

SPRINKLER HEAD LEGEND

SYM	QTY	POSITION	FINISH	TEMP	K	MPF	SN	MPG	MODEL#	ESCU/TECH/ON	SPACING
178	1	UPRIGHT	BRASS	155	14.00	3/4"	V3425	VICTALUC	FL-ECHD	NONE	20x20 (U.N.D.)
105	1	PENDENT	BRASS	200	16.80	3/4"	TY7153	TYCO	ULTRA K17	NONE	100 S.F.
146	1	PENDENT	WHITE	155	5.60	1/2"	V2708	VICTALUC	FL-QR	SEMI-RECESSED	225 S.F. (LIGHT) 130 S.F. (OH)
78	1	PENDENT	WHITE	155	11.20	3/4"	V1113	VICTALUC	FL-ECHD	SEMI-RECESSED	16x18
24	1	UPRIGHT	BRASS	105	5.60	1/2"	V2704	VICTALUC	FL-QR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)
4	1	SPRIG	BRASS	155	5.60	1/2"	V2704	VICTALUC	FL-QR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)
1	1	UPRIGHT	BRASS	286	14.00	3/4"	V3425	VICTALUC	FL-ECHD	NONE	20x20 (U.N.D.)
8	1	SIDEWALL	BRASS	155	5.60	1/2"	V2710	VICTALUC	FL-QR	NONE	16x16
1	1	SIDEWALL	BRASS	155	5.60	1/2"	V2704	VICTALUC	FL-QR	NONE	14x14
4	1	PENDENT	WHITE	155	11.20	3/4"	V1113	VICTALUC	ECLUC	CONCEALED	16x18
4	1	UPRIGHT	WAX	200	14.00	3/4"	V3425	VICTALUC	FL-ECHD	NONE	20x20 (U.N.D.)
555		TOTAL									

GENERAL NOTES

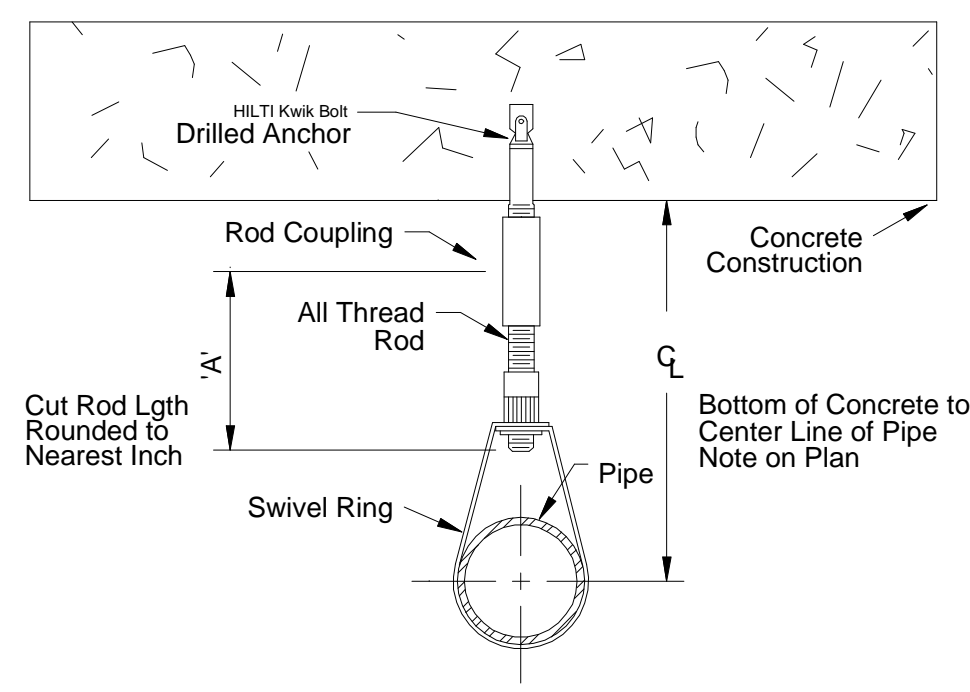
- MINNESOTA BUILDING CODE (2020)
- OCCUPANCY MIXED USE TYPE A-2, A-3, B, S-1
- TYPE OF CONSTRUCTION: I-B
- SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 - ZONE 1 = 52,000 S.F.
 - ZONE 2 = 34,377 S.F.
 - PREACTION SYSTEM = 513 S.F.
 - TOTAL = 86,377 S.F.
- INSTALLATION STANDARDS: SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA-13 (2016)
- SPRINKLER PIPE TYPES:
 - WET:
 - 1" BRANCH LINES TO BE BLK MEGATHREAD PIPING WITH THREADED FITTINGS
 - 1 1/2" THROUGH 6" MAIN & BRANCH LINES TO BE BLK MEGATHREAD PIPING WITH GROOVED FITTINGS
 - MAINS & BRANCH LINES TO BE ROLL-GROOVED BLK LIGHTWALL PIPING
 - 1" BRANCH LINES TO BE THREADED GALV SCHEDULE 40 WITH GALV THREADED FITTINGS IN WASHBAY
 - 1 1/2" THROUGH 6" MAIN & BRANCH LINES TO BE GROOVED GALV SCHEDULE 40 WITH GALV GROOVED FITTINGS IN WASHBAY
 - PRE-ACTION:
 - 1" BRANCH LINES TO BE THREADED GALV SCHEDULE 40 WITH GALV THREADED FITTINGS
 - 1 1/2" THROUGH 6" MAIN & BRANCH LINES TO BE GROOVED GALV SCHEDULE 40 WITH GROOVED FITTINGS
 - MAINS & BRANCH LINES TO BE ROLL-GROOVED GALV SCHEDULE 40 PIPING
- DESIGN CRITERIA
 - 1. LIGHT HAZARD AREAS (ALL AREAS U.N.O.) DESIGNED TO DELIVER 0.10 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
 - 2. ORDINARY HAZARD GROUP 1 AREAS (STORAGE, CUSTODIAL, MECHANICAL, MEZZANINE, ETC. AS NOTED) DESIGNED TO DELIVER 0.15 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
 - 3. ORDINARY HAZARD GROUP 2 AREAS (VEHICLE PARKING, MECHANIC SHOP, ETC. AS NOTED) DESIGNED TO DELIVER 0.20 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
 - 4. WAREHOUSE 105 DESIGNED TO ALLOW UP TO 20 FT OF RACK STORAGE FOR CLASS IV COMMODITIES WITH 16.8K HEADS. CALCULATING 15 HEADS FLOWING @ 225 PSI OVER THE MOST REMOTE AREA PER TABLE 16.2.2.1
 - 5. REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13, SEC. 11.2.3.2.3
- NOTES:
 - 4.1 ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
 - 4.2 HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016) - SEE PLAN FOR HANGING REQ.
 - 4.3 PRE-ACTION SYSTEM PIPE SLOPE INSTALLATION:
 - SPRINKLER MAINS TO BE 1/8" PER 10 FEET
 - SPRINKLER BRANCH LINES TO BE 1/4" PER 10 FEET
 - PRE-ACTION SYSTEM CAPACITY:
 - 4.4.1 15 GAL.
 - 4.4.2 CEILING HEIGHT
 - 5. SYMBOLS USED ON DRAWINGS:
 - 1197 PIPE ELEVATION A.F.F.
 - 1197 PIPE ELEVATION BELOW B.O.D.
 - OH-2 ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
 - 1043 HYDRAULIC CALCULATION JUNCTION POINT
 - 100' CEILING HEIGHT
- SCOPE OF WORK:
 - 6.1 DESIGN AND INSTALL A 2 ZONE WET SYSTEM AND ONE DOUBLE INTERLOCK PRE-ACTION DRY SYSTEM. THE DOUBLE INTERLOCK PRE-ACTION SYSTEM IS TO SERVE AS A BACK UP TO THE CLEAN AGENT SYSTEM (BY OTHERS)
 - 6.2 ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 (2016)

PIPE LEGEND

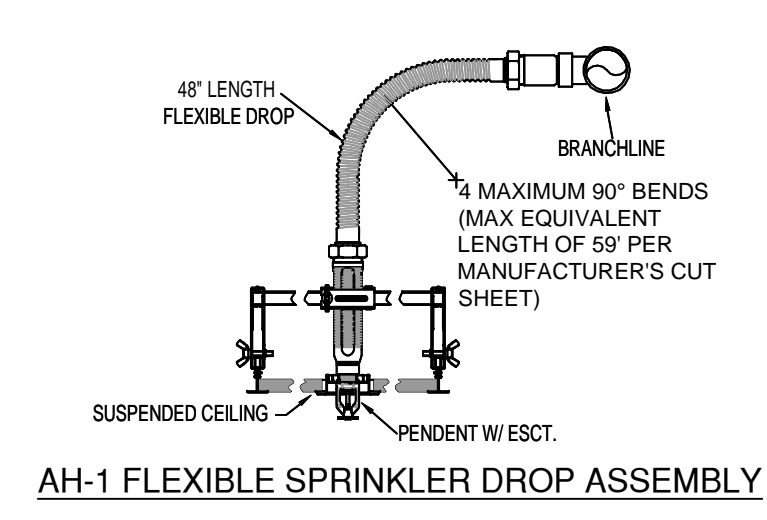
- WET SYSTEMS - LIGHT WALL PIPE
- WASH BAY SCH 40 GALVANIZED
- DUAL INTERLOCK PREACTION SYSTEM - SCH 40 GALVANIZED

NFPA 13 STEEL PIPE HANGER SPACING
(EXCEPT LIGHT WALL THRD PIPING)

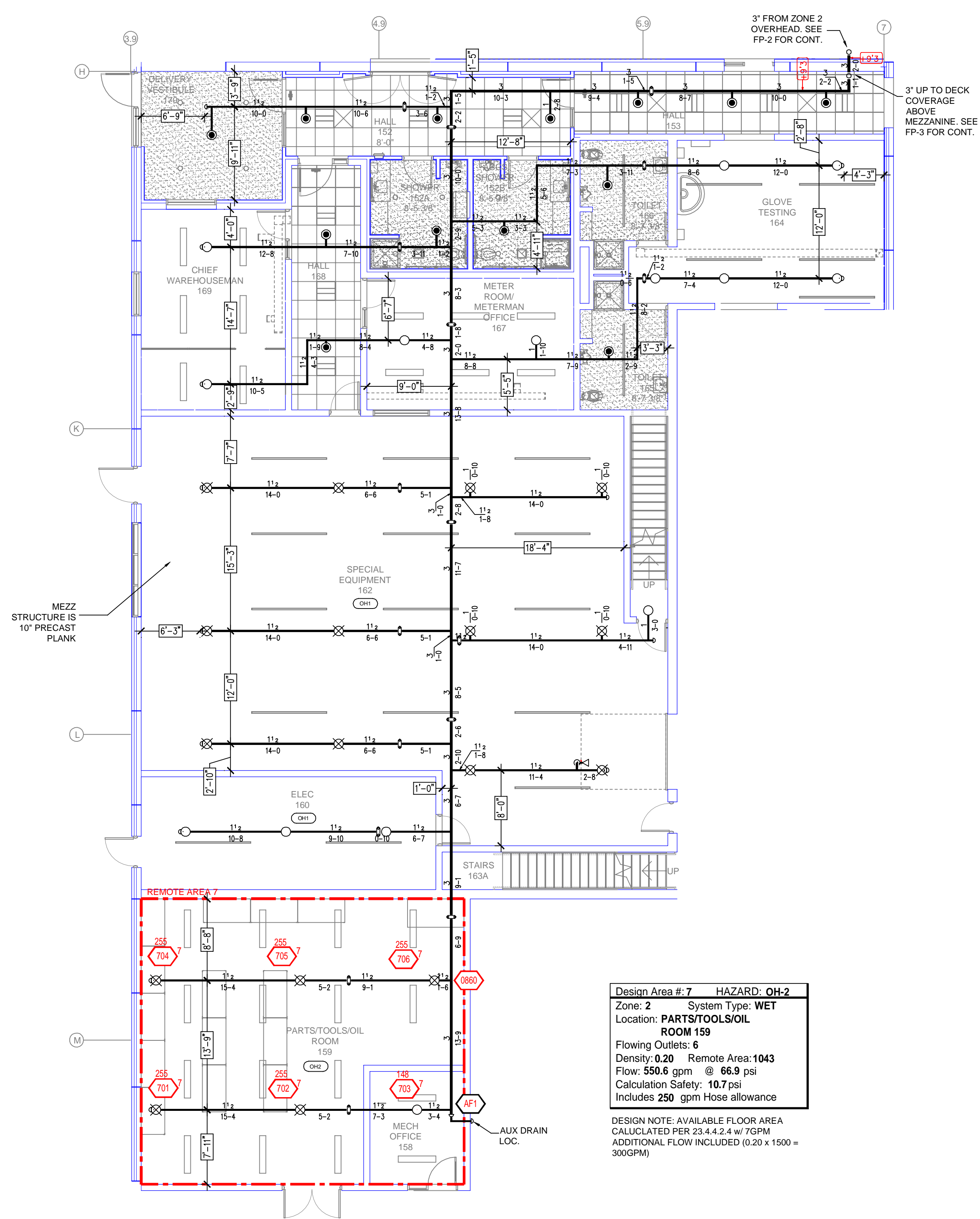
NOMINAL SIZE inches	MAX SPACING feet
1"	12'-0"
1-1/4"	12'-0"
1-1/2"	15'-0"
2"	15'-0"
2-1/2"	15'-0"
3"	15'-0"
4" & LARGER	15'-0"



HANGER DETAILS



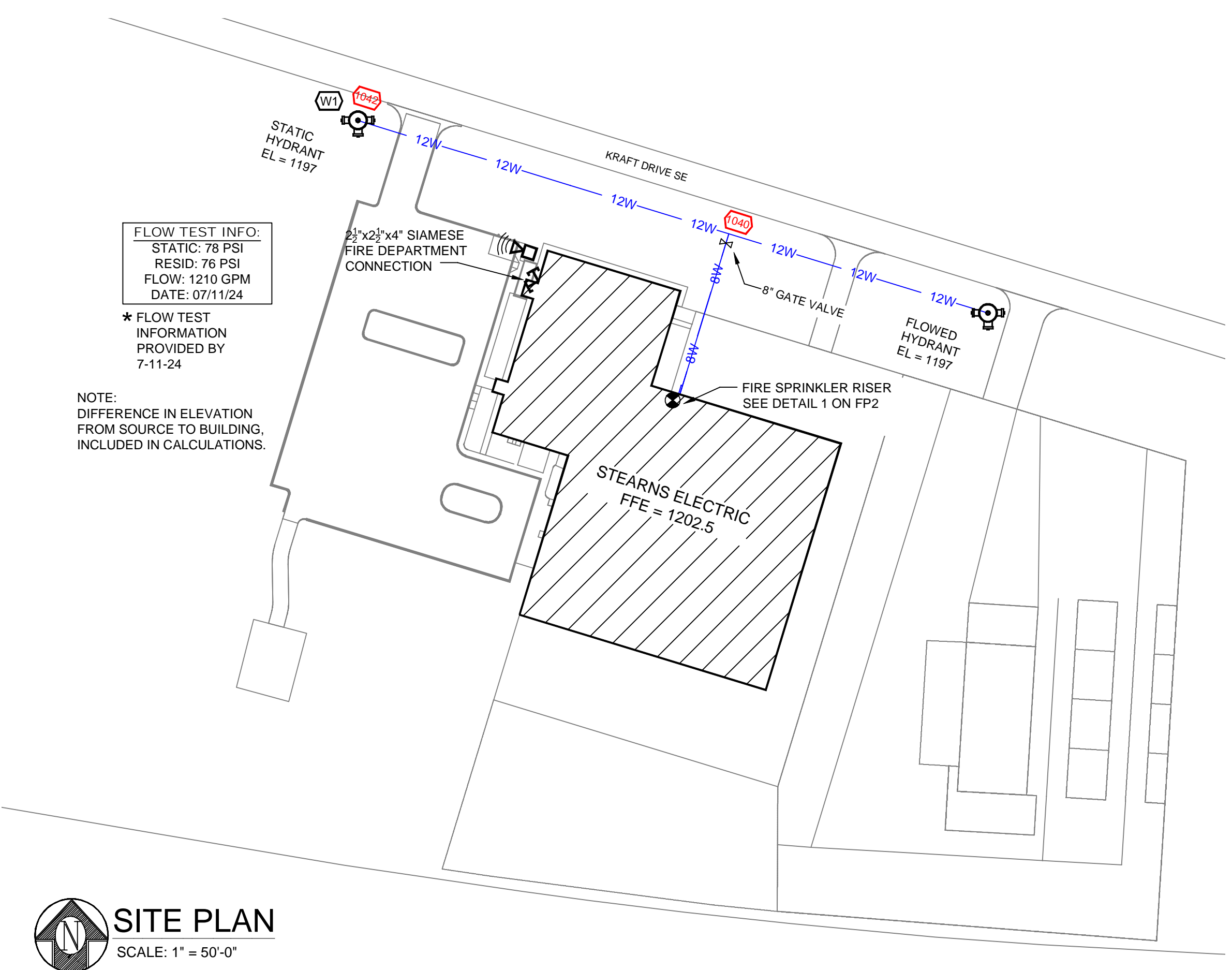
AH-1 FLEXIBLE SPRINKLER DROP ASSEMBLY



Design Area # 7 HAZARD: OH-2
 Zone: 2 System Type: WET
 Location: PARTS/TOOLS/OIL ROOM 159
 Flowing Outlets: 6
 Density: 0.20 Remote Area: 1043
 Flow: 550.6 gpm @ 66.9 psi
 Calculation Safety: 10.7 psi
 Includes 250 gpm hose allowance

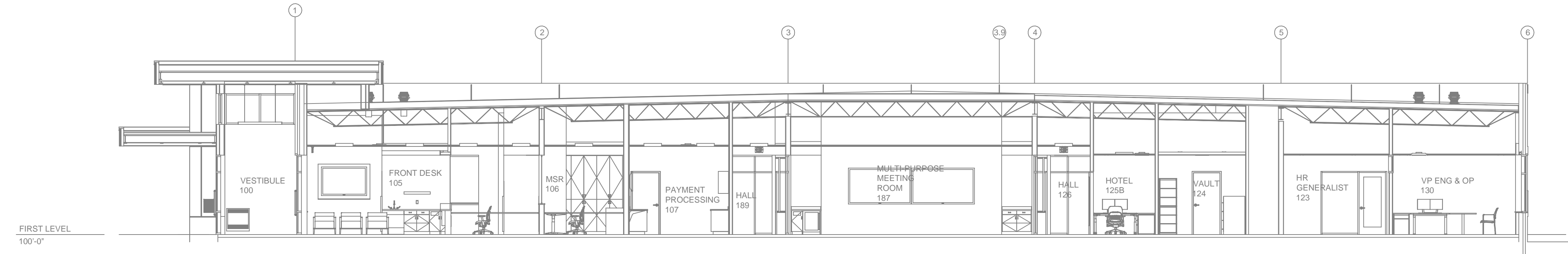
DESIGN NOTE: AVAILABLE FLOOR AREA CALCULATED PER 23.4.4.2.4 w/ 70PM. ADDITIONAL FLOW INCLUDED (0.20 x 1500 = 300GPM)

KEY PLAN



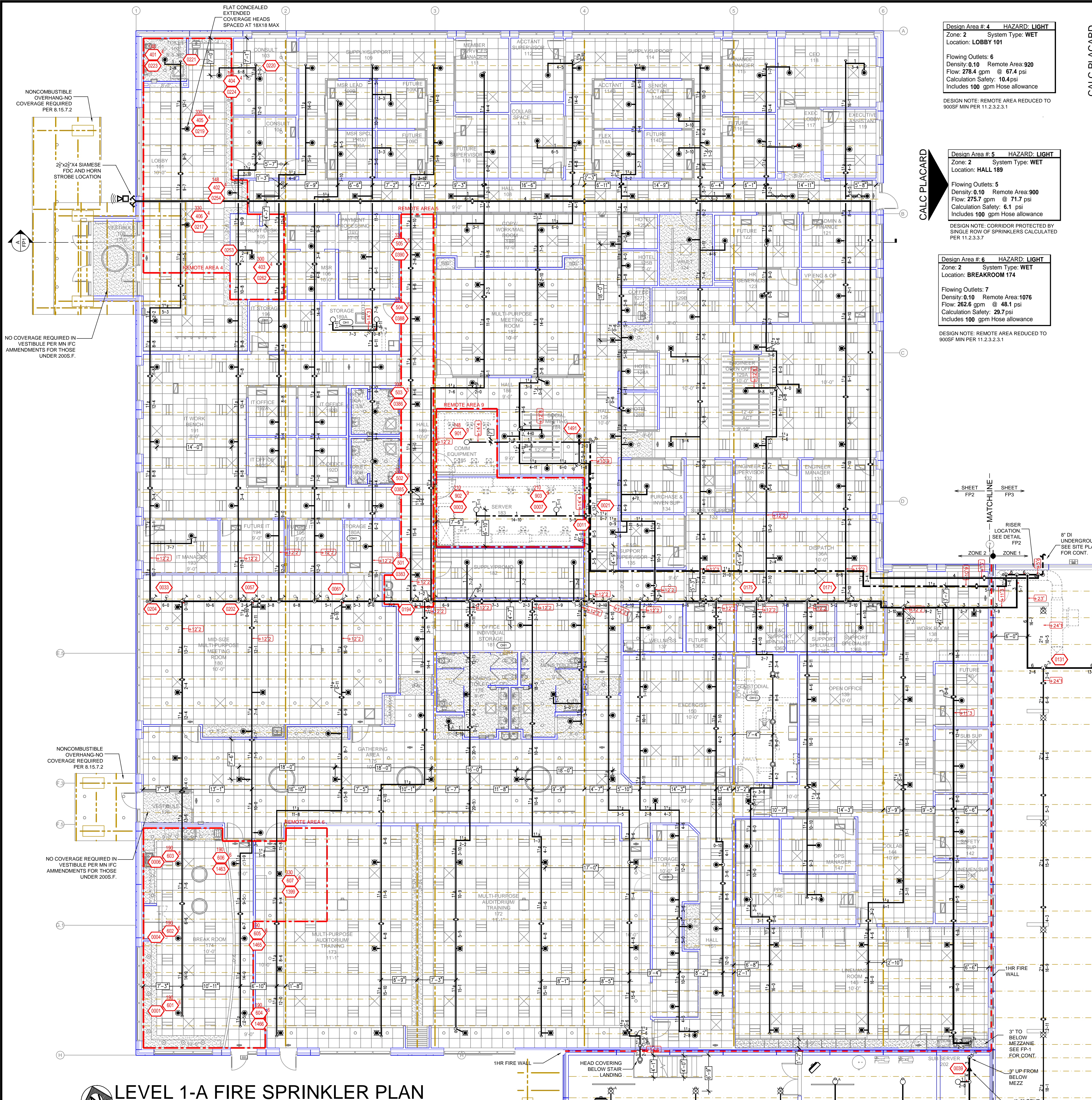
SITE PLAN
SCALE: 1" = 50'-0"

BELOW MEZZANINE FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"



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

	<p>GENERAL NOTES</p> <ol style="list-style-type: none"> SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE ALL SCH-10 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS ALL WELDING PER NFPA-54(2) NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR ALL DIMENSIONS SHOWN ARE CENTER TO CENTER HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED PROVIDE ON SPRINKLER HEAD CABINET WITH HEADS & HEAD WRENCH HANGERS ARE TO BE U.L. LISTED AND I.M. APPROVED ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING. 	<p>NO</p>	<p>REVISIONS</p>	<p>DATE</p>	<p>APPROVAL STAMPS</p>	<p>Drawing Title: FIRE PROTECTION PLAN</p> <p>STEARN'S ELECTRIC 900 EAST KRAFT DRIVE MELROSE, MN 56352</p>	<p>Contract No. C24-47</p> <p>Drawing Date: 08/07/24</p> <p>Scale: 1/8" = 1'-0"</p> <p>Drawn By: AMM</p> <p>Approval By: STATE FIRE MARSHAL DIV.</p> <p>SHEET NO. FP 1 of 4</p>



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

- GENERAL NOTES**
- SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL
 - ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED
 - MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE
 - ALL SCH-40 LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS
 - ALL WELDING PER NFPA-514 (2011)
 - NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS
 - ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR
 - ALL DIMENSIONS SHOWN ARE CENTER TO CENTER
 - HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED
 - PROVIDE ON SPRINKER HEAD CABINET W/2 HEADS & 1 HEAD WRENCH
 - HANGERS ARE TO BE U.L. LISTED AND I.M. APPROVED
 - ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER
 - OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING.

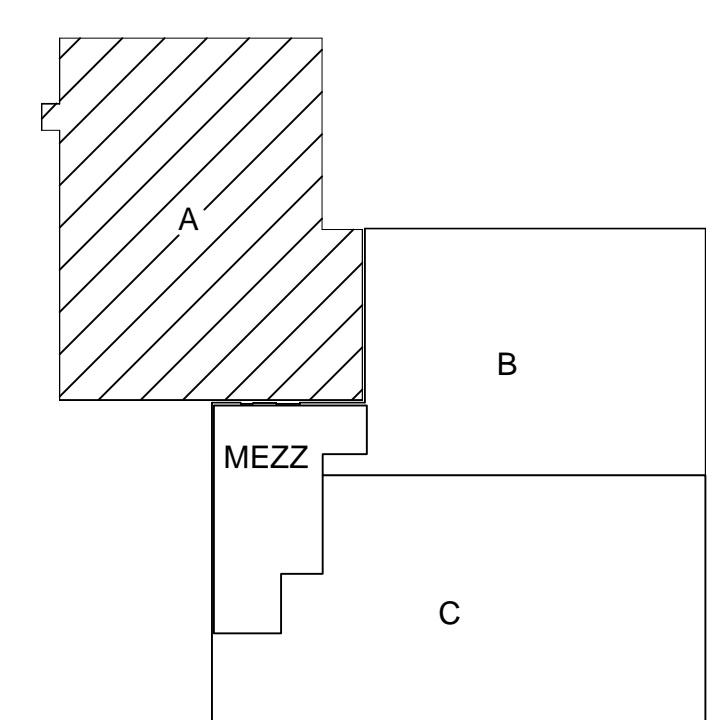
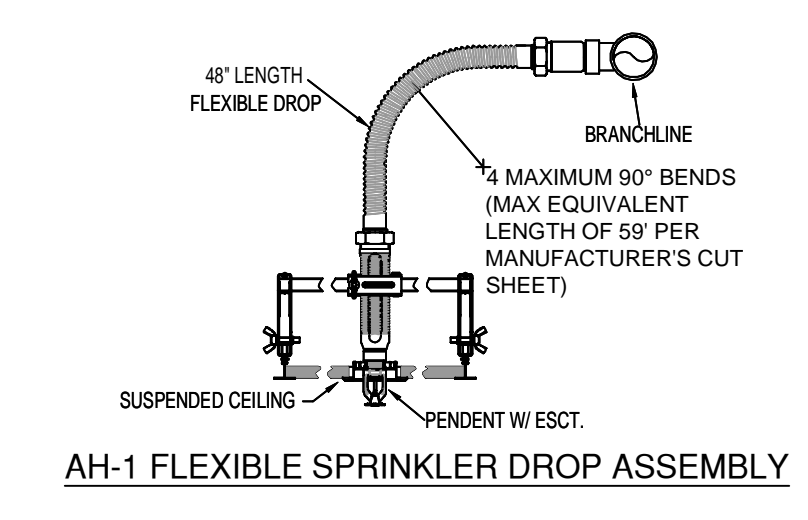
NO.	REVISIONS	DATE	APPROVAL STAMPS

Design Area # 4 HAZARD: LIGHT
Zone: 2 System Type: WET
Location: LOBBY 101
Flowing Outlets: 6
Density: 0.10 Remote Area: 920
Flow: 278.4 gpm @ 67.4 psi
Calculation Safety: 10.4 psi
Includes 100 gpm Hose allowance
DESIGN NOTE: REMOTE AREA REDUCED TO 900SF MIN PER 11.2.3.2.1

Design Area # 5 HAZARD: LIGHT
Zone: 2 System Type: WET
Location: HALL 189
Flowing Outlets: 5
Density: 0.10 Remote Area: 900
Flow: 275.7 gpm @ 71.7 psi
Calculation Safety: 6.1 psi
Includes 100 gpm Hose allowance
DESIGN NOTE: CORRIDOR PROTECTED BY SINGLE ROW OF SPRINKLERS CALCULATED PER 11.2.3.3.7

Design Area # 6 HAZARD: LIGHT
Zone: 2 System Type: WET
Location: BREAKROOM 174
Flowing Outlets: 7
Density: 0.10 Remote Area: 1076
Flow: 262.6 gpm @ 48.1 psi
Calculation Safety: 29.7 psi
Includes 100 gpm Hose allowance
DESIGN NOTE: REMOTE AREA REDUCED TO 900SF MIN PER 11.2.3.2.1

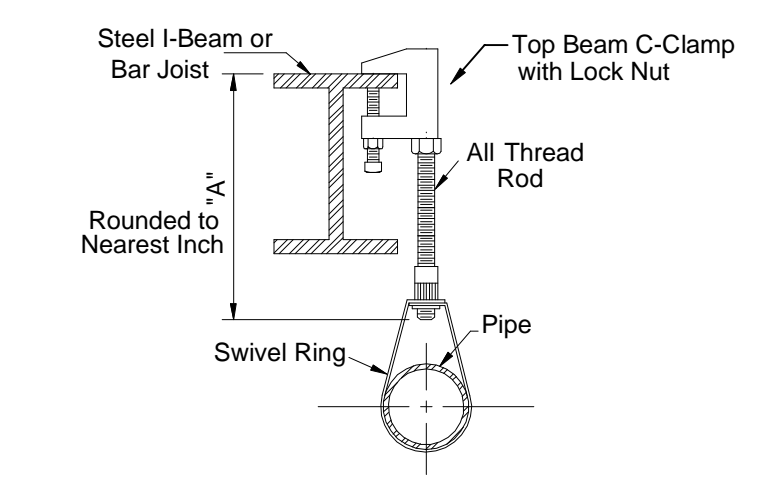
Design Area # 9 HAZARD: LIGHT
Zone: 3 System Type: DRY
Location: SERVER 183
Flowing Outlets: 3
Density: 0.10 Remote Area: 500
Flow: 165.9 gpm @ 62.4 psi
Calculation Safety: 15.6 psi
Includes 100 gpm Hose allowance
DESIGN NOTE: ENTIRE PRE-ACTION SYSTEM CALCULATED.



KEY PLAN

NFPA 13 STEEL PIPE HANGER SPACING
(EXCEPT LIGHT WALL THRD PIPING)

NOMINAL SIZE inches	MAX SPACING feet
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" & LARGER	15'-0"



HANGER DETAILS

SPRINKLER HEAD LEGEND

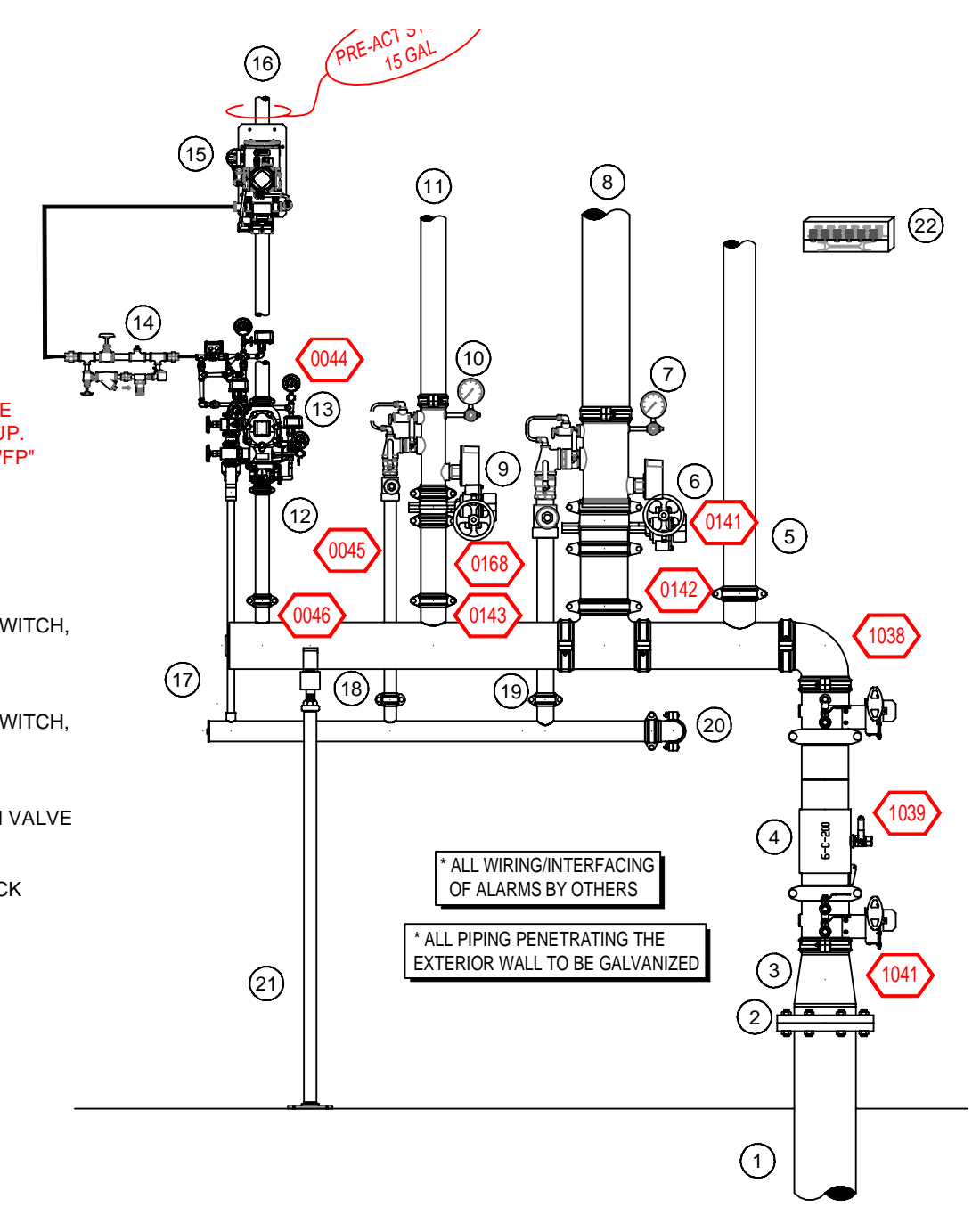
SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SN	MFG	MODEL#	ESCUTCHEON	SPACING
105	UPRIGHT	BRASS	155	14.00	3/4"	V3425	VICTAULIC	FL-ECON	NONE	20x20 (U.N.O.)	100 S.F.
146	PENDENT	WHITE	155	5.60	1/2"	V2708	VICTAULIC	FL-QR	SEMI RECESSED	225 S.F. (LIGHT) 130 S.F. (OH)	18x18
24	UPRIGHT	BRASS	155	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)	20x20 (U.N.O.)
4	SPRING	BRASS	155	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)	20x20 (U.N.O.)
8	UPRIGHT	BRASS	286	14.00	3/4"	V3425	VICTAULIC	FL-ECON	NONE	20x20 (U.N.O.)	18x16
1	SIDEWALL	BRASS	155	5.60	1/2"	V2710	VICTAULIC	FL-QR	NONE	14x14	14x14
4	UPRIGHT	BRASS	286	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)	18x18
4	PENDENT	WHITE	155	11.20	3/4"	V1106	VICTAULIC	ECLHC	CONCEALED	18x18	18x18
4	UPRIGHT	WAX	200	14.00	3/4"	V3425	VICTAULIC	FL-ECON	NONE	20x20 (U.N.O.)	20x20 (U.N.O.)
555	TOTAL										

PIPE LEGEND

- WET SYSTEMS - LIGHT WALL PIPE
- WASH BAY SCH 40 GALVANIZED
- DUAL INTERLOCK PREACTION SYSTEM - SCH 40 GALVANIZED

RISER LEGEND

- 8" UNDERGROUND WATER SERVICE (BY OTHERS) (FLUSHING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOOKUP. UNDERGROUND PAPERS ARE TO BE SUPPLIED TO THE "FP" CONTRACTOR BY THE O.C.)
- 8" GROOVED FLANGE ADAPTER
- 8" x 6" GROOVED CONCENTRIC REDUCER
- 8" AMES COLT C200 BACKFLOW GVD BFW w/ TAMPERS
- 4" GROOVED MEGAFLOW PIPE TO TDC
- 6" GROOVED BUTTERFLY VALVE w/ TAMPER
- 6" GROOVED COMMERCIAL RISER MANIFOLD w/ FLOW SWITCH, PRESSURE GAUGE, & TEST AND DRAIN
- 6" GROOVED MEGAFLOW PIPE TO ZONE 1
- 3" GROOVED BUTTERFLY VALVE w/ TAMPER
- 3" GROOVED COMMERCIAL RISER MANIFOLD w/ FLOW SWITCH, PRESSURE GAUGE, & TEST AND DRAIN
- 3" GROOVED MEGAFLOW PIPE TO ZONE 2
- 1-1/2" GROOVED BUTTERFLY VALVE w/ TAMPER
- 1-1/2" GROOVED ELECTRIC/PNEUMATIC INIT PREACTION VALVE
- AIR MAINTENANCE DEVICE
- GENERAL AIR RISER MOUNTED COMPRESSOR
- 1-1/2" GROOVED MEGAFLOW PIPE TO DOUBLE INTERLOCK PREACTION SYSTEM
- 3/4" MAIN DRAIN
- 1-1/4" MAIN DRAIN
- 2" MAIN DRAIN
- 2-1/2" TEE - N MAIN DRAIN TO OUTSIDE
- PIPE STAND
- SPARE SPRINKLER CABINET w/ WRENCH

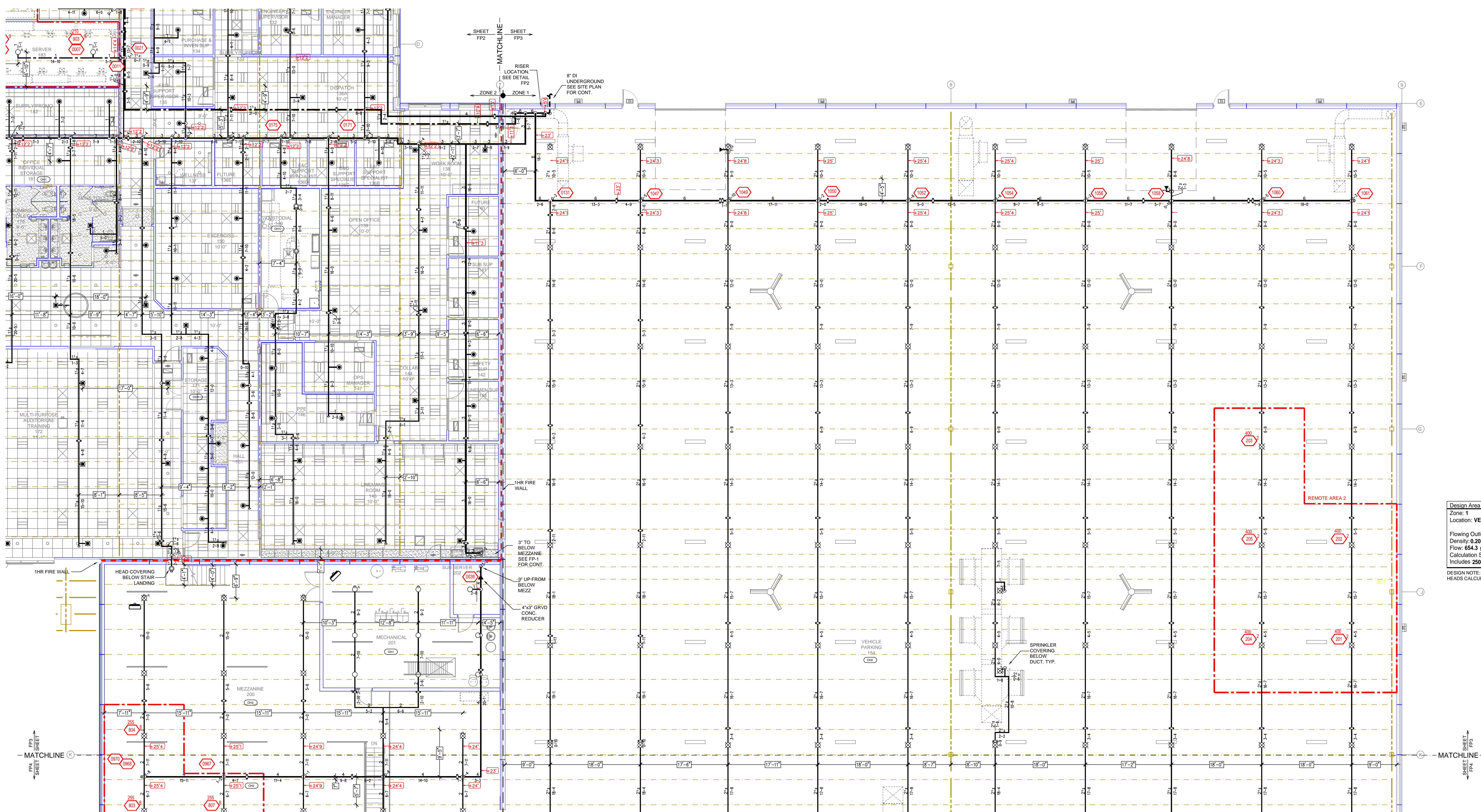


RISER DETAIL
SCALE= 1/2" : 1'-0"

Drawing Title: **FIRE PROTECTION PLAN**

STEARNS ELECTRIC
900 EAST KRAFT DRIVE
MELROSE, MN 56352

Contract No: **C24-47**
Drawing Date: 08/07/24
Scale: 1/8" = 1'-0"
Drawn By: AMM
Approval By: STATE FIRE MARSHAL DIV.
SHEET NO: **FP 2 of 4**



Design Area # 2 HAZARD: OH-2
 Zone: 1 System Type: WET
 Location: VEHICLE PARKING 154

Flowing Outlets: 5
 Density: 0.20 Remote Area: 1716
 Flow: 654.3 gpm @ 53 psi
 Calculation Safety: 24.4 psi
 Includes 250 gpm loss allowance

DESIGN NOTE: 5 EXTENDED COVERAGE
 HEADS CALCULATED PER 11.2.3.2.3

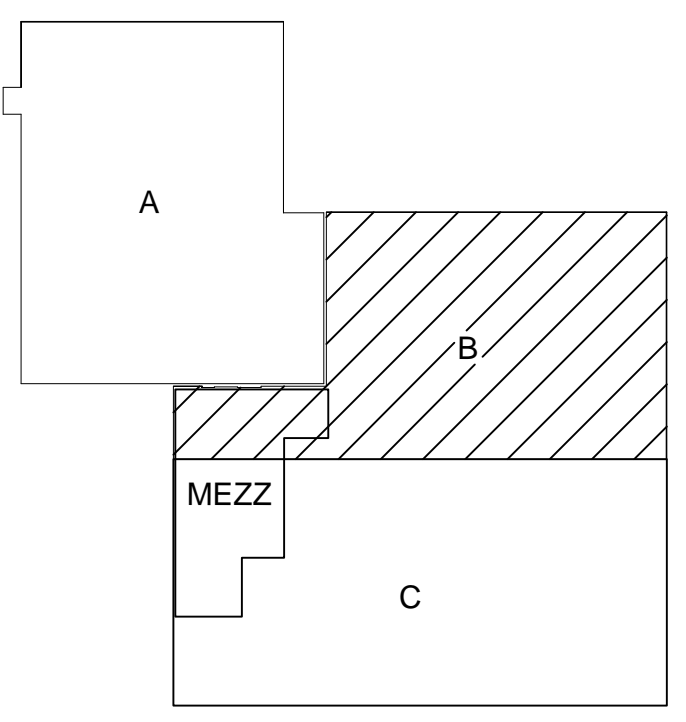
LEVEL 1-B FIRE SPRINKLER PLAN
 SCALE = 1/8" = 1'-0"

SPRINKLER HEAD LEGEND

PIPE LEGEND

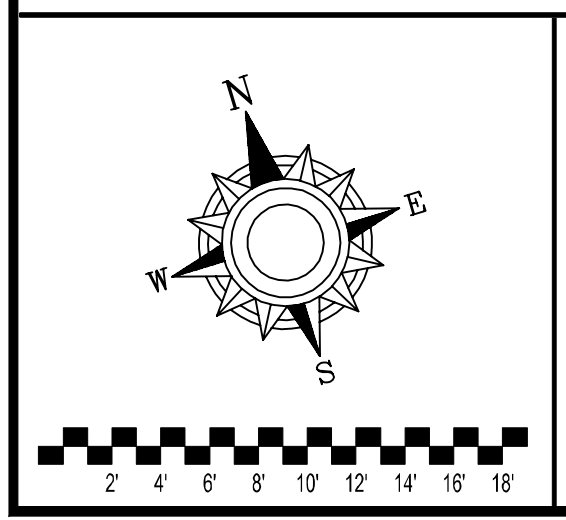
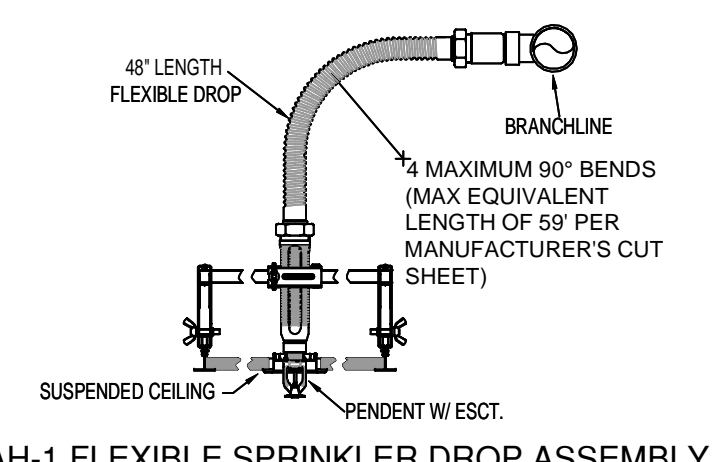
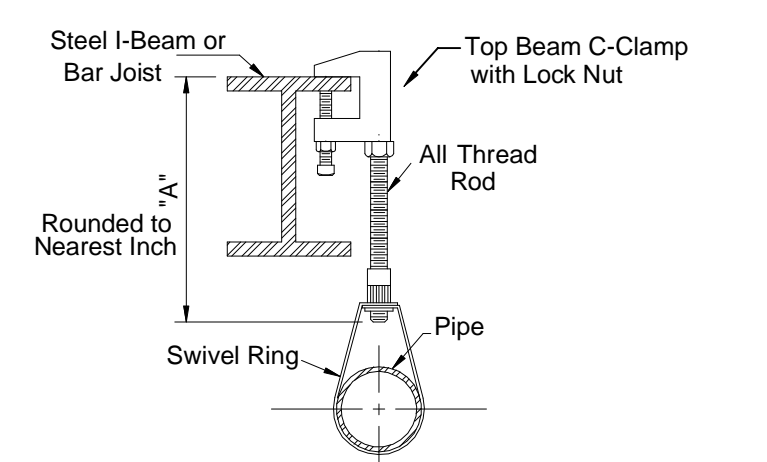
SYM	QTY	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUTCHEON	SPACING
178	1	UPRIGHT	BRASS	155	14.00	3/4"	V3425	VICTAULIC	FL-ECHO	NONE	20x20 (U.N.O.)
105	1	UPRIGHT	BRASS	200	16.00	3/4"	T77193	TYCOO	ULTRA KIT7	NONE	100 S.F.
146	1	PENDENT	WHITE	155	5.00	1/2"	V2708	VICTAULIC	FL-GR	SEMI-RECESSED	225 S.F. (LIGHT) 130 S.F. (OH)
76	1	PENDENT	WHITE	155	11.20	3/4"	V1113	VICTAULIC	FL-ECHO	SEMI-RECESSED	18x18
24	1	UPRIGHT	BRASS	155	5.00	1/2"	V2704	VICTAULIC	FL-GR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)
4	1	SPRIG	BRASS	155	5.00	1/2"	V2704	VICTAULIC	FL-GR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)
1	1	UPRIGHT	BRASS	286	14.00	3/4"	V3425	VICTAULIC	FL-ECHO	NONE	20x20 (U.N.O.)
5	1	SIDEWALL	BRASS	155	5.00	1/2"	V2708	VICTAULIC	FL-ECHO	NONE	18x18
1	1	SIDEWALL	BRASS	155	5.00	1/2"	V2710	VICTAULIC	FL-GR	NONE	14x14
4	1	UPRIGHT	BRASS	286	5.00	1/2"	V2704	VICTAULIC	FL-GR	NONE	225 S.F. (LIGHT) 130 S.F. (OH)
4	1	PENDENT	WHITE	155	11.20	3/4"	V1106	VICTAULIC	ECLHC	CONCEALED	18x18
4	1	UPRIGHT	WAX	200	14.00	3/4"	V3425	VICTAULIC	FL-ECHO	NONE	20x20 (U.N.O.)
555		TOTAL									

- WET SYSTEMS - LIGHT WALL PIPE
- WASH BAY SCH 40 GALVANIZED
- DUAL INTERLOCK PREACTION SYSTEM - SCH 40 GALVANIZED



NFPA 13 STEEL PIPE HANGER SPACING
 (EXCEPT LIGHT WALL THRD PIPING)

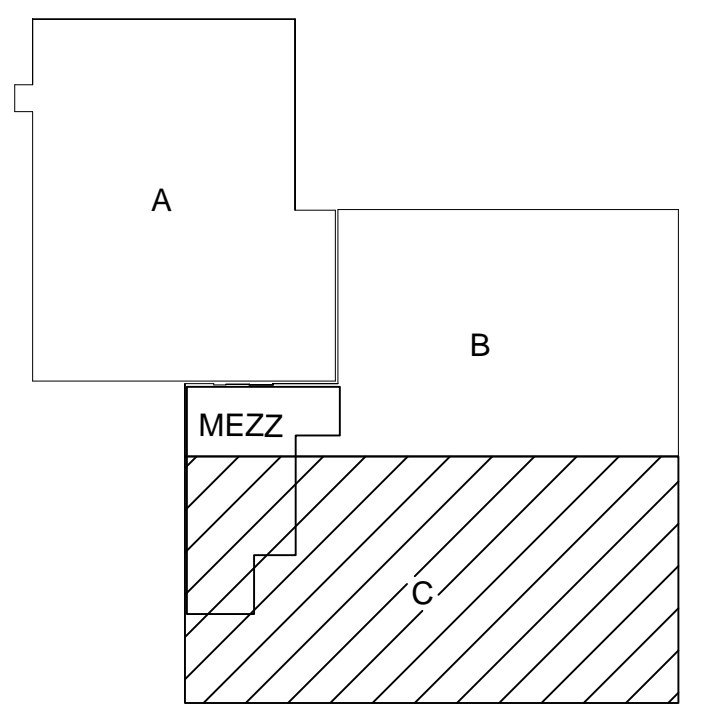
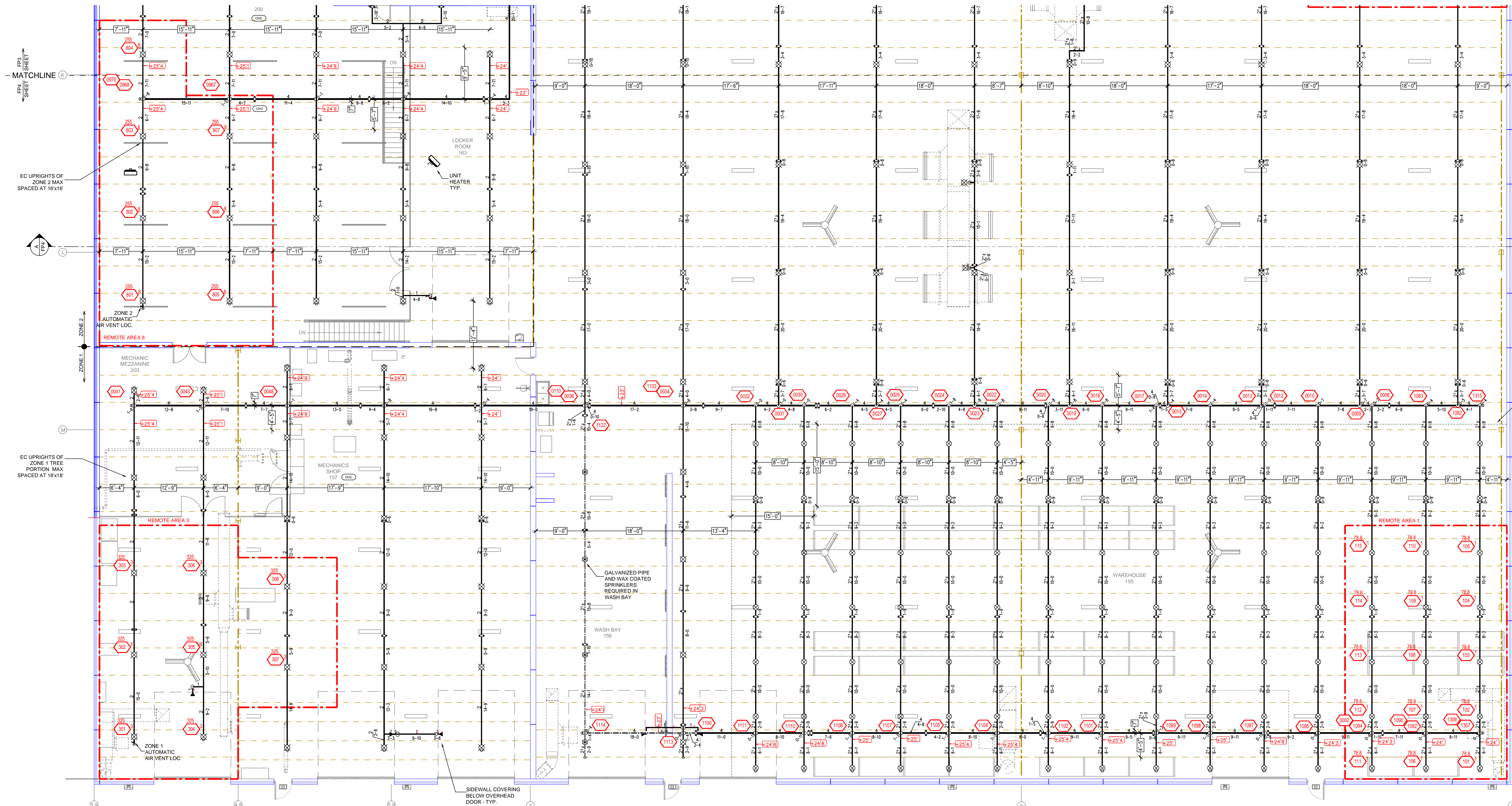
NOMINAL SIZE inches	MAX SPACING feet
1"	12'-0"
1-1/4"	12'-0"
1-1/2"	15'-0"
2"	15'-0"
2-1/2"	15'-0"
3"	15'-0"
4" & LARGER	15'-0"



- GENERAL NOTES
- SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL
 - ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED
 - MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE
 - ALL SCH-10 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS
 - ALL WELDING PER NFPA-514(2)
 - NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS
 - ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR
 - ALL DIMENSIONS SHOWN ARE CENTER TO CENTER
 - HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED
 - PROVIDE ON SPRINKLER HEAD CABINET WITH HEADS & HEAD WRENCH
 - HANGERS ARE TO BE U.L. LISTED AND I.M. APPROVED
 - ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER
 - OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING.

NO.	REVISIONS	DATE	APPROVAL STAMPS

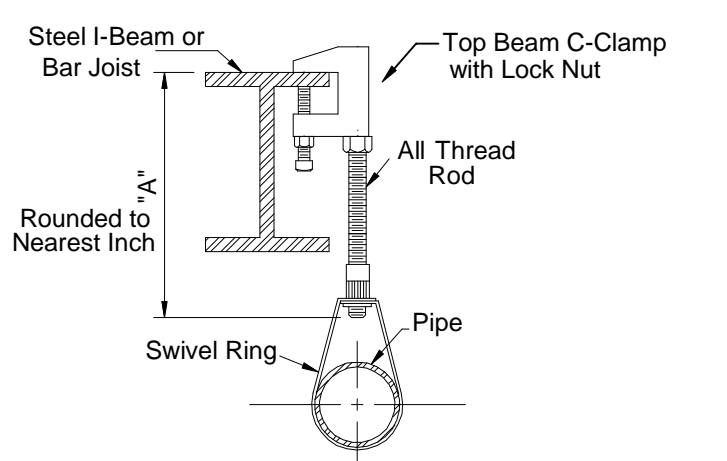
Contract No. **C24-47**
 Drawing Date: 08/07/24
 Scale: 1/8" = 1'-0"
 Drawing Title: **FIRE PROTECTION PLAN**
STEARNS ELECTRIC
 900 EAST KRAFT DRIVE
 MELROSE, MN 56352
 Drawing By: AMM
 Approval By: STATE FIRE MARSHAL DIV.
 SHEET NO. **FP 3 of 4**



KEY PLAN

STORAGE CRITERIA
COVERED EXTENDED 18'-0" BEYOND SHELVING PERIMETER PER 11.1.1(21)

NFPA 13 STEEL PIPE HANGER SPACING	
(EXCEPT LIGHT WALL THIRD PIPING)	
NOMINAL SIZE inches	MAX SPACING feet
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" & LARGER	15'-0"



HANGER DETAILS

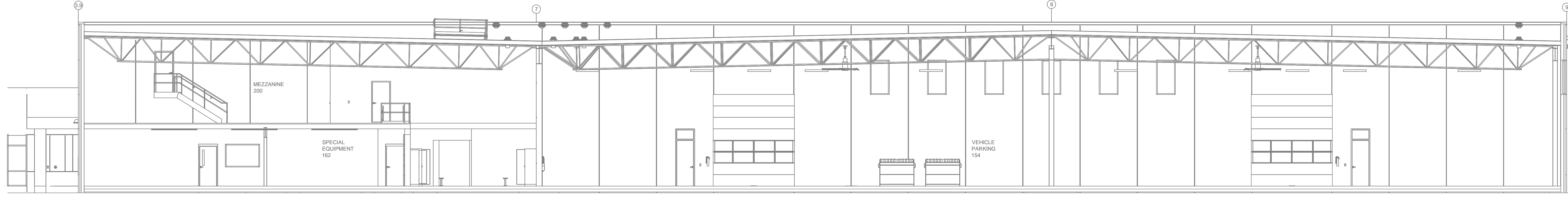
CALC PLACARD

Design Area # 1 HAZARD: OH-2
 Zone: 1 System Type: WET
 Location: WAREHOUSE 155
 Flowing Outlets: 15
 Density: 1.0 Remote Area: 1182
 Flow: 1889 gpm @ 67.9 psi
 Calculation Safety: 6.3 psi
 Includes 500 gpm Hose allowance
 DESIGN NOTE: CMSA COVERAGE FOR 25FT OF RACK STORAGE FOR CLASS IV COMMODITIES: 15 HEADS @ 20PSI CALCULATED PER TABLE 16.2.2.1

Design Area # 3 HAZARD: OH-2
 Zone: 1 System Type: WET
 Location: MECHANICS SHOP 157
 Flowing Outlets: 8
 Density: 0.20 Remote Area: 1679
 Flow: 500 gpm @ 63.8 psi
 Calculation Safety: 13.3 psi
 Includes 250 gpm Hose allowance
 DESIGN NOTE: 1500 SF CALCULATED

Design Area # 8 HAZARD: OH-2
 Zone: 2 System Type: WET
 Location: MEZZANINE 200
 Flowing Outlets: 7
 Density: 0.20 Remote Area: 1677
 Flow: 628 gpm @ 67.6 psi
 Calculation Safety: 9.8 psi
 Includes 250 gpm Hose allowance
 DESIGN NOTE: 1500 SF CALCULATED

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



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

SPRINKLER HEAD LEGEND
 SHEET FP3

PIPE LEGEND

	WET SYSTEMS - LIGHT WALL PIPE
	WASH BAY SCH 40 GALVANIZED
	DUAL INTERLOCK PREACTION SYSTEM - SCH 40 GALVANIZED

GENERAL NOTES

- SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL
- ALL EQUIPMENT FOR THIS SYSTEM SHALL BE L.L. LISTED
- MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE
- ALL SCH-40 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS
- ALL WELDING PER NFPA-514(2)
- NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS
- ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR
- ALL DIMENSIONS SHOWN ARE CENTER TO CENTER
- HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED
- PROVIDE ON SPINE HEAD CABINET WITH HEADS & 1 HEAD WRENCH
- HANGERS ARE TO BE L.L. LISTED AND I.M. APPROVED
- ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER
- OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING.

NO	REVISIONS	DATE	APPROVAL STAMPS

Contract No. **C24-47**
 Drawing Date: 08/07/24
 Scale: 1/8" = 1'-0"
 Drawing Title: **FIRE PROTECTION PLAN**
STEARNS ELECTRIC
 900 EAST KRAFT DRIVE
 MELROSE, MN 56352
 Drawing By: AMM
 Approval By: STATE FIRE MARSHAL DIV.
 SHEET NO. **FP 4 of 4**