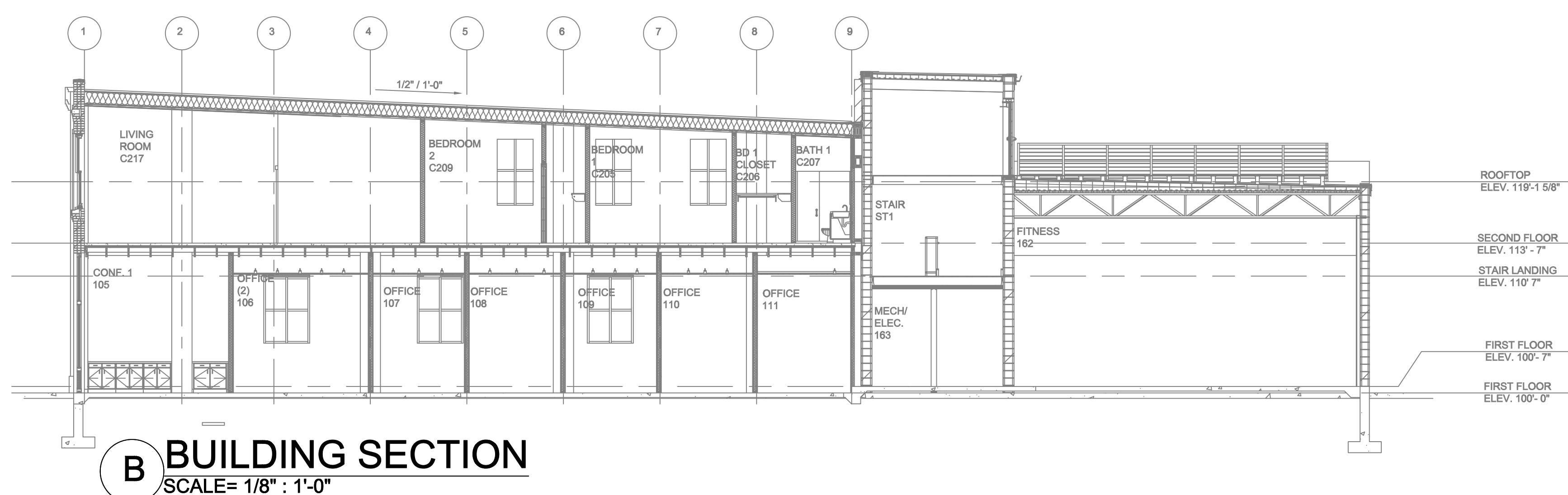
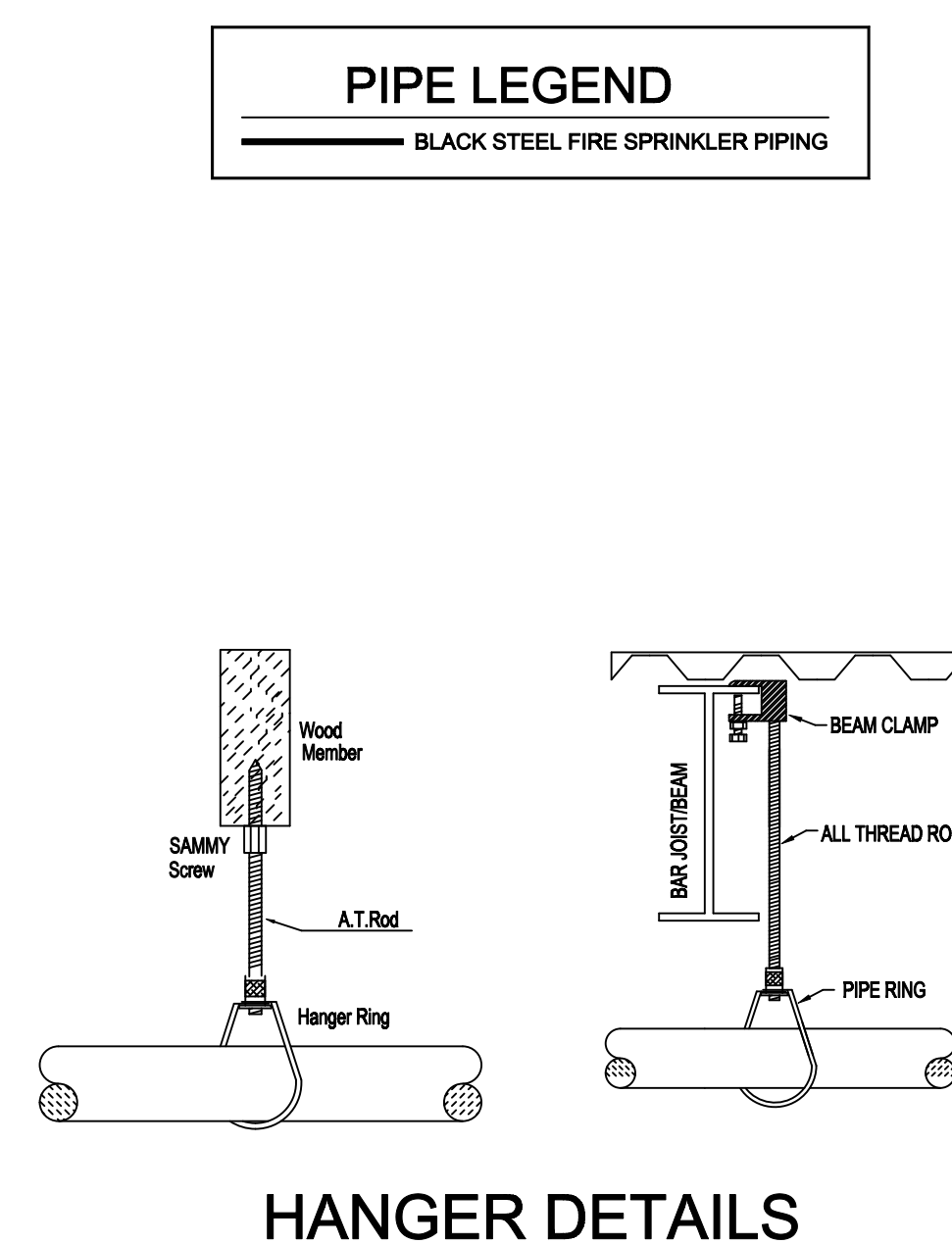
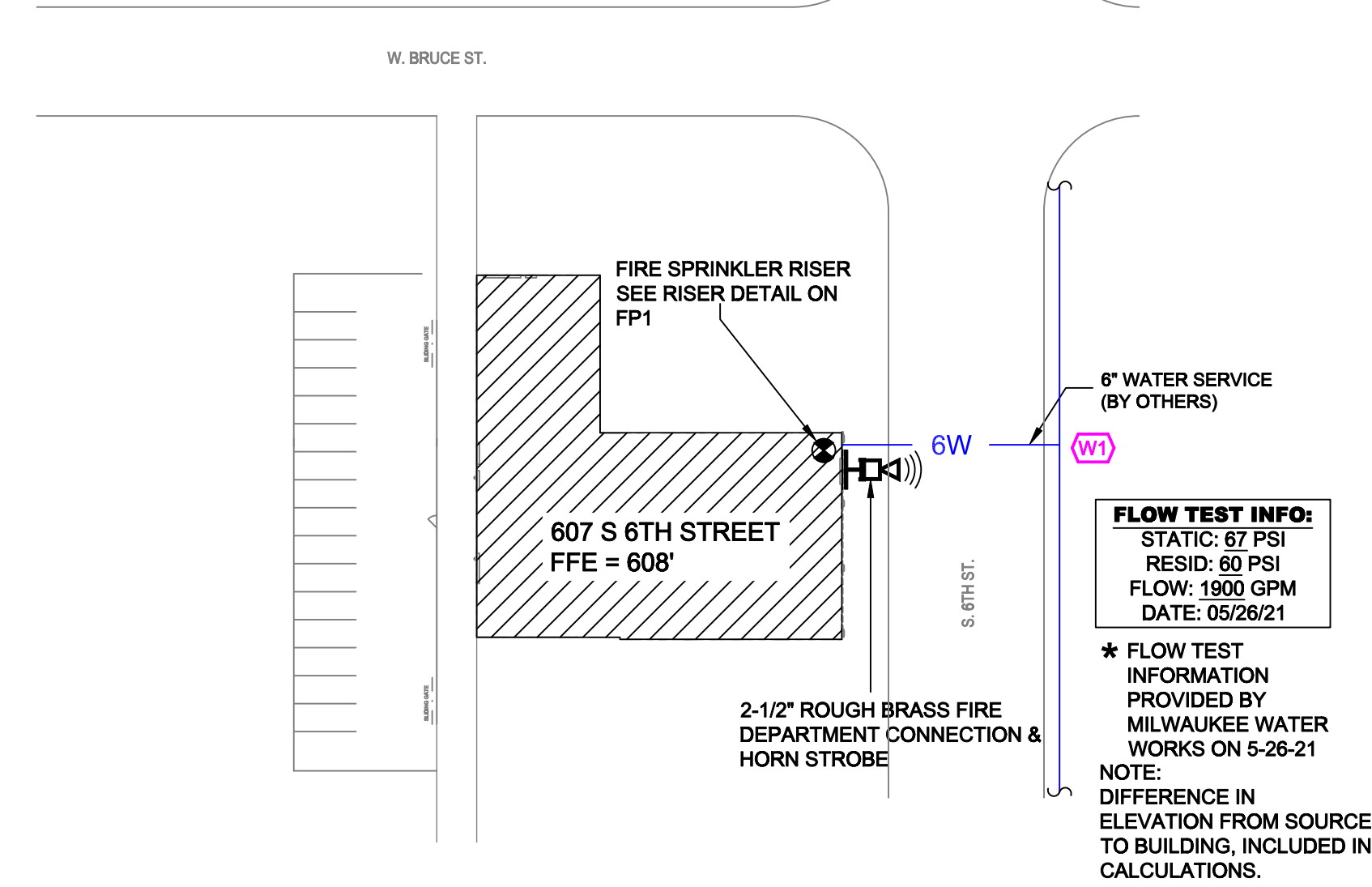




-
- STAIR SECTION**
- ROOFTOP
ELEV. 119'-1 5/8"
- SECOND FLOOR
ELEV. 113'-7"
- STAIR LANDING
ELEV. 110'-7"
- FIRST FLOOR
ELEV. 100'-7"
- STAIR SECTION**
- ROOFTOP
ELEV. 119'-1 5/8"
- SECOND FLOOR
ELEV. 113'-7"
- STAIR LANDING
ELEV. 110'-7"
- FIRST FLOOR
ELEV. 100'-7"



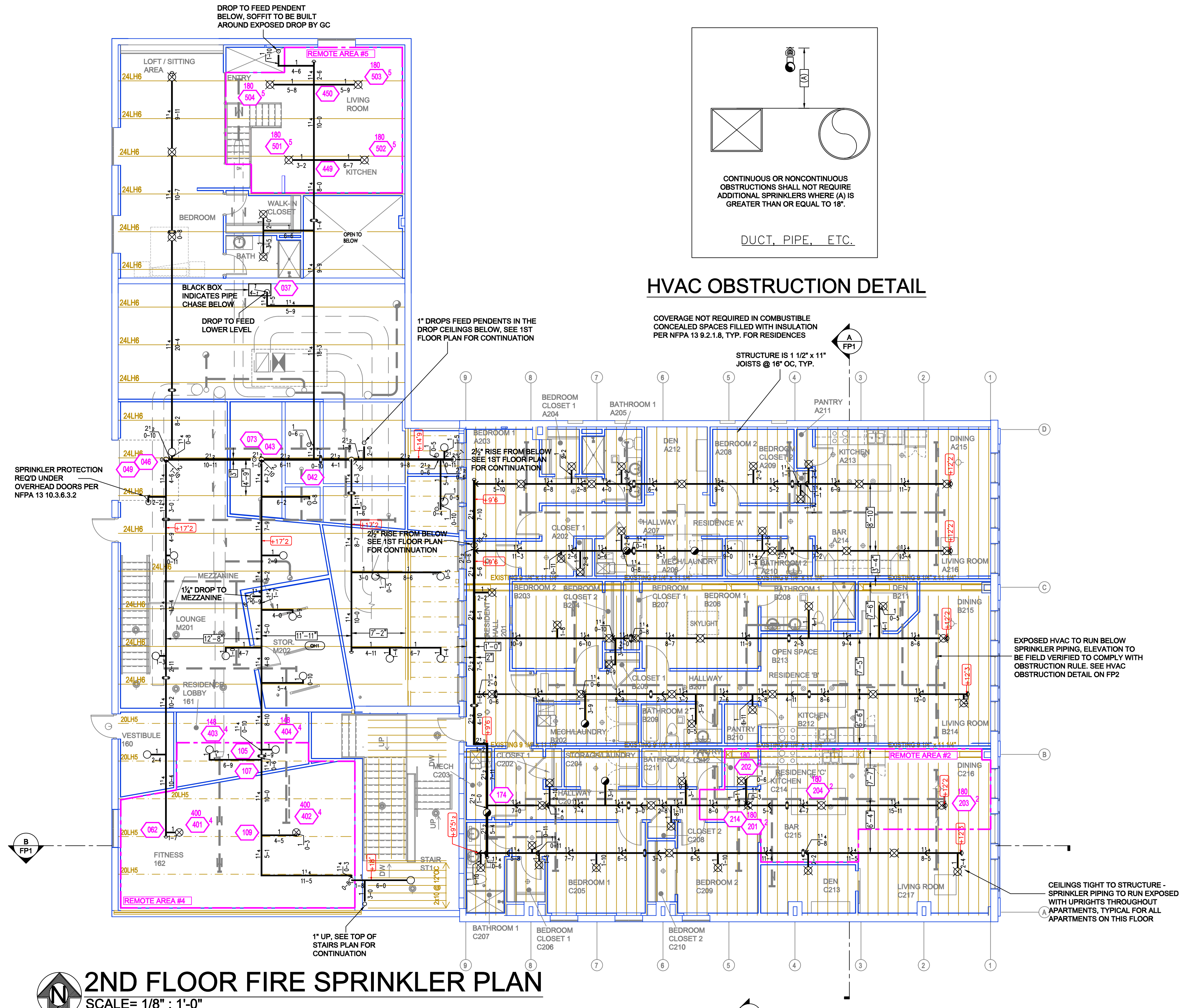
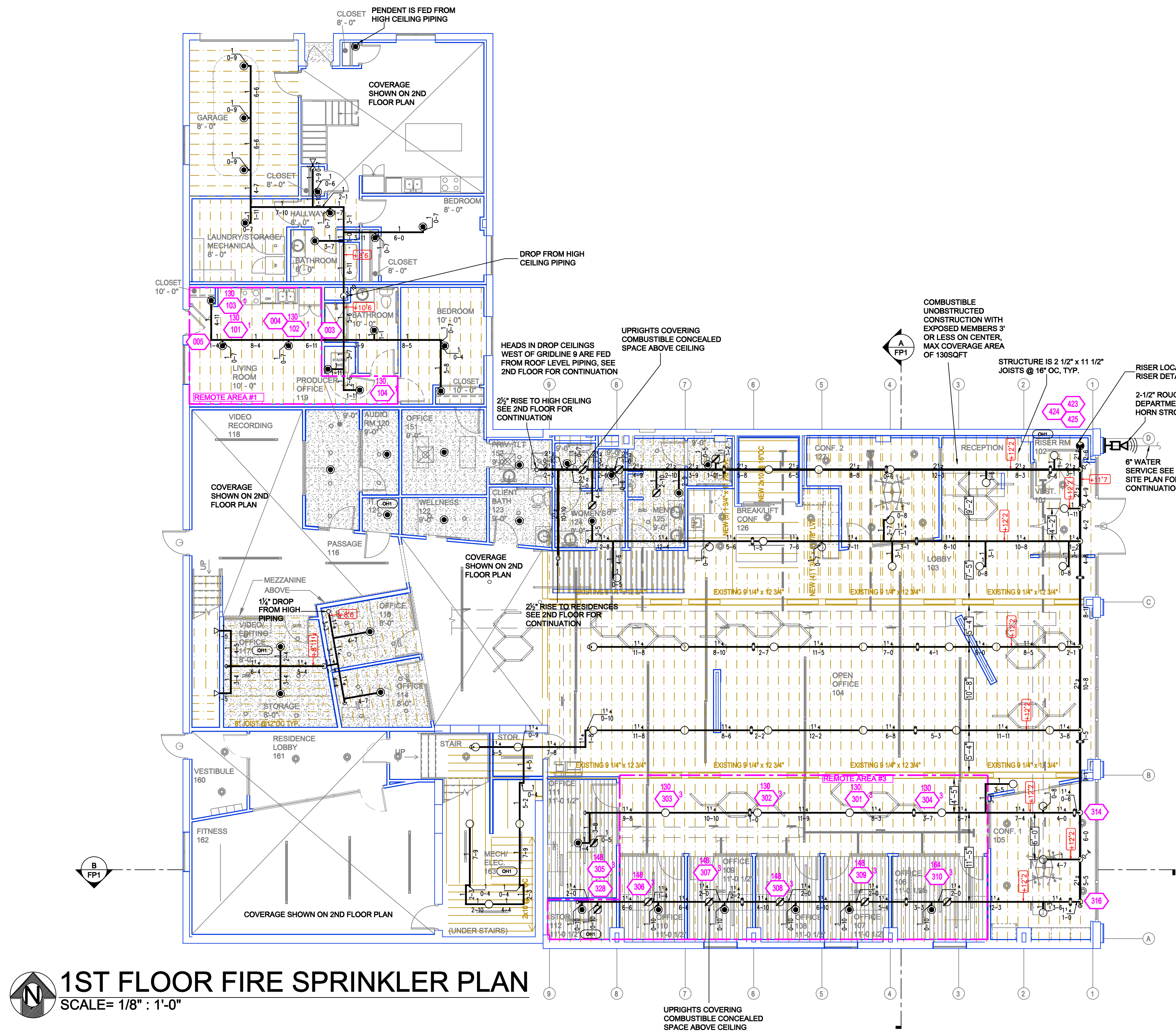
Note: IPS iron-pipe size; CTS-copper tube size.



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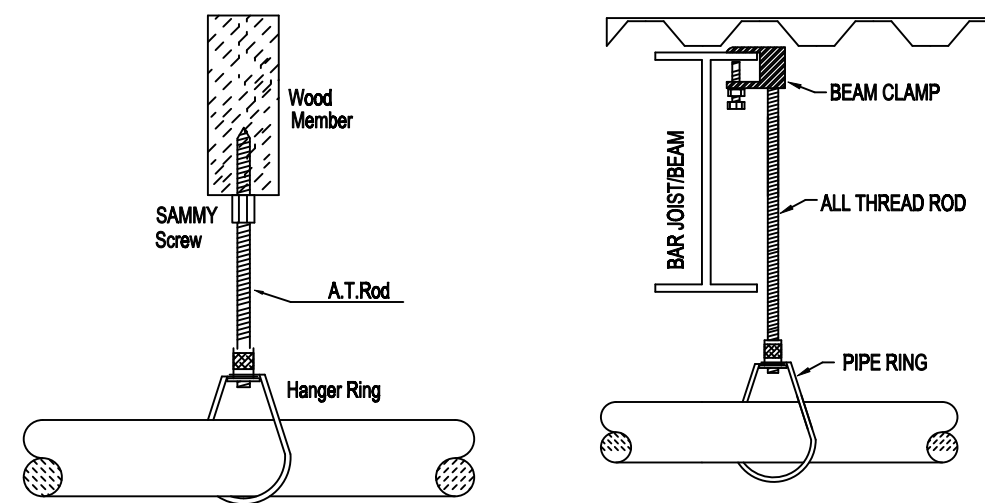
WISCONSIN CONTRACTOR'S LICENSE
#1187131

HEAD SPACING INFORMATION							WATER FLOW INFORMATION					HYDRAULIC INFORMATION					SPRINKLER HEAD DEFINITIONS												REVISIONS:		DATE:		BY:	
HEAD TYPE	SYMBOL	MIN DISTANCE BETWEEN SPRK.	MAX DISTANCE BETWEEN SPRK.	MAX COVERAGE SQ. FT.	MAX DISTANCE FROM WALL	MAXIMUM THROW	LOCATION	DENSITY	AREA	HOSE	REQUIRED GPM	REQUIRED PSI	SYMBOL	MFG	MAKE	S.I.N.	K-FACTOR	SIZE	TMP	STYLE	FINISH	ESCUTCHION	QTY	MAX SPACING										
TYCOO TY-FRB UPRIGHT		60	100	225 SQFT	75	75	FLOW TEST DATE	05-26-21						TYCOO	TY-FRB	TY313	5.60	1/2"	200	UPRIGHT	BRASS	NA	89	10' x 10'										
TYCOO TY-FRB PENDANT		60	100	225 SQFT	75	75	FLOW TEST TIME							TYCOO	TY-FRB	TY323	5.60	1/2"	200	PENDANT	CHROME	SEM-RECESSED	23	10' x 10'										
TYCOO TY-FRB SIDEWALL		60	140	196 SQFT	70	140	FLOW TEST LOCATION	W VIRGINIA ST & S 6TH ST						TYCOO	TY-FRB	TY333I	5.60	1/2"	200	SIDEWALL	BRASS	NONE	3	14' x 14'										
VIKING FREEDOM UPRIGHT		60	100	225 SQFT	80	80	ELEVATION	600						VIKING	FREEDOM	VN467	4.00	1/2"	155	UPRIGHT	BRASS	NA	52	16' x 16'										
TYCOO ES-14 UPRIGHT		60	100	400 SQFT	100	100	STATIC PRESSURE	67 PSI						TYCOO	ES-14	TR933T	14.00	3/4"	200	UPRIGHT	BRASS	NA	2	20' x 20'										
VIKING FREEDOM UPRIGHT		60	100	225 SQFT	80	80	RESIDUAL PRESSURE	60 PSI						VIKING	FREEDOM	VN467	4.00	1/2"	155	UPRIGHT	BRASS	NA	6	16' x 16'										
TYCOO CSJ UPRIGHT		60	100	225 SQFT	80	80	FLOWING	1900 GPM						TYCOO	CSJ	TY3196	5.60	1/2"	200	UPRIGHT	BRASS	NA	12	16' x 16'										
PER SPRINKLER COMPANY SPECIFICATION DATA SHEETS							CONDUCTED BY		GREAT LAKES FIRE PROTECTION CITY WATER DEPARTMENT			TOTAL THIS SHEET												0		TOTAL THIS JOB		183						



PIPE LEGEND

BLACK STEEL FIRE SPRINKLER PIPING



HANGER DETAILS

CALC PLACARD

Design Area #1 HAZARD: Res
 Zone: 1 System Type: Wet
 Location: One Bed Living Room
 Flowing Outlets: 4
 Density: 0.10 Remote Area: 287
 Flow: 159.0 gpm @ 57.3 psi
 Calculation Safety: 9.6 psi
 Includes 100 gpm Hose allowance

Design Area #2 HAZARD: Res
 Zone: 1 System Type: Wet
 Location: Residence C
 Living Room
 Flowing Outlets: 4
 Density: 0.10 Remote Area: 437
 Flow: 173.9 gpm @ 52.8 psi
 Calculation Safety: 14.1 psi
 Includes 100 gpm Hose allowance

Design Area #3 HAZARD: Light
 Zone: 1 System Type: Wet
 Location: Offices 106-111
 Flowing Outlets: 10
 Density: 0.10 Remote Area: 1036
 Flow: 285.2 gpm @ 52.5 psi
 Calculation Safety: 14.3 psi
 Includes 100 gpm Hose allowance

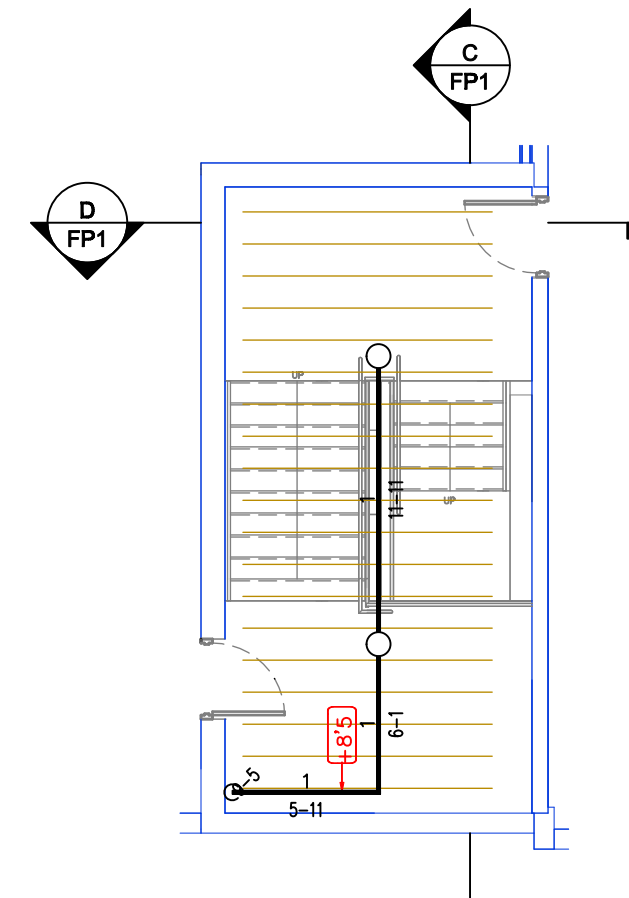
Design Area #4 HAZARD: Light
 Zone: 1 System Type: Wet
 Location: Fitness 162
 Flowing Outlets: 4
 Density: 0.10 Remote Area: 613
 Flow: 235.5 gpm @ 53.2 psi
 Calculation Safety: 13.6 psi
 Includes 100 gpm Hose allowance

Design Area #5 HAZARD: Res
 Zone: 1 System Type: Wet
 Location: Loft Unit Living Room
 Flowing Outlets: 4
 Density: 0.10 Remote Area: 413
 Flow: 173.1 gpm @ 49.0 psi
 Calculation Safety: 17.9 psi
 Includes 100 gpm Hose allowance



TOP OF STAIRS FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"



NFPA 13 TABLE 17.4.2.1 MAXIMUM DISTANCE BETWEEN HANGERS (ft.-in.)

Nominal Pipe Size (in.)	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"
Steel pipe except threaded lightwall	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
Threaded Lightwall Steel pipe	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A	N/A
Copper Tube	8'-0"	8'-0"	10'-0"	10'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
CPVC	5'-6"	6'-6"	6'-6"	6'-6"	6'-0"	9'-0"	N/A	N/A	N/A	N/A	N/A

Note: IPS iron-pipe size; CTS-copper tube size.

HEAD SPACING INFORMATION						
HEAD TYPE	SYMBOL	MIN. DISTANCE BETWEEN SPK.	MAX. DISTANCE BETWEEN SPK.	MAX. COVERAGE SQ. FT.	MAX. DISTANCE FROM WALL	MAXIMUM THROW
TYCO TY-FRB UPRIGHT	○	60	180	225 SQFT	78	78
TYCO TY-FRB PENDENT	○	60	180	225 SQFT	78	78
TYCO TY-FRB SIDEWALL	○	60	140	196 SQFT	70	140
VIRING FREEDOM UPRIGHT	⊗	60	180	225 SQFT	80	80
TYCO EC-14 UPRIGHT	⊗	60	200	400 SQFT	100	100
VIRING FREEDOM PENDENT	⊗	60	180	225 SQFT	80	80
TYCO CC3 UPRIGHT	⊗	70	180	225 SQFT	80	80

PER SPRINKLER COMPANY SPECIFICATION DATA SHEETS

WATER FLOW INFORMATION

FLOW TEST DATE	05/26/21
FLOW TEST TIME	
FLOW TEST LOCATION	W VIRGINIA ST & S 6TH ST
ELEVATION	800'
STATIC PRESSURE	87 PSI
RESIDUAL PRESSURE	80 PSI
FLOWING	1800 GPM
CONDUCTED BY	GREAT LAKES FIRE PROTECTION CITY WATER DEPARTMENT

HYDRAULIC INFORMATION

LOCATION	DENSITY	AREA	HOSE	REQUIRED GPM	REQUIRED PSI

SPRINKLER HEAD DEFINITIONS

SYMBOL	MPG	MAKE	S.I.N.	K-FACTOR	SIZE	TEMP	STYLE	FINISH	ESCUTCHION	QTY	MAX SPACING
○	TYCO	TY-FRB	TY313	5.60	1/2"	200	UPRIGHT	BRASS	NA	80	18" x 18"
○	TYCO	TY-FRB	TY323	5.60	1/2"	200	PENDENT	CHROME	SEMI-RECESSED	23	18" x 18"
⊗	TYCO	TY-FRB	TY331	5.60	1/2"	200	SIDEWALL	BRASS	NONE	3	14" x 14"
⊗	VIRING	FREEDOM	VH467	4.80	1/2"	155	UPRIGHT	BRASS	NA	52	18" x 18"
⊗	TYCO	EC-14	TY8137	14.00	3/4"	200	UPRIGHT	BRASS	NA	2	20" x 20"
⊗	VIRING	FREEDOM	VH467	4.80	1/2"	175	UPRIGHT	BRASS	NA	5	18" x 18"
⊗	VIRING	FREEDOM	VH468	4.80	1/2"	155	PENDENT	CHROME	SEMI-RECESSED	14	18" x 18"
⊗	TYCO	CC3	TY3196	5.60	1/2"	200	UPRIGHT	BRASS	NA	12	18" x 18"

REVISIONS:

DATE:	BY:

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