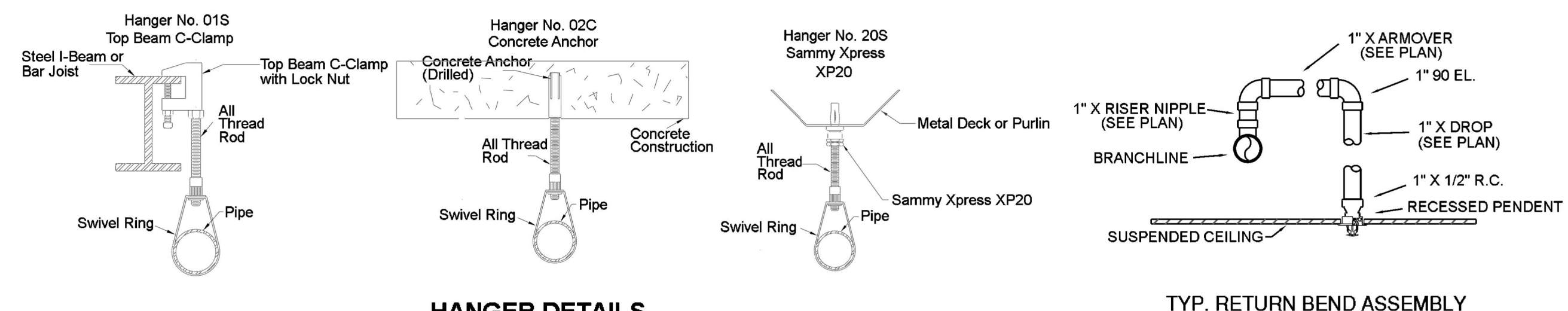


GENERAL INFORMATION

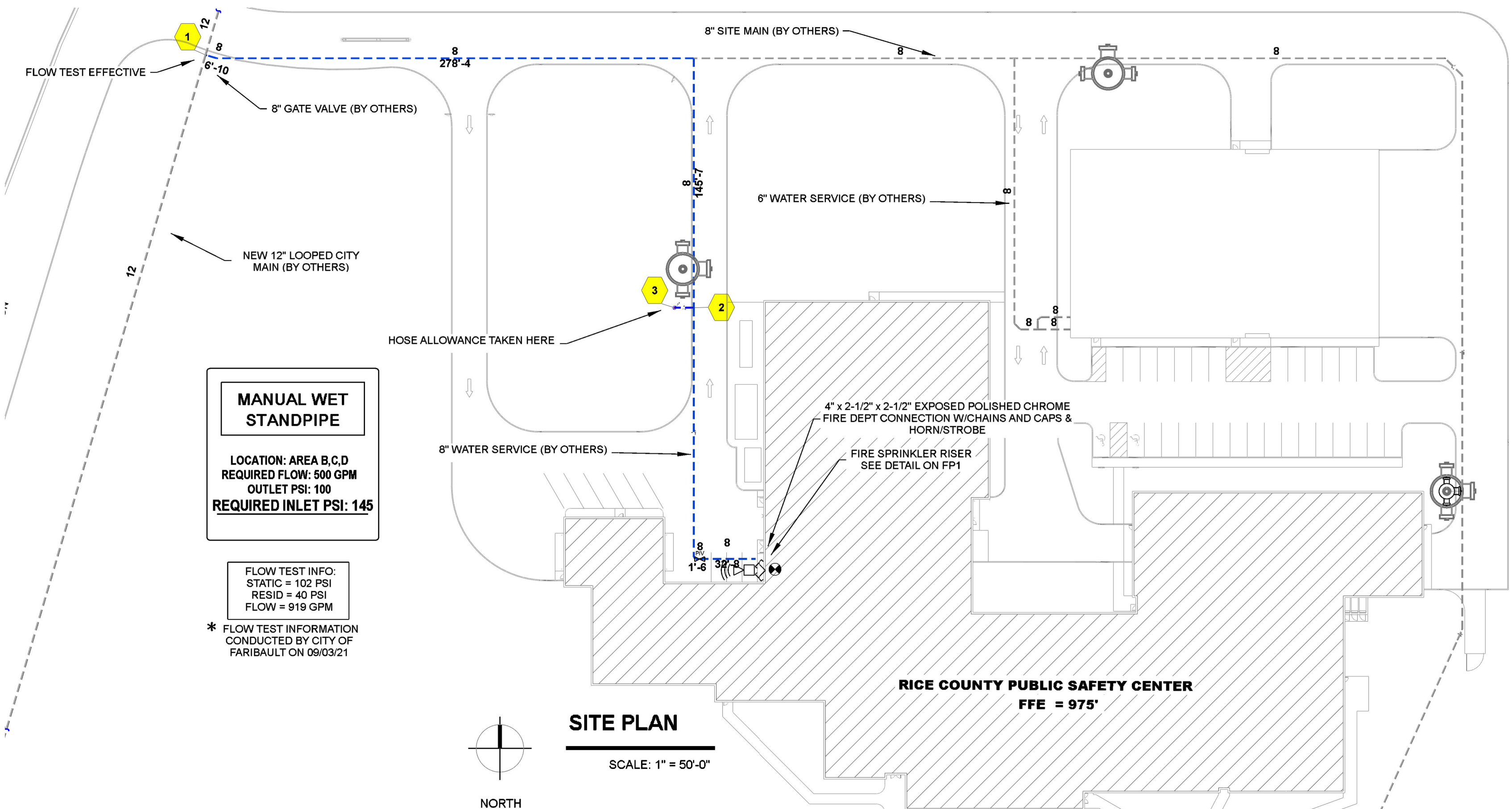
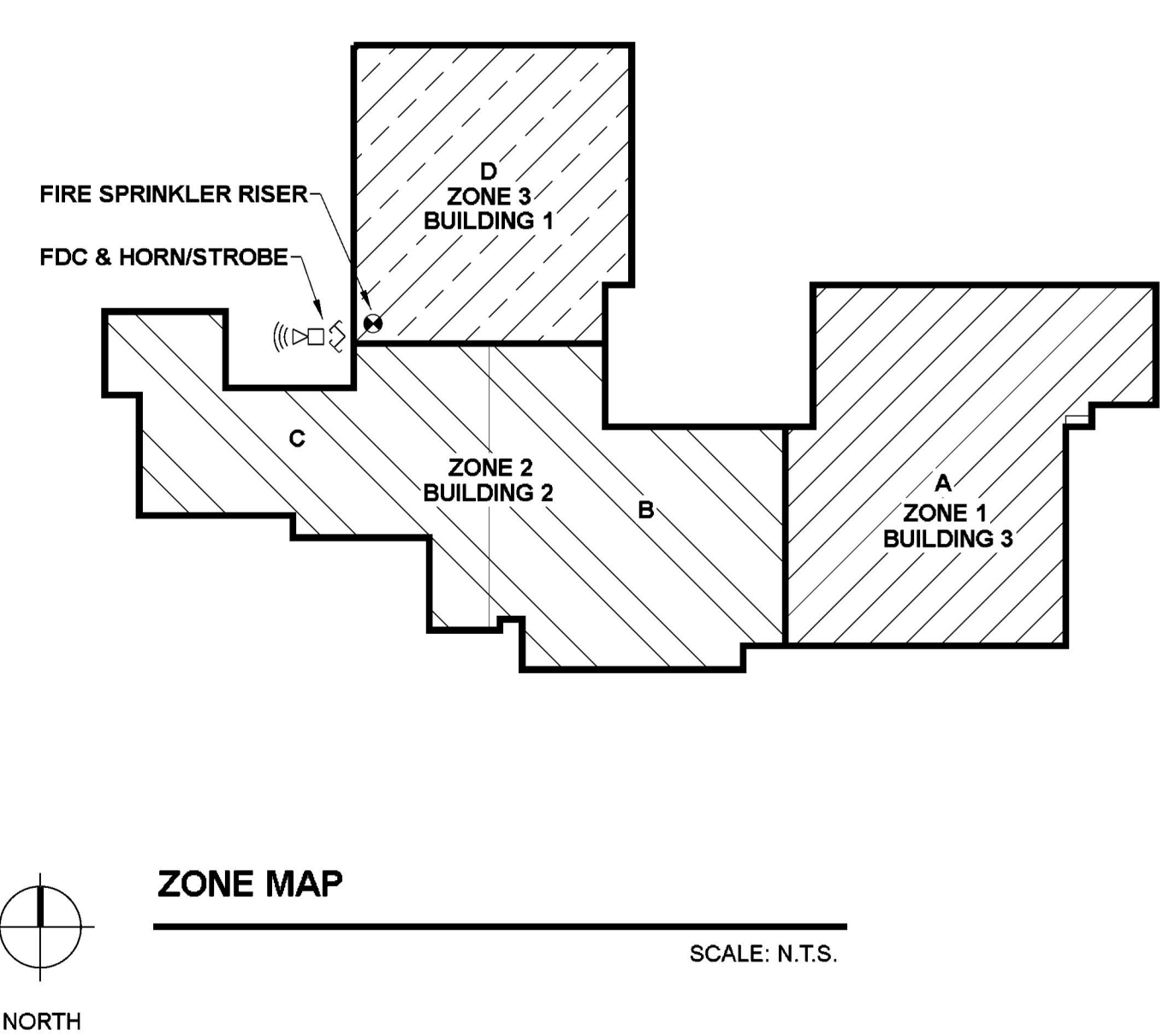
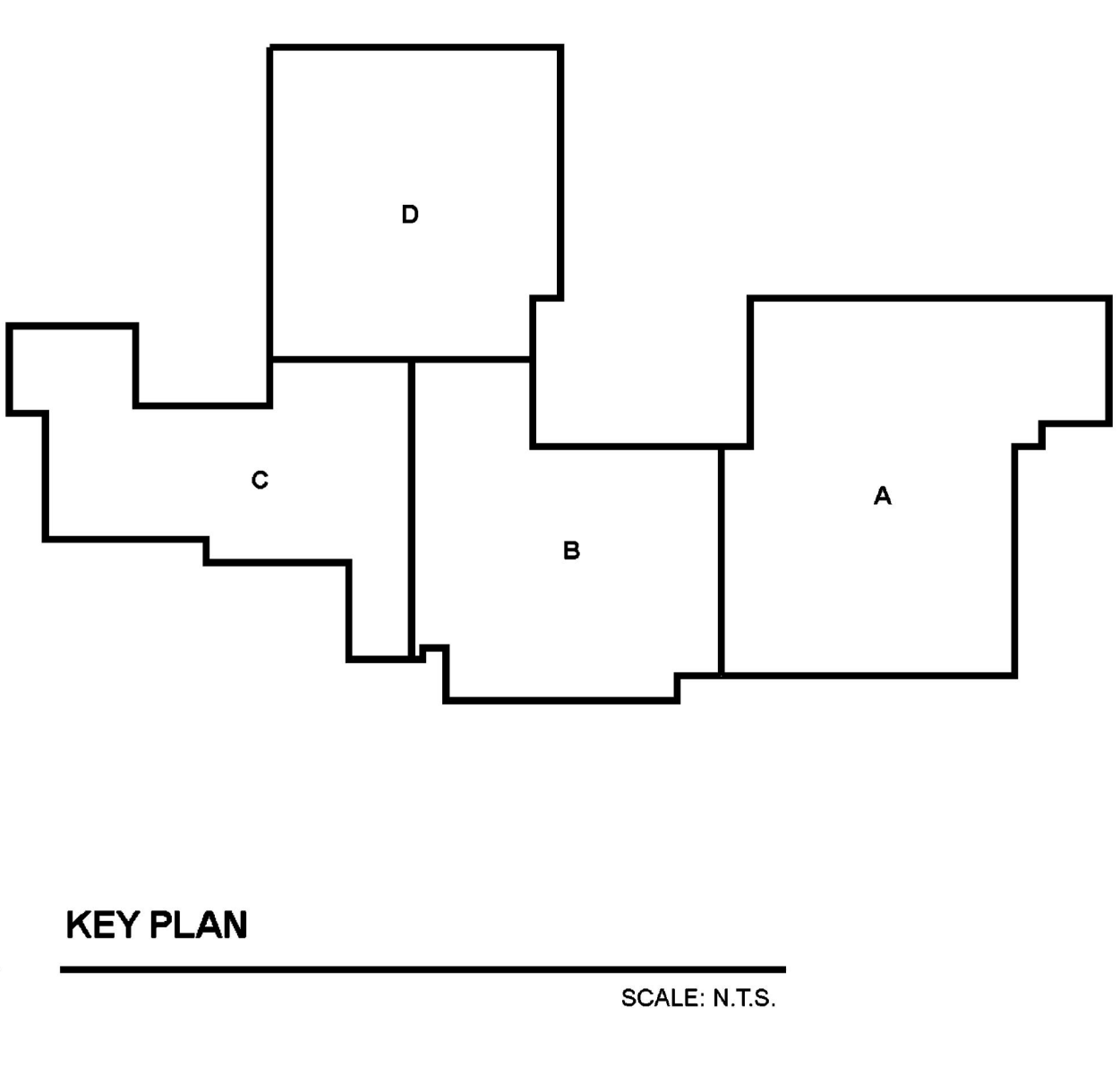
- MINNESOTA BUILDING CODE (2020) & MINNESOTA STATE FIRE CODE (2020)
 - OCCUPANCY: I-3, B, S-2, A-3
 - TYPE OF CONSTRUCTION: I-B
 - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 - BUILDING 1 (ZONE 3/AREA D) = 26,300 S.F.
 - BUILDING 2 (ZONE 2/AREA B&C) = 31,700 S.F.
 - BUILDING 3 (ZONE 1/AREA A) = 25,600 S.F.
 - DESIGN & INSTALLATION STANDARDS: NFPA-13 (2016), NFPA-14 (2016)
- SPRINKLER PIPE TYPES:
 - WET-
 - 2.1 1" PIPE TO BE SCHEDULE 40 BLACK STEEL W/ THREADED FITTINGS
 - 2.2 1-1/4" THROUGH 2-1/2" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 W/ GROOVED FITTINGS
 - 2.3 MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
 - 2.4 2" AND LARGER TO USE GROOVED SHORT RADIUS FITTINGS
 - DRY-
 - 2.5 1" PIPE TO BE SCHEDULE 40 BLACK STEEL W/ THREADED FITTINGS
 - 2.6 1-1/4" THROUGH 2-1/2" MAINS & BRANCH LINES TO BE BLK SCHEDULE 10 W/ GROOVED FITTINGS
 - 2.7 MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK SCHEDULE 10
 - 2.8 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
 - ORDINARY HAZARD GROUP II AREAS INCLUDE
 - REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 11.2.3.2.3
 - REMOTE AREA INCREASED BY 30% FOR DRY AND DOUBLE INTERLOCK PRACTION SYSTEMS PER NFPA 13 SEC. 11.2.3.2.5
- NOTES:
 - ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
 - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 - SEE PLAN FOR HANGING
 - 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
 - CENTRAL CONTROL 1801 (34 GAL)
 - SECURITY ELEV (5 GAL)
- SYMBOLS USED ON DRAWINGS:
 - *x/FF: PIPE ELEVATION ABOVE FINISH FLOOR
 - *x/TS: PIPE ELEVATION BELOW TOP OF STEEL
 - DH: ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD U.N.O.)
 - HC: HYDRAULIC CALCULATION JUNCTION POINT
 - 9'-0": CEILING HEIGHT
 - : FIRE RATED WALL
 - : WET BLACK STEEL PIPE
 - : DRY BLACK STEEL PIPE
- SCOPE OF WORK:
 - INSTALL & COMPLETE THREE ZONE WET FIRE SPRINKLER SYSTEM, WITH 2 REMOTE DOUBLE INTERLOCK PRACTION SYSTEMS, AND ONE CLASS I STANDPIPE 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

Key Note	Size	Description	Quantity
1	8	No. 744, F-Grooved, FireLock Hinged Flange, DI, Blk, Vic-Plus Gasket	1
2	8 x 4	No. 50, Grooved Concentric Reducer, DI, Org	1
3	4	Coit C200, Backflow, DCVA, OS&Y, G-G	1
4	4	Victaulic FireLock Tee #002 Org	4
5	4	No. 001, FireLock® Short Radius, 90° Elbow, DI, Org	7
6	4	Valve, G-G Butterfly w/ Tamper	4
7	4	Grv Riser Manifold w/ Flow Switch, Gauge, Pressure Relief, and Inspector's Test/Drain	4
8	4	Grooved Drain 90° Elbow w/ Automatic Ball Drip	1
9	4	Rigid Coupling, Org, E Gasket	37
10	4	Valve, G-G Check	1
11	4 x 2 1/2 x 2 1/2	Exposed Polished Chrome FDC w/ Chains and Caps	1

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
○	Reliable	RA1425	F1FR56	290	5.6	Upright	1/2	Quick	Bright Brass	175 °F	N/A
●	Reliable	RA1414	F1FR56	314	5.6	Pendent	1/2	Quick	Chrome	155 °F	RECESSED
●	Reliable	R2916	GXLO	11	11.2	Pendent	1/2	Standard	Brass	165 °F	RECESSED
●	Reliable	R1314	XL INSTITUTIONAL	183	5.6	Pendent	1/2	Quick	Chrome	165 °F	INSTITUTIONAL
●	Reliable	R5714	F3QR56	4	5.6	Pendent	1/2	Quick	Chrome	200 °F	RECESSED
●	Reliable	RA1435	F1FR56	5	5.6	Sidewall	1/2	Quick	Bright Brass	175 °F	N/A
●	Reliable	RA1425	F1FR56	10	5.6	Upright	1/2	Quick	Bright Brass	175 °F	SPRIG
●	Reliable	R1334	XL INSTITUTIONAL	29	5.6	Sidewall	1/2	Quick	Chrome	165 °F	N/A
				Head Guard = 189							
				Total = 626							

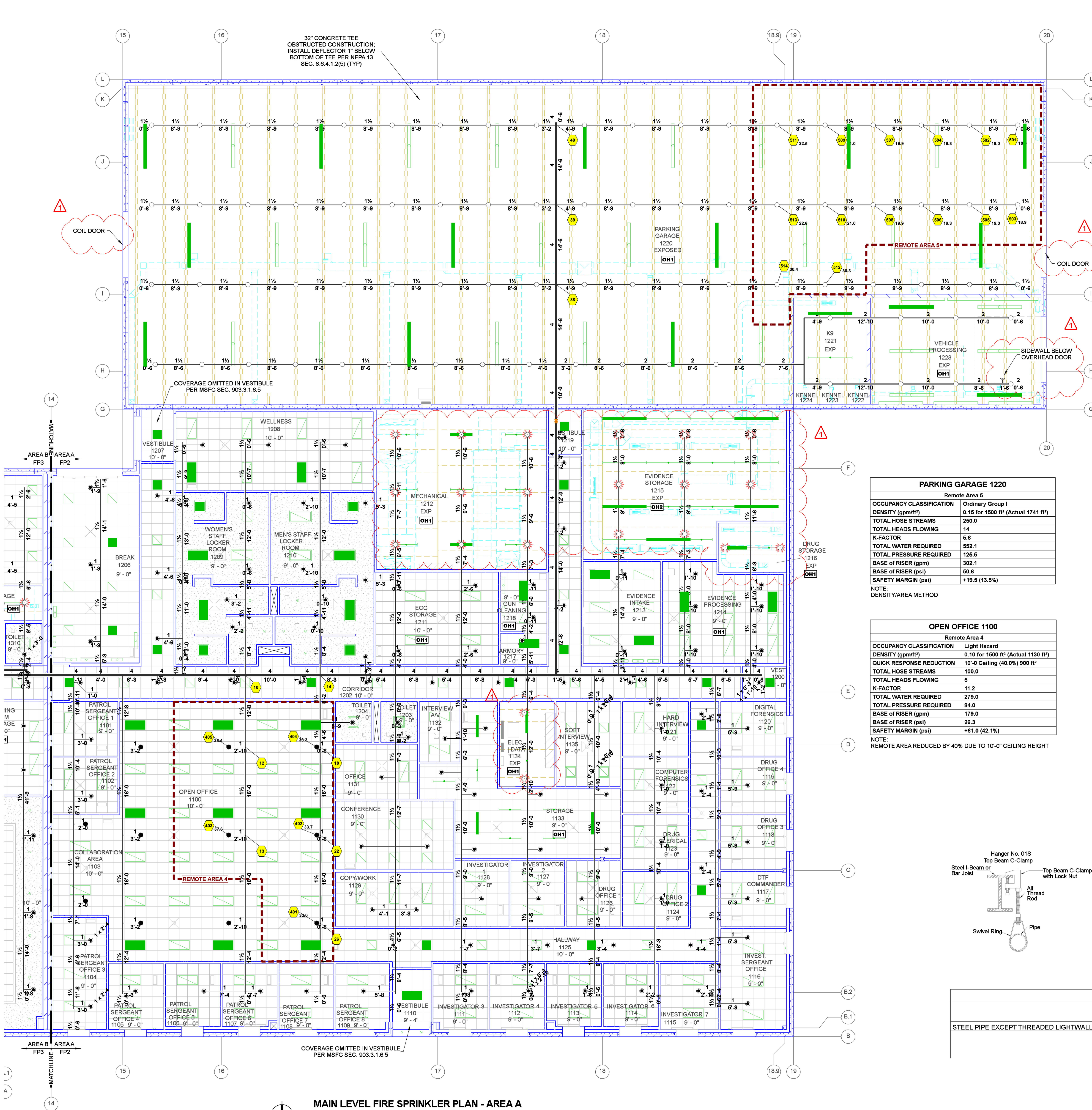


MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)									
	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0

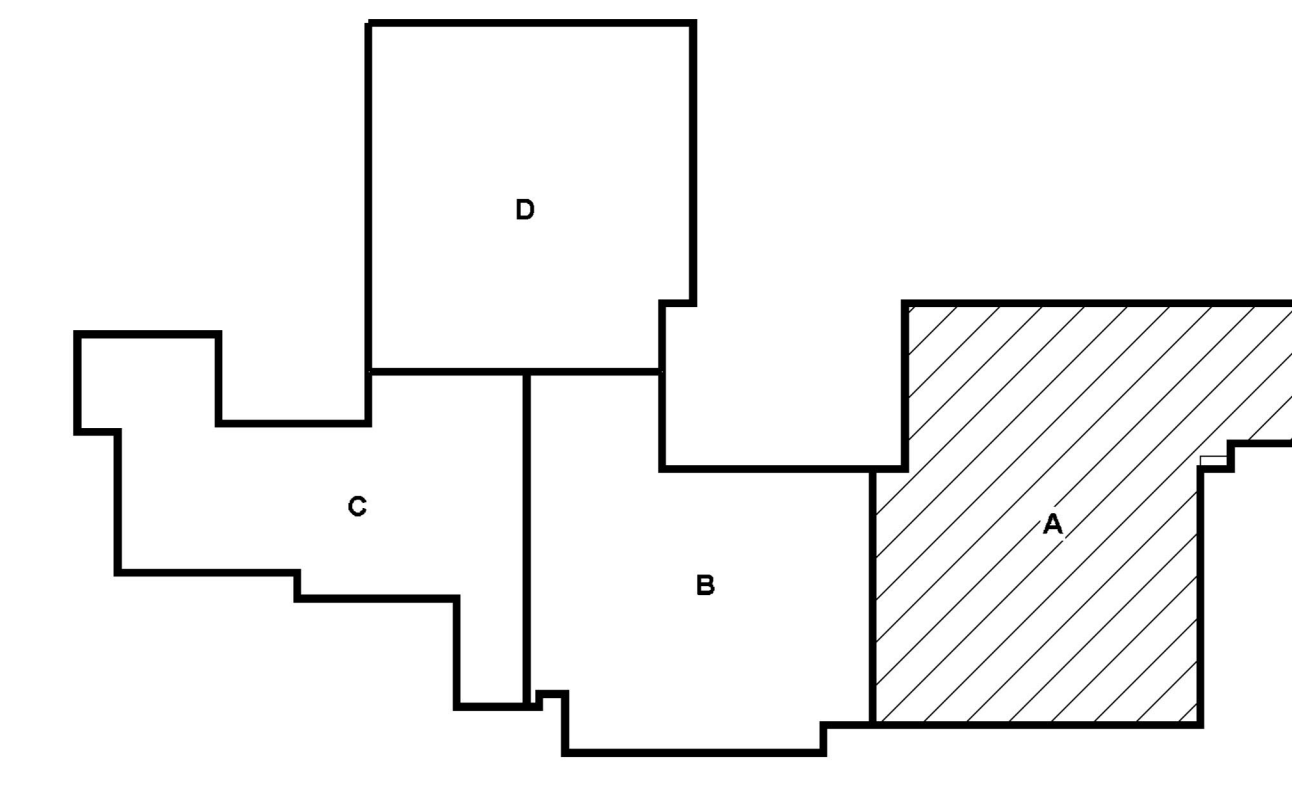


REVISIONS		REVISION DESCRIPTION	
NO.	DATE	NO.	DESCRIPTION
1	7/13/23	1	PLAN REVIEW COMMENTS

PROJECT INFORMATION		RICE COUNTY PUBLIC SAFETY CENTER	
CONTRACT #	1-1040-00376	DATE OF ORIGINAL	6/6/2023
DESIGNER	CAR	APPROVAL	AH
SCALE:	1/8" = 1'-0" U.N.O.	AREA:	FIRE PROTECTION SITE PLAN & DETAILS
SHEET #	FP1 OF 5	CONTRACT W/TH:	



MAIN LEVEL FIRE SPRINKLER PLAN - AREA A
SCALE: 1/8" = 1'-0"



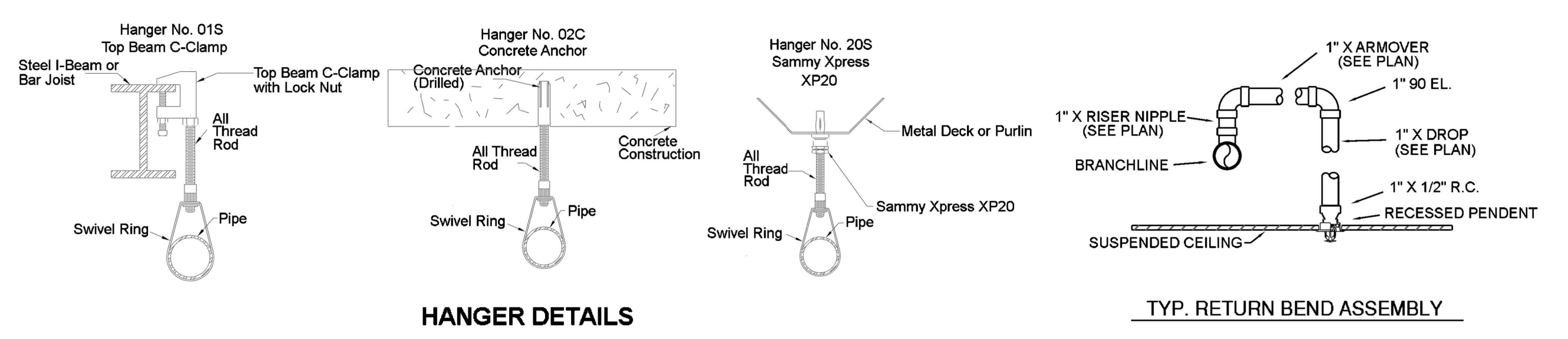
KEY PLAN - AREA A
SCALE: N.T.S.

Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
○	Reliable	RA1425	F1FR56	290	5.6	Upright	1/2"	Quick	Bright Brass	175°F	N/A
●	Reliable	RA1414	F1FR56	314	5.6	Pendent	1/2"	Quick	Chrome	165°F	RECESSED
○	Reliable	R2016	GXLO	11	11.2	Pendent	1/2"	Standard	Brass	165°F	RECESSED
○	Reliable	R1314	XL INSTITUTIONAL	163	5.6	Pendent	1/2"	Quick	Chrome	165°F	INSTITUTIONAL
○	Reliable	R5714	F3QR56	4	5.6	Pendent	1/2"	Quick	Chrome	200°F	RECESSED
○	Reliable	RA1435	F1FR56	5	5.6	Sidewall	1/2"	Quick	Bright Brass	175°F	N/A
○	Reliable	RA1425	F1FR56	10	5.6	Upright	1/2"	Quick	Bright Brass	175°F	SPRIG
○	Reliable	R1334	XL INSTITUTIONAL	29	5.6	Sidewall	1/2"	Quick	Chrome	165°F	N/A
				Total	= 826						

PARKING GARAGE 1220	
Remote Area 5	
OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (ppm/ft²)	0.15 for 1500 ft² (Actual 1741 ft²)
TOTAL HOSE STREAMS	250.0
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	552.1
TOTAL PRESSURE REQUIRED	125.5
BASE OF RISER (gpm)	302.1
BASE OF RISER (psi)	50.6
SAFETY MARGIN (psi)	+19.5 (13.5%)

OPEN OFFICE 1100	
Remote Area 4	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (ppm/ft²)	0.10 for 1500 ft² (Actual 1130 ft²)
QUICK RESPONSE REDUCTION	10'-0" Ceiling (40.0%) 900 ft²
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	5
K-FACTOR	11.2
TOTAL WATER REQUIRED	279.0
TOTAL PRESSURE REQUIRED	84.0
BASE OF RISER (gpm)	179.0
BASE OF RISER (psi)	26.3
SAFETY MARGIN (psi)	+61.0 (42.1%)

NOTE: REMOTE AREA REDUCED BY 40% DUE TO 10'-0" CEILING HEIGHT

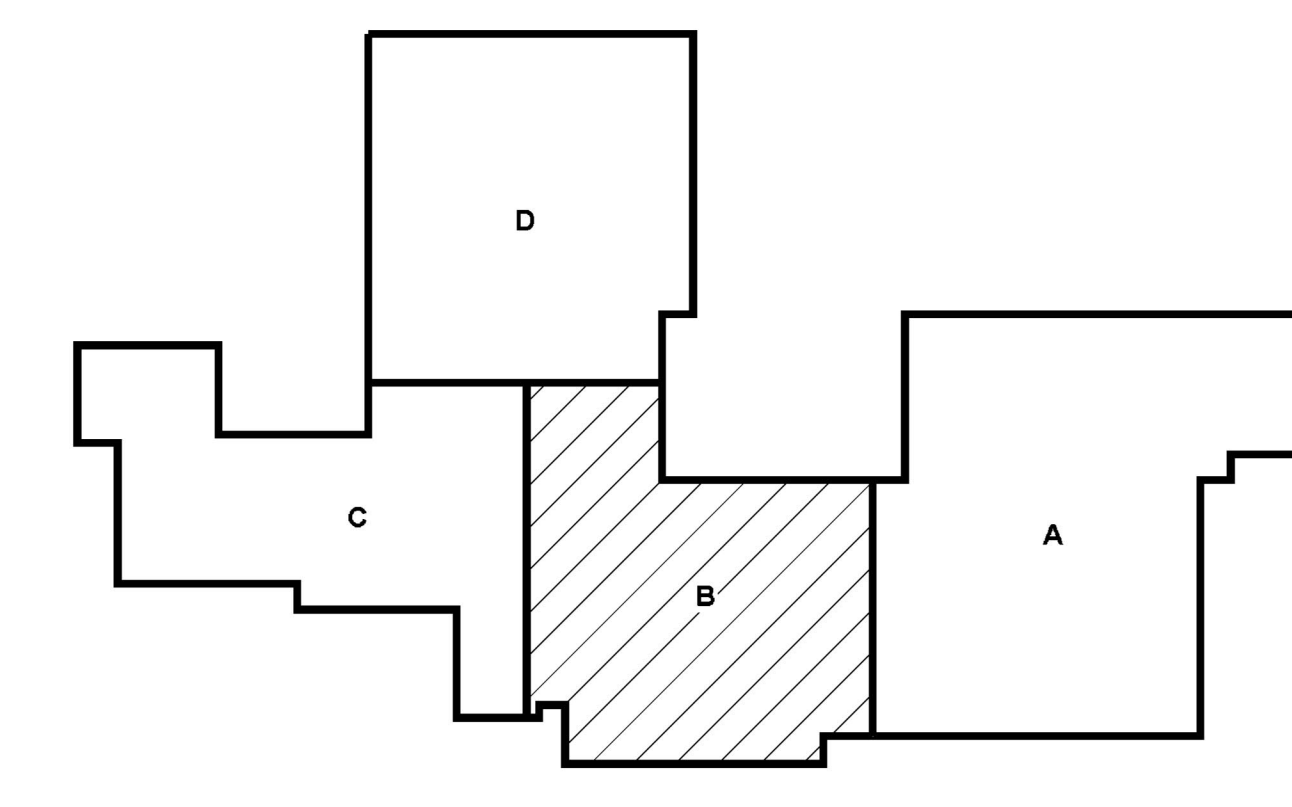


STEEL PIPE EXCEPT THREADED LIGHTWALL	MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)								
	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0

REVISIONS		REVISION DESCRIPTION
DATE	NO.	PLAN REVIEW COMMENTS
7/13/23	1	

PROJECT INFORMATION
 CONTRACT # 1-1040-00376
 DATE OF ORIGINAL 6/6/2023
 DESIGNER: CAR
 APPROVAL: AHJ
 SCALE: 1/8" = 1'-0" U.N.O.
 SHEET # FP2 OF 5
 CONTRACT WITH: C. 2017 SUMMIT COMPANIES

RICE COUNTY PUBLIC SAFETY CENTER
 50 EAST VIEW DR
 FAIRBULT, MN 55021
 AREA: FIRE PROTECTION SITE PLAN & DETAILS

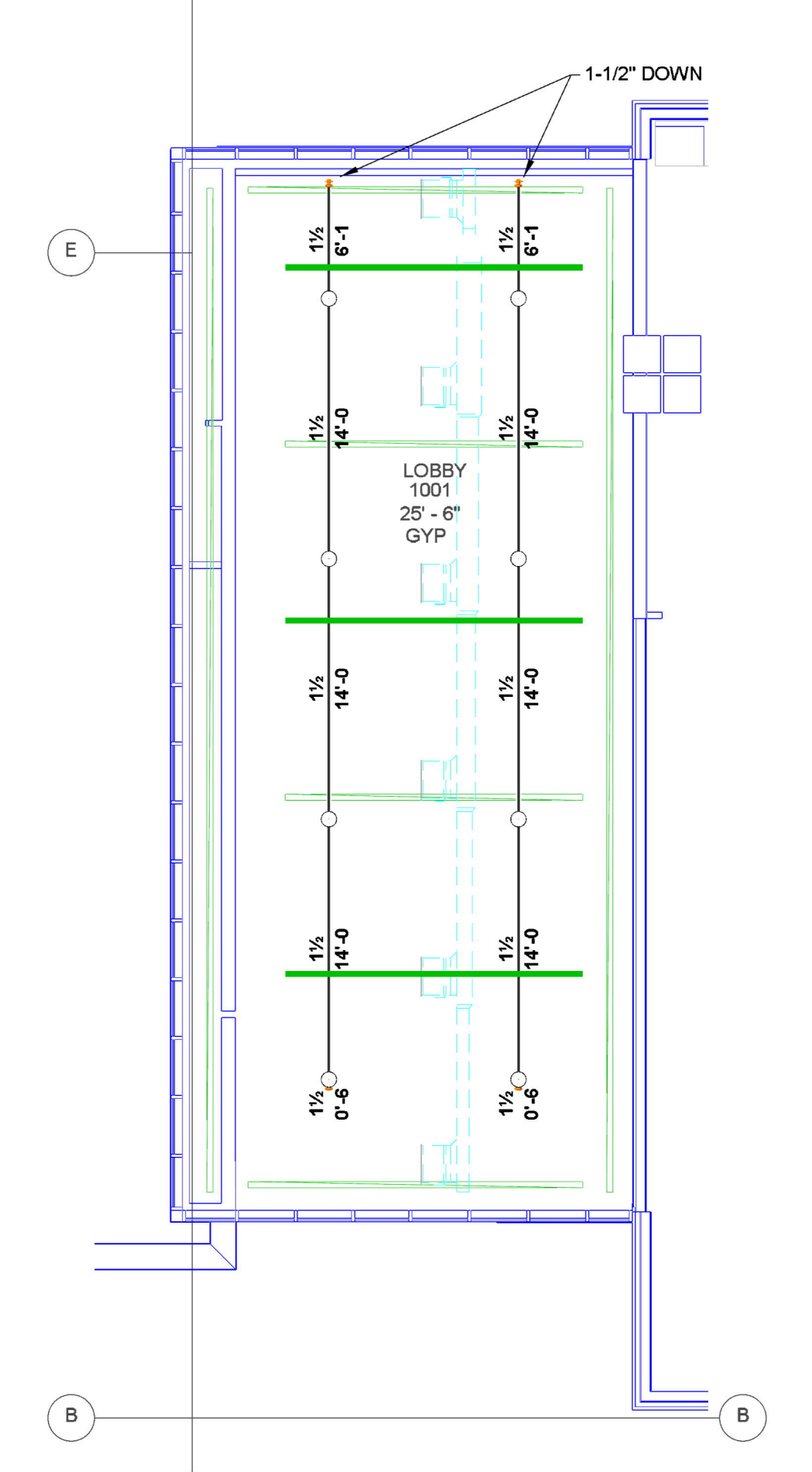


KEY PLAN - AREA B
SCALE: N.T.S.

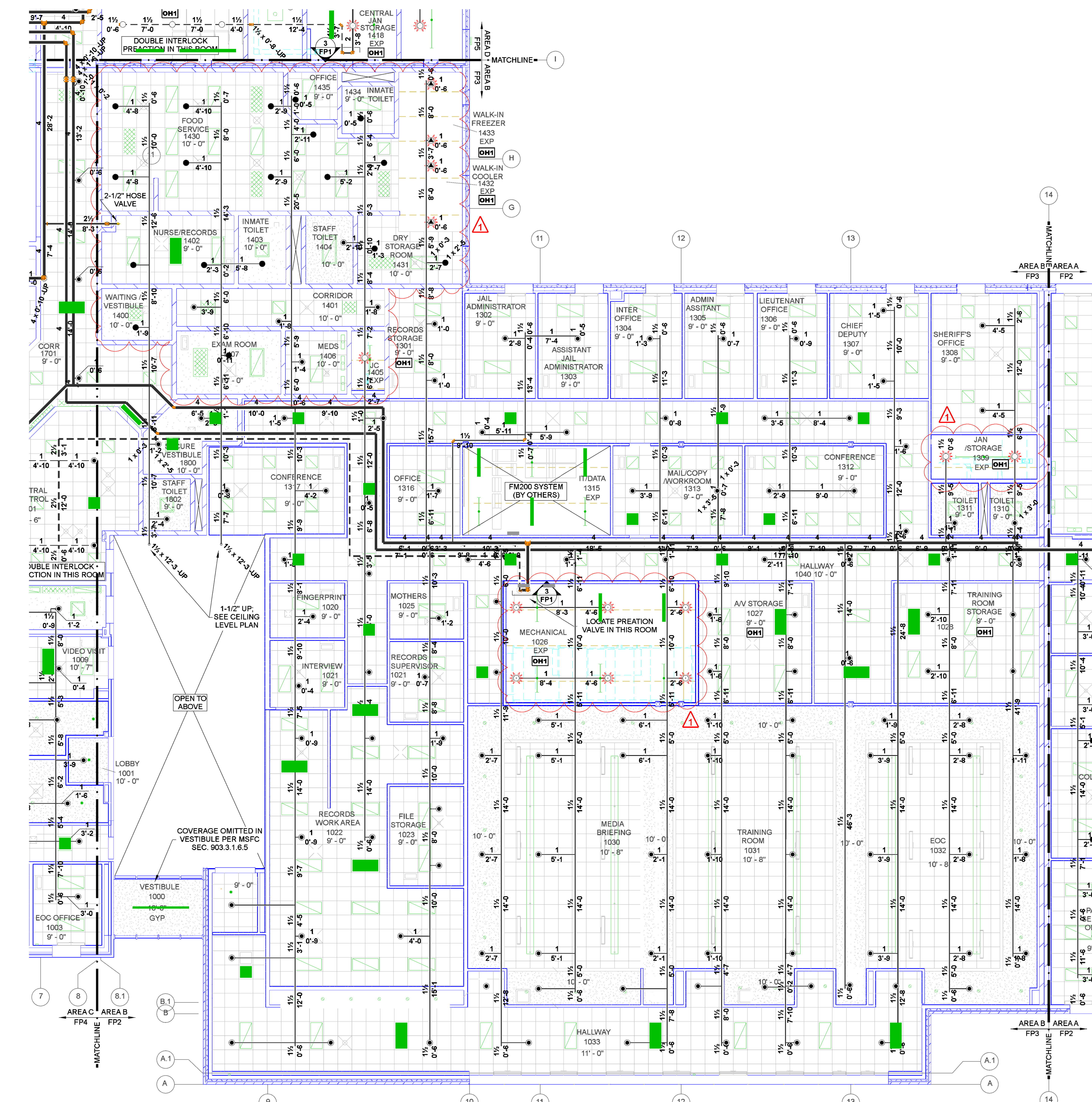
Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
○	Reliable	RA1425	F1FR56	290	5.6	Upright	1/2"	Quick	Bright Brass	175°F	N/A
●	Reliable	RA1414	F1FR56	314	5.6	Pendent	1/2"	Quick	Chrome	165°F	RECESSED
○	Reliable	R2916	GXLO	11	11.2	Pendent	1/2"	Standard	Brass	165°F	RECESSED
○	Reliable	R1314	XL INSTITUTIONAL	163	5.6	Pendent	1/2"	Quick	Chrome	165°F	INSTITUTIONAL
○	Reliable	R6714	F3R56	4	5.6	Pendent	1/2"	Quick	Chrome	200°F	RECESSED
○	Reliable	RA1435	F1FR56	5	5.6	Sidewall	1/2"	Quick	Bright Brass	175°F	N/A
○	Reliable	RA1425	F1FR56	10	5.6	Upright	1/2"	Quick	Bright Brass	175°F	SPRIG
○	Reliable	R1334	XL INSTITUTIONAL	29	5.6	Sidewall	1/2"	Quick	Chrome	165°F	N/A
				Total =	826						

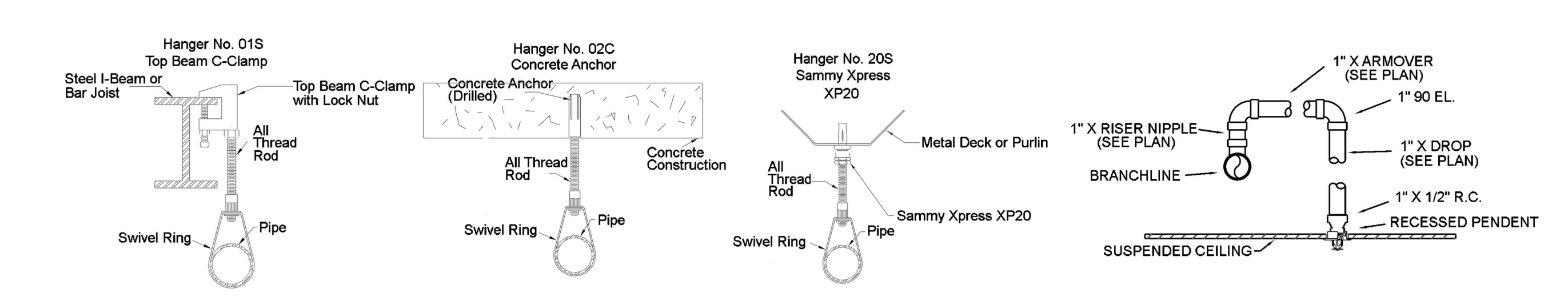
Head Guard = 189



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



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



HANGER DETAILS

TYP. RETURN BEND ASSEMBLY

MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)

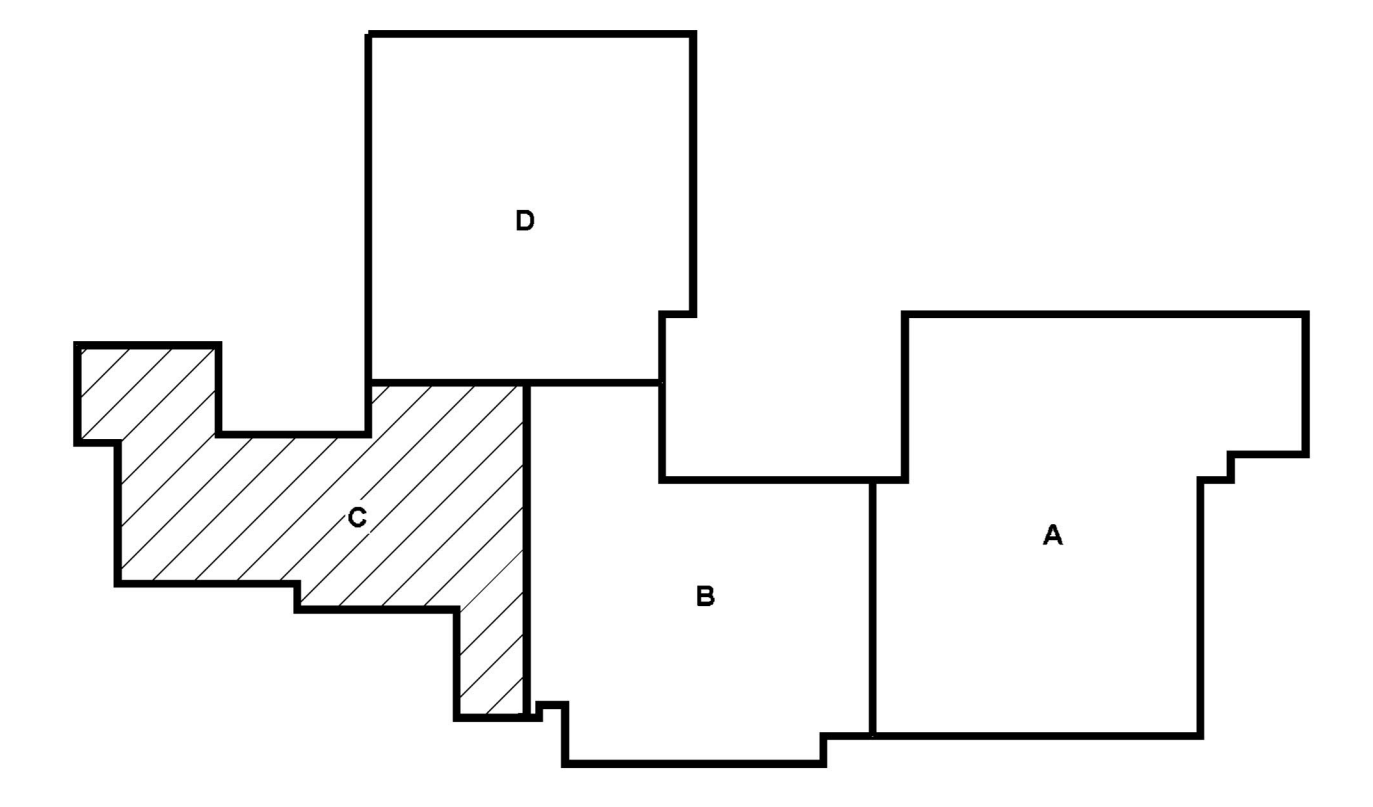
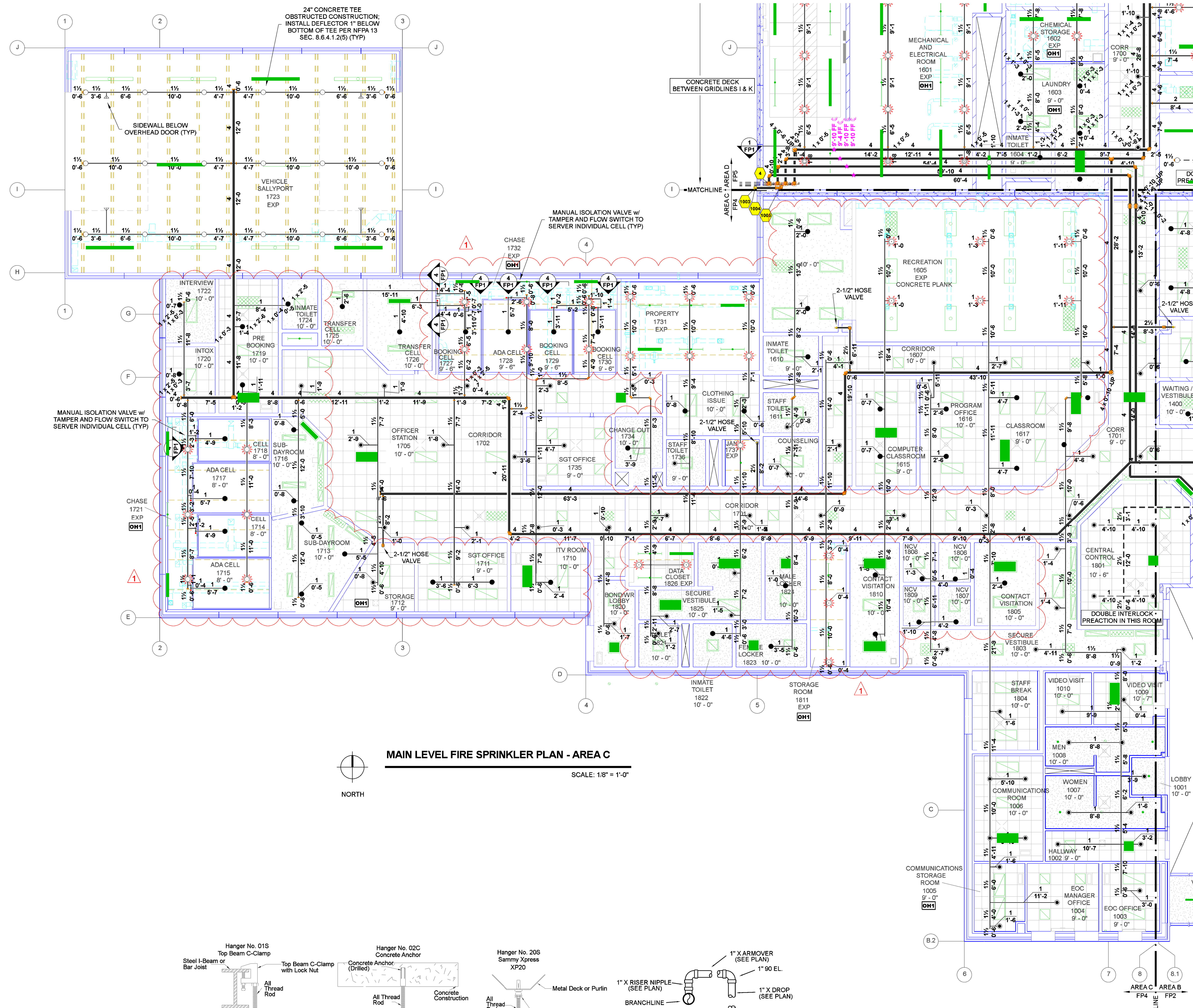
PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

REVISIONS

NO.	DATE	REVISION DESCRIPTION
1	7/13/23	PLAN REVIEW COMMENTS

PROJECT INFORMATION

PROJECT: RICE COUNTY PUBLIC SAFETY CENTER
 CONTRACT #: 1-1040-00376
 DATE OF ORIGINAL: 6/6/2023
 DESIGNER: CAR
 APPROVAL: AHJ
 SCALE: 1/8" = 1'-0" U.N.O.
 SHEET # FP3 OF 5
 CONTRACT WITH: FIRE PROTECTION SITE PLAN & DETAILS
 CONTRACT WITH: C. 2017 SUMMIT COMPANIES

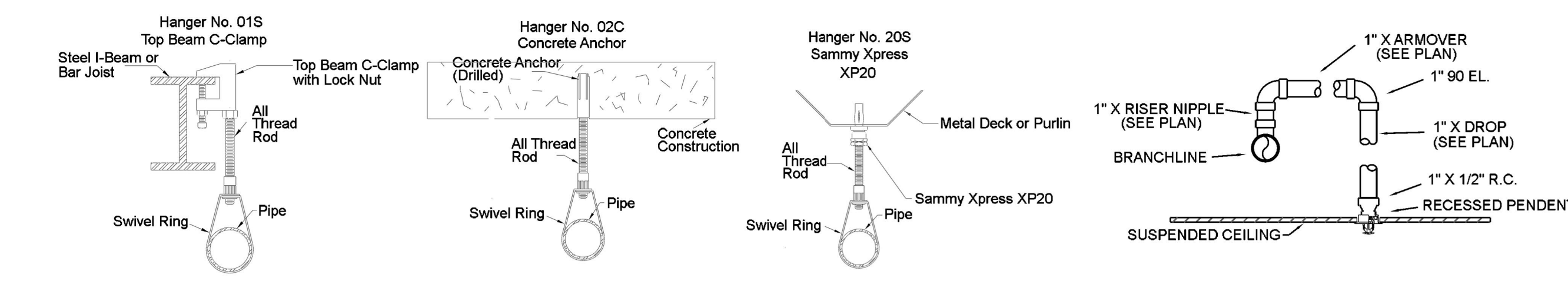


Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note
○	Reliable	RA1425	F1FR56	290	5.6	Upright	1/2"	Quick	Bright Brass	175°F	N/A
●	Reliable	RA1414	F1FR56	314	5.6	Pendent	1/2"	Quick	Chrome	165°F	RECESSED
○	Reliable	R2916	GXLO	11	11.2	Pendent	3/4"	Standard	Brass	165°F	RECESSED
○	Reliable	R1314	XL INSTITUTIONAL	163	5.6	Pendent	1/2"	Quick	Chrome	165°F	INSTITUTIONAL
○	Reliable	R5714	F3R56	4	5.6	Pendent	3/4"	Quick	Chrome	200°F	RECESSED
○	Reliable	RA1435	F1FR56	5	5.6	Sidewall	1/2"	Quick	Bright Brass	175°F	N/A
○	Reliable	RA1425	F1FR56	10	5.6	Upright	1/2"	Quick	Bright Brass	175°F	SPRIG
○	Reliable	R1334	XL INSTITUTIONAL	29	5.6	Sidewall	1/2"	Quick	Chrome	165°F	N/A
				Total =	826						

Head Guard = 189

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



MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)

	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

REVISIONS

NO.	DATE	REVISION DESCRIPTION
1	7/13/23	PLAN REVIEW COMMENTS

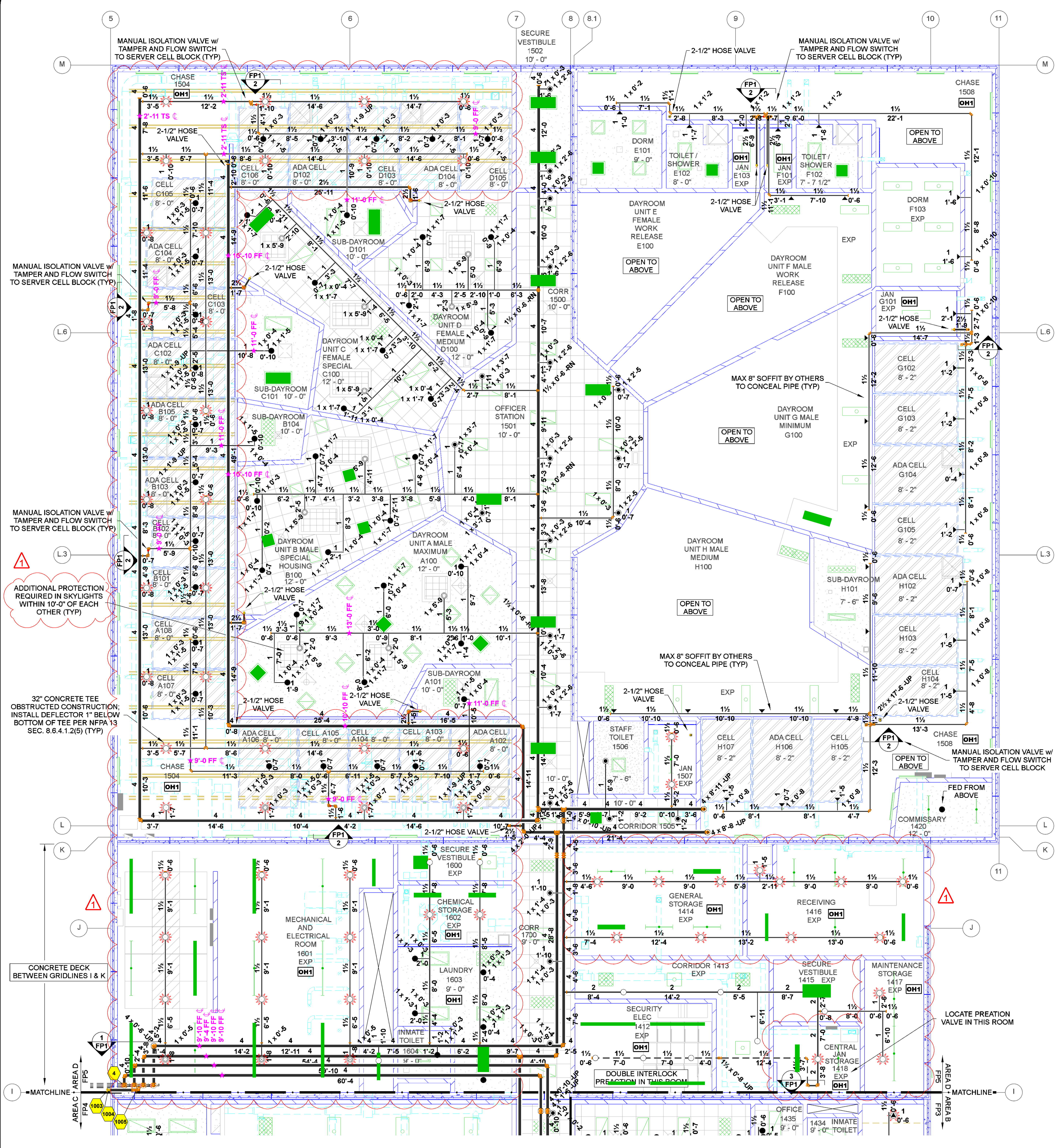
PROJECT INFORMATION

CONTRACT # 1-1040-00376
 DATE OF ORIGINAL 6/6/2023
 DESIGNER CAR
 APPROVAL AHJ
 SCALE: 1/8" = 1'-0" U.N.O.

RICE COUNTY PUBLIC SAFETY CENTER
 50 EAST VIEW DR
 FAIRBAULT, MN 550221

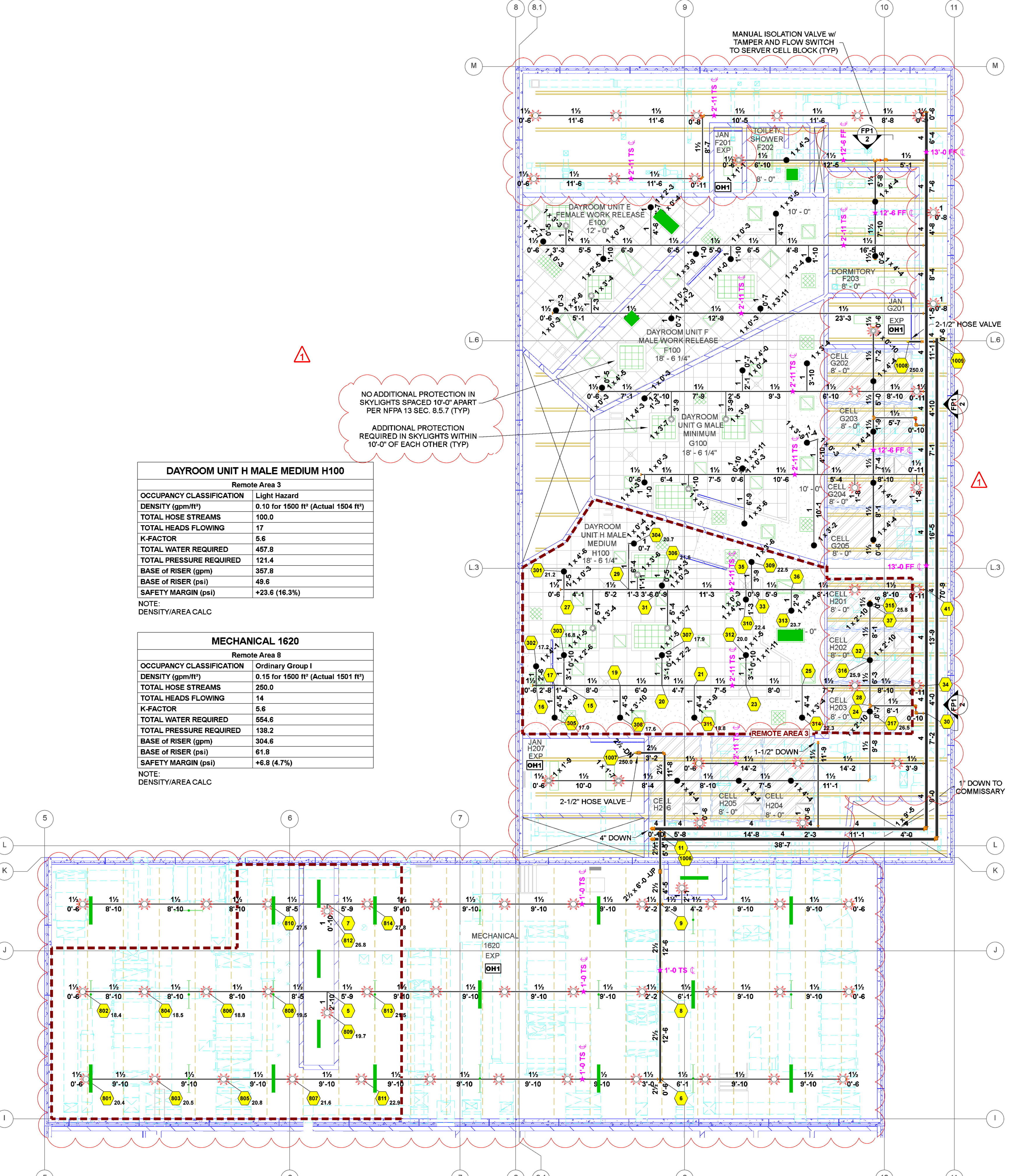
AREA: FIRE PROTECTION SITE PLAN & DETAILS
 CONTRACT WITH: C. 2017 SUMMIT COMPANIES

SHEET #
FP4 OF 5



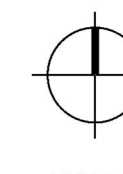
MAIN LEVEL FIRE SPRINKLER PLAN - AREA D

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



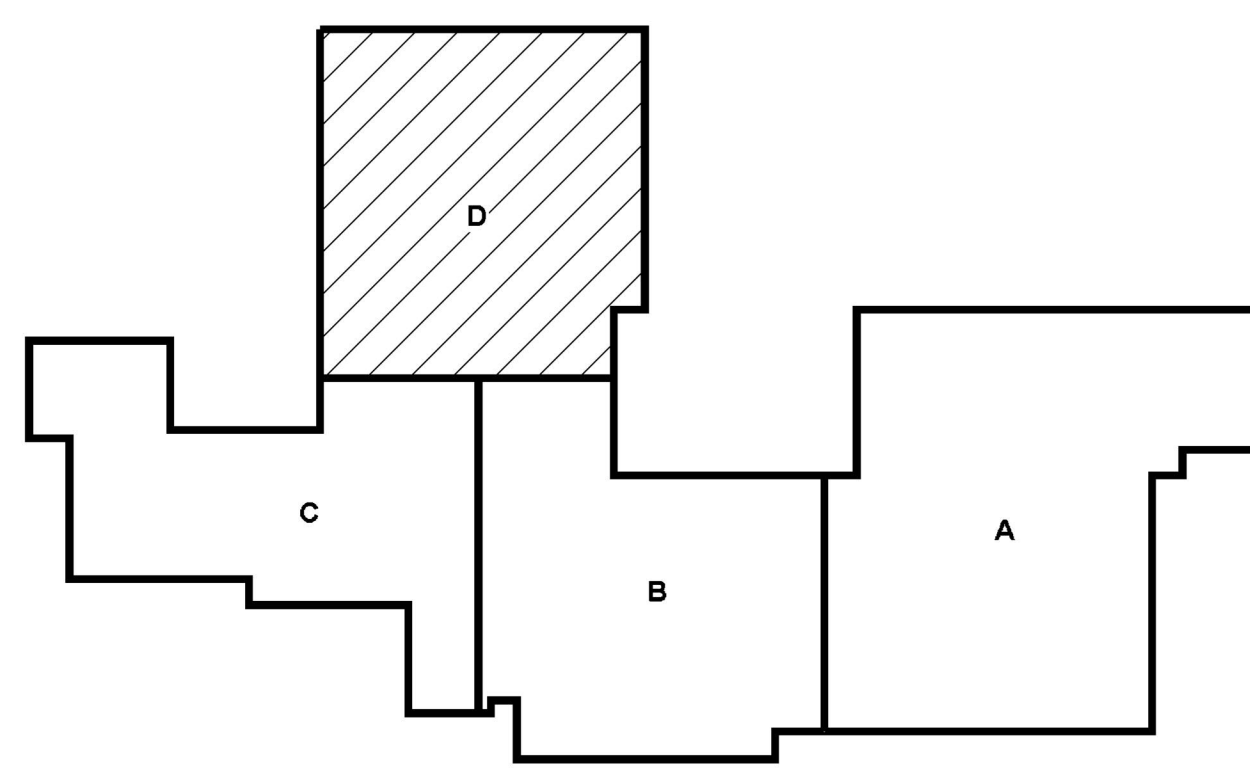
SECOND/TIER LEVEL FIRE SPRINKLER PLAN - AREA D

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



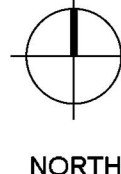
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temp	Note	
○	Reliable	RA1425	F1FR56	290	5.6	Upright	1/2"	Quick	Bright Brass	175°F	N/A	
●	Reliable	RA1414	F1FR56	314	5.6	Pendent	1/2"	Quick	Chrome	155°F	RECESSED	
○	Reliable	R2916	QXLO	11	11.2	Pendent	3/4"	Standard	Brass	165°F	RECESSED	
○	Reliable	R1314	XL INSTITUTIONAL	163	5.6	Pendent	1/2"	Quick	Chrome	165°F	INSTITUTIONAL	
○	Reliable	R5714	F3OR56	4	5.6	Pendent	1/2"	Quick	Chrome	200°F	RECESSED	
○	Reliable	RA1435	F1FR56	5	5.6	Sidewall	1/2"	Quick	Bright Brass	175°F	N/A	
○	Reliable	RA1425	F1FR56	10	5.6	Upright	1/2"	Quick	Bright Brass	175°F	SPRIG	
○	Reliable	R1334	XL INSTITUTIONAL	29	5.6	Sidewall	1/2"	Quick	Chrome	165°F	N/A	
Head Guard = 189				Total = 826								

Sprinkler Legend



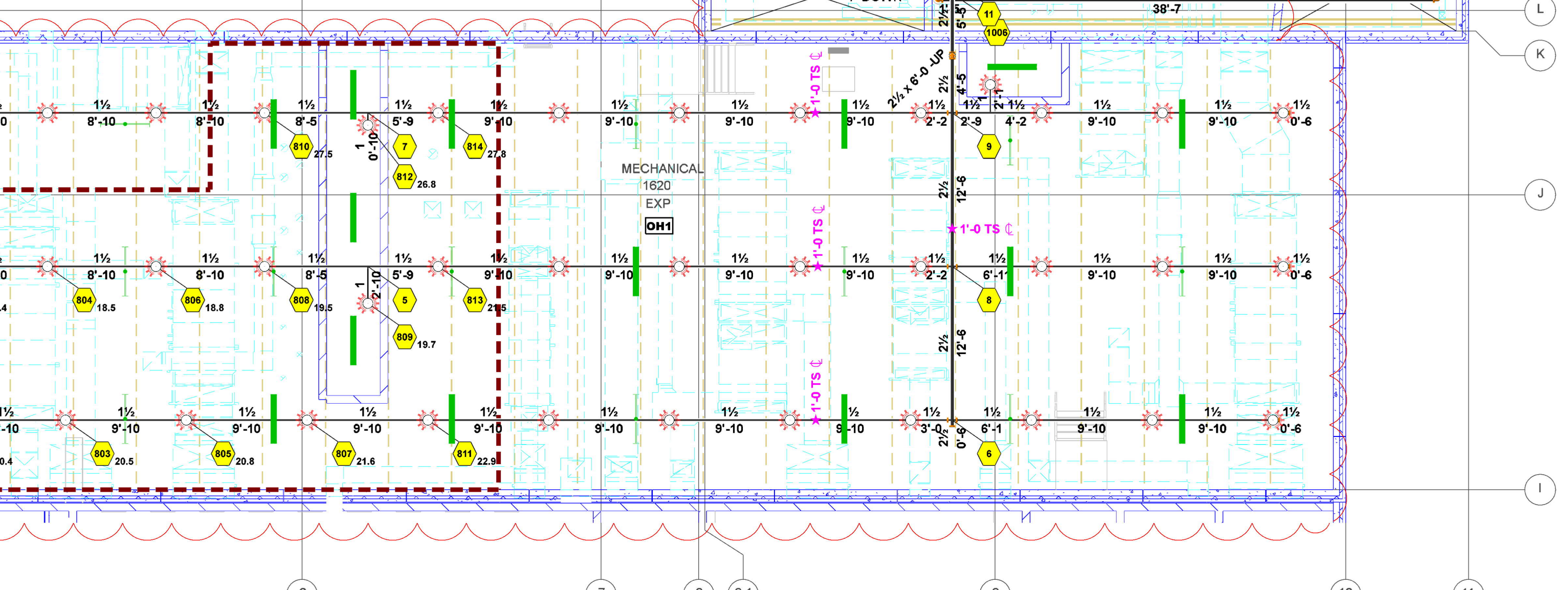
KEY PLAN - AREA D

SCALE: N.T.S.



DAYROOM UNIT H MALE MEDIUM H100	
Remote Area 3	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1500 ft² (Actual 1504 ft²)
TOTAL HOSE STREAMS	100.0
TOTAL HEADS FLOWING	17
K-FACTOR	5.6
TOTAL WATER REQUIRED	457.8
TOTAL PRESSURE REQUIRED	121.4
BASE OF RISER (gpm)	357.8
BASE OF RISER (psi)	49.6
SAFETY MARGIN (psi)	+23.6 (16.3%)
NOTE:	DENSITY/AREA CALC

MECHANICAL 1620	
Remote Area 8	
OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.15 for 1500 ft² (Actual 1501 ft²)
TOTAL HOSE STREAMS	250.0
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	554.6
TOTAL PRESSURE REQUIRED	138.2
BASE OF RISER (gpm)	304.8
BASE OF RISER (psi)	61.8
SAFETY MARGIN (psi)	+6.8 (4.7%)
NOTE:	DENSITY/AREA CALC



HANGER DETAILS

TYP. RETURN BEND ASSEMBLY

MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)	
STEEL PIPE EXCEPT THREADED LIGHTWALL	3/4" NA, 1" 12-0, 1 1/4" 12-0, 1 1/2" 15-0, 2" 15-0, 2 1/2" 15-0, 3" 15-0, 4" 15-0, 6" 15-0, 8" 15-0

REVISIONS	
NO.	REVISION DESCRIPTION
1	PLAN REVIEW COMMENTS

DATE	7/13/23
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PROJECT INFORMATION

CONTRACT # 1-1040-00376
 DATE OF ORIGINAL 6/6/2023
 DESIGNER: CAR
 APPROVAL: AHJ
 SCALE: 1/8" = 1'-0" U.N.O.

SHEET # FP5 OF 5
 CONTRACT WITH: FIRE PROTECTION SITE PLAN & DETAILS
 C. 2017 SUMMIT COMPANIES