GENERAL NOTES:

1. ALL WORK SHALL BE IN FULL COMPLIANCE WITH NFPA 13 (2013) AND THE NORTH CAROLINA STATE FIRE CODE, THE GENERAL CONDITIONS OF THE CONTRACT APPLY.

2. MATERIALS AND INSTALLATION SHALL COMPLY WITH APPLICABLE NFPA CODES, STATE BUILDING CODE, LOCAL AUTHORITY HAVING JURISDICTION, AND INSURANCE UNDERWRITER'S REQUIREMENTS.

3. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED FOR THE INTENDED USE AND SHALL BE INSTALLED IN FULL COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

4. ALL SPRINKLER PIPE 2" AND SMALLER IS SCHEDULE-40 BLACK STEEL WITH THREADED ENDS AND FITTINGS. ALL 1¼" BRANCHLINE PIPE SHALL BE SCHEDULE-40 BLACK STEEL WITH GROOVED ENDS AND FITTINGS. ALL SPRINKLER PIPE 2½" AND LARGER IS SCHEDULE-10 BLACK STEEL WITH GROOVED ENDS AND FITTINGS – UNO.

5. SPRINKLER HEAD SPACING IS BASED ON THE NFPA STANDARDS FOR LIGHT HAZARD OCCUPANCIES (OFFICE) ALLOWING A MAXIMUM HEAD SPACING OF 225 S.F. PER HEAD.

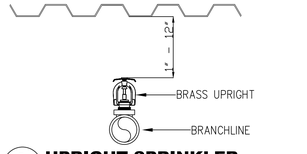
6. SPRINKLER HEAD SPACING IS BASED ON THE NFPA STANDARDS FOR ORDINARY HAZARD OCCUPANCIES (VEHICLE PARKING) ALLOWING A MAXIMUM HEAD SPACING OF 130 S.F. PER HEAD.

7. LOCATIONS OF PIPING AS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD.

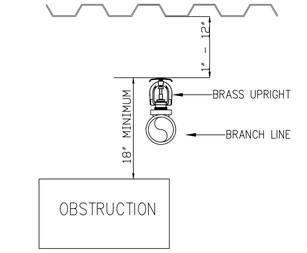
8. A SUFFICIENT SAFETY FACTOR HAS BEEN IMPLEMENTED INTO THIS DESIGN. CSCO IS NOT RESPONSIBLE FOR CHANGES IN THE CITY WATER SUPPLY THAT MAY ADVERSELY AFFECT THIS SYSTEM IN THE FUTURE.

9. THE FIRE FLOW TEST INFORMATION HAS BEEN PROVIDED BY CRAWFORD SPRINKLER DATED 5/9/24 INDICATES THE FOLLOWING...

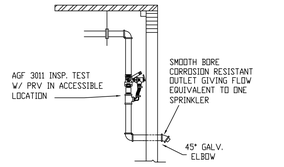
STATIC:	120 PSI
RESIDUAL:	42 PSI
FLOW:	1,270 GPM



5 FP 1 **UPRIGHT SPRINKLER** NTS



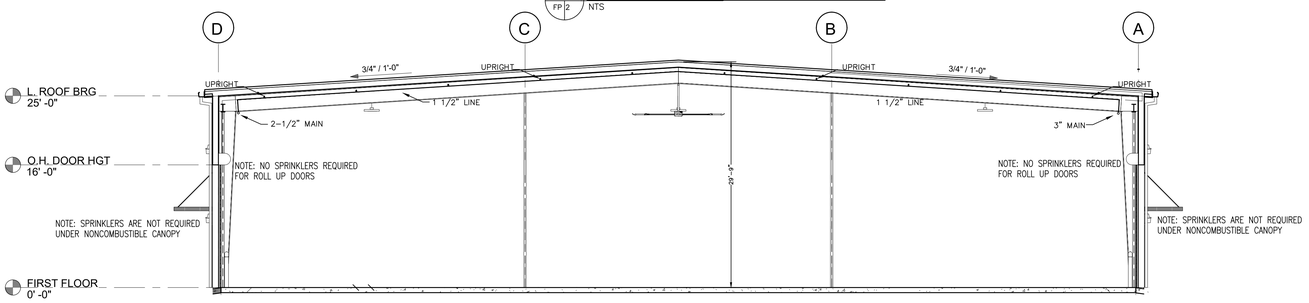
6 FP 1 **UPRIGHT OBSTRUCTION DETAIL** NTS



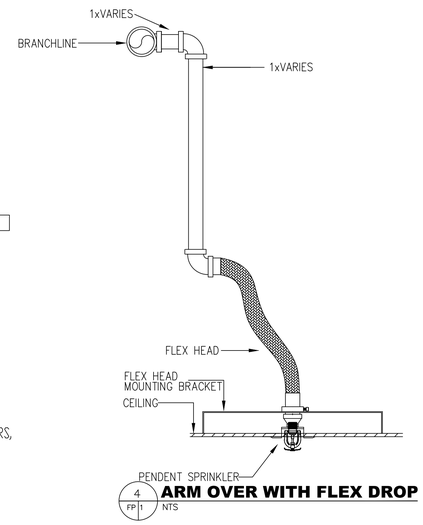
NOTE: NOT LESS THAN 4FT. OF EXPOSED TEST PIPE IN WARM ROOM BEYOND VALVE WHEN PIPE EXTENDS THROUGH WALL TO OUTSIDE.

WET TEST CONNECTION

3 FP 2 **INSP. TEST AND DRAIN** NTS



2 FP 1 **BUILDING SECTION DETAIL** NTS



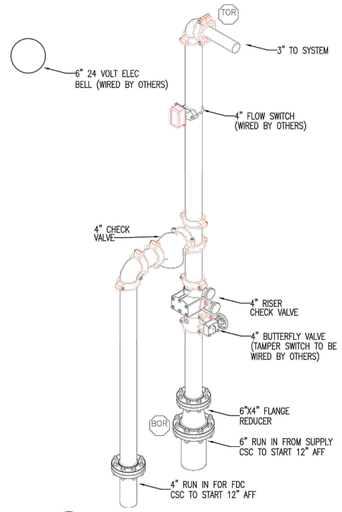
4 FP 1 **ARM OVER WITH FLEX DROP** NTS

THE INSTALLATION OF HVLS FANS IN BUILDINGS EQUIPPED WITH SPRINKLERS, INCLUDING ESFR SPRINKLERS, SHALL COMPLY WITH THE FOLLOWING:

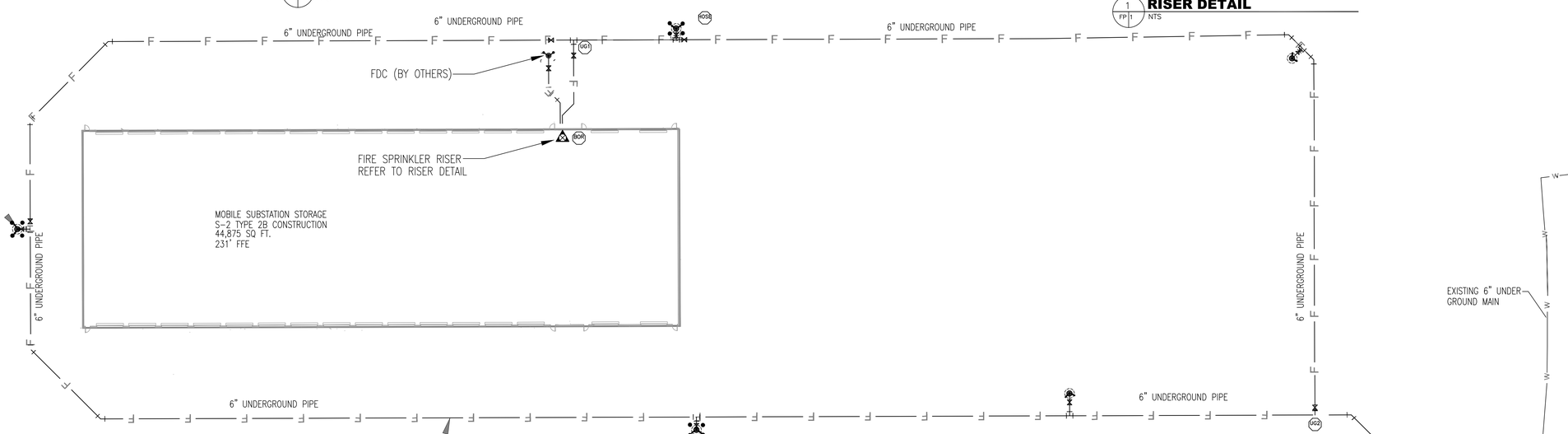
1. THE MAXIMUM FAN DIAMETER SHALL BE 24 FT.
2. THE HVLS FAN SHALL BE CENTERED APPROXIMATELY BETWEEN FOUR ADJACENT SPRINKLERS.
3. THE VERTICAL CLEARANCE FROM THE HVLS FAN TO THE SPRINKLER DEFLECTOR SHALL BE A MIN. OF 3 FT.
4. ALL HVLS FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON RECEIVING A WATER FLOW SIGNAL FROM THE ALARM SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 72. INTERLOCK WIRING IS TO BE BY OTHERS.

HVLS FAN HIGH VOLUME LOW SPEED FAN

NO SCALE



1 FP 1 **RISER DETAIL** NTS



3 FP 1 **SITE PLAN - FOR HYDRAULIC REFERENCE ONLY** NTS

WATER TEST
BY: CRAWFORD SPRINKLER COMPANY
DATE: 5/9/24
STATIC: 120PSI
RESIDUAL: 42 PSI
FLOW: 1270 GPM
ELEVATION: 215'

SPRINKLER DESIGN DATA

PROJECT NAME:	DUNN MOBILE SUBSTATION STORAGE	SYSTEM NO.:	SYSTEM 1
PROJECT LOCATION:	1269 JONESBORO ROAD DUNN, NC 28334	SYS. SQ. FT.:	44,041
		CEILING HGT.:	VARIES
DESIGNED BY:	DOUG JOHNSTON II	PH#: 919-828-9346	TOTAL BLDG. HGT.: VARIES
OCCUPANCY DESCRIPTION:	VEHICLE STORAGE	HAZARD CLASS:	ORDINARY GROUP II

DESIGN SUMMARY

DESIGN METHOD:	CALC
DESIGN AREA NO.:	AREA 1
LOCATION:	TRUCK BAYS
TYPE OF SYSTEM:	WET
HAZARD CLASS:	ORD GRP II
CRITERIA FROM:	NFPA 13
DESIGN AREA:	1500
SPKLR. SPACING:	130 MAX
DENSITY:	.2
K-FACTOR:	8.0
HOSE ALLOWANCE:	250
# DESIGN SPKLR.:	14
REQUIREMENTS @	BASE OF RISER
GPM REQUIRED:	477.82
PSI REQUIRED:	37.56
NODE#	BOR
REQUIREMENTS @	TEST
GPM REQUIRED:	627.82
PSI REQUIRED:	82.47
NODE#	TEST
SAFETY FACTOR PSI	16.34

WATER SUPPLY INFORMATION

TESTED BY: CRAWFORD FIRE SPRINKLER
DATE: 5/9/24
LOCATION: 1269 JONESBORO ROAD

STATIC (PSI): 120
RESIDUAL (PSI): 42
FLOW (GPM): 1270

IS COPY OF WATER TEST DATA INCLUDED WITH CALCULATIONS? : ☒ YES ☐ NO

IS STORAGE HEIGHT GREATER THAN 12 FEET? : ☐ YES ☒ NO

SYMBOLS:

- (XXX) DENOTES A HYDRAULIC CALCULATION POINT OF REFERENCE
- DENOTES A HYDRAULIC REMOTE AREA
- DENOTES NEW SPRINKLER PIPE
- DENOTES A WET SYSTEM RISER LOCATION
- [X-X] DENOTES PIPE CENTERLINE ELEVATION AFF
- [XX BTS] DENOTES PIPE CENTERLINE BELOW TOP OF STEEL
- DENOTES FINISHED CEILING ELEVATION
- DENOTES AN EXTERIOR MOUNTED ELECTRIC BELL
- DENOTES FIRE SPRINKLER PIPE HANGER

N

IMPORTANT: IN LOCATIONS SUBJECT TO FREEZING CONDITIONS IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEAT THROUGHOUT WET PIPE SPRINKLER SYSTEM AREAS AND ENCLOSURES FOR DRY-PIPE, DELUGE AND OTHER TYPES OF VALVES CONTROLLING WATER SUPPLIES TO SPRINKLER SYSTEMS.

NICET CERTIFIED

BRIAN THOMAS CRAWFORD
NICET LEVEL III WBSL #107492

Crawford SPRINKLER CO. OF RALEIGH, INC
2725 S. SAUNDERS STREET • RALEIGH, NC 27603
PHONE 919-828-9346 • FAX 919-839-8164

DUKE ENERGY - DUNN MOBILE SUBSTATION STORAGE
SITE PLAN AND DETAILS
1269 JONESBORO ROAD
DUNN, NORTH CAROLINA

UNDERWRITERS:
INDEX NO.
REVISIONS:

DESIGN CRITERIA

SYSTEM TYPE	WET
SYSTEM DESIGN	CALCULATED
DESIGN DENSITY	0.20 gpm/1500 sf
MAX HEAD CVRG	130 s.f.
HOSE ALLOWANCE	250 gpm

DRAWN BY: DFJ	DATE: 8/23/24
CHECK BY: BTC	DATE:
SCALE: AS NOTED	
CONTRACT NO: J24-6014	
FILE NO:	

DWG. NO: FP 1 OF 2

9/18/24

N.C License No. 29772 FS-I