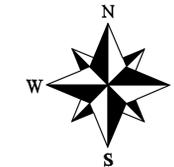
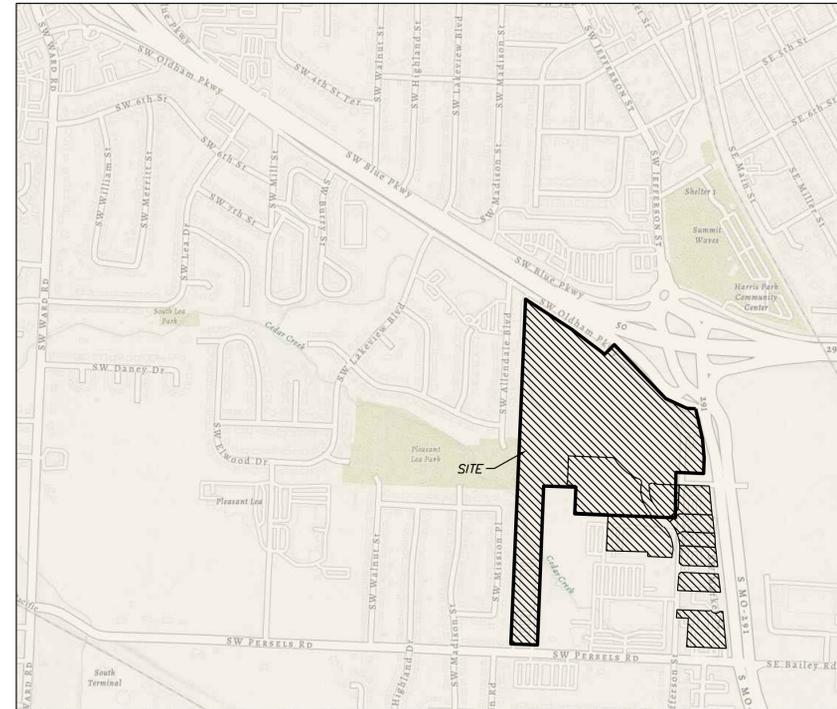


OLDHAM VILLAGE

WATER LINE CONSTRUCTION PLAN

Section 7, Township 47 North, Range 31 West

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SITE LOCATION MAP

Tract Description

A tract of land being located in Sections 7 & 8, Township 47, Range 31, Lee's Summit, Jackson County Missouri, being more particularly described as follows:
 Commencing at the East Quarter Corner of said Section 7; thence N87°41'40"W along the North line of said Section 7, a distance of 937.51 feet; thence S2°18'20"W, a distance of 43.88 feet to the Point of Beginning; thence N5°09'44"W, a distance of 458.00 feet; thence S2°26'55"W, a distance of 206.05 feet; thence S87°33'04"E, a distance of 215.90 feet; thence N2°23'22"E, a distance of 555.23 feet; thence S88°17'49"E, a distance of 260.52 feet; thence S2°33'08"W, a distance of 221.84 feet; thence S87°48'02"E, a distance of 280.68 feet; thence S2°32'26"W, a distance of 303.63 feet; thence S88°04'40"E, a distance of 339.94 feet; thence S2°23'57"W, a distance of 37.99 feet; thence S87°48'18"E, a distance of 263.03 feet; thence S2°32'23"W, a distance of 493.69 feet; thence S2°23'15"W, a distance of 224.32 feet; thence S49°43'38"E, a distance of 34.42 feet; thence S88°29'59"E, a distance of 62.94 feet; thence N2°23'16"E, a distance of 12.78 feet; thence S87°30'29"E, a distance of 327.07 feet; thence N6°07'14"W, a distance of 1338.91 feet; thence N87°50'52"W, a distance of 62.60 feet; thence N2°37'19"E, a distance of 158.07; thence along a curve to the left tangent to the preceding course and having a radius of 1375.94 feet, an arc distance of 490.71 feet; thence N87°25'57"W, a distance of 74.50 feet; thence along a curve to the right tangent to the preceding course and having a radius of 250.00 feet, an arc distance of 183.56 feet; thence N43°39'15"W, a distance of 495.95 feet; thence N44°17'15"W, a distance of 122.21 feet; thence S45°42'45"W, a distance of 46.13 feet; thence S89°02'59"W, a distance of 76.09 feet; thence N52°14'07"W, a distance of 298.65 feet to the Point of Beginning.

OIL - GAS WELLS
 ACCORDING TO EDWARD ALTON MAY JR'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
WATER		
FIRE HYDRANT ASSEMBLY	UNIT	4.00
12" WATER LINE	LF	2,888.94
CONNECT TO EXISTING	UNIT	2.00
12" GATE VALVE	UNIT	5.00
8" WATER LINE	LF	1,331.67
8" GATE VALVE/ VALVE BOX & COVER	UNIT	4.00
TEES, CROSSES AND BENDS	UNIT	6.00



Professional Registration
 Missouri
 Engineering 2005002186-D
 Surveying 2005008318-D
 Kansas
 Engineering E-1695
 Surveying LS-218
 Oklahoma
 Engineering 6254
 Nebraska
 Engineering CA2821

Project:
 Oldham Village
 Lee's Summit, Jackson County, Missouri

Issue Date:
 October 23, 2024

Water Main Cover Sheet
 Construction Plans for:
 Oldham Village
 Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
 MO PE 2006019708
 KS PE 19071
 OK PE 25228
 NE PE E-14335

REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025

LEGEND:

Existing Underground Power	UGP	UGP
Existing Conc. Curb & Gutter		
Existing Wood Fence	X	X
Existing Gas Main	GAS	GAS
Existing Water Main	X-W/M	X-W/M
Existing Storm Sewer	X-STM	X-STM
Existing Sanitary Sewer	X-SAN	X-SAN
Existing Underground Telephone	UGT	UGT
Existing Overhead Power	OHE	
Proposed Storm Sewer (Private)	ST	ST
Proposed Storm Sewer (Public)	S	S
Proposed Sanitary Sewer	SS	SS
Proposed Underground Power	UGT	UGT
Proposed Gas Service	GAS	
Proposed D.I.P. Water	W	
Proposed Electrical Service	UGP	UGP

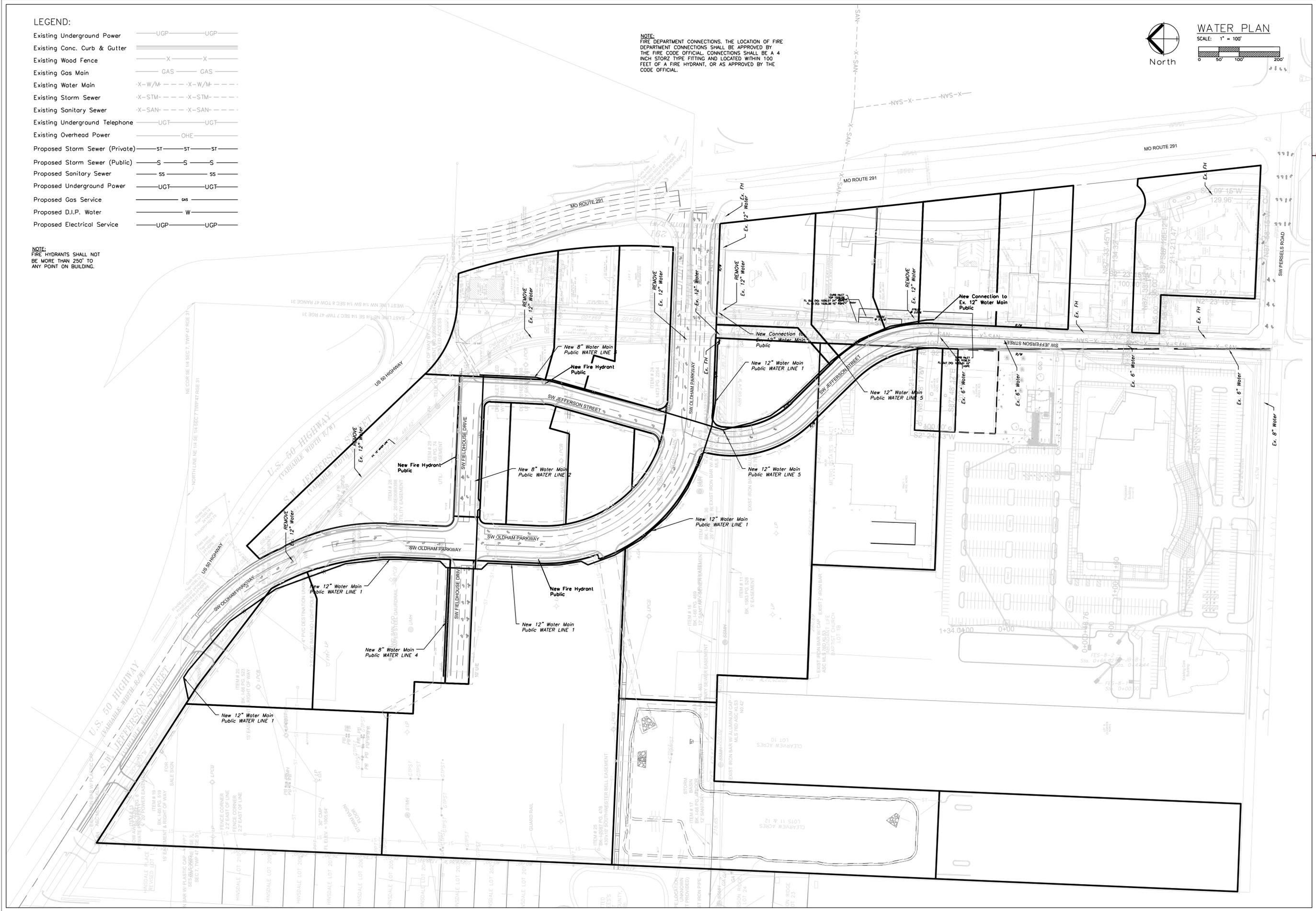
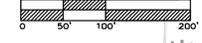
NOTE:
FIRE HYDRANTS SHALL NOT
BE MORE THAN 250' TO
ANY POINT ON BUILDING.

NOTE:
FIRE DEPARTMENT CONNECTIONS, THE LOCATION OF FIRE
DEPARTMENT CONNECTIONS SHALL BE APPROVED BY
THE FIRE CODE OFFICIAL. CONNECTIONS SHALL BE A 4
INCH STORZ TYPE FITTING AND LOCATED WITHIN 100
FEET OF A FIRE HYDRANT, OR AS APPROVED BY THE
CODE OFFICIAL.



WATER PLAN

SCALE: 1" = 100'



Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

Project:
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

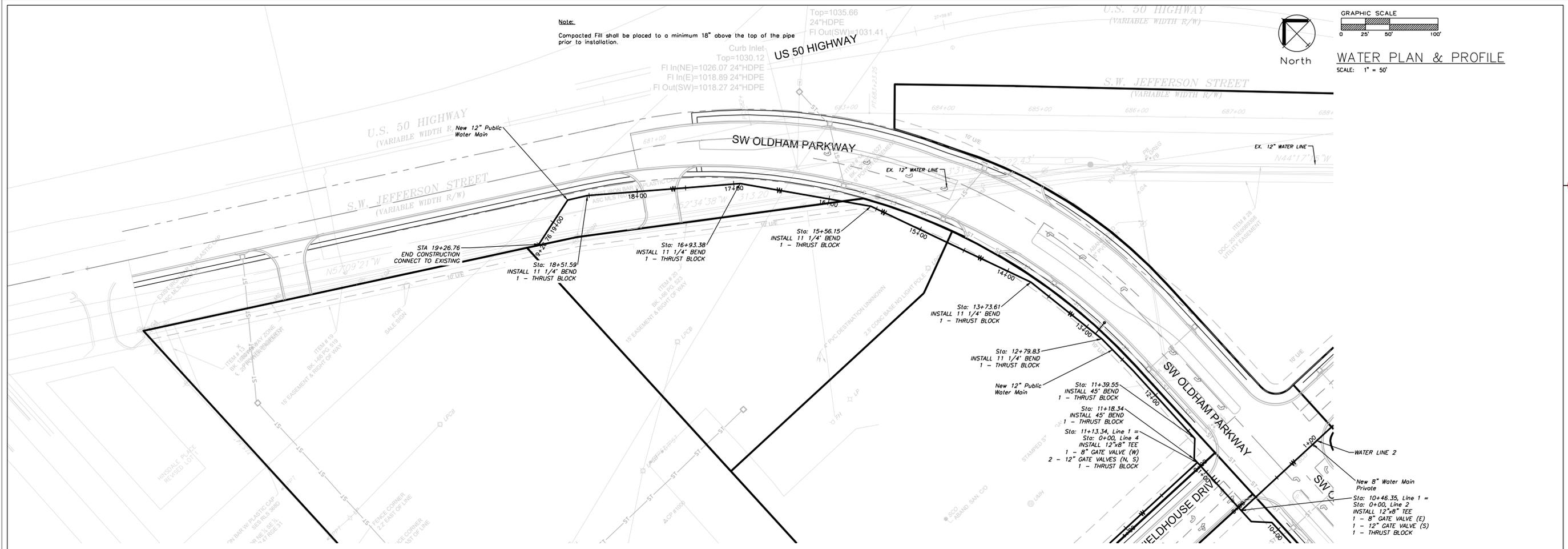
Water Utility Plan - North
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



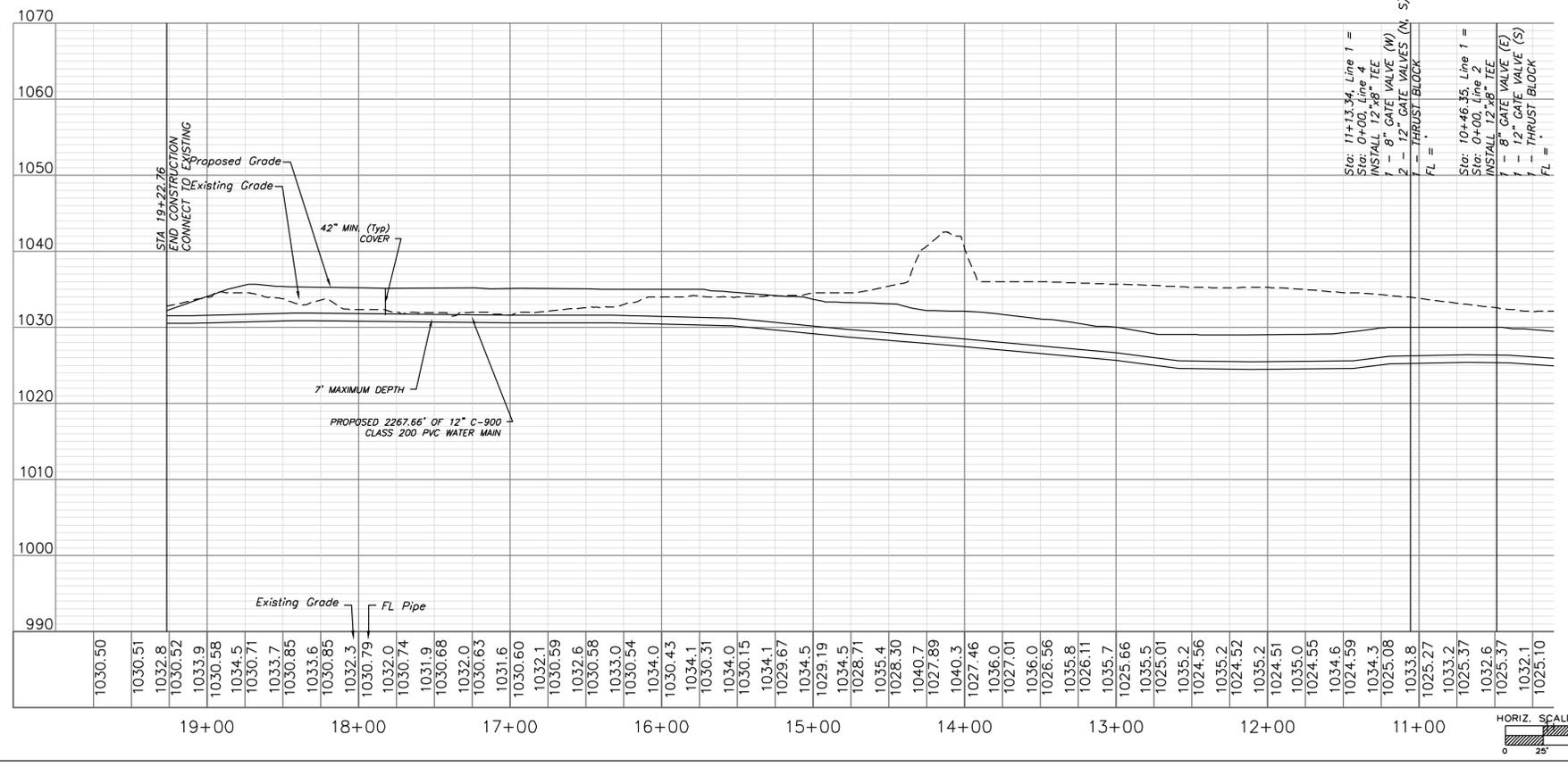
Matthew J. Schlicht
MO PE 006019708
KS PE 19071
OK PE 25228
NE PE E-14335

REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025



PUBLIC WATER LINE 1



Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project: MARKETHPLACE, LSMO
Issue Date: October 23, 2024

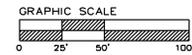
Water Main Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2005019708
KS PE 19071
OK PE 25228
NE PE E-14335

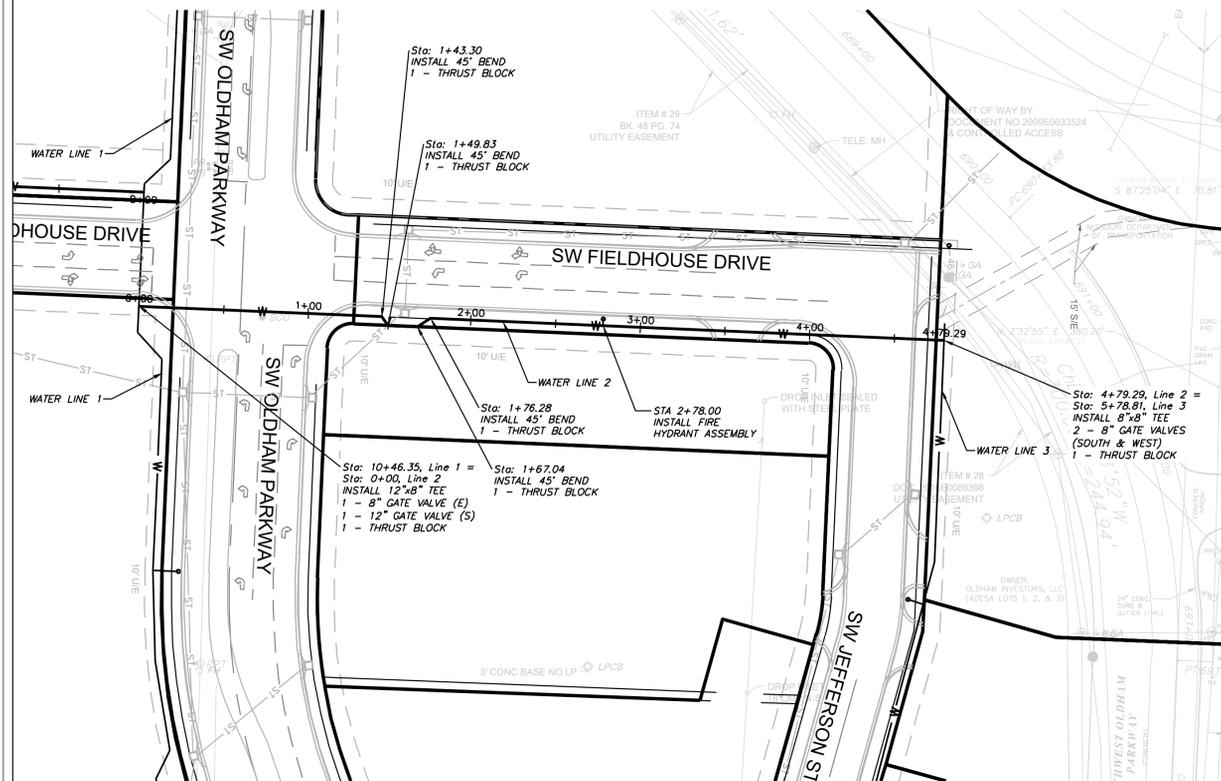
REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025

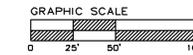
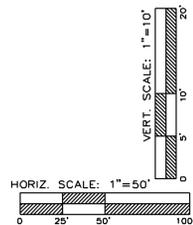
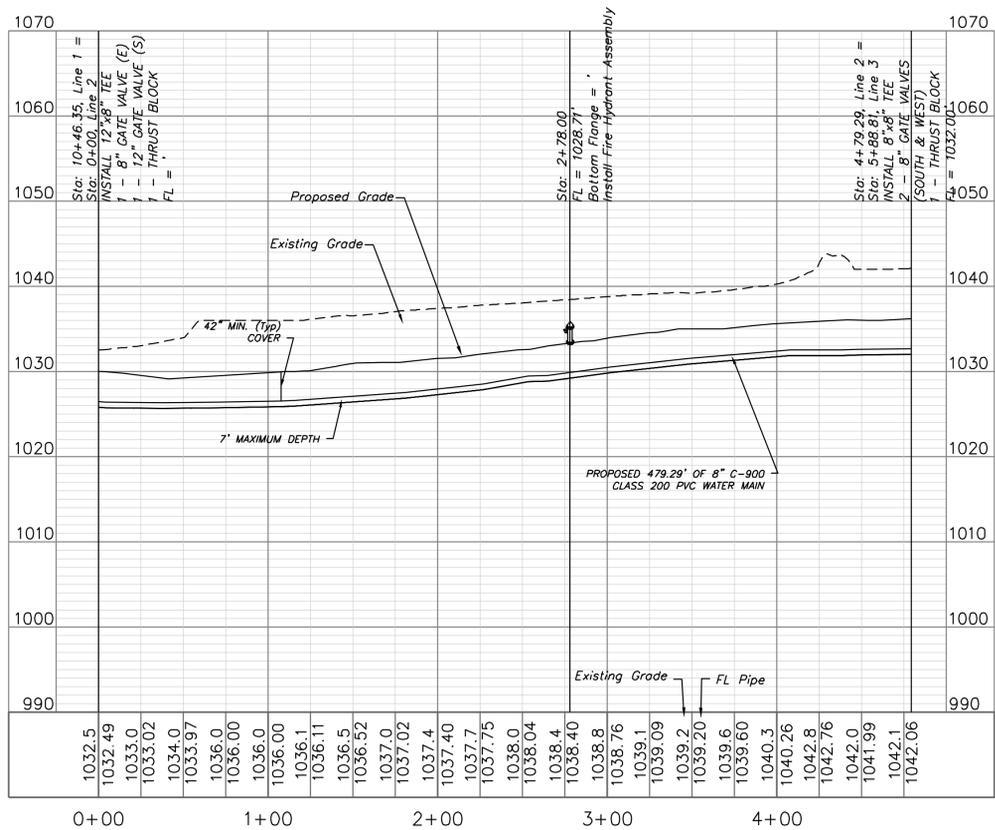


WATER PLAN & PROFILE

SCALE: 1" = 50'

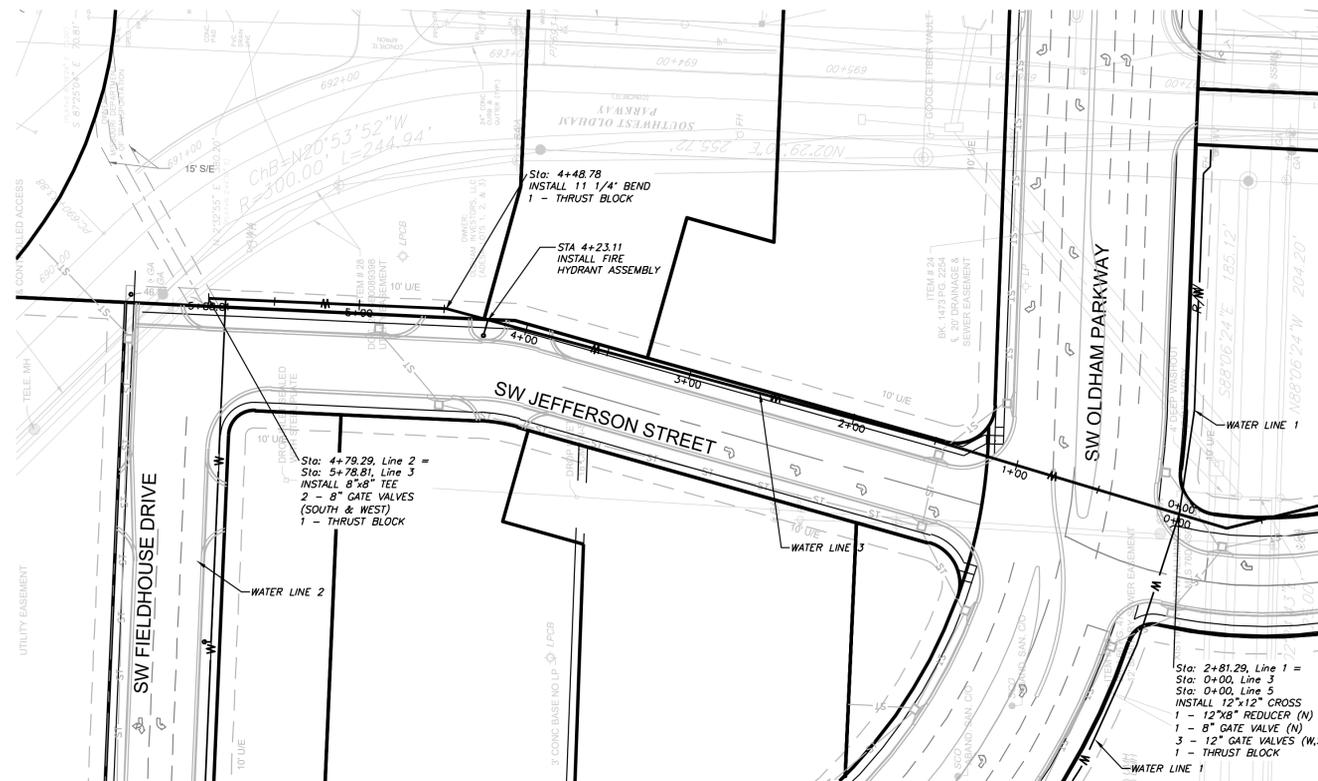


PUBLIC WATER LINE 2

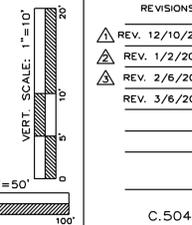


WATER PLAN & PROFILE

SCALE: 1" = 50'



PUBLIC WATER LINE 3



Note:
Compacted Fill shall be placed to a minimum 18" above the top of the pipe prior to installation.



Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005003819-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

Project:
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

Oldham Village
Lee's Summit, Jackson County, Missouri

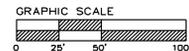
Water Main Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25228
NE PE E-14335

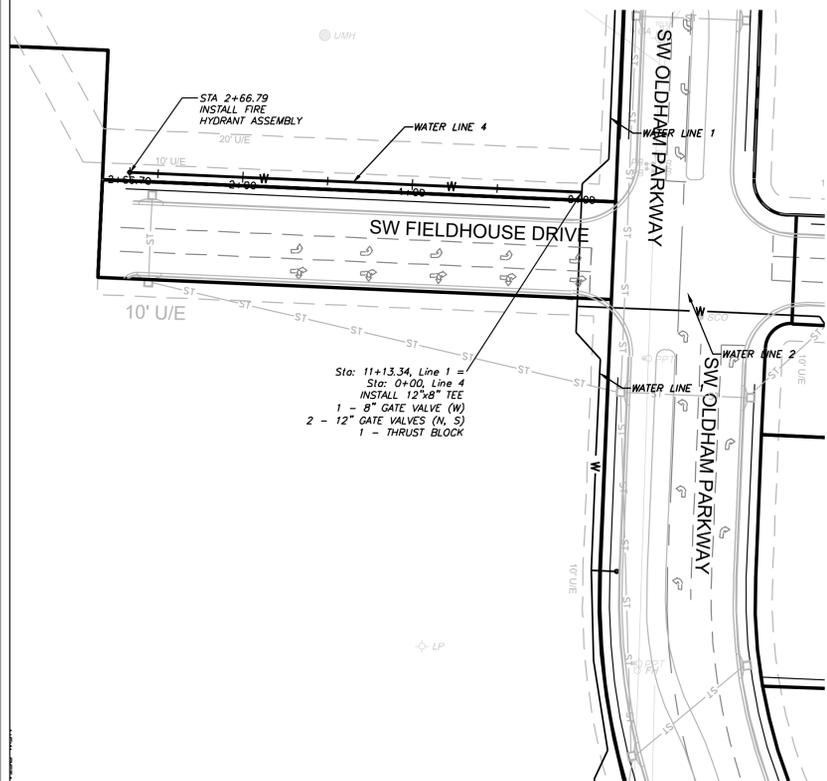
REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025

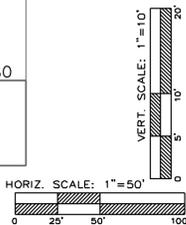
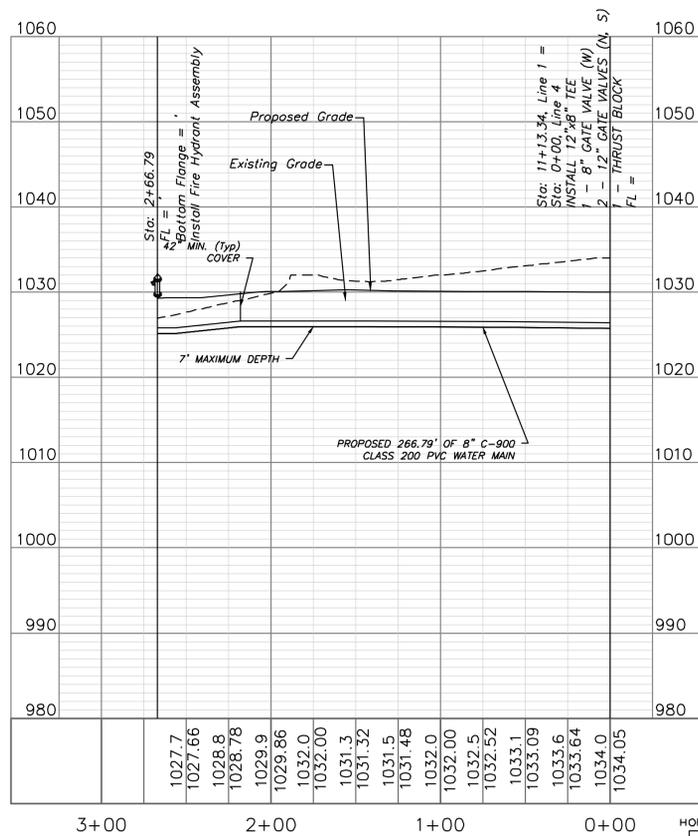


WATER PLAN & PROFILE

SCALE: 1" = 50'

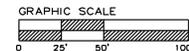


PUBLIC WATER LINE 4



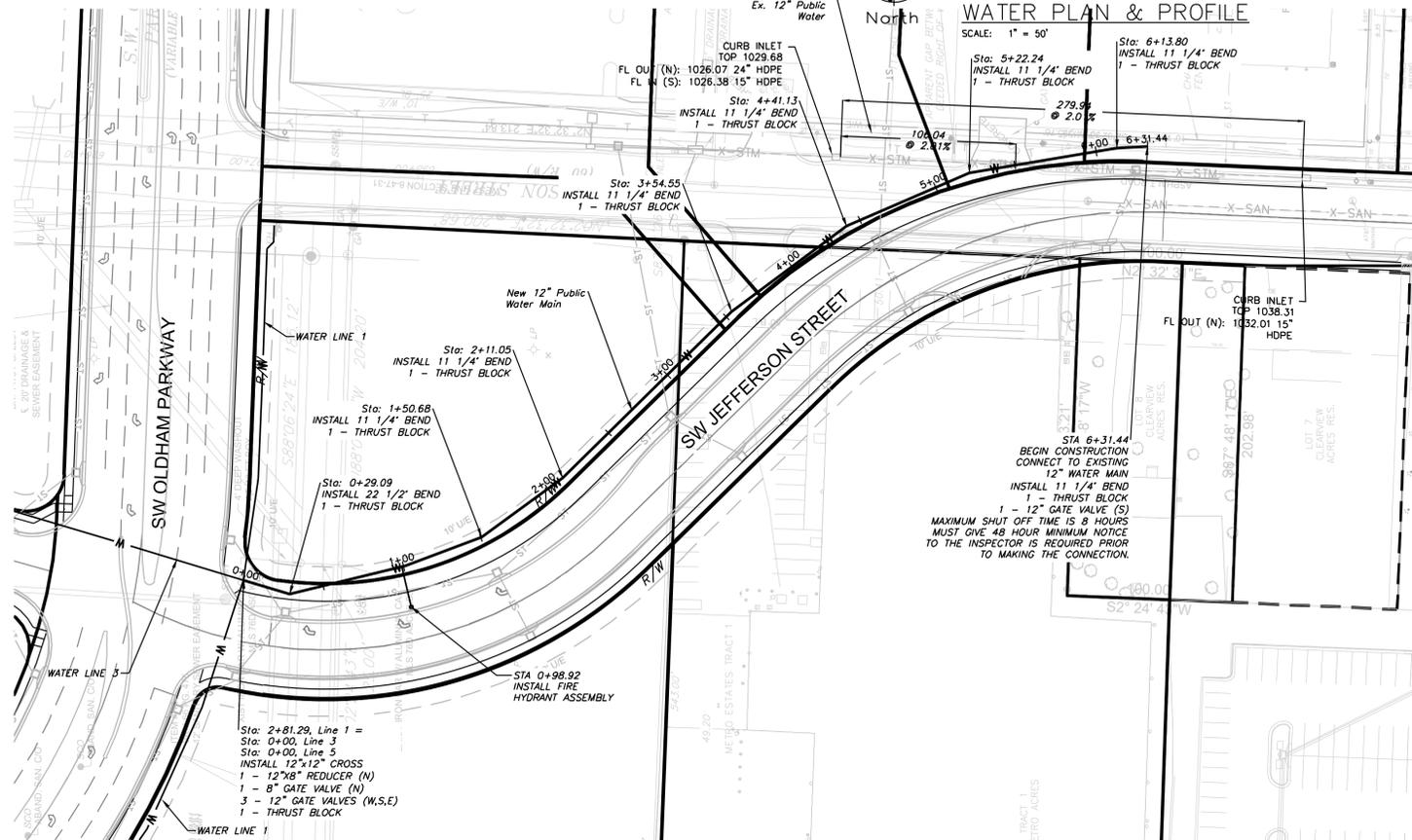
Note:

Compacted Fill shall be placed to a minimum 18" above the top of the pipe prior to installation.

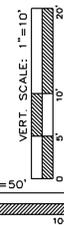
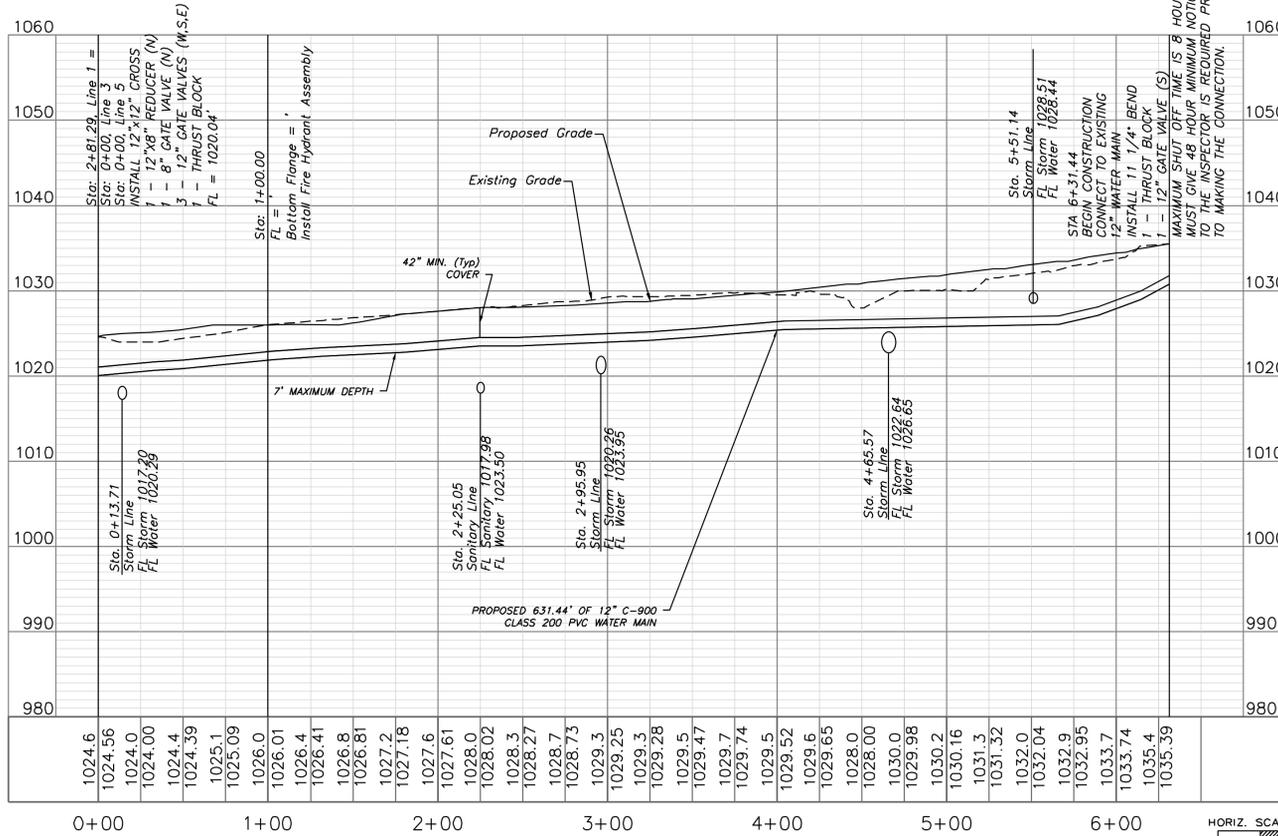


WATER PLAN & PROFILE

SCALE: 1" = 50'



PUBLIC WATER LINE 5



Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project:
MARKETPLACE,
LSMO
Issue Date:
October 23, 2024

Water Main Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlacht
MO PE 2006019708
KS PE 19071
OK PE 25228
NE PE E-14335

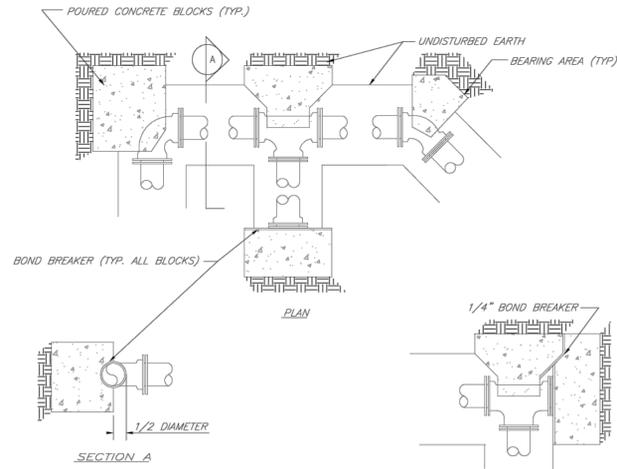
REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/6/2025

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

NOM. DIA. (INCHES)	TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	26.6	13.1	6.6
18	42.4	59.3	35.6	16.5	8.3
20	52.4	73.1	46.4	20.4	10.3
24	74.4	101.4	64.4	29.4	14.8

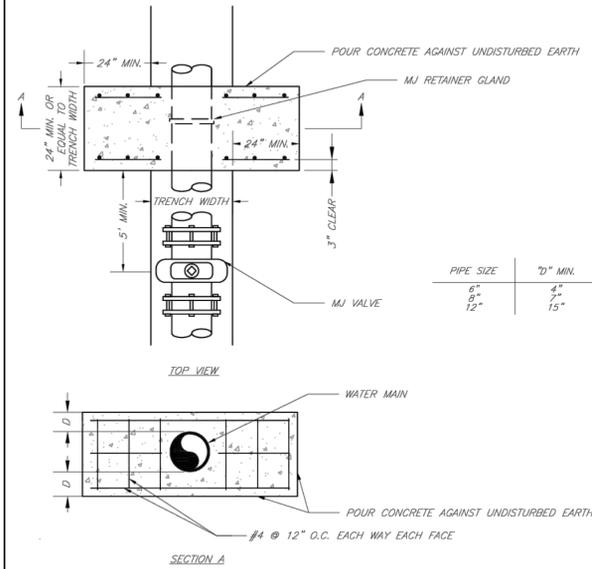
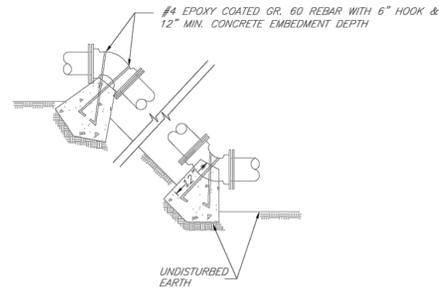
- NOTES:
- ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 - MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 - BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
 - DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



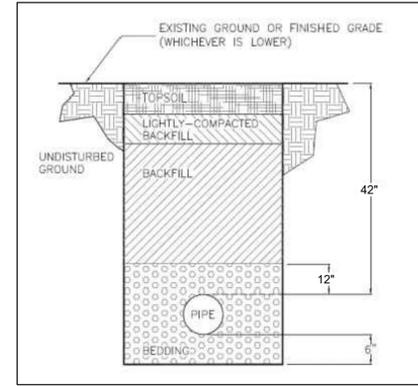
REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

NOM. DIA. (INCHES)	TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	65.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	287.1	154.6	78.8	39.6
14	276.4	394.4	207.4	107.3	53.9
16	363.4	519.4	271.4	140.1	70.4
18	463.4	662.4	347.4	177.3	89.1
20	576.4	824.4	436.4	219.4	110.0
24	816.4	1124.4	596.4	299.4	158.4

- NOTES:
- ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 - MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 - BEARING MUST BE AGAINST UNDISTURBED SOIL.
 - DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



NOTE:
THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"



TRENCH AND BACKFILL DETAIL
N.T.S.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HORIZONTAL THRUST BLOCKS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-1
Rev: 1/14

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

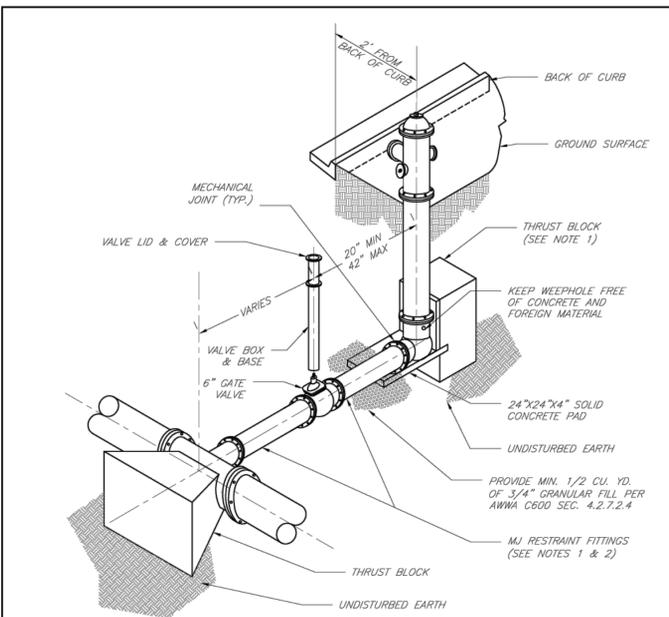
VERTICAL THRUST BLOCKS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-2
Rev: 1/14

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STRADDLE BLOCK

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-3
Rev: 1/14

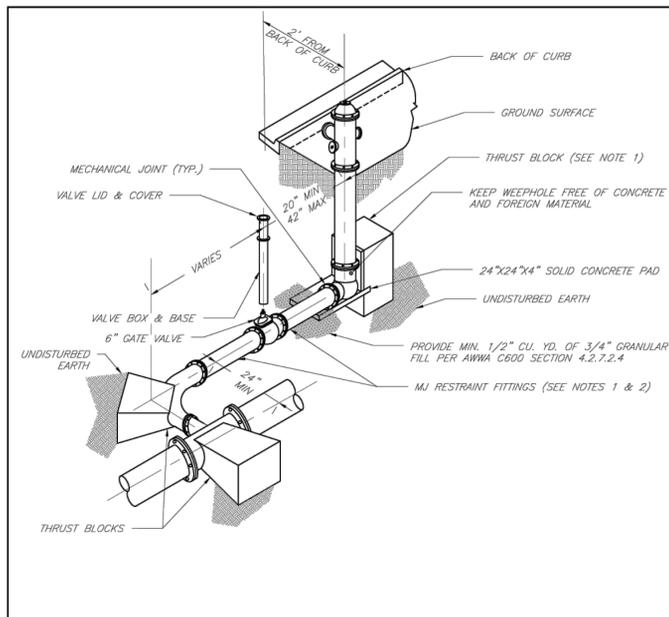


- NOTES:
- WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 - GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 - SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 - BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
 - FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10" FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
 - HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION - STRAIGHT SET

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-7
Rev: 1/14

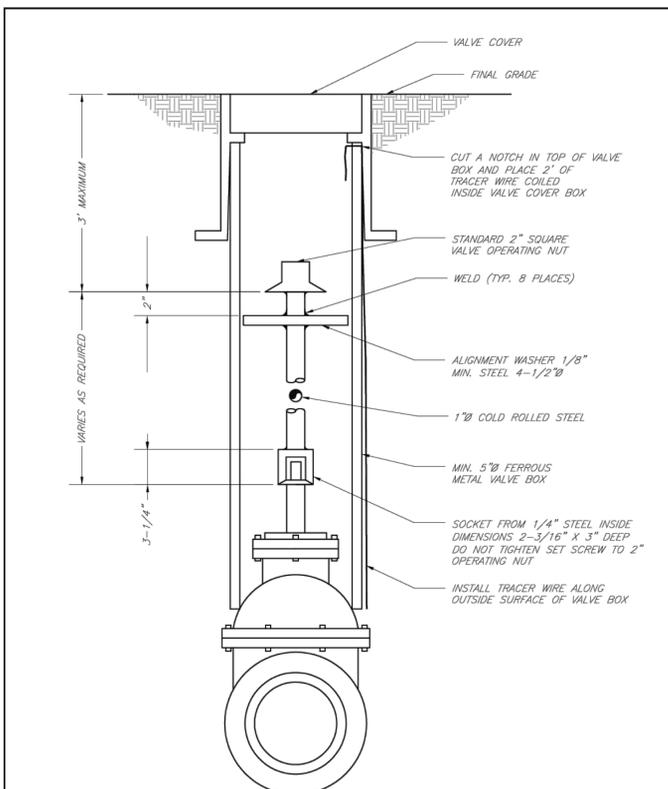


- NOTES:
- WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 - GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 - SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
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 - HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT WITH 90 DEGREE BEND

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-8
Rev: 1/14



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-9
Rev: 1/14