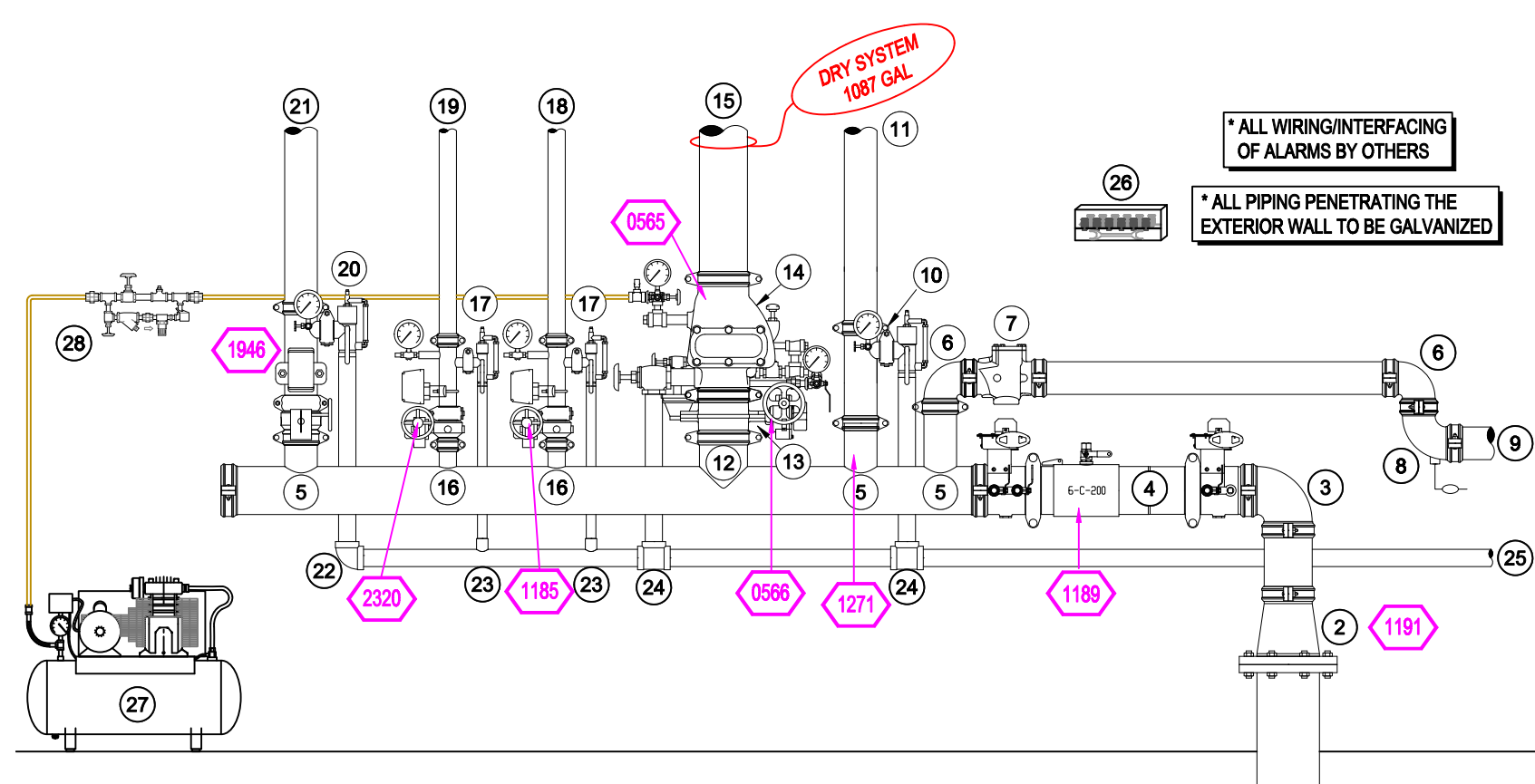
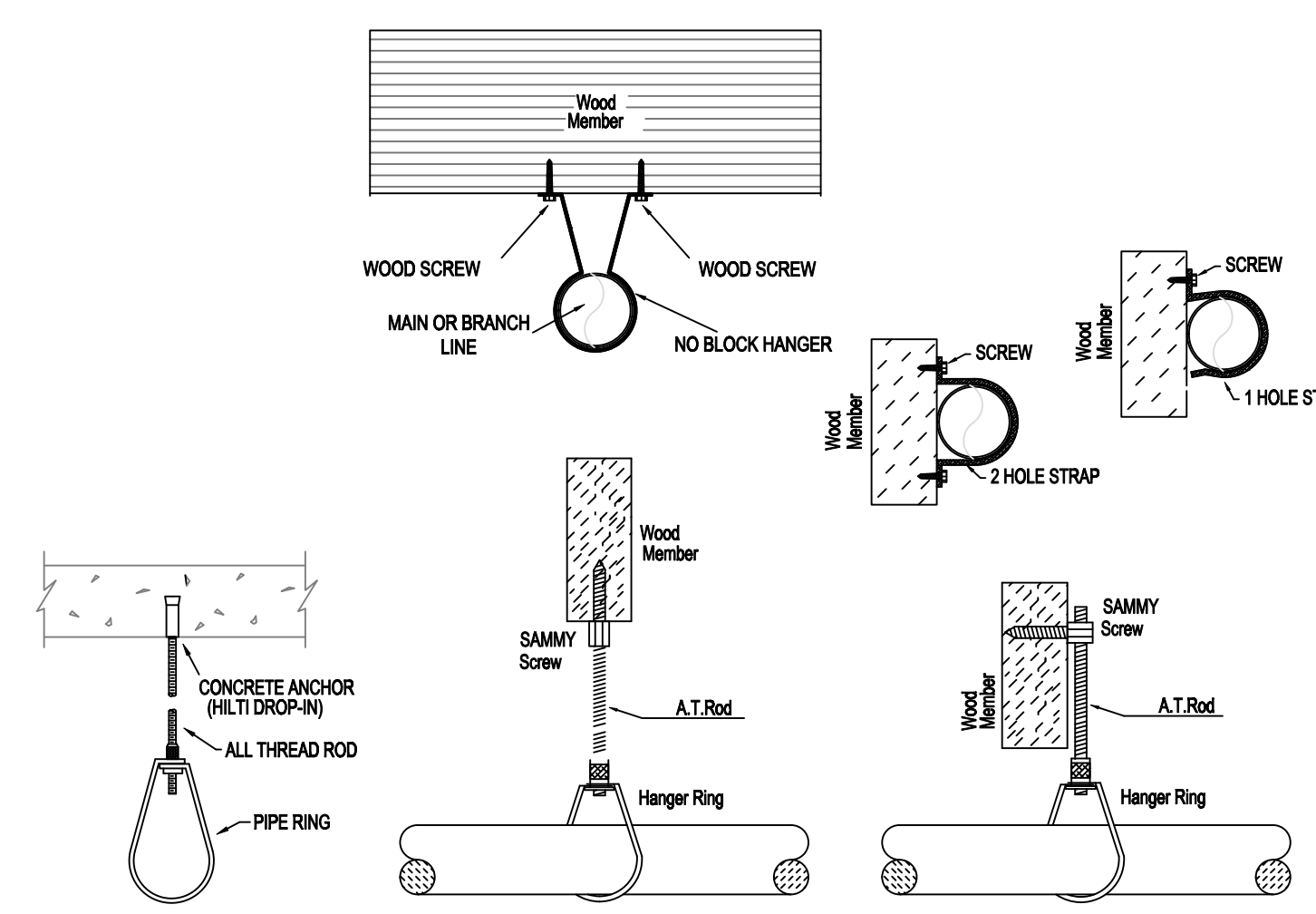




RISER DETAIL
SCALE= 1/2" : 1'-0"

- RISER LEGEND**
- 8" UNDERGROUND WATER SERVICE (BY OTHERS)
 - FLUSHING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOOKUP. UNDERGROUND PIPERS ARE TO BE SUPPLIED TO THE "FP" CONTRACTOR BY THE G.C.
 - 6" GROOVED 90 ELBOW
 - 8" AMES COLT C200 BACKFLOW GxG BFW w/ TAMPERS
 - 6" GROOVED 90 ELBOW
 - 6" GROOVED 90 ELBOW
 - 4" CHECK VALVE
 - 4" GROOVED DRAIN 90 w/ BALL DRIP
 - 4" TO FDC
 - 4" GROOVED COMMERCIAL RISER MANIFOLD w/ PRV
 - 4" TO STANDPIPES
 - 6"x8" GROOVE-O-LET
 - 6" GROOVED BUTTERFLY VALVE w/ TAMPERS
 - 6" TYCO DVP-1 DRY VALVE w/ PRESSURE GAUGE, DRAIN & ACCELERATOR
 - 6" TO ATTIC
 - 6"x2" GROOVE-O-LET
 - 2" GROOVED COMMERCIAL RISER MANIFOLD w/ FLOW SWITCH, PRESSURE GAUGE, & TEST AND DRAIN w/ PRV
 - 2" TO LEVEL 5
 - 4" GROOVED COMMERCIAL RISER MANIFOLD w/ PRESSURE GAUGE, & TEST AND DRAIN w/ PRV
 - 4" TO LEVEL 1
 - 2" THREADED 90 ELBOW
 - 1" WELD-O-LET
 - 2" THREADED TEE
 - 2" DRAIN PIPED TO OUTSIDE
 - SPARE HEAD BOX
 - AIR COMPRESSOR
 - 1/2" COPPER LINE FROM AIR COMPRESSOR TO AIR MAINTENANCE DEVICE



HANGER DETAILS

NFPA 13 STEEL PIPE HANGER SPACING (EXCEPT LIGHT WALL THRD PIPING)		NFPA 13 CPVC PIPE HANGER SPACING	
NOMINAL SIZE Inches	MAX SPACING feet	NOMINAL SIZE Inches	MAX SPACING feet
1"	12'-0"	3/4"	5'-6"
1-1/4"	12'-0"	1"	6'-0"
1-1/2"	15'-0"	1-1/4"	6'-6"
2"	15'-0"	1-1/2"	7'-0"
2-1/2"	15'-0"	2"	9'-0"
3"	15'-0"	2-1/2"	9'-0"
4" & LARGER	15'-0"	3"	10'-0"

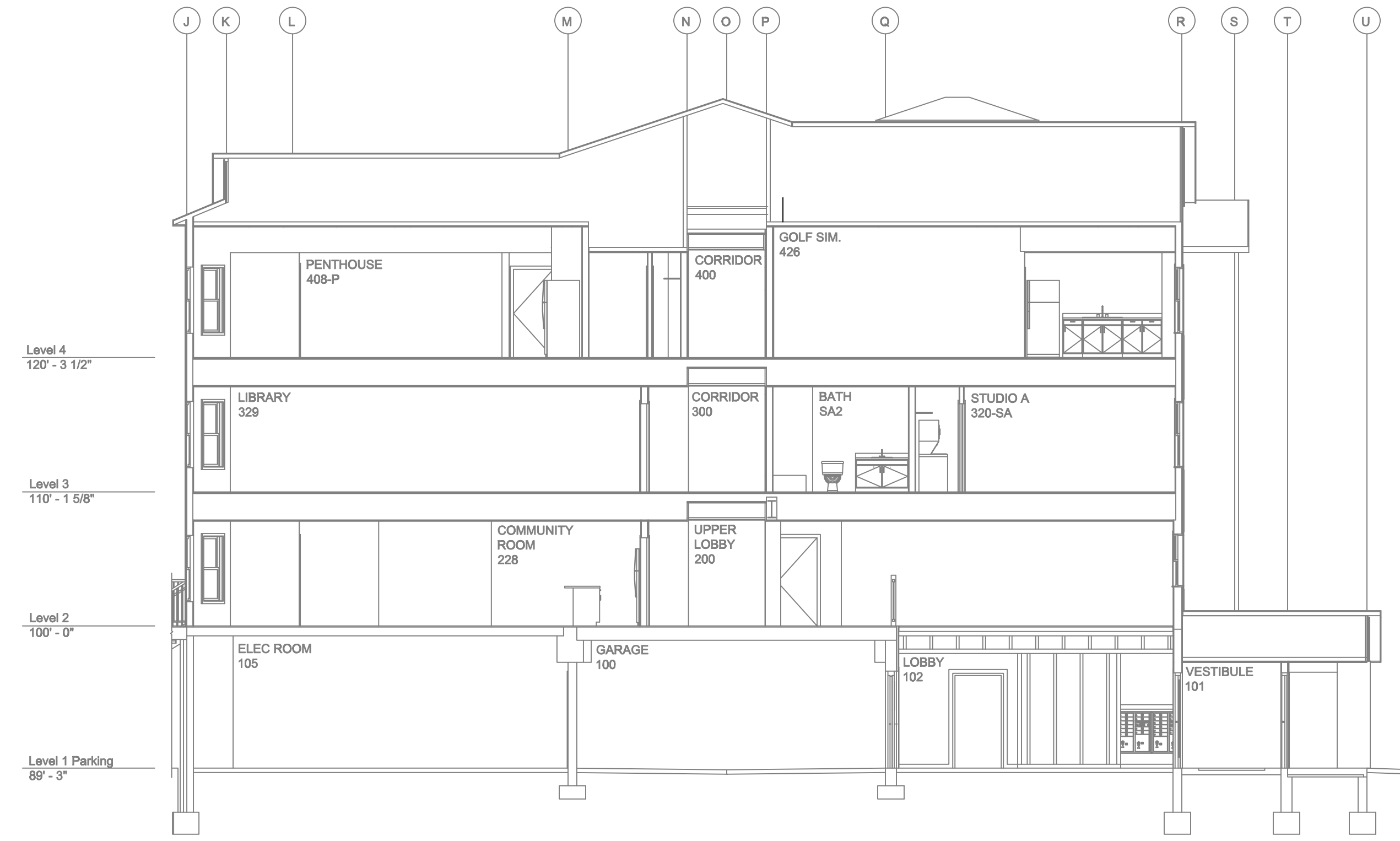
- GENERAL NOTES**
- MINNESOTA STATE BUILDING CODE (2020)
 - OCCUPANCY RESIDENTIAL TYPE R-2 OVER S2; MIXED USE
 - TYPE OF CONSTRUCTION A-A (HIGHER RATED PROTECTED, COMBUSTIBLE CONSTRUCTION)
 - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
 - LEVEL 1 = 28,833 S.F. (ZONE 1)
 - LEVEL 2 = 28,667 S.F. (ZONE 2)
 - LEVEL 3 = 28,667 S.F. (ZONE 3)
 - LEVEL 4 = 28,667 S.F. (ZONE 3)
 - ATTIC = 28,667 S.F. (ZONE 4)
 - TOTAL = 172,168 S.F.
 - INSTALLATION STANDARDS: SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA-14 (2016)
 - SPRINKLER PIPE TYPES:
 - 1" THROUGH 2" MAIN & BRANCH LINES TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS
 - 1" BRANCH LINES TO BE THREADED BLK MEGATHREAD WITH THREADED FITTINGS
 - 2" THROUGH 4" MAIN & BRANCH LINES TO BE BLK MEGALOW PIPING WITH GROOVED FITTINGS
 - DRY & PRE-ACTION:
 - 1" BRANCH LINES TO BE THREADED BLK SCHEDULE 40 WITH THREADED FITTINGS
 - 1/2" THROUGH 6" MAIN & BRANCH LINES TO BE GROOVED BLK SCHEDULE 10 WITH GROOVED FITTINGS
 - DESIGN CRITERIA
 1. RESIDENTIAL ROOMS, CORRIDORS, LOBBYS, AND SIMILAR AREAS DESIGNED TO LIGHT HAZARD DESIGNED TO DELIVER 1.0 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
 2. PARKING GARAGE, MECH ROOMS, STORAGE ROOMS, AND SIMILAR AREAS DESIGNED TO ORDINARY HAZARD GROUP 1
 3. REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 11.2.3.2.3
 - NOTES:
 1. ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
 2. HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016) - SEE PLAN FOR HANGING REQ.
 3. DRY SYSTEM PIPE SLOPE INSTALLATION: SPRINKLER MAINS TO BE 1/4" PER 10 FEET
 4. DRY SYSTEM CAPACITY: 4.4.1. 1087 GAL.
 - SYMBOLS USED ON DRAWINGS:
 - 10' PIPE ELEVATION A.F.F.
 - 6' PIPE ELEVATION BELOW B.O.D.
 - OHM ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
 - E HYDRAULIC CALCULATION JUNCTION POINT
 - 0'-0" CEILING HEIGHT
 - SCOPE OF WORK:
 1. TO INSTALL A COMPLETE 3 WET AND 1 DRY FIRE SPRINKLER SYSTEM TO COVER ALL AREAS OF THE BUILDING IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 14 (2016). STANDPIPES ARE TO BE INSTALLED IN THE TWO STAIRWAYS, WITH A HOSE VALVE ON EACH FLOOR.

PIPE LEGEND

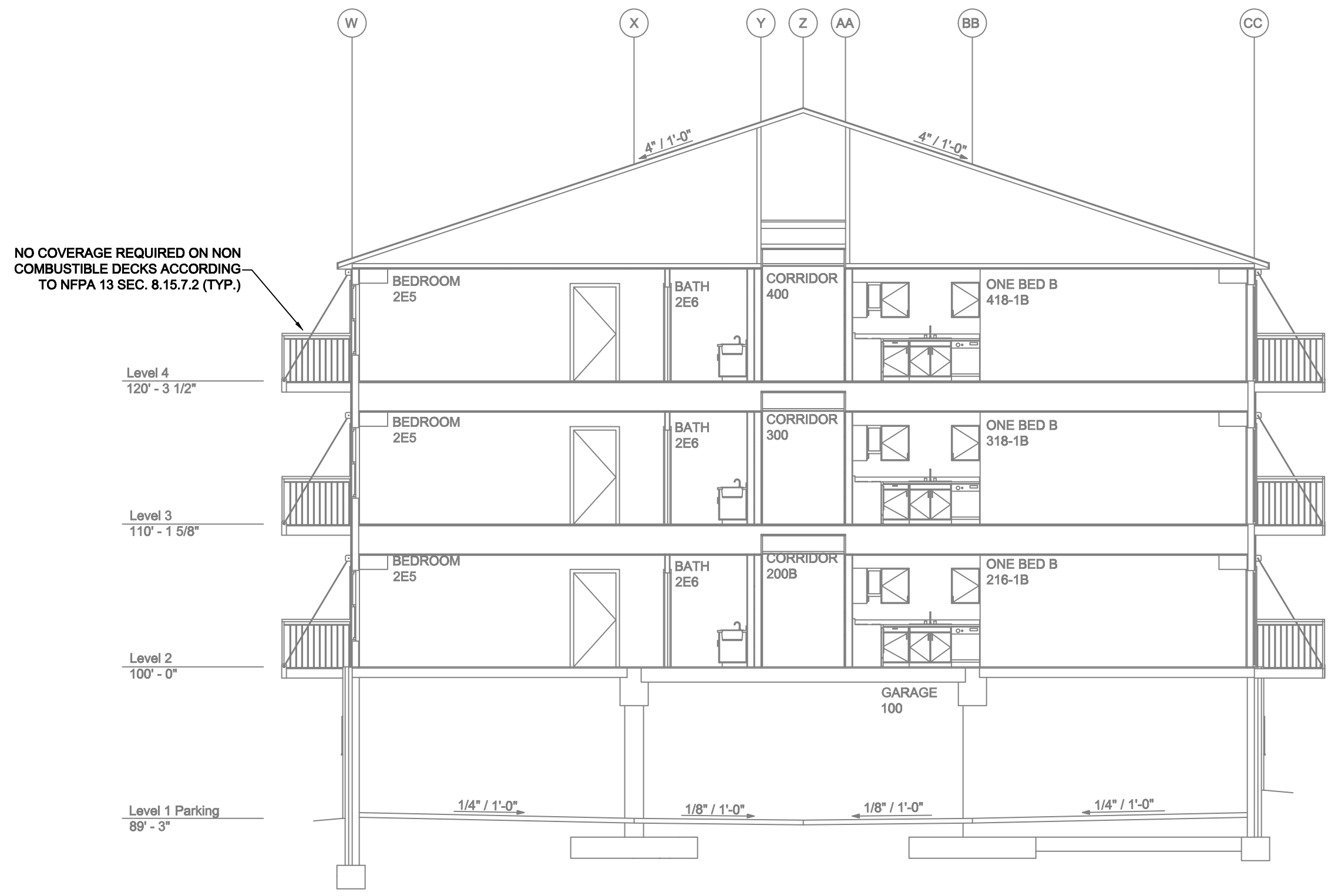
—	BLACK STEEL FIRE SPRINKLER PIPING
—	CPVC FIRE SPRINKLER PIPING
—	FIRE SPRINKLER STANDPIPE PIPING
—	FIRE SPRINKLER FDC PIPING

SPRINKLER HEAD LEGEND

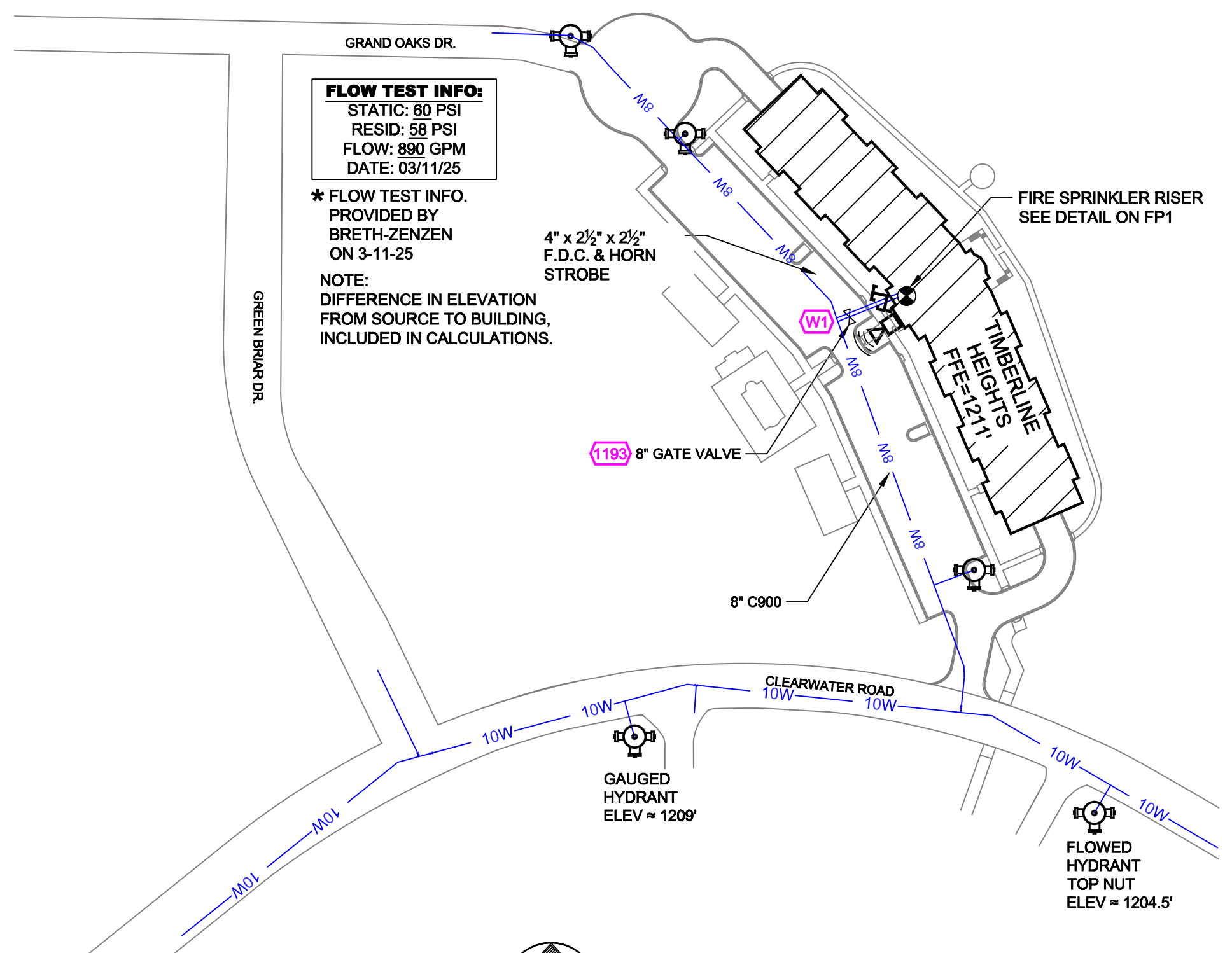
SYM	CNT	POSITION	FINISH	TEMP	K	RPT	SIN	MPS	MODEL#	ES/OUT/CEON	MAX SPACING
○	118	UPRIGHT	BRASS	200	5.60	1/2"	V2703	VICTAULIC	FL-SR	NONE	LH: 225 SF, OH: 150 SF
⊗	42	UPRIGHT	BRASS	200	14.00	3/4"	V3425	VICTAULIC	FL-EOH	NONE	OH: 20x20 FT
⊙	482	PENDENT	WHITE	155	4.90	1/2"	V2740	VICTAULIC	FL-RES	SEMI-RECESS	LH: 16x18 FT
⊙	185	PENDENT	WHITE	200	5.60	1/2"	V2708	VICTAULIC	FL-QR	SEMI-RECESS	LH: 225 SF
◄	210	SIDEWALL	WHITE	155	4.40	1/2"	V4431	VICTAULIC	FL-RES	401	LH: 16x16 FT
◄	57	SIDEWALL	WHITE	200	5.60	1/2"	V2710	VICTAULIC	FL-QRSH	401	LH: 16x16 SF
◄	7	SIDEWALL	WHITE	200	8.00	3/4"	V2416	VICTAULIC	FL-EDLH	401	LH: 200 SF, OH: 200 SF
⊙	4	UPRIGHT	WHITE	200	5.60	1/2"	V2708	VICTAULIC	FL-QR	SEMI-RECESS	LH: 200 SF
◄	5	SIDEWALL	WHITE	205	4.00	1/2"	VK486	VIKING	VK	401	LH: 16x18 FT
⊙	369	UPRIGHT	BRASS	200	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	LH: 120 SF
⊙	5	UPRIGHT	BRASS	200	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	LH: 225 SF
◄	2	SIDEWALL	BRASS	200	11.20	3/4"	TY3332	TYCO	TY	401	OH: 16x18 FT
1488	TOTAL SPR.										



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

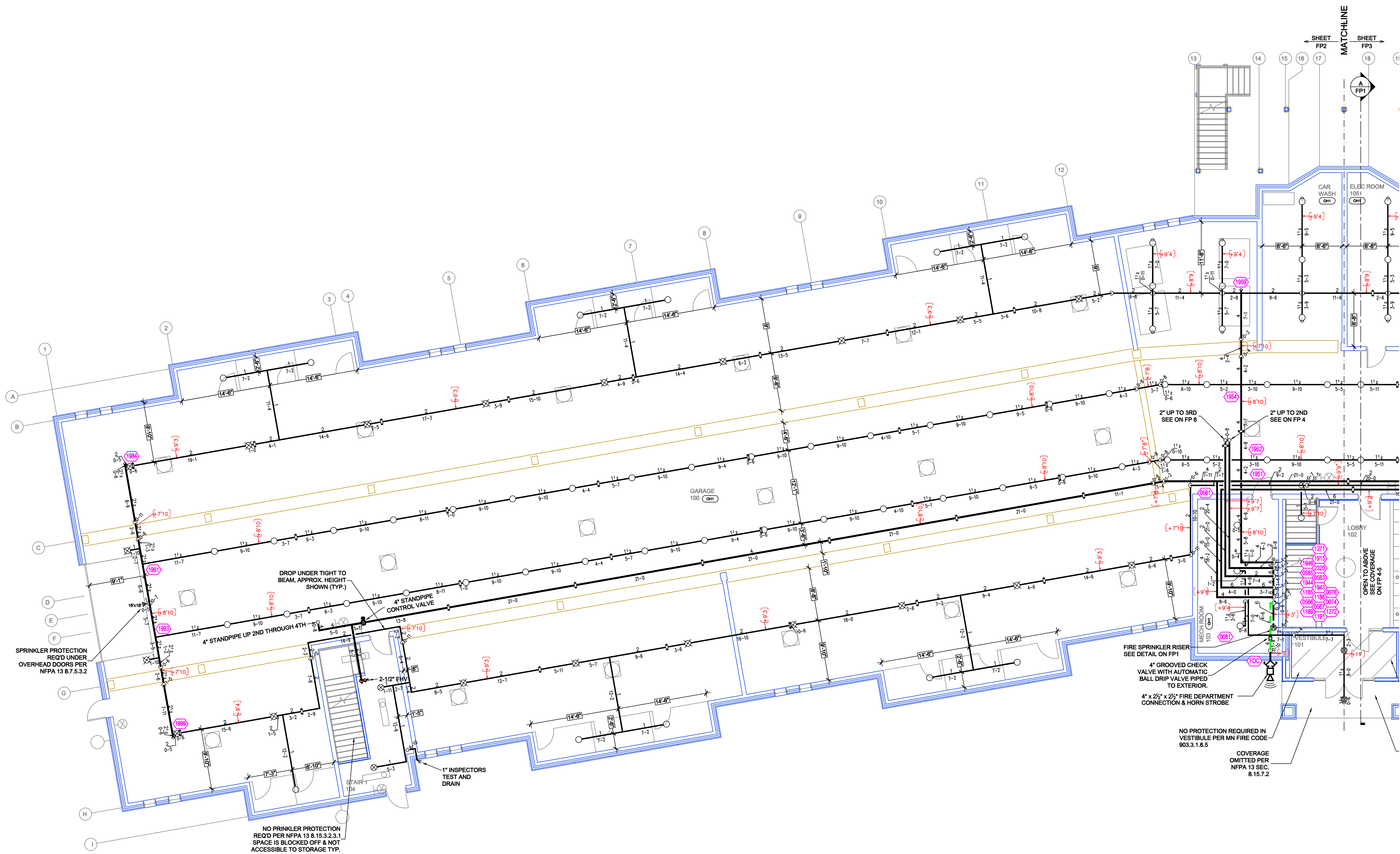


B BUILDING SECTION
SCALE= 1/8" : 1'-0"



SITE PLAN
SCALE: 1" = 100'-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-554(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 SPARE HEAD CABINET w/8 HEADS & 1 HEAD WRENCH HANGERS ARE TO BE U.L. LISTED AND I.M. APPROVED ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER OWNERS 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>TIMBERLINE HEIGHTS</p> <p>7058 Clearwater Road BAXTER, MN 56425</p>	<p>Contract No. C25-15</p> <p>Drawing Date: 10/8/2025</p> <p>Scale: 1/8" = 1'-0"</p> <p>Drawn By: JF</p> <p>Approval By: STATE FIRE MARSHAL DIV.</p> <p>SHEET NO. FP 1 of 8</p>



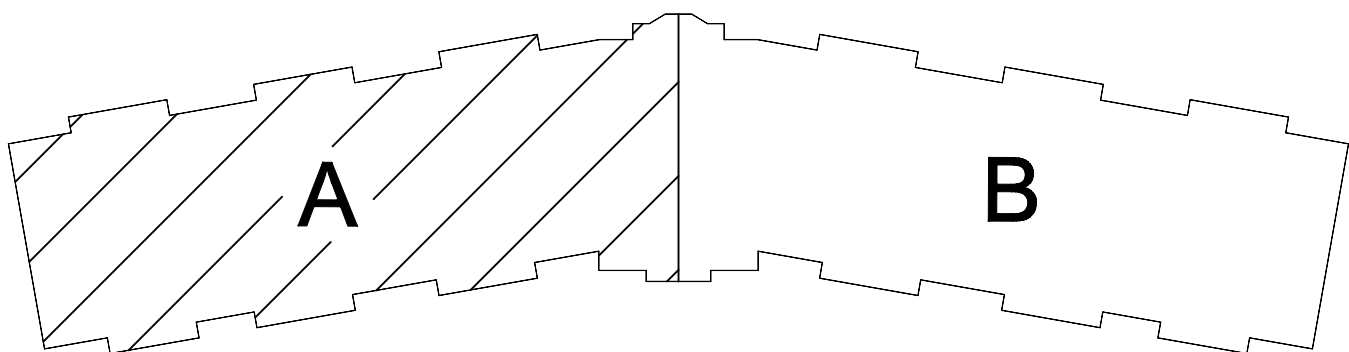
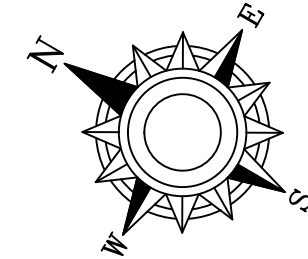
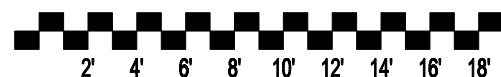
PIPE LEGEND									
— BLACK STEEL FIRE SPRINKLER PIPING									
- - - CPVC FIRE SPRINKLER PIPING									
- - - - - FIRE SPRINKLER STANDPIPE PIPING									
- - - - - FIRE SPRINKLER FDC PIPING									

SPRINKLER HEAD LEGEND

SYM	QTY	POSITION	FINISH	TEMP	K	NPT	SN	MPFS	MODEL	ES/OUTCHECK	MAX SPACING
118	118	UPRIGHT	BRASS	200	5.80	1/2"	V2703	VICTAULIC	FL-GR	NONE	LH: 225 SF, OH: 130 SF
42	42	UPRIGHT	BRASS	200	14.00	3/4"	V3425	VICTAULIC	FL-ECQH	NONE	OH: 20x20 FT
462	462	PENDENT	WHITE	155	4.80	1/2"	V2740	VICTAULIC	FL-RES	SEMI-RECESS	LH: 18x18 FT
165	165	PENDENT	WHITE	200	5.80	1/2"	V2708	VICTAULIC	FL-GR	SEMI-RECESS	LH: 225 SF
210	210	SIDEWALL	WHITE	155	4.40	1/2"	V4451	VICTAULIC	FL-RES	401	LH: 18x18 FT
57	57	SIDEWALL	WHITE	200	5.80	1/2"	V2710	VICTAULIC	FL-GRWH	401	LH: 196 SF
7	7	SIDEWALL	WHITE	200	8.00	3/4"	V3416	VICTAULIC	FL-ECQH	401	LH: 290 SF, OH: 290 SF
4	4	UPRIGHT	WHITE	200	5.80	1/2"	V2708	VICTAULIC	FL-GR	SEMI-RECESS	LH: 290 SF
5	5	SIDEWALL	WHITE	205	4.00	1/2"	VK488	VIKING	VK	401	LH: 18x18 FT
389	389	UPRIGHT	BRASS	200	5.80	1/2"	V2704	VICTAULIC	FL-GR	NONE	LH: 120 SF
3	3	UPRIGHT	BRASS	200	5.80	1/2"	V2704	VICTAULIC	FL-GR	NONE	LH: 225 SF
2	2	SIDEWALL	BRASS	200	11.20	3/4"	TY332	TYCO	TY	401	OH: 18x18 FT
1446 TOTAL SPK.											

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

KEY PLAN

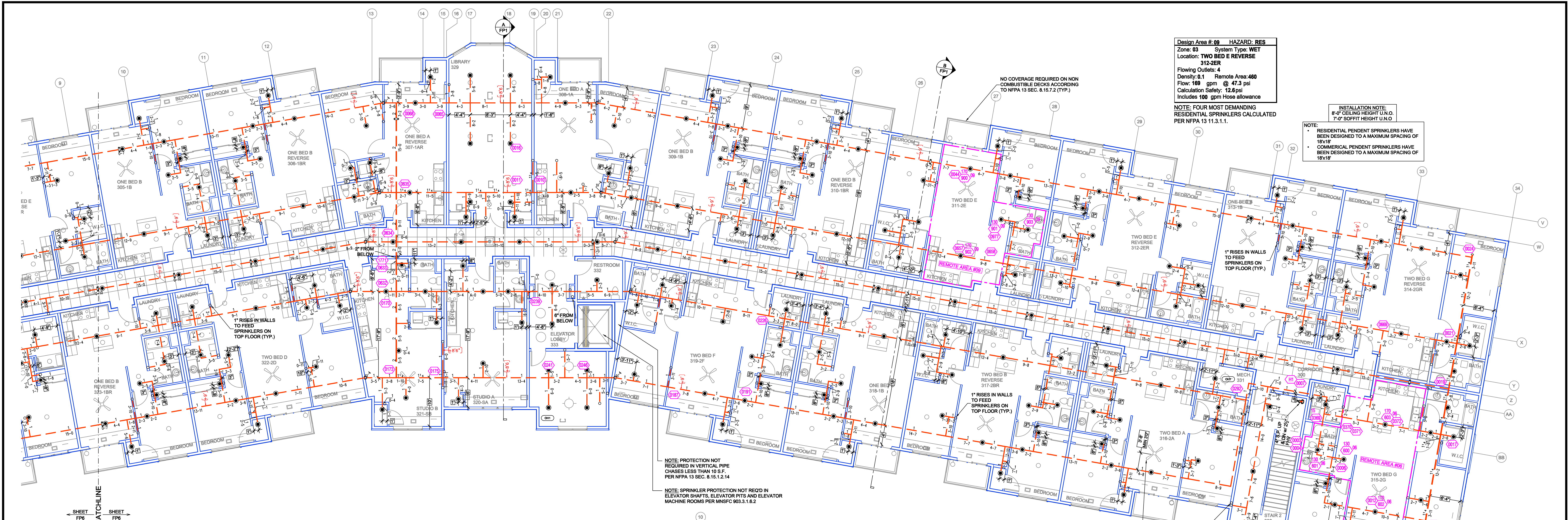


GENERAL NOTES

1. SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL.
2. ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED.
3. MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE.
4. ALL SCH-10 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS.
5. ALL WELDING PER NFPA-514 (2015).
6. NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS.
7. ALL DIMENSIONS SHOWN ARE CENTER TO CENTER.
8. HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED.
9. PROVIDE ON SPARE HEAD CABINET W/8 HEADS & 1 HEAD WRENCH.
10. HANGERS ARE TO BE U.L. LISTED AND I.M. APPROVED.
11. ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER.
12. OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING.

NO	REVISIONS	DATE	APPROVAL STAMPS

Drawing Title: FIRE PROTECTION PLAN	Contract No. C25-15
	Drawing Date: 10/8/2025 Scale: 1/8" = 1'-0" Drawn By: JF Approval By: STATE FIRE MARSHAL DIV. SHEET NO. FP 2 of 8
TIMBERLINE HEIGHTS 7058 Clearwater Road BAXTER, MN 56425	



Design Area # 09 HAZARD: RES
Zone: 03 System Type: WET
Location: TWO BED E REVERSE
312-2ER
Flowing Outlets: 4
Density: 0.1 Remote Area: 460
Flow: 169 gpm @ 47.3 psi
Calculation Safety: 12.6 psi
Includes 100 gpm hose allowance

NOTE: FOUR MOST DEMANDING
RESIDENTIAL SPRINKLERS CALCULATED
PER NFPA 13 11.3.1.1.

INSTALLATION NOTE:
8'-0" CEILING HEIGHT U.N.O.
7'-0" SOFFIT HEIGHT U.N.O.

NOTE:
RESIDENTIAL PENDENT SPRINKLERS HAVE
BEEN DESIGNED TO A MAXIMUM SPACING OF
18'-10"
COMMERCIAL PENDENT SPRINKLERS HAVE
BEEN DESIGNED TO A MAXIMUM SPACING OF
18'-10"

NOTE: PROTECTION NOT
REQUIRED IN VERTICAL PIPE
CHASES LESS THAN 10 S.F.
PER NFPA 13 SEC. 8.15.7.2 (TYP.)

NOTE: SPRINKLER PROTECTION NOT REQUIRED IN
ELEVATOR SHAFTS, ELEVATOR PITS AND ELEVATOR
MACHINE ROOMS PER MNFSC 903.3.1.6.2

NO COVERAGE REQUIRED ON NON
COMBUSTIBLE DECKS ACCORDING
TO NFPA 13 SEC. 8.15.7.2 (TYP.)

PENDENTS REQUIRED TO BE
3'-0" AWAY FROM CENTER OF
SPRINKLER TO EDGE OF
OBSTRUCTION (TYP. IN UNITS)

LEVEL 3-B FIRE SPRINKLER PLAN

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

INSTALLATION NOTE:
8'-0" CEILING HEIGHT U.N.O.
7'-0" SOFFIT HEIGHT U.N.O.

NOTE:
RESIDENTIAL PENDENT SPRINKLERS HAVE
BEEN DESIGNED TO A MAXIMUM SPACING OF
18'-10"
COMMERCIAL PENDENT SPRINKLERS HAVE
BEEN DESIGNED TO A MAXIMUM SPACING OF
18'-10"

Design Area # 06 HAZARD: RES
Zone: 03 System Type: WET
Location: TWO BED G REVERSE
326-2GR
Flowing Outlets: 4
Density: 0.1 Remote Area: 389
Flow: 169 gpm @ 45.8 psi
Calculation Safety: 14.1 psi
Includes 100 gpm hose allowance

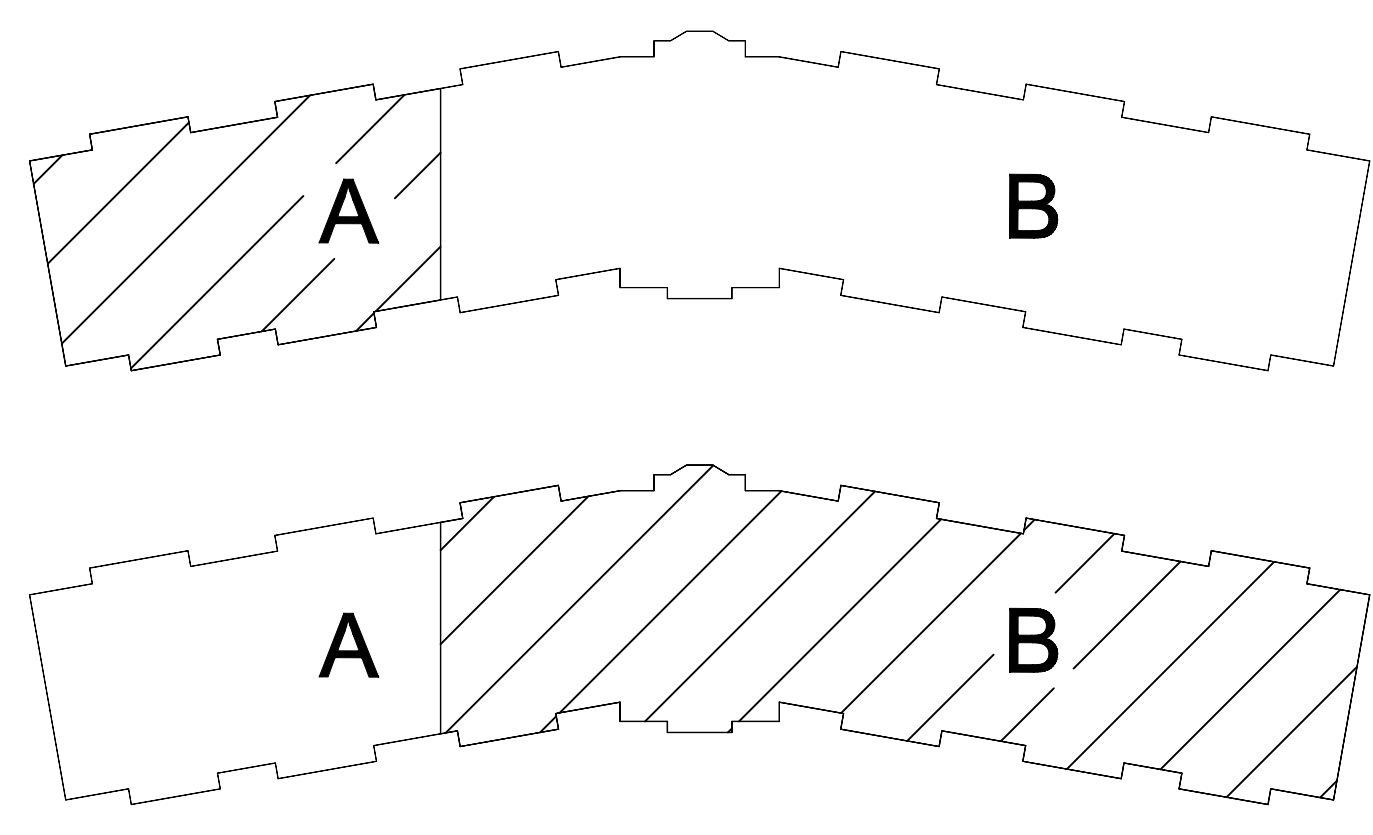
NOTE: FOUR MOST DEMANDING
RESIDENTIAL SPRINKLERS CALCULATED
PER NFPA 13 11.3.1.1.

PIPE LEGEND	
—	BLACK STEEL FIRE SPRINKLER PIPING
---	CPVC FIRE SPRINKLER PIPING
- - -	FIRE SPRINKLER STANDPIPE PIPING
---	FIRE SPRINKLER FDC PIPING

SPRINKLER HEAD LEGEND

NO	SYMBOL	TYPE	SIZE	LENGTH	MANUFACTURER	MODEL	SPACING	HEIGHT	REMARKS	
118	UPRIGHT	BRASS	200	5.60	1/2"	V2703	VICTAULIC	FL-SR	NONE	LH: 225 SF, OH: 130 SF
42	UPRIGHT	BRASS	200	14.00	3/4"	V3425	VICTAULIC	FL-ECH	NONE	OH: 20x20 FT
462	PENDENT	WHITE	155	4.80	1/2"	V2740	VICTAULIC	FL-RES	SEMI-RECESS	LH: 16x16 FT
155	PENDENT	WHITE	200	5.60	1/2"	V2708	VICTAULIC	FL-QR	SEMI-RECESS	LH: 225 SF
210	SIDEWALL	WHITE	155	4.40	1/2"	V4431	VICTAULIC	FL-RES	401	LH: 16x16 FT
57	SIDEWALL	WHITE	200	5.60	1/2"	V2710	VICTAULIC	FL-QRSW	401	LH: 196 SF
7	SIDEWALL	WHITE	200	8.00	3/4"	V3416	VICTAULIC	FL-ECH	401	LH: 290 SF, OH: 290 SF
4	UPRIGHT	WHITE	200	5.60	1/2"	V2708	VICTAULIC	FL-QR	SEMI-RECESS	LH: 290 SF
5	SIDEWALL	WHITE	200	4.00	1/2"	V4488	VICTAULIC	FL-QR	401	LH: 16x16 FT
389	UPRIGHT	BRASS	200	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	LH: 120 SF
5	UPRIGHT	BRASS	200	5.60	1/2"	V2704	VICTAULIC	FL-QR	NONE	LH: 225 SF
2	SIDEWALL	BRASS	200	11.20	3/4"	TY3332	TYCO	TY	401	OH: 16x16 FT
1448	TOTAL SPRK									

KEY PLAN



LEVEL 3-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 (2015)
- 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 SPARE HEAD CABINET w/ HEADS & HEAD WRENCH
- HANDERS ARE TO BE U.L. LISTED AND I.A.I. 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

Drawing Title: FIRE PROTECTION PLAN

TIMBERLINE HEIGHTS

7058 Clearwater Road
BAXTER, MN 56425

Contract No.
C25-15

Drawing Date: 10/8/2025
Scale: 1/8" = 1'-0"
Drawn By: JF
Approval By: STATE FIRE MARSHAL DIV.
SHEET NO. FP 6 of 8

