

DRAWING LIST:

- FA-1 FIRE ALARM SYSTEM RISER DIAGRAM,
LEGEND, AND GENERAL NOTES
- FA-2 BASEMENT FIRE ALARM SYSTEM PLAN
- FA3 MAIN FLOOR FIRE ALARM SYSTEM PLAN

FIRE ALARM SYSTEM REPLACEMENT

COUNTY OF BARNSTABLE SECOND DISTRICT COURT

237 ROCK HARBOR ROAD
ORLEANS, MASSACHUSETTS
SEPTEMBER 12, 2011

M.J.SUPRANOVICZ ASSOCIATES
CONSULTING ELECTRICAL ENGINEERS

29 DIANDY ROAD T:(508)833-7559
SAGAMORE BEACH C:(978)835-0799
MA 02562
EMAIL: MJSAAE@AOL.COM

BID SET JANUARY 15, 2013

GENERAL NOTES

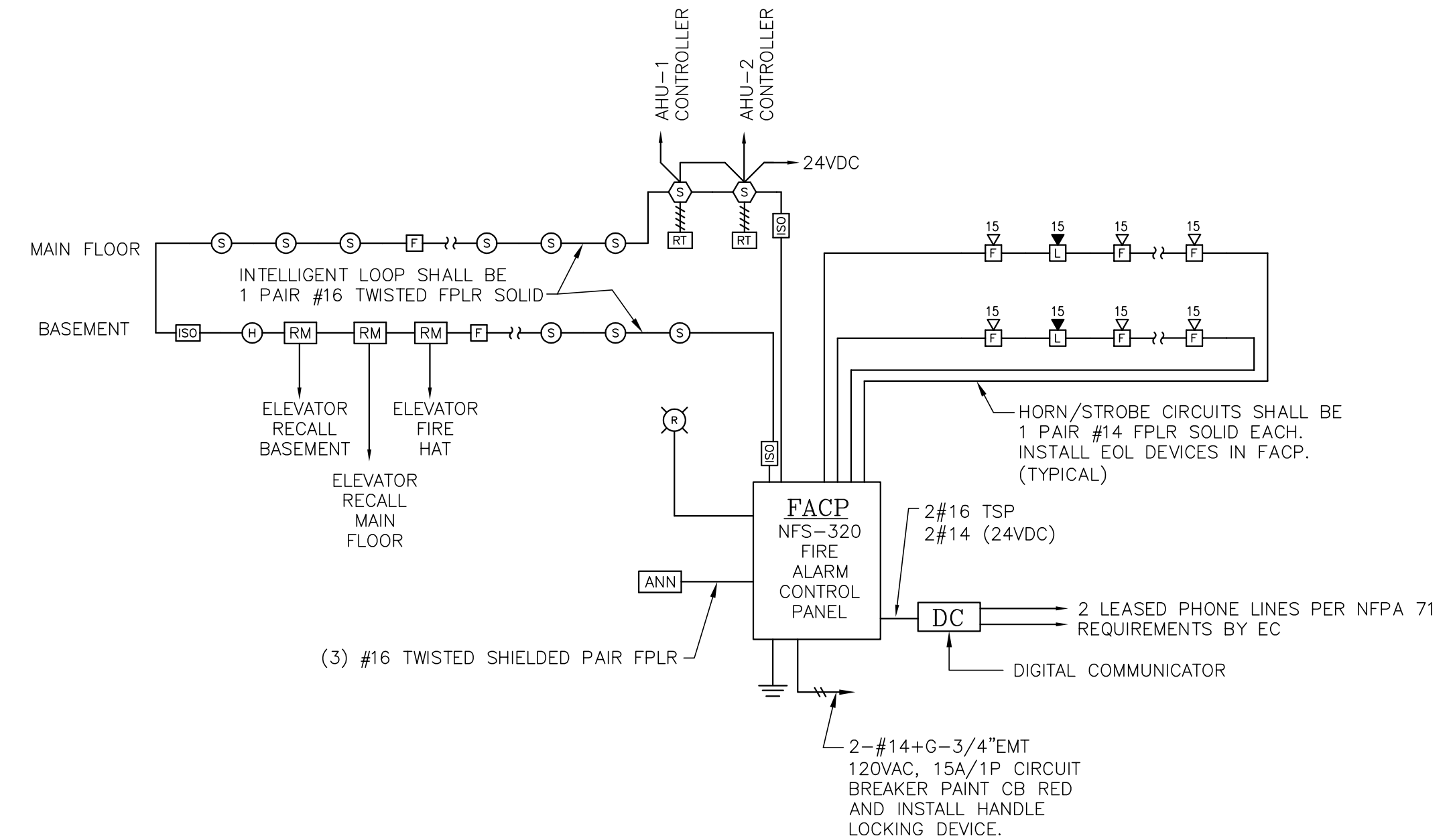
1. WORK SHALL CONFORM TO THE MASSACHUSETTS ELECTRICAL CODE, MASSACHUSETTS BUILDING CODE, NFPA AND REQUIREMENTS AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR.
3. CONTRACTOR SHALL PAY FOR ALL PERMITS, INSURANCE AND TESTS, AND SHALL PROVIDE LABOR AND MATERIAL TO COMPLETE THE ELECTRICAL WORK SHOWN.
4. EXCEPT AS OTHERWISE NOTED, THE ELECTRICAL CONTRACTOR SHALL INCLUDE DEMOLITION OF WIRING, DEVICES AND EQUIPMENT MADE OBSOLETE BY NEW LAYOUT, FURNISHING AND INSTALLING NEW FIRE ALARM SYSTEM, WIRING, RACEWAYS AND CIRCUIT BREAKERS REQUIRED FOR NEW EQUIPMENT.
5. DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL KEEP HIS PORTION OF THE WORK NEAT, CLEAN, AND ORDERLY.
6. ALL SYSTEMS SHALL BE TESTED FOR SHORT CIRCUITS AND GROUNDS PRIOR TO ENERGIZING, AND ANY DEFECTS SHALL BE CORRECTED.
7. ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK SHALL BE INCLUDED AS PART OF THIS SECTION.
8. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ELECTRICAL EQUIPMENT. WHERE SPECIFIED ELECTRICAL EQUIPMENT IS SUBSTITUTED, THE ELECTRICAL CONTRACTOR SHALL SUBMIT COMPLETE SPECIFICATIONS ON THE SUBSTITUTE AS WELL AS THE ITEM ORIGINALLY SPECIFIED.
9. MATERIALS SHALL BE SPECIFICATION GRADE AND UL LISTED.
10. WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OF DESIRED QUALITY. ACCEPTANCE OR REJECTIONS OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY AND/OR THE ENGINEER.
11. ALL WORK SHALL BE PERFORMED ON PREMIUM TIMES. SCHEDULE ALL WORK WITH THE COUNTY ENGINEER PRIOR TO BEGINNING WORK.
12. ELECTRICAL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF WHICH SYSTEM IS PUT INTO SERVICE.
13. WORK SHALL BE GROUNDED IN ACCORDANCE WITH CODE REQUIREMENTS. COMPLETE EQUIPMENT (INSULATED GREEN WIRE) GROUNDING SYSTEM SHALL BE INSTALLED IN ALL 120V RACEWAYS.
14. WIRE AND COPPER, TYPE "THIN-THIN" INSULATED FOR 600 VOLTS, MINIMUM SIZE #12 AWG COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
15. ALL WIRING SHALL BE INSTALLED IN RACEWAY. WIRING IN SURFACE RACEWAYS SHALL BE INSTALLED IN SURFACE METAL RACEWAY IN FINISHED AREAS AND IN EMT IN UNFINISHED AREAS. FISH FIRE ALARM MC CABLE INTO WALL AND CEILING VOIDS WHEREVER POSSIBLE.
16. RACEWAYS PASSING THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH ALL NECESSARY MATERIALS TO INSURE THAT THE FIRE-RATED INTEGRITY IS MAINTAINED.
17. CONTRACTOR SHALL CHECK EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO BEGINNING WORK. WORK RELEVANT TO NEW AND EXISTING WORK SHALL BE VERIFIED IN THE FIELD.
18. PRIOR TO THE REMOVAL OF EQUIPMENT, THE OWNER WILL INDICATE WHICH EXISTING DEVICES OR MATERIAL SHALL BE SALVAGED AND TURNED OVER TO SAME, STORE AS AND WHERE DIRECTED. ALL ELSE SHALL BE REMOVED FROM THE SITE.
19. PROVIDE 3 SETS OF AS-BUILT DRAWINGS AND COMPACT DISC WITH AUTOCAD FILES OF THE FINAL, APPROVED AS-BUILT DOCUMENTS.

NOTES TO FIRE ALARM SYSTEM

1. ALL EQUIPMENT SHALL BE MANUFACTURED BY NOTIFIER, FIRE LITE, OR GAMEWELL.
2. ALL WIRING SHALL BE #14 COPPER SOLID AND SHALL BE RUN IN METAL RACEWAY, UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE COLOR CODED AND INSTALLED AS PER THE SYSTEM MANUFACTURER'S INSTRUCTIONS.
4. ALL FIRE ALARM EQUIPMENT SHALL BE APPROVED BY THE BARNSTABLE FIRE DEPARTMENT BEFORE PURCHASING BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE FIRE DEPARTMENT WITH FLOOR PLANS, ALARM PLANS, POINT-TO-POINT WIRING DIAGRAMS, EQUIPMENT DATA SHEETS AND BATTERY CALCULATIONS AT FIRE DEPARTMENT REQUEST.
5. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL THE FIRE ALARM SYSTEM EQUIPMENT ACCORDING TO THE RULES AND REGULATIONS OF THE BARNSTABLE FIRE DEPARTMENT, THE STATE OF MASSACHUSETTS AND NFPA CODES.
6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SMOKE DETECTORS. IF A DETECTOR HAS BEEN PLACED IN THE SAME LOCATION AS A LIGHTING FIXTURE ACCORDING TO THE DRAWINGS, THE DETECTOR IS TO BE ADJUSTED TO AVOID THE FIXTURE OR OTHER OBSTRUCTION.
7. ALL SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3'-0" AWAY FROM ALL SUPPLY AIR DIFFUSERS. THE ELECTRICAL CONTRACTOR SHALL ADJUST DETECTOR LOCATIONS AS REQUIRED TO MAINTAIN THIS MINIMUM CLEARANCE.
8. UNDER NO CIRCUMSTANCES SHALL THE HANDEL OF ANY MANUAL PULL STATION BE INSTALLED HIGHER THAN 48" AFF.
9. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND WIRING AS REQUIRED FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM AS DESCRIBED AND SHOWN ON THE DRAWINGS, WHICH SHALL INCLUDE, ALL REQUIRED POWER SUPPLIES, ADDRESSABLE MODULES AND APPURTENANCES.
10. ALL STROBE LIGHTS SHALL MEET THE A.D.A. (AMERICANS WITH DISABILITIES ACT) AND NFPA 72 REQUIREMENTS.
11. PROVIDE BATTERY CAPACITY UPON LOSS OF POWER TO PROVIDE 24 HOURS OF STANDBY PLUS 10 MINUTES OF ALARM AFTER THE 24 HOURS.
12. PROVIDE INCREASED POWER SUPPLIES AS MAY BE REQUIRED TO OPERATE ALL SIGNAL/NOTIFICATION APPLIANCES.
13. DISCONNECT AND REMOVE ALL EXISTING FIRE ALARM SYSTEM DEVICES AND EQUIPMENT.
14. IT IS INTENDED THAT ALL NEW MANUAL PULL STATIONS BE INSTALLED FLUSH MOUNTED, HOWEVER, WHERE A MANUAL PULL STATION MUST BE SURFACE MOUNTED ON AN EXISTING FINISHED WALL, THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE APPROPRIATE NOTIFIER, RED FINISHED, SURFACE BACK BOX FOR SURFACE MOUNTING OF THESE DEVICES. UNDER NO CIRCUMSTANCES SHALL STAMPED METAL NON-RED WORK BOXES BE USED FOR INSTALLATION OF THESE DEVICES.
15. IT IS INTENDED THAT ALL NEW SIGNAL UNITS BE INSTALLED FLUSH MOUNTED, HOWEVER WHERE HORN/STROBE LIGHT OR A STROBE LIGHT MUST BE SURFACE MOUNTED ON AN EXISTING WALL THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE APPROPRIATE NOTIFIER, RED FINISHED BACK BOX FOR SURFACE MOUNTING OF THESE DEVICES. UNDER NO CIRCUMSTANCES SHALL STAMPED METAL NON-RED WORK BOXES BE USED FOR INSTALLATION OF THESE DEVICES.
16. ALL NEW REMOTE INDICATOR LAMPS OR L.E.D.'S SHALL BE SUPERVISED FROM THE FIRE ALARM CONTROL PANEL.
17. ALL HORN/STROBE LIGHTS AND STROBE LIGHTS SHALL BE INSTALLED IN THE EXACT LOCATIONS SHOWN ON THE DRAWINGS. WHERE THE ELECTRICAL CONTRACTOR DETERMINES IN THE FIELD THAT THE DEVICE OR DEVICES CANNOT BE INSTALLED IN THE EXACT LOCATION(S) SHOWN ON THE DRAWINGS, THEN AN ALTERNATE LOCATION(S) SHALL BE PROPOSED BY THIS CONTRACTOR FOR REVIEW BY THE ENGINEER AND SHALL BE DONE PRIOR TO THE START OF ANY ROUGH-IN.
18. LOCATIONS SHOWN FOR HORN/STROBE LIGHTS AND STROBE LIGHTS WERE DESIGNED IN ACCORDANCE WITH NFPA 72.
19. THE FIRE ALARM FUNCTIONAL DESCRIPTION NARRATIVE PROVIDED WITH THE CONTRACT DRAWINGS SHALL BE HEREBY MADE A PART OF THIS CONTRACT.
20. WHERE A CONFLICT EXISTS BETWEEN, DRAWINGS, SPECIFICATIONS, NARRATIVES AND CODE OR REGULATION REQUIREMENTS THE MORE STRINGENT REQUIREMENT SHALL BE ADHERED TO.
21. SYSTEM SHALL REPORT TO A CENTRAL STATION SERVICE AS RECOMMENDED BY THE BARNSTABLE FIRE DEPARTMENT.
22. INITIATION LOOP SHALL BE TRUE CLASS A SUPERVISED. SIGNAL UNITS SHALL BE CLASS B SUPERVISED. INSTALL END OF LINE DEVICES IN THE FIRE ALARM CONTROL PANEL.
23. SYSTEM SHALL PROVIDE CIRCUIT ISOLATION BETWEEN FLOORS.
24. FURNISH AND INSTALL GRAPHIC PLAQUE OF THE BUILDING WITH ALL DEVICES, DEVICE ADDRESSES AND ROOM NAMES INDICATED IN LARGE FONT. OBTAIN APPROVAL OF SAID PLAQUE FROM THE FIRE DEPARTMENT PRIOR TO INSTALLING UNDER FRAMED PLEXIGLASS AND SECURING TO WALL ADJACENT TO THE FACP OR AS DIRECTED BY THE BARNSTABLE FIRE DEPARTMENT.
25. THE EQUIPMENT AND COMPLETE INSTALLATION SHALL BE IN COMPLIANCE WITH LOCAL AND NATIONAL CODES, AMERICANS WITH DISABILITIES ACT (ADA), AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE LATEST EDITION OF NFPA 72. ALL EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES, INCORPORATED AND SHALL MEET WITH THE APPROVAL OF THE MASSACHUSETTS STATE FIRE MARSHAL AND THE SUPERINTENDENT OF FIRE ALARM, BOSTON, FIRE DEPARTMENT.
26. SYSTEM SUPPLIER SHALL SUBMIT PLAN AND SYSTEM RISER DIAGRAM FOR THE APPROVAL FROM THE BARNSTABLE FIRE DEPARTMENT PRIOR TO START OF ANY WORK.
27. SYSTEM SUPPLIER SHALL FURNISH A COMPLETE POINT-TO-POINT WIRING DIAGRAM TO THE ELECTRICAL CONTRACTOR.
28. ALL FIRE ALARM SYSTEM COMPONENTS SHALL BE OF ONE MANUFACTURER.
29. INSTALL COVER ON NEW DEVICES DURING INSTALLATION SO AS NOT TO CREATE CONFUSION AS TO WHICH DEVICES ARE OPERATIONAL.

LEGEND		
SYMBOL*	DESCRIPTION	MOUNT. HEIGHT
	INTELLIGENT ADDRESSABLE FIRE ALARM CONTROL PANEL (NOTIFIER #NFS-320)	6' TO TOP
	DIGITAL COMMUNICATOR (SILENT KNIGHT #SK-5104)	6' TO TOP
	KNOX BOX MODEL 3200	-
	24 VDC EXTERIOR STROBE (WHEELLOCK #DC-MAX-R)	48" AFF
	ADDRESSABLE DUAL ACTION MANUAL PULL STATION (NOTIFIER #NBG-12LX)	48" AFF
	ADDRESSABLE SMOKE DETECTOR (NOTIFIER #FSP-851 WITH #B710LP BASE)	48" AFF
	ADDRESSABLE COMBINATION R&R/135 DEGREE FIXED TEMP. HEAT DETECTOR (NOTIFIER #FST-851R WITH #B710LP BASE)	-
	ADDRESSABLE 194' F.T. HEAT DETECTOR (NOTIFIER #FST-851H WITH #B710LP BASE)	-
	DUCT TYPE SMOKE DETECTOR (NOTIFIER #FSD-751RPL)	-
	DUCT DETECTOR REMOTE TEST STATION (NOTIFIER #RTS451KEY)	-
	ADDRESSABLE MONITOR MODULE (NOTIFIER #FMM-1)	-
	ADDRESSABLE RELAY MODULE (NOTIFIER #FRM-1)	-
	ISOLATION MODULE	†
	REMOTE INDICATOR (NOTIFIER #RA400Z)	†
	HORN AND SYNCHRONIZED MULTI CANDELA STROBE SIGNAL UNIT COMBINATION, NUMERAL DENTES CANDELA SETTING.	
	SYNCHRONIZED MULTI-CANDELA STROBE, NUMERAL DENOTES CANDELA SETTING (WHEELLOCK #RSS-24MCW-FR)	

† AUDIO AND VISUAL ALARM DEVICES SHALL BE MOUNTED 80" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING, WHICHEVER IS LOWER.
 * SYMBOLS SHOWN DOTTED INDICATES EXISTING TO BE REMOVED. SEE SPECIFICATIONS.



FIRE ALARM SYSTEM RISER DIAGRAM

- NOTES:**
1. EXACT WIRING REQUIREMENTS SHALL BE PER SYSTEM MANUFACTURER'S RECOMMENDATIONS.
 2. INITIATION LOOP CLASS A SUPERVISED, SIGNAL CIRCUITS SHALL BE CLASS B SUPERVISED. CLASS A RETURN PATH SHALL BE AS FAR AWAY FROM AND SEPARATE FROM SUPPLY LOOP AS PHYSICALLY POSSIBLE. END OF LINE DEVICES SHALL BE LOCATED IN THE FACP OR REMOTE POWER SUPPLY.
 3. ALL WIRING SHALL BE SOLID COPPER.
 4. FOR EXACT NUMBER OF DEVICES REFER TO FLOOR PLANS.
 5. SEE FIRE ALARM NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.

COUNTY
FACILITIES DEPARTMENT
 MR. JOHN BLAISDELL DIRECTOR
 SUPERIOR COURTHOUSE
 P.O. BOX 427
 BARNSTABLE, MA 02630
 TEL: (508) 375-8603
 FAX: (508) 362-8758

CONSULTANT
M.J.SUPRANOVICZ ASSOCIATES
 CONSULTING ELECTRICAL ENGINEERS
 29 DIANDY ROAD T:(508)833-7559
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 MA 02562
 EMAIL: MJSACE@AOL.COM

SEAL
 DRAWING TITLE

**FIRE ALARM SYSTEM
 RISER DIAGRAM,
 LEGEND, AND
 GENERAL NOTES**

PROJECT TITLE
**COUNTY OF
 BARNSTABLE**

**BARNSTABLE COUNTY
 2ND DISTRICT COURT
 HOUSE
 FIRE ALARM SYSTEM
 REPLACEMENT**

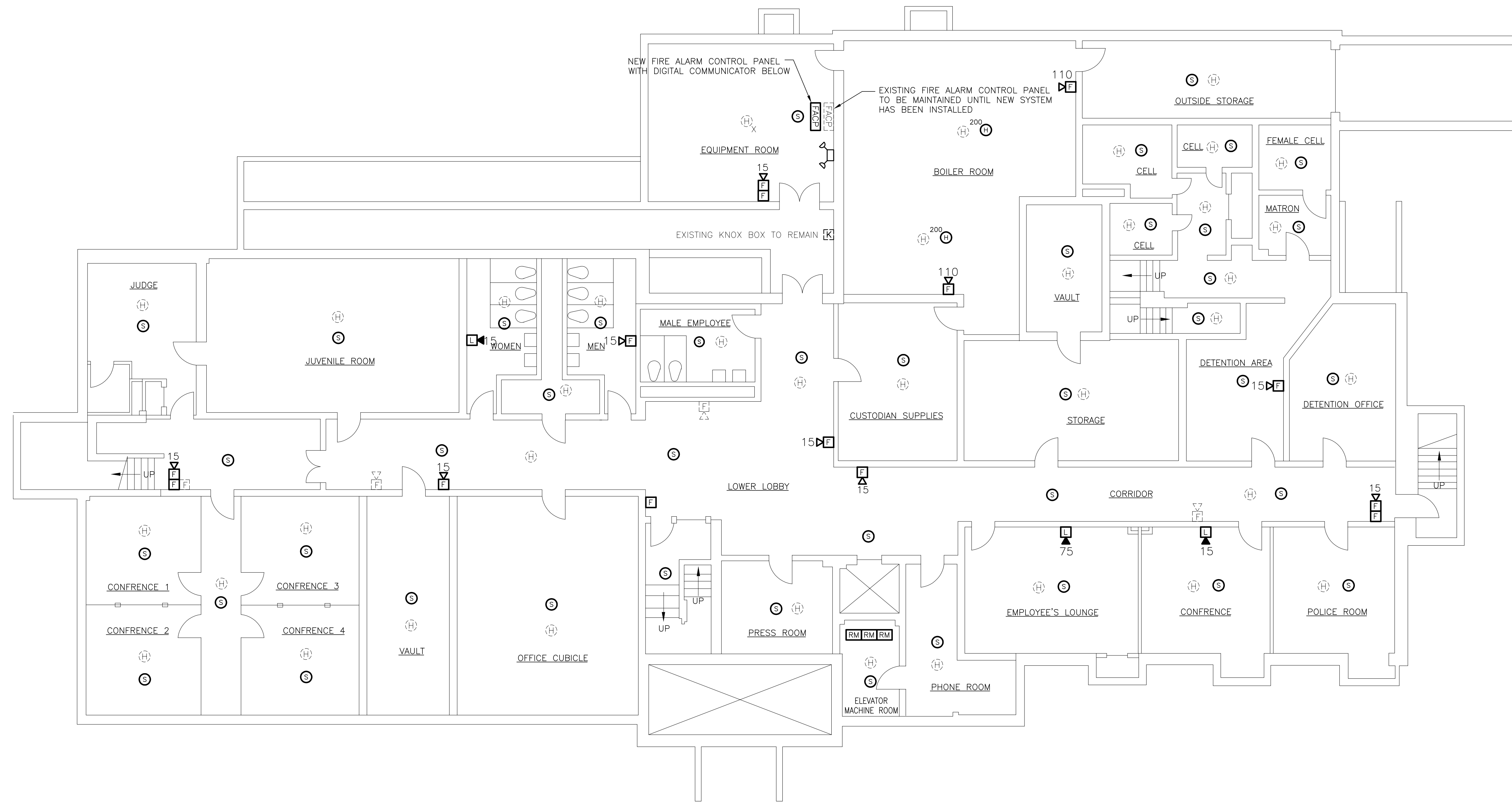
**237 ROCK HARBOR ROAD
 ORLEANS, MASSACHUSETTS**

DATE
SEPTEMBER 12, 2011

SCALE
AS NOTED

PROJECT NUMBER
11-17

DRAWING TITLE AND NUMBER
FA-1



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

REVISIONS
BID SET JANUARY 15, 2013

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237 ROCK HARBOR ROAD
ORLEANS, MASSACHUSETTS

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DRAWING TITLE AND NUMBER
FA-2



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

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FACILITIES DEPARTMENT
 MR. JOHN BLAISDELL, DIRECTOR
 SUPERIOR COURTHOUSE
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 29 DIANDY ROAD T: (508) 833-7559
 SACAMORE BEACH C: (978) 835-0799
 MA 02562 EMAIL: MJSACE@AOL.COM

SEAL

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MAIN FLOOR FIRE ALARM SYSTEM PLAN

PROJECT TITLE

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BARNSTABLE COUNTY
 2ND DISTRICT COURT HOUSE
 FIRE ALARM SYSTEM REPLACEMENT

237 ROCK HARBOR ROAD
 ORLEANS, MASSACHUSETTS

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PROJECT NUMBER
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DRAWING TITLE AND NUMBER
FA-3