



WATER AND SEWER
Engineering Design

DATE:
JULY 24, 2025

TO:
Plan Holders
Contractors

FROM:
Jenna Richardson
918-596-9637
jennarichardson@cityoftulsa.org

EMAIL TRANSMITTAL

ADDENDUM NO. 3

**PROJECT NO. TMUA-W 21-02 TO#12 BERRYHILL WATER
LINE REPLACEMENT**

Number of pages: **31**

All addenda to the contract documents should be denoted on the
last page of the Proposal in the space provided.

Thank you,
Contract Administration



WATER AND SEWER
Engineering Design

DATE:
July 24, 2025

**ADDENDUM NO. 3
TO
PROJECT NO. TMUA-W 21-02 TO #12
BERRYHILL WATER LINE REPLACEMENT**

This Addendum No. 3 consisting of three (3) items, submitted by Freese and Nichols and one (1) item, submitted by City of Tulsa, is hereby made a part of the Contract Documents to the same extent as though it were originally included therein and shall supersede anything contained in the Plans and Specifications with which it might conflict. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

This Addendum No. 3 consists of the following:

1. The attached documents list the detailed items that have been modified in Addendum No. 1. These documents shall be inclusive and apply to this project.
2. Clarification: Contract is for **300 days**. Attached is an updated contract page (C-2) with correct number of days.

All other provisions of the Plans and Specifications shall remain in full force and effect.

CITY OF TULSA

A handwritten signature in blue ink, appearing to read "Eric Lee".

Eric Lee
Director

FOR

A handwritten signature in blue ink, appearing to read "HAS/gp".
HAS/gp/CW/JR/ma

PROJECT NO. TMUA-W 21-02 TO#12 BERRYHILL WATER LINE REPLACEMENT

ARTICLE II. That the Authority shall pay to the Contractor for performance of the work embraced in this Contract, and the Contractor will accept as full compensation therefor, the sum (subject to adjustment as provided by the Contract) of AND /100 Dollars (\$_____) for all work covered by and included in the Contract award and designated in the foregoing Article I; payments therefore to be made in cash or its equivalent, in the manner provided in the General Conditions.

ARTICLE IIA. All materials and supplies to be purchased under the terms of this contract shall be ordered by the Contractor from the vendor or supplier who shall be directed to invoice the Tulsa Metropolitan Utility Authority direct. The invoice shall reflect any contractor discount and no sales tax shall be added. The invoice will be paid direct by the Tulsa Metropolitan Utility Authority in accordance with the terms and conditions of the invoice (Oklahoma Tax Commission Rules Part 27 Trust Authority 710:65-13-140). The monies paid direct by Tulsa Metropolitan Utility Authority to the vendor or supplier shall be deducted from the total contract price. The Contractor shall accept delivery and be responsible for and shall warrant and hold the Authority harmless for the safety and security of all of the materials and supplies furnished for the project under this contract.

ARTICLE III. That the Contractor shall start work within ten (10) days following the date stipulated in a written order from the Authority to proceed with the work to be performed hereunder, and shall complete the work within the number of consecutive calendar days after the authorized starting date, as stipulated below:

All Work Completed: 300 calendar days

ARTICLE IV. The sworn, notarized statement below shall be signed and notarized before this Contract will become effective.

ARTICLE V. Prior to submitting a final payment request, the Contractor shall furnish a lien waiver certifying that all subcontractors and suppliers have been paid.

IN WITNESS WHEREOF, the Authority and the Contractor hereto have set their hands and seals, respectively, this _____ day of _____, 2025.

July 21, 2025

ADDENDUM NO. 3

**TULSA METROPOLITAN UTILITY AUTHORITY
WATERLINE REPLACEMENT CITY WIDE
PROJECT NO. TMUA 21-02 TO 12**

This Addendum No. 3 consisting of three (3) items, is hereby made a part of the Contract documents to the same extent as though it were originally included therein, and shall supersede anything contained in the Plans and Specifications with which it might conflict. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

This Addendum No. 3 consists of the following:

1. Bid Proposal Form - Delete the existing Proposal in its entirety and replace with revised Proposal. The revised Proposal can be found at: <https://www.cityoftulsa.org/government/departments/public-works/engineering-services/construction-bids/> for Project Number - TMUA-W 21-02, TO #12 – Berryhill Waterline Replacement. It is the Bidder's responsibility to download the revised Proposal for submittal. Revisions are summarized below:
 - a. Quantity of calendar days increased to 300
 - b. Added Line Items:
 - i. Line Item 012 – Traffic Control (Per MUTCD)
 - ii. Line Item 025 – Pavement Removal and Replacement for Water Main Installations (Asphalt)
 - iii. Line Item 026 – Pavement Removal and Replacement for Water Main Installations (Concrete)
 - iv. Line Item 028 – 6 inch DIP, CL51 Polyethylene Wrapped (Nitrile Gasket)
 - v. Line Item 032 – 6 inch Ductile Iron 22-1/2 Degree Bend (RJ)
 - vi. Line Item 052 – Conduit, By Bore (18-inch Steel)
 - vii. Line Item 056 – 6 inch DIP, CL51 Polyethylene Wrapped (Nitrile Gasket)
 - viii. Line Item 058 - 6 inch Ductile Iron 22-1/2 Degree Bend (RJ)
 - ix. Line Item 077 – Conduit by Bore (18-Inch Steel)
 - x. Line Item 079 - 6 inch DIP, CL51 Polyethylene Wrapped (Nitrile Gasket)
 - xi. Line Item 083 – 8-Inch HDPE 22.5 Degree Bend (DIPS)
 - xii. Line Item 086 - 6-Inch Ductile Iron to HDPE Adaptor (RJ)
 - xiii. Line Item 102 - Conduit by Bore (20-Inch Steel)
 - c. Removal of Line Items
 - i. Previously Line Item 012 – Pavement, Removal and Replacement (Asphalt)
 - ii. Previously Line Item 013 - Pavement, Removal and Replacement (Concrete)
 - iii. Previously Line Item 014 – Sawcut
 - iv. Previously Line Item 096 – 18-inch Corrugated Polypropylene Pipe (CPP), Complete in Place

2. Drawings

- a. Cover sheet
 - i. Added Magellan Contact (918-630-2376)
 - ii. Added City of Tulsa Standard Detail 307 – Bore Conduit
- b. Sheet 2, Summary of Quantities
 - i. Removed and added line items as described above in addendum item 1.
 - ii. Added note.
- c. Sheet 3, Summary of Quantities
 - i. Removed and added line items as described above in addendum item 1.
 - ii. Added note.
- d. Sheet 4, Pay Item Notes
 - i. Added pay item note 37; which is further described in below addendum item 3.
 - ii. Added Traffic Control Pay Item Notes
- e. Sheet 5, Proposed Utility Symbols
 - i. Added Bore Conduit
- f. Sheet 27, Demolition & Restoration Plan – Line E
 - i. Reduced resod quantity
- g. Sheet 28, Demolition & Restoration Plan – Line E
 - i. Added remove and replace of existing chain link fence
 - ii. Added Note 2
- h. Sheet 30, Demolition & Restoration – Line F
 - i. Reduced resod quantity
- i. Sheet 32, Line ‘A’ Plan and Profile
 - i. Added existing meter to be removed label
- j. Sheet 36, Line ‘B’ Plan and Profile
 - i. Relocated Fire Hydrant B1
- k. Sheet 42, Line ‘C’ Plan and Profile
 - i. Added bore conduit below Magellan crossing
 - ii. Added labels for high-pressure pipeline
 - iii. Added warning label for high-pressure pipeline
 - iv. Added Note 6
- l. Sheet 43, Line ‘C’ Plan and Profile
 - i. Added labels for high-pressure pipeline
- m. Sheet 44, Line ‘C’ Plan and Profile
 - i. Added labels for high-pressure pipeline
- n. Sheet 48, Line ‘E’ Plan and Profile
 - i. Added two 6-inch 22.5 degree bends
 - ii. Adjusted water line alignment
 - iii. Added uncased bore length
 - iv. Added Note 6
- o. Sheet 50, Line ‘E’ Plan and Profile
 - i. Relocated Fire Hydrant E2
- p. Sheet 52, Line ‘F’ Plan and Profile
 - i. Relocated Fire Hydrant B1
- q. Sheet 53, Line ‘F’ Plan and Profile
 - i. Add bore conduit below Magellan crossing
 - ii. Added labels for high-pressure pipeline
 - iii. Added warning label for high-pressure pipeline
 - iv. Added Note 6

3. Pay Item – Pavement Removal and Replacement for Water, Sanitary, and Stormwater Main Installations

- a. This pay item supersedes City of Tulsa Standard Specification Section 329.6, with respect to saw cutting and dowels, and includes the following (these items shall not be paid separately):
 - i. Saw cutting
 - ii. Dowels
 - iii. Disposal of broken pavement
 - iv. Temporary surfaces
 - v. Associated excavation
 - vi. Preparation of subgrade
 - vii. Forms or reinforcing
 - viii. Removal or replacement of gravel
 - ix. Additional saw cutting or replacement of pavement damaged by the Contractor
 - x. Joint sealer, tack coats, or edge sealing
- b. This pay item does not include the following which shall be paid separately in accordance with City Standard Specifications, Details, and Drawings:
 - i. Curb and Gutter

All other provisions of the Plans and Specifications shall remain in full force and effect.

FREESE AND NICHOLS, INC.



William C. Herndon, P.E.
Project Manager

William C. Herndon
07/21/2025

**ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET
BERRYHILL WATER LINE REPLACEMENT
TMUA-W_21-02 TO#12**

Please read the following instructions carefully.

1. After opening this file re-save it as your company's name.
2. Open the BID FORM Sheet from the tabs below.
3. Input the unit price of the appropriate pay item in the Data Input cells.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
7. Submit hardcopy and electronic disk with Contract Documents and Specifications for Bid opening date.

LEGEND

- \$ 1.00 Cells Requiring Data Input.
- \$ 1.00 Internal Data Transfer.
- \$ 2.00 Calculated Results.

AGREEMENT FOR USING ELECTRONIC BID PROPOSAL

By and Between: Freese and Nichols, Inc., (ENGINEER) and RECIPIENT. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for Project No. **TMUA-W 21-02 TO#12**. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENT'S computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. By opening and using this FILE, You AGREE to these TERMS AND CONDITIONS.

**PROPOSAL
BERRYHILL WATER LINE REPLACEMENT
TMUA-W_21-02 TO#12**

TO: TULSA METROPOLITAN UTILITY AUTHORITY
CITY OF TULSA, OKLAHOMA

THE UNDERSIGNED BIDDER, having carefully examined the drawings, specifications, and other Contract Documents of the above project presently on file in the City Clerk, City of Tulsa Oklahoma:

CERTIFIES THAT he has inspected the site of the proposed work and has full knowledge of the extent and character of the work involved, construction difficulties that may be encountered, and materials necessary for construction, class and type of excavation, and all other factors affecting or which may be affected by the specified work; and

CERTIFIES THAT he has not entered into collusion with any other bidder or prospective bidder relative to the project and/or bid: and

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents hereto attached and other documents referred to therein: to complete said work within 300 calendar days after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineer as set forth in the Contract.

Basis of Award

THE BID PROPOSAL INCLUDES A BASE BID WITH THREE WATERLINE MATERIAL OPTIONS PLUS ADDITIVE ALTERNATE 1. IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE TOTAL BID SHALL BE DETERMINED BY THE BASE BID WITH THE LOWEST OF THE MATERIAL OPTIONS PLUS ADDITIVE ALTERNATES 1. TULSA MUNICIPAL AUTHORITY (TMUA) RESERVES THE RIGHT TO SELECT EITHER MATERIAL OPTION IN THE EVENT THE BID COSTS OF THE THREE MATERIAL OPTIONS ARE EQUAL. THE ITEM IN ADDITIVE ALTERNATE 1 MAY OR MAY NOT BE INCLUDED IN THE CONTRACT AWARD AT THE SOLE DISCRETION OF TMUA. ANY PROPOSAL SUBMITTED WITH ANY MATERIAL OPTION OR ADDITIVE ALTERNATE INCOMPLETE SHALL BE CONSIDERED NON-RESPONSIVE.

Note: - Item numbers omitted are not a part of the Contract.

PROPOSAL
BERRYHILL WATER LINE REPLACEMENT
TMAU-W 21-02 TOR#2

BID ITEM	ODOT	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
BASE BID:							
001		COT 102	PROJECT SIGN (CITY OF TULSA)	EA	1	\$	-
002		COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE	SY	4040	\$	-
003		COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	CY	5640	\$	-
004		COT 303	MOBILIZATION	EA	1	\$	-
005		COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	EA	19	\$	-
006		COT 317	2 INCH AIR VALVE ASSEMBLY	EA	1	\$	-
007		COT 317	3-WAY FIRE HYDRANT, IN PLACE	EA	12	\$	-
008		COT 317	12 INCH GATE VALVE (R.J.)	EA	2	\$	-
009		COT 318	VALVE BOX	EA	21	\$	-
010		COT 326	SEEDING AND SEEDING	SY	2420	\$	-
011		COT 326	STREET WASH DOWN	LF	9550	\$	-
012		COT 327	TRAFFIC CONTROL (PER MUTCD)	CD	300	\$	-
013		COT 330	EXISTING WATERLINE ABANDONMENT	LF	8958	\$	-
014		COT 334	CONSTRUCTION AS BUILT	EA	1	\$	-
015		COT 335	CONTRACTOR QUALITY CONTROL	LSUM	1	\$	-
018		COT 606	SHEET ALUMINUM SIGNS	SF	154	\$	-
017		COT 606	1 1/2" SQUARE TUBE POST	LF	18	\$	-
018		COT 606	1 3/4" SQUARE TUBE POST	LF	147	\$	-
019		COT 606	2" SQUARE TUBE POST	LF	39	\$	-
020		SPECIAL	OWNER ALLOWANCE	ALLOW	150000	\$1.00	150,000.00
021		SPECIAL	REMOVAL DRIVEWAY CULVERT	LF	475	\$	-
022	720	SPECIAL	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1	\$	-
023	842	SPECIAL	CONSTRUCTION STAKING	EA	1	\$	-
024		SPECIAL	FENCE REMOVE AND REPLACEMENT OUTSIDE ROW	LF	100	\$	-
025		SPECIAL	PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS (ASPHALT)	SY	1040	\$	-
026		SPECIAL	PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS (CONCRETE)	SY	80	\$	-
TOTAL BASE BID							150,000.00

MATERIAL OPTION #1 - PVC							
027		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (R.J.)	LF	1813	\$	-
028		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (R.J.) (NITRILE GASKET)	LF	212	\$	-
029		COT 308	6 INCH PVC AWWA C900 CLASS 200 DR-14	LF	5585	\$	-
030		COT 309	6 INCH PVC AWWA C900 CLASS 200 DR-14 (R.J.)	LF	2360	\$	-
031		COT 312	6 INCH DUCTILE IRON 11-1/4 DEGREE BEND (R.J.)	EA	7	\$	-
032		COT 312	6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (R.J.)	EA	6	\$	-
033		COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (R.J.)	EA	44	\$	-
034		COT 312	6 INCH DUCTILE IRON 90 DEGREE BEND (R.J.)	EA	1	\$	-
035		COT 312	12 INCH X 6 INCH DUCTILE IRON TEE (R.J.)	EA	2	\$	-
036		COT 312	8 INCH X 6 INCH DUCTILE IRON TEE (R.J.)	EA	19	\$	-
037		COT 312	12 INCH DUCTILE IRON SLEEVE (R.J.)	EA	2	\$	-
038		COT 312	6 INCH DUCTILE IRON SLEEVE (R.J.)	EA	1	\$	-
039		COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	EA	58	\$	-
040		COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	EA	49	\$	-
041		COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
042		COT 315	3/4 INCH WATER METER CAN, LID, & RIM	EA	19	\$	-
043		COT 315	1 INCH WATER SERVICE LINE CONNECTION (SHORT)	EA	1	\$	-
044		COT 315	1 INCH WATER SERVICE LINE CONNECTION (LONG)	EA	1	\$	-
045		COT 315	1 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
046		COT 315	1 INCH WATER METER CAN, LID, & RIM	EA	1	\$	-
047		COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)	EA	1	\$	-
048		COT 315	2 INCH WATER SERVICE CONNECTION (LONG)	EA	1	\$	-
049		COT 315	2 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
050		COT 317	8 INCH GATE VALVE (R.J.)	EA	19	\$	-
051		COT 312	6 INCH DUCTILE IRON TO PVC ADAPTOR (R.J.)	EA	40	\$	-
052		COT 322	CONDUIT, BY BORE (18-INCH STEEL)	LF	212	\$	-
053		COT 328	6-INCH BORE (UNCASED)	LF	1813	\$	-
TOTAL BASE BID PLUS MATERIAL OPTION #1 - PVC							150,000.00

MATERIAL OPTION #2 - DIP							
054		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED	LF	5585	\$	-
055		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (R.J.)	LF	4173	\$	-
056		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (R.J.) (NITRILE GASKET)	LF	212	\$	-
057		COT 312	6 INCH DUCTILE IRON 11-1/4 DEGREE BEND (R.J.)	EA	7	\$	-
058		COT 312	6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (R.J.)	EA	6	\$	-
059		COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (R.J.)	EA	44	\$	-
060		COT 312	6 INCH DUCTILE IRON 90 DEGREE BEND (R.J.)	EA	1	\$	-
061		COT 312	12 INCH X 6 INCH DUCTILE IRON TEE (R.J.)	EA	2	\$	-
062		COT 312	8 INCH X 6 INCH DUCTILE IRON TEE (R.J.)	EA	19	\$	-
063		COT 312	12 INCH DUCTILE IRON SLEEVE (R.J.)	EA	2	\$	-
064		COT 312	6 INCH DUCTILE IRON SLEEVE (R.J.)	EA	1	\$	-
065		COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	EA	58	\$	-
066		COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	EA	49	\$	-
067		COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
068		COT 315	3/4 INCH WATER METER CAN, LID, & RIM	EA	19	\$	-
069		COT 315	1 INCH WATER SERVICE CONNECTION (SHORT)	EA	1	\$	-
070		COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	EA	1	\$	-
071		COT 315	1 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
072		COT 315	1 INCH WATER METER CAN, LID, & RIM	EA	1	\$	-
073		COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)	EA	1	\$	-
074		COT 315	2 INCH WATER SERVICE CONNECTION (LONG)	EA	1	\$	-
075		COT 315	2 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
076		COT 317	8 INCH GATE VALVE (R.J.)	EA	19	\$	-
077		COT 322	CONDUIT, BY BORE (18-INCH STEEL)	LF	212	\$	-
078		COT 328	6-INCH BORE (UNCASED)	LF	1813	\$	-
TOTAL BASE BID PLUS MATERIAL OPTION #2 - DIP							150,000.00

MATERIAL OPTION #3 - HDPE							
079		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (R.J.) (NITRILE GASKET)	LF	212	\$	-
080		COT 308A	8 INCH HDPE AWWA C908 PE4710 DR-11 (DIPS)	LF	9759	\$	-
081		COT 312A	8 INCH X 6 INCH HDPE TEE (DIPS)	EA	19	\$	-
082		COT 312A	12 INCH X 6 INCH HDPE TEE (DIPS)	EA	2	\$	-
083		COT 312A	6 INCH HDPE 22.5 DEGREE BEND (DIPS)	EA	6	\$	-
084		COT 312A	6 INCH HDPE 45 DEGREE BEND (DIPS)	EA	44	\$	-
085		COT 312A	6 INCH HDPE 90 DEGREE BEND (DIPS)	EA	1	\$	-
086		COT 312	6 INCH DUCTILE IRON TO HDPE ADAPTOR (R.J.)	EA	5	\$	-
087		COT 312	12 INCH DUCTILE IRON TO HDPE ADAPTOR (R.J.)	EA	4	\$	-
088		COT 312	12 INCH DUCTILE IRON SLEEVE (R.J.)	EA	2	\$	-
089		COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	EA	58	\$	-
090		COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	EA	49	\$	-
091		COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
092		COT 315	3/4 INCH WATER METER CAN, LID, & RIM	EA	19	\$	-
093		COT 315	1 INCH WATER SERVICE CONNECTION (SHORT)	EA	1	\$	-
094		COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	EA	1	\$	-
095		COT 315	1 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
096		COT 315	1 INCH WATER METER CAN, LID, & RIM	EA	1	\$	-
097		COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)	EA	1	\$	-
098		COT 315	2 INCH WATER SERVICE CONNECTION (LONG)	EA	1	\$	-
099		COT 315	2 INCH WATER SERVICE LINE EXTENSION	LF	1	\$	-
100		COT 317	8 INCH GATE VALVE (R.J.)	EA	19	\$	-
101		COT 322	CONDUIT, BY BORE (20-INCH STEEL)	LF	212	\$	-
102		COT 328	8-INCH BORE (UNCASED)	LF	1813	\$	-
TOTAL BASE BID PLUS MATERIAL OPTION #3 - HDPE							150,000.00

ADD ALTERNATE #1 - RCP							
104		COT 613A	18" REINFORCED CONCRETE PIPE (RCP), COMPLETE IN PLACE	LF	475	\$	-
TOTAL ADD ALTERNATE #1							150,000.00

TOTAL BID (Base Bid with the lower of the 3 Material Options) ITEMS 001 true 090)
TOTAL LOWEST BID WITH ADD ALT 1

\$ 150,000.00
\$ 150,000.00

Enclosed is a () Bidder's Surety Bond, () Certified Check, () Cashier's Check for

Words Dollars (\$) Figures

which the City of Tulsa may retain or recover as liquidated damages in the event that the undersigned fails to enter into contract for the work covered by this proposal, provided the Contract is awarded to the undersigned within thirty (30) days from the date fixed for opening of bids and the undersigned fails to execute said Contract and furnish the required bonds and other requirements as called for in these Contract Documents within thirty (30) days after award of Contract.

Dated at Tulsa, Oklahoma, this _____ day of _____, 20_____.

Respectfully submitted,

(Complete legal name of company)

(State of Organization)

By:

ATTEST:

Title:

Title: Corporate Secretary

Printed Name:

Printed Name:

(SEAL)

Address: _____

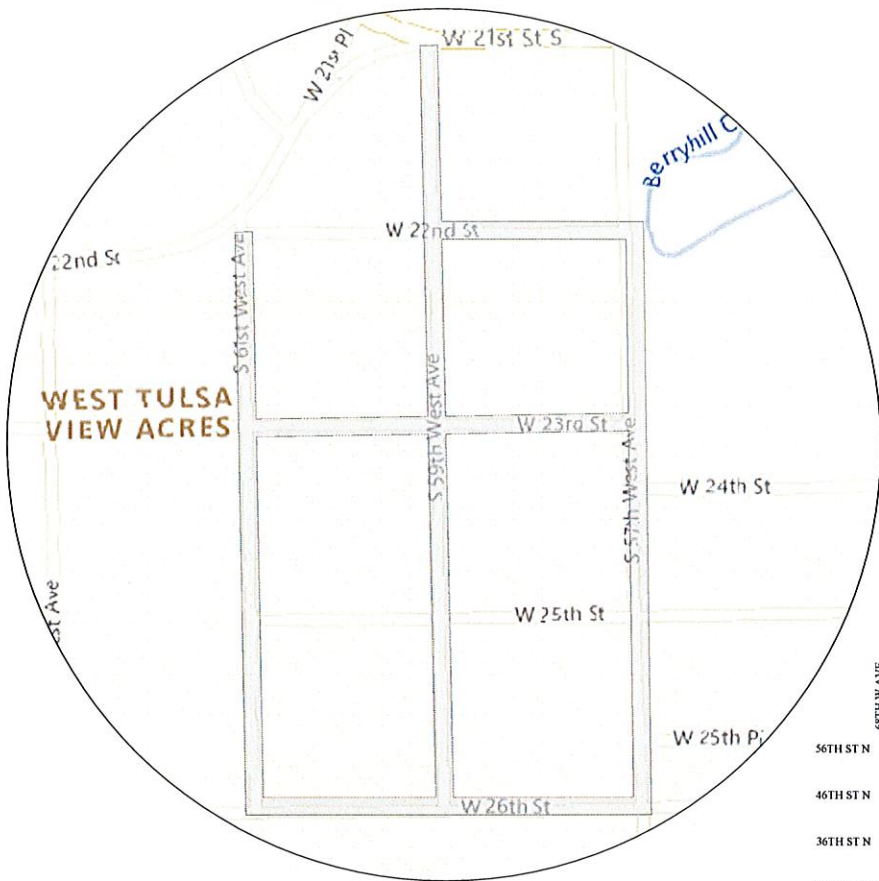
Telephone Number: _____

Fax Number: _____

By signing above the bidder acknowledges receipt of the following Addenda (give number and date of each):

BASE BID PLUS PVC OPTION 1	\$ <u>150,000.00</u>
BASE BID PLUS DIP OPTION 2	\$ <u>150,000.00</u>
BASE BID PLUS HDPE OPTION 3	\$ <u>150,000.00</u>
BASE BID PLUS LOWEST OF OPTION 1/2/3	\$ <u>150,000.00</u>
TOTAL LOWEST BID PLUS ADD ALT 1	\$ <u>150,000.00</u>

PROJECT VICINITY MAP



PROJECT LOCATION



UTILITY COORDINATION INFORMATION

TULSA ENGINEERING SERVICES DEPARTMENT	
COT UTILITY COORDINATION	918-596-9245
WATER DESIGN	596-9566
WASTEWATER DESIGN	596-9564
TRANSPORTATION DESIGN	596-9636
TRAFFIC ENGINEERING DESIGN	596-9741
STORMWATER DESIGN	596-9498
OKLAHOMA NATURAL GAS CO.	800-664-5463
ONEOK	918-588-7294
COX COMMUNICATIONS	918-806-6000
AEP/PSO	888-216-3523
MTTA	830-0024
AT&T EMERGENCY	800-288-2020
VERIZON	888-294-6804
WINDSTREAM	800-347-1921
MAGELLAN	918-630-2376

SURVEY DATUM:
HORIZONTAL - OKLAHOMA STATE PLANE COORDINATE (NAD 1983)
VERTICAL - (NAVD 1988)

CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS ADOPTED BY THE CITY OF TULSA.

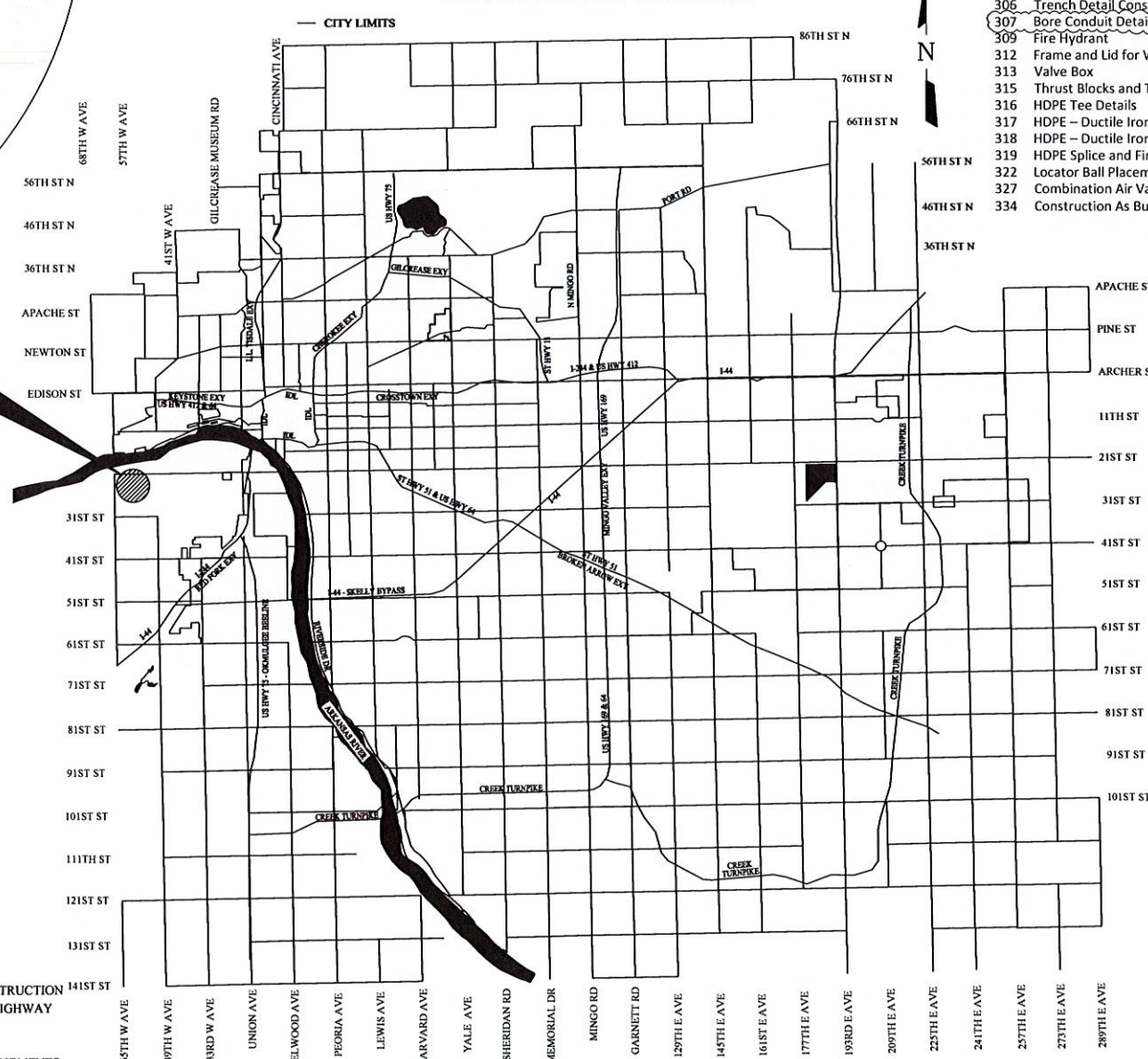
THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS.

ENTIRE PROJECT IS WITHIN CORPORATE LIMITS OF CITY OF TULSA (COT).

CONSTRUCTION PLANS FOR BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W_21-02 TO#12 WATER AND SEWER DEPARTMENT CITY OF TULSA, OKLAHOMA

BID ADVERTISE DATE APRIL 2025

PROJECT LOCATION

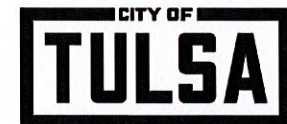


CITY OF TULSA STANDARD DETAILS

- 102 Project Sign
- 304 Bedding Detail - Rigid Pipe
- 304A Trench Detail - Waterline
- 305 Bedding Detail - Flexible Pipe
- 306 Trench Detail Construction Adjacent to Roadway
- 307 Bore Conduit Detail
- 309 Fire Hydrant
- 312 Frame and Lid for Water Vaults
- 313 Valve Box
- 315 Thrust Blocks and Trench Conditions
- 316 HDPE Tee Details
- 317 HDPE - Ductile Iron Fitting Details 1 of 2
- 318 HDPE - Ductile Iron Fitting Details 2 of 2
- 319 HDPE Splice and Fire Hydrant Details
- 322 Locator Ball Placement Detail
- 327 Combination Air Vacuum/Relief Valve Vault for 2" ARV Less Than 5 lbs. in Weight
- 334 Construction As Built

CITY OF TULSA STANDARD DETAILS CONT.

- 415 Clay Dam
- 501 Standard Meter Settings for 5/8" x 3/4" and 3/4" Water Service
- 501A Standard Meter Settings for 5/8" x 3/4" and 3/4" Water Service (AquaPEX Blue)
- 502 Standard Meter Settings for 1" Water Service
- 502A Standard Meter Settings for 1" Water Service (AquaPEX Blue)
- 503 Standard Meter Settings for 1-1/2" Water Service
- 505 Meter Can with Rim and Lid 3/4", 1", and 1-1/2" Water Meter Can Installation
- 506 Meter Can with Rim and Lid 1-1/2" Water Meter Installation
- 507 Meter Can with Rim and Lid 2" Water Meter Installation
- 608A Street Name Signs
- 608B Traffic Signs
- 702 Residential Concrete Driveway Asphalt Street
- 704 Residential Asphalt Driveway Asphalt Street
- 713 Pavement Removal and Replacement
- 714 Pavement Cuts
- 725 Standard Pavement Patch and Repair
- 730 Standard Asphalt Pavement Cut and Repair
- 731 Standard Concrete Pavement Cut and Repair
- 733 Standard Pavement Rehabilitation for Utility Construction
- 793 Residential Drive Asphalt or Concrete No Curb



PLANS PREPARED BY
FREES AND NICHOLS, LLC.
5100 E. SKELLY DRIVE, SUITE 602
P: (539) 444-8677
F: (817) 735-7491
CERTIFICATION OF AUTHORIZATION: CA#511
EXPIRATION DATE: 6/30/2026

APPROVED BY

APPROVED:

Thomas G. [Signature]

DIRECTOR, WATER AND SEWER DEPT.

7/24/2025

DATE

ENGINEER'S CERTIFICATION

BROGAN TYLER, PE #35333

DATE

SUMMARY OF QUANTITIES																								
ITEM	DDOT	SPEC. NO.	DESCRIPTION	BASE BID	PAY ITEM NOTE	TOTAL QUANTITY	QUANTITY	UNIT	GENERAL	SHT. 31	SHT. 32	LINE 'A' SHT. 33	SHT. 34	SHT. 35	SHT. 36	SHT. 37	LINE 'B' SHT. 38	SHT. 39	SHT. 40	SHT. 41	SHT. 42	LINE 'C' SHT. 43	SHT. 44	SHT. 45
1		COT 102	PROJECT SIGN (CITY OF TULSA)			1	1	EA	1															
2		COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE		4, 5, 6, 7, 22, 34	4040	2557.5	SY		210	191.5	147	181	20	222.5	197.5	237	140	191.5	60	197.5	175	194.5	192.5
3		COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED			14	5640	3532	CY		285	256	220	200	36	295	295	390	190	300	75	175	240	265
4		COT 303	MOBILIZATION			1	1	EA	1															
5		COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER		13, 17	19	14	EA		1	5		1					1	1		2	1	2	
6		COT 317	2 INCH AIR VALVE ASSEMBLY			1	1	EA															1	
7		COT 317	3-WAY FIRE HYDRANT, IN PLACE			12	8	EA		1	1		1		1	1	1				1	1	1	
8		COT 317	12 INCH GATE VALVE (RJ)		8	2	2	EA						1						1	1			
9		COT 318	VALVE BOX		21	21	13	EA		1	1	1		2	1	1	1	1		2	1		1	
10		COT 325	SODDING AND SEEDING		23	7420	4370	SY		400	335	295	365	50	415	385	290	275	325	105	180	345	250	355
11		COT 326	STREET WASH DOWN			9880	6650	LF		500	500	500	500	40	500	500	500	500	500	120	500	500	500	490
12		COT 327	TRAFFIC CONTROL (PER MUTCD)		TC 1, 2, 3	300	300	CD	300															
13		COT 333	EXISTING WATERLINE ABANDONMENT		5, 9	8988	6815	LF		500	500	515	535	35	500	500	500	500	500	120	600	600	600	310
14		COT 334	CONSTRUCTION AS-BUILT		24, 25, 27	1	1	EA	1															
15		COT 335	CONTRACTOR QUALITY CONTROL			1	1	LSUM	1															
16		COT 606	SHEET ALUMINUM SIGNS			154	113	SF				14		20	5	6		6	14		6	14	14	14
17		COT 606	1 1/2" SQUARE TUBE POST			18	12	LF				2		2					2			2	2	2
18		COT 606	1 3/4" SQUARE TUBE POST			147	115.5	LF				10.5		21	10.5	10.5		10.5	10.5		10.5	10.5	10.5	10.5
19		COT 606	2" SQUARE TUBE POST			39	33	LF				3		6	3	3		3	3		3	3	3	3
20		SPECIAL	OWNER ALLOWANCE		18	150000	150000	ALLOW	150000															
21		SPECIAL	REMOVAL DRIVEWAY CULVERT			475	325	LF		20					20	20	85	25	40					115
22	220	SPECIAL	SWPPP DOCUMENTATION AND MANAGEMENT		32, 33, 34, 35	1	1	LSUM	1															
23	642	SPECIAL	CONSTRUCTION STAKING			1	1	EA	1															
24		SPECIAL	FENCE REMOVE AND REPLACEMENT OUTSIDE ROW			100	0	LF																
25		SPECIAL	PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS (ASPHALT)		31, 37	1040	835	SY		40	105	30	50	30	60	90	100	20	40		85	20	80	85
26		SPECIAL	PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS (CONCRETE)		30, 37	80	80	SY				10			15				25	15		15		
OPTION 1 - PVC																								
27		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ)		1, 2, 3, 8, 9, 11, 27, 28	1813	1535	LF		80	117	206	138		55	105	26	220	117		105	150	111	105
28		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ) (NITRILE GASKET)		1, 2, 3, 8, 9, 11, 27, 28	212	174	LF													174			
29		COT 309	6 INCH PVC AWWA C900 CLASS 200 DR-14		1, 2, 3, 9, 10, 27, 29	5585	3372	LF		265	330	114	122		194	302	337	209	297	67	169	296	333	337
30		COT 309	6 INCH PVC AWWA C900 CLASS 200 DR-14 (RJ)		1, 2, 3, 8, 9, 10, 27, 29	2360	1644	LF		160	63	180	255	40	261	108	147	71	86	53	57	59	56	48
31		COT 312	6 INCH DUCTILE IRON 11-1/4 DEGREE BEND (RJ)		2, 8	7	5	EA				2			2	1								
32		COT 312	6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)		2, 8	6	4	EA							4									
33		COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	44	26	EA		6		2	8						2		2			2
34		COT 312	6 INCH DUCTILE IRON 90 DEGREE BEND (RJ)		2, 8	1	1	EA													1			
35		COT 312	12 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	2	2	EA						1						1				
36		COT 312	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	19	15	EA		2	1	1	1		2	1	3	1			1	1	1	
37		COT 312	12 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	2	2	EA						1						1				
38		COT 312	6 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	1	1	EA		1														
39		COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	56	51	EA		3	6	6	4	1	4	4	3	5	3	1	5	4	2	
40		COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)		15, 16, 17	49	39	EA		3	7	6	5		1	6	8	1	2					
41		COT 315	3/4 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1															
42		COT 315	3/4 INCH WATER METER CAN, LID, & RIM		15, 16, 17	19	14	EA		1	5		1					1	1		2	1	2	
43		COT 315	1 INCH WATER SERVICE LINE CONNECTION (SHORT)		15, 16, 17	1	1	EA	1															
44		COT 315	1 INCH WATER SERVICE LINE CONNECTION (LONG)		15, 16, 17	1	1	EA	1															
45		COT 315	1 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1															
46		COT 315	1 INCH WATER METER CAN, LID, & RIM		15, 16, 17	1	1	EA	1															
47		COT 315	2 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	1	1	EA													1			
48		COT 315	2 INCH WATER SERVICE CONNECTION (LONG)		15, 16, 17	1	1	EA	1															
49		COT 315	2 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1															
50		COT 317	6 INCH GATE VALVE (RJ)		8	19	11	EA		1	1	1		1	1	1	1	1		1	1		1	
51		COT 312	6 INCH DUCTILE IRON TO PVC ADAPTOR (RJ)		2, 8, 12	40	36	EA		2	2	4	2		2	4	2	2	2		3	5	4	2
52		COT 322	CONDUIT, BY BORE (18-INCH STEEL)			212	174	LF													174			
53		COT 328	6-INCH BORE (UNCASED)			1813	1535	LF		80	117	206	138		55	105	26	220	117		105	150	111	105
OPTION 2 - DIP																								
54		COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED		1, 2, 3, 9, 11, 27, 28	5585	3372	LF		265	330	114	122		194	302	337	209						

ITEM	ODOT	SPEC. NO.	DESCRIPTION	BASE BID	SUMMARY OF QUANTITIES							GENERAL	LINE 'D'		LINE 'E'		LINE 'F'						
					PAY ITEM NOTE	TOTAL QUANTITY	QUANTITY	UNIT	SHT. 46	SHT. 47	SHT. 48		SHT. 49	SHT. 50	SHT. 51	SHT. 52	SHT. 53						
1			COT 102 PROJECT SIGN (CITY OF TULSA)		1	1	EA	1															
2			COT 301 RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE		4, 5, 6, 7, 22, 34	4040	1474	SY							250	52.5	160	226	85	250	250	200	
3			COT 302 EXCAVATION AND BACKFILL, UNCLASSIFIED		14	5640	2106	CY							340	80	230	355	165	315	335	286	
4			COT 303 MOBILIZATION			1	1	EA	1														
5			COT 315 PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER		13, 17	19	5	EA							1				2	1	1		
6			COT 317 2 INCH AIR VALVE ASSEMBLY			1	0	EA															
7			COT 317 3-WAY FIRE HYDRANT, IN PLACE			12	4	EA							1	1	1		1				
8			COT 317 12 INCH GATE VALVE (RJ)		8	2	0	EA															
9			COT 318 VALVE BOX		21	21	8	EA							1	1	1	2	1	1	1		
10			COT 325 SODDING AND SEEDING		23	7420	3042	SY							515	85	302	485	210	565	575	305	
11			COT 326 STREET WASH DOWN			9880	3225	LF							500	105	500	500	220	500	500	400	
12			COT 327 TRAFFIC CONTROL (PER MUTCD)		TC 1, 2, 3	300	300	CD	300														
13			COT 333 EXISTING WATERLINE ABANDONMENT		5, 9	8988	2173	LF							460	100		310		308	495	500	
14			COT 334 CONSTRUCTION AS-BUILT		24, 25, 27	1	1	EA	1														
15			COT 335 CONTRACTOR QUALITY CONTROL			1	1	LSUM	1														
16			COT 606 SHEET ALUMINUM SIGNS			154	14	SF									14						
17			COT 606 1 1/2" SQUARE TUBE POST			18	2	LF									2						
18			COT 606 1 3/4" SQUARE TUBE POST			147	10.5	LF									10.5						
19			COT 606 2" SQUARE TUBE POST			39	0	LF															
20			SPECIAL OWNER ALLOWANCE		18	150000	150000	ALLOW	150000														
21			SPECIAL REMOVAL DRIVEWAY CULVERT			475	150	LF							30	15		105					
22	220		SPECIAL SWPPP DOCUMENTATION AND MANAGEMENT		32, 33, 34, 35	1	1	LSUM	1														
23	642		SPECIAL CONSTRUCTION STAKING			1	1	EA	1														
24			SPECIAL FENCE REMOVE AND REPLACEMENT OUTSIDE ROW			100	100	LF								100							
25			SPECIAL PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS (ASPHALT)		31, 37	1040	205	SY							25	10	65	50	55				
26			SPECIAL PAVEMENT REMOVAL AND REPLACEMENT FOR WATER MAIN INSTALLATIONS(CONCRETE)		30, 37	80	0	SY															
OPTION 1 - PVC																							
1			COT 307 6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ)		1, 2, 3, 8, 9, 11, 27, 28	1813	278	LF									180	48	50				
28			COT 307 6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ) (NITRILE GASKET)		1, 2, 3, 8, 9, 11, 27, 28	212	38	LF														38	
29			COT 309 6 INCH PVC AWWA C900 CLASS 200 DR-14		1, 2, 3, 8, 9, 10, 27, 29	5585	2213	LF							434	48	210	377	83	434	340	287	
30			COT 309 6 INCH PVC AWWA C900 CLASS 200 DR-14 (RJ)		1, 2, 3, 8, 9, 10, 27, 29	2360	716	LF							71	62	115	75	92	66	160	75	
31			COT 312 6 INCH DUCTILE IRON 11-1/4 DEGREE BEND (RJ)		2, 8	7	2	EA							2								
32			COT 312 6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)		2, 8	6	2	EA									2						
33			COT 312 6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	44	18	EA									6	4	2	2	4		
34			COT 312 6 INCH DUCTILE IRON 90 DEGREE BEND (RJ)		2, 8	1	0	EA															
35			COT 312 12 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	2	0	EA															
36			COT 312 6 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	19	4	EA							1	1	1		1				
37			COT 312 12 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	2	0	EA															
38			COT 312 6 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	1	0	EA															
39			COT 315 3/4 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	56	5	EA							2			2	1				
40			COT 315 3/4 INCH WATER SERVICE CONNECTION (LONG)		15, 16, 17	49	10	EA							5			1	2	1	1		
41			COT 315 3/4 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1														
42			COT 315 3/4 INCH WATER METER CAN, LID, & RIM			19	5	EA							1				2	1	1		
43			COT 315 1 INCH WATER SERVICE LINE CONNECTION (SHORT)		15, 16, 17	1	1	EA	1														
44			COT 315 1 INCH WATER SERVICE LINE CONNECTION (LONG)		15, 16, 17	1	1	EA	1														
45			COT 315 1 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1														
46			COT 315 1 INCH WATER METER CAN, LID, & RIM			1	1	EA	1														
47			COT 315 2 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	1	0	EA															
48			COT 315 2 INCH WATER SERVICE CONNECTION (LONG)		15, 16, 17	1	1	EA	1														
49			COT 315 2 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1														
50			COT 317 6 INCH GATE VALVE (RJ)		8	19	8	EA							1	1	1	2	1	1	1		
51			COT 312 6 INCH DUCTILE IRON TO PVC ADAPTOR (RJ)		2, 8, 12	40	4	EA										2	2				
52			COT 322 CONDUIT, BY BORE (18-INCH STEEL)			212	38	LF														38	
53			COT 328 6-INCH BORE (UNCASED)			1813	278	LF									180	48	50				
OPTION 2 - DIP																							
1			COT 307 6 INCH DIP, CL51 POLYETHYLENE WRAPPED		1, 2, 3, 8, 9, 11, 27, 28	5585	2213	LF							434	48	210	377	83	434	340	287	
55			COT 307 6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ)		1, 2, 3, 8, 9, 11, 27, 28	4173	994	LF							71	62	295	123	142	66	160	75	
56			COT 307 6 INCH DIP, CL51 POLYETHYLENE WRAPPED (RJ) (NITRILE GASKET)		1, 2, 3, 8, 9, 11, 27, 28	212	38	LF														38	
57			COT 312 6 INCH DUCTILE IRON 11-1/4 DEGREE BEND (RJ)		2, 8	7	2	EA							2								
58			COT 312 6 INCH DUCTILE IRON 22-1/2 DEGREE BEND (RJ)		2, 8	6	2	EA									2						
59			COT 312 6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)		2, 8	44	18	EA									6	4	2	2	4		
60			COT 312 6 INCH DUCTILE IRON 90 DEGREE BEND (RJ)		2, 8	1	0	EA															
61			COT 312 12 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	2	0	EA															
62			COT 312 6 INCH X 6 INCH DUCTILE IRON TEE (RJ)		2, 8	19	4	EA							1	1	1		1				
63			COT 312 12 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	2	0	EA															
64			COT 312 6 INCH DUCTILE IRON SLEEVE (RJ)		2, 8	1	0	EA															
65			COT 315 3/4 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	56	5	EA							2			2	1				
66			COT 315 3/4 INCH WATER SERVICE CONNECTION (LONG)		15, 16, 17	49	10	EA							5			1	2	1	1		
67			COT 315 3/4 INCH WATER SERVICE LINE EXTENSION		15, 16, 17	1	1	LF	1														
68			COT 315 3/4 INCH WATER METER CAN, LID, & RIM			19	5	EA							1				2	1	1		
69			COT 315 1 INCH WATER SERVICE CONNECTION (SHORT)		15, 16, 17	1	1	EA	1														

Filename: N:\WTU\Sheets\GN-ALL-GN-NOTES.dwg

GENERAL CONSTRUCTION AND PAY NOTES (VERSION 1/30/2025)

WATER PAY ITEM NOTES (TYPICAL):

1. TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CITY OF TULSA. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.
- A. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

B. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY CITY PERSONNEL ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.

C. ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
2. BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
3. CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.
4. CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.
5. ALL HYDRANTS, VALVES AND OTHER FITTINGS FROM ABANDONED WATER MAINS SHALL BE SALVAGED AND DELIVERED TO THE SOUTH YARD, 2317 S JACKSON AVE. PAYMENT TO BE MADE UNDER WATER LINE ABANDONMENT. NO ADDITIONAL PAYMENT SHALL BE MADE.
6. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS, ROOF DRAINS, AND FENCING DAMAGED IN THE ZONE OF CONSTRUCTION DURING THE COURSE OF CONSTRUCTION TO SATISFACTION OF THE PROPERTY OWNER. PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
7. COST OF ANY TEMPORARY LIVESTOCK FENCING AND POLES SHALL BE INCLUDED IN COST OF RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
8. ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.
- A. DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, STAR STARGRIP, SMITH-BLAIR CAMLOCK, CLOW TUGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASSED BORES, ONLY USPIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED;

B. POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT PERMITTED; SHOULD RJ PIPE BE SPECIFIED ON BORE CASING IS REQUIRED.

C. HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. NO ADDITIONAL PAYMENT SHALL BE MADE.
9. ALL WATER MAINS TO BE ABANDONED SHALL BE FILLED TO 100% OF THE ABANDONED PIPE VOLUME. FILL MATERIAL SHALL BE EITHER CELLULAR CONCRETE OR FLOWABLE FILL AS APPROVED BY THE ENGINEER. COST OF CONCRETE PLUGGING AND FILLING TO BE INCLUDED UNDER WATER LINE ABANDONMENT. NO ADDITIONAL PAYMENT SHALL BE MADE.
10. TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. CONST SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.
11. DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONST SPEC 307.3 AND 307.4. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.
12. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN THE COST OF PIPE. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. THE COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
13. AT THE DIRECTION OF THE ENGINEER, CONTRACTOR SHALL FURNISH A "LICENSED AND BONDED PLUMBER", WHICH SHALL INCLUDE ALL COSTS OF LABOR, TOOLS, PERMIT FEES, AND EQUIPMENT TO REROUTE THE EXISTING CUSTOMER SERVICE ON CUSTOMER PROPERTY TO THE PROPOSED CUSTOMER METER CAN. COST SHALL NOT EXCEED AN ALLOWANCE OF \$1000 PER OCCURRENCE. MATERIALS COST SHALL BE INCLUDED UNDER THE UNIT PRICE FOR WATER SERVICE CONNECTION AND/OR WATER SERVICE LINE EXTENSION. NO ADDITIONAL PAYMENT SHALL BE MADE.
14. CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1½-IN TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN THE UNIT PRICE FOR EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE. ALL PATCHES PER ACPA (AMERICAN CONCRETE STANDARDS ASSOCIATION) STANDARDS."
15. WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH THE EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS A SEPARATE BID ITEM.
- A. SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25- FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT.

B. LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25- FEET UP TO 80- FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/ OR COST TO BORE.

C. SERVICE LINES EXCEEDING THE ABOVE PARAMETERS WILL BE COMPENSATED FOR LINEAR FOOTAGE ABOVE AND BEYOND. COMPENSATION SHALL BE PAID AS "SERVICE LINES, EXTENSION", PER LF
16. SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (VIEGA PUREFLOW PEX BLUE 5306 OR UPONOR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY. WHEN CONTRACTOR ELECTS TO USE PEX TUBING:
- A. ¾-INCH WATER SERVICE CONNECTION SHALL USE 1-INCH PEX TUBING MINIMUM

B. 1-INCH WATER SERVICE CONNECTION SHALL USE 1½-INCH PEX TUBING MINIMUM
17. CONTRACTOR'S PLUMBER SHALL PROVIDE AN INFORMATIONAL BROCHURE TO THE PROPERTY OWNERS OUTLINING THE STEPS REQUIRED TO THOROUGHLY FLUSH THEIR WATERLINES AFTER CONNECTION TO THE NEW WATER MAIN. ALL COSTS TO PRODUCE AND DISTRIBUTE THE BROCHURE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
18. THE "OWNER ALLOWANCE" CAN BE USED FOR VARIOUS WORK AND MISCELLANEOUS ITEMS NOT IDENTIFIED IN THE CONTRACT DOCUMENTS WITH THE FOLLOWING PROVISIONS:
- A. THE ALLOWANCE SHALL BE USED FOR THE COST OF MATERIALS, LABOR, INSTALLATION, OVERHEAD, AND PROFIT FOR ADDITIONAL WORK AND MISCELLANEOUS ITEMS THAT ARE NOT IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND PLANS, AND NOT INCLUDED IN THE BID ITEMS OF THE CONTRACT. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO:

I. WATER SERVICE LINES OF UNKNOWN OR UNEXPECTED SIZE.

B. THE ALLOWANCE SHALL BE USED ONLY AT THE DISCRETION OF THE CITY. ANY ALLOWANCE BALANCE REMAINING AT THE COMPLETION OF THE PROJECT WILL BE CREDITED BACK TO THE CITY ON THE FINAL APPLICATION FOR PAYMENT SUBMITTED BY THE CONTRACTOR.

C. THE CONTRACTOR SHALL PROVIDE, TO THE CITY, A WRITTEN REQUEST FOR THE USE OF ANY ALLOWANCE, WITH A SCHEDULE OF VALUES, AND ALL ASSOCIATED BACKUP

INFORMATION, INCLUDING ANY TIME EXTENSIONS REQUIRED TO PERFORM THE WORK.

- D. THE CONTRACTOR SHALL PROCEED WITH THE WORK INCLUDED IN THE ALLOWANCE ONLY AFTER RECEIVING A WRITTEN ORDER FROM THE ENGINEER AND CITY AUTHORIZING SUCH WORK. PROCEEDING WITH WORK IN THE ALLOWANCE WITHOUT A WRITTEN ORDER FROM THE CITY WILL BE AT THE CONTRACTOR'S EXPENSE.
19. WHERE PLANS IDENTIFY A 22.5-DEG OR 11.25-DEG VERTICAL OR HORIZONTAL BEND, HDPE WILL BE DEFLECTED PER MANUFACTURER'S MINIMUM ALLOWABLE BEND RADIUS.
20. WHERE PLANS IDENTIFY A CROSS, HDPE WILL USE TWO (2) TEES. NO ADDITIONAL PAYMENT SHALL BE MADE.
21. TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.
22. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9- FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. STREETS, DRIVEWAYS AND ASSOCIATED ITEMS SHALL BE PAID FOR UNDER OTHER ITEMS OF WORK.
23. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9- FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. THIS PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION. NETTING SHALL BE REMOVED FROM SOD PRIOR TO PLACEMENT.
24. SPOT ELEVATIONS ON THE MAIN WATER LINE RELATIVE TO FINISHED GRADE SHALL BE PROVIDED AT EACH 100-FT INTERVAL, COMPLETE WITH STATION AND OFFSET. IN ADDITION, ALL VALVES, FITTINGS, FIRE HYDRANTS (TOP OF NUT) AND OTHER MAJOR APPURTENANT ITEMS SHALL BE SHOWN WITH THE PROPER DESCRIPTION, STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM.
25. SPOT ELEVATIONS ON WATER METER CANS, VAULTS, SHALL BE SHOWN WITH THE PROPER DESCRIPTION (METER TYPE, METER SIZE, METER NUMBER, SERVICE MATERIAL, SERVICE SIZE), STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM. UPON DISCOVERY OF A LEAD OR GALVANIZED SERVICE LINE, NOTIFICATION SHALL BE MADE TO WATER DISTRIBUTION AND WORK SHALL CEASE UNTIL RELEASED AT WHICH TIME ANY AND ALL SERVICE LINES LOCATED THAT ARE LEAD OR GALVANIZED ARE TO BE REPLACED WITH APPROVED MATERIALS.
26. WORK UNDER THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING HDPE WALL ANCHORS AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE UNIT PRICE SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION, BACKFILLING, OR CONCRETE BLOCKING.
27. PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED THE REQUIRED CONSTRUCTION AS-BUILT RECORDS.
28. MARKER BALLS SHALL BE INSTALLED ABOVE ALL FITTINGS, BLIND FLANGES, SERVICE TAPS AND EVERY 100 FEET, IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 100 FEET. THE COST OF MARKER BALLS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE. MARKERS SHALL BE VIVAX WATER MARKER BALLS OR EQUAL THAT WORK WITH THE VIVAX VLOC3 -PRO RECEIVER AND LOC3-10TX TRANSMITTER.
29. COST INCLUDES EBAA MEGASTOPS OR EQUAL, INSTALLED ON ALL PVC JOINTS THROUGH BORES TO PREVENT OVERBELLING.
30. AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 701 - 702 AND 713 SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
31. AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 703 - 704 AND 713 SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
33. EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:

A. AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM.

B. IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY.

C. FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;

D. WITH PERIODIC REMOVAL OF SEDIMENT IN ACORDANCE WITH STORMWATER MANAGEMENT PLAN. ALL COSTS FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.
34. PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
35. INCLUDES ## TYPE [X] FILTERS
36. MAILBOXES SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH USPS REGULATIONS. CONTINUOUS MAIL SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE THE USE OF TEMPORARY MAILBOXES USED DURING CONSTRUCTION WITH THE USPS.
37. THIS PAY ITEM SUPERCEDES CITY OF TULSA STANDARD SPECIFICATION SECTION 329.6 WITH RESPECT TO SAW CUTTING AND DOWELS, AND INCLUDES THE FOLLOWING:

A. SAW CUTTING

B. DOWELS

C. DISPOSAL OF BROKEN PAVEMENT

D. TEMPORARY SURFACES

E. ASSOCIATED EXCAVATION

F. PREPARATION OF SUBGRADE

G. FORMS OR REINFORCING

H. REMOVAL OR REPLACEMENT OF GRAVEL

I. ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR

J. JOINT SEALER, TACK COATS, OR EDGE SEALING

WATER CONSTRUCTION NOTES:

34. THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION.
35. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF TULSA PUBLIC WORKS DEPARTMENT.
36. EXISTING SERVICE CONNECTIONS ARE TO BE KEPT IN SERVICE UNTIL CONNECTIONS TO NEW MAIN ARE MADE. ALL SERVICE LINE RECONNECTIONS SHALL BE MADE BY THE CONTRACTOR. SERVICE RECONNECTIONS SHALL BE INSTALLED AS PER CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS.
37. MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.
38. CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF THE SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
39. CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.
40. CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.
41. WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
- D. ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48-HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS, AT 918-596-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
- E. WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16-INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48-HOUR NOTICE TO WATER OPERATIONS.

9. CONTRACTOR SHALL PROVIDE AT LEAST 48 HOUR NOTICE TO ALL RESIDENTS OR BUSINESSES AFFECTED BEFORE TURNING OFF ANY WATER. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING DOOR HANGERS ON AFFECTED HOMES AND BUSINESSES.
10. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO LATER THAN 48 HOURS OR SOONER THAN 10 DAYS PRIOR TO COMMENCEMENT OF WORK (EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS) PHONE 1-800-522-6543.
11. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
12. ANY DAMAGE CAUSED BY THE CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
13. PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES AND TRAFFIC OPERATIONS (918-596-9766), FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.
14. CONSTRUCTION FOR ALL ENGINEERING SERVICES FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
15. ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY EXCESS MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF TULSA.
16. ANY CHANGES FROM THE APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF TULSA FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.

DRAINAGE PAY ITEM NOTES:

- D-8:QUICKSET FLOWABLE FILL SHALL BE USED TO BACKFILL AROUND REINFORCED CONCRETE PIPE, AS NEEDED, AT THE DIRECTION OF THE ENGINEER.
- D-12:REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE TO BE SUPPLIED WITH AN IMNI-FLEX JOINT GASKET OR APPROVED EQUAL. MASTIC JOINT SEALANT SHALL NOT BE ALLOWED.
- D-13:THIS PAY ITEM SHALL BE COMPLETE IN PLACE AND SHALL INCLUDE ALL PIPE, STANDARD BEDDING MATERIAL AND TRENCH EXCAVATION, JOINT GASKETS AND ALL OTHER INCIDENTALS. NO ADDITIONAL COST WILL BE MADE. PRIOR TO ACCEPTANCE, INTERIOR OF PIPE SHALL BE INSPECTED FOR DEFECTS USING SELF-PROPELLED MOBILE CLOSED-CIRCUIT CAMERA SYSTEM.
- D-15:WHERE QUICKSET FLOWABLE FILL IS USED TO BACKFILL AROUND CORRUGATED POLYPROPYLENE PIPE, THE CONTRACTOR SHALL UTILIZE AN ANCHORING SYSTEM APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL COSTS FOR LABOR, EQUIPMENT AND MATERIALS REQUIRED TO IMPLEMENT APPROVED ANCHORING SYSTEM INCLUDED IN PRICE BID FOR CORRUGATED POLYPROPYLENE PIPE.

TRAFFIC CONTROL PAY ITEM NOTES:

- TC-1. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. ONE LANE OF TRAFFIC MUST REMAIN OPEN IN BOTH DIRECTIONS AT ALL TIMES.
- TC-2. CONTRACTOR TO DEVELOP AND SUBMIT A DETAILED TRAFFIC CONTROL PLAN FOR APPROVAL BEFORE COMMENCING ANY WORK. TCP SHOULD INCLUDE DIAGRAMS, SIGNAGE, AND DETOUR ROUTES. LIMIT TRAFFIC CONTROL TO BE ONE BLOCK AT A TIME.
- TC-3. PHASE CONSTRUCTION SUCH THAT NO MORE THAN 50 FEET OF TRENCH IS OPEN AT A TIME.



REVISION		BY	DATE
1	ADDENDUM NO. 3	WCH	JULY 21, 2025
PAY ITEM NOTES			
PROJECT NO. TMUA-W_21-02 TO#12			
BERRYHILL WATER LINE REPLACEMENT			
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8677	
PLAN SCALE: N/A	DRAWN	TW	4/2025
	DESIGNED	EA	4/2025
	SURVEY	NP	11/2024
PROFILE SCALE: N/A	PROJ. MGR.		
	LEAD ENGR.		
HORIZONTAL N/A	FIELD MGR.		
VERTICAL N/A			
FILE: GN-ALL-GN-NOTES.dwg			DATE:
ATLAS PAGE NO: 05 & 06			SHEET 4 OF 53 SHEETS

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

Filename: N:\WTU\Sheets\GN-ALL-GN-NOTES.dwg

GENERAL CONSTRUCTION NOTES (VERSION 09/12/2016)

GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS ADOPTED BY THE CITY OF TULSA AND THE CURRENT CITY OF TULSA PUBLIC WORKS DEPARTMENT'S STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF TULSA SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
- PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF TULSA OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS. THE FOLLOWING IS A LIST OF UTILITY OWNERS: AT&T, PUBLIC SERVICE COMPANY OF OKLAHOMA (AEP), OKLAHOMA NATURAL GAS (ONG), COX COMMUNICATIONS, MCI/VERIZON, EASYTEL COMMUNICATIONS, WELLSCO VALLOR TELECOM, CITY OF TULSA-WATER AND SEWER, CITY OF TULSA-TRAFFIC OPERATIONS. SEE TITLE SHEET FOR CONTACT INFORMATION.
- THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1-800-522-6543.
- THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY AFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.
- THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
- THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF TULSA TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL FLAGMEN, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE FIELD ENGINEERING REPRESENTATIVE.
- CONSTRUCTION SIGNAGE WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF TULSA FIELD ENGINEERING, 918-596-9404, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS LISTED IN THE SIGNAGE SCHEDULE FOR THE PROJECT. ALL SIGNS AND POLES PROVIDED SHALL BE NEW AND UNDAMAGED AND SHALL MEET THE REQUIREMENTS OF COT SPECIFICATION 608 TRAFFIC SIGNS. ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF A WRITTEN NOTICE TO RESIDENTS 48 HOURS PRIOR TO BEGINNING PAVEMENT REMOVAL AND MILLING AND OVERLAY OPERATIONS.
- LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AT ALL TIMES.
- ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.
- ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
- ALL EXCAVATED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.
- ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.
- ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE ENGINEER'S SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTOR'S SOLE EXPENSE. ALL DISTURBED ITEMS SHALL BE REPAIRED TO MATCH EXISTING MATERIALS AND PATTERNING.
- IF THE CONTRACTOR ENCOUNTERS VOIDS WHEN PATCHING STREETS, THE CONTRACTOR SHALL CALL FIELD ENGINEERING AT 918-595-9508 FOR AN INSPECTION BEFORE PROCEEDING WITH WORK.
- THE PROJECT SHALL BE CONSTRUCTED WITH CONTINUOUS FLOW OF MATERIAL SUPPLIED TO THE PROJECT SUCH THAT THE LAYDOWN MACHINE WILL REMAIN IN MOTION. ANY DELAY IN FORWARD PROGRESSION OF THE LAYDOWN MACHINE MAY REQUIRE A TRANSVERSE JOINT AS DIRECTED BY THE ENGINEER.
- NO FLY ASH IS ALLOWED TO BE USED ON THIS PROJECT.
- PHYSICAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CITY.
- CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
- MASONRY STRUCTURES SHALL NOT BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY.
- ALL CONCRETE CURB AND GUTTERS SHALL BE MONOLITHIC POURS. DOWELED-ON CURBS WILL NOT BE ALLOWED.
- NO LIFTING HOLES WILL BE ALLOWED ON ANY REINFORCED CONCRETE PIPES OR REINFORCED CONCRETE BOXES.
- CURB RAMP CONSTRUCTION SHALL COMPLY WITH THE CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS.

- REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
- ALL SANITARY AND STORM SEWER MANHOLE CASTINGS AND LIDS THAT ARE LOCATED IN THE STREET AND ARE DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW LIDS AND CASTINGS AND THE OLD ONES SHALL BE SALVAGED AND DELIVERED TO THE METAL RECYCLE BINS IN THE STOCKROOM AREA AT SEWER OPERATIONS AND MAINTENANCE, 9319 E. 42ND STREET NORTH, BETWEEN THE HOURS OF 7:30 AM AND 3:00 PM MONDAY THROUGH FRIDAY.
- THE SIGN PLACEMENT STATIONING AND LOCATIONS SHOWN ON THE PLAN SHEETS AND SUMMARY SHEETS ARE APPROXIMATE. EXACT STATIONING AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH CITY OF TULSA STANDARDS, CURRENT AMERICANS WITH DISABILITIES ACT STANDARDS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES, OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.
- POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE. EXACT LENGTHS SHALL BE DETERMINED BY A FIELD SURVEY CONDUCTED BY THE CONTRACTOR.
- ALL ASPHALT STREETS THAT ARE TO BE RECONSTRUCTED SHALL BE LEFT WITH A DRIVABLE SURFACE AT ALL TIMES. THE CONTRACTOR WILL NOT BE ALLOWED TO MILL OFF ALL THE ASPHALT BEFORE EXCAVATION BEGINS.
- THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. STORMWATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
- STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
- THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
- PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.
- ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY, PUBLISHED ON JULY 26, 2011 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK, WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL TRENCH WIDTHS & BEDDING MATERIAL SHALL BE AS SHOWN ON COT STANDARD PIPE BEDDING DETAIL, STANDARD NO. 751. SPECIFIED TRENCH WIDTHS SHALL BE MAINTAINED FULL DEPTH FROM THE FLOWLINE TO THE GRADING TEMPLATE. THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED.
- THE CONTRACTOR SHALL NOTIFY THE METROPOLITAN TULSA TRANSIT AUTHORITY (MTTA), ERIC SMITH 918-830-0024, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK, LANE CLOSURES OR PRIOR TO DETOURING TRAFFIC.
- CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIALS IN THE FLOODPLAIN.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST SUBMIT A STORMWATER MANAGEMENT PLAN (SWMP) TO BE APPROVED BY THE CITY OF TULSA. THE CONTRACTOR IS ALSO RESPONSIBLE FOR EROSION CONTROL DURING THE DURATION OF CONSTRUCTION.

SURVEY SYMBOLS

 WATER METER

 WATER VALVE

 FIRE HYDRANT

 IRRIGATION CONTROL VALVE

 STORM SEWER MANHOLE

 SANITARY SEWER MANHOLE

 IRON PIN FOUND

 BENCH MARK

 LIGHT POLE

 ELECTRIC METER

 TELEPHONE JUNCTION BOX

 TELEPHONE PEDESTAL

 TELEPHONE MANHOLE

 TRAFFIC SIGN

 TRAFFIC SIGNAL BOX

 MAILBOX

 TREES

EXISTING UTILITY LINE SYMBOLS

 W WATER LINE

 SS SANITARY SEWER LINE

 S STORM SEWER

 EUG UNDERGROUND ELECTRIC

 G GAS LINE


 UGT UNDERGROUND TELEPHONE

 P PROPERTY LINE

 B BUILDING SETBACK LINE

 E EASEMENT LINE

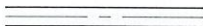
 C EXISTING CONCRETE


 A EXISTING ASPHALT


 G EXISTING GRAVEL


 V EXISTING VEGETATION


PROPOSED UTILITY SYMBOLS


 WATER LINE


 HORIZONTAL BEND


 TEE

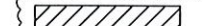
 GATE VALVE

 AIR RELEASE VALVE

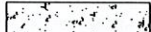
 FIRE HYDRANT

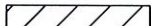
 RESTRAINT LENGTHS

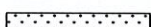
 UNCASD BORE

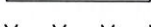
 BORE CONDUIT

DEMOLITION SYMBOLS

 REPLACEMENT OF CONCRETE

 REPLACEMENT OF ASPHALT


 REPLACEMENT OF SOD

 ABANDON IN PLACE

REQUIRED RESTRAINED LENGTHS

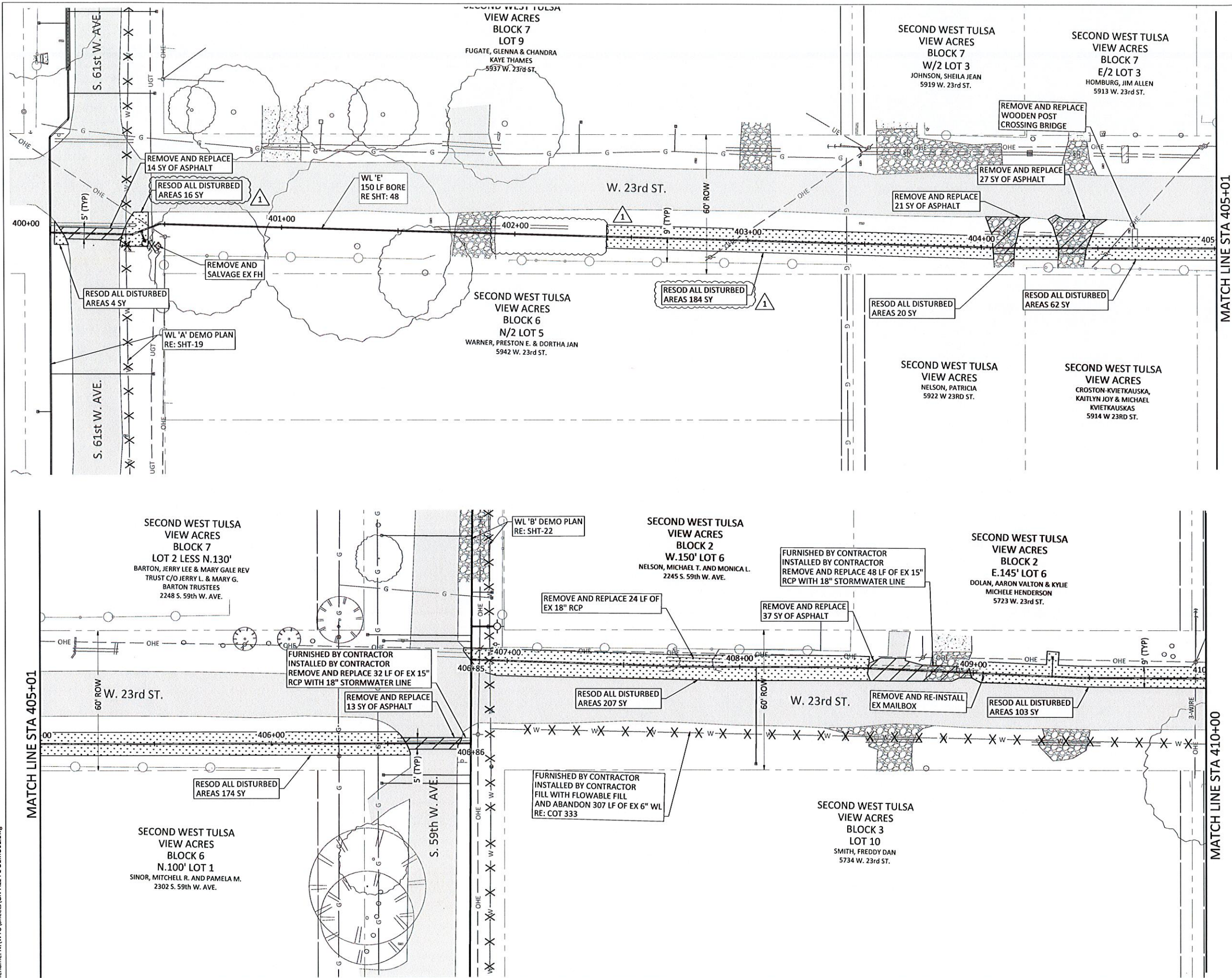
FITTING	RESTRAINED JOINT LENGTH (FT)
11.25" HORZ.	5
22.5" HORZ.	10
45" HORZ.	15
90" HORZ.	40
11.25" VERT.	10
22.5" VERT.	20
45" VERT.	40
90" VERT.	95
6" DEAD END	50
6"x6" TEE	30
12"x6" TEE	10
CALCULATED USING RESTRAINT LENGTHS CALCULATOR FOUND HERE: https://dipra.org/technical-resources/calculator/s/thrust-restraint-calculator	
TYPE 4 LAYING CONDITION, CLAY 2 SOIL, 4' COVER, 250 PSI DESIGN PRESSURE, 1.5 SAFETY FACTOR. ALL LENGTHS POLYWRAPPED	



REVISION	BY	DATE
ADDENDUM NO. 3	WCH	JULY 21, 2025
GENERAL CONSTRUCTION NOTES		
PROJECT NO. TMUA-W_21-02 TO#12		
BERRYHILL WATER LINE REPLACEMENT		
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8677
PLAN SCALE:	DRAWN DESIGNED SURVEY	TW EA NP 4/2025 4/2025 11/2024
PROFILE SCALE:	PROJ. MGR. LEAD ENGR. FIELD MGR.	BCW 7/25
HORIZONTAL N/A		
VERTICAL N/A		
FILE: GN-ALL-GN-NOTES.dwg		DATE:
ATLAS PAGE NO: 65 & 66		SHEET 5 OF 53 SHEETS

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

Filename: N:\WTU\Sheets\GN-ALL-PL-DEM001.dwg



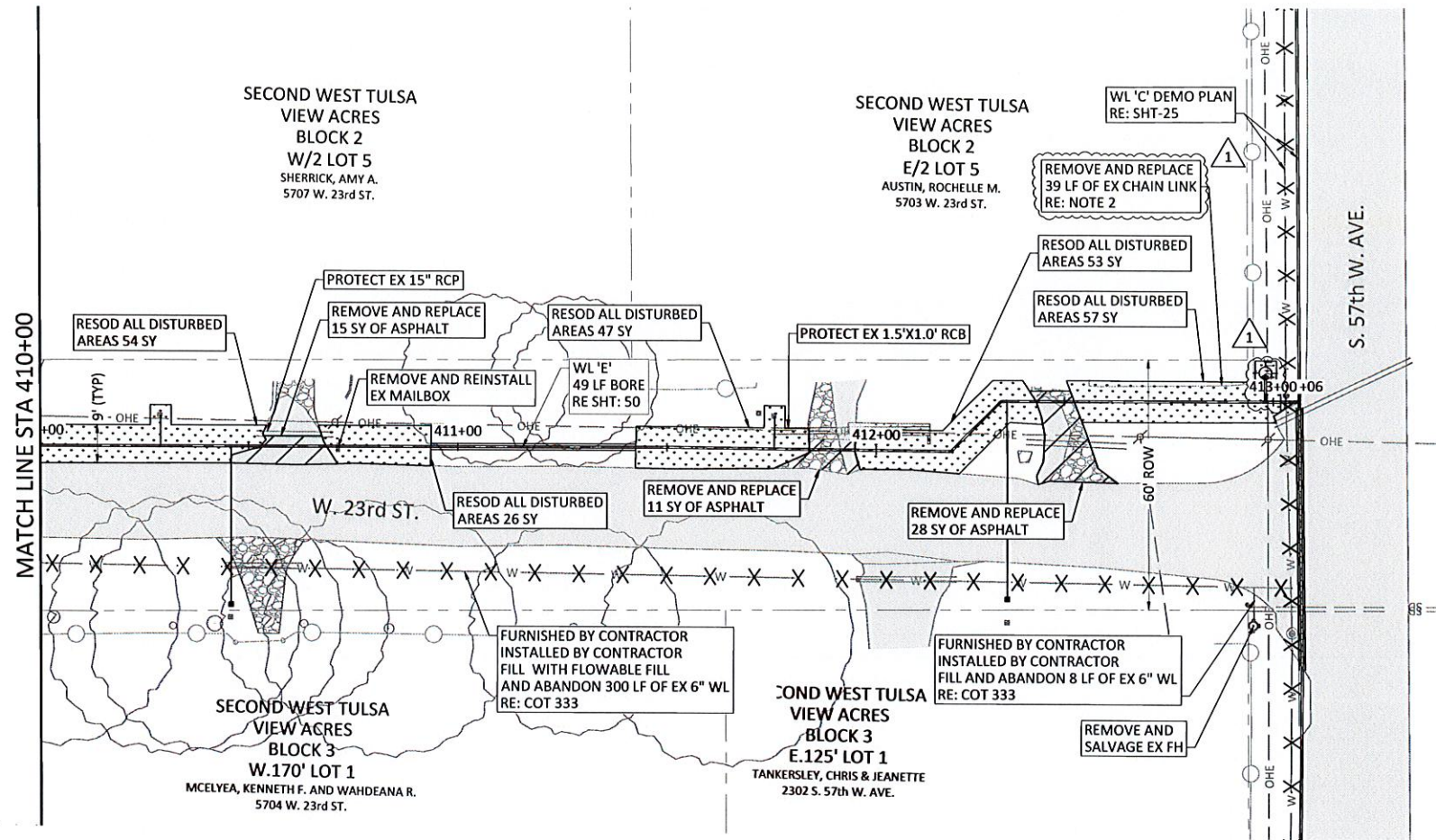
NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.



REVISION	BY	DATE
ADDENDUM NO. 3	WCH	JULY 21, 2025
DEMOLITION & RESTORATION PLAN - LINE E BEGIN TO STA 409+50		
PROJECT NO. TMUA-W_21-02 TO#12		
BERRYHILL WATER LINE REPLACEMENT		
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 902 TULSA, OK 74135 (539) 444-6677
PLAN SCALE: 1" = 20'	DRAWN DESIGNED SURVEY	TW EA NP 4/2025 4/2025 11/2024
PROFILE SCALE: HORIZONTAL VERTICAL	PROJ. MGR. LEAD ENGR. FIELD MGR.	APPROVED: tgp DESIGN MANAGER
FILE: GN-ALL-PL-DEM001.dwg		DATE:
ATLAS PAGE NO: 65 & 66		SHEET 27 OF 53 SHEETS

Filename: N:\WTU\Sheets\GN-ALL-PL-DEMO01.dwg

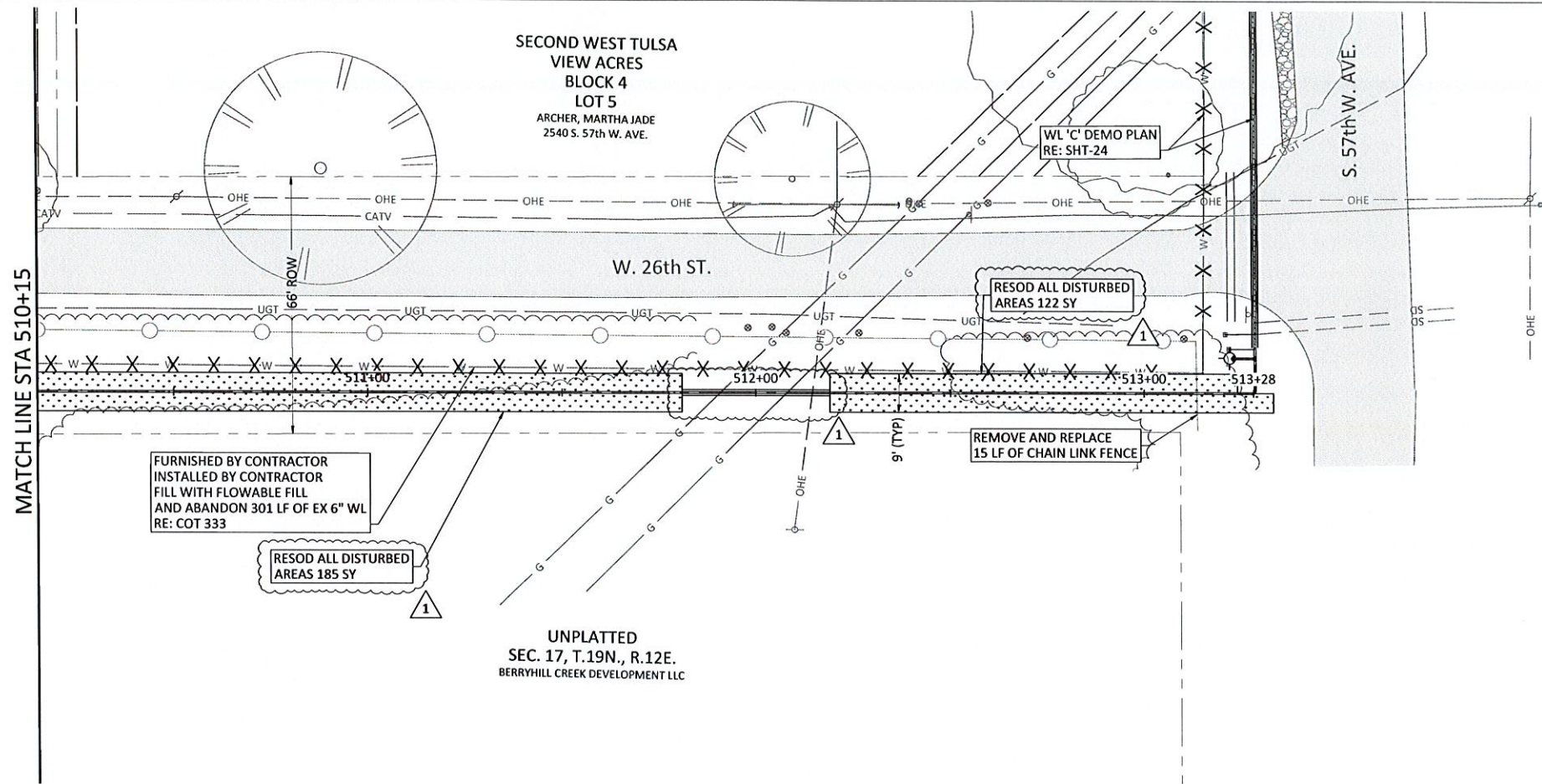


- NOTES:**
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
 2. CONTRACTOR SHALL SET CHAIN LINK FENCE BACK TO OUTSIDE OF RIGHT-OF-WAY.



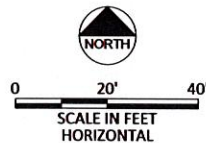
REVISION		BY	DATE
ADDENDUM NO. 3		WCH	JULY 21, 2025
DEMOLITION & RESTORATION PLAN - LINE E STA 409+50 TO END			
PROJECT NO. TMUA-W_21-02 TO#12			
BERRYHILL WATER LINE REPLACEMENT			
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8677	
PLAN SCALE: 1" = 20'	DESIGNED	EA	4/2025
	SURVEY	NP	11/2024
PROFILE SCALE:	PROJ. MGR.		
	LEAD ENGR.		
HORIZONTAL NA	FIELD MGR.		
VERTICAL NA			
FILE: GN-ALL-PL-DEMO01.dwg		DATE:	
ATLAS PAGE NO: 65 & 66		SHEET 28 OF 53 SHEETS	

Filename: N:\WTU\Sheets\GN-ALL-PL-DEMO01.dwg



NOTES:

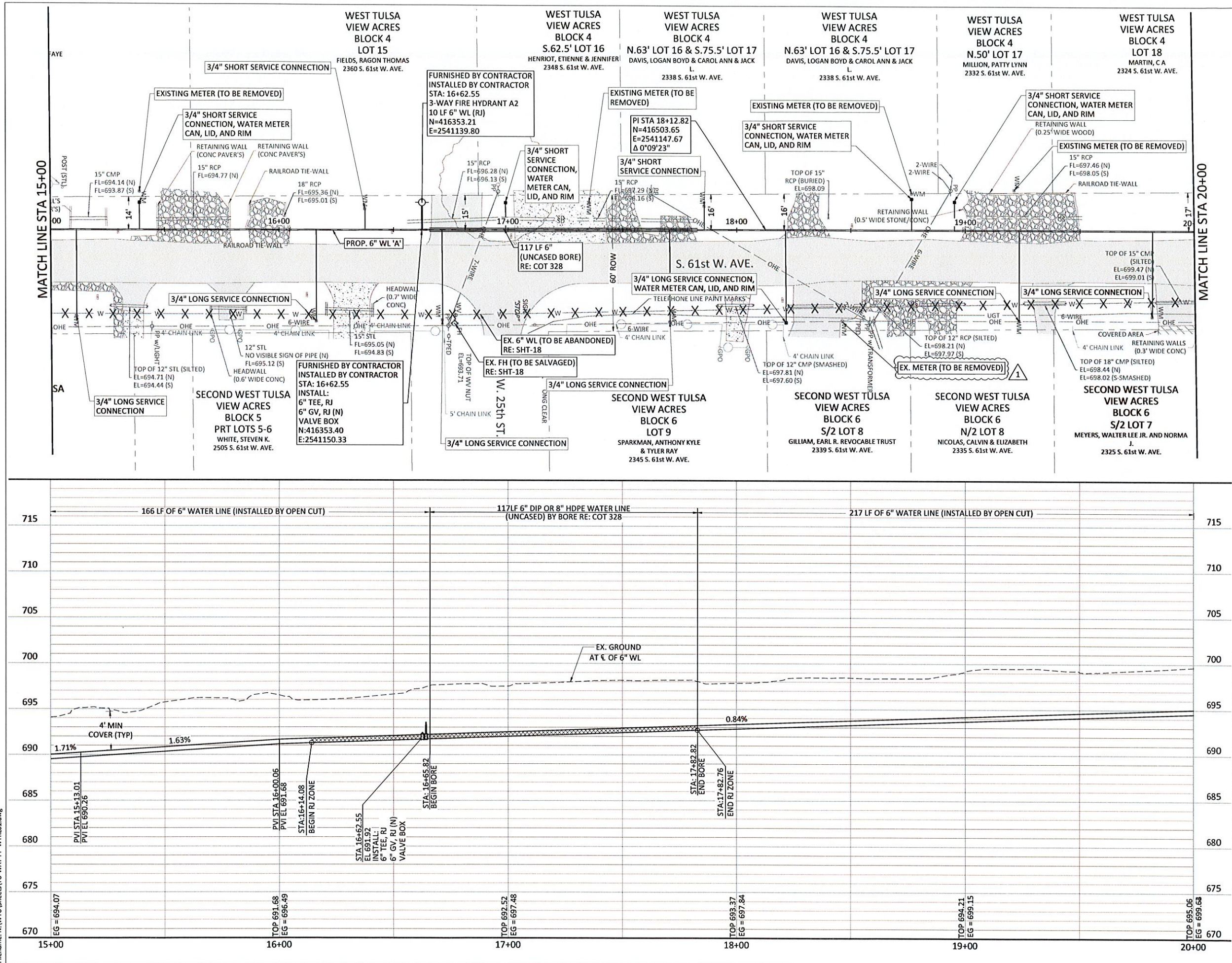
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.



REVISION		BY	DATE
ADDENDUM NO. 3		WCH	JULY 21, 2025
DEMOLITION & RESTORATION PLAN - LINE F STA 510+00 TO END			
PROJECT NO. TMUA-W_21-02 TO#12			
BERRYHILL WATER LINE REPLACEMENT			
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8877	
PLAN SCALE: 1" = 20'	DRAWN	TW	4/2025
	DESIGNED	EA	4/2025
PROFILE SCALE: HORIZONTAL N/A	SURVEY	NP	11/2024
	PROJ. MGR.		
VERTICAL N/A	LEAD ENGR.		
	FIELD MGR.		
FILE: GN-ALL-PL-DEMO01.dwg		DATE	
ATLAS PAGE NO: 65 & 66		SHEET 30 OF 53 SHEETS	

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

Filename: N:\W\T\Sheets\TU-WAT-PP-WTRLO1.dwg

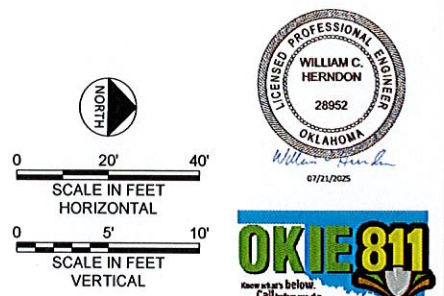


SERVICE CONNECTIONS	
LONG	7
SHORT	6



NOTES:

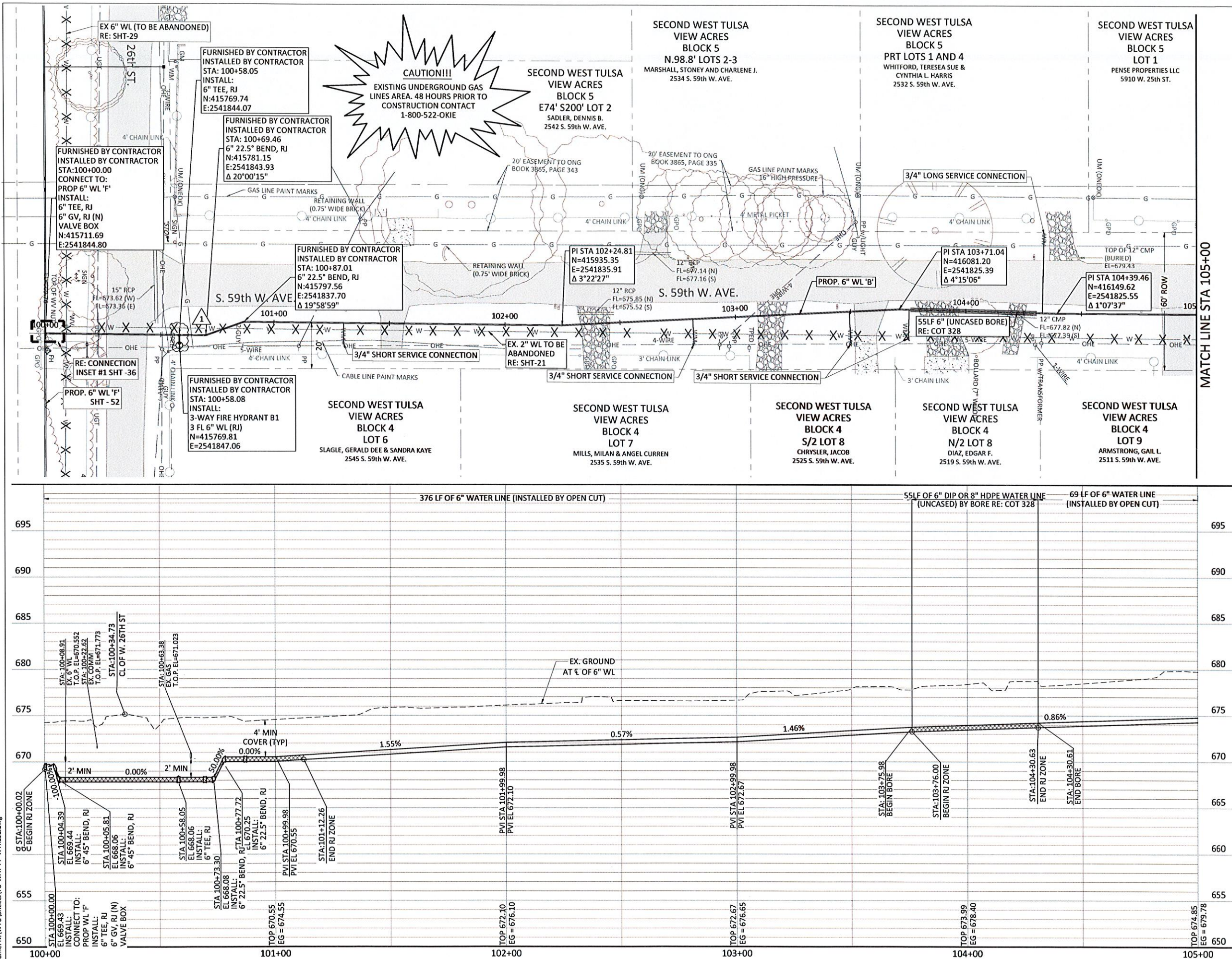
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT STORM RUNOFF DURING CONSTRUCTION.
3. CONTRACTOR SHALL MAINTAIN A HORIZONTAL SEPARATION DISTANCE OF 2' BETWEEN EXISTING AND PROPOSED WATER LINES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPAIRS OF THE EXISTING LINE FOR DAMAGES MADE DURING CONSTRUCTION.
4. CONTRACTOR SHALL PROTECT AND SUPPORT ALL OVERHEAD UTILITIES.
5. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING AND PROPOSED WATER SERVICE CONNECTIONS AND SIZES PRIOR TO INSTALLATION. SERVICE CONNECTIONS LOCATED BEYOND NEAR PROXIMITY TO THE PROPERTY BOUNDARY OR OUTSIDE OF THE ROW SHALL BE RELOCATED TO 2' FROM ITS RESPECTIVE PROPERTY LINE WITHIN ROW. PRIVATE SERVICE CONNECTIONS ARE TO BE MADE BY A LICENSED PLUMBER.



REVISION	BY	DATE
ADDENDUM NO. 3	WCH	JULY 21, 2025
LINE 'A' PLAN AND PROFILE STA 15+00 TO STA 20+00 PROJECT NO. TMUA-W_21-02 TO#12		
BERRYHILL WATER LINE REPLACEMENT		
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8677
PLAN SCALE: 1" = 20'	DRAWN DESIGNED SURVEY	TW EA NP 4/2025 4/2025 11/2024
PROFILE SCALE: 1" = 20'	PROJ. MGR. LEAD ENGR. FIELD MGR.	APPROVED: tgo DESIGN ENGINEER DATE:
FILE: TU-WAT-PP-WTRLO1.dwg		ATLAS PAGE NO: 65 & 66
SHEET 32 OF 53 SHEETS		

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

Filename: N:\W\T\Sheets\TU-WAT-PP-WTRLO1.dwg

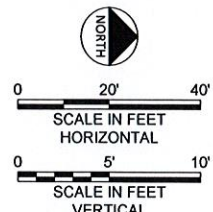


SERVICE CONNECTIONS	
LONG	1
SHORT	4

CONNECTION INSET #1

NOTES:

- CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT STORM RUNOFF DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN A HORIZONTAL SEPARATION DISTANCE OF 2' BETWEEN EXISTING AND PROPOSED WATER LINES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPAIRS OF THE EXISTING LINE FOR DAMAGES MADE DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT AND SUPPORT ALL OVERHEAD UTILITIES.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING AND PROPOSED WATER SERVICE CONNECTIONS AND SIZES PRIOR TO INSTALLATION. SERVICE CONNECTIONS LOCATED BEYOND NEAR PROXIMITY TO THE PROPERTY BOUNDARY OR OUTSIDE OF THE ROW SHALL BE RELOCATED TO 2' FROM ITS RESPECTIVE PROPERTY LINE WITHIN ROW. PRIVATE SERVICE CONNECTIONS ARE TO BE MADE BY A LICENSED PLUMBER.

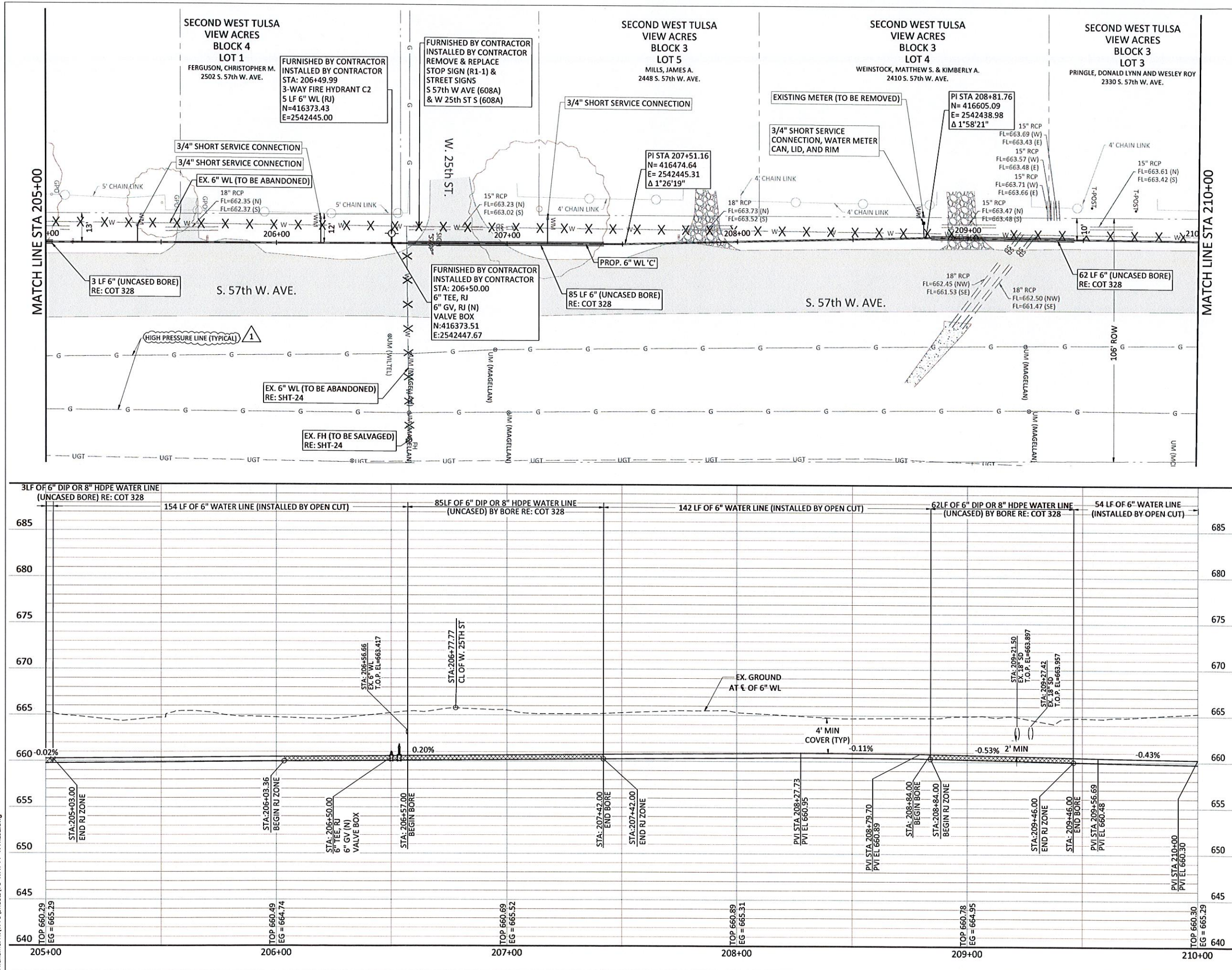


REVISION	BY	DATE
ADDENDUM NO. 3	WCH	JULY 21, 2025

LINE 'B' PLAN AND PROFILE STA 100+00 TO STA 105+00 PROJECT NO. TMUA-W_21-02 TO#12	
BERRYHILL WATER LINE REPLACEMENT	
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY: FREES AND NICHOLS, INC.	
5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-6677	
PLAN SCALE:	APPROVED:
1" = 20'	DRAWN: TW 4/2025
	DESIGNED: EA 4/2025
	SURVEY: NP 11/2024
PROFILE SCALE:	PROJ. MGR.
HORIZONTAL 1" = 20'	LEAD ENGR. [Signature] 7/25
VERTICAL 1" = 5'	FIELD MGR.
FILE: TU-WAT-PP-WTRLO1.dwg	
ATLAS PAGE NO: 65 & 66	
SHEET 36 OF 53 SHEETS	

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

Filename: N:\WU\Sheets\TU-WAT-PP-WTRLO2.dwg

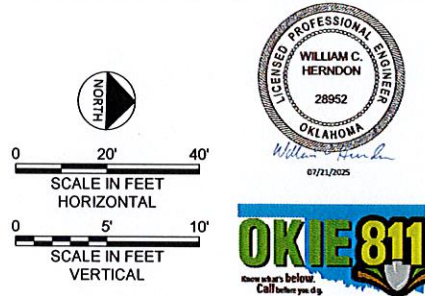


SERVICE CONNECTIONS	
LONG	0
SHORT	4



NOTES:

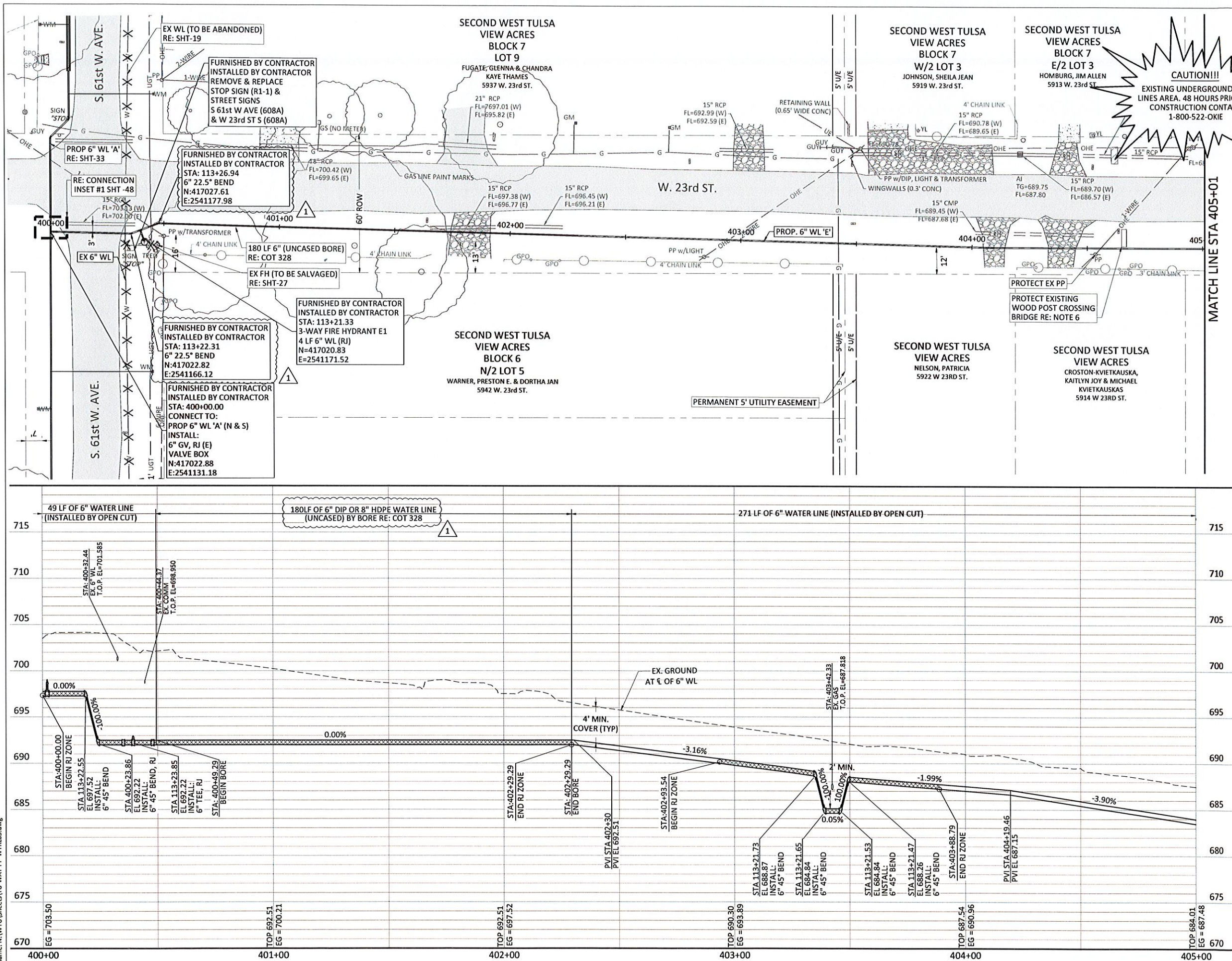
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT STORM RUNOFF DURING CONSTRUCTION.
3. CONTRACTOR SHALL MAINTAIN A HORIZONTAL SEPARATION DISTANCE OF 2' BETWEEN EXISTING AND PROPOSED WATER LINES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPAIRS OF THE EXISTING LINE FOR DAMAGES MADE DURING CONSTRUCTION.
4. CONTRACTOR SHALL PROTECT AND SUPPORT ALL OVERHEAD UTILITIES.
5. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING AND PROPOSED WATER SERVICE CONNECTIONS AND SIZES PRIOR TO INSTALLATION. SERVICE CONNECTIONS LOCATED BEYOND NEAR PROXIMITY TO THE PROPERTY BOUNDARY OR OUTSIDE OF THE ROW SHALL BE RELOCATED TO 2' FROM ITS RESPECTIVE PROPERTY LINE WITHIN ROW. PRIVATE SERVICE CONNECTIONS ARE TO BE MADE BY A LICENSED PLUMBER.



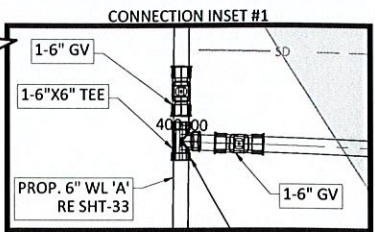
REVISION	BY	DATE
1. ADDENDUM NO. 3	WCH	JULY 21, 2025
LINE 'C' PLAN AND PROFILE STA 205+00 TO STA 210+00 PROJECT NO. TMUA-W_21-02 TO#12		
BERRYHILL WATER LINE REPLACEMENT		
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: FREESE AND NICHOLS, INC.		
5100 E. SKELLY DRIVE SUITE 802 TULSA, OK 74135 (539) 444-8677		
PLAN SCALE: 1" = 20'	DRAWN EA 4/2025	APPROVED: NP 11/2024
PROFILE SCALE: HORIZONTAL 1" = 20'	PROJ. MGR. LEAD ENGR. FIELD MGR.	
VERTICAL 1" = 8'		
FILE: TU-WAT-PP-WTRLO2.dwg		DATE:
ATLAS PAGE NO: 65 & 66		SHEET 43 OF 53 SHEETS

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

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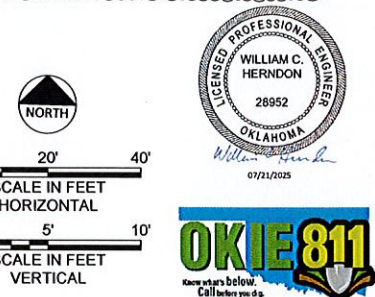


SERVICE CONNECTIONS	
LONG	0
SHORT	0



NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT STORM RUNOFF DURING CONSTRUCTION.
3. CONTRACTOR SHALL MAINTAIN A HORIZONTAL SEPARATION DISTANCE OF 2' BETWEEN EXISTING AND PROPOSED WATER LINES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPAIRS OF THE EXISTING LINE FOR DAMAGES MADE DURING CONSTRUCTION.
4. CONTRACTOR SHALL PROTECT AND SUPPORT ALL OVERHEAD UTILITIES.
5. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING AND PROPOSED WATER SERVICE CONNECTIONS AND SIZES PRIOR TO INSTALLATION. SERVICE CONNECTIONS LOCATED BEYOND NEAR PROXIMITY TO THE PROPERTY BOUNDARY OR OUTSIDE OF THE ROW SHALL BE RELOCATED TO 2' FROM ITS RESPECTIVE PROPERTY LINE WITHIN ROW. PRIVATE SERVICE CONNECTIONS ARE TO BE MADE BY A LICENSED PLUMBER.
6. THE CONTRACTOR SHALL PROTECT AND RESTORE THE EXISTING WOOD POST CROSSING BRIDGE TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. DAMAGES INCURRED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.



REVISION	BY	DATE
ADDENDUM NO. 3	WCH	JULY 21, 2025

LINE 'E' PLAN AND PROFILE STA 400+00 TO STA 405+00 PROJECT NO. TMUA-W_21-02 TO#12	
BERRYHILL WATER LINE REPLACEMENT	
CITY OF TULSA, OKLAHOMA WATER AND SEWER DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY: FRESE AND NICHOLS, INC.	
5100 E. SKELLY DRIVE SUITE 602 TULSA, OK 74135 (539) 444-8677	
PLAN SCALE:	APPROVED:
1" = 20'	DRAWN TW 4/2025
	DESIGNED EA 4/2025
	SURVEY NP 11/2024
PROFILE SCALE:	PROJ. MGR.
HORIZONTAL 1" = 20'	LEAD ENGR. <i>WCH</i>
VERTICAL 1" = 5'	FIELD MGR.
FILE: TU-WAT-PP-WTRL03.dwg	
ATLAS PAGE NO: 65 & 66	
SHEET 48 OF 53 SHEETS	

BERRYHILL WATER LINE REPLACEMENT PROJECT NO. TMUA-W 21-02 TO#12

