HAZARD CLASSIFICATION LEGEND - UFC 3-600-01

LIGHT HAZARD
DESIGN DENSITY: 0.10 GPM/S.F
DESIGN AREA: 1,500 S.F.
HYDRANT FLOW: 250 GPM

QUALIFICATION OF LIGHT HAZARD OCCUPANCY CLASSIFICATION:

AN OCCUPANCY WHERE THE QUANTITY AND/OR THE COMBUSTIBILITY OF CONTENTS IS LOW & FIRE WITH RELATIVELY LOW RATES OF HEAT RELEASE ARE EXPECTED. SMALL SCATTERED AMOUNTS OF FLAMMABLE LIQUIDS IN CLOSED CONTAINERS NOT EXCEEDING 5 GALLONS PER FIRE AREA ARE EXPECTED.

ORDINARY HAZARD:
DESIGN DENSITY: 0.2 GPM/S.F
DESIGN AREA: 3,500 S.F.
HYDRANT FLOW: 250 GPM

QUALIFICATION OF ORDINARY HAZARD CLASSIFICATION:

AN OCCUPANCY WHERE COMBUSTIBILITY IS LOW, THE QUANTITY COMBUSTIBLES IS MODERATE, STOCKPILES OF COMBUSTIBLES DO NOT EXCEED 8 FEET, AND FIRES WITH MODERATE RATES OF HEAT RELEASE ARE EXPECTED; MODEST, SCATTERED AMOUNTS OF FLAMMABLE LIQUIDS IN CLOSED CONTAINERS NOT EXCEEDING 50 GALLONS PER FIRE AREA ARE EXPECTED.

EXTRA HAZARD
DESIGN DENSITY: 0.3 GPM/S.F
DESIGN AREA: 3,500 S.F.
HYDRANT FLOW: 500 GPM

QUALIFICATION OF EXTRA HAZARD:

AN OCCUPANCY WHERE QUANTITY AND COMBUSTIBILITY OF CONTENTS ARE HIGH, AND SUBSTANTIAL AMOUNTS OF COMBUSTIBLE OR FLAMMABLE LIQUIDS ARE EXPECTED

RESIDENTIAL
DESIGN DENSITY: 0.05 GPM/SF
DESIGN AREA: 4 HEADS
HYDRANT FLOW: DOMESTIC DEMAND

QUALIFICATION OF RESIDENTIAL OCCUPANCY CLASSIFICATION:

AN OCCUPANCY WHERE THE QUANTITY AND/OR THE COMBUSTIBILITY OF CONTENTS IS LOW & FIRE WITH RELATIVELY LOW RATES OF HEAT RELEASE ARE EXPECTED. RESIDENTIAL OCCUPANCIES INCLUDE DORMITORIES, APARTMENTS, HOTELS AND MOTELS.

SEISMIC GENERAL NOTES

A. SEISMIC-RESTRAINT LOADING BASED 0N ASCE 7-10:
   1. SITE CLASS
   2. OCCUPANCY CATEGORY OF BUILDING OR STRUCTURE
   3. SEISMIC DESIGN CATEGORY C.
   4. DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS (0.2 SECOND): (Sds) = XG (WHERE G IS THE FORCE OF GRAVITY).
   5. DESIGN SPECTRAL RESPONSE ACCELERATION AT 1-SECOND PERIOD: (Sd1) = XG (WHERE G IS THE FORCE OF GRAVITY).
   6. COMPONENT IMPORTANCE FACTOR: (Ip) = 1.5.
   7. Fpw = Y X WEIGHT OF WATER FILLED PIPE (THIS IS THE HORIZONTAL FORCE ACTION ON THE BRACE, AS DEFINED BY NFPA 13 (2016), 9.3.5.9.3.

B. INSTALL SEISMIC RESTRAINTS IN ACCORDANCE WITH NFPA 13:
   1. INSTALL LATERAL BRACES ON ALL FEED AND CROSS MAIN LINES, REGARDLESS OF PIPE DIAMETER.
   2. INSTALL LATERAL BRACES ON BRANCH LINES LARGER THAN 2-INCH DIAMETER. (EXCEPT THAT IF THE BRANCH LINE DOES NOT EXCEED 12 FT IN LENGTH, BRACING MAY BE OMITTED.)
   3. LATERAL BRACES ARE TO BE INSTALLED WITHIN 6 FT FROM THE ENDS OF PIPES
   4. LATERAL BRACES ARE TO BE INSTALLED AT 40 FT MAXIMUM INTERVALS.
   5. WHERE HANGER RODS DO NOT EXCEED 6 INCHES LONG, LATERAL BRACING MAY BE OMITTED.
   6. A LONGITUDINAL BRACE MAY SERVE AS A LATERAL BRACE IF IT IS WITHIN 24 INCHES OF THE CENTERLINE OF THE PIPE BRACED LONGITUDINALLY.
   7. INSTALL LONGITUDINAL BRACES ON ALL FEED AND CROSS MAIN LINES, REGARDLESS OF PIPE DIAMETER.
   8. LONGITUDINAL BRACES ARE TO BE INSTALLED WITHIN 40 FT FROM THE ENDS OF PIPES.
   9. LONGITUDINAL BRACES ARE TO BE INSTALLED AT 80 FT MAXIMUM INTERVALS
   10. A LATERAL BRACE MAY SERVE AS A LONGITUDINAL BRACE IF IT IS WITHIN 24 INCHES OF THE CENTERLINE OF THE PIPE BRACED LATERALLY.

C. INSTALL SEISMIC-RESTRAINT DEVICES USING METHODS APPROVED BY OSHPD PROVIDING REQUIRED SUBMITTALS FOR COMPONENT

D. ATTACHMENT TO STRUCTURE: IF SPECIFIC ATTACHMENT IS NOT INDICATED, ANCHOR BRACING TO STRUCTURE AT FLANGES OF BEAMS, AT UPPER TRUSS CHORDS OF BAR JOISTS, OR AT CONCRETE MEMBERS

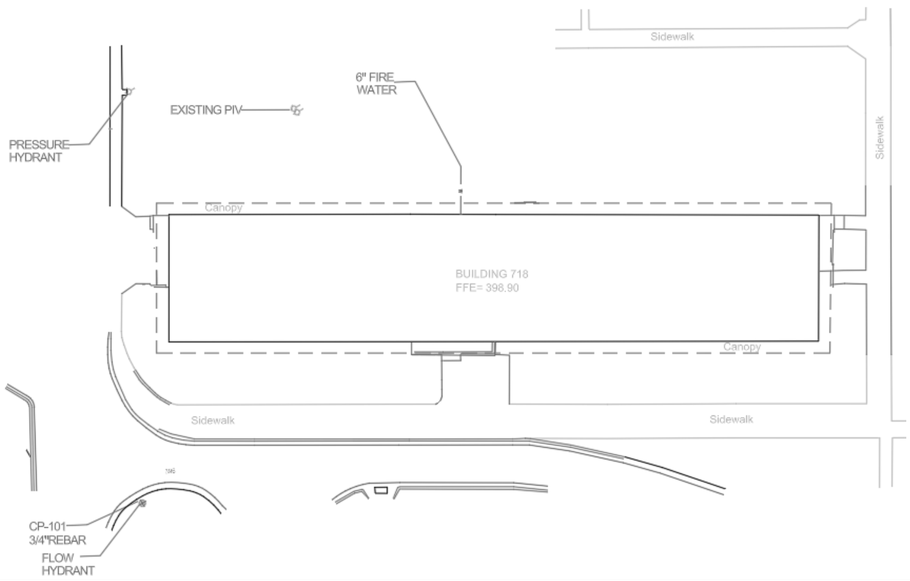
E. DRILLED-IN ANCHORS:
   1. IDENTIFY POSITION OF REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO DRILLING HOLES FOR ANCHORS. DO NOT DAMAGE EXISTING REINFORCING OR EMBEDDED ITEMS DURING CORING OR DRILLING. NOTIFY THE STRUCTURAL ENGINEER IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING. LOCATE AND AVOID PRESTRESSED TENDONS, ELECTRICAL AND ENCOUNTERED DURING DRILLING. LOCATE AND AVOID PRESTRESSED TENDONS, ELECTRICAL AND TELECOMMUNICATIONS CONDUIT, AND GAS LINES.
   2. DO NOT DRILL HOLES IN CONCRETE OR MASONRY UNTIL CONCRETE, MORTAR, OR GROUT HAS ACHIEVED FULL DESIGN STRENGTH.
   3. WEDGE ANCHORS: PROTECT THREADS FORM DAMAGE DURING ANCHOR INSTALLATION. HEAVY-DUTY SLEEVE SHALL BE INSTALLED WITH SLEEVE FULLY ENGAGED IN THE STRUCTURAL ELEMENT TO WHICH ANCHOR IS TO BE FASTENED.
   4. SET ANCHORS TO MANUFACTURER'S RECOMMENDED TORQUE, USING A TORQUE WRENCH.
   5. INSTALL ZINC-COATED STEEL ANCHORS FOR INTERIOR AND STAINLESS-STEEL ANCHORS FOR EXTERIOR APPLICATIONS.

F. ACCOMMODATION OF DIFFERENTIAL SEISMIC MOTION: INSTALL FLEXIBLE CONNECTIONS IN ACCORDANCE WITH NFPA 13 IN PIPING WHERE:
   1. PIPING 2-1/2 INCH OR LARGER CROSSES SEISMIC JOINTS, WHERE ADJACENT SECTIONS OR BRANCHES ARE SUPPORTED BY DIFFERENT STRUCTURAL ELEMENTS, AND WHERE THE CONNECTIONS TERMINATE WITH CONNECTION TO EQUIPMENT THAT IS ANCHORED TO A DIFFERENT STRUCTURAL ELEMENT FROM ONE SUPPORTING THE CONNECTIONS AS THEY APPROACH EQUIPMENT.
   2. WITHIN 24 INCHES OF THE TOP AND BOTTOM OF ALL RISERS 2-1/2 INCH OR LARGER (IN RISERS LESS THAN 3 FT IN LENGTH, FLEXIBLE COUPLINGS MAY BE OMITTED; IN RISERS 3 FT TO 7 FT, ONE FLEXIBLE COUPLING IS ADEQUATE).
   3. WITHIN 12 IN ABOVE AND WITHIN 24 IN BELOW THE FLOOR IN MULTI FLOOR BUILDINGS FOR PIPING 2-1/2 INCH OR LARGER.
   4. ON BOTH SIDES OF CONCRETE OR MASONRY WALLS WITHIN 1 FT OF FACE OF WALL FOR PIPING 2-1/2 INCH OR LARGER, UNLESS CLEARANCE IS PROVIDED PER NFPA 13.
   5. WITHIN 24 INCHES OF BUILDING EXPANSION JOINTS FOR PIPING 2-1/2 INCH OR LARGER.
   6. WITHIN 24 INCHES OF THE TOP OF DROPS EXCEEDING 15 FEET IN LENGTH TO PORTIONS OF SYSTEMS SUPPLYING MORE THAN ONE SPRINKLER, REGARDLESS OF PIPE SIZE.
   7. WITHIN 24 INCHES ABOVE AND 24 INCHES BELOW ANY INTERMEDIATE POINTS OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE FOR PIPING 2-1/2 INCH OR LARGER.
   8. WHEN THE FLEXIBLE COUPLING BELOW THE FLOOR IS ABOVE THE TIE-IN TO THE MAIN SUPPLYING THAT FLOOR, A FLEXIBLE COUPLING SHALL BE INSTALLED EITHER ON THE HORIZONTAL PORTION WITHIN 24 INCHES OF THE TIE-IN WHERE THE TIE-IN IS HORIZONTAL OR ON THE VERTICAL PORTION OF THE TIE-IN WHERE THE TIE-IN INCORPORATES A RISER FOR PIPING 2-1/2 INCH OR LARGER.
   9. FOR DROPS TO HOSE LINES, RACK SPRINKLERS, MEZZANINES AND FREE STANDING STRUCTURES, INSTALL FLEXIBLE COUPLINGS REGARDLESS OF PIPE SIZE WITHIN 24 INCHES OF THE TOP OF THE DROP, WITHIN 24 INCHES ABOVE THE UPPERMOST DROP SUPPORT ATTACHMENT, WHERE DROP SUPPORTS ARE PROVIDED TO THE STRUCTURE, RACK, OR MEZZANINE, AND WITHIN 24 INCHES ABOVE THE BOTTOM OF THE DROP WHERE NO ADDITIONAL DROP SUPPORT IS PROVIDED.

G. ADJUSTING:
   1. ADJUST RESTRAINTS TO PERMIT FREE MOVEMENT OF EQUIPMENT WITHIN NORMAL MODE OF OPERATION.

WET SPRINKLER GENERAL NOTES

1. FIRE PROTECTION SYSTEM SHALL BE COMPLETE WITH BACKFLOW PREVENTER, FIRE DEPARTMENT CONNECTION, STANDPIPES, CONTROL VALVES, SPRINKLER PIPING AND HEADS, ELECTRONIC SUPERVISION AND APPURTENANCES AS REQUIRED BY NFPA AND AUTHORITIES HAVING JURISDICTION.
2. GENERAL CONTRACTOR SHALL CONDUCT A COORDINATION MEETING WITH THE SUBCONTRACTORS TO ESTABLISH CLEARANCE REQUIREMENTS NEEDED FOR M.E.P. WORK PRIOR TO FABRICATION OF THE SPRINKLER SYSTEM. ANY RELOCATION OF FIRE SPRINKLER SYSTEM REQUIRED FOR PROPER INSTALLATION OF M.E.P. SYSTEMS SHALL BE AT THE FIRE PROTECTION CONTRACTOR'S EXPENSE.
3. FIRE PROTECTION CONTRACTOR SHALL BASE BID ON CAREFUL COORDINATION OF MECHANICAL DUCT, MECHANICAL AND PLUMBING PIPING, ELECTRICAL, AND STRUCTURAL SYSTEMS IN THE BUILDING.
4. HYDRAULIC CALCULATIONS SHALL BE BASED ON A WATER FLOW TEST OBTAINED FROM THE CITY OF **JACKSONVILLE.** BY THE FIRE PROTECTION CONTRACTOR. CONTRACTOR SHALL VERIFY FLOW TEST DATA WITH LOCAL AUTHORITIES. IF A CURRENT TEST IS NOT AVAILABLE, CONTRACTOR SHALL CONDUCT A PROPER FLOW TEST PRIOR TO PREPARATION OF SHOP DRAWINGS. PROVIDE A MINIMUM OF 10 PSI SAFETY FACTOR FOR ALL HYDRAULIC CALCULATIONS. PIPE SIZING INDICATED ON THE DRAWINGS IS FOR INFORMATIONAL PURPOSES ONLY. PIPE SIZING SHALL BE ESTABLISHED BY THE FIRE PROTECTION CONTRACTOR. EXCEPTION: STANDPIPES SHALL BE SIZED AS INDICATED ON THE DRAWINGS OR LARGER. NOTE: AVOID SYSTEM PRESSURES EXCEEDING 175 PSI.
5. PROVIDE A DOUBLE CHECK DETECTOR ASSEMBLY TO ISOLATE THE SPRINKLER SYSTEM FROM THE MAIN SUPPLY. COORDINATE REQUIREMENTS WITH THE CITY OF **JACKSONVILLE** AND THE STATE OF **ARKANSAS**.
6. FIRE PROTECTION SYSTEM SHALL INTERFACE WITH THE BUILDING FIRE ALARM SYSTEM. REFER TO ELECTRICAL.
7. ALL CONTROL VALVES SHALL HAVE ELECTRONIC SUPERVISION.
8. SPECIAL CONSIDERATION SHALL BE GIVEN TO AREAS THROUGHOUT THE BUILDING SUCH AS DROPPED SOFFITS, RAISED CEILINGS AND LIGHTING SOFFITS THAT NECESSITATE ADDITIONAL SPRINKLER HEADS. REFER TO ARCHITECTURAL DRAWINGS FOR REFLECTED CEILING PLANS AND BUILDING DETAILS.
9. ALL SPRINKLER HEADS FOR LIGHT HAZARD AND ALL STANDARD SPRAY SPRINKLER HEADS FOR ORDINARY HAZARD SHALL BE QUICK RESPONSE.
10. ALL CEILING MOUNTED SPRINKLER HEADS SHALL BE CHROME WITH CHROME RECESSED ESCUTCHEONS, UNLESS NOTED OTHERWISE ON FIRE PROTECTION PLANS OR SPECIFICATIONS.
11. ALL SPRINKLER HEADS INSTALLED IN EXPOSED STRUCTURE SHALL BE BRASS UPRIGHT, UNLESS NOTED OTHERWISE ON FIRE PROTECTION PLANS OR SPECIFICATIONS.
12. ALL CEILING MOUNTED SPRINKLER HEADS SHALL BE LOCATED IN THE CENTER OF CEILING TILES IN ALL PUBLIC AREAS. USE BRAIDED FLEXIBLE SPRINKLER DROP CONNECTIONS FOR ALL CEILING DROPS DUE TO SEISMIC CONDITIONS. EXCEPTION: CLOSETS, STORAGE ROOMS, EQUIPMENT
13. ROOMS AND OTHER SIMILAR NON-PUBLIC AREAS ARE NOT REQUIRED TO BE CENTER OF TILE BUT SHALL BE NO CLOSER THAN 6" TO CEILING GRID.
14. PROVIDE SPRINKLER SYSTEM MAIN DRAIN IN ACCORDANCE WITH NFPA 13. PROVIDE VERTICAL DRAIN RISER WHEN SPRINKLER SYSTEM CONTROL VALVE ASSEMBLIES ARE LOCATED IN THE SAME AREA ON MULTIPLE FLOORS.
15. PROVIDE AUXILIARY DRAINS FOR ALL TRAPPED PIPING SECTIONS IN ACCORDANCE WITH NFPA 13.
16. INSTALL PIPING HORIZONTALLY AND AT RIGHT ANGLES TO WALLS AND CEILINGS.
17. ALL SPRINKLER MAIN PIPING SHALL BE SCHEDULE 10 WITH ROLL GROOVED AND WELDED OUTLETS, UNLESS NOTED OTHERWISE. FITTINGS AND COUPLINGS SHALL BE STANDARD GROOVED, UNLESS NOTED OTHERWISE.
18. ALL SPRINKLER BRANCH LINE PIPING SHALL BE BLACK SCHEDULE 40, UNLESS NOTED OTHERWISE. FITTINGS SHALL BE STANDARD "BLACK" GRADE CAST IRON, DUCTILE IRON OR MALLEABLE IRON, UNLESS NOTED OTHERWISE.
19. CPVC SCHEDULES ALLOWED BY NFPA 13R ARE NOT ACCEPTABLE ON THIS PROJECT.
20. ALL FIRE PROTECTION PIPING, FITTINGS, SUPPORTS AND ACCESSORIES IN EXPOSED AREAS SHALL BE PREPARED FOR FINISH PAINTING. PIPING, FITTINGS, SUPPORTS AND ACCESSORIES IN MECHANICAL ROOMS SHALL BE PAINTED OSHA RED. ALL PAINTING SHALL BE PERFORMED BY FIRE PROTECTION CONTRACTOR.
21. FIRE PROTECTION CONTRACTOR SHALL PROVIDE PROTECTION FOR SPRINKLER HEADS IN AREAS WHERE THE CEILING AND SURROUNDING AREAS ARE TO BE PAINTED. FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SPRINKLER PROTECTION AFTER PAINTING WORK IS COMPLETE. ANY SPRINKLER HEAD WITH PAINT OR TEXTURE OVERSPRAY SHALL BE REPLACED BY THE FIRE PROTECTION CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
22. PROVIDE ACCESS PANELS WHERE NECESSARY TO ACCESS FIRE PROTECTION VALVES AND EQUIPMENT FOR TESTING, MAINTENANCE, INSPECTION OR DRAINAGE. ACCESS PANELS SHALL BE RATED TO MATCH THE WALL OR CEILING IN WHICH THEY ARE INSTALLED AND TO BE OF SUFFICIENT SIZE TO FACILITATE WORK, REPAIR OR REPLACEMENT. ACCESS PANELS SHALL BE PROVIDED BY FIRE PROTECTION CONTRACTOR.
23. PROVIDE HEAD GUARDS ON ALL SPRINKLER HEADS AT OR BELOW AN ELEVATION OF 7'-0" AFF, OR THAT OTHERWISE MAY BE SUBJECT TO MECHANICAL DAMAGE, SUCH AS IN THE MECHANICAL ROOMS.
24. PROVIDE SEISMIC BRACING/ RESTRAINT AS REQUIRED BY AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) 7, THE INTERNATIONAL BUILDING CODE (IBC) AND NFPA 13 FOR SEISMIC DESIGN CATEGORY (SDC = "C") AND IMPORTANCE FACTOR (Ip = 1.5). REFER TO DETAILS ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.



Hydrant Flow Test Report

Test Date 7/7/2026 **Test Time** 10:00

Location
LRAFBB718

Tested by
Flow Test From Arkansas Fire Protection Services

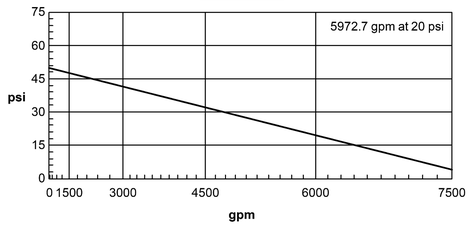
Notes

Read Hydrant
50 psi **static pressure**
49 psi **residual pressure**
hydrant elevation

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1		2.5	.9	32	950 gpm

Flow Graph



SPRINKER HEAD LEGEND

- PENDENT SPRINKLER ON DROP NIPPLE (K=5.6 UNLESS OTHERWISE NOTED ON PLANS)
- UPRIGHT SPRINKLER (K=11.2 UNLESS OTHERWISE NOTED ON PLANS)
- SPRINKLER GUARD
- WINDOW SPRINKLER (K=5.6 UNLESS OTHERWISE NOTED ON PLANS)
- HORIZONTAL SIDEWALL SPRINKLER (K=5.6 UNLESS OTHERWISE NOTED ON PLANS)
- (X) NODE POINT

REV #	DATE	DESCRIPTION	APP'D

APPROVED
CHIEF ENGINEER APPROVED
CIVIL ENGINEER

NKAK 22-1076
B718 DORM
LITTLE ROCK AFB

DETAILS (1)

FIRE SUPPRESSION NOTES AND LEGENDS

AIR MOBILITY COMMAND
19TH CIVIL ENGINEER SQUADRON
LITTLE ROCK, ARKANSAS

DATE: JULY 2026
DESIGNED BY: JBK
DRAWN BY: GAM
BUILDING NO.:
PROJECT NO.:
SHEET REF.: FX001
SHEET NO.: 1 OF XX

STATUS:65% ISSUED FOR CONSTRUCTION