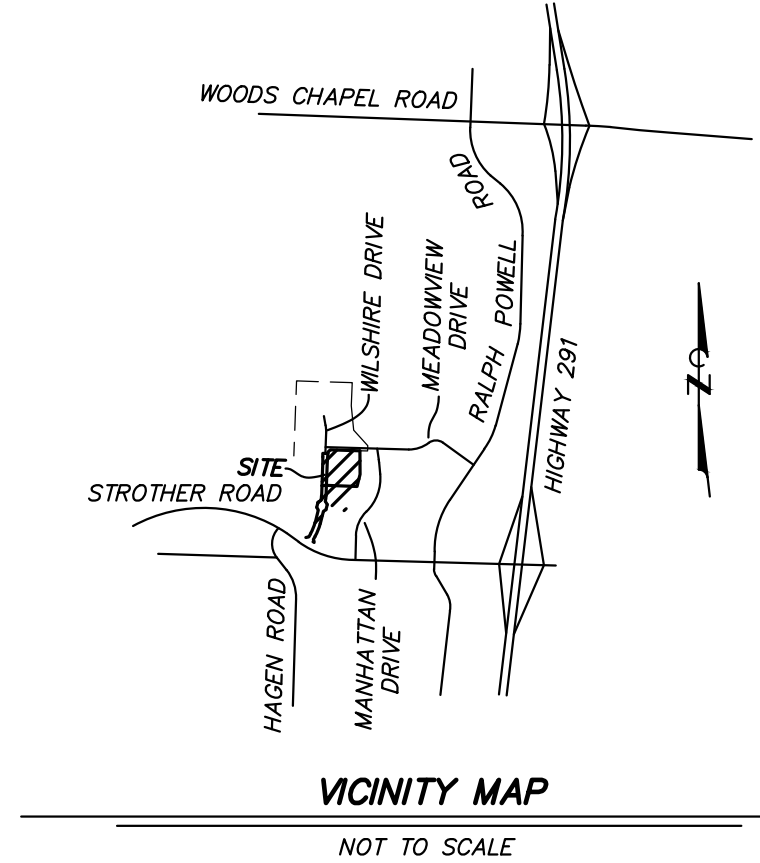


# WILSHIRE HILLS - 4TH PLAT WATER LINE EXTENSION

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

JUNE 27, 2023

REVISED: NOVEMBER 28, 2023



## LEGEND

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | PROPERTY LINE<br>ELECTRIC LINE<br>TELECOMMUNICATIONS LINE<br>UNDERGROUND ELECTRIC LINE<br>UNDERGROUND TELECOMMUNICATIONS LINE<br>UNDERGROUND FIBER OPTIC LINE<br>SANITARY SEWER LINE<br>STORM SEWER LINE<br>GAS LINE<br>WATER LINE<br>FENCE<br>TREE & BRUSH LINE<br>DRAINAGE SWALE<br>EXISTING CONTOUR<br>ANCHOR<br>TEST BORING<br>IRON<br>CONTROL POINT<br>ELECTRIC METER<br>FLARED END SECTION<br>FIRE HYDRANT<br>FLOW LINE<br>HIGH DENSITY POLYETHYLENE PIPE<br>PRESTRESSED CONCRETE CYLINDER PIPE<br>POLYVINYL CHLORIDE PIPE<br>TOP OF WALL<br>UTILITY POLE<br>WATER METER<br>WATER VALVE<br>YARD LIGHT<br>SILT FENCE<br>TEMPORARY DIVERSION DIKE<br>TREE PRESERVATION BARRIER<br>FINISH CONTOUR<br>TOP OF CURB ELEVATION<br>TOP OF PAVEMENT ELEVATION<br>FINISH GRADE ELEVATION<br>PROPOSED SANITARY SEWER LINE<br>PROPOSED WATER LINE<br>PROPOSED UNDERGROUND ELECTRIC<br>PROPOSED UNDERGROUND TELECOMMUNICATIONS<br>PROPOSED STORM SEWER<br>PROPOSED WATER VALVE<br>PROPOSED FIRE HYDRANT & VALVE<br>THRUST BLOCK<br>THRUST COLLAR<br>STANDARD DUTY CONCRETE<br>HEAVY DUTY CONCRETE |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN ZONE X "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD" AS SHOWN BY FIRM COMMUNITY PANEL NUMBER 29095C04306, DATED JANUARY 20, 2017.

## ZONING NOTE

THIS PROPERTY IS ZONED "P-MIX" PLANNED MIXED USE DISTRICT

## UTILITY CONSTRUCTION NOTES

1. LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR AND THE PROPER UTILITY COMPANY PROVIDING SERVICE PRIOR TO THE START OF CONSTRUCTION.
2. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
3. UTILITY TIE-INS ARE SHOWN IN APPROXIMATE LOCATIONS. REFER TO MEP PLANS FOR EXACT TIE-IN OF ALL UTILITIES.
4. SITE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF LEE'S SUMMIT WATER AND LIGHT DEPARTMENT AND CITY OF LEE'S SUMMIT PUBLIC WORKS WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES, RESPECTIVELY.
5. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS, BACKFILL OF TRENCHES THROUGH ANY IMPROVED AREAS, SUCH AS STREET, DRIVES OR PARKING LOTS SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY (ASTM D-698).
6. ALL UNDERGROUND UTILITY CONDUITS SHALL BE PLACED 48" BELOW FINISH GRADE UNLESS NOTED OTHERWISE.
7. ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
8. TOPS OF EXISTING ELECTRIC, SANITARY, STORM, WATER, TELECOMMUNICATION, GAS, IRRIGATION, CHILLED WATER, AND STEAM STRUCTURES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED FINISHED ELEVATIONS.
9. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
10. STUBS FOR FUTURE UTILITIES SHOULD BE CLEARLY MARKED AND ES&S CONTACTED FOR DATA COLLECTION.

## CONSTRUCTION NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL IDENTIFIED PROPERTY CORNERS, LAND SURVEY CORNERS, AND ACCESSORIES. THE CONTRACTOR SHALL CAUSE THE CORNERS AND ACCESSORIES TO BE REFERENCED BY A LICENSED LAND SURVEYOR, AND ANY SUCH CORNER OR ACCESSORIES DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESET BY THE SURVEYOR AT THE ORIGINAL LOCATION, AND FILE THE RESTORATIONS AND MONUMENT DOCUMENTS AS THE LAW REQUIRES.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEERING SURVEYS AND SERVICES FOR REVIEW AND APPROVAL FOR ALL MATERIALS BEFORE ORDERING.
5. ALL TRAFFIC CONTROL SHALL BE PER CURRENT MUTCD REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ANY WORK WITHIN THE RIGHT-OF-WAY.
6. IF A CONFLICT EXISTS BETWEEN THE CIVIL PLANS AND CIVIL SPECIFICATIONS, THE CIVIL PLANS SHALL GOVERN.
7. ALL INCIDENTAL ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, PAVEMENT MARKING, PAVEMENT, CURBS, TRUNCATED DOMES, FENCING, LANDSCAPING, IRRIGATION, ETC. EITHER DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE RETURNED TO ORIGINAL CONDITIONS BY THE CONTRACTOR.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN AND ASSOCIATED TO THE WORK SHOWN. CONTRACTOR SHALL COORDINATE INSPECTIONS WITH THE CITY.

## AS-BUILT SURVEY NOTES

1. PUBLIC WATER SYSTEM
  - a. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO THE FINAL FIELD INSPECTION, AN "AS-BUILT" SURVEY OF THE PUBLIC WATER SYSTEM SHALL BE SUBMITTED TO THE ENGINEER IN DIGITAL CAD AND PDF FORMAT. PDF FORMAT SHALL INCLUDE THE SURVEYOR'S TITLE BLOCK. THIS SURVEY SHALL INCLUDE THE FOLLOWING:
    - i. WATER MAINS, SHOWING:
      - a. PIPE SIZE
      - b. CASINGS & BORES
      - c. PIPE MATERIAL TYPE
      - d. FITTINGS, TEES, BENDS, REDUCERS, TAPPING SLEEVES, ETC.
      - e. VALVES
      - f. FIRE HYDRANTS
      - g. CASING LOCATION, TYPE, AND SIZE
    2. SERVICE AND METER LOCATIONS AND SIZES
    3. BACKFLOW PREVENTOR INCLUDING LOCATION, SIZE, AND TYPE
    4. FIRE METERS OR DETECTOR METERS
    5. PERMANENT WATER/UTILITY EASEMENTS WITH DIMENSION AND BOOK AND PAGE REFERENCE
    6. DIMENSION ALL WATER VALVE TO 3 FIXED POINTS
  - b. THE "AS-BUILT" PLANS SHALL BE IN THE SAME FORMAT AS THE ORIGINAL CONSTRUCTION PLANS, MUST BE CERTIFIED BY A PROFESSIONAL LAND SURVEYOR, AND SHALL MEET THE REQUIREMENTS OF CITY UTILITIES REGULATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW. UPON APPROVAL, THE ENGINEER WILL CERTIFY THE AS-BUILTS AND RETURN TO THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A REPRODUCIBLE COPY OF THE FINAL PLAN, THREE (3) SETS OF AS-BUILTS PLANS, AND A DIGITAL COPY OF THE AS-BUILT PLANS TO HENRY COUNTY.

## BENCH MARK

BM - MISSOURI DEPARTMENT OF TRANSPORTATION VRS NETWORK.

## PROPERTY OWNER

JEFFREY E. SMITH INVESTMENT CO, LLC  
206 PEACH WAY  
COLUMBIA, MISSOURI 65203

## UTILITY NOTES

THE LOCATIONS, SIZES, AND MATERIAL TYPES OF UNDERGROUND UTILITIES INDICATED ON THE PLAT, NOT VISIBLE OR APPARENT FROM THE SURFACE, ARE SHOWN IN THEIR APPROXIMATE LOCATIONS FROM A MISSOURI ONE CALL SYSTEM LOCATE, OR UTILITY COMPANY RECORDS AND WERE NOT VERIFIED IN THE FIELD.

### WATER

JACKSON COUNTY PWS# #14  
CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: PUBLIC WORKS DEPARTMENT 816-969-1800  
12" DI ALONG THE NORTH SIDE OF MEADOWVIEW DRIVE.  
30" PCPP ALONG THE WEST PROPERTY LINE.

### SANITARY SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: WES OWEN 816-969-1955  
AS SHOWN

### STORM SEWER

CITY OF LEE'S SUMMIT  
220 SE GREEN STREET  
LEE'S SUMMIT, MISSOURI 64063  
CONTACT: SHAWN GRAFF 816-969-1800  
AS SHOWN

### ELECTRIC

EVERGY  
1300 SE HAMLEN ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: 888-471-5275

### FIBER OPTIC

GOOGLE FIBER  
2812 WEST 47TH STREET  
KANSAS CITY, KS 66103  
CONTACT: CRAIG YOUNG 870-219-5630

### GAS

MISSOURI GAS ENERGY  
3025 SE CLOVER ROAD  
LEE'S SUMMIT, MISSOURI 64081  
CONTACT: BECCA ORR 816-969-2230

### TELECOM

AT&T  
215 N. SPRING STREET, 2nd FLOOR  
INDEPENDENCE, MO 64050  
CONTACT: MARK MANION 816-275-2341  
AS SHOWN

### TIME WARNER CABLE

CONTACT: ROY BELLIS 913-643-1914  
AS SHOWN

### COMCAST CABLE COMMUNICATIONS

3400 NW DUNCAN ROAD  
BLUE SPRINGS, MO 64015  
CONTACT: BARBARA BROWN 816-795-2255  
AS SHOWN



Call BEFORE you DIG  
TOLL FREE  
1-800-DIG-RITE  
MISSOURI ONE-CALL SYSTEM, INC.

## NOTE

IT IS IMPORTANT TO NOTE THAT THIS PLAN IS A PART OF A LARGER PUBLIC IMPROVEMENT PLAN CONSTRUCTION DOCUMENT. ALL EROSION AND SEDIMENT CONTROL REQUIREMENTS ARE STILL APPLICABLE FOR ANY ONSITE CONSTRUCTION. PLEASE REFERENCE:

- ROAD & STORM SEWER PLAN COVER
- UTILITY EXTENSION PLAN COVER
- SANITARY SEWER EXTENSION PLAN COVER
- MASS GRADING & EROSION CONTROL PLAN COVER

## SHEET INDEX

|             |                                  |
|-------------|----------------------------------|
| C3.01       | UTILITY EXTENSION PLAN COVER     |
| C3.02-C3.03 | UTILITY EXTENSION PLAN & PROFILE |
| C3.04       | WATER DETAILS                    |

WILSHIRE HILLS - 4TH PLAT  
WATER LINE EXTENSION



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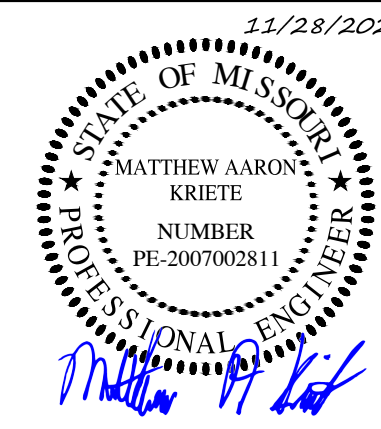
1113 Fay Street, Columbia, MO 65201  
973-449-2646  
802 El Dorado Drive, Jefferson City, MO 65101  
873-636-3303

1775 West Main Street, Sedalia, MO 65301  
660-826-8618

www.ess-inc.com

MO Engineering Corp. # 2004005018

PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS - 4TH PLAT  
NE WILSHIRE DRIVE  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

IF ORIGINAL SIGNATURE OR DIGITAL AUTHENTICATION IS NOT PRESENT THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

Date  
JUNE 27, 2023

Revised  
① JULY 26, 2023  
② OCTOBER 12, 2023  
③ NOVEMBER 28, 2023

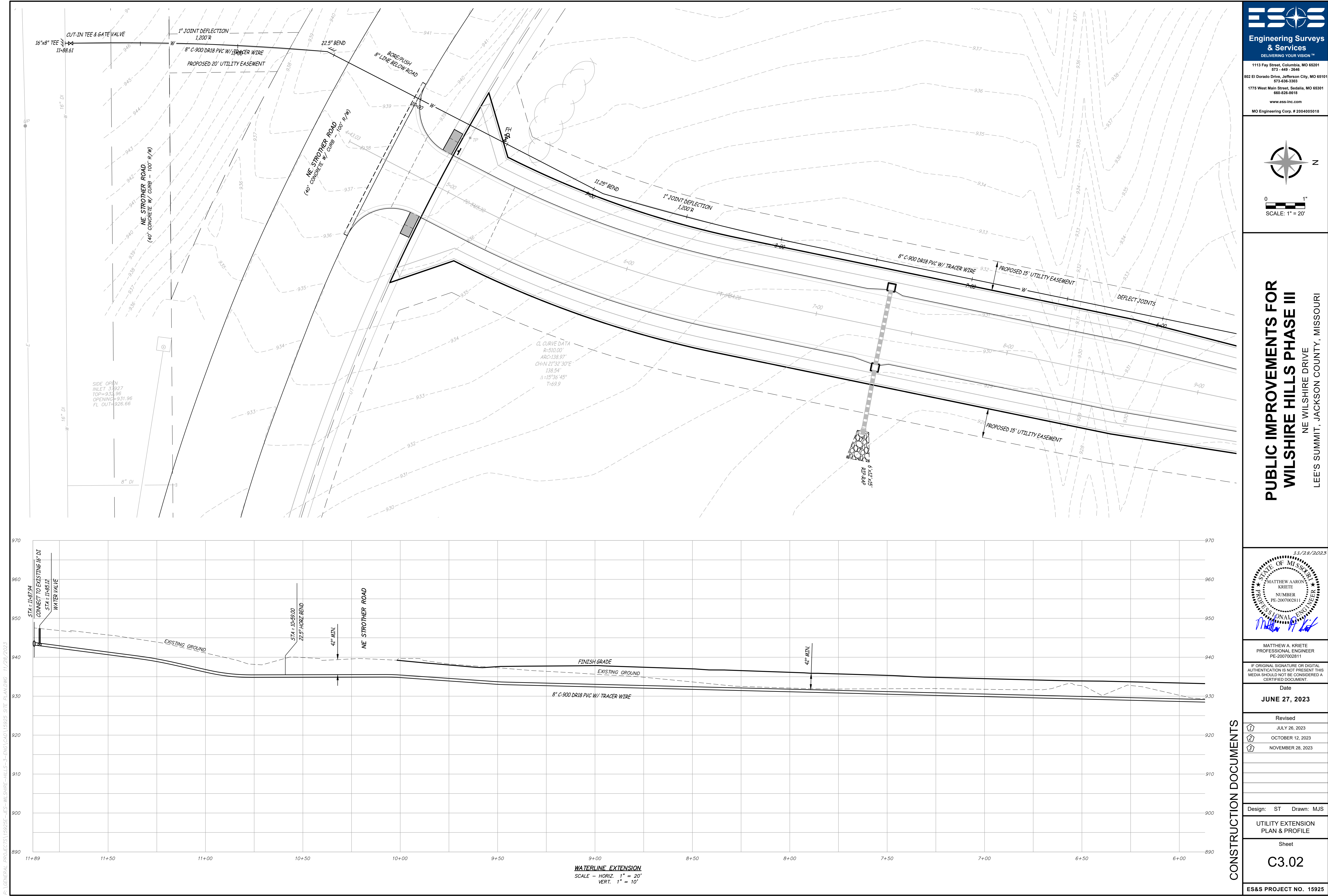
Design: ST Drawn: MJS

UTILITY EXTENSION  
PLAN COVER

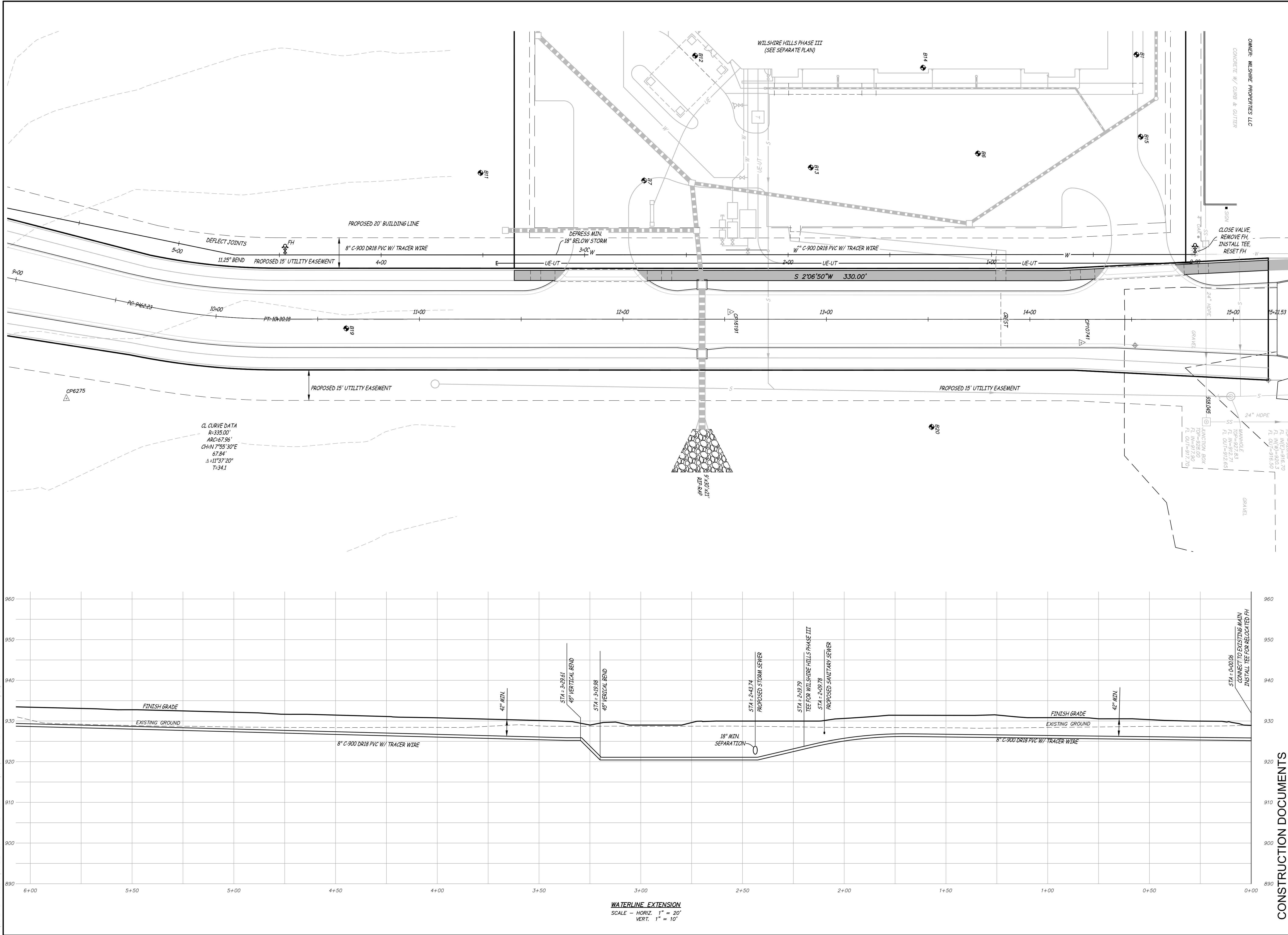
Sheet

C3.01

ES&S PROJECT NO. 15925



P:\GENERAL PROJECTS\15925E-ES-WILSHIRE-HILLS-3-ENG\CAD\15925 SITE PLANDWG 11/28/2023



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660-826-8618  
www.ess-inc.com  
MO Engineering Corp. # 2004005018

0 1"  
SCALE: 1" = 20'

**PUBLIC IMPROVEMENTS FOR  
WILSHIRE HILLS PHASE III**  
NE WILSHIRE DRIVE  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

11/28/2023

MATTHEW A. KRIETE  
PROFESSIONAL ENGINEER  
PE-2007002811

IF ORIGINAL SIGNATURE OR DIGITAL AUTHENTICATION IS NOT PRESENT THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

Date  
**JUNE 27, 2023**

| Revised             |
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| ① JULY 26, 2023     |
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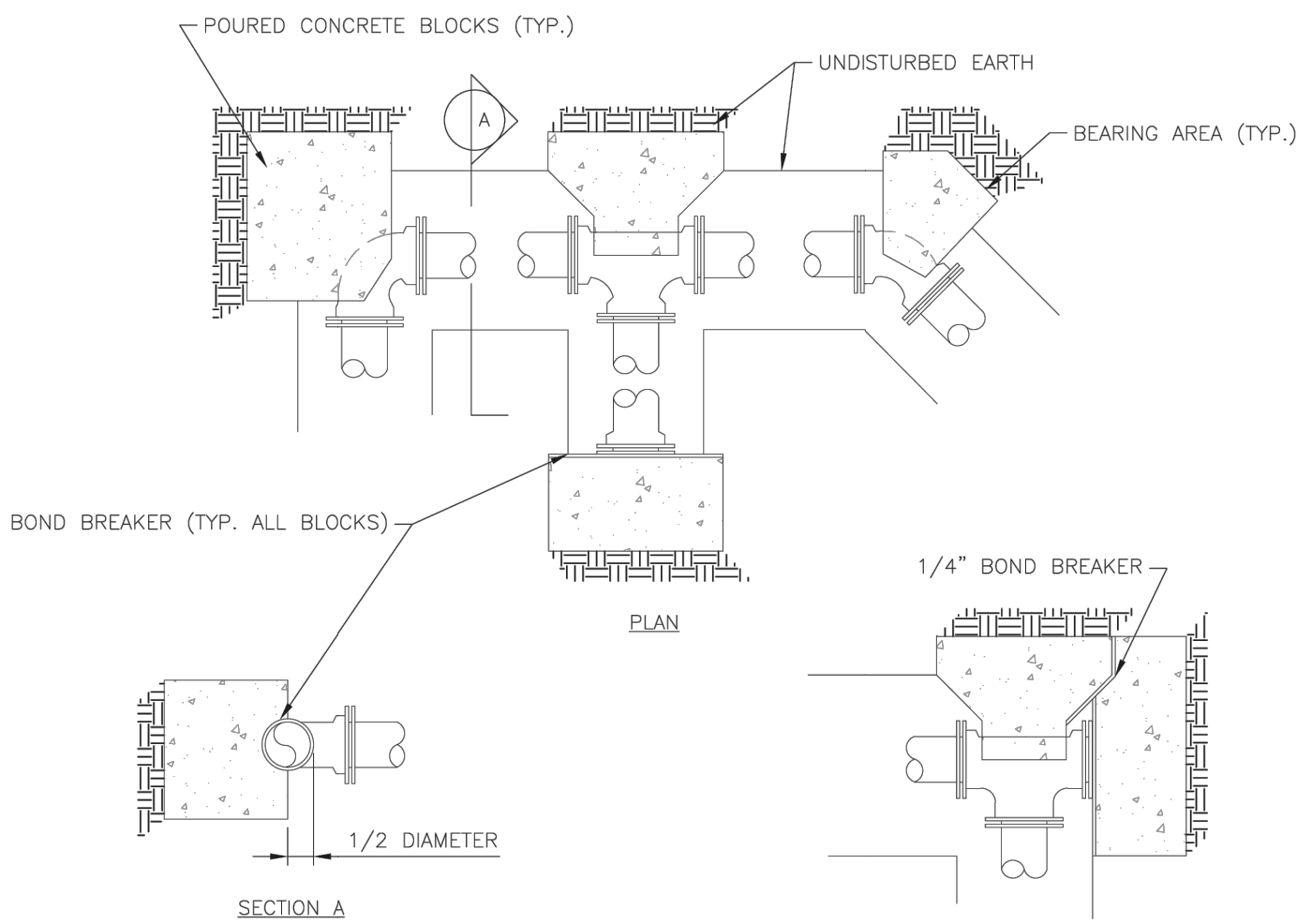
Design: ST Drawn: MJS

UTILITY EXTENSION  
PLAN & PROFILE

Sheet  
**C3.03**

ES&S PROJECT NO. 15925

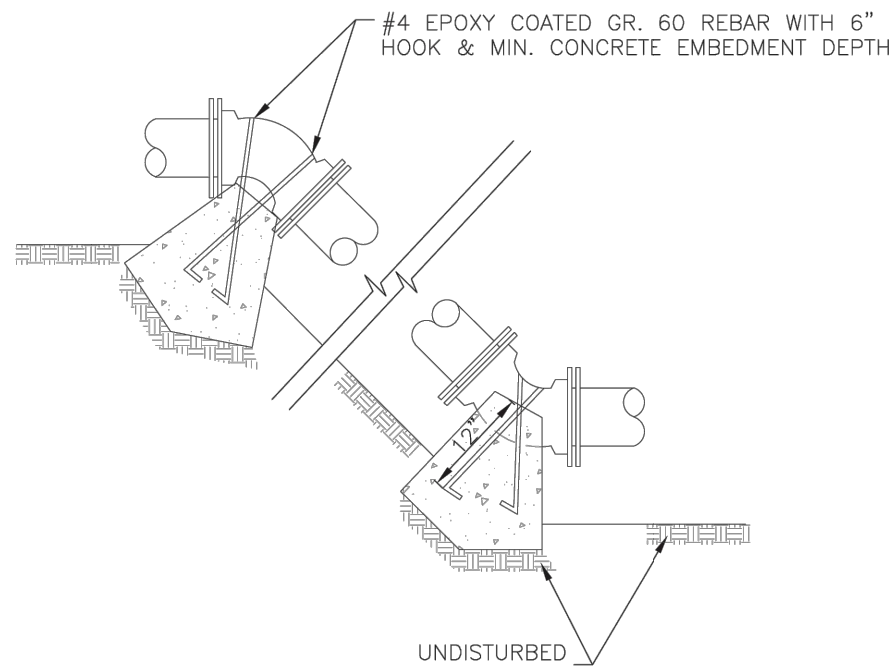
| REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF) |                  |           |           |            |             |
|---------------------------------------------------|------------------|-----------|-----------|------------|-------------|
| NOM. DIA.<br>(INCHES)                             | 180<br>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      | 25.6      | 13.1       | 6.6         |
| 18                                                | 42.4             | REST. JT. | 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. MECA 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.

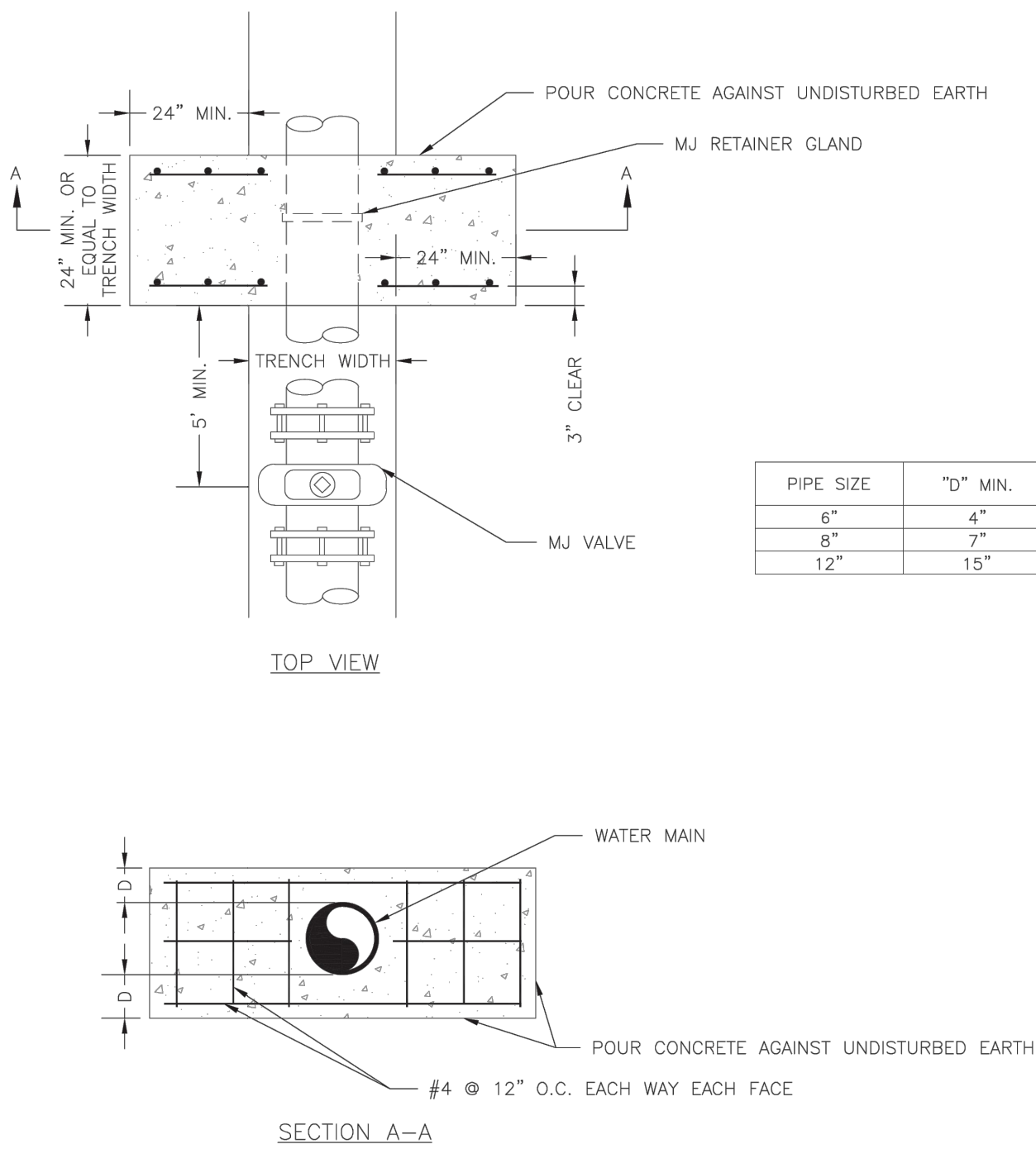
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|-------------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>               | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                         |                                                                                                                      | Drawn By: JN   |
|                         |                                                                                                                      | Checked By: DL |
| HORIZONTAL THRUST BLOCK |                                                                                                                      | WAT-1          |

| REQUIRED CONCRETE VOLUME (CUBIC FEET - CF) |                  |           |           |            |             |
|--------------------------------------------|------------------|-----------|-----------|------------|-------------|
| NOM. DIA.<br>(INCHES)                      | 180<br>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            | REST. JT. | 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       |



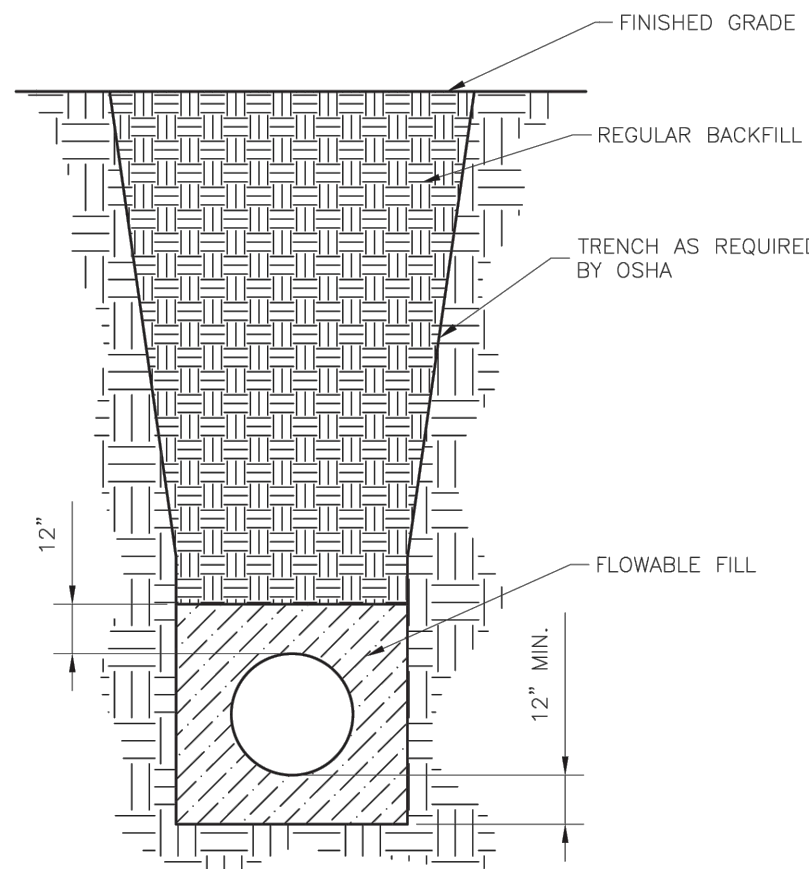
- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
  2. MECA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
  3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
  4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.

|                       |                                                                                                                      |                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>             | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: WAT-2    |
|                       |                                                                                                                      | Drawn By: JN   |
|                       |                                                                                                                      | Checked By: DL |
| VERTICAL THRUST BLOCK |                                                                                                                      | WAT-2          |



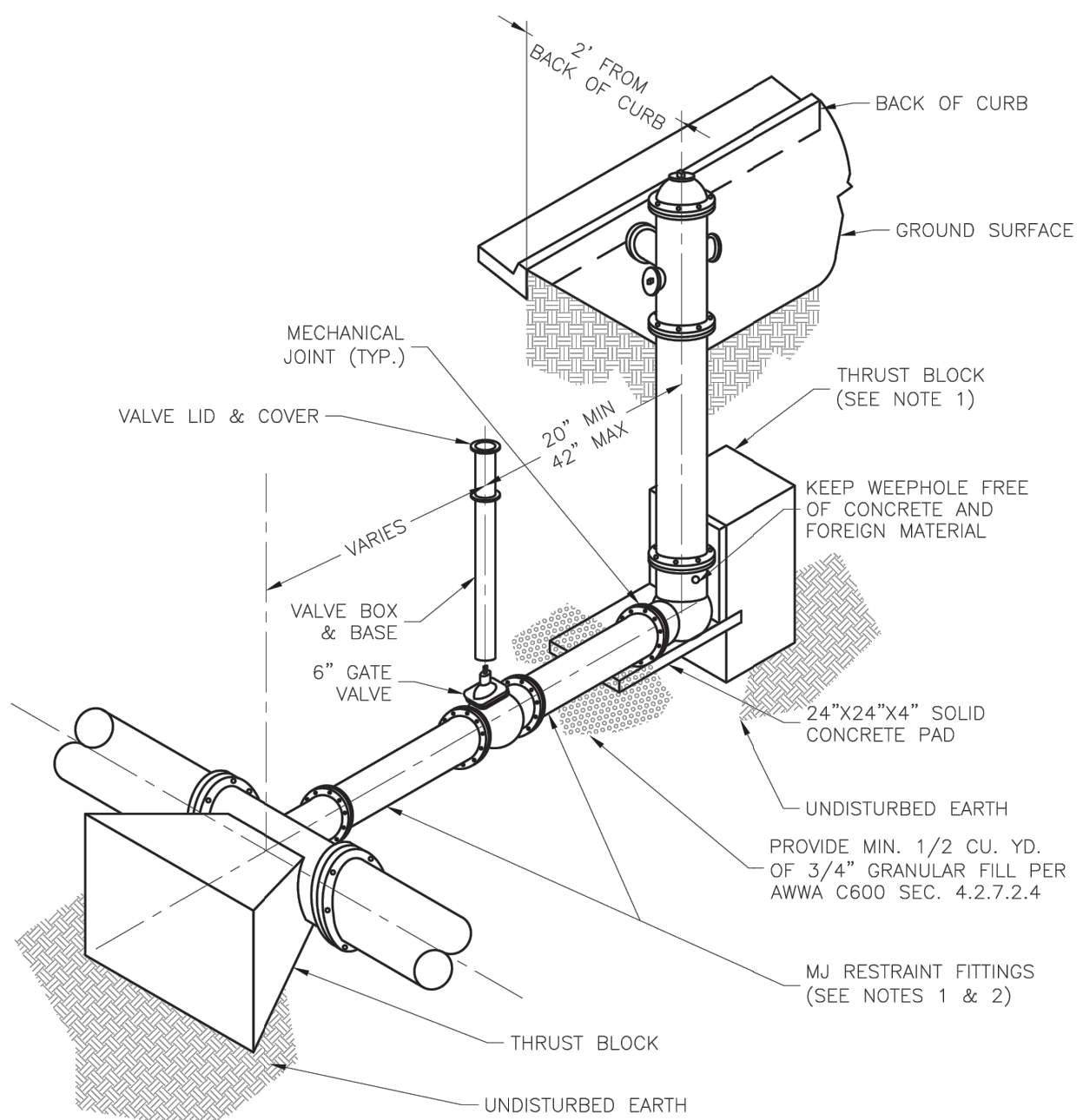
NOTE:  
THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"

|                |                                                                                                                      |                |
|----------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>      | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                |                                                                                                                      | Drawn By: JN   |
|                |                                                                                                                      | Checked By: DL |
| STRADDLE BLOCK |                                                                                                                      | WAT-3          |



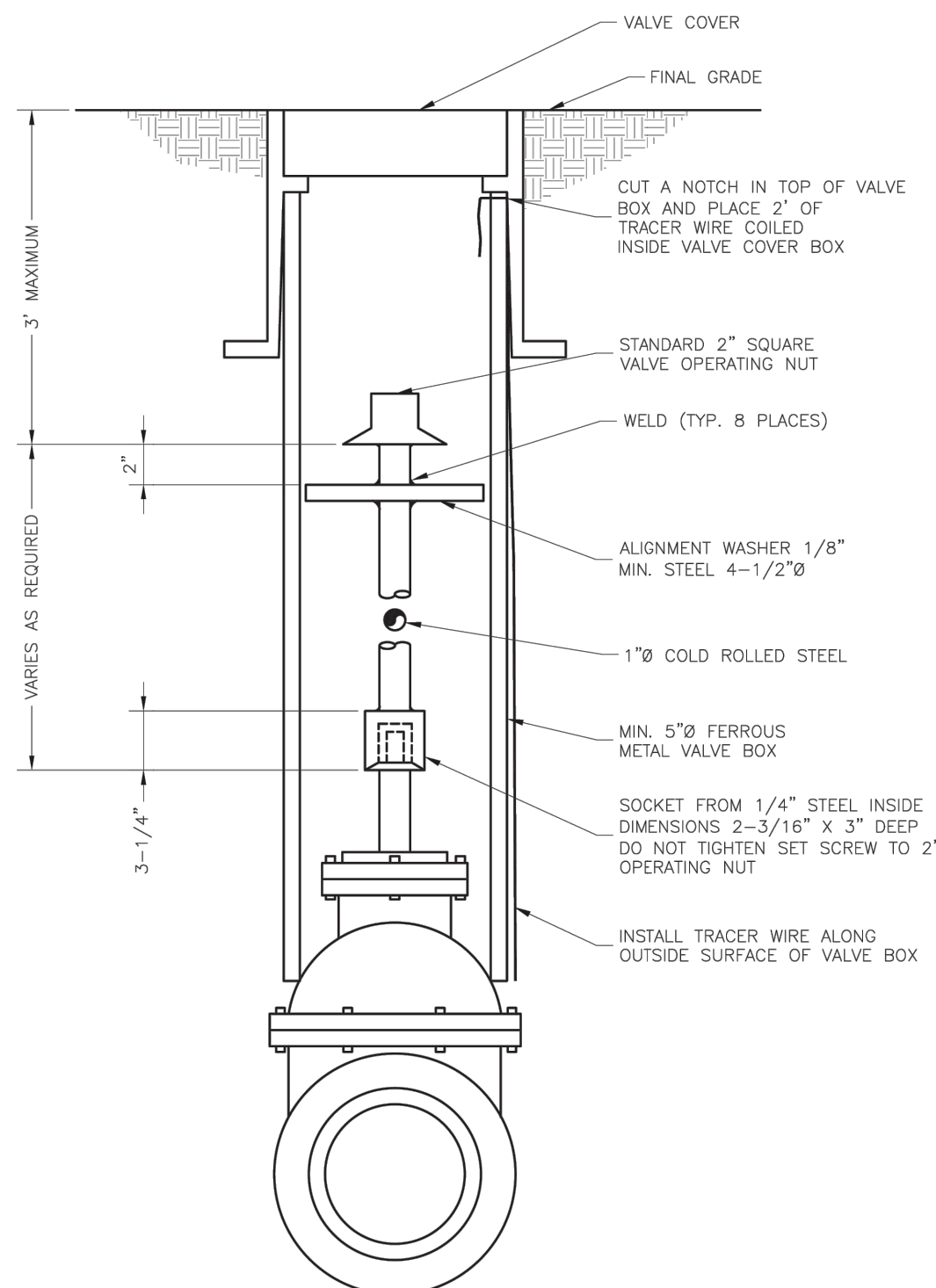
- NOTES:
1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
  2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6" IN ANY DIMENSION.
  3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE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

|                           |                                                                                                                      |                |
|---------------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>                 | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                           |                                                                                                                      | Drawn By: JN   |
|                           |                                                                                                                      | Checked By: DL |
| WATER TRENCH CHECK DETAIL |                                                                                                                      | WAT-6          |

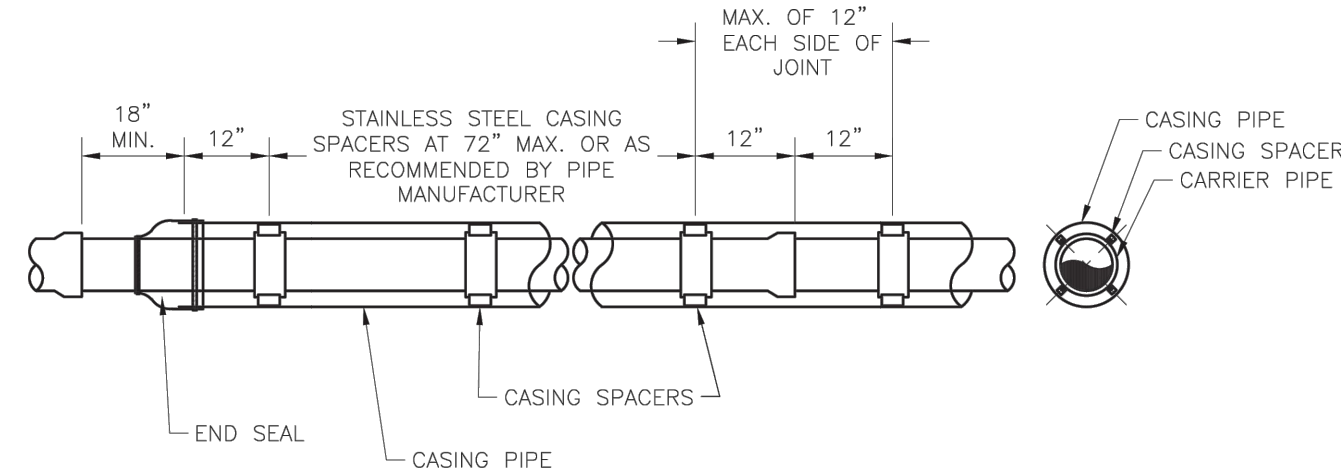


- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
  2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
  3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
  4.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

|                        |                                                                                                                      |                |
|------------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>              | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                        |                                                                                                                      | Drawn By: JN   |
|                        |                                                                                                                      | Checked By: DL |
| HYDRANT - STRAIGHT SET |                                                                                                                      | WAT-7          |

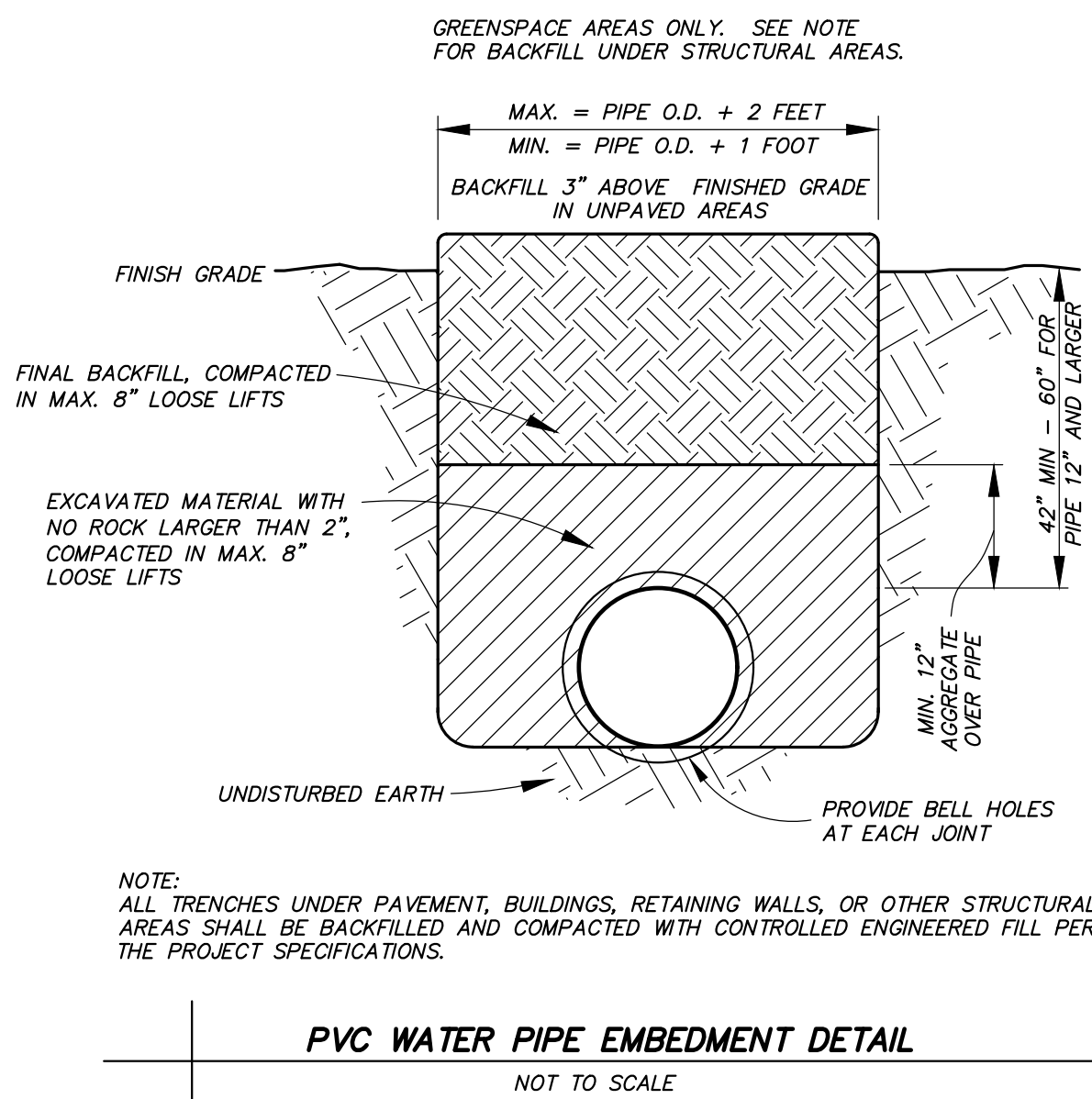


|                                    |                                                                                                                      |                |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>                          | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                                    |                                                                                                                      | Drawn By: JN   |
|                                    |                                                                                                                      | Checked By: DL |
| VALVE STEM EXTENSION AND VALVE BOX |                                                                                                                      | WAT-9          |



- NOTES:
1. REFER TO SPECIFICATION SECTION 3900 FOR ADDITIONAL INFORMATION.
  2. LENGTH, DIAMETER, AND WALL THICKNESS TO BE SHOWN ON CONSTRUCTION PLANS.

|                          |                                                                                                                      |                |
|--------------------------|----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>LS</b>                | <b>LEE'S SUMMIT<br/>MISSOURI</b><br>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063 | Date: 01/2016  |
|                          |                                                                                                                      | Drawn By: JN   |
|                          |                                                                                                                      | Checked By: DL |
| WATER CASING PIPE DETAIL |                                                                                                                      | WAT-5          |



NOTE:  
ALL TRENCHES UNDER PAVEMENT, BUILDINGS, RETAINING WALLS, OR OTHER STRUCTURAL AREAS SHALL BE BACKFILLED AND COMPACTED WITH CONTROLLED ENGINEERED FILL PER THE PROJECT SPECIFICATIONS.

PVC WATER PIPE EMBEDMENT DETAIL  
NOT TO SCALE