GENERAL FIRE ALARM SYSTEM NOTES:

1. ALL WORK SHALL BE INSTALLED IN A NEAT WORKMANLIKE MANNER AND IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE UNIFORM CONSTRUCTION CODE – STATE OF NEW JERSEY; THE NATIONAL ELECTRICAL CODE (LATEST EDITION – INCLUDING AMENDMENTS THERETO); THE LATEST EDITION OF APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION CODES STANDARDS/RECOMMENDED PRACTICES AND MANUALS; ALL LOCAL, STATE AND FEDERAL ENVIRONMENTAL PROTECTION REQUIREMENTS/ORDINANCES/LAWS; ALL LOCAL, STATE, FEDERAL (OSHA) SAFETY REGULATIONS/ORDINANCES/LAWS.
2. CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS EMPLOYED ON THE PROJECT, AND EMPLOYEES OF THE OWNER.
3. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF CONDUITS, TRAYS, BOXES, CIRCUITS AND DEVICE WITH REFERENCE TO THE DRAWINGS OF OTHER TRADES IN ORDER TO AVOID INTERFERENCE. CONTRACTOR SHALL INSURE THAT ALL CONDUIT, TRAYS AND ACCESSORY ELECTRICAL EQUIPMENT NOT OTHERWISE DIMENSIONED ON DRAWINGS SHALL BE LOCATED SUCH THAT THERE WILL BE NO CONFLICT OR INTERFERENCE WITH ACCESS TO, OPERATION OF, OR REMOVAL OF ANY OTHER EQUIPMENT. THIS RESTRICTION ON LOCATION OF CONDUIT, TRAYS AND ACCESSORY ELECTRICAL EQUIPMENT SHALL APPLY REGARDLESS OF WHETHER EQUIPMENT OF OTHER TRADES IS DIMENSIONED OR NOT.
4. THE CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS, LOCATIONS AND OTHER REQUIREMENTS WITH THE GENERAL ARRANGEMENT DRAWINGS AND RELATED SPECIFICATIONS. MOUNTING HEIGHTS SHALL CONFORM TO REQUIREMENTS OF NFPA 72 AND ADA REQUIREMENTS.
5. ALL EQUIPMENT & WIRING TO BE UL LISTED FOR FIRE ALARM USE.
6. ALL EQUIPMENT TO BE 100% COMPATIBLE WITH THE UNION COUNTY NETWORK COMMAND CENTER AND COMMUNICATIONS NETWORK. CONTRACTOR TO FURNISH ALL ACCESSORY EQUIPMENT REQUIRED TO CONNECT TO THIS NETWORK. ALL PROGRAMMING NECESSARY TO INTEGRATE THIS FACILITY WITH COUNTY'S FIRE SYSTEM SHALL BE DONE BY THE COUNTY'S DESIGNATED FIRE SERVICE PROVIDER.
7. ALL INSTALLATION TO BE PERFORMED BY A NJ LICENSED FIRE ALARM INSTALLER.
8. ALL FIRE ALARM WIRING TO BE INSTALLED IN EMT OR AS INDICATED. FIRE ALARM CIRCUITS TO BE KEPT SEPARATE FROM ALL OTHER ELECTRICAL, COMMUNICATIONS, SIGNALING OR CONTROL WIRING. ALL FIRE ALARM CIRCUITS TO BE IDENTIFIED AND LABELED AS PER NFPA 72.
9. DEVICES AND COMPONENTS SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES AND COMPONENTS MAY BE REQUIRED DUE TO FIELD CONDITIONS OR TO COMPLY WITH APPLICABLE CODES. CONTRACTOR TO FURNISH AND INSTALL ALL COMPONENTS REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
10. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR DETECTOR/DEVICE WIRING REQUIREMENTS.
11. EXISTING FIRE ALARM SYSTEM TO REMAIN FULLY OPERATIONAL AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL TESTING AND ACCEPTANCE.
12. UPON FINAL ACCEPTANCE OF NEW SYSTEM, ALL OTHER EQUIPMENT AND WIRING SHALL BE REMOVED. OWNER TO PROVIDE A LIST OF EXISTING EQUIPMENT TO BE PRESERVED AND TURNED OVER TO THE OWNER. ALL OTHER EQUIPMENT TO BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
13. THIS SYSTEM DESIGN AND PERFORMANCE IS BASED ON A SIEMENS XLS ADDRESSABLE NON-VOICE FIRE ALARM CONTROL PANEL (FACP) WITH DOOR-MOUNTED DISPLAY/ CONTROLS AND INTERNAL BATTERY BACKUP. OTHER EQUIPMENT MANUFACTURERS WILL BE ACCEPTED, BUT MUST BE APPROVED IN WRITING PRIOR TO BIDDING.
14. ACTUATION OF ANY ALARM DEVICES IN THE BUILDING SHALL SEND AN ALARM SIGNAL TO THE FIRE ALARM ANNUNCIATOR PANEL.
15. ALL WIRE AND CABLE SHALL HAVE A WIRE MARKER ON EACH END, OR EQUAL. ALL MARKERS SHALL BE PRINTED. SHIELDS ON ALL SHIELDED CABLE SHALL BE CONTINUOUS, GROUNDED AT THE FIRE ALARM CONTROL PANEL ONLY, AND ISOLATED FROM GROUND ELSEWHERE.
16. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING PATCHING AND PAINTING REQUIRED FOR COMPLETE FIRE ALARM SYSTEM INSTALLATION.
17. MOUNTING FOR ALL DEVICES SHALL COMPLY WITH IBC 2006, NFPA 90A, NFPA 72, NEC, AND ADAAG.
18. FOR CONDUIT APPLICATIONS, USE ELECTRICAL METALLIC TUBING (EMT) AT ALL LOCATIONS INDOORS AND RIGID METAL CONDUIT OUTDOORS. ALL CONDUIT SIZE SHALL BE 3/4" MINIMUM.
19. CONTRACTOR SHALL REPAIR/PATCH AND/OR REPAINT TO MATCH ADJACENT AREAS, ANY AREAS DAMAGED (OR WHERE ITEMS WERE REMOVED/DEMOLISHED) BY WORK OF THIS CONTRACT. ALL WALL, FLOOR AND CEILING PENETRATIONS SHALL BE SEALED TO MAINTAIN ORIGIINAL FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATING SCHEDULE.
20. THE FIRE ALARM VENDOR MUST CALCULATE THE NOTIFICATION APPLIANCES CANDELA RATINGS AND DESIGNATE THEM ON THE SHOP DRAWINGS. ALL STROBE SETTING MUST COMPLY WITH NFPA 72 REQUIREMENTS.
21. DUCT SMOKE DETECTORS SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR AND WIRED FOR FAN SHUTDOWN BY THE ELECTRICAL CONTRACTOR. EACH DUCT SMOKE DETECTOR SHALL HAVE A REMOTE ALARM INDICATOR WITH KEY TEST SWITCH, INSTALLED AND WIRED. EACH AIR HANDLING SYSTEM 2000 CFM OR GREATER SHALL BE EQUIPPED WITH A SUPPLY DUCT DETECTOR. EACH AIR HANDLING SYSTEM GREATER THAN 15,000 CFM SHALL BE EQUIPPED WITH A SUPPLY AND RETURN DUCT DETECTOR WHEN THE AIR HANDLER SUPPLIES MORE THAN ONE STORY. RETURN DUCT DETECTORS ARE NOT REQUIRED WHERE THE ENTIRE SPACE SERVED BY THE AIR HANDLER IS PROTECTED BY SYSTEM SMOKE DETECTORS. DUCT DETECTORS ARE NOT REQUIRED ON EXHAUST FANS."
22. ALL WORK AND SHUTDOWNS ASSOCIATED WITH FIRE ALARM SYSTEM INTERFACES SHALL BE COORDINATED THROUGH THE RESPECTIVE CONTRACTOR:
    - 22.1. SPECIAL HAZARD SUPPRESSION SYSTEM
    - 22.2. AUTOMATIC SPRINKLER SYSTEM
    - 22.3. HVAC SYSTEM
    - 22.4. ELEVATOR SYSTEM
    - 22.5. OTHERS, AS APPLICABLE
23. SYSTEM MANUFACTURER SHALL COORDINATE FINAL QUANTITIES AND LOCATIONS OF ALL SYSTEM MONITOR AND CONTROL MODULES WITH THE INTERFACE CONTRACTORS. FINAL LOCATIONS TO BE SHOWN ON SHOP DRAWINGS.
24. ACCEPTANCE TESTING MUST BE PERFORMED IN ACCORDANCE WITH NFPA 72.
25. EVENT, IF CONTRACTOR PULLS THE EXISTING SERVICE SOFTWARE, CONTRACTOR SHALL BARE ALL THE EXPENSES AND FEES ASSOCIATED WITH THE SCOPE OF WORK.
26. UPON COMPLETION OF FINAL TESTING, THE SYSTEM MANUFACTURER SHALL SUBMIT RECORD DRAWINGS DETAILING AS-BUILT CIRCUITING AND INCORPORATING ALL FIELD AND DESIGN DIRECTIVES GIVEN THROUGH OUT THE PROJECT.

ABBREVIATIONS

A	AMPERE
AF	AMPERE FRAME
A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
AIC	AMPS INTERRUPTING CURRENT
AS	AMMETER SWITCH
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR, CB	CIRCUIT BREAKER
C	CONDUIT
CKT	CIRCUIT
CPD	CONNECTIV POWER DELIVERY CO.
CU	COPPER
DBC	DIRECT BURIED CABLE
DISC	DISCONNECT SWITCH
DT	DOUBLE THROW
DWG	DRAWING
ECB	ENCLOSED CIRCUIT BREAKER
EFF	EFFLUENT
ELECT	ELECTRIC, ELECTRICAL
EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EXIST	EXISTING
FDR	FEEDER
FSS	FUSED SAFETY SWITCH
FU	FUSE
G, GND	GROUND
GEN	GENERATOR
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER
HD	HEAVY DUTY
HID	HIGH-INTENSITY DISCHARGE (LIGHTING)
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HZ	HERTZ
INF	INFLUENT
JCP&L	JERSEY CENTRAL POWER & LIGHT CO.
kCMIL	1000 CIRCULAR MILS
kVA	KILO-VOLT AMPERE
kW	KILOWATT
LTG	LIGHTING
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
MFG	MANUFACTURER
MH	MOUNTING HEIGHT
MLO	MAIN LUGS ONLY
MOV	MOTOR OPERATED VALVE
MTD	MOUNTED
N	NEUTRAL
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NTS	NOT TO SCALE
P	POLE(S)
PF	POWER FACTOR
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PRESS	PRESSURE
PRI	PRIMARY
PRSC	PVC COATED RIGID STEEL CONDUIT
PSE&G	PUBLIC SERVICE ELECTRIC & GAS CO
PVC	POLYVINYL CHLORINE
PWR	POWER
RCPT	RECEPTACLE
RSC	RIGID STEEL CONDUIT
SCHD	SCHEDULE
SEC	SECONDARY
SEL	SELECTOR
SS	SELECTOR SWITCH
STP	SHIELDED TWISTED PAIR
SW	SWITCH
TBD	TO BE DETERMINED
TDR	TIME DELAY RELAY
TEL	TELEPHONE
TERM	TERMINAL
TP	TWISTED PAIR
TS	TEST SWITCH
TYP	TYPICAL
V	VOLT
VA	VOLT-AMPERE
VS	VOLTMETER SWITCH
W	WATT
WP	WEATHERPROOF
WTP	WATER TREATMENT PLANT
WWTP	WASTE WATER TREATMENT PLANT
XFMR	TRANSFORMER
XMTR	TRANSMITTER
XP	EXPLOSIONPROOF
ø	DIAMETER OR PHASE

LEGEND - PLAN SYMBOLS

- F — NOTIFICATION APPLIANCE HORN/STROBE
- V — NOTIFICATION APPLIANCE STROBE
- FC — INITIATING DEVICE MANUAL CALL BOX
- H — INITIATING DEVICE HEAT DETECTOR
- H* — (*INDICATES ABOVE CEILING)
- S — INITIATING DEVICE SMOKE DETECTOR
- S_D — INITIATING DEVICE DUCT SMOKE DETECTOR
- REMOTE INDICATOR — REMOTE STATUS INDICATOR MOUNTED IN VISIBLE LOCATION
- TEST STATION — DETECTOR TEST STATION MOUNTED IN VISIBLE LOCATION
- SW — SUPERVISED SWITCH TAMPER OR POSITION
- MON — ADDRESSABLE MONITOR MODULE FOR SUPERVISED SWITCH
- CR — ADDRESSABLE CONTROL RELAY
- TS — TEST STATION
- ISO — DATA LINE ISOLATOR
- EOL — END OF LINE TERMINATION
- REM — REMOTE ANNUNCIATOR
- FACP — FIRE ALARM SYSTEM CONTROL PANEL
- 101 — ROOM/SPACE NUMBER
- 101-1 — DOOR DESIGNATION
- F_{WP} — NOTIFICATION APPLIANCE HORN/STROBE WEATHERPROOF
- V_{WP} — NOTIFICATION APPLIANCE STROBE WEATHERPROOF

DEVICE NOTES

1. ALL INITIATING DEVICES ARE TO BE FULLY ADDRESSABLE UNLESS OTHERWISE NOTED.
2. SMOKE DETECTORS ARE MULTIPLE CRITERIA, "INTELLIGENT" DEVICES UNLESS OTHERWISE NOTED.
3. HEAT DETECTORS SHALL INCORPORATE RATE OF RISE AND FIXED TEMPERATURE RESPONSE UNLESS OTHERWISE NOTED.
4. MANUAL CALL BOXES SHALL BE SINGLE ACTION TYPE UNLESS OTHERWISE NOTED AND SHALL HAVE TAMPER RESISTANT HOUSING IN ALL PUBLIC SPACES.
5. CONTRACTOR TO SUPPLY ALL REQUIRED SWITCHES AND RELAYS TO INTERFACE WITH EXISTING EQUIPMENT.
6. ALL AUDIBLE DEVICES TO HAVE ADJUSTABLE SOUND PRESSURE LEVEL OUTPUT.
7. ALL VISUAL NOTIFICATION DEVICES TO HAVE ADJUSTABLE CANDELA OUTPUT. WHERE MULTIPLE VISUAL DEVICES ARE WITHIN SIGHT OF EACH OTHER THEY SHALL BE SYNCHRONIZED AS PER NFPA REQUIREMENTS.

APPROVED: 4/11/13

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NEW FIRE ALARM SYSTEM AT CHURCH STORE BUILDING

LEGEND, NOTES AND ABBREVIATIONS

SCALE: NONE

CLIENT: COUNTY OF UNION

PROJECT LOCATION: TOWNSHIP OF BERKELEY HEIGHTS, UNION COUNTY, NEW JERSEY

RAA PROJECT NO.: A-0530-0017-001

PROJECT NO.: 2010-024

DATE: APR. 2013
DESIGNED BY: PFM
DRAWN BY: SDR/JRN
CHECKED BY:
DEPT. HEAD:

SHEET: FA-100

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