GENERAL FIRE ALARM NOTES

- 1. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE WITH BUILDING FIRE ALARM MAINTENANCE VENDOR FOR TYPE OF FIRE ALARM DEVICES TO BE USED. ALL NEW DEVICES INSTALLED SHALL BE COMPATIBLE AND CONSISTENT WITH THE EXISTING BUILDING FIRE ALARM SYSTEM INSTALLATION.
- 2. FOR BUILDING FIRE ALARM VENDOR COORDINATE WITH THE BUILDING ENGINEER.
- 3. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN THE SERVICES OF THE BASE BUILDING FIRE ALARM VENDOR TO DEVELOP AND DESIGN A CODE COMPLIANT, FULLY FUNCTIONAL FIRE ALARM SYSTEM, THE DESIGN DOCUMENTS INDICATE GENERAL INTENT OF AUDIO, VISUAL, AND ACTIVATION DEVICES. ELECTRICAL CONTRACTOR SHALL INCLUDE IN THEIR BID ALL DEVICES REQUIRED BY LOCAL FIRE ALARM INSPECTORS INCLUDING, BUT NOT LIMITED TO SMOKE DETECTORS, PULL STATIONS, WARDEN STATIONS, INTERFACE RELAYS, CONTROL PANELS, POWER BOOSTER PANELS, STROBE PANELS, ADDITIONAL AMPLIFIERS, ETC. CONTRACTOR AND VENDOR SHALL ALSO INCLUDE ALL COMPONENTS TO UPGRADE THE EXISTING BASE BUILDING SYSTEM EXPANSION INCLUDING, BUT NOT LIMITED TO, ADDITIONAL DGP PANELS. RELAY CARDS, STROBE BOOSTER PANELS, AMPLIFIERS, ETC..
- 4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH BUILDING CODE, DEPARTMENT OF BUILDINGS DIRECTIVES. NATIONAL ELECTRICAL CODE ARTICLE 760 (NEC), MECHANICAL CODE, NFPA STANDARDS AND ALL OTHER APPLICABLE CODES AND REGULATIONS
- 5. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH FILING REPRESENTATIVE AND ENSURE THAT ALL DRAWINGS AND DOCUMENTATION HAS BEEN SUBMITTED FOR FILING AND APPROVAL PRIOR TO THE COMMENCEMENT OF WORK. ALL PERMIT COSTS AND INSPECTION FEES SHALL BE INCLUDED AS PART OF THIS CONTRACT. NO WORK SHALL BE COMMENCED UNTIL PLANS ARE APPROVED AND PERMITS FOR FIRE ALARM AND ELECTRICAL WORK IS ISSUED BY THE AHJ.
- 6. THE ELECTRICAL CONTRACTOR/FIRE ALARM VENDOR SHALL PROVIDE AN AUTOCAD AS BUILT DOCUMENT TO RYAN SOAMES ENGINEERING TO SIGN AND SEAL DOCUMENTS REQUIRED FOR AS BUILT SIGN OFF, INSPECTION AND TO OBTAIN FINAL LETTER OF APPROVAL. THIS FILE SHALL INCLUDE AN 11X17 AS BUILT DRAWING, STATEMENT OF OPERATION, NFPA PROGRAMMING MATRIX AND CONTRACTOR'S COMPLETION NOTE AND LOCATION FOR SIGNATURE. RISER DIAGRAM SHALL INCLUDE WIRING GUAGE & QUANTITY. DEVICES SHALL BE DIVIDED INTO CIRCUITS AS INSTALLED IN FIELD AND EACH DEVICE SHALL BE TAGGED WITH A REFERENCE FOR LOCATION IN FIELD (IE. CONFERENCE ROOM, ELEVATOR LOBBY, ETC.) AUTOCAD FILE SHALL BE SUBMITTED TO RYAN SOAMES ENGINEERING A MINIMUM OF FOUR (4) BUSINESS DAYS PRIOR TO DATE OF INSPECTION. HARD COPIES FOR SIGNATURE BY RYAN SOAMES ENGINEERING SHALL NOT BE ACCEPTABLE, AS INFORMATION MUST BE PLACED ON RYAN SOAMES ENGINEERING TITLE BLOCK FOR RYAN DAMES ENGINEERING SIGNATURE
- 7. IF A LETTER OF DEFECT IS ISSUED BY THE FIRE DEPARTMENT, THE CONTRACTOR SHALL CORRECT ALL ITEMS AND MAKE REQUEST FOR RE-INSPECTION TO OBTAIN A FINAL LETTER OF APPROVAL AT NO ADDITIONAL COST TO OWNER. IF A REVISED AS-BUILT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE REVISED AS-BUILT DRAWINGS IN ACCORDANCE WITH NOTE #6 PRIOR TO SUBMITTING FORM.
- 8. FIRE ALARM RISER DIAGRAM SHOWN IS FOR GENERAL ARRANGEMENT AND SHALL BE USED FOR ESTIMATING ONLY. ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS AND OBTAIN POINT TO POINT WIRING DIAGRAM FROM BUILDING FIRE ALARM VENDOR PRIOR TO INSTALLATION, THAT IS CONSISTENT WITH LOCAL FIRE MARSHALL OFFICE REQUIREMENTS.
- 9. SUBMISSION OF BID ACKNOWLEDGES THAT ELECTRICAL CONTRACTOR HAS CONTACTED THE BASE BUILDING VENDOR AND HAS INCLUDED ALL COMPONENTS FOR A CODE COMPLIANT SYSTEM. ADDITIONAL CLAIMS FOR CHANGES IN VENDOR SCOPE OR ADDITIONAL DEVICES/COMPONENTS, UNLESS INITIATED BY TENANT, WILL NOT BE ACCEPTED.
- 10. ALL PROGRAMMING MUST BE UNDERTAKEN BY THE BASE BUILDING FIRE ALARM VENDOR AND ALL FINAL TERMINATIONS MUST BE SUPERVISED (AS A MINIMUM) BY A FIRE ALARM VENDOR TECHNICIAN. ELECTRICAL CONTRACTOR SHALL RETAIN BUILDING FIRE ALARM VENDOR FOR THIS SCOPE. ALL COST ASSOCIATED WITH CONNECTIONS AND REPROGRAMMING OF THE EXISTING FIRE ALARM SYSTEM TO BE PAID BY THIS CONTRACTOR, AND INCLUDED IN THE BASE BID.
- AT COMPLETION OF WORK, CONTRACTOR SHALL DELIVER FDNY LETTER OF APPROVAL TO OWNER/TENANT, AND A COPY TO BUILDING LANDLORD AND BUILDING MANAGEMENT. CONTRACTOR SHALL ALSO PROVIDE COPIES OF APPROVED FIRE ALARM PLANS AND ANY APPLICABLE FORMS TO OWNER/TENANT AND BUILDING
- 12. ELECTRICAL CONTRACTOR/FIRE ALARM VENDOR SHALL SUBMIT FLOOR PLAN SHOP DRAWINGS INDICATING LOCATION OF ALL DEVICES, WIRING OF DEVICES, AND ALL CIRCUITS ON FLOOR. SHOP DRAWING SHALL ALSO INDICATE LOCATION OF END OF LINE RESISTORS.
- 13. ALL EQUIPMENT SHALL BE UL LISTED, SHALL MEET REQUIREMENTS OF NFPA 72 AND 90A, ALL APPLICABLE CODES AND LOCAL LAWS, AND BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. ALL FINAL CONNECTIONS TO BE MADE BY THIS CONTRACTOR WITH THE APPROVAL AND SUPERVISION OF THE BASE BUILDING FIRE ALARM SYSTEM
- 14. FIRE ALARM CABLES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
- A MINIMUM TEMPERATURE RATING OF 200°C.
- A MINIMUM AVERAGE INSULATION THICKNESS OF 15 MILS. A MINIMUM AVERAGE JACKET THICKNESS OF 25 MILS.
- THE COLOR OF THE CABLE SHALL BE RED. THE CABLE SHALL BE TYPE FPLP (PLENUM TYPE)
- THE CABLE SHALL BE VISIBLY MARKED EXTERNALLY "FIRE ALARM".
- THE CABLE SHALL MEET THE ABOVE REQUIREMENTS AND HAVE UL 1424 AND UL 910 LISTING. CABLES SHALL BE APPROVED FOR LOCAL AHJ.
- CABLES SHALL BE LABELED AS PER THE NATIONAL ELECTRICAL CODE (NEC), NFPA STANDARDS AND ALL
- OTHER APPLICABLE CODES AND REGULATIONS
- 16. ALL WIRING INCLUDING THE GROUNDING TO BE INSTALLED ACCORDING TO THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE (NEC).
- 17. ALL SIGNAL WIRING SHALL BE RATED FOR CIRCUIT SURVIVABILITY LEVEL 2 OR GREATER AND PATHWAYS SHALL BE CLASS A, B, OR, X AS DIRECTED BY THE BUILDING'S FIRE ALARM VENDOR. ALL WIRING INCLUDING NEEDED TO SURVIVABILITY AND PATHWAY DESIGNATION REQUIREMENTS IS TO BE INCLUDED IN BID PRICING. (NYC: CIRCUIT SURVIVABILITY IS PERMITTED TO BE LEVEL 1 WHERE PATHWAY DESIGNATION IS CLASS A OR X AND REDUNDANT PATHWAY IS SEPARATED BY 15 FEET). ALL SHOP DRAWING AND AS-BUILT FIRE ALARM DRAWINGS SUBMITTED UNDER THIS CONTRACT SHALL INDICATE THE CIRCUIT SURVIVABILITY LEVEL AND CIRCUIT CLASS OF ALL FIRE ALARM CIRCUITS USED UNDER THIS CONTRACT.
- 18. ELECTRICAL CONTRACTOR/FIRE ALARM VENDOR SHALL CONFIRM, PRIOR TO BID, THAT ALL EXISTING DEVICES AND WIRING ARE CODE COMPLIANT. IF DEVICES AND WIRING ARE NOT COMPLIANT REPLACEMENT OF DEVICES AND WIRING SHALL BE INCLUDED IN BASE BID. ADDITIONAL CLAIMS FOR CHANGES IN SCOPE TO REPLACE EXISTING DEVICES, AFTER SUBMISSION OF BID WILL NOT BE ACCEPTED. ALTERNATE NOTE: ELECTRICAL CONTRACTOR/FIRE ALARM VENDOR SHALL INCLUDE THE REPLACEMENT OF ALL EXISTING FIRE ALARM DEVICES AND WIRING IN THEIR BASE BID, WITH A DEDUCT ALTERNATE TO MAINTAIN EXISTING WIRING AND DEVICES FOR REUSE.
- 19. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND PROTECT ALL FIRE ALARM SPEAKERS, SMOKE DETECTORS, FIRE WARDEN STATIONS AND OTHER FIRE ALARM SAFETY DEVICES IN OPERATION AT ALL TIMES.
- 20. IF ANY PORTION OF THE FIRE ALARM SYSTEM IS DISABLED, NOTIFY BUILDING MANAGER IMMEDIATELY. COORDINATE WITH BUILDING MANAGEMENT IN ADVANCE TO ALLOW ADEQUATE TIME FOR TEMPORARY FIRE WATCHES TO BE SCHEDULED.
- 21. ANYTIME A CONNECTION OR REMOVAL INVOLVING THE CLASS "E" SYSTEM IS REQUIRED, THE CONTRACTOR SHALL CONTACT BUILDING OPERATIONS BEFORE TOUCHING ANY WIRE, COMPONENT OR DEVICE CONNECTED TO THE SYSTEM.
- 22. FIRE ALARM EQUIPMENT SHALL BE POWERED THROUGH AN APPROVED FUSE DISCONNECT CONNECTED AHEAD OF THE MAIN SERVICES SWITCH. FUSE DISCONNECT TO BE LOCATED WITHIN 5 FEET OF THE CONNECTION POINT, PAINTED RED AND SUPPLIED WITH A LOCK. ALL WIRING SHALL BE MINIMUM #12 AWG THHN OR EQUIVALENT RUN IN 3/4 INCH MINIMUM RGS AND IN ACCORDANCE WITH NYC REQUIREMENTS. FUSES SHALL BE CARTRIDGE TYPE WITH A SOLID BAR COPPER NEUTRAL

- 23. ELECTRICAL CONTRACTOR MAY REUSE EXISTING SPEAKER OR STROBE CIRCUITS ON THE FLOOR AS LONG AS THEY ARE CODE COMPLIANT AND IN A FULLY FUNCTIONING CONDITION. IF CIRCUITS ARE NOT ADEQUATE TO SUPPORT LOAD, PROVIDE A MINIMUM OF TWO (2) CIRCUITS FOR FIRE ALARM SYSTEM SPEAKERS AND, A MINIMUM OF TWO (2) CIRCUITS FOR FIRE ALARM SYSTEM STROBES. CONNECT SPEAKERS AND STROBES ON ALTERNATING CIRCUITS SO THAT THE FAILURE OF ONE CIRCUIT WILL NOT DISABLE TOTAL ALARM AUDIBILITY THROUGHOUT THE FLOOR. DEVICES SHALL BE ALTERNATELY WIRED THROUGHOUT THE FLOOR SO THAT NO TWO DEVICES, ADJACENT TO EACH OTHER IN A GIVEN FIELD OF VIEW SHALL BE ON THE SAME CIRCUIT. PROVIDE ADDITIONAL STROBE PANELS AS REQUIRE PER NOTE #3.
- 24. ALL VISUAL FIRE ALARM STROBE DEVICES SHALL BE SYNCHRONIZED WITHIN A GIVEN FIELD OF VIEW.
- 25. ALL NEW FIRE ALARM CABLE SHALL BE RUN PARALLEL AND PERPENDICULAR NO DIAGONAL RUNS. SUPPORTS SHALL BE PROVIDED EVERY 5'-0" ON CENTER. CONTRACTOR SHALL RE-SUPPORT ALL EXISTING FIRE ALARM WIRING ON FLOOR TO ASSURE COMPLIANCE WITH 5'-0" ON CENTER SUPPORT REQUIREMENT.
- 26. DO NOT RUN FIRE ALARM CABLE IN THE SAME RACEWAY WITH NON FIRE ALARM CABLE.
- 27. NO CONDUITS ARE TO ENTER THE TOP OF A FIRE ALARM CONTROL PANEL REGARDLESS OF SYSTEM TYPE OR
- 28. AVOID INSTALLING FIRE ALARM CABLES NEAR SOURCES OF ALTERNATING CURRENT. (LIGHTING, POWER, ETC.).
- 29. ANY REQUIREMENTS FOR SHIELDING CERTAIN CONDUCTORS OR RUNNING THEM IN SEPARATE RACEWAYS SHALL BE AS RECOMMENDED BY THE MANUFACTURERS DOCUMENTATION.
- 30. ALL NEW EXPOSED TEFLON WIRE SHALL BE SLEEVED AND SEALED AT ALL FIRE RATED WALL AND FLOOR PASSAGES. SEALANT SHALL BE 3M FIRE BARRIER CP-25
- 31. OBSERVE ALL POLARITY ON ALL FIRE ALARM CIRCUITS. NO TEE TAPPING IS PERMITTED ON ALARM INDICATING CIRCUITS (STROBES, SPEAKERS, ETC.).
- 32. ALL FIRE ALARM WIRE SHALL BE CLEARLY LABELED IN JUNCTION BOXES AND CABINETS. CONDUCTORS IN CABINETS SHALL BE FORMED SO THAT THEY DROP OFF DIRECTLY OPPOSITE TO ITS TERMINAL CONNECTION. ALL TERMINALS SHALL BE NUMBERED AND LABELED IN EVERY CABINET.
- 33. ALL FIRE ALARM PANELS, JUNCTION BOX COVERS, ETC. SHALL BE PAINTED "FIRE DEPARTMENT RED".
- 34. DEVICE LOCATIONS MUST BE READILY ACCESSIBLE TO ALLOW FOR MAINTENANCE AND REPAIR.
- 35. ALL FIRE ALARM DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED.
- 36. PROVIDE OUTLET BOXES, ETC... FOR ALL DEVICES AS REQUIRED
- 37. ALL CEILING MOUNTED DEVICES MUST BE SECURELY FASTENED TO THE BUILDING STRUCTURE. ALL WALL-MOUNTED DEVICES SHALL BE SECURELY MOUNTED IN PLACE. PLASTIC ANCHORS ARE NOT
- 38. ALL SMOKE DETECTORS USED FOR DOOR RELEASE SERVICE SHALL COMPLY WITH THE BUILDING CODE AND NFPA 72.
- 39. INSTALL SMOKE DETECTORS A MINIMUM OF 3'-0" FROM ANY SUPPLY OR RETURN OPENING.
- 40. ALL DUCT MOUNTED SMOKE DETECTORS INSTALLED CONCEALED ABOVE HUNG CEILING, ETC, SHALL BE PROVIDED WITH A REMOTE LED IN CEILING TO PROVIDE A RAPID VISIBLE INDICATION OF THE DETECTOR LOCATION AND STATUS FROM THE OCCUPIED SPACE.
- 41. PROVIDE REMOTE LED FOR FSD'S ABOVE HUNG CEILING. LED TO BE VISIBLE FROM TENANT SPACE TO INDICATE LOCATION/OPERATION.
- 42. SPEAKERS SHALL BE TAPPED TO PROVIDE 15dB ABOVE THE AMBIENT NOISE LEVEL, UNLESS OTHERWISE NOTED, SPEAKERS SHALL BE TAPPED AT 1/4 WATT MINIMUM IN OFFICE AREAS. CONTRACTOR SHALL PERFORM SOUND POWER TESTING BEFORE AND AFTER THE INSTALLATION IS COMPLETE AND SHALL ADJUST TAP SETTING AS REQUIRED TO OBTAIN THE REQUIRED SOUND LEVEL.
- 43. SPEAKER/STROBE UNITS SHALL NOT HAVE ANY OTHER DEVICES OR APPARATUS WITHIN FIVE (5) FEET OF DEVICE.
- 44. SPEAKER/STROBE DEVICES SHALL BE INSTALLED IN ALL COMMON AREAS SO THAT NO SPACE IS MORE THAN 50 FEET FROM A SPEAKER STROBE.
- 45. STROBE DEVICES SHALL BE PROVIDED WITH 15/30/75 /110 FIELD ADJUSTABLE CANDELA RATING TO MATCH REQUIRED CANDELA RATING WITH SPACE DEVICES IS LOCATED IN. CANDELA RATING SHALL BE FIELD ADJUSTED BY FIRE ALARM VENDOR DURING SYSTEM PRE-TEST, PRIOR TO FIRE DEPARTMENT INSPECTION.
- 46. ALL FIRE ALARM SPEAKERS TO BE RELOCATED DUE TO RENOVATION SHALL BE MOVED UNDER THE DIRECT SUPERVISION OF BUILDING OPERATIONS. CONNECTIONS ON SPEAKERS SHALL BE SOLDERED, TAPED AND IN JUNCTION BOXES PAINTED RED.
- 47. ALL WIRING TO BE CHECKED TO INSURE THAT THEY ARE FREE OF ANY OPENS, SHORTS OR GROUNDS
- 48. END OF LINE RESISTOR LOCATIONS SHALL BE PERMANENTLY LABELED ON INSTALLED DEVICE IN FIELD.
- 49. WHEN AN ALARM SIGNAL DEACTIVATION MEANS IS ACTUATED, BOTH AUDIBLE AND VISIBLE NOTIFICATION APPLIANCES SHALL BE SIMULTANEOUSLY DEACTIVATED IN ACCORDANCE WITH THE BUILDING CODE.
- 50. SHUTDOWN OF A/C UNITS ON FLOOR SHALL BE PERFORMED VIA A RELAY INTERFACE WITH THE CLASS FIRE ALARM SYSTEM. COMPUTER ROOM A/C UNITS SHALL ONLY BE SHUTDOWN UPON ACTIVATION OF UNITS DUCT MOUNTED DETECTOR, A/C UNIT RE-START SHALL BE MANUAL AT EACH UNIT, PROVIDE REQUIRED COMPONENTS IN A NEMA-1 ENCLOSURE PAINTED RED WITH A MOMENTARY PUSHBUTTON. PROVIDE AN ENGRAVED NAMEPLATE READING "A/C UNIT RESTART". RESTART BUTTON SHALL BE LOCATED ADJACENT TO UNIT SERVED. FANS SHALL ALSO HAVE THE CAPABILITY TO BE RESTARTED FROM THE MAIN BUILDING FIRE
- 51. AFTER ALARM INDICATION ALL FANS SHALL BE MANUALLY RESET INDEPENDENT OF FACP RESET.
- 52. AFTER THE SYSTEM MODIFICATIONS ARE COMPLETE, TEST ALL COMPONENTS IN ACCORDANCE WITH SEQUENCE OF OPERATION PRIOR TO FIRE INSPECTION.
- 53. THE SYSTEM SHALL BE PRE-TESTED IN THE PRESENCE OF THE OWNER DURING NON BUSINESS HOURS AS PART OF THE CONTRACT. INSTALLER SHALL BE RESPONSIBLE FOR PROVIDING A SYSTEM ACCEPTABLE TO THE OWNER, AND SHALL PROVIDE ANY ADDITIONAL TESTING AND ADJUSTING AT NO ADDITIONAL COST TO THE SATISFACTION TO THE OWNER. AFTER SUCCESSFUL COMPLETION OF PRE-TEST, CONTRACTOR SHALL SCHEDULE A FIRE DEPARTMENT INSPECTION.
- 54. THE OPERATION OF THE FIRE ALARM INSTALLATION DOES NOT CONSTITUTE AN ACCEPTANCE OF THE WORK BY THE OWNER. FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT THE WORK FULFILLS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND HAD FURNISHED ALL REQUIRED CERTIFICATES OF APPROVAL FROM THE STATE AUTHORITIES, MUNICIPAL AUTHORITIES AND UNDERWRITERS.
- 55. IN ADDITION TO THE QUANTITIES INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING ADDITIONAL ITEMS WITH ALL REQUIRED CIRCUITRY IN ACCORDANCE WITH THE APPLICABLE
- SECTIONS OF THE SPECIFICATIONS, AT LOCATIONS AS DIRECTED IN THE FIELD: THREE (3) COMBINATION SPEAKER (HORN) /STROBE UNITS
- TWO (2) STROBE UNITS
- TWO (2) AREA SMOKE DETECTORS TWO (2) DUCT SMOKE DETECTORS
- TWO (2) FAN SHUTDOWN RELAYS
- TWO (2) MONITOR MODULES
- TWO (2) FIRE ALARM RELAYS AT THE COMPLETION OF CONTRACT, CONTRACTOR SHALL TURN OVER ANY UNUSED DEVICES TO FA VENDOR. CONTRACTOR SHALL PROVIDE A CREDIT TO CLIENT FOR DEVICES INCLUDED IN THIS SECTION THAT WERE NOT UTILIZED IN REVISIONS TO THE PLANS OR VERBAL AND/OR WRITTEN DIRECTION OF CHANGES.

ABBRE	EVIATION
A	AMP/AMPERE
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FURNISHED FLOOR
AHJ	AUTHORITIES HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AWG	AMERICAN WIRE GAUGE
C, CDT	CONDUIT
CAC	COMPUTER ROOM GRADE AIR CONDITIONING UNIT
CKT	CIRCUIT
CU	COPPER
DGP	DATA GATHERING PANEL
DWG	DRAWING
E	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ELEC	ELECTRICAL
EM	EMERGENCY
(ER)	EXISTING TO BE RELOCATED
FA	FIRE ALARM

FIRE ALARM FBO FURNISHED BY OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR FCO FUSED CUT OUT FCS FIRE COMMAND STATION FURNISHED AND INSTALLED BY OTHERS, WIRED BY THE ELECTRICAL CONTRACTOR FIBO FSD FIRE SMOKE DAMPER FT FEET G, GND GROUND GEN GENERATOR

HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
MAX	MAXIMUM
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MER	MECHANICAL EQUIPMENT ROOM
MTD	MOUNTED
N	NEW
NE	NEW TO REPLACE EXISTING

NOT IN CONTRACT NTS NOT TO SCALE PB PULL BOX REMOVE EXISTING EQUIPMENT REMOTE COMPUTERIZED UNIT PANEL

RE RELOCATED EXISTING (NEW LOCATION) RM ROOM SMOKE DETECTOR SPEC SPECIFICATION TTB TERMINAL BOX

TYPICAL

REMOVE

UON UNLESS OTHERWISE NOTED WIRE WEATHERPROOF

TYP

FIRE ALARM AUDIBILITY DESIGN CRITERIA

AUDIBLE NOTIFICATION DEVICES - DESIGN CRITERIA	AMBIENT LEVEL	DESIGN GOAL
ROOMS	55 DBA	> 70 DBA
CORRIDORS	55 DBA	> 70 DBA
OPEN AREAS	45 DBA	> 60 DBA
MECHANICAL ROOMS	85 DBA	> 100 DBA

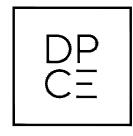
FIRE ALARM LEGEND EL - FOR ELEVATOR RECALL FLUSH WALL MOUNTED STROBE LIGHT INTERFACE MODULE WITH OUTPUT RELAY FLUSH WALL MOUNTED DUAL ACTION MANUAL PULL STATION WALL MOUNTED SPEAKER/STROBE MAGNETIC DOOR HOLD OPEN DEVICE WITH INTERFACE RELAY (WS) WARDEN STATION

LINE REPRESENTATION					
	NEW				
	EXISTING TO REMAIN				
	EXISTING TO BE REMOVED				

DRAWIN	IG LIST
FA-001.00	FIRE ALARM GEN NOTES, SYMBOLS, ABBR, PARTIAL RISER DIAGRAM AND DRAWING LIST
FA-002.00	FIRE ALARM SPECIFICATIONS
FA-101.00	FIRE ALARM DEVICE PLAN GROUND FLOOR
FA-601.00	FIRE ALARM PARTIAL RISER DIAGRAM



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DRAWN BY:

PROJECT ENGINEER:

DRAWING: FIRE ALARM SYMBOLS AND NOTES **SCALE:**

NOT TO SCALE



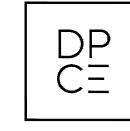
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FIRE ALARM SPECIFICATIONS

- A. REFER TO ELECTRICAL SPECIFICATIONS FOR GENERAL CONSTRUCTION REQUIREMENTS TO BE CARRIED OUT UNDER THE ELECTRICAL CONTRACTOR'S SCOPE OF WORK THAT MAY ALSO ASSOCIATE WITH THE PROPER INSTALLATION OF THE MODIFIED FIRE ALARM SYSTEM.
- B. INSTALL NEW FIRE ALARM DEVICES AS AN EXTENSION OF THE EXISTING SYSTEM IN THE BUILDING.
- C. THE FIRE ALARM SYSTEM MODIFICATION SHALL UTILIZE EQUIPMENT AND DEVICES TO MATCH THE EXISTING BUILDING FIRE ALARM SYSTEM AND/OR BE COMPATIBLE THEREWITH.
- D. ALL EQUIPMENT SHALL BE BSA LISTED, MEET REQUIREMENTS OF NFPA 72, ALL APPLICABLE CODES AND LOCAL LAWS, AND BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. ALL FINAL CONNECTIONS TO BE MADE BY THIS CONTRACTOR WITH THE APPROVAL AND SUPERVISION OF THE BUILDING OWNER AND FIRE ALARM SYSTEM VENDOR.
- E. ALL COST ASSOCIATED WITH CONNECTIONS AND REPROGRAMMING OF THE EXISTING FIRE ALARM SYSTEM TO BE PAID BY THIS CONTRACTOR.
- F. BUILDING FIRE ALARM SYSTEM INTEGRITY, SHALL BE MAINTAINED AT ALL TIMES (BEFORE, DURING AND AFTER DEMOLITION AND/OR CONSTRUCTION. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN OPERATION OF ALL EXISTING FIRE ALARM DEVICES AT ALL TIMES.
- G. ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL EXISTING WIRING ON TENANT FLOOR IS COMPLIANT WITH LATEST FIRE ALARM STANDARDS AND BUILDING REQUIREMENTS. IF WIRING DOES NOT MEET LATEST STANDARDS OR BUILDING REQUIREMENTS, ALL WIRING SHALL BE REPLACED AS PART OF THIS PROJECT.
- H. ELECTRICAL CONTRACTOR SHALL OBTAIN THE SERVICES OF THE BASE BUILDING FIRE ALARM VENDOR TO DEVELOP AND DESIGN A CODE COMPLIANT, FULLY FUNCTIONAL FIRE ALARM SYSTEM. THE DESIGN DOCUMENTS INDICATE GENERAL INTENT OF AUDIO, VISUAL, AND ACTIVATION DEVICES. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL DEVICES REQUIRED BY LOCAL FIRE ALARM INSPECTORS INCLUDING, BUT NOT LIMITED TO SMOKE DETECTORS, PULL STATIONS, WARDEN STATIONS, INTERFACE RELAYS, ETC. CONTRACTOR AND VENDOR SHALL ALSO INCLUDE ALL COMPONENTS TO UPGRADE THE EXISTING BASE BUILDING SYSTEM EXPANSION INCLUDING, BUT NOT LIMITED TO, RELAY CARDS, STROBE CONTROL PANELS, AMPLIFIERS, ETC.
- I. SUBMISSION OF BID ACKNOWLEDGES THAT ELECTRICAL CONTRACTOR HAS CONTACTED THE BASE BUILDING VENDOR AND HAS INCLUDED ALL COMPONENTS FOR A CODE COMPLIANT SYSTEM. ADDITIONAL CLAIMS FOR CHANGES IN VENDOR SCOPE OR ADDITIONAL DEVICES/COMPONENTS, UNLESS INITIATED BY TENANT, WILL NOT BE ACCEPTED
- J. ALL PULL-STATIONS, SPEAKERS AND SMOKE DETECTORS TO MATCH EXISTING BASE BUILDING DEVICES
- K. ALL SMOKE DAMPERS SHALL BE CONNECTED TO THE NEAREST AVAILABLE 120V LIFE SAFETY EMERGENCY CIRCUIT. TIE DEVICE INTO FIRE ALARM SYSTEM, PROVIDE ALL REQUIRED END SWITCHES AND ACCESSORIES FOR APPROPRIATE MONITORING AND CONTROL. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN
- L. ALL AUDIO VISUAL WALL MOUNTED FIRE ALARM DEVICES SHALL BE WHITE WITH WHITE FACE PLATE AND RED LETTERING UNLESS OTHERWISE DIRECTED BY ARCHITECT.
- M. SYSTEM CONNECTIONS FOR INITIATING AND SIGNALING LINE CIRCUITS SHALL MATCH BUILDING STANDARDS AND SHALL BE COMPLIANT WITH THE REQUIREMENTS OF THE FIRE MARSHALL OR AUTHORITY HAVING JURISDICTION.
- N. CIRCUIT SUPERVISION: CIRCUIT FAULTS SHALL BE INDICATED BY A TROUBLE SIGNAL AT THE FACP. PROVIDE A DISTINCTIVE INDICATING AUDIBLE TONE AND ALPHANUMERIC ANNUNCIATION.
- O. VISUAL DEVICE TO BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. CONTRACTOR TO PROVIDE ALL ASSOCIATED DRIVERS, POWER SUPPLIES, CONDUIT, WIRE AND ACCESSORIES FOR A COMPLETE AND OPERATIONAL SYSTEM.
- P. STROBE SHALL BE SUITABLE FOR OPERATION WITH EXISTING FIRE ALARM SYSTEM. THE V/O SHALL CONSIST OF A XENON FLASH TUBE AND ASSOCIATED LENS/REFLECTOR SYSTEM. THE V/O ENCLOSURE SHALL MOUNT DIRECTLY TO STANDARD SINGLE GANG, DOUBLE GANG OR 4" SQUARE ELECTRICAL BOX, WITHOUT THE USE OF SPECIAL ADAPTERS OR TRIM RINGS. V/O APPLIANCES SHALL BE PROVIDED WITH DIFFERENT MINIMUM ADJUSTABLE FLASH INTENSITIES OF 15CD, 30CD, 75CD AND 110CD. PROVIDE A LABEL INSIDE THE STROBE LENS TO INDICATE THE LISTED CANDELA RATING OF THE SPECIFIC VISIBLE/ONLY APPLIANCE. WHEN MULTIPLE STROBES AND THEIR REFLECTIONS CAN BE SEEN FROM ONE LOCATION, PROVIDE STROBE FLASH SYNCHRONIZATION. QUANTITY, SPACING AND CANDELA DESIGN REQUIREMENTS OF VISUAL SIGNALS TO COMPLY TO NFPA REQUIREMENTS
- Q. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT THE CONTRACTOR PROVIDE COMPLETE AND OPERATIONAL SYSTEMS AS REQUIRED. WHERE DIFFERENCES OCCUR, THE MAXIMUM CONDITION SHALL GOVERN. ANY MISCELLANEOUS ITEMS, HARDWARE, DEVICES, WIRING, ETC., NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR THE OPERATION OF THE SYSTEM, MUST BE PROVIDED AND INCLUDED AS PART OF THE BID.
- R. PROVIDE COMPLETE BREAKDOWN OF MATERIAL, LABOR, OVERHEAD, PROFIT, ETC., WHEN SUBMITTING QUOTATIONS FOR CHANGE NOTICES ON THIS PROJECT. THE HOURLY LABOR RATE SHALL BE INCLUSIVE OF ALL CHARGES FOR SUPERVISION, VARIABLE LABOR FACTORS, HAND TOOLS, PAYROLL BURDENS, HEIGHT FACTORS, WARRANTIES, STORAGE, RENTALS, ADDITIONAL BONDING, PARKING, CLEAN-UP, AS-BUILT DRAWINGS, HOISTING, FREIGHT AND DELIVERY, BUT EXCLUSIVE OF OVERHEAD AND PROFIT.



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JANUARY 19, 2022
CONSTRUCTION DOCUMENTS
JANUARY 26, 2022

DRAWN BY:

RS

PROJECT ENGINEER: RS

DRAWING: FIRE ALARM SPECIFICATIONS

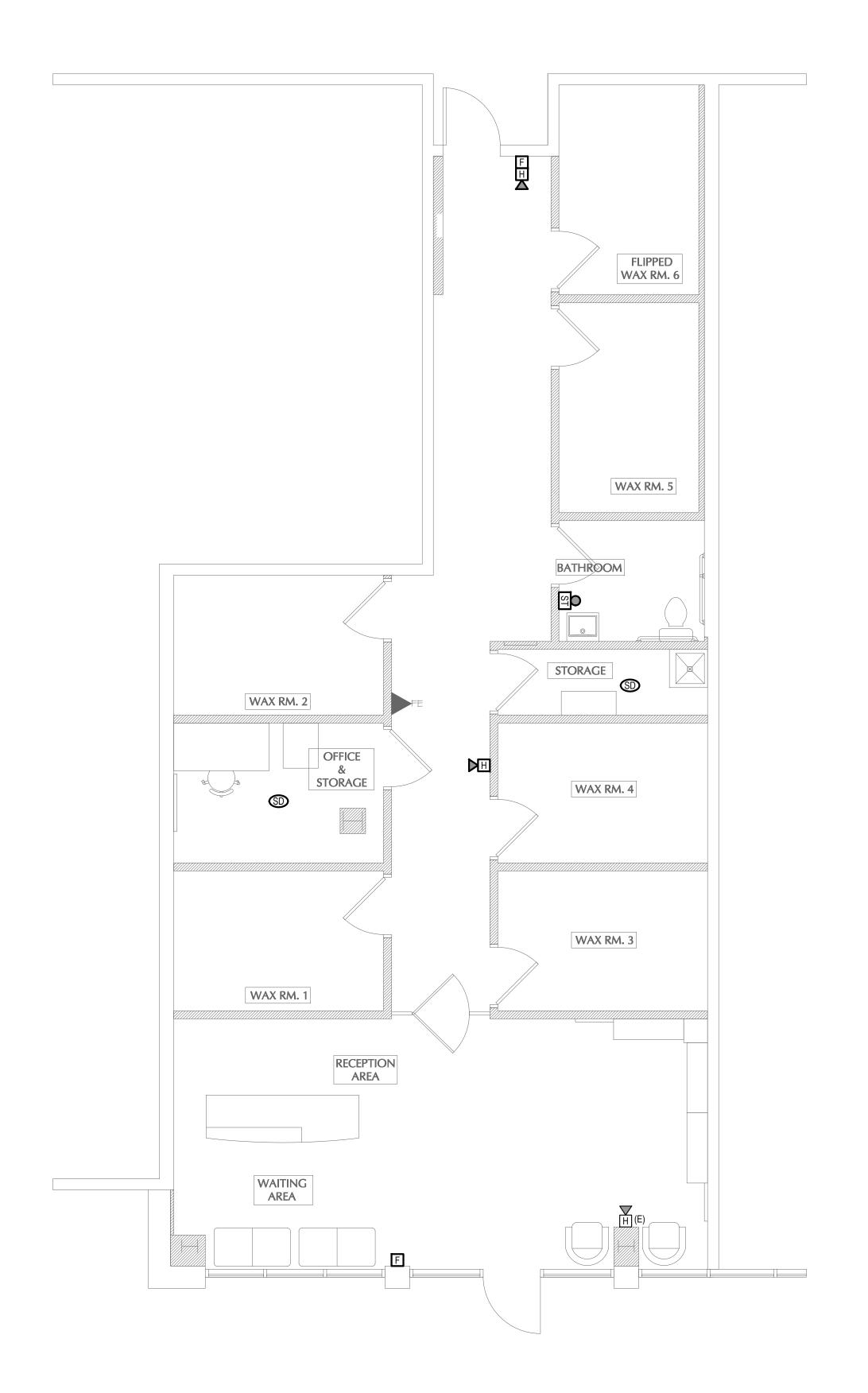
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DRAWING NO.

FA-002

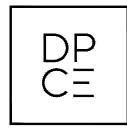


FIRE ALARM NOTES

- 1. ALL DEVICES ARE NEW UNLESS OTHERWISE NOTED.
- PROVIDE EQUIPMENT AS SHOWN ON DRAWINGS FOR COVERAGE IN ACCORDANCE WITH PROVISIONS OF THE BUILDING CODE, THE NFPA AND THE NATIONAL ELECTRICAL CODE.
- 3. ALL EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING BUILDING SYSTEM IN ACCORDANCE WITH THE LATEST CODE REQUIREMENTS.
- ALL LOW VOLTAGE FIRE ALARM WIRING TO BE CERTIFIED 200° RATED. ALL WIRING AND DEVICES ARE NEW U.O.N.. ALL RELOCATED DEVICES TO BE PROVIDED WITH NEW WIRING.
- 5. PROVIDE ALL THE NECESSARY EQUIPMENT AS REQUIRED FOR CONNECTION TO THE EXISTING BUILDING FIRE ALARM SYSTEM. ALL REQUIRED DEVICES & INTERCONNECTION WIRING SHALL BE PROVIDED BY THIS CONTRACTOR.
- 6. FINAL CONNECTION TO BUILDING FIRE ALARM SYSTEM TO BE DONE BY BUILDING FIRE ALARM MAINTENANCE CONTRACTOR.
- 7. CONTRACTOR TO PROVIDE AS-BUILT PLANS TO THE CLIENT AND ENGINEER 2 WEEKS PRIOR TO ANY SCHEDULED INSPECTION. AS-BUILTS TO BE SUBMITTED 3 HARD COPIES AND IN CAD FOR AS-BUILT FILING.
- 8. ALL FIRE ALARM WIRING TO BE IN CONDUIT WHERE EXPOSED.
- 9. FA SHUTDOWNS TO BE COORDINATED WITH FA VENDOR AND BUILDING MANAGEMENT. FIRE WATCH TO BE PROVIDED.
- 10. PLAN INDICATES GENERAL LOCATION OF FIRE ALARM DEVICES. COORDINATE EXACT LOCATION AND ADA MOUNTING 9. HEIGHT OF DEVICES WITH ARCHITECT. LOCATION TO BE WITHIN 10 FEET OF LOCATION SHOWN.
- 11. DEVICES TO BE WHITE U.O.N. COORDINATE FIXTURE WITH ARCHITECT.
- 12. EXISTING DEVICES TO REMAIN TO BE CLEANED AND RECALIBRATED.



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DECEMBER 01, 2021
REVISED FOR BOTTLE FILLER
JANUARY 19, 2022
CONSTRUCTION DOCUMENTS
JANUARY 26, 2022

DRAWN BY:

PROJECT ENGINEER: RS

DRAWING: FIRE ALARM FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

SEA

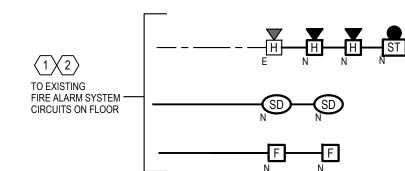


DRAWING NO.

FA-101

FIRE ALARM RISER DIAGRAM

NOT TO SCALE



GROUND FLOOR

NFPA OPERATIONS MATRIX										
	SYSTEM OUTPUTS									
NFPA OPERATIONS MATRIX	INDICATE DEVICE ADDRESS OR ZONE AT THE FIRE COMMAND STATION	ACTIVATE SPEAKERS AND STROBE DEVICES ON THE FLOOR IN ALARM AND THE FLOOR ABOVE	ACTIVATE AN INQUIRY TONE THROUGHOUT THE BUILDING	ACTIVATE THE FIRE SIGN AT THE FIRE COMMAND STATION	NOTIFY THE FIRE DEPARTMENT VIA CENTRAL STATION	ILLUMINATE THE TROUBLE LAMP AT THE FIRE COMMAND STATION	OPERATE RELAY CONTACTS FOR FAN SHUTDOWN	CLOSE DAMPERS FOR ISOLATION OF AREA IN ALARM	RELEASE ELECTRICALLY-OPERATED DOORS IN PATHS OF EGRESS FROM THE FLOOR IN ALARM	RECALL ELEVATORS SERVING THE FLOOR IN ALARM TO THE GROUND FLOOR
MANUAL PULL STATION	X	Х	Χ	Χ	Χ					
AREA SMOKE DETECTOR		Х	Χ	Χ	Χ		Χ	Χ	Х	
DUCT SMOKE DETECTOR		Х	Χ	Χ	Χ		Χ	Χ	Х	
ELEVATOR LOBBY SMOKE DETECTOR		Х	Χ	Χ	Χ		Χ	Χ	Х	Х
WATER FLOW DEVICE		Х	Χ	Х	Χ		Χ	Χ	Х	Х
TAMPER SWITCH					Х	Х				
TROUBLE CONDITION	Χ				Χ	Χ				
-										

RISER FIRE I/O MATRIX NOTE

1. ALL OTHER EXISTING FUNCTIONS TO REMAIN.

RISER FIRE ALARM NOTES

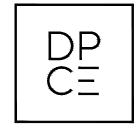
- THIS IS NOT A POINT-TO-POINT WIRING DIAGRAM. USE THIS DIAGRAM FOR ESTIMATING PURPOSES ONLY. PRIOR TO STARTING ANY WORK, A WORKING POINT-TO-POINT WIRING DIAGRAM SHALL BE OBTAINED FROM THE BUILDING FIRE ALARM VENDOR (CROSSFIRE).
- 2. TIE IN ALL SECURITY SYSTEM DOOR RELEASE MECHANISMS TO FIRE ALARM SYSTEM. REFER TO GENERAL NOTES, SHEET FA-001.
- 3. FOR EXACT LOCATION OF MECHANICAL AND SPRINKLER EQUIPMENT REFER TO HVAC AND SPRINKLER DRAWINGS.
- 4. UNLESS OTHERWISE DIRECTED BY BUILDING FIRE ALARM VENDOR, FIRE ALARM DEVICE WIRING SHALL BE AS FOLLOWS (FOR INFORMATION ONLY TO BE APPROVED WITH FA VENDOR PRIOR TO PURCHASE):
- A. SPEAKER WIRING #16 AWG TWISTED AND SHIELDED PAIR BSA/MEA APPROVED TEFLON CABLE.
- B. STROBE WIRING #14 AWG TWISTED AND SHIELDED PAIR BSA/MEA APPROVED TEFLON CABLE.
- C. SIGNAL WIRING #14 AWG TWISTED AND SHIELDED PAIR BSA/MEA APPROVED TEFLON
- D. ADDRESSABLE LOOP WIRING TWISTED AND SHIELDED PAIR #16.
- E. WARDEN STATION WIRING 3 PAIR TWISTED SHIELDED #18 AWG.
- 5. ALL WIRING BELOW 8' A.F.F. SHALL BE INSTALLED IN CONDUIT.

KEY NOTES

- 1) FIRE ALARM DEVICES TO BE INSTALLED AS PART OF EXISTING FIRE ALARM
- 2 FIRE ALARM CONTROL PANEL LOCATION TO BE VERIFIED IN FIELD.



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JANUARY 26, 2022

DRAWN BY:

PROJECT ENGINEER:

DRAWING: FIRE ALARM RISER DIAGRAMS

SCALE: NOT TO SCALE

CEA



DRAWING NO.

FA-601