


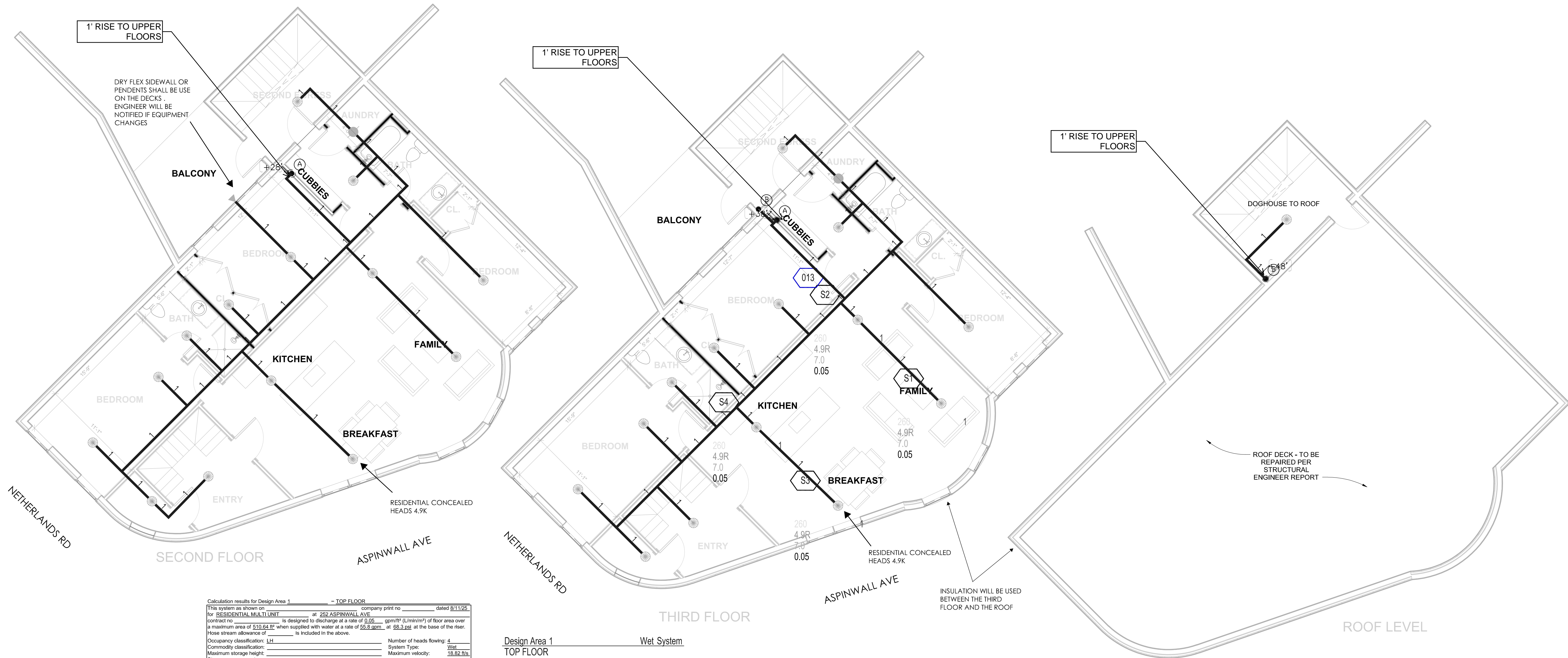
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RESIDENTIAL MULTI UNIT
252 ASPINWALL AVE
BROOKLINE, MA 02445

<h1 style="text-align: center;">PIPING PLAN</h1> <h2 style="text-align: center;">BASE-1ST</h2>	
PERMIT NO.	
CONTRACT NO.	
APPROVAL	
DRAWN BY	NB
SCALE	$1/4" = 1'-0"$
DATE	10/6/25
DESIGNED BY	<h1 style="text-align: center;">FP 1</h1>
CHECKED BY	

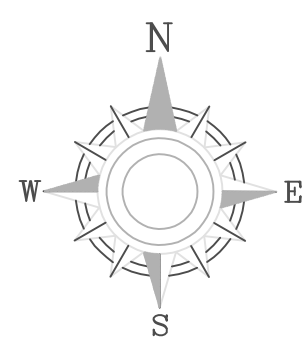


Jason Kahan



Calculation results for Design Area 1 - TOP FLOOR			
This system as shown on _____ company print no. _____ dated 8/11/25.			
for RESIDENTIAL MULTI-UNIT at 252 ASPINWALL AVE.			
contract no. _____ is designed to discharge at a rate of 0.05 gpm/ft ² (L/min/m ²) of floor area over a maximum area of 510.64 ft ² when supplied with water at a rate of 55.8 gpm at 68.3 psi at the base of the riser. Hose stream allowance of _____ is included in the above.			
Occupancy classification:	LH	Number of heads flowing:	4
Commodity classification:		System Type:	Wet
Maximum storage height:		Maximum velocity:	19.82 ft/s
Storage arrangement:			
Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	68.3 psi
Flow from Overhead sprinklers:	55.8 gpm	Pressure Available at Source:	110.7 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	42.4 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	55.8 gpm		
Additional flow at/beyond source:	100 gpm		
Total of all flows:	155.8 gpm		

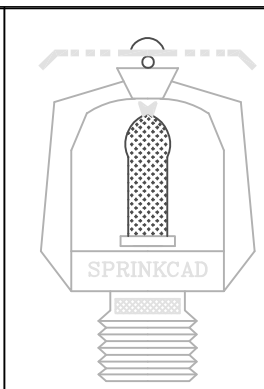
Design Area 1 Wet System
TOP FLOOR
Demand Calculations using Hazen-Williams Method
Occupancy Classification: LH
Design Area Density: 0.05
Additional Outside Hose: 100
Design Area Size: 510.64
Notes:



NOTES
NB DESIGN LLC
109 TENNYSON DR
MANCHESTER, NH 03104

REVISIONS		
DATE	DESCRIPTION	BY

SPRINKLER SYMBOLS									
SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG	MODEL#
●	54	PEND	BRASS	155	4.90	1/2"	TY2234	Tyco	LFII
●	5	PEND	BRASS	200	5.60	1/2"	TY3551	Tyco	RFLI
◀	2	DRY SIDE	CHROME	165	5.60	1/2"	V3509	VICTAULIC	FLDRY/VS

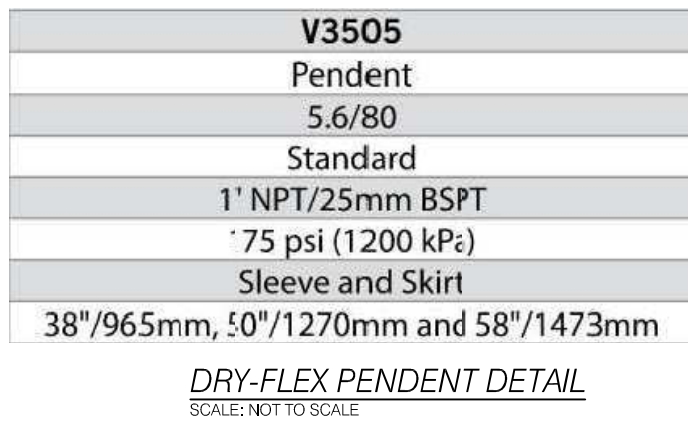


FIRE PROTECTION
RESIDENTIAL SYSTEM
NFPA 13R

RESIDENTIAL MULTI UNIT
252 ASPINWALL AVE
BROOKLINE, MA 02445

CONTRACTOR:

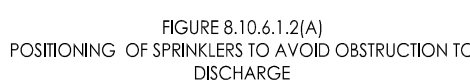
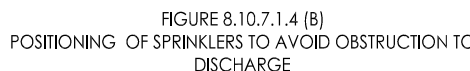
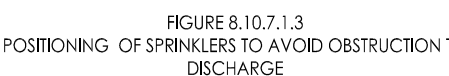
PIPING PLAN 2ND-ROOF	
PERMIT NO.	
CONTRACT NO.	
APPROVAL	
DRAWN BY	NB
SCALE	3/16" = 1'-0"
DATE	10/6/25
REVISED	
PLOTTED	FP 2



DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION (A)	MAXIMUM ALLOWABLE DISTANCE OF OBSTRUCTION ABOVE BOTTOM OF OBSTRUCTION (INCHES) (B)
LESS THAN 8 FT	NOT ALLOWED
8'-0" TO LESS THAN 10'	0'-1"
10' TO LESS THAN 11'	0'-2"
11' TO LESS THAN 12'	0'-3"
12' TO LESS THAN 13'	0'-4"
13' TO LESS THAN 14'	0'-5"
14' TO LESS THAN 15'	0'-6"
15' TO LESS THAN 16'	0'-9"
16' TO LESS THAN 17'	0'-11"
17' OR GREATER	1'-2"

DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (INCHES)
(A)	(B)
LESS THAN 1'-6"	0'-0"
1'-6" TO LESS THAN 3'-0"	0'-1"
3'-0" TO LESS THAN 4'-0"	0'-3"
4'-0" TO LESS THAN 4'-6"	0'-5"
4'-6" TO LESS THAN 6'-0"	0'-7"
6'-0" TO LESS THAN 6'-6"	0'-9"
6'-6" TO LESS THAN 7'-0"	0'-11"
7'-0" TO LESS THAN 7'-6"	1'-0"

DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (INCHES)
(A)	(B)
LESS THAN 1 FT	0
1'-0" TO LESS THAN 1'-6"	0'-0"
1'-6" TO LESS THAN 2'-0"	0'-1"
2'-0" TO LESS THAN 2'-6"	0'-1"
2'-6" TO LESS THAN 3'-0"	0'-1"
3'-0" TO LESS THAN 3'-6"	0'-3"
3'-6" TO LESS THAN 4'-0"	0'-5"
4'-0" TO LESS THAN 4'-6"	0'-5"
4'-6" TO LESS THAN 5'-0"	0'-7"
5'-0" TO LESS THAN 5'-6"	0'-7"
5'-6" TO LESS THAN 6'-0"	0'-7"
6'-0" TO LESS THAN 6'-6"	0'-9"
6'-6" TO LESS THAN 7'-0"	0'-11"
7'-0" AND GREATER	1'-2"



MAX. HANGER SPACING

PIPE TYPE	NOMINAL PIPE SIZE (IN)						
	1/4"	1/2"	3/4"	2"	4"	6"	8"
SCH 10-40 STEEL	120	120	150	150	150	150	180
UL LISTED CPVC	60	60	70	80	90		

25" MAX. FOR 1/2" DIA.
 48" MAX. FOR 1/4" DIA.
 80" MAX. FOR 1/2" DIA. OR LARGER

THEN EXTEND HERE

DISTANCE BETWEEN
 SHALL NOT EXCEED
 ABOVE TABLE

ONE HGR FOR STARTING PIPES
 6' OR LESS, NO HANGING FOR
 OVERSIZES ALLOWED

IF GREATER THAN 25" MAX. FOR 1/2" DIA.
 IF GREATER THAN 48" MAX. FOR 1/4" DIA.
 IF GREATER THAN 80" FOR 1/2" DIA. OR LARGER

NOTE: WHEN MECHANICAL EQUIPMENT OR LAUNDRY MACHINES ARE PLACED IN THE CLOSET, THE CLOSET IS NO LONGER CONSIDERED A CLOTHES CLOSET, LINEN CLOSET, OR PANTRY, SO THE EXCEPTION OF 6.6.3 IS NO LONGER VALID AND SPRINKLERS MUST BE INSTALLED.



SPRINKLER CONTRACTOR SHALL TAKE PRECAUTIONS WHEN INSTALLING SPRINKLER PIPING IN JOISTS ON TOP FLOOR. GENERAL CONTRACTOR SHALL BE REQUIRED TO INSTALL SUFFICIENT INSULATION TO MAINTAIN 40-DEGREES IN ALL AREAS WHERE SPRINKLER PIPING AND HEADS ARE INSTALLED

UL LISTED CPVC SPRINKLER PIPING




THE BUILDING OWNER IS RESPONSIBLE FOR PROVIDING HEAT IN ALL AREAS CONTAINING SPRINKLER PIPING AND HEADS TO PREVENT PIPE FROM FREEZING. ANY AREAS THAT RAISE CONCERN WITH REGARD TO FREEZING POTENTIAL SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION, IN WRITING, PRIOR TO INSTALLATION. THE ENGINEER OF RECORD TAKE NO RESPONSIBILITY FOR DAMAGES CAUSED BY FREEZE-UPS OF THE SPRINKLER SYSTEM.

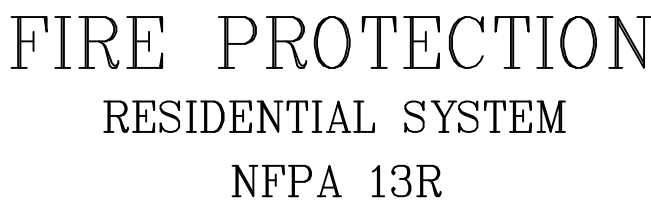
HEAT SOURCE	MINIMUM DISTANCE FROM EDGE OF SOURCE TO ORDINARY TEMPERATURE SPRINKLER (INCHES)	MINIMUM DISTANCE FROM EDGE OF SOURCE TO INTERMEDIATE TEMPERATURE SPRINKLER (INCHES)
SIDE OF OPEN OR RECESSED FIREPLACE	36	12
FRONT OF RECESSED FIREPLACE	60	36
KITCHEN RANGE	18	9
WALL OVEN	18	9
SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSER	34	12
FRONT OF WALL MOUNTED HOT AIR DIFFUSER	26	18
HOT WATER HEATER OR FURNACE	6	3
LIGHT FIXTURE: 0W-250W	6	3
LIGHT FIXTURE: 250W-499W	12	6



**NB DESIGN LLC
109 TENNYSON DR
MANCHESTER, NH 03104**

[illegible]

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#
	54	PEND	BRASS	155	4.90	1/2"	TY2234	Tyco	LFII
	5	PEND	BRASS	200	5.60	1/2"	TY3551	Tyco	RFLL
	2	DRY SIDE	CHROME	165	5.60	1/2"	V3509	VICTAULIC	FLDRY/VS



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BROOKLINE, MA 02445

CONTRACTOR:

PERMIT NO.	
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APPROVAL	
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SCALE	$1/4" = 1'-0"$
DATE	10/6/25
REVISED	FP 3
PLOTTED	