

# EAST VILLAGE PHASE 1

## WATER LINE CONSTRUCTION PLAN

### Section 8, Township 47 North, Range 31 West

### LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

**WATER:**

1 ~ THE CONTRACTOR SHALL COORDINATE WITH THE DEVELOPMENT ENGINEERING INSPECTOR PRIOR TO ANY CONNECTIONS TO THE PUBLIC WATER SUPPLY.

2 ~ FIRE HYDRANTS SHALL BE OPTIC YELLOW WATEROUS "PACER" MODEL NO. WB-67-250 WITH NON-RISING STEM OR CITY ENGINEER APPROVED EQUAL. HYDRANTS SHALL HAVE A 5 1/4" VALVE WITH A 4 1/2" PUMPER NOZZLE AND 2 - 2 1/2" HOSE NOZZLES (LEFT HAND OPENING).

3 ~ GATE VALVES SHALL BE MUELLER NO. 2360 Series HUB END "O" RING SEAL NON-RISING STEM. VALVES LARGER THAN 12" SHALL BE BUTTERFLY VALVES MANUFACTURED BY THE HENRY PRATT COMPANY OR CITY ENGINEER APPROVED EQUAL. LEFT HAND OPENING. MINIMUM 200# TESTING AWWA.

4 ~ ALL WATER MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 42 INCHES. STREET GRADING SHALL BE COMPLETED PRIOR TO BEGINNING CONSTRUCTION OF WATER MAINS.

5 ~ ALL BENDS, TEES AND FIRE HYDRANTS SHALL BE INSTALLED WITH SUITABLE CONCRETE THRUST BLOCKS POURED IN PLACE AGAINST UNDISTURBED EARTH AND PER CITY OF LEE'S SUMMIT AND APWA STANDARDS.

6 ~ THE MINIMUM SEPARATION BETWEEN THE PROPOSED WATER MAIN AND SANITARY OR STORM SEWERS IS AS FOLLOWS:

A ~ SANITARY SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES  
 B ~ STORM SEWERS: HORIZONTAL = 10 FEET - VERTICAL = 18 INCHES  
 THESE SEPARATIONS SHALL PREVAIL OVER ANY DATA SHOWN IN THESE PLANS AND THE CONTRACTOR SHALL INSTALL BENDS OR OTHER FITTINGS AS NECESSARY TO ACHIEVE THE REQUIRED SEPARATIONS.

7 ~ ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813

8 ~ THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

**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°25'22"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 62.84 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 461.13 feet; thence S89°02'59"W, a distance of 78.09 feet; thence N52°34'07"W, a distance of 298.65 feet to the Point of Beginning.



**SITE LOCATION MAP**

**INDEX OF SHEETS:**

- C.500 ~ COVER SHEET
- C.501 ~ WATER MAIN GENERAL LAYOUT
- C.502 ~ WATER MAIN LINE PLAN & PROFILE
- C.503 ~ WATER MAIN LINE PLAN & PROFILE
- C.504 ~ DETAIL SHEET

**UTILITY COMPANIES:**

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

- EVERGY ~ 298-1196
- MISSOURI GAS ENERGY ~ 756-5261
- SOUTHWESTERN BELL TELEPHONE ~ 761-5011
- COMCAST CABLE ~ 795-1100
- WILLIAMS PIPELINE ~ 422-6300
- CITY OF LEE'S SUMMIT PUBLIC WORKS ~ 969-1800
- CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
- CITY OF LEE'S SUMMIT WATER UTILITIES ~ 969-1900
- MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483

**LEGEND:**

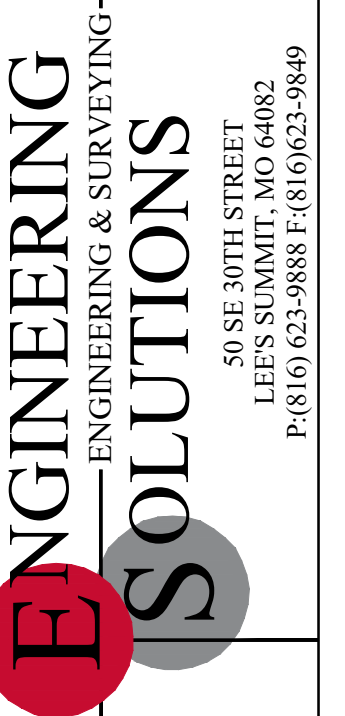
- B/L ~ BUILDING SET-BACK
- C/A ~ COMMON AREA
- D/E ~ DRAINAGE EASEMENT
- FND. ~ FOUND
- L/E ~ LANDSCAPE EASEMENT
- L.N.A. ~ LIMITS OF NO ACCESS
- R/W ~ RIGHT OF WAY
- SAN ~ SANITARY SEWER LINE
- S/W ~ SIDEWALK
- U/E ~ UTILITY EASEMENT
- W ~ WATER LINE
- ST ~ STORM SEWER LINE

**ENGINEER'S CERTIFICATION:**

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

**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.

**FLOOD INFORMATION:**  
 The property is located in Zone "X" areas outside the 100 year flood plain per FEMA Map 29095C0419G, dated January 20, 2017

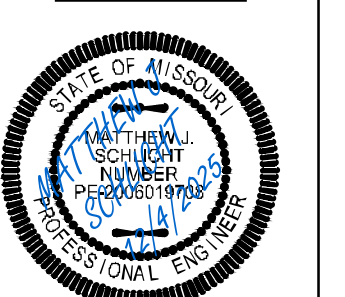


Professional Registration  
 Missouri  
 Engineering 200502186-D  
 Surveying 2005008318-D  
 Kansas  
 Engineering E-1695  
 Surveying LS-218  
 Oklahoma  
 Engineering 6254  
 Nebraska  
 Engineering CA2821

Project: GUPM16EAST  
 Issue Date: December 4, 2025  
 East Village Phase 1  
 Lee's Summit, Jackson County, Missouri

Water Main Cover Sheet  
 Construction Plans for:  
 East Village Phase 1  
 Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht  
 MO PE 2006019708  
 KS PE 19071  
 OK PE 25226  
 NE PE E-14335



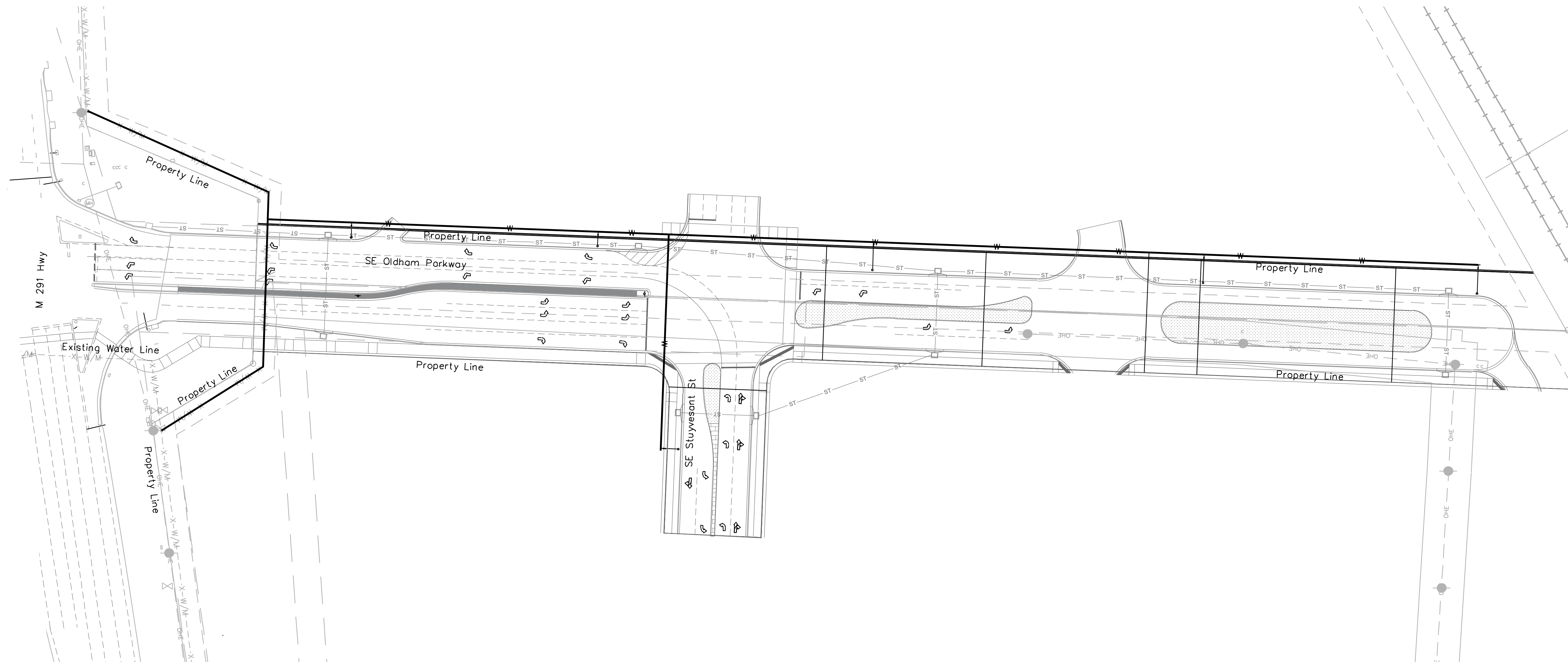
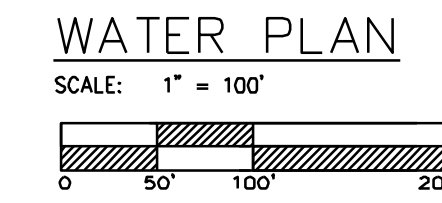
REVISIONS  
 Δ REV. 12/23/2025


**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—ST—
Proposed Storm Sewer (Public)	—S—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—

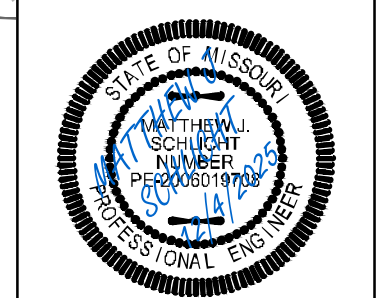
**NOTE:**  
FIRE HYDRANTS SHALL NOT  
BE MORE THAN 250' TO  
ANY POINT ON BUILDING.

**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.



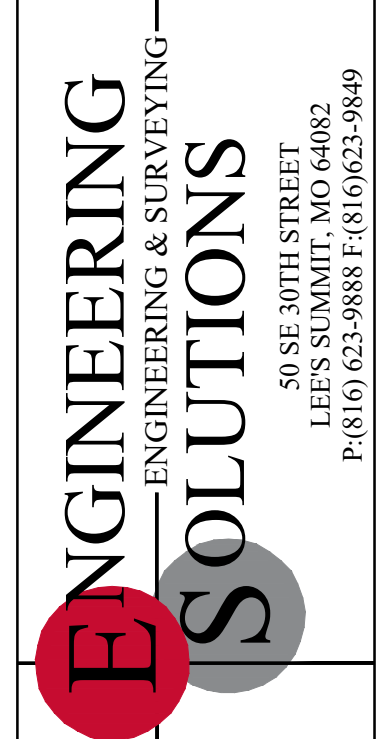
Project: GUPM EAST  
Issue Date: December 4, 2025

**Water Utility Plan**  
Construction Plans for:  
East Village Phase 1  
Lee's Summit, Jackson County, Missouri



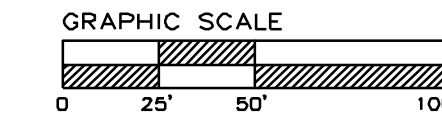
Matthew J. Schlicht  
MO PE 2006019708  
KS PE 19071  
OK PE 25226  
NE PE E-14335

REVISIONS  
△ REV. 12/23/2025

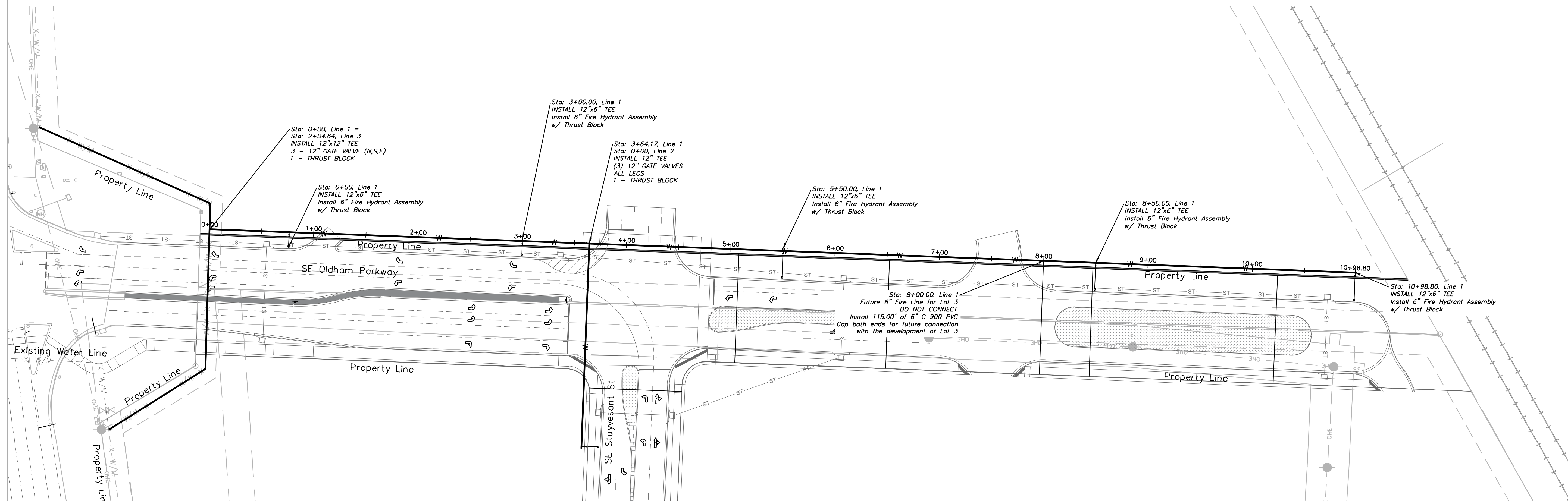


Professional Registration  
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Engineering 200502186-D  
Surveying 2005008318-D  
Kansas  
Engineering E-1695  
Surveying LS-218  
Oklahoma  
Engineering 6254  
Nebraska  
Engineering CA2821

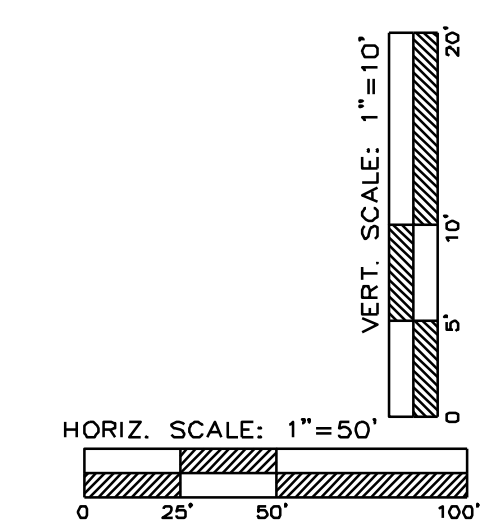
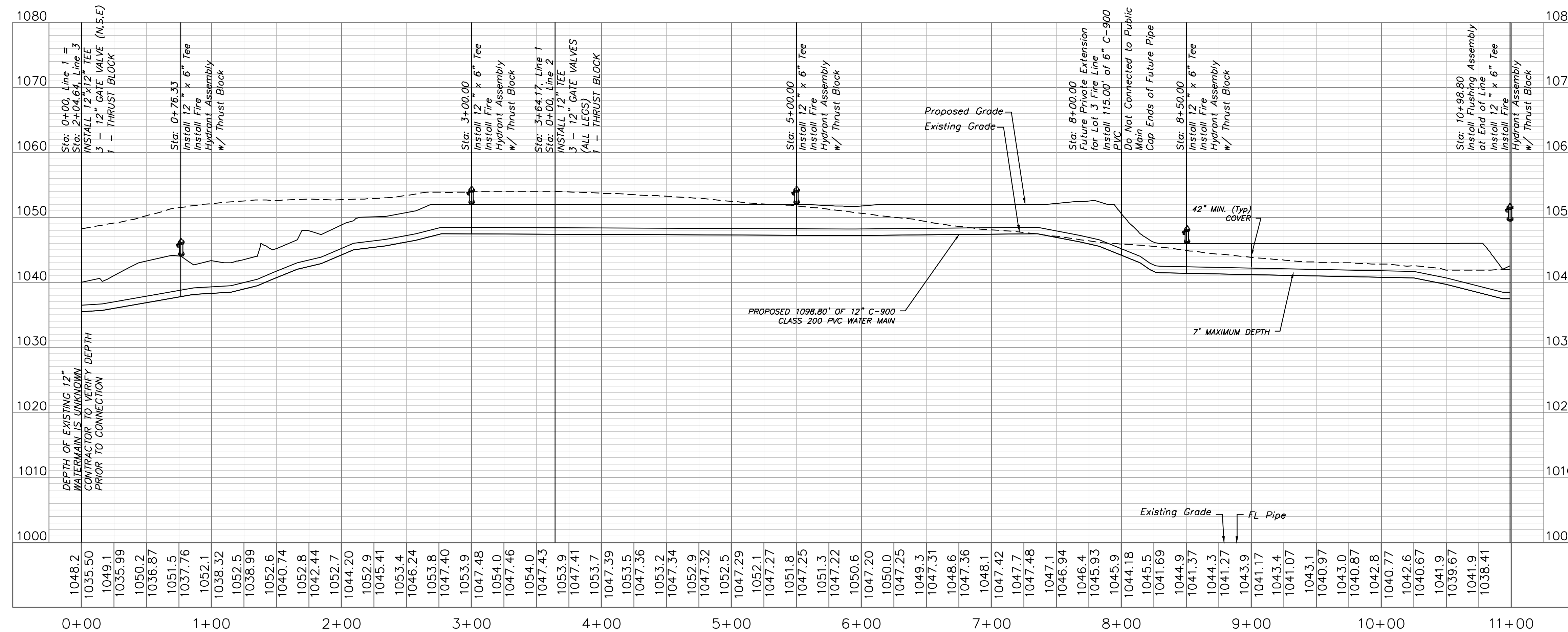
East Village Phase 1  
Lee's Summit, Jackson County, Missouri



WATER PLAN & PROFILE  
SCALE: 1" = 50'



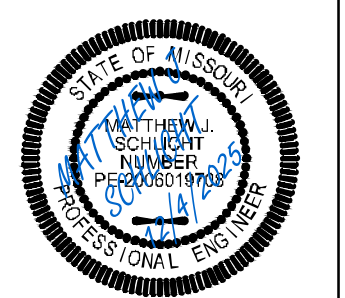
# PUBLIC WATER LINE 1



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

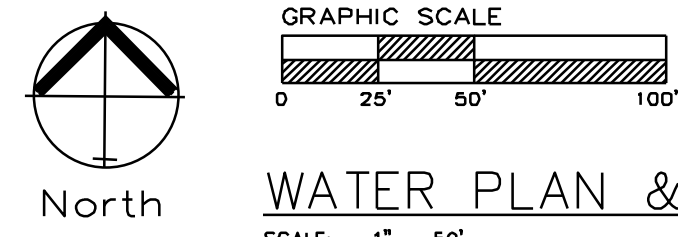
Project: GUPM EAST  
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East Village Phase 1  
Lee's Summit, Jackson County, Missouri

Water Main Plan and Profile  
Construction Plans for:  
East Village Phase 1  
Lee's Summit, Jackson County, Missouri

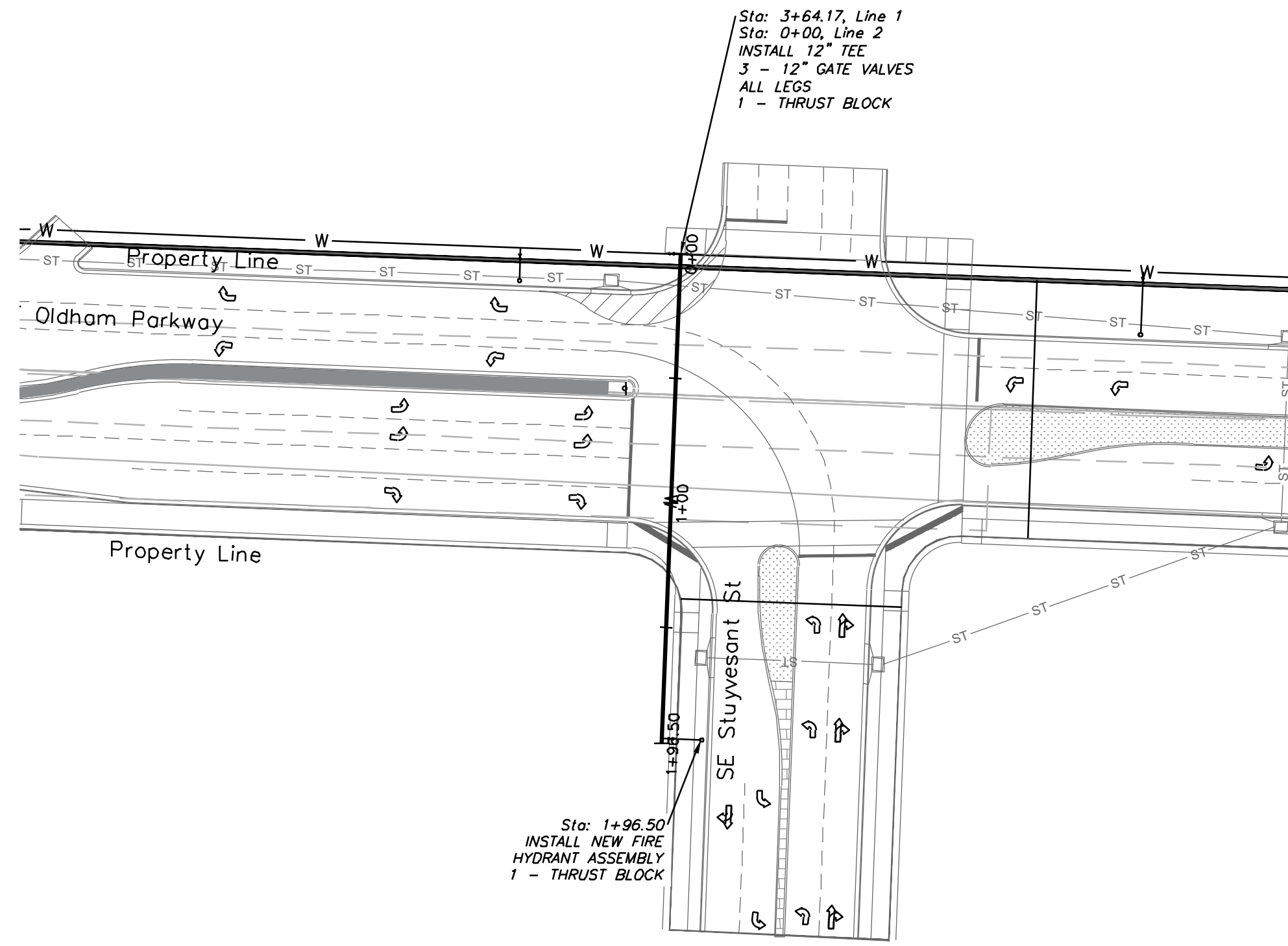


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OK PE 25228  
NE PE E-14335

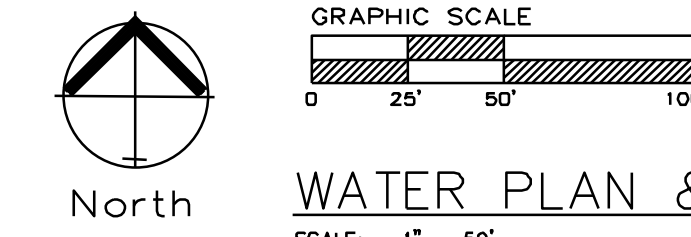
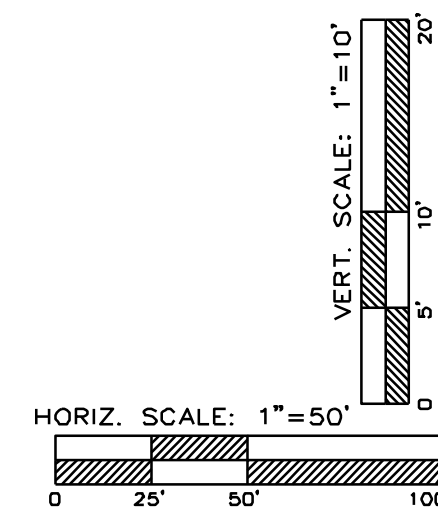
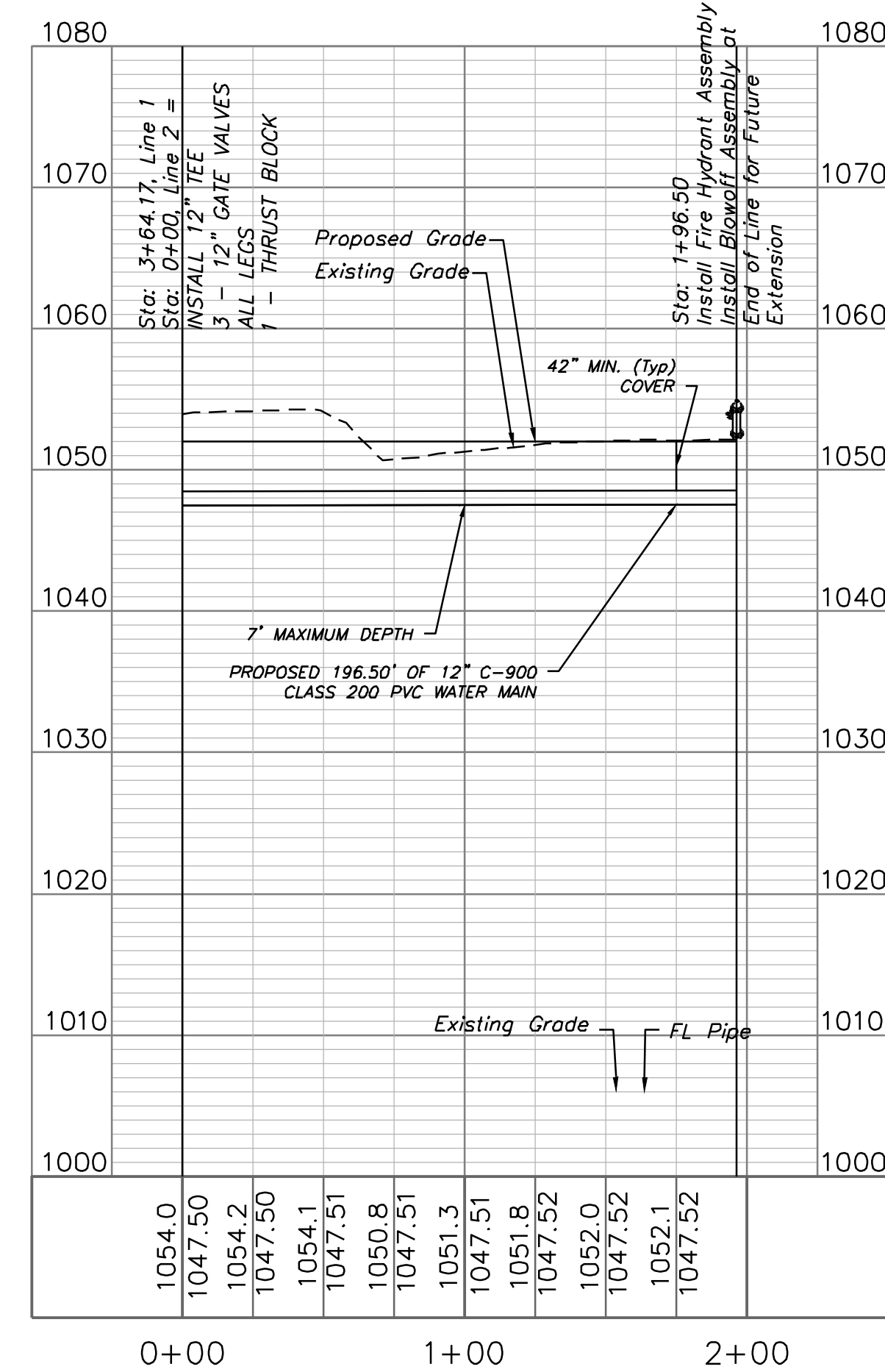
REVISIONS  
REV. 12/23/2025



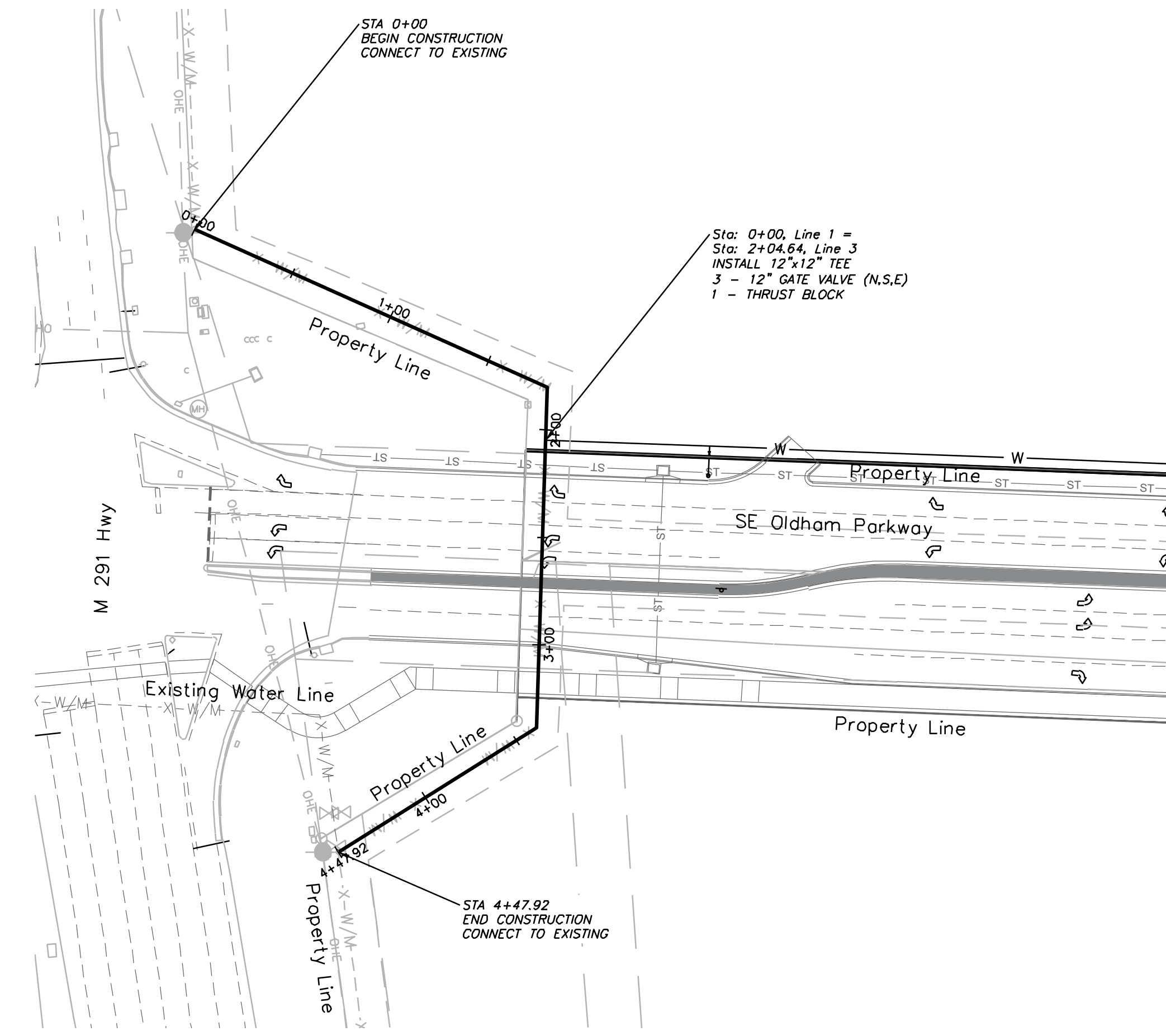
**WATER PLAN & PROFILE**  
SCALE: 1" = 50'



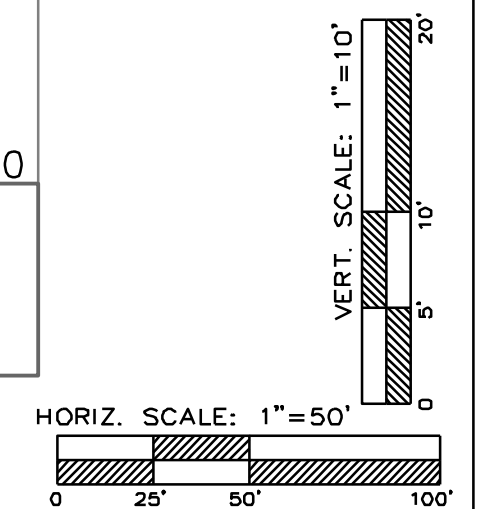
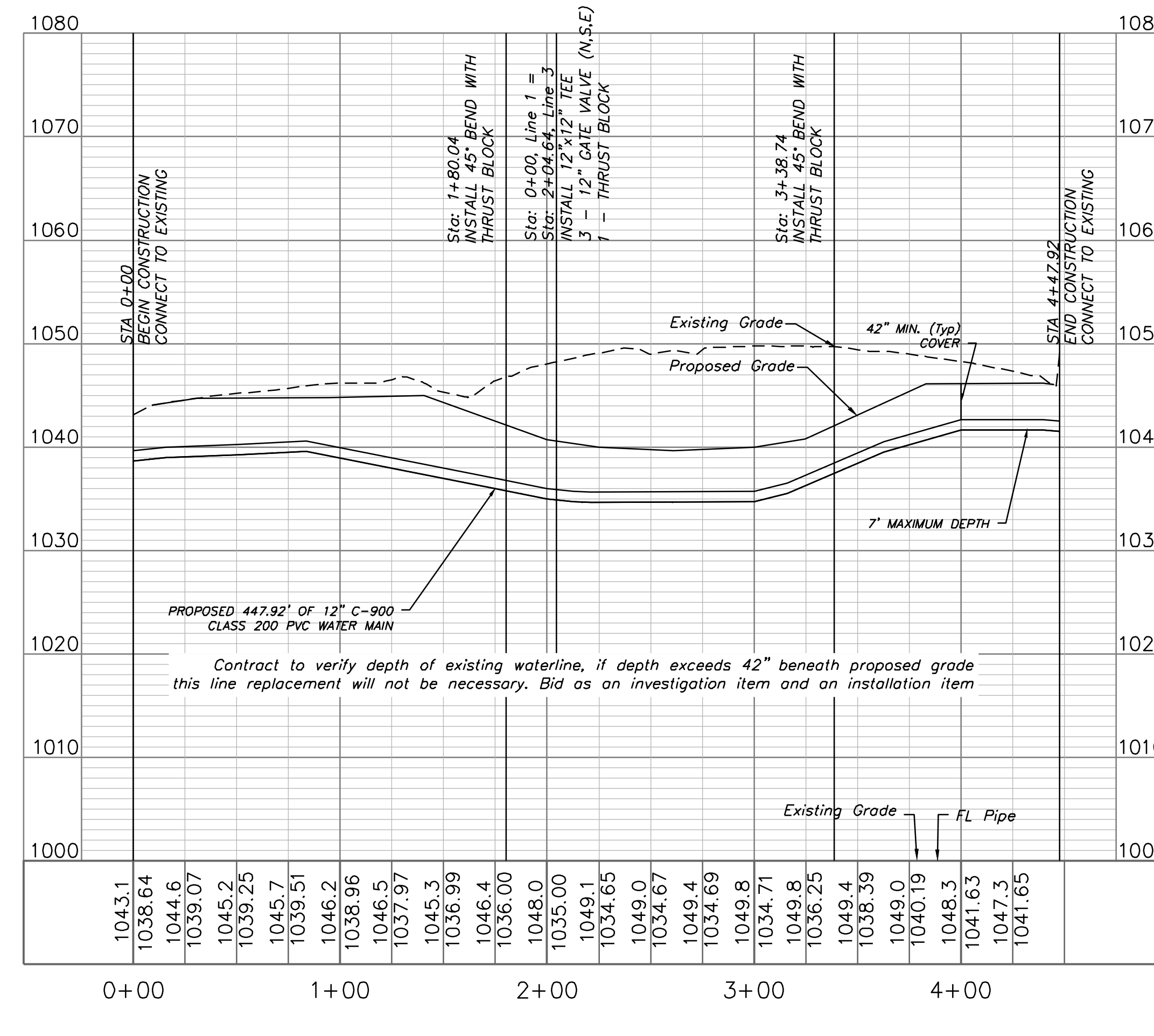
**PUBLIC WATER LINE 2**



**WATER PLAN & PROFILE**  
SCALE: 1" = 50'



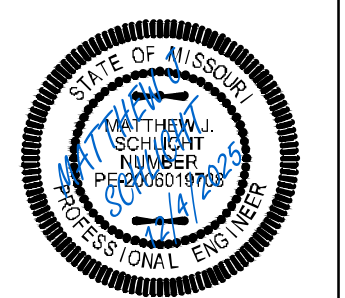
**PUBLIC WATER LINE 3**



Professional Registration  
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Engineering 2005002186-D  
Surveying 2005008318-D  
Kansas  
Engineering E-1695  
Surveying LS-218  
Oklahoma  
Engineering 6264  
Nebraska  
Engineering CA2821

Project: GUPM EAST  
Issue Date: December 4, 2025  
East Village Phase 1  
Lee's Summit, Jackson County, Missouri

Water Main Plan and Profile  
Construction Plans for:  
East Village Phase 1  
Lee's Summit, Jackson County, Missouri

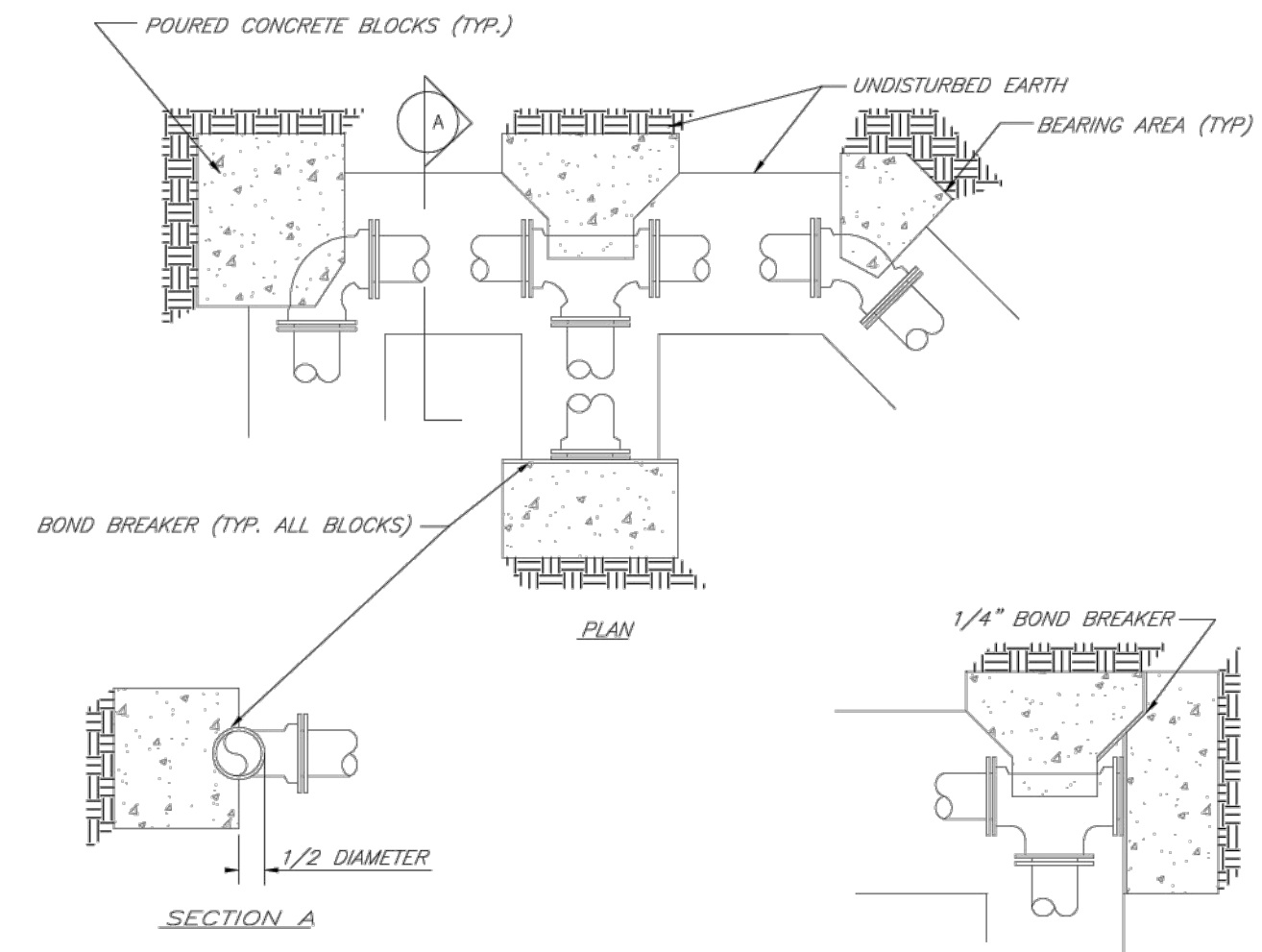


Matthew J. Schlicht  
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REVISIONS  
REV. 12/23/2025

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	4.0	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.2	14.4	7.4	4.0
14	25.7	36.1	19.6	10.0	5.0
16	33.5	47.4	25.8	13.1	6.6
18	42.4	58.7	32.5	16.5	8.3
20	52.1	71.4	40.1	20.4	10.3
24	71.4	97.4	54.4	28.4	14.8

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



**LEE'S SUMMIT MISSOURI**

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

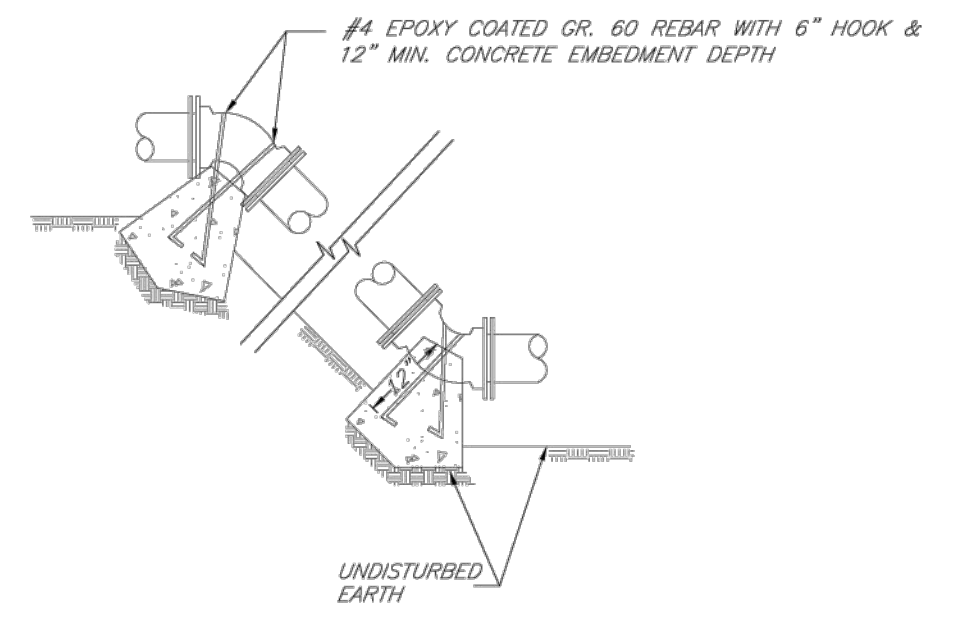
Horizontal Thrust Blocks

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

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	89.9	126.9	68.7	35.0	17.6
10	140.9	198.3	107.5	54.7	27.5
12	202.0	287.1	154.6	78.8	38.6
14	273.1	394.4	210.4	107.3	53.9
16	354.2	519.7	273.1	140.1	70.4
18	445.3	663.0	342.8	177.3	89.1
20	546.4	824.3	429.5	219.4	110.0
24	817.5	1218.6	643.4	331.4	158.4

- NOTES:
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  2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
  3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
  4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.

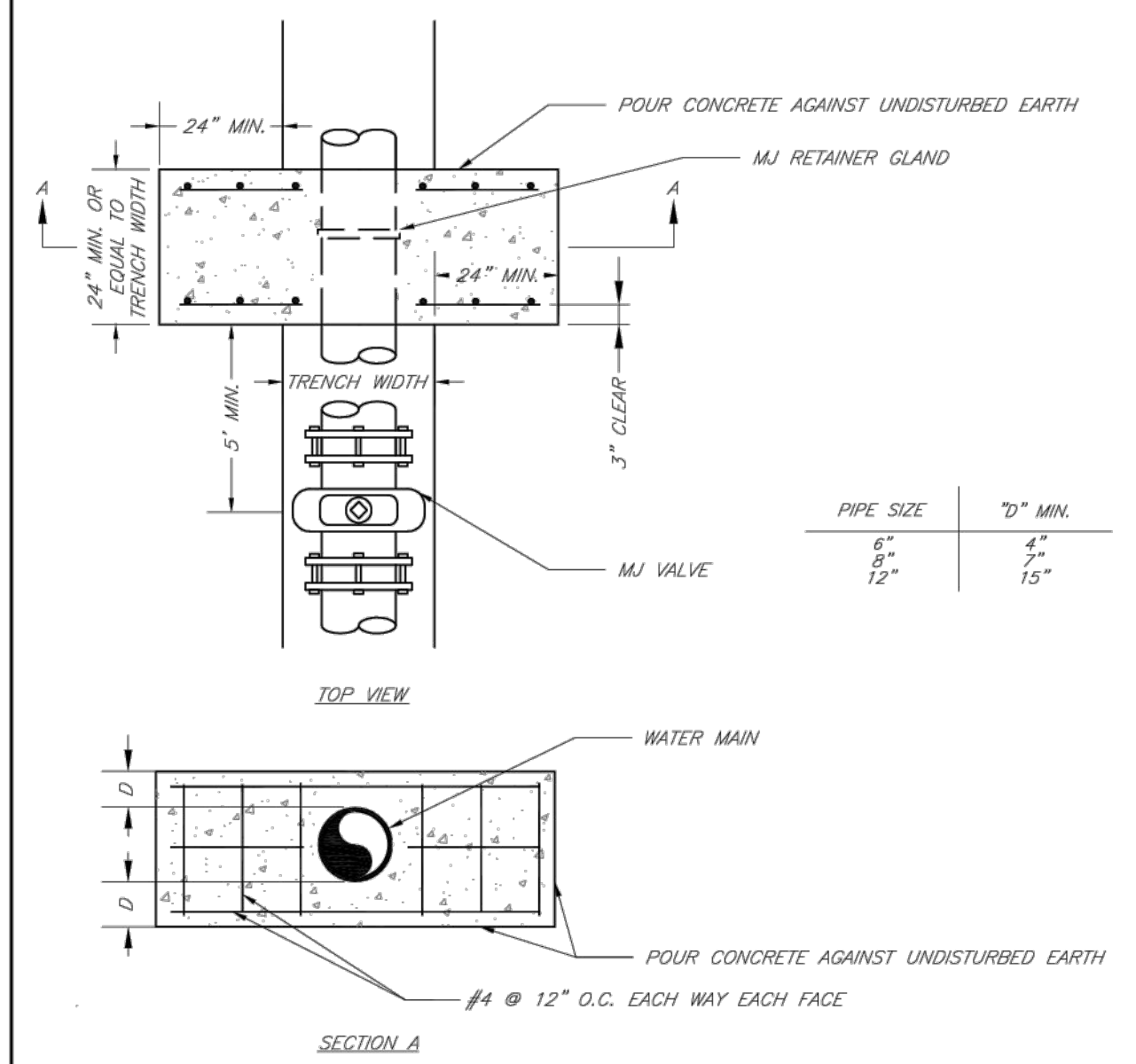


**LEE'S SUMMIT MISSOURI**

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Vertical Thrust Blocks

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



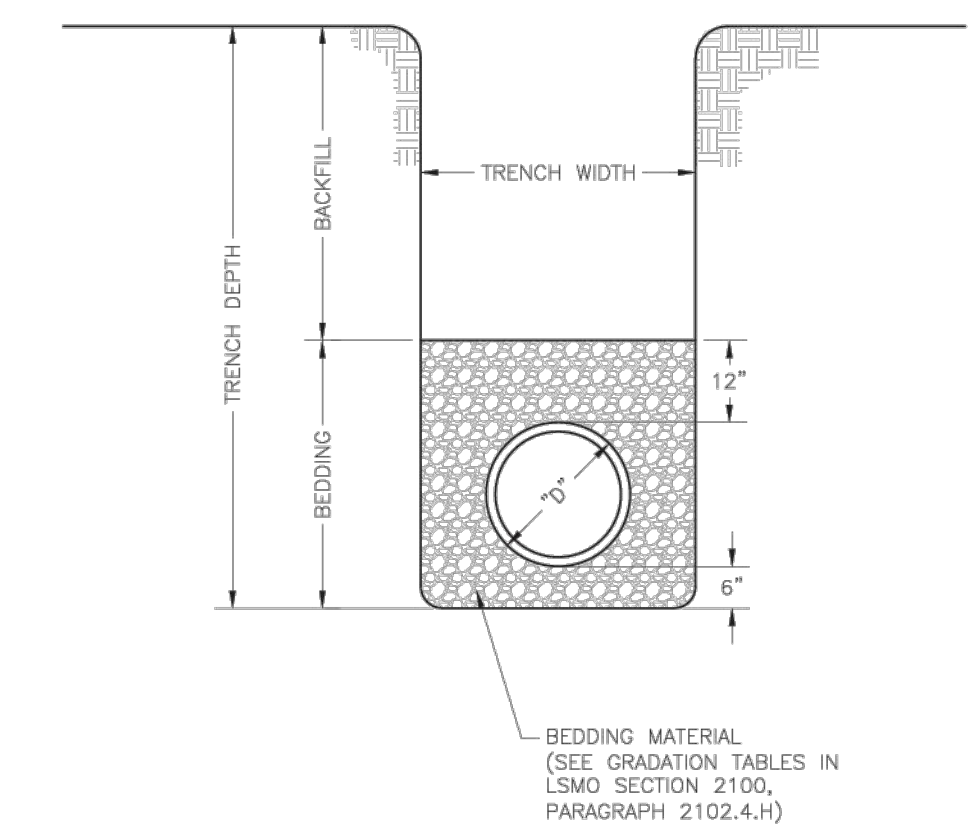
- NOTE:
- THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"

**LEE'S SUMMIT MISSOURI**

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Straddle Block

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



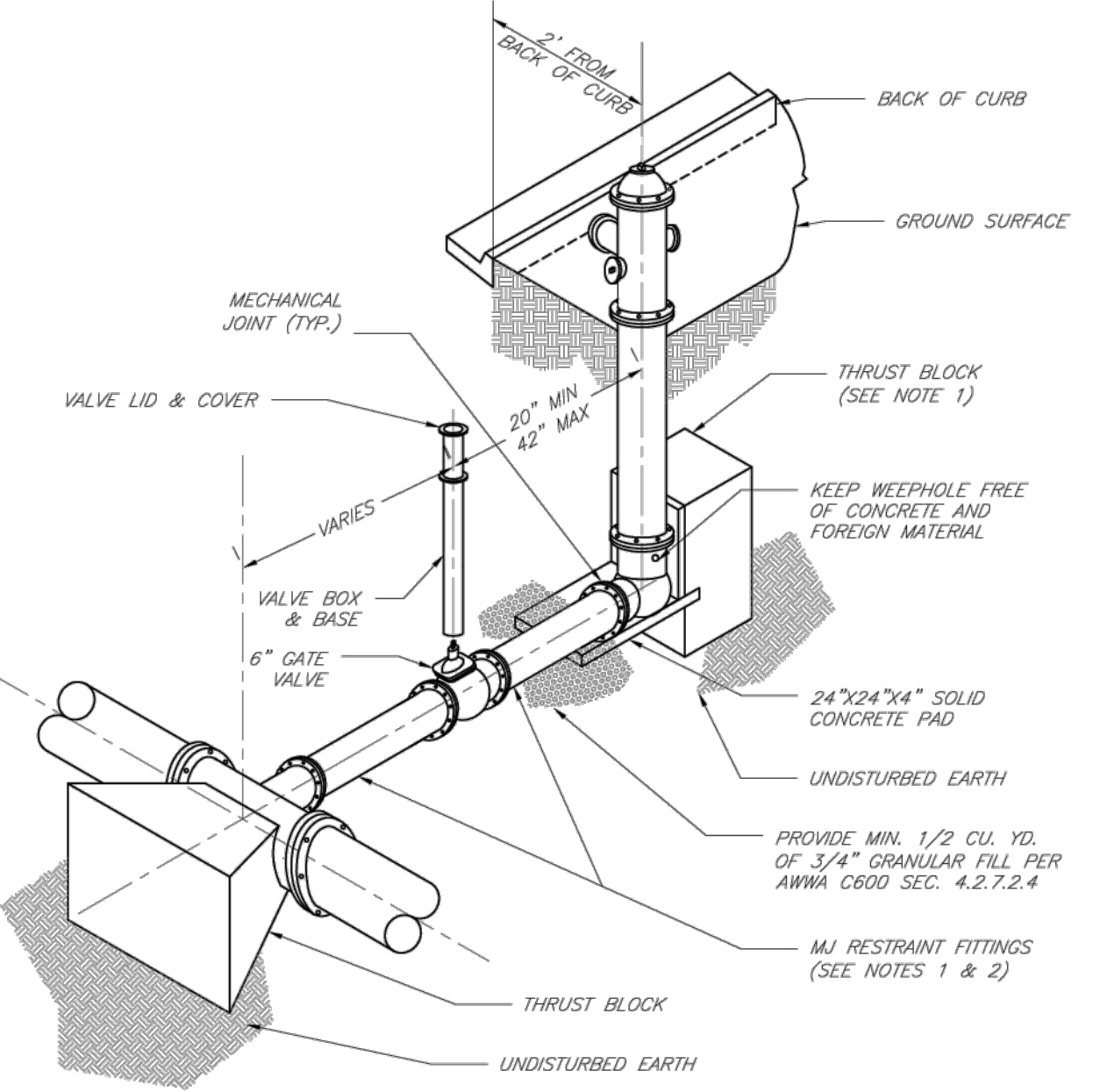
- NOTES:
1. FOR TRENCHING AND PAVEMENT PATCHING REPAIRS WITHIN EXISTING OR FUTURE STREETS SEE STANDARD DETAIL GEN-5.
  2. EXCAVATION DEPTH, SLOPES, SHORING, AND STOCKPILE LOCATIONS SHALL COMPLY WITH OSHA REGULATIONS.

**LEE'S SUMMIT MISSOURI**

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

Pipe Bedding Detail

Date: 08/2023  
Drawn By: MSP  
Checked By: GMS



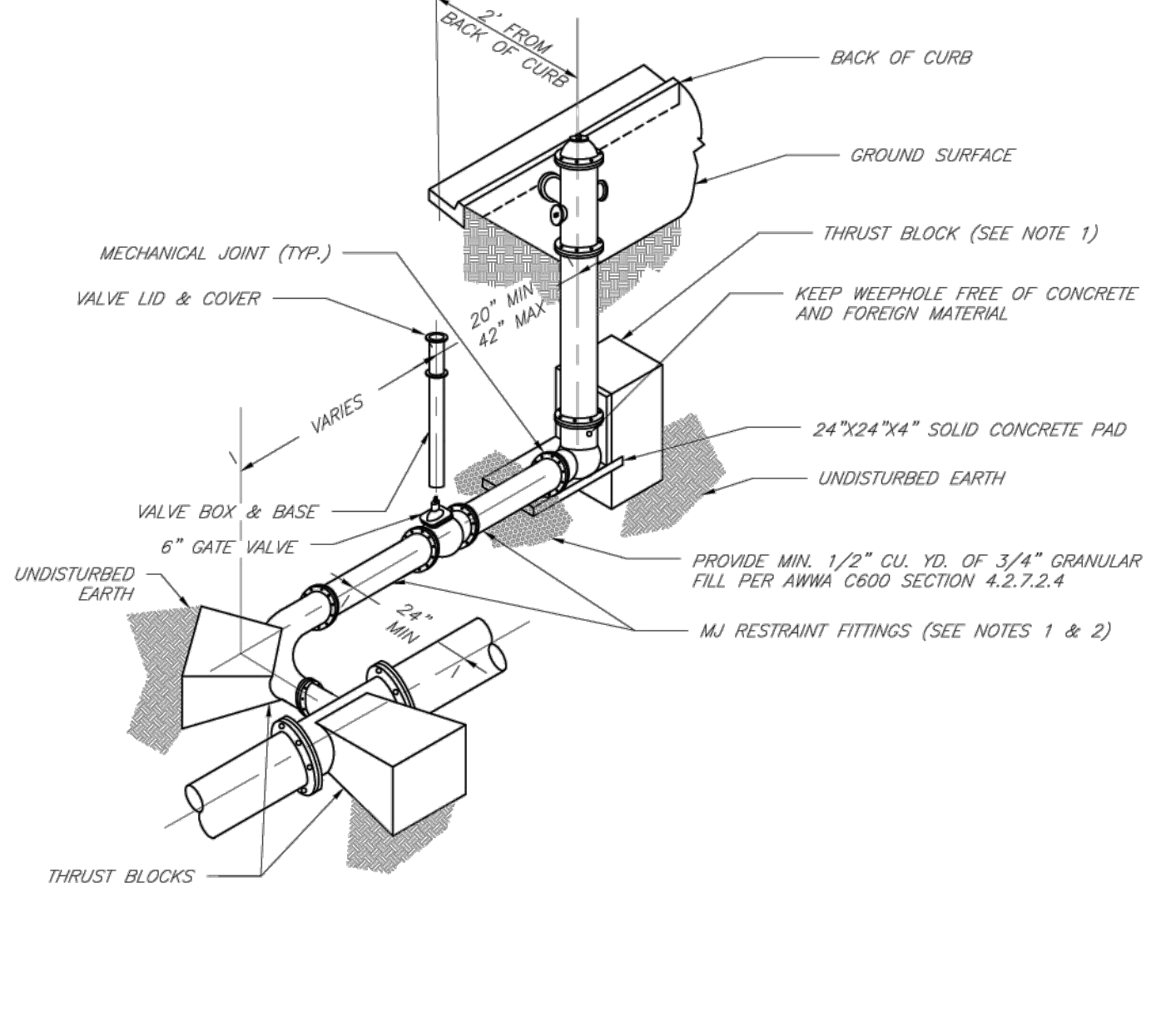
- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
  2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
  3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
  4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
  5. 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.
  6. 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



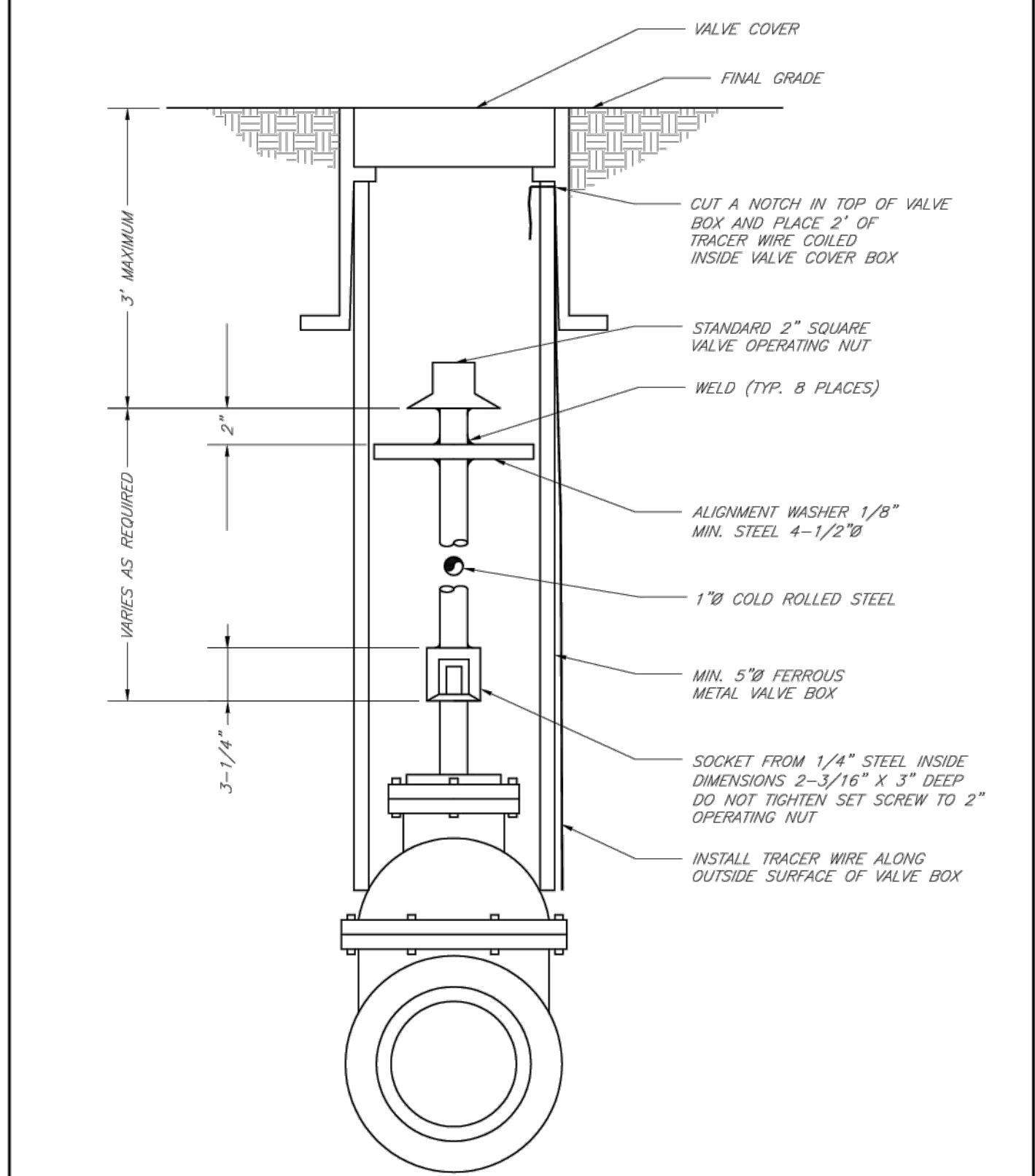
- NOTES:
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**LEE'S SUMMIT MISSOURI**

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

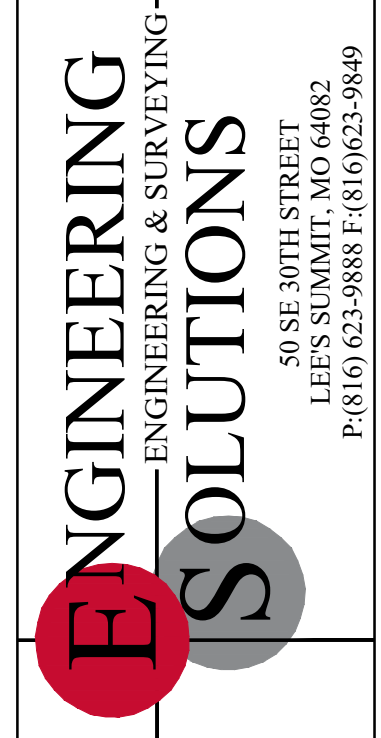


**LEE'S SUMMIT MISSOURI**

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

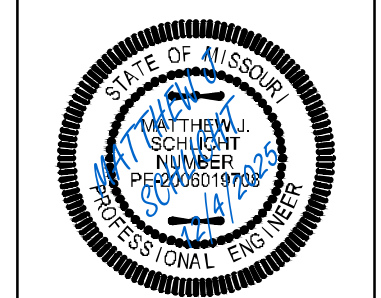


Professional Registration  
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Kansas  
Surveying 2005008318-D  
Kansas  
Engineering E-1695  
Surveying LS-218  
Oklahoma  
Engineering 6254  
Nebraska  
Engineering CA2821

East Village Phase 1  
Jackson County, Missouri  
Lee's Summit, Jackson County, Missouri

Project: GUPM EAST  
Issue Date: December 4, 2025

Water Main Detail  
Construction Plans for:  
East Village Phase 1  
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht  
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NE PE E-14335

REVISIONS  
REV. 12/23/2025