FIRE PROTECTION PLANS

F. E. Moran, Inc. Fire Protection 3001 Research Rd Champaign, IL 61822 (217) 356-0700 MISSOURI COA: E-2022012018

SCOPE OF WORK

SCOPE OF WORK:

** FURNISH & INSTALL 7 NEW WET PIPE ESFR SPRINKLER SYSTEMS FOR THE NEW

** FURNISH & INSTALL A NEW 1500 GPM FIRE PUMP WITH ACCESSORIES ** POINT OF CONNECTION (START OF CONTRACT) IS AT AN 10" FLANGE, 12" ABOVE THE

FINISHED FLOOR IN THE FIRE PUMP ROOM. ** TRAPEZE HANGERS FOR ALL 8" AND LARGER PIPES HANGING PARALLEL WITH THE BAR JOIST.

** INSTALL CLASS I. MAN-DOOR ADJACENT, HOSE CONNECTIONS

NOT INCLUDED:

** WIRING OF ELECTRICAL DEVICES ** ELECTRICAL WIRING BETWEEN FIRE PUMP AND CONTROLLER

** FIRE EXTINGUISHERS

** STANDPIPES ** FIRE PUMP CONTROLLER AUTO TRANSFER SWITCH

** ALL UNDERGROUND PIPING AND TESTING

** BACKFLOW PREVENTER (IN PIT BY OTHERS) ** COLUMN SPRINKLERS

** SEISMIC BRACING ** PAINTED PIPING

** CONCRETE PADS ** COMPONENT IDENTIFICATION BEYOND NFPA 13 REQUIREMENTS

** ACCESS PANELS ** CUTTING AND PATCHING

** PIPE SLEEVES & BOLLARDS

CODE INFORMATION

CODE INFORMATION:

**NFPA 13, 2016 EDITION: INSTALLATION OF SPRINKLER SYSTEMS **NFPA 20, 2016 EDITION: INSTALLATION OF CENTRIFUGAL FIRE PUMPS **INTERNATIONAL BUILDING & FIRE CODE, 2018 EDITION

BUILDING INFO:

IBC OCCUPANCY CLASSIFICATION: S-1 IBC CONSTRUCTION TYPE: II-B

IBC SEISMIC DESIGN CATEGORY: B

HIGHEST FLOOR ELEVATION FROM FIRE DEPARTMENT VEHICLE ACCESS: GRADE NUMBER OF STORIES: 1

BUILDING AREA: 253,278 ft²

GENERAL REQUIREMENTS

** SUPPLY A SPARE SPRINKLER CABINET WITH WRENCH FOR EACH SPRINKLER TYPE AS **REQUIRED BY NFPA 13.** ** IDENTIFY ALL HYDRAULICALLY CALCULATED SYSTEMS WITH A PERMANENTLY MARKED

AND WEATHERPROOF SIGN. ** ALL NEW PIPING OR PIPING MODIFICATIONS WHICH AFFECT MORE THAN 20 SPRINKLERS SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR 50 PSI OVER THE SYSTEM WORKING PRESSURE. THE SYSTEM SHALL MAINTAIN THIS PRESSURE WITHOUT

LOSS FOR 2 HOURS. ** ** ALL NEW PIPING OR PIPING MODIFICATIONS WHICH AFFECT 20 SPRINKLERS OR LESS, SHALL BE TESTED AT THE SYSTEM WORKING PRESSURE.

** ALL PIPING MODIFICATIONS WHICH CANNOT BE ISOLATED FROM THE EXISTING SYSTEM, SHALL BE TESTED AT THE SYSTEM WORKING PRESSURE. ** THE LOCAL FIRE/BUILDING INSPECTOR IS TO BE NOTIFIED 48 HOURS IN ADVANCE OF

ALL TESTING. **UNDERGROUND TESTING AND FLUSHING:**

** ALL UNDERGROUND PIPE SHALL BE TESTED AND FLUSHED BY THE INSTALLING CONTRACTOR AS REQUIRED BY NFPA 24 BEFORE ANY OVERHEAD SPRINKLER PIPING IS

VALVES

** ALL VALVES CONTROLLING WATER FLOW TO SPRINKLERS SHALL BE INDICATING &

** ALL VALVES SHALL BE ACCESSIBLE AT ALL TIMES AND PERMANENTLY IDENTIFIED. ** THE IDENTIFICATION OF CONTROL VALVES SHALL INCLUDE A DESCRIPTION OR DIAGRAM OF WHAT THEY CONTROL.

** ALL TRAPPED PORTIONS OF SPRINKLER PIPING SHALL BE PROVIDED WITH A LOW POINT DRAIN AS REQUIRED BY NFPA 13.

PIPE HANGERS

** 1"-8" HANGER RINGS ARE TO BE ADJUSTABLE SWIVEL RINGS, ZINC PLATED, MANUFACTURED TO ANSI/MSS SP-69 STANDARDS. ** HANGER ROD SIZES AND LOCATIONS ARE TO BE AS REQUIRED BY NFPA 13.

DRAWING INDEX

FP 0.0-GENERAL INFORMATION FP 0.1-DETAILS FP 1.0-HYDRAULIC SITE PLAN FP 2.0-OVERHEAD PIPING PLAN & SECTION VIEW FP 2.1-SYSTEM 1 WEST

FP 2.3-SYSTEM 2 WEST FP 2.4-SYSTEM 2 EAST FP 2.5-SYSTEMS 3-4 WEST

FP 2.2-SYSTEM 1 EAST

FP 2.6-SYSTEMS 3-4 EAST FP 2.7-SYSTEM 5 FP 2.9-SYSTEM 6 WEST

FP 2.10-SYSTEM 6 EAST FP 2.11-SYSTEM 7 WEST FP2.12-SYSTEM 7 EAST FP 3.0-FIRE PUMP DETAILS

WET SYSTEM PIPE & FITTINGS

WET-PIPE SPRINKLER SYSTEM BLACK PIPE:

11/4 4" & SMALLER PIPING SHALL BE BLACK STEEL SCH. 7 PIPE, MANUFACTURED TO **ASTM A795 STANDARDS.

** 6" & GREATER PIPING SHALL BE BLACK STEEL SCH. 10 PIPE, MANUFACTURED TO ASTM

**1" LINE PIPING SHALL BE BLACK STEEL SCH. 40

USE UP TO 175 PSI WORKING PRESSURE.

WET-PIPE SPRINKLER SYSTEM BLACK OUTLETS & FITTINGS:

** 1" BRANCH LINE FITTINGS SHALL BE BLACK DUCTILE IRON THREADED, CLASS 125 STANDARD, MANUFACTURED PER ANSI/ASME B16.4, U.L. LISTED FOR FIRE PROTECTION USE UP TO 175 PSI WORKING PRESSURE. ** 1¼"-3" BRANCH LINE FITTINGS SHALL BE BLACK DUCTILE IRON GROOVED, CLASS 150 STANDARD, MANUFACTURED PER ANSI/ASME B16.3, U.L. LISTED FOR FIRE PROTECTION

** 11/4" - 3" BRANCH LINE PIPE OUTLETS TO BE WELDED MANUFACTURED TO ASTM A53 & ANSI B1.20.1 STANDARDS.

** 4"-8" MAIN PIPE BRANCH OUTLETS TO BE WELDED MANUFACTURED TO ASTM A53 & ANSI B1.20.1 STANDARDS. ** 4"-8" MAIN PIPE BRANCH OUTLETS TO BE DUCTILE IRON MECHANICAL MANUFACTURED

DESIGN CRITERIA - ESFR (16.8 k)

SPRINKLER SYSTEM DESIGN CRITERIA (ESFR)-PALLETIZED/SOLID-PILE/RACK STORAGE:

FROM NFPA 13, 2016 EDITION TABLE 16.3.3.1 & TABLE 17.3.3.1 COMMODITY CLASSIFICATION: CLASS I, II, III OR IV, ENCAPSULATED OR UNENCAPSULATED, NO OPEN TOP CONTAINERS STORAGE ARRANGEMENT: PALLETIZED/SOLID-PILE/SINGLE, DOUBLE & MULTIPLE ROW

RACKS WITH NO SOLID SHELVING CONSTRUCTION TYPE: ALL TYPES **MAXIMUM STORAGE HEIGHT: 35 FEET** MAXIMUM CEILING/ROOF HEIGHT: 40 FEET

MINIMUM CLEARANCE FROM SPRINKLER DEFLECTOR TO TOP OF STORAGE: 36 INCHES SPRINKLER TYPE: ESFR (EARLY SUPPRESSION FAST-RESPONSE)

SPRINKLER K-FACTOR: 16.8 SPRINKLER TEMPERATURE RATING: 205°F SPRINKLER ORIENTATION: PENDENT

MAXIMUM SPRINKLER DEFLECTOR DISTANCE BELOW CEILING: 14 INCHES MINIMUM SPRINKLER DEFLECTOR DISTANCE BELOW CEILING: 6 INCHES MAXIMUM SPRINKLER SPACING/AREA: 10 FEET/100 ft²

MINIMUM SPRINKLER SPACING: 8 FEET/64 ft² TYPE OF SYSTEM: WET NUMBER OF DESIGN SPRINKLERS: 12 MINIMUM SPRINKLER OPERATING PRESSURE: 52 PSI

INSIDE HOSE STREAM ALLOWANCE: 0 GPM **OUTSIDE HOSE STREAM ALLOWANCE: 250 GPM** TOTAL HOSE STREAM ALLOWANCE: 250 GPM IN-RACK SPRINKLERS: NO

SYSTEMS SHALL BE WET ONLY.

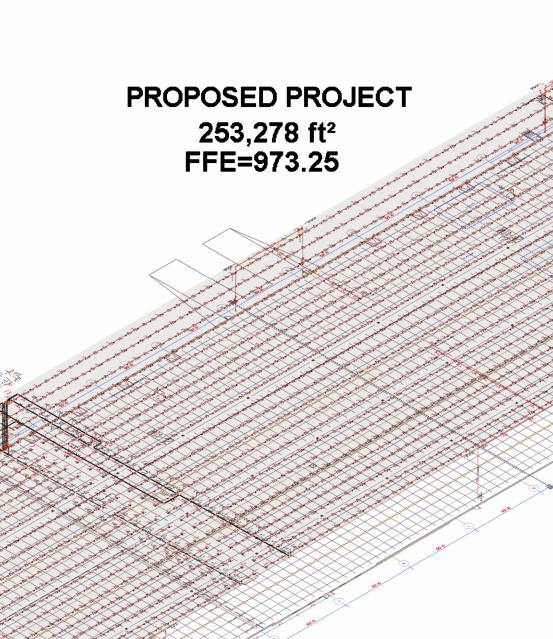
ROOF OR CEILING SLOPES SHALL NOT EXCEED A PITCH OF 2:12.

WHERE ROOF OR CEILING HEIGHTS ARE 30' OR LESS, ESFR SPRINKLERS MAY BE SPACED

TOTAL SYSTEM SIZE SHALL NOT EXCEED 40,000 ft² COMBINED HIGH PILED/RACK STORAGE & LIGHT/ORDINARY HAZARD SYSTEMS MAY COVER UP TO

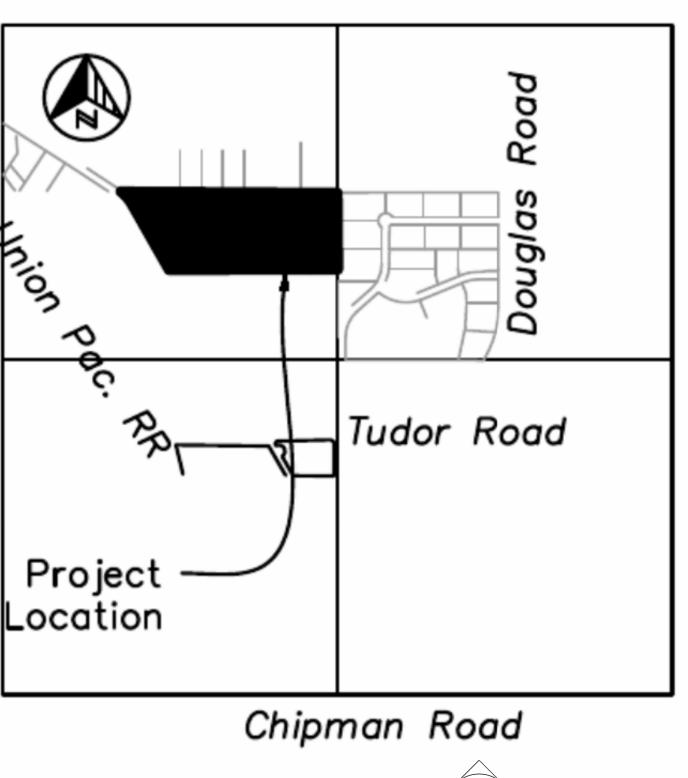
RELEASED FOR CONSTRUCTION As Noted on Plan Review

> **Lee's Summit Fire Department** Lee's Summit, Missouri







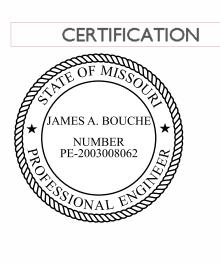












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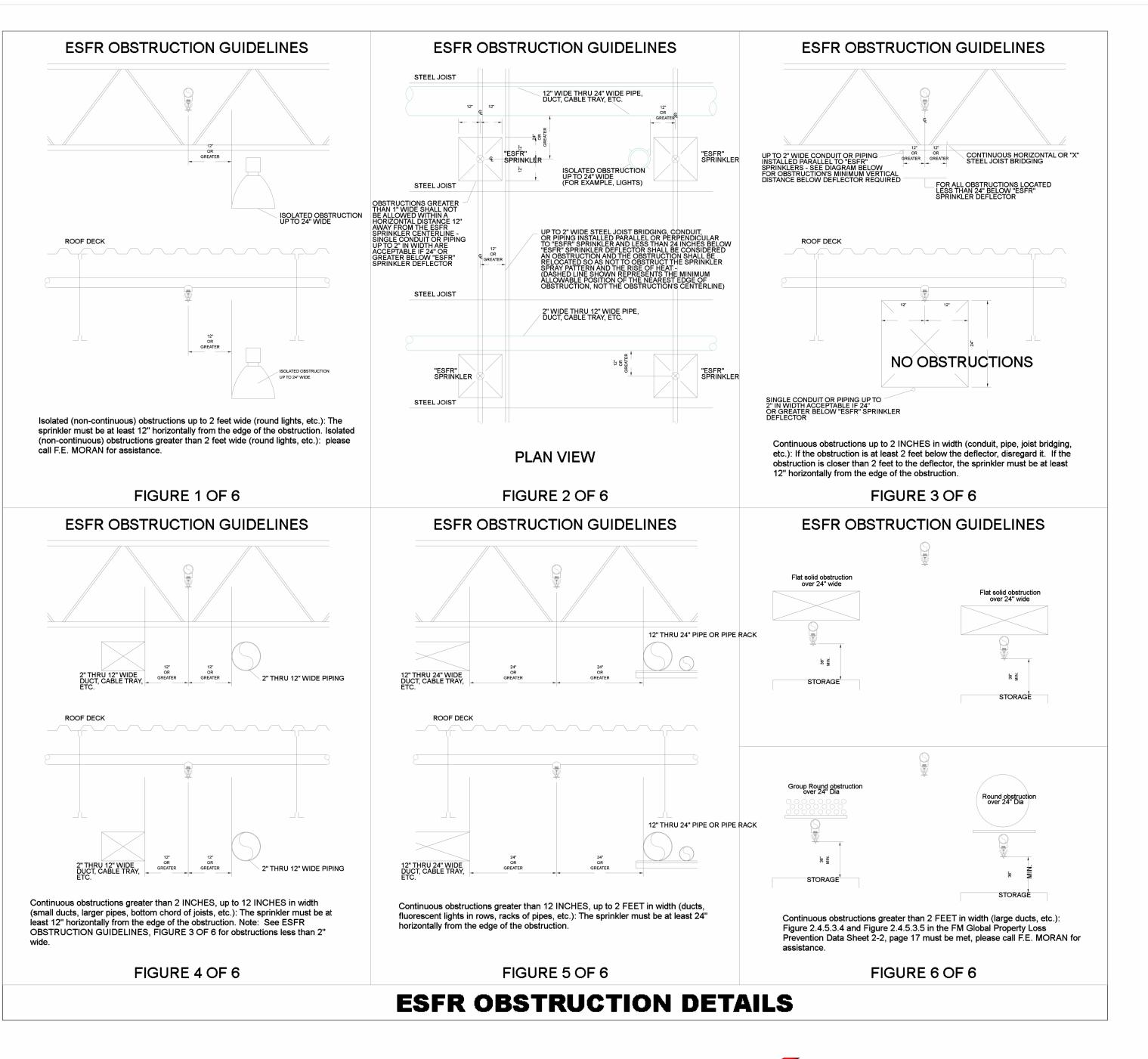
PROJECT INFORMATION LEE'S SUMMIT LOGISTICS BUILDING C LOT 2 NW CORNER OF

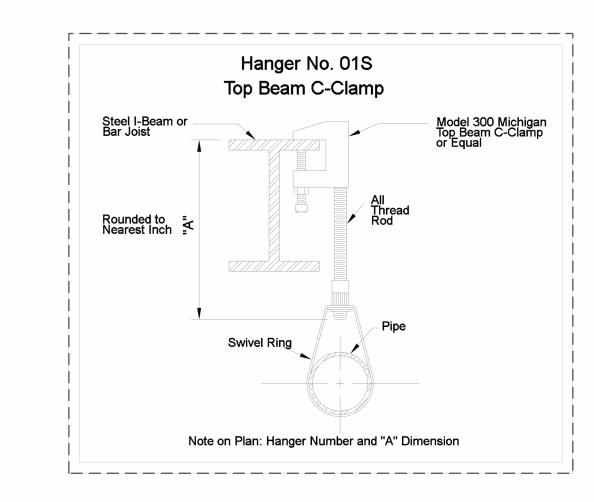
> **NE TUDOR RD & MAIN ST** LEE'S SUMMIT, MO 64086

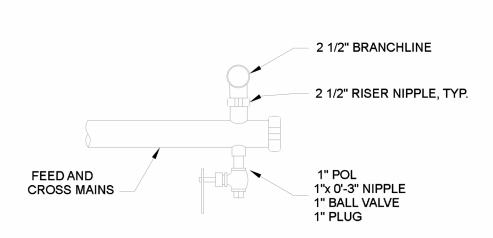
	ISSUE DATES	
Ì	PERMIT SET	8-11-22
1_F	REVISION #I - UNDERGROUND CHANGE	3-10-23
2 F	REVISION #2 - L.S. PLAN REVIEW COMMEN	TS 4-4-24

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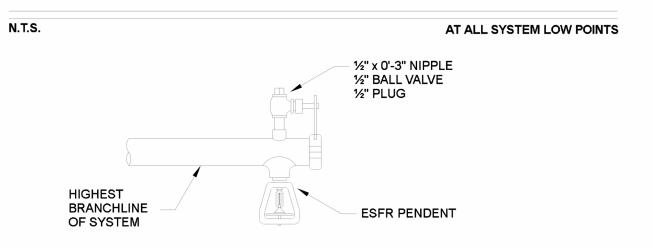
FP 0.0







TYPICAL DRAIN DETAIL



MANUAL AIR VENT DETAIL

N.T.S. AT ALL SYSTEM HIGH POINTS - NFPA 13, 2016 AND LATER EDITIONS

			Р	IPE S	ZE TA	BLE					
NOMINAL	s	CHEDUL	E 40	;	SCHEDUL	-E 10	ı	EDDYFLOW			
PIPE SIZE	O.D.	I.D.	WALL THICKNESS	O.D.	I.D.	WALL THICKNESS	O.D.	I.D.	WALL THICKNESS		
1	1.315	1.049	.133	1.315	1.097	.109	1.315	1.191	.062		
11/4	1.660	1.380	.140	1.660	1.442	.109	1.660	1.536	.062		
11/2	1.900	1.610	.145	1.900	1.682	.109	1.900	1.728	.086		
2	2.375	2.067	.154	2.375	2.157	.109	2.375	2.203	.086		
21/2	2.875	2.469	.203	2.875	2.635	.120	2.875	2.703	.086		
3	3.500	3.068	.216	3.500	3.260	.120	3.500	3.314	.093		
4	4.500	4.026	.237	4.500	4.260	.120	4.500	4.310	.095		
5	5.563	5.047	.258	5.563	5.295	.134					
6	6.625	6.065	.280	6.625	6.357	.134					
8	8.625	7.981	.322	8.625	8.249	.188					
10	10.750	10.020	.365	10.750	10.370	.188					

HANGER INSTALLATION REQUIREMENTS

	MA	XIMUM DI	STANCE E	BETWEEN	HANGERS			4" - 8"
NOMINAL PIPE SIZE	3/4"	1"	1-1/4"	1-1/2"	2''	2-1/2"	3"	N/A

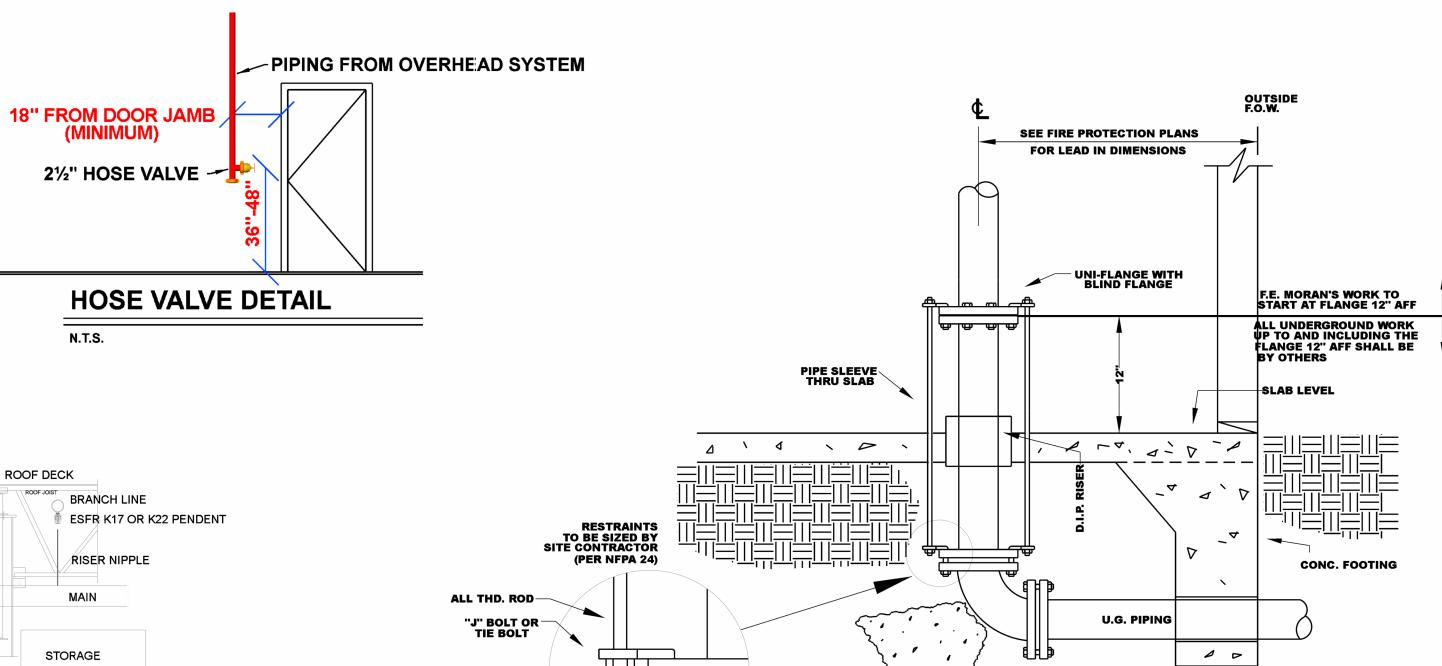
THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER
ON THE LINE SHALL NOT EXCEED 36" FOR 1" PIPE, 48" FOR 1 1/4" PIPE AND 60" FOR 1 1/2" PIPE OR LARGER
THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARMOVER TO A SPRINKLER,

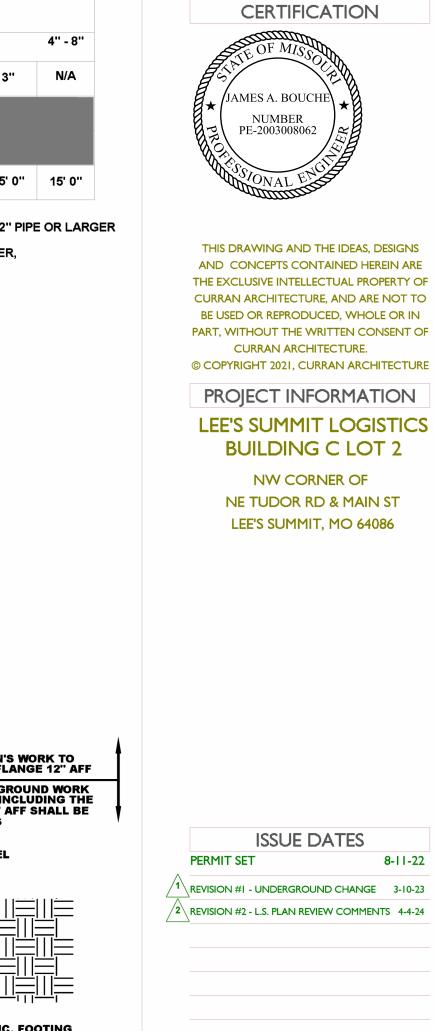
100 PSI STATIC PRESSURE ON SYSTEM REQUIRES UP-LIFT RESTRAINT WITHIN 12 INCHES HORIZONTALLY OF HEAD FOR ARM-OVERS AND END OF BRANCH LINE

THRUST BLOCK

TO BE SIZED BY SITE CONTRACTOR (PER NFPA 24)

SPRINKLER DROP, OR SPRIG-UP SHALL NOT EXCEED 24"





F.E. MORAN

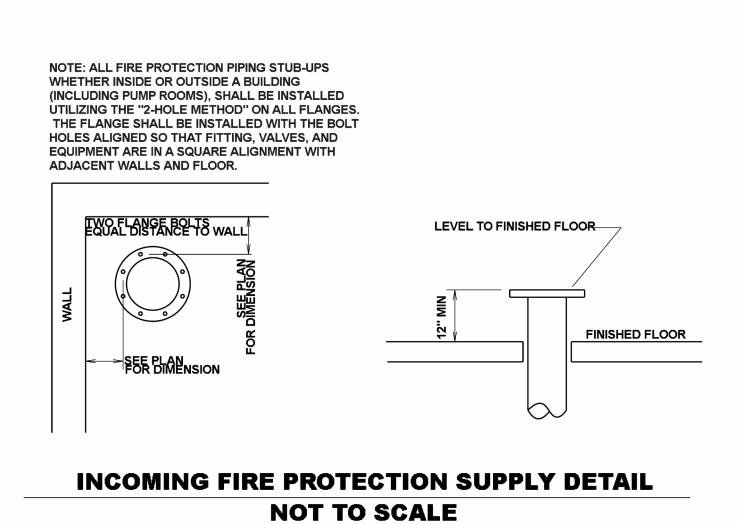
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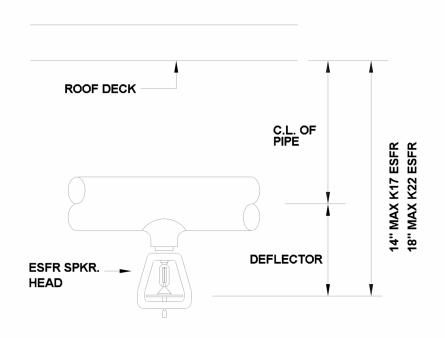
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ESFR PENDENT DETAIL

N.T.S.

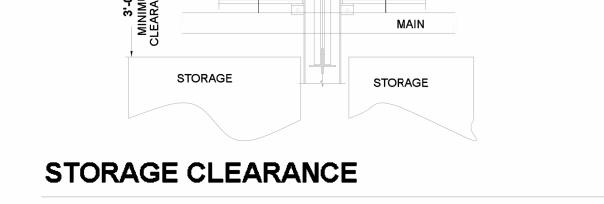


- OVERHEAD BRANCHLINE

UNDER HVAC UNIT SPRINKLER PROTECTION DETAIL

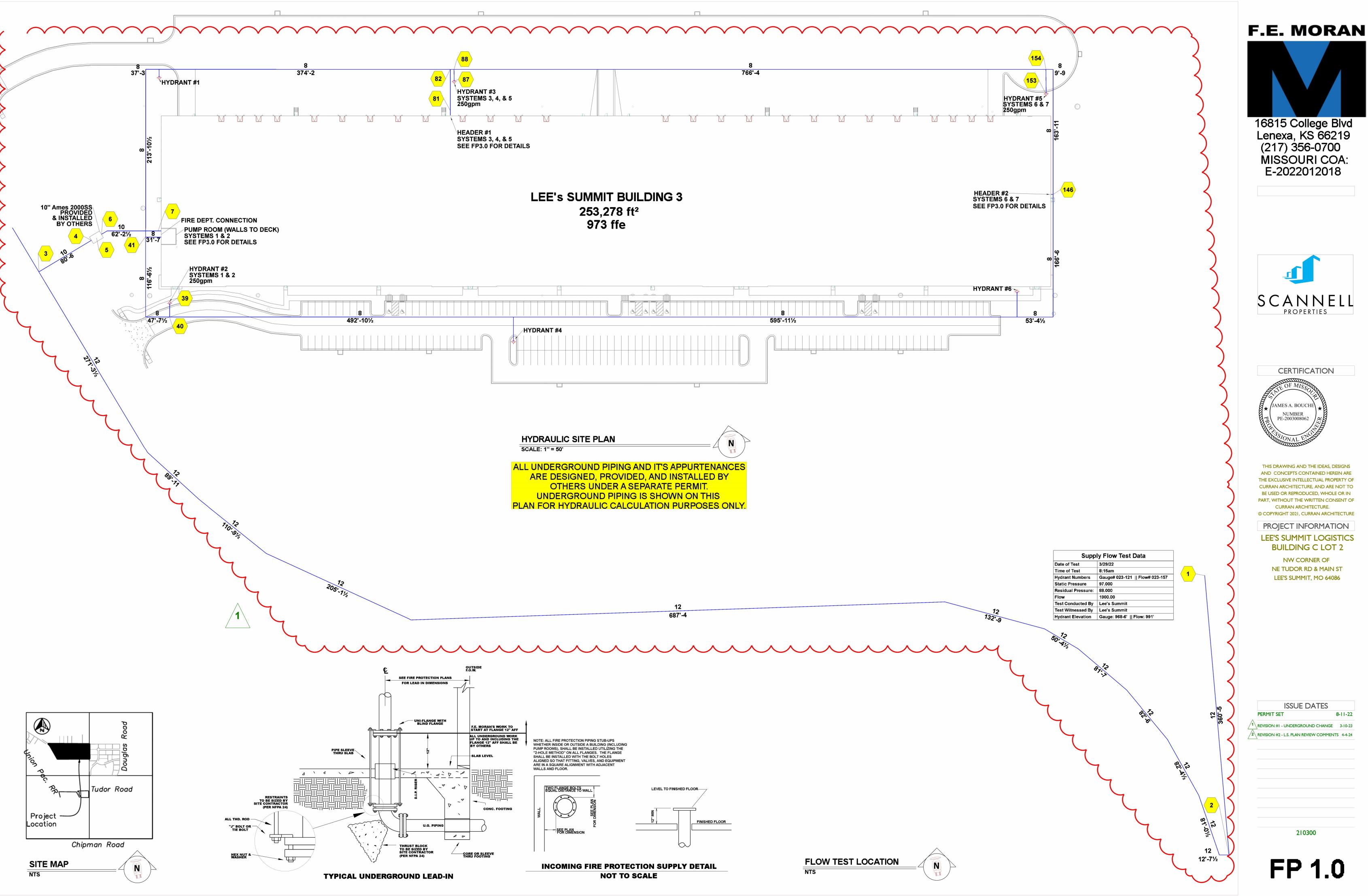
- DROP BELOW MAU

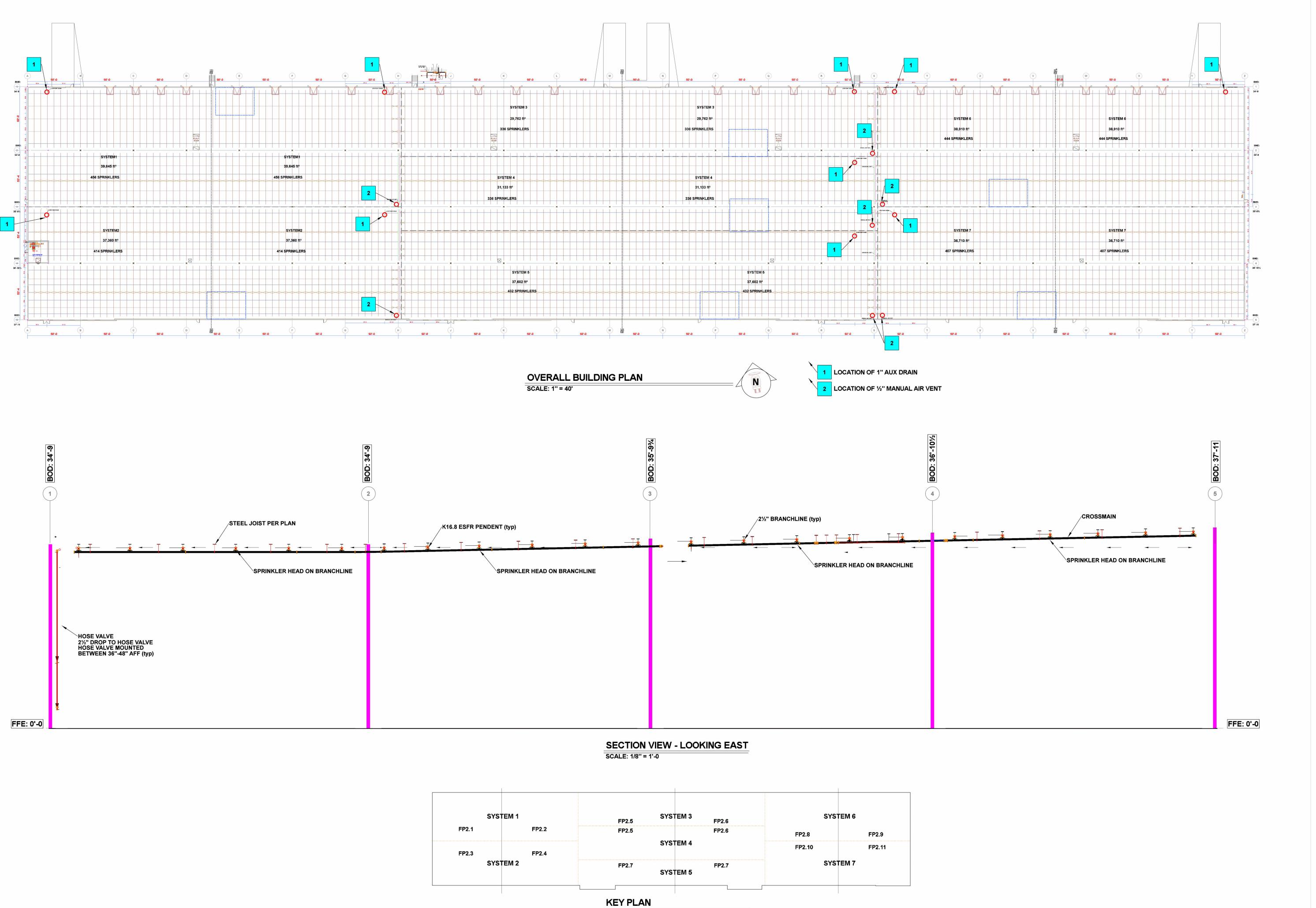
- UNDER MAU SPRINKLER (K16.8)



HEAD DEFLECTOR BELOW

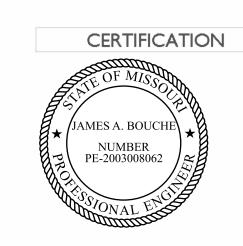






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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS
BUILDING C LOT 2

NW CORNER OF

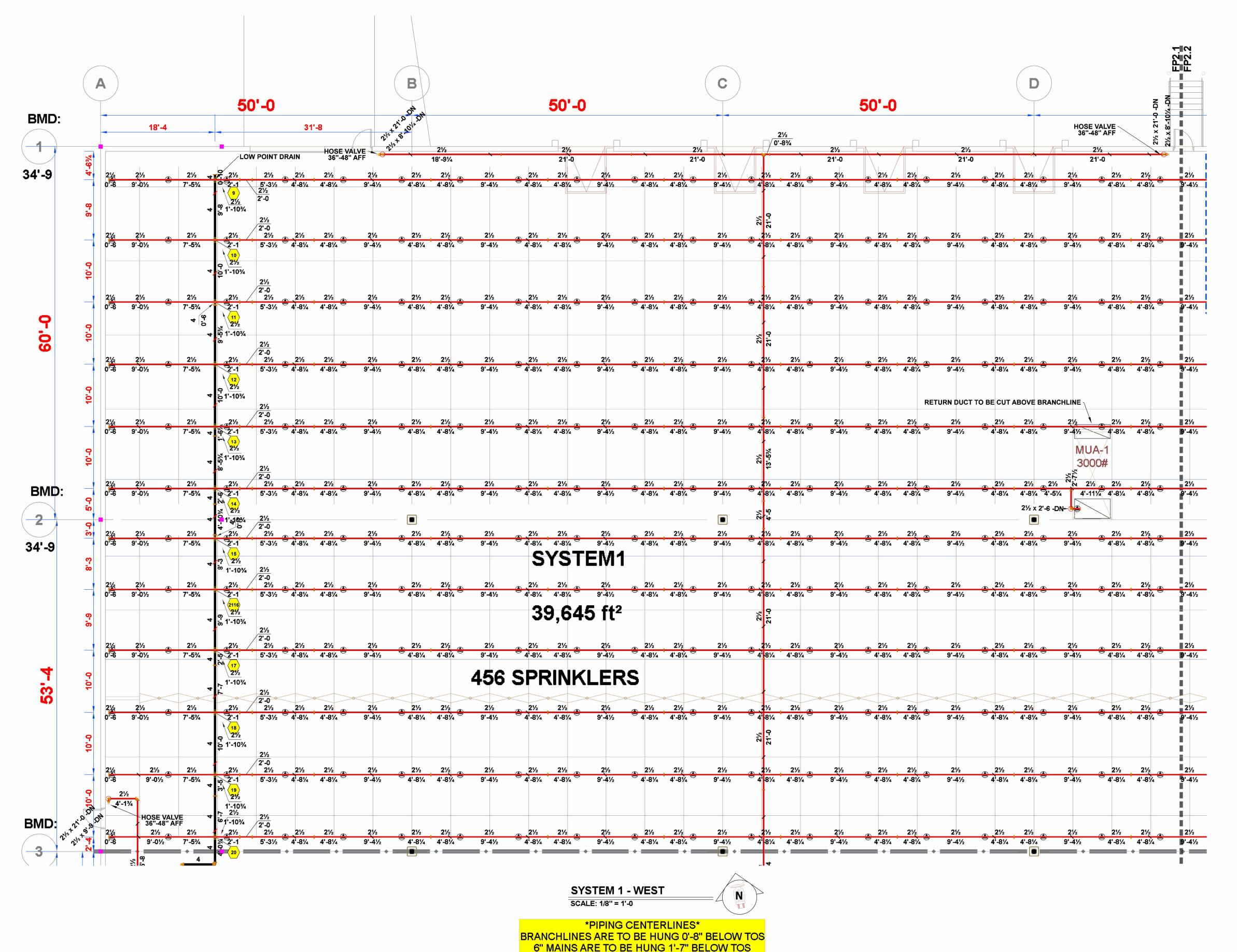
NE TUDOR RD & MAIN ST LEE'S SUMMIT, MO 64086

ISSUE DATES

PERMIT SET 8-11-22

1 REVISION #1 - UNDERGROUND CHANGE 3-10-23
2 REVISION #2 - L.S. PLAN REVIEW COMMENTS 4-4-24

210300



4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

SYSTEM 6

SYSTEM 7

FP2.9

FP2.11

FP2.8

FP2.10

SYSTEM

SYSTEM 2

FP2.2

FP2.4

FP2.1

FP2.3

FP2.5

FP2.5

FP2.7

FP2.6

FP2.6

SYSTEM 4

Symbol Manufacturer SIN Model Quantity K-Factor Type Size Response Finish Temperature Note

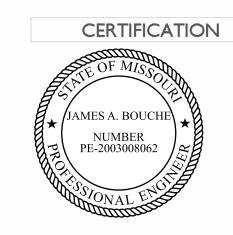
Viking VK503 ESFR 2829 16.80 Pendent % Fast Brass 205°F

Viking VK3501 Microfast 4 8.00 Upright % Quick Brass 200°F BRASS

Total = 2833







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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS
BUILDING C LOT 2

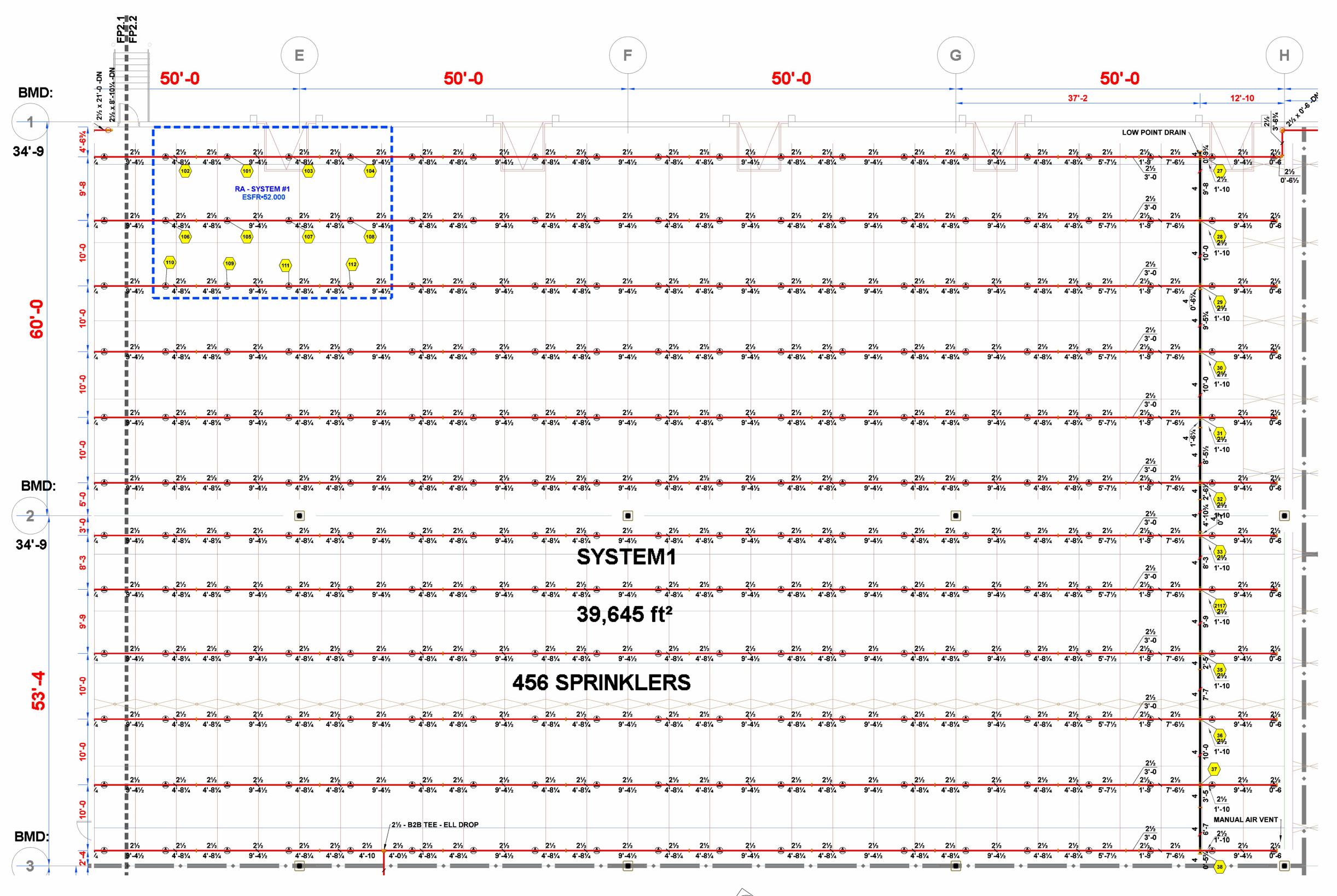
NW CORNER OF
NE TUDOR RD & MAIN ST

LEE'S SUMMIT, MO 64086

ISSUE DATES
PERMIT SET 8

1 REVISION #I - UNDERGROUND CHANGE 3-10-23
2 REVISION #2 - L.S. PLAN REVIEW COMMENTS 4-4-24

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SYSTEM 1 - EAST

SCALE: 1/8" = 1'-0

PIPING CENTERLINES
BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TOS
6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS
4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

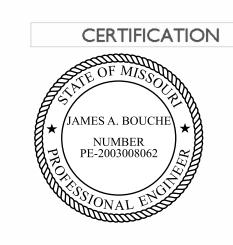
SYSTE	EM 1 FP2.2	FP2.5 FP2.5	YSTEM 3 FP2.6 FP2.6	SYSTE	
FP2.3	FP2.4		YSTEM 4	FP2.8 FP2.10	FP2.9 FP2.11
SYSTE	EM 2	FP2.7	YSTEM 5	SYSTE	M 7

Hydraulic Inform	ation
Remote Area #1 - Sys	tem 1
OCCUPANCY CLASSIFICATION	ESFR
MIN. END HEAD PRESSURE	52.000 (ESFR)
TOTAL HOSE STREAMS	250.00
TOTAL HEADS FLOWING	12
K-FACTOR	16.80
TOTAL WATER REQUIRED	1708.60
TOTAL PRESSURE REQUIRED	82.824
BASE of RISER (gpm)	1708.60
BASE of RISER (psi)	63.780
SAFETY MARGIN (psi)	+6.781 (7.6%)

	Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
(3)	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRASS
				Total = 2833							

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LEE'S SUMMIT LOGISTICS
BUILDING C LOT 2

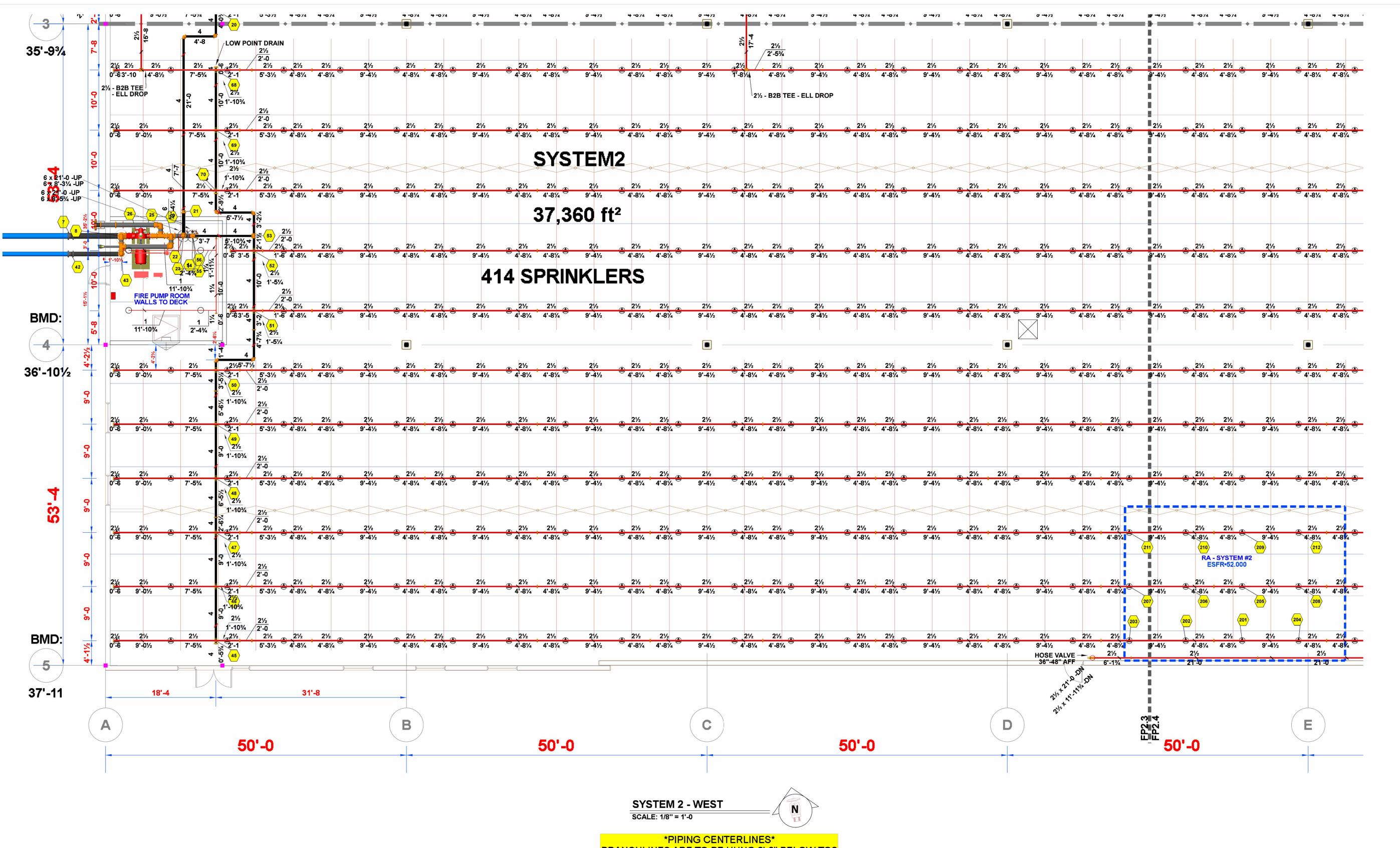
NW CORNER OF
NE TUDOR RD & MAIN ST

LEE'S SUMMIT, MO 64086

PROJECT INFORMATION

	ISSUE DATES	
	PERMIT SET	8-11-2
1	REVISION #I - UNDERGROUND CHANGE	
2	REVISION #2 - L.S. PLAN REVIEW COMMEN	TS 4-4-2

210300



PIPING CENTERLINES
BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TOS
6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS
4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

SYSTEM 6

SYSTEM 7

FP2.9

FP2.11

FP2.8

FP2.10

SYSTEM 1

SYSTEM

FP2.3

FP2.2

FP2.5

FP2.6

FP2.7

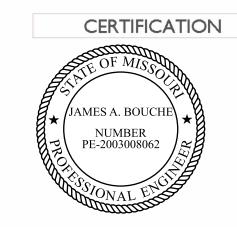
SYSTEM 5

Hydraulic Inform	ation
Remote Area #2 - Sys	stem 2
OCCUPANCY CLASSIFICATION	ESFR
MIN. END HEAD PRESSURE	52.000 (ESFR)
TOTAL HOSE STREAMS	250.00
TOTAL HEADS FLOWING	12
K-FACTOR	16.80
TOTAL WATER REQUIRED	1709.09
TOTAL PRESSURE REQUIRED	68.093
BASE of RISER (gpm)	1709.09
BASE of RISER (psi)	49.041
SAFETY MARGIN (psi)	+21.508 (24.0%)

	Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
0	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRAS
				Total = 2833							







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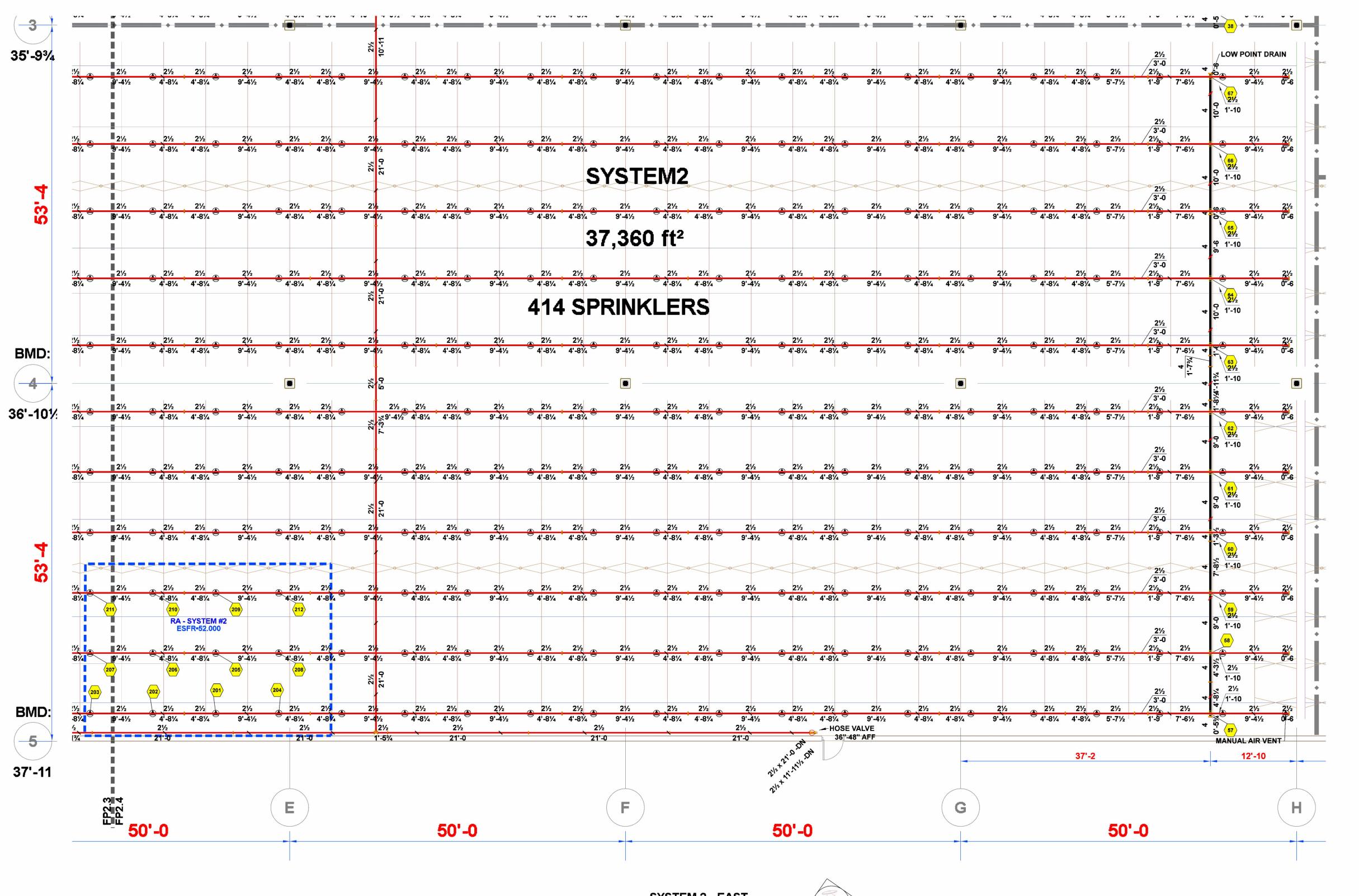
PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS

NW CORNER OF
NE TUDOR RD & MAIN ST
LEE'S SUMMIT, MO 64086

	ISSU	JE DATES	
PERM	IT SET		8-11-22
REVISIO	ON #I - UNDER	RGROUND CHANGE	3-10-23
REVISIO	DN #2 - L.S. PLA	N REVIEW COMMEN	TS 4-4-24

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SYSTEM 2 - EAST SCALE: 1/8" = 1'-0

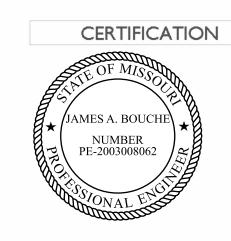
PIPING CENTERLINES BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TOS 6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS 4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

Hydraulic Inform	nation						
Remote Area #2 - Sys	stem 2						
OCCUPANCY CLASSIFICATION ESFR							
MIN. END HEAD PRESSURE	52.000 (ESFR)						
TOTAL HOSE STREAMS	250.00						
TOTAL HEADS FLOWING	12						
K-FACTOR	16.80						
TOTAL WATER REQUIRED	1709.09						
TOTAL PRESSURE REQUIRED	68.093						
BASE of RISER (gpm)	1709.09						
BASE of RISER (psi)	49.041						
SAFETY MARGIN (psi)	+21.508 (24.0%)						

	Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
0	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRASS
				Total = 2833							







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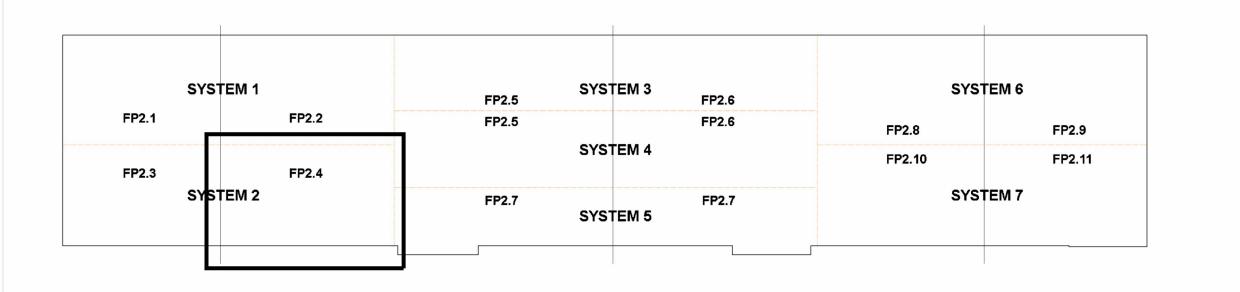
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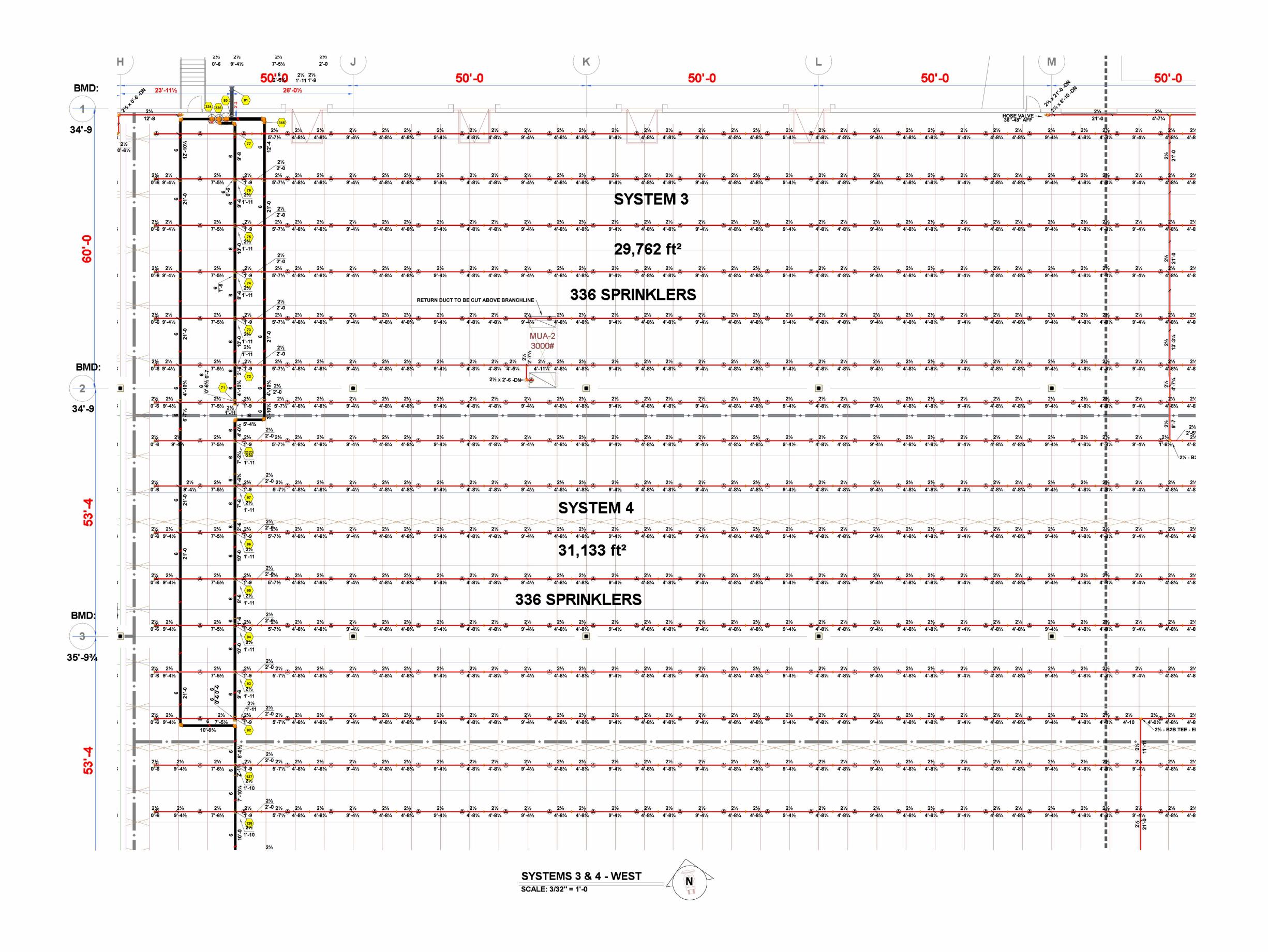
LEE'S SUMMIT LOGISTICS

BUILDING C LOT 2 NW CORNER OF **NE TUDOR RD & MAIN ST** LEE'S SUMMIT, MO 64086

ISSUE DATE	ES
PERMIT SET	8-11-22
REVISION #1 - UNDERGROUND CHA	ANGE 3-10-23
REVISION #2 - L.S. PLAN REVIEW CO	MMENTS 4-4-24

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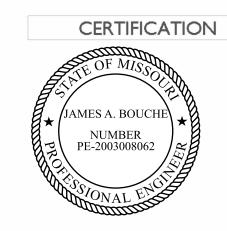
SYSTEM 1 SYSTEM 6 FP2.6 FP2.5 FP2.2 FP2.5 FP2.6 FP2.8 FP2.9 SYSTEM 4 FP2.10 FP2.11 FP2.3 FP2.4 SYSTEM 2 SYSTEM 7 FP2.7 SYSTEM 5

PIPING CENTERLINES
BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TO
6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS
4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

				Spr	inkler Le	gend					
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
Ö	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRAS
				Total = 2833							







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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS

BUILDING C LOT 2

NW CORNER OF

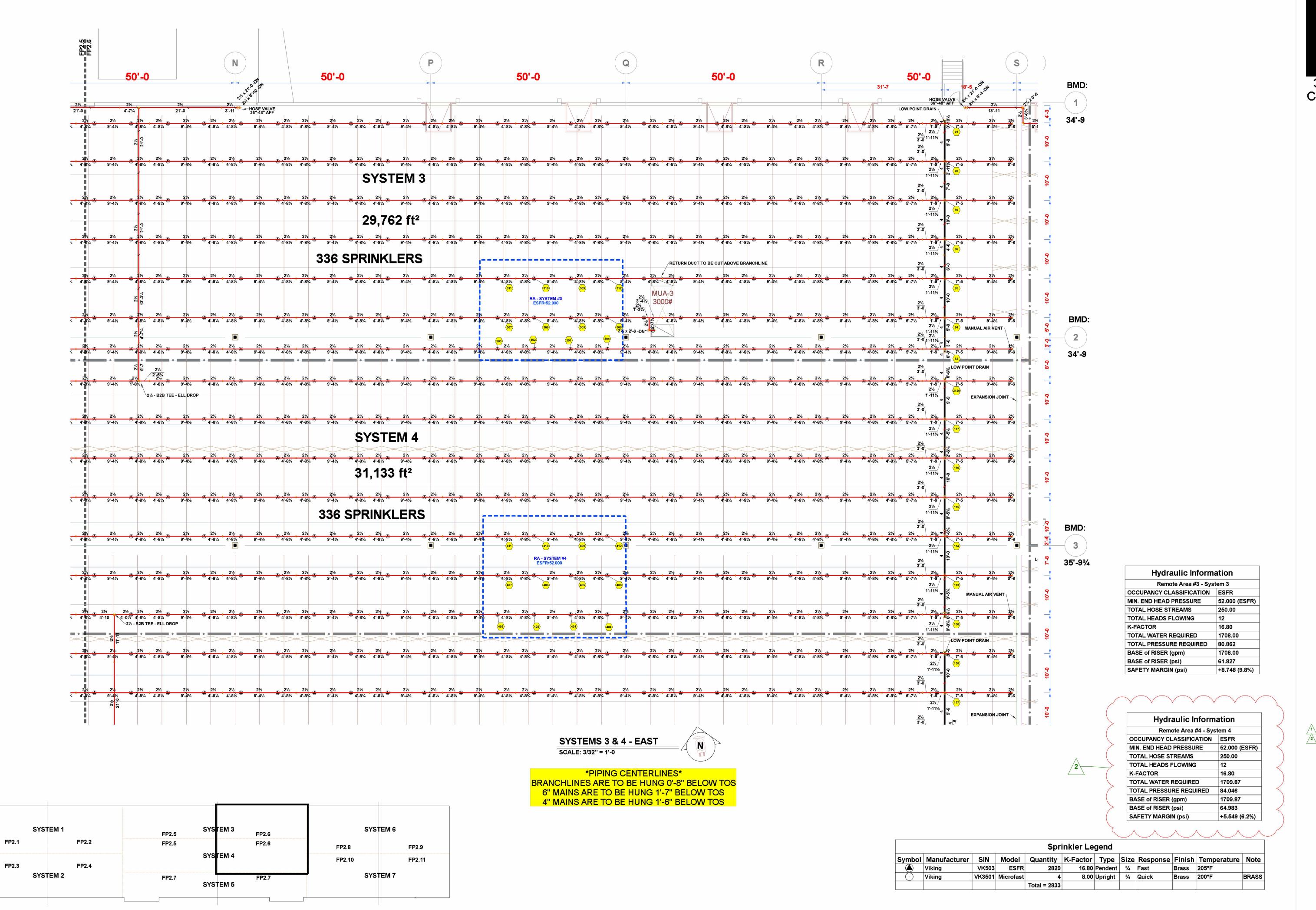
NE TUDOR RD & MAIN ST

LEE'S SUMMIT, MO 64086

ISSUE DATES	
PERMIT SET	8-11-22
REVISION #1 - UNDERGROUND CHANGE	3-10-23

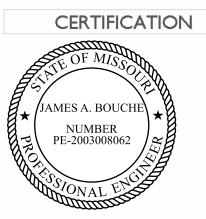
2 REVISION #2 - L.S. PLAN REVIEW COMMENTS 4-4-24

210300



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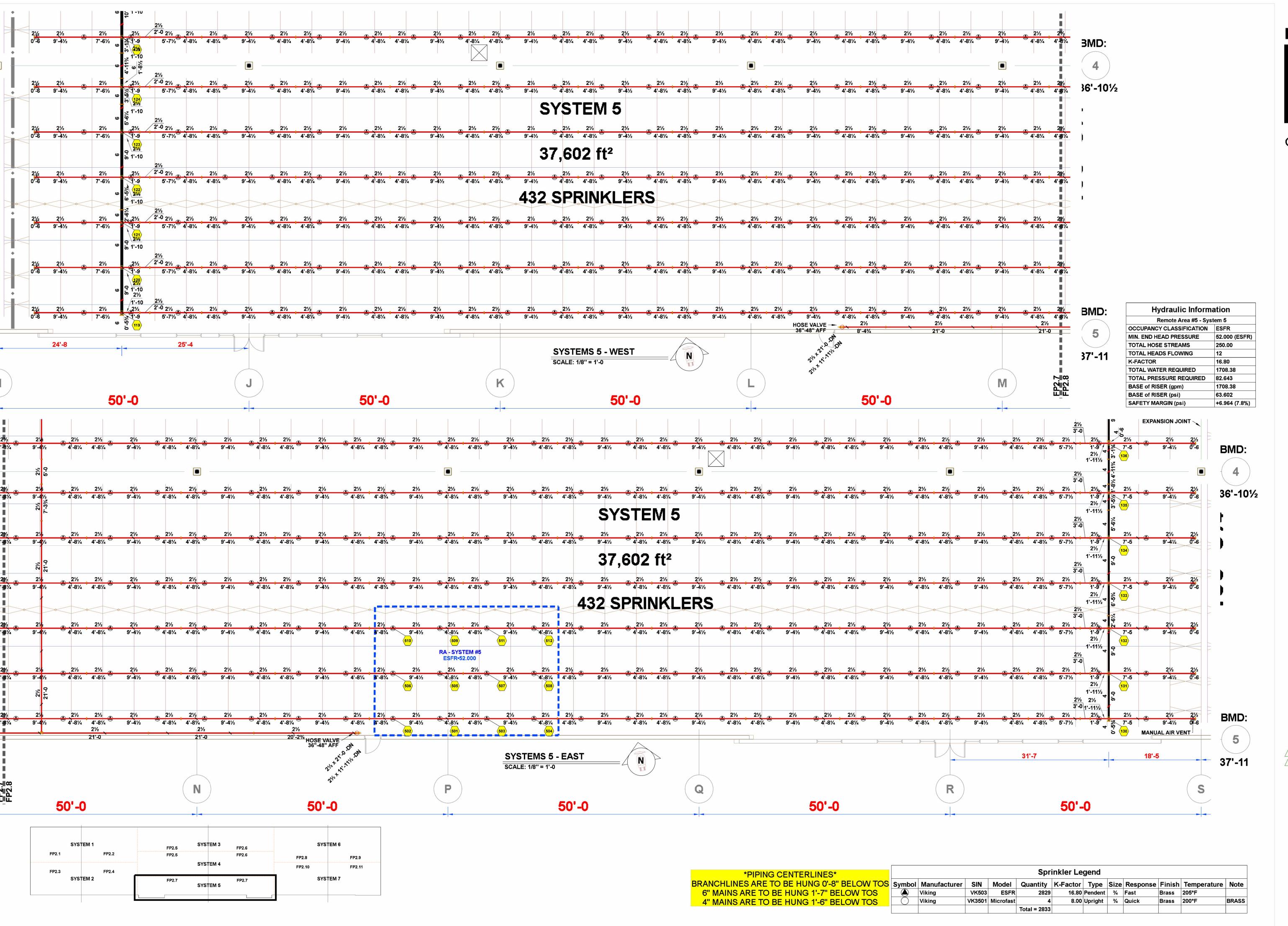
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PROJECT INFORMATION LEE'S SUMMIT LOGISTICS BUILDING C LOT 2

NW CORNER OF **NE TUDOR RD & MAIN ST** LEE'S SUMMIT, MO 64086

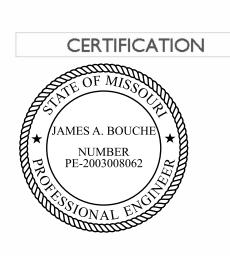
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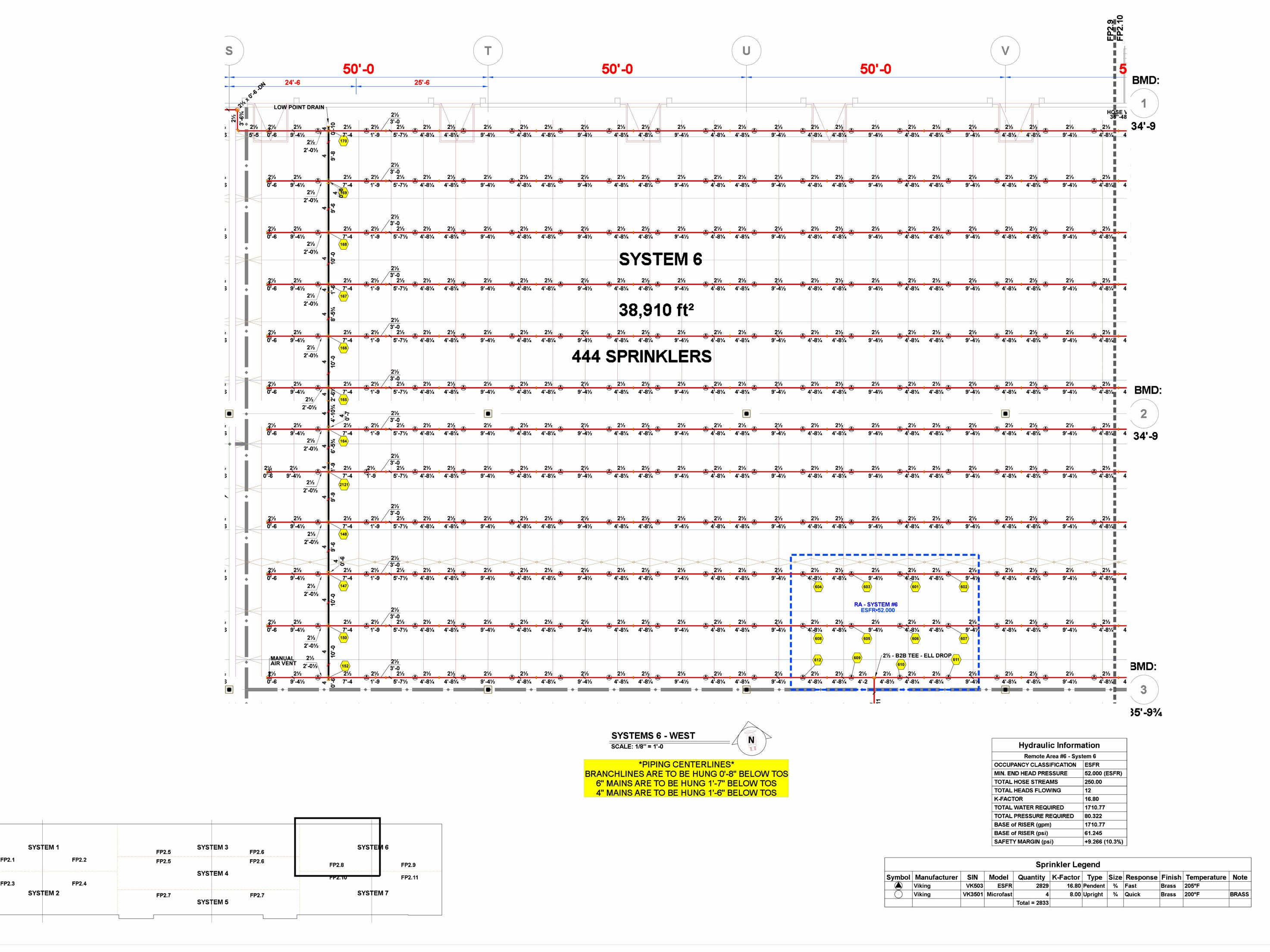
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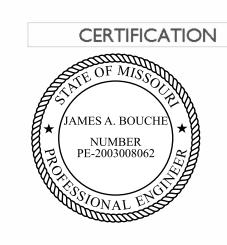
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LEE'S SUMMIT LOGISTICS
BUILDING C LOT 2

NW CORNER OF
NE TUDOR RD & MAIN ST

LEE'S SUMMIT, MO 64086

PROJECT INFORMATION

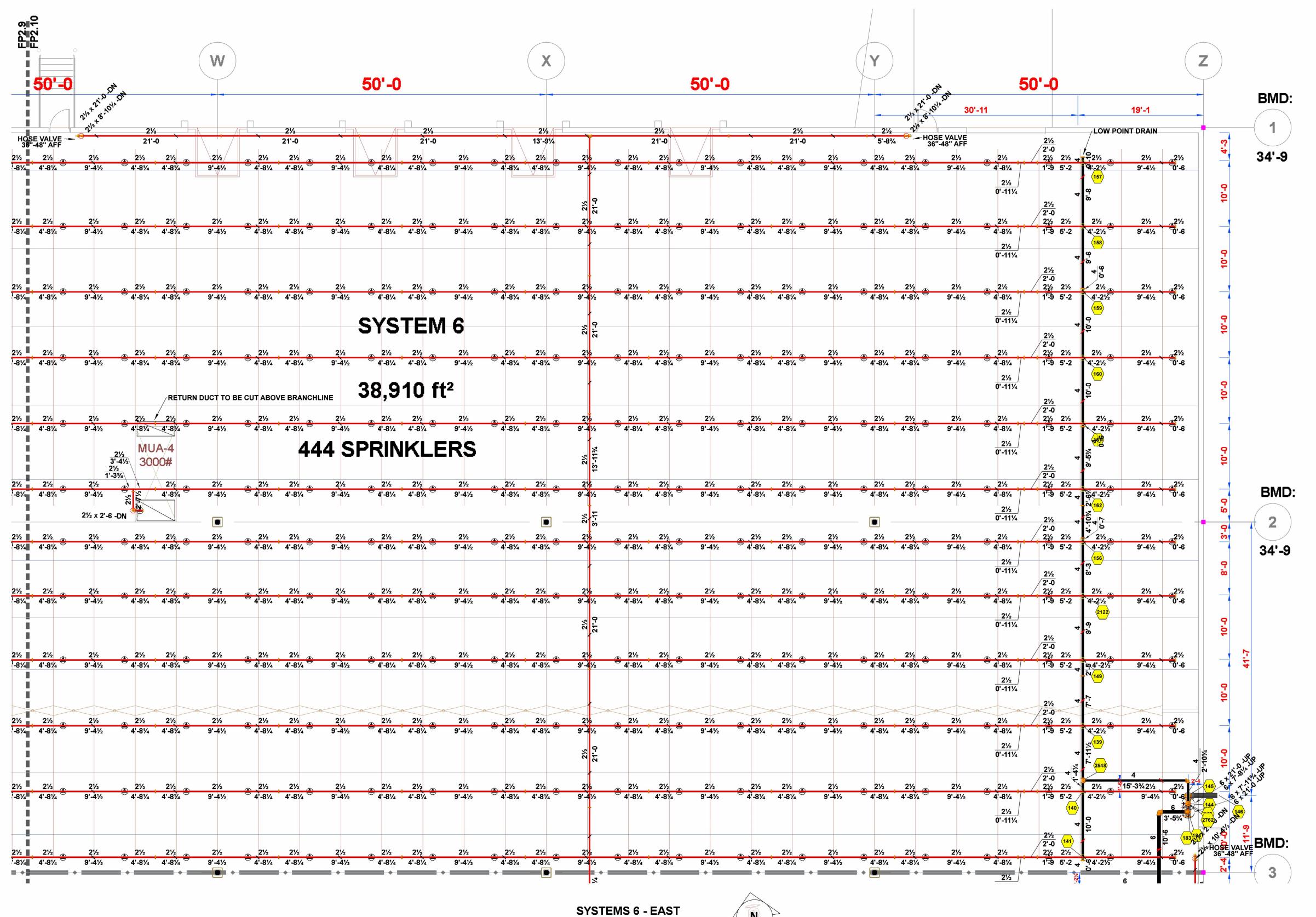
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PERMIT SET 8-11-22

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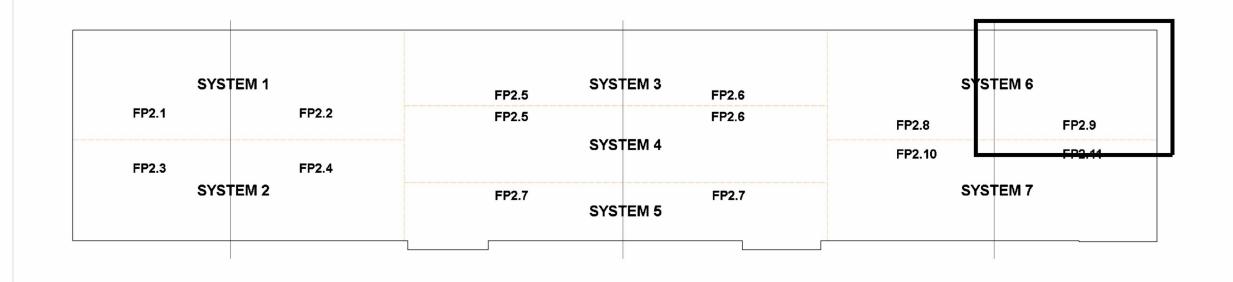
2 REVISION #2 - L.S. PLAN REVIEW COMMENTS 4-4-24

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SCALE: 1/8" = 1'-0

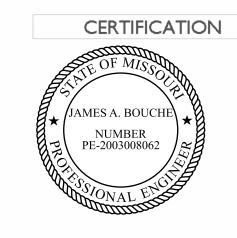
PIPING CENTERLINES BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TOS 6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS 4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS



				Spr	inkler Le	gend					
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
0	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRASS
-				Total = 2833							







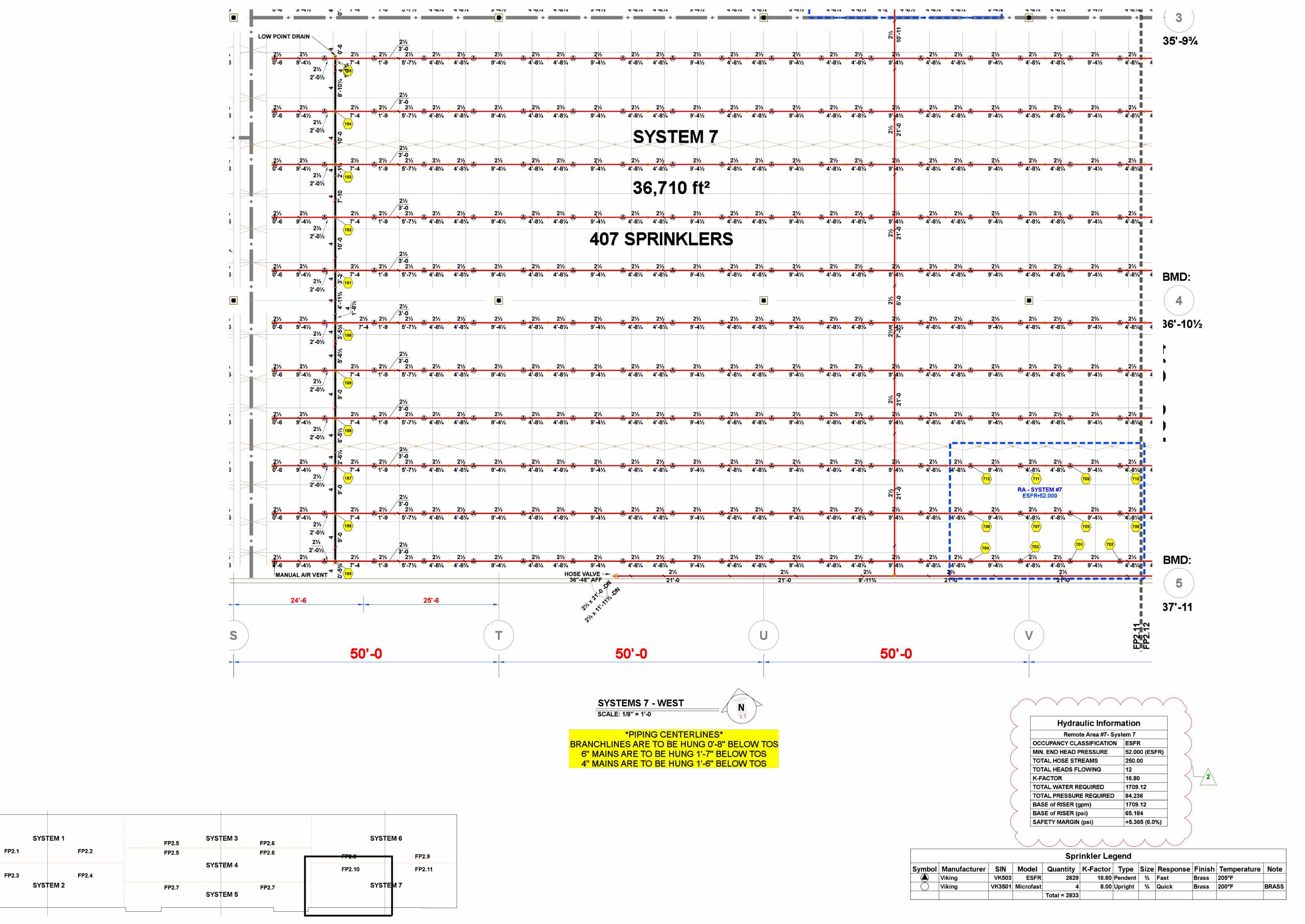
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LEE'S SUMMIT LOGISTICS BUILDING C LOT 2 NW CORNER OF NE TUDOR RD & MAIN ST LEE'S SUMMIT, MO 64086

PROJECT INFORMATION

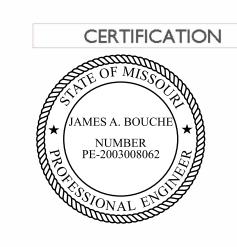
ISSUE DATES	
PERMIT SET	8-11-22
REVISION #I - UNDERGROUND CHANGE	3-10-23
REVISION #2 - L.S. PLAN REVIEW COMMEN	TS 4-4-24

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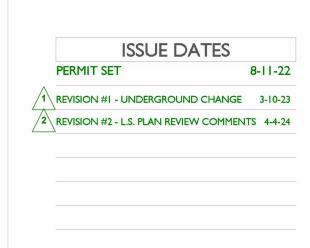
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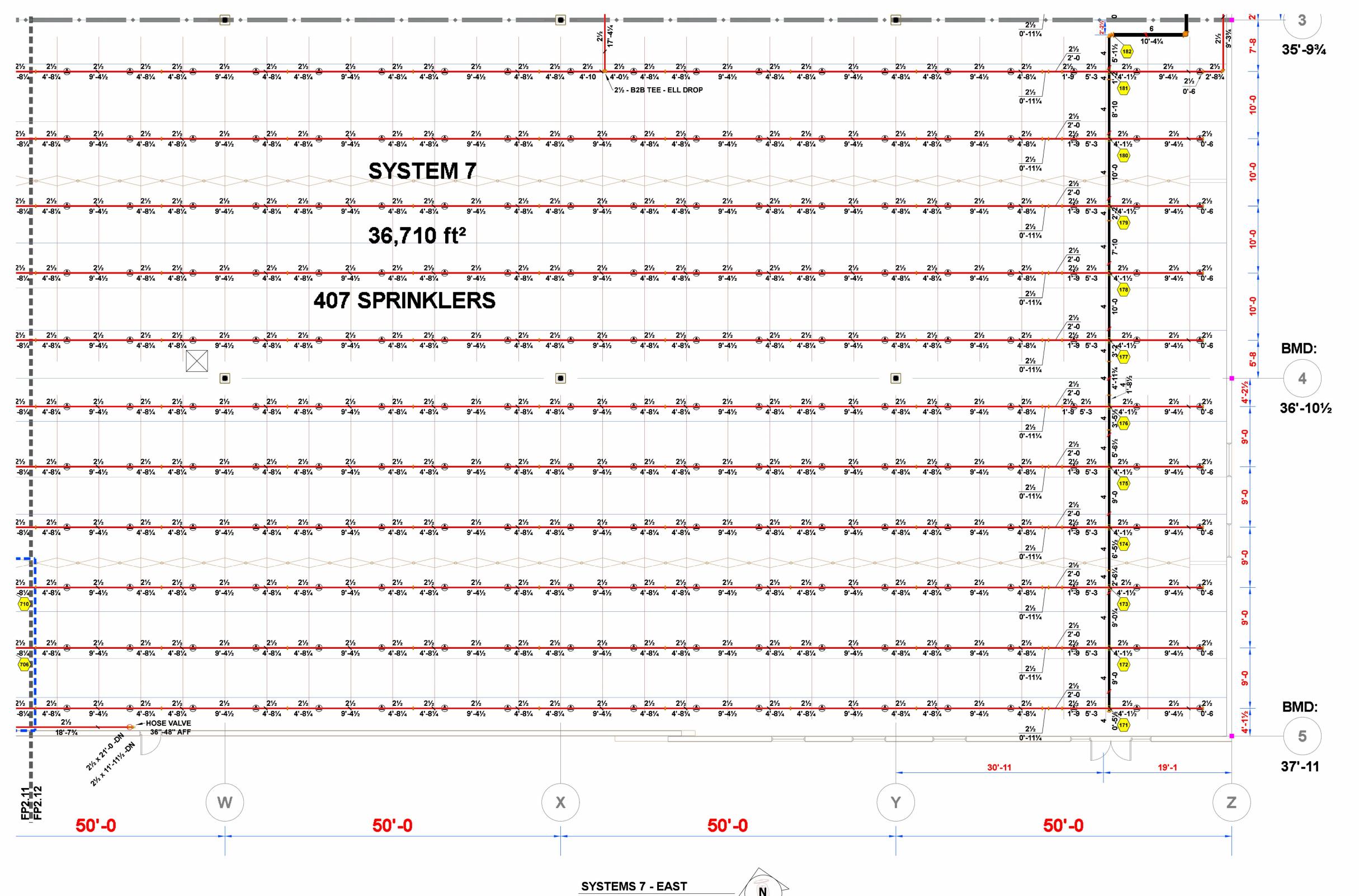
LEE'S SUMMIT LOGISTICS

BUILDING C LOT 2

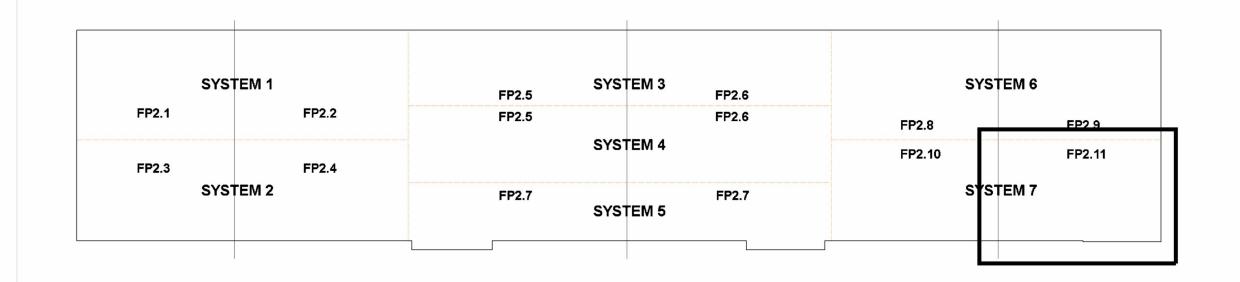
NW CORNER OF NE TUDOR RD & MAIN ST LEE'S SUMMIT, MO 64086



210300



PIPING CENTERLINES
BRANCHLINES ARE TO BE HUNG 0'-8" BELOW TOS
6" MAINS ARE TO BE HUNG 1'-7" BELOW TOS
4" MAINS ARE TO BE HUNG 1'-6" BELOW TOS

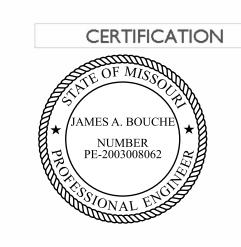


				Spr	inkler Le	gend					
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK503	ESFR	2829	16.80	Pendent	3/4	Fast	Brass	205°F	
0	Viking	VK3501	Microfast	4	8.00	Upright	3/4	Quick	Brass	200°F	BRAS
				Total = 2833							









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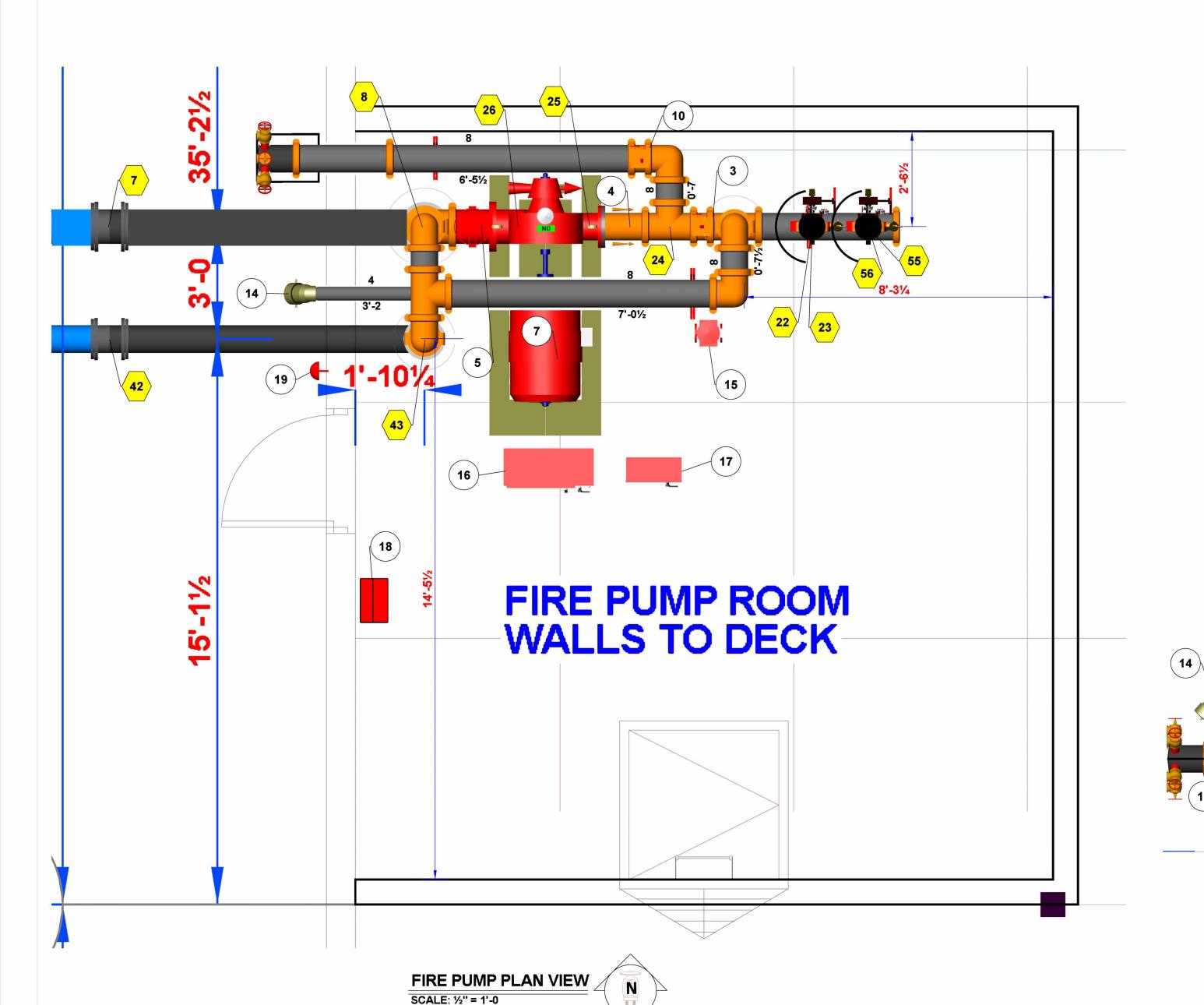
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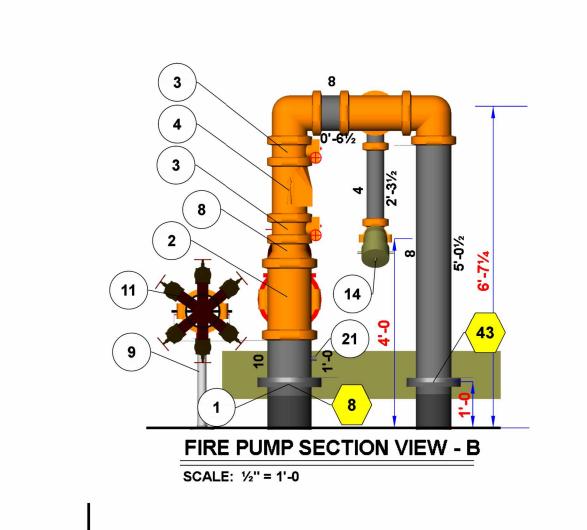
NW CORNER OF
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LEE'S SUMMIT, MO 64086

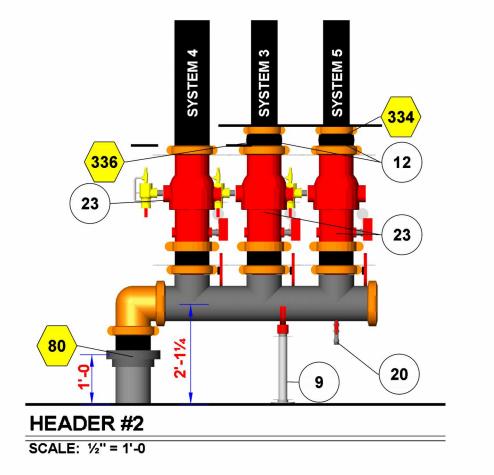
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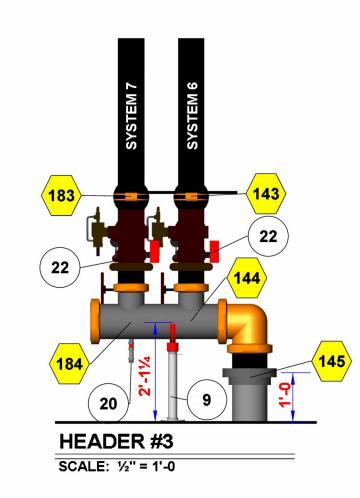
PERMIT SE	T	8-11-22
REVISION #1	- UNDERGROUND CHANGE	3-10-2
\ REVISION #2	- L.S. PLAN REVIEW COMMEN	TS 4-4-2

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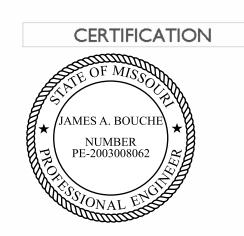
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CHAMPAIGN, IL 61822

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MISSOURI COA:

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PROJECT INFORMATION LEE'S SUMMIT LOGISTICS BUILDING C LOT 2

NW CORNER OF **NE TUDOR RD & MAIN ST** LEE'S SUMMIT, MO 64086

ISSUE DATES

1\ REVISION #1 - UNDERGROUND CHANGE 3-10-23

REVISION #2 - L.S. PLAN REVIEW COMMENTS 4-4-24

PERMIT SET

UTILIZING THE "2-HOLE METHOD" ON ALL FLANGES. THE FLANGE SHALL BE INSTALLED WITH THE BOLT HOLES ALIGNED SO THAT FITTING, VALVES, AND **EQUIPMENT ARE IN A SQUARE ALIGNMENT WITH** ADJACENT WALLS AND FLOOR. TWO FLANGE BOLTS EQUAL DISTANCE TO WALL LEVEL TO FINISHED FLOOR

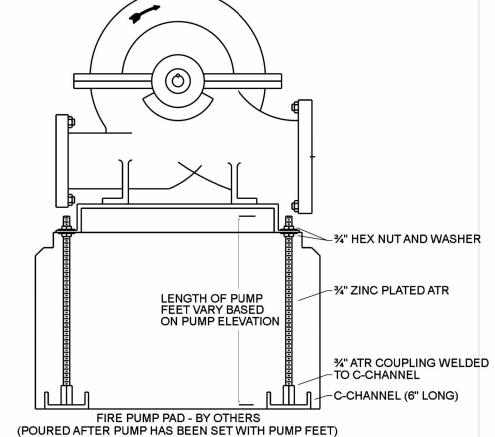
INCOMING FIRE PROTECTION SUPPLY DETAIL NOT TO SCALE

NOTE: ALL FIRE PROTECTION PIPING STUB-UPS

(INCLUDING PUMP ROOMS), SHALL BE INSTALLED

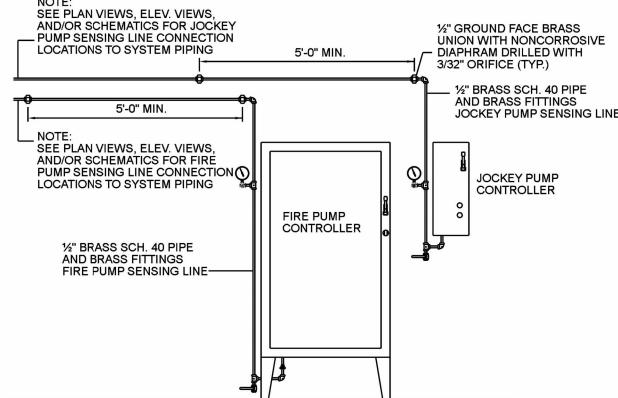
WHETHER INSIDE OR OUTSIDE A BUILDING

SEE PLAN FOR DIMENSION



N.T.S.

FIRE PUMP SECTION VIEW - A



N.T.S. 1½" BRASS JOCKEY PUMP SENSING LINE, SEE FIRE PUMP AND JOCKEY PUMP SENSING SCHEMATIC ON THIS DWG. ⊋ 1/2" GALV. PIPE AND FITTINGS FROM FIRE PUMP PACKING GLAND DRIP BASIN, DISCHARGE TO INTERIOR FLOOR DRAIN-ST FIRE PUMP SUPPORT MATERIALS PER PROJECT REQUIREMENTS -1" BLK. DISCHARGE 1" BLK. SUCTION PIPE AND FITTINGS PIPE AND FITTINGS ELECTRIC MOTOR DRIVE

JOCKEY PUMP SCHEMATIC

N.T.S.

FIRE PUMP CONTROLLER: SHALL BE WIRED FOR MANUAL SHUTDOWN. FIRE PUMP SHALL BE MONITORED FOR THE FOLLOWING CONDITIONS: FIRE PUMP OR MOTOR RUNNING, LOSS OF PHASE, PHASE REVERSAL.

ALL ELECTRICAL WORK TO SUPPLY POWER TO THE FIRE PUMP SHALL BE IN ACCORDANCE WITH

CHAPTER 6 OF NFPA 20. ELECTRICAL WORK SHALL COMPLY WITH NFPA 70, ARTICLE 695 AND OTHER

SHALL BE DEDICATED AND PROTECTED TO RESIST POSSIBLE DAMAGE BY FIRE, STRUCTURAL FAILURE,

APPLICABLE ARTICLES. THE FIRE PUMP FEEDER CIRCUIT CONDUCTORS AND THEIR ACCESSORIES

OR OPERATIONAL ACCIDENT. THE SUPPLY CONDUCTORS DIRECTLY CONNECT THE POWER SOURCE

-IN ADDITION TO THE FOLLOWING NOTES, ALL WORK AND MATERIAL SHALL CONFORM TO NFPA 13

OR PUMP HOUSE. EMERGENCY LIGHTING SHALL BE PROVIDED BY FIXED OR PORTABLE BATTER

SHALL BE PROVIDED WITH A FLOOR DRAIN THAT WILL DISCHARGE TO A FROST-FREE LOCATION.

ALL PROVISIONS FOR WELDED PIPE SHALL BE IN ACCORDANCE WITH NFPA 51B, STANDARD FOR FIRE

WHERE CORROSIVE CONDITIONS EXIST, THE STEEL SUCTION PIPE SHALL BE GALVANIZED.

PREVENTION DURING WELDING, CUTTING, AND OTHER HOT WORK.

IN NFPA 20. THE BY-PASS CONTROL VALVES SHALL BE NORMALLY OPEN

PIPE AND FITTINGS SHALL BE NOT LESS THAN THAT GIVEN IN NFPA 20.

SUITABLE MEANS SHALL BE PROVIDED FOR MAINTAINING THE TEMPERATURE OF A PUMP ROOM OR PUMP

HOUSE, WHERE REQUIRED, ABOVE 40 DEG F. ARTIFICIAL LIGHT SHALL BE PROVIDED IN THE PUMP ROOM

OPERATED LIGHTS, INCLUDING FLASHLIGHTS. EMERGENCY LIGHTS SHALL NOT BE CONNECTED TO AN

PUMP HOUSE. FLOORS SHALL BE PITCHED FOR ADEQUATE DRAINAGE OF ESCAPING WATER AWAY FROM

CRITICAL EQUIPMENT SUCH AS THE PUMP, DRIVER, CONTROLLER, ETC. THE PUMP ROOM OR PUMP HOUSE

THE SUCTION PIPE SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA. A BY-PASS SHALL BE

SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13. THE SIZE OF THE PUMP DISCHARGE

INSTALLED AROUND THE PUMP WHEN THE SUCTION PRESSURE IS OF MATERIAL VALUE WITHOUT THE

PUMP. THE PIPE SIZE OF THE BY-PASS SHALL BE AS LARGE AS THE SIZE REQUIRED FOR SUCTION PIPE

ENGINE STARTING BATTERY. PROVISION SHALL BE MADE FOR VENTILATION OF THE PUMP ROOM OR

FIRE PUMP NOTES:

AND NFPA 20, AS APPLICABLE

NFPA 20 REQUIREMENTS:

EQUIPMENT PROTECTION:

PIPE AND FITTINGS:

DISCHARGE PIPE:

SUCTION PIPE AND FITTINGS:

ELECTRIC DRIVE FOR PUMPS:

TO THE LISTED FIRE PUMP CONTROLLER.

FIRE PUMP ROOM MATERIAL LIST COMPONENT 1 10" FLANGE (SUPPLY FROM CITY) (2) |10" TEE (3) 8" BUTTERFLY VALVE - SUPERVISED NORMALLY OPEN (4) 8" CHECK VALVE (5) 10" GRV-GRV OS&Y GATE VALVE (w/ TAMPER) (6) | 10x8 FIRE PUMP - 1500gpm @ 75psi 125hp ELECTRIC MOTOR (8) 10x8 GRV-GRV CONCENTRIC REDUCER (9) 8" PIPE STAND (10) 8" BUTTERFLY VALVE - SUPERVISED NORMALLY CLOSED (11) | 8 x 2½ 6 WAY TEST HEADER (12) 8x6 CONCENTRIC REDUCER 13 4" CHECK VALVE 14) 4" STORZ FDC 15 1.5hp JOCKEY PUMP ASSEMBLY (15gpm @ 85psi)

16 | FIRE PUMP CONTROLLER (17) JOCKEY PUMP CONTROLLER SPARE HEAD BOX HORN & STROBE LIGHT (20) AUXILLARY DRAIN (21) 1" JOCKEY PUMP PIPE OUTLET 6" UMC w/ FLOW SWITCH, PRESSURE GAUGE, 2" MAIN DRAIN, PRESSURE RELIEF VALVE CHECK VALVE, AND BUTTERFLY VALVE 8" UMC w/ FLOW SWITCH, PRESSURE GAUGE, 2" MAIN DRAIN, PRESSURE RELIEF VALVE CHECK VALVE, AND BUTTERFLY VALVE

JOCKEY PUMP SENSING LINE FIRE PUMP AND JOCKEY PUMP SENSING LINE SCHEMATIC

FIRE PUMP CASING RELIEF VALVE, DISCHARGE TO INTERIOR FLOOR DRAIN

N.T.S.

ELECTRIC FIRE PUMP SCHEMATIC

PUMP FEET DETAIL

FP 3.0