

Attachment FA-25

LIGHT HAZARD LOCKER ROOM HYDRAULIC PIPE SCHEDULE

1" PIPE = 1 SPRINKLER
 1 1/4" PIPE = 2 SPRINKLERS
 3" LOOP MAIN
 4" FEED MAIN
 4" PRE-ACTION VALVE ASSEMBLY and FEED MAIN
 MAX HEAD SPACING = 225 SQ. FT FOR LIGHT HAZARD AREAS

DENSITY .10 / 1917 sq. ft. (entire preaction area)
 FLOWING 17 SPRINKLERS
 INCLUDES 100 GPM HOSE
 SYSTEM DEMAND 493.9 GPM @ 44.9 PSI
 SAFETY FACTOR: 5.2 PSI
 CALCULATION NAME "OCTowerlevelpreaction"

DENSITY .10 / 1500 sq. ft.
 FLOWING 15 SPRINKLERS
 INCLUDES 100 GPM HOSE
 SYSTEM DEMAND 440.1 GPM @ 46.0 PSI
 SAFETY FACTOR: 4.8 PSI
 CALCULATION NAME "OCTowerlevelstudio"

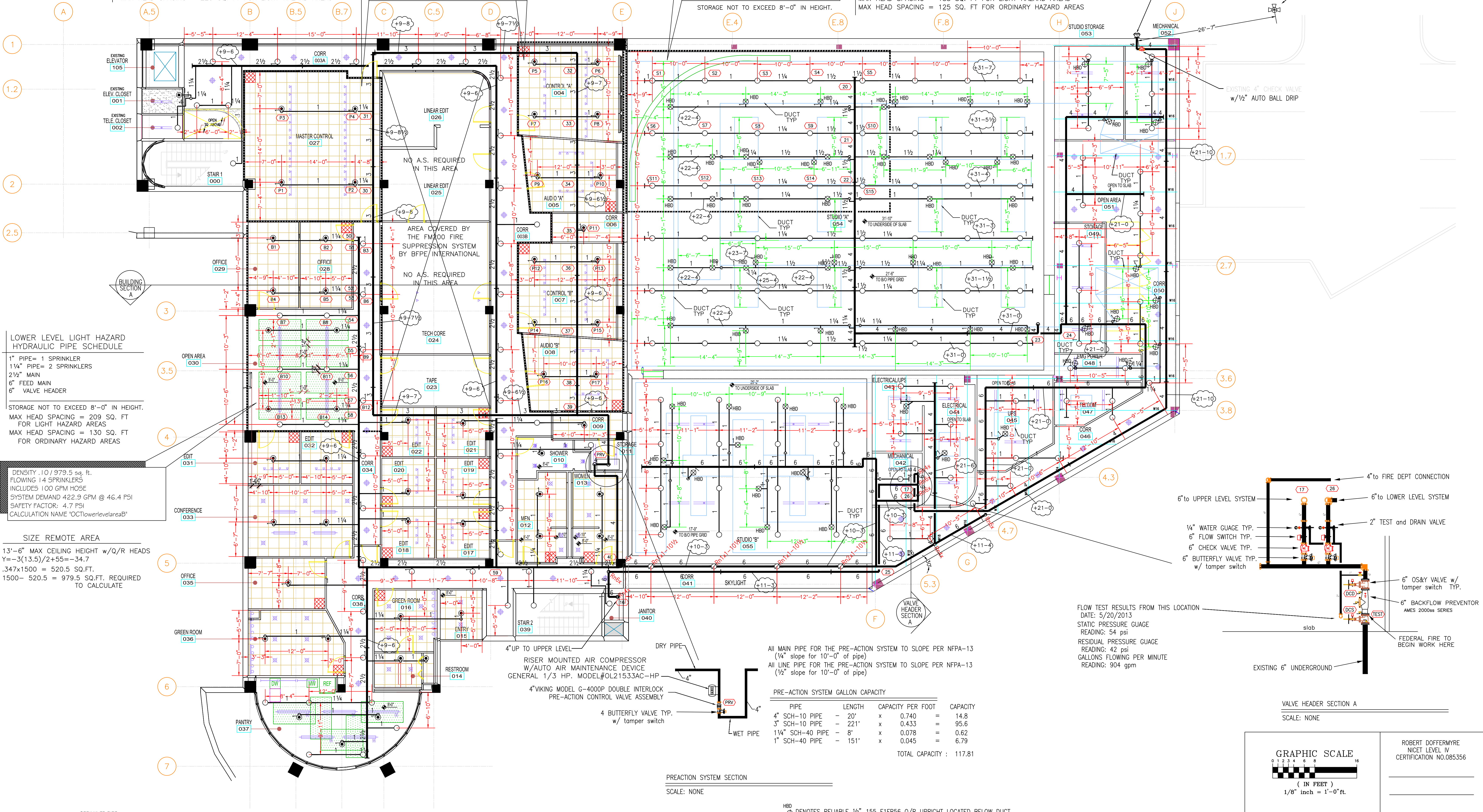
LIGHT HAZARD LOCKER ROOM HYDRAULIC PIPE SCHEDULE

1" PIPE = 2 SPRINKLERS
 1 1/4" PIPE = 3 SPRINKLERS
 1 1/2" PIPE = 5 SPRINKLERS
 4" MAIN
 MAX HEAD SPACING = 188 SQ. FT FOR LIGHT HAZARD AREAS
 MAX HEAD SPACING = 125 SQ. FT FOR ORDINARY HAZARD AREAS

6" FEED MAIN
 6" VALVE HEADER
 6" UNDERGROUND
 8" UNDERGROUND PIPE

EXISTING 4" x 1/2" x 1/2" FIRE DEPT CONNECTION

EXISTING FIRE HYDRANT

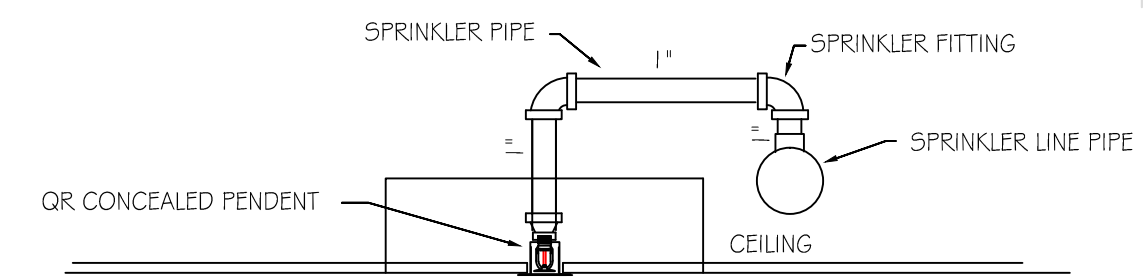


LOWER LEVEL LIGHT HAZARD HYDRAULIC PIPE SCHEDULE

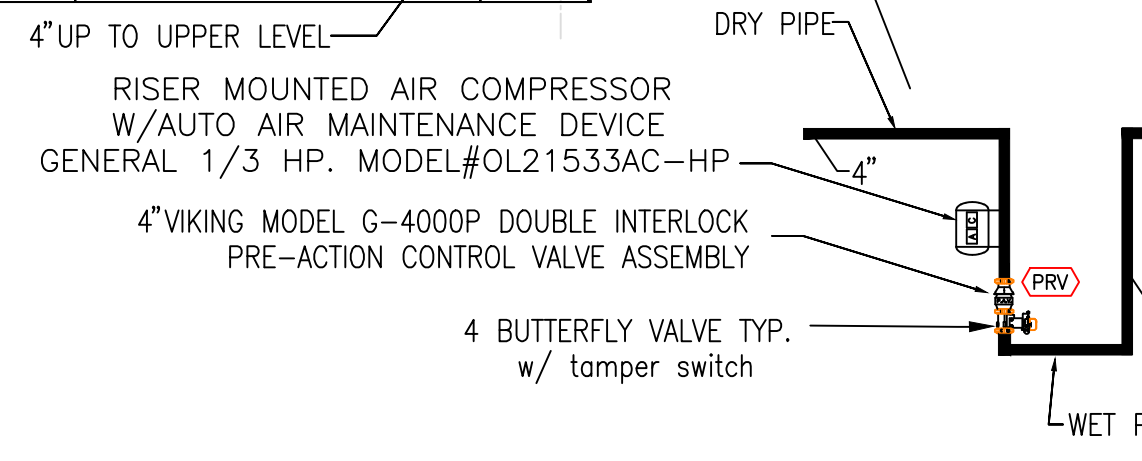
1" PIPE = 1 SPRINKLER
 1 1/4" PIPE = 2 SPRINKLERS
 2 1/2" MAIN
 6" FEED MAIN
 6" VALVE HEADER
 STORAGE NOT TO EXCEED 8'-0" IN HEIGHT.
 MAX HEAD SPACING = 209 SQ. FT FOR LIGHT HAZARD AREAS
 MAX HEAD SPACING = 130 SQ. FT FOR ORDINARY HAZARD AREAS

DENSITY .10 / 979.5 sq. ft.
 FLOWING 14 SPRINKLERS
 INCLUDES 100 GPM HOSE
 SYSTEM DEMAND 422.9 GPM @ 46.4 PSI
 SAFETY FACTOR: 4.7 PSI
 CALCULATION NAME "OCTowerlevelareaB"

SIZE REMOTE AREA
 13'-6" MAX CEILING HEIGHT w/Q/R HEADS
 $Y = -3(13.5)/2 + 55 = -34.7$
 $.347 \times 1500 = 520.5 \text{ SQ.FT.}$
 $1500 - 520.5 = 979.5 \text{ SQ.FT. REQUIRED TO CALCULATE}$



RETURN BEND DETAIL (GOOSENECK)
 SCALE: NONE



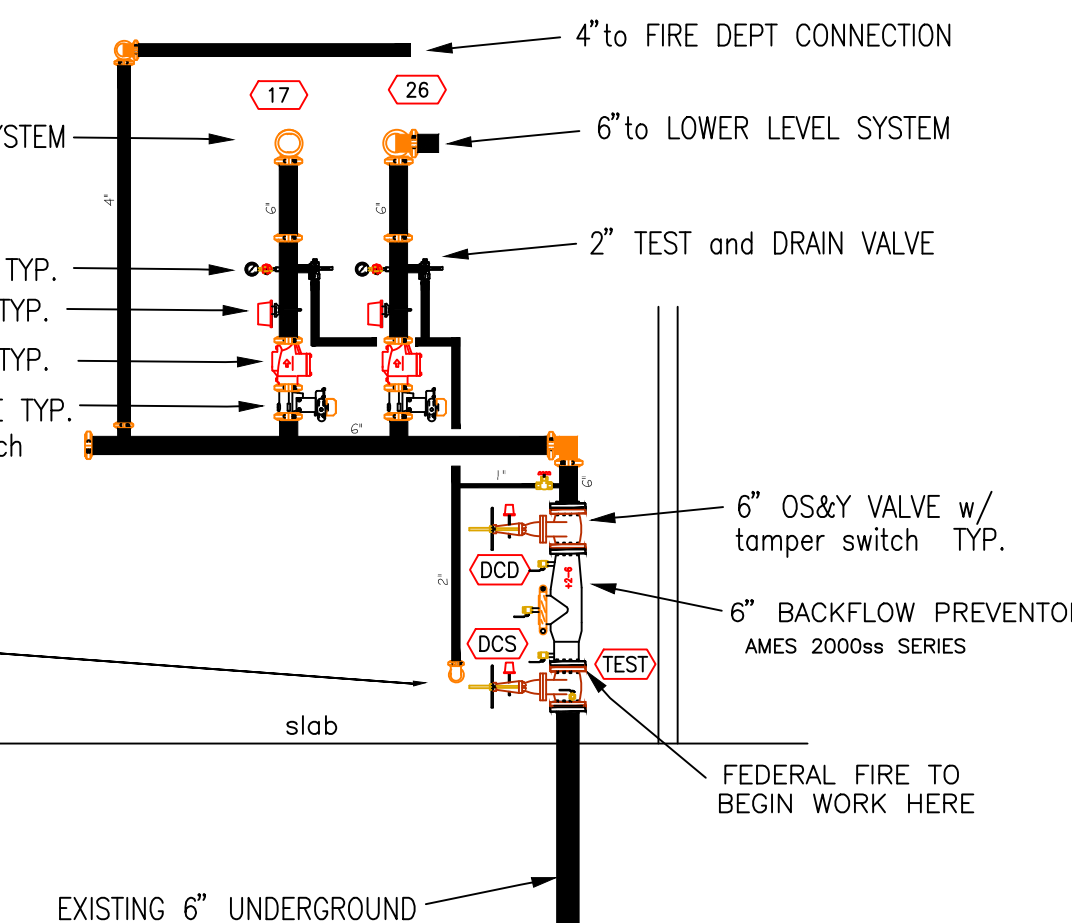
PREACTION SYSTEM SECTION
 SCALE: NONE

All MAIN PIPE FOR THE PRE-ACTION SYSTEM TO SLOPE PER NFPA-13 (1/4" slope for 10'-0" of pipe)
 All LINE PIPE FOR THE PRE-ACTION SYSTEM TO SLOPE PER NFPA-13 (1/2" slope for 10'-0" of pipe)

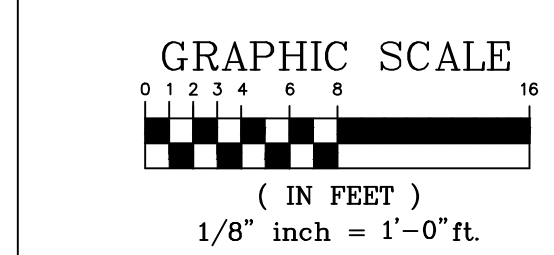
PRE-ACTION SYSTEM GALLON CAPACITY

PIPE	LENGTH	CAPACITY PER FOOT	CAPACITY
4" SCH-10 PIPE	20'	x 0.740	= 14.8
3" SCH-10 PIPE	221'	x 0.433	= 95.6
1 1/4" SCH-40 PIPE	8'	x 0.078	= 0.62
1" SCH-40 PIPE	151'	x 0.045	= 6.79
TOTAL CAPACITY :			117.81

FLOW TEST RESULTS FROM THIS LOCATION
 DATE: 5/20/2013
 STATIC PRESSURE GAUGE READING: 54 psi
 RESIDUAL PRESSURE GAUGE READING: 42 psi
 GALLONS FLOWING PER MINUTE READING: 904 gpm



VALVE HEADER SECTION A
 SCALE: NONE



GRAPHIC SCALE
 1/8" = 1'-0" ft.

CONTRACTOR: SIGAL CONSTRUCTION
 2231 CRYSTAL DRIVE, SUITE 200
 ADDRESS: ARLINGTON, VIRGINIA 22202 PHONE: 703-302-1500

DATE	DESCRIPTION	BY

IMPORTANT
 TO PREVENT FREEZING OF WATER IN WET PIPE SPRINKLER PIPING, OWNERS TO PROVIDE SUFFICIENT HEAT THROUGHOUT AREAS WHERE SPRINKLER PIPES ARE INSTALLED, UNLESS AN ANTI-FREEZE SYSTEM.

SPRINKLER SCHEDULE & LEGEND

SIN #	SYMBOL	SPRINKLER DESCRIPTION	ORIFICE	K	TEMP.	FINISH	QTY.
RA3415	●	RELIABLE F5-56 Q/R CONC. PEND	1/2"	5.6	155	WHITE	49
RA1425	○	RELIABLE F1FR56 Q/R UPRIGHT	1/2"	5.6	155	BRS	214
RA1425	○	RELIABLE F1FR56 Q/R UPRIGHT	1/2"	5.6	286	BRS	4

HEAD CABT & WRENCH(ES) PROVIDED TOTAL COUNT THIS SHEET = 267
 FireAcad Design Software

OCT RENOVATION
 1899 9TH ST. NE. WASHINGTON, DC.

NORTH

DESIGNER: K. COLEMAN
 SCALE: 1/8" = 1'-0" / U.O.N.
 CHECK BY: _____
 FILE NUMBER: 13-5373
 APPROVAL: DCRA
 DATE: 05/26/13
 DRAWING NO. SP-2 of 2

FEDERAL FIRE PROTECTION CORP.
 Fire Suppression Systems Inc.
 3360-B PATUXENT RIVER RD. DAVIDSONVILLE, MD 21035
 PHONE (301) 261-4678 FAX (301) 261-7654

