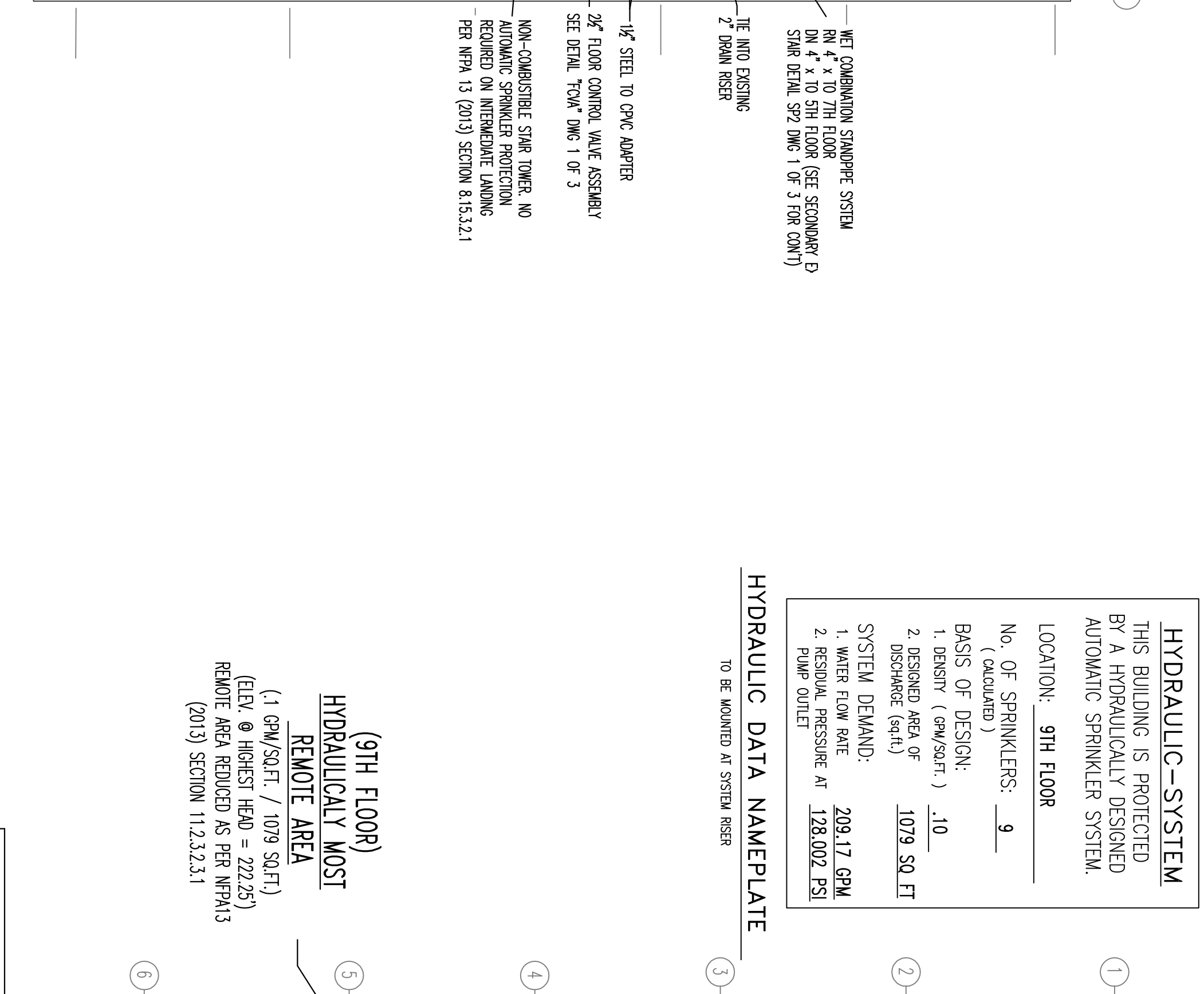


Symbol	Count	Thread	K-factor	TEMP	SNIP	Description	Note
⊙	4	1/2"	5.4	200°	T313	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP
⊙	50	1/2"	5.4	200°	T323	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP

54 = Total Number of Heads on This Floor

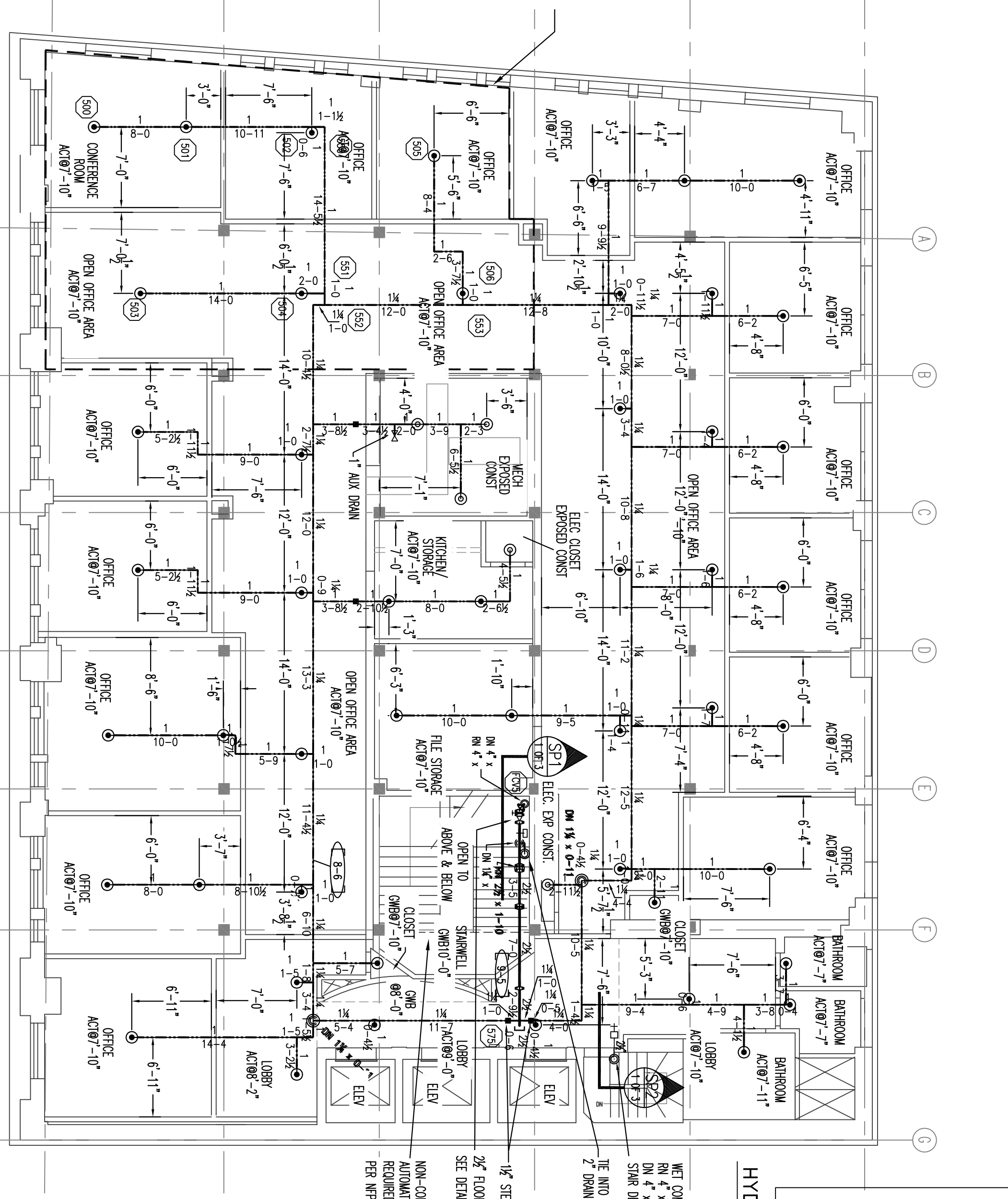
FIRE SPRINKLER PLAN - SIXTH FLOOR
 SCALE: 1/8"=1'
 AREA PROTECTED: 6,480 SQ.FT.
 FINISH FLOOR ELEVATION : 179.00'
 COLOR CODE:



Symbol	Count	Thread	K-factor	TEMP	SNIP	Description	Note
⊙	3	1/2"	5.4	200°	T313	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP
⊙	50	1/2"	5.4	200°	T323	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP

53 = Total Number of Heads on This Floor

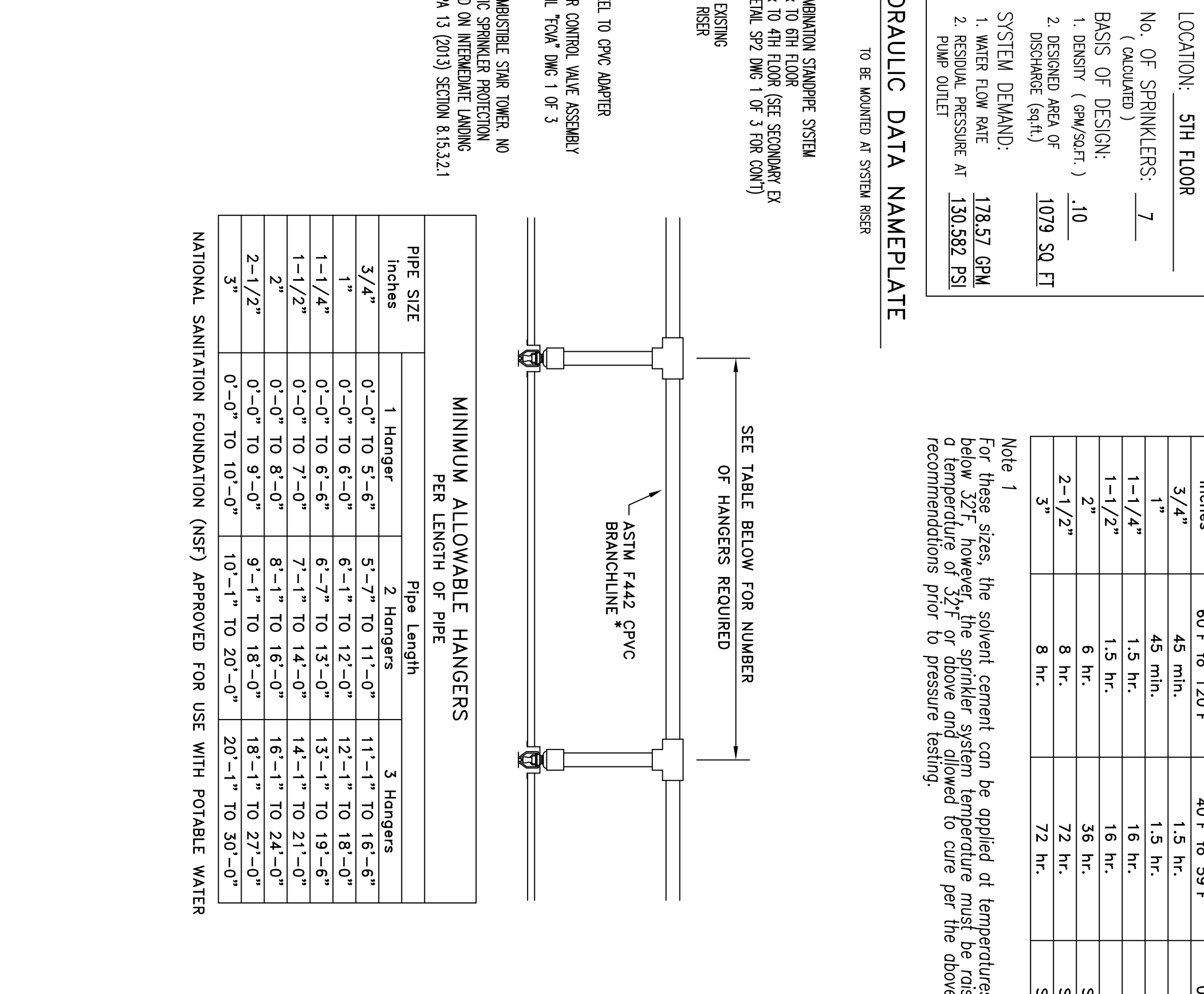
FIRE SPRINKLER PLAN - NINTH FLOOR
 SCALE: 1/8"=1'
 AREA PROTECTED: 6,480 SQ.FT.
 FINISH FLOOR ELEVATION : 123.50'
 COLOR CODE:



Symbol	Count	Thread	K-factor	TEMP	SNIP	Description	Note
⊙	5	1/2"	5.4	200°	T313	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP
⊙	49	1/2"	5.4	200°	T323	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP

54 = Total Number of Heads on This Floor

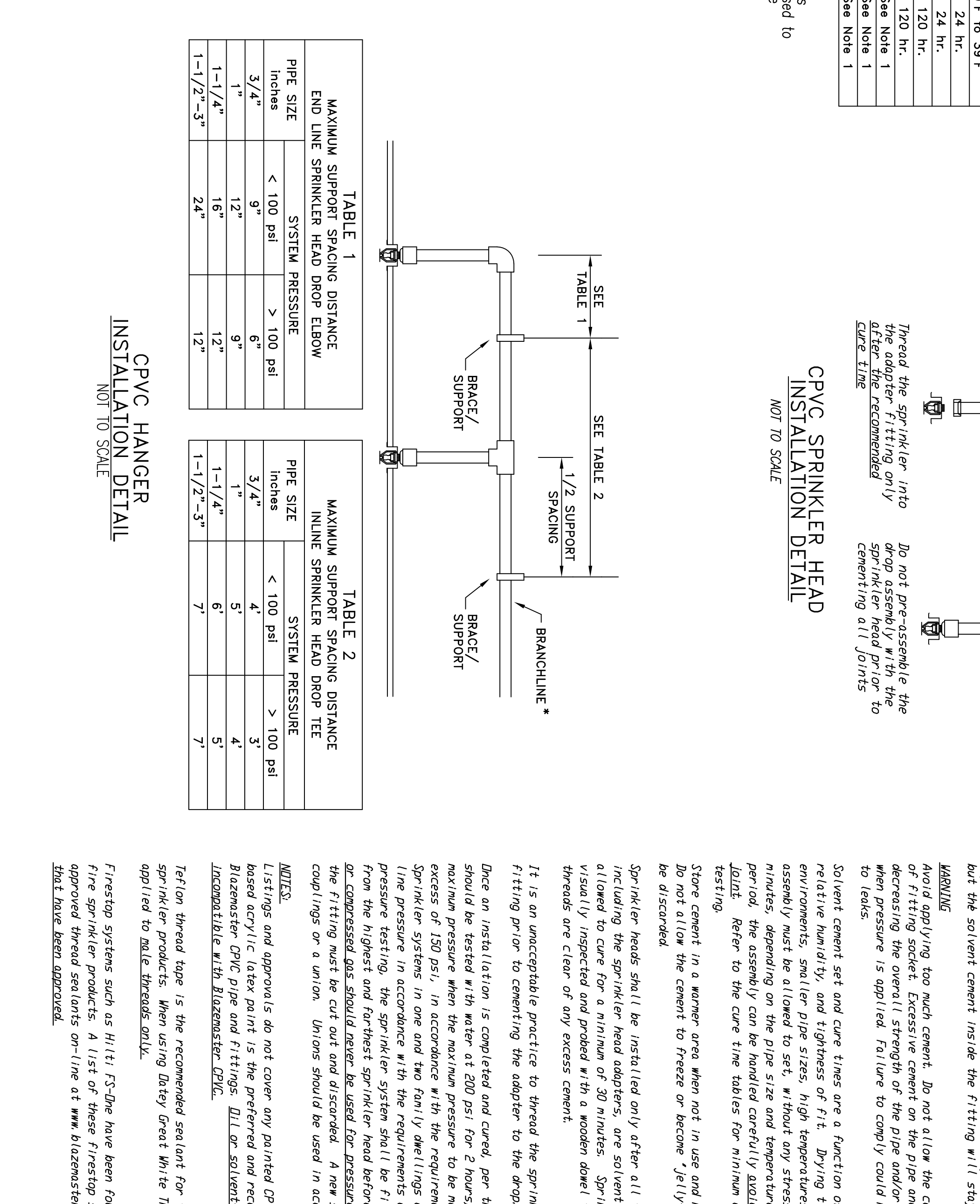
FIRE SPRINKLER PLAN - FIFTH FLOOR
 SCALE: 1/8"=1'
 AREA PROTECTED: 6,480 SQ.FT.
 FINISH FLOOR ELEVATION : 167.50'
 COLOR CODE:



Symbol	Count	Thread	K-factor	TEMP	SNIP	Description	Note
⊙	5	1/2"	5.4	200°	T313	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP
⊙	49	1/2"	5.4	200°	T323	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP

54 = Total Number of Heads on This Floor

FIRE SPRINKLER PLAN - SEVENTH FLOOR
 SCALE: 1/8"=1'
 AREA PROTECTED: 6,480 SQ.FT.
 FINISH FLOOR ELEVATION : 179.00'
 COLOR CODE:



Symbol	Count	Thread	K-factor	TEMP	SNIP	Description	Note
⊙	5	1/2"	5.4	200°	T313	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP
⊙	49	1/2"	5.4	200°	T323	TWO 7-1/8" WIRE RODS W/ WIRE EXCESS DEC.	ON SHOP

54 = Total Number of Heads on This Floor

FIRE SPRINKLER PLAN - EIGHTH FLOOR
 SCALE: 1/8"=1'
 AREA PROTECTED: 6,480 SQ.FT.
 FINISH FLOOR ELEVATION : 179.00'
 COLOR CODE:

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 5TH FLOOR
 No. OF SPRINKLERS: 7
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 130.582 PSI
 2. RESIDUAL PRESSURE AT 130.582 PSI
 TO BE MONITORED AT SYSTEM RISER

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 9TH FLOOR
 No. OF SPRINKLERS: 9
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 128.002 PSI
 2. RESIDUAL PRESSURE AT 128.002 PSI
 TO BE MONITORED AT SYSTEM RISER

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 5TH FLOOR
 No. OF SPRINKLERS: 7
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 130.582 PSI
 2. RESIDUAL PRESSURE AT 130.582 PSI
 TO BE MONITORED AT SYSTEM RISER

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 5TH FLOOR
 No. OF SPRINKLERS: 7
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 130.582 PSI
 2. RESIDUAL PRESSURE AT 130.582 PSI
 TO BE MONITORED AT SYSTEM RISER

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 5TH FLOOR
 No. OF SPRINKLERS: 7
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 130.582 PSI
 2. RESIDUAL PRESSURE AT 130.582 PSI
 TO BE MONITORED AT SYSTEM RISER

HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
 LOCATION: 5TH FLOOR
 No. OF SPRINKLERS: 7
 BASIS OF DESIGN:
 1. DESIGN (AWWA/UL) : .10
 2. DESIGN AREA OF PROTECTION (SQ. FT.) : 1079.50 FT.
 SYSTEM DEMAND:
 1. WATER FLOW RATE AT 130.582 PSI
 2. RESIDUAL PRESSURE AT 130.582 PSI
 TO BE MONITORED AT SYSTEM RISER

CURE TIMES WITH ONE STEP SOLVENT CEMENT
 200 PSI (MAXIMUM) TEST PRESSURE

PIPE SIZE	Ambient Temperature During Cure Period	200 PSI (MAXIMUM) TEST PRESSURE
1/2"	40°F to 59°F	07' to 397'
3/4"	45 min.	1.5 hr.
1-1/4"	1.5 hr.	1.6 hr.
1-1/2"	1.5 hr.	1.6 hr.
2"	1.5 hr.	1.6 hr.
2-1/2"	8 hr.	72 hr.
3"	8 hr.	72 hr.

Note 1: For these sizes, the solvent cement can be applied at temperatures below 32°F, however, the sprinkler system temperature must be raised to a temperature of 32°F or above and remain at that temperature for 24 hours before the system is put into service.

MINIMUM ALLOWABLE HANGERS
 PER LENGTH OF PIPE

PIPE SIZE	1 Hanger	2 Hangers	3 Hangers
3/4"	0'-0" TO 5'-6"	5'-7" TO 11'-0"	11'-1" TO 16'-6"
1"	0'-0" TO 6'-0"	6'-1" TO 12'-0"	12'-1" TO 18'-0"
1-1/4"	0'-0" TO 6'-6"	6'-7" TO 13'-0"	13'-1" TO 19'-6"
1-1/2"	0'-0" TO 7'-0"	7'-1" TO 14'-0"	14'-1" TO 21'-0"
2"	0'-0" TO 8'-0"	8'-1" TO 16'-0"	16'-1" TO 24'-0"
2-1/2"	0'-0" TO 9'-0"	9'-1" TO 18'-0"	18'-1" TO 26'-0"
3"	0'-0" TO 10'-0"	10'-1" TO 20'-0"	20'-1" TO 28'-0"

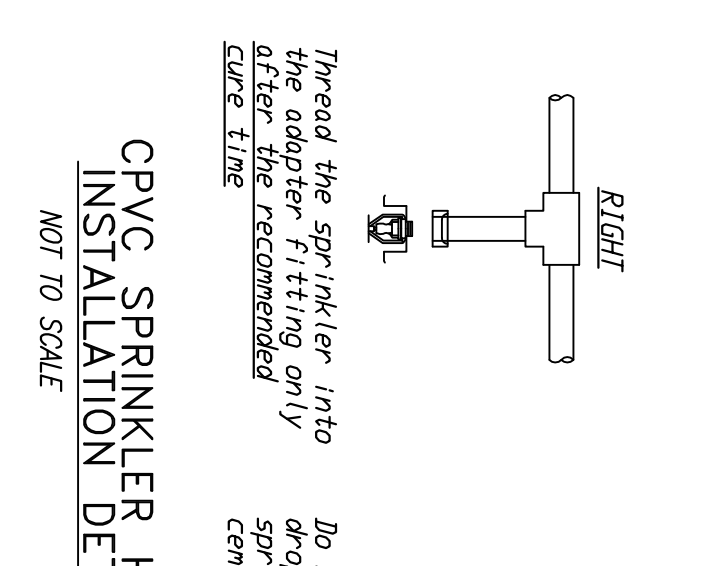


TABLE 1
 MAXIMUM SUPPORT SPACING DISTANCE
 END LINE SPRINKLER HEAD DROP ELBOW

PIPE SIZE	SYSTEM PRESSURE	MAXIMUM SUPPORT SPACING DISTANCE
3/4"	< 100 psi	9'
1"	> 100 psi	8'
1-1/4"	> 100 psi	7'
1-1/2"	> 100 psi	6'
2"	> 100 psi	5'
2-1/2"	> 100 psi	4'
3"	> 100 psi	3'

TABLE 2
 MAXIMUM SUPPORT SPACING DISTANCE
 INLINE SPRINKLER HEAD DROP TEE

PIPE SIZE	SYSTEM PRESSURE	MAXIMUM SUPPORT SPACING DISTANCE
3/4"	< 100 psi	4'
1"	> 100 psi	3'
1-1/4"	> 100 psi	2'
1-1/2"	> 100 psi	2'
2"	> 100 psi	1'
2-1/2"	> 100 psi	1'
3"	> 100 psi	1'

CPVC HANGER INSTALLATION DETAIL
 NOT TO SCALE

GENERAL NOTES

- SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA CHAPTERS 13, 14, AND 20 (2010).
- EXPOSED BRONZE LINE PIPING 1'-2" TO BE BLACK STEEL SP40-40 JOINED BY THREADED DUCTILE IRON FITTINGS.
- CONCEALED BRONZE LINE PIPING 1'-2" TO BE CPVC RASIC PIPE C-150 JOINED WITH GULDED CPVC FITTINGS.
- MAIN PIPING 2" AND LARGER TO BE BLACK STEEL SP40-10 W/ GROUNDED DONG & WELDED OUTLETS JOINED BY MECHANICAL COUPLERS.
- OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT. (407)

REVISIONS

NO.	DATE	DESCRIPTION

REQUIRED APPROVALS

OWNER / ARCHITECT	STATE FIRE MARSHAL
PORTLAND FIRE DEPARTMENT	

5 MONUMENT SQUARE
 2014 FIRE PROTECTION UPGRADE
 465 CONGRESS ST., PORTLAND, ME

EASTERN FIRE PROTECTION
 AUBURN/LEWISTON INDUSTRIAL PARK
 AUBURN, MAINE 04210

FIRE SPRINKLER PLAN AND DETAILS

JOB NO.	016-14
DATE	AS NOTED
SCALE	AS NOTED
JOB NUMBER	AU-5126-14
CONTRACT WITH:	OWNER
CHECKED BY:	WAC
DESIGNED BY:	WAC
CONTRACTOR LICENSE #	101
CONTRACTOR REG #	388