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1 FIRE ALARM PLAN
1/8" = 1'-0"

FIRE ALARM, SMOKE DETECTION & SECURITY SYSTEM NOTES

- Installation of new fire alarm devices shall comply with the current applicable provisions of NFPA 70, NFPA 71, NFPA 72/72E, NFPA 101, local and state building codes, and all requirements of the local authority having jurisdiction.
- It shall be the responsibility of the Electrical Contractor to provide all conduit systems, standard electrical boxes, and operating power for the fire alarm and security systems.
- Fire alarm and security systems installer to provide a separate drawings showing all devices. Coordinate and confirm with architect, electrical contractor, general contractor and/or owner prior to submit bidding.

FIRE ALARM PLAN GENERAL NOTES:

- FIRE ALARM SYSTEM SHALL MEET ALL ADA REQUIREMENTS AND SHALL BE INSTALLED BY A LICENSED FIRE ALARM CONTRACTOR.
- VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS. FINAL LOCATION OF ALL SURFACE MOUNTED DEVICES ARE TO BE VERIFIED WITH ARCHITECTURAL DRAWINGS AND / OR ARCHITECT PRIOR TO INSTALLATION.
- COORDINATE FIRE ALARM INSTALLATION WITH MECHANICAL, ELECTRICAL, AND PLUMBING DISCIPLINES PRIOR TO CONSTRUCTION.
- FURNISH AND INSTALL COMPLETE FIRE ALARM SYSTEM IN ACCORDANCE WITH NFPA CHAPTER 72 AND AUTHORITY HAVING JURISDICTION. WHOEVER IS MORE STRINGENT, PROVIDE BATTERY BACK-UP POWER SUPPLY. DESIGN SHALL BE SIGNED AND SEALED BY A FIRE ALARM DESIGN PROFESSIONAL.
- FIRE ALARM CONTRACTOR SHALL PROVIDE COMPLETE FIRE ALARM SYSTEM SHOP DRAWINGS TO LOCAL FIRE MARSHAL INCLUDING COMPLETE BATTERY CALCULATIONS FOR REVIEW PRIOR TO INSTALLATION.
- COORDINATE WITH PEEBLES ALARM COMPANY TO PROVIDE AN ALARM SIGNAL FROM FIRE ALARM PANEL TO SECURITY PANEL.

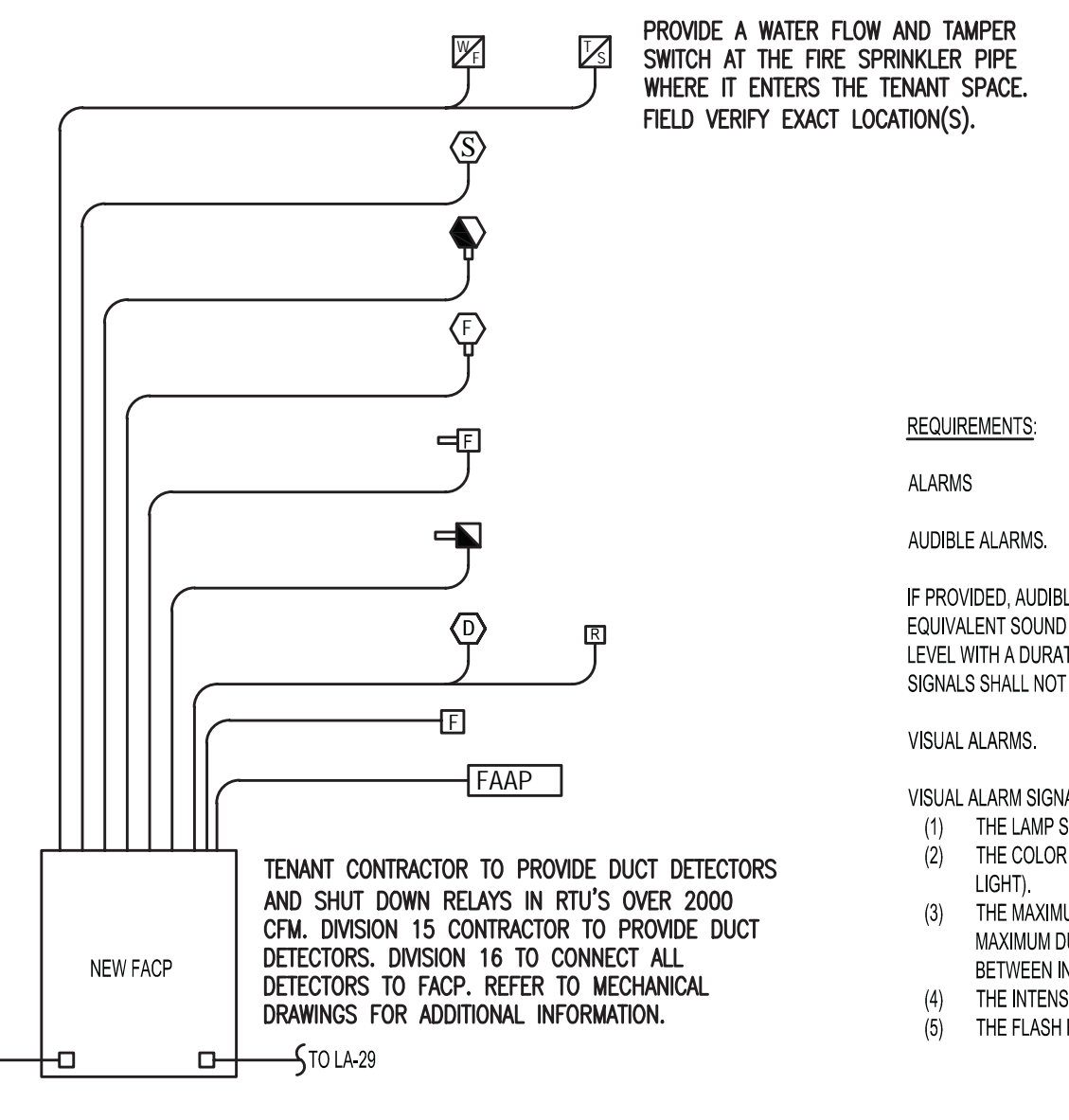
SYMBOLS	DESCRIPTION
⊙	NEW SMOKE DETECTOR, CONNECTED TO AND POWERED FROM FIRE ALARM CONTROL PANEL. (W/BATTERY BACK-UP)
⊕	NEW FIRE ALARM STROBE, CEILING MOUNT.
⊞	NEW FIRE ALARM PULL STATION, MOUNT +48" ABOVE FINISHED FLOOR.
⊞	NEW FIRE ALARM STROBE, WALL MOUNT 84" ABOVE FINISHED FLOOR.
⊞	NEW FIRE ALARM HORN/STROBE COMBINATION, WALL MOUNT 84" ABOVE FINISHED FLOOR.
⊞	NEW FIRE ALARM HORN/STROBE COMBINATION, CEILING MOUNT.
⊞	NEW HEAT DETECTOR, CONNECTED TO AND POWERED FROM FIRE ALARM PANEL. (W/BATTERY BACK-UP)
⊞	NEW TAMPER SWITCH (SPRINKLER), CONNECTED TO AND POWERED FROM FIRE ALARM PANEL. (W/BATTERY BACK-UP)
⊞	NEW WATER FLOW ALARM (SPRINKLER), CONNECTED TO AND POWERED FROM FIRE ALARM PANEL. (W/BATTERY BACK-UP)
FACP	NEW FIRE ALARM CONTROL PANEL, MOUNT +48" ABOVE FINISHED FLOOR, FIRE-LITE MS 10 I07
FAAP	NEW FIRE ALARM ANNUNCIATOR PANEL, MOUNT +48" ABOVE FINISHED FLOOR, FIRE-LITE MODEL #ANN-80
⊞	NEW DUCT DETECTOR, CONNECTED TO AND POWERED FROM FIRE ALARM PANEL. (W/BATTERY BACK-UP)
⊞	RTU SHUT-OFF RELAY.

A. GENERAL:

- ALL FIRE ALARM CIRCUITS SHALL BE ELECTRICALLY SUPERVISED.
- AUTOMATIC RESPONSE FUNCTIONS SHALL BE ACCOMPLISHED BY THE FIRST DEVICE INITIATED. ALARM FUNCTIONS RESULTING FROM INITIATION BY THE FIRST DEVICE SHALL NOT BE ALTERED BY SUBSEQUENT ALARMS. AN ALARM SIGNAL SHALL BE THE HIGHEST PRIORITY. A PRE-ALARM SIGNAL SHALL HAVE SECOND PRIORITY AND SUPERVISORY OR TROUBLE SIGNALS SHALL HAVE THIRD AND FOURTH LEVEL PRIORITY. SIGNALS OF A HIGHER LEVEL PRIORITY SHALL TAKE PRECEDENCE OVER SIGNALS OF LOWER PRIORITY EVEN THOUGH THE LOWER PRIORITY CONDITION OCCURRED FIRST.

B. FIRE ALARM OPERATING SEQUENCES SHALL BE AS FOLLOWS:

- ACTIVATION OF ANY AUTOMATIC DETECTOR, MANUAL STATION, OR SPRINKLER FLOW SWITCH SHALL CAUSE THE LOCATION OF ALARM TO BE IDENTIFIED IN AN AUDIBLE AND VISUAL MANNER AT THE BUILDING FIRE ALARM CONTROL PANEL (FACP), AND SHALL INITIATE THE FOLLOWING EVENTS: THE SYSTEM COMMON ALARM LED ON THE CPU MODULE SHALL FLASH, THE INTERNAL AUDIBLE TROUBLE DEVICE SHALL SOUND, ACKNOWLEDGING THE ALARM CONDITION SHALL SILENCE THE AUDIBLE TROUBLE DEVICE AND REVERT THE FLASHING COMMON ALARM LED TO A STEADY STATE. THE 80 CHARACTER DISPLAY SHALL INDICATE ALL APPLICABLE INFORMATION ASSOCIATED WITH THE ALARM CONDITION INCLUDING: ZONE, DEVICE TYPE, DEVICE LOCATION, AND TIME OF ALARM. LOCATION AND ZONING MESSAGES SHALL BE CUSTOM FIELD PROGRAMMED TO RESPECTIVE PREMISES.
- ANY REMOTE OR LOCAL ANNUNCIATOR LED'S ASSOCIATED WITH THE ALARM POINT SHALL BE ILLUMINATED AS HEREIN SPECIFIED.
- THE REMOTE SIGNALING CONNECTION SHALL BE ACTIVATED RELAYING THE ALARM SIGNAL TO AN APPROVED CENTRAL STATION (CENTRAL STATION CONNECTION AND SERVICE PROVIDED BY OWNER).
- ALL AUTOMATIC EVENTS PROGRAMMED TO THE ALARM POINT SHALL BE EXECUTED AND THE ASSOCIATED INDICATING DEVICES AND/OR OUTPUTS ACTIVATED.
- ACTIVATE ALL AUDIBLE/VISUAL ALARM DEVICES.
- DE-ACTIVATE ALL HVAC SYSTEMS.
- NOT USED.
- CLOSE ALL RELATED SMOKE DAMPERS.
- CLOSE ALL RELATED SMOKE/FIRE DAMPERS.
- SIGNAL THE BUILDING AUTOMATION SYSTEM AND SECURITY SYSTEM.
- THE AUDIBLE ALARMS SHALL BE INHERITED FROM BEING SILENCED FOR A PERIOD OF 3 MINUTES AFTER COMMENCING OPERATION UNLESS ALARM IS ACKNOWLEDGED AND APPROPRIATE ACTION HAS BEEN TAKEN.
- RECORD ALL EVENTS ON THE SYSTEM MEMORY.
- ACTIVATION OF DUCT MOUNTED SMOKE DETECTOR OR THE HVAC EQUIPMENT, OR A SMOKE DETECTOR MOUNTED IN THE RETURN AIR/SUPPLY AIR STREAM OF ANY FAN SHALL SHUT DOWN THE UNIT AS REQUIRED BY NFPA. THE ACTIVATION OF ONE OF THESE DETECTORS SHALL ALSO INITIATE THE EVENTS LISTED UNDER ARTICLE 3.04.
- ACTIVATION OF A CONTROL VALVE SUPERVISORY SWITCH SHALL INITIATE THE FOLLOWING EVENTS:
 - THE ACTIVATION OF ANY SPRINKLER VALVE SUPERVISORY SWITCH SHALL CAUSE THE SYSTEM SUPERVISORY SERVICE AUDIBLE SIGNAL AND ILLUMINATE THE LED AT THE BUILDING FIRE ALARM CONTROL PANEL (FACP). DIFFERENTIATION BETWEEN VALVE TAMPER ACTIVATION AND OPENS AND/OR CLOSURES ON THE INITIATION CIRCUIT WIRING SHALL BE PROVIDED.
 - ACTIVATION OF A SPRINKLER SYSTEM CONTROL VALVE SUPERVISORY SWITCH SHALL NOT PREVENT THE EVENTS LISTED UNDER ARTICLE 3.04.
 - RESTORING THE VALVE TO THE NORMAL POSITION SHALL CAUSE THE SUPERVISORY SERVICE AUDIBLE SIGNAL TO PULSE, INDICATING THE RESTORATION TO NORMAL POSITION. THE SUPERVISORY SERVICE ACKNOWLEDGE KEY SHALL BE PROVIDED TO SILENCE THE AUDIBLE SIGNAL.
- ANY SUBSEQUENT FIRE ALARM SHALL REACTIVATE THE ALARM INDICATING APPLIANCES AND ACTIVATE THE RESPECTIVE CONTROL SEQUENCES DESCRIBED ABOVE.
- UPON RESET OF THE FIRE ALARM CONTROL PANEL, HVAC UNITS SHALL BE CAPABLE OF BEING STARTED, AND RESUME NORMAL OPERATION.



REQUIREMENTS:

ALARMS

AUDIBLE ALARMS:

IF PROVIDED AUDIBLE EMERGENCY ALARMS SHALL PRODUCE A SOUND THAT EXCEEDS THE PREVALING EQUIVALENT SOUND LEVEL IN THE ROOM OR SPACE BY AT LEAST 15 DBA OR EXCEEDS ANY MAXIMUM SOUND LEVEL WITH A DURATION OF 60 SECONDS BY 5 DBA, WHICHEVER IS LOUDER. SOUND LEVELS FOR ALARM SIGNALS SHALL NOT EXCEED 120 DBA.

VISUAL ALARMS:

VISUAL ALARM SIGNALS SHALL HAVE THE FOLLOWING MINIMUM PHOTOMETRIC AND LOCATION FEATURES:

- THE LAMP SHALL BE A XENON STROBE TYPE OR EQUIVALENT.
- THE COLOR SHALL BE CLEAR OR NOMINAL WHITE (I.E. UNFILTERED OR CLEAR FILTERED WHITE LIGHT).
- THE MAXIMUM PULSE DURATION SHALL BE TWO-TENTHS OF ONE-SECOND (0.2 SEC) WITH A MAXIMUM DUTY CYCLE OF 40 PERCENT. THE PULSE DURATION IS DEFINED AS THE TIME INTERVAL BETWEEN INITIAL AND FINAL POINTS OF 10 PERCENT OF MAXIMUM SIGNAL.
- THE INTENSITY SHALL BE A MINIMUM OF 5 CANDLEL.
- THE FLASH RATE SHALL BE A MINIMUM OF 1 HZ AND A MAXIMUM OF 3HZ.

2 FIRE ALARM GENERAL NOTES
NOT TO SCALE

3 FIRE ALARM SYMBOLS LEGEND
NOT TO SCALE

4 FIRE ALARM SEQUENCE OF OPERATION
NOT TO SCALE

5 FIRE ALARM NOTES AND RISER DIAGRAM
NOT TO SCALE

DATE: 11/17/2013
PROJECT NO: 8-112-05
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FIRE ALARM PLAN
E1.6