

### FIRE ALARM LEGEND

- [FACP] FIRE ALARM CONTROL PANEL
- [D] DUCT SMOKE DETECTOR
- [CM] CONTACT MONITOR MODULE
- [CI] CONTROL INTERFACE
- [ISO] ISOLATION MODULE
- [SS] SURGE SUPPRESSOR
- [FATC] FIRE ALARM TERMINAL CABINET
- [EOL] END OF LINE RESISTOR

### ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- BFP BACKFLOW PREVENTER
- IAW IN ACCORDANCE WITH
- O.C. ON CENTER
- WP WEATHERPROOF
- FDC FIRE DEPARTMENT CONNECTION
- EP ELECTRICAL POWER (120V AC)
- PIV POST INDICATOR VALVE
- SLC SIGNALING LINE CIRCUIT
- NAC NOTIFICATION APPLIANCE CIRCUIT
- AHU AIR HANDLING UNIT

### SPRINKLER LEGEND

- OH2 ORDINARY HAZARD, GROUP 2 SPRINKLER OCCUPANCY
- [TS] TAMPER SWITCH
- [F] WATERFLOW SWITCH
- [10] SPRINKLER CALCULATION NODE
- Gate Valve Symbol GATE VALVE
- Check Valve Symbol CHECK VALVE
- Ball Valve Symbol BALL VALVE
- Backflow Preventer Symbol BACKFLOW PREVENTER
- Backflow Preventer Test Connection Symbol BACKFLOW PREVENTER TEST CONNECTION
- Waterflow Alarm Bell Symbol WATERFLOW ALARM BELL

### SPRINKLER SYSTEM DESIGN DATA

SPACE	SYSTEM TYPE	OCCUPANCY TYPE	DESIGN DENSITY GPM/SF	DESIGN AREA SF	HOSE STREAM GPM
OFFICES, CLASSROOMS, RESTROOMS	WET	LIGHT HAZARD	0.10	1500	100
KITCHEN, STORAGE, UTILITY	WET	ORDINARY HAZARD, GROUP 2	0.20	1500	250

**NOTES:**

- ALL SPACES NOT SHOWN AS ORDINARY HAZARD GROUP 2 OR STORAGE ARE LIGHT HAZARD.
- FLOW RATES SHALL BE BASED ON HYDRAULIC CALCULATIONS.
- REMOTE AREA REDUCTION WITH QUICK RESPONSE SPRINKLERS IS PERMITTED, IAW NFPA 13 REQUIREMENTS.

### WATER FLOW TEST DATA

STATIC PRESSURE PSI	RESIDUAL PRESSURE PSI	FLOW RATE GPM
60	55	1237

**NOTES:**

- TEST PERFORMED BY FIRE TECHNOLOGIES INC. ON MAY 28, 2017.
- FLOW HYDRANT LOCATED AT EVANS ST. AND HURST ST. GAUGE HYDRANT LOCATED TO THE WEST, ALONG HURST ST.

### GENERAL NOTES

- PROVIDE WET-PIPE SPRINKLER SYSTEM AND DEDICATED FUNCTION FIRE ALARM SYSTEM IN ADMINISTRATIVE BUILDING ONLY.
- COMPLY WITH 2012 NORTH CAROLINA BUILDING CODE, 2013 NFPA 13, AND 2013 NFPA 72.
- RUN PIPING CONCEALED ABOVE CEILINGS. IN ROOMS WITH EXPOSED CONSTRUCTION, RUN THE PIPING EXPOSED USING UPRIGHT SPRINKLER HEADS, EXCEPT AS NOTED OTHERWISE.
- NO PIPE PENETRATIONS OF STRUCTURAL MEMBERS, EXCEPT AS NOTED, ARE PERMITTED WITHOUT THE APPROVAL OF THE ARCHITECT.
- RUN SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCH GEAR AND SIMILAR EQUIPMENT.
- PROTECT SPRINKLER SYSTEM AGAINST DAMAGE FROM EARTHQUAKES IN ACCORDANCE WITH NFPA 13.
- PROVIDE UL LISTED THROUGH PENETRATION FIRE STOPPING ASSEMBLIES FOR EACH PENETRATION OF FIRE-RATED ASSEMBLIES.
- SMOKE DETECTORS SHALL NOT BE MOUNTED IN DIRECT AIR STREAM OF AIR SUPPLY OUTLETS. DETECTORS SHALL BE MOUNTED AT LEAST 3 FEET FROM AIR SUPPLY DIFFUSERS OR RETURN OPENINGS AND AT LEAST 12 INCHES FROM ANY PART OF A LIGHTING FIXTURE.
- CONTRACTOR SHALL FURNISH, INSTALL AND SEAL ALL SLEEVES, HOLES, CORES, PATCHING, SLOTS, ANCHORS, BRACKETS, SUPPORTS, JUNCTION BOXES, PULL BOXES, AND OTHER APPURTENANCES NECESSARY TO COMPLETE THE CONTRACT DOCUMENTS COMPLETELY. SOME OF THESE ITEMS MAY BE SHOWN ON THE DRAWINGS FOR CLARITY OR DESIGN PREFERENCE, HOWEVER, NOT ALL OF THE ITEMS, NECESSARY FOR COMPLETE EXECUTION AND INSTALLATION, ARE SHOWN.
- ALL DUCT TYPE SMOKE DETECTORS SHALL BE PROVIDED WITH REMOTE TEST, ALARM INDICATOR AND RESET CONTROLS.

WILMINGTON, NC  
**HAYNES / LACEWELL  
 POLICE AND FIRE  
 TRAINING FACILITY**

DESIGNER  
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CONSULTANT:

SEALS

SUBMITTAL  
 4 MAY 2018  
 CONSTRUCTION DOCUMENTS

REVISIONS:

NO.	DESCRIPTION

SHEET  
**FIRE PROTECTION LEGEND**

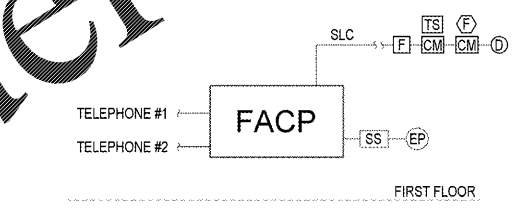
**F-001**

SHEET OF XX

DESIGN: RCF  
 DRAWN: EVA  
 REVIEW: CHB

CN 5938

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**1 FIRE ALARM RISER DIAGRAM**  
 NO SCALE

### MATRIX OF OPERATION

SYSTEM INPUTS	ACTIVATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE COMMON SUPERVISORY SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	DISPLAY CHANGE OF STATUS	TRANSMIT ALARM SIGNAL	TRANSMIT SUPERVISORY SIGNAL TO RECEIVING STATION	SHUT DOWN TERRITORY ALARM	REPORT ALARM TO BUILDING AUTOMATION SYSTEM
MANUAL FIRE ALARM BOX	•	•	•	•	•	•	•	•	•		
SPRINKLER FLOW SWITCH	•	•			•	•	•	•			
DUCT SMOKE DETECTOR	•	•			•	•	•	•			
SPRINKLER VALVE TAMPER SWITCH			•	•							
FIRE ALARM AC POWER FAILURE			•	•							
FIRE ALARM SYSTEM LOW BATTERY			•	•							
OPEN CIRCUIT			•	•							
GROUND FAULT			•	•							
NOTIFICATION APPLIANCE CIRCUIT SHORT			•	•							

**2 FIRE ALARM MATRIX OF OPERATION**  
 NO SCALE