

1	2	3	4	5	6
<p>FIRE SPRINKLER SYMBOLS</p> <p>☒ SPRINKLER SYSTEM RISER</p> <p>○ INSPECTOR'S TEST CONNECTION/AUXILIARY DRAIN</p> <p>○ UPRIGHT SPRINKLER*</p> <p>● PENDENT SPRINKLER*</p> <p>*SEE SPRINKLER DESIGN CRITERIA TABLE FOR K-FACTOR, TEMPERATURE, AND RESPONSE TYPE</p>	<p>PIPING SYMBOLS</p> <p>○ ELBOW UP</p> <p>○ ELBOW DOWN</p> <p>○ VALVE IN DROP</p> <p>○ VALVE IN CENTER DROP</p> <p>○ VALVE IN RISE</p> <p>→ DIRECTION OF FLOW</p> <p>↘ DIRECTION OF SLOPE DOWN</p> <p>○ CONCENTRIC REDUCER</p> <p>○ ECCENTRIC REDUCER</p> <p>○ TEE OUTLET UP</p> <p>○ TEE OUTLET DOWN</p> <p> UNION</p> <p>○ STRAINER WITH BLOWDOWN VALVE</p> <p>○ GATE VALVE</p> <p>○ CHECK VALVE</p> <p>○ PRESSURE CONTROL VALVE</p> <p>○ RELIEF VALVE</p> <p>○ PRESSURE GAUGE WITH GAUGE COCK</p> <p>○ TEST PORT</p>	<p>FIRE SUPPRESSION SYSTEM GENERAL NOTES</p> <p>A. PROVIDE A COMPLETE AUTOMATIC WET-PIPE SPRINKLER SYSTEM THROUGHOUT THE ENTIRE BUILDING. ULTRA-HIGH-SPEED DELUGE SYSTEMS SHALL BE PROVIDED IN LOCATIONS WITH AN ELEVATED RISK OF DEFLAGRATION.</p> <p>ALL SYSTEMS ALL SYSTEMS MUST BE DESIGNED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:</p> <ul style="list-style-type: none"> - ARKANSAS FIRE PROTECTION CODE, VOLUME I (FIRE (2021 INTERNATIONAL FIRE CODE WITH ARKANSAS AMENDMENTS)) - ARKANSAS FIRE PROTECTION CODE, VOLUME II (BUILDING (2021 INTERNATIONAL BUILDING CODE WITH ARKANSAS AMENDMENTS)) - NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (2019) - NFPA 15, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION (2017) - FM LPDS 2-0, INSTALLATION GUIDELINES FOR AUTOMATIC SPRINKLERS (2021) - FM LPDS 3-0, HYDRAULICS OF FIRE PROTECTION SYSTEMS (2019) - FM LPDS 3-26, FIRE PROTECTION FOR NONSTORAGE OCCUPANCIES (2021) <p>B. ALL MATERIALS, MEANS AND METHODS SHALL COMPLY WITH APPLICABLE CODES, ORDINANCES, REGULATIONS, AND STANDARDS.</p> <p>C. IN THE EVENT OF CONFLICTING REQUIREMENTS BETWEEN ICC, NFPA, AND FM GLOBAL, AND/OR OTHER CODES AND STANDARDS THE MORE STRINGENT REQUIREMENT SHALL BE USED.</p> <p>D. THE FIRE PROTECTION CONTRACTOR SHALL BE CERTIFIED AND LICENSED TO PERFORM THE ENGINEERING, DESIGN, INSTALLATION, AND TESTING OF FIRE PROTECTION SYSTEMS IN ARKANSAS.</p> <p>E. FIRE PROTECTION SYSTEM MATERIALS AND COMPONENTS SHALL BE FM APPROVED.</p> <p>F. COORDINATE THE DESIGN, LAYOUT, AND INSTALLATION OF FIRE PROTECTION PIPING AND EQUIPMENT WITH ALL TRADES AND DRAWINGS PRIOR TO COMMENCING INSTALLATION. ALL DRAINS MUST BE ROUTED TO THE EXTERIOR OF THE BUILDING AND TERMINATE NO MORE THAN 2 FEET ABOVE GRADE. ARRANGE DRAIN SO THAT IT DISCHARGES DIRECTLY ONTO A SPLASH BLOCK OR CONCRETE SURFACE. DRAINAGE TO CONCRETE SURFACES MUST NOT DISCHARGE ADJACENT TO AN EXIT DOOR, NOR CROSS THE PATH OF EGRESS DISCHARGE.</p> <p>G. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, BEFORE ANY WORK STARTS, SUBMIT AND OBTAIN APPROVAL FROM THE AHJ AND FM GLOBAL. AT A MINIMUM, APPROVAL IS REQUIRED FOR PRODUCT DATA, CALCULATIONS, AND DRAWINGS AS REQUIRED BY NFPA 13, FM LPDS 2-0, AND OTHER REQUIREMENTS PROMULGATED BY THE AHJ.</p> <p>H. COMPLETE WORKING PLANS SHALL BE PROVIDED TO CLEARLY DEFINE THE SCOPE OF WORK FOR THE SPRINKLER SYSTEMS AND INCLUDE ALL APPLICABLE ITEMS AS INDICATED FOR WORKING PLANS IN ACCORDANCE WITH NFPA 13 AND FM LPDS 2-0. PLANS SHALL INCLUDE NEW SPRINKLER LOCATIONS, BRANCHLINE SIZES, LOCATION AND ROUTING AS REQUIRED TO SATISFY THE DESIGN CRITERIA SPECIFIED.</p> <p>I. WATER DEMAND FOR THE FIRE PROTECTION SYSTEMS SHALL BE SUPPLIED BY A NEW 200,000 GALLONS FIRE WATER STORAGE TANK AND 1,500 GPM, 150 PSI RATED FIRE PUMP THAT CONNECT BACK TO THE EXISTING SITE FIRE WATER DISTRIBUTION SYSTEM. PERFORM A FIRE HYDRANT FLOW TEST IN ACCORDANCE WITH NFPA 291 FOR HYDRAULIC CALCULATIONS WITHIN 6 MONTHS OF SHOP DRAWING SUBMITTAL.</p> <p>J. HYDRAULIC CALCULATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13, FM LPDS 2-0, AND FM LPDS 3-0 TO ENSURE THE WATER SUPPLY IS SUFFICIENT. HYDRAULIC CALCULATIONS SHALL INCLUDE THE WORST-CASE DOMESTIC WATER DEMAND AT THE SOURCE AS THE DOMESTIC WATER LINE IS SERVED BY THE SAME WATER SUPPLY. A MINIMUM SAFETY FACTOR OF 10% OR 10 PSI, WHICHEVER IS GREATER, SHALL BE MAINTAINED BETWEEN THE AVAILABLE WATER SUPPLY AND COMBINED DEMAND OF SPRINKLER SYSTEM AND HOSE STREAM ALLOWANCE TO ACCOUNT FOR FUTURE DETERIORATION. THE PLANS SHALL INDICATE PIPING LOCATIONS, SIZE, AND ROUTING WITH HYDRAULIC NODE POINTS BACK TO SOURCE OF FIRE PROTECTION WATER.</p> <p>K. CONTRACTOR TO PROVIDE UNDERGROUND FIRE PIPING INTO THE BUILDING, TERMINATING 5 FT FROM THE BUILDING. COORDINATE WITH CIVIL DRAWINGS FOR LOCATION OF UNDERGROUND FIRE WATER SUPPLY MAIN.</p> <p>L. PROVIDE SCHEDULE 40 BLACK STEEL FOR ALL FIRE SPRINKLER SYSTEM PIPING. THE CONTRACTOR MAY UTILIZE THREADED OR ROLL GROOVED FITTINGS. PLAIN END FITTINGS WITH MECHANICAL COUPLINGS AND FITTINGS THAT USE STEEL GRIPPING DEVICES TO BITE INTO THE PIPE ARE PROHIBITED. SADDLE TEES USING RUBBER GASKET FITTINGS ARE PROHIBITED. GALVANIZED PIPE AND FITTINGS ARE PROHIBITED. ALL PENETRATIONS THROUGH DESIGNATED FIRE RATED WALLS, CEILING AND FLOORS SHALL BE PROPERLY SEALED WITH AN APPROVED RATED FIRE STOPPING MATERIAL.</p> <p>M. SPRINKLER DISCHARGE SHALL NOT BE OBSTRUCTED IN ANY WAY. WHERE OBSTRUCTIONS TO SPRINKLER DISCHARGE EXIST, LOCATE OR PROVIDE SPRINKLERS WITH RESPECT TO THESE OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13 AND FM LPDS 2-0.</p> <p>N. CENTER SPRINKLERS IN BOTH DIMENSIONS OF CEILING TILES AND ALIGN SPRINKLERS WITH LIGHT FIXTURES FOR GYPSUM BOARD CEILINGS. PROVIDE LISTED SPRINKLER GUARDS FOR ALL SPRINKLERS WHERE LOCATED LESS THAN 7 FEET ABOVE FINISHED FLOOR IN UNFINISHED AREAS AND WHERE SUBJECT TO MECHANICAL DAMAGE. PROVIDE GUARDS IN ALL ELECTRICAL AND TELECOM ROOMS REGARDLESS OF SPRINKLER HEIGHT.</p> <p>O. SPRINKLERS AND SPRINKLER PIPING IS PERMITTED IN AND IS PERMITTED TO PASS THROUGH AN ELECTRICAL ROOM AS LONG AS THE PIPING IS NOT WITHIN THE "DEDICATED ELECTRICAL SPACE" AS DEFINED BY NFPA 70. DO NOT LOCATE FIRE SPRINKLER SYSTEM PIPING OVER OR WITHIN THREE LATERAL FEET OF ELECTRICAL PANELS, TRANSFORMERS, OR OTHER ELECTRICAL EQUIPMENT.</p> <p>P. PROVIDE AUXILIARY DRAINAGE FOR ALL TRAPPED SECTIONS OF PIPE, SIZED AND CONFIGURED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13. PROVIDE AUTOMATIC AIR VENTS AT ALL HIGH POINTS IN EACH WET PIPE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.</p> <p>Q. PROVIDE SIGNAGE IN ACCORDANCE WITH NFPA 13 ON ALL RISERS AND VALVES. FOR RISERS, INDICATE AREA SERVED AND DESIGN CRITERIA. FOR VALVES, INDICATE FUNCTION AND NORMAL OPERATING CONDITION.</p> <p>R. SPRINKLER DESIGN DEMANDS FOR HAZARD CATEGORIES SHALL BE IN ACCORDANCE WITH FM LPDS 3-26 TABLE 2.3.1.10.</p> <p>S. NO FIRE DEPARTMENT CONNECTION WILL BE PROVIDED FOR THIS BUILDING DUE TO THE EXPLOSION RISK OF ENERGETIC MATERIALS.</p> <p>T. FIRE SPRINKLER PIPING MUST BE PROVIDED WITH SEISMIC PROTECTION IN ACCORDANCE WITH NFPA 13. PROVIDE BRANCH LINE RESTRAINTS. THE SEISMIC DESIGN CATEGORY IS "C".</p> <p>U. CONTRACTOR IS RESPONSIBLE FOR CONNECTING THE SPRINKLER SYSTEM TO THE FIRE WATER SUPPLY LOOP AROUND THE BUILDING. UNDERGROUND PIPING SHALL BE CONSTRUCTED OF HDPE PIPING, FM CLASS 200.</p> <p>V. THE SIZE OF THE SUPPLY PIPE SHALL BE HYDRAULICALLY CALCULATED TO SATISFY THE REQUIRED FIRE WATER DEMAND FOR THE BUILDING. THE MINIMUM PIPE SIZE SHALL BE 8 IN.</p> <p>W. THESE DOCUMENTS DEPICT PERFORMANCE LEVEL ENGINEERING DESIGN CRITERIA TO BE UTILIZED AS GUIDANCE FOR THE PLANNING OF THE FIRE SPRINKLER SYSTEM BY THE CONTRACTOR. PROVIDE COMPLETE DOCUMENTS FOR REVIEW AND APPROVAL FROM A REGISTERED FIRE PROTECTION ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. INCLUDE SHOP DRAWINGS, CALCULATIONS, AND ANY ADDITIONAL EQUIPMENT NECESSARY TO PROVIDE A COMPLETE INSTALLATION AND COMPLY WITH LOCAL CODES AMENDMENTS, AND STANDARDS.</p>	<p>FIRE ALARM SYSTEM GENERAL NOTES</p> <p>A. PROVIDE THE BUILDING WITH A FULLY ADDRESSABLE TYPE AUTOMATIC FIRE ALARM SYSTEM WITH A STANDALONE FIRE ALARM CONTROL PANEL (FACP). PROVIDE DELUGE RELEASING AND OPTICAL FLAME DETECTION MONITORING AND CONTROL SYSTEMS IN LOCATIONS WITH AN ELEVATED RISK OF DEFLAGRATION.</p> <p>ALL SYSTEMS ALL SYSTEMS MUST BE DESIGNED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:</p> <ul style="list-style-type: none"> - ARKANSAS FIRE PROTECTION CODE, VOLUME I (FIRE (2021 INTERNATIONAL FIRE CODE WITH ARKANSAS AMENDMENTS)) - ARKANSAS FIRE PROTECTION CODE, VOLUME II (BUILDING (2021 INTERNATIONAL BUILDING CODE WITH ARKANSAS AMENDMENTS)) - NFPA 15, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION (2017) - NFPA 70, NATIONAL ELECTRICAL CODE (2020) - NFPA 72, NATIONAL FIRE ALARM CODE (2019) - FM LPDS 5-48, AUTOMATIC FIRE DETECTION (2021) <p>B. ALL MATERIALS, MEANS AND METHODS SHALL COMPLY WITH APPLICABLE CODES, ORDINANCES, REGULATIONS, AND STANDARDS.</p> <p>C. IN THE EVENT OF CONFLICTING REQUIREMENTS BETWEEN ICC, NFPA, AND FM GLOBAL, AND/OR OTHER CODES AND STANDARDS THE MORE STRINGENT REQUIREMENT SHALL BE USED.</p> <p>D. THE FIRE ALARM CONTRACTOR SHALL BE CERTIFIED AND LICENSED TO PERFORM THE ENGINEERING, DESIGN, INSTALLATION, AND TESTING OF FIRE ALARM SYSTEMS IN ARKANSAS.</p> <p>E. FIRE ALARM SYSTEM MATERIALS AND COMPONENTS SHALL BE FM APPROVED.</p> <p>F. COORDINATE THE DESIGN, LAYOUT, AND INSTALLATION OF FIRE ALARM WIRING AND COMPONENTS WITH ALL TRADES AND DRAWINGS PRIOR TO COMMENCING INSTALLATION.</p> <p>G. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, BEFORE ANY WORK STARTS, SUBMIT AND OBTAIN APPROVAL FROM THE AHJ AND FM GLOBAL. AT A MINIMUM, APPROVAL IS REQUIRED FOR PRODUCT DATA, CALCULATIONS, AND DRAWINGS AS REQUIRED BY NFPA 72 AND OTHER REQUIREMENTS PROMULGATED BY THE AHJ.</p> <p>H. THE LOCATIONS AND POINTS SHOWN ON THE PLANS ARE DIAGRAMMATICAL AND FOR REFERENCE ONLY. THE CONTRACTOR SHALL SHOW THE FINAL INFORMATION ON THE SHOP DRAWINGS AND INSTALLATION SHALL NOT BEGIN UNTIL THESE PLANS ARE APPROVED.</p> <p>I. ALL WIRING SHALL COMPLY WITH PROJECT SPECIFICATIONS, AND ALL LOCAL AND NATIONAL ELECTRICAL CODES. NOTIFICATION CIRCUITS SHALL HAVE A MINIMUM OF 20% SPARE CAPACITY FOR FUTURE MODIFICATIONS.</p> <p>J. CONTRACTOR SHALL PROVIDE VOLTAGE DROP CALCULATIONS FOR FIRE ALARM CIRCUITS IN ACCORDANCE WITH NFPA 72.</p> <p>K. CONTRACTOR TO PROVIDE THE CONNECTION BETWEEN THE NEW ALARM SYSTEM IN THE BUILDING TO THE EXISTING SITE FIRE ALARM SYSTEM. THE BUILDING FACP SHALL BE CONNECTED TO THE MAIN DISTRIBUTION POINT LOCATED AT THE M142 COMPUTER ROOM AND COMMUNICATE WITH CENTRAL NETWORK VIA THE FIBER OPTIC NETWORK. THE BUILDING FACP SHALL BE COMPATIBLE WITH THE EXISTING SITE FIRE ALARM NETWORK.</p> <p>L. CONTRACTOR SHALL CONFIRM THE LOCATION, MAKE/MODEL, AND NETWORKING WITH THE MAIN SITE FIRE ALARM CONTROL PANEL.</p> <p>M. SIGNALING LINE CIRCUITS (SLC) AND NOTIFICATION APPLIANCE CIRCUITS (NAC) WITHIN EACH BUILDING SHALL BE DESIGNATED AS GLASS X PATHWAYS. INTERCONNECTIONS BETWEEN BUILDINGS SHALL BE SIGNALING LINE CIRCUITS DESIGNATED AS CLASS X PATHWAYS.</p> <p>N. AUDIBLE FIRE ALARM SOUND LEVELS SHALL BE AT LEAST 15 dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL, OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, MEASURED 5 FEET ABOVE THE FLOOR IN THE OCCUPIABLE AREA, BUT NOT GREATER THAN 110 dBA AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE.</p> <p>O. MOUNT ALL WALL-MOUNTED VISUAL AND VISUAL/AUDIBLE NOTIFICATION APPLIANCES WITH THE ENTIRE STROBE LENS BETWEEN 80" TO 98" ABOVE THE FINISHED FLOOR. OBSTRUCTIONS CREATED BY MECHANICAL AND ELECTRICAL EQUIPMENT MUST BE CONSIDERED WHEN INSTALLING DEVICES.</p> <p>P. MOUNT THE OPERABLE PART OF MANUAL PULL STATIONS AT 48" AFF.</p> <p>Q. DO NOT LOCATE DETECTORS IN DIRECT AIR FLOW OR CLOSER THAN 3 FEET FROM AN AIR SUPPLY OR RETURN DIFFUSER.</p> <p>R. PROVIDE TAMPER SWITCHES FOR SUPERVISION OF FIRE SUPPRESSION SYSTEM VALVES IN ACCORDANCE WITH NFPA 13 AND NFPA 72.</p> <p>S. PROVIDE AUTOMATIC SPRINKLER SYSTEMS WITH WATER FLOW SWITCHES TO MONITOR ACTIVATION OF THE SYSTEM.</p> <p>T. THESE DOCUMENTS DEPICT A PERFORMANCE LEVEL ENGINEERING DESIGN LAYOUT TO BE UTILIZED AS GUIDANCE FOR THE PLANNING OF THE FIRE ALARM SYSTEM BY THE CONTRACTOR. PROVIDE COMPLETE DOCUMENTS FOR REVIEW AND APPROVAL FROM A REGISTERED FIRE PROTECTION ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. INCLUDE IN THE SHOP DRAWINGS AND CALCULATIONS ANY ADDITIONAL EQUIPMENT NECESSARY, INCLUDING INITIATING DEVICES AND NOTIFICATION APPLIANCES, TO PROVIDE A COMPLETE INSTALLATION AND COMPLY WITH LOCAL CODES, AMENDMENTS AND STANDARDS.</p>	<p>DELEGATED DESIGN</p> <p>THE CONTRACTOR MUST EMPLOY OR RETAIN A NICET LEVEL III OR IV TECHNICIAN TO DESIGN AND DETAIL DELEGATED DESIGN ITEMS TO MEET THE PERFORMANCE AND DESIGN CRITERIA ESTABLISHED IN THE CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO:</p> <ol style="list-style-type: none"> 1. WET-PIPE, PREACTION, AND ULTRA HIGH-SPEED DELUGE SYSTEM LAYOUT INCLUDING ALL PIPING, VALVES, AND SPRINKLER LOCATIONS. 2. HYDRAULIC CALCULATIONS. 3. SEISMIC BRACING LAYOUT AND CALCULATIONS. 4. FIRE ALARM DESIGN INCLUDING LAYOUT, TYPE, AND NUMBER OF DEVICES. 	
<p>FIRE ALARM SYMBOLS</p> <p>FACP FIRE ALARM CONTROL PANEL</p> <p>RECP ULTRA HIGH-SPEED DELUGE RELEASING CONTROL PANEL</p> <p>PRCP PREACTION RELEASING CONTROL PANEL</p> <p>○ CEILING-MOUNTED FIRE ALARM HORN</p> <p>○ CEILING-MOUNTED FIRE ALARM HORN/STROBE</p> <p>○ CEILING-MOUNTED FIRE ALARM STROBE</p> <p>○ WALL-MOUNTED FIRE ALARM HORN</p> <p>○ WALL-MOUNTED FIRE ALARM HORN/STROBE</p> <p>○ WALL-MOUNTED FIRE ALARM STROBE</p> <p>○ ADDRESSABLE DUCT SMOKE DETECTOR (SUPPLY, RETURN)</p> <p>○ ADDRESSABLE MANUAL FIRE ALARM PULL STATION</p> <p>○ ADDRESSABLE MANUAL DELUGE RELEASING PULL STATION</p> <p>○ ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR</p> <p>○ UV/IR FLAME DETECTORS</p> <p>○ ADDRESSABLE MONITOR MODULE</p> <p>○ ADDRESSABLE CONTROL MODULE</p> <p>○ SUPERVISORY VALVE TAMPER SWITCH</p> <p>○ WATER FLOW SWITCH - VANE TYPE</p> <p>○ PRESSURE SWITCH</p> <p>*WP* DESIGNATES WEATHER PROOF DEVICE AND BACKBOX</p> <p>*XP* DESIGNATES EXPLOSION PROOF DEVICE AND BACKBOX</p>	<p>MISCELLNEOUS</p> <p>○ CALCULATION NODE POINT (2 NODES)</p> <p>○ CALCULATION NODE POINT (1 NODE)</p> <p>○ NOTE BY SYMBOL REFERENCE</p>	<p>DRAWING REFERENCE</p> <p>REFER TO DRAWING/DETAIL NUMBER</p> <p>A1</p> <p>RE-A1F-001</p> <p>SHEET NUMBER ON WHICH CONDITION IS SHOWN</p>	<p>FIRE PUMP & WATER STORAGE TANK</p> <p>THE GMLRS BUILDING WILL BE FED FROM A FIRE PUMP SERVING MULTIPLE BUILDINGS LOCATED IN AN EXTERIOR PUMP HOUSE TO BE RATED AT 1,500 GPM AND 150 PSI TO MEET THE HIGHEST FIRE WATER DEMAND. 1,500 GPM IS THE HIGHEST FIRE FLOW REQUIRED FOR ALL BUILDINGS PER IFC 2021 APPENDIX B, TABLE B103.1(2) AND EXCEEDS THE HYDRAULICALLY CALCULATED SPRINKLER DEMANDS FOR EACH BUILDING.</p> <p>THE GMLRS BUILDING WILL BE FED FROM A NEW 200,000 GALLON FIRE WATER STORAGE TANK TO BE LOCATED UPSTREAM OF THE NEW FIRE PUMP.</p>	<p>JACOBS</p> <p>1875 Bryant Street, Suite 2000 Little Rock, AR 72202 Phone: 501.221.2200 Fax: 501.221.2201 Email: Jacobs.Engineering@jaco.com License # 178 License Exp. Date: 12/31/2024 License Type: Engineering</p>	

SPRINKLER DESIGN CRITERIA									
HATCH	NFPA 13 HAZARD CATEGORY	FM LPDS 3-26 HAZARD CATEGORY	SYSTEM TYPE	CEILING HEIGHT UP TO 30'-0"	CEILING HEIGHT 30'-0" - 45'-0"	CEILING HEIGHT 45'-0" - 60'-0"	HOSE STREAM/DURATION	K-FACTOR	REQUIRED SPRINKLER
	LIGHT HAZARD	HC-1	WET-PIPE	0.10 GPM/SF OVER THE MOST REMOTE 1,500 SF	0.20 GPM/SF OVER THE MOST REMOTE 2,500 SF	0.20 GPM/SF OVER THE MOST REMOTE 2,500 SF	250 GPM FOR 60 MINUTES	5.6	ORDINARY, QUICK-RESPONSE
	ORDINARY HAZARD	HC-2	WET-PIPE	0.20 GPM/SF OVER THE MOST REMOTE 2,500 SF	0.20 GPM/SF OVER THE MOST REMOTE 2,500 SF	0.20 GPM/SF OVER THE MOST REMOTE 2,500 SF	250 GPM FOR 60 MINUTES	8.0	INTERMEDIATE, QUICK RESPONSE
	EXTRA HAZARD	HC-3	WET-PIPE	0.30 GPM/SF OVER THE MOST REMOTE 2,500 SF	0.30 GPM/SF OVER THE MOST REMOTE 3,600 SF	0.50 GPM/SF OVER THE MOST REMOTE 3,000 SF	500 GPM FOR 60 MINUTES	11.2	INTERMEDIATE, STANDARD RESPONSE

NOTES:
1. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR MAXIMUM ROOM HEIGHTS TO DETERMINE SPRINKLER DESIGN CRITERIA FOR EACH ROOM.
2. SPRINKLER DESIGN DENSITIES ARE TO BE DETERMINED FROM THE FM LPDS 3-26 HAZARD CATEGORY REQUIREMENTS.

SPECIALTY SYSTEM DESIGN CRITERIA				
HATCH	SYSTEM TYPE	DESIGN TYPE	DESIGN DENSITY	AREA
	ULTRA HIGH-SPEED DELUGE	AREA APPLICATION	0.5 GPM/FT²	OVER HATCHED AREAS SHOWN ON PLANS

NABHOLZ

JACOBS

1875 Bryant Street, Suite 2000
Little Rock, AR 72202
Phone: 501.221.2200
Fax: 501.221.2201
Email: Jacobs.Engineering@jaco.com
License # 178
License Exp. Date: 12/31/2024
License Type: Engineering

REVISIONS:

NO.	DATE	BY	CHK	DR	W.F.	R.S.	A.E.
1	09/18/2024	AP/ID	DR				

100% ISSUED FOR CONSTRUCTION - EXPANSION

GMLRS
Camden OSD
Calhoun County, Arkansas
Aerofjet Rocketdyne

FIRE PROTECTION
GENERAL NOTES, SYMBOLS, AND
ABBREVIATIONS

SHEET NO
F-001

SCALE N/A

DATE 09/18/2024

PROJ D3754502

DWG 026-000-00A-RS-1-01