

### FIRE ALARM SYSTEM GENERAL NOTES

- SEE FIRE ALARM SPECIFICATIONS FOR EQUIPMENT SPECIFICATION AND SYSTEM FUNCTIONS.
- SEE FIRE ALARM DRAWINGS FOR DEVICE QUANTITIES.
- CONTRACTOR SHALL VERIFY ALL DEVICE AND EQUIPMENT LOCATIONS, AND FUNCTIONS WITH FIRE MARSHAL AND OWNER PRIOR TO ROUGH-IN.
- PROVIDE 120V AND LOW-VOLTAGE SURGE PROTECTIVE DEVICES, TYPE AS RECOMMENDED BY SYSTEM MANUFACTURER.
- PROVIDE SURGE PROTECTION DEVICES FOR ALL INCOMING, OUTGOING SIGNAL AND/OR DATA LINE CIRCUITS, AT FIRE ALARM CONTROL PANEL AND AT DUAL LINE DIGITAL DIALER. COORDINATE WITH SYSTEM SUPPLIER.
- PROVIDE ISOLATION MODULES AS DESCRIBED IN FIRE ALARM SPECIFICATIONS. PROVIDE (1) MINIMUM PER WING, PER FLOOR.
- PROVIDE (2) SPARE SIGNAL CIRCUITS MINIMUM. PROVIDE REQUIRED BATTERY CAPACITY.
- SEE ELECTRICAL AND FIRE ALARM SPECIFICATIONS FOR MORE INFORMATION.

### FIRE ALARM SYSTEM LEGEND

**FACP** FIRE ALARM CONTROL PANEL  
**FARA** FIRE ALARM REMOTE ANNUNCIATOR  
**EPSP** FIRE ALARM FIELD CHARGING POWER SUPPLY

☒ STROBE. MOUNT @ 80" A.F.F. TO BOTTOM, U.O.N. ADA COMPLIANT.  
 ☒ HORN/STROBE. MOUNT @ 80" A.F.F. TO BOTTOM, U.O.N. ADA COMPLIANT.  
 ☒ STROBE CEILING MOUNTED.  
 ☒ HORN-STROBE CEILING MOUNTED.  
 ☒ MANUAL PULLSTATION. MOUNT @ 46" A.F.F. TO CENTER, U.O.N.  
 Ⓛ HEAT DETECTOR, RATE OF RISE, 135deg. F. FIXED TEMP., U.O.N.  
 Ⓢ AREA SMOKE DETECTOR, PHOTOELECTRIC.  
 Ⓢ DUCT MOUNTED SMOKE DETECTOR, PHOTOELECTRIC.  
 S - DENOTES IN SUPPLY AIR. R - DENOTES IN RETURN AIR.  
 Ⓢ SHUT-DOWN RELAY.  
 Ⓢ ISOLATION MODULE.  
 Ⓢ MONITOR MODULE.  
 Ⓢ FIRE SPRINKLER SYSTEM WATER FLOW SWITCH.  
 Ⓢ FIRE SPRINKLER SYSTEM VALVE TAMPER SWITCH.

NOT ALL DEVICES SHOWN IN LEGEND MAY BE REQUIRED FOR THIS PROJECT. REVIEW FIRE ALARM PLANS AND DETAILS FOR ITEMS WHICH APPLY.

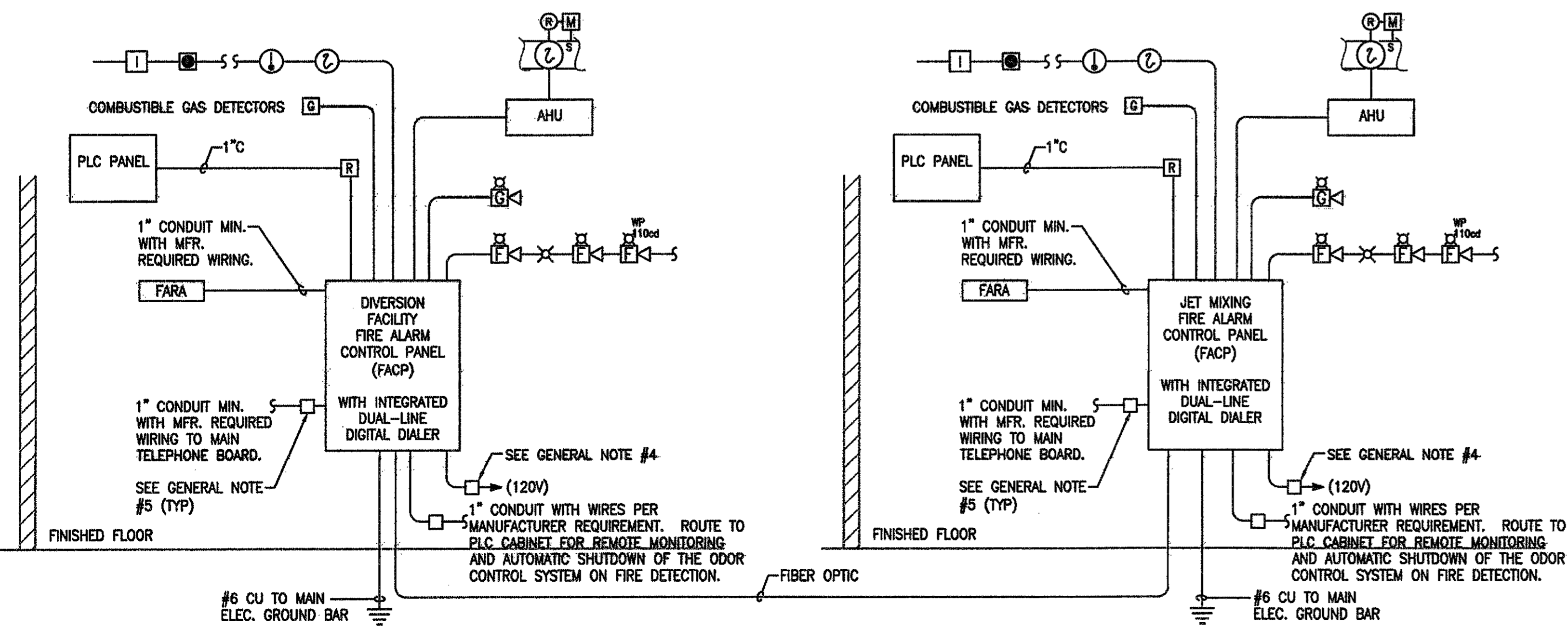
### FIRE ALARM SYSTEM REQUIREMENTS

- REFER TO SPECIFICATIONS FOR APPROVED MANUFACTURERS AND ADDITIONAL INFORMATION.
- FULLY ADDRESSABLE FIRE ALARM SYSTEM TO BE INSTALLED BY MANUFACTURER'S AUTHORIZED INSTALLER.
- SUBMIT SHOP DRAWINGS TO FIRE MARSHAL AND ENGINEER FOR APPROVAL PRIOR TO ROUGH-IN.
- PROVIDE AND INSTALL ALL 'FIRE MARSHAL APPROVED' SIGNAL TRANSMISSION EQUIPMENT FOR MUNICIPAL TIE-IN. COORDINATE WITH FIRE MARSHAL'S OFFICE.
- TROUBLE AND ALARM INITIATIONS TO TRANSMIT SEPARATE AND DISTINCT SIGNALS TO MONITORING STATION.
- INCOMING 'FIRE' ALARM INITIATIONS SHALL OVERRIDE 'TROUBLE' INITIATIONS.
- SEPARATE 'TROUBLE' AND 'ALARM' SIGNALS SHALL BE ANNUNCIATED AT CONTROL PANEL AND ANNUNCIATOR PANEL (IF APPLICABLE).
- ANNUNCIATOR PANEL (IF APPLICABLE) SHALL DUPLICATE REPORTING OF FIRE ALARM CONTROL PANEL. THIS PANEL SHALL INCLUDE SILENCE AND RESET KEY SWITCHES.
- COORDINATE WITH SYSTEM VENDOR FOR ADDITIONAL REQUIREMENTS AND PROVIDE ALL LINE VOLTAGE NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
- DUCT MOUNTED SMOKE DETECTORS, WHERE APPLICABLE, SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, SYSTEM WIRED BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR AND PROVIDE ACCORDINGLY.
- ELECTRICAL CONTRACTOR SHALL PROVIDE JUNCTION BOXES AND CONDUITS WITH WIRES AS REQUIRED FOR A COMPLETE FIRE ALARM SYSTEM.
- SIGNAL FROM A DUCT MOUNTED SMOKE DETECTOR SHALL SHUTDOWN ALL HVAC UNITS.
- ELECTRICAL CONTRACTOR'S FIRE ALARM SUBCONTRACTOR SHALL PROVIDE ALL CABLING, PER SYSTEM MANUFACTURER'S SPECIFICATIONS FOR CONTROL OPTIONS AS OUTLINED IN FIRE ALARM SPECIFICATIONS.
- ALL CABLING SHALL BE RUN IN 3/4" CONDUIT SYSTEM, MINIMUM, THROUGHOUT. EXCEPT WHERE SPECIFICALLY APPROVED BY FIRE MARSHAL AND OWNER FOR USE OF FREE CABLE. IF PERMISSION IS GRANTED IN WRITING, THEN SEE NOTES NO. 22, AND NO. 23 BELOW.
- PROVIDE SEPARATE I/O CONTROL CIRCUITS FOR ELEVATOR CONTROL AND HVAC SHUT-DOWN. SYSTEM SHALL HAVE TEST OVERRIDE CAPABILITIES FOR THESE CIRCUITS.
- RELAYS FOR SECURITY DOOR LOCKS (IF APPLICABLE) SHALL BE CONFIGURED SO THAT LOCKS WILL DE-ENERGIZE UPON ACTIVATION OF THE FIRE ALARM SYSTEM OR UPON LOSS OF NORMAL UTILITY POWER.
- SYSTEM ALARM INDICATION SHALL COMPLY WITH TEMPORAL CODE REQUIREMENTS.
- BATTERY CALCULATION SHALL BE BASED ON TWENTY-FOUR (24) HOURS OF STANDBY PLUS FIVE (5) MINUTES OF ALARM AT THE END OF THE PERIOD.
- HORN/STROBES AND STROBES SHALL BE WHITE IN COLOR, OR AS DIRECTED BY THE ARCHITECT.
- PROVIDE SYNC MODULES FOR ALL STROBES CIRCUITS.
- STROBE INTENSITIES SHALL BE AS FOLLOWS:  
 21.a. CEILING MOUNTED STROBES AND HORN/STROBES SHALL BE 75 CANDELA (cd) MINIMUM, AND SHALL CONFORM TO THE REQUIREMENTS OF NFPA 72.6-4.4.  
 21.b. WALL MOUNTED STROBES AND HORN/STROBES SHALL BE 15/75cd OR 75cd AND HIGHER AND SHALL CONFORM TO THE REQUIREMENTS OF NFPA 72.  
 21.c. WALL MOUNTED STROBES IN ROOMS 10'x10' OR SMALLER SHALL BE 30cd MINIMUM (i.e. PRIVATE TOILET ROOMS).
- IF APPLICABLE; SEE NOTE NO. 14 ABOVE; ALL CABLING NOT RUN IN CONDUIT SHALL BE FIRE RATED, NEQ TYPE, PLENUM CABLE AND MUST BE APPROVED BY THE FIRE MARSHAL PRIOR TO PURCHASING CABLE.
- IF APPLICABLE; SEE NOTE NO. 14 ABOVE; ALL ROUTING OF CABLING SHALL BE NEAT AND TIE-WRAPPED. CONTRACTOR SHALL PROVIDE "J" HOOKS FOR CABLING ROUTED ABOVE SUSPENDED CEILINGS. ALL CABLES SHALL BE TRAINED AND ROUTED PARALLEL TO BUILDING LINES. ALL TIES/SUPPORTS SHALL BE SUITABLE FOR USE IN HVAC PLENUMS.

### FIRE ALARM SYSTEM NOTES

- FIRE ALARM SYSTEM SHALL BE INSTALLED BY A LICENSED FIRE ALARM CONTRACTOR IN STRICT ACCORDANCE WITH NFPA-72 AS A MINIMUM.
- ANY DRAWINGS RESUBMITTED SHALL CLEARLY INDICATE REVISIONS BY CLOUDING AND DATING THE CHANGED AREA.
- AT THE TIME OF THE SYSTEM ACCEPTANCE TEST, THE FIRE ALARM CONTRACTOR'S TECH SHALL BE PREPARED TO CONDUCT THE TEST WITH A SOUND PRESSURE METER TO ENSURE PROPER SOUND PRESSURE LEVELS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH THE FOLLOWING INFORMATION AS A MINIMUM:  
 4.a. PROVIDE SEQUENCE OF OPERATION (A WRITTEN DESCRIPTION OR MATRIX CHART) TO DEFINE THE EVENTS THAT OCCUR WHEN VARIOUS INITIATING DEVICES ARE ACTIVATED.  
 4.b. DUCT MOUNTED SMOKE DETECTORS, WHERE APPLICABLE, SHALL UPON SENSING SMOKE SHUT DOWN ALL ASSOCIATED HVAC EQUIPMENT, VIA RELAYS SHOWN.  
 4.c. PROVIDE FIRE ALARM RISER SIMILAR TO RISER SHOWN ON CONSTRUCTION DOCUMENTS.  
 4.d. ALL SUBMITTALS SHALL INDICATE COMPLIANCE WITH LATEST ADOPTED EDITIONS: INTERNATIONAL FIRE CODE  
 NFPA - 72  
 NFPA - 13  
 NFPA - 101  
 NFPA - 70 (NATIONAL ELECTRICAL CODE)  
 ADA - AMERICANS WITH DISABILITIES ACT  
 ALL STATE AND LOCAL CODES AND ORDINANCES.  
 4.e. SHOP DRAWINGS SHALL IDENTIFY EACH STROBE LIGHT CANDELA RATINGS.  
 4.f. SHOW ALARM CONNECTION TO THE SPRINKLER SYSTEM DEVICES.  
 4.g. PROVIDE SIGNED AND DATED CONTRACT FOR TEST AND INSPECTION IN ACCORDANCE WITH NFPA STANDARDS ALONG WITH THE RECORD OF COMPLETION AS PER NFPA 72 1-6.2.1 AT TIME OF SYSTEM ACCEPTANCE.  
 4.h. PROVIDE DETAILS ON THE DRAWINGS SHOWING THE WIRING TYPE BASED ON NFPA 70 ARTICLE 760 AND CUT SHEET OF THE WIRING PROPOSED.  
 4.i. SHOW LOCATION OF ALL POWER EXPANDER PANELS AND SHOW SMOKE DETECTOR ABOVE EACH.  
 4.j. PROVIDE A CUTSHEET OF ALL LOW VOLTAGE SURGE SUPPRESSION PROPOSED FOR WIRING SHOWN.  
 4.k. PROVIDE BATTERY CALCULATION SUPPORTING COMPLIANCE WITH MINIMUM CODE OR AS REQUIRED BY THESE DOCUMENTS, WHICHEVER IS MORE STRINGENT.  
 4.l. PROVIDE VOLTAGE DROP CALCULATION FOR THE PROPOSED WIRE SIZING, TYPE AND ROUTING.  
 4.m. PROVIDE RECORD DRAWINGS SHOWING ACTUAL CONDUIT AND WIRING INSTALLATION AND ANY DEVIATION FROM THE PROPOSED ONE.  
 4.n. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER WITH AN ACTIVE STATE LICENSE.

**NOTE:**  
 THE FIRE ALARM DESIGN SHOWN IS CONSIDERED PRELIMINARY AND IS INTENDED TO PROVIDE GENERAL LAYOUT AND CRITERIA INFORMATION FOR BIDDING PURPOSES ONLY.  
 THE SUCCESSFUL FIRE ALARM SYSTEM INSTALLER SHALL BE RESPONSIBLE FOR PREPARING FOR AND OBTAINING THE NECESSARY PERMIT, AND FOR PROVIDING DEVICES SUITABLE FOR THE LOCATION AT WHICH THEY ARE INSTALLED, AND FOR CONFIRMING WITH THE FIRE MARSHAL THAT THE SYSTEM IS SUITABLE AND COMPLETE. ANY ADDITIONAL REQUIREMENTS AND/OR DEVICES REQUIRED BY THE FIRE MARSHAL SHALL BE ADDED, AT NO ADDITIONAL COST TO THE OWNER.



**OPERATION MATRIX SCHEDULE**  
 INDICATES DESIRED RESPONSE

INPUTS	OUTPUTS												
	ALARM AT LOCAL FIRE ALARM CONTROL PANEL	TROUBLE AT LOCAL FIRE ALARM CONTROL PANEL	SUPERVISORY AT LOCAL FIRE ALARM CONTROL PANEL	ALARM AT REMOTE ANNUNCIATOR PANEL	TROUBLE AT REMOTE ANNUNCIATOR PANEL	SUPERVISORY AT REMOTE ANNUNCIATOR PANEL	TRANSMIT ALARM SIGNAL TO REMOTE ANNUNCIATOR PANEL	TRANSMIT TROUBLE SIGNAL TO REMOTE LOCATION	SHUTDOWN AHU IN ALARM	SILENCE BUILDING EVACUATION SIGNALS - HORNS/STROBES	ALARM AT MASTER FIRE ALARM CONTROL PANEL	TROUBLE AT MASTER FIRE ALARM CONTROL PANEL	SUPERVISORY AT MASTER FIRE ALARM CONTROL PANEL
BUILDING FIRE ALARM FUNCTIONS													
MANUAL FIRE ALARM PULL STATION	•	•	•	•	•	•	•	•	•	•	•	•	•
SMOKE DETECTOR	•	•	•	•	•	•	•	•	•	•	•	•	•
HEAT DETECTOR	•	•	•	•	•	•	•	•	•	•	•	•	•
DUCT SMOKE DETECTOR				•	•	•	•	•	•	•	•	•	•
SPRINKLER TAMPER SWITCH ACTIVATED				•	•	•	•	•	•	•	•	•	•
SPRINKLER WATER FLOW SWITCH ACTIVATED				•	•	•	•	•	•	•	•	•	•
FACP PANEL(S) TROUBLE CONDITION	•	•	•	•	•	•	•	•	•	•	•	•	•
GENERATOR RUN	•	•	•	•	•	•	•	•	•	•	•	•	•
OPEN CIRCUIT FAULT	•	•	•	•	•	•	•	•	•	•	•	•	•
GROUND FAULT	•	•	•	•	•	•	•	•	•	•	•	•	•
SHORT FAULT	•	•	•	•	•	•	•	•	•	•	•	•	•
LOSS OF FACP PRIMARY POWER	•	•	•	•	•	•	•	•	•	•	•	•	•
FACP LOW BATTERY CONDITION	•	•	•	•	•	•	•	•	•	•	•	•	•
FACP BATTERY NOT CONNECTED	•	•	•	•	•	•	•	•	•	•	•	•	•
REMOTE ANNUNCIATOR PANEL TROUBLE CONDITION	•	•	•	•	•	•	•	•	•	•	•	•	•
OPERATOR ACTIVATION OF ALARM SILENCE SWITCH AT FACP													
SYSTEM RESET AT FACP AFTER ALARM, TROUBLE, AND SUPERVISORY SIGNALS CLEARED													

REGISTERED PROFESSIONAL ENGINEER  
 K. V. G. C. V. E. N.

CITY OF ATLANTA

PEACHTREE CREEK SOUTH FORK  
 RELIEF STORAGE AND PUMPING STATION

DEPARTMENT OF WATERSHED MANAGEMENT

REV	DATE	REVISION DESCRIPTION
0	10/28/12	100 PERCENT BID PACKAGE

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.

PROJECT NO: FC-6260  
 DATE: OCTOBER 2012

RESP PROF: KCV    DESIGNER: AWP    CHECKER: WFR

SHEET TITLE  
 ELECTRICAL  
 00 - GENERAL  
 FIRE ALARM RISER & NOTES

SHEET NO. E0-603    REV. 0