

LEGEND:

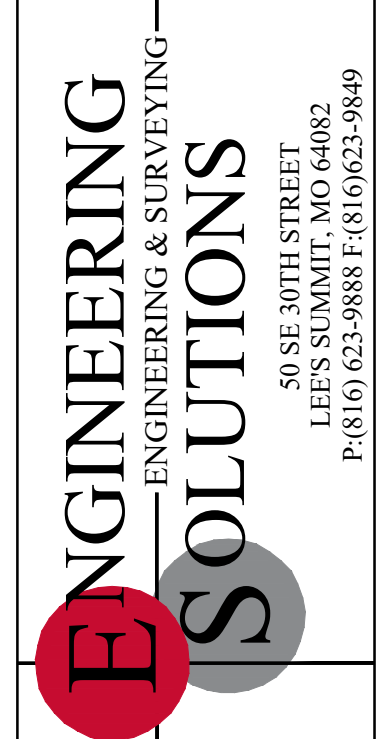
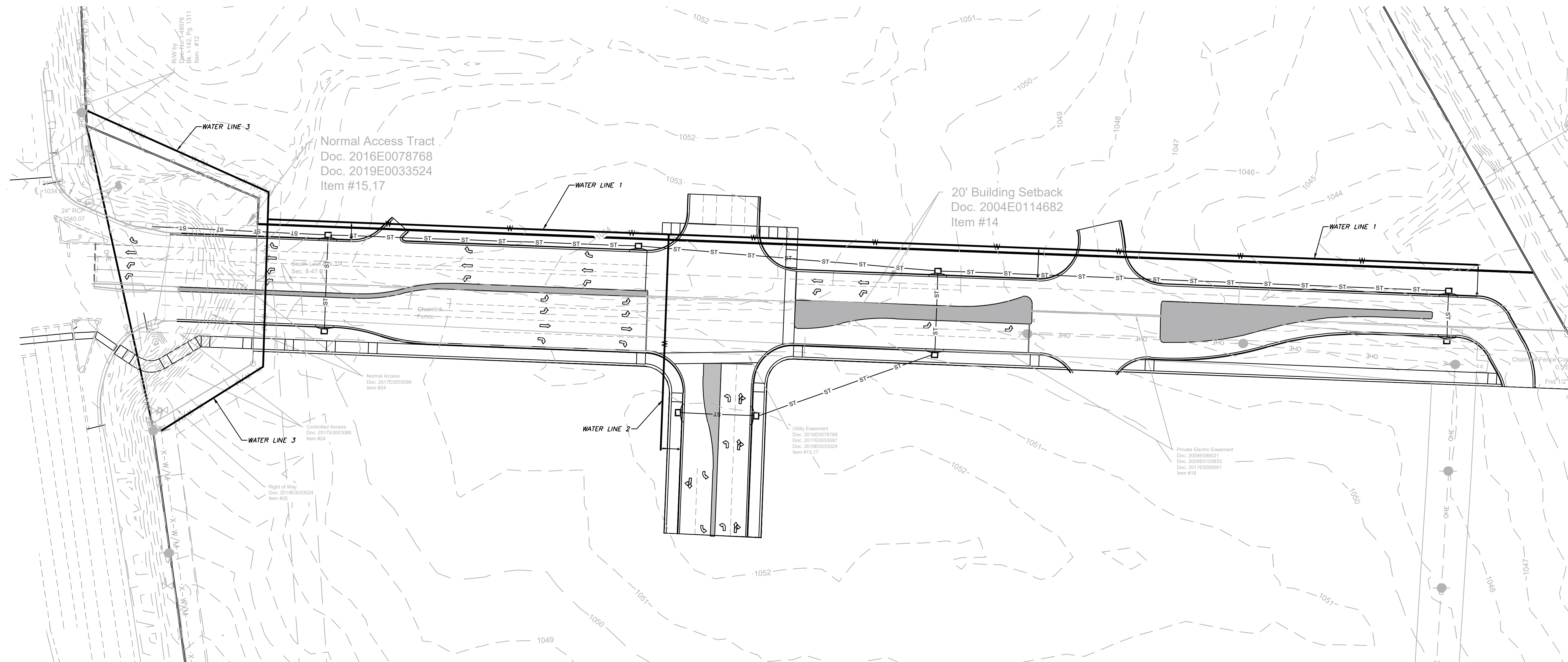
Existing Underground Power	—UGP—UGP—
Existing Conc. Curb & Gutter	====
Existing Wood Fence	—X—X—
Existing Gas Main	—GAS—GAS—
Existing Water Main	-X-W/M- -X-W/M-
Existing Storm Sewer	-X-STM- -X-STM-
Existing Sanitary Sewer	-X-SAN- -X-SAN-
Existing Underground Telephone	—UGT—UGT—
Existing Overhead Power	—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.



WATER PLAN
SCALE: 1" = 100'
0 50 100 200'



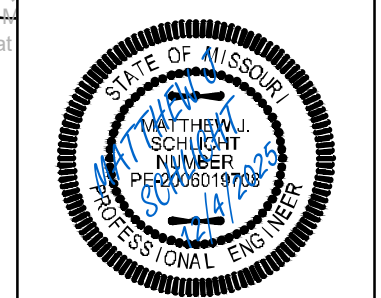
Professional Registration
Missouri
Engineering 200502186-D
Surveying 20050318-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project: OLDFHAM EAST
Issue Date: December 4, 2025

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

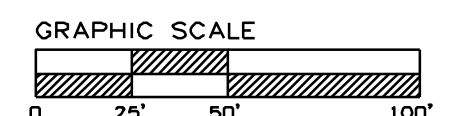
Project: OLDFHAM EAST
Issue Date: December 4, 2025

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

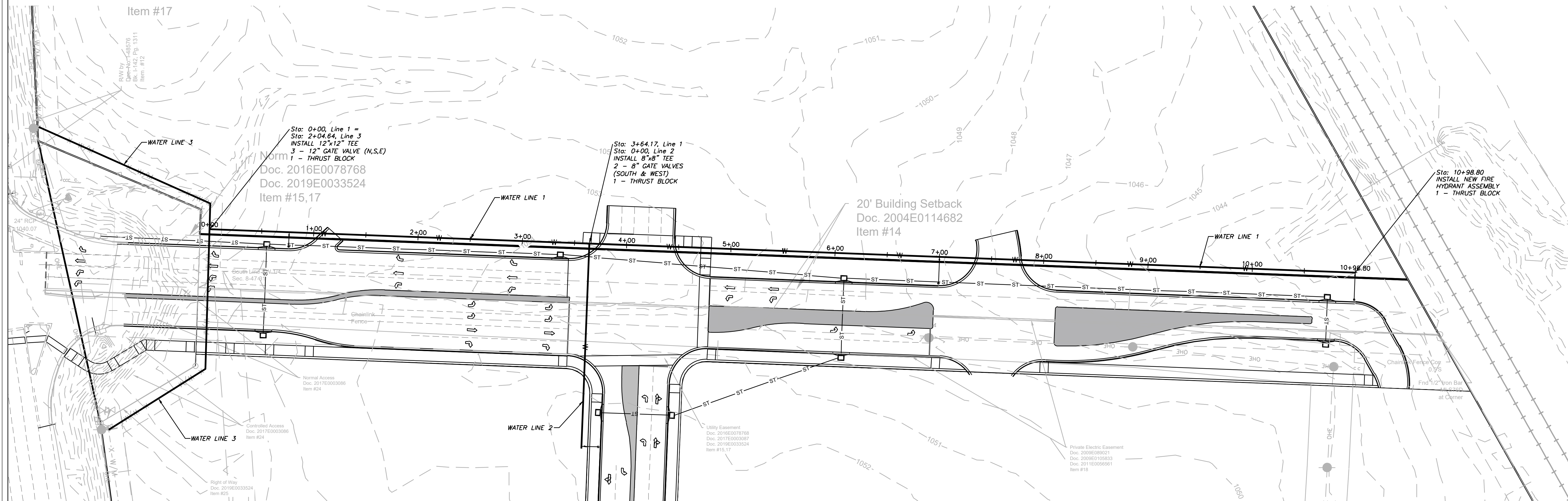


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

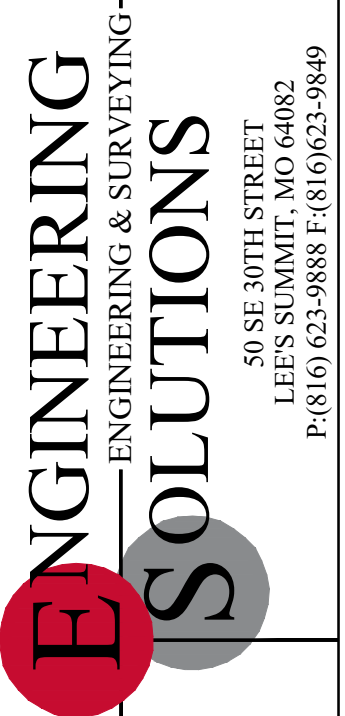
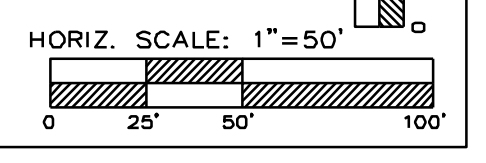
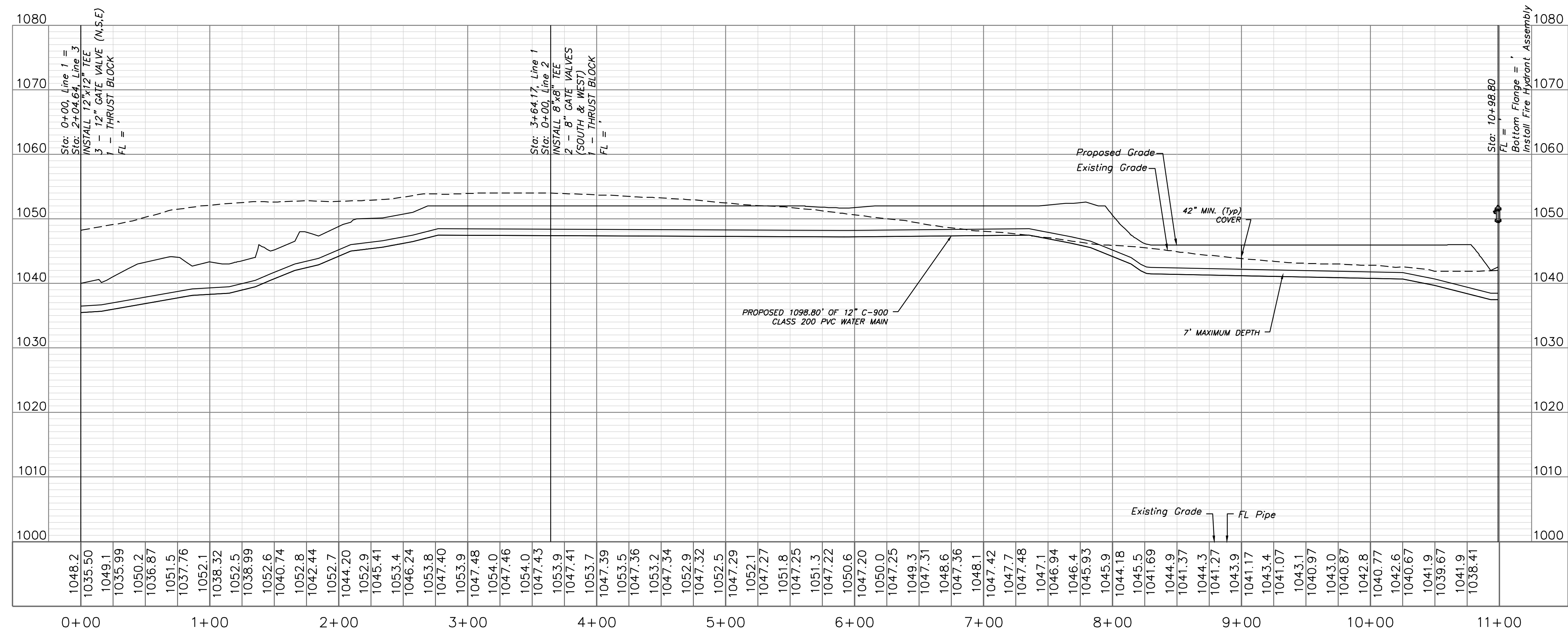
REVISIONS



WATER PLAN & PROFILE
SCALE: 1" = 50'



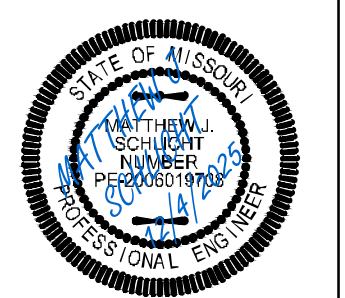
PUBLIC WATER LINE 1



Professional Registration
Missouri
Engineering 200502186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

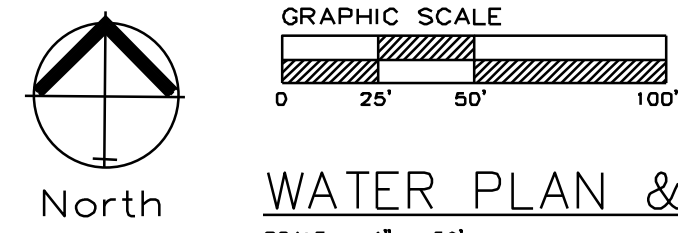
Project: GUPM EAST
Issue Date: December 4, 2025
Oldham East
Lee's Summit, Jackson County, Missouri

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

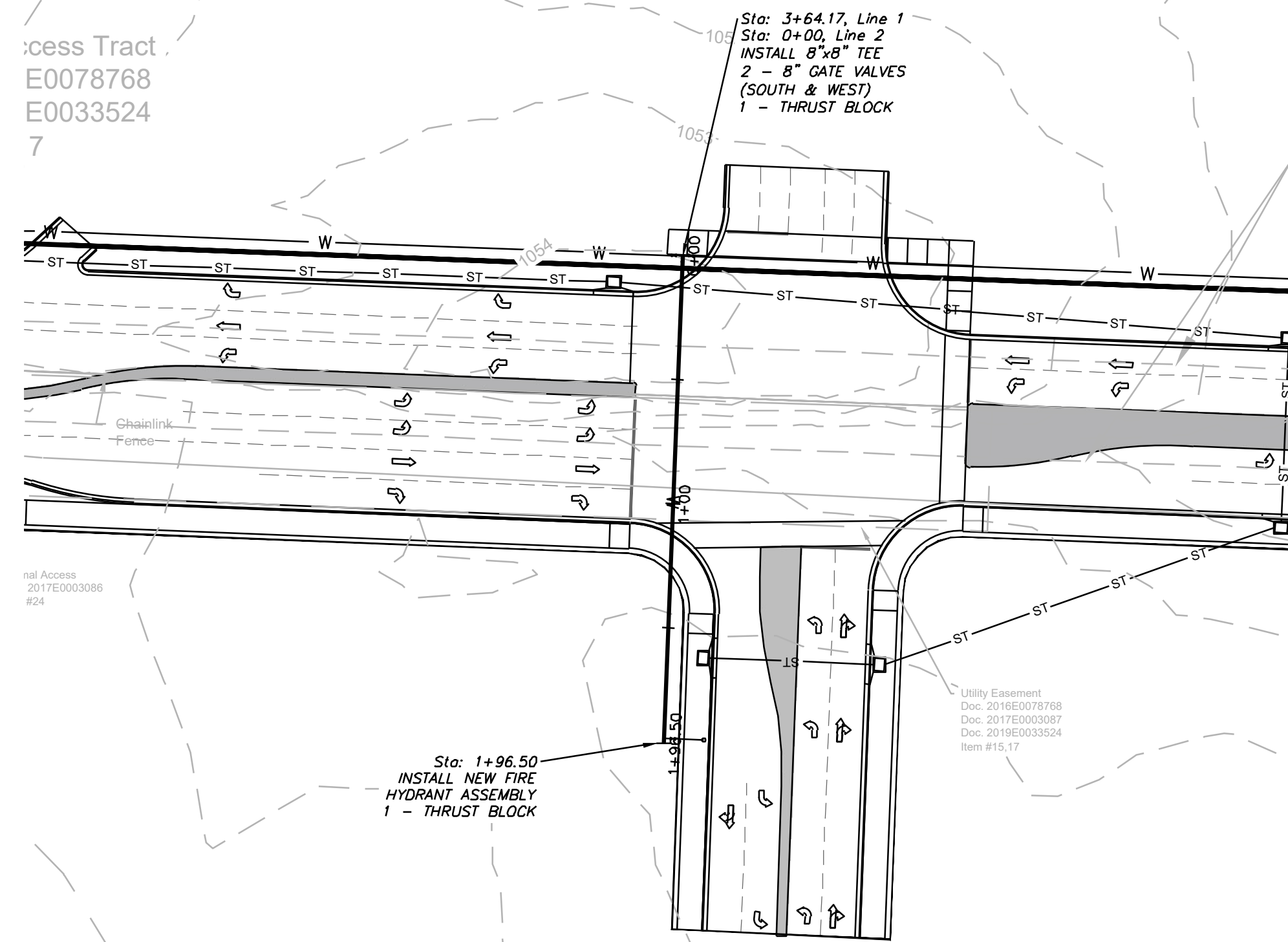


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25228
NE PE E-14335

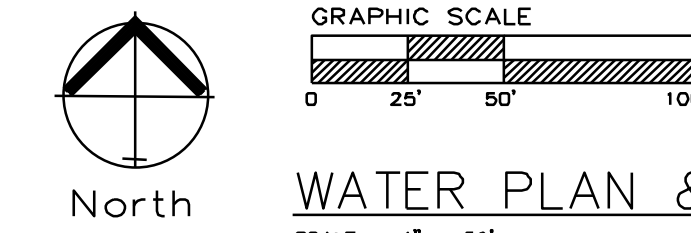
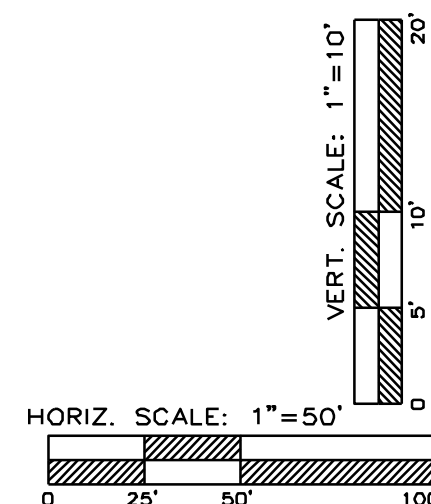
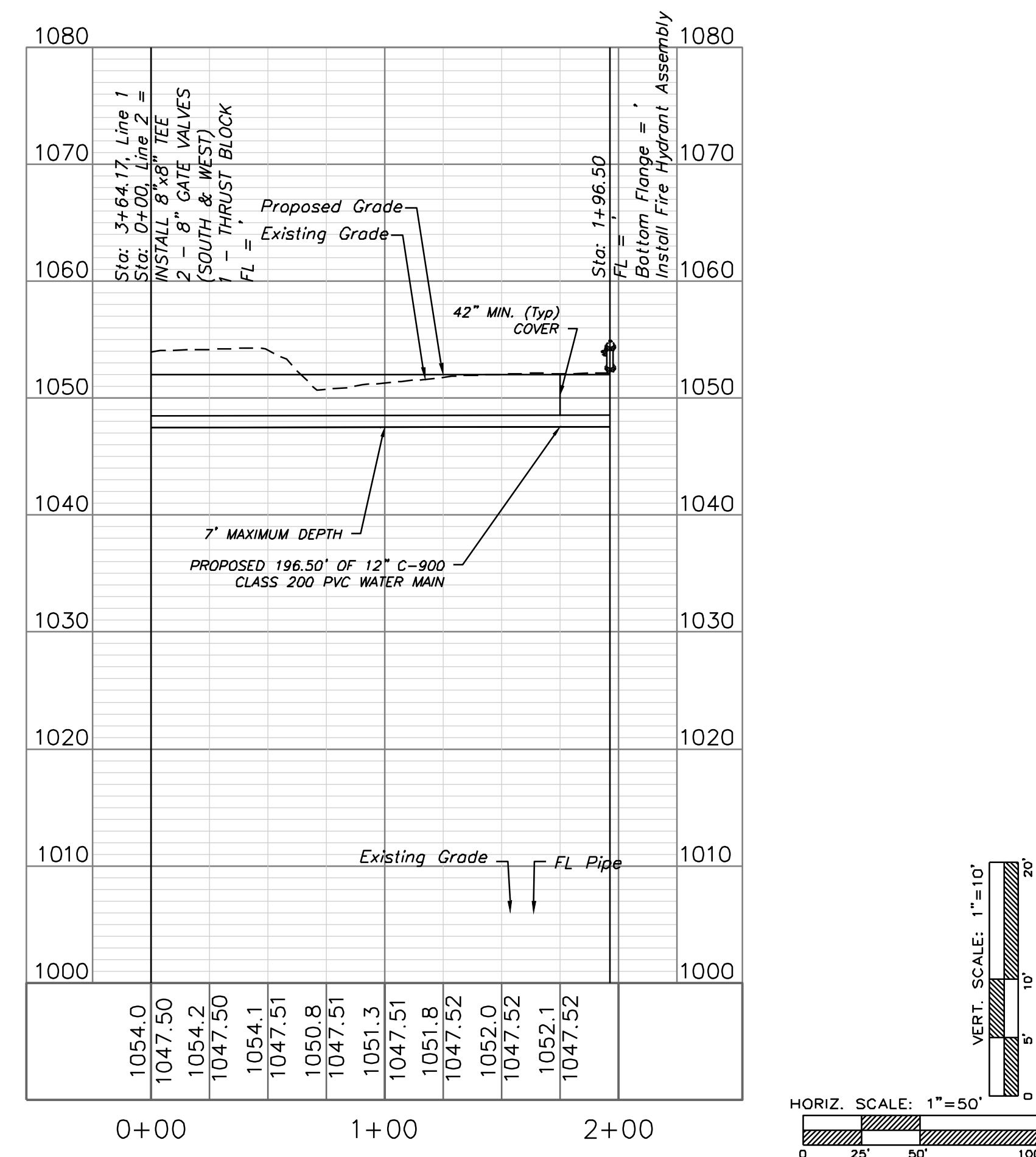
NO.	REVISIONS



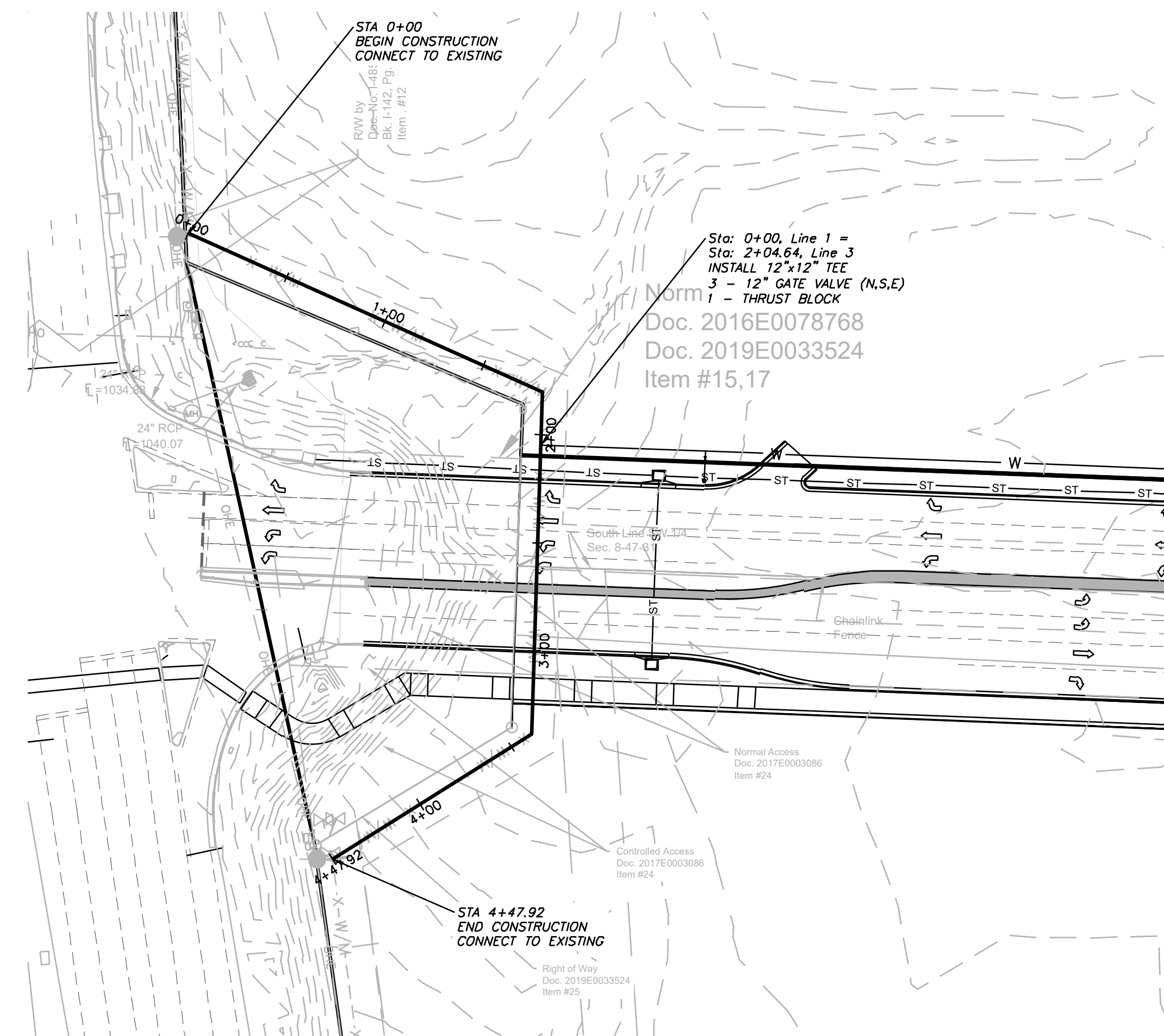
WATER PLAN & PROFILE
SCALE: 1" = 50'



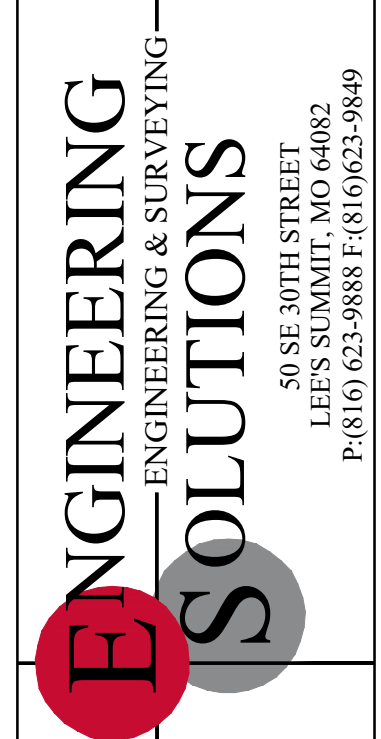
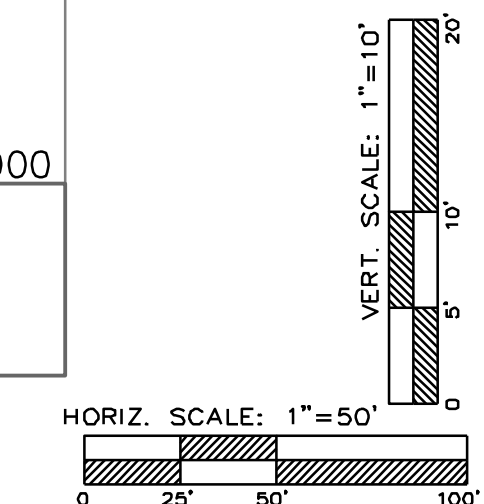
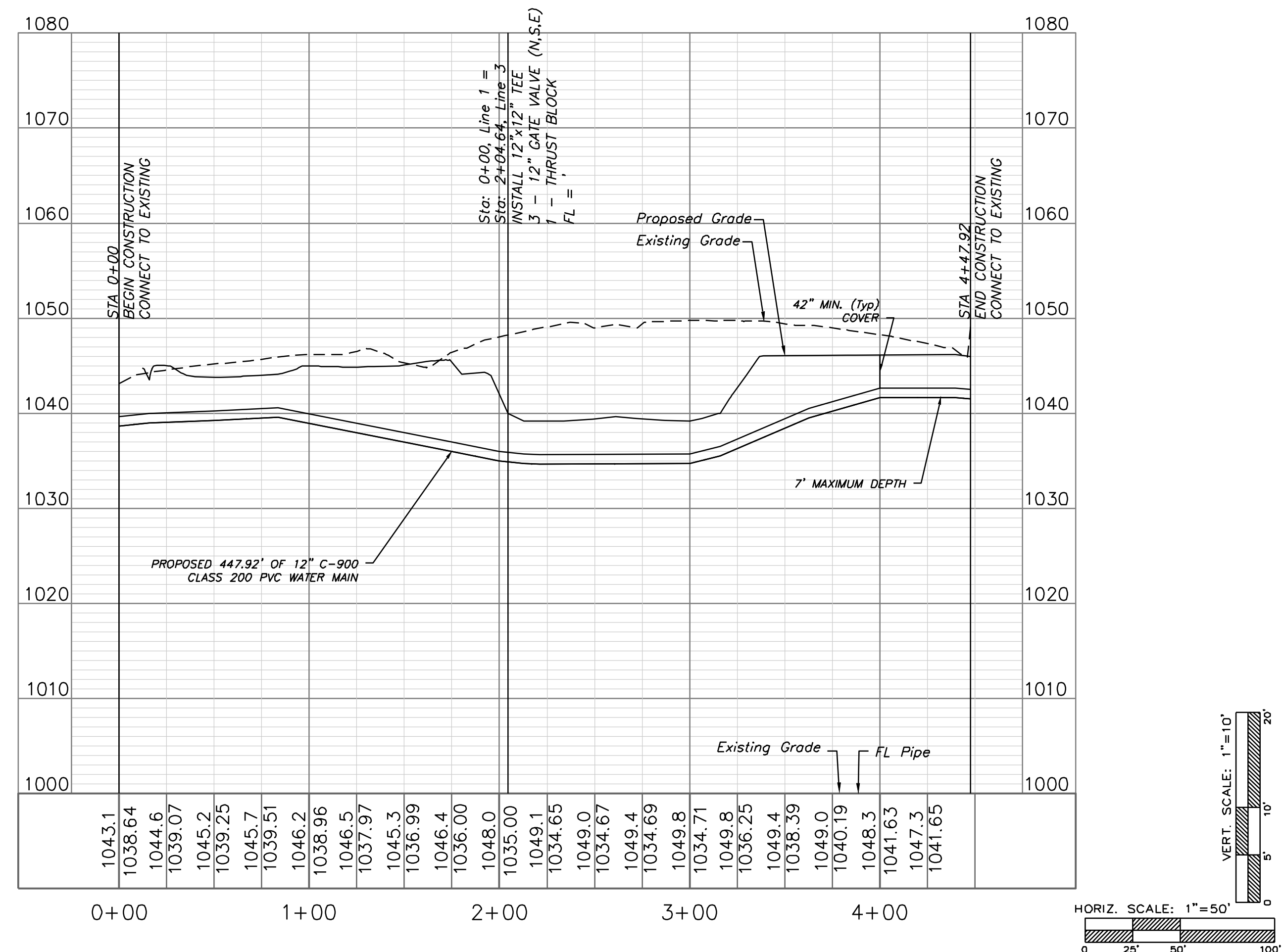
PUBLIC WATER LINE 2



WATER PLAN & PROFILE
SCALE: 1" = 50'



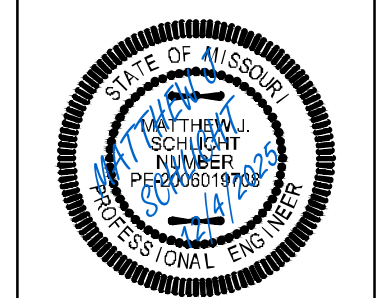
PUBLIC WATER LINE 3



Professional Registration
Missouri
Engineering 200502186-D
Surveying 200503819-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6264
Nebraska
Engineering CA2821

Project: OLDFHAM EAST
Issue Date: December 4, 2025
Oldham East
Lee's Summit, Jackson County, Missouri

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



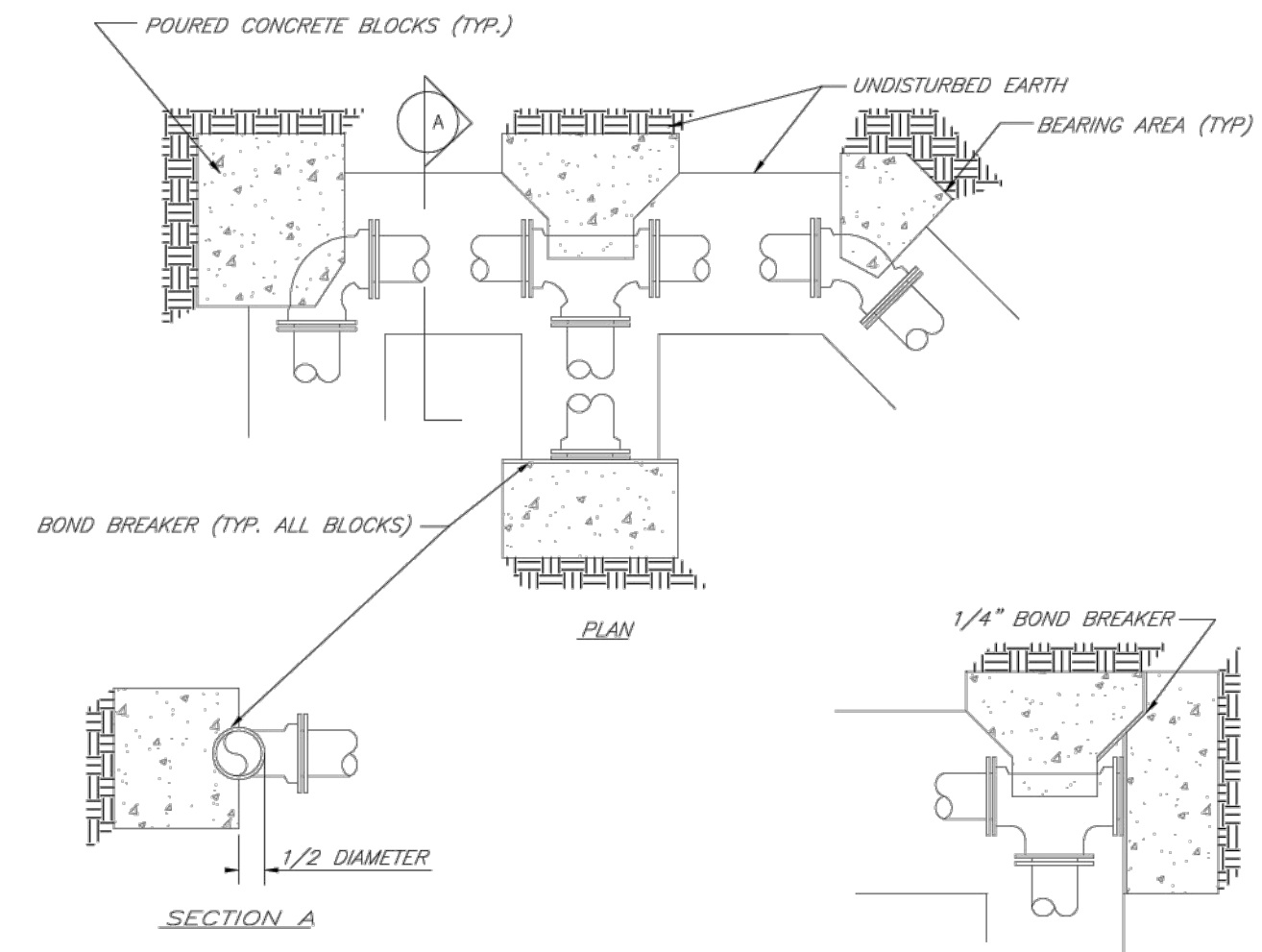
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25228
NE PE E-14335

REVISIONS

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

NOM. DIA. (INCHES)	TEE, PLUG	BEND	BEND	BEND	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	10.4	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	REST. JT.	REST. JT.	REST. JT.	REST. JT.	REST. JT.
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	REST. JT.

- 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.



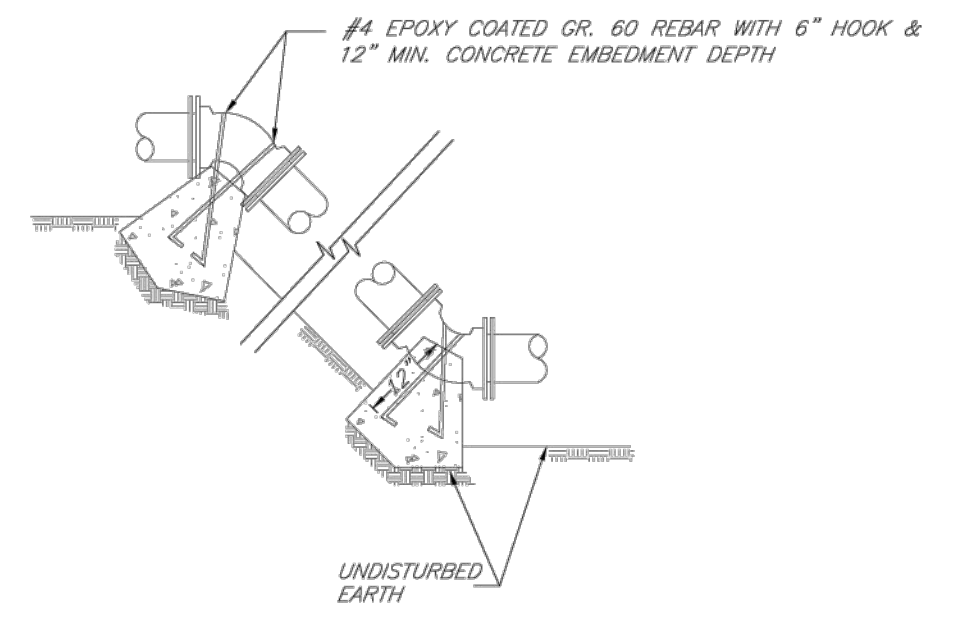
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HORIZONTAL THRUST BLOCKS

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

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

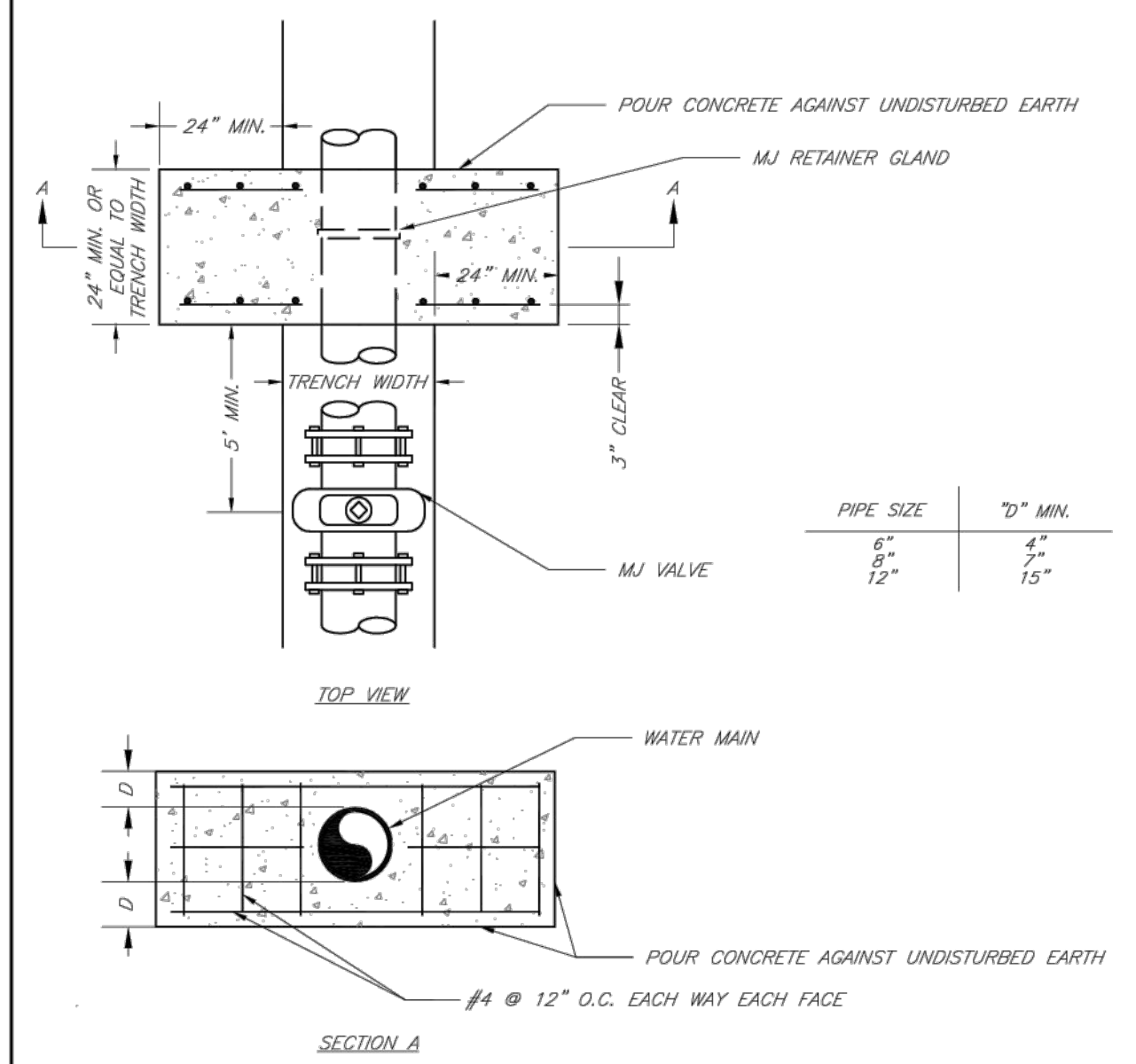
NOM. DIA. (INCHES)	TEE, PLUG	BEND	BEND	BEND	BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.9	126.9	68.7	35.0	17.6
10	140.9	198.3	107.5	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	38.0
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

- 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 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
VERTICAL THRUST BLOCKS

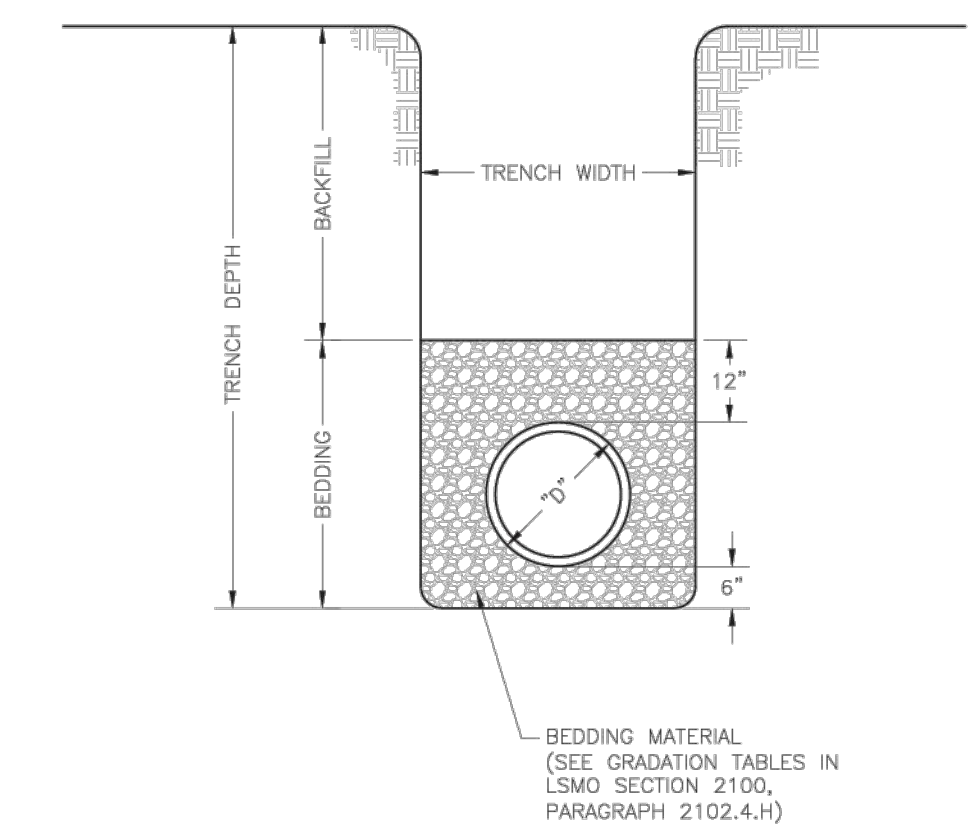
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-2
Rev: 1/14
Rev:



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

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

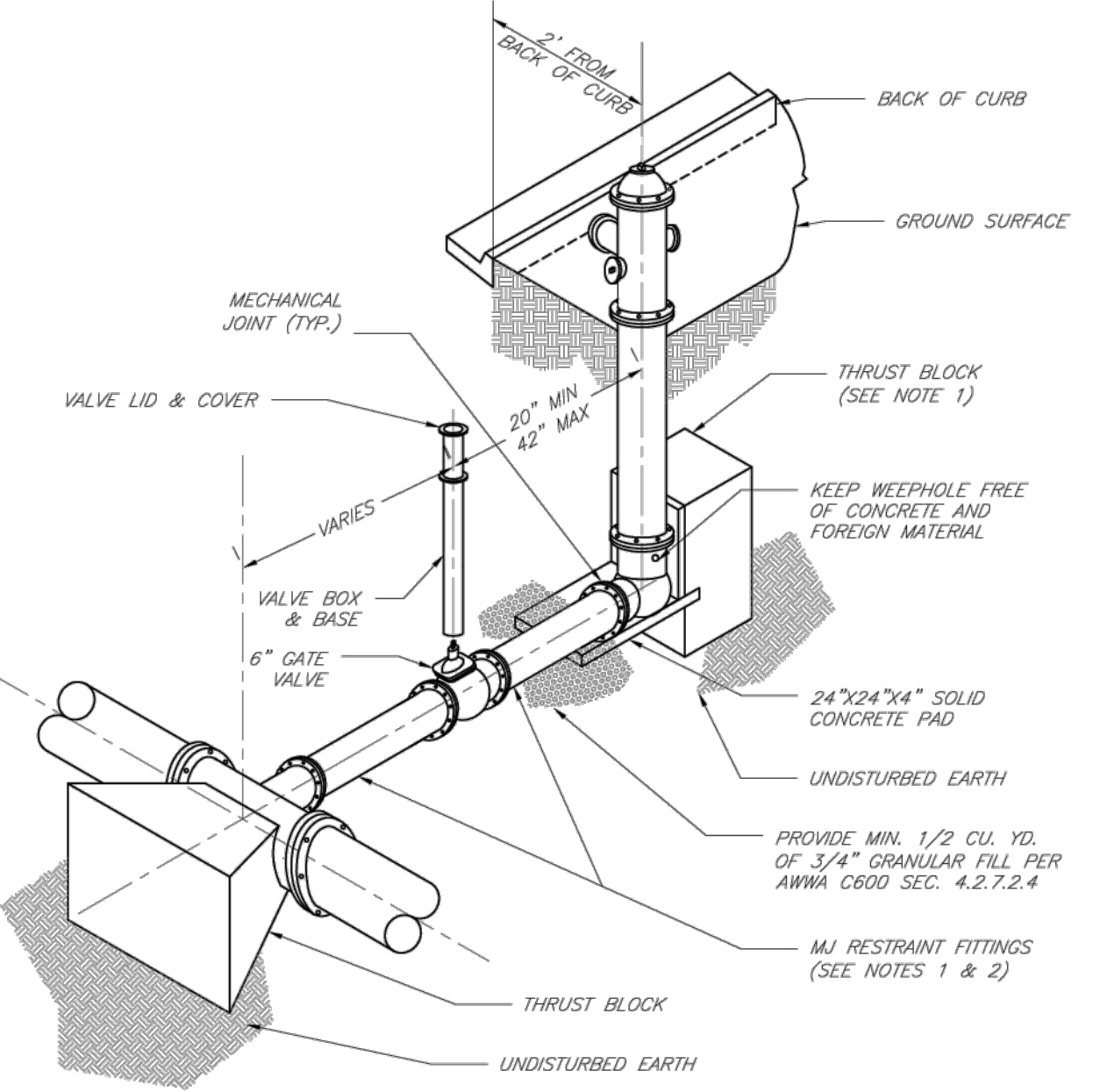
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-3
Rev: 1/14
Rev:



- 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

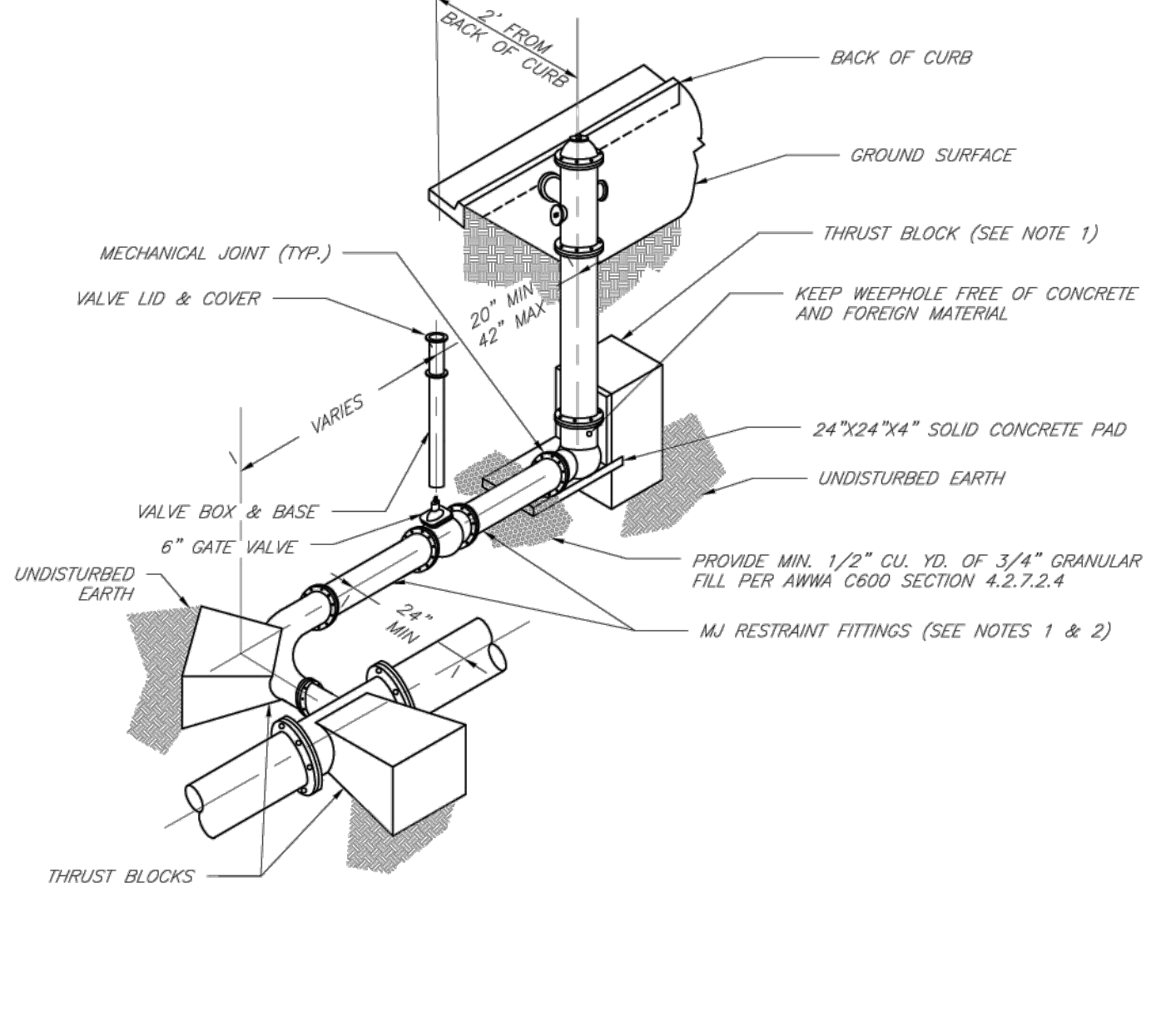
Date: 08/2023
Drawn By: MFP
Checked By: GMS
GEN-6



- 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

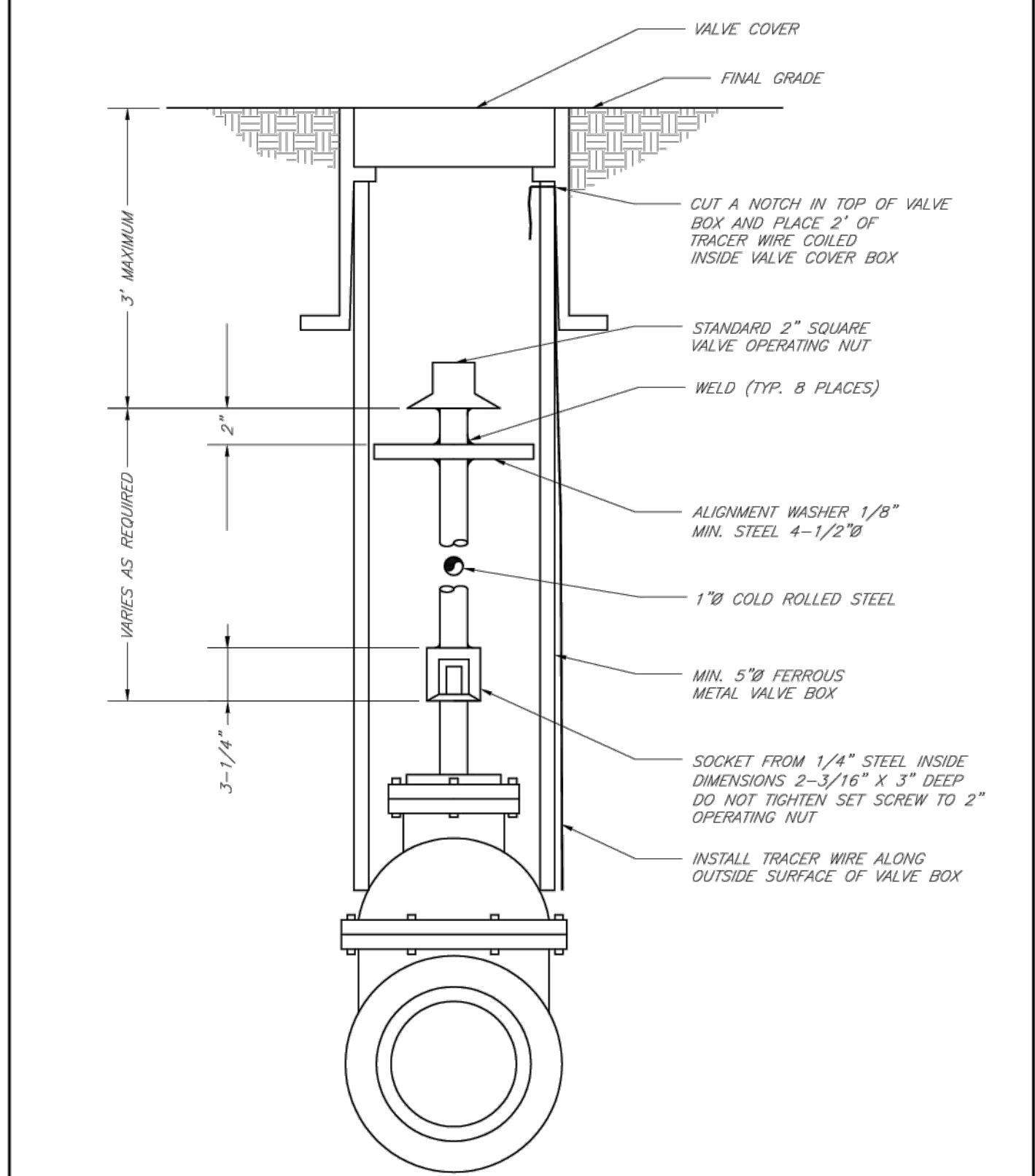
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-7
Rev: 1/14
Rev:



- 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.
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 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 WITH 90 DEGREE BEND

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



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
Rev: