

MECHANICAL CONTRACTOR SHALL PROVIDE SAMPLING TUBE FOR SMOKE DETECTION. FIRE ALARM CONTRACTOR SHALL PROVIDE SMOKE DETECTOR & WIRE AS REQUIRED. (TYPICAL)

STROBES AND HORNS MAY BE ON THE SAME ALARM CIRCUIT

ACTIVATION OF FIRE ALARM SHALL INITIATE A SIGNAL USING AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM IN ACCORDANCE WITH NFPA 72

SCOPE OF WORK

FURNISH AND INSTALL ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR CONNECTION OF DEVICES TO THE NEW FIRE ALARM SYSTEM, AS COVERED BY THESE SPECIFICATIONS. TO BE WIRED, CONNECTED AND LEFT IN FIRST CLASS OPERATING CONDITION. ALL EQUIPMENT SHALL BE U.L. LISTED, CONFORM TO REVISED IBC, NFPA CODES 70, 72, 80A, AND 101, AND MEET THE REQUIREMENTS OF THE BUILDING AND ELECTRICAL CODES. FIRE ALARM DEVICES SHALL INCLUDE BUT NOT BE LIMITED TO ADA COMPLIANT HORN, STROBES, MANUAL PULL STATIONS, SMOKE DETECTORS, HEAT DETECTORS AND FIRE ALARM PANEL.

1 FIRE ALARM RISER DIAGRAM

SCALE: N.T.S.

FIRE ALARM SYSTEM LEGEND

- [F] NEW MANUAL PULL STATION
- [V] NEW AUDIBLE AND VISUAL ALARM SIGNAL
- [V] NEW VISUAL ONLY ALARM SIGNAL
- [S] NEW SMOKE DETECTOR
- [H] NEW HEAT DETECTOR
- [D-S-R] ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR "D" DENOTES MOUNTED ON SUPPLY SIDE "R" DENOTES MOUNTED ON RETURN SIDE
- [C] ADDRESSABLE CONTROL MODULE
- [RI] REMOTE INDICATOR
- [FS] FLOW SWITCH ON FIRE PROTECTION PIPING
- [TS] TAMPER SWITCH ON FIRE PROTECTION VALVE
- [PS] PRESSURE SWITCH
- [FACP] FIRE ALARM CONTROL PANEL
- [FAA] REMOTE FIRE ALARM ANNUNCIATION
- [ID] ADDRESSABLE INITIATING DEVICE CIRCUIT INTERFACE MODULE
- [C] ADDRESSABLE CONTROL MODULE
- [M] ADDRESSABLE CONTACT MONITOR MODULE
- [EOL] END OF LINE RESISTOR
- [FD] FIRE DAMPER

NOTES:

- THIS DIAGRAM IS GENERALIZED REPRESENTATION INTENDED TO SHOW OVERALL ARRANGEMENT OF THE FIRE ALARM SYSTEM AND RELATIONSHIPS TO OTHER BUILDING SYSTEMS
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS DETAILING, BUT NOT LIMITED TO, ALL OF THE FOLLOWING:
 - BATTERY CALCULATIONS.
 - CONDUCTOR TYPE AND SIZES
 - VOLTAGE DROP CALCULATIONS
 - MANUFACTURER'S MODEL NUMBERS AND LISTING INFORMATION FOR EQUIPMENT, DEVICES AND MATERIALS.
 - THE INTERFACE OF FIRE SAFETY CONTROL FUNCTIONS, MANUFACTURER WIRING DIAGRAMS AND SHOP DRAWINGS.
- ALL WIRING AND CONDUIT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, MANUFACTURER WIRING DIAGRAMS AND SHOP DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL INTERCONNECTING WIRING BETWEEN FIRE ALARM AND HVAC/ELECTRICAL EQUIPMENT AS INDICATED AND/OR AS REQUIRED.
- FOR NUMBER AND LOCATION OF DUCT SMOKE DETECTORS REFER TO HVAC DRAWINGS. DUCT DETECTORS ARE TO BE WIRED TO THE FIRE ALARM CONTROL PANEL.
- FOR NUMBER AND LOCATION OF PRESSURE, FLOW AND TAMPER SWITCHES REFER TO FIRE PROTECTION DRAWINGS
- FIRE ALARM SYSTEM SHALL COMPLY WITH NFPA 72 "NATIONAL FIRE ALARM CODE"

FIRE ALARM SYSTEM - NOTES

- THE FIRE ALARM PLAN SHOWN IS AN INDICATION OF THE WORK REQUIRED AND SHALL BE USED FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT A POINT TO POINT WIRING DIAGRAM FROM THE FIRE ALARM VENDOR AND PERFORM ALL WORK IN ACCORDANCE WITH THAT DIAGRAM.
- THE OPERATION OF FIRE ALARM INSTALLATION DOES NOT CONSTITUTE AN ACCEPTANCE OF WORK BY THE OWNER. FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT THE WORK FULFILLS THE REQUIREMENTS OF THE PLAN AND SPECIFICATIONS AND HAS FURNISHED ALL REQUIRED CERTIFICATES OF APPROVAL FROM THE STATE AUTHORITIES, MUNICIPAL AUTHORITIES AND UNDERWRITERS
- THE FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE TYPE SYSTEM. ALL INITIATING, MONITORING AND CONTROL DEVICES SHALL BE ADDRESSABLE.
- LOCATION OF SMOKE DETECTORS: SPOT TYPE SMOKE DETECTORS SHALL BE LOCATED ON THE CEILING NOT LESS THAN 4 IN FROM A SIDEWALL TO THE NEAR EDGE OR WHERE ON A SIDEWALL BETWEEN 4IN AND 12IN DOWN FROM THE CEILING TO THE TOP OF THE DETECTOR.
- LOCATION OF AUDIBLE/VISIBLE SIGNAL APPLIANCES: WALL MOUNTED APPLIANCES SHALL HAVE THEIR BOTTOMS AT HEIGHTS ABOVE THE FINISHED FLOOR OF NOT LESS THAN 80 IN AND NO GREATER THAN 96 IN. IF THE CEILING IS HEIGHT EXCEED 30IN THE APPLIANCES SHALL BE SUSPENDED AT OR BELOW 30IN.
- THE FIRE ALARM SYSTEM SHALL NORMALLY BE POWERED BY A UTILITY DISTRIBUTION SYSTEM. THE FIRE ALARM CONTROL PANEL SHALL HAVE AN INTEGRAL, STANDBY, SEALED, RECHARGEABLE BATTERY CAPABLE OF POWERING THE SYSTEM IN ACTIVE MODE FOR AT LEAST 60 HOURS IN THE EVENT OF PRIMARY POWER FAILURE. THE TRANSFER TO STANDBY BATTERY POWER SHALL BE AUTOMATIC AND WITHOUT INTERRUPTION TO OPERATION.
- LOCATION OF MANUAL FIRE ALARM BOXES: EACH MANUAL FIRE ALARM BOX SHALL SECURELY MOUNTED. THE OPERABLE PART OF EACH MANUAL FIRE ALARM BOX SHALL NOT BE LESS THAN 3 1/2 FT AND NOT MORE THAN 4 1/2 FT ABOVE FLOOR LEVEL. MANUAL FIRE ALARM BOXES SHALL BE DISTRIBUTED THROUGHOUT THE PROTECTED AREA SO THAT THEY ARE UNOBSTRUCTED AND READILY ACCESSIBLE. THEY SHALL BE LOCATED IN THE NORMAL PATH OF EXIT FROM THE AREA WITH A MANUAL FIRE ALARM BOX AT EACH EXIT ON EACH FLOOR. ADDITIONAL MANUAL FIRE ALARM BOXES SHALL BE PROVIDED SO THAT TRAVEL DISTANCE TO THE NEAREST FIRE ALARM BOX WILL NOT BE EXCESS OF 200 FT MEASURED HORIZONTALLY ON THE SAME FLOOR.
- ACTIVATION OF ANY FIRE ALARM EQUIPMENT SHALL SHUT OFF ALL HVAC UNITS.
- AIR HANDLER UNITS SHALL UTILIZE ADDRESSABLE CONTROL MODULES FOR UNIT SHUTDOWN, AND DAMPER CONTROLS.
- TIE FIRE ALARM TO SECURITY SYSTEM FOR DOOR RELEASE UPON ALARM ACTIVATION.
- THE FIRE ALARM SYSTEM INCLUDING DUCT DETECTORS SHALL BE ELECTRICALLY OR ELECTRONICALLY MONITORED FOR INTEGRITY SO THAT ANY MALFUNCTION OF THE SYSTEM, SUCH AS AN ALACRICAL OPEN, AGROUND FAULT, OR ANY SHORT CIRCUIT FAULT MONTE MAIN POWER SUPPLY, SIGNALING LINE, OR ALARM-FIRE SAFETY CONTROL CIRCUIT, WILL INDICATE A VISUAL AND AUDIBLE SIGNAL AT THE ALARM PANEL WHEN PROPER ALARM OPERATION WOULD BE PREVENTED.
- ACTUATION OF THE SPRINKLER WATER FLOW AND/OR TEMPER SWITCH SHALL ACTIVATE THE FIRE ALARM SYSTEM.

SEISMIC INSTALLATION REQUIREMENTS

- ALL ELECTRICAL INSTALLATION SHALL COMPLY WITH SEISMIC RESTRAINT LOADING SITE CLASS "B" FOR THE GROUP I DEFINED IN THE IBC REQUIREMENTS.
- THE COMPONENT IMPORTANCE FACTOR SHALL BE 1, RESPONSE MODIFICATION FACTOR SHALL BE 3.0 AND AMPLIFICATION FACTOR SHALL BE 2.25.

KEY NOTES:

- ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR "R" DENOTES MOUNTED ON RETURN SIDE. COORDINATE EXACT LOCATION WITH HVAC CONTRACTOR.



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1	1/17/14	FOR PERMIT	IHK
1	7/15/15	FOR PERMIT	IHK

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Drawn By: KH
Approved By: IHK

Drawing Name: FIRE ALARM RISER, NOTES & LEGEND

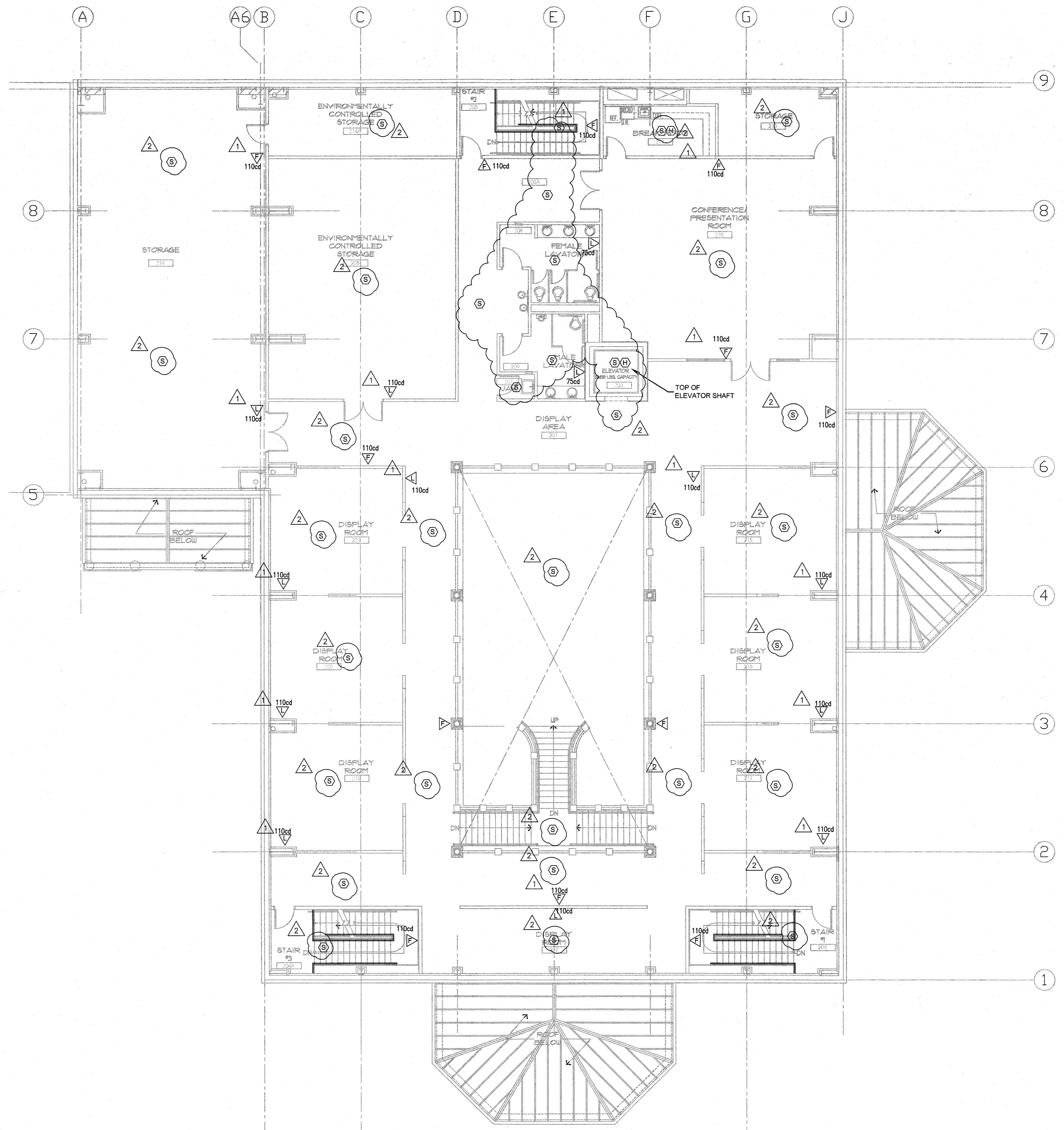
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1 SECOND FLOOR FIRE ALARM PLAN
 SCALE: 1/8" = 1'-0"

ISSUE			
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Drawing Number: **FA-201**

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