

VICINITY MAP  
SEC 23, TWP 47, RGE 32  
SCALE 1"=2000'

PROJECT TEAM & UTILITY CONTACT LIST	
<p><u>OWNER / DEVELOPER</u>  HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC  8300 NE UNDERGROUND DRIVE  KANSAS CITY, MO 64161  CONTACT: AARON SCHMIDT  PHONE: 816.455.2500  EMAIL: ASCHMIDT@HUNTMIDWEST.COM</p>	<p><u>UTILITY SERVICE NUMBERS</u>  NAME: LEE'S SUMMIT PUBLIC WORKS  PHONE: 816-969-1800</p> <p>NAME: LEE'S SUMMIT WATER UTILITIES  PHONE: 816-969-1900</p>
<p><u>ENGINEER</u>  OLSSON  1301 BURLINGTON ST. SUITE 100  NORTH KANSAS CITY, MO 64116  CONTACT: STEPHEN SAYLOR, P.E.  PHONE: 816.442.6061  EMAIL: SSAYLOR@OLSSON.COM</p>	<p>NAME: SPIRE  PHONE: 314-342-0500</p> <p>NAME: AT&amp;T  PHONE: 800-286-8313</p> <p>NAME: EVERGY  PHONE: 816-471-5275</p>
<p><u>SURVEYOR</u>  OLSSON  1301 BURLINGTON ST. SUITE 100  NORTH KANSAS CITY, MO 64116  CONTACT: JASON ROUDEBUSH  PHONE: 816.361.1177  EMAIL: JROUDEBUSH@OLSSON.COM</p>	<p>NAME: SPECTRUM  PHONE: 877-772-2253</p> <p>NAME: GOOGLE FIBER  PHONE: 877-454-6959</p>

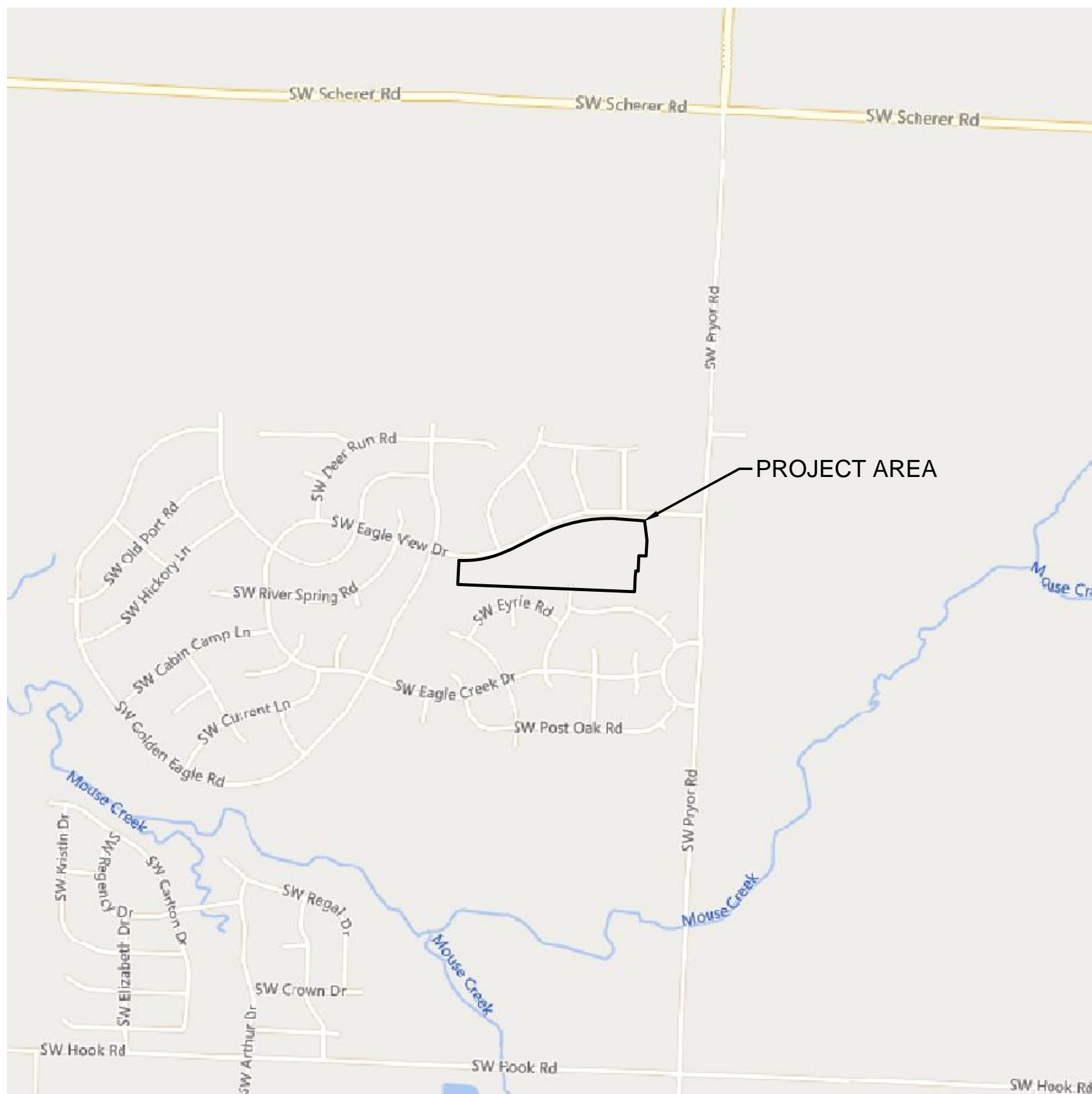
☐ NOT FOR CONSTRUCTION

☒ REVIEWED FOR CONSTRUCTION



# EAGLE CREEK VILLAS FIRST PLAT WATER MAIN EXTENSION PLANS

SECTION 23, TOWNSHIP 47 N, RANGE 32 W.  
IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



PROPERTY DESCRIPTION:


TRACT OF LAND IN THE NORTHEAST QUARTER OF SECTION 23 TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S ROUDEBUSH, P.L.S. 202014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 02°46'08" EAST, ON THE EAST LINE OF SAID NORTHEAST QUARTER 1,323.83 FEET TO THE SOUTHEAST CORNER OF THE NORTH HALF OF SAID NORTHEAST QUARTER, ALSO BEING THE NORTHEAST CORNER OF EAGLE CREEK - FIFTH PLAT, A SUBDIVISION OF LAND IN SAID LEE'S SUMMIT RECORDED OCTOBER 9, 2001 AS INSTRUMENT NUMBER 200100081227 IN BOOK 70 AT PAGE 14; SAID OFFICE OF DEEDS, JACKSON COUNTY, MISSOURI; THENCE LEAVING SAID EAST LINE, NORTH 81°41'31" WEST, ON SAID FIFTH PLAT, SAID OFFICE OF DEEDS, JACKSON COUNTY, MISSOURI, 5,777.77 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED, THENCE NORTH 87°41'31" WEST ON SAID SOUTH LINE AND SAID NORTH LINE, 675.87 FEET TO THE NORTHWEST CORNER OF SAID EAGLE CREEK - FIFTH PLAT, ALSO BEING THE NORTHWEST CORNER OF EAGLE CREEK - SIXTH PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED OCTOBER 9, 2001 AS INSTRUMENT NUMBER 200100082129 IN BOOK 70 AT PAGE 15 IN SAID OFFICE OF RECORDER OF DEEDS, JACKSON COUNTY, MISSOURI; THENCE NORTH 87°41'31" WEST ON SAID SOUTH LINE, ALSO BEING THE NORTH LINE OF SAID EAGLE CREEK - SIXTH PLAT, 704.45 FEET TO THE NORTHWEST CORNER OF SAID EAGLE CREEK - SIXTH PLAT, ALSO BEING THE EASTERLY LINE OF TRACT C OF EAGLE CREEK - SEVENTH PLAT, LOTS 230 THRU 282, INCLUSIVE, AND TRACT C, A SUBDIVISION OF LAND IN SAID LEE'S SUMMIT RECORDED APRIL 25, 2003 AS INSTRUMENT NUMBER 200303030126 IN BOOK 76 AT PAGE 12 IN SAID OFFICE OF DEEDS, JACKSON COUNTY, MISSOURI; THENCE LEAVING SAID EAST LINE, NORTH 87°41'31" WEST ON SAID SOUTH LINE AND SAID EASTERLY LINE, 41 FEET, THENCE LEAVING SAID SOUTH LINE, NORTH 02°46'08" EAST, ON SAID EASTERLY LINE, 197.92 FEET TO THE NORTHWEST CORNER OF SAID TRACT C, ALSO BEING A POINT ON THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE SW EAGLE VIEW DRIVE, AS ESTABLISHED BY SAID EAGLE CREEK - SEVENTH PLAT, LOT 230 THRU 282, INCLUSIVE, AND TRACT C; THENCE EASTERLY, ON SAID EXISTING SOUTHERLY RIGHT-OF-WAY LINE, ON A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF SOUTH 86°54'35" EAST WITH A RADIUS OF 830.00 FEET, A CENTRAL ANGLE OF 29°39'14" AND AN ARC DISTANCE OF 429.57 FEET, THENCE NORTH 63°26'11" EAST, ON SAID EXISTING SOUTHERLY RIGHT-OF-WAY LINE, 285.62 FEET; THENCE EASTERLY, ON SAID EXISTING SOUTHERLY RIGHT-OF-WAY LINE, ON A CURVE TO THE RIGHT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 1,270.00 FEET, A CENTRAL ANGLE OF 31°03'25" AND AN ARC DISTANCE OF 688.40 FEET; THENCE SOUTH 85°30'24" EAST, ON SAID EXISTING SOUTHERLY RIGHT-OF-WAY LINE, 99.10 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED, THENCE SOUTH 02°46'08" WEST, THENCE SOUTH 02°46'08" WEST, 258.61 FEET, THENCE SOUTH 02°15'50" WEST, 1,005.00 FEET; THENCE WESTERLY ON A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 87°41'31" WEST WITH A RADIUS OF 1,025.00 FEET, A CENTRAL ANGLE OF 04°39'21" AND AN ARC DISTANCE OF 83.29 FEET; THENCE SOUTH 02°18'29" WEST, 123.38 FEET TO THE POINT OF BEGINNING, CONTAINING 669.406 SQUARE FEET OR 15.37 ACRES, MORE OR LESS.

## BENCHMARK

BENCHMARK NO. 1  
CHISELED SQUARE ON THE NORTHWEST CORNER OF 6' X 4' CURB INLET THAT IS ON THE SOUTH SIDE OF SW EAGLEVIEW DRIVE AND WEST OF SW BURNINGWOOD LANE, STRAIGHT SOUTH OF A 6' X 4' CURB INLET.  
ELEVATION = 1002.10

SHEET LIST TABLE	
SHEET #	SHEET TITLE
C301	TITLE SHEET
C302	GENERAL NOTES
C303	GENERAL LAYOUT
C304	WATER MAIN PLAN & PROFILE (LINE 1)
C305	WATER MAIN PLAN & PROFILE (LINE 1)
C306	WATER MAIN PLAN & PROFILE (LINE 1)
C307	WATER MAIN PLAN & PROFILE (LINE 1)
C308	WATER MAIN PLAN & PROFILE (LINE 2)
C309	WATER MAIN PLAN & PROFILE (LINE 3)
C310	WATER MAIN PLAN & PROFILE (LINE 4)
C311	WATER MAIN PLAN & PROFILE (LINE 4)
C312	DETAIL SHEET
C313	DETAIL SHEET

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

  
STEPHEN SAYLOR, P.E.  
CIVIL ENGINEER  
MO#2018021248

5/7/2024

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DATE

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## GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

- ## REFERENCES
1. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY:
    - A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF LEE'S SUMMIT, MISSOURI.
    - B. ALL CONSTRUCTION IN MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MODOT.
    - C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
    - D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
    - E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI
  4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

## EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

## CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
3. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
5. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

## SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
  - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
  - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
  - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
  - D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
  - E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.
2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
  - A. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
  - B. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

## WATER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.
3. COORDINATES ARE PROVIDED ALONG PIPE CENTERLINE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING INSTALLATIONS.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.
5. WATER PIPE TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
6. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 48 INCHES AND MAXIMUM OF 60 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.
7. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.
8. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.
9. ALL EXISTING FIRE HYDRANTS ON SITE OR IN THE RIGHT-OF-WAY LOCATED BETWEEN PROPERTY AND ROADWAY SHALL BE REPAINTED PER LOCAL CODES AND ORDINANCES.
10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
	8" C900 PLASTIC PIPE	L.F.	2500.80	
	8" X 8" TEE	EA.	3	
	12" X 8" TEE	EA.	3	
	FIRE HYDRANT ASSEMBLY (INCLUDING TEE)	EA.	5	
	8" GATE VALVES	EA.	12	
	12" GATE VALVES	EA.	3	
	8" HORIZONTAL BENDS	EA.	13	
	8" VERTICAL BENDS	EA.	8	
	8" SOLID SLEEVE	EA.	1	
	12" SOLID SLEEVE	EA.	6	
	CHLORINATION AND CONNECTION TO EXISTING WATER PIPE	EA.	4	

POINT NUMBER	NORTHING	EASTING	POINT ELEVATION	DESCRIPTION
3	988896.2697	2811669.1312	975.106	3" IB RED CONTROL CAP SET ON THE NORTH SIDE OF THE INTERSECTION OF SW SUNCATCHER ROAD AND SW TIMBERTREE LANE. IT IS 2.30 FT NORTH OF THE BACK OF CURB, 4.40 FT EAST OF A NO PARKING SIGN, AND 2.10 FT SOUTH OF THE SIDEWALK.
1	988266.771	28811631.025	998.394	3" IB RED CONTROL CAP SET ON THE SOUTH SIDE OF EAGLE VIEW DRIVE, WEST OF SW SUNCATCHER ROAD AND EAST OF SW GOOSEBERRY LANE. IT IS 5.20 FT SOUTH OF THE BACK OF CURB, 32.00 FT NORTHEAST OF THE NORTHWEST CORNER OF A 6' X 6' VAULT, AND 77.00 FT WEST OF A NO PARKING SIGN
2	988263.9838	2812623.0498	1023.391	3" IB RED CONTROL CAP SET ON THE WEST SIDE OF PRYOR ROAD AND SOUTH OF SW EAGLEVIEW DRIVE. IT IS 9.00 FT SOUTH OF THE BACK OF CURB, 19.00 FT NORTHEAST TO THE NORTHEAST CORNER OF A 6' X 6' VAULT, AND 18.00 FT NORTHWEST TO A 4" TREE
4	988904.8351	2812800.168	1015.344	3" IB RED CONTROL CAP SET ON THE EAST SIDE OF PRYOR ROAD AND SOUTH OF DRIVEWAY #2041. IT IS 2.50 FT EAST OF THE EDGE OF ASPHALT, 55.00 FT SOUTH OF THE DRIVEWAY, AND 4.00 FT WEST OF THE TOP OF BANK

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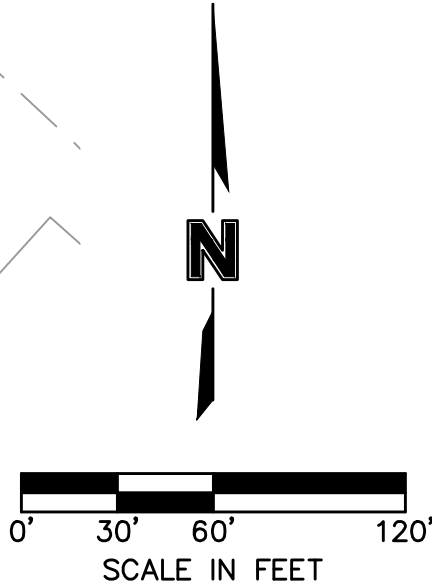
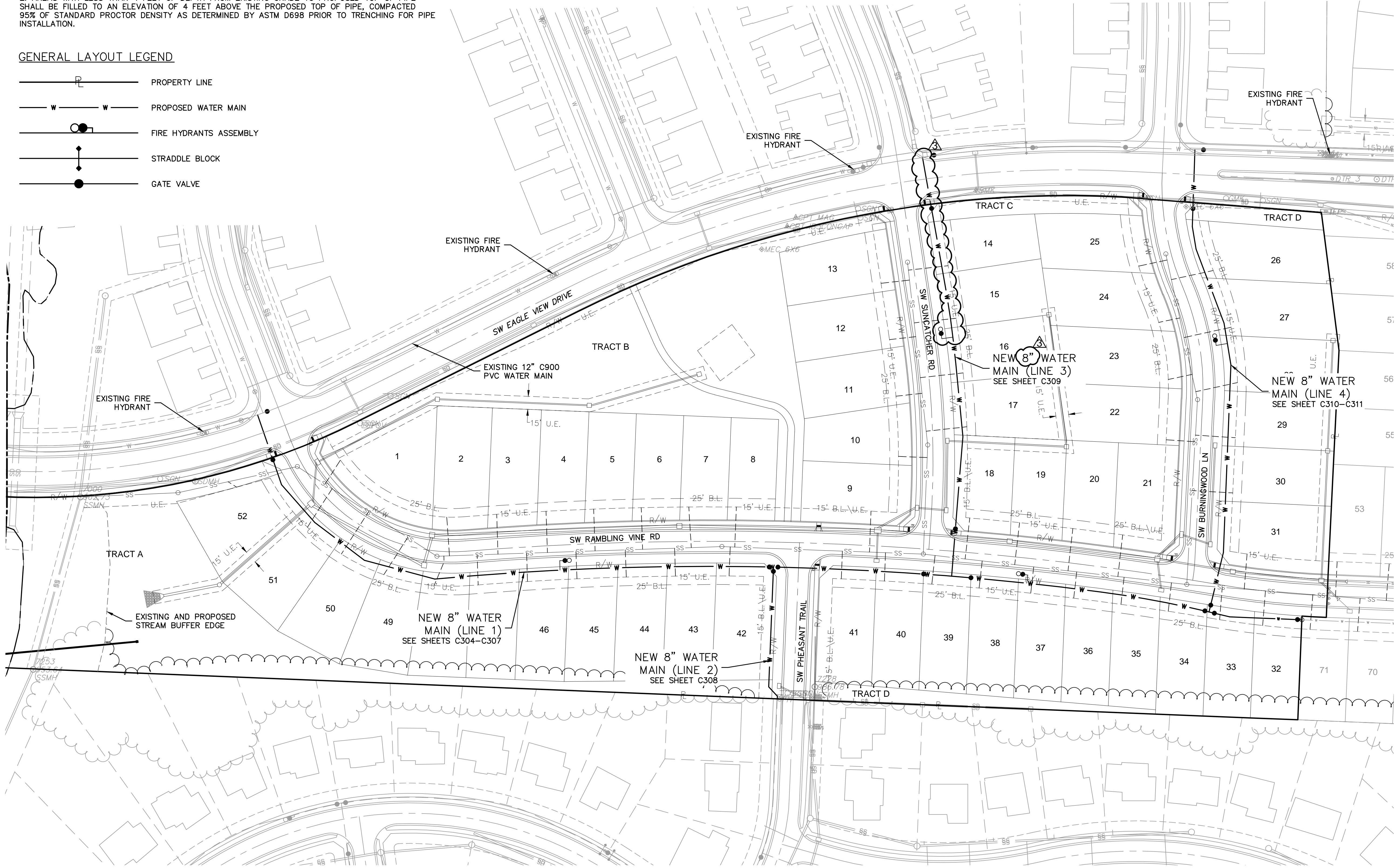
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GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS OF THE LEE'S SUMMIT, MISSOURI WATER SERVICES DEPARTMENT. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
2. AREAS WITH LESS THAN 4 FEET OF DEPTH FROM EXISTING GRADE TO PROPOSED TOP OF PIPE SHALL BE FILLED TO AN ELEVATION OF 4 FEET ABOVE THE PROPOSED TOP OF PIPE, COMPACTED 95% OF STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698 PRIOR TO TRENCHING FOR PIPE INSTALLATION.

GENERAL LAYOUT LEGEND

- P — PROPERTY LINE
- W — W — PROPOSED WATER MAIN
- ● — FIRE HYDRANTS ASSEMBLY
- ● — STRADDLE BLOCK
- ● — GATE VALVE



**olsson**

Olsson - Civil Engineering  
Missouri Certificate of Authority #001592  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olsson.com

STATE OF MISSOURI  
STEPHEN M. SAYCOR  
PROFESSIONAL ENGINEER  
NUMBER  
PE-2018021248  
5/7/2024

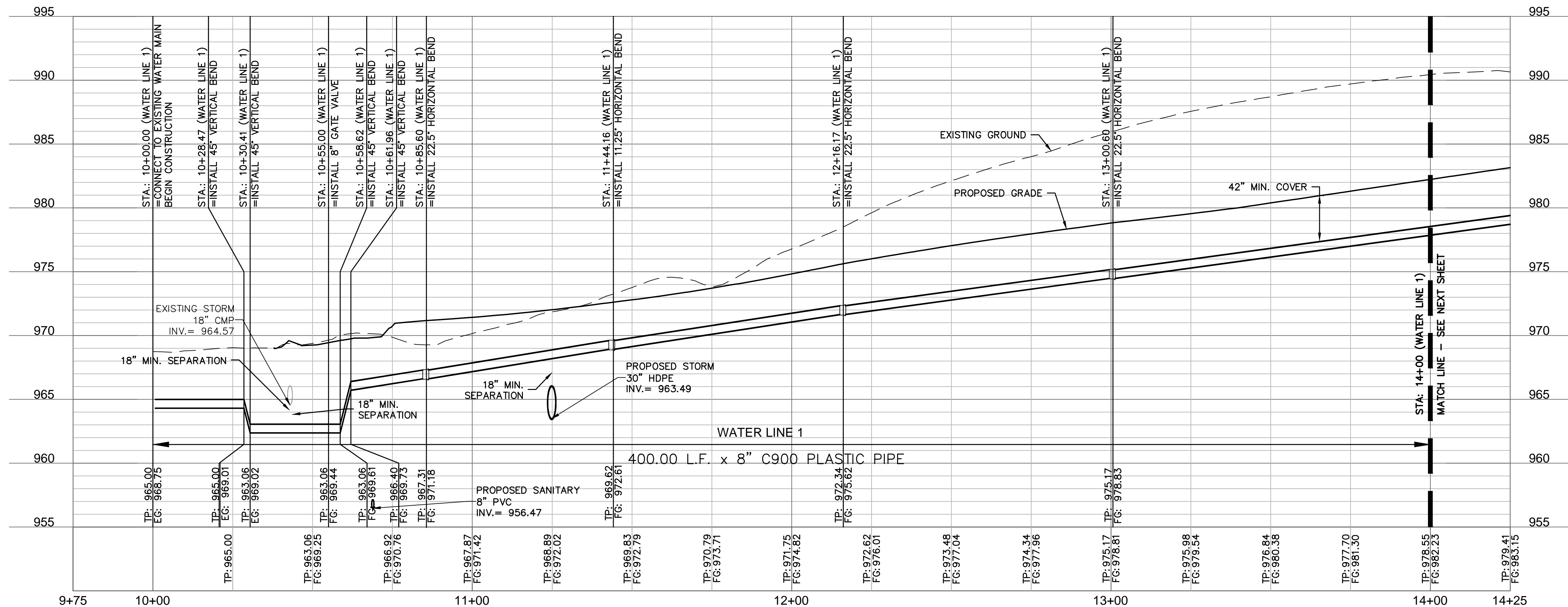
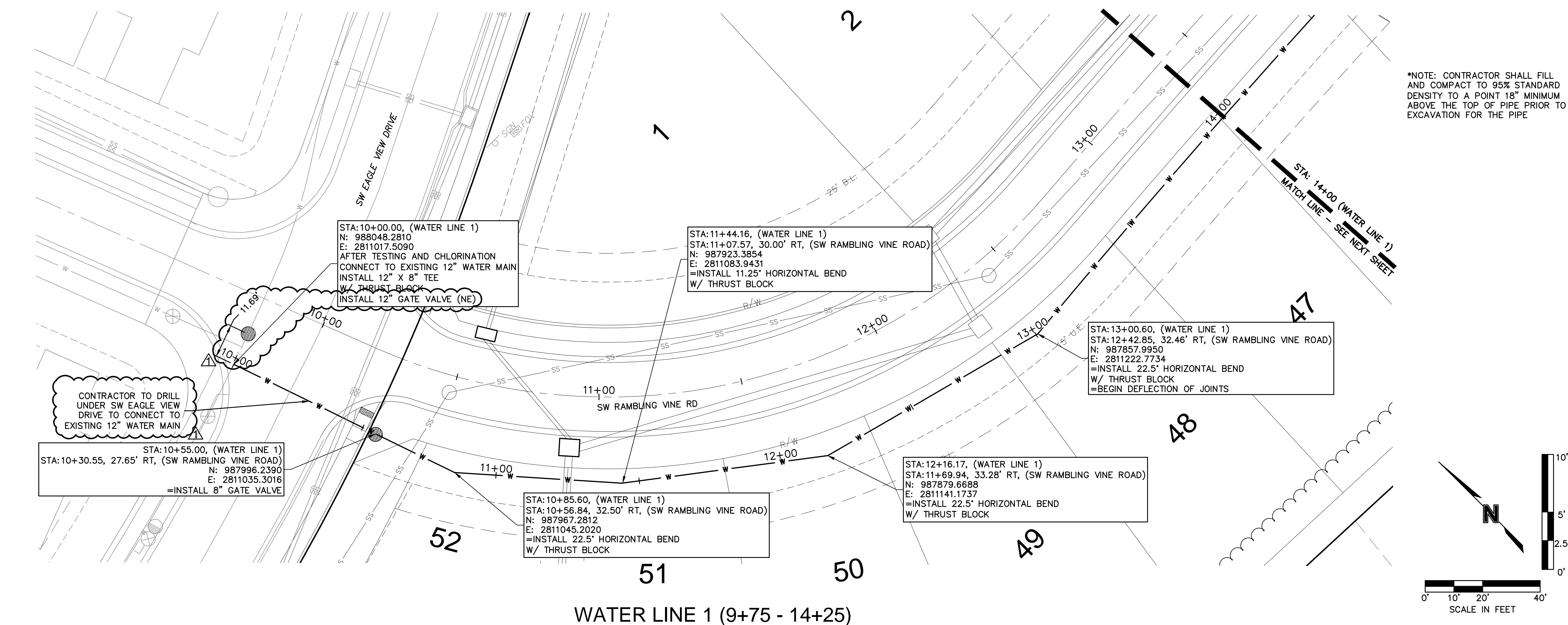
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2	04/02/2024	REVISED PER CITY COMMENTS
3	05/07/2024	REVISED PER CITY COMMENTS

GENERAL LAYOUT WATER MAIN EXTENSION PLANS		2023
EAGLE CREEK VILLAS FIRST PLAT		
LEE'S SUMMIT, MISSOURI		

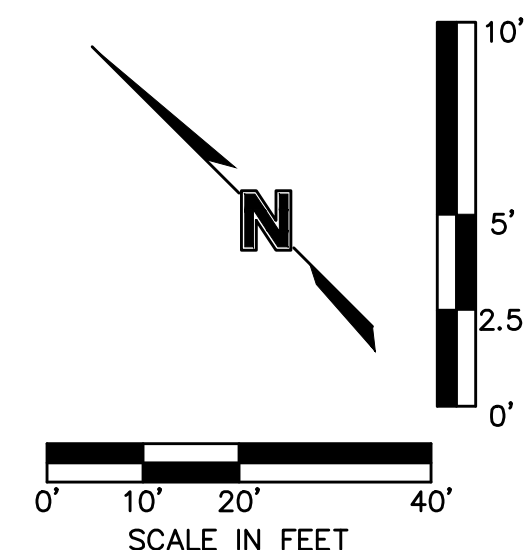
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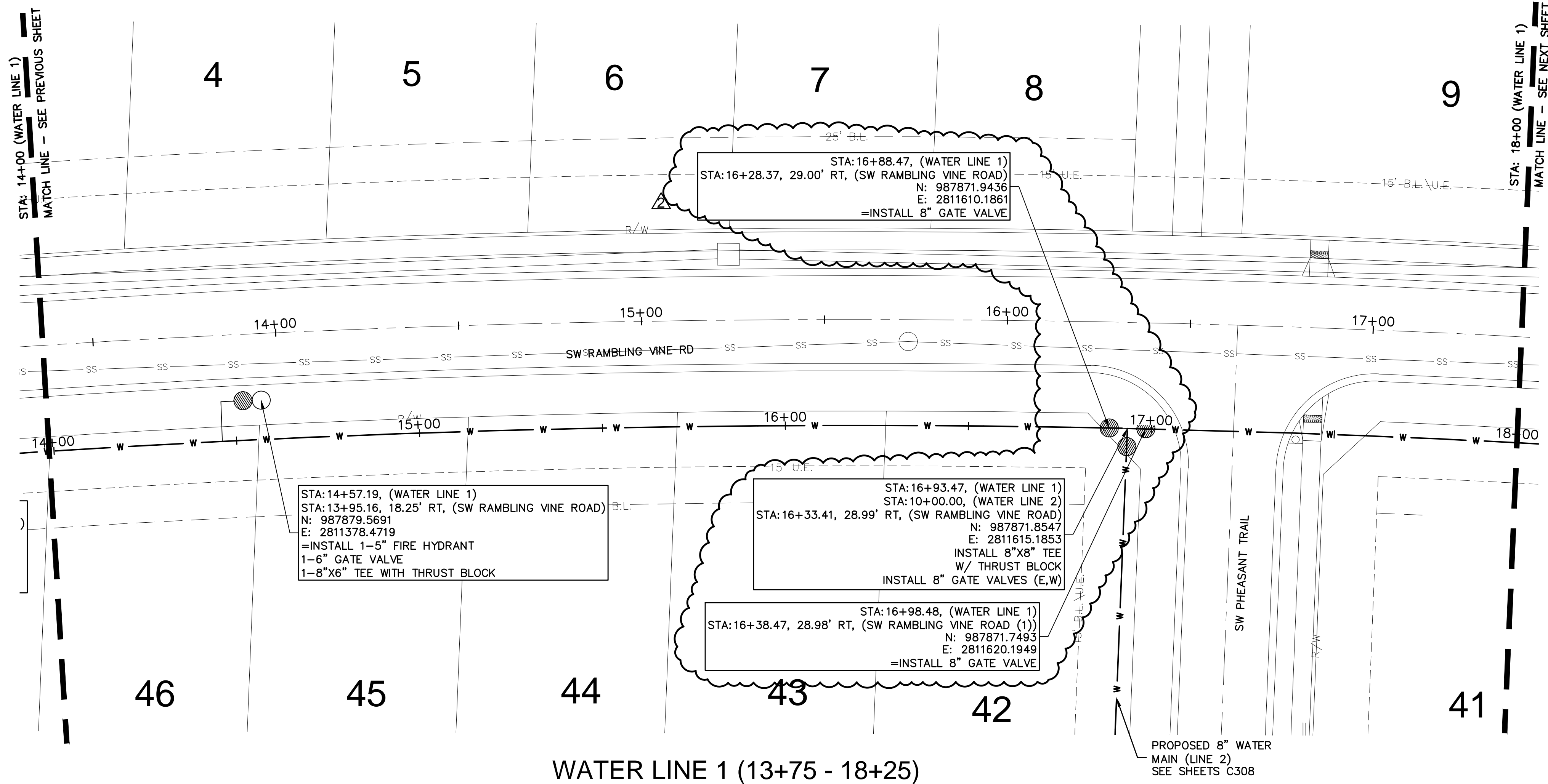
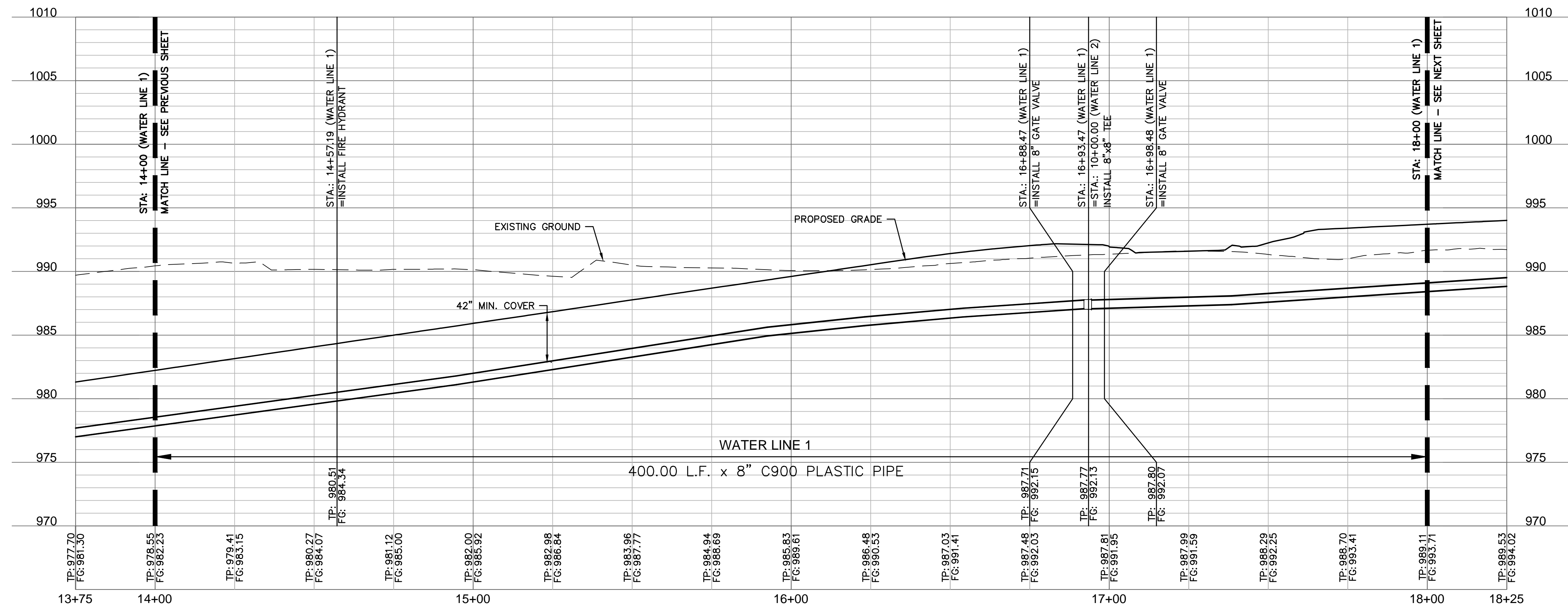


\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE



WATER MAIN PLAN & PROFILE (LINE 1) WATER MAIN EXTENSION PLANS		EAGLE CREEK VILLAS FIRST PLAT		LEE'S SUMMIT, MISSOURI		2023	
drawn by: _____		CJW					
checked by: _____		SS					
approved by: _____		JS					
QA/QC by: _____		JS					
project no.: _____		A20-2467					
drawing no.: _____		C_WAT01 A202467					
date: _____		02/23/2024					
SHEET C304							



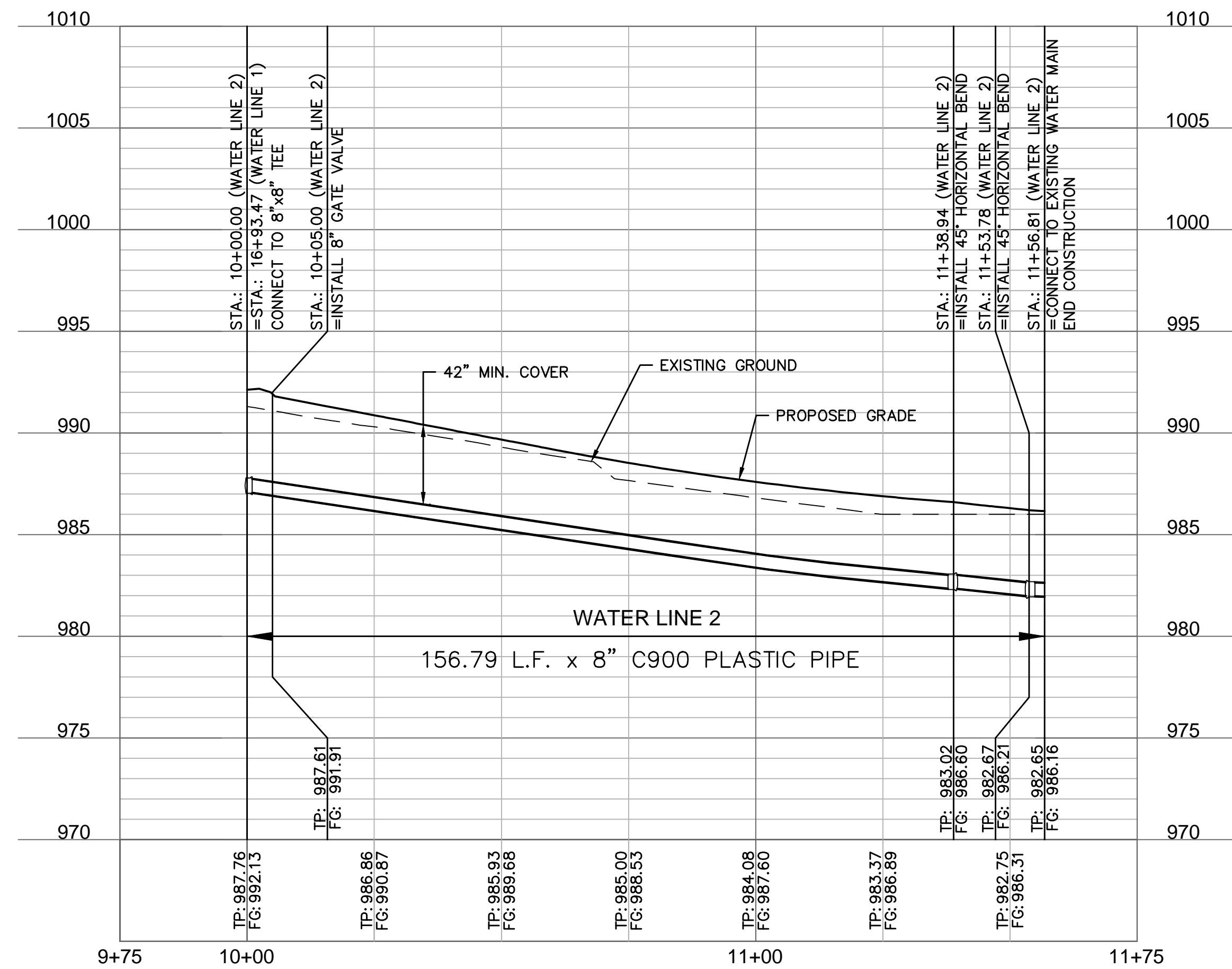
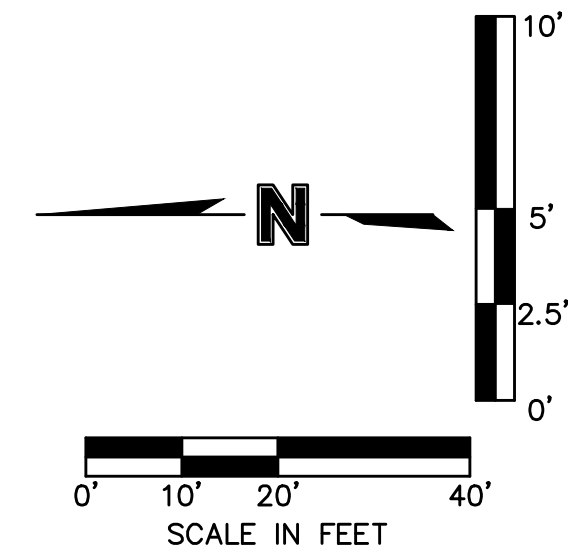
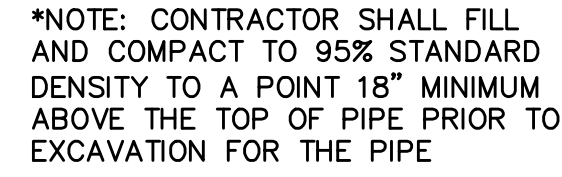


\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE







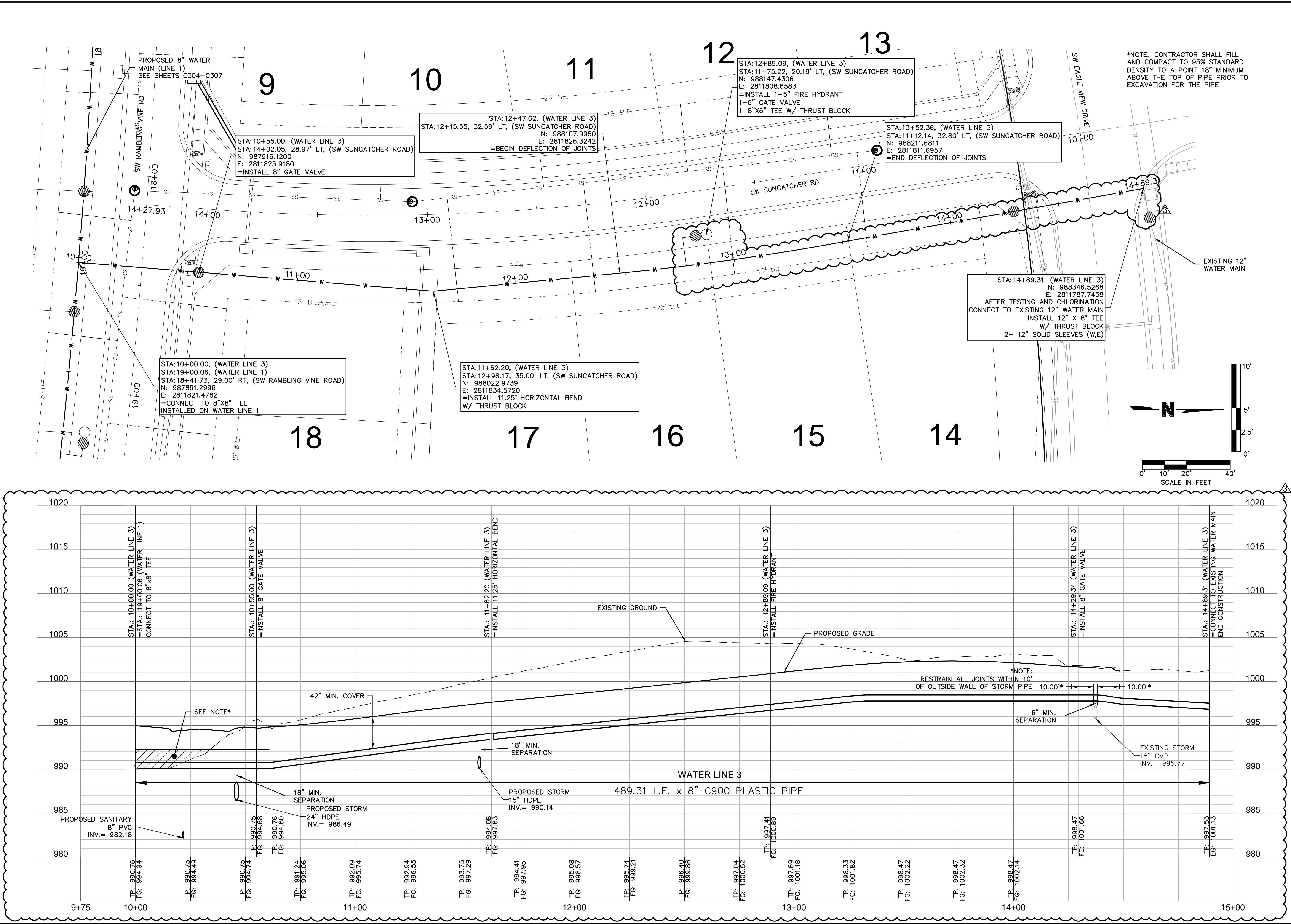


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North Kansas City, MO 64116  
TEL 816.361.1177 [www.olsson.com](http://www.olsson.com)



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Olsson - Civil Engineering  
Missouri Certificate of Authority #001592  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olsson.com

STATE OF MISSOURI  
STEPHEN M. SAYCER  
PROFESSIONAL ENGINEER  
NUMBER  
PE-2018021248  
5/7/2024

BY

REVISIONS

WATER MAIN PLAN & PROFILE (LINE 3)  
WATER MAIN EXTENSION PLANS  
EAGLE CREEK VILLAS  
FIRST PLAT  
LEE'S SUMMIT, MISSOURI

2023

drawn by: CJK  
checked by: JLB  
approved by: JLB  
project no.: A20-2467  
drawing no.: C\_WAT02\_A202467  
date: 02/23/2024

SHEET  
C309











REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)						
NOM. DIA. (INCHES)	180	90	45	22.5	11.25	
	TEE, PLUG	BEND	BEND	BEND	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	18.6	26.7	14.4	7.4	4.0	
14	25.7	36.3	19.6	10.0	5.0	
16	33.5	47.4	25.6	13.1	6.6	
18	42.4	59.3	32.5	16.5	8.3	
20	REST. JT.	REST. JT.	40.1	20.4	10.3	
24	REST. JT.	REST. JT.	REST. JT.	29.4	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.

The drawing illustrates the installation of horizontal thrust blocks for different pipe diameters. It includes several views:
 

- Plan View:** Shows the top-down layout of the blocks for 180, 90, and 45 degree bends, and for tees and plugs. Labels include 'POURED CONCRETE BLOCKS (TYP.)', 'UNDISTURBED EARTH', 'BEARING AREA (TYP.)', and 'BOND BREAKER (TYP. ALL BLOCKS)'.
- Section A-A:** A cross-sectional view showing the block's profile, the pipe, and the required '1/2 DIAMETER' clearance.
- PLAN (Detail):** A detailed view of a block with a '1/4" BOND BREAKER' between it and the adjacent earth.

 The blocks are shown with internal reinforcement (lugs) and are designed to be cast against undisturbed earth to provide bearing area.

**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)	180 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	68.7	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	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:**

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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

Date: 02/13

Drawn By: JN

Checked By: DL

FILE: WAT-2

Rev: 1/14

Rev:

**VERTICAL THRUST BLOCKS**

24" MIN.

24" MIN. OR EQUAL TO TRENCH WIDTH

24" MIN.

5" MIN.

TRENCH WIDTH

3" CLEAR

POUR CONCRETE AGAINST UNDISTURBED EARTH

MJ RETAINER GLAND

MJ VALVE

PIPE SIZE	"D" MIN.
6"	4"
8"	7"
12"	15"

TOP VIEW

WATER MAIN

POUR CONCRETE AGAINST UNDISTURBED EARTH

#4 @ 12" O.C. EACH WAY EACH FACE


SECTION A

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

NOT TO SCALE


**NOTES:**

1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6" IN ANY DIMENSION.
3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12".

	<p><b>LEE'S SUMMIT</b> <b>MISSOURI</b></p> <p>PUBLIC WORKS ENGINEERING DIVISION   2203 E. GREEN STREET   LEE'S SUMMIT, MO 64063</p>	Date: 02/13
		Drawn By: JN
		Checked By: DL
		FILE: WMT-6
		Rev: 1/14
<p><b>TRENCH CHECK</b></p>		<p>Rev:</p>

**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.

	<p align="center"><b>LEE'S SUMMIT</b> <b>MISSOURI</b></p> <p align="center">PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64083</p>	Date: 02/13
		Drawn By: JN
		Checked By: DL
		File: WAT-7
<p align="center"><b>HYDRANT INSTALLATION — STRAIGHT SET</b></p>		Rev: 1/14
		Rev:

2' FROM BACK OF CURB

BACK OF CURB

GROUND SURFACE

THRUST BLOCK (SEE NOTE 1)

KEEP WEEPHOLE FREE OF CONCRETE AND FOREIGN MATERIAL

24"x24"x4" SOLID CONCRETE PAD

UNDISTURBED EARTH

MECHANICAL JOINT (TYP.)

VALVE LID & COVER

VARIES

20" MIN. 42" MAX.

VALVE BOX & BASE

6" GATE VALVE

UNDISTURBED EARTH

THRUST BLOCKS

24" MIN.

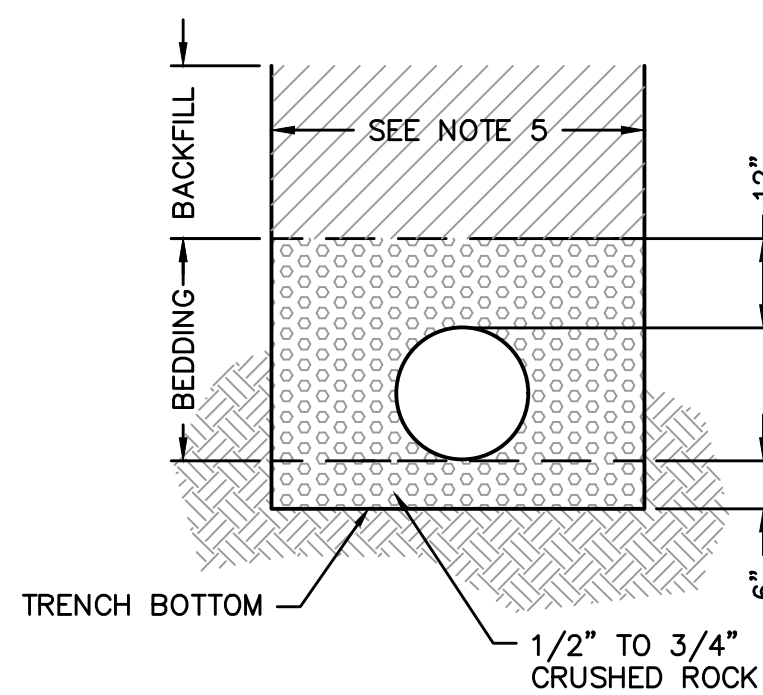
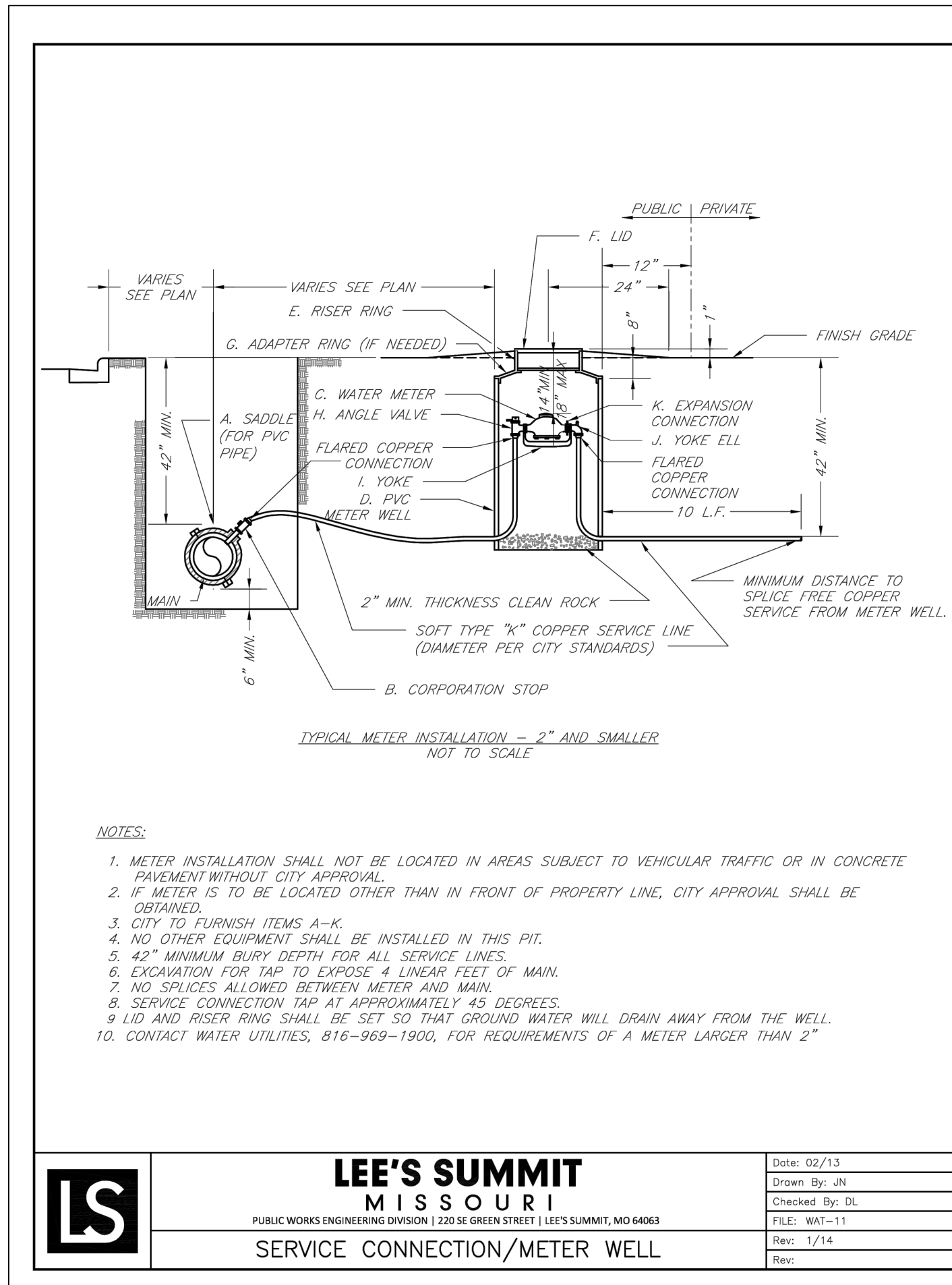
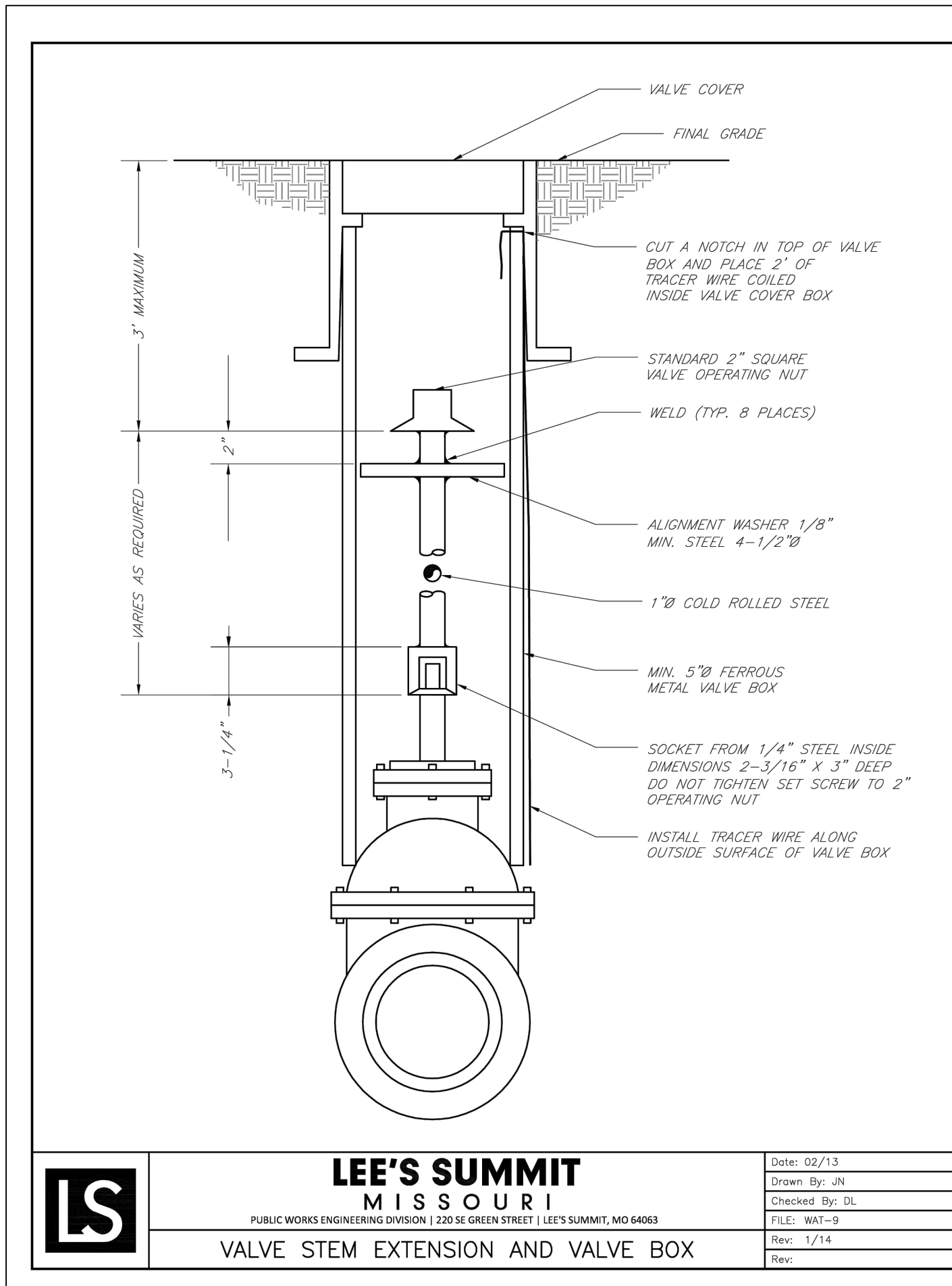
PROVIDE MIN. 1/2" CU. YD. OF 3/4" GRANULAR FILL PER AWWA C600 SECTION 4.2.7.2.4

MJ RESTRAINT FITTINGS (SEE NOTES 1 & 2)

**NOTES:**

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2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
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6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.





## TYPICAL TRENCH SECTION

NOTES:

1. BELL HOLES SHALL BE DUG SO THAT NO PART OF THE BELL SHALL BE IN CONTACT WITH THE TRENCH BOTTOM.
2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE AS SHOWN ABOVE.
3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

## UNDERGROUND PIPE INSTALLATION FOR WATER PIPING

drawn by: _____ checked by: _____ approved by: _____ QA/QC by: _____ project no.: _____ drawing no.: <u>C, DTL01 A202467</u> date: <u>02/23/2024</u>		CW SS JS JS JS A20-2467 C, DTL01 A202467 02/23/2024
DETAIL SHEET WATER MAIN EXTENSION PLANS		2023
EAGLE CREEK VILLAS FIRST PLAT		
LEE'S SUMMIT, MISSOURI		2023