



FIRE ALARM RISER DIAGRAM
SCALE: N.T.S.

NOTES:

- THIS DRAWING IS INTENDED TO ILLUSTRATE MAJOR EQUIPMENT AND THE INTENDED INTERCONNECTIONS. REFER TO THE FLOOR PLANS FOR EXACT LOCATIONS AND QUANTITIES AND TYPE OF DEVICES. REFER TO THE MANUFACTURER'S WIRING DIAGRAMS FOR INTERCONNECTION REQUIREMENTS. INTERCONNECTION DETAILS SHALL BE INCLUDED IN THE SHOP DRAWINGS WITH COMPONENT CUT SHEETS FOR REVIEW AND APPROVAL.
- ALL FINAL CONNECTIONS INTO THE FIRE ALARM SYSTEM SHALL BE PERFORMED BY A CERTIFIED MANUFACTURER TECHNICIAN. THE ELECTRICAL CONTRACTOR SHALL CARRY ALL ASSOCIATED COSTS FOR FINAL CONNECTION AND ASSOCIATED TESTING.
- DEVICES IDENTIFIED FOR REMOVAL SHALL BE RETAINED UNTIL NEW SYSTEM OPERATIONAL AND APPROVED. PROVIDE CONTROL MODULES, WIRING, PROGRAMMING OF SYSTEM AS REQUIRED TO MAINTAIN SYSTEM OPERATION OF EXISTING DEVICES.
- PROVIDE UL LISTED LOCKING DEVICE FOR POWER SOURCE CIRCUIT BREAKER AND LABEL AS "FIRE ALARM CONTROL CIRCUIT" IN THE PANELBOARD DIRECTORY. REFER TO FLOOR PLAN FOR CIRCUIT DESIGNATION.
- VISUAL APPLIANCES WITHIN SAME ROOM OR FIELD OF VIEW SHALL BE SYNCHRONIZED.
- PROVIDE SIGNAL (CONTACT CLOSURE) TO BUILDING WIDE PUBLIC ADDRESS SYSTEM (PAS) (SIMPLEX 5100 SERIES BUILDING COMMUNICATIONS SYSTEMS) TO LOCKOUT ALL BUILDING ANNOUNCEMENTS DURING FIRE ALARM CONDITION. ALL FINAL CONNECTIONS BETWEEN PAS AND CONTROL MODULE SHALL BE BY PAS MANUFACTURER'S VENDOR AND CONTRACTOR. CONTRACTOR SHALL CARRY ASSOCIATED COSTS FOR CERTIFIED PAS MANUFACTURER'S VENDOR.
- CONTRACTOR SHALL SYNCHRONIZE TEMPORALS ON ALL SPEAKER/STROBE DEVICES.
- STROBES INDICATED AS 15cd OR 30cd SHALL BE DUAL RATED 15/75cd OR 30/75cd RESPECTIVELY.
- PROVIDE FAULT ISOLATION MODULES (ISO) ON THE SLC TO PROTECT THE SYSTEM AGAINST LINE-TO-LINE FAULTS. PROVIDE (1) IM PER FLOOR OR (1) PER 20 DEVICES, WHICH EVER IS GREATER.
- PROVIDE SHUTDOWN SIGNAL TO THE AIR HANDLING UNIT ASSOCIATED WITH THE DUCT SMOKE DETECTOR IN ALARM. PROVIDE SUPERVISORY ALARM ASSOCIATED WITH CARBON MONOXIDE DETECTION IN DUCT. PROVIDE ALL NECESSARY RELAYS, WIRING AND CONNECTIONS REQUIRED FOR THIS OPERATION. REFER TO DETAIL EP002 ON DRAWING EF8.00 FOR THE REQUIRED INTERPOSING RELAY.
- PROVIDE SIGNAL TO FIRE DOOR MAGNETIC HOLD-OPENS SYSTEM. EXISTING HOLD DEVICES, POWER SUPPLY, AND CONTACTORS TO REMAIN. SIGNAL TO CLOSE ALL DOORS IN THE EVENT OF A GENERAL ALARM.
- PROVIDE FACP WITH THE FOLLOWING CAPABILITIES:
 - DRILL SWITCH TO INITIATE AN EVACUATION SIGNAL.
 - EMERGENCY SWITCH TO INITIATE PRE-RECORDED MESSAGE.
 - GENERAL EMERGENCY SWITCH TO INITIATE PRE-RECORDED MESSAGE.
 - MANUAL PAGING CAPABILITIES TO NOTIFY OCCUPANTS OF SPECIFIC SITE EMERGENCIES.
 - SELECTOR SWITCHES FOR EACH ZONE FOR MANUAL PAGING CAPABILITIES TO NOTIFY OCCUPANTS OF SPECIFIC AREA AND SITE EMERGENCIES.
 - MATRIX SWITCH FOR EACH AIR HANDLING UNIT WITH A DUCT SMOKE DETECTOR FOR MANUAL SHUTDOWN OF PROTECTED HVAC EQUIPMENT.
 - REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE A REMOTE FAA WITH MANUAL PAGING CAPABILITIES TO NOTIFY OCCUPANTS OF SPECIFIC SITE EMERGENCIES.
- MONITOR EXISTING ANSUL SYSTEM SIGNAL INPUT.
- PROVIDE DUAL PATH CELLULAR COMMUNICATOR EQUAL TO STARLINK FIRE #SLE-LTEVI-FIRE COMMUNICATOR WITH SLE-ANTEXT75 ANTENNA & POWER SUPPLY. DUAL PATH CELLULAR ALARM TRANSMISSION FOR REPORTING OF FIRE ALARM SYSTEM STATUS TO 24-HOUR UL LISTED CENTRAL STATION; SIGNALS TROUBLE SUPERVISION AND ALARM CONDITIONS PER NFPA 72-26.3.1.5.
- ELECTRICAL CONTRACTOR SHALL CARRY ALL ASSOCIATED COSTS FOR INSTALLATION OF DUCT SMOKE DETECTORS BY A CERTIFIED HVAC CONTRACTOR. ELECTRICAL TO FURNISH EQUIPMENT FOR INSTALLATION BY HVAC CONTRACTOR. WIRING BY ELECTRICAL CONTRACTOR.
- PROVIDE SIGNAL TO SECURITY AND DOOR INTERCOM SYSTEM SYSTEM TO UNLOCK ALL (EQUIPPED WITH ELECTRONIC LOCKS) DOORS AT STAIRWELLS OR THAT ARE IN THE REQUIRED EGRESS PATH DURING FIRE ALARM CONDITION. COORDINATE WITH SECURITY VENDOR.
- PROVIDE POWER EXTENDER PANELS SIZED TO ACCOMMODATE NOTIFICATION APPLIANCE QUANTITIES ILLUSTRATED ON THE FLOOR PLANS WITH 20% ADDITIONAL SPARE CAPACITY.
- EXTERIOR WEATHERPROOF BEACON.
- PROVIDE SIGNAL TO EXISTING ELEVATOR RECALL SYSTEM. MAINTAIN EXISTING SYSTEM FUNCTIONALITY OF PRIMARY RECALL AND SECONDARY RECALL.
- PROVIDE ADDRESSABLE CONTROL MODULE TO DISENGAGE GAS SOLENOID VALVE UPON CARBON MONOXIDE DETECTION OR UPON ANSUL ACTIVATION.

WIRING NOTES

- PANEL INTERCONNECTION (CLASS-A) NETWORK, AUDIO AND SYNC LOOP CABLES SHALL BE 2-HOUR FIRE RATED CIRCUIT INTEGRITY CABLES RUN IN CONDUIT. COORDINATE QUANTITY OF CABLES AND CONDUITS WITH APPROVED MANUFACTURER'S SHOP DRAWINGS AND RECOMMENDATIONS.
- ANNUNCIATOR CABLES SHALL BE 2-HOUR FIRE RATED CIRCUIT INTEGRITY CABLES RUN IN CONDUIT. COORDINATE QUANTITY OF CABLES AND CONDUITS WITH APPROVED MANUFACTURER'S SHOP DRAWINGS AND RECOMMENDATIONS.
- CABLES SUPPORTING CELLULAR MASTER BOX SIGNAL TRANSMISSION, OF SHALL BE 2-HOUR FIRE RATED CIRCUIT INTEGRITY CABLES RUN IN CONDUIT. COORDINATE QUANTITY OF CABLES AND CONDUITS WITH APPROVED MANUFACTURER'S SHOP DRAWINGS AND RECOMMENDATIONS.

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REVISIONS

DATE CHK DESCRIPTION

DATE	CHK	DESCRIPTION

SEAL

PROJECT

NUMBER: 20190286
DATE: 05/24/19

LONGMEADOW CENTER SCHOOL FIRE ALARM REPLACEMENT

DRAWING

DRAWN BY: JRP
CHECKED BY: KEG
SCALE: NO SCALE
ELECTRICAL
FIRE ALARM
RISER DIAGRAM

ISSUE FOR BID
07-03-19