



CITY OF DALLAS

**SPECIFICATIONS
AND
FORMS OF CONTRACT AND BONDS
FOR
WATER AND WASTEWATER MAIN REPLACEMENTS
AT
VARIOUS LOCATIONS
CONTRACT NO. 20-109/ 20-110**



**dallas water utilities
city of dallas**

PLEASE NOTE

Sealed Bids clearly identified on the envelope for “**WATER AND WASTEWATER MAIN REPLACEMENTS AT VARIOUS LOCATIONS, CONTRACT NO. 20-109/20-110**”, as detailed on Dallas Water Utilities plans and as described in the Contract Specifications, shall be submitted as pdfs in Bonfire at: <https://dallascityhall.bonfirehub.com/login>, **before 1:00 p.m. on Friday, July 10, 2020.** Bid opening will be read ONLY online by the Purchasing Agent at **2:00 p.m. on Friday, July 10, 2020.** You may view this bid opening live by going to www.dallascityhall.com, click on watch city meetings online, and it will be live on DCN 95 live.

Due to the COVID-19 Pandemic, the office of Procurement Services is unable to accept paper copies of bids or proposals. Please submit all bids or proposal as pdfs until 1:00 p.m. on Friday, July 10, 2020 in Bonfire at: <https://dallascityhall.bonfirehub.com/login>. For any questions, please email procurementAds@dallascityhall.com.

Bid opening will be read ONLY online for this Bid due to COVID-19 precautions. You may view this bid opening live by going to www.dallascityhall.com, click on watch city meetings online, and it will be live on DCN 95 live at 2:00 p.m. on Friday, July 10, 2020. Bid opening will not be open for in-person viewing at this time.

A PDF file version of plans and specifications can be obtained using Internet Explorer at the following City of Dallas ftp website: <ftp://ftp.dallascityhall.com>. Locate and click on the folder for the appropriate 20-109/110 contract number.

**“FAILURE TO SIGN YOUR BID WILL RESULT IN A REJECTION OF
YOUR BID.**

**Bidder’s Acknowledgement of Prohibition on Contracts with Companies
Boycotting Israel**

Effective September 1, 2017, Bidder acknowledges, in accordance with Chapter 2270 of the Texas Government Code, that Bidder does not boycott Israel and will not boycott Israel during the term of any contract with the City of Dallas to provide goods and services to the City. Bidder further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between City and Bidder for goods and services.”

**“FAILURE TO SIGN YOUR BID WILL RESULT IN A REJECTION OF
YOUR BID.**

**Bidder’s Acknowledgement of Prohibition on Contracts with Foreign Terrorist
Organizations**

Effective September 1, 2017, Bidder acknowledges, in accordance with Chapter 2252 of the Texas Government Code, that (a) Bidder does not engage in business with Iran, Sudan or any foreign terrorist organization and (b) Bidder is not listed by the Texas Comptroller as a terrorist organization as defined by Chapter 2252 of the Texas Government Code. Bidder further acknowledges that this provision is hereby incorporated by reference, as if written word for word, into any subsequent contract entered into between City and Bidder for (1) professional or consulting services subject to the Professional Services Act - Chapter 2254 of the Texas Government Code, (2) general construction, (3) an improvement, (4) a service, (5) a public works project, or (5) for a purchase of supplies, materials or equipment.”

MINORITY/WOMEN OWNED BUSINESS PARTICIPATION

It is the goal of the City of Dallas that a certain percentage of work under each contract will be done by one or more M/WBEs. **Following are the City Council M/WBE goals without consideration for specific ethnic or gender adopted on May 14, 1997 (Resolution Number 97-1605):**

<u>Construction</u>	<u>A & E</u>	<u>Other Professional</u>	<u>Other Services</u>	<u>Goods</u>
25.00%	25.66%	36.30%	23.80%	18.00%

While minority business participation may vary from time to time and in accordance with the nature or procurement and the availability of minority enterprises in that line of work, the City of Dallas believes the goals to be realistically obtainable.

ATTENTION

All bidders must submit With Their Bid the following Forms Completed and signed

City of Dallas Business Inclusion and Development Affidavit (Form 203)
City of Dallas Pre-Bid/Proposal Form (OBD-FRM-623)
City of Dallas Ethic Workforce Report (Form 204)

Any firm listed as M/WBE must be certified by one of the following Certification Agencies:

- 1) North Central Texas Regional Certification Agency (NCTRCA)
616 Six Flags Drive, Suite 128
Arlington, Texas 76011
817-640-0606
- 2) Dallas Fort Worth Minority Business Council
2710 N. Stemmons Freeway
Dallas, Texas 75207
214-630-0747
- 3) The Women's Business Council – Southwest
2201 N. Collins, Suite 158
Arlington, Texas 76011
214-299-0566

A list of Minority/Women Owned Business Enterprises or other information or assistance can be obtained from the Office of Business Diversity, City Hall, 3FN, 1500 Marilla Street, Dallas, Texas, 75201, Phone: (214) 243-2131.

WORK WITH OWN FORCES

Where a Contractor indicates lower M/WBE participation than the City of Dallas typically sees for similar projects and the Contractor is indicating there are limited subcontracting opportunities as a result of the Contractor performing the remaining work with their own forces as their normal business practice the following information may be deemed adequate documentation.

For each previous project

Name of Project
Location
Contracting Agency
Description of work performed

For each specific item of work (i.e. hauling, concrete pavement, pipe installation, etc.)

Work Force

Documentation showing name and job classifications.
Which individuals actually performed the work?
If individuals were classified other than what the work called for, why? (i.e. Pipefitter performing concrete finishing work.)
List of extra individuals hired to do this work (temporary, day laborers, etc.) Is the same work force to be used on this project?

Note: If additional personnel are required, an M/WBE subcontracting opportunity exists; this includes, but is not limited to, M/WBE temporary personnel agencies, subcontractors, and suppliers.

Equipment

List equipment required for that specific item of work. Did the Contractor own the equipment? Is it available for use on this job?

Note: If equipment was rented, is not available for this job or if additional equipment will be required, an M/WBE subcontracting opportunity exists. This includes, but is not limited to, equipment rental or purchase from M/WBE firms.

Verification:

The Contractor must provide written verification from a representative of the contracting agency with knowledge of the project verifying that the Contractor did perform the work stated with its own forces.

For each area where specific work was subcontracted on previous jobs but the intent is to use the Contractor's own forces for the proposed job:

Reason for change in practice

If work load, provide documentation to prove
If new responsibilities for crews; provide documentation on training or reclassification, etc.

Note: Documented previous poor performance on the part of a subcontractor is a legitimate reason not to use that particular subcontractor again but does not eliminate the need to contact other qualified M/WBE firms for that work item.

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ADVERTISEMENT FOR BIDS

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- A 3. Special Provisions
- A 4. Bid Items
- A 5. Davis Bacon Wage Schedule
- A 6. Proposal Tabulation
- A 7. Time
- A 8. Specifications
- A 9. Addenda
- A 10. Business Inclusion and Development Plan
Minority/Women Business Enterprise Program
- A 11. Drug-Free Jobsite on City Construction Projects
- A 27. Cement Use on Public Projects
- A 28. Environmental Policy and Occupational Safety and Health Program

TEXAS WATER DEVELOPMENT BOARD SUPPLEMENTAL CONTRACT CONDITIONS

AMERICAN IRON AND STEEL

STAY HOME STAY SAFE – RULES FOR THE CONSTRUCTION INDUSTRY

PART T - TECHNICAL SPECIFICATIONS

CONTRACT BONDS AND FORMS

ADVERTISEMENT FOR BIDS

Sealed Bids clearly identified on the envelope for **“WATER AND WASTEWATER MAIN REPLACEMENTS AT VARIOUS LOCATIONS, CONTRACT NO. 20-109/20-110”**, as detailed on Dallas Water Utilities plans and as described in the Contract Specifications, shall be submitted as pdfs in Bonfire at: <https://dallascityhall.bonfirehub.com/login>, **before 1:00 p.m. on Friday, July 10, 2020**. Bid opening will be read ONLY online by the Purchasing Agent at **2:00 p.m. on Friday, July 10, 2020**. You may view this bid opening live by going to www.dallascityhall.com, click on watch city meetings online, and it will be live on DCN 95 live.

A PDF file version of Plans, Specifications and Bid result Tabulations can be obtained using Internet Explorer at the following City of Dallas ftp website: <ftp://ftp.dallascityhall.com>, Friday, June 12, 2020. Look for **DWU Contract # 20-109/110**. Plan Holders list available at jose.becerra@dallascityhall.com, khon.eng@dallascityhall.com, or mark.williams@dallascityhall.com.

Bid opening will be read ONLY online for this Bid due to COVID-19 precautions. You may view this bid opening live by going to www.dallascityhall.com, click on watch city meetings online, and it will be live on DCN 95 live. Bid opening will not be open for in-person viewing at this time.

A PDF file version of Plans, Specifications and Bid result Tabulations can be obtained using Internet Explorer at the following City of Dallas ftp website: <ftp://ftp.dallascityhall.com>, Friday, June 26, 2020. Click on **DWU Contract # 20-109/20-110** or **Bid Tabs**. Plan Holders list available at jose.becerra@dallascityhall.com, khon.eng@dallascityhall.com or mark.williams@dallascityhall.com.

Cashier's check or acceptable Bidder's Bond, payable to the City of Dallas in an amount of not less than five percent of total Bid submitted must accompany Bid. City reserves the right to reject any or all Bids.

All Bidders will be required to comply with Chapter 15B, Equal Opportunity Contract Compliance, of the Dallas City Code. It is the goal of the City of Dallas that certain percentage of work under each Contract will be done by one or more M/WBEs. **Following are the City Council M/WBE goals without consideration for specific ethnic or gender adopted on May 14, 1997 (Resolution Number 97-1605):**

<u>Construction</u>	<u>A & E</u>	<u>Other Professional</u>	<u>Other Services</u>	<u>Goods</u>
25.00%	25.66%	36.30%	23.80%	18.00%

The successful Bidder will be required to furnish a Payment Bond and a Performance Bond, each in an amount equal to 100 percent of the Contract Price. Insurance shall be furnished according to Item 103.4 of the City of Dallas Addendum to North Central Texas Standard Specification for Public Works Construction, Latest Edition.

No Proposal may be withdrawn within a period of **150** days after the date fixed for opening Proposals.

PART "A"

INFORMATION TO BIDDERS

**SPECIFICATIONS
AND
FORMS OF CONTRACT AND BONDS
FOR
WATER AND WASTEWATER MAIN REPLACEMENTS
AT VARIOUS LOCATIONS
CONTRACT NO. 20-109/20-110**

PART A - INFORMATION TO BIDDERS

A 1. TIME AND PLACE FOR RECEIVING PROPOSALS

Sealed proposals will be received in conformity with the official advertisement inviting bids for the project. Proposals will be received at the Office of the Purchasing Agent of the City of Dallas, Texas as specified in the Advertisement for Bids.

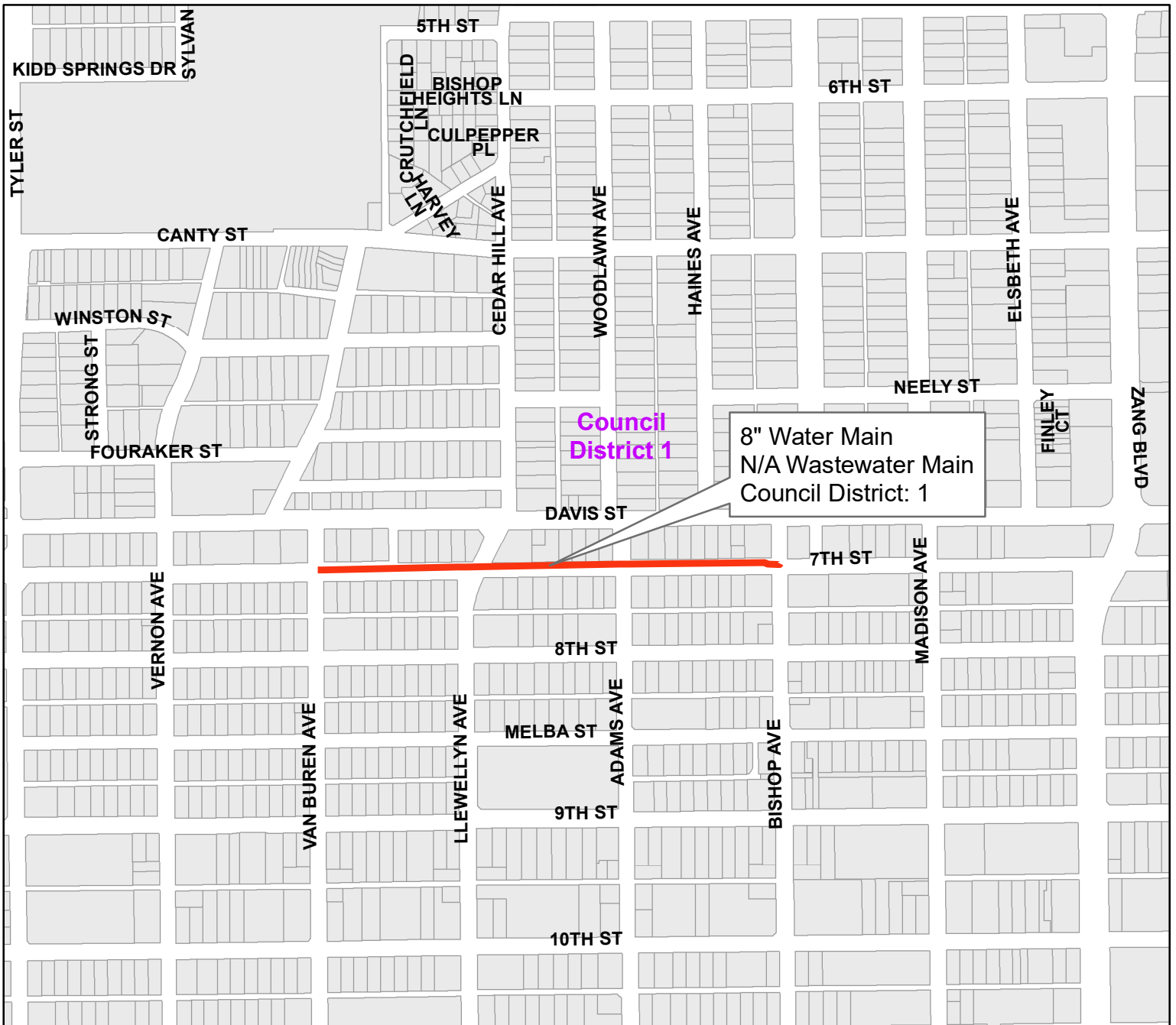
A 2. LOCATION AND DESCRIPTION OF PROJECT

This project consists of approximately:

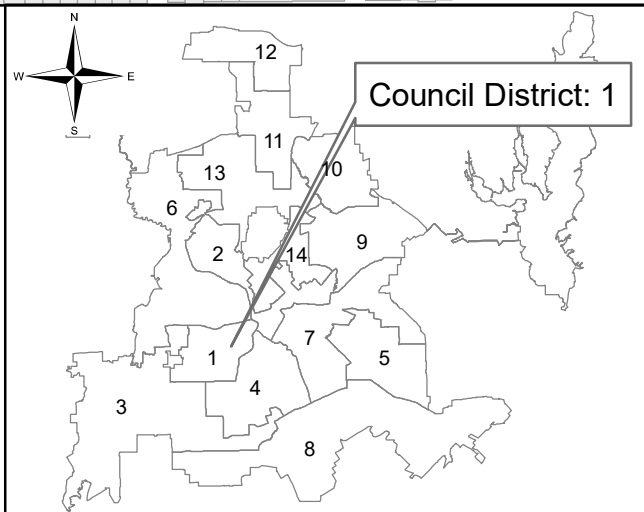
Location	Limits	LF W	LF WW	Proposed		Q Sheets Numbers
				Water	WW	
Beckley Avenue	from Sunset Avenue to 8th Street	N/A	N/A	8" PVC	N/A	411Q-1717 Sheet(s) 125 and 126
Northaven Road	from Preston Road to Ricks Circle	2,466	1,215	8" PVC	10" PVC	411Q-1325 Sheet(s) 166 thru 172
La Vista Drive	from Skillman Street to Swiss Avenue	1,388	N/A	8" PVC	N/A	411Q-0381 Sheet(s) 041 and 042
Aley between Edgefield Avenue and Windomere Avenue	from N. and S. from Taft Street	461	432	8" PVC	8" PVC	411Q-2001 Sheet 479
Easement between Jefferson Boulevard and Counts Boulevard	from Counts Boulevard southeast	291	N/A	4" PVC	N/A	411Q-3046 Sheet 079
7th Street	from N. Van Buren Avenue to Bishop Avenue	1,805	N/A	8" PVC	N/A	411Q-1717 Sheet(s) 127 and 128
Adams Avenue	from 7th Street to Davis Street	114	N/A	8" PVC	N/A	411Q-1717 Sheet 129

Alley between 9th Street and 10th Street	from Zang Boulevard to Story Street	1,018	922	8" PVC	8" PVC	411Q-1717 Sheet(s) 130 and 132
Westmoreland Road	from Irwindell Boulevard to Ivandell Avenue	1,618	1,305	12" PVC	8" PVC	411Q-0318 Sheet(s) 021 thru 026
Alley between Brooklyndell Avenue and Irwindell Boulevard	from Coombs Creek Trail to Westmoreland Road	655	717	8" PVC	8" PVC	411Q-0318 Sheet(s) 027 and 028
Easement between Tyler Street and Nolte Drive	from Nolte Drive to Clarendon Drive	N/A	142	KILL	8" PVC	411Q-3052 Sheet 116
Alley between 9th Street and 10th Street	from Patton Avenue to Denver Street	428	443	8" PVC	8" PVC	411Q-1557 Sheet 033
11th Street	from Avenue G to Cedar Crest Boulevard.	2,169	1,876	8" PVC	8" & 10" PVC	411Q-0508 Sheet(s) 012 thru 016
Avenue I	from 11th Street to Childs Street	1,318	1,247	8" PVC	8" PVC	411Q-0508 Sheet 017 thru 019
Davis Street	from Marlborough Avenue to Mary Cliff Road	970	N/A	12" PVC	N/A	411Q-0832 Sheet 031 thru 033
Avenue E	from 11th Street to Sanderson Avenue	1,483	1,211	8" PVC	8" PVC	411Q-0508 Sheet 020 thru 022

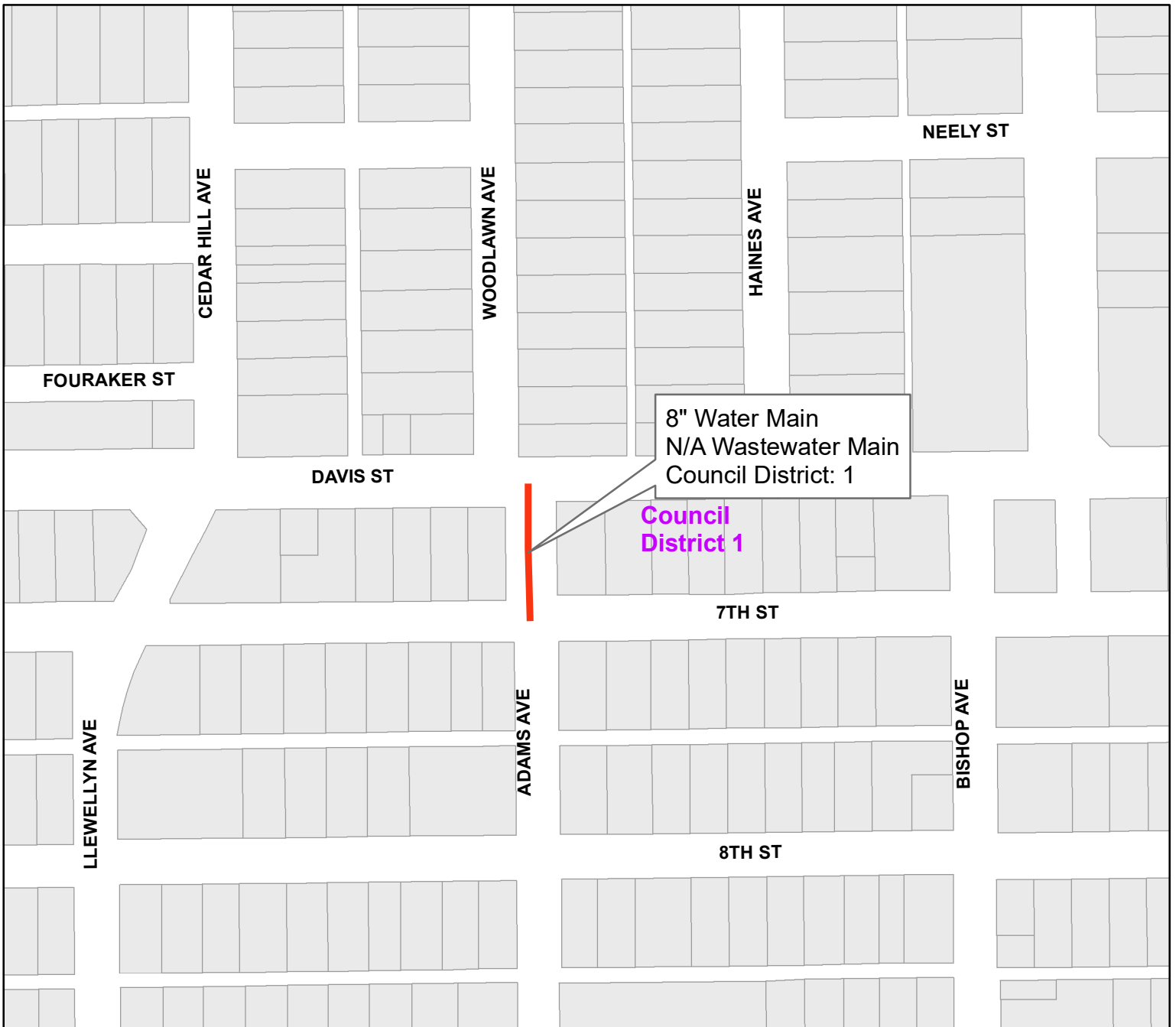
For details of locations and construction see the above referenced maps and the applicable Standard Drawings.



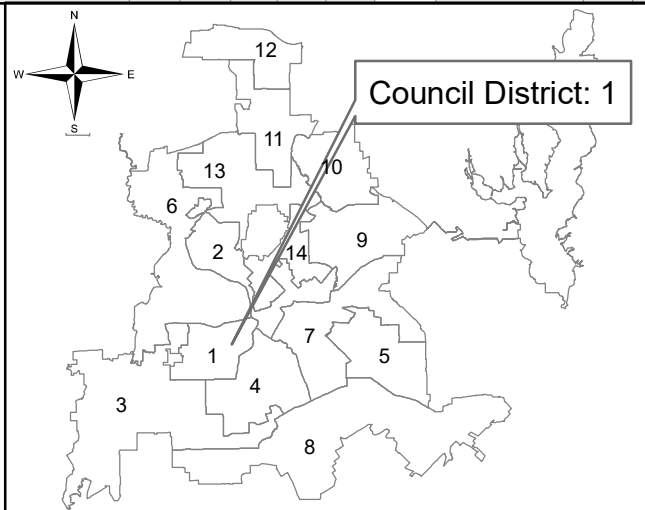
Seventh Street
 from Van Buren Avenue to Bishop Avenue



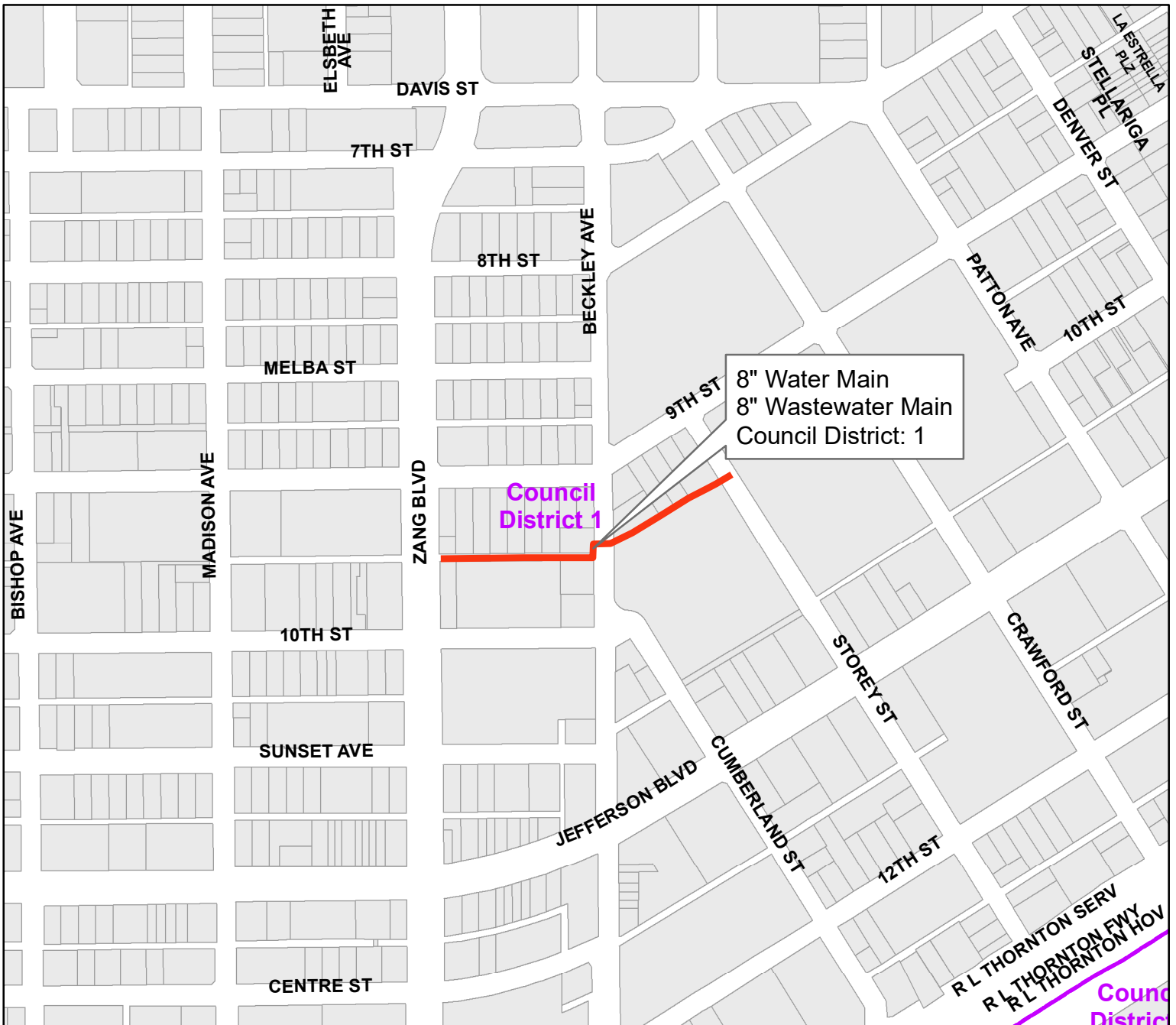
Dallas Water Utilities
Contract No. 20-109/110
Water and Wastewater Main Installations
at 16 Locations



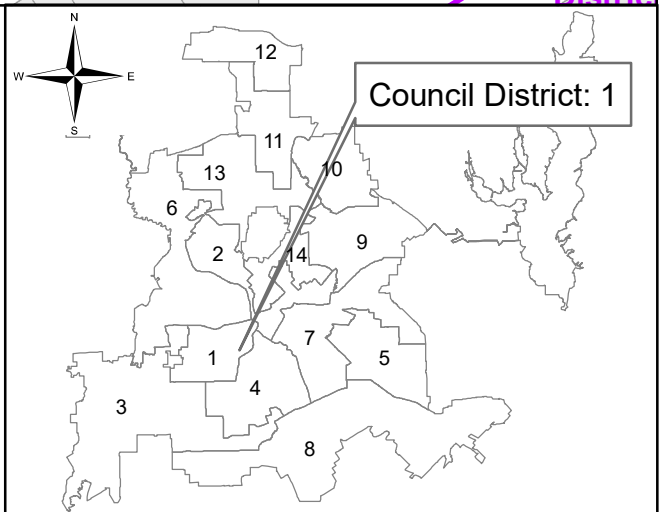
Adams Avenue
from 7th Street to Davis Street



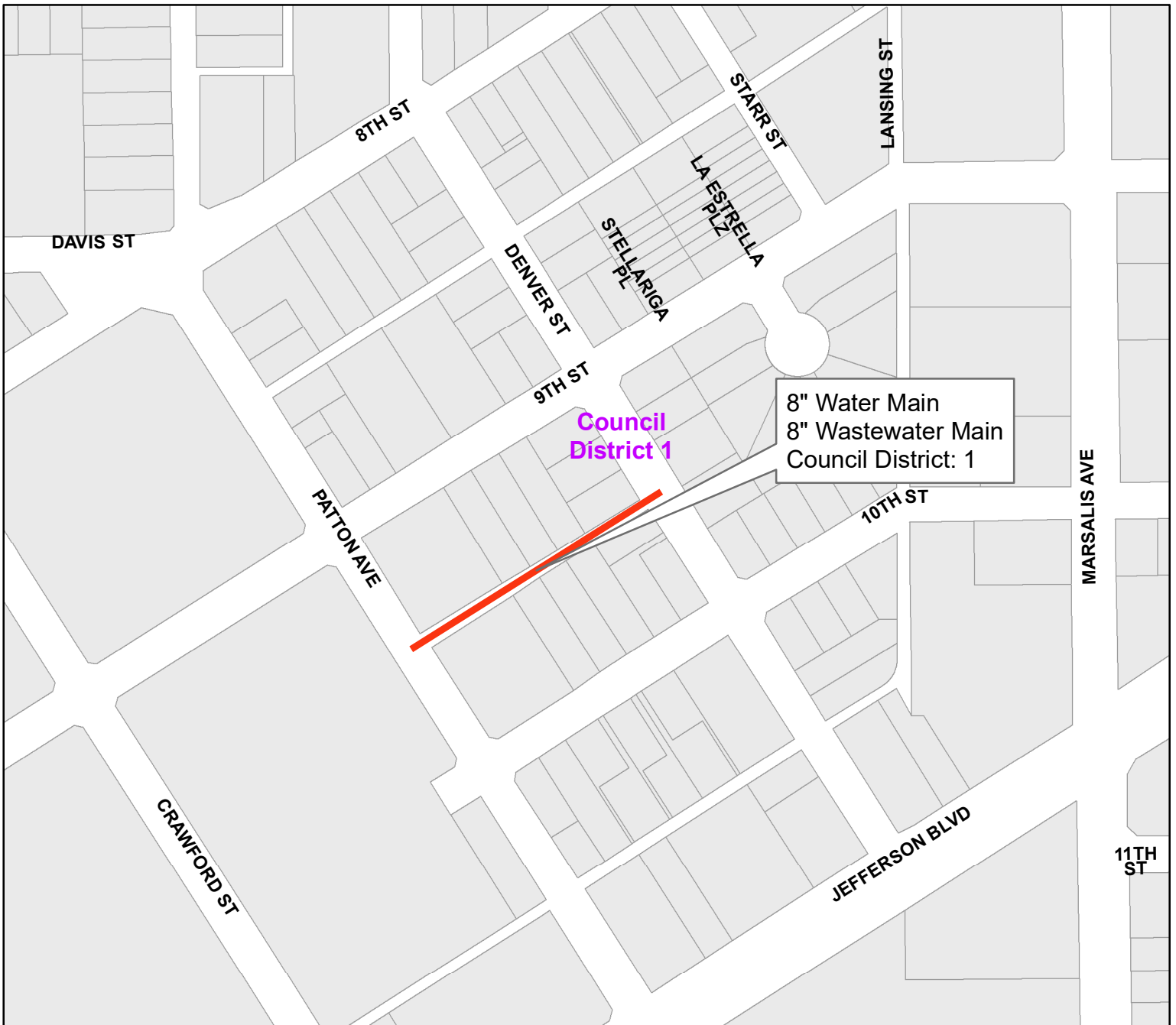
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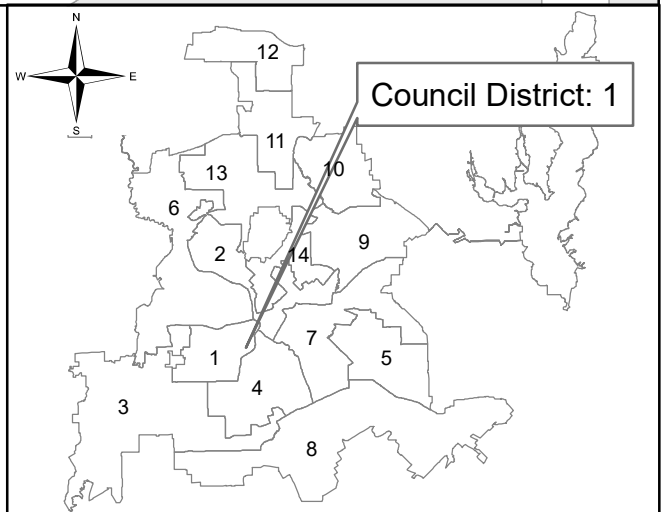
Alley between 9th Street and 10th Street
from Zang Boulevard to Story Street



**Dallas Water Utilities
Contract No. 20-109/110
Water and Wastewater Main Installations
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Alley between 9th Street and 10th Street
from Patton Avenue to Denver Street



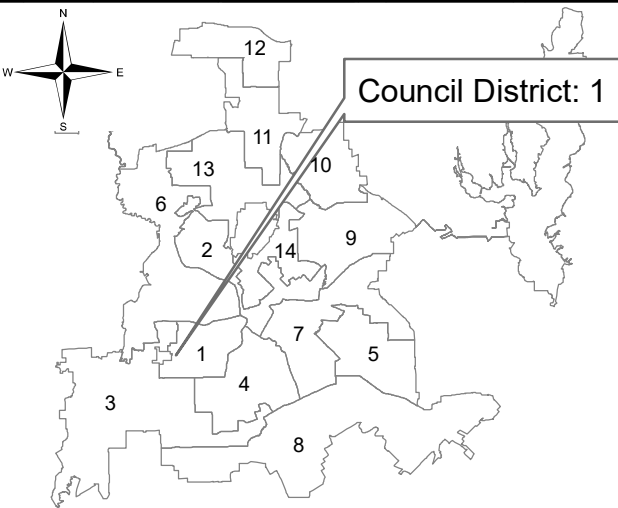
**Dallas Water Utilities
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8" Water Main
 8" Wastewater Main
 Council District: 1

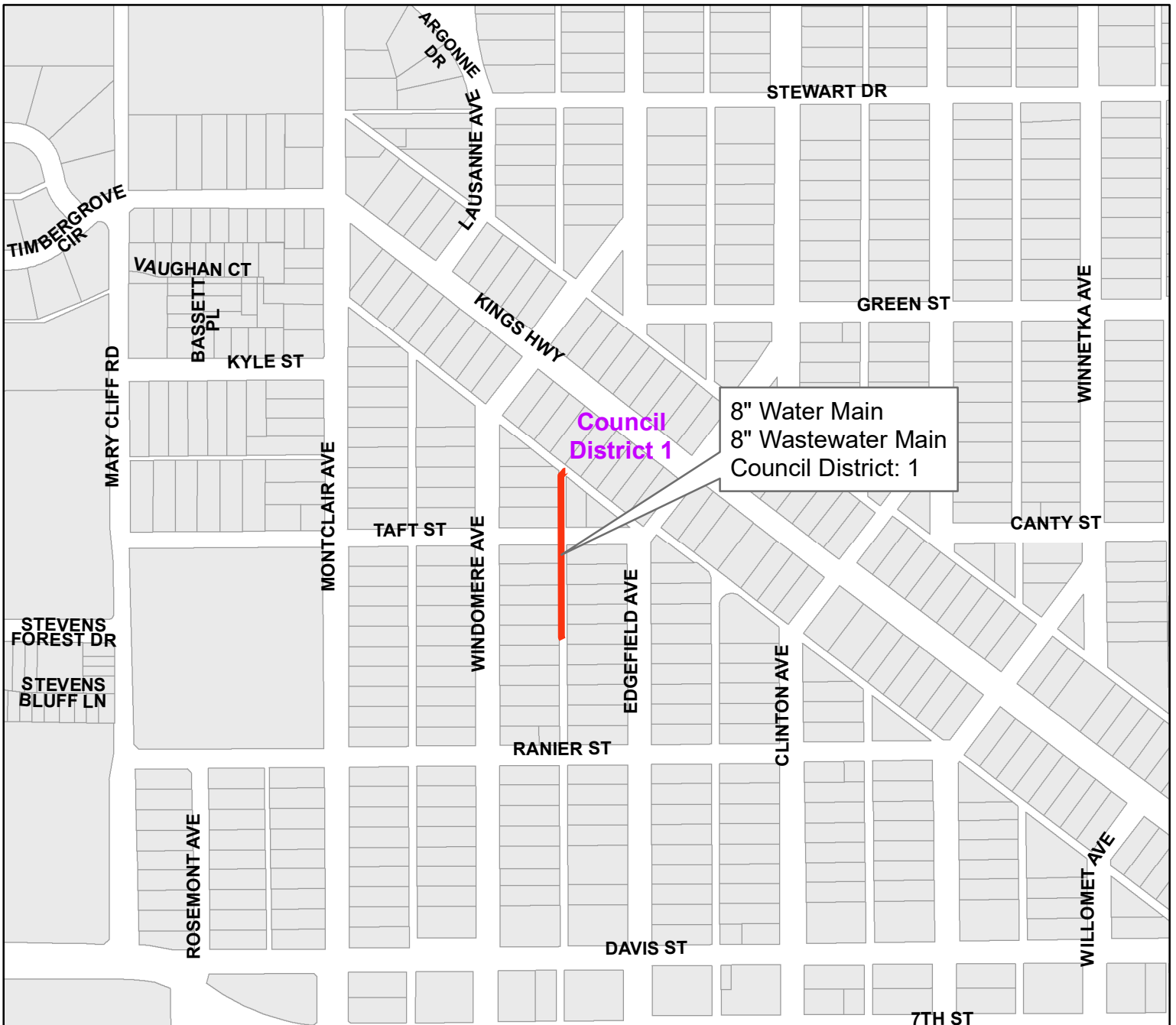
Council
 District 1

Alley between Brooklyndell Avenue and Irwindell Boulevard
 from Martindell Avenue to Westmoreland Road

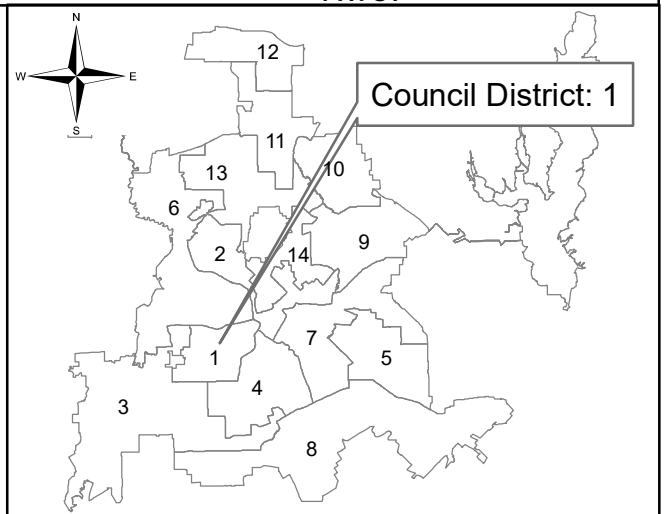


Council District: 1

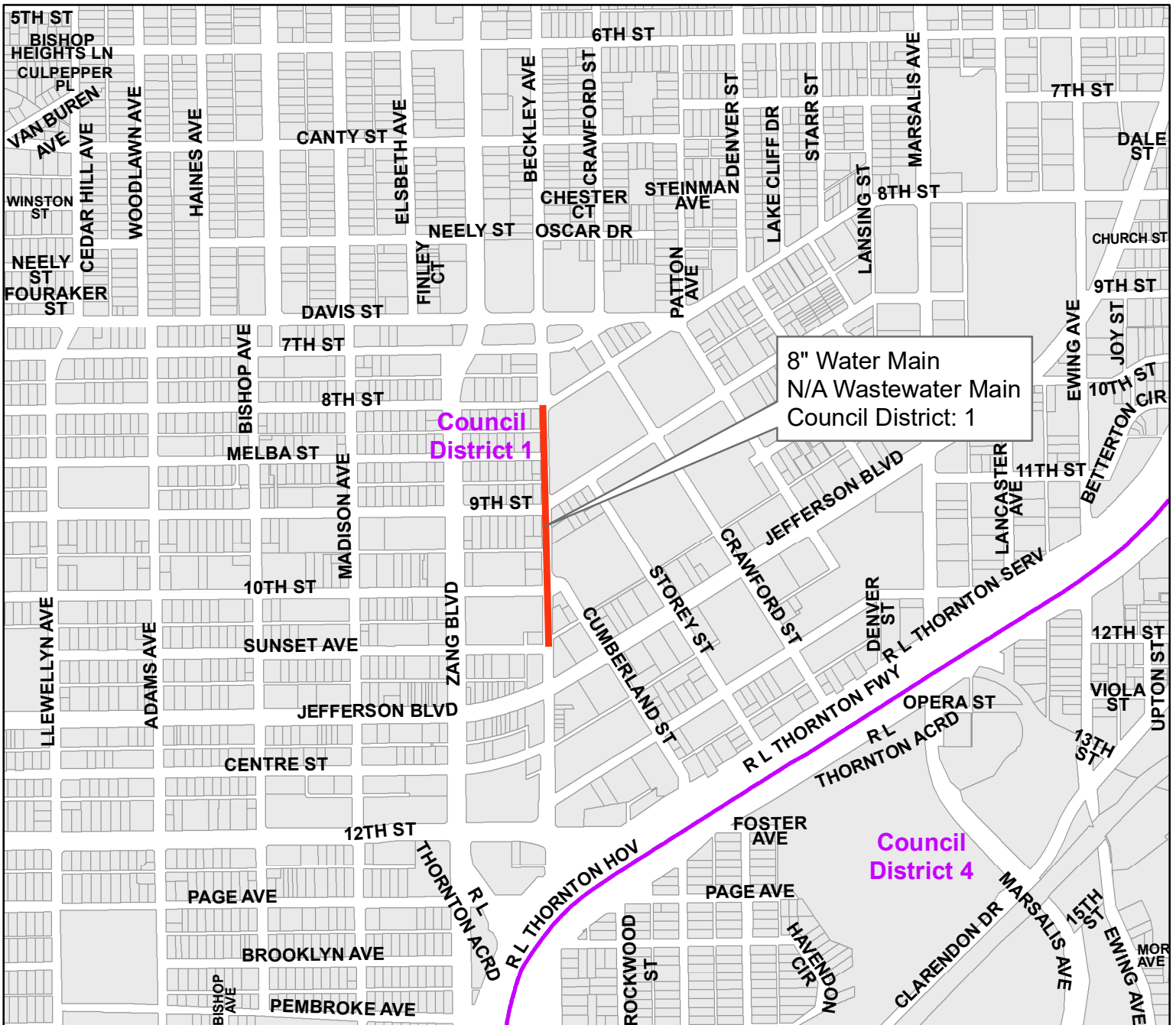
**Dallas Water Utilities
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 Water and Wastewater Main Installations
 at 16 Locations**



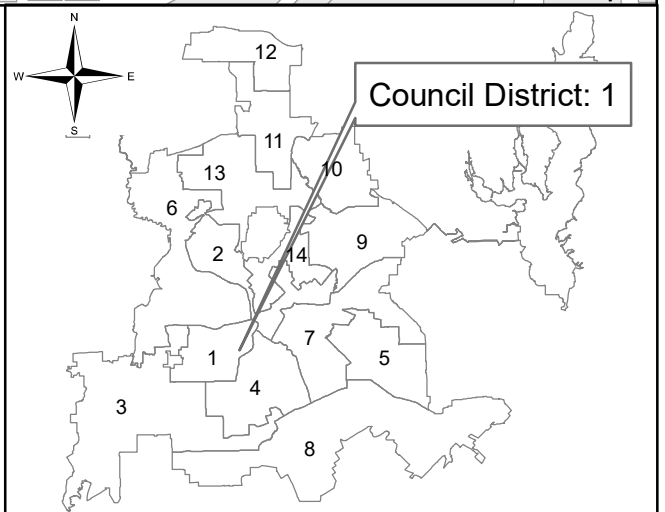
Alley between Edgefield Avenue and Windomere Avenue
from north & south of Taft Street



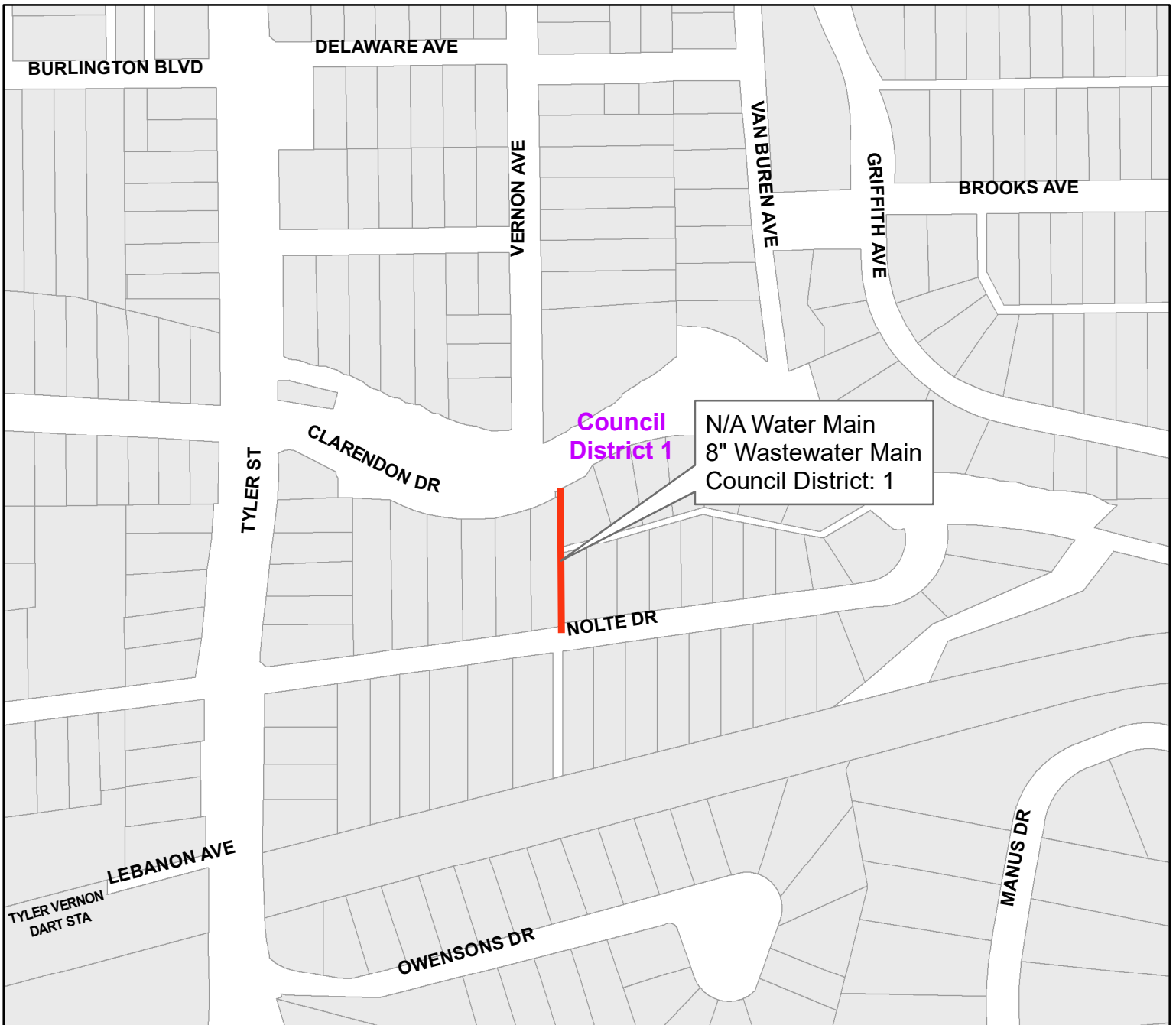
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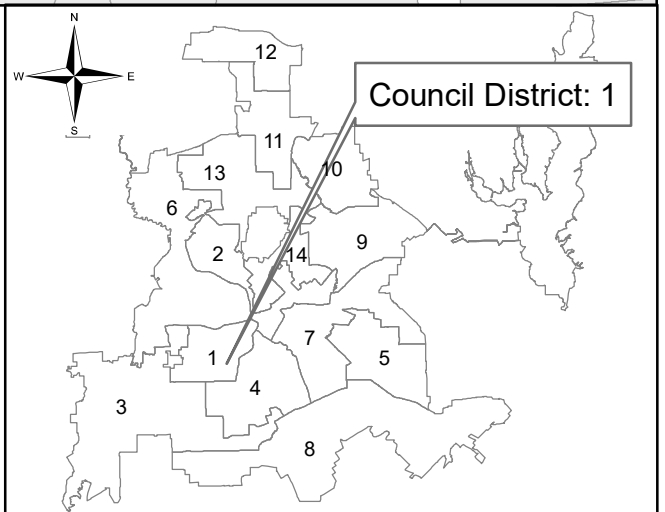
Beckley Avenue
 from Sunset Avenue to 8th Street



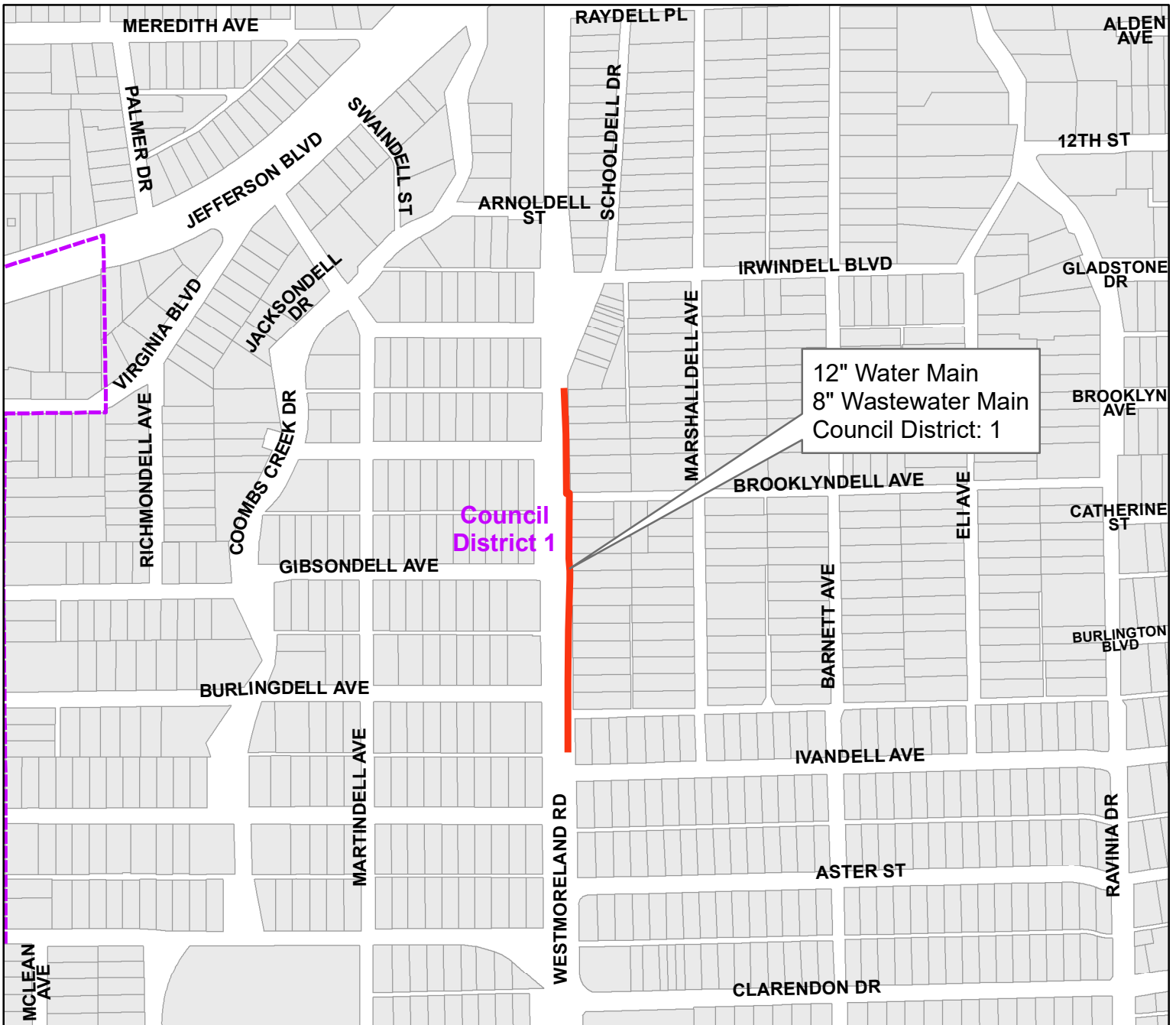
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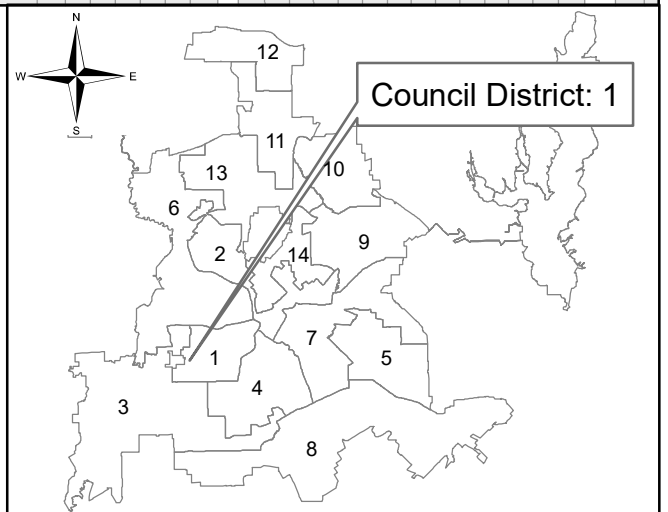
Easement between Tyler Street and Nolte Drive
from Nolte Drive to Clarendon Drive



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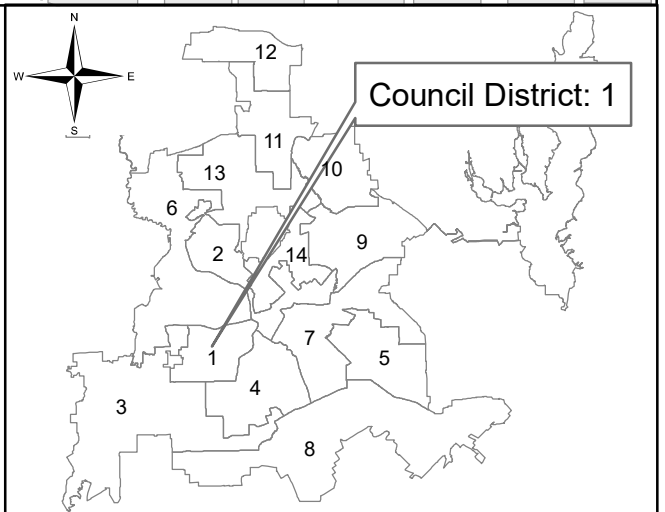
Westmoreland Road
 from Irwindell Boulevard to Ivandell Avenue



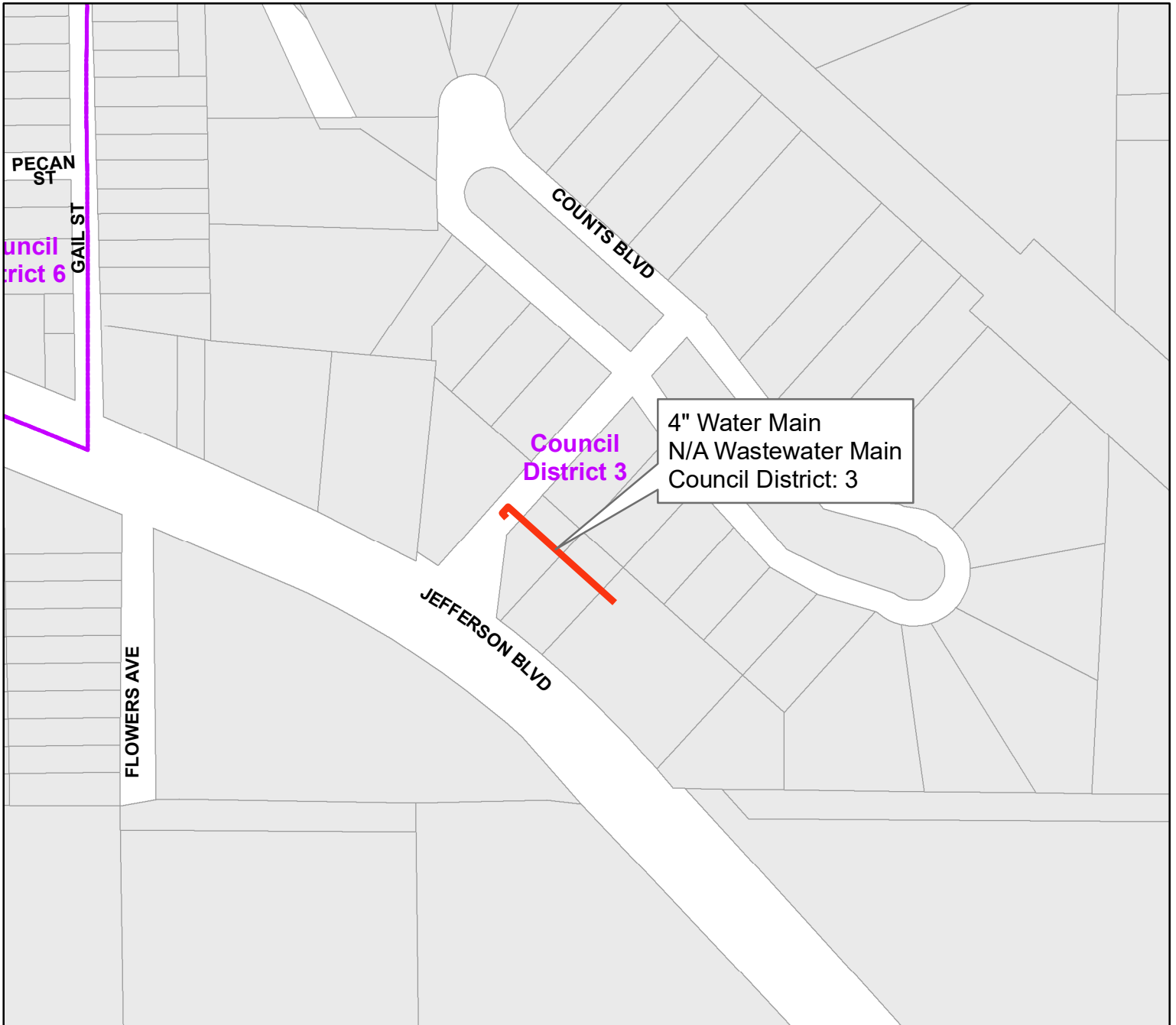
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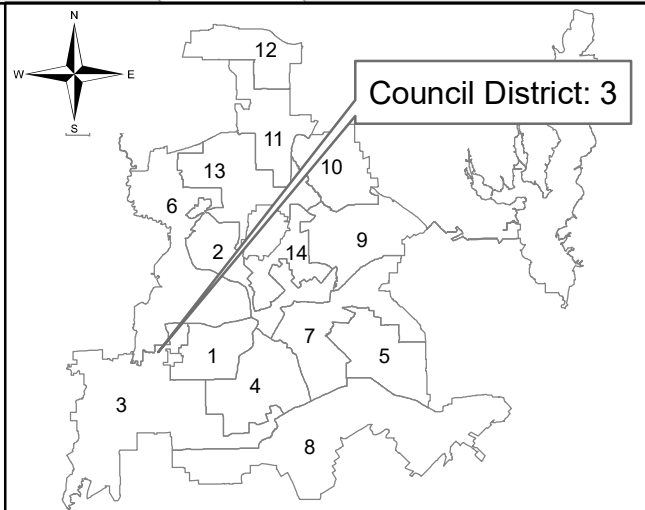
Davis Street
from Marlborough Avenue to Mary Cliff Road



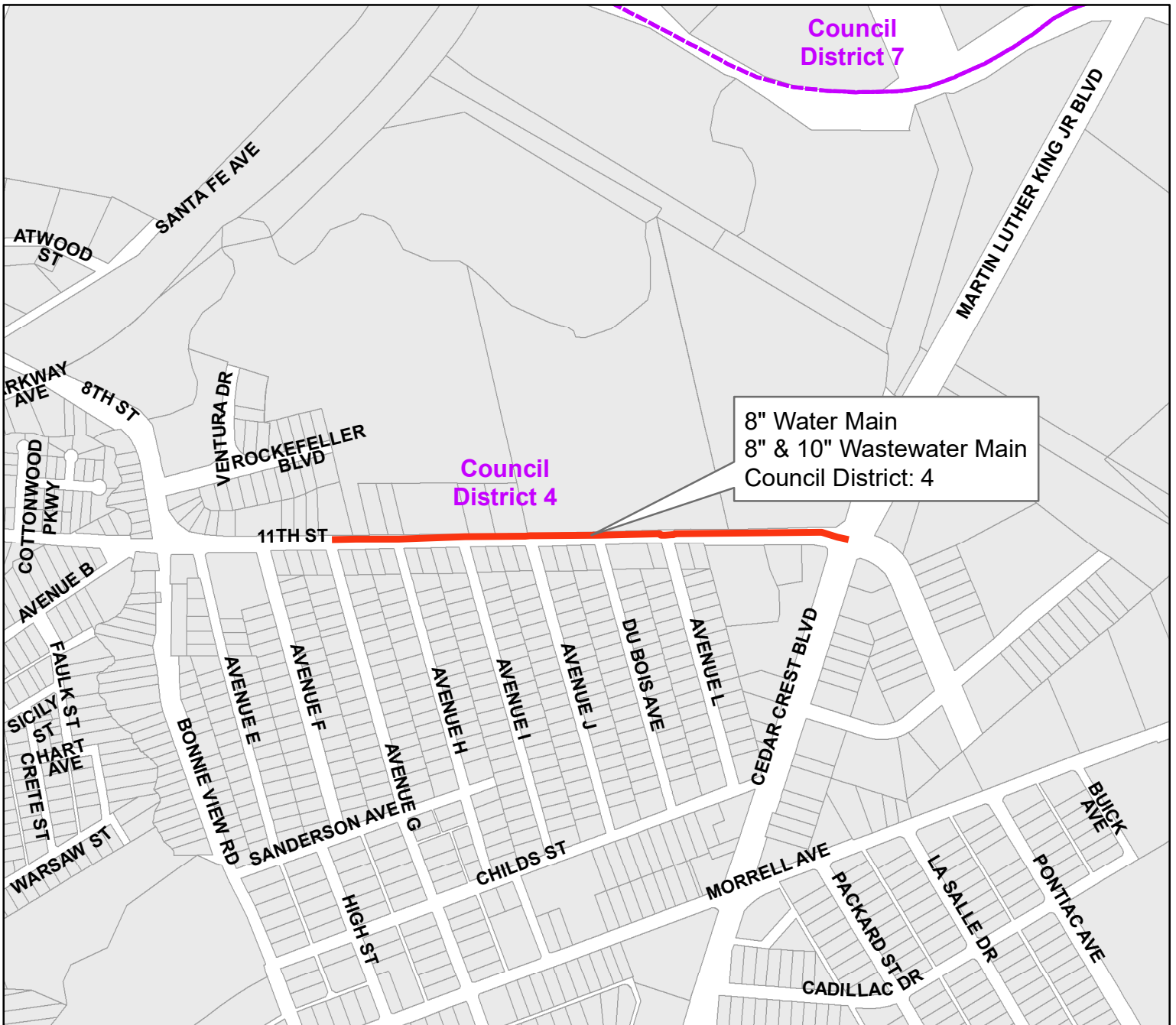
**Dallas Water Utilities
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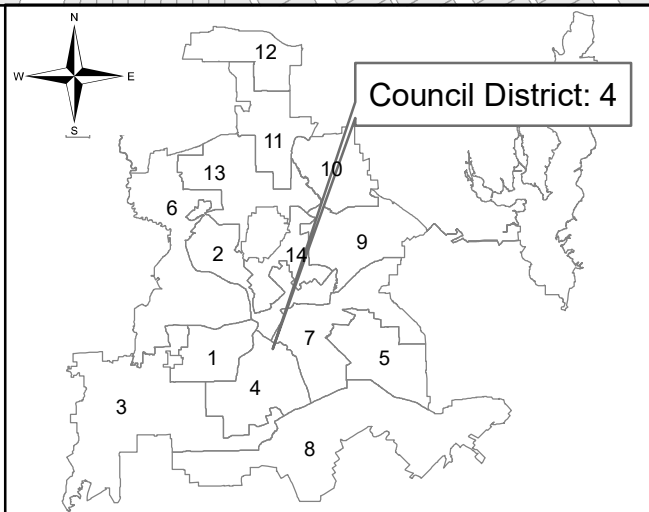
Easement between Jefferson Boulevard
and Counts Boulevard
from Counts Boulevard southeast



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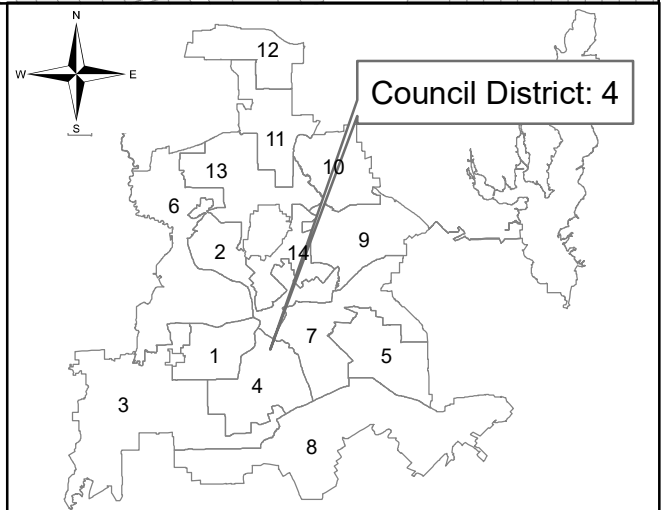
Eleventh Street
 from Avenue G to Cedar Crest Boulevard



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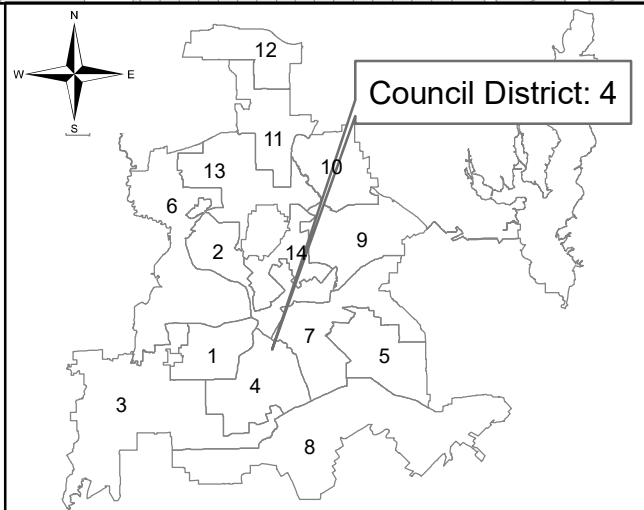
Avenue E
from 11th Street to Sanderson Avenue



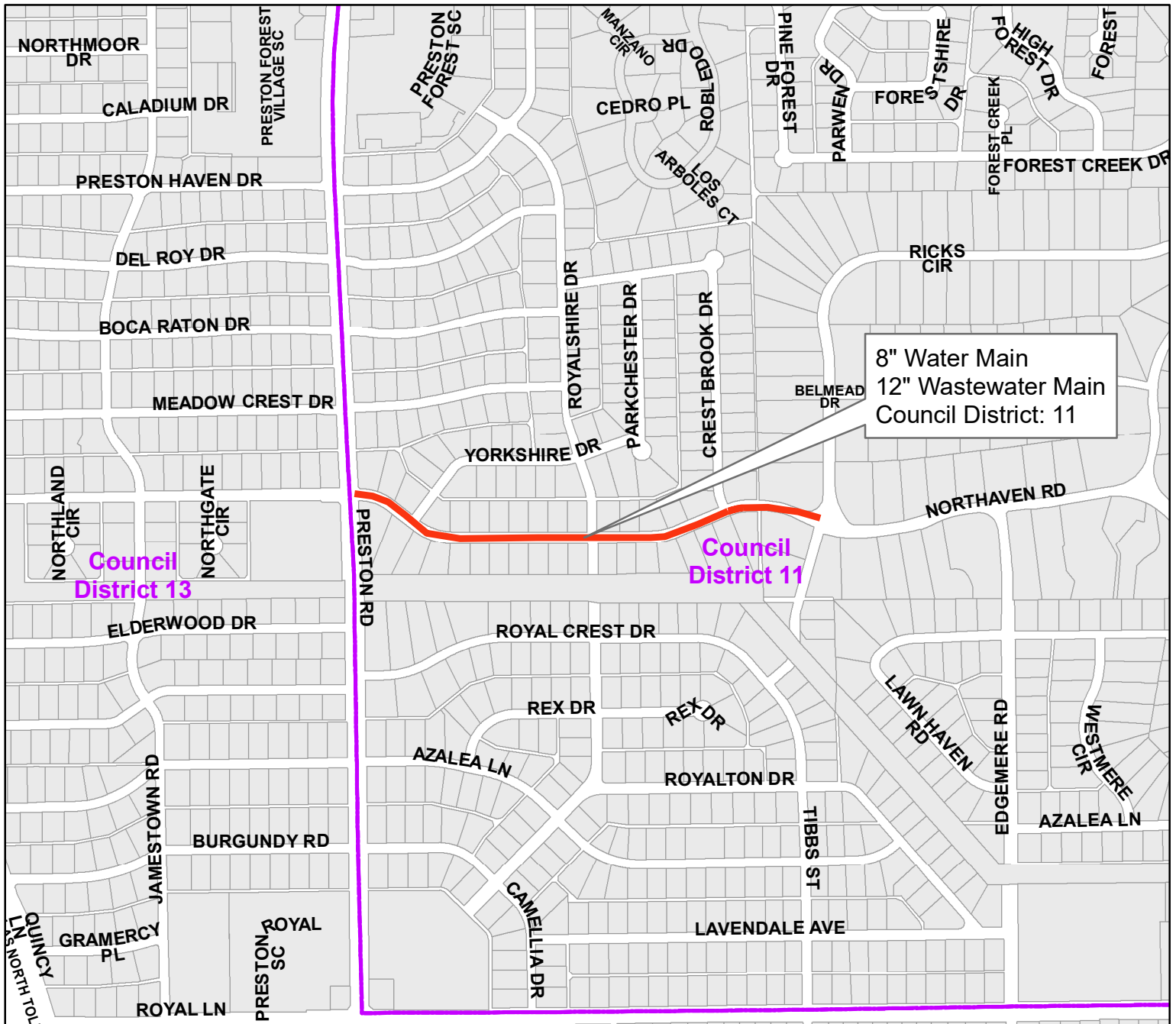
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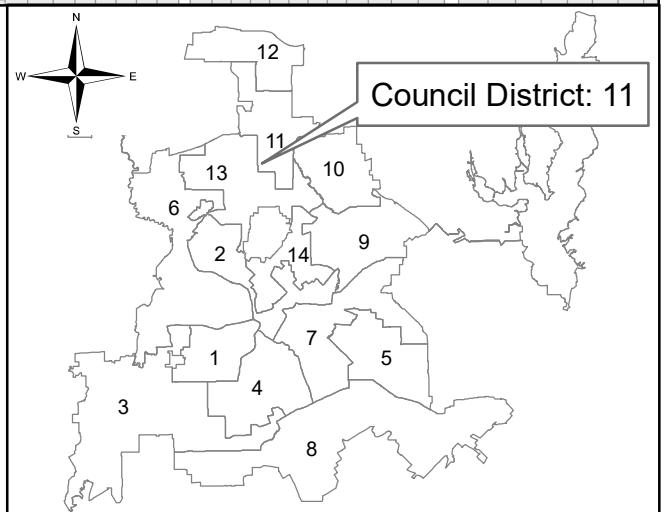
Avenue I
from 11th Street to Childs Street



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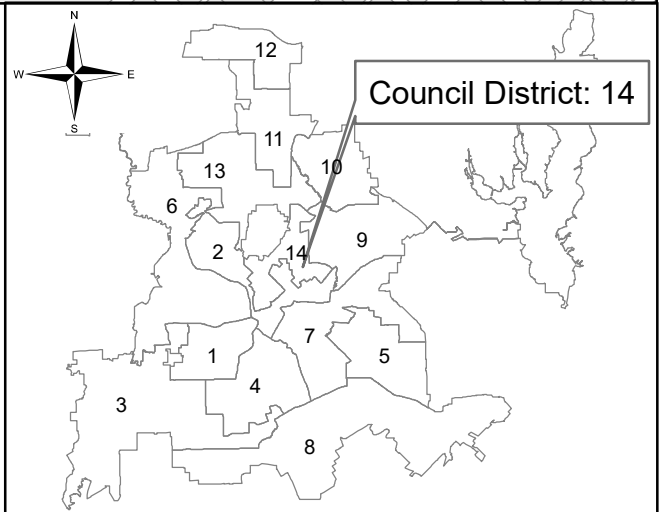
Northaven Road
from Preston Road to Ricks Circle



Dallas Water Utilities
Contract No. 20-109/110
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La Vista Drive
from Skillman Street to Swiss Avenue



**Dallas Water Utilities
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A 3. SPECIAL PROVISIONS

S-1 PLAN HOLDERS LIST / BID RESULT TABULATIONS

If you download Specs, Plans, and Proposals from <ftp://ftp.dallascityhall.com> please e-mail jose.becerra@dallascityhall.com, khon.eng@dallascityhall.com, or mark.williams@dallascityhall.com so you can be placed on the Plan Holders List and be notified of any Addenda. Plan Holders / Bidders Lists may be obtained by e-mailing jose.becerra@dallascityhall.com, khon.eng@dallascityhall.com, or mark.williams@dallascityhall.com. Bid result tabulations as they become available are located at <ftp://ftp.dallascityhall.com> in folder titled Bid Tabulations.

S-2 INQUIRIES

All inquiries shall be directed to:

Rakesh Chaubey, P.E
Dallas Water Utilities Department
2121 Main Street, Suite 300
Dallas, Texas 75201
Telephone: (214) 670-4271
FAX: (214) 243-1118

Project related questions shall be submitted in writing no later than 4:00PM on Monday, June 29, 2020.

S-3 PRE-BID CONFERENCE

Due to the COVID-19 Pandemic, the office of Procurement Services is unable to accept paper copies of bids or proposals. Please submit all bids as pdfs in Bonfire at: <https://dallascityhall.bonfirehub.com/login>. For any questions, please email procurementAds@dallascityhall.com. Project related questions shall be submitted in writing no later than 4:00 pm on Monday, June 29, 2020.

S-4 BIDDING RESTRICTIONS

No individual, partnership, corporation, holding company, or other business organization shall submit more than one Bid on this project. The submittal of multiple bids in the names of different Contractors by the same individual, partnership, corporation, holding company, or business is specifically prohibited.

S-5 **BID PACKET SUBMITTAL**

Contractors must provide the **Original** copy of their Bid Proposal in their Bid Packet submittal.

S-6 **QUANTITIES**

The quantities in all Unit Price bid items in the Proposal are approximate and may represent quantities in excess of those actually installed. Payment will be based on the actual quantities installed and paid in accordance with the applicable Specifications.

S-7 **MILESTONES/ LIQUIDATED DAMAGES**

By entering into the Contract Bidder agrees that the work covered by the contract award will be completed in accordance with the following Milestones:

Milestone 1: Effective Start Date (ESD) for the project shall be no longer than 40 Calendar days after City Council award of this project. Liquidated Damages shall be \$ 500 Per Calendar Day.

Milestone 2: 8,500 linear feet of water/wastewater mains shall be installed, backfilled, tested and paved over with temporary pavement within 106 Consecutive working days from ESD. Liquidated damages shall be \$500 Per Calendar Day till this milestone is reached.

Milestone 3: 170,000 linear feet of water/wastewater mains shall be installed, backfilled, tested and paved over with temporary pavement within 212 Consecutive Working Days. Liquidated damages shall be \$500 per calendar day till this milestone is reached.

Milestone 4: All work on the contract (including, debris removal, site restoration, testing and commissioning) shall be completed within 365 Consecutive Working Days. Liquidated damages shall be \$500 per calendar day of Delay.

S-8 **PROJECT SIGN**

This Contract requires work at more than one geographical location. A Project Sign will be required at each location of work from the period when work has started at that location until all work is complete at that location. The signs will be provided to the Contractor **at no charge**, however, delivery to the project site is not included and the Contractor will be required to pick the sign up when notified at Dallas Lite and Barricade, 1607 Fort Worth Avenue, Dallas, Texas, 75208. The Contractor will also be required to erect the sign at the project site and also to deliver the signs upon completion of the project site for re-use. The Contractor will be required to notify the Project Manager two (2) weeks prior to the placement of the signs. **NO PAY ITEM.**

S-9 **NOTIFICATION OF CONSTRUCTION OPERATIONS**

The **Contractor** shall be responsible for all **Construction Staking** associated with the Water and Wastewater Facilities on this project. **Costs for Construction Staking is covered under Bid Items 8011 and 8012.** Staking shall be performed by qualified personnel. Typed Cut-Sheets must be submitted to DWU Pipeline Inspection, 2121 Main Street, #300, Dallas, Texas 75201 (Phone - 214-671-9530; Fax - 214-670-3018) no later than 3:00P.M. the day prior to scheduled start of construction. (See example in Part T - Technical Specifications).

The Contractor is responsible for maintaining all staked controls and hubs in the construction area at all times and any costs for re-staking or re-establishing controls required shall be borne by the Contractor.

Inspection of work associated with the water and wastewater facilities will be done by Dallas Water Utilities (DWU) and shall be requested through the appropriate DWU Construction Superintendent a minimum of ten (10) days prior to the scheduled start of construction for each location. Actual start date is dependent upon approval and issuance of the "Public Relations" letter from the Project manager.

S-10 **PROJECT PARTNERING**

The Contractor is to participate in ongoing "Project Partnering" along with the Design Engineer and the Owner as described in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest Edition. The Contractor shall hire a 3rd party facilitator and all associated costs shall be included in Bid Item No. 6800. The Contractor will be paid 60% of Bid Item No. 6800 in the first estimate following completion of the initial one day partnering workshop.

The remaining balance will be paid after all work is completed and all claims against the Contractor are settled. The initial partnering workshops as well as quarterly partnering sessions should accommodate up to fifteen (15) Dallas Water Utilities and/or design consultant personnel in addition to Contractor's and Subcontractor's personnel. The Project Partnering shall be conducted at the beginning of the Project in accordance with the format detailed in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest Edition.

This is a **Contingent Item** to be used and paid for only as directed by the Project Manager. Partnering shall be conducted at a location within the City Limits of Dallas.

S-11 SUBMITTALS

The Contractor is required to furnish written submittals. The following additional information is required with all pay applications.

MONTHLY ESTIMATE:

PAYMENT REQUEST COVER LETTER
DESCRIPTION OF PAY ITEMS/QUANTITY INFORMATION
UPDATED PROJECT SCHEDULE
SCHEDULE OF WORK AND ACTUAL PAYMENT FORM
CONTRACTOR/SUBCONTRACTOR CERTIFIED PAYROLL REPORT
NEIGHBORHOOD JOB OPPORTUNITIES
CERTIFICATE OF LIABILITY INSURANCE
VERIFICATION OF PAYMENT FOR INSPECTORS OVERTIME
AFFIDAVIT OF SUBCONTRACTOR/SUPPLIER PAYMENT
BREAKDOWN OF STORED MATERIALS (IF APPLICABLE)
M/WBE PROPOSED CHANGES

FINAL ESTIMATE:

CONTRACTOR AFFIDAVIT OF SUBCONTRACTOR/SUPPLIER
PAYMENT
POST CONSTRUCTION CONTRACTOR EVALUATION (with final
application)
RELEASE OF CLAIMS (if applicable with final application)
M/WBE SUBCONTRACTOR/SUPPLIER EVALUATION(S)
INSPECTOR'S OVERTIME FEE PAID
SUBCONTRACTOR EXPLANATION OF VARIANCE FROM PAYMENT
SCHEDULE
WARRANTY(S) ORIGINAL(S)
CONSENT OF SURETY TO FINAL PAYMENT
NEIGHBORHOOD JOB OPPORTUNITIES FORM
WEEKLY CERTIFIED PAYROLLS THROUGH COMPLETION OF WORK
SWORN STATEMENT OF ACCOUNTS
DISPOSITION OF EXISTING ASSETS FORM

S-12 **APPROVED MATERIALS BY TRADE NAME**

The Owner maintains a list of approved materials by trade name as shown in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest Edition or as included in these specifications. The latest version provided by either the DWU Standard Technical Specifications or these specifications shall govern. Contractor shall use materials specified on Approved Materials List unless otherwise specified in this contract.

S-13 **OFF- SITE CONSTRUCTION AREA**

The Contractor is not permitted to use any public right-of-way as a staging area, yard, office, storage, etc. Should the Contractor require the use of private property as a staging area, yard, office, storage, etc. then he will submit that location along with a copy of the agreement from the Property Owner/Owners to the Project Manager.

S-14 **STABILIZED MATERIAL**

Item(s) **7040, 7041, 7043, 7044, 7050, and 7052** may be used interchangeably for various applications during construction at the discretion of the Engineer. There shall be no renegotiation of bid prices for any of these items due to quantity underruns or overruns.

S-15 **WATER METER BOXES**

Install new plastic type Water Meter Boxes on all new and reconnected existing water services shown on the Drawings and specified herein. Water Meter Boxes shall conform to Dallas Water Utilities Approved Materials List. Install Water Meter Boxes according to DWU Standard Drawings for Water and Wastewater Construction, Latest Edition, pages 201 thru 206A. All locations specified in this Contract are considered "Traffic Bearing Areas".

S-16 **TEMPORARY WATER MAINS (NO SEPARATE PAY ITEM)**

Temporary water mains of new or acceptable used 2" galvanized iron water pipe or other pipe material acceptable to the Engineer shall be installed as specified by the plans or as required by the Construction Engineer.

Valves shall be furnished and installed by the Contractor on the temporary mains at locations designated by the Construction Engineer, so that the temporary main can be shut off independently. 3/4" blow-off copper will be installed at the end of the temporary mains. In the event that temperatures fall, the Contractor shall take steps to prevent temporary mains and services from freezing. If flushing is done, the run-off shall be directed such that street icing does not occur.

Cold mix asphalt shall be used to mound over the 2" temporary water main at all driveways and at locations where the temporary mains cross vehicular traffic areas. The cold mix asphalt shall be removed after the removal of the temporary water mains.

The temporary 2" water mains will be chlorinated after installation. Services shall not be transferred to the temporary mains until the water in the temporary mains has been checked and approved by the Engineer. There will be no additional compensation for delays in obtaining approval to transfer services.

The temporary water system shall be maintained and repaired at all times by the Contractor.

The Contractor shall furnish, place, and connect temporary water services from the temporary mains to a point beyond each meter box. The services will consist of a service clamp, corporation cock, sufficient length of copper pipe to reach beyond each meter box, copper to iron pipe union, street ell and bushing. The temporary water services shall be a minimum of 3/4."

S-17 TRAFFIC RESTRICTIONS

The following traffic restrictions shall be enforced during construction.

1. Two-way traffic shall be maintained on all streets at all times. Flagmen should be used to maintain two-way traffic.
2. The Contractor will be responsible for barricading all projects. All barricades, warning signs, and traffic control devices shall conform as a minimum to the standards in the City of Dallas Traffic Barricade Manual and TxDOT *Texas Manual on Uniform Traffic Control Devices 2006* (Texas MUTCD).
3. When closing side streets, four working days notification is required for Fire and Police Departments. Contact Traffic Safety Coordinators Beth Adams at (214) 670-5896 or Gary Hughes at (214) 670-5662.

S-18 TRANSPORTATION/TRAFFIC CONTROL

The Contractor shall provide a Traffic Control Plan to assure two way traffic and uninterrupted access to properties at all times.

S-19 MANHOLE CORROSION PROTECTION

All proposed Wastewater Manholes require Raven Coating 405 or approved equal as stipulated in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest Edition. No Separate Pay Item.

S-20 POINT REPAIRS

The Contractor is advised that point repairs may be required on private property. Point repairs on private property shall be hand excavated using small equipment to cause as little damage as may be necessary to accomplish the work. If fences must be removed to accomplish the work, the Contractor shall install temporary fencing of like size and construction until permanent fence replacement is accomplished.

S-21 **TEMPORARY PAVING**

Temporary Paving will be placed over the compacted, backfilled ditch in paved areas and marked as Temporary Paving. The Temporary Paving shall consist of 6" minimum thickness flexible base and High Performance mix asphalt at the width and 2" minimum thickness as specified for payment in the bid items.

The Contractor may exceed these limits of measure for payment; however, all cost associated with this increase will be at the Contractor's expense. If the Contractor concludes the Temporary Pavement is not adequate in thickness or width for the conditions, this should be taken into account when preparing the bid.

Temporary surface shall be adequately compacted and sealed to prevent degradation of the repair during the temporary period. Any temporary surface shall be repaired or removed and replaced, as directed by the Engineer, at the Contractor's expense.

If an alternate route is required, the placement and removal of Flex Base and Asphalt Paving as approved by the Construction Engineer will be entirely at the Contractor's expense.

S-22 **POST CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR/
SUPPLIER EVALUATION**

The Contractor will be evaluated by the Owner. The completed form will be submitted for the Contractor's signature prior to final payment.

The Contractor shall evaluate each Subcontractor and Supplier. The evaluation(s) will be furnished to the Owner prior to payment of the final estimate.

Examples of the evaluation forms are available at 2121 Main Street, Suite 400, Dallas, Texas 75201.

S-23 **CONTRACTOR ENVIRONMENTAL PACKET**

Contractor shall read and understand 107.27 of the City of Dallas NCTCOG Addendum, Latest Edition, and provide a signed "Environmental Record Affidavit" prior to start of construction.

S-24 **DENSITIES**

Densities shall be taken at the amount of three (3) per one hundred (100) feet of open cut trench excavation, equally spaced.

The density tests are to be conducted by DWU's approved soil density labs. The depths of the samples and the approximate locations are to be coordinated and approved by the DWU Pipeline Field Inspector.

All densities shall meet the requirements set forth in the pavement Cut and Repair Standards Manual issued by the Department of Public Works and Transportation.

Payment for these services related to DWU's Pipeline Program's Capital Improvement Projects shall be borne by DWU's Pipeline program.

S-25 **PERFORMANCE OF WORK BY THE CONTRACTOR**

Contractor Participation. Except as otherwise provided, the Contractor shall perform no less than 25 percent (25%) of the work with his own organization. The on-site production of materials produced by other than the Contractor's forces shall be considered as being subcontracted. If, during the progress of work hereunder, the Contractor requests a reduction in such participation percentage and the **OWNER** determines that it would be to the **OWNER'S** advantage, the percentage of work required to be performed by the Contractor may be reduced; provided, written approval of such reduction is obtained by the Contractor from the **OWNER**.

The organization of the Specifications into divisions, sections, and articles, and the arrangement and titles of project drawings shall not control the Contractor in dividing the work among subcontractors or in establishing the extent of work to be performed by any trade.

S-26 **DAMAGE TO EXISTING STRUCTURES AND OTHER UTILITIES**

Contractor shall take care to protect, and to not cause damage to, existing structures and other utilities as specified in 107.23, 203.1, and all Addenda thereto. If any utility structure, line, service, or any other structure or utility is damaged, contractor shall notify the structure or utility Owner or Operator immediately upon causing the damage incident as per local, state, and federal laws and regulations. Contractor shall notify DWU Inspector or Superintendent within one hour from the time of the damage incident. In case of service disruption to an individual or in case of an emergency, contractor shall also attempt to notify adjacent property owner of the damage incident. Contractor crew which caused the damage incident shall incur a one day mandatory shut-down for each occurrence of a failure to notify DWU Inspector or Superintendent within one hour of a damage incident. Contractor crews shut down as provided will not be prohibited from performing site cleanup or general maintenance on any mandatory shut down day. Contractor shall be responsible for all costs and delays incurred. **NO SEPARATE PAY ITEM.**

S-27 **PRE-CONSTRUCTION VIDEO**

The Contractor is required to furnish a pre-construction video of the segments prior to moving any equipment, material, or personnel to that location as stipulated in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest Edition. **NO SEPARATE PAY ITEM.**

S-28 **POST-CONSTRUCTION VIDEO**

The Contractor is required to furnish a post-construction video of the segments after all water/wastewater mains work and site restoration is complete as stipulated in the DWU Standard Technical Specifications for Water and Wastewater Construction, Latest edition. **NO SEPARATE PAY ITEM.**

S-29 **ENVIRONMENTALLY CONTAMINATED SOIL**

In the possible event where environmentally contaminated soil is encountered at any project site; the City of Dallas will hire a third party environmental consultant who will determine the extent of environmental contamination through laboratory testing and environmental analysis. The third party consultant will be responsible for:

- Site reconnaissance and environmental study,
- Soil borings and evaluation,
- Determination of site specific chemicals,
- Development of environmental soil and ground water management plan,
- On-site environmental inspection of waterline installation,
- Loading, transport and disposal of environmentally contaminated soil to appropriate landfill.

The cost associated with the items above will be paid by the City.

Contractor is instructed to immediately contact the Owner Representative when environmental issues arise so that arrangements can be made. Contractor will coordinate with the third party environmental consultant as necessary for the compliance of environmental requirements.

Any delay of the project due to environmentally contaminated soil will be adjusted in contract milestones. City will not provide any additional compensation to the contractor due to the delay caused by encountering environmentally contaminated soil.

S-30 **DISPOSAL OF EXCAVATED MATERIALS**

The Contractor must submit to the Owner a detailed list of disposal sites and materials to be disposed at each site for entire project prior to commencement of work. The Contractor is responsible for disposal of all spoil materials associated with this project. Once the detailed list of disposal sites is submitted and approved, no deviation is allowed without written approval. Contractor must keep record of delivery manifests, tickets, invoices, and other pertinent documents, and submit copies of documents to Owner upon request.

If any dump site is located on private property the submittal must include the following:

1. A letter from the property owner outlining the agreement for the use of the property.
2. If the private property is located within a designated flood plain, a copy of the City permit to dump in the flood plain must be attached with the letter from the property owner.
3. A signed release letter from the property owner stating final acceptance of the property condition. **NO SEPARATE PAY ITEM.**

S-31 **INSPECTION OVERTIME REIMBURSEMENTS**

The following paragraph in Item 105.9.3.COD: Inspection Overtime of the DWU Addendum to North Central Texas Standard Specifications for Public Works Construction shall be revised as follows:

Inspection overtime will be charged to the Contractor at the rate of **\$50.00** per hour per Inspector with the number of Inspectors to be determined by the Owner under the following overtime conditions:

1. Weekdays between the hours of midnight to 7:30am and 4:30pm to midnight.
2. Saturdays, Sundays and Holidays between the hours of midnight to midnight with a minimum of four (4) hours, at a rate of **\$50.00** per hour per Inspector and a minimum of **\$200** per day per Inspector.

S-32 HOT MIX ASPHALTIC CONCRETE PAVING

Contractor shall provide Hot Mix Asphaltic Concrete mix design submittal for review and approval prior to commencement of work. Mix design must have been previously approved for use by Texas Department of Transportation (TxDOT) and be performing satisfactorily. Submittal shall include a list of TxDOT projects where the mix was installed. Submittal shall include source of asphaltic materials, laboratory test results as specified in 302 of these Specifications and Addenda thereto, and equipment listing for spreaders, finishers and rollers to be used. Contractor shall submit a separate mix design, complete as specified hereto, for each permanent asphalt type required for the project. Owner shall, at owners discretion, perform materials testing to ensure control of materials and installation. Contractor shall notify Inspector no less than 24-hours prior to asphalt placement. These requirements shall be considered inclusive to the permanent paving pay items.

S-33 MACHINE FINISH PERMANENT PAVING

Unless otherwise specified or approved by owner, permanent paving restoration of cuts greater than eight (8) feet width in asphalt requires machine spreading and machine finishing, and greater than eight (8) feet width in concrete requires machine finishing, per 302.9.6.6 and 303.5.6, of these specifications, respectively and addenda thereto. These requirements shall be considered inclusive to the permanent paving pay items.

S-34 **PERMANENT PAVEMENT RESTORATION COMMENCEMENT**

As a condition of the street cut permit, issued on behalf of Contractor and per Dallas City Code Chapter 43 by Ordinance 24495, amended by Ordinance 25409 and then amended by Ordinance 29993: Contractor is notified that permanent paving restoration shall commence no later than 14 calendar days after paving release is issued. **Liquidated Damages shall be \$500.00 per calendar day.**

S-35 **CITY OF DALLAS ORDINANCE 29993**

Ordinance 29993, amending the street cut permit conditions and requirements of the City Code, went into effect as a result of Council action on 1/27/2016 by Resolution 16-0193, and is made part of this contract as per 107.16 of these specifications and addenda thereto.

S-36 **PERMANENT PAVING REPAIR LIMITS**

City of Dallas Pavement Cut and Repair Standards establish the minimum repair standard required and rules for determining actual extent necessary. Some project locations require the extent of paving repairs in excess of the minimum repair extent, up to and including the full width of the street. Quantities for these locations have been calculated and included in the contract. Final determination of paving limits will be made by the City of Dallas at these locations prior to release to contractor for final paving repairs. All paving repairs are considered Contract Work. Compensation will be at the bid unit rates established for the bid items, as applicable. Repairs necessitated as a result of contractor's inadequate construction means and methods, or due to contractor damage to adjacent property are non-compensatory repairs.

S-37 TEXAS WATER DEVELOPMENT BOARD LOAN

TWDB requires that bidders be aware of the following:

1. "Any contract or contracts awarded under this Invitation for Bids are expected to be funded in part by a loan from the Texas Water Development Board and shall be referred to as Project Numbers DWSRF 62741 CWSRF 73757. Neither the State of Texas nor any of its departments, agencies, or employees is or will be a party to this Invitation for Bids or any resulting contract."
2. This project is subjected to the American Iron and Steel (AIS) requirements of Section 608 of the Federal Water Pollution Control Act, including federal appropriation acts. All Iron and steel products for construction, alteration, maintenance, or repairs incorporated in these plans must be produced in the United States.
3. Pipeline crossings of all potential waters of the U.S. will be performed using trenchless technology or, if open trench, in compliance with Nationwide Permit 12-Utility Line Activities. If project activities within potential waters of the U.S. would not qualify under a nationwide permit, then the appropriate permit from the U.S. Army Corps of Engineers would be required prior to clearing or construction activities.
4. Prior to construction activities within any 100-year floodplain, a flood plain permit, or exemption must be obtained from the local Floodplain Administrator (National Insurance Program).
5. The project must also comply with the following conditions:
 - o Standard emergency condition for the discovery of cultural resources.
 - o Standard emergency condition for the discovery of threatened and endangered species.

S-38 STAY HOME STAY SAFE – RULES FOR THE CONSTRUCTION INDUSTRY

The City of Dallas adopted the Dallas County Amended Emergency Order dated March 29, 2020 (County Order) as part of Dallas' Third Amended Emergency Regulations with certain "exceptions and additions."

One of the Sections of the County's Order the City adopted is the Stay Home Stay Safe Rules for the Construction Industry. These rules provide guidelines that construction businesses must follow.

Dallas has also adopted Section 2(b)(Xi) (Construction) of the County Order. Construction contractors will find pertinent additional information regarding construction activities contractors must follow.



Stay Home Stay Safe

Rules for the Construction Industry

This document provides guidance for persons and business associated with the building and construction industries and trades on the meaning and application of Order issued by Dallas County Judge Clay Jenkins on March 29, 2020 (the "Order").

Reason for Construction Rules. The purpose of these rules is to outline the steps that every employer and employee must take to reduce the risk of exposure to COVID-19. The rules describe how to prevent worker exposure to coronavirus, protective measures to be taken on the jobsite, and cleaning and disinfecting procedures.

Construction as Critical Infrastructure. The Order classified construction for public works, residential, commercial, and schools as critical infrastructure. Elective additions and maintenance are prohibited.

Requirements for Construction. All employers involved in construction activity must follow the requirements set forth in the COVID-19 Safety Recommendations issued by the Construction Industry Safety Coalition, including the rules below:

1. Mandatory temperature checks of all workers before they leave home. If a worker has a temperature above 99.6 degrees Fahrenheit, then they are prohibited from going to work and must remain at their residence;
2. Temperature checks of all workers with a forehead thermometer at the construction site before they may begin work. If an employee or contractor has a temperature above 99.6 degrees Fahrenheit, then they are to be sent home immediately;
3. Implement shift work;
4. Limit crossover of subcontractors;
5. Prohibit gatherings during meals or breaks;
6. Keep a 6 foot distance between people at all times, unless the work being performed requires multiple individuals for the safety of the workers;
7. Do not use a common water cooler. Provide individual water bottles or instruct workers to bring their own;



8. Allow non-essential personnel to work from home when possible;
9. Provide soap and water and hand sanitizer in the workplace, including all restrooms. Ensure that adequate supplies are maintained;
10. Mandatory handwashing of at least twenty (20) seconds for workers during the following:
 - a. Before workers begin work;
 - b. After workers remove gloves;
 - c. Before and after the use of shared items such as tools or multi-user devices;
 - d. Before and after any meal or restroom breaks; and
 - e. After a worker's shift or work time ends.
11. Mandatory rest breaks of at least fifteen (15) minutes for every four (4) hours worked so workers may follow hygiene guidelines;
12. Provide one (1) working flushing toilet for every fifteen (15) workers on site or one (1) outdoor portable toilet for every 10 workers on site;
13. No adverse action taken against an employee who has been quarantined, or advised to self-quarantine, due to possible exposure to coronavirus; and
14. Designate a COVID-19 safety monitor on each site who has the authority to enforce these rules.

Enforcement. Failure to strictly comply with this Order can result in penalties described below. Additionally, the general contractor and non-compliant subcontractor can be removed from the essential business list.

See attached Memo.

S-39 **NEIGHBORHOOD JOB OPPORTUNITIES**

Notice is hereby given to all prospective Bidders for City of Dallas construction projects, pursuant to City Council Resolution 90-1961, that all construction Bid Proposals received by the City of Dallas after October 1, 1990, shall comply with the following City of Dallas Policy:

The goal of the Neighborhood Job Opportunities Program is to encourage "BID" in hiring unemployed Dallas residents. The Contractor agrees to make a "BID" to promote the City's Job opportunity program regardless of the jurisdictional location of the project.

The Bidder certifies by submission of his bid that if awarded the contract the Bidder will:

1. Post signs at the job site, providing information on employment opportunities, the location of the employment office, the telephone number, and the name of the contact person.
2. Make BID Plan to hire unemployed Dallas residents when hiring new employees.
3. Provide monthly reports indicating the number of employees hired during the month on all contracts and the number of Dallas residents hired, and
4. The Contractor shall establish an on-site employment office/center on contracts in excess of \$5,000,000.00. In those cases where the construction site lies outside the City limits of Dallas, the Contractor may establish an employment office/center inside the City limits of Dallas in lieu of the on-site location.

The following form shall be utilized for the monthly report in accordance with Item 3 above:

**PRE-BID INQUIRIES AND PRE-BID INSPECTION INQUIRIES
FOR
CONTRACT NO. 19-263/264**

QUESTIONS

ALL PRE-BID INQUIRIES MUST BE SUBMITTED IN WRITING. ONLY WRITTEN QUESTIONS WILL RECEIVE A RESPONSE. A RESPONSE WILL BE ISSUED BY ADDENDUM TO ALL WRITTEN QUESTIONS SUBMITTED. FAX, EMAIL OR MAIL PRE-BID INQUIRIES AS APPROPRIATE TO PERSON LISTED IN PART A - INFORMATION TO BIDDERS; **SPECIAL PROVISION S-2.**

Example Format:

Company Name: _____
 Project Name: _____
 Contract No.: _____
 Question(s) By: _____
 Date Submitted: _____

Question No.	Question	Plan Sheet and/or Spec. Reference
1.		
2.		
3.		
4.		
5.		
6.		

A 4. BID ITEMS

ITEM NO. 1200D 2" COPPER WATER MAIN

This item consists of furnishing and placing approximately 70 Linear Feet of 2" Copper Water Pipe in accordance with Item 501.10. Seamless Copper Tubing, , Item 506. Open Cut – Water Conduit Installation, Item 506.5.COD: Hydrostatic Test, Item 506.6.COD: Connections To Existing Water Conduits, Item 506.6.1.COD: Water Main Tie-In During Off Hours, Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger, Item 506.7.3.2.COD: Flushing Method, Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water, Item 506.7.1.COD: Preliminary Flushing, Item 506.7.2.COD: Chlorination, Item 506.7.3.COD: Flushing, Item 506.7.4.COD: Disposal of Flushing Water, Item 506.7.5.4.COD: Sampling, Item 506.7.6.COD: Indemnification, and Item 506.8.1.COD: Cut and Plugs of these specifications and addenda thereto.

This item includes all fittings, polywrap (AWWA C105-99), barricading, and all embedment materials.

Measurement and payment will be in accordance with Item 506.9. Measurement and Payment of these specifications.

ITEM NO. 1500H 6" DUCTILE IRON WATER PIPE

This item consists of furnishing and placing approximately 20 Linear Feet of 6" Ductile Iron Water Pipe in accordance with Item 506. Open Cut – Water Conduit Installation, Item 506.5.COD: Hydrostatic Test, Item 506.6.COD: Connections To Existing Water Conduits, Item 506.6.1.COD: Water Main Tie-In During Off Hours, Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger, Item 506.7.3.2.COD: Flushing Method, Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water, Item 506.7.1.COD: Preliminary Flushing, Item 506.7.2.COD: Chlorination, Item 506.7.3.COD: Flushing, Item 506.7.4.COD: Disposal of Flushing Water, Item 506.7.5.4.COD: Sampling, Item 506.7.6.COD: Indemnification, Item 506.8.1.COD: Cut and Plugs and Item 501.7.COD: Ductile-Iron Pressure Pipe and Fittings of these specifications and addenda thereto.

This item includes all fittings, polywrap (AWWA C105-99), barricading, and all embedment materials.

Measurement and payment will be in accordance with Item 506.9. Measurement and Payment of these specifications.

ITEM NO. 1500J**8" DUCTILE IRON WATER PIPE**

This item consists of furnishing and placing approximately 10 Linear Feet of 8" Ductile Iron Water Pipe in accordance with **Item 506. Open Cut – Water Conduit Installation**, **Item 506.5.COD: Hydrostatic Test**, **Item 506.6.COD: Connections To Existing Water Conduits**, **Item 506.6.1.COD: Water Main Tie-In During Off Hours**, **Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger**, **Item 506.7.3.2.COD: Flushing Method**, **Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water**, **Item 506.7.1.COD: Preliminary Flushing**, **Item 506.7.2.COD: Chlorination**, **Item 506.7.3.COD: Flushing**, **Item 506.7.4.COD: Disposal of Flushing Water**, **Item 506.7.5.4.COD: Sampling**, **Item 506.7.6.COD: Indemnification**, **Item 506.8.1.COD: Cut and Plugs** and **Item 501.7.COD: Ductile-Iron Pressure Pipe and Fittings** of these specifications and addenda thereto.

This item includes all fittings, polywrap (AWWA C105-99), barricading, and all embedment materials.

Measurement and payment will be in accordance with **Item 506.9. Measurement and Payment** of these specifications.

ITEM NO. 1800F**4" PVC WATER PIPE**

This item consists of furnishing and placing approximately 620 Linear Feet of 4" Polyvinyl Chloride Water Pipe (C-900) in accordance with **Item 506. Open Cut – Water Conduit Installation**, **Item 506.5.COD: Hydrostatic Test**, **Item 506.6.COD: Connections To Existing Water Conduits**, **Item 506.6.1.COD: Water Main Tie-In During Off Hours**, **Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger**, **Item 506.7.3.2.COD: Flushing Method**, **Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water**, **Item 506.7.1.COD: Preliminary Flushing**, **Item 506.7.2.COD: Chlorination**, **Item 506.7.3.COD: Flushing**, **Item 506.7.4.COD: Disposal of Flushing Water**, **Item 506.7.5.4.COD: Sampling**, **Item 506.7.6.COD: Indemnification**, **Item 506.8.1.COD: Cut and Plugs**, **Item 501.14. Polyvinyl Chloride (PVC) Water Pipe**, **Item 501.14.5.COD: Fittings**, and **Item 501.14.6.COD: NSF 61 Compliance** of these specifications and addenda thereto.

This item includes fittings, polywrap for fittings, mechanical tamping, diagonal utilities, barricading and all embedment materials.

Measurement and payment will be in accordance with **Item 506.9. Measurement and Payment** of these specifications.

ITEM NO. 1800H**6" PVC WATER PIPE**

This item consists of furnishing and placing approximately 700 Linear Feet of 6" Polyvinyl Chloride Water Pipe (C-900) in accordance with Item 506. Open Cut – Water Conduit Installation, Item 506.5.COD: Hydrostatic Test, Item 506.6.COD: Connections To Existing Water Conduits, Item 506.6.1.COD: Water Main Tie-In During Off Hours, Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger, Item 506.7.3.2.COD: Flushing Method, Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water, Item 506.7.1.COD: Preliminary Flushing, Item 506.7.2.COD: Chlorination, Item 506.7.3.COD: Flushing, Item 506.7.4.COD: Disposal of Flushing Water, Item 506.7.5.4.COD: Sampling, Item 506.7.6.COD: Indemnification, Item 506.8.1.COD: Cut and Plugs, Item 501.14. Polyvinyl Chloride (PVC) Water Pipe, Item 501.14.5.COD: Fittings, and Item 501.14.6.COD: NSF 61 Compliance of these specifications and addenda thereto.

This item includes fittings, polywrap for fittings, mechanical tamping, diagonal utilities, barricading and all embedment materials.

Measurement and payment will be in accordance with Item 506.9. Measurement and Payment of these specifications.

ITEM NO. 1800J**8" PVC WATER PIPE**

This item consists of furnishing and placing approximately 15,610 Linear Feet of 8" Polyvinyl Chloride Water Pipe (C-900) in accordance with Item 506. Open Cut – Water Conduit Installation, Item 506.5.COD: Hydrostatic Test, Item 506.6.COD: Connections To Existing Water Conduits, Item 506.6.1.COD: Water Main Tie-In During Off Hours, Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger, Item 506.7.3.2.COD: Flushing Method, Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water, Item 506.7.1.COD: Preliminary Flushing, Item 506.7.2.COD: Chlorination, Item 506.7.3.COD: Flushing, Item 506.7.4.COD: Disposal of Flushing Water, Item 506.7.5.4.COD: Sampling, Item 506.7.6.COD: Indemnification, Item 506.8.1.COD: Cut and Plugs, Item 501.14. Polyvinyl Chloride (PVC) Water Pipe, Item 501.14.5.COD: Fittings, and Item 501.14.6.COD: NSF 61 Compliance of these specifications and addenda thereto.

This item includes fittings, polywrap for fittings, mechanical tamping, diagonal utilities, barricading and all embedment materials.

Measurement and payment will be in accordance with Item 506.9. Measurement and Payment of these specifications.

ITEM NO. 1800L**12" PVC WATER PIPE**

This item consists of furnishing and placing approximately **2,640** Linear Feet of 12" Polyvinyl Chloride Water Pipe (C-900) in accordance with **Item 506. Open Cut – Water Conduit Installation, Item 506.5.COD: Hydrostatic Test, Item 506.6.COD: Connections To Existing Water Conduits, Item 506.6.1.COD: Water Main Tie-In During Off Hours, Item 506.6.2.COD: Shutdown of Water Mains 20" Diameter and Larger, Item 506.7.3.2.COD: Flushing Method, Item 506.7.COD: Disposal of Heavily Chlorinated Water Main Flushing Water, Item 506.7.1.COD: Preliminary Flushing, Item 506.7.2.COD: Chlorination, Item 506.7.3.COD: Flushing, Item 506.7.4.COD: Disposal of Flushing Water, Item 506.7.5.4.COD: Sampling, Item 506.7.6.COD: Indemnification, Item 506.8.1.COD: Cut and Plugs, Item 501.14. Polyvinyl Chloride (PVC) Water Pipe, Item 501.14.5.COD: Fittings, and Item 501.14.6.COD: NSF 61 Compliance** of these specifications and addenda thereto.

This item includes fittings, polywrap for fittings, mechanical tamping, diagonal utilities, barricading and all embedment materials.

Measurement and payment will be in accordance with **Item 506.9. Measurement and Payment** of these specifications.

ITEM NO. 3000H**6" CLAY WASTEWATER PIPE**

This item consists of furnishing and placing approximately **50** Linear Feet of 6" Clay Wastewater Pipe in accordance with **Item 507. Open Cut – Wastewater Conduit Installation, Item 507.5.1.1.COD: Infiltration Test, and Item 501.2. Clay Wastewater Pipe** of these specifications and addenda thereto.

This item to include all embedment materials and barricading.

Measurement and payment will be in accordance with **Item 507.6. Measurement and Payment For Wastewater Conduit Installation** of these specifications.

ITEM NO. 3000J**8" CLAY WASTEWATER PIPE**

This item consists of furnishing and placing approximately **50** Linear Feet of 8" Clay Wastewater Pipe in accordance with **Item 507. Open Cut – Wastewater Conduit Installation, Item 507.5.1.1.COD: Infiltration Test, and Item 501.2. Clay Wastewater Pipe** of these specifications and addenda thereto.

This item to include all embedment materials and barricading.

Measurement and payment will be in accordance with **Item 507.6. Measurement and Payment For Wastewater Conduit Installation** of these specifications.

ITEM NO. 3110J

8" PVC PRESSURE RATED WASTEWATER PIPE

This item consists of furnishing and placing approximately **7,310** Linear Feet of **8"** Polyvinyl Chloride Pressure Rated Wastewater Pipe conforming to ASTM D2241 (DR 26) Minimum Pressure Rating of 160 PSI and ASTM D3139 joints, and in accordance with **Item 507. Open Cut – Wastewater Conduit Installation, Item 507.5.1.1.COD: Infiltration Test, and Item 501.15. Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)** of these specifications and addenda thereto.

This item to include barricading and all embedment materials.

Measurement and payment will be in accordance with **Item 507.6. Measurement and Payment For Wastewater Conduit Installation** of these specifications.

ITEM NO. 3110K

10" PVC PRESSURE RATED WASTEWATER PIPE

This item consists of furnishing and placing approximately **730** Linear Feet of **10"** Polyvinyl Chloride Pressure Rated Wastewater Pipe conforming to ASTM D2241 (DR 26) Minimum Pressure Rating of 160 PSI and ASTM D3139 joints, and in accordance with **Item 507. Open Cut – Wastewater Conduit Installation, Item 507.5.1.1.COD: Infiltration Test, and Item 501.15. Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)** of these specifications and addenda thereto.

This item to include barricading and all embedment materials.

Measurement and payment will be in accordance with **Item 507.6. Measurement and Payment For Wastewater Conduit Installation** of these specifications.

ITEM NO. 3110L

12" PVC PRESSURE RATED WASTEWATER PIPE

This item consists of furnishing and placing approximately **1,030** Linear Feet of **12"** Polyvinyl Chloride Pressure Rated Wastewater Pipe conforming to ASTM D2241 (DR 26) Minimum Pressure Rating of 160 PSI and ASTM D3139 joints, and in accordance with **Item 507. Open Cut – Wastewater Conduit Installation, Item 507.5.1.1.COD: Infiltration Test, and Item 501.15. Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)** of these specifications and addenda thereto.

This item to include barricading and all embedment materials.

Measurement and payment will be in accordance with **Item 507.6. Measurement and Payment For Wastewater Conduit Installation** of these specifications.

ITEM NO. 3560**CONNECTION TO EXISTING MANHOLE**

This item consists of furnishing and placing approximately 2 Each Connection to an Existing Manhole, in accordance with **Item 502.1. Manholes, Item 502.1.2.COD: Wastewater Manhole Adjustments, Item 502.1.4.8.COD: Wastewater Manhole Frame Seals, and Item 502.1.7.COD: Manhole Backfill** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be per each in place in accordance with **Item 502.1.6.COD: Measurement and Payment of Manholes** of these specifications.

ITEM NO. 3570HxJ**PIPE BURSTING OF EXISTING 6" WASTEWATER MAIN WITH 8" WASTEWATER MAIN**

This item consists of Pipe Bursting approximately 336 Linear Feet of 8" Wastewater Main with 6" Wastewater Main in accordance with the **DWU Standard Technical Specifications Manual, Latest Edition**. This item to include all labor, materials, equipment, barricading, and incidentals required to complete the pipe bursting replacement of the wastewater main in accordance with these specifications and addenda thereto.

Measurement shall be the actual Linear Footage of main replaced. Payment shall be at the contract Unit Price per Linear Foot complete in place.

ITEM NO. 3570KxL**PIPE BURSTING OF EXISTING 10" WASTEWATER MAIN WITH 12" WASTEWATER MAIN**

This item consists of Pipe Bursting approximately 170 Linear Feet of 10" Wastewater Main with 12" Wastewater Main in accordance with the **DWU Standard Technical Specifications Manual, Latest Edition**. This item to include all labor, materials, equipment, barricading, and incidentals required to complete the pipe bursting replacement of the wastewater main in accordance with these specifications and addenda thereto.

Measurement shall be the actual Linear Footage of main replaced. Payment shall be at the contract Unit Price per Linear Foot complete in place.

ITEM NO. 5020**EXTRA IRON FITTINGS**

This item consists of furnishing and placing approximately 20 Tons of Iron Fittings in accordance with **Item 501.7.4.COD: Fittings and Item 502.5.2.COD: All Other Fittings** of these specifications and addenda thereto.

This is a **Contingency** item and is intended to provide compensation for extra fittings not called for on the plans, which are required for changes in horizontal or vertical alignment of water mains, as approved by the Construction Engineer, to avoid conflicts with existing utilities. The use of Ductile Iron Compact fittings for this item is prohibited.

Measurement and payment will be per ton of fittings installed at the CONTRACT unit price.

ITEM NO. 5050**WATER SERVICE**

This item consists of furnishing and placing approximately **295** Each Water Service on an existing or new water main. This item includes all sizes of water services, 3/4" through 2", water meter boxes and meters, 5/8" through 2". This item does not include Commercial Water Meter Vaults. This item includes tapping of the existing or new water main, removing the existing meter box and lid and old service line and replacing with a new meter box and approved lid, transferring the water service to the meter, adjusting the meter box and meter vertically and horizontally as required, and installing a new service line from the new meter box to the property line in accordance with **Item 502.10.3.2. Services and Bullheads, Item 502.10.3.2.1.COD: Procedures for Transferring Service, Item 502.10.3.2.1.1.COD: IN ADVANCE OF PAVING or Item 502.10.3.2.2.COD: NOT IN ADVANCE OF PAVING, Item 502.10.3.4.COD: NSF 61 Compliance and Item 504.2.3.6.COD: OPEN CUT WASTEWATER LATERAL AND WATER SERVICES** of these specifications and addenda thereto, and the applicable Standard Drawings.

The new meter box and lid shall be replaced to the proper grade and relocated to the correct location on a sand cushion. The disturbed area around the meter box will be replaced with sod in accordance with **Item 202.5. Sodding**, or concrete in accordance with **Item 305.2. Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps, and Item 305.2.2.2.COD: Reinforcement** to match the existing surface. If the meter is determined by the Project Manager to be defective, it will be replaced with a new meter, furnished by the City.

This bid item will also be utilized to provide a water service to a vacant lot where no meter transfer is involved. It will be the Contractor's responsibility to relocate the existing backflow prevention devices on the existing water service between the meter and property line to a proper location as directed by the Project Manager. Should any additional services be found necessary, they will be added to the contract at the same Unit Price. Likewise, should any of the listed services not be necessary, they will be removed from the contract without having any effect on the Unit Price. The provisions of **Item 104.2.1. Increased Or Decreased Quantities of Work** of the specifications regarding negotiating for revised consideration for over/underruns **do not** apply to this item.

Measurement and payment will be in accordance with **Item 502.10.3.2.2. Measurement and Payment** of these specifications and will include any costs for pipe, copper, equipment, materials and labor, all boring, tapping, crossing diagonal utilities, costs for barricading, trench safety and support for these services, encasement, embedment, and all temporary paving related items (saw-cut, base, asphalt, concrete, sidewalk, driveways, curb and/or gutter, sod), and all other work associated with this item.

ITEM NO. 5091**INSTALL FIRE HYDRANT**

This item consists of furnishing and placing approximately 27 Each Fire Hydrant in accordance with Item 502.3. Fire Hydrants, Item 502.3.1.COD: Materials, Item 502.3.1.2.COD: Breakable Type Hydrants, Item 502.3.1.3.COD: Main Valve Seats, Item 502.3.1.4.COD: Nozzle Cap Chains, Item 502.3.1.5.COD: Flanges, Item 502.3.1.6.COD: Operating Stems, Item 502.3.1.7.COD: O-Rings, Item 502.3.1.8.COD: Provisions For Extension, Item 502.3.1.11.COD: Upperstem thread Lubrication, Item 502.3.1.12.COD: Tests and Affidavit of Compliance, Item 502.3.1.14.COD: Rejection, Item 502.3.1.15.COD: Protection of Stem Threads, Item 502.2.2.COD: Installation, Item 502.3.17.COD: Hydrant Approval of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with Item 502.3.3.COD: Measurement and Payment of these specifications and will include all items necessary to furnish and install a fire hydrant; including barricading, all paving removal and replacement, saw-cut, embedment, and concrete blocking required. This item does not include any of the fire hydrant lead. That pipe will be paid for under the appropriate 6" D.I. or 6" PVC Water Pipe bid item.

ITEM NO. 5092**REMOVING EXISTING FIRE HYDRANT**

This item consists of Removing, in the most economical manner, approximately 21 Each Existing Fire Hydrant. If the Project Manager determines the fire hydrant is to be salvaged and paid for under Item No. 5093, the Contractor must take necessary precautions to insure the fire hydrant is not damaged. A cap or plug on the existing fire hydrant lead is included with this item.

ITEM NO. 5093**DELIVER FIRE HYDRANT**

This item consists of delivering approximately 21 Each Existing Fire Hydrant.

This item to include loading and hauling the fire hydrant to the Dallas Water Utilities Yard located at 2863 Municipal St. The Contractor shall contact Distribution 24-48 hours prior to delivery.

This item is a **contingent item** and payment will be made only if directed by the Project Manager. If delivery is not directed, the fire hydrant shall become the property of the Contractor.

ITEM NO. 5100F 4" GATE VALVE

This item consists of furnishing and placing approximately **6** Each **4"** Gate Valve in accordance with **Item 502.6.6.COD: Line Valve Installation and Item 502.6.1.COD: Double Disk, Metal Seated Gate Valves For Ordinary Waterworks Service Or Item 502.6.2.COD: Resilient-Seated Gate Valves For Ordinary Waterworks Service** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with **Item 502.6.8.COD: Measurement and Payment** of these specifications.

ITEM NO. 5100H 6" GATE VALVE

This item consists of furnishing and placing approximately **31** Each **6"** Gate Valve in accordance with **Item 502.6.6.COD: Line Valve Installation and Item 502.6.1.COD: Double Disk, Metal Seated Gate Valves For Ordinary Waterworks Service Or Item 502.6.2.COD: Resilient-Seated Gate Valves For Ordinary Waterworks Service** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with **Item 502.6.8.COD: Measurement and Payment** of these specifications.

ITEM NO. 5100J 8" GATE VALVE

This item consists of furnishing and placing approximately **96** Each **8"** Gate Valve in accordance with **Item 502.6.6.COD: Line Valve Installation and Item 502.6.1.COD: Double Disk, Metal Seated Gate Valves For Ordinary Waterworks Service Or Item 502.6.2.COD: Resilient-Seated Gate Valves For Ordinary Waterworks Service** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with **Item 502.6.8.COD: Measurement and Payment** of these specifications.

ITEM NO. 5100L 12" GATE VALVE

This item consists of furnishing and placing approximately **24** Each **12"** Gate Valve in accordance with **Item 502.6.6.COD: Line Valve Installation and Item 502.6.1.COD: Double Disk, Metal Seated Gate Valves For Ordinary Waterworks Service Or Item 502.6.2.COD: Resilient-Seated Gate Valves For Ordinary Waterworks Service** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with **Item 502.6.8.COD: Measurement and Payment** of these specifications.

ITEM NO. 5110LxJ 12" x 8" TAPPING SLEEVE

This item consists of furnishing and placing approximately **6** Each **12" x 8"** Tapping Sleeve in accordance with **Item 502.6.1.17. Tapping Valves** and **Item 502.10.2.3. Tapping Sleeves** of these specifications and addenda thereto.

Measurement and payment will be in accordance with **Item 502.5.3.COD: Measurement and Payment** of these specifications.

ITEM NO. 5160AG 60" DIAMETER WATER MANHOLE

This item consists of furnishing and placing approximately **1** Each **60"** Diameter Manhole in accordance with **Item 502.1. Manholes**, **Item 502.1.2.COD: Wastewater Manhole Adjustments**, **Item 502.1.4.8.COD: Wastewater Manhole Frame Seals**, and **Item 502.1.7.COD: Manhole Backfill** of these specifications and addenda thereto, and the applicable Standard Drawings.

Barricading is included in this item. Nonshrink grout shall be used in place of mortar.

Measurement and payment will be in accordance with **Item 502.1.6.COD: Measurement and Payment of Manholes** of these specifications per each complete in place.

ITEM NO. 5600 CUT AND PLUG EXISTING WATER MAIN

This item consists of approximately **6** Each Cut and Plug Existing Water Main as indicated on the plans. The cast iron plug and barricading shall be incidental to this bid item.

Measurement and payment will be per each complete in place and shall include all labor, materials, and equipment necessary to Cut and Plug Existing Water Main.

ITEM NO. 5610 CUT AND PLUG WATER MAIN FOR TEST

This item consists of **15** Each Cut and Plug Water Main for Test.

This is a contingent item to be used if approved by the Project Manager, in the event pressure testing of the newly constructed main proves unsatisfactory because of leaks in the existing system. In such case, the Contractor must isolate the new construction, perform the required test, and then tie the newly constructed main to the existing water main.

Measurement and payment will be per each complete in place and shall include all labor, materials, and equipment necessary to Cut and Plug Existing Water Main for Test.

ITEM NO. 5650

REMOVAL OF LEAD PIPE JOINTS

This item consists of cutting and removal of **5** Each of lead pipe joint(s) on iron pipes in order to facilitate the tie-in of new piping onto the pre-existing iron pipe. The limit of each joint removal is 20 linear feet.

This item shall include only the labor and equipment required to cut, remove and dispose of the lead joints and connecting the existing iron pipe to the new pipe. This item does not include payment for any materials or incidentals necessary to complete the work. The provisions of **Item 104.2.1. Increased Or Decreased Quantities of Work** of the Specifications regarding negotiating for revised consideration for over/underruns **do not** apply to this item.

This item is a contingent item and payment will be made only if directed by the DWU Construction Superintendent.

Measure and Payment shall be at the Contract Unit Price per each.

ITEM NO. 5750B

1" FLUSH POINT

This item consists of furnishing and placing approximately **2** Each 1" Flush Point, complete, in accordance with **Item 502.10.3. Water Conduit Connections**, **Item 502.10.3.1.1.COD: Taps**, **Item 502.10.3.1.2.COD: Tap Assemblies**, and **Item 502.10.3.1.4.COD: Tapping Ductile Iron Pipe**, **Item 502.10.3.1.5.COD: Tapping Concrete Pipe**, or **Item 502.10.3.1.7.COD: Tapping of PVC Pipe** of these specifications and addenda thereto, and the applicable Standard Drawings.

Measurement and payment will be in accordance with **Item 502.10.3.1.8. Measurement and Payment** of these specifications.

ITEM NO. 6060**WASTEWATER LATERAL**

This item consists of furnishing and placing approximately **172** Each Wastewater Lateral on an existing or new wastewater main. This item will include street, alley, and easement laterals with cleanouts, with or without caps in accordance with **Item 502.10.4. Wastewater Conduit Connections, Item 502.10.4.1.COD: Service Connection, and Item 504.2.3.6.COD: OPEN CUT WASTEWATER LATERAL AND WATER SERVICES** of these specifications and addenda thereto, and the applicable Standard Drawings.

Laterals will be replaced with the same size and type as the existing lateral or as indicated on the plans, with a minimum of 6" diameter pipe required. This item will include, if required, Polyvinyl Chloride Pressure Rated Laterals conforming to ASTM D2241 (DR 26), minimum pressure rating of 160 PSI and ASTM D3139 joints. If a deep cut connection is required, the costs will be included in this item.

The replacement shall include removal of the existing lateral, plugging the existing lateral near the main, installing a new lateral with cleanout by removing a portion of the existing main, installing a wye, connecting to the existing main with adapters for 6" and 8" mains and by tapping mains 10" and larger, installing a new lateral with cleanout and connection to the existing house lateral. Should a private wastewater lateral not exist, a wastewater mainline lateral shall be installed with a cleanout and cap, or a cap only as indicated on the plans. The disturbed area around the cleanout will be replaced with sod in accordance with **Item 202.5. Sodding**, or concrete or asphalt in accordance with **Item 305.2. Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps, and Item 305.2.2.2.COD: Reinforcement** to match the existing surface. The Contractor shall furnish a cleanout casting if lost, stolen, or damaged due to Contractor's negligence. Should any additional laterals be found necessary, they will be added to the contract at the same Unit Price. Likewise, should any of the listed laterals not be necessary, they will be removed from the contract without having any effect on the unit price. The provisions of **Item 104.2.1. Increased Or Decreased Quantities of Work** of the specifications regarding negotiating for revised consideration for over/underruns do not apply to this item

Measurement and payment will be in accordance with **Item 502.10.4.3. Measurement and Payment** of these specifications, and will include any costs for pipe, equipment, materials and labor, deep cut connections, all boring, encasement, crossing diagonal utilities, costs for barricading, trench safety and support for these laterals, embedment, and all temporary paving related items (saw-cut, base, asphalt, concrete, sidewalk, driveways, curb and/or gutter, sod) and all other work associated with this item.

ITEM NO. 6100**WASTEWATER ACCESS DEVICE**

This item consists of furnishing and placing approximately **9** Each Wastewater Access Device in accordance with the plans and Standard Drawings.

Removal of any existing conflicting manhole or cleanout, if required, will be included in this item. This item shall include barricading.

Measurement and payment will be paid for at contract Unit Price per Each, complete in place, as shall be the total compensation for the furnishing of all labor, materials, tools and equipment and incidentals necessary to complete the work, including each excavation, disposal of surplus materials, and backfill all in accordance with the plans and specifications.

ITEM NO. 6110AE**48" DIAMETER DROP CONNECTION MANHOLE**

This item consists of furnishing, placing, and protecting from corrosion by Epoxy Coating or other approved method approximately **5** Each **48"** Diameter Drop Connection Manhole in accordance with **Item 502.1. Manholes, Item 502.1.2.COD: Wastewater Manhole Adjustments, Item 502.1.4.8.COD: Wastewater Manhole Frame Seals, Item 502.1.4.9.COD: Interior Coatings For Manholes, and Item 502.1.7.COD: Manhole Backfill** of these specifications and addenda thereto, and the applicable Standard Drawings.

Removal of any existing conflicting manhole, if required, will be included in this item. Nonsrink grout shall be used in place of mortar. This item shall include barricading.

Measurement and payment will be in accordance with **Item 502.1.6.COD: Measurement and Payment of Manholes** of these specifications.

ITEM NO. 6130AE**48" DIAMETER WASTEWATER MANHOLE**

This item consists of furnishing, placing, and protecting from corrosion by Epoxy Coating or other approved method approximately **26** Each **48"** Diameter Manhole in accordance with **Item 502.1. Manholes, Item 502.1.2.COD: Wastewater Manhole Adjustments, Item 502.1.4.8.COD: Wastewater Manhole Frame Seals, Item 502.1.4.9.COD: Interior Coatings For Manholes, and Item 502.1.7.COD: Manhole Backfill** of these specifications and addenda thereto, and the applicable Standard Drawings.

Removal of any existing conflicting manhole, if required, will be included in this item. Nonsrink grout and precast concrete grade rings shall be used for adjustments of the ring and cover. This item is to include Wastewater Manhole Frame Seals for each manhole installed as per the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**. This item shall also include trench safety and barricades.

Measurement and payment will be in accordance with **Item 502.1.6.COD: Measurement and Payment of Manholes** of these specifications.

ITEM NO. 6130AG**60" DIAMETER WASTEWATER MANHOLE**

This item consists of furnishing, placing, and protecting from corrosion by Epoxy Coating or other approved method approximately 1 Each 60" Diameter Manhole in accordance with **Item 502.1. Manholes**, **Item 502.1.2.COD: Wastewater Manhole Adjustments**, **Item 502.1.4.8.COD: Wastewater Manhole Frame Seals**, **Item 502.1.4.9.COD: Interior Coatings For Manholes**, and **Item 502.1.7.COD: Manhole Backfill** of these specifications and addenda thereto, and the applicable Standard Drawings.

Removal of any existing conflicting manhole, if required, will be included in this item. Nonshrink grout and precast concrete grade rings shall be used for adjustments of the ring and cover. This item is to include Wastewater Manhole Frame Seals for each manhole installed as per the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**. This item shall also include trench safety and barricades.

Measurement and payment will be in accordance with **Item 502.1.6.COD: Measurement and Payment of Manholes** of these specifications.

ITEM NO. 6141**VACUUM TEST FOR WASTEWATER MANHOLE**

This item consists of performing approximately 31 Each Vacuum Test for Wastewater Manhole in accordance with **Item 502.1.5.2 Vacuum Testing Manholes** and **Item 507.5. Tests and Inspections** of these specifications.

This item shall include all materials, equipment, labor, and incidentals required to complete the test as specified. This item is a **contingent item** and payment will be made only if directed by the DWU Construction Superintendent. Should any of the listed tests not be necessary, they will be removed from the contract without having any effect on the Unit Price.

Measurement and payment shall be in accordance with **Item 502.1.5.2.1.COD: Measurement and Payment of Vacuum Testing Wastewater Manholes** of these specifications and addenda thereto.

ITEM NO. 6150AE**48" DIAMETER MANHOLE REHABILITATION**

This item consists of rehabilitating approximately 1 Each 48" Diameter Manhole with Epoxy Lining or other approved method in accordance with these specifications and addenda thereto, the applicable Standard Drawings and the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**.

This item includes barricading, pavement removal, replacement, and all other work required to complete the rehabilitation.

Measurement and payment shall be at contract Unit Price for complete and accepted work.

ITEM NO. 6240 TREE

This item consists of furnishing and placing approximately **9** Each Tree at locations approved by the Project Manager, in accordance with the latest edition of **DWU Standard Technical Specifications**.

Measurement and payment will be in accordance with the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**.

ITEM NO. 6250 SHRUBS, FLOWERS, GROUND COVER, ETC.

This item consists of furnishing and placing approximately **10** Each (Type/Size") Pots at locations approved by the Project Manager, in accordance with - Tree Planting, of these specifications.

Measurement and payment shall be at the Contract Unit Price for the completed and accepted work.

ITEM NO. 6260 CLEARING AND GRUBBING

This item consists of required Clearing and Grubbing within the limits shown on the plans and in accordance with **Item 202.1. Removal, Protection, and Replacement of Trees, Shrubbery, Plants, Sod, and Other Vegetation and Item 202.1.1.COD: Trees** of these specifications and addenda thereto.

Payment will be Lump Sum at contract bid price.

ITEM NO. 6270 FENCE REPLACEMENT

This item consists of installing **550** Linear Feet of various types of Fence to replace existing fences within the limits described on the plans.

Fences shall be installed plumb. They shall be constructed of new materials of like kind and same construction as the existing fences to be replaced. Replacement fences shall abut adjacent fences to maintain the completeness of previously enclosed areas. This item shall include any posts and footings, gates, and all accessory objects necessary to install and match the individual types of existing fences to be replaced.

This is a contingent item and payment will only be made if directed by the Project Manager.

Basis for payment shall be per Linear Foot of fence replaced.

ITEM NO. 6800 PROJECT PARTNERING

This item is intended for compensating the Contractor for all costs to implement Project Partnering as detailed in the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**.

This item to include hiring a third party facilitator, travel and lodging expenses, meeting room rental, program materials, reproduction costs and all costs associated with Contractor's own personnel, Subcontractors and Suppliers participating in partnering.

This is a **Contingent Item** and payment will be made, as directed by the Project Manager.

Payment for this item shall be Lump Sum.

ITEM NO. 6902 PLACEMENT OF BLOCK SODDING

This item consists of furnishing and placing approximately **540** Square Yards of Block Sodding in accordance with **Item 202.5.1. Description, Item 202.5.2. Materials, and Item 202.5.3.2. Solid Sodding** of these specifications and addenda thereto.

This is a contingent item and payment will be made, if placement is directed by the Project Manager.

Measurement will be specified ditch width with the length measured in Linear Feet.

Payment will be in accordance with **Item 202.5.4.COD: Measurement and Payment** of these Specifications.

ITEM NO. 6920 TELEVISION INSPECTION

This item consists of performing a Television Inspection on approximately **9,570** Linear Feet of Wastewater Main in accordance with **Item 507.5.2. Television Inspection** of these specifications and addenda thereto, and the **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition**.

Payment will be allowed only for inspections made to a particular section of main in accordance with **Item 507.5.2.4.COD: Measurement And Payment For Television Inspection On City Contracts**.

ITEM NO. 6925 TRENCH EXCAVATION SAFETY AND SUPPORT

This item consists of Trench Excavation Safety and Support for approximately **27,890** Linear Feet of trench in accordance with the Occupational Safety and Health Administration Standards 1926.652 "Requirements for Protective Systems".

Trench Excavation Safety and Support shall be measured along the centerline of the trench where trench is sloped to maintain angle of repose, a trench box is utilized or trench is shored.

Payment shall be allowed for all section of trench regardless of depth.

ITEM NO. 7030**ROCK FOUNDATION**

This item consists of furnishing and placing approximately **210** Cubic Yards of Rock Foundation at locations approved by the Project Manager, in accordance with **Item 504.3.2. Foundation** and **Item 504.2.2.4. Crushed Stone For Foundation** of these specifications and addenda thereto.

This is a **Contingent Item** and payment will be made as directed by the Project Manager.

Measurement and payment will be in accordance with **Item 504.3.2.1. Foundation Measurement** and **Item 504.3.2.2. Foundation Payment** of these specifications.

ITEM NO. 7040**STABILIZED BACKFILL**

This item consists of furnishing and placing approximately **2,880** Cubic Yards of Stabilized Backfill in accordance with **Item 504.6.2. Stabilized Backfill** of these specifications and addenda thereto, and as shown on the plans and detailed on the applicable Standard Drawings.

This is a **Contingent Item** and payment will be made as directed by the Project Manager. **See 107.27.COD: Environmental Compliance.**

Measurement and payment will be in accordance with **Item 504.7. Measurement and Payment of Backfill**, **Item 504.7.1. Measurement of Backfill Material**, and **Item 504.7.2. Payment of Backfill Material** of these specifications.

ITEM NO. 7041**FLOWABLE BACKFILL**

This item consists of furnishing and placing approximately **500** Cubic Yards of Flowable Backfill in accordance with **Item 504.6.6. Flowable Backfill** and **Item 504.2.3.4. Flowable Backfill** of these specifications and addenda thereto.

This is a **Contingent Item** and payment will be made as directed by the Project Manager. **See 107.27.COD: Environmental Compliance.**

Measurement and payment shall be at the contract Unit Price per Cubic Yard for completed and accepted work.

ITEM NO. 7043**FOUR "F" FLOWABLE BACKFILL**

This item consists of furnishing and placing approximately **500** Cubic Yards of Four "F" Flowable Backfill in accordance with **Item 504.6.8.COD: Four F Flowable Backfill** of these specifications and addenda thereto.

This is a **Contingent Item** and payment will be made as directed by the Project Manager. **See 107.27.COD: Environmental Compliance.**

Measurement and payment shall be at the contract Unit Price per Cubic Yard for completed and accepted work.

ITEM NO. 7044 FOUR "F" FLOWABLE BASE - HIGH STRENGTH, FAST SET

This item consists of furnishing and placing approximately **500 Cubic Yards** of Four "F" Flowable Base-High Strength, Fast Set in accordance with **Item IV.3.d of the Department of Public Works Pavement Cut and Repair Standards Manual, latest edition** of these specifications and addenda thereto.

This is a **Contingent Item** and payment will be made as directed by the Project Manager. **See 107.27.COD: Environmental Compliance.**

Measurement and payment shall be at the contract Unit Price per Cubic Yard for completed and accepted work. The price per unit of volume will remain the same, regardless of the volume used.

ITEM NO. 7045 GROUT FOR PIPELINE ABANDONMENT

This item consists of furnishing and placing approximately **100 Cubic Yards** of Cementitious Grout in accordance with **Item 504.6.8.COD: Four F Flowable Backfill and Item 504.2.3.4. Flowable Backfill** of these specifications and addenda thereto.

This is a contingent item and placement shall be made only as directed by the Project Manager.

Measurement and payment shall be at the contract Unit Price per Cubic Yard for completed and accepted work.

ITEM NO. 7050 SAND BACKFILL

This item consists of furnishing and placing approximately **564 Cubic Yards** of Sand Backfill at locations approved by the Project Manager, in accordance with **Item 504.6.5. Sand Backfill and Item 504.2.2.6. Sand** of these specifications and addenda thereto.

This is a **Contingent Item** and payment will be made as directed by the Project Manager.

Measurement and payment will be in accordance with **Item 504.7.2.2. Final Trench Backfill** of these specifications. The price per unit of volume will remain the same, regardless of the volume used.

ITEM NO. 7051 TOPSOIL

This item consists of furnishing and placing approximately **100 Square Yards** of Topsoil as per local Park Recreation Department Standards. **Topsoil** of these specifications and addenda thereto.

Payment will be made for topsoil salvaged, and all salvaged topsoil shall be used before any topsoil may be brought in. The basis of payment will be on the maximum permissible width of ditch as specified for type of kind of conduit to be constructed, as shown on the plans or Standard Drawings, plus two feet. This item to include all items required to furnish and place the topsoil under Section 0201 of the Park Department Specifications.

Measurement and payment will be in accordance with **Item 202.2.4. Measurement and Payment** of these specifications.

ITEM NO. 7052**CEMENT TREATED BASE BACKFILL**

This item consists of furnishing and placing approximately **100 Cubic Yards** of Cement Treated Base Backfill in accordance with **Item 504. Open Cut – Backfill** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.**

Measurement and payment will be in accordance with **Item 504.7. Measurement and Payment of Backfill, Item 504.7.1. Measurement of Backfill Material, and Item 504.7.2. Payment of Backfill Material** of these specifications and will include all materials, tools, labor and incidentals necessary to complete the work.

ITEM NO. 7071**CLASS "B" CONCRETE**

This item consists of furnishing and placing approximately **60 Cubic Yards** of Class "B" Concrete in accordance with **Item 504.3.2. Foundation, Item 502.4.1. Concrete Blocking, and Item 702.2. Mix Design and Mixing Concrete For Structures** of these specifications and addenda thereto, and the applicable Standard Drawings. **See 107.27.COD: Environmental Compliance.**

Measurement and payment will be in accordance with **Item 504.3.2.1. Foundation Measurement and Item 504.3.2.2. Foundation Payment or Item 502.4.4. Measurement and Payment** of these specifications.

ITEM NO. 7520**TEMPORARY PAVING (HOT MIX OR HIGH PERFORMANCE MIX)**

This item consists of furnishing, placing, and removing approximately **1,660 Tons** of Hot or High Performance Mix Asphalt Pavement for Temporary Paving, as authorized by the Engineer. Hot Mix Asphalt shall conform to **Item 302.9. Hot-Mix Asphalt Pavement and 403.2.3. Hot-Mix, Cold-Laid Asphaltic Concrete (Cold Mix)** of these specifications. Hot or High Performance Mix shall be placed in accordance with **Item 402.4. Replacing Paved Surfaces** of these specifications and addenda thereto.

The method of measurement for payment will be in Tons (2,000 pounds) of material in place and accepted. The basis of payment will be based on the maximum permissible width of ditch as specified for type or kind of conduit to be constructed as shown on the plans or Standard Drawings, and a compacted thickness of 2" over flexible base.

ITEM NO. 7525**FLEX BASE (CRUSHED ROCK) ALLEY SURFACE**

This item consists of removing existing alley surface, furnishing and placing approximately **410** Cubic Yards of Crushed Rock (Flexible Base) for final alley driving surface as authorized by the Project Manager in accordance with **Item 402.4.Replacing Paved Surfaces, and 301.5. Flexible Subbase Or Base (Crushed Stone/Concrete)** of these specifications and addenda thereto.

This item also includes haul off of spoil, grading, blading, hauling, spreading, and compacting the material. **Item 104.2.1. Increased Or Decreased Quantities of Work** of these specifications **does not** apply to this bid item.

The basis of payment will be based on the maximum permissible depth of 8" of compacted stone by approximately 10' wide or as specified by the Project Manager.

ITEM NO. 7530**CONCRETE CURB AND/OR GUTTER**

This item consists of furnishing and placing approximately **110** Linear Feet of Concrete Curb and/or Gutter in accordance with **Item 402.4.3. Replacing Curb, Gutter, Sidewalks, Driveways, Etc. and Item 305.1. Concrete Curb and Gutter** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.**

Measurement and payment will be in accordance with **Item 402.4.3.1. Measurement For Replacement of Curb, Gutter, Sidewalks, Driveways, Etc. and Item 402.4.10. Payment For Pavement Replacement** of these specifications.

ITEM NO. 7560**CRUSHED ROCK FOR TEMPORARY PAVING BASE**

This item consists of furnishing and placing approximately **1,560** Cubic Yards of Crushed Rock (Flexible Base) for Temporary Paving Base material in accordance with **Item 402.4.COD: Replacing Paved Surfaces and Item 301.5. Flexible Subbase Or Base (Crushed Stone/Concrete)** of these specifications and addenda thereto.

Measurement and payment will be in accordance with **Item 402.4.10. Payment For Pavement Replacement** of these specifications.

ITEM NO. 7570**REINFORCED CONCRETE PAVING**

This item consists of furnishing and placing approximately **670** Cubic Yards of Reinforced Concrete Paving in accordance with **Item 402.4.4. Replacing Reinforced Concrete Pavement, Item 303. Portland Cement Concrete Pavement and Item 303.2.1.3.2.COD: Gradation** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.**

This item shall also include removal and disposal of existing pavement, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.4.1. Measurement of Reinforced Concrete Pavement and Item 402.4.10. Payment For Pavement Replacement** of these specifications.

ITEM NO. 7575**TYPE 3K-2 REINFORCED CONCRETE PAVING**

This item consists of furnishing and placing approximately **100 Cubic Yards of Type 3K-2 Reinforced Concrete Paving** in accordance with **Item 402.4.4. Replacing Reinforced Concrete Pavement, Item 303. Portland Cement Concrete Pavement and Item 303.2.1.3.2.COD: Gradation** of these specifications, Dallas Street Cut Standard Manual, and addenda thereto. **See 107.27.COD: Environmental Compliance.**

This item shall also include removal and disposal of existing pavement, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.4.1. Measurement of Reinforced Concrete Pavement and Item 402.4.10. Payment For Pavement Replacement** of these specifications.

This is a **contingent item** and placement shall be made only as directed by the Project Manager. The price per unit of volume will remain the same, regardless of the volume used.

ITEM NO. 7580**REINFORCED CONCRETE SIDEWALK**

This item consists of furnishing and placing approximately **70 Square Yards of Reinforced Concrete Sidewalk** in accordance with **Item 402.4.COD: Replacing Paved Surfaces, Item 305.2. Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps, and Item 305.2.2.2.COD: Reinforcement** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.**

This item shall also include removal and disposal of existing sidewalk, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.3.1. Measurement For Replacement of Curb, Gutter, Sidewalks, Driveways, Etc. and Item 402.4.10. Payment For Pavement Replacement** of these specifications.

ITEM NO. 7583**REINFORCED CONCRETE DRIVEWAY**

This item consists of furnishing and placing approximately **110 Square Yards of Reinforced Concrete Driveway** in accordance with **Item 402.4.COD: Replacing Paved Surfaces, Item 303. Portland Cement Concrete Pavement and Item 303.2.1.3.2.COD: Gradation** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.** This item also includes removal and disposal of existing pavement, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.3.1. Measurement for Replacement of Curb, Gutter, Sidewalks, Driveways, Etc. and Item 402.4.10. Payment for Pavement Replacement** of these specifications. This item requires the concrete be set at 4500 PSI strength if hand finished or 4000 PSI strength if machine finished.

ITEM NO. 7584**SLURRY SEAL SURFACE TREATMENT**

This item consists of furnishing and placing approximately **36,420** Square Yards of Slurry Seal Surface Treatment in accordance with **Item 404.3.7.COD: Limitations** of the Dallas Water Utilities Addendum to the North Central Texas Standard Specifications for Slurry Seal.

This is a contingent item. Placement and payment shall be made only as directed by the Project Manager.

Slurry Seal shall be measured and paid for at the contract Unit Price per Square Yard on surface area of completed and accepted work.

ITEM NO. 7585**BARRIER FREE RAMP**

This item consists of constructing approximately **4** Each Concrete Barrier Free (wheelchair) Ramps as specified herein and in conformity with the **Public Works Standard Details for Construction (251-D)** and any special details.

This item shall include all necessary saw-cut, removal of existing sidewalk, curb and gutter, excavation and backfill, subgrade preparation, furnishing and placing all materials; including expansion joint materials, asphalt replacement needed to adjacent to new gutter area, and any related work for manipulation, labor, tools, equipment and incidentals. **See 107.27.COD: Environmental Compliance.**

Measurement and payment shall be at unit contract price for complete and accepted work.

ITEM NO. 7600**REINFORCED CONCRETE BASE**

This item consists of furnishing and placing approximately **2,290** Cubic Yards of Reinforced Concrete Base in accordance with **Item 402.4.COD: Replacing Paved Surfaces**, **Item 402.4.11.COD: Replacing Asphaltic Concrete Pavement with A Concrete Base**, **Item 303. Portland Cement Concrete Pavement** and **Item 303.2.1.3.2.COD: Gradation** of these specifications and addenda thereto. **See 107.27.COD: Environmental Compliance.**

This item shall also include removal and disposal of existing pavement, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.5.1. Measurement of Concrete Pavement and Asphalt Overlay** and **Item 402.4.10. Payment For Pavement Replacement** of these specifications.

ITEM NO. 7655**HOT MIX ASPHALT CONCRETE PAVEMENT**

This item consists of furnishing and placing approximately **1,080** Tons of Hot Mix Asphalt Concrete Pavement in accordance with **Item 402.4.COD: Replacing Paved Surfaces, Item 402.4.11.COD: Replacing Asphaltic Concrete Pavement with A Concrete Base, and Item 302.9. Hot-Mix Asphalt Pavement** of these specifications and addenda thereto. A prime coat shall be applied to a completed granular base course as described in **Item 302.7. Prime Coat and Item 302.9. Hot-Mix Asphalt Pavement**, at a rate of 0.25 gallons per square yard. A tack coat shall be applied to a surface of concrete, brick, or asphalt at a rate of 0.10 gallons per square yard. Prime coat and tack coat shall be not be measured for payment, but will be subsidiary to this bid item.

This item shall also include removal and disposal of existing pavement, if it lies outside of trench width plus two feet.

Measurement and payment will be in accordance with **Item 402.4.5.1. Measurement of Concrete Pavement and Asphalt Overlay, Item 402.4.6.1. Measurement For Full Depth Hot-Mix Asphalt Pavement, or Item 402.4.7.1. Measurement For Hot-Mix Asphalt Pavement On A Flexible Base, Item 402.4.10. Payment For Pavement Replacement, and Item 402.4.11.1.COD: Measurement of Asphaltic Concrete Pavement with A Concrete Base** of these specifications.

ITEM NO. 7710**SILT FENCE**

This item consists of furnishing and placing approximately **5,000** Linear Feet of Geotextile Silt Fence in accordance with **Item 803.4. Geotextiles Used In Drainage and Stabilization Applications.**

This item to include the installation, maintenance, and removal of silt fence. Replacement of silt fence, if it is determined to be ineffective by the Engineer, will be at no additional cost to the City.

The bid price for this item will not be subject to renegotiation due to quantity overrun or underrun limitations as set forth in the Specifications.

Measurement and payment will be in Linear Feet measured along the centerline of the fence and will include all materials and labor to install, maintain, and remove silt fence. Materials that are removed and reinstalled at another location will be paid, provided that the materials are in a satisfactory condition as determined by the owner.

ITEM NO. 7712**STORM WATER POLLUTION PREVENTION PLAN**

This item is to reimburse the Contractor for costs to develop, implement, and maintain the Storm Water Pollution Prevention Plan. Modification to the SWPPP or additional control items required by the Engineer will be at no additional cost.

This item to include all equipment, materials, labor, and maintenance necessary to control storm water pollution.

This is a lump sum item and payment shall be based on the percentage of construction for complete, in place, maintained, removed, and accepted work.

ITEM NO. 7713 EROSION CONTROL

This item is to reimburse the Contractor for costs to install pollution control devices to prevent sediment from entering the storm water system or waterway. Modifications or additions to the control measures used as directed by the Engineer will be at no additional cost.

This item to include all equipment, materials, labor, and maintenance necessary to control storm water pollution.

Payment will be Lump Sum for complete, in place, maintained, removed, and accepted work.

ITEM NO. 7730 DISPOSAL OF HEAVILY CHLORINATED WATER MAIN FLUSHING WATER

This item consists of Disposal of Heavily Chlorinated Water Main Flushing Water after sterilization or re-sterilization in accordance with the requirements of the EPA [40 C.F.R. 122.26], and **Item 506.7.3.3.COD: Disposal of Flushing Water.**

Measurement and payment will be Lump Sum, complete to include all labor, materials, and equipment necessary to dispose of the heavily chlorinated water main flushing water after sterilization or re-sterilization.

ITEM NO. 8011 CONSTRUCTION SURVEYING AND STAKING OF PROPOSED WATER & WASTEWATER MAINS

This item consists of providing Construction Surveying and Staking by the Contractor's qualified personnel for approximately **28,530** Linear Feet of Proposed Water and Wastewater Main installations shown on the plan drawings and in accordance with **Item 105.4.COD: Construction Stakes** of the NCTCOG Specifications and addenda thereto.

This item shall include establishment of all horizontal and vertical controls, horizontal and vertical alignments per plan drawings, and cut depths for all proposed mains shown on the plan drawings with specific grades, elevations and profiles.

Measurement and payment will be per Linear Foot of proposed water and per Linear Foot of proposed wastewater main including instrumentation and equipment, staking materials, notes and cut sheets in final form and any other associated costs, such as barricading and traffic control for these services. Payment will be made when surveying is complete from point of beginning to point of end as shown on the plan drawings and upon submission and approval of survey data (see **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition** for approved data format). The Contractor is responsible for maintaining all staked controls and hubs in the construction area at all times and any costs for re-staking or re-establishing controls required shall be borne by the Contractor.

ITEM NO. 8012

**CONSTRUCTION SURVEYING AND STAKING OF
PROPOSED STREET AND ALLEY PAVING**

This item consists of providing Construction Surveying and Staking by the Contractor's qualified personnel for approximately **22,270** Linear Feet of Proposed Alley and/or Street Pavement Replacement shown on the plan drawings and in accordance with **Item 105.4.COD: Construction Stakes** of the NCTCOG Specifications and addenda thereto.

This item shall include establishment of all horizontal and vertical controls, horizontal and vertical alignments, and cut/fill depths for all proposed street and/or alley pavement replacement.

Measurement and payment will be per Linear Foot of proposed pavement including instrumentation and equipment, staking materials, notes and cut sheets in final form, and any other associated costs, such as barricading and traffic control for these services. Payment will be made when surveying is complete for the full street/alley width from point of beginning to point of end as shown on the plan drawings and upon submission and approval of survey data (see **DWU Standard Technical Specifications for Water & Wastewater Construction, Latest Edition** for approved data format). This item does not include pavement repairs and patches, nor does it include pavement replacement associated with bid item 7570. The Contractor is responsible for maintaining all staked controls and hubs in the construction area at all times and any costs for re-staking or re-establishing controls required shall be borne by the Contractor.

ITEM NO. 20500**INVESTIGATION**

This item consists of excavating at approximately 16 each locations to a specific infrastructure(s) to determine type, size, location, elevation, and/or condition as determined by the Engineer. The disturbed area will be replaced with compacted backfill in accordance with **Item 504. Open Cut – Backfill and Item 504.6.1. Excavated Material** of these specifications and addenda thereto.

In paved areas, the pavement will be replaced with a compacted 8" thick base of Crushed Rock in accordance with **Item 402.4.COD: Replacing Paved Surfaces, and 301.5. Flexible Subbase Or Base (Crushed Stone/Concrete)**, and a compacted 2" thick surface of Hot or Cold Mix asphalt pavement for temporary paving in accordance with **Item 402.4.COD: Replacing Paved Surfaces, and Item 302.9. Hot-Mix Asphalt Pavement**.

This item is complete and includes all equipment, materials and labor, saw-cut, pavement, base, and sub-base removal, excavation, backfill, compaction, disposal of excess materials, all temporary and permanent paving, and paving related items, sidewalk, curb and/or gutter, driveways, sod, costs for barricading, trench safety and support, support for existing utilities, and all other work associated with this item.

Payment will not be made under this item if the infrastructure is to be adjusted, abandoned, or replaced prior to the placement of backfill. If the investigation is for more than one infrastructure in the same excavation, payment shall be made for only one investigation.

Measurement and payment will be per each complete in place.