

GENERAL INFORMATION

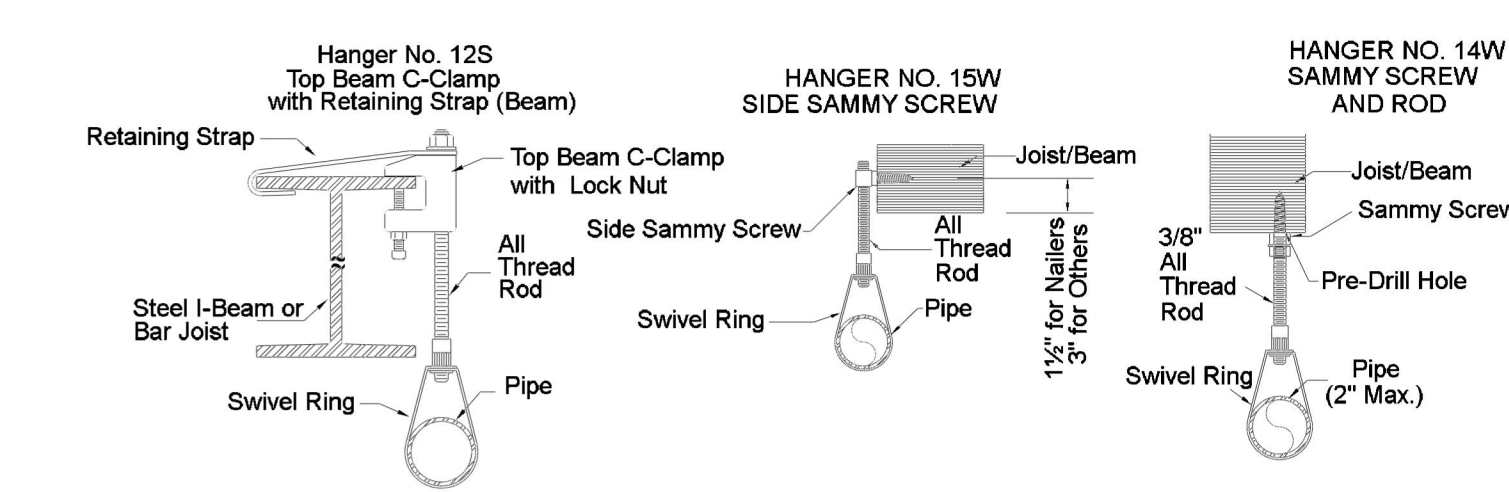
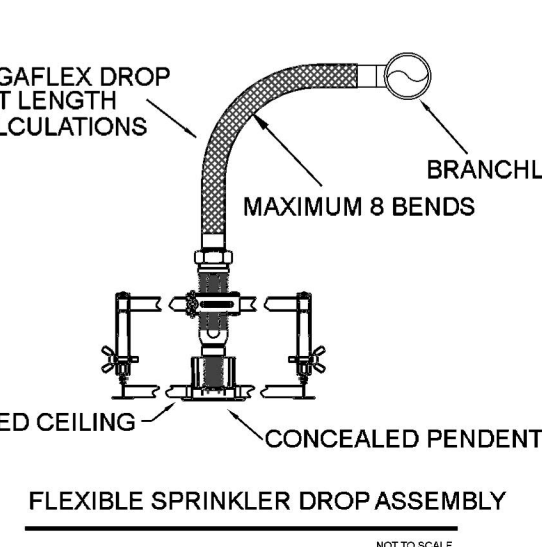
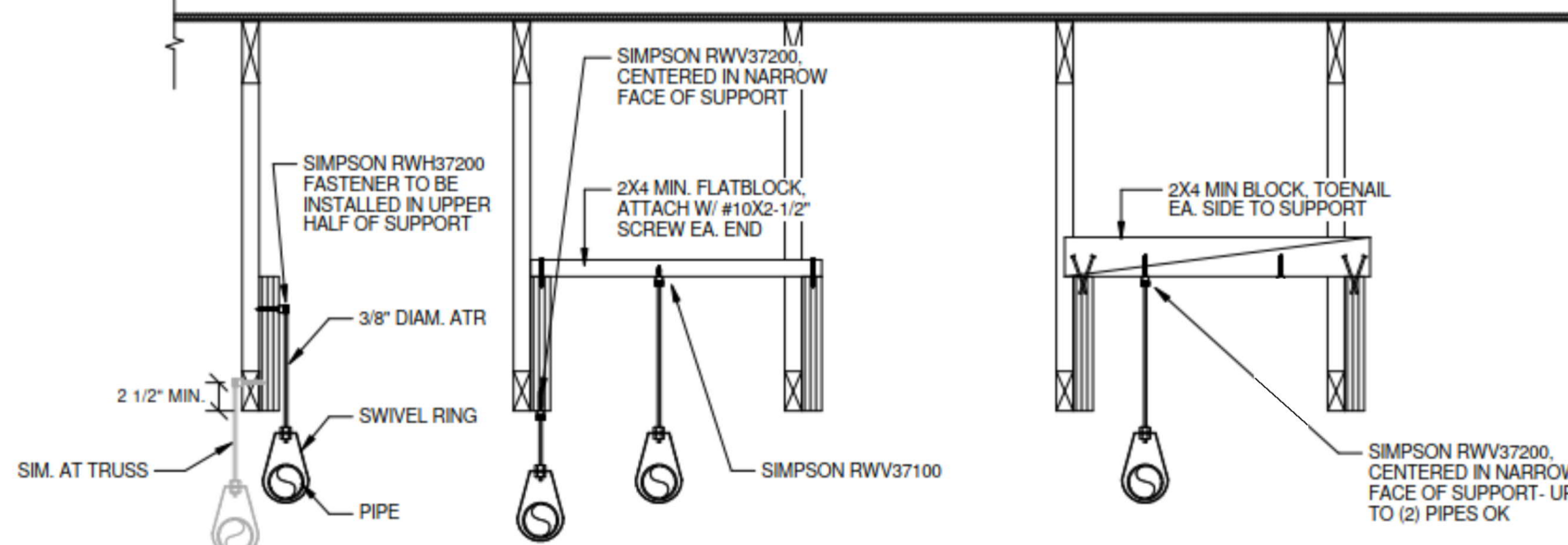
- INTERNATIONAL BUILDING CODE (2018)
 - OCCUPANCY: TYPE B
 - TYPE OF CONSTRUCTION: V-B
 - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 - ZONE 1 (WET) = 60,100 S.F.
 - ZONE 2 (DRY) = 14,500 S.F.
 - DESIGN & INSTALLATION STANDARDS: NFPA-13 (2019)
 - AUTHORITY HAVING JURISDICTION (AHJ): CITY OF RENO FIRE MARSHAL
- SPRINKLER PIPE TYPES:
 - WET:
 - 1" PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
 - 1-1/4" THROUGH 4" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 w/ GROOVED FITTINGS
 - MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
 - 2" AND LARGER TO USE GROOVED SHORT RADIUS FITTINGS
 - DRY:
 - 1" PIPE TO BE SCHEDULE 40 BLACK STEEL w/ THREADED FITTINGS
 - 1-1/4" THROUGH 4" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 w/ GROOVED FITTINGS
 - MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
 - 2" AND LARGER TO USE GROOVED SHORT RADIUS FITTINGS
- DESIGN CRITERIA:
 - LIGHT HAZARD AREAS INCLUDE OFFICE/ADMINISTRATIVE, RESTROOMS, AND CORRIDORS
 - ORDINARY HAZARD GROUP I AREAS INCLUDE MECHANICAL AND ELECTRICAL ROOMS
 - REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 19.3.3.2.3
 - REMOTE AREA INCREASED BY 30% FOR SLOPED CEILINGS PER NFPA 13 SEC. 19.3.3.2.4
 - REMOTE AREA INCREASED BY 30% FOR DRY AND DOUBLE INTERLOCK PREACTION SYSTEMS PER NFPA 13 SEC. 19.3.3.2.5
- NOTES:
 - ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
 - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND ENGINEER DETAILS - SEE PLAN FOR HANGING REQUIREMENTS
 - CONCRETE WEDGE ANCHORS FOR SEISMIC SHALL BE PLACED IN CMU WALL WITH GROUTED
 - DRY SYSTEM REQUIREMENTS:

- DRY SYSTEM PIPE SLOPE INSTALLATION
 SPRINKLER MAINS TO BE 1/4" PER 10'-0"
 SPRINKLER BRANCH LINES TO BE 1/2" PER 10'-0"
- DRY SYSTEM CAPACITY
 837 GALLONS

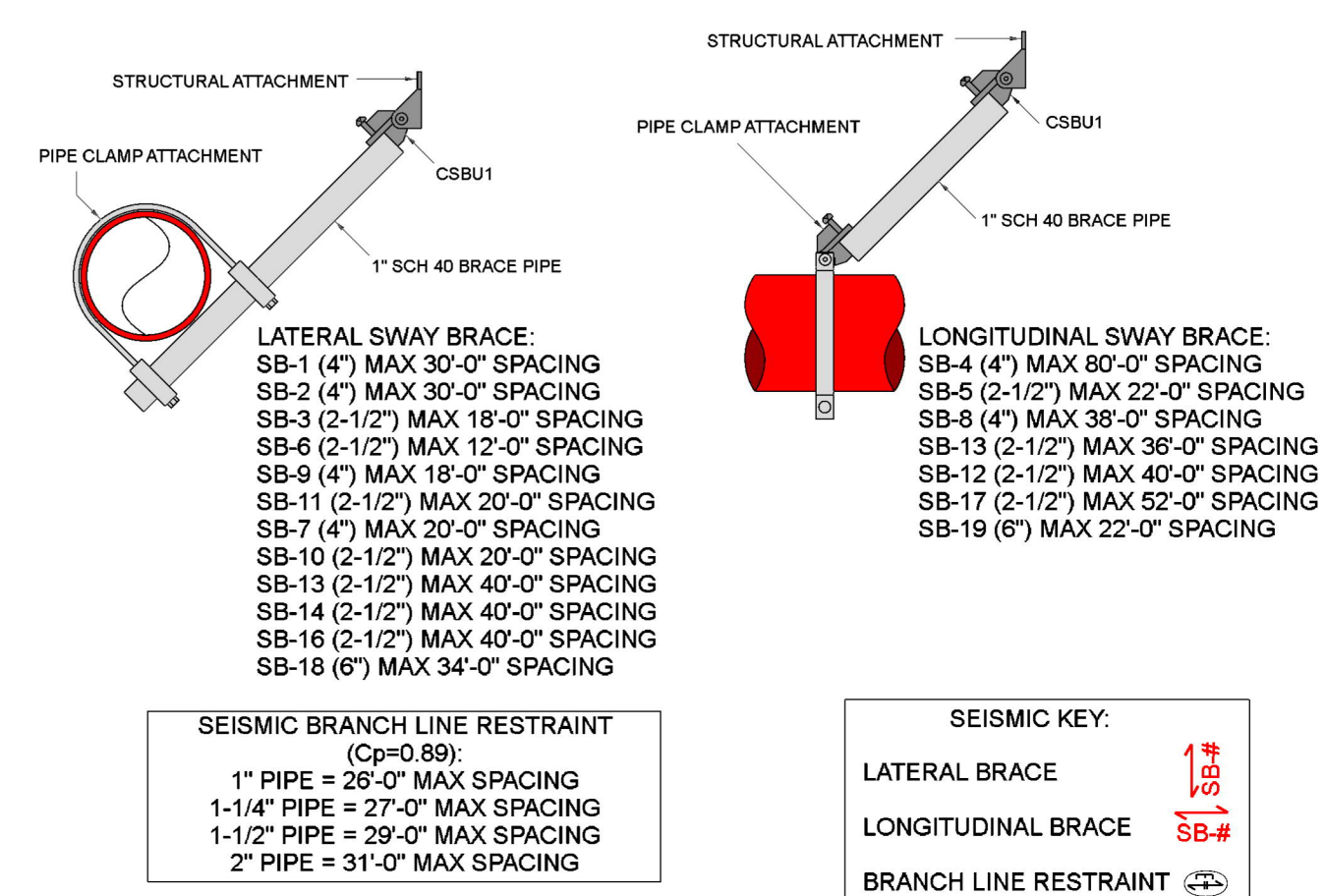
5. SYMBOLS USED ON DRAWINGS:
- *x x FF PIPE ELEVATION ABOVE FINISH FLOOR
 - *x x TS PIPE ELEVATION BELOW TOP OF STEEL
 - [RH] ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD U.N.O.)
 - HYDRAULIC CALCULATION JUNCTION POINT
 - 9'-0" CEILING HEIGHT
 - FIRE RATED WALL
 - WET BLACK STEEL PIPE
 - DRY BLACK STEEL PIPE

6. SCOPE OF WORK:
- INSTALL A COMPLETE ONE WET ZONE AND ONE DRY ZONE FIRE SPRINKLER SYSTEM TO COVER ALL AREAS OF BUILDING
 - ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13

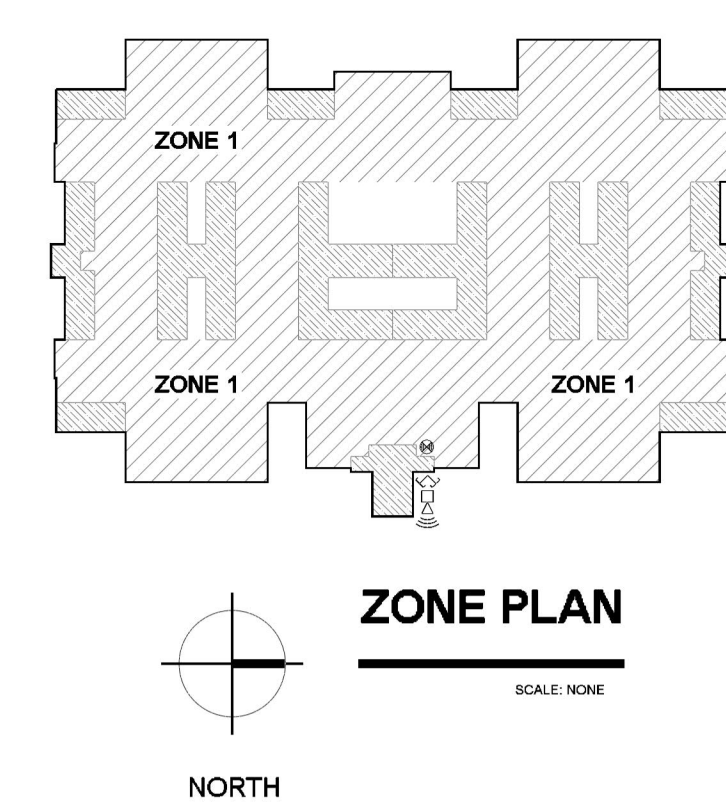
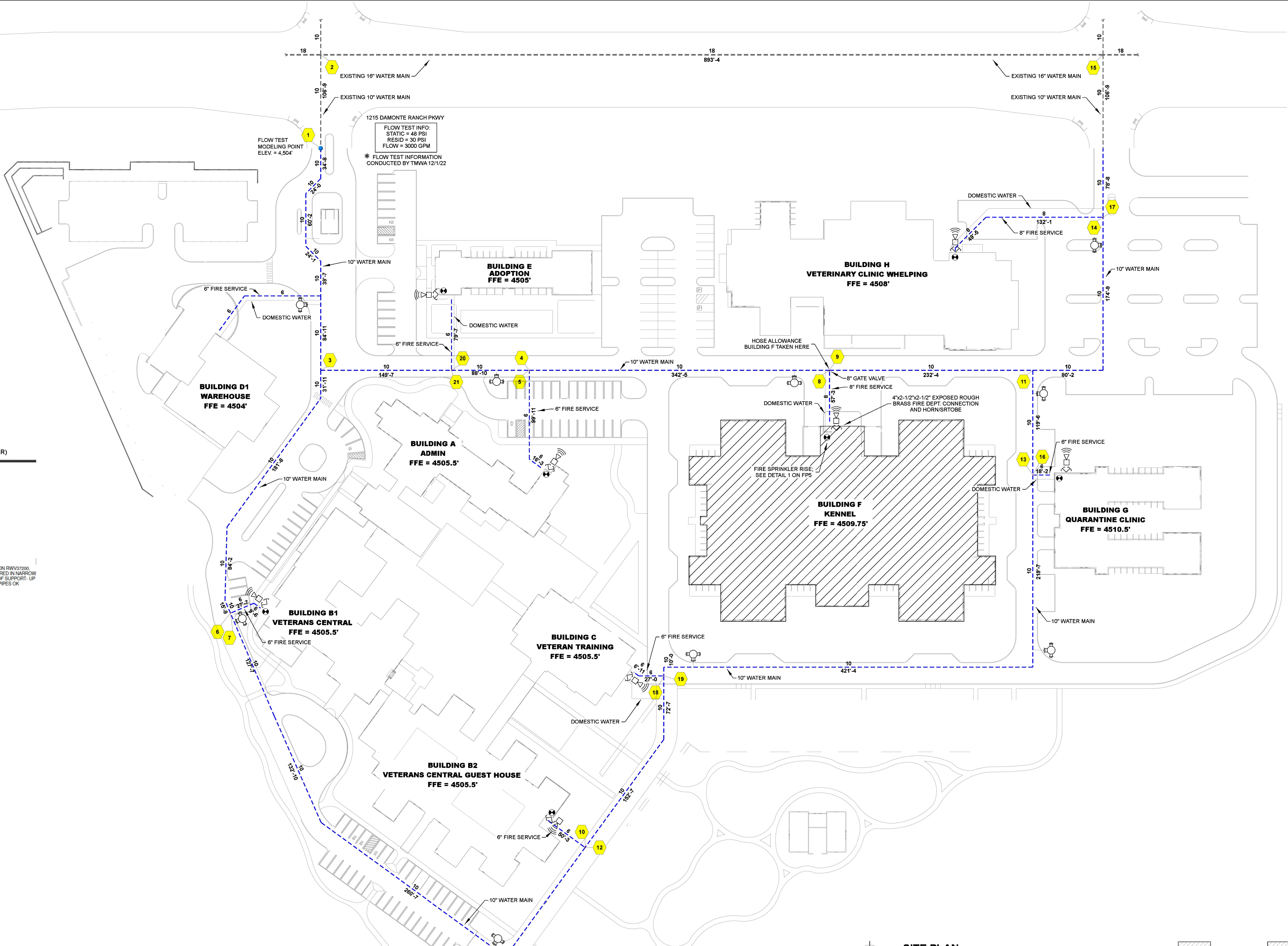
PLUMBING/FIRE SUPPRESSION SUPPORTS (DETAILS FROM MEP SUPPORT CONDITIONS SK-12.1 PROVIDED BY ENGINEER)



HANGER DETAILS

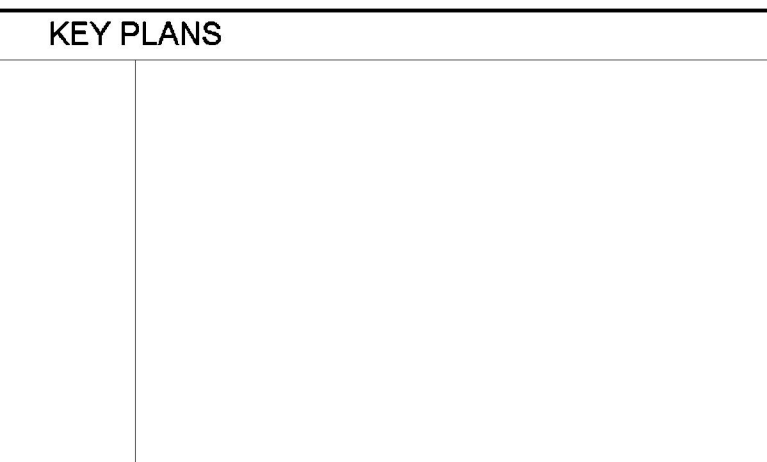
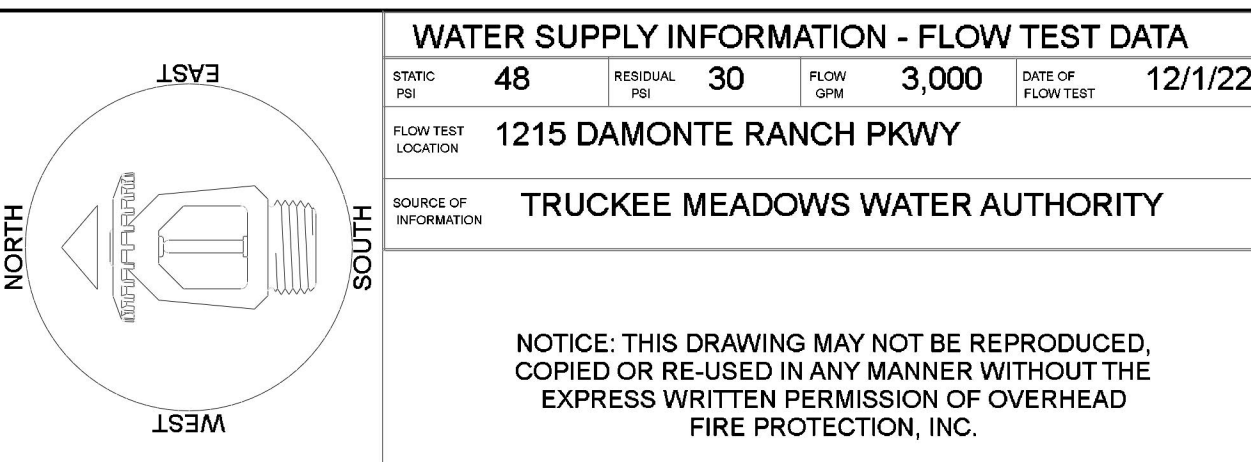


SEISMIC DETAILS



Liberty Dogs Kennel Sprinkler Legend

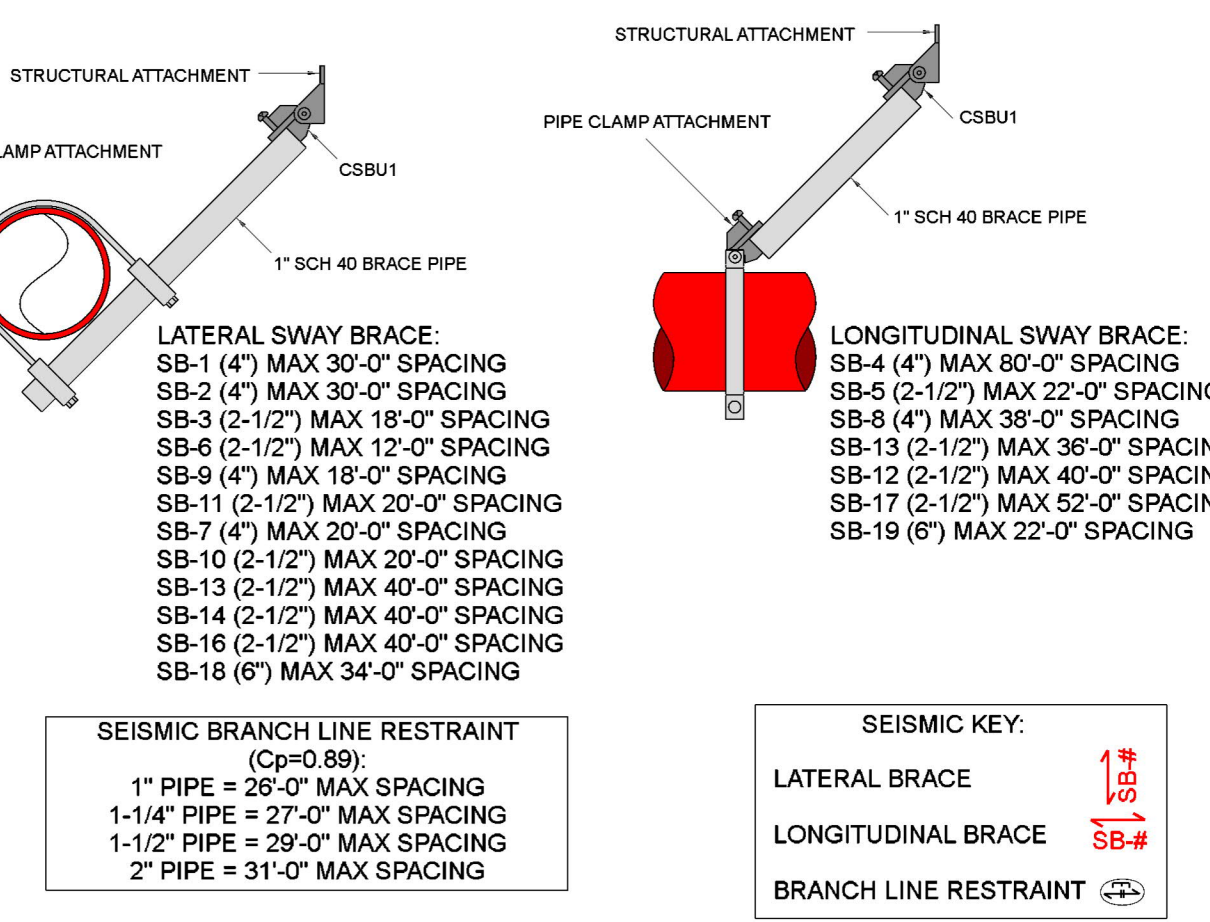
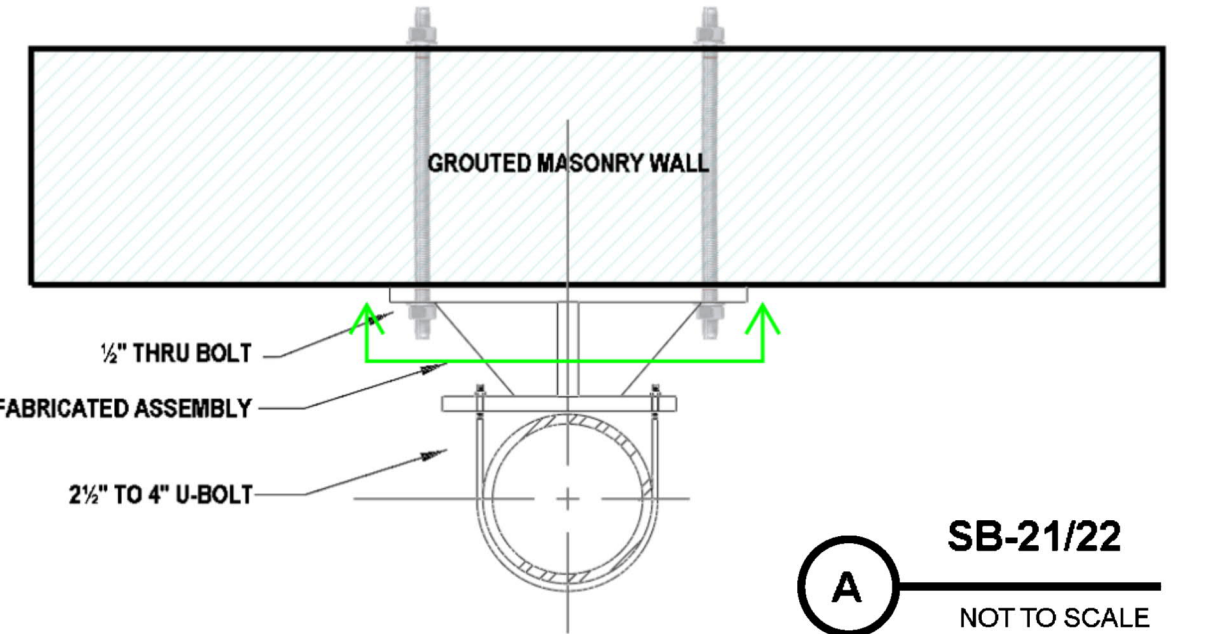
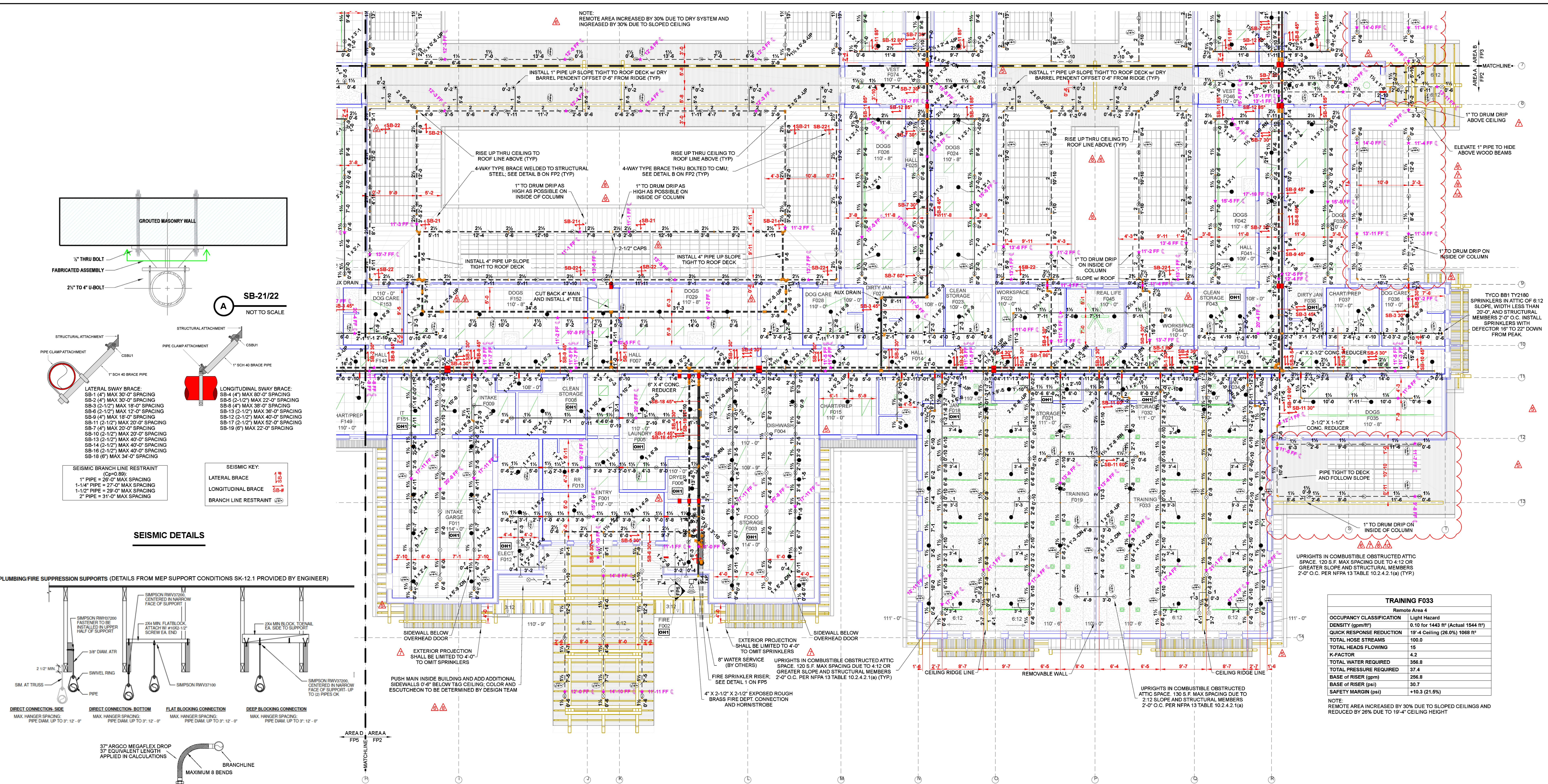
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
⊗	Tyco	TY2131	TY-FRB	605	4.2	Upright	3/4"	Quick	Natural Brass	200°F	N/A
⊗	Tyco	TY2180	BB1	72	4.2	Upright	3/4"	Quick	Brass	200°F	N/A
⊗	Tyco	TY2131	TY-FRB	4	4.2	Upright	3/4"	Quick	Natural Brass	200°F	SPRIG
⊗	Tyco	TY3235	DS-1	16	5.6	Pendent	1"	Quick	Chrome	200°F	PENDENT DRY
⊗	Tyco	TY3235	DS-1	2	5.6	Pendent	1"	Quick	Chrome	200°F	STANDARD DRY
▶	Reliable	RA1435	FFR56	2	5.6	Horizontal Sidewall	3/4"	Quick	Brass	200°F	N/A
▶	Tyco	TY3335	DS-1	2	5.6	Horizontal Sidewall	1"	Quick	Chrome	200°F	VERIFY COLOR/ESCUTCHEON
●	Reliable	RA3413	GS-42	487	4.2	Concealed Pendent	3/4"	Quick	Brass	212°F	WHITE PLATE CONCEALED
				Total = 1190							



LIBERTY DOGS
 1215 DAMONTE RANCH PKWY
 RENO, NV 89521
 APN 140-010-55

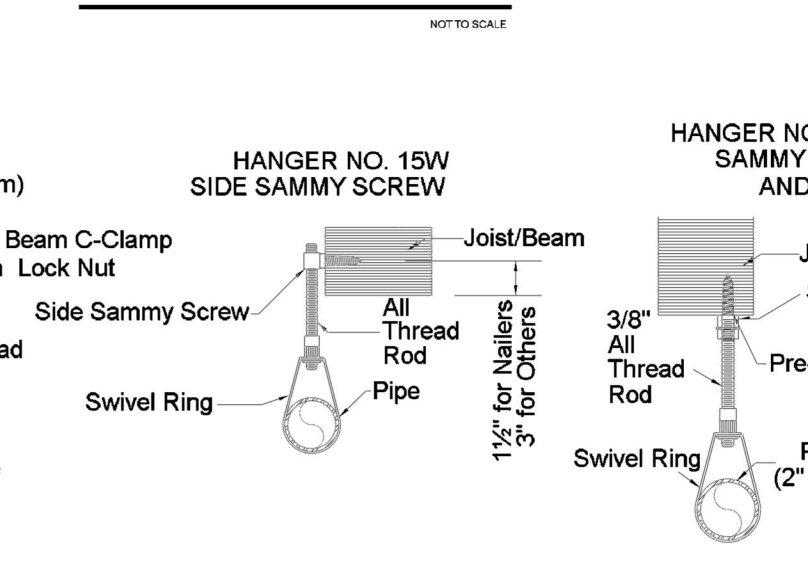
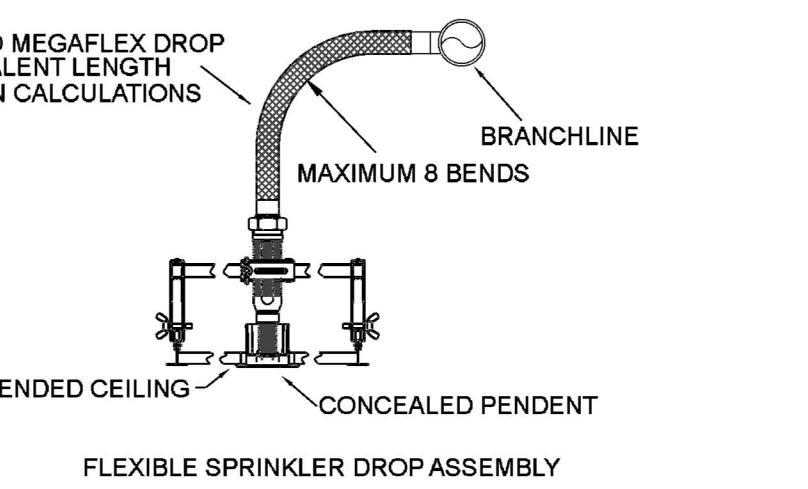
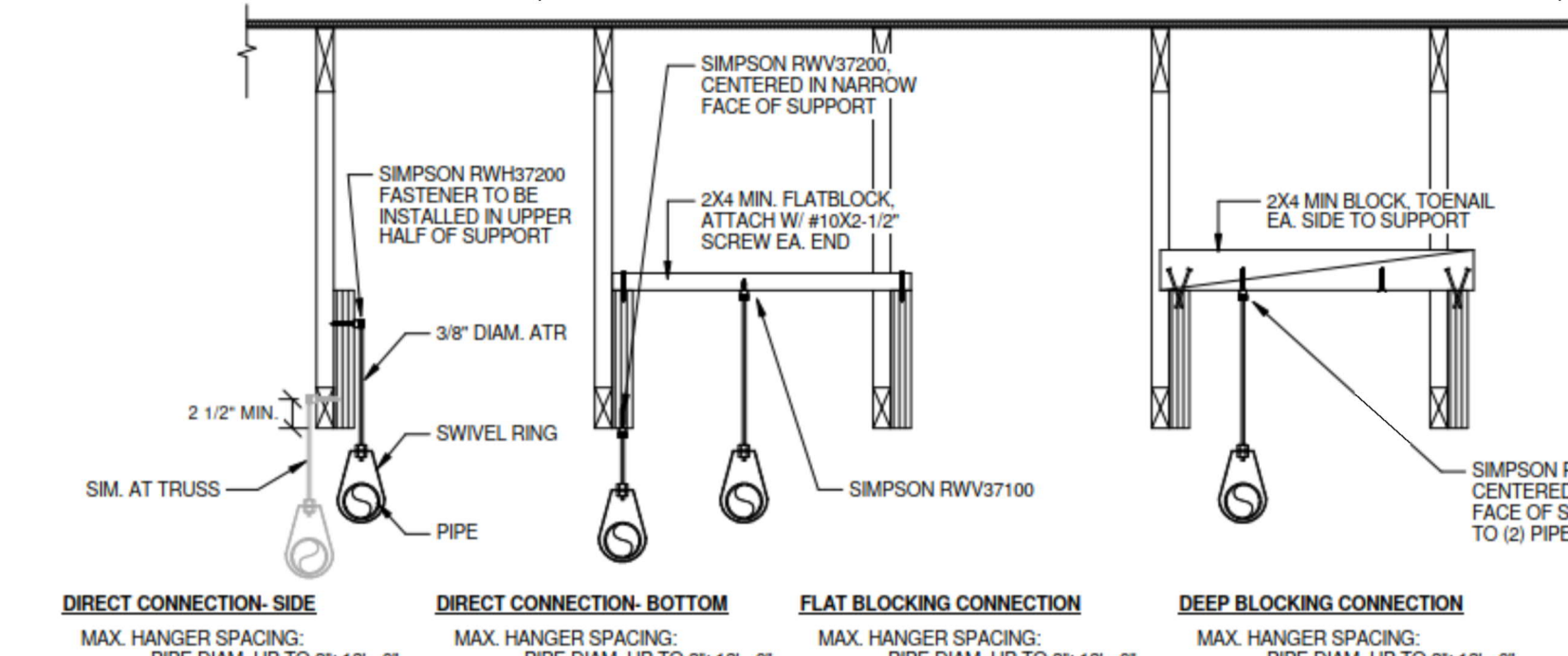
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 SCALE: AS NOTED
 SHEET: FP1 OF 5

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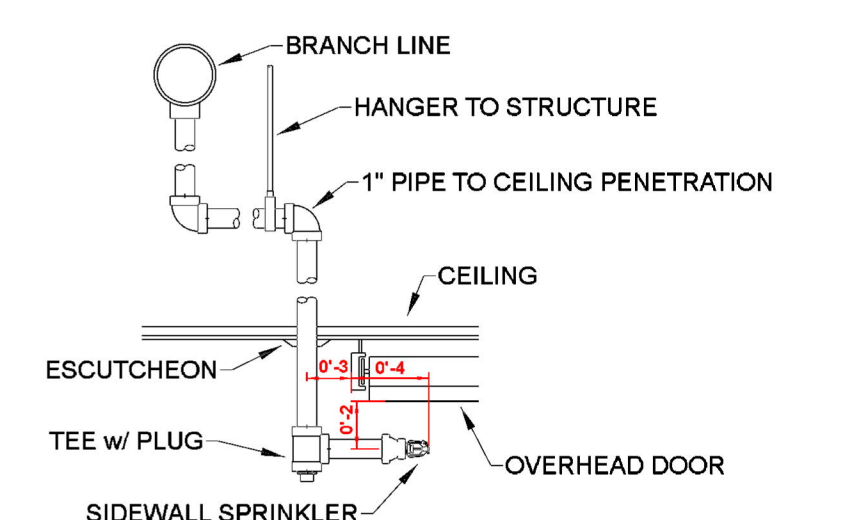


SEISMIC DETAILS

PLUMBING/FIRE SUPPRESSION SUPPORTS (DETAILS FROM MEP SUPPORT CONDITIONS SK-12.1 PROVIDED BY ENGINEER)



HANGER DETAILS



OVERHEAD DOOR PROTECTION DETAIL

NOTE: SIDEWALL AREA OF PROTECTION IS 14' X 14'. SPRINKLER SPRAY PATTERN IS 14'-0" STRAIGHT OUT AND 7'-0" TO EACH SIDE.

TRAINING F033

Remote Area 4	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 1443 ft ² (Actual 1544 ft ²)
QUICK RESPONSE REDUCTION	19'-4" Ceiling (26.0%) 1068 ft ²
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	15
K-FACTOR	4.2
TOTAL WATER REQUIRED	356.8
TOTAL PRESSURE REQUIRED	37.4
BASE OF RISER (ppm)	256.8
SAFETY MARGIN (psi)	30.7
SAFETY MARGIN (psi)	+10.3 (21.6%)

NOTE: REMOTE AREA INCREASED BY 30% DUE TO SLOPED CEILINGS AND REDUCED BY 26% DUE TO 19'-4" CEILING HEIGHT

AREA A FIRE SPRINKLER PLAN

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

Liberty Dogs Kennel Sprinkler Legend

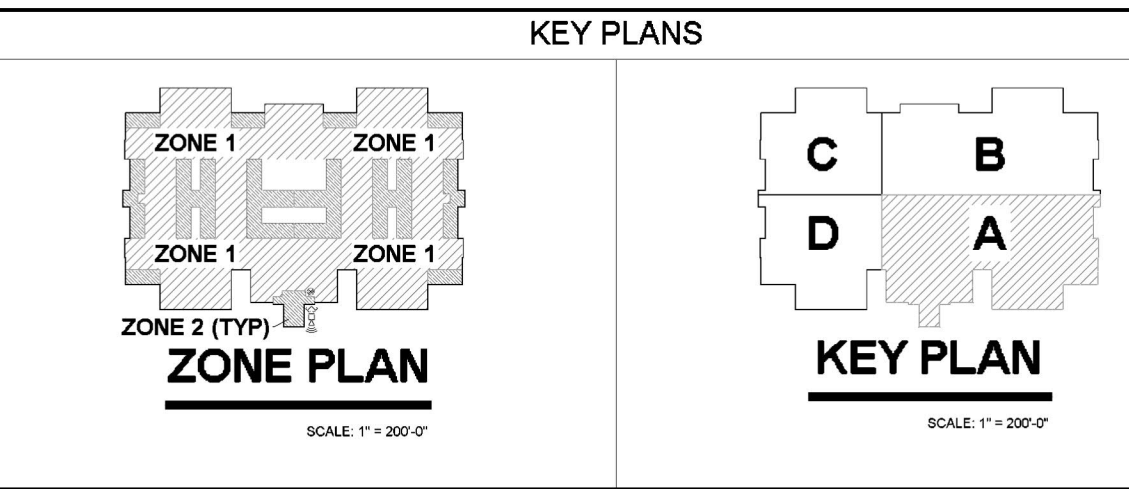
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note	
⊙	Tyco	TY2131	TY-FRB	606	4.2	Upright	1/2"	Quick	Natural Brass	200°F	N/A	
⊙	Tyco	TY2160	SB1	72	4.2	Upright	1/2"	Quick	Brass	200°F	N/A	
⊙	Tyco	TY2131	TY-FRB	4	4.2	Upright	1/2"	Quick	Natural Brass	200°F	SPRIG	
⊙	Tyco	TY3235	DS-1	16	5.6	Pendant	1"	Quick	Chrome	200°F	PENDENT DRY	
⊙	Reliable	RA1435	F1FR56	2	5.6	Horizontal Sidewall	1/2"	Quick	Brass	200°F	N/A	
⊙	Tyco	TY3335	DS-1	4	5.6	Horizontal Sidewall	1"	Quick	Chrome	200°F	VERIFY COLOR/ESCUTCHEON	
⊙	Reliable	RA3413	GS-42	487	4.2	Concealed Pendant	1/2"	Quick	Brass	212°F	WHITE PLATE CONCEALED	
				Total = 1191								

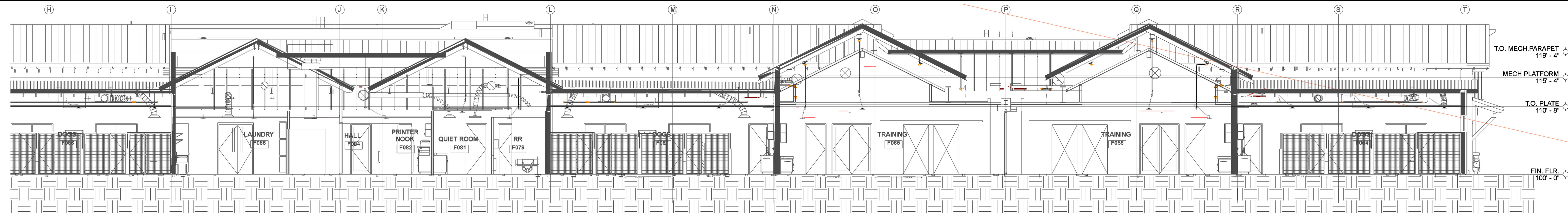
WATER SUPPLY INFORMATION - FLOW TEST DATA

FRIC LOSS	48	RESIDUAL PRESS	30	FLOW	3,000	DATE OF FLOW TEST	12/1/22
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1215 DAMONTE RANCH PKWY
TRUCKEE MEADOWS WATER AUTHORITY

NOTICE: THIS DRAWING MAY NOT BE REPRODUCED, COPIED OR RE-USED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF OVERHEAD FIRE PROTECTION, INC.

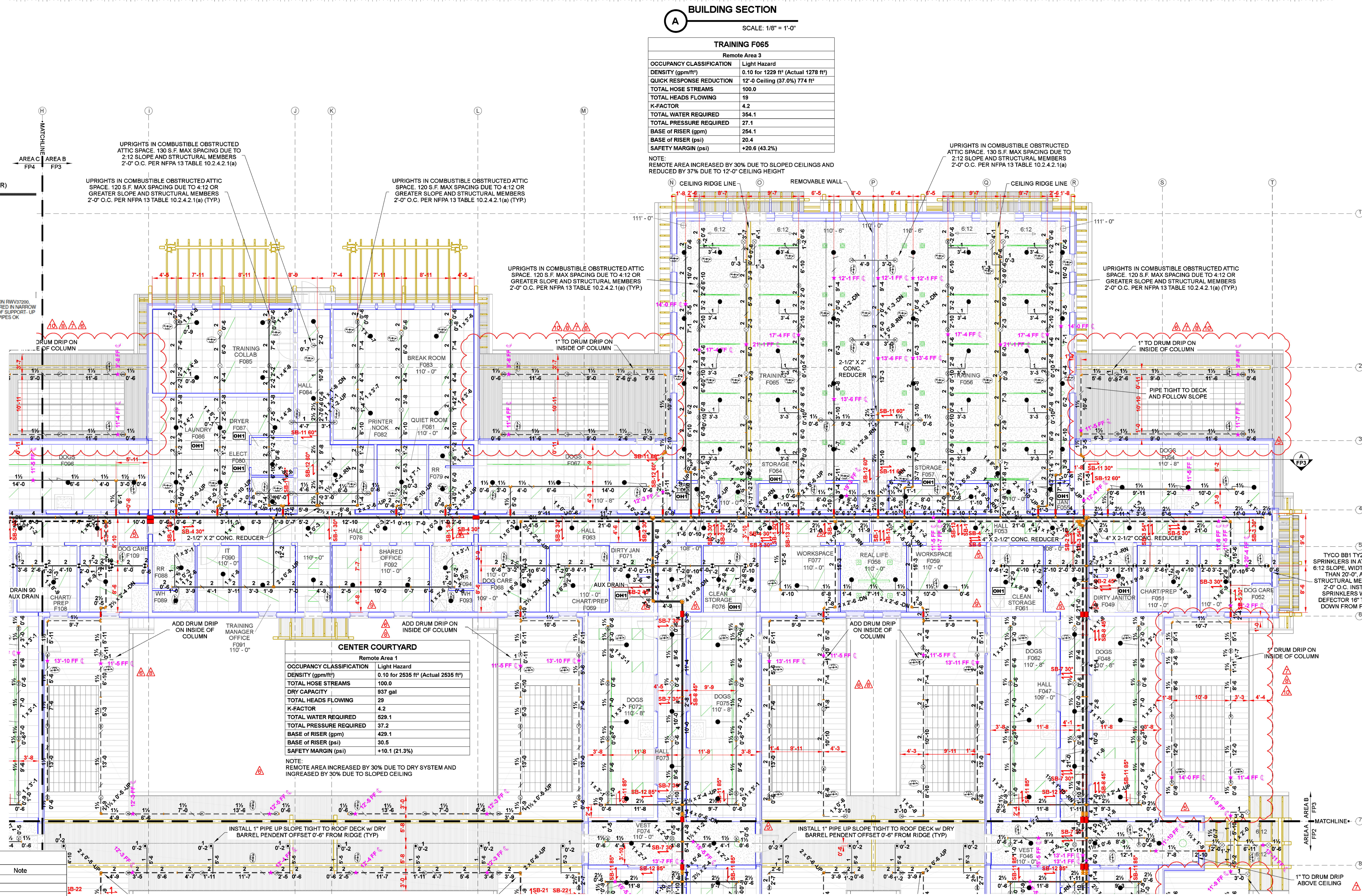




BUILDING SECTION
SCALE: 1/8" = 1'-0"

TRAINING F065	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 1228 ft ² (Actual 1278 ft ²)
QUICK RESPONSE REDUCTION	12'-0" Ceiling (37.0%) 774 ft ²
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	18
K-FACTOR	4.2
TOTAL WATER REQUIRED	354.1
TOTAL PRESSURE REQUIRED	27.1
BASE OF RISER (gpm)	254.1
BASE OF RISER (psi)	20.4
SAFETY MARGIN (psi)	+20.6 (43.2%)

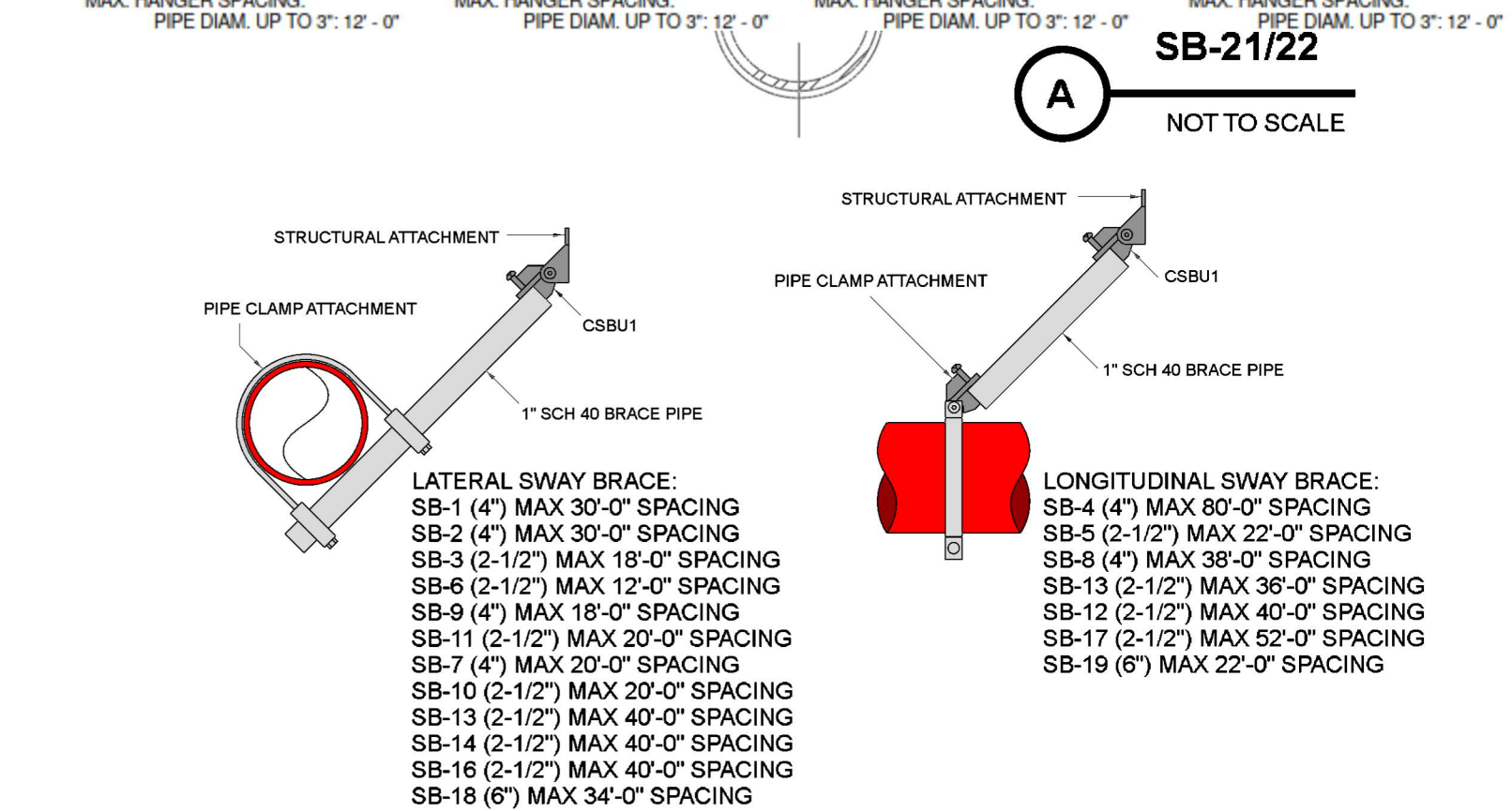
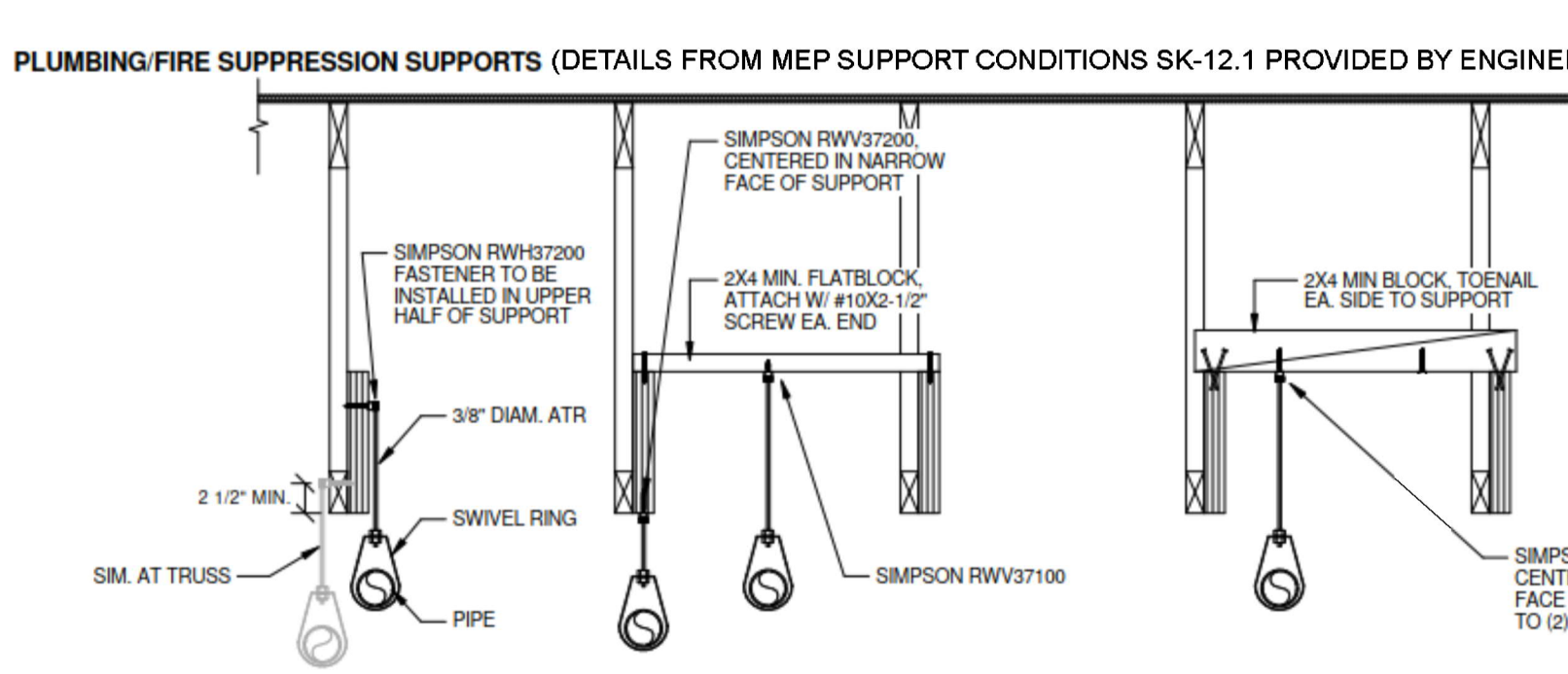
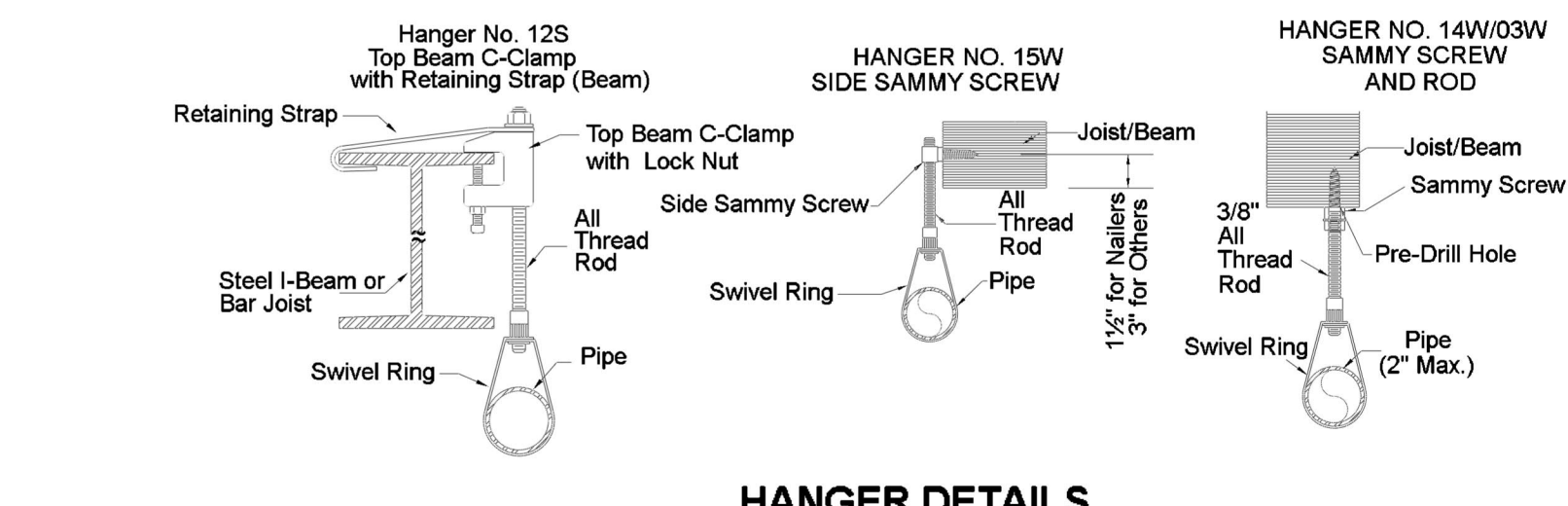
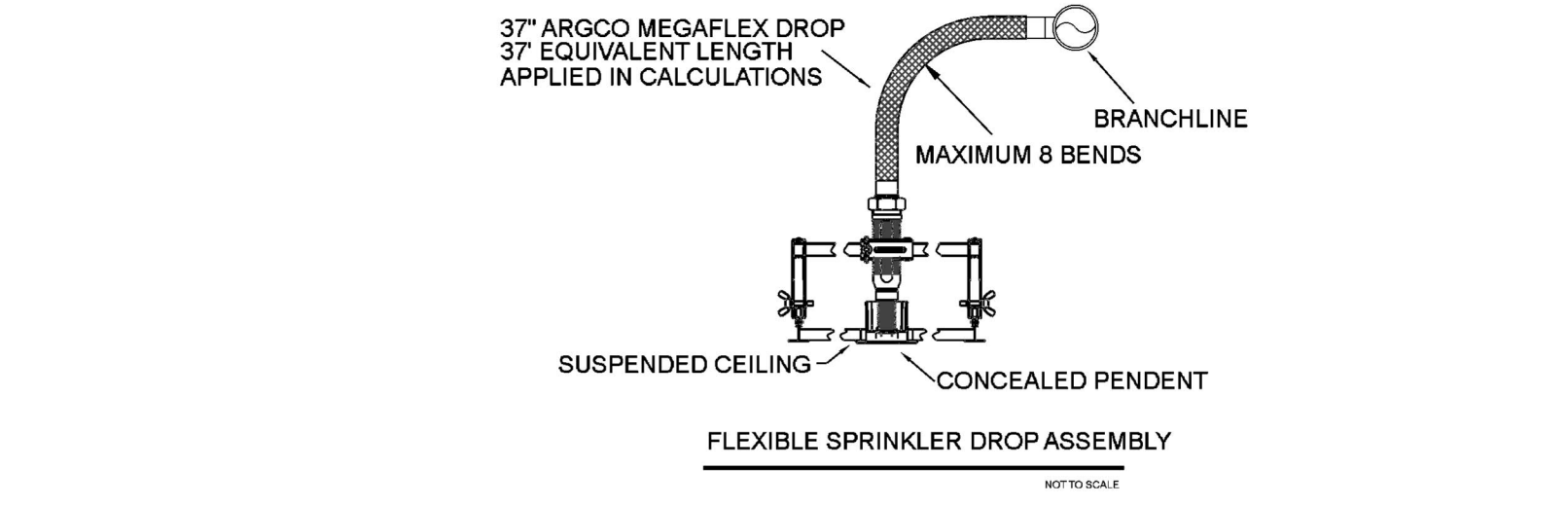
NOTE: REMOTE AREA INCREASED BY 30% DUE TO SLOPED CEILING AND REDUCED BY 33% DUE TO 12'-0" CEILING HEIGHT



CENTER COURTYARD	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 2535 ft ² (Actual 2535 ft ²)
TOTAL HOSE STREAMS	100.0
DRY CAPACITY	937 gal
TOTAL HEADS FLOWING	29
K-FACTOR	4.2
TOTAL WATER REQUIRED	529.1
TOTAL PRESSURE REQUIRED	37.2
BASE OF RISER (gpm)	429.1
BASE OF RISER (psi)	30.5
SAFETY MARGIN (psi)	+10.1 (21.3%)

NOTE: REMOTE AREA INCREASED BY 30% DUE TO DRY SYSTEM AND INCREASED BY 30% DUE TO SLOPED CEILING

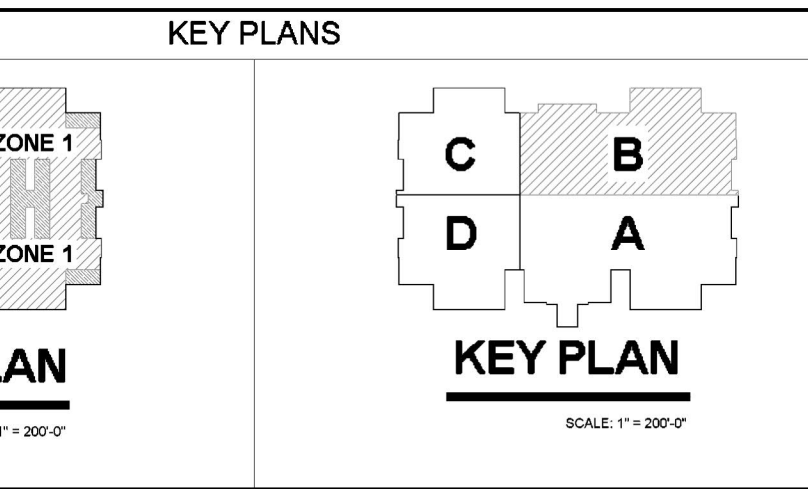
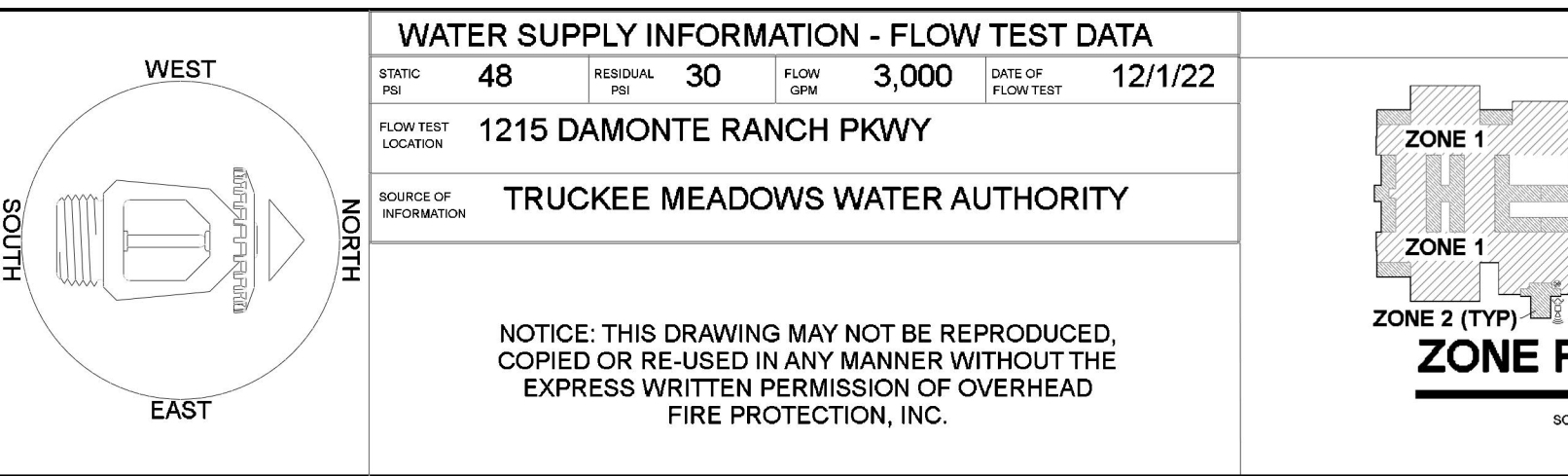
AREA B FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

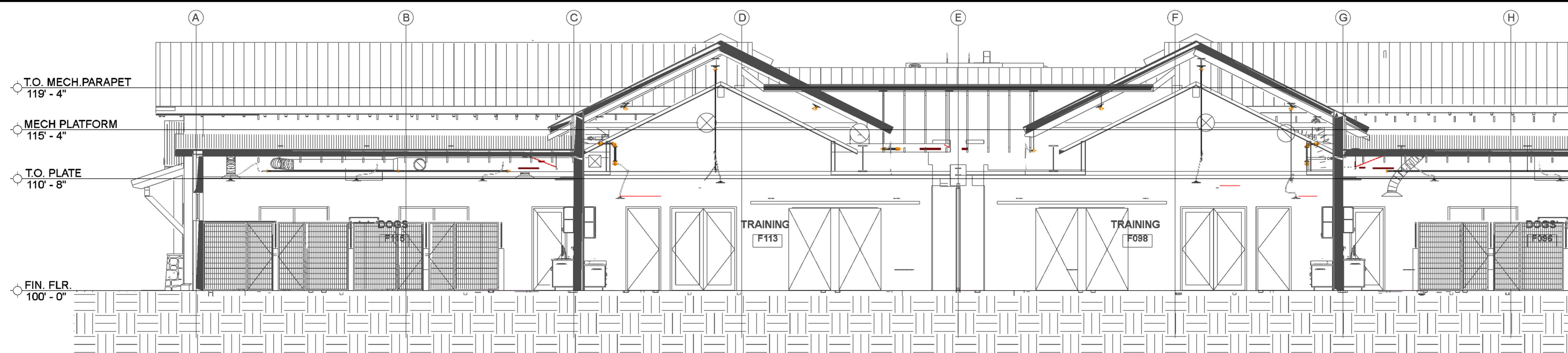


SEISMIC BRANCH LINE RESTRAINT	
1" PIPE = 28'-0" MAX SPACING	
1-1/4" PIPE = 27'-0" MAX SPACING	
1-1/2" PIPE = 26'-0" MAX SPACING	
2" PIPE = 31'-0" MAX SPACING	

SEISMIC KEY:	
LATERAL BRACE	1/2"
LONGITUDINAL BRACE	1/2"
BRANCH LINE RESTRAINT	1/2"

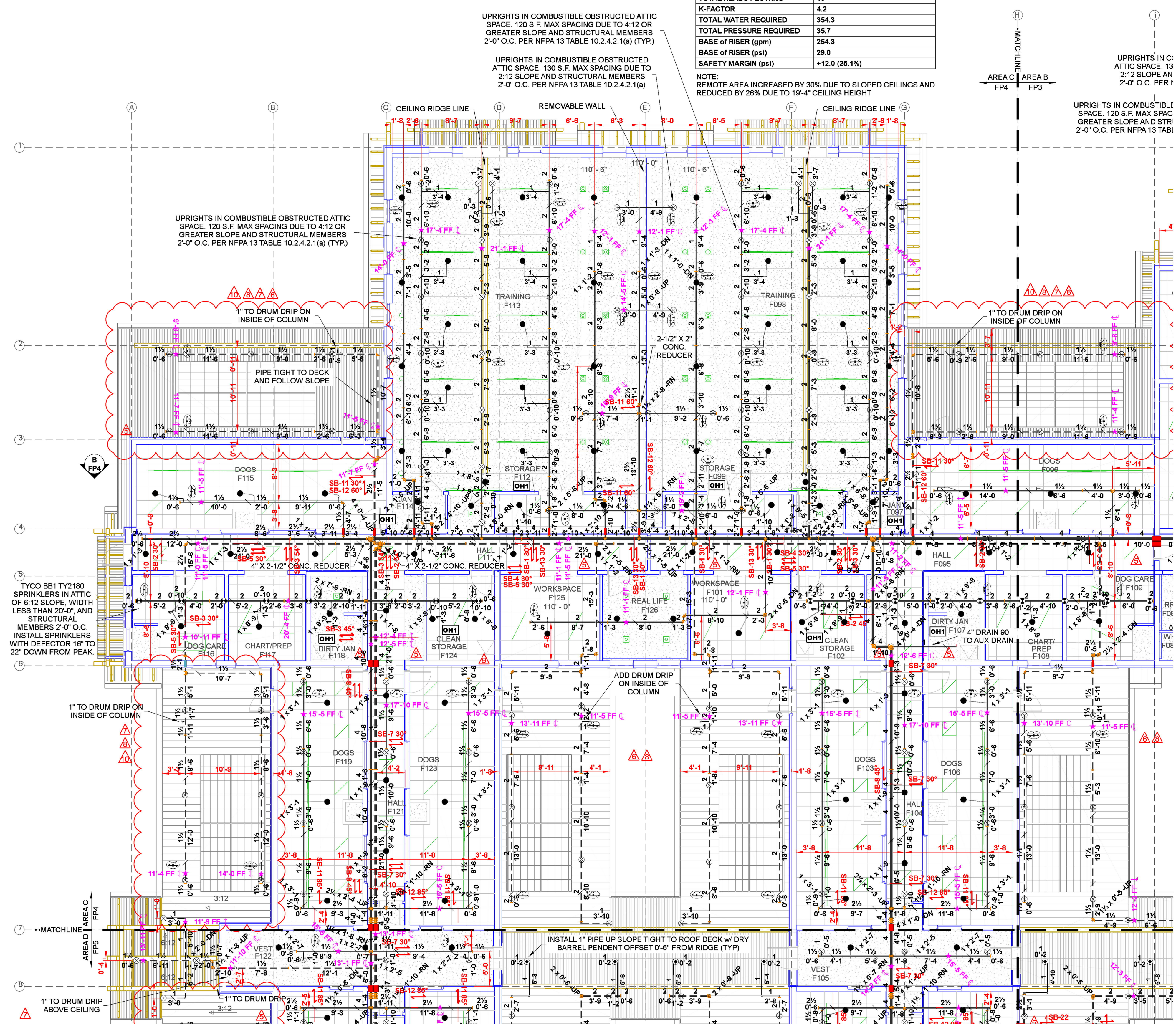
Liberty Dogs Kennel Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
⊗	Tyco	TY2131	TY-FRB	608	4.2	Upright	1/2"	Quick	Natural Brass	200°F	N/A
⊗	Tyco	TY2180	BB1	72	4.2	Upright	1/2"	Quick	Brass	200°F	N/A
⊗	Tyco	TY2131	TY-FRB	4	4.2	Upright	1/2"	Quick	Natural Brass	200°F	SPRIG
⊗	Tyco	TY2325	DS-1	16	5.6	Pendent	1"	Quick	Chrome	200°F	PENDENT DRY
⊗	Reliable	RA1435	F1FR56	2	5.6	Horizontal Sidewall	1/2"	Quick	Brass	200°F	N/A
⊗	Tyco	TY3335	DS-1	4	5.6	Horizontal Sidewall	1"	Quick	Chrome	200°F	VERIFY COLOR/ESCUTCHEON
⊗	Reliable	RA3413	GS-42	457	4.2	Concealed Pendent	1/2"	Quick	Brass	212°F	WHITE PLATE CONCEALED
				Total = 1191							



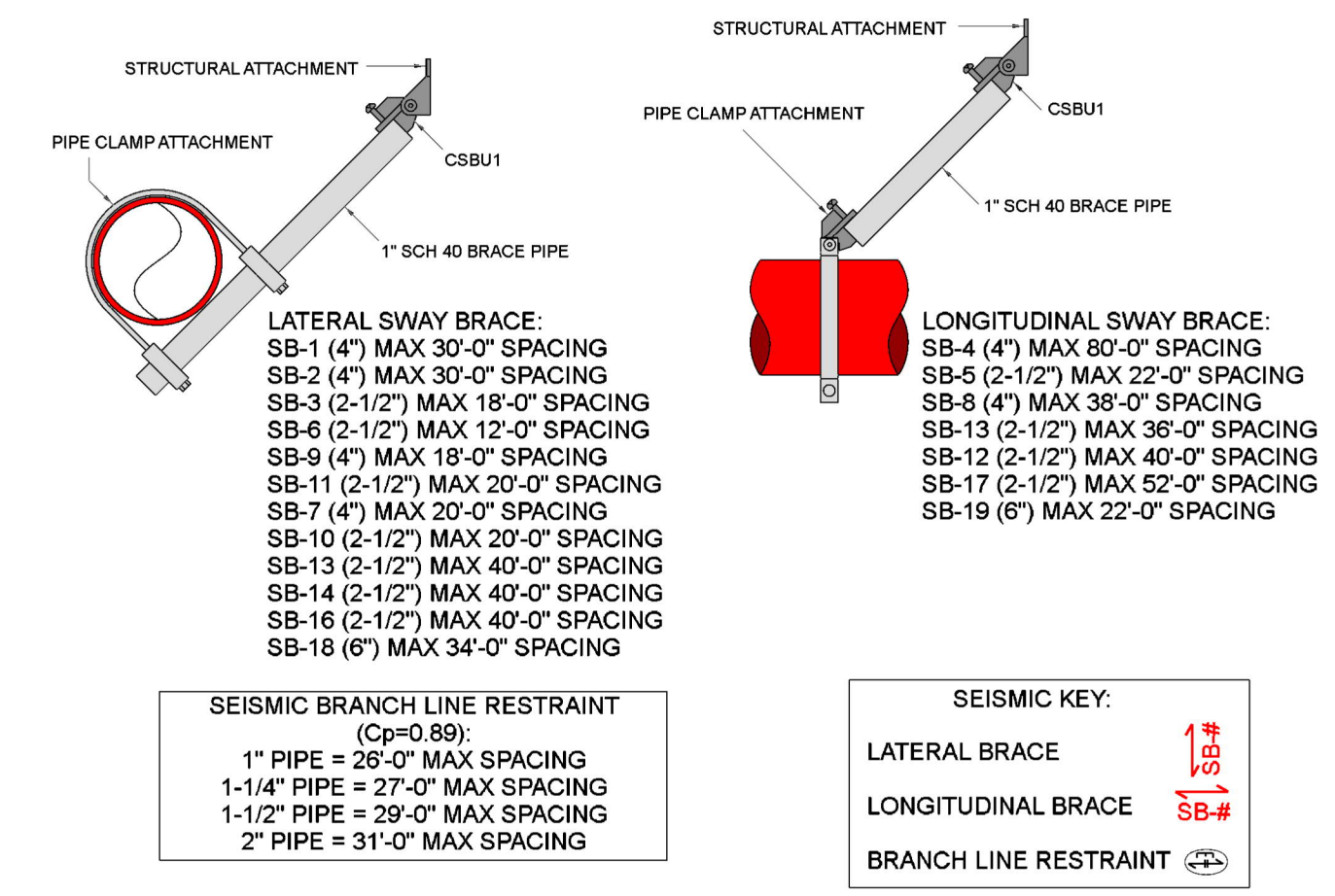


B BUILDING SECTION
SCALE: 1/8" = 1'-0"

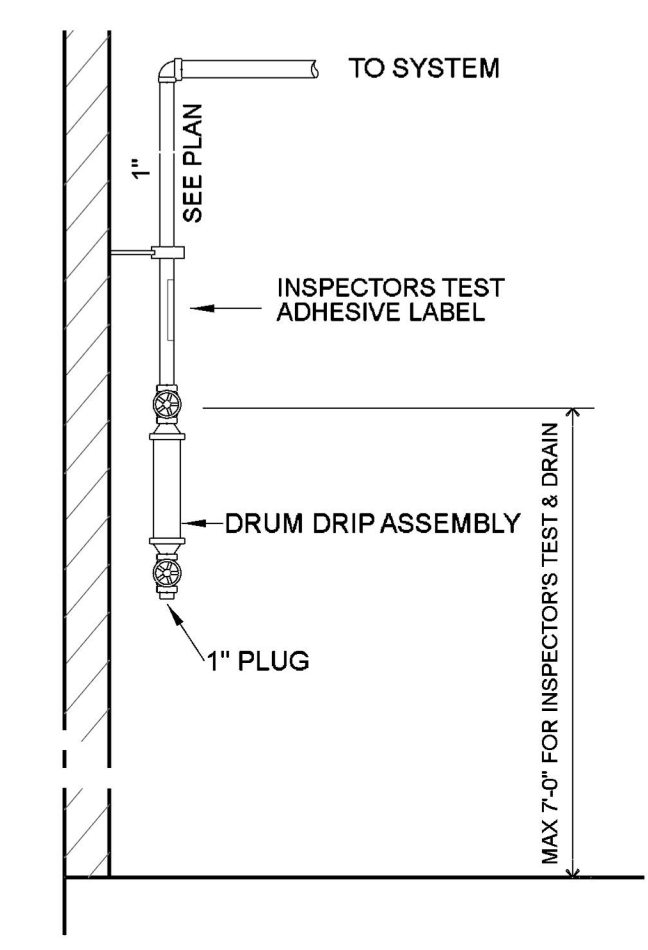
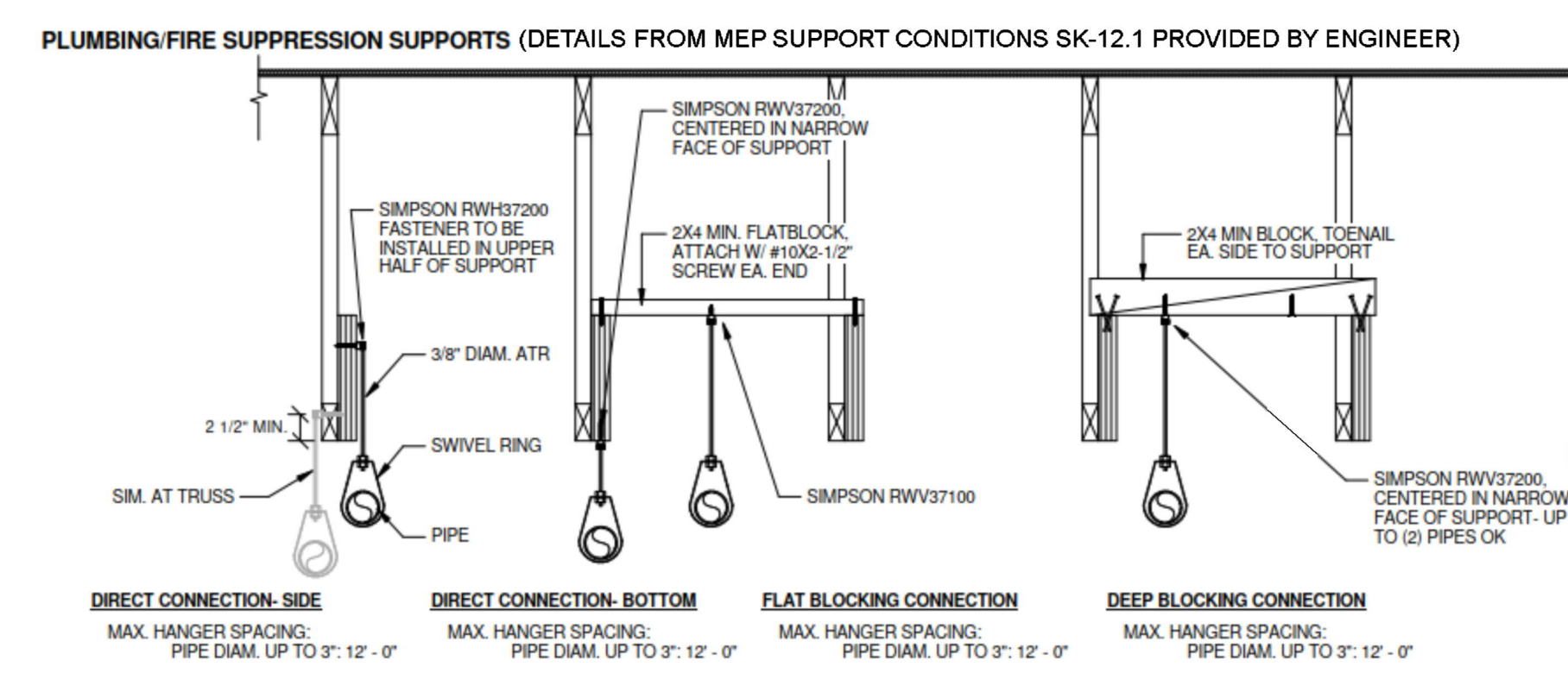
TRAINING F098	
Remote Area 2	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (sqm/ft)	0.10 for 1443 ft ² (Actual 1544 ft ²)
QUICK RESPONSE REDUCTION	19'-4" Ceiling (26.0%) 1068 ft ²
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	16
K-FACTOR	4.2
TOTAL WATER REQUIRED	354.3
TOTAL PRESSURE REQUIRED	38.7
BASE OF RISER (gpm)	284.3
BASE OF RISER (psi)	29.0
SAFETY MARGIN (psi)	+12.0 (25.1%)



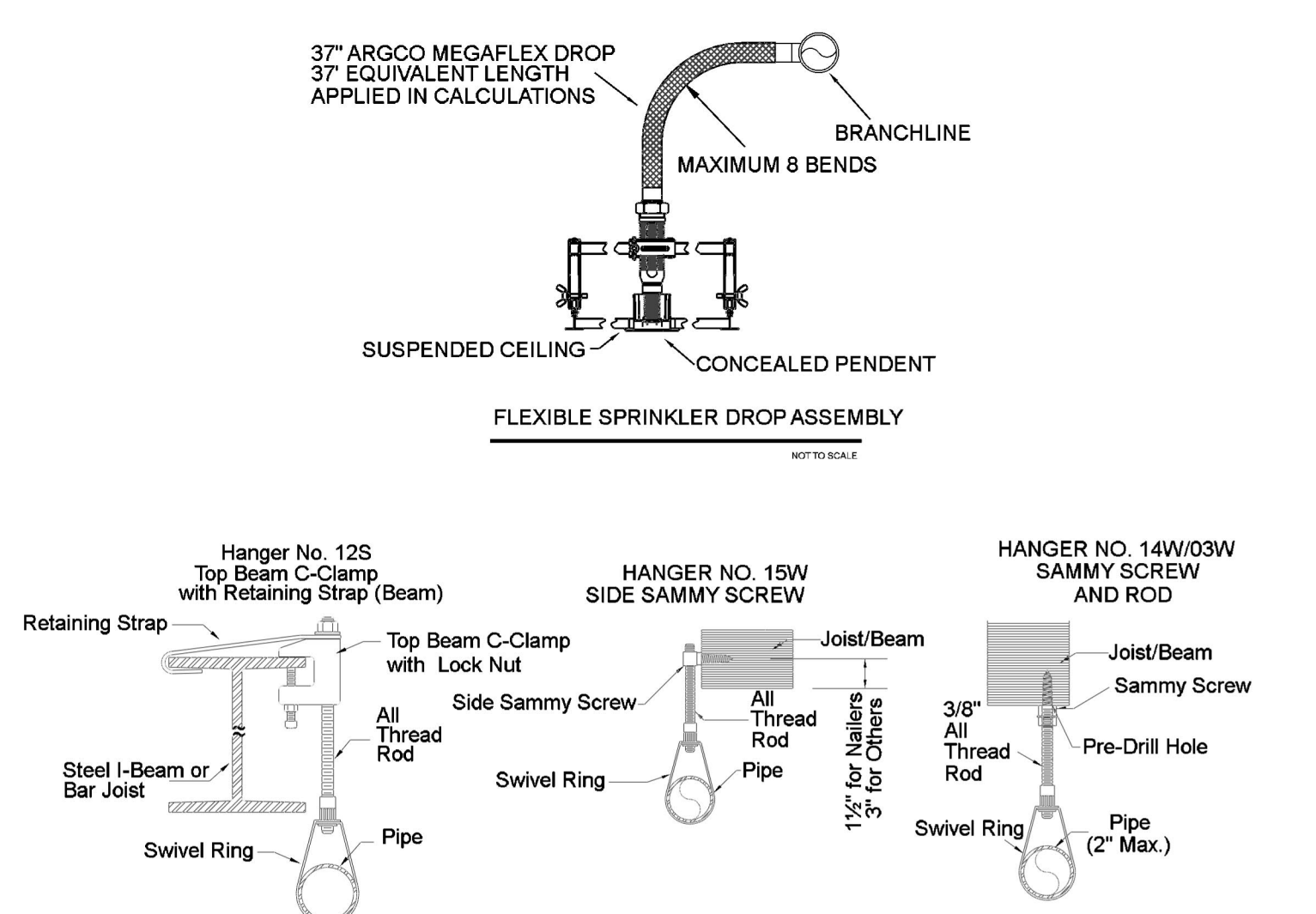
AREA C FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"



SEISMIC DETAILS

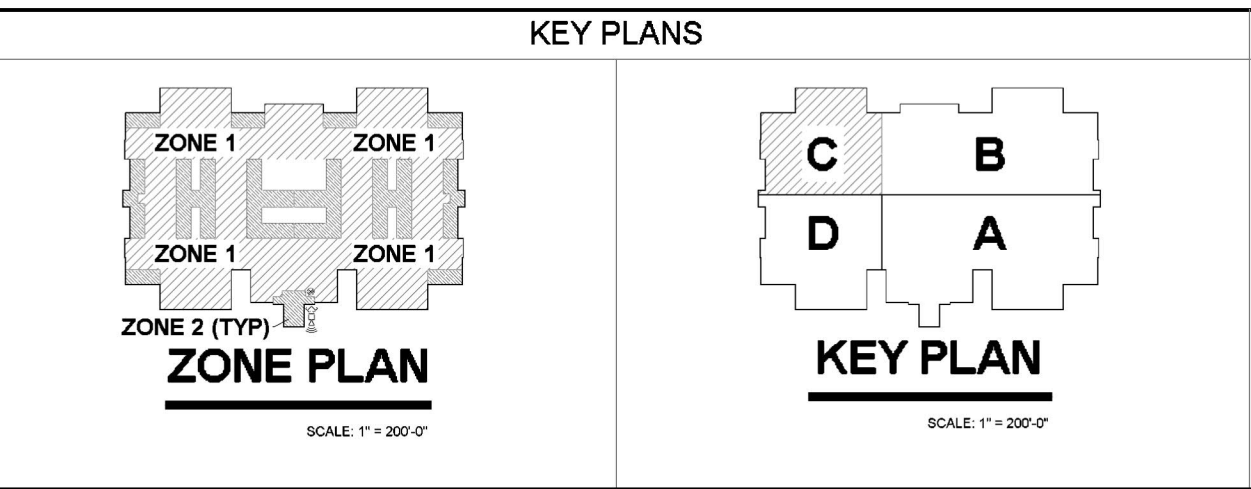
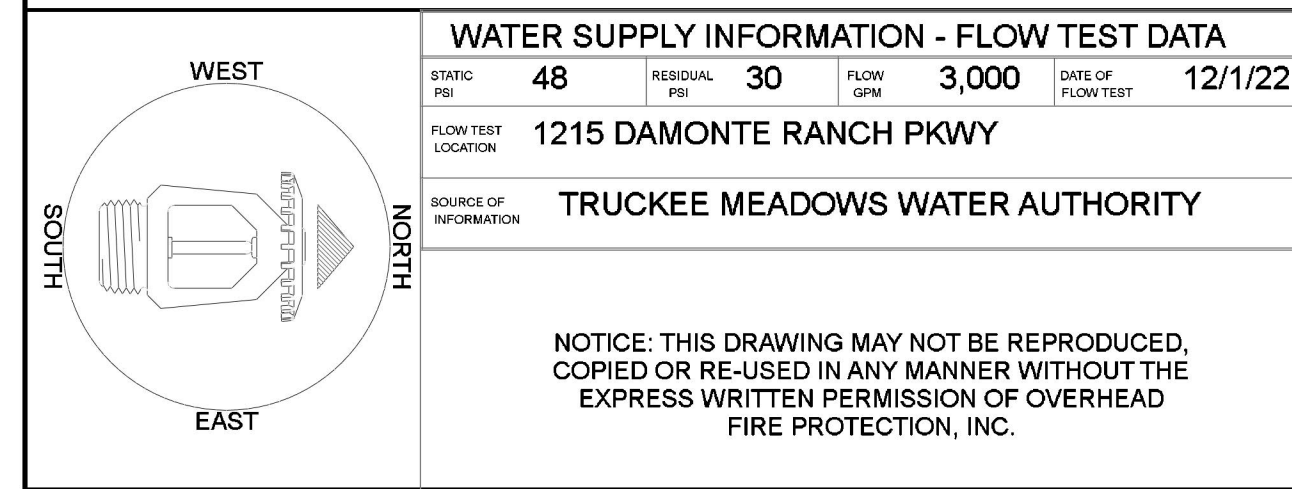


DRY SYSTEM INSPECTORS TEST DETAIL
SEE ROOF PLAN FOR LOCATION NOT TO SCALE

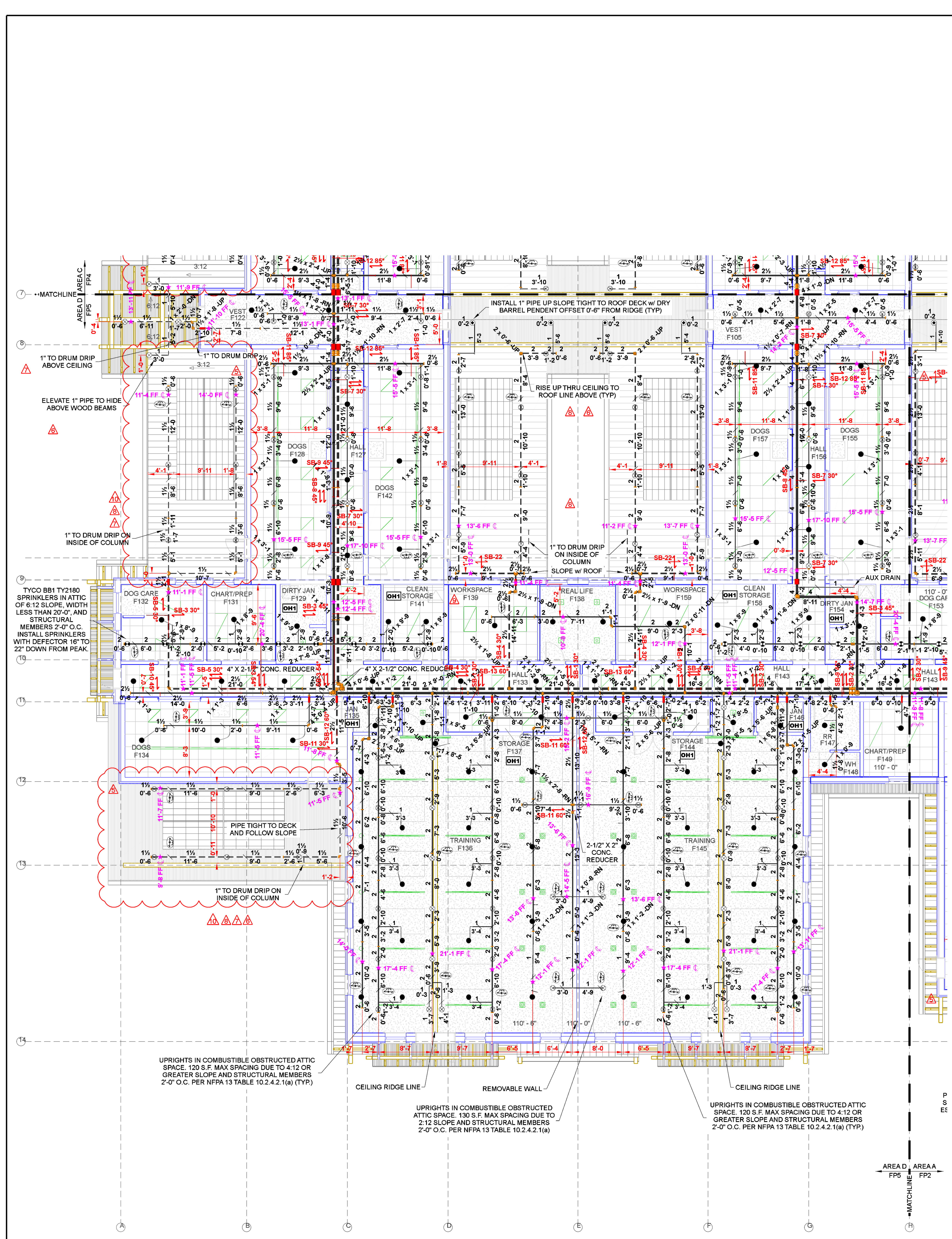


HANGER DETAILS

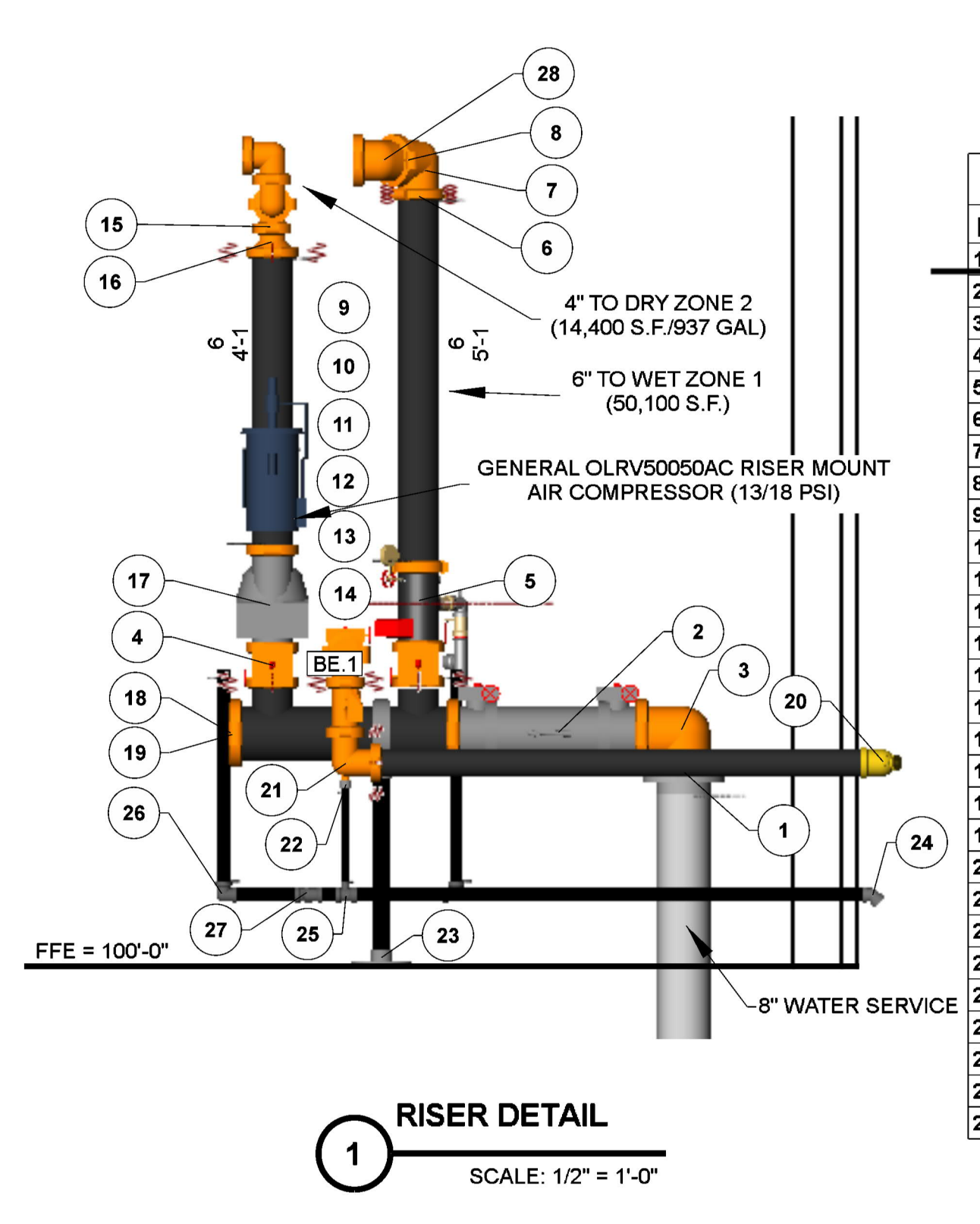
Liberty Dogs Kennel Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
○	Tyco	TY2131	TY-FRB	606	4.2	Upright	1/2"	Quick	Natural Brass	200°F	N/A
●	Tyco	TY2180	BB1	72	4.2	Upright	1/2"	Quick	Brass	200°F	N/A
○	Tyco	TY2131	TY-FRB	4	4.2	Upright	1/2"	Quick	Natural Brass	200°F	SPRING
○	Tyco	TY3235	DS-1	16	5.6	Pendent	1"	Quick	Chrome	200°F	PENDENT DRY
●	Reliable	RA1435	F1FR56	2	5.6	Horizontal Sidewall	1/2"	Quick	Brass	200°F	N/A
●	Tyco	TY3335	DS-1	4	5.6	Horizontal Sidewall	1"	Quick	Chrome	200°F	VERIFY COLOR/ESCUTCHEON
●	Reliable	RA3413	G5-42	467	4.2	Concealed Pendent	1/2"	Quick	Brass	212°F	WHITE PLATE CONCEALED
				Total	1191						



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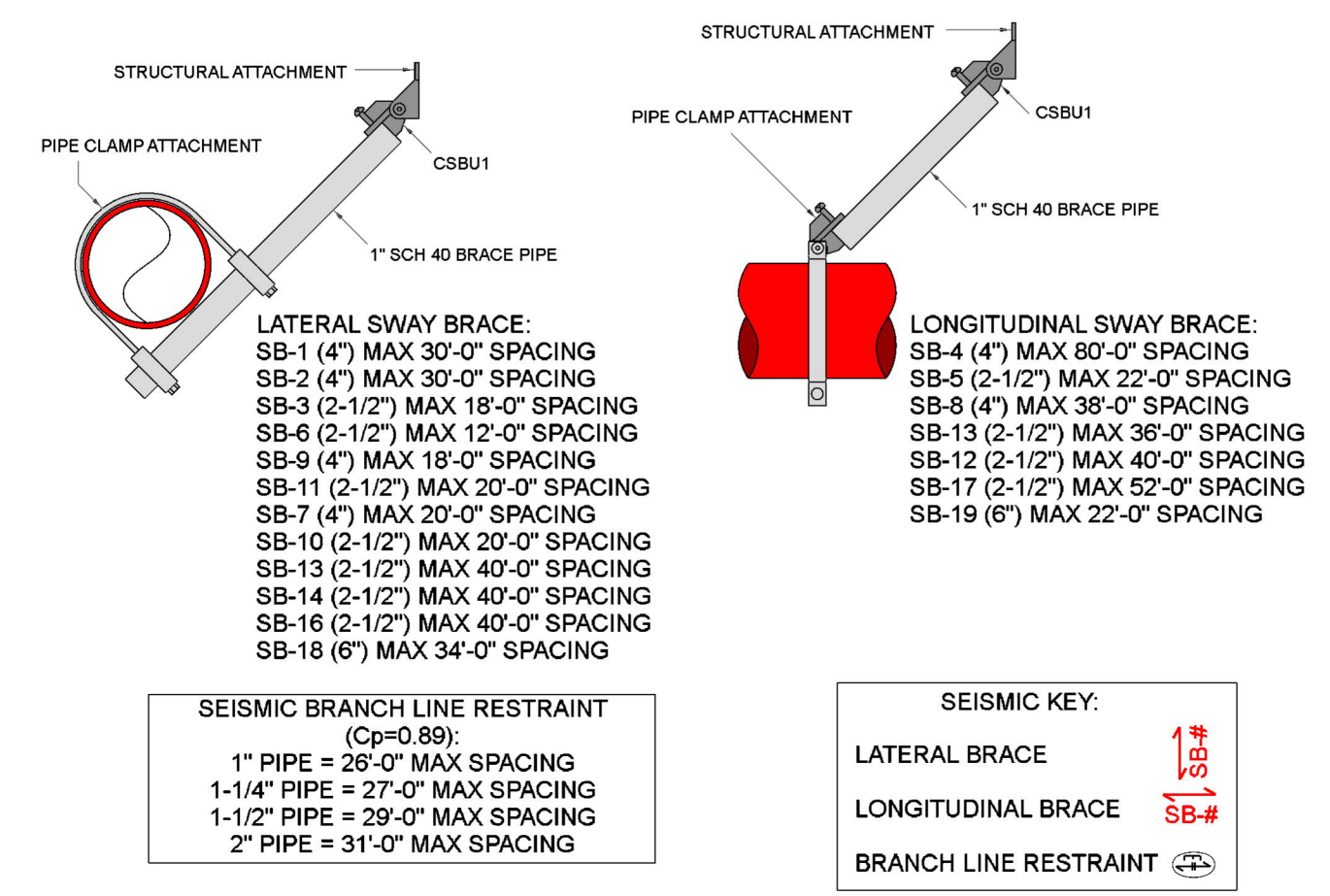
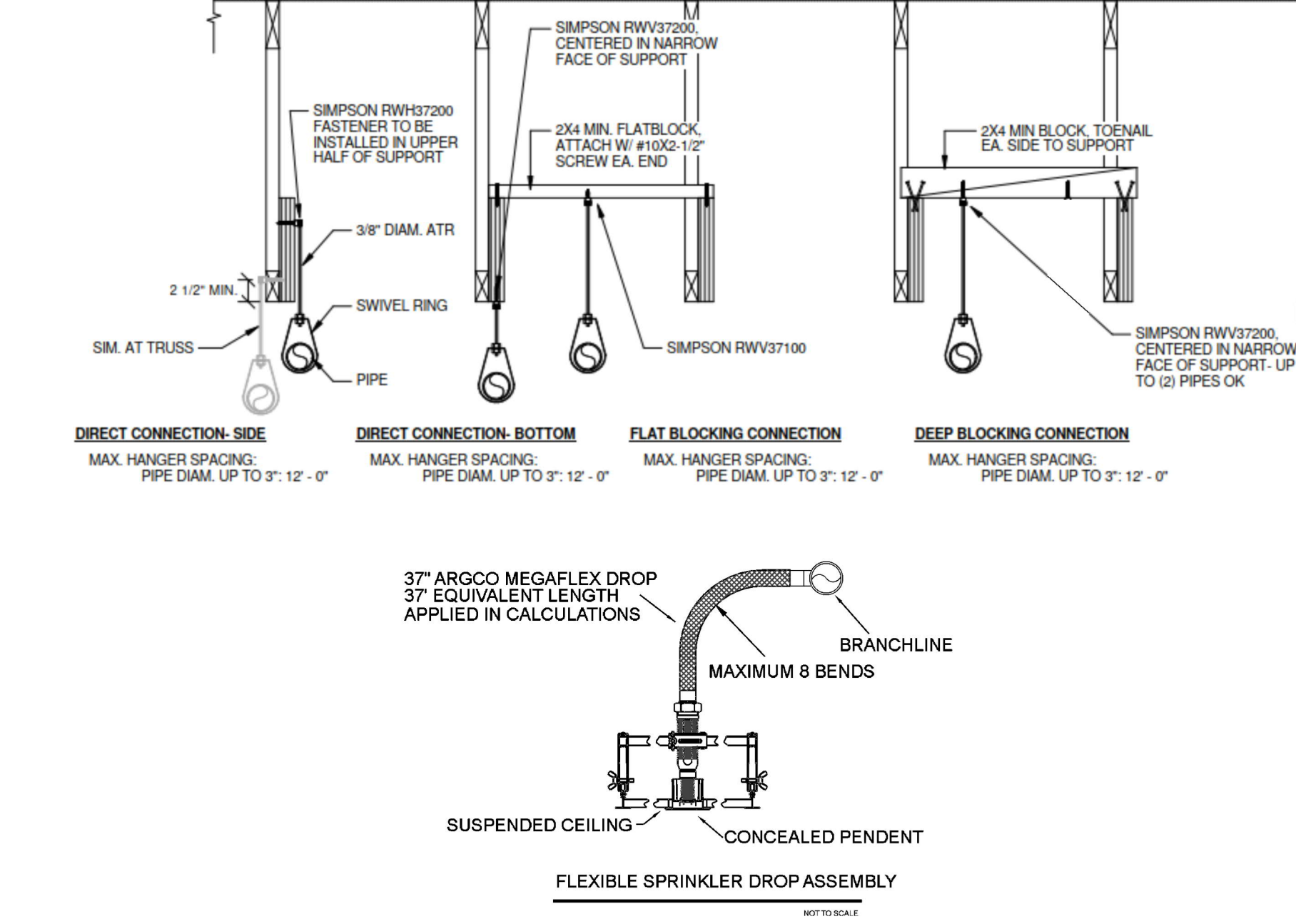
AREA D FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"



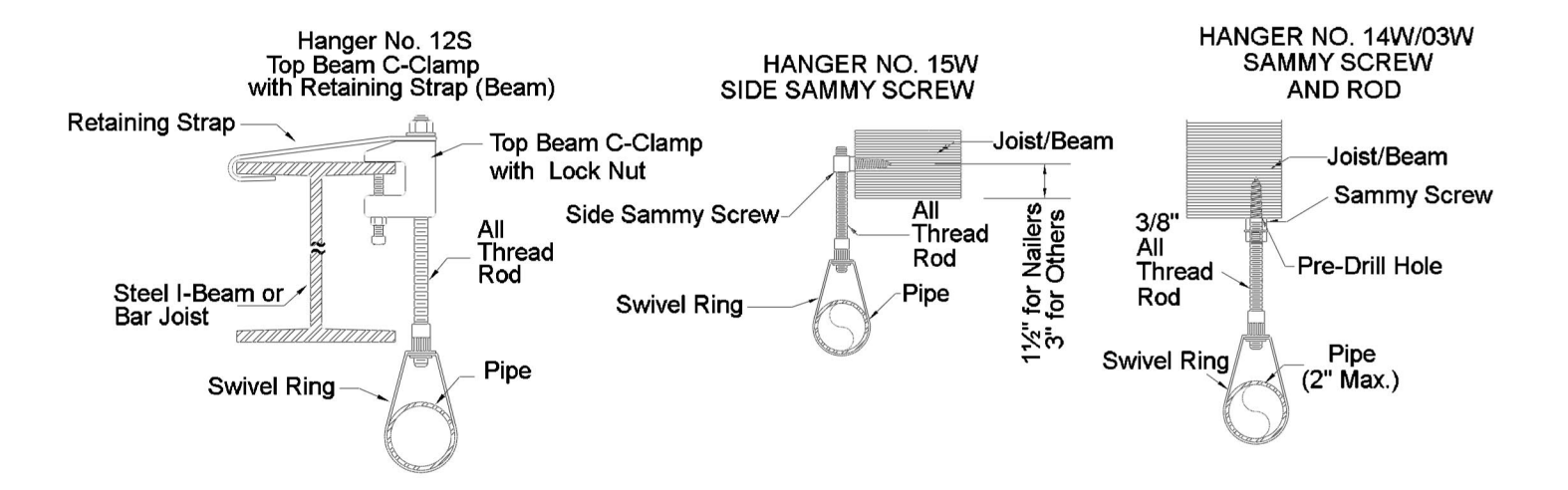
RISER DETAIL
SCALE: 1/2" = 1'-0"

Riser Legend			
Key Note	Size	Description	Quantity
1	8	F-Grooved, Low Pressure Flange, DI	1
2	8	Deringer 20, Backflow, DCVA, Butterfly, G-G	1
3	8	Grooved Short Radius, 90° Elbow, DI, Org	1
4	6	Butterfly Valve, G-G	2
5	6	Grv Riser Manifold	1
6	6	Flexible Coupling, Org, E Gasket	4
7	6	Grooved Short Radius, 90° Elbow, DI, Org	1
8	6	Rigid Coupling, Org, E Gasket	7
9	4	Flexible Coupling, Org, E Gasket	2
10	4	Grooved Cap, DI, Org	1
11	4	Butterfly Valve, G-G - Closed	1
12	4	Grooved Short Radius Tee Org	2
13	4	Grooved Short Radius, 90° Elbow, DI, Org	3
14	4	Swing Check Valve, G-G	1
15	4	Rigid Coupling, Org, E Gasket	8
16	6 x 4	Grooved Concentric Reducer, DI, Org	1
17	6	768N NXT, Dry Pipe Valve, G-G	1
18	8	Rigid Coupling, Org, E Gasket	1
19	8	Grooved Cap, DI, Org	1
20	4 x 2 1/2 x 2 1/2	FDC, Exposed, Two-Way, Single Clapper, RB, Back	1
21	4 x 1 x 4	Drain Elbow, DI, Org	1
22	1	Ball Drip	1
23	1	Adjustable Pipe Stand	1
24	2	Threaded, 45° Elbow, MI, Galv	1
25	2 x 2 x 1	Threaded Reducing Tee, DI	1
26	2	Threaded, 90° Elbow, DI	1
27	2	Threaded Tee, DI	1
28	6	Grooved Short Radius, 45° Elbow, DI, Org	1

PLUMBING/FIRE SUPPRESSION SUPPORTS (DETAILS FROM MEP SUPPORT CONDITIONS SK-12.1 PROVIDED BY ENGINEER)



SEISMIC DETAILS



HANGER DETAILS

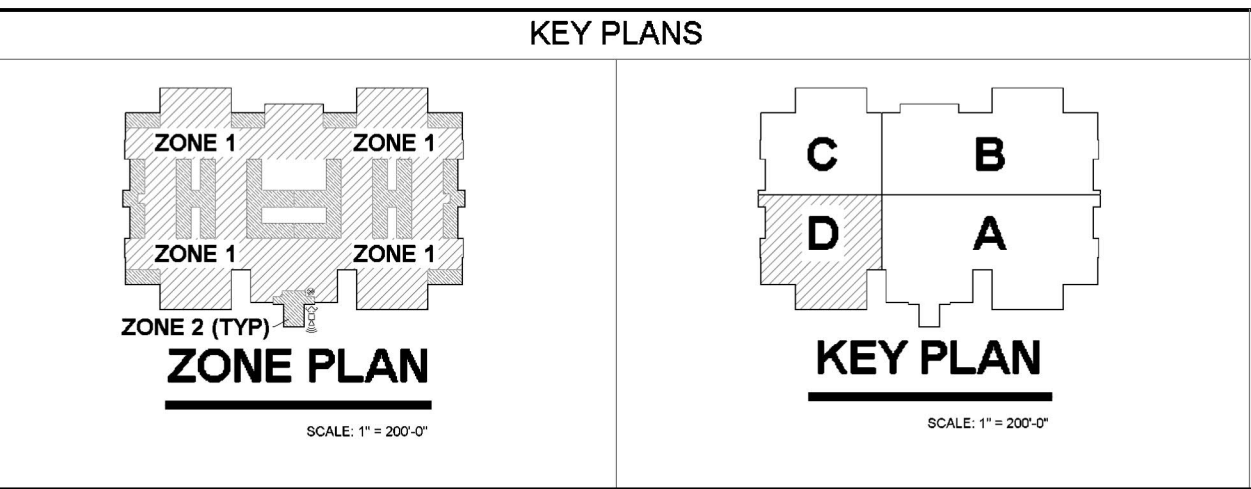
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⊙	Tyco	TY2180	BB1	72	4.2	Upright	1/2"	Quick	Brass	200°F	N/A
⊙	Tyco	TY2131	TY-FRB	4	4.2	Upright	1/2"	Quick	Natural Brass	200°F	SPRING
⊙	Tyco	TY3235	DS-1	16	5.6	Pendent	1"	Quick	Chrome	200°F	PENDENT DRY
▶	Reliable	RA1435	F1FR56	2	5.6	Horizontal Sidewall	1/2"	Quick	Brass	200°F	N/A
▶	Tyco	TY3335	DS-1	4	5.6	Horizontal Sidewall	1"	Quick	Chrome	200°F	VERIFY COLOR/ESCUTCHEON
●	Reliable	RA3413	G5-42	487	4.2	Concealed Pendent	1/2"	Quick	Brass	212°F	WHITE PLATE CONCEALED
				Total =	1191						

WATER SUPPLY INFORMATION - FLOW TEST DATA

FRIC. LOSS	48	RESIDUAL PRES.	30	FLOW CAP.	3,000	DATE OF FLOW TEST	12/1/22
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1215 DAMONTE RANCH PKWY
TRUCKEE MEADOWS WATER AUTHORITY

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