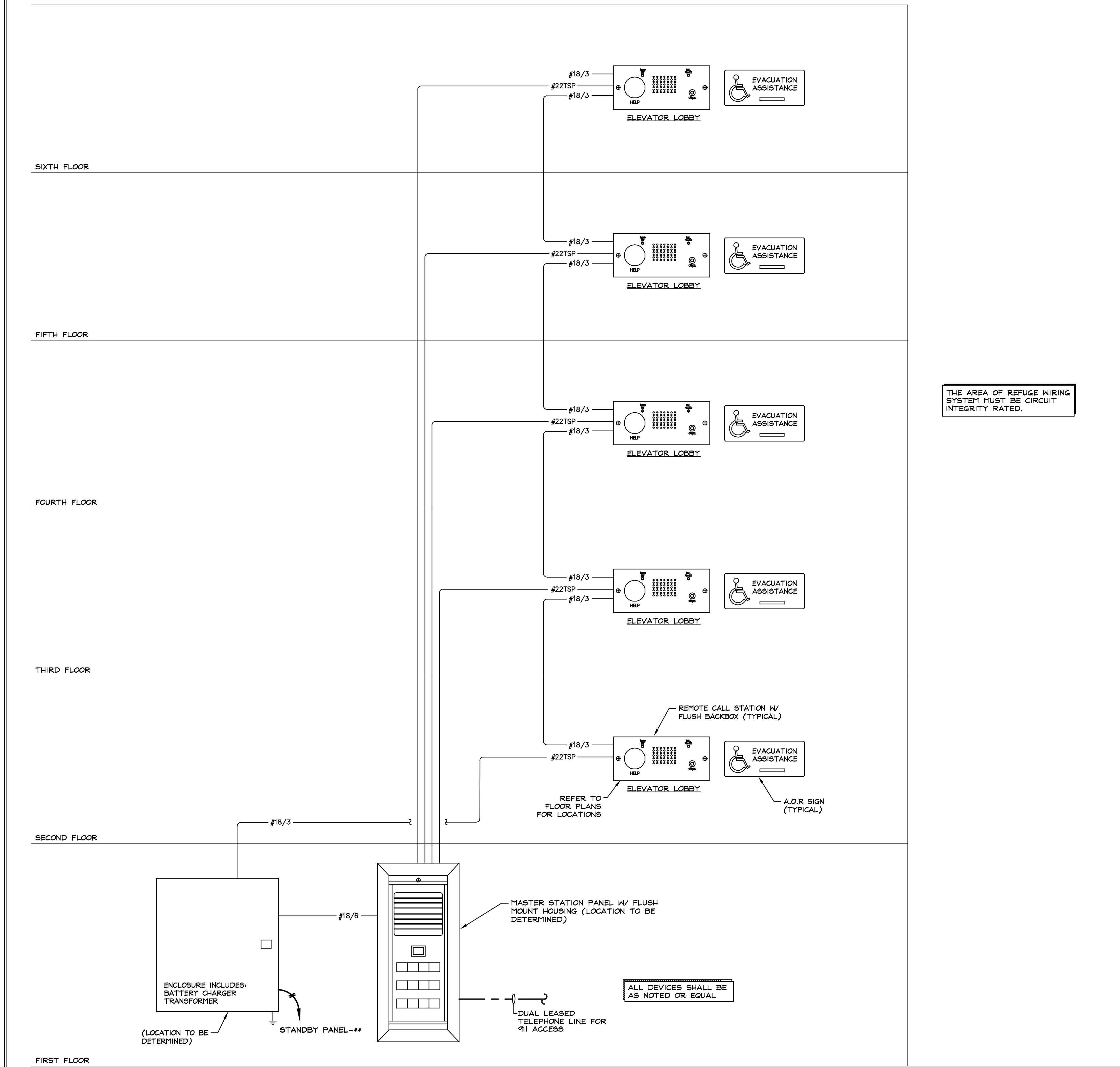
Title
FIRE ALARM
RISER DIAGRAM

Drawn: BL
Checked: SF/RFG
Date: 03/20/20
Scale: NTS
Project No.: 219247
File No.:

Drawing No.:
FA2.01

10/27/2019 10:57:53 AM
 C:\Users\jgibson\OneDrive\Documents\2019\219247\Fire Alarm Riser Diagram.dwg
 Wednesday, October 23, 2019 1:00:32 AM

EVACUATION/TWO-WAY COMMUNICATION SYSTEM RISER DIAGRAM



REVISIONS

| Date | Description | Approved |
|------|-------------|----------|
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Project Name: **ALOFT HOTEL**
 383 COMMERCIAL STREET
 PORTLAND, ME 04101

Title: **FIRE ALARM AOR RISER**

Drawn: BL
 Checked: SF/RFG
 Date: 03/20/20
 Scale: 3/32"=1'-0"
 Project No.: 219247
 File No.:

Drawing No.: **FA2.02**

FILED IN: 2020-03-20 10:00 AM BY: J. J. [Name] FOR: 2020-03-20 10:00 AM
 Wednesday, October 27, 2020 1:00:22 AM



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 Permitting and Inspections Department
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05/27/2020