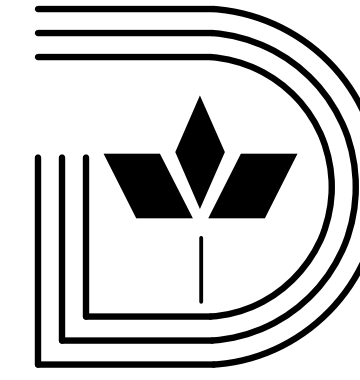


# WATER AND WASTEWATER MAIN REPLACEMENTS AT VARIOUS LOCATIONS



## Dallas Water Utilities City Of Dallas, Texas

**Contract No. : 20-001/002**  
**March, 2020**

WATER & WASTEWATER SHEET INDEX

NO.	PID	LOCATION	DESIGN SHEETS
1	402	1122 Jackson Street Wood Street to Jackson Street	411Q - 1599C Sht. 182
2	403	Esmt between Willomet Avenue and Clinton Avenue MH E of Winnetka Ave to MH W of Winnetka Ave	411Q - 239A Sht. 48
3	1102	Hoskins Street Matilda Street to Hubert Street	411Q - 1887 Sht. 30
4	1674	Jackson Street Austin Street to 1122 Jackson Street	411Q - 1599C Sht. 183-186
5	2622	Inwood Road Northwest Highway to Southbrook Drive	411Q - 1320 Sht.130-130A
6	3210	Alley Northeast of Kings Highway North Polk Street to North Tyler Street	411Q - 0918 Sht. 24
7	3342	Alley between Kellogg Avenue and Sunnyvale Street Sunnyvale Street to Overton Street	411Q - 1170 Sht. 101-102
8	5006	Eagle Ford Drive Prayer Mountain Ln.to 50 Feet S.of Mt. Hollow Dr.	685W - 0694A Sht. 71-77
9	5348	Cadiz Street (CBD) Harwood Street to Browder Street	411Q - 1599 Sht. 220-224
10	5820 & 5821	Montclair Avenue and Argonne Drive Colorado Boulevard to Argonne Drive	411Q - 3040 Sht. 65-66
11	6066	West Jefferson Boulevard 4500-4600 Block	411Q - 1902A Sht. 48-50
12		Air Valve Improvements for White Rock North Transmission Main	685W - 660 Sht. 24-43





# GENERAL LEGENDS

# GENERAL NOTES

## GENERAL

	Benchmark
	Control Point
	Iron Pin Found
	Iron Pin Set
	Exist. ROW
	Prop. ROW
	ROW Centerline
	Alley ROW
	Exist. Easement
	Prop. Easement
	Corporation Line Marker
	Exist. Structure/Building
	Prop. Structure/Building
	Bank/Slope Line
	Flow Line/Stream Line
	Bore Hole

## TOPOGRAPHIC FEATURES

	Tree
	Brush, Shrub, Wood
	Swamp
	Mail Box
	Bollards
	Irrigation Control Valve
	Chain Link/Other Fence
	Wood Fence
	Wrought Iron Fence
	Brick Wall
	Concrete Wall
	Retaining Wall
	Parking Meter
	Traffic Sign
	Traffic Signal Pole
	Street Lamp
	Railroad, Each Track

## PAVEMENT

	Exist. Gravel
	Exist. Asphalt
	Exist. Brick
	Exist. Concrete
	Prop. Pavement

## STORM DRAINS

	Exist. Storm Drain
	Exist. Storm Manhole
	Exist. Storm Inlet
	Prop. Storm Drain
	Prop. Storm Manhole
	Prop. Storm Inlet

## UTILITIES

	Exist. Gas Line
	Exist. Gas Manhole
	Exist. Underground Electric Line
	Exist. Overhead Electric Line
	Exist. Electric Pad Mounted Transformer
	Exist. Electric Power Pole
	Exist. Electric Pole Anchor
	Exist. Electric Utility Manhole
	Exist. Electric Vault
	Exist. Telephone Line
	Exist. Telephone Utility Manhole
	Exist. Telephone Pedestal
	Exist. Fiber Optic Line
	Exist. Fiber Optic Manhole
	Exist. Cable TV Line
	Exist. Cable TV Manhole

## WATER MAINS & APPURTENANCES

	Exist. 6" Water Main
	Exist. 8" to 27" Water Main
	Exist. 30" or Larger Water Main
	Prop. 6" Water Main
	Prop. 8" to 27" Water Main
	Prop. 30" or Larger Water Main
	Future Water Main

	Exist. Water Meter
	Exist. Water Manhole
	Exist. Water Vault
	Exist. Fire Hydrant
	Prop. Water Manhole
	Prop. Water Vault
	Prop. Fire Hydrant
	Exist. 11.25" Fitting
	Exist. 22.5" Fitting
	Exist. 45" Fitting
	Exist. 90" Fitting
	Exist. Reducer

	Exist. Tee
	Exist. Tapping Sleeve
	Exist. Cross
	Exist. Plug
	Exist. Blind Flange
	Cut & Plug
	Prop. 11.25" Fitting
	Prop. 22.5" Fitting
	Prop. 45" Fitting
	Prop. 90" Fitting
	Prop. Reducer
	Prop. Tee
	Prop. Tapping Sleeve
	Prop. Plug
	Prop. Blind Flange
	Exist. Gate Valve
	Exist. High/Low Valve
	Exist. Check Valve
	Exist. Flush Point
	Exist. Air Valve
	Exist. Cathodic Test Station
	Prop. Gate Valve
	Prop. High/Low Valve
	Prop. Check Valve
	Prop. Flush Point
	Prop. Air Valve
	Prop. Cathodic Test Station

## WASTEWATER MAINS & APPURTENANCES

	Exist. 6" to 27" Wastewater Main
	Exist. 30" or Larger Wastewater Main
	Prop. 6" to 27" or Larger Wastewater Main
	Prop. 30" or Larger Wastewater Main
	Exist. Wastewater Manhole
	Exist. Wastewater Access Device
	Exist. Wastewater Cleanout
	Prop. Wastewater Manhole
	Prop. Wastewater Access Device
	Prop. Wastewater Cleanout
	Remove & Replace Exist. Manhole

## PROJECT CONTACTS

DWU PROJECT MANAGER:  
 DWU DISTRIBUTION DIVISION:  
 DWU WASTEWATER COLLECTION DIVISION:  
 CITY OF DALLAS PW&T - STREET CUTS:  
 CITY OF DALLAS PW&T - STORMWATER:  
 CITY OF DALLAS PW&T - TRAFFIC CONTROL:

## GENERAL

- All work shall be done in accordance with the North Central Texas Council Of Governments (NCTCOG) Standard Specifications For Public Works Construction (Version XX) and City of Dallas Addendum (Month, Year) to these specifications.
- Reference to standard drawings shall mean those shown in the DWU Standard Drawings for Water & Wastewater Construction XX Edition (October, 2017).
- All items of work required to complete the work as shown or implied by the plans and as specified in the contract documents which are not listed as a pay item in the proposal shall be considered subsidiary.
- The location, elevations and dimensions of existing utilities shown on the plans as obtained from The City of Dallas and utility company records, are considered approximate. The Engineer does not certify that all utilities are shown. The Contractor shall verify exact locations, sizes and depths of existing utilities before beginning construction (including ordering pre-cast manholes and concrete pipe if applicable). NO SEPARATE PAY ITEM.
- The Contractor shall contact Texas Excavation Safety System (800-DIG-TESS: 800-344-8377) and relevant utility companies 48 hours prior to locating existing utilities and/or construction activities.
- The Contractor shall preserve and protect all existing utilities at all times during construction. Any damage to utilities resulting from the Contractor's operation shall be restored at his expense.
- The Contractor shall support telephone conduits, storm drains, water and wastewater mains when going under said utilities. NO SEPARATE PAY ITEM.
- Power poles may have to be braced at the Contractor's expense.
- No machinery, construction access or storage shall be allowed on park property beyond the limits of the temporary workspace as defined by the City of Dallas Inspector.
- This project is subject 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.
- 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.
- Prior to construction activities within any 100-year floodplain, a floodplain permit, or exemption must be obtained from the local Floodplain Administrator (National Flood Insurance Program).
- The project also must comply with the following conditions:
  - Standard emergency condition for the discovery of cultural resources.
  - Standard emergency condition for the discovery of threatened and endangered species.

## TRAFFIC CONTROL

- The Contractor shall develop a traffic control plan in accordance with the City Of Dallas Traffic Barricade Manual, Latest Edition and the TXDOT Texas Manual On Uniform Traffic Control Devices (TMUTCD), Latest Version as necessary. NO SEPARATE PAY ITEM.
- The diversion of pedestrians and vehicles during the progress of the work shall be in a manner satisfactory to the City of Dallas Inspector.
- The Contractor shall coordinate all traffic variances with Traffic Safety Coordinators at 670-5896 or 683-5189, City Of Dallas Public Works & Transportation.
- Two-way traffic shall be maintained at all times and flagmen should be used to maintain two-way traffic as necessary.
- All barricades, warning signs and traffic control devices shall conform to the City Of Dallas standards. NO SEPARATE PAY ITEM.
- When closing side streets, two working days notification is required for Fire, Police, Streets and Sanitation Departments. Please contact Gary Maxwell at 670-5896 or mobile 683-5189 to notify traffic restrictions.
- Contractor shall maintain access to private driveways at all times during construction. NO SEPARATE PAY ITEM.
- Vehicular ingress and egress (entrance and exit) to a business property shall be maintained at all time, if not, specific signs along with business name and direction arrow(s) shall be used for any temporary access locations. Additional signs may be necessary if there is a detour. NO SEPARATE PAY ITEM.

## PAVEMENT REPLACEMENT

- Sawcut, remove and replace pavements, sidewalks, curbs and gutters shall conform to City Of Dallas Public Works & Transportation, Pavement Cuts & Repair Standards Manual, Latest Edition.
- All disturbed pavement markings including, but not limited to, striping, traffic buttons and crosswalks shall be restored to the same or improved condition as per City Of Dallas Specifications For Public Works Construction, Standard Construction Details and all addenda thereto. NO SEPARATE PAY ITEM.

## TREES AND LANDSCAPING

- Contractor shall not damage or remove any trees or landscaping unless otherwise authorized by the City of Dallas Inspector. Any trees or landscaping that are damaged or removed during the construction shall be replaced by the contractor at his expense.

## ADVANCE METERING INFRASTRUCTURE

- Caution Advanced Metering Infrastructure (AMI) Meters in the area. Contractor shall not remove, damage, or otherwise disturb AMI meter endpoint components unless otherwise directed by the DWU Meter Reading Operation (MRO) Technician.
- Contractor shall contact MRO five (5) working days in advance at 214-670-5537 and Email: DWUMRO@dallascityhall.com. If Any AMI Components shall be disconnected, reconnected, removed, or installed.
- Contractor shall install AMI meter lids for water meters 2" and smaller in all Existing AMI and Proposed AMI Areas. Contractor shall also return the existing AMI lids from existing AMI Area to DWU MRO for meters 2" or smaller. NO SEPARATE PAY ITEM.
- For meters 3" or larger, the contractor shall either connect to the existing meter vault or construct a new meter vault as specified on the plans.
- Contractor shall be liable for the replacement cost of any lost or damaged AMI Components.
- All Meters in the Proposed and Existing AMI area shall be AMI-Ready Meter As Furnished By DWU. A non AMI-Ready meter shall be replaced with an AMI-Ready meter by DWU.

## WATER MAIN AND APPURTENANCES

- All 6", 8" and 12" water mains shall be PVC C900 (DR-14) water pipe, with Class "C" embedment, except as noted.
- All water mains with no profiles shall have a minimum cover of four (4) feet below street grade in an improved street and five (5) feet of cover in an unimproved street or alley.
- Compact fittings are not authorized for this project. All ductile iron pipe, fittings and fire hydrant bases shall be poly-wrapped.
- All bends, tees, fire hydrants and plugs are to be restrained type fittings and to be blocked with Class "B" Concrete as per DWU Standard Drawings \*229-234, in addition to restrained joints.
- If required by the City of Dallas Inspector, the Contractor shall install temporary water lines on both sides of the street until the new water main has been completed, tested, approved, and accepted by DWU. NO SEPARATE PAY ITEM.
- If no temporary mains are required by the City of Dallas Inspector, then the existing water mains are to be in service with the fire hydrants until the new water main has been tested, approved and accepted by DWU. NO SEPARATE PAY ITEM.
- The Contractor will ensure that fire hydrants are accessible to fire trucks at all times. NO SEPARATE PAY ITEM.
- The Contractor shall sequence his construction such that no more than one fire hydrant is out of service at any given time.
- All fire hydrants shall be installed as per DWU Standard Drawing \*224. Existing fire hydrants on killed water lines are to be removed and delivered to DWU Distribution Division at 4120 Scottsdale Street Dallas, Texas if required by the City of Dallas Project Inspector, otherwise they become the property of the Contractor.
- Backfill made on break repairs to existing water mains may have been made with crushed rock. This could present a cave-in danger to a new ditch; therefore, precautions should be taken by the Contractor. NO SEPARATE PAY ITEM.
- Abandon all water valves on existing mains being killed as per DWU Standard Drawing \*219. NO SEPARATE PAY ITEM.
- The Contractor shall coordinate all water main tie-ins with the City of Dallas Inspector.
- The Contractor shall verify the location and number of all existing active water services and construct new services up to the meter prior to killing existing main.
- Water services greater than 30 feet shall be a minimum of one (1) inch in diameter.

## WASTEWATER MAIN AND APPURTENANCES

- The Contractor shall maintain existing wastewater flow at all times. NO SEPARATE PAY ITEM.
- Abandon all manholes on abandoned wastewater mains.
- The Contractor shall verify the location of all wastewater laterals and construct new laterals from the wastewater main to the property line with cleanouts and reconnect to the existing laterals. Dye testing may be required at no additional cost to the owner.
- The backfill around manholes located in existing or new pavement shall be flowable backfill as per NCTCOG Specification Item 6.210(G). NO SEPARATE PAY ITEM.

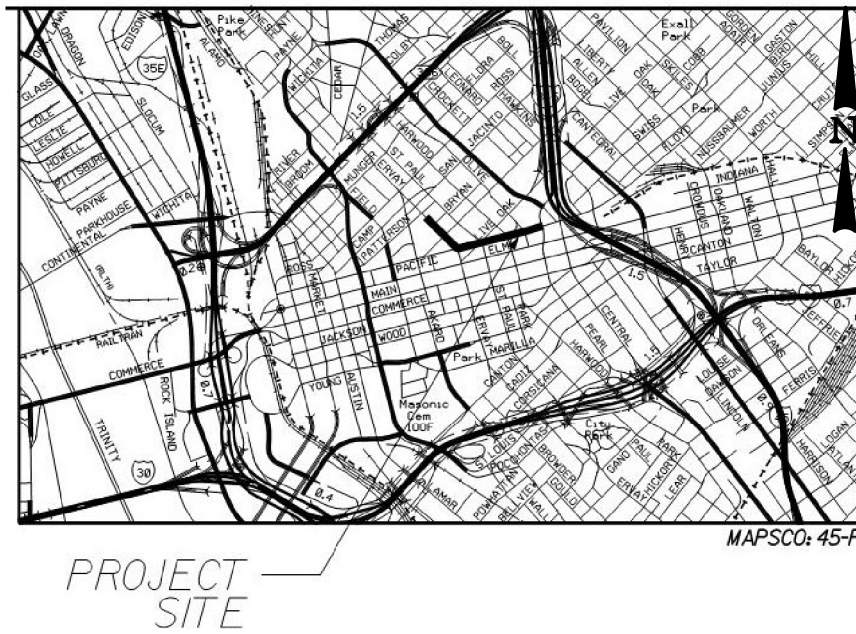
**Pacheco Koch** 7557 RAMBLER ROAD, SUITE 1400  
 DALLAS, TX 75231 PH. 972.235.3031  
 TX REG. ENGINEERING FIRM F-14439  
 TX REG. SURVEYING FIRM LS-101938-05

## GENERAL NOTES CONTRACT NO. 20-001/002

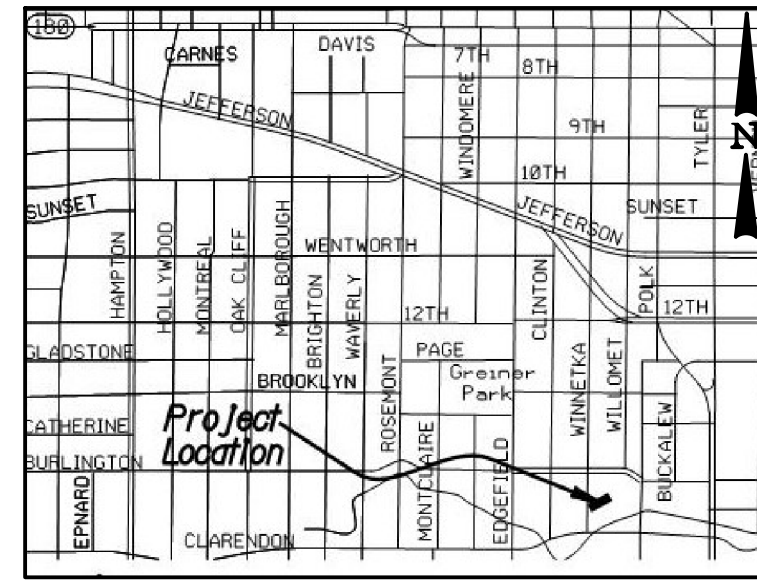
## DALLAS WATER UTILITIES CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
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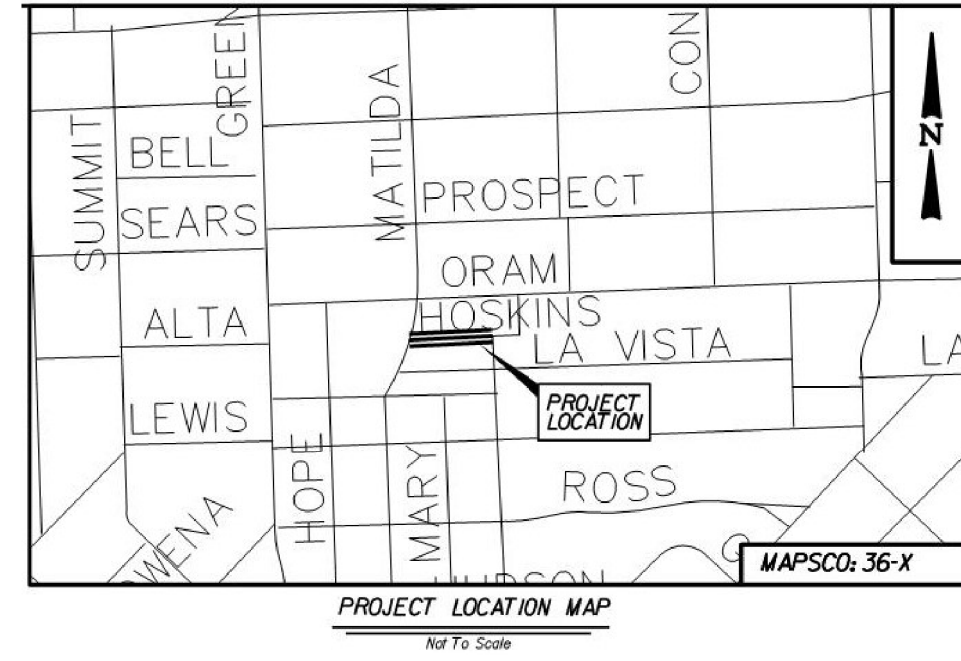




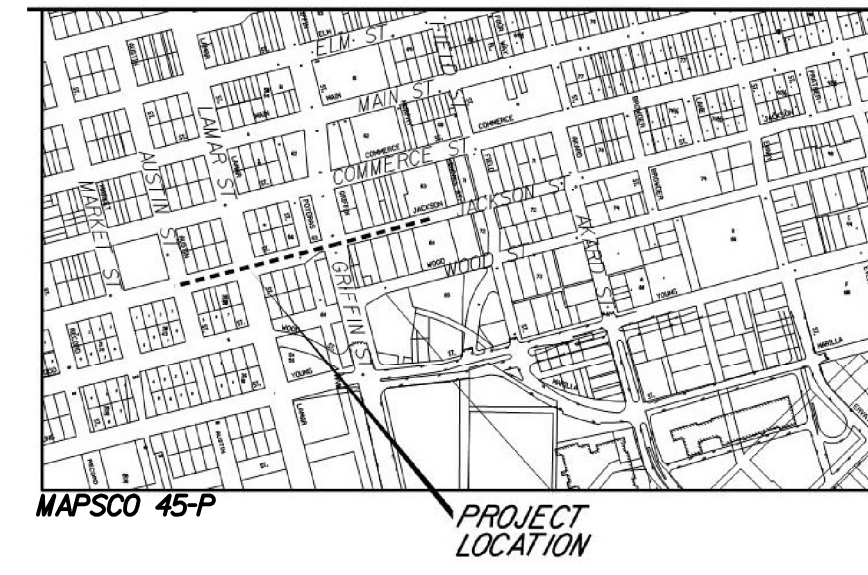
SEGMENT 1 - PID 402



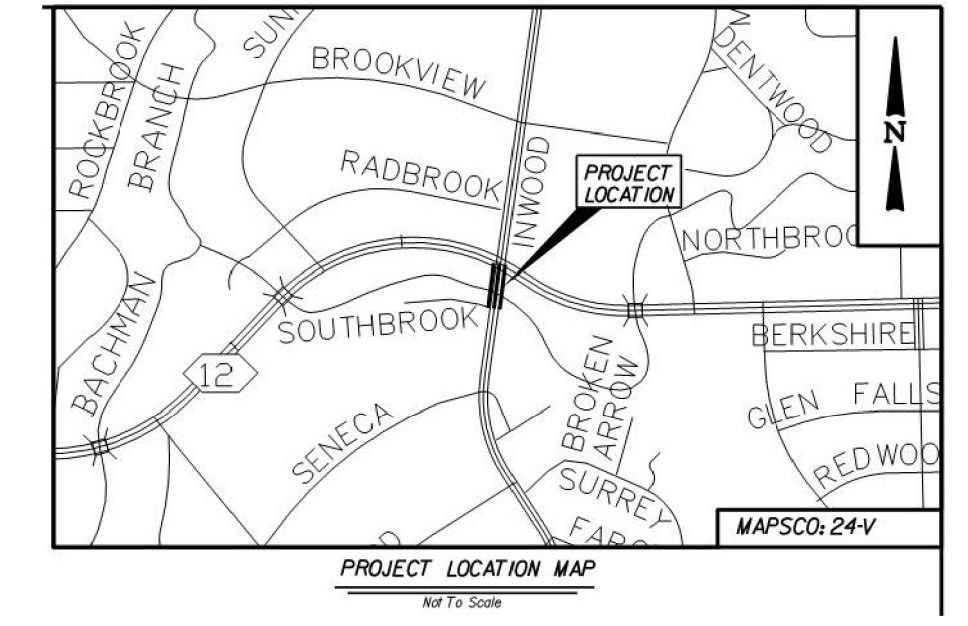
SEGMENT 2 - PID 403



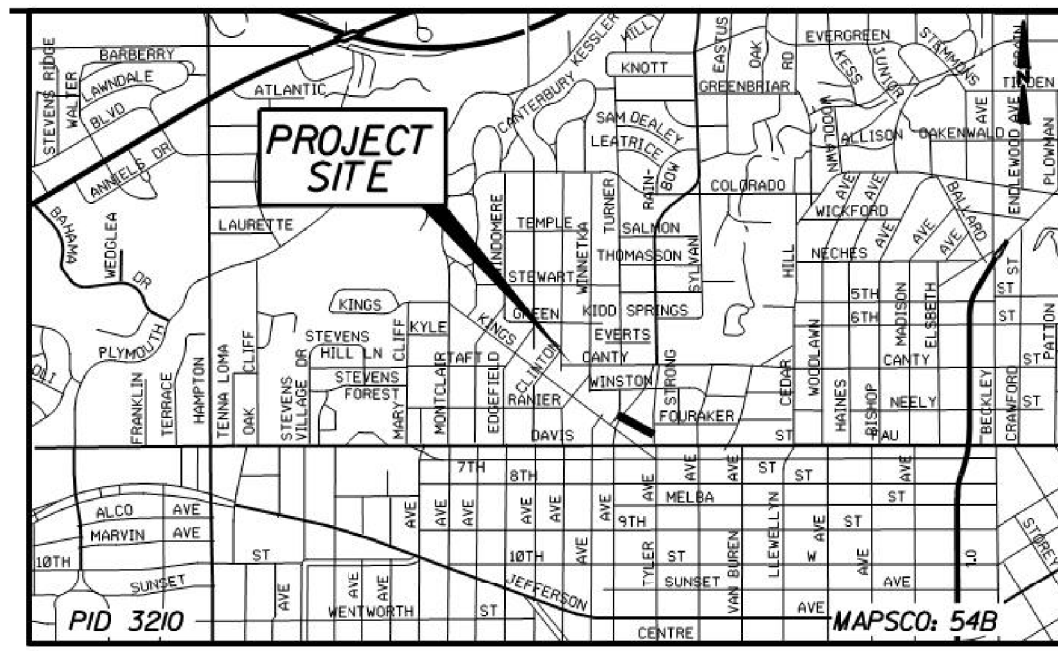
SEGMENT 3 - PID 1102



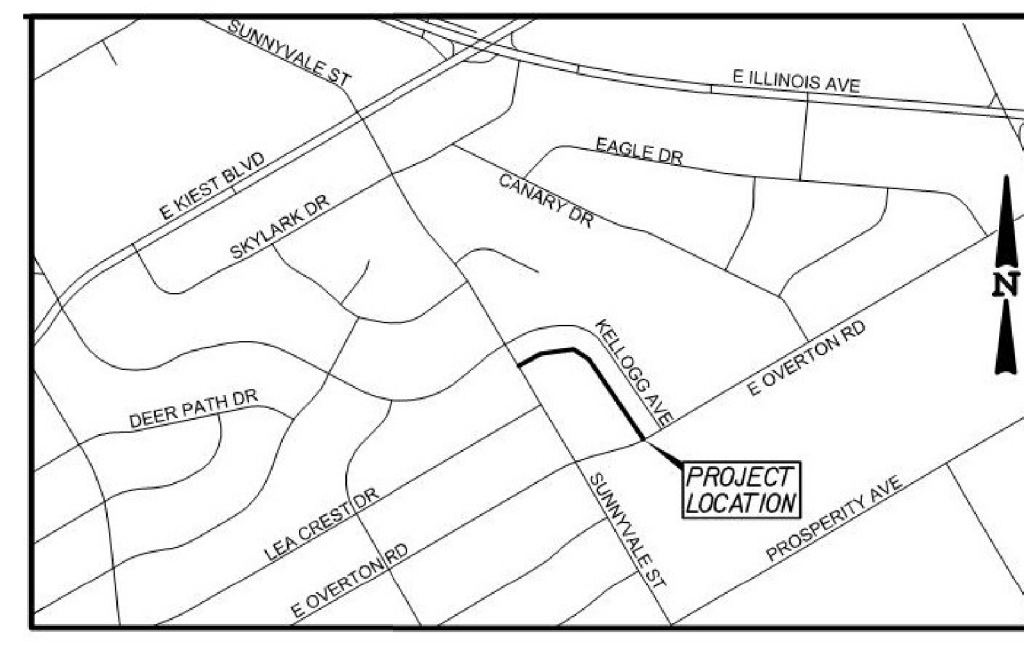
SEGMENT 4 - PID 1674



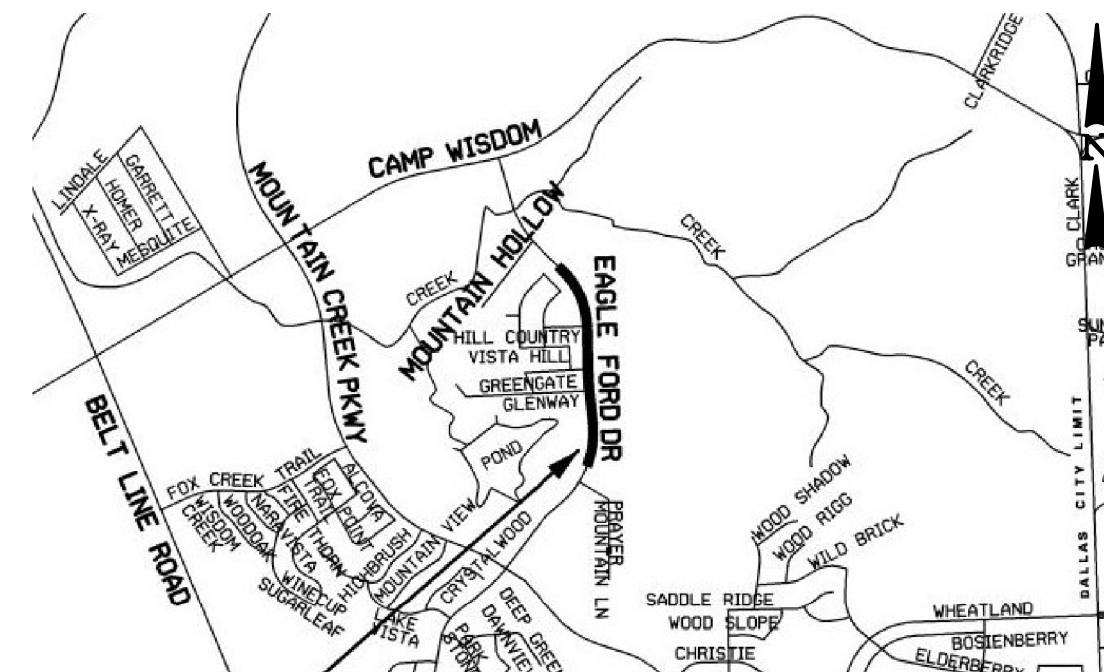
SEGMENT 5 - PID 2622



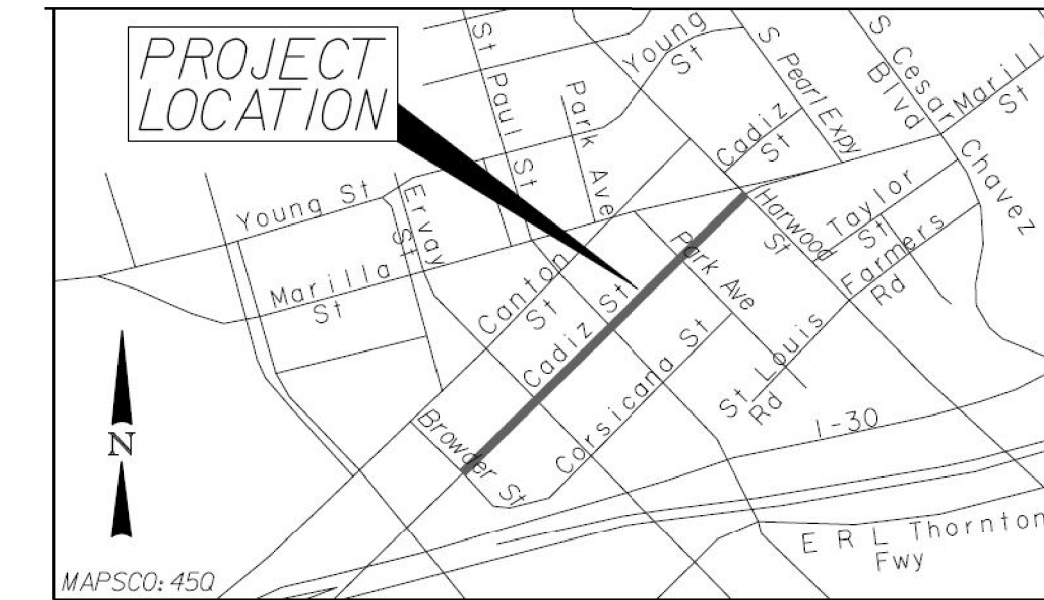
SEGMENT 6 - PID 3210



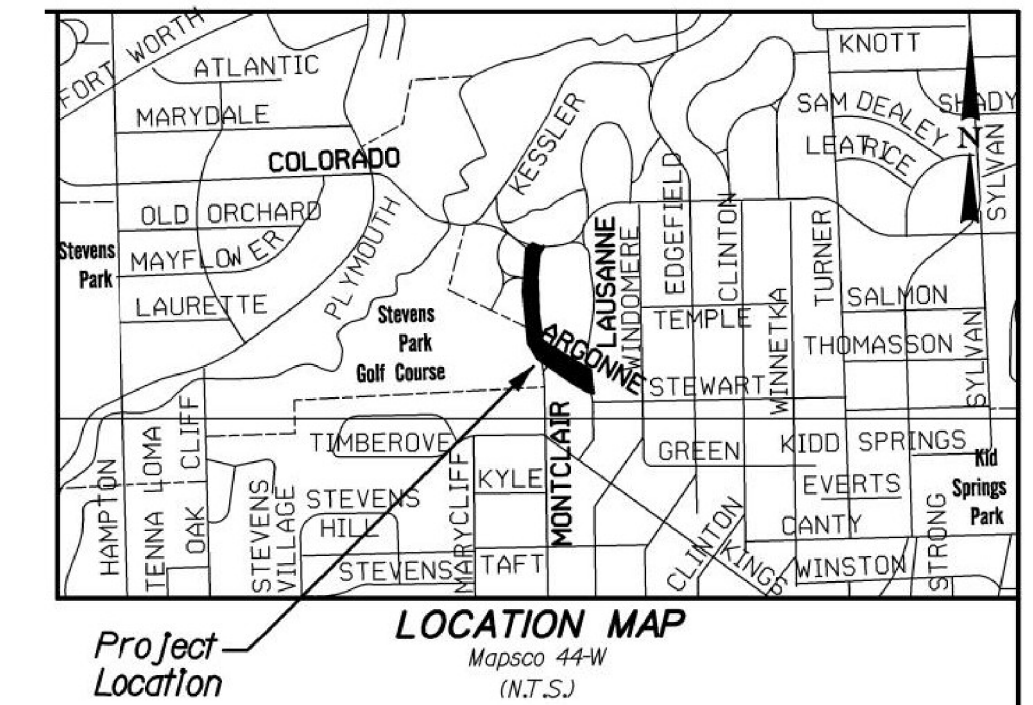
SEGMENT 7 - PID 3342



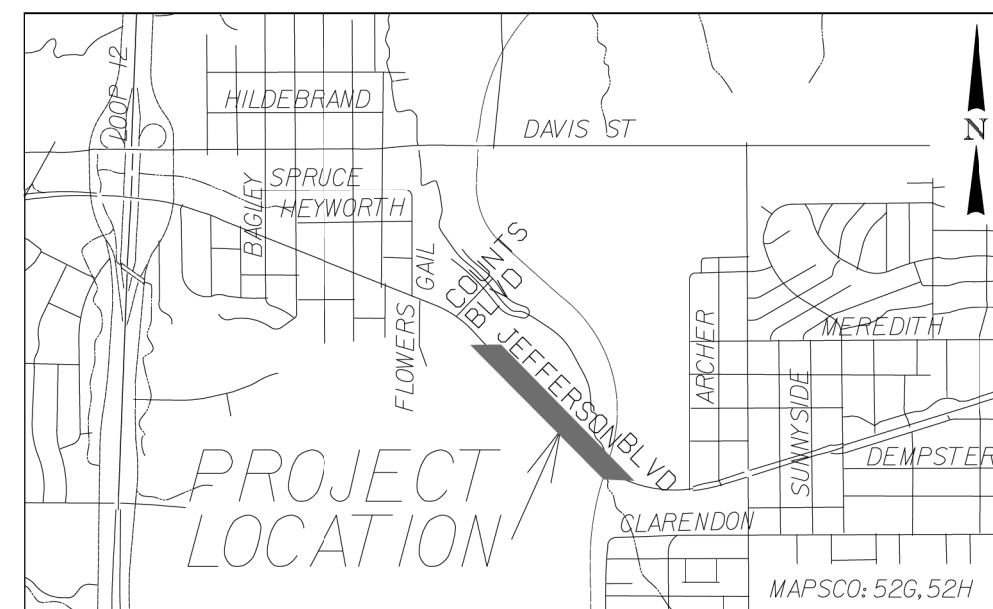
SEGMENT 8 - PID 5006



SEGMENT 9 - PID 5348



SEGMENT 10 - PID 5820 & 5821



SEGMENT 11 - PID 6006

**Pacheco Koch** 7567 RAMBLER ROAD, SUITE 1400  
DALLAS, TX 75231 PH. 972.235.3031  
TX REG. ENGINEERING FIRM F-14439  
TX REG. SURVEYING FIRM LS-101938-05

**LOCATOR MAPS**  
CONTRACT NO.20-001/002

**DALLAS WATER UTILITIES**  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
PK	PK	MAR 2020	411Q	1599	234

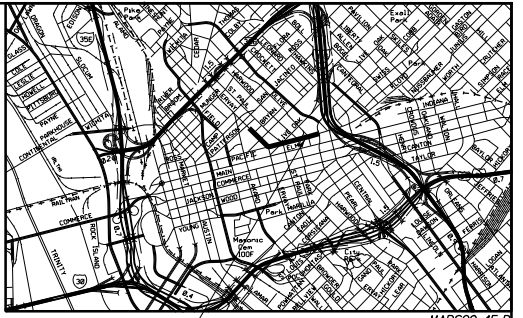
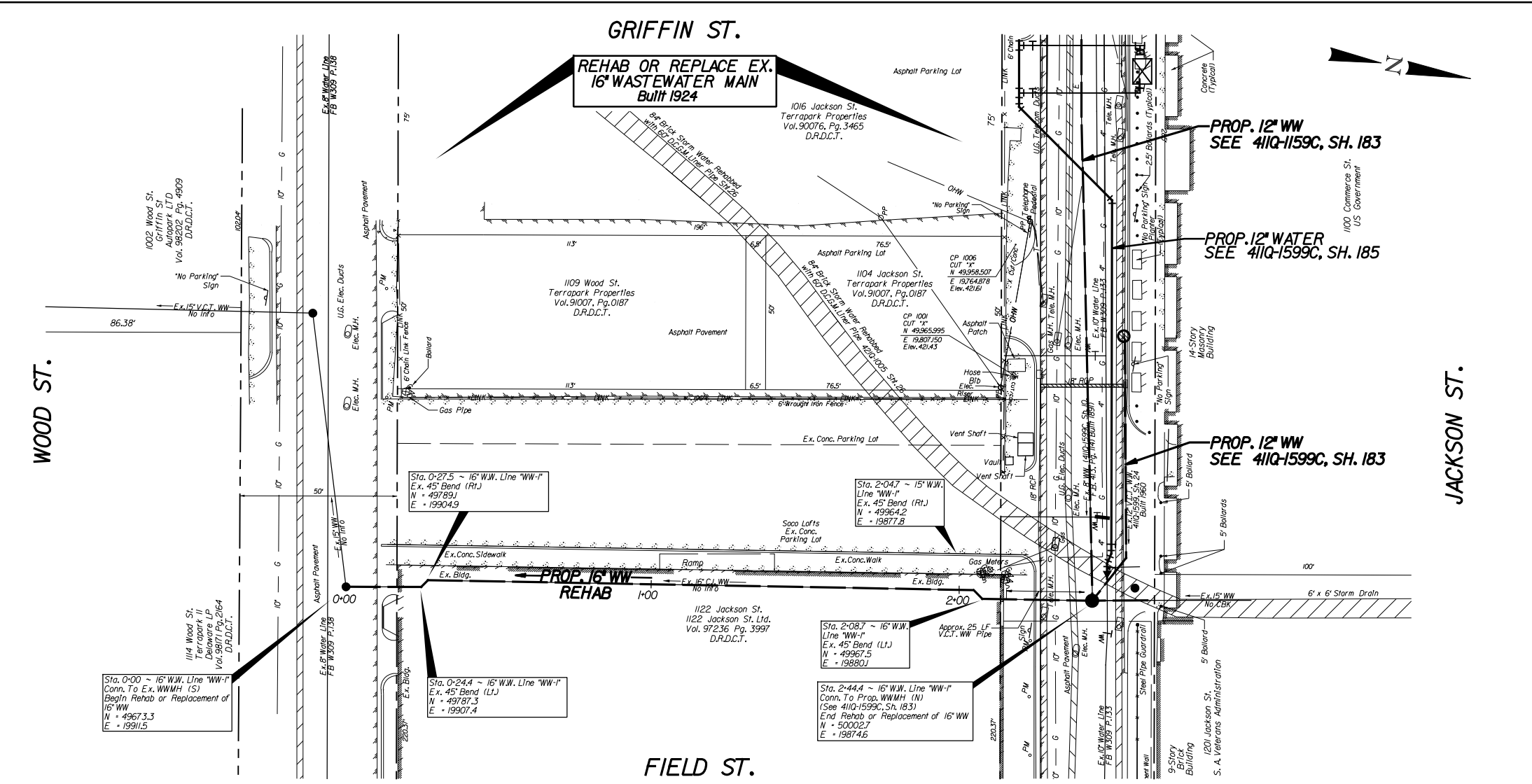


**CAUTION ~ FIBER OPTIC !**  
Underground Fiber Optic Cables In Area  
Contact Fiber Optic Co. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact ATMOS Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377/1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.C.C. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377



**CONTROL POINTS**

CONTROL POINT 1000 Northing: 50,000.00 Easting: 20,000.00  
\*cut in sidewalk on S side of Jackson St., 46.5' E of the centerline of Griffin St. ELEV = 423.91

CONTROL POINT 1001 Northing: 49,965.00 Easting: 19,807.150  
\*cut in sidewalk on S side of Jackson St., 270' E of the centerline of Griffin St. ELEV = 421.23

CONTROL POINT 1002 Northing: 49,907.58 Easting: 19,477.39  
PK nail in sidewalk on S side of Jackson St., 64' W of the centerline of Griffin St. ELEV = 423.65

CONTROL POINT 1003 Northing: 49,819.47 Easting: 19,061.8  
\*cut in sidewalk on S side of Jackson St., 5' W of the centerline of Lamar St. ELEV = 426.66

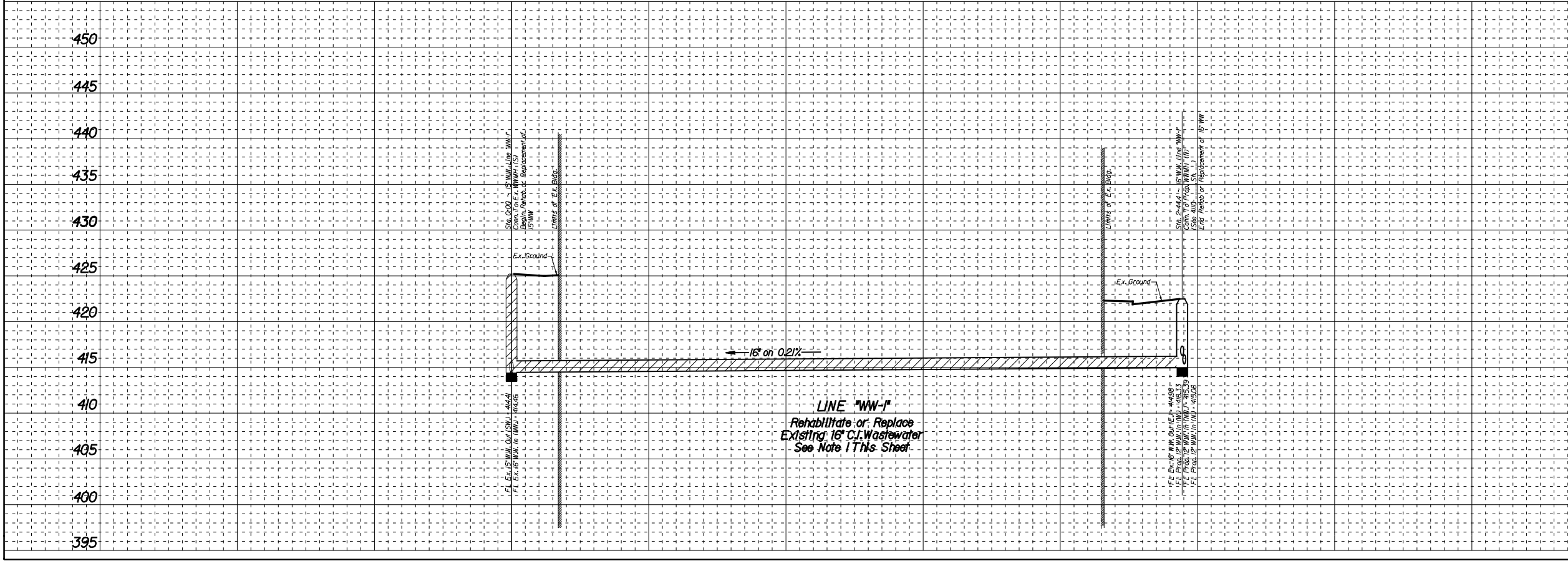
CONTROL POINT 1004 Northing: 49,765.52 Easting: 18,805.62  
\*cut in sidewalk on S side of Jackson St., 75' W of the centerline of Austin St. ELEV = 428.60

CONTROL POINT 1005 Northing: 49,862.54 Easting: 19,287.64  
PK nail in sidewalk on S side of Jackson St., 135' E of the centerline of Lamar St. ELEV = 425.73

CONTROL POINT 1006 Northing: 49,958.51 Easting: 19,764.88  
\*cut in sidewalk on S side of Jackson St., 227' E of the centerline of Griffin St. ELEV = 421.61

Notes:

- The Contractor Shall Select the Method and Materials to be Used for Rehabilitation or Replacement of the Existing 16" Cast Iron Wastewater Main and Shall Submit the Proposed Rehabilitation or Replacement Plan to the Owner for Approval. Any Proposed Pipe, Joints, or Fittings Shall Conform to the DWI Approved Materials List for Wastewater Collection System by Trade Name (Latest Edition). All Finished Work Shall Conform to the North Central Texas Council of Governments Standard Specifications for Public Works Construction (October 2004) and the City of Dallas 2011 Addendum to Said Specifications. All Labor, Materials, and Equipment Shall be Paid Under Special Bid Item No. 300180T.
- Rehabilitation of the Existing Cast Iron Pipe Shall Include Replacement or Retrofitting of Steel Pipe Hangers on the Wall of the Underground Parking Garage, if Required. No Separate Pay Item.
- If the Contractor Elects to Remove the Cast Iron Pipe, Lead Pipe Joints Shall be Disposed of in Accordance With all Federal and State Environmental Regulations. No Separate Pay Item.
- The Contractor Shall Contact Richard Kuhlman, General Services Administration, at (214) 767-8194 at Least 30 Days Prior to Beginning any Work in Jackson St. in the Vicinity of the Earle Cabell Federal Building.
- The Contractor Shall Contact Linda Razzano, Building Manager, 1122 Jackson Street, at (214) 747-5638 at Least 30 Days Prior to Beginning any Work in the Basement of SOCO Urban Lofts.



REVISIONS		
REV. NO.	DATE	DESCRIPTION

**BENCHMARKS**

**BENCHMARK 1**  
Bolt in sidewalk at northwest corner of Young St. and Field St.  
ELEV = 430.79

**BENCHMARK 2**  
Sq. cut on concrete curb in center of storm sewer inlet on west curb of Griffin St. and 15' +/- south of south property line of Young St.  
ELEV = 418.81

Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

**REFERENCES**

WATER  
38-25W(C)

WASTEWATER  
38-25S(C)

**STATE OF TEXAS**  
STEPHEN L. HARDY  
48699  
REGISTERED PROFESSIONAL ENGINEER  
3/11/2020

**ARREDONDO, ZEPEDA & BRUNZ, LLC.**  
1335 MACREE ROAD - DALLAS, TEXAS 75238  
(214) 346-9900  
TBPB FIRM REG. F-10098

PID: 402 | CONTRACT NO. 20-001/002

**16" WASTEWATER MAIN**  
1122 JACKSON ST.  
WOOD ST. TO JACKSON ST.  
DALLAS WATER UTILITIES  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
SWN	SWN	JAN 2020	411Q	1599C	182

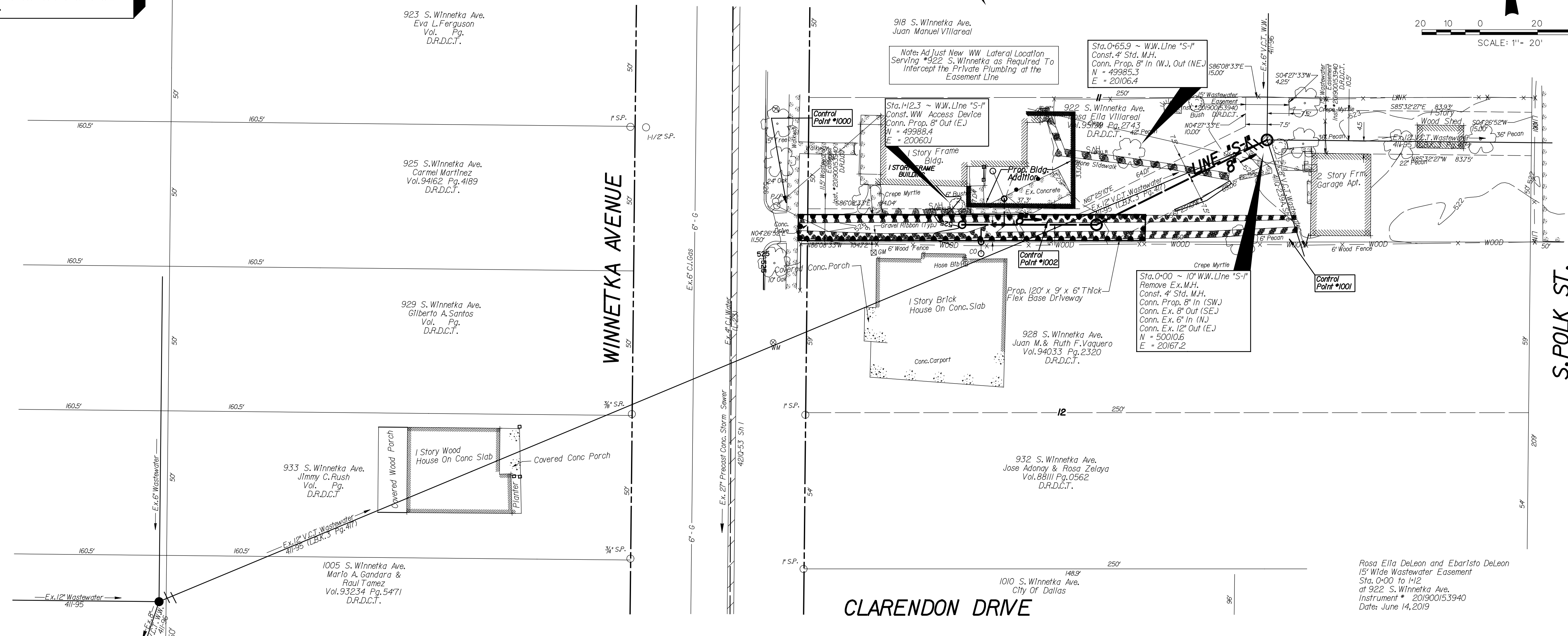
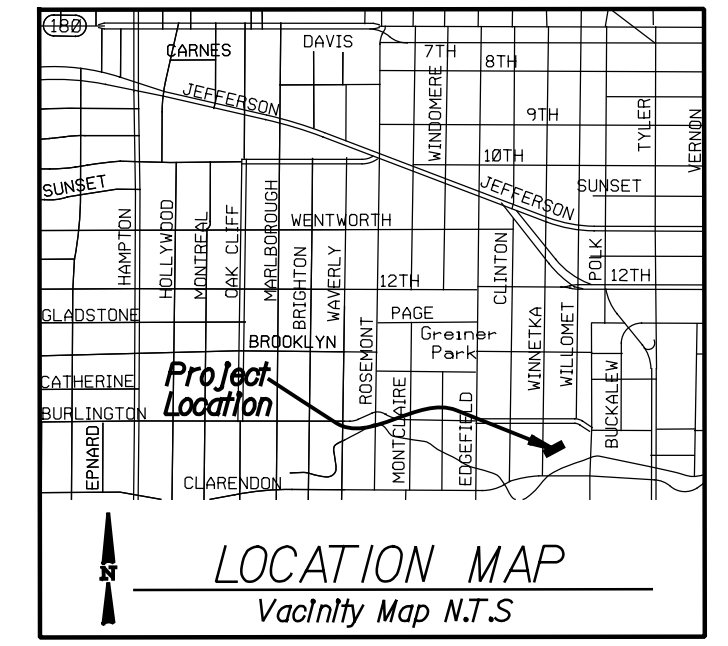
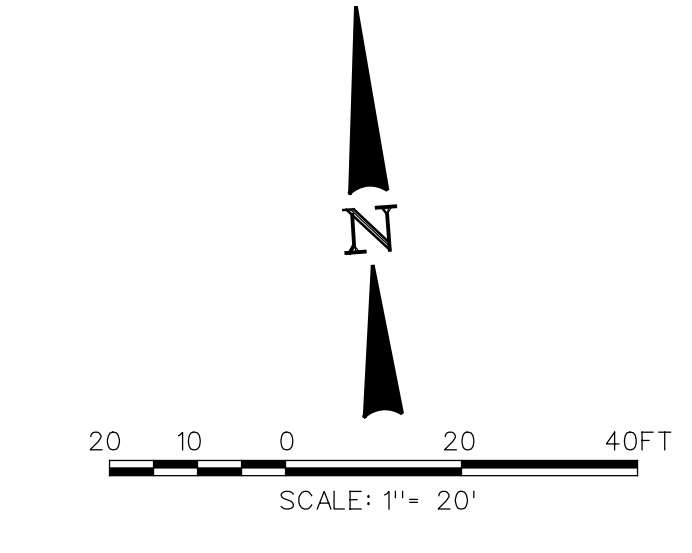


**UNDERGROUND UTILITIES**  
 THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND BASED ON DATA FURNISHED BY UTILITY COMPANIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND VERIFY ON-SITE THE UTILITIES THAT MAY CONFLICT WITH THE CONSTRUCTION.  
 CALL 1-800-344-8377 TWO WORKING DAYS PRIOR TO CONSTRUCTION FOR ONSITE LOCATIONS.

**LEGEND**  
 PROP. FLEX BASE

**BURLINGTON BOULEVARD**

**CONSTRUCT 8" PVC WASTEWATER MAIN**  
 Abandon Ex. 12" WW Built 1921



- BM #1 - STD. WDBM In center of conc. storm sewer inlet northeast corner of Burlington Blvd. and Polk Street  
Elev. = 531.33
- BM #2 - STD. WDBM on conc. curb center of radius northeast corner of Clarendon Drive and Polk Street  
Elev. = 523.86

CONTROL POINTS-ONSITE BENCH MARKS

POINT	COORDINATES	DESCRIPTION
1000	N=50000.00 E=20000.00 Elev. 526.26	1/2" IRS Set In Conc Sidewalk On Winnetka Ave. In Front Of House #922 S. Winnetka Ave.
1001	N=49975.77 E=20172.43 Elev. 522.76	1/2" IRS Set In Easement Blwn House #922 1 Story Bldg. & House #928 S. Winnetka Ave.
1002	N=49987.42 E=20089.49 Elev. 523.60	60D nail Set In Easement In Front Of 2 Story Apt. of House #922 S. Winnetka Ave.

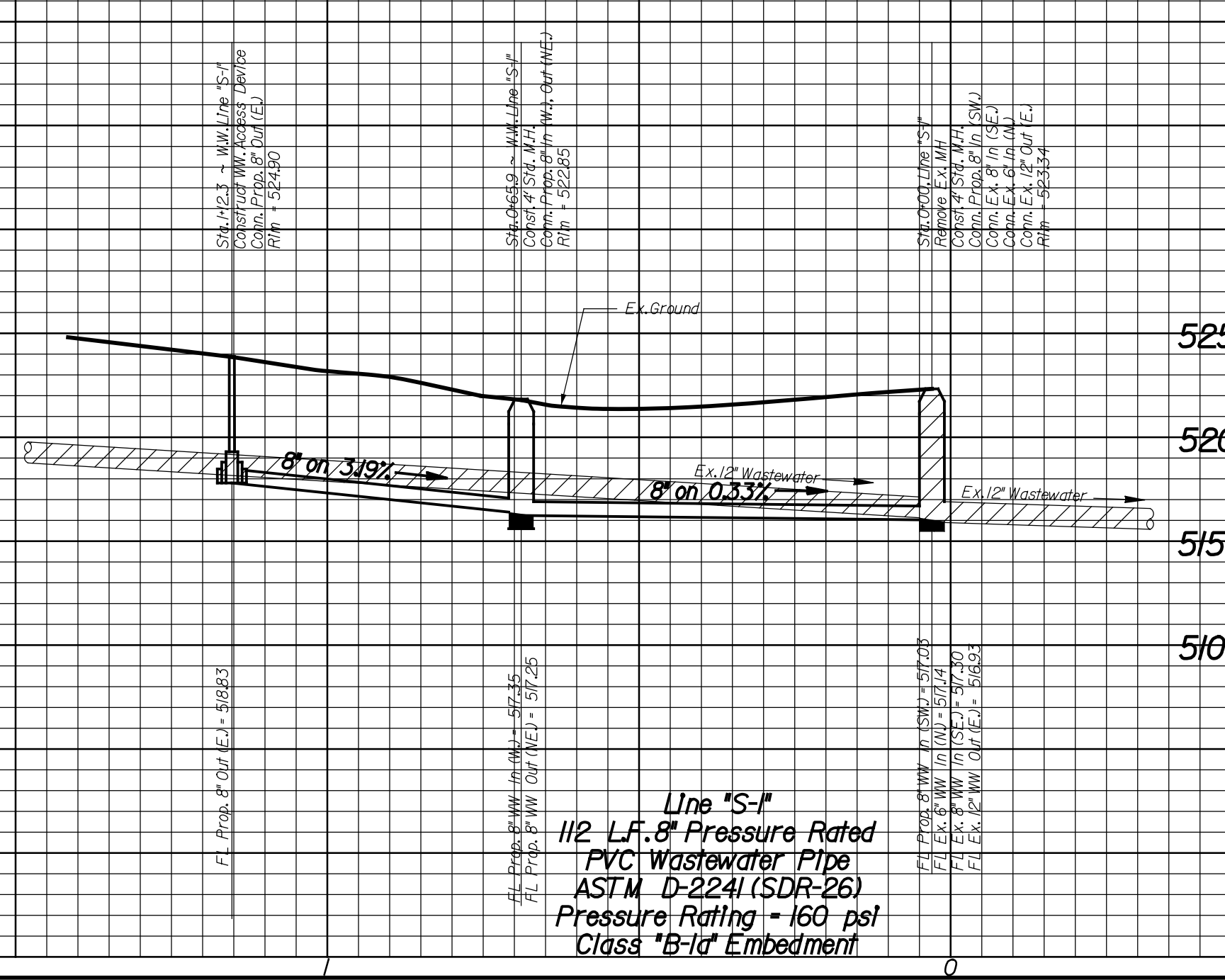
**CAUTION - UNDERGROUND UTILITIES!**  
 Call 1-800-344-8377 Two Working Days Prior To Construction For On Site Locations.

**CAUTION - GAS**  
 Existing Gas Main In Area. Contact Onor Gas Co. Two Working Days Prior to Construction For On Site Locations, ~ Ph. 1-800-344-8377

Bud Holcomb F-14	Water Map 46-20W 46-2W	WW Map 46-20S 46-2IS	MAPSCO 54K
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Rosa Eila DeLeon and Ebanisto DeLeon  
 15' Wide Wastewater Easement  
 Sta. 0+00 to 1+12  
 at 922 S. Winnetka Ave.  
 Instrument # 201900153940  
 Date: June 14, 2019

**CLARENDON DRIVE**

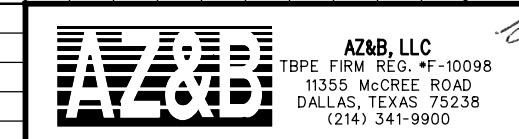


**Line "S-1"**  
 112 L.F. 8" Pressure Rated PVC Wastewater Pipe  
 ASTM D-2241 (SDR-26)  
 Pressure Rating = 160 psi  
 Class "B-1a" Embedment

48



CONTRACT NO. 20-001/002



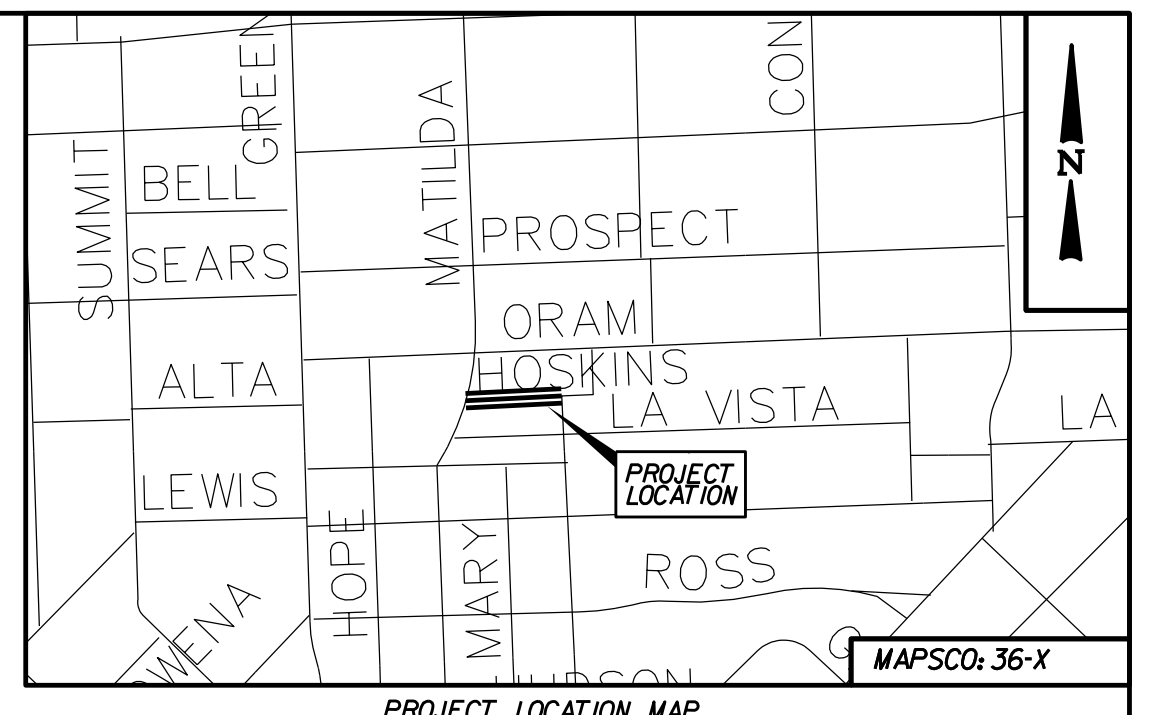
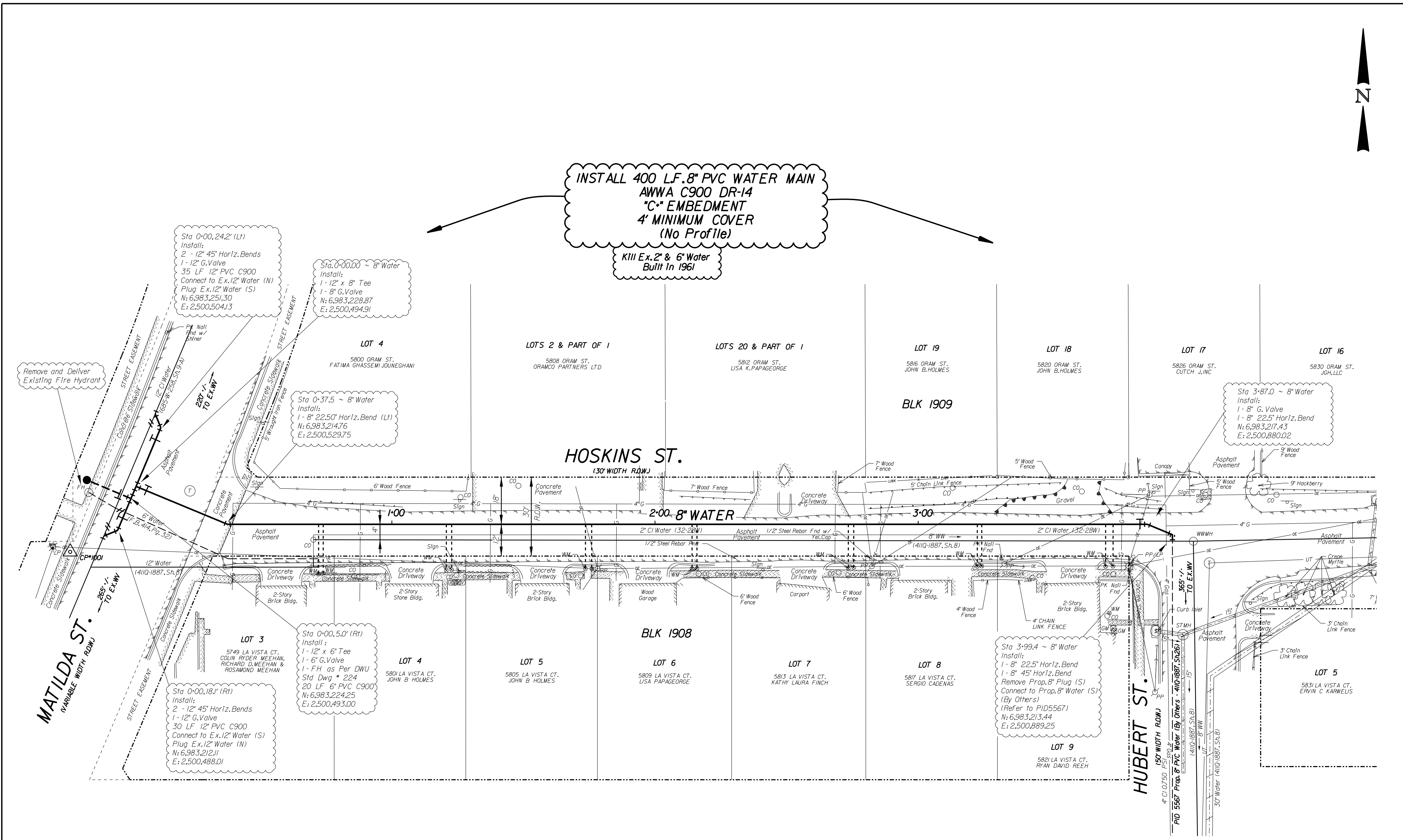
**8" WASTEWATER MAIN**  
 EASEMENT BTWN WILLOMET AND CLINTON  
 MH E of WINNETKA to MH W of WINNETKA  
 WATER UTILITIES DEPARTMENT  
 CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
SC	SC	JAN 2020	1"=20' H. 1"=6' V.	PID 403	411Q	239A



SDATES

FILES



- NOTES
1. THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES, INC. ON 07/22/2015. THE SURVEY DATA FOR DESIGN IS ON GRID COORDINATES. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  2. CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DWU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.
  3. INSTALL THE PROPOSED WATER MAIN WITH 2-FOOT OF VERTICAL SEPARATION DISTANCE ABOVE THE EXISTING 8" WASTEWATER.
  4. CONTRACTOR TO COORDINATE WITH CONSTRUCTION OF PID 5567 AS NEEDED.

**CAUTION ~ GAS !**  
 Underground Gas Main in Area  
 Contact ATMOS Energy Corp. Two Working  
 Days Prior To Construction.  
 Tele: 1-800-344-8377 / 1-800-545-6005

CALL ALLEN BURROW OF ATMOS GAS AT  
 469-261-2047 DURING CONSTRUCTION

REV. NO.	DATE	DESCRIPTION	BY

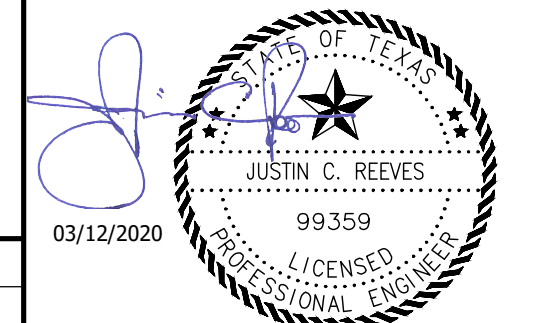
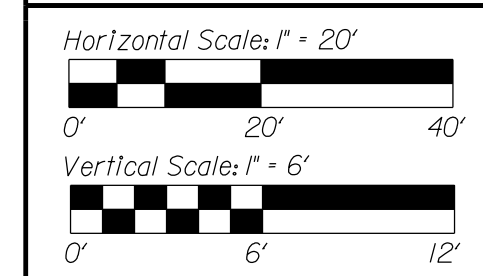
**BENCHMARKS & CONTROL POINTS**

**BENCHMARK**  
 SQUARE ON CURB RADIUS SOUTHWEST CORNER OF THE INTERSECTION OF LA VISTA DRIVE AND MECCA STREET.  
**ELEV • 530.50**

**BENCHMARK**  
 STD WDBM ON CONCRETE CURB BEGINNING OF RADIUS NORTHEAST CORNER OF THE INTERSECTION OF MATILDA STREET AND ORAM STREET  
**ELEV • 552.99**

**CP \*1000**  
 5/8" STEEL REBAR SET W/ CAP 150' +/- EAST OF CENTERLINE HUBERT ST. 11' +/- NORTH OF CENTERLINE OF HOSKINS ST.  
 N: 6,983,225.55 E: 2,500,050.75  
**ELEV • 545.78**

**CP \*1001**  
 \*X" CUT SET IN CONCRETE ON WESTSIDE OF MATILDA ST. 15' +/- SOUTH OF CENTERLINE OF ROW HOSKINS ST.  
 N: 6,983,203.80 E: 2,500,470.04  
**ELEV • 550.20**



**REFERENCES**

WATER	32-28W
WASTEWATER	BH H-10, 32-28S

12655 NORTH CENTRAL EXPY., #500, DALLAS, TEXAS 75243  
 (P) 214-343-1210  
 TEXAS FIRM REG. No. F-2488

**CONTRACT NO. 20-001/002**      **PID: 1102**

**8" WATER**  
**HOSKINS STREET**  
**MATILDA ST TO HUBERT ST**  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LAN	LAN	MAR 2020	411Q	1887	30



**NOTE**

- UTILITY CROSSINGS WITH UNKNOWN FLOWLINE ELEVATIONS SHALL BE INVESTIGATED PER ITEM 20500 INVESTIGATION PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL WASTEWATER LATERALS AND CONSTRUCT NEW LATERALS WHETHER SHOWN ON THE PLANS OR NOT) FROM THE WASTEWATER MAIN TO THE PROPERTY LINE WITH CLEADITS AND RECONNECT TO THE EXISTING LATERALS. DYE TESTING MAYBE REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL COORDINATE WW CONSTRUCTION WITH THE EARLE CABELL FEDERAL BUILDING, RICHARD KUHLMAN AT (214) 767-8194 30 DAYS PRIOR TO BEGINNING CONSTRUCTION IN JACKSON STREET.

- INFORMATION ON EXISTING TELEPHONE/ELECTRICAL CONDUITS AND DUCTS HAVE BEEN PROVIDED BY THIRD PARTY RECORD DRAWINGS.
- CONTRACTOR TO COORDINATE WITH ATT REPRESENTATIVE MICHAEL MITCHELL AT (214) 320-6444 PRIOR TO CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH ONCOR REPRESENTATIVE ANTHONY GORDON AT (713) 702-4201 PRIOR TO CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH ATMS REPRESENTATIVE SUE INURRIGARRO AT (469) 261-2006 PRIOR TO CONSTRUCTION.
- DIRECTIONAL DRILLING & ANY TYPE OF MECHANICAL BORING ARE PROHIBITED IN THE CBD BY CITY ORDINANCE 24495. ANY OTHER THAN OPEN CUT CONSTRUCTION MUST BE DONE BY HAND DUG TUNNELING.

THE LOCATIONS OF EXISTING UTILITIES AS INDICATED ON THESE DRAWINGS ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF ALL BURIED UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED MAINS PRIOR TO BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE CITY OF ANY CONFLICT WITH EXISTING UTILITIES.

REPLACEMENT SEWER IS TO FOLLOW THE EXISTING 8" W.W. ALIGNMENT. ALIGNMENT IS FROM BEST INFORMATION AVAILABLE.

**WW-2**  
REHABILITATE EX. 12" WASTEWATER MAIN  
Built In 1960

Sta 0+88.4, Line WW-2  
FOR PROFILE SEE 4110-1599C, SH.184  
Remove Ex. M.H.  
Construct Non-Std. 4.0' Dia.  
Eccentric W.W. M.H.  
Conn. Ex. 12" W.W. In (NW)  
Conn. Prop. 12" W.W. Out (E)  
N=49,958.75  
E=19,789.25

LINE "WW-2"  
FOR PROFILE SEE  
4110-1599C, SH.184

0' 10' 20' 40'  
SCALE IN FEET



LOCATION MAP (N.T.S.)  
MAPSCO 45P

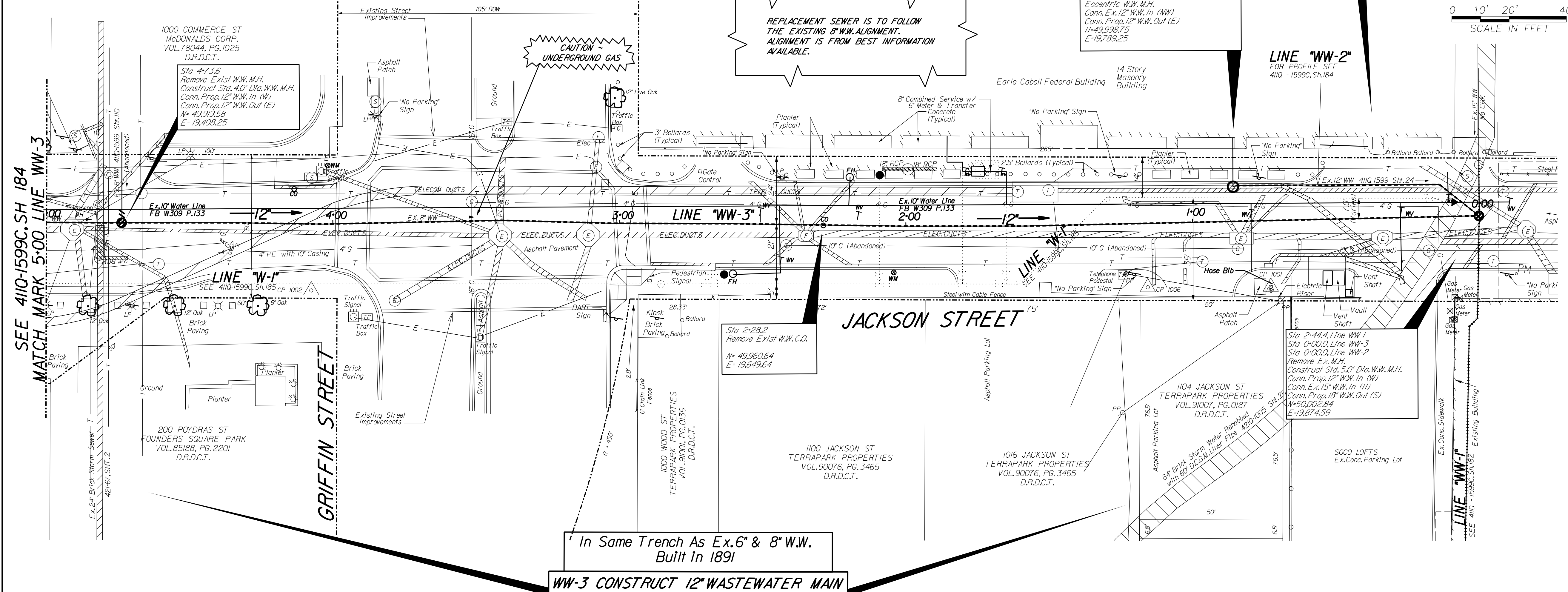
CONTROL POINTS-ONSITE BENCH MARKS

POINT	COORDINATES	DESCRIPTION
1000	N 50,000.000 E 20,000.000 Elev. 423.91	"X" cut in sidewalk on S side of Jackson St., 465' E of the centerline of Griffin St.
1001	N 49,965.995 E 19,807.150 Elev. 421.43	"X" cut in sidewalk on S side of Jackson St., 270' E of the centerline of Griffin St.
1002	N 49,907.578 E 19,477.394 Elev. 423.65	PK nail in sidewalk on S side of Jackson St., 64' W of the centerline of Griffin St.
1003	N 49,819.474 E 19,106.177 Elev. 426.66	"X" cut in sidewalk on S side of Jackson St., 51' W of the centerline of Lamar St.
1004	N 49,765.523 E 18,805.615 Elev. 428.60	"X" cut in sidewalk on S side of Jackson St., 75' W of the centerline of Austin St.
1005	N 49,862.543 E 19,287.635 Elev. 425.73	PK nail set in sidewalk on S side of Jackson St., 135' E of the centerline of Lamar St.
1006	N 49,958.507 E 19,764.878 Elev. 421.61	"X" cut in sidewalk on S side of Jackson St., 227' E of the centerline of Griffin St.

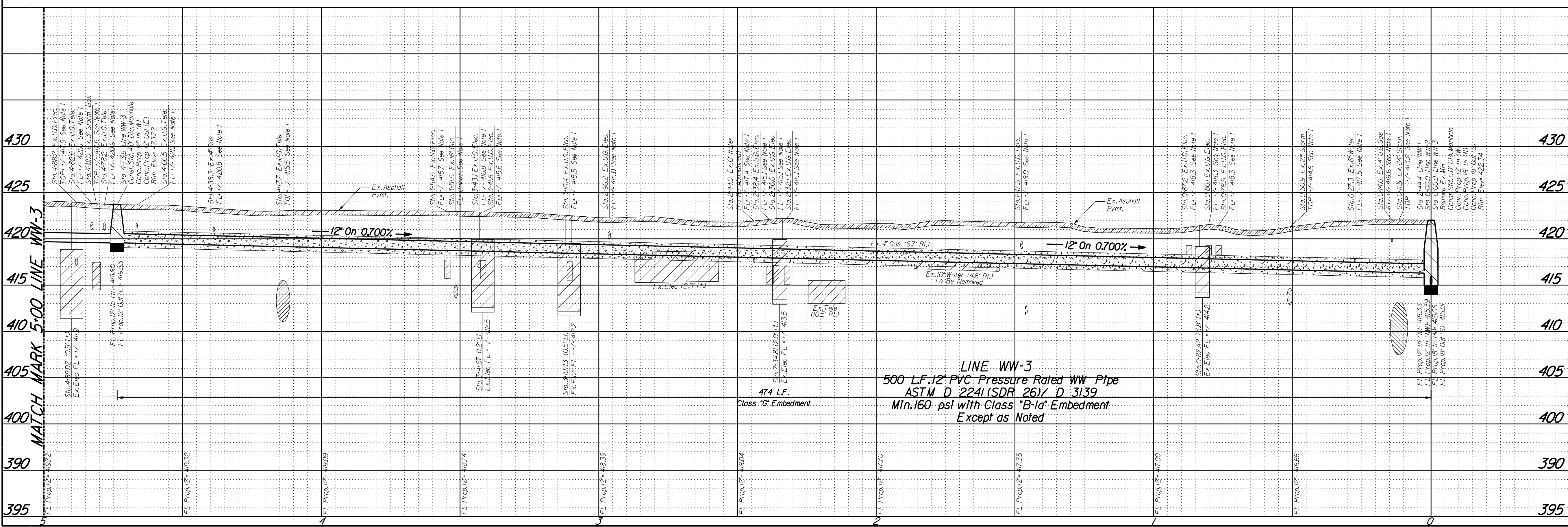
CAUTION - UNDERGROUND UTILITIES!  
Call 1-800-344-8377 Two Working Days Prior To Construction For On Site Locations.

CAUTION - GAS  
Existing Gas Main in Area.  
Contact Atmos Gas Co.  
Two Working Days Prior to Construction For On Site Locations. - Pr. 1-800-344-8377

Bud Holcomb	Water Map 39-24 W 38-24W 38-25W	W.W. Map 38-24S 38-25(C)	MAPSCO 45P
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In Same Trench As Ex. 6" & 8" W.W.  
Built in 1891  
**WW-3 CONSTRUCT 12" WASTEWATER MAIN**



DWU Benchmarks

BM #1	- Bolt in sidewalk at northwest corner of Young St. and Field St. Elev. = 430.79
BM #2	- Sp. cut on concrete curb in center of storm sewer later on west curb of Griffin St. and 15' south of south property line of Young St. Elev. = 418.81

CONT. NO. 20-001/002

**12" WASTEWATER MAIN**  
JACKSON STREET  
BETWEEN FIELD ST. AND AUSTIN ST.  
WATER UTILITIES DEPARTMENT  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAN	LAN	October 2017	1"=20'H, 1"=6" V.	PID 1674	4110 1599C	

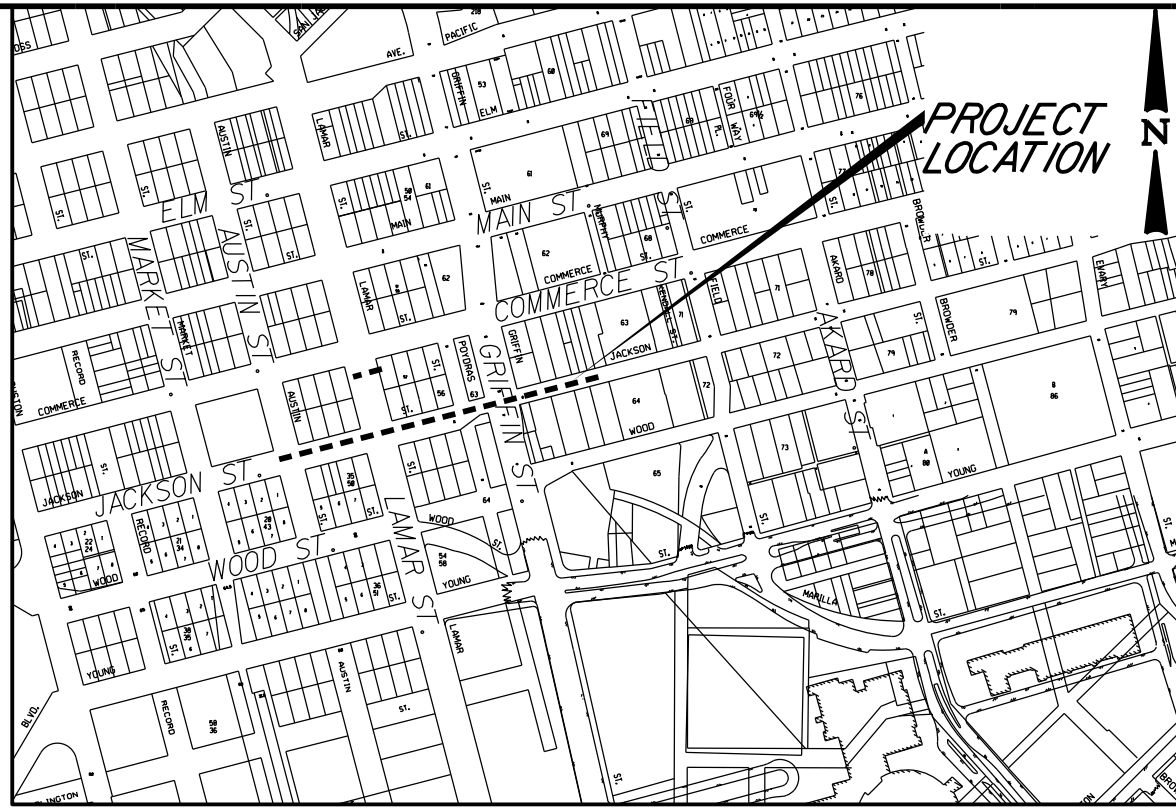


**NOTES**

- UTILITY CROSSINGS WITH UNKNOWN FLOWLINE, ELEVATIONS SHALL BE INVESTIGATED PER ITEM 20500 INVESTIGATION PRIOR TO CONSTRUCTION.
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- CONTRACTOR TO COORDINATE WITH ATMS REPRESENTATIVE SUE INURRIGARRO AT (469) 261-2006 PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT RICHARD SALIE, WITH GREYHOUND BUS LINES, AT (214) 949-8236 AT LEAST 30 DAYS IN ADVANCE TO COORDINATE CONSTRUCTION IN JACKSON STREET BETWEEN AUSTIN STREET AND LAMAR STREET.
- BASEMENTS FOR 800, 801 & 900 JACKSON ST EXTEND OUT UNDER THE SIDEWALK. CONTRACTOR SHALL NOT OPERATE OR PARK EQUIPMENT OR STORE MATERIAL OVER ANY BASEMENT AREAS.

REPLACEMENT SEWER IS TO FOLLOW THE EXISTING 6" W.W. ALIGNMENT. ALIGNMENT IS FROM BEST INFORMATION AVAILABLE.

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LOCATION MAP (N.T.S.) MAPSCO 45P

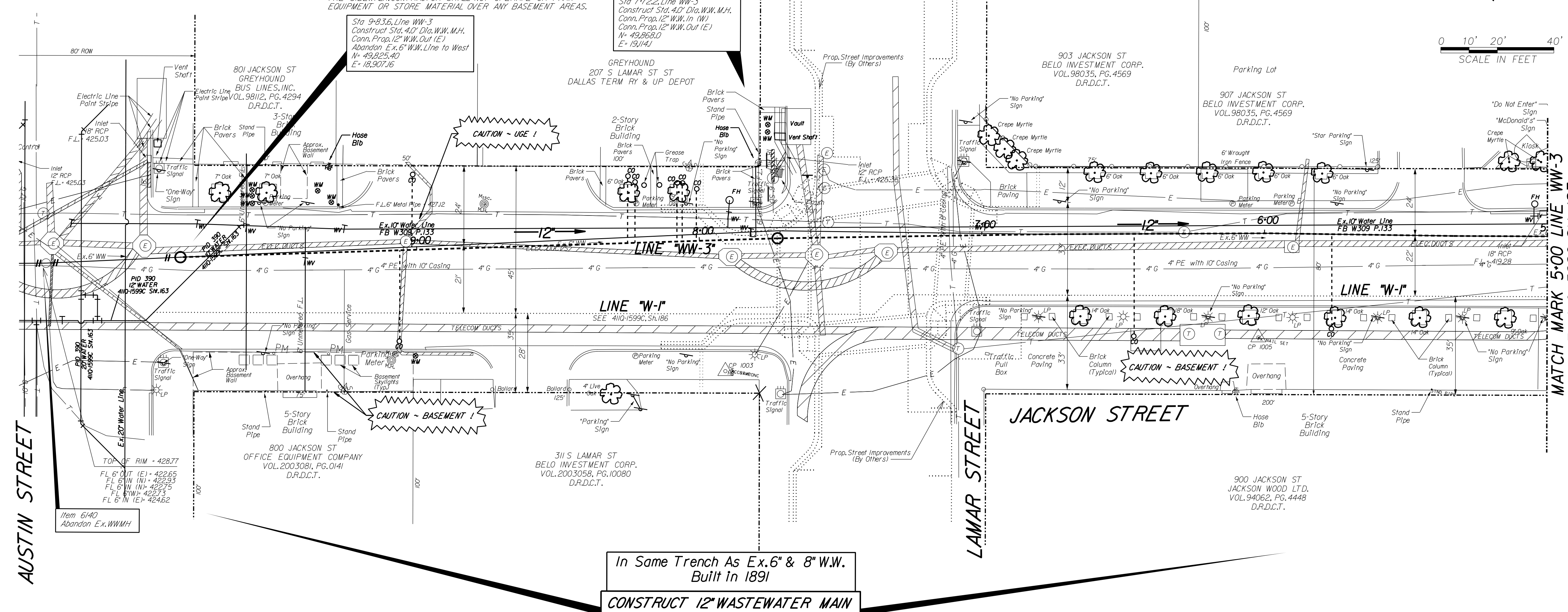
CONTROL POINTS-ONSITE BENCH MARKS

POINT	COORDINATES	DESCRIPTION
1000	N 50,000.000 E 20,000.000 Elev. 423.91	"X" cut in sidewalk on S side of Jackson St., 465' E of the centerline of Griffin St.
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1006	N 49,958.507 E 19,764.878 Elev. 421.61	"X" cut in sidewalk on S side of Jackson St., 227' E of the centerline of Griffin St.

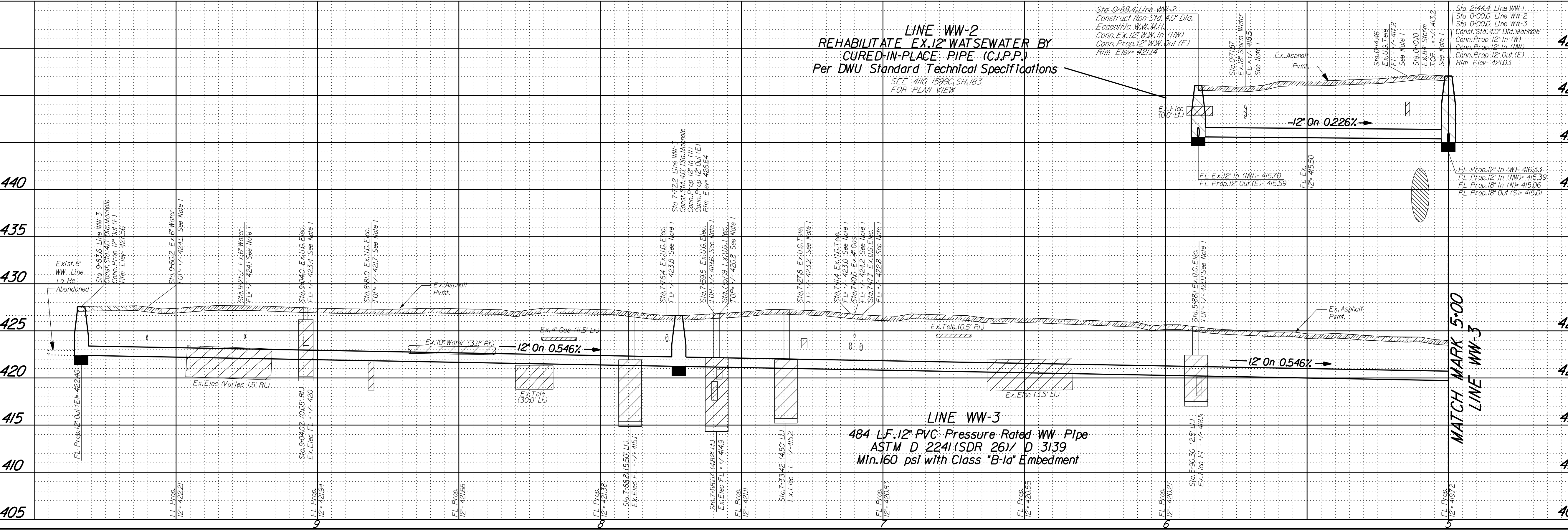
CAUTION - UNDERGROUND UTILITIES!  
Call 1-800-344-8377 Two Working Days Prior To Construction For On Site Locations.

CAUTION - GAS  
Existing Gas Main In Area.  
Contact Atmos Gas Co.  
Two Working Days Prior To Construction For On Site Locations. - Pr. # 1-800-344-8377

But Halcomb	Water Map	W.W. Map	MAPSCO
	39-24 W 38-24W 38-25W	38-24S 38-25(S)	45P



In Same Trench As Ex. 6" & 8" W.W.  
BUILT IN 1891  
CONSTRUCT 12" WASTEWATER MAIN



LINE WW-2  
REHABILITATE EX. 12" WASTEWATER BY CURED-IN-PLACE PIPE (C.I.P.P.)  
Per DWU Standard Technical Specifications  
SEE 4110-1599C, SH. 183 FOR PLAN VIEW

LINE WW-3  
484 LF. 12" PVC Pressure Rated WW Pipe  
ASTM D 2241 (SDR 26) / D 3139  
Min. 160 psi with Class "B-1a" Embedment

425	DWU Benchmarks	
420	BM #1 - Bolt in sidewalk at northwest corner of Young St. and Field St. Elev. = 430.79	
415	BM #2 - Sq. cut on concrete curb in center of storm sewer, 116ft on west side of Griffin St., 135' south of south property line of Young St. Elev. = 418.81	
410		
405		
184		
CONT. NO. 20-001/002		
<b>12" WASTEWATER MAIN</b> <b>JACKSON STREET</b> <b>BETWEEN FIELD ST. AND AUSTIN ST.</b> <b>WATER UTILITIES DEPARTMENT</b> <b>CITY OF DALLAS, TEXAS</b>		
DESIGN	LAN	NO.
DRAWN	LAN	FILE
DATE	October 2017	NOTES
SCALE	1"=20'H. 1"=6"V.	NO.
	PID 1674	4110 1599C



**NOTES**

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- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL WATER SERVICES (WHETHER SHOWN ON THE PLANS OR NOT) FROM THE WATER MAIN TO THE PROPERTY LINE WITH WATER METERS AND RECONNECT EXISTING SERVICES.
- KEEP EXISTING VAULT BYPASS CONNECTED UNTIL NEW VAULT HAS BEEN INSTALLED, TESTED AND CONNECTED TO EXISTING SERVICE.
- INFORMATION ON EXISTING TELEPHONE/ELECTRICAL CONDUITS AND DUCTS HAVE BEEN PROVIDED BY THIRD PARTY RECORD DRAWINGS.
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- CONTRACTOR TO COORDINATE WITH ATMS REPRESENTATIVE SUE INURRIGARRO AT (469) 261-2006 PRIOR TO CONSTRUCTION.
- EARLE CABELL FEDERAL BUILDING HAS DUAL SERVICE FOR FIRE PROTECTION AND DOMESTIC SERVICE. CONTRACTOR SHALL COORDINATE WATER MAIN AND SERVICE CONSTRUCTION WITH RICHARD KUHLMAN AT (214) 767-8194 AT LEAST 30 DAYS PRIOR TO BEGINNING CONSTRUCTION IN JACKSON STREET.
- DIRECTIONAL DRILLING & ANY TYPE OF MECHANICAL BORING ARE PROHIBITED IN THE CBD BY CITY ORDINANCE 24995, ANY BY OTHER THAN OPEN CUT CONSTRUCTION MUST BE DONE BY HAND DUG TUNNELING.

INSTALL 12" WATER

K111 Ex. 10" Water Built Prior to 1916



PROJECT LOCATION  
LOCATION MAP (N.T.S.)  
MAPSCO 45P

CONTROL POINTS - ONSITE BENCH MARKS

POINT	COORDINATES	DESCRIPTION
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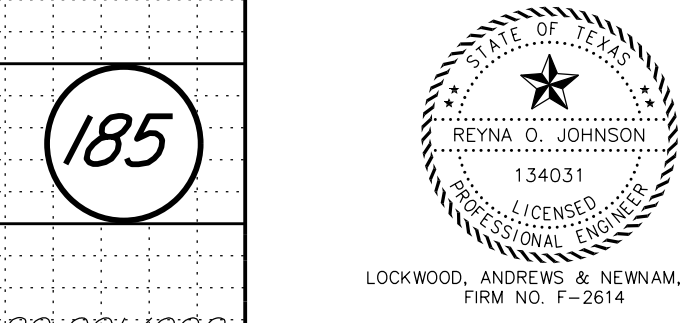
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Bud Holcomb	Water Map 39-24 W 38-24N 38-25W	W.W. Map 38-24S 38-25(SIC)	MAPSCO 45P
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DWU Benchmarks

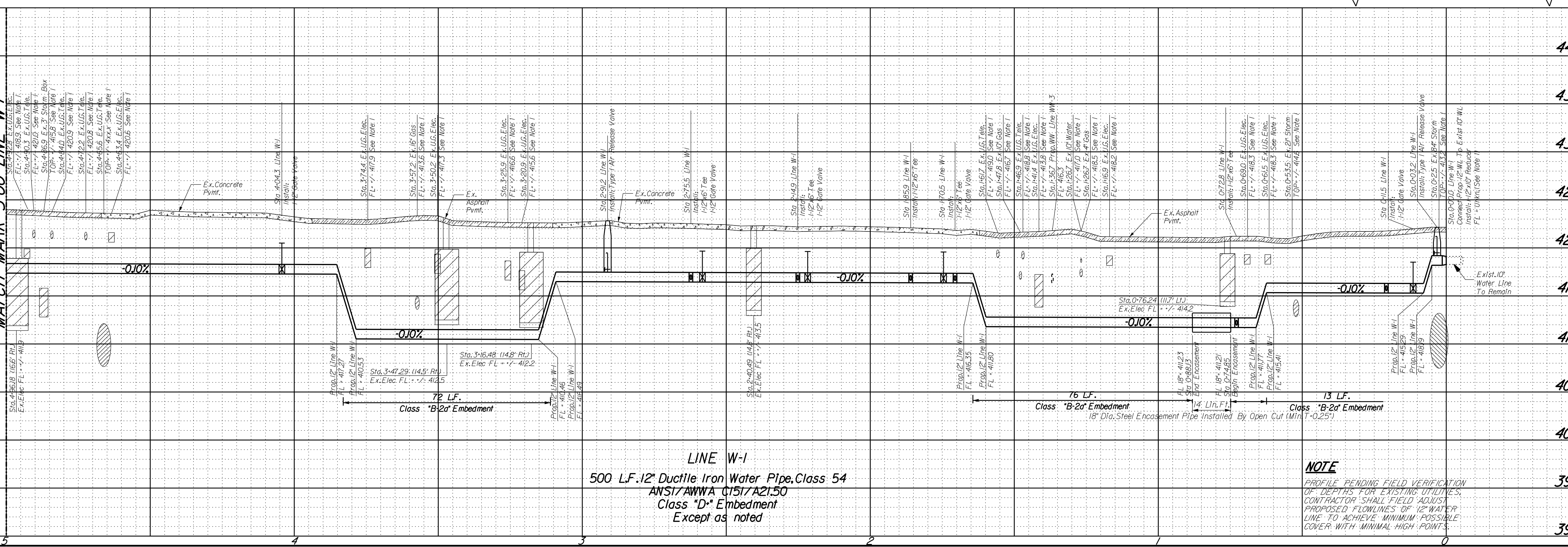
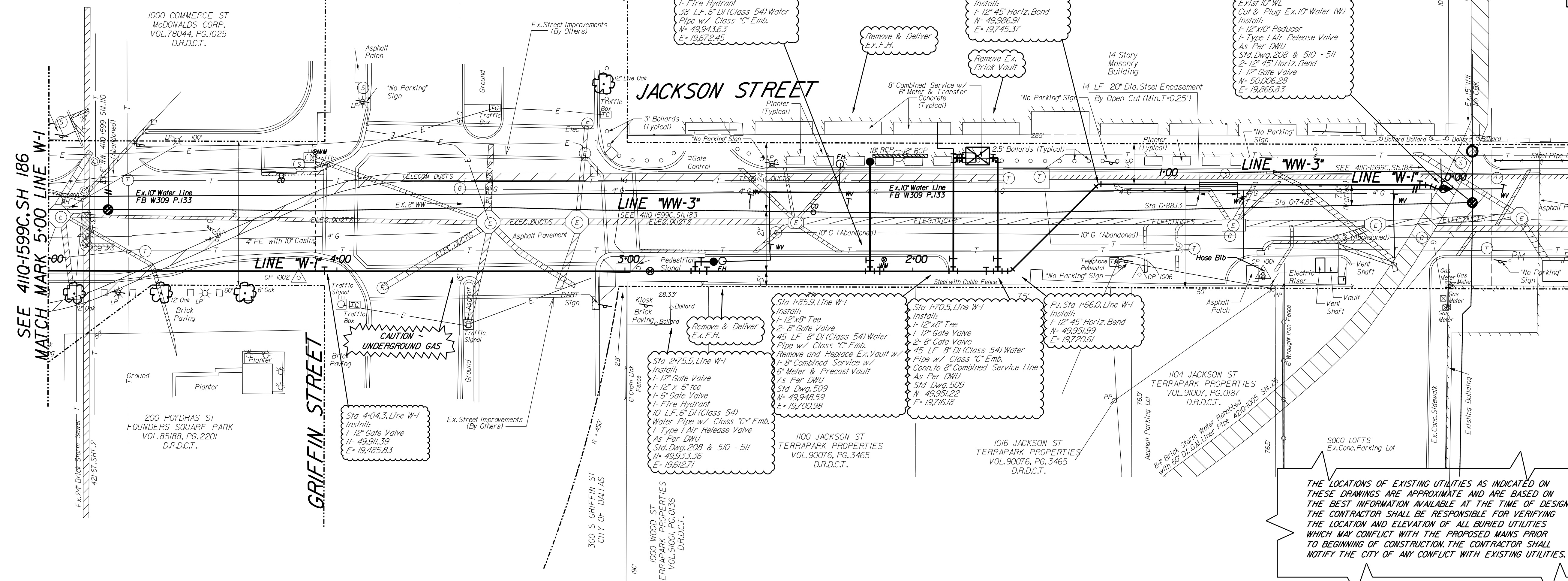
- BM #1 - Bolt in sidewalk at northwest corner of Young St. and Field St. Elev. = 430.79
- BM #2 - Sq. cut on concrete curb in center of storm sewer tunnel on west curb of Griffin St., 51.00' 15" south of south property line of Young St. Elev. = 418.81



CONT. NO. 20-001/002

<b>A&amp;B</b>	A&B LLC 11355 MCKEE ROAD DALLAS, TEXAS 75228 (214) 341-9900	<b>LAN</b> Lockwood, Andrews & Newnam, Inc. A LEAD & BARRY COMPANY Texas Registered Engineering Firm F-2614 134031 LOCKWOOD, ANDREWS & NEWMAM, INC. FIRM NO. F-2614
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<b>12" WATER MAIN</b>						
<b>JACKSON STREET</b>						
<b>BETWEEN FIELD ST. AND AUSTIN ST.</b>						
<b>WATER UTILITIES DEPARTMENT</b>						
<b>CITY OF DALLAS, TEXAS</b>						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAN	LAN	October 2017	1"=20'H, 1"=6' V.	PID 1674	411Q	1599C

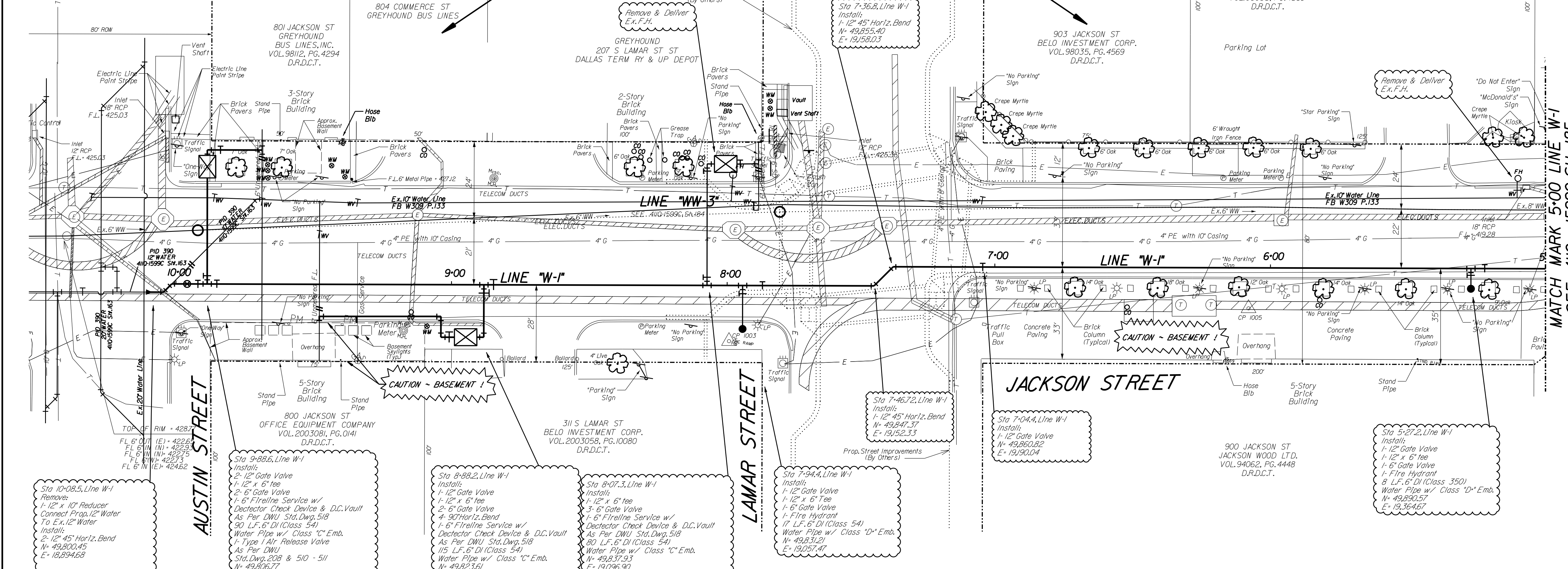
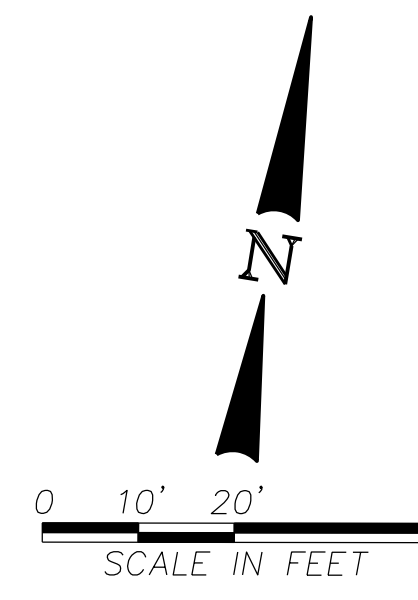




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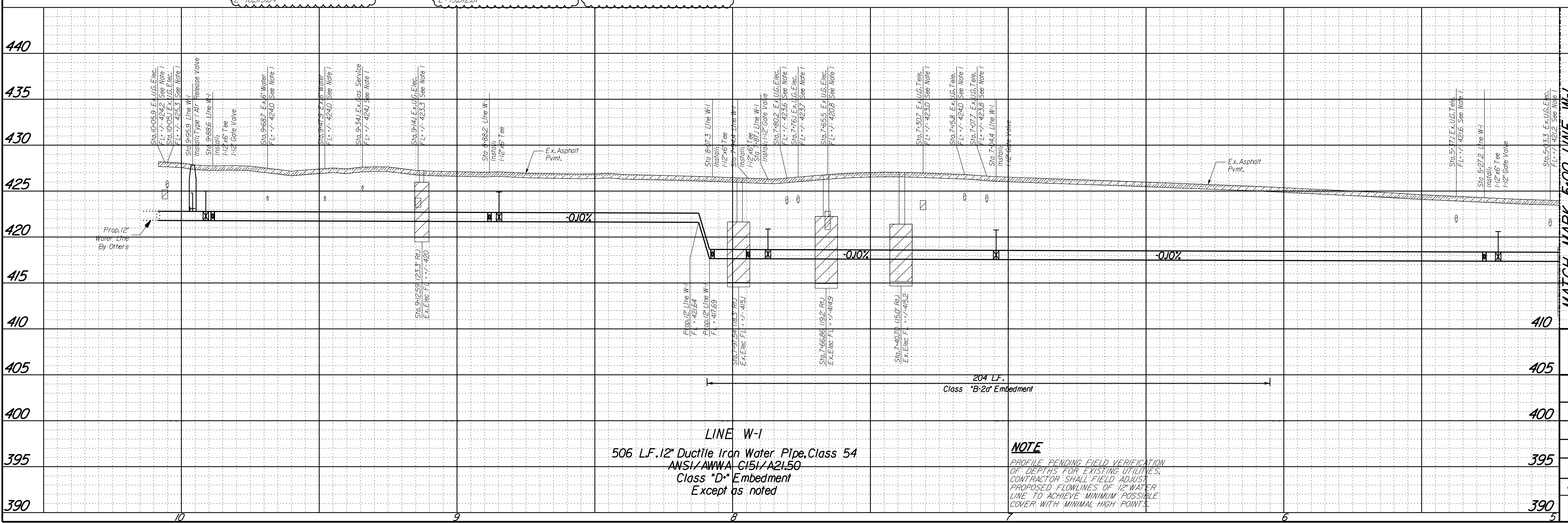
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End Holcomb	Water Map 39-24 W 38-24W 38-25W	W.W. Map 38-24S 38-25(S/C)	MAPSCO 45P
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MATCH MARK 5+00 LINE W-1

440 DWU Benchmarks

BM #1 - Bolt in sidewalk at northwest corner of Young St. and Field St. Elev. = 430.79

BM #2 - Sp. cut on concrete curb in center of storm sewer inlet on west curb of Griffin St. and 15' - 0" south of south property line of Young St. Elev. = 418.81

186

LOCKWOOD, ANDREWS & NEWMAN, INC.  
FIRM NO. F-2614

CONT. NO. 20-001/002

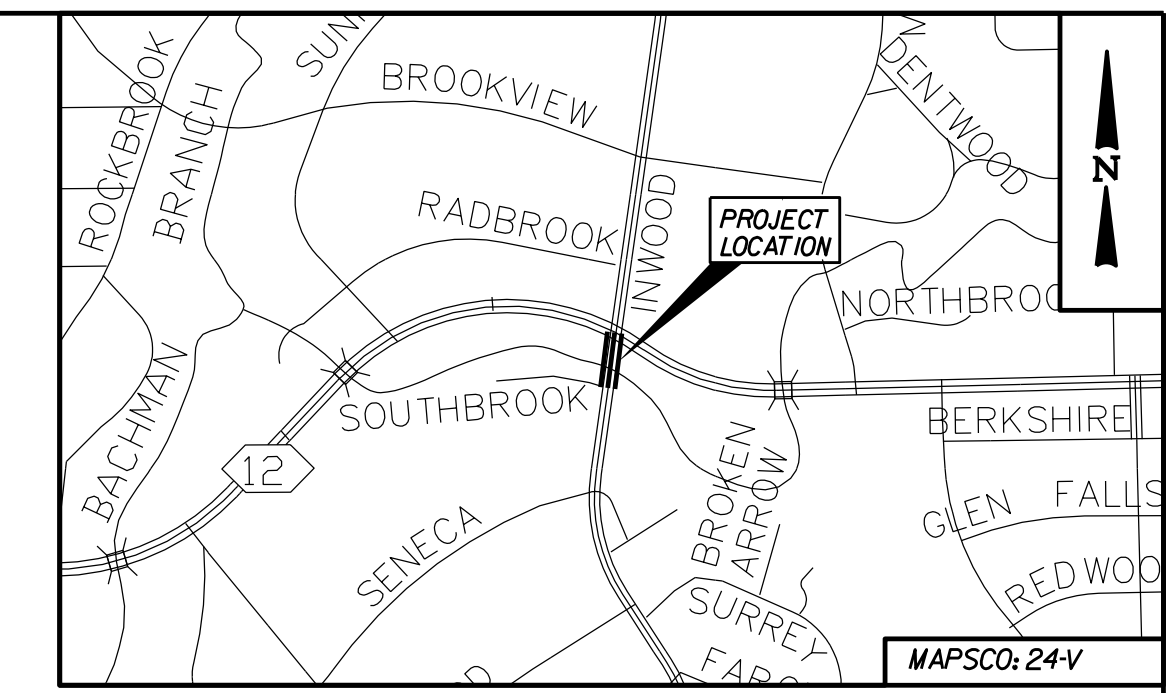
<b>A&amp;B</b>	A&B, LLC 11355 MCKEE ROAD DALLAS, TEXAS 75238 (214) 341-9900	<b>LAN</b> Lockwood, Andrews & Newman, Inc. A LEAD & BARRY COMPANY Texas Registered Engineering Firm F-2614
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**12" WATER MAIN**  
**JACKSON STREET**  
**BETWEEN FIELD ST. AND AUSTIN ST.**  
**WATER UTILITIES DEPARTMENT**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAN	LAN	October 2017	1"=20'H, 1"=6"V.	PID 1674	4110 1599C	

**NOTE**  
PROFILE PENDING FIELD VERIFICATION OF DEPTHS FOR EXISTING UTILITIES. CONTRACTOR SHALL FIELD ADJUST PROPOSED FLOWLINES OF 12" WATER LINE TO ACHIEVE MINIMUM POSSIBLE COVER WITH MINIMAL HIGH POINTS.



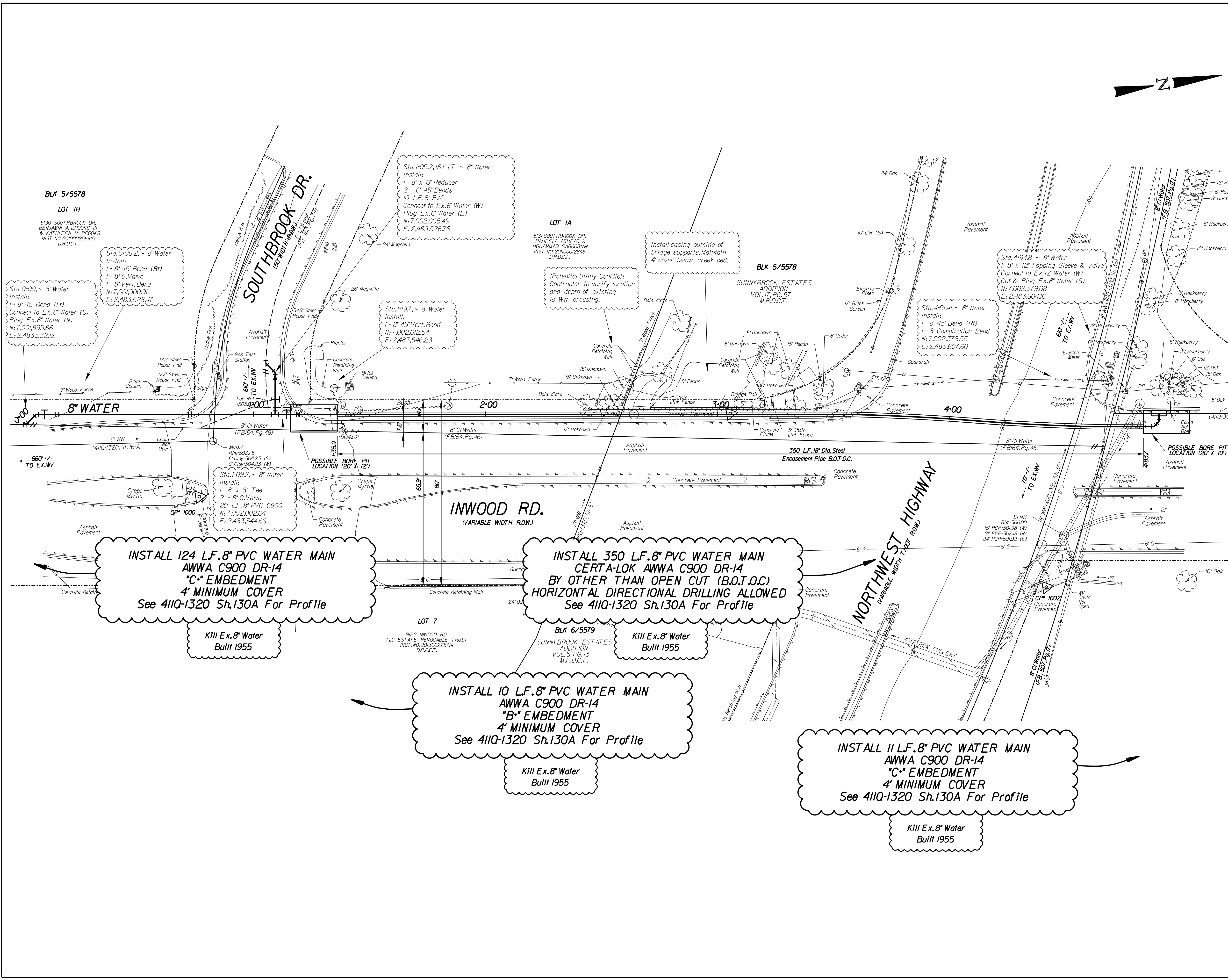


**NOTES**

1. THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES, INC. ON 07/22/2015. THE SURVEY DATA FOR DESIGN IS ON GRID COORDINATES. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
2. CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DWU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&M Energy Corp. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377/1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377



REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

**BENCHMARK**  
SQUARE TWO (2) FEET WEST OF NOSE OF MEDIAN IN CENTER OF NORTHWEST HWY. AND ON THE WEST SIDE OF MEADOWBROOK DR.  
ELEV • 520.25

**BENCHMARK**  
STD WDM ON CONCRETE CURB CENTER OF RADIUS SOUTHEAST CORNER OF INWOOD RD. AND ABOVE BENCH BUFFER OF AT&M GAS AT  
ELEV • 534.41 469-261-2047 DURING CONSTRUCTION

**CP \*1000**  
"X" CUT SET ON CONCRETE MEDIAN IN INWOOD RD. 23' +/- SOUTH OF CENTERLINE OF SOUTH BROOK DR.  
N = 7,001,964.25 E = 2,483,574.54  
ELEV • 509.51

**CP \*1001**  
"X" CUT SET ON CONCRETE SIDEWALK ON EAST SIDE OF INWOOD RD. 110' +/- SOUTHEAST OF INTERSECTION OF NORTHWEST HWY AND INWOOD RD.  
N = 7,002,170.49 E = 2,483,638.81  
ELEV • 501.39

**CP \*1002**  
"X" CUT SET ON CONCRETE SIDEWALK NORTHEAST OF INTERSECTION OF NORTHWEST HWY AND INWOOD RD.  
N = 7,002,319.39 E = 2,483,670.49  
ELEV • 506.27

Horizontal Scale: 1" = 20'

Vertical Scale: 1" = 6'

**REFERENCES**

WATER  
23-22W

WASTEWATER  
BH F-7, 23-22S

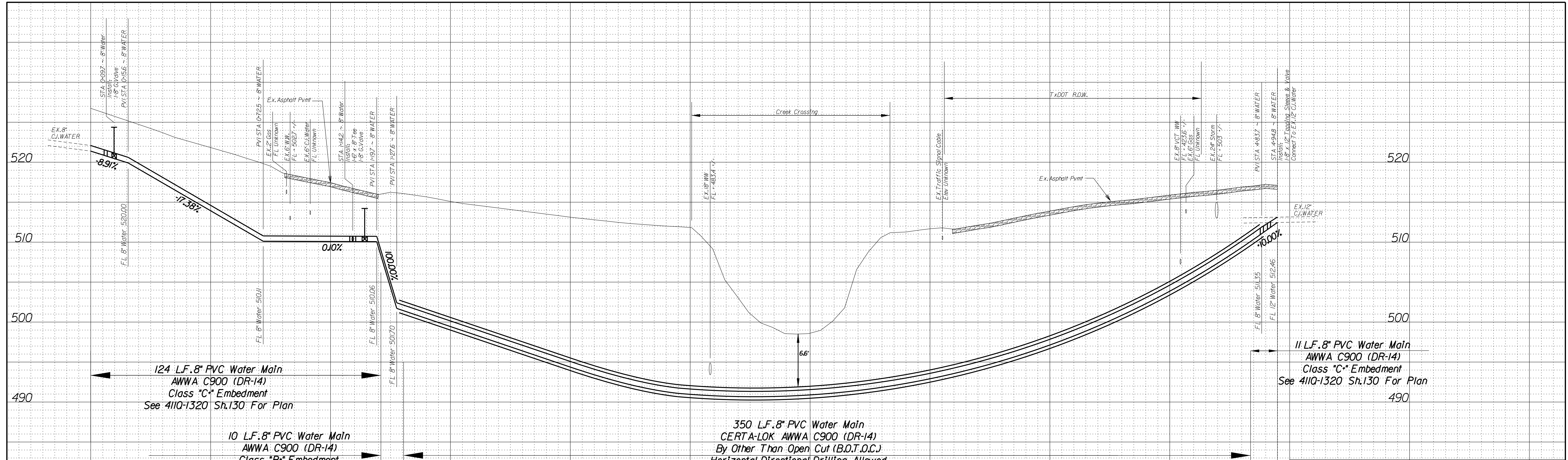
12655 NORTH CENTRAL EXPY., #500, DALLAS, TEXAS 75243  
(P) 214-343-1210  
TEXAS FIRM REG. NO. E-2488

Lockwood, Andrews & Newnam, Inc.  
122593  
GREG A. VAUGHN  
PROFESSIONAL ENGINEER  
EXPIRES 01/10/2020  
LOCKWOOD, ANDREWS & NEWNAM, INC.  
FIRM NO. F-2614

CONTRACT NO. 20-001/20-002 PID: 2622

<b>8" WATER</b>					
<b>INWOOD ROAD</b>					
<b>NORTHWEST HWY TO SOUTH BROOK DR</b>					
<b>DALLAS WATER UTILITIES</b>					
<b>CITY OF DALLAS, TEXAS</b>					
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LAN	LAN	SEP 2019	411Q	1320	130





REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			

**BENCHMARKS & CONTROL POINTS**

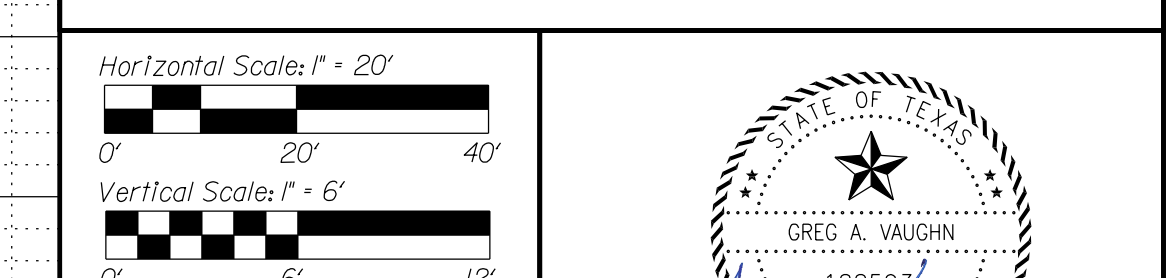
**BENCHMARK**  
 SQUARE TWO (2) FEET WEST OF NOSE OF MEDIAN IN CENTER OF NORTHWEST HWY AND ON THE WEST SIDE OF MEADOWBROOK DR.  
 ELEV • 520.25

**BENCHMARK**  
 STD WDM ON CONCRETE CURB CENTER OF RADIUS SOUTHEAST CORNER OF INWOOD RD AND BROOKVIEW DR.  
 ELEV • 534.41

**CP \*1000**  
 "X" CUT SET ON CONCRETE MEDIAN IN INWOOD RD. 23' +/- SOUTH OF CENTERLINE OF SOUTHBROOK DR.  
 N • 7,001,964.75 E • 2,483,574.54  
 ELEV • 509.51

**CP \*1001**  
 "X" CUT SET ON CONCRETE SIDEWALK ON EASTSIDE OF INWOOD RD. 110' +/- SOUTHWEST OF INTERSECTION OF NORTHWEST HWY AND INWOOD RD.  
 N • 7,002,170.49 E • 2,483,638.81  
 ELEV • 501.39

**CP \*1002**  
 "X" CUT SET ON CONCRETE SIDEWALK NORTHEAST OF INTERSECTION OF NORTHWEST HWY AND INWOOD RD.  
 N • 7,002,319.39 E • 2,483,670.49  
 ELEV • 506.27



**REFERENCES**

WATER  
 23-22W

WASTEWATER  
 BH F-7.23-22S

12655 NORTH CENTRAL EXPY.  
 #500, DALLAS, TEXAS 75243  
 (214) 214-3435-1210  
 TEXAS FIRM REG. No. F-2498B

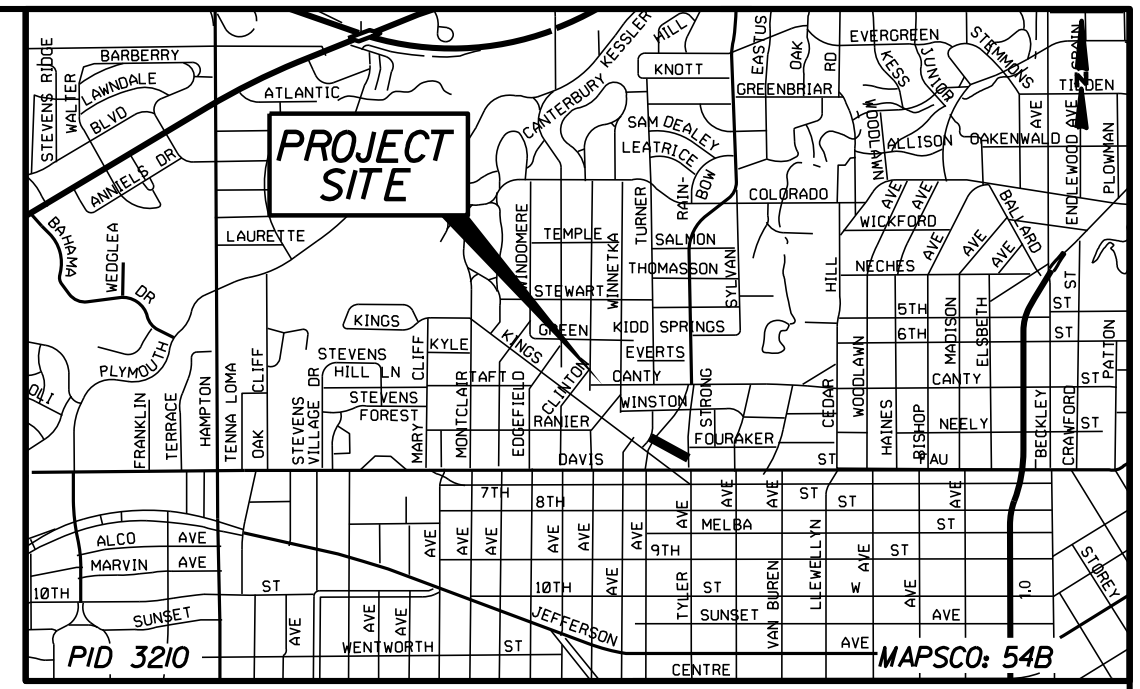
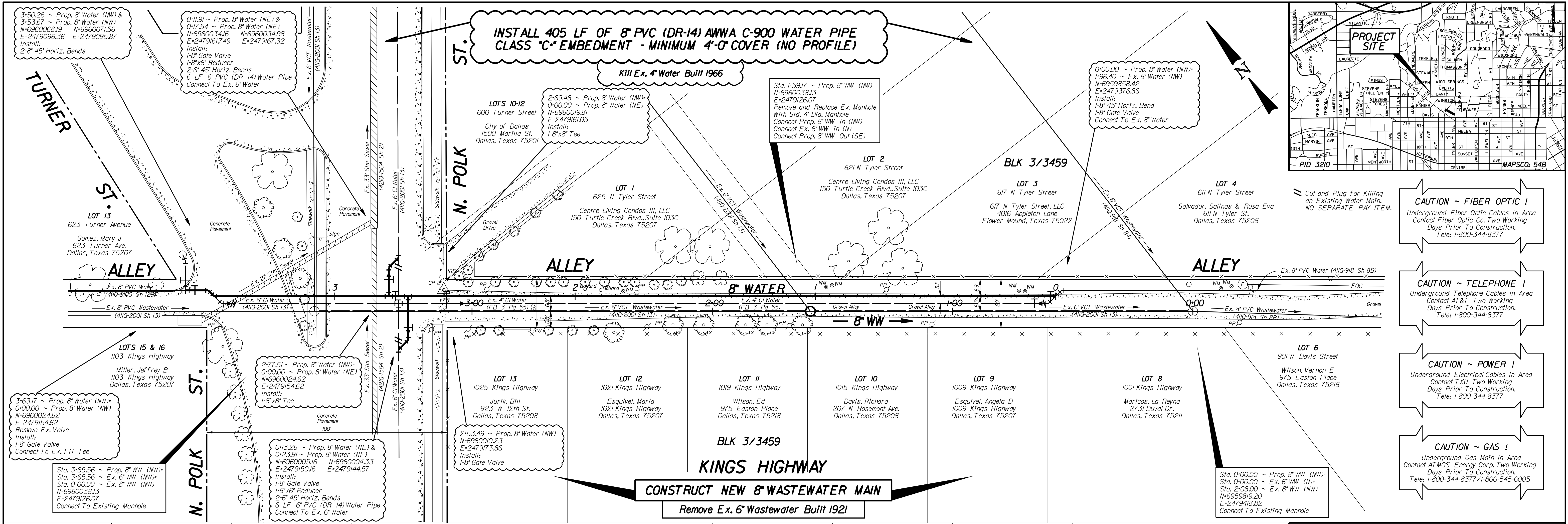
Lockwood, Andrews & Newnam, Inc.  
 122593  
 11/10/2020  
 LOCKWOOD, ANDREWS & NEWNAM, INC.  
 FIRM NO. F-2614  
 FOR PERMITTING PURPOSES ONLY

CONTRACT NO. 20-001/20-002 PID: 2622

**8" WATER PROFILE**  
 INWOOD ROAD  
 NORTHWEST HWY TO SOUTHBROOK DR  
 DALLAS WATER UTILITIES  
 CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LAN	LAN	DEC 2019	411Q	1320	130A



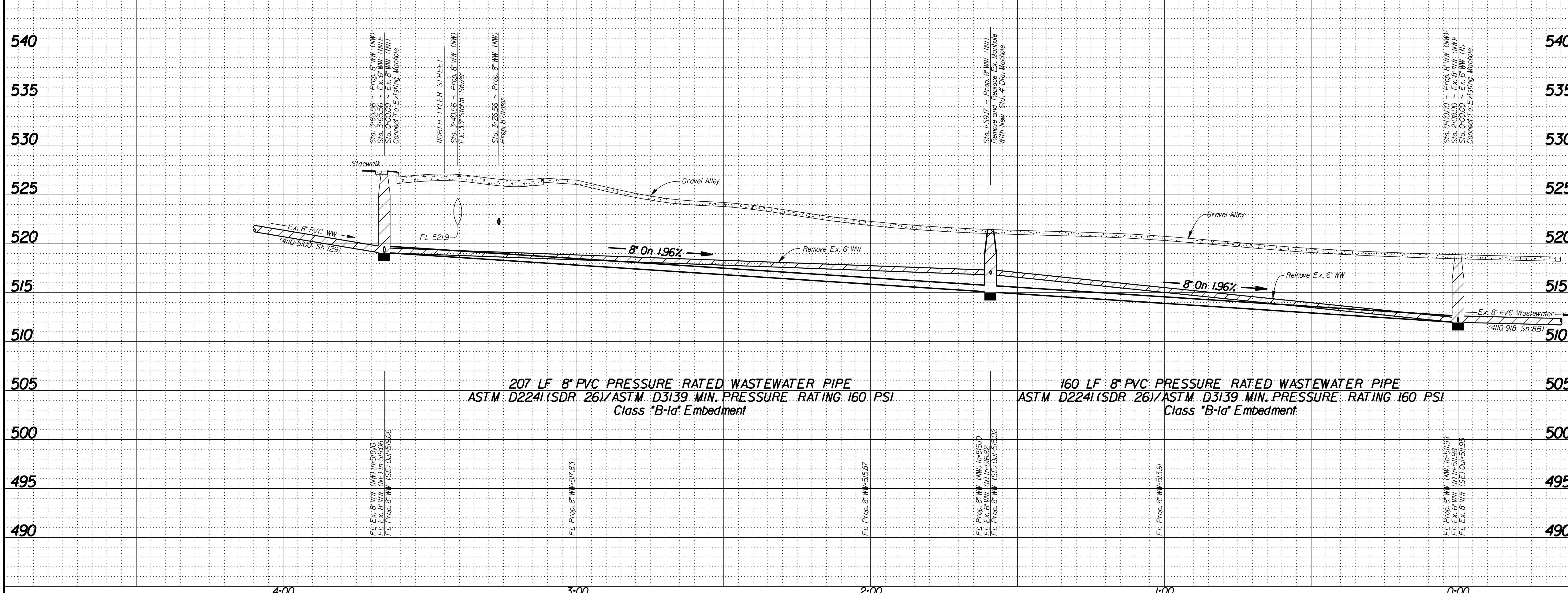


**CAUTION ~ FIBER OPTIC !**  
Underground Fiber Optic Cables In Area  
Contact Fiber Optic Co. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact AT&T Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

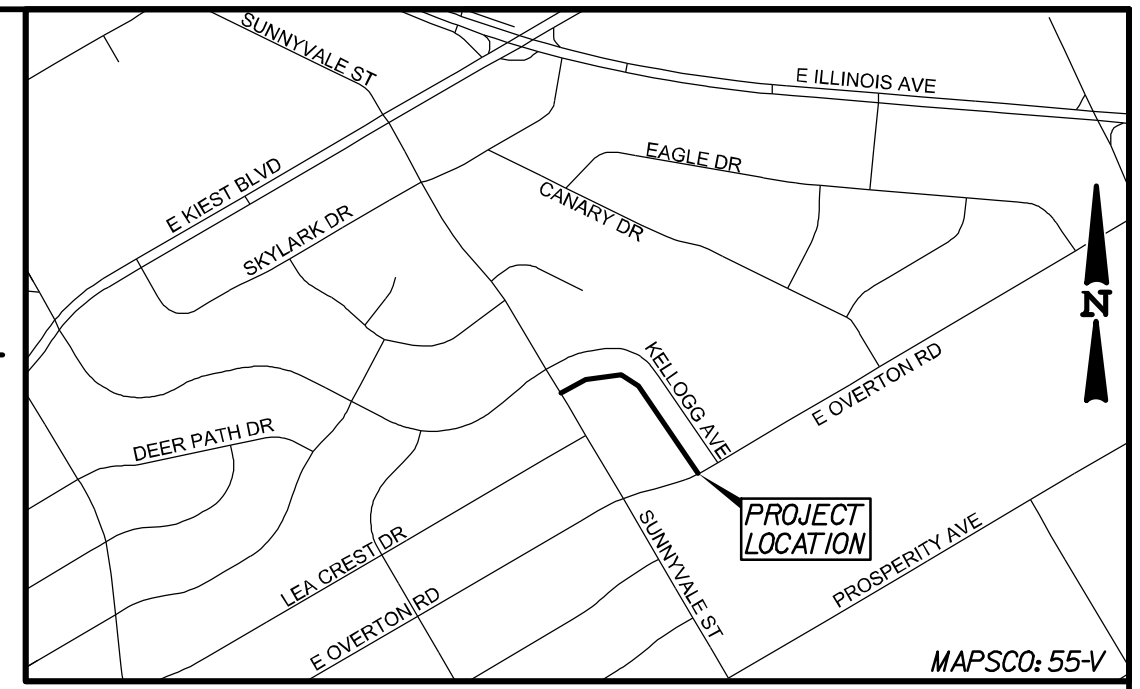
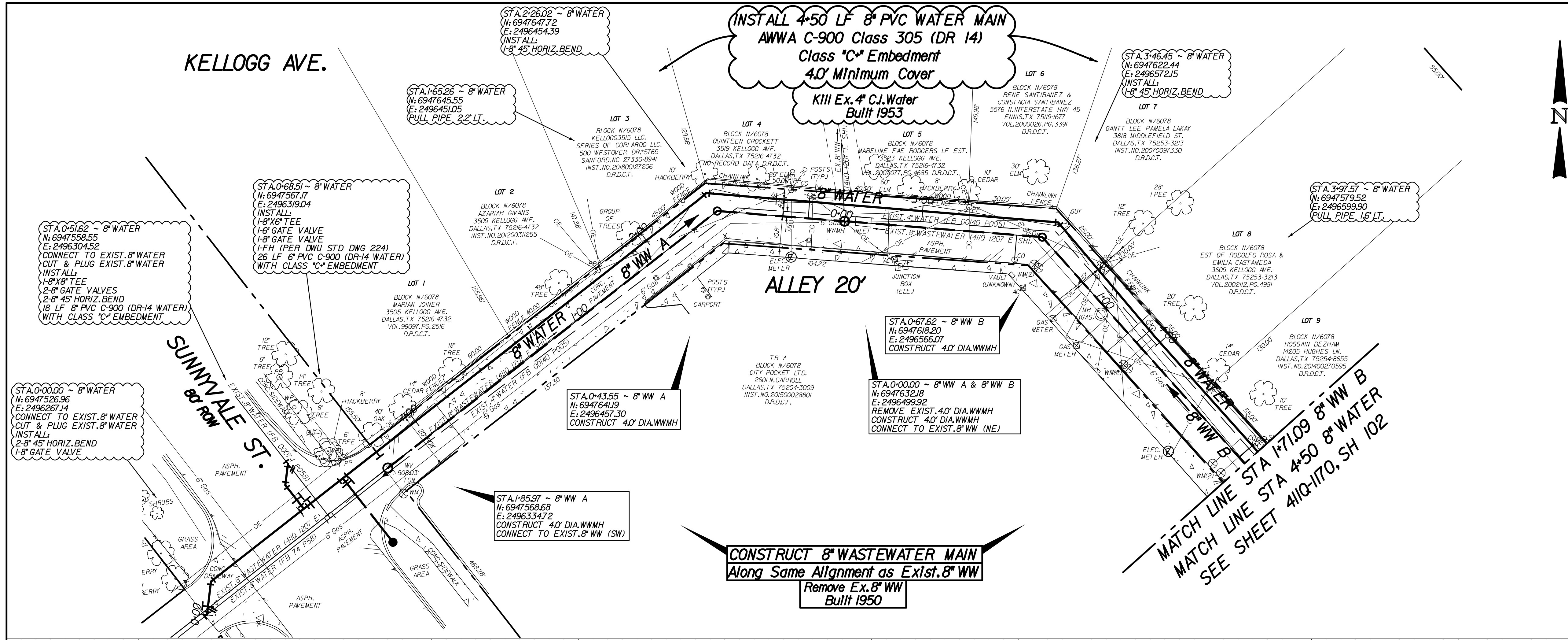
**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact AT&T Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&MOS Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377/1-800-549-6005



REVISIONS				
REV. NO.	DATE	DESCRIPTION	BY	
<b>BENCHMARKS &amp; CONTROL POINTS</b>				
Point	Northing	Easting	Elev.	Description
CP-1	6959733.98	2479531.3	517.52	"X" CUT
CP-2	6960013.03	2479174.49	526.95	"X" CUT
<b>530 BENCHMARK</b> STANDARD WATER DEPARTMENT BENCHMARK ON CONCRETE CURB OF STORM SEWER DROP INLET ON THE NORTHWEST CORNER OF DAVIS STREET AND EILETH STREET. ELEVATION = 500.07				
<b>525 BENCHMARK</b> A STANDARD WATER DEPARTMENT BENCHMARK ON CONCRETE CURB OF STORM SEWER DROP INLET ON THE SOUTHEAST CORNER OF WEST DAVIS STREET AND VAN BUREN AVENUE. ELEVATION = 530.74				
Horizontal Scale: 1" = 20' Vertical Scale: 1" = 6' 				
<b>REFERENCES</b> WATER 43-21W & 44-21W WASTEWATER 43-21S & 44-21S				
<b>2M Associates, LLC</b> 2M Associates, LLC 1801 Gateway Blvd., Suite 101, Richardson, TX 75080 972.444.2800   Binkley@binkley.com				
<b>CONTRACT NO. 20-001/002</b>   <b>PID 3210</b>				
<b>WATER &amp; WASTEWATER MAINS</b> <b>ALLEY/NORTH OF KINGS HIGHWAY</b> <b>N TYLER ST. TO N POLK ST.</b> <b>DALLAS WATER UTILITIES</b> <b>CITY OF DALLAS, TEXAS</b>				
DESIGN	DRAWN	DATE	FILE	NUMBER SHEET
2M	2M	JAN 2020	411Q	0918 024



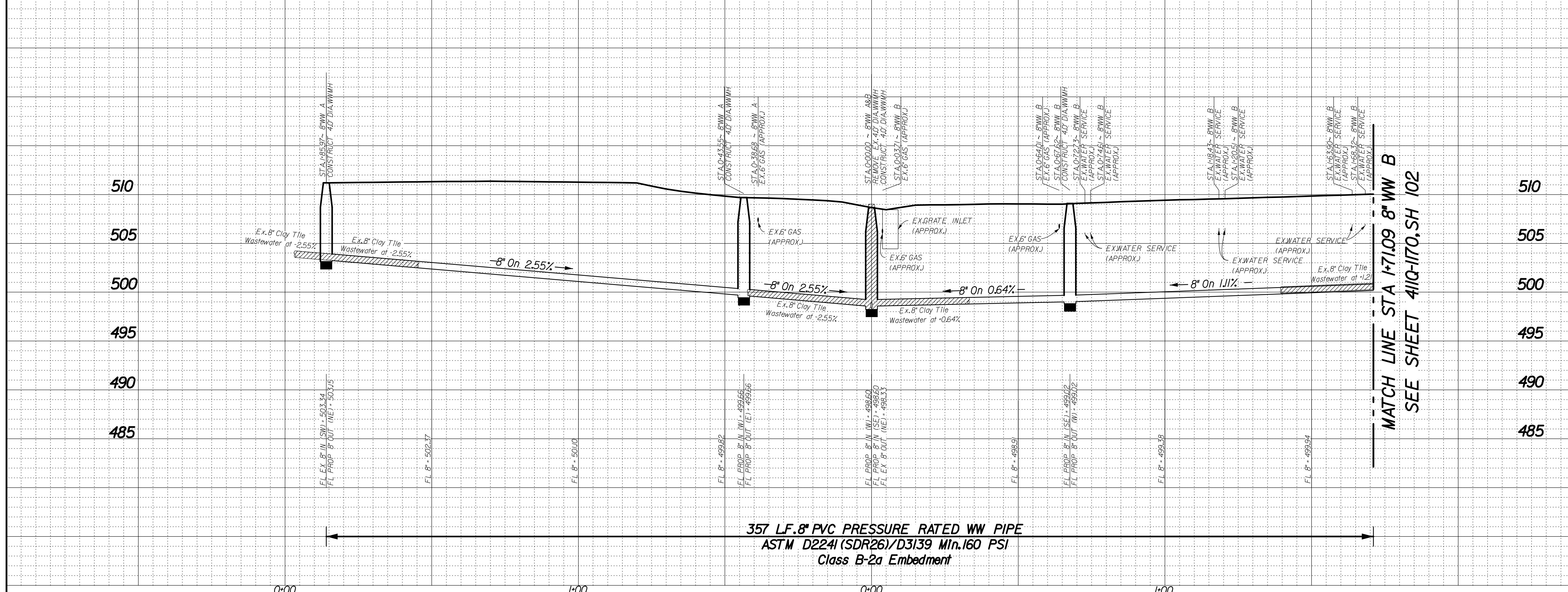


**CAUTION ~ POWER !**  
Underground Electrical Cables in Area  
Contact TXU Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&T Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005

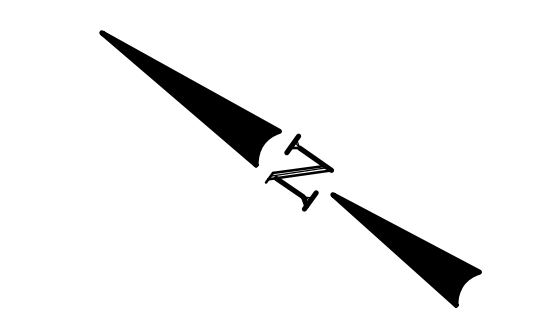
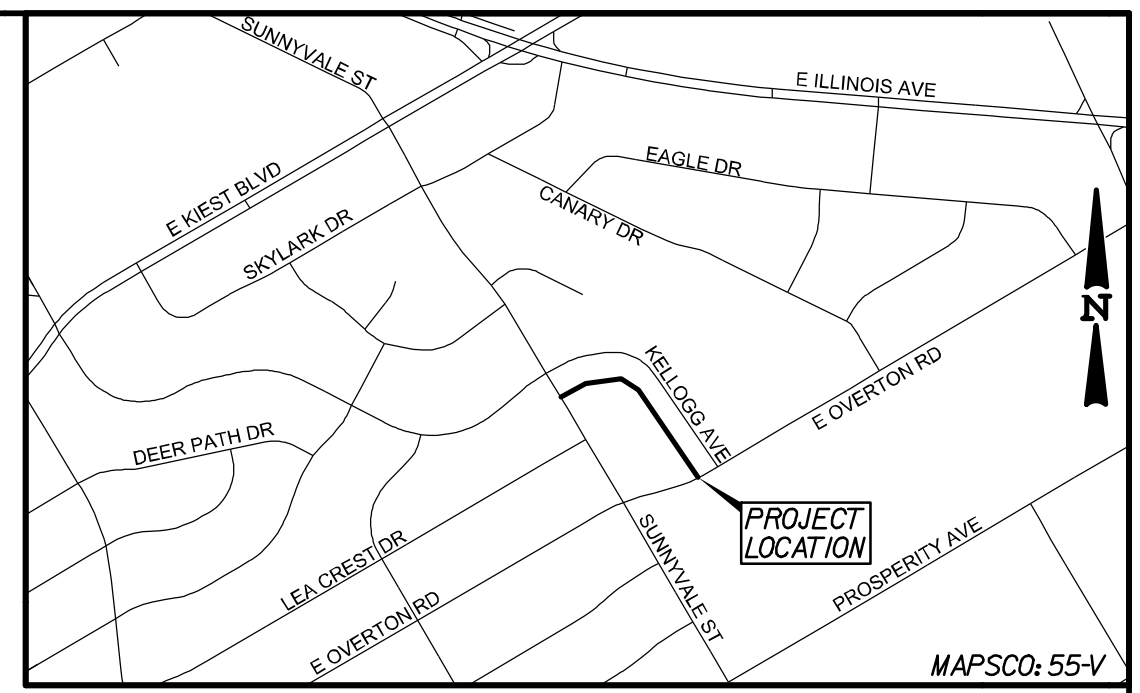
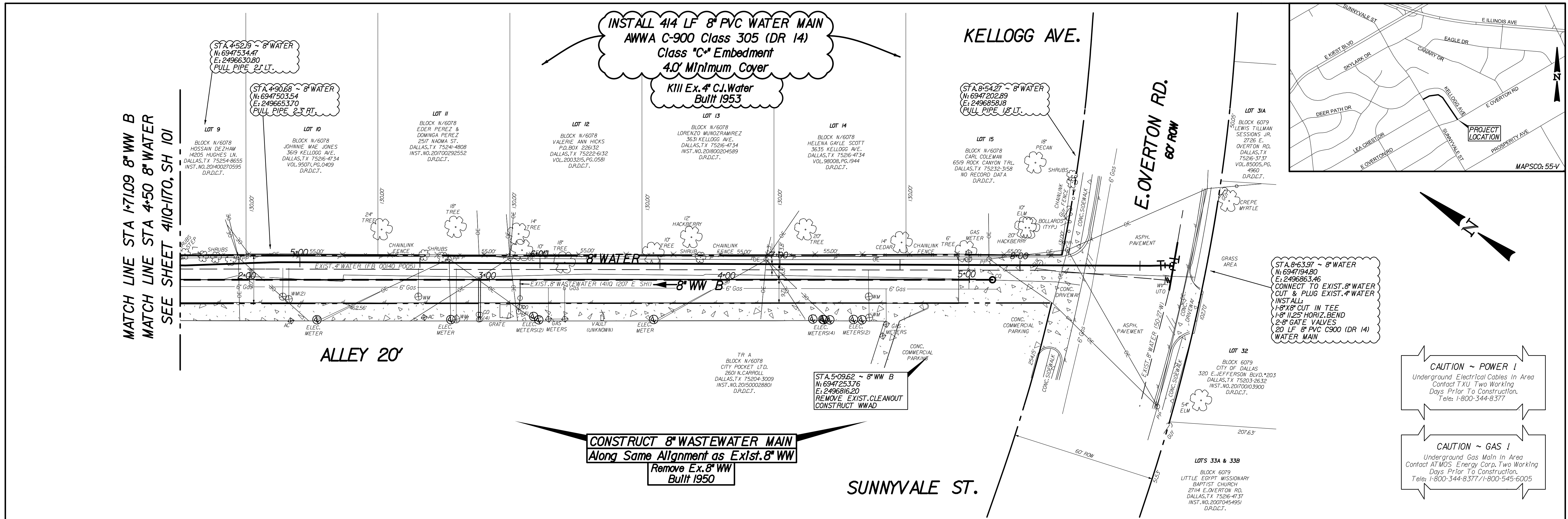
**CONSTRUCT 8" WASTEWATER MAIN  
Along Same Alignment as Exist. 8" WW**  
Remove Ex. 8" WW  
Built 1950

**MATCH LINE STA 17109 8" WW B  
MATCH LINE STA 4110-1170, SH 102  
SEE SHEET 411Q-1170, SH 102**



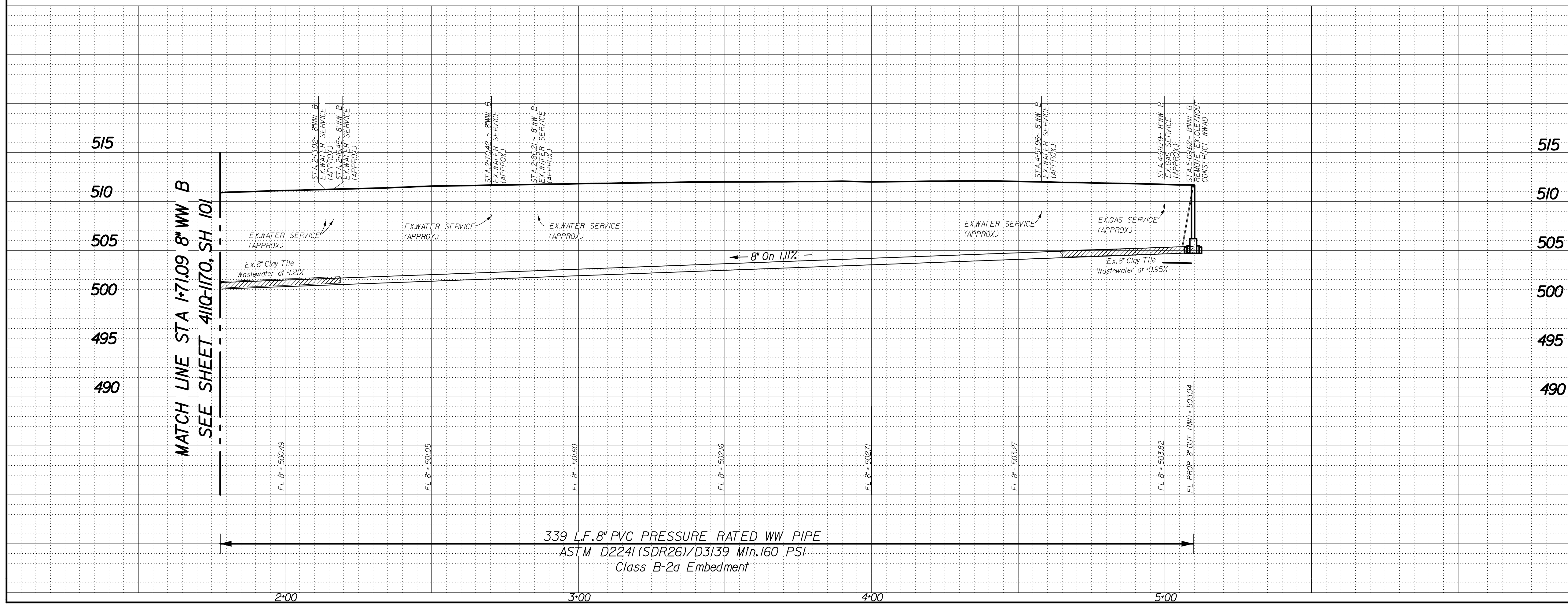
REVISIONS					
REV. NO.	DATE	DESCRIPTION	BY		
<b>BENCHMARK BENCHMARKS &amp; CONTROL POINTS</b>					
55'-U-6: SQUARE CUT ON TOP OF CONCRETE CURB AT THE NORTHWEST CORNER OF THE INTERSECTION OF SUNNYVALE ST. & SUTTER ST. ELEV=553.45					
BENCHMARK 35'-V-2: SQUARE CUT ON TOP OF CONCRETE CURB AT THE ENTRANCE TO HOUSE #2604 AS THE SOUTHWEST CORNER OF THE INTERSECTION SKYLARK DR. & CANARY DR. ELEV=517.39					
Point	Northing	Eastng	Elev.	Description	
101/BM1	6947185.85	2496864.17	510.96	SO. CUT X	
102/BM2	6947080.63	2496528.63	518.76	SO. CUT X	
BM3	6947399.15	2496339.76	516.38	SO. CUT X	
103	6947521.68	2496284.22	512.76	X CUT	
Horizontal Scale: 1" = 20'					
Vertical Scale: 1" = 6'					
<b>REFERENCES</b> WATER 50-26W, 50-27W WASTEWATER 50-26S, 50-27S					
<b>Binkley Barfield</b> Consulting Engineers Binkley & Barfield, Inc.   TxEng F-257 1801 Gateway Blvd. Ste 101, Richardson, TX 75080 972.644.2800   BinkleyBarfield.com					
<b>CONTRACT NO. 20-001/20-002</b> <b>PID: 3342</b>					
<b>8" WATER &amp; 8" WASTEWATER ALLEY</b> <b>KELLOGG AVE. &amp; SUNNYVALE ST.</b> <b>DALLAS WATER UTILITIES</b> <b>CITY OF DALLAS, TEXAS</b>					
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
BBI	BBI	MAR, 2020	411Q	1170	101





**CAUTION ~ POWER !**  
Underground Electrical Cables in Area  
Contact TXU Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&T Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005



REVISIONS							
REV. NO.	DATE	DESCRIPTION	BY				
1		BENCHMARKS & CONTROL POINTS					
<p><b>BENCHMARK</b> 55'-4-6" SQUARE CUT ON TOP OF CONCRETE CURB AT THE NORTHWEST CORNER OF THE INTERSECTION OF SUNNYVALE ST. &amp; SUTTER ST. ELEV=553.45</p> <p><b>BENCHMARK</b> 35'-4-6" SQUARE CUT ON TOP OF CONCRETE CURB AT THE ENTRANCE TO HOUSE #2604 AS THE SOUTHWEST CORNER OF THE INTERSECTION SKYLARK DR. &amp; CANARY DR. ELEV=517.39</p>							
		Point	Northing	Eastings	Elev.	Description	
		101/BM1	6947185.85	2496864.17	510.96	SO. CUT X	
		102/BM2	6947080.63	2496528.63	518.76	SO. CUT X	
		BM3	6947399.15	2496339.76	516.38	SO. CUT X	
		103	6947521.68	2496284.22	512.76	X CUT	
Horizontal Scale: 1" = 20'		Vertical Scale: 1" = 6'					
REFERENCES							
WATER 50-26W, 50-27W							
WASTEWATER 50-26S, 50-27S							
Binkley & Barfield, Inc.   TxEng F-257 1801 Gateway Blvd. Ste 101, Richardson, TX 75080 972.644.2800   BinkleyBarfield.com		CONTRACT NO. 20-001/20-002   PID: 3342					
<b>8" WATER &amp; 8" WASTEWATER ALLEY</b>							
<b>KELLOGG AVE. &amp; SUNNYVALE ST.</b>							
<b>DALLAS WATER UTILITIES</b>							
<b>CITY OF DALLAS, TEXAS</b>							
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET		
BBI	BBI	MAR. 2020	411Q	1170	102		



# GENERAL NOTES

## PROJECT CONTACTS

DWU PROJECT MANAGER:  
 DWU DISTRIBUTION DIVISION:  
 DWU WASTEWATER COLLECTION DIVISION:  
 CITY OF DALLAS PW&T - STREET CUTS:  
 CITY OF DALLAS PW&T - STORMWATER:  
 CITY OF DALLAS PW&T - TRAFFIC CONTROL:

## GENERAL

- All work shall be done in accordance with the North Central Texas Council Of Governments (NCTCOG) Standard Specifications For Public Works Construction (Version XX) and City of Dallas Addendum (Month,Year) to these specifications.
- Reference to standard drawings shall mean those shown in the DWU Standard Drawings for Water & Wastewater Construction XX Edition (Month,Year).
- All items of work required to complete the work as shown or implied by the plans and as specified in the contract documents which are not listed as a pay item in the proposal shall be considered subsidiary.
- The location, elevations and dimensions of existing utilities shown on the plans as obtained from The City of Dallas and utility company records, are considered approximate. The Engineer does not certify that all utilities are shown. The Contractor shall verify exact locations, sizes and depths of existing utilities before beginning construction (including ordering pre-cast manholes and concrete pipe if applicable. NO SEPARATE PAY ITEM
- The Contractor shall contact Texas Excavation Safety System (800-DIG-TESS; 800-344-8377) and relevant utility companies 48 hours prior to locating existing utilities and/or construction activities.
- The Contractor shall preserve and protect all existing utilities at all times during construction. Any damage to utilities resulting from the Contractor's operation shall be restored at his expense.
- The Contractor shall support telephone conduits, storm drains, water and wastewater mains when going under said utilities. NO SEPARATE PAY ITEM.
- Power poles may have to be braced at the Contractor's expense.
- No machinery, construction access or storage shall be allowed on park property beyond the limits of the temporary workspace as defined by the City of Dallas Inspector.

## TRAFFIC CONTROL

- The Contractor shall develop a traffic control plan in accordance with the City of Dallas Traffic Barricade Manual, Latest Edition and the TxDOT Texas Manual On Uniform Traffic Control Devices (TMUTCD), Latest Version as necessary. NO SEPARATE PAY ITEM.
- The diversion of pedestrians and vehicles during the progress of the work shall be in a manner satisfactory to the City of Dallas Inspector.
- The Contractor shall coordinate all traffic variances with Traffic Safety Coordinators at 670-5896 or 683-5189, City of Dallas Public Works & Transportation.
- Two-way traffic shall be maintained at all times and flagmen should be used to maintain two-way traffic as necessary.
- All barricades, warning signs and traffic control devices shall conform to the City Of Dallas standards. NO SEPARATE PAY ITEM.
- When closing side streets, two working days notification is required for Fire, Police, Streets and Sanitation Departments. Please contact Gary Maxwell at 670-5896 or mobile 683-5189 to notify traffic restrictions.
- Contractor shall maintain access to private driveways at all times during construction. NO SEPARATE PAY ITEM.
- Vehicular ingress and egress (entrance and exit) to a business property shall be maintained at all time. If not, specific signs along with business name and direction arrow(s) shall be used for any temporary
- access locations. Additional signs may be necessary if there is a detour. NO SEPARATE PAY ITEM.

## PAVEMENT REPLACEMENT

- Sawcut, remove and replace pavements, sidewalks, curbs and gutters shall conform to City Of Dallas Public Works & Transportation, Pavement Cuts & Repair Standards Manual, Latest Edition.
- All disturbed pavement markings including, but not limited to, striping, traffic buttons and crosswalks shall be restored to the same or improved condition as per City Of Dallas Specifications For Public Works Construction, Standard Construction Details and all addenda thereto. NO SEPARATE PAY ITEM.

## TREES AND LANDSCAPING

- Contractor shall not damage or remove any trees or landscaping unless otherwise authorized by the City of Dallas Inspector. Any trees or landscaping that are damaged or removed during the construction shall be replaced by the contractor at his expense.

## ADVANCE METERING INFRASTRUCTURE

- Caution! Advanced Metering Infrastructure (AMI) Meters in the area. Contractor shall not remove, damage, or otherwise disturb AMI meter endpoint components unless otherwise directed by the DWU Meter Reading Operation (MRO) Technician.
- Contractor shall contact MRO five (5) working days in advance at 214-670-5537 and Email: DWUMRO@dallascityhall.com. If Any AMI Components shall be disconnected, reconnected, removed, or installed.
- Contractor shall install AMI meter lids for water meters 2" and smaller in all Existing AMI and Proposed AMI Areas. Contractor shall also return the existing AMI lids from existing AMI Area to DWU MRO for meters 2" or smaller. NO SEPARATE PAY ITEM.
- For meters 3" or larger, the contractor shall either connect to the existing meter vault or construct a new meter vault as specified on the plans.
- Contractor shall be liable for the replacement cost of any lost or damaged AMI Components.
- All Meters in the Proposed and Existing AMI area shall be AMI-Ready Meter As Furnished By DWU. A non AMI-Ready meter shall be replaced with an AMI-Ready meter by DWU.

## WATER MAIN AND APPURTENANCES


- All 6", 8" and 12" water mains shall be PVC C900 (DR-14) water pipe, with Class "C" embedment, except as noted.
- All water mains with no profiles shall have a minimum cover of four (4) feet below street grade in an improved street and five (5) feet of cover in an unimproved street or alley.
- Compact fittings are not authorized for this project. All ductile iron pipe, fittings and fire hydrant bases shall be poly-wrapped.
- All bends, tees, fire hydrants and plugs are to be restrained type fittings and to be blocked with Class "B" Concrete as per DWU Standard Drawings \*229-234, in addition to restrained joints.
- If required by the City of Dallas Inspector, the Contractor shall install temporary water lines on both sides of the street until the new water main has been completed, tested, approved, and accepted by DWU. NO SEPARATE PAY ITEM.
- If no temporary mains are required by the City of Dallas Inspector, then the existing water mains are to be in service with the fire hydrants until the new water main has been tested, approved and accepted by DWU. NO SEPARATE PAY ITEM.
- The Contractor will ensure that fire hydrants are accessible to fire trucks at all times. NO SEPARATE PAY ITEM.
- The Contractor shall sequence his construction such that no more than one fire hydrant is out of service at any given time.
- All fire hydrants shall be installed as per DWU Standard Drawing \*224. Existing fire hydrants on killed water lines are to be removed and delivered to DWU Distribution Division at 4120 Scottsdale Street Dallas, Texas. If required by the City of Dallas Project Inspector, otherwise they become the property of the Contractor.
- Backfill made on break repairs to existing water mains may have been made with crushed rock. This could present a cave-in danger to a new ditch; therefore, precautions should be taken by the Contractor. NO SEPARATE PAY ITEM.
- Abandon all water valves on existing mains being killed as per DWU Standard Drawing \*219. NO SEPARATE PAY ITEM.
- The Contractor shall coordinate all water main tie-ins with the City of Dallas Inspector.
- The Contractor shall verify the location and number of all existing active water services and construct new services up to the meter prior to killing existing main.
- Water services greater than 30 feet shall be a minimum of one (1) inch in diameter.

## WASTEWATER MAIN AND APPURTENANCES

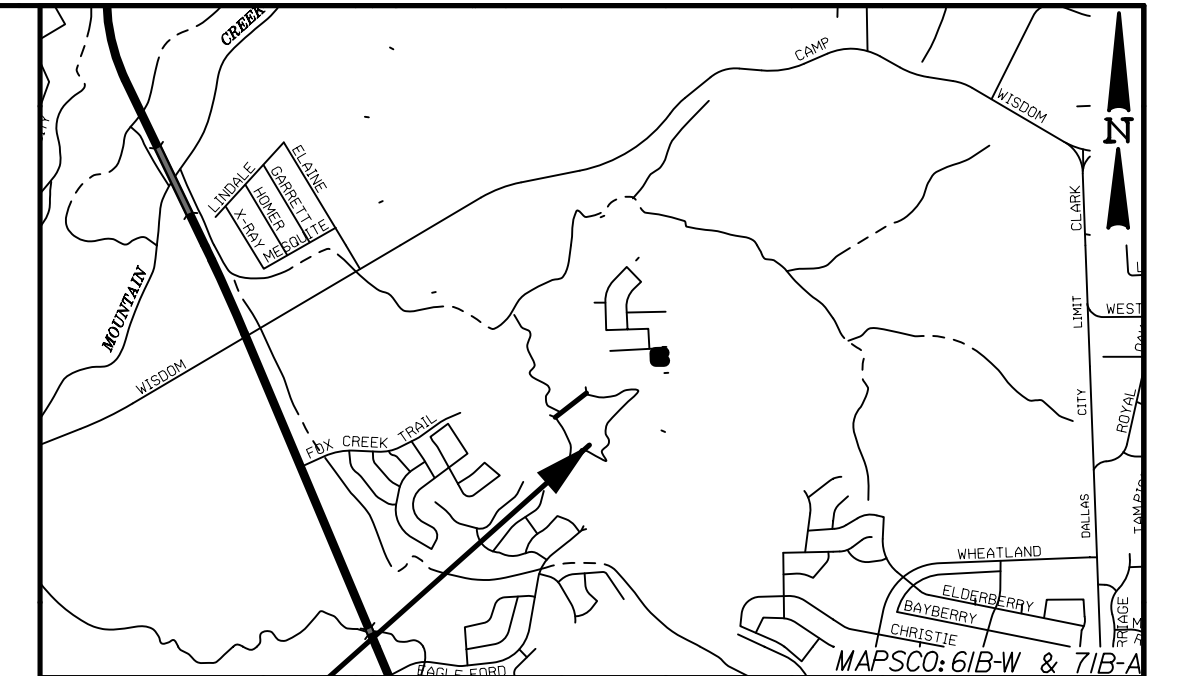
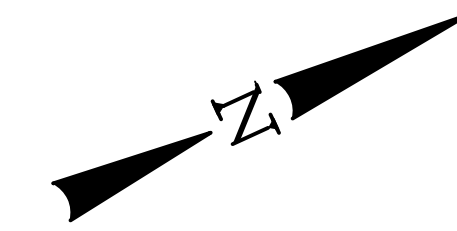
- The Contractor shall maintain existing wastewater flow at all times. NO SEPARATE PAY ITEM.
- Abandon all manholes on abandoned wastewater mains.
- The Contractor shall verify the location of all wastewater laterals and construct new laterals from the wastewater main to the property line with cleanouts and reconnect to the existing laterals. Dye testing may be required at no additional cost to the owner.
- The backfill around manholes located in existing or new pavement shall be flowable backfill as per NCTCOG Specification Item 6.2J(O). NO SEPARATE PAY ITEM.

## PRV GENERAL NOTES

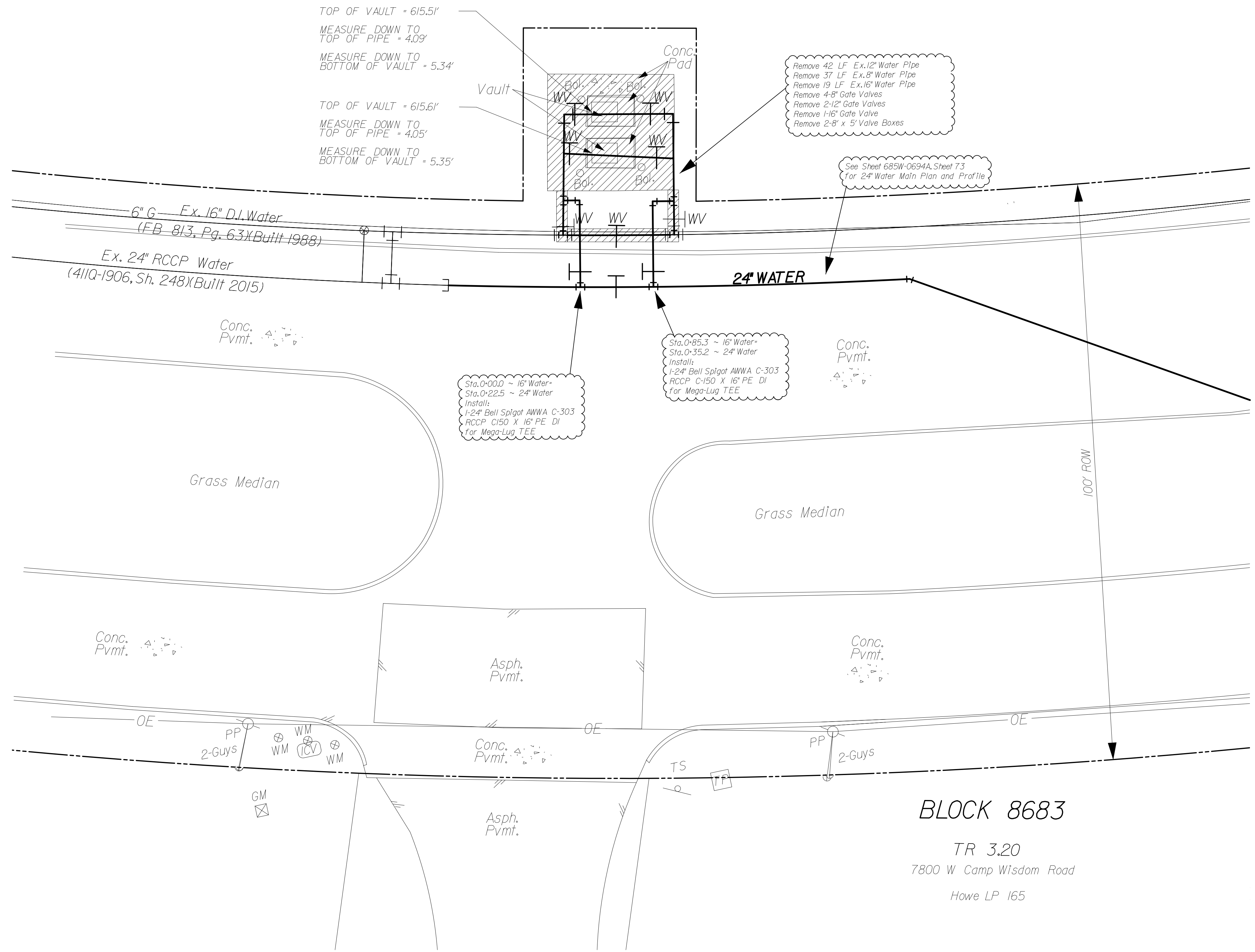
- All pressure-reducing valves shall include a verifiable certification of compliance with the National Sanitation Foundation (NSF) Standard 61. Every bidder shall submit with their bid a signed statement clearly stating the present status of their receiving certification of compliance with the NSF 61 Standard for each particular make, model and size of pressure reducing valve being bid. A failure to submit this verification shall result in the disqualification of that bid and its removal from consideration.
- Every bidder shall submit red-lined copies of these standard drawings for exception requests needing final approval by DWU. If there are no exceptions to the specification a signed statement at the bottom of the specification shall indicate "No Exception Taken". A failure to do so shall result in the disqualification of that bid and its removal from consideration.
- All materials contained in the valves being bid shall be described and specified in the most current manufacturer's product literature.
- The Distribution Division of the Dallas Water Utilities Department shall be the sole authority in determining the acceptability of any alternative valves.
- All pressure reducing valves shall be certified by the manufacturer as being capable of withstanding a cold hydrostatic test of at least one hundred percent (100%) above the maximum pressure for which the valve is to operate.
- All valves, parts and components shall be new and unused original factory-authorized manufacturer's parts and components. No "after-market" substitute parts from other manufacturers shall be accepted. No rebuilt or remanufactured parts allowed.
- The pressure reducing valve provided shall be designed and constructed to maintain a pre-adjusted downstream pressure regardless of changes in the flow rate.
- The adjustment range of the pilot valve shall be from 15 to 175 psi.
- The main body flanges of the pressure reducing valves provided shall have bolt patterns compatible with ANSI/ASME B 16J.
- The pressure reducing valve provided shall be complete and shall all have factory-installed position indicators, gauge cocks, control valve isolation valves, strainers and pilot valves.
- All external control piping on the pressure reducing valve shall be copper or stainless steel.
- The body of the valve and the cover of the valves shall be fabricated entirely of stainless steel.
- The entire interior wetted surface of the valve, including the spring, the upper diaphragm support, the disc holder, the seat ring and the shaft shall be fabricated of stainless steel and shall be inherently corrosion-resistant without any special coating.
- The diaphragm shaft shall be guided at the top and at the bottom.
- All internal and external threaded studs and nuts shall be fabricated of stainless steel.
- The seat disc shall be fabricated of Buna-N resilient synthetic rubber.
- All valves, parts and components shall be supplied with a three (3) year manufacturer's warranty on materials and workmanship.
- All valves shall be AMES MODEL 605GS reduced port, single chamber pressure reducing valves.
- All valves, parts, and components shall either be bid Freight On Board (FOB) Factory, Freight Allowed or FOB Destination (4120 Scottsdale, Dallas, TX 75227).
- All valves shall be crated in sturdy shipping containers to prevent damage to position indicators, control valves and control valve piping during shipment.
- The pressure reducing valve must be installed by the manufacturer in the presence of DWU Distribution and Pumping personnel.
- All construction materials including valves, pipes, fittings and flush points shall conform to the most current version of the NCTCOG specifications, the City of Dallas Addendum to those specifications, this manual and the Approved Materials List.
- All precast vaults shall meet DWU specifications and be approved by DWU.
- The location of the vault must be approved by DWU.
- The minimum depth for the piping in the vault shall be 4 feet.
- All spool pipe shall be ductile iron pipe.

		7557 RAMBLER ROAD, SUITE 1400 DALLAS, TX 75231 PH. 972.235.3031 TX REG. ENGINEERING FIRM E-144339 TX REG. SURVEYING FIRM LS-101938-05			
CONTRACT NO. 20-001/002		PID: 5006			
<b>GENERAL NOTES</b>					
<b>EAGLE FORD DRIVE</b>					
<b>PRAYER MOUNTAIN LN. TO 500'S MOUNTAIN HOLLOW DR.</b>					
<b>DALLAS WATER UTILITIES</b>					
<b>CITY OF DALLAS, TEXAS</b>					
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
PK	PK	APR 2020	685W	0694A	71A





VICINITY MAP  
PROJECT LOCATION



BLOCK 8683  
TR 3.20  
7800 W Camp Wisdom Road  
Howe LP 165

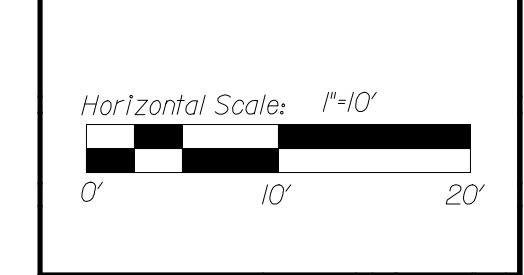
REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			
2			

**BENCHMARKS & CONTROL POINTS**

B.M. 101 CUT ON NOSE OF SOUTH MEDIAN AT THE EAGLE FORD DRIVE AND MOUNTAIN CREEK PARKWAY PHASE II INTERSECTION.  
ELEVATION = 601.54

B.M. 101 CUT ON CONCRETE BASE OF DP&L TOWER, 150' EAST OF EAGLE FORD DRIVE C/1 STA. 63+34.  
ELEVATION = 601.3

B.M. 1204 NAIL IN POWER POLE ON THE NORTH SIDE OF CAMP WISDOM ROAD INTERSECTION.  
ELEVATION = 588.99



REFERENCES
WATER 60W-9, 61W-9
WASTEWATER 60S-9, 61S-9

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MEREDITH McCALL, P.E. 105081 ON 4/08/2020. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

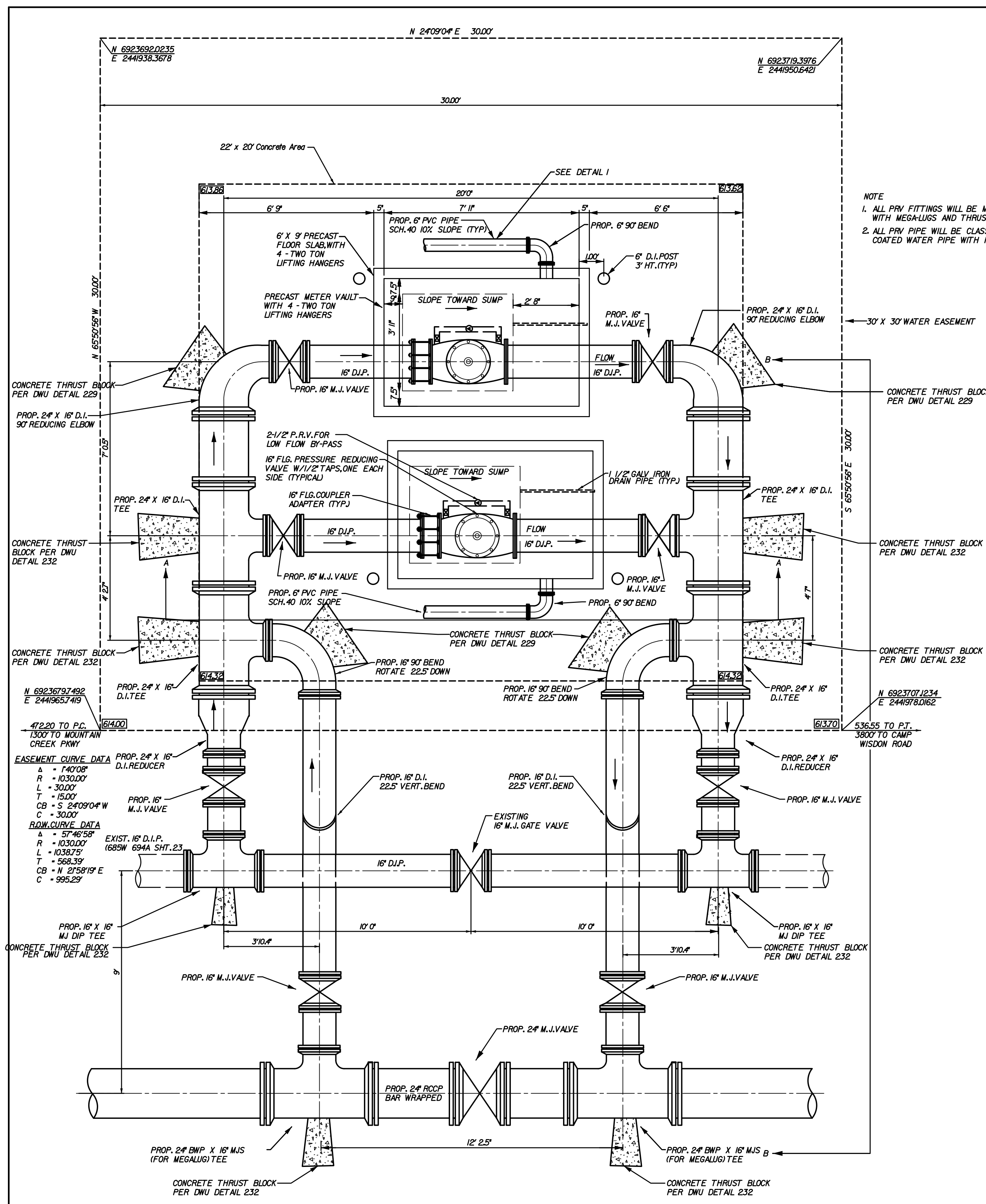
**Pacheco Koch** 7557 RAMBLER ROAD, SUITE 1400 DALLAS, TX 75231 PH: 972.235.3031 TX REG. ENGINEERING FIRM F-14439 TX REG. SURVEYING FIRM LS-101938-05

CONTRACT NO. 20-001/002 PID: 5006

**DEMOLITION PLAN**  
**EAGLE FORD DRIVE**  
**FM VALVE BOXES**  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
PK	PK	APR 2020	685W	0694A	71

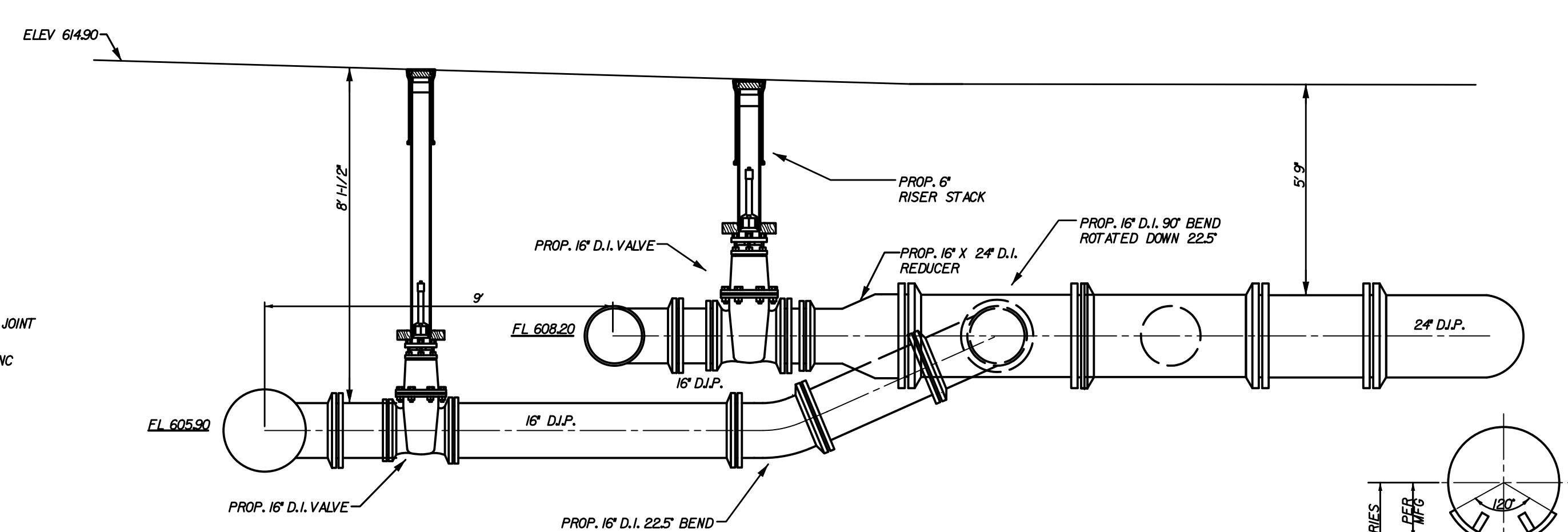




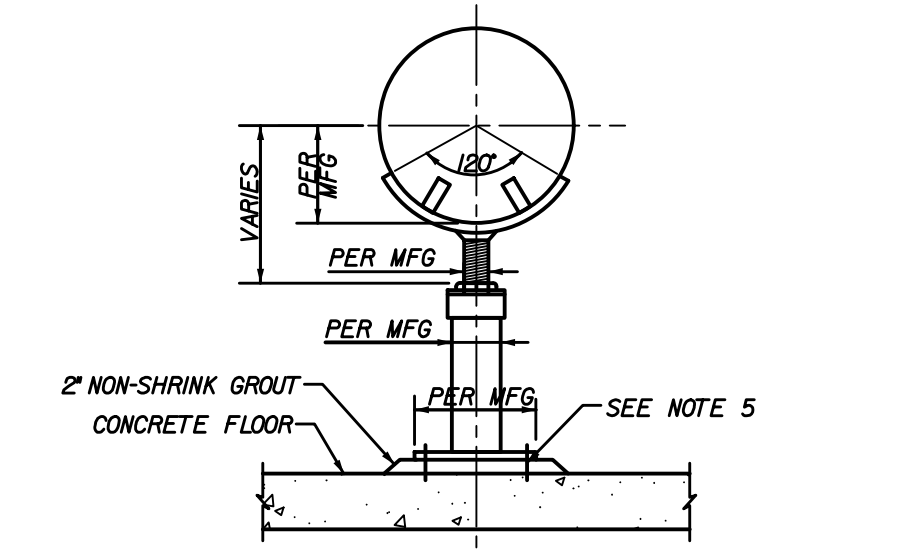
**EAGLE FORD DRIVE**  
3/8" - 1'-0"

- DESIGN NOTES
- CONSTRUCTION FOR PRV STATION SHALL ONLY BE ALLOWED DURING LOW DEMAND MONTHS BETWEEN NOVEMBER AND MARCH. COORDINATE ALL SHUTDOWN ACTIVITY THROUGH DWU.
  - THE DESIGN FLOW IS 14,000 gpm COMBINED, 7,000 gpm PER 16" PRV.
  - AT FULL FLOW CONDITIONS (14,000 gpm COMBINED FLOW) THE PRV'S VELOCITY IS 20 FPS AND THE MAXIMUM HEAD LOSS ACROSS EACH VALVE IS 11.4 PSI.
  - THE PRV SETTINGS FOR THE WEST PRV SHALL BE 60 PSI FOR THE SOUTH HIGH PRESSURE PLANE UPSTREAM SIDE AND 35 PSI FOR THE MOUNTAIN CREEK PRESSURE DOWNSTREAM SIDE.
  - THE PRV SETTINGS FOR THE EAST PRV SHALL BE 60 PSI FOR THE SOUTH HIGH PRESSURE PLANE UPSTREAM SIDE AND 31 PSI FOR THE MOUNTAIN CREEK PRESSURE PLANE DOWNSTREAM.

NOTE  
1. ALL PRV FITTINGS WILL BE MECHANICAL JOINT WITH MEGA-LUGS AND THRUST BLOCKING.  
2. ALL PRV PIPE WILL BE CLASS 54 D.I.ZINC COATED WATER PIPE WITH POLYWRAP.

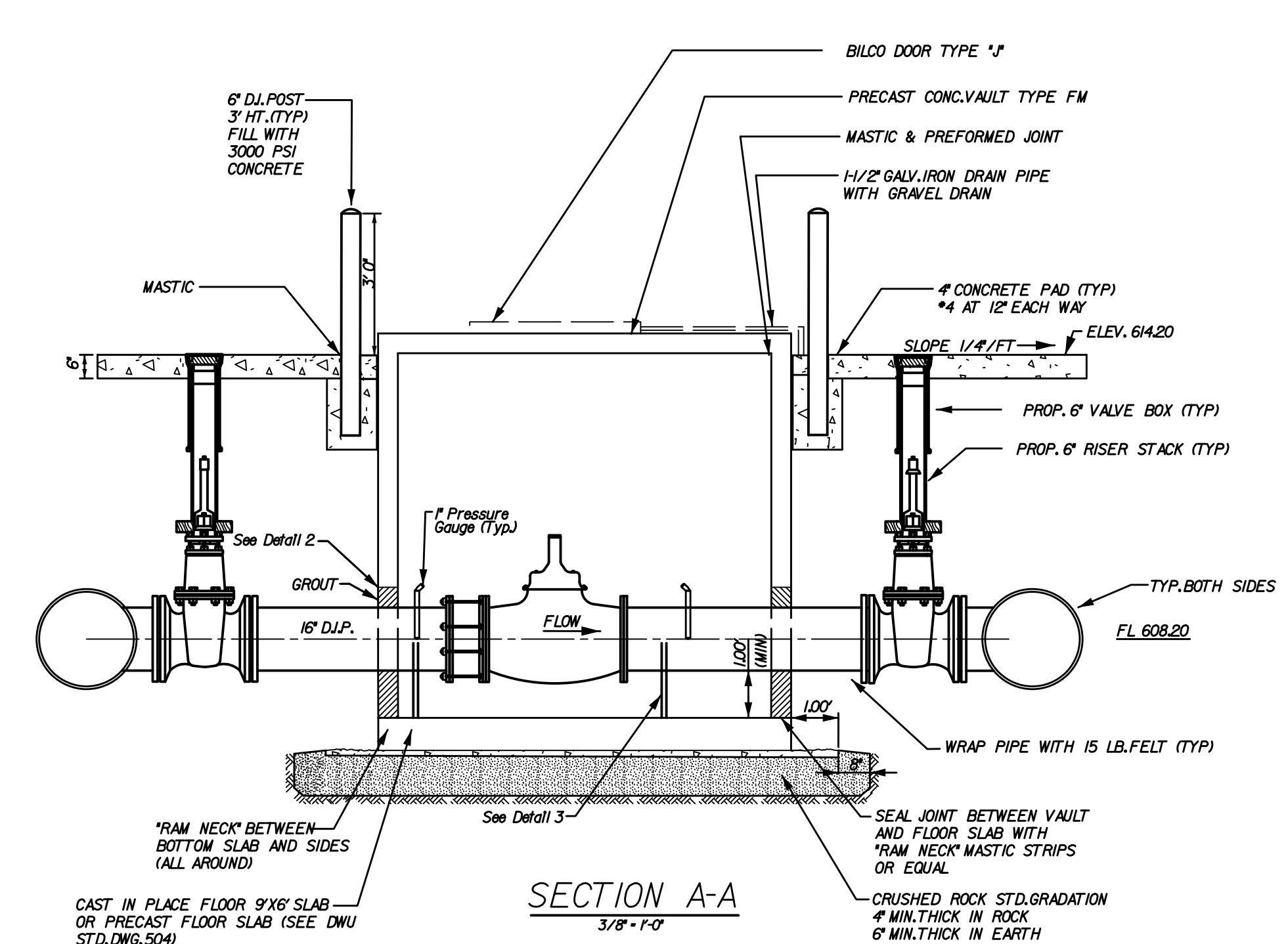


**SECTION B-B**  
3/8" - 1'-0"

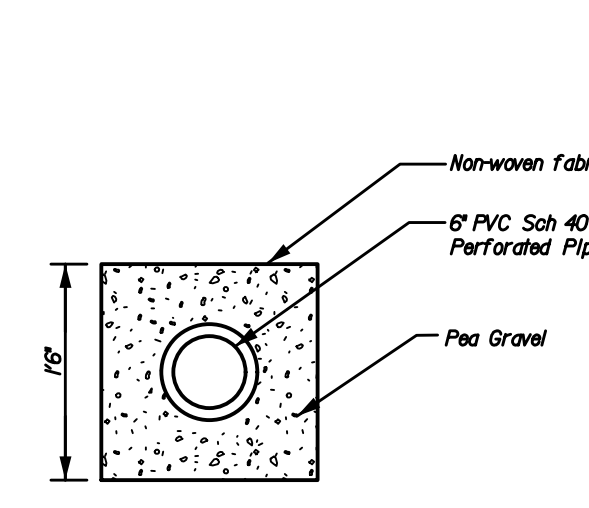


**DETAIL 3**  
**ADJUSTABLE PIPE SUPPORT**  
N.T.S.

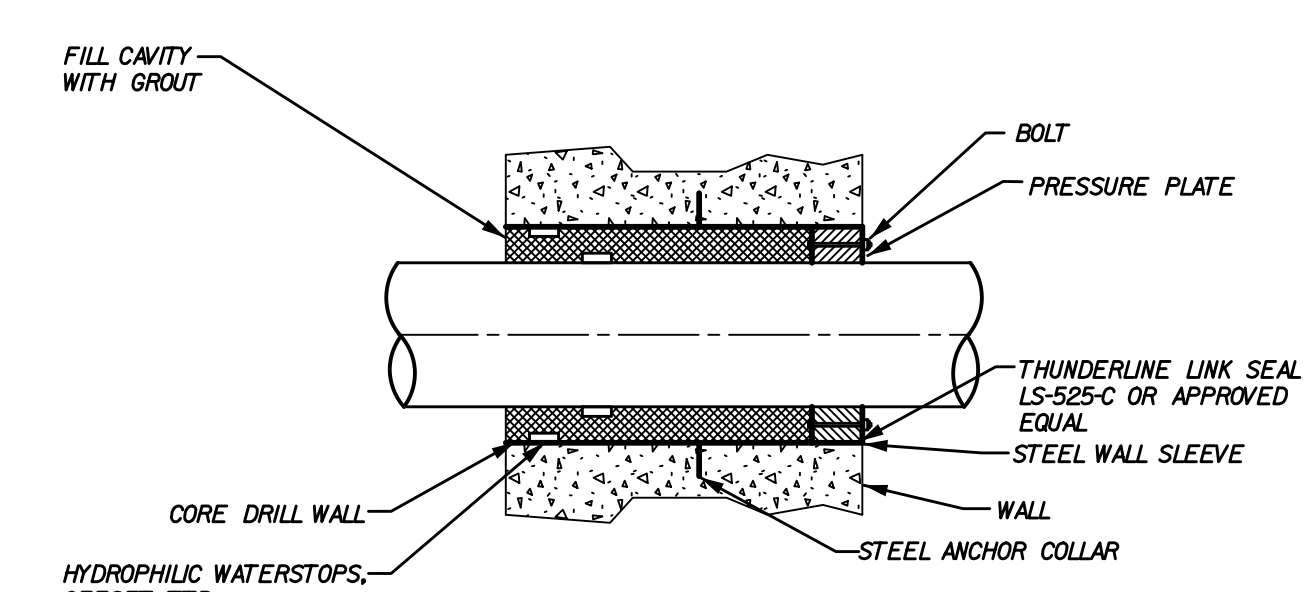
- NOTES:
- FLANGE SUPPORT DIMENSION TO BE DETERMINED BY MANUFACTURER.
  - SADDLE SUPPORT SHALL BE DESIGNED FOR THE O.D. OF THE PIPE.
  - ADJUSTABLE PIPE SUPPORT SHALL BE ANVIL 264 FLANGE SUPPORT / STANDON MODEL 596 SADDLE SUPPORT OR APPROVED EQUAL.
  - SUPPORT SHALL BE DIPPED GALVANIZED AFTER FABRICATION.
  - ANCHOR FLANGE SUPPORT TO CONCRETE FLOOR AS REQUIRED BY MANUFACTURER. AT A MINIMUM PROVIDE (4) 1/2" HAS ROD (TYPE 304 SS) WITH HILTI RESO ADHESIVE AND 6" EMBEDMENT.



**SECTION A-A**  
3/8" - 1'-0"



**DETAIL 1**  
**SECTIONAL PERFORATED PIPE**  
3/4" - 1'-0"



**DETAIL 2**  
**WALL PENETRATION**  
3/8" - 1'-0"

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BENCHMARKS & CONTROL POINTS	
B.M. 'C' CUT ON NOSE OF SOUTH MEDIAN AT THE EAGLE FORD DRIVE AND MOUNTAIN CREEK PARKWAY PHASE II INTERSECTION. ELEVATION = 601.54	
B.M. 'C' CUT ON CONCRETE BASE OF DP&L TOWER, 150' EAST OF EAGLE FORD DRIVE C/1 STA. 63+34. ELEVATION = 601.3	
B.M. 120d NAIL IN POWER POLE ON THE NORTH SIDE OF CAMP WISDOM ROAD INTERSECTION. ELEVATION = 588.99	

Horizontal Scale: 3/8" = 1'-0"

REFERENCES  
WATER  
60W-9, 61W-9  
WASTEWATER  
60S-9, 61S-9

7557 RAMBLER ROAD, SUITE 1400  
DALLAS, TX 75231 PH: 972.235.3031  
TX REG. ENGINEERING FIRM F-14439  
TX REG. SURVEYING FIRM LS-101938-05

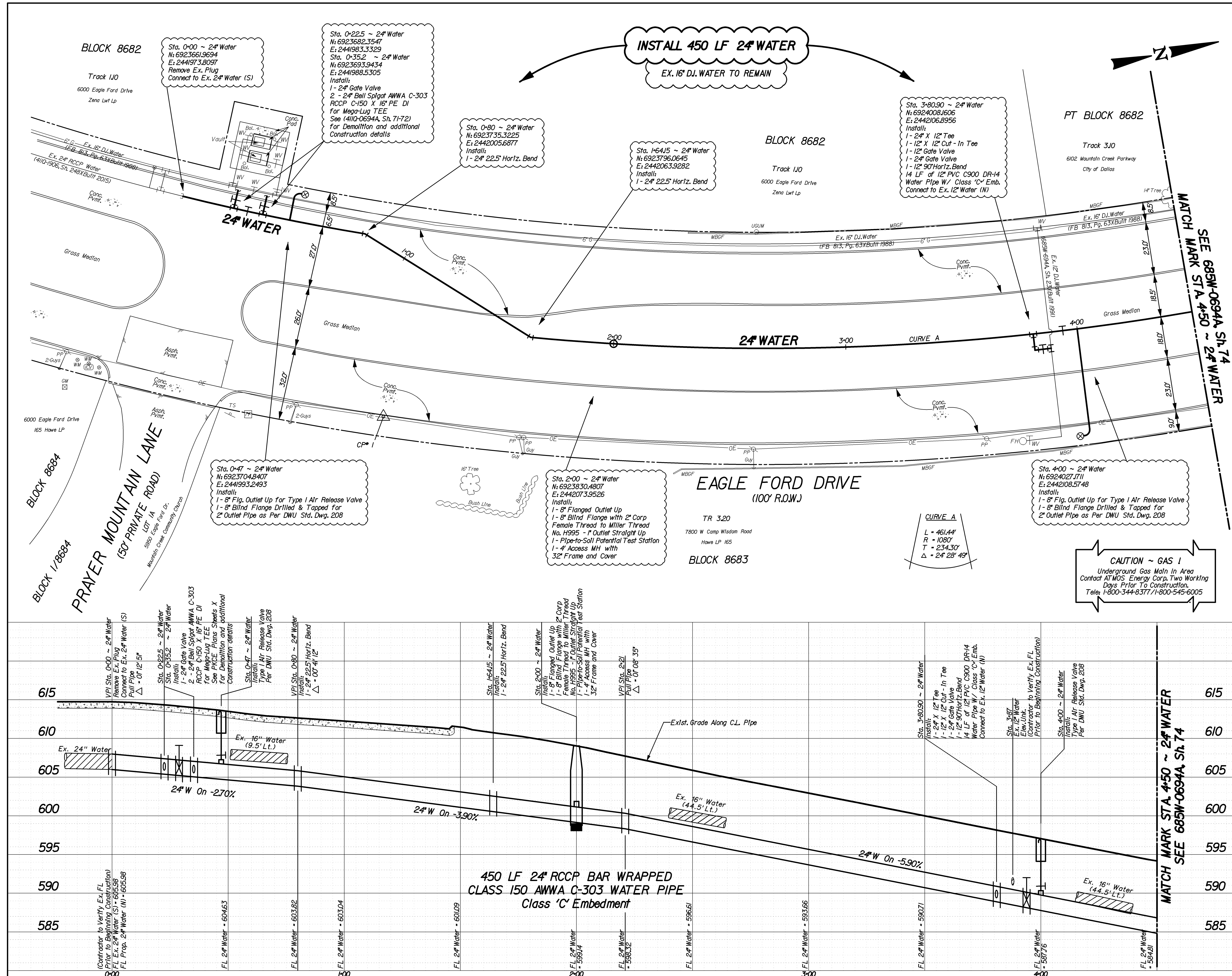
**Pacheco Koch**

CONTRACT NO. 20-001/002 PID: 5006

**EAGLE FORD DRIVE**  
**FM VALVE BOXES**  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
PK	PK	APR 2020	685W	0694A	72





**INSTALL 450 LF 24" WATER**  
EX. 16" DJ WATER TO REMAIN

Sta. 0+00 ~ 24" Water  
N: 6923661.9694  
E: 2441973.8097  
Remove Ex. Plug  
Connect to Ex. 24" Water (S)

Sta. 0+22.5 ~ 24" Water  
N: 6923682.3547  
E: 2441983.3329  
Sta. 0+35.2 ~ 24" Water  
N: 6923693.9434  
E: 2441988.5305  
Install:  
1 - 24" Gate Valve  
2 - 24" Bell Spigot AWWA C-303  
RCCP C-150 X 16" PE DI  
For Mega-Lug TEE  
See (4110-0694A, Sh. 71-72)  
For Demolition and additional  
Construction details

Sta. 0+80 ~ 24" Water  
N: 6923735.3225  
E: 2442005.6877  
Install:  
1 - 24" 22.5' Horiz. Bend

Sta. 1+64.5 ~ 24" Water  
N: 6923796.0645  
E: 2442063.9282  
Install:  
1 - 24" 22.5' Horiz. Bend

Sta. 3+80.90 ~ 24" Water  
N: 6924008.1606  
E: 2442106.8956  
Install:  
1 - 24" X 12" Tee  
1 - 12" X 12" Cut - In Tee  
1 - 12" Gate Valve  
1 - 24" Gate Valve  
1 - 12" 90' Horiz. Bend  
14 LF of 12" PVC C900 DR-14  
Water Pipe W/ Class 'C' Emb.  
Connect to Ex. 12" Water (N)

Sta. 0+47 ~ 24" Water  
N: 6923704.8407  
E: 2441993.2493  
Install:  
1 - 8" Fig. Outlet Up for Type I Air Release Valve  
1 - 8" Blind Flange Drilled & Tapped for  
2" Outlet Pipe as Per DWU Std. Dwg. 208

Sta. 2+00 ~ 24" Water  
N: 6923830.4807  
E: 2442073.9526  
Install:  
1 - 8" Flanged Outlet Up  
1 - 8" Blind Flange with 2" Corp  
Female Thread to Miller Thread  
No. H995 - F Outlet Straight Up  
1 - Pipe-to-Soil Potential Test Station  
1 - 4" Access MH with  
32" Frame and Cover

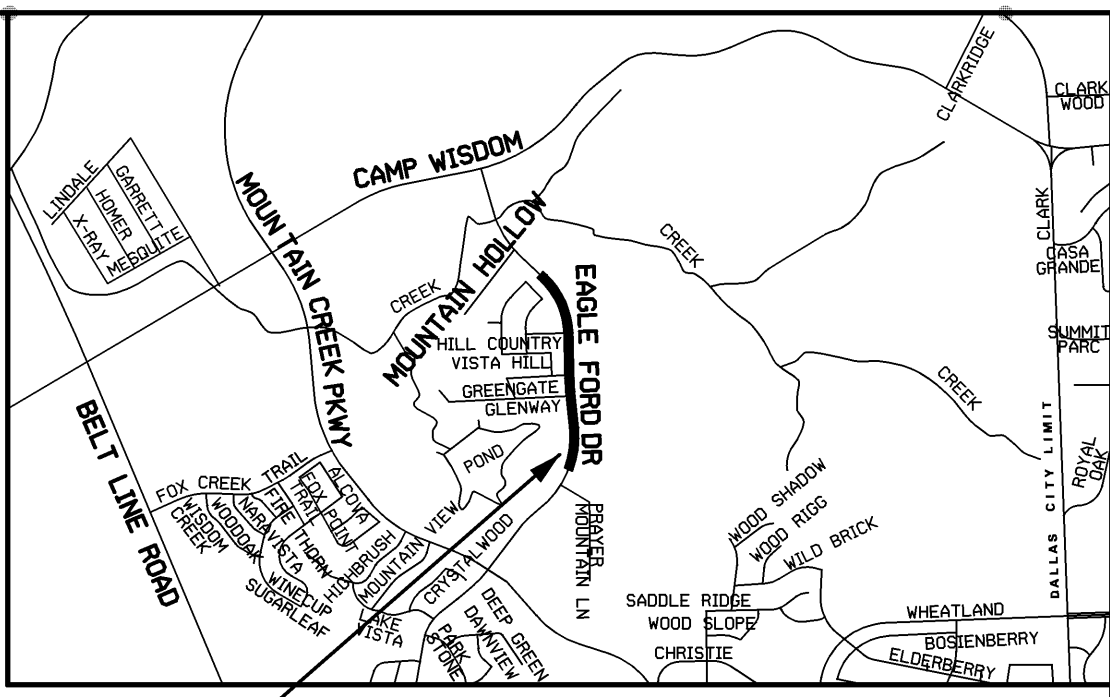
Sta. 4+00 ~ 24" Water  
N: 6924027.1711  
E: 2442108.5748  
Install:  
1 - 8" Fig. Outlet Up for Type I Air Release Valve  
1 - 8" Blind Flange Drilled & Tapped for  
2" Outlet Pipe as Per DWU Std. Dwg. 208

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact ATMS Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005

**EAGLE FORD DRIVE**  
(100' R.O.W.)

TR 320  
7800 W Camp Wisdom Road  
Howe LP 165  
BLOCK 8683

**CURVE A**  
L = 461.44'  
R = 1080'  
T = 234.30'  
Δ = 24° 28' 49"

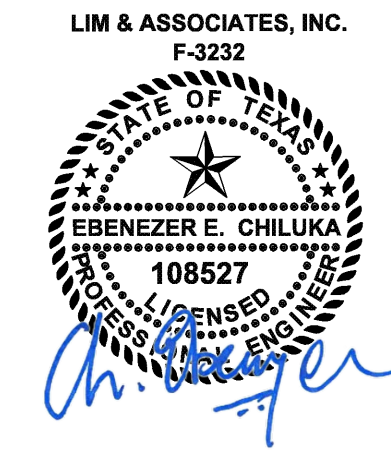


**VICINITY MAP**  
MAPSCO 618-W, 718-A  
(N.T.S.)

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION**  
Advanced Metering Infrastructure  
(AMI) Meters In Area  
AMI Components Shall be Disconnected, Reconnected,  
Removed or Installed by DWU Personnel ONLY.  
Contact DWU Meter Reading Operations  
(MRO) 5 working days in advance.  
Tel: 214-670-9537  
Email: DWUMRO@dallascityhall.com



04-16-2020

REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
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**BENCHMARKS & CONTROL POINTS**

**DWU BENCHMARK\* 75A-D-2**  
A SQUARE IS FOUND AT CENTER OF STORM SEWER INLET ON  
NORTH SIDE OF MOUNTAIN CREEK PARKWAY, 0.20 MILES  
WEST OF EAGLE FORD ROAD.  
ELEV = 581.74'  
**CONTROL POINT\* 1**  
\*X CUT SET ON CONCRETE CURB LINE ON EAGLE FORD DRIVE, APPROX.  
95' NORTH FROM THE CENTERLINE OF PRAYER MOUNTAIN LANE.  
N: 6923727.0290 ; E: 2442084.4120 ; ELEV = 612.85'  
**CONTROL POINT\* 2**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF  
INTERSECTION OF GLENWAY DRIVE AND EAGLE FORD DRIVE.  
N: 6924435.6490 ; E: 2442082.5780 ELEV = 589.95'

Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

REFERENCES  
WATER  
60-9W, 61-9W  
WASTEWATER  
60-9S, 61-9S

**LIM & ASSOCIATES, INC.**  
F-3232  
SIANG W. LIM  
8201  
LICENSED PROFESSIONAL ENGINEER  
04-16-2020

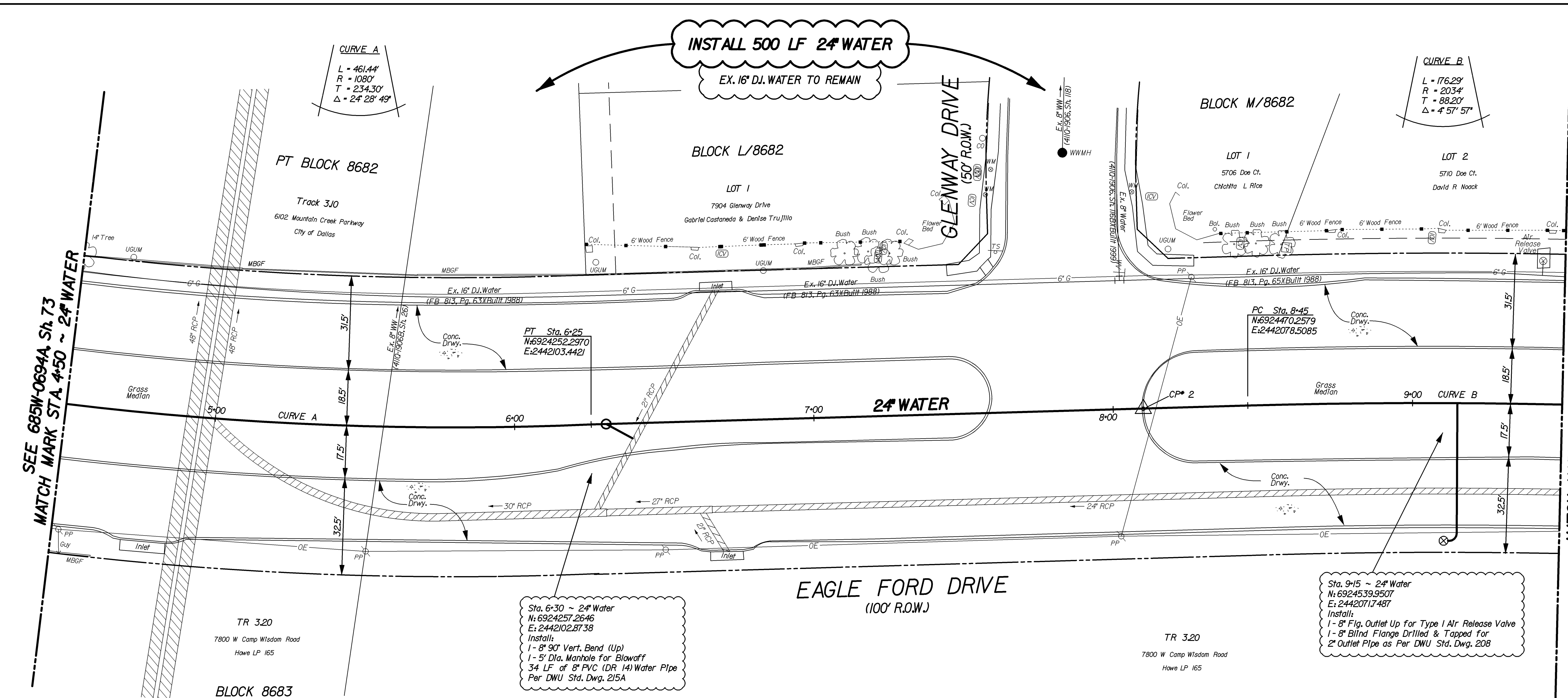
<b>Pacheco Koch</b>		<b>LIM &amp; ASSOCIATES, Inc.</b>	
CONTRACT NO. 20-001/002		PID: 5006	
<b>24" WATER MAIN</b>			
<b>EAGLE FORD DRIVE</b>			
PRAYER MOUNTAIN LN. TO 500'S OF MOUNTAIN HOLLOW DR.			
<b>DALLAS WATER UTILITIES</b>			
<b>CITY OF DALLAS, TEXAS</b>			
DESIGN	DRAWN	DATE	FILE
LIM	LIM	APR 2020	685W 0694A
			NUMBER
			73
			SHEET



**INSTALL 500 LF 24" WATER**  
EX. 16" DJ. WATER TO REMAIN

**CURVE A**  
L = 461.44'  
R = 1080'  
T = 234.30'  
Δ = 24° 28' 49"

**CURVE B**  
L = 176.29'  
R = 2034'  
T = 88.20'  
Δ = 4° 57' 57"

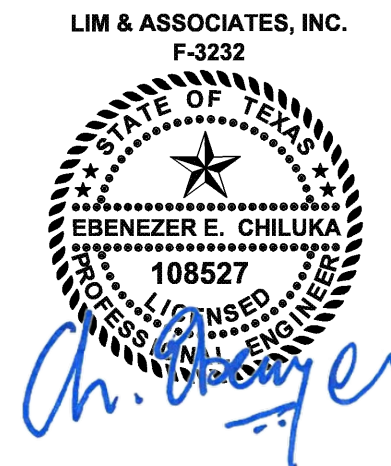


**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&T Energy Corp. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377/1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION**  
Advanced Metering Infrastructure (AMI) Meters In Area  
AMI Components Shall be Disconnected, Reconnected, Removed or Installed by DWU Personnel ONLY.  
Contact DWU Meter Reading Operations (MRO) 5 working days in advance.  
Tel: 214-670-5537  
Email: DWUMRO@dallascityhall.com



04-16-2020

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY
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**BENCHMARKS & CONTROL POINTS**

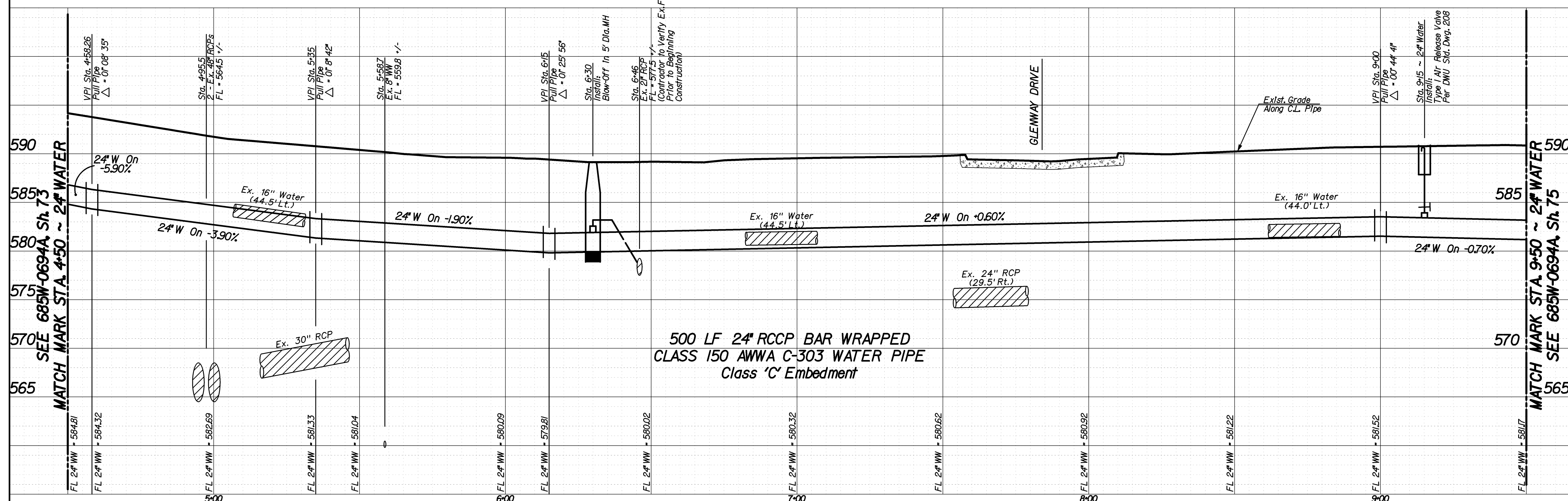
**DWU BENCHMARK\* 75A-D-2**  
A SQUARE IS FOUND AT CENTER OF STORM SEWER INLET ON NORTH SIDE OF MOUNTAIN CREEK PARKWAY, 0.20 MILES WEST OF EAGLE FORD ROAD.  
ELEV = 581.74'

**CONTROL POINT\* 2**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF GLENWAY DRIVE AND EAGLE FORD DRIVE.  
N: 6924435.6490 E: 2442082.5780 ELEV = 589.95'

**CONTROL POINT\* 3**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF GREENGATE DRIVE AND EAGLE FORD DRIVE.  
N: 6924830.4954 E: 2442059.8197 ; ELEV = 586.65'

Sta. 6+30 ~ 24" Water  
N: 6924257.2646  
E: 2442102.8738  
Install:  
1 - 8" 90° Vert. Bend (Up)  
1 - 5' Dia. Manhole For Blowoff  
34 LF of 8" PVC (DR 14) Water Pipe  
Per DWU Std. Dwg. 215A

Sta. 9+15 ~ 24" Water  
N: 6924539.9507  
E: 2442071.7487  
Install:  
1 - 8" Flg. Outlet Up for Type I Air Release Valve  
1 - 8" Blind Flange Drilled & Tapped for 2" Outlet Pipe as Per DWU Std. Dwg. 208



Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

REFERENCES  
WATER  
60-9W, 61-9W  
WASTEWATER  
60-9S, 61-9S

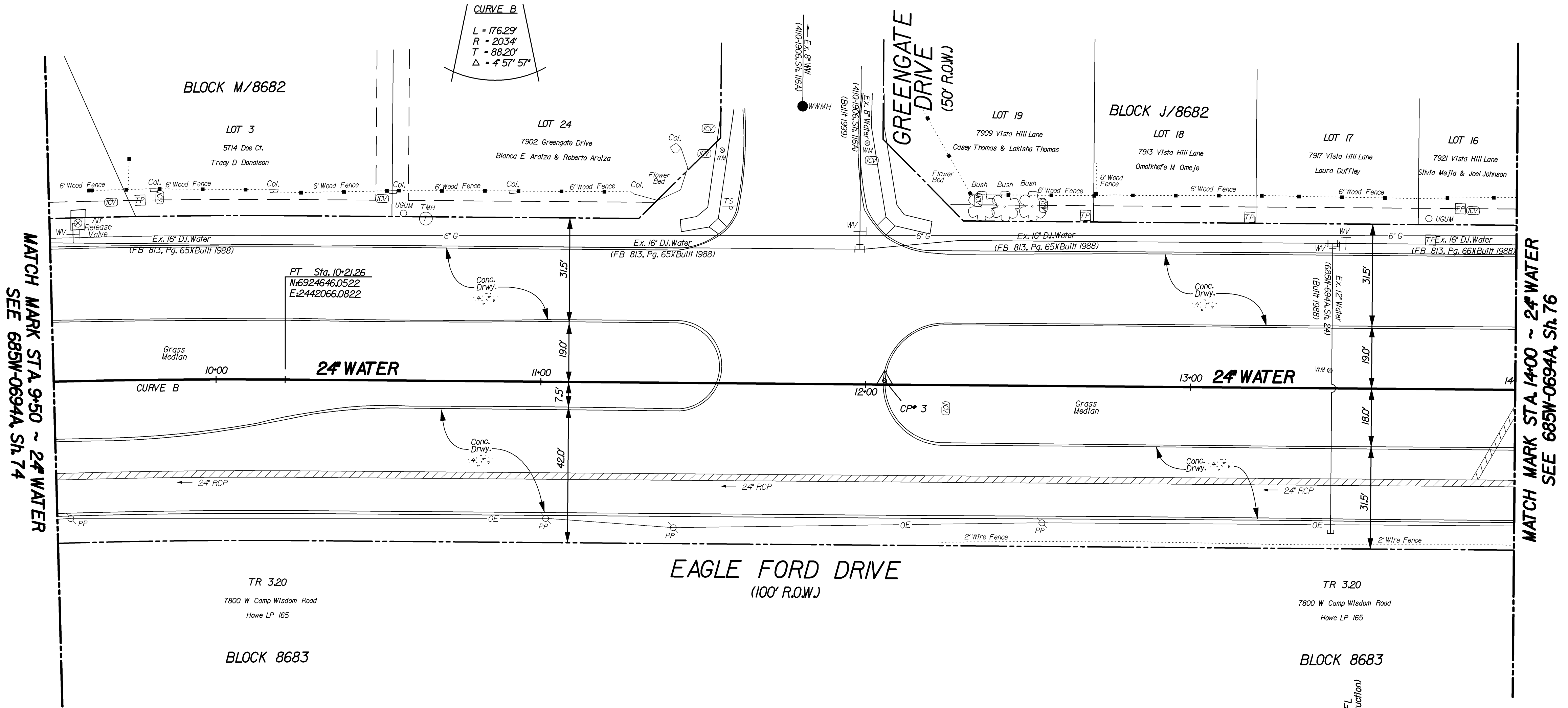
LIM & ASSOCIATES, INC.  
F-3232  
SIANG W. LIM  
8201  
04-16-2020

Pacheco Koch		LIM & ASSOCIATES, Inc. engineering & surveying consultants TBPB Reg. F-3232, TBPBS Reg. 101236-00 Tel. (214) 942-1888	
CONTRACT NO. 20-001/002		PID: 5006	
<b>24" WATER MAIN</b>			
<b>EAGLE FORD DRIVE</b>			
PRAYER MOUNTAIN LN. TO 500'S OF MOUNTAIN HOLLOW DR.			
<b>DALLAS WATER UTILITIES</b>			
<b>CITY OF DALLAS, TEXAS</b>			
DESIGN	DRAWN	DATE	FILE NUMBER SHEET
LIM	LIM	APR 2020	685W 0694A 74



**INSTALL 450 LF 24" WATER**

EX. 16" DJ. WATER TO REMAIN

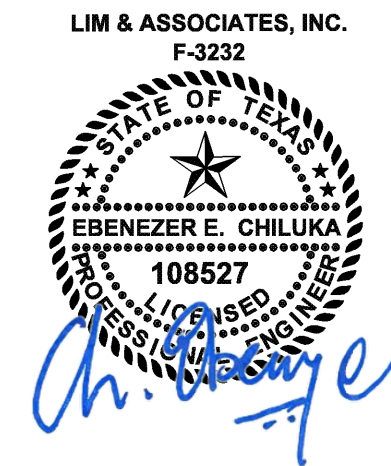


**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&T Energy Corp. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working Days Prior To Construction.  
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**CAUTION**  
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AMI Components Shall be Disconnected, Reconnected, Removed or Installed by DWU Personnel ONLY.  
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Tel: 214-670-9537  
Email: DWUMRO@dallascityhall.com



04-16-2020

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REV. NO.	DATE	DESCRIPTION	BY
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2			

**BENCHMARKS & CONTROL POINTS**

**DWU BENCHMARK\* 75A-D-2**  
A SQUARE IS CUT AT CENTER OF STORM SEWER INLET ON NORTH SIDE OF MOUNTAIN CREEK PARKWAY, 0.20 MILES WEST OF EAGLE FORD ROAD.  
ELEV = 581.74'

**CONTROL POINT\* 2**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF GLENWAY DRIVE AND EAGLE FORD DRIVE.  
N: 6924435.6490 E: 2442082.5780 ELEV = 589.95'

**CONTROL POINT\* 3**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF GREENGATE DRIVE AND EAGLE FORD DRIVE.  
N: 6924830.4954 E: 2442059.8197 ; ELEV = 586.65'

Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

REFERENCES  
WATER 60-9W, 61-9W  
WASTEWATER 60-9S, 61-9S

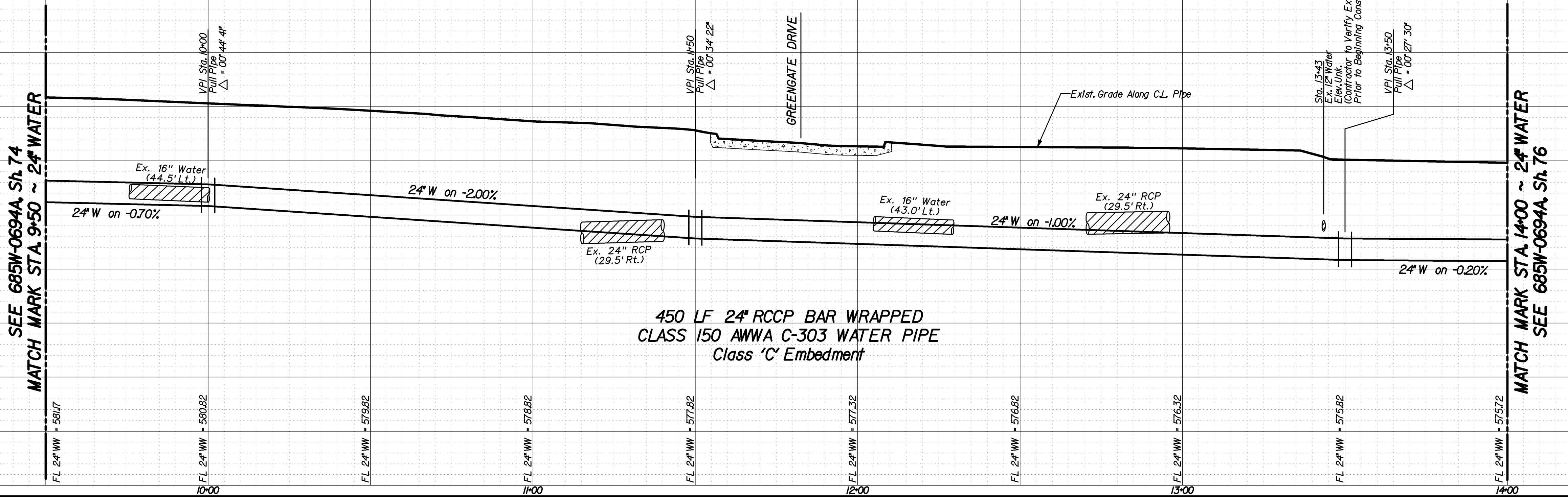
LIM & ASSOCIATES, INC.  
F-3232  
SIANG W. LIM  
LICENSED PROFESSIONAL ENGINEER  
04-16-2020

**Pacheco Koch** & ASSOCIATES, Inc.  
engineering & surveying consultants  
TBP# Reg. F-3232, TBP#S Reg. 101236-00  
Tel. (214) 942-1888

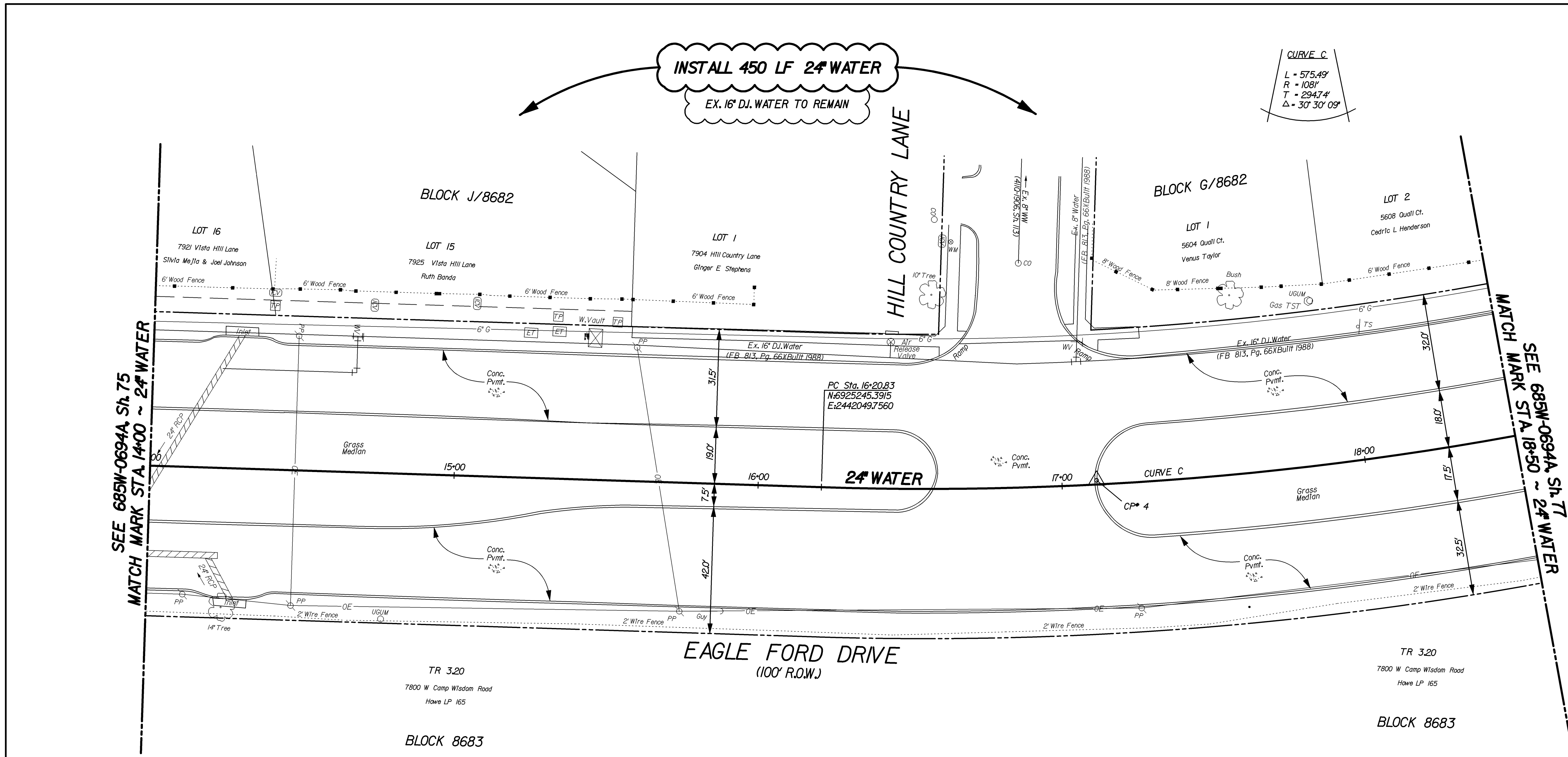
CONTRACT NO. 20-001/002 PID: 5006

**24" WATER MAIN**  
**EAGLE FORD DRIVE**  
PRAYER MOUNTAIN LN. TO 500'S OF MOUNTAIN HOLLOW DR.

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LIM	LIM	APR 2020	685W	0694A	75





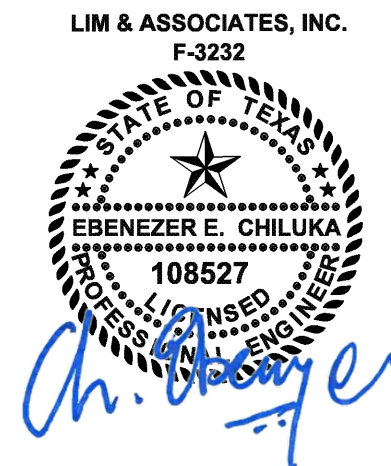


**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&S Energy Corp. Two Working Days Prior To Construction.  
Tel: 1-800-344-8377 / 1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tel: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
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Tel: 1-800-344-8377

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Contact DWU Meter Reading Operations  
Tel: 214-670-9537  
Email: DWUMRO@dallascityhall.com



04-16-2020

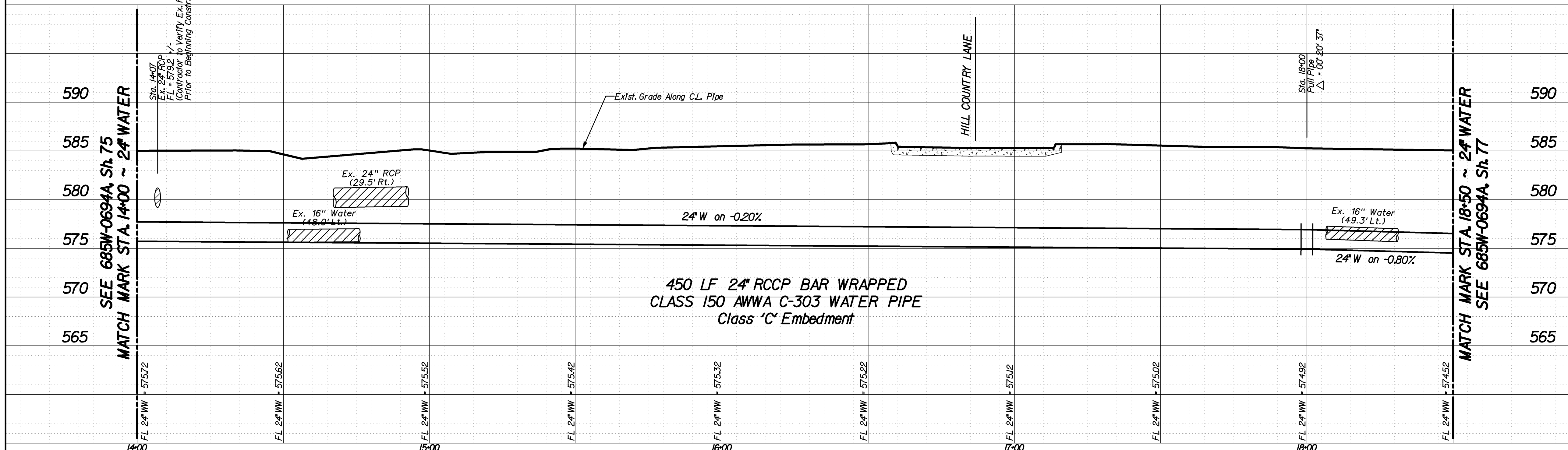
REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY
1			
2			

**BENCHMARKS & CONTROL POINTS**

**DWU BENCHMARK\* 75A-D-2**  
A SQUARE IS FOUND AT CENTER OF STORM SEWER INLET ON NORTH SIDE OF MOUNTAIN CREEK PARKWAY, 0.20 MILES WEST OF EAGLE FORD ROAD.  
ELEV = 581.74'

**CONTROL POINT\* 3**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF GREENGATE DRIVE AND EAGLE FORD DRIVE.  
N: 6924830.4954 E: 2442059.8197 ; ELEV = 586.65'

**CONTROL POINT\* 4**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF HILL COUNTRY LANE AND EAGLE FORD DRIVE.  
N: 6925335.6210 E: 2442042.1500 ; ELEV = 585.78'



Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

**REFERENCES**

WATER	60-9W, 61-9W
WASTEWATER	60-9S, 61-9S

04-16-2020

**Pacheco Koch** & ASSOCIATES, Inc.  
engineering & surveying consultants  
TBPB Reg. F-3332, TBPLS Reg. 101236-00  
Tel. (214) 942-1888

**LIM & ASSOCIATES, INC.**  
F-3232  
SIANG W. LIM  
82011  
LICENSED PROFESSIONAL ENGINEER  
STATE OF TEXAS

CONTRACT NO. 20-001/002 PID: 5006

**24" WATER MAIN**  
**EAGLE FORD DRIVE**  
PRAYER MOUNTAIN LN. TO 500'S OF MOUNTAIN HOLLOW DR.  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LIM	LIM	APR 2020	685W	0694A	76



**INSTALL 497 LF 24" WATER**  
EX. 16" D.I. WATER TO REMAIN

Sta. 23+40 ~ 24" Water  
N: 6925906J845  
E: 2441801J095  
Install:  
1- 8" Flg. Outlet Up  
1- 8" Blind Flange Drilled & Tapped for 2" Outlet Pipe  
1- 2" Flush Point

Sta. 23+46.85 ~ End 24" Water  
N: 6925911J412  
E: 2441796J201

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&M Energy Corp. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION**  
Advanced Metering Infrastructure (AMI) Meters In Area  
AMI Components Shall be Disconnected, Reconnected, Removed or Installed by DMU Personnel ONLY.  
Contact DMU Meter Reading Operations (MRO) 5 working days in advance.  
Tel: 214-670-9537  
Email: DMUMRO@dallascityhall.com



04-16-2020

REVISIONS			
REV NO.	DATE	DESCRIPTION	BY
1			
2			

**BENCHMARKS & CONTROL POINTS**

**DMU BENCHMARK\* 75A-D-2**  
A SQUARE IS CUT AT CENTER OF STORM SEWER INLET ON NORTH SIDE OF MOUNTAIN CREEK PARKWAY, 0.20 MILES WEST OF EAGLE FORD ROAD.  
ELEV = 581.74'

**CONTROL POINT\* 4**  
\*X CUT SET ON NOSE OF CONCRETE MEDIAN CURB NORTH OF INTERSECTION OF HILL COUNTRY LANE AND EAGLE FORD DRIVE.  
N: 6925335J6210 E: 2442042J1500 ; ELEV = 585.78'

**CONTROL POINT\* 5**  
\*X CUT SET ON CONCRETE CURB EAST OF EAGLE FORD DRIVE APPROXIMATELY 106' FROM HOUSE NUMBER 5668 CENTERIDGE DRIVE.  
N: 6925879J3922 E: 2441873J079 ; ELEV = 573.6'

Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

REFERENCES  
WATER 60-9W, 61-9W  
WASTEWATER 60-9S, 61-9S

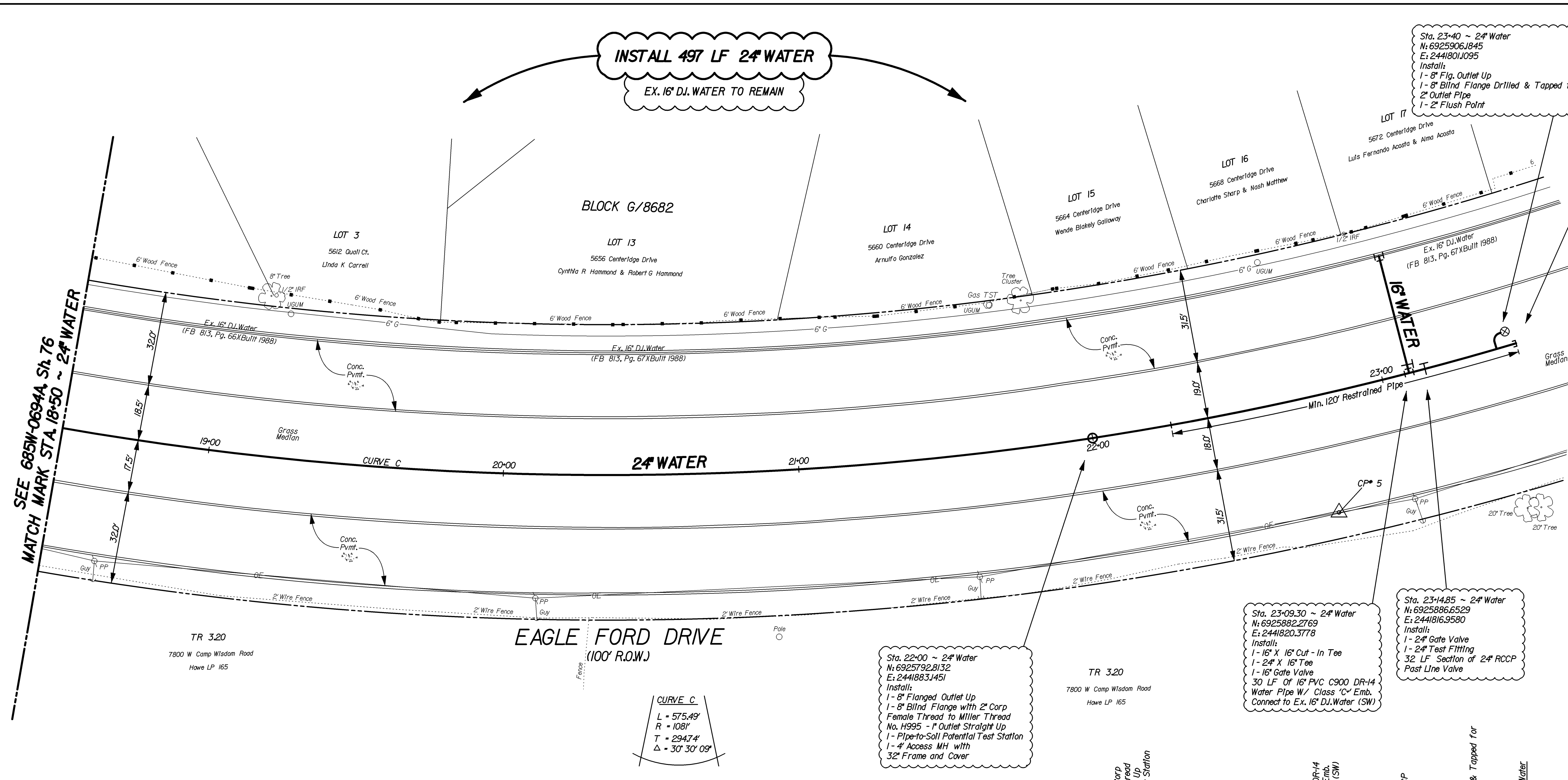
LIM & ASSOCIATES, INC.  
F-3232  
SIANG W. LIM  
82011  
LICENSED PROFESSIONAL ENGINEER  
04-16-2020

**Pacheco Koch** & ASSOCIATES, Inc.  
engineering & surveying consultants  
TBPB Reg. F-3232, TBPBS Reg. 101236-00  
Tel. (214) 942-1888

CONTRACT NO. 20-001/002 PID: 5006

**24" WATER MAIN**  
**EAGLE FORD DRIVE**  
PRAYER MOUNTAIN LN. TO 500'S OF MOUNTAIN HOLLOW DR.  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LIM	LIM	APR 2020	685W	0694A	77

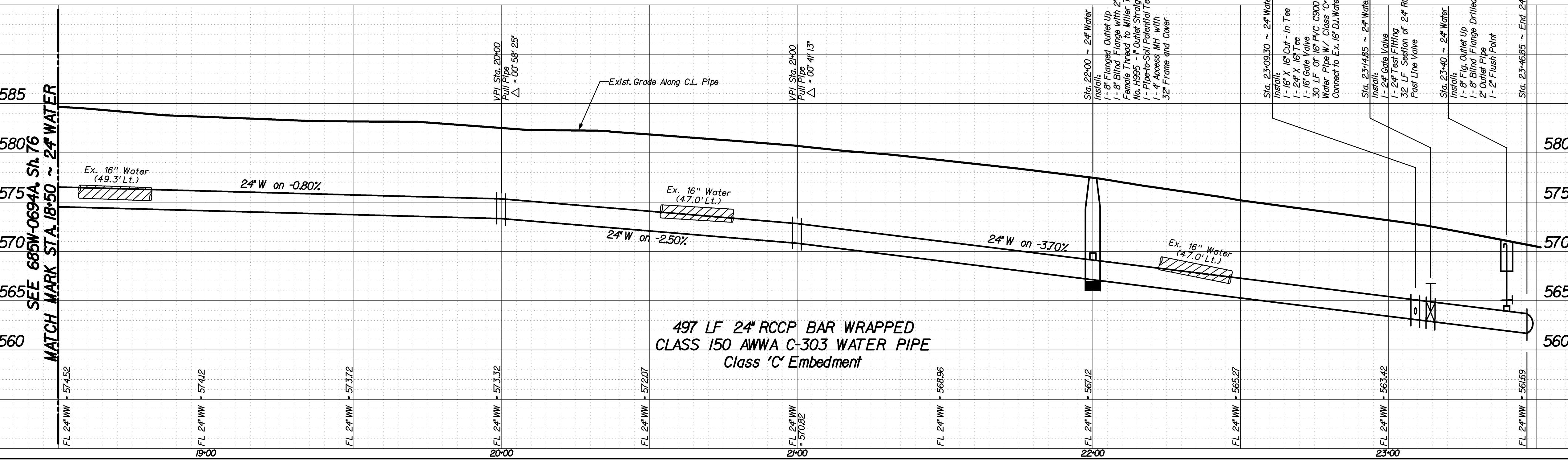


**CURVE C**  
L = 575.49'  
R = 108'  
T = 294.74'  
Δ = 30° 30' 09"

Sta. 22+00 ~ 24" Water  
N: 6925792J132  
E: 2441883J451  
Install:  
1- 8" Flanged Outlet Up  
1- 8" Blind Flange with 2" Corp Female Thread to Miller Thread No. H995 - 1" Outlet Straight Up  
1- Pipe-to-Soil Potential Test Station  
1- 4" Access MH with 32" Frame and Cover

Sta. 23+09.30 ~ 24" Water  
N: 6925882J2769  
E: 2441820J3778  
Install:  
1- 16" X 16" Cut - In Tee  
1- 24" X 16" Tee  
1- 16" Gate Valve  
30 LF of 16" PVC C900 DR-14 Water Pipe w/ Class 'C' Emb. Connect to Ex. 16" D.I. Water (SW)

Sta. 23+14.85 ~ 24" Water  
N: 6925886J529  
E: 2441816J9580  
Install:  
1- 24" Gate Valve  
1- 24" Test Fitting  
32 LF Section of 24" RCCP  
Past Line Valve



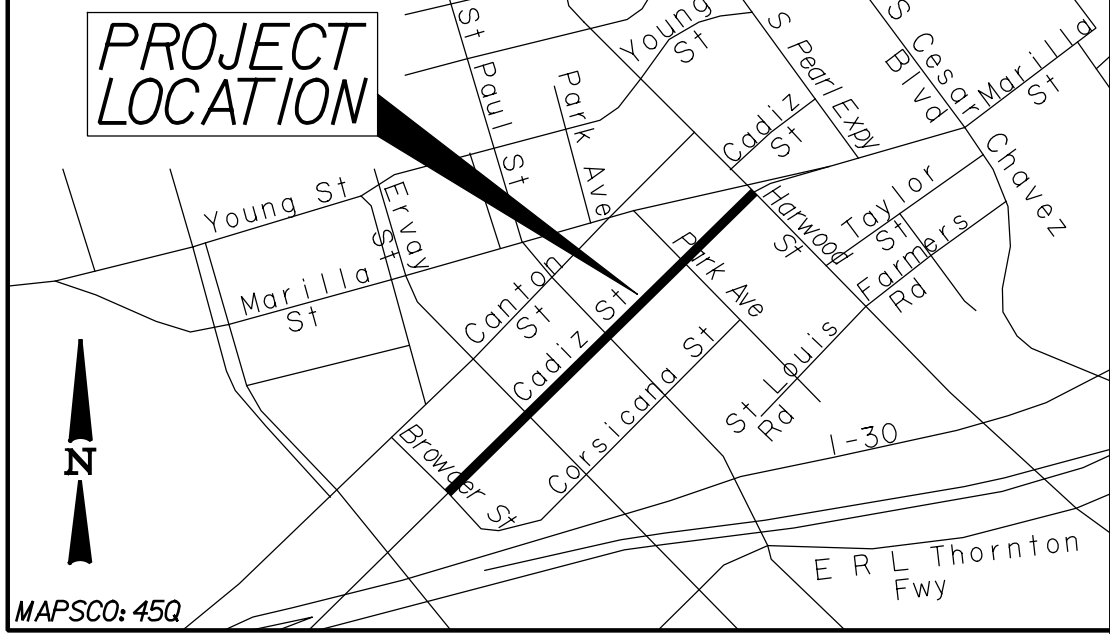
497 LF 24" RCCP BAR WRAPPED CLASS 150 AWWA C-303 WATER PIPE Class 'C' Embedment



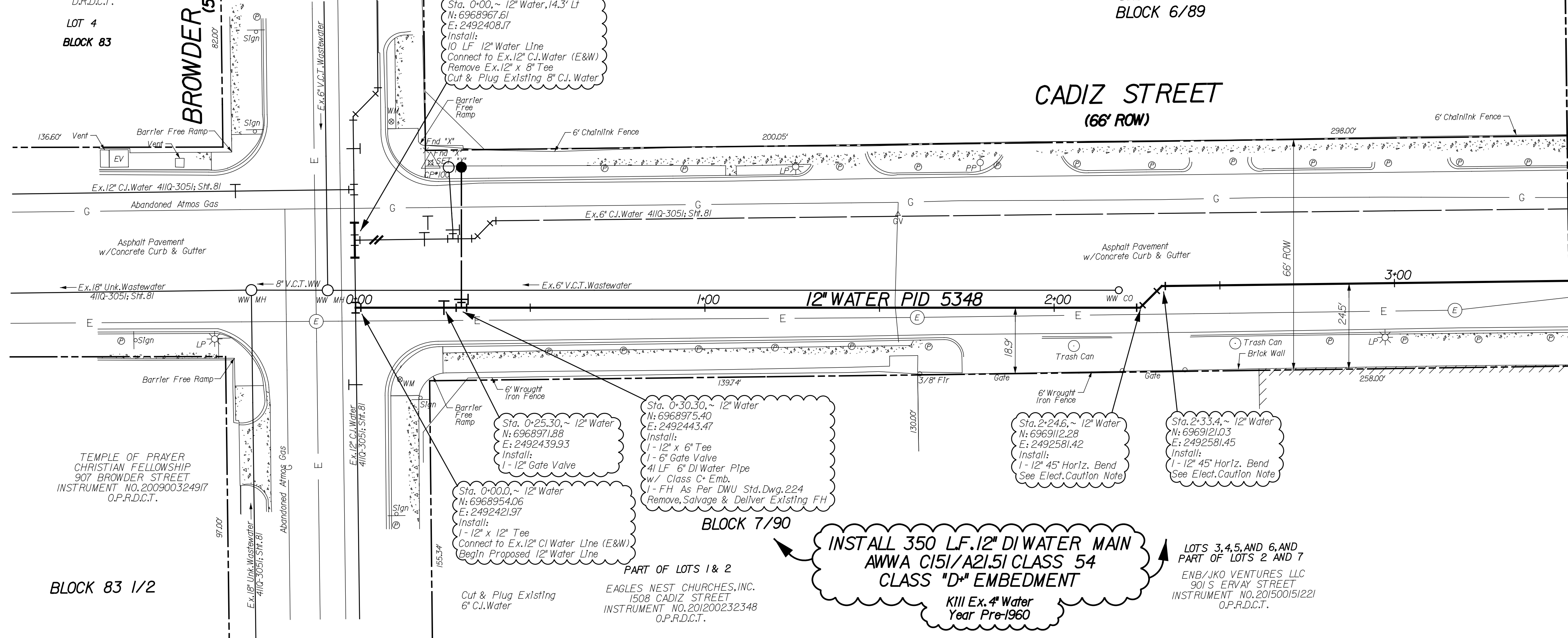
PAUL K & COLLEEN F TYLER  
817 BROWDER STREET  
VOL 97183 PG 5144  
D.R.D.C.T.

LOT 4  
BLOCK 83

C P CANTON/PATTERSON STREET LIMITED PARTNERSHIP  
1502 CANTON STREET  
VOLUME 94183 PAGE 450  
D.R.D.C.T.  
BLOCK 6/89



- MAPSCO: 45Q
- NOTES
- SEE SHEET 411Q-1599, SH. 233 FOR GENERAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DMU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT.
  - CONTRACTOR TO BRACE & PROTECT ALL POWER POLES AND LIGHT POLES DURING CONSTRUCTION. PROVIDE A MINIMUM OF 1' SEPARATION FROM OUTSIDE OF PIPE TO POWER POLE / LIGHT POLE. ANY DAMAGE TO EXISTING STRUCTURES SHALL BE REPAIRED OR REPLACED TO THE CONDITION OF EQUAL OR BETTER THAN EXISTING CONDITION AT CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)
  - DIRECTIONAL DRILLING OR BORING MAY NOT BE USED IN THE CENTRAL BUSINESS DISTRICT UNLESS OTHERWISE APPROVED BY THE DIRECTOR AS BEING IN THE BEST INTEREST OF THE PUBLIC HEALTH, SAFETY, WELFARE AND CONVENIENCE.



BLOCK 83 1/2

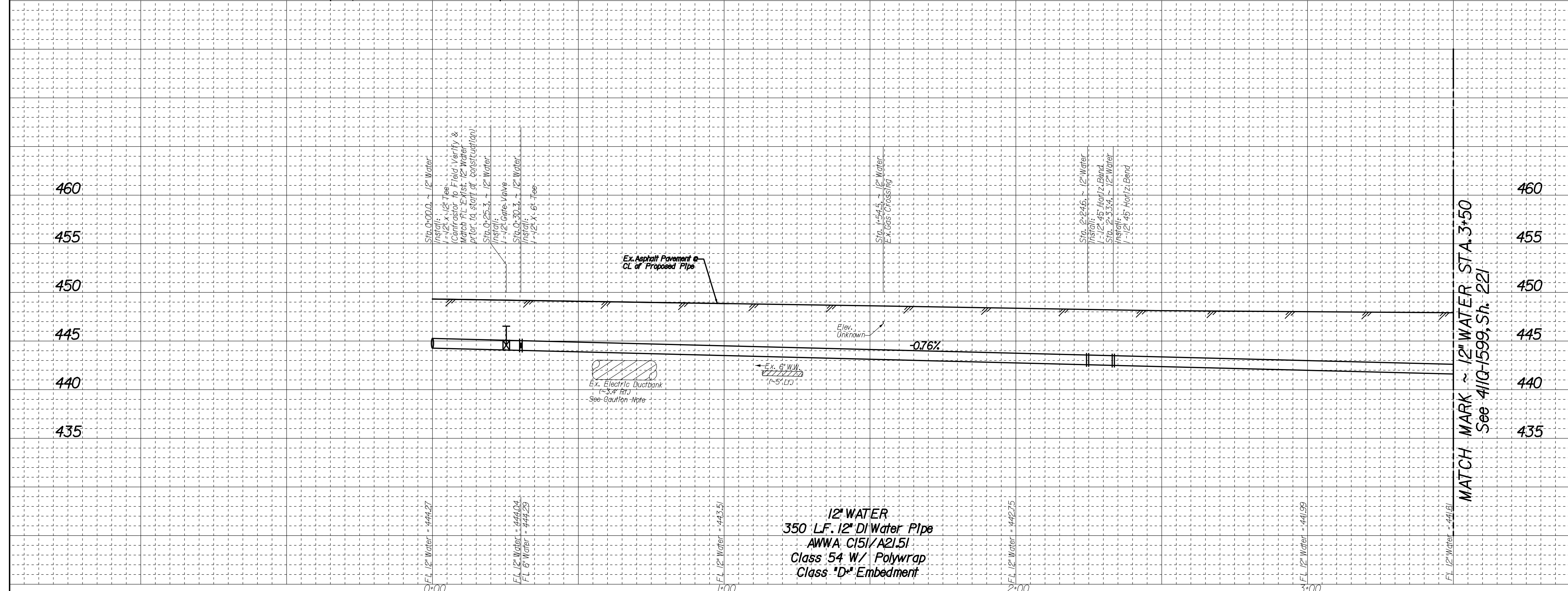
BLOCK 7/90

**INSTALL 350 LF. 12" DI WATER MAIN  
AWWA C151/A21.5I CLASS 54  
CLASS "D" EMBEDMENT**  
Kill Ex. 4" Water  
Year Pre-1960

LOTS 3, 4, 5, AND 6, AND  
PART OF LOTS 2 AND 7  
ENB/JKO VENTURES, LLC  
901 S ERVAY STREET  
INSTRUMENT NO. 201500151221  
O.P.R.D.C.T.

**CAUTION ~ ELECTRIC !**  
Overhead & Underground  
Electrical Cables In Area  
Contact ONCOR Two Working  
Days Prior To Construction.  
Tel: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&MOS Energy Corp. Two Working  
Days Prior To Construction.  
Tel: 1-800-344-8377 / 1-800-545-6005



12" WATER  
350 LF. 12" DI Water Pipe  
AWWA C151/A21.5I  
Class 54 W/ Polywrap  
Class "D" Embedment

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

BENCHMARKS & CONTROL POINTS				
<b>BENCHMARK</b> A CITY OF DALLAS BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT THE SOUTHWEST CORNER OF A STORM SEWER DROP INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SAINT PAUL STREET AND YOUNG STREET ELEV = 442.69				
A STD.WDBM ON CONCRETE CURB CENTER RADIUS SOUTHEAST CORNER OF INTERSECTION OF GRAND AVENUE AND ATLANTA STREET ELEV = 449.27				
HORIZONTAL CONTROL				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	6968998.668	2492407.950	449.42	SET "X"
102	6969652.812	2493050.566	445.10	SET "X"
104	6970186.822	2493576.053	449.90	SET "X"

Horizontal Scale: 1" = 20'	
Vertical Scale: 1" = 6'	

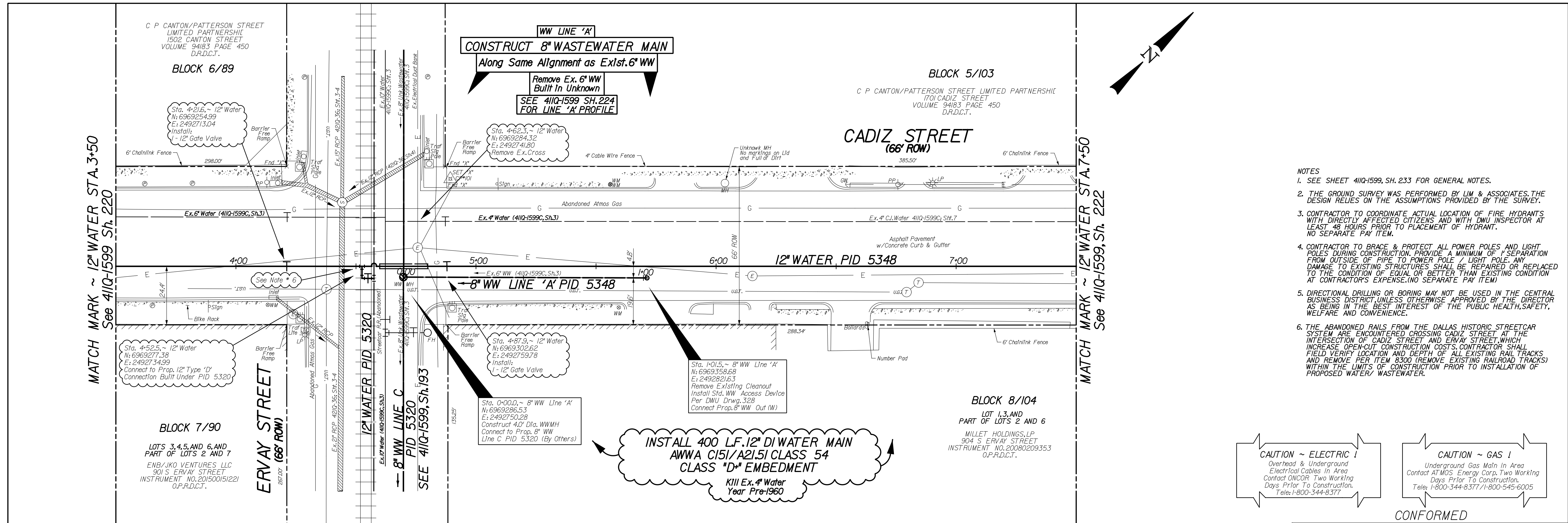
<b>WATER</b> 39-25W & 39-26W	
<b>WASTEWATER</b> 39-25S & 39-26S	

<b>Pacheco Koch</b> DALLAS 1501 WORTH 7537 RAMBLER ROAD, SUITE 1400 DALLAS, TEXAS 75221 TX REG. ENGINEERING FIRM F-469 TX REG. SURVEYING FIRM LS-100088-00	DESIGN BY: <b>urban engineers group inc.</b> 167 turtle creek blvd, ste a dallas, texas 75207 (214) 252-1600 p FIRM REGISTRATION No: F5332
--	---

CONTRACT NO. 20-001/002						PID: 5348					
<b>12" WATER</b>											
CADIZ STREET (CBD)											
HARWOOD ST. TO BROWDER ST.											
DALLAS WATER UTILITIES											
CITY OF DALLAS, TEXAS											
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET	DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	APR. 2018	411Q	1599	220	UEG	UEG	APR. 2018	411Q	1599	220





- NOTES
- SEE SHEET 41IQ-1599, SH. 233 FOR GENERAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES, THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DWU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.
  - CONTRACTOR TO BRACE & PROTECT ALL POWER POLES AND LIGHT POLES DURING CONSTRUCTION. PROVIDE A MINIMUM OF 1' SEPARATION FROM OUTSIDE OF PIPE TO POWER POLE / LIGHT POLE. ANY DAMAGE TO EXISTING STRUCTURES SHALL BE REPAIRED OR REPLACED TO THE CONDITION OF EQUAL OR BETTER THAN EXISTING CONDITION AT CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)
  - DIRECTIONAL DRILLING OR BORING MAY NOT BE USED IN THE CENTRAL BUSINESS DISTRICT UNLESS OTHERWISE APPROVED BY THE DIRECTOR AS BEING IN THE BEST INTEREST OF THE PUBLIC HEALTH, SAFETY, WELFARE AND CONVENIENCE.
  - THE ABANDONED RAILS FROM THE DALLAS HISTORIC STREETCAR SYSTEM ARE ENCOUNTERED CROSSING CADIZ STREET AT THE INTERSECTION OF CADIZ STREET AND ERVAY STREET WHICH INCREASE OPEN-CUT CONSTRUCTION COSTS. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING RAIL TRACKS AND REMOVE PER ITEM 8300 (REMOVE EXISTING RAILROAD TRACKS) WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO INSTALLATION OF PROPOSED WATER/ WASTEWATER.

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY
1	03/21/2019	UPDATED PIPE ENCASUREMENT	UEG

**BENCHMARKS & CONTROL POINTS**

**BENCHMARK**  
A CITY OF DALLAS BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT THE SOUTHWEST CORNER OF A STORM SEWER DROP INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SAINT PAUL STREET AND YOUNG STREET  
ELEV = 442.69

A STD.WDBM ON CONCRETE CURB CENTER RADIUS SOUTHEAST CORNER OF INTERSECTION OF GRAND AVENUE AND ATLANTA STREET  
ELEV = 449.27

HORIZONTAL CONTROL				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	6968998.668	2492407.950	449.42	SET "X"
102	6969652.812	2493050.566	445.10	SET "X"
104	6970186.822	2493576.053	449.90	SET "X"

Horizontal Scale: 1" = 20'

Vertical Scale: 1" = 6'

WATER  
39-25W & 39-26W

WASTEWATER  
39-25S & 39-26S

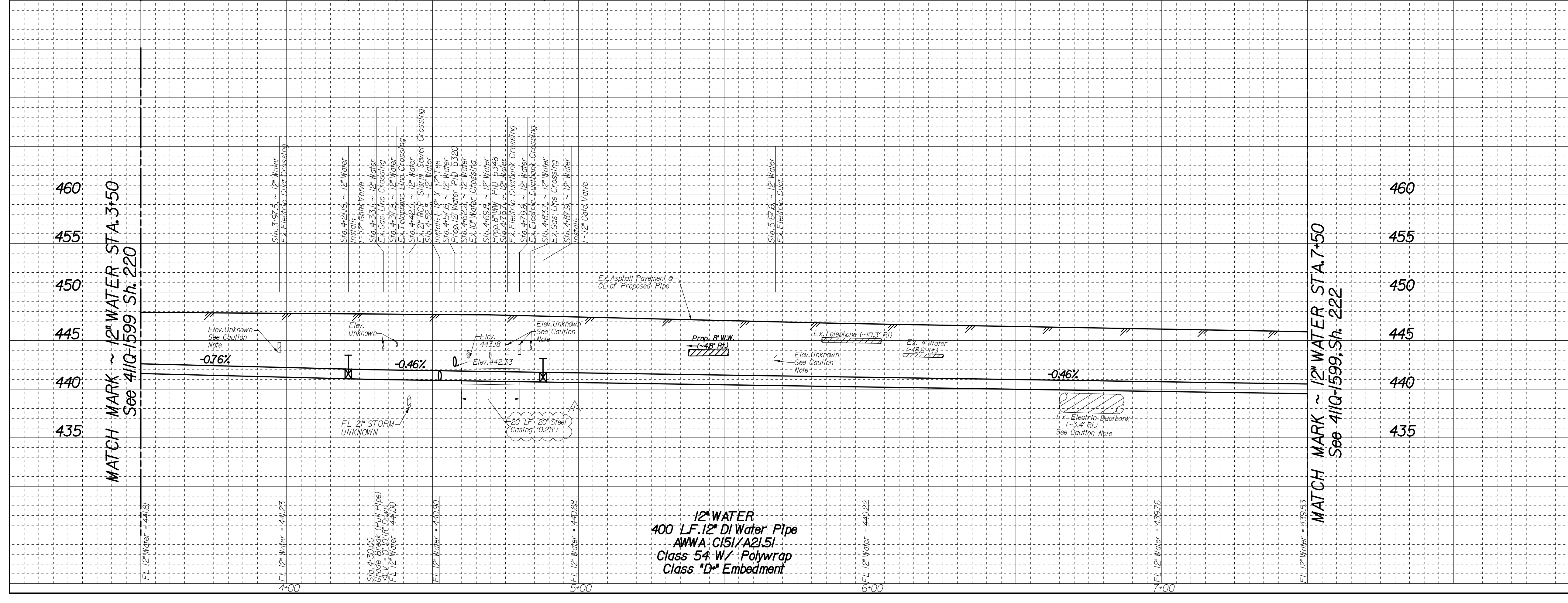
**Pacheco Koch**  
DALLAS OFFICE  
7537 RAMBLER ROAD, SUITE 1400 DALLAS, TEXAS 75221  
TEL: 972.235.3031 FAX: 972.235.9544

DESIGN BY:  
**urban engineers group inc.**  
167 turtle creek blvd, ste a dallas, texas 75207  
(214) 252-1600 p FIRM REGISTRATION No: F5332

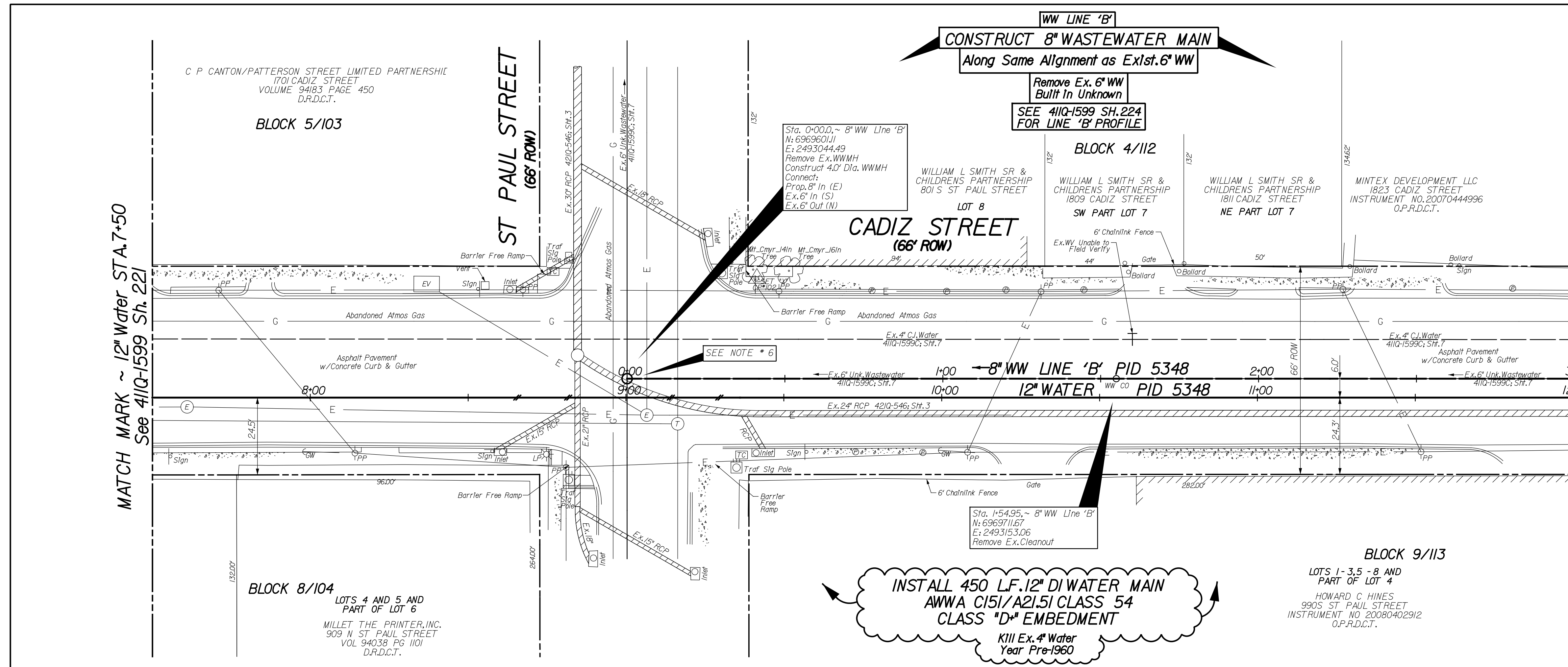
CONTRACT NO. 20-001/002 PID: 5348

**12" WATER & 8" WW MAINS**  
CADIZ STREET (CBD)  
HARWOOD ST. TO BROWDER ST.  
DALLAS WATER UTILITIES  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	APR. 2018	41IQ	1599	221







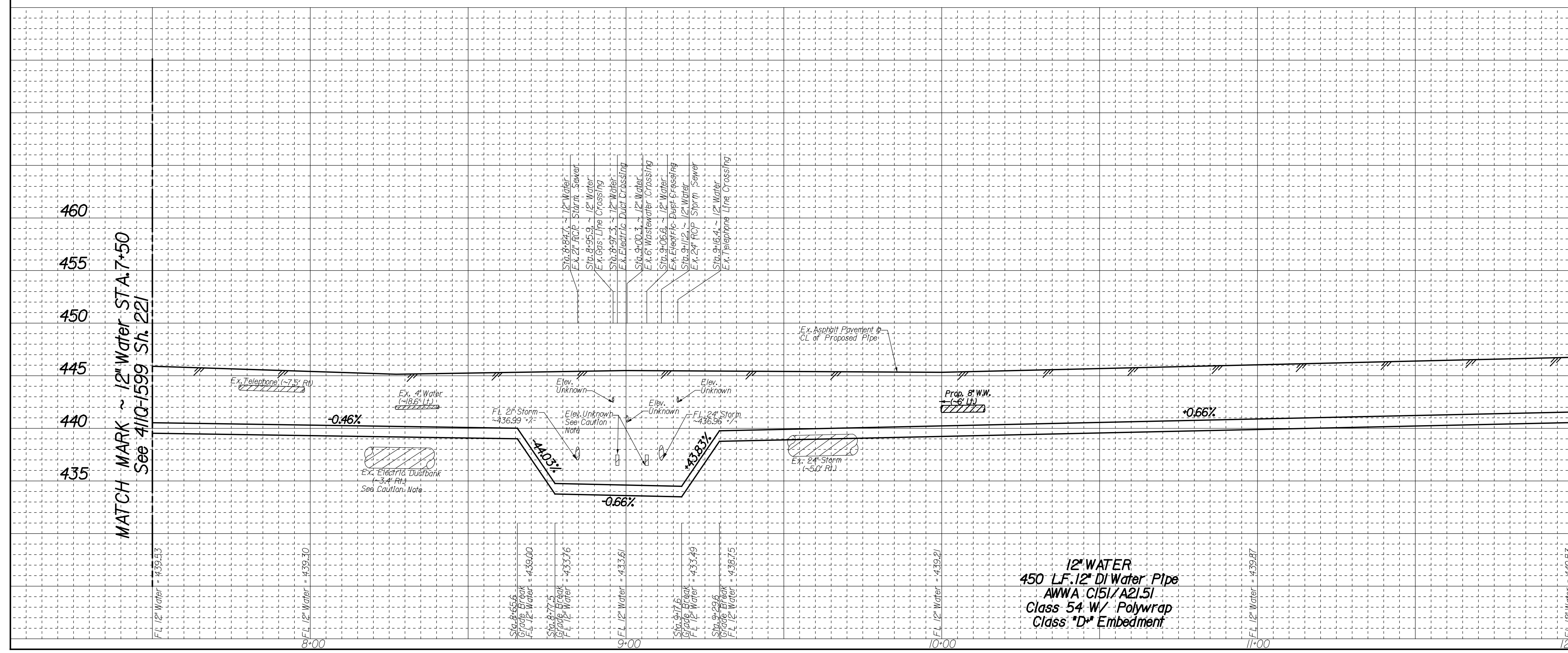
MATCH MARK ~ 12" Water STA. 7+50  
 See 411Q-1599 Sh. 221

MATCH MARK ~ 12" Water STA. 12+00  
 MATCH MARK ~ 8" WW Line 'B' STA. 3+00.09  
 See 411Q-1599 Sh. 223

- NOTES
- SEE SHEET 411Q-1599, SH. 233 FOR GENERAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES, THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DMU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT.
  - CONTRACTOR TO BRACE & PROTECT ALL POWER POLES AND LIGHT POLES DURING CONSTRUCTION. PROVIDE A MINIMUM OF 1' SEPARATION FROM OUTSIDE OF PIPE TO POWER POLE / LIGHT POLE. ANY DAMAGE TO EXISTING STRUCTURES SHALL BE REPAIRED OR REPLACED TO THE CONDITION OF EQUAL OR BETTER THAN EXISTING CONDITION AT CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)
  - DIRECTIONAL DRILLING OR BORING MAY NOT BE USED IN THE CENTRAL BUSINESS DISTRICT, UNLESS OTHERWISE APPROVED BY THE DIRECTOR AS BEING IN THE BEST INTEREST OF THE PUBLIC HEALTH, SAFETY, WELFARE AND CONVENIENCE.
  - CONTRACTOR TO CONFIRM WASTEWATER MANHOLE REPLACEMENT AT EXISTING LOCATION WILL NOT IMPACT EXIST. STORM DURING CONSTRUCTION.

**CAUTION ~ ELECTRIC !**  
 Overhead & Underground  
 Electrical Cables In Area  
 Contact ONCOR Two Working  
 Days Prior To Construction.  
 Tel: 1-800-344-8377

**CAUTION ~ GAS !**  
 Underground Gas Main In Area  
 Contact AT&T Energy Corp. Two Working  
 Days Prior To Construction.  
 Tel: 1-800-344-8377 / 1-800-545-6005



MATCH MARK ~ 12" Water STA. 12+00  
 See 411Q-1599 Sh. 223

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

**BENCHMARK**  
 A CITY OF DALLAS BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT THE SOUTHWEST CORNER OF A STORM SEWER DROP INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SAINT PAUL STREET AND YOUNG STREET  
 ELEV = 442.69

A STD.WDBM ON CONCRETE CURB CENTER RADIUS SOUTHEAST CORNER OF INTERSECTION OF GRAND AVENUE AND ATLANTA STREET  
 ELEV = 449.27

HORIZONTAL CONTROL				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	6968998.668	2492407.950	449.42	SET "X"
102	6969652.812	2493050.566	445.10	SET "X"
104	6970186.822	2493576.053	449.90	SET "X"

Horizontal Scale: 1" = 20'

Vertical Scale: 1" = 6'

<b>WATER</b> 39-25W & 39-26W	
<b>WASTEWATER</b> 39-25S & 39-26S	

**Pacheco Koch**  
 7557 RAMBLER ROAD, SUITE 1400  
 DALLAS, TEXAS 75251  
 TX REG. ENGINEERING FIRM F-469  
 TX REG. SURVEYING FIRM LS-10008-00

DESIGN BY:  
**urban engineers group inc.**  
 167 turtle creek blvd, ste a dallas, texas 75207  
 (214) 252-1600 p FIRM REGISTRATION No: F5332

**CONTRACT NO. 20-001/002**      **PID: 5348**

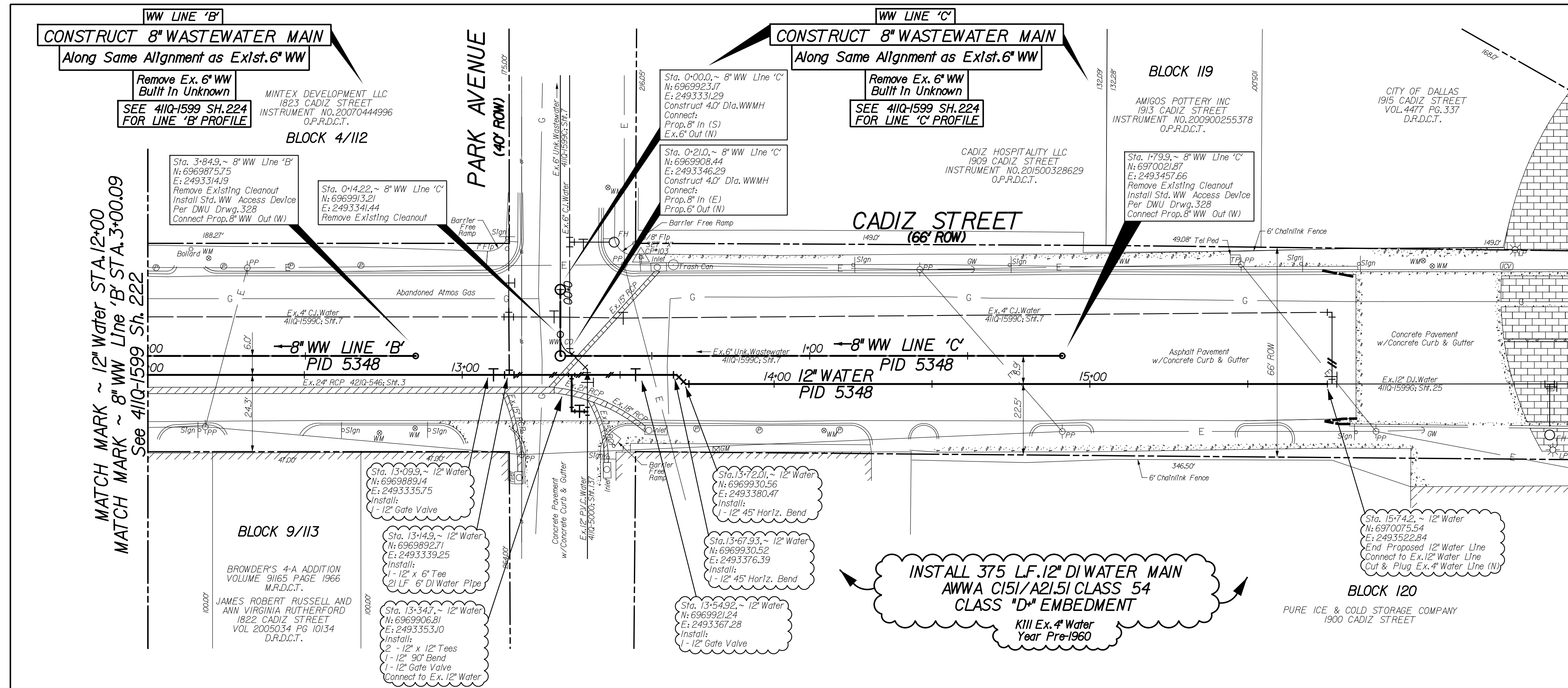
**12" WATER & 8" WW MAINS**

CADIZ STREET (CBD)  
 HARWOOD ST. TO BROWDER ST.  
 DALLAS WATER UTILITIES  
 CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	APR. 2018	411Q	1599	222

**12" WATER**  
 450 L.F. 12" DI Water Pipe  
 AWWA C151/A21.51  
 Class 54 W/ Polywrap  
 Class "D" Embedment

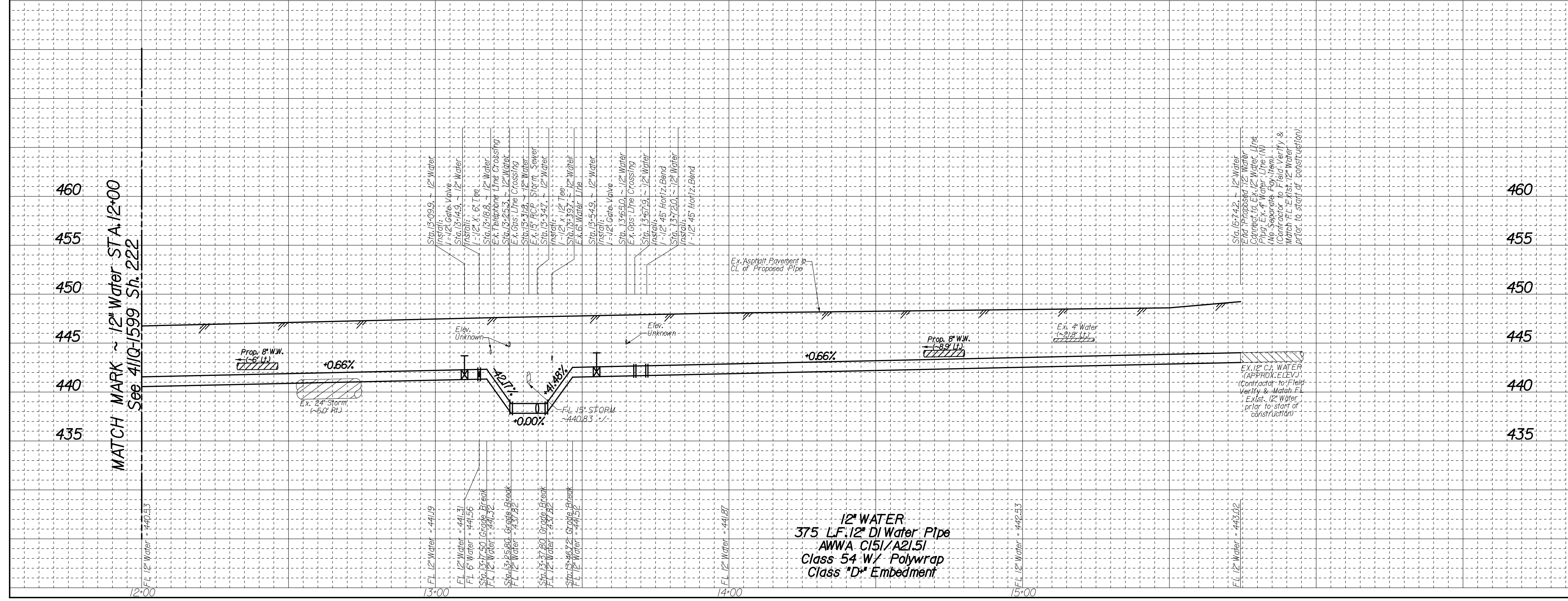




- NOTES**
- SEE SHEET 41IQ-1599, SH. 233 FOR GENERAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES, THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DWU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT.
  - CONTRACTOR TO BRACE & PROTECT ALL POWER POLES AND LIGHT POLES DURING CONSTRUCTION. PROVIDE A MINIMUM OF 1' SEPARATION FROM OUTSIDE OF PIPE TO POWER POLE / LIGHT POLE. ANY DAMAGE TO EXISTING STRUCTURES SHALL BE REPAIRED OR REPLACED TO THE CONDITION OF EQUAL OR BETTER THAN EXISTING CONDITION AT CONTRACTOR'S EXPENSE (NO SEPARATE PAY ITEM)
  - DIRECTIONAL DRILLING OR BORING MAY NOT BE USED IN THE CENTRAL BUSINESS DISTRICT UNLESS OTHERWISE APPROVED BY THE DIRECTOR AS BEING IN THE BEST INTEREST OF THE PUBLIC HEALTH, SAFETY, WELFARE AND CONVENIENCE.

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Overhead & Underground Electrical Cables In Area Contact ONCOR Two Working Days Prior To Construction. Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area Contact AT&S Energy Corp. Two Working Days Prior To Construction. Tele: 1-800-344-8377 / 1-800-545-6005



REVISIONS				
REV. NO.	DATE	DESCRIPTION	BY	

BENCHMARKS & CONTROL POINTS				
<b>BENCHMARK</b>				
A CITY OF DALLAS BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT THE SOUTHWEST CORNER OF A STORM SEWER DROP INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SAINT PAUL STREET AND YOUNG STREET ELEV = 442.69				
A STD.WDBM ON CONCRETE CURB CENTER RADIUS SOUTHEAST CORNER OF INTERSECTION OF GRAND AVENUE AND ATLANTA STREET ELEV = 449.27				
HORIZONTAL CONTROL				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	6968998.668	2492407.950	449.42	SET "X"
102	6969652.812	2493050.566	445.10	SET "X"
104	6970186.822	2493376.053	449.90	SET "X"

<p>Horizontal Scale: 1" = 20'</p> <p>Vertical Scale: 1" = 6'</p>	
--	--

<p><b>WATER</b> 39-25W &amp; 39-26W</p> <p><b>WASTEWATER</b> 39-25S &amp; 39-26S</p>	<p>DESIGN BY: <b>urban engineers group inc.</b></p> <p>167 turtle creek blvd, ste a dallas, texas 75207 (214) 252-1600 p FIRM REGISTRATION No: F5332</p>
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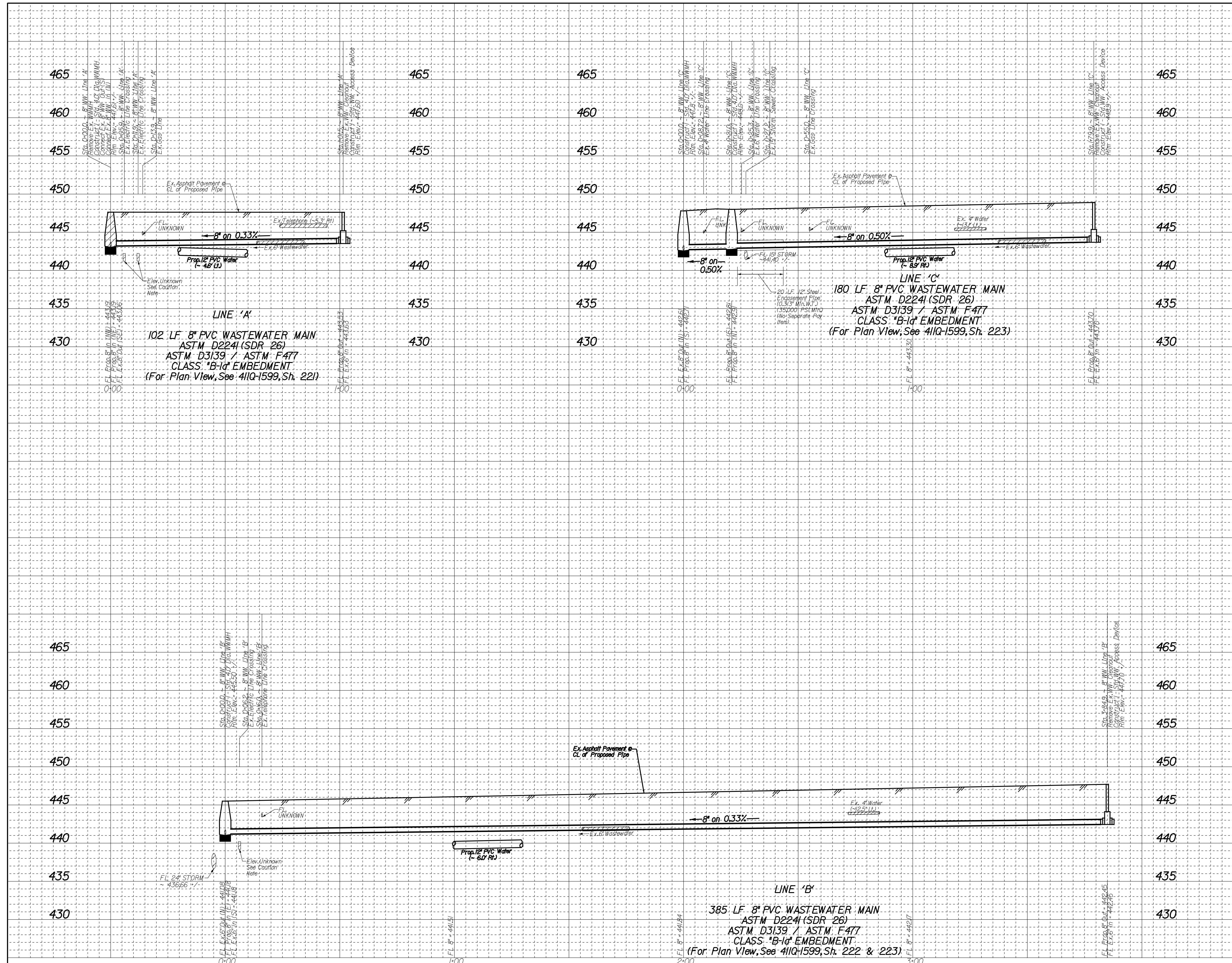
**CONTRACT NO. 20-001/002**      **PID: 5348**

**12" WATER & 8" WW MAINS**  
CADIZ STREET (CBD)  
HARWOOD ST. TO BROWDER ST.  
DALLAS WATER UTILITIES  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	APR. 2018	41IQ	1599	223

**12" WATER**  
375 LF. 12" DI Water Pipe  
AWWA C151/A21.51  
Class 54 W/ Polywrap  
Class "D" Embedment





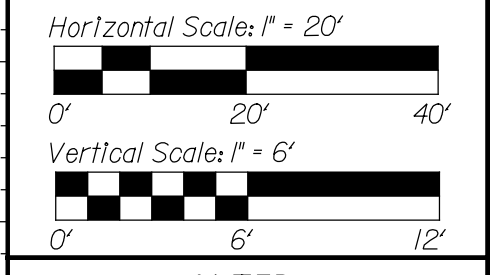
REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY
1			

**BENCHMARKS & CONTROL POINTS**

**BENCHMARK**  
 A CITY OF DALLAS BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT THE SOUTHWEST CORNER OF A STORM SEWER DROP INLET AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SAINT PAUL STREET AND YOUNG STREET  
 ELEV = 442.69

A STD.WDBM ON CONCRETE CURB CENTER RADIUS SOUTHEAST CORNER OF INTERSECTION OF GRAND AVENUE AND ATLANTA STREET  
 ELEV = 449.27

HORIZONTAL CONTROL				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	6968998.668	2492407.950	449.42	SET "X"
102	6969652.812	2493050.566	445.10	SET "X"
104	6970186.822	2493576.053	449.90	SET "X"



WATER  
 39-25W & 39-26W

WASTEWATER  
 39-25S & 39-26S

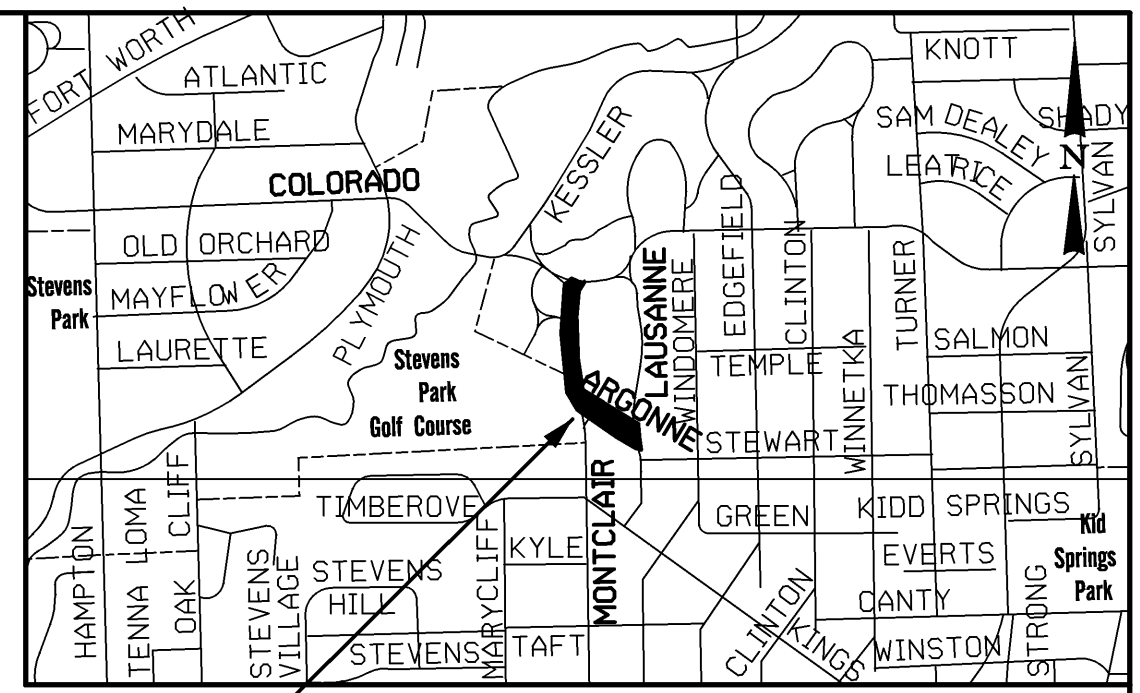
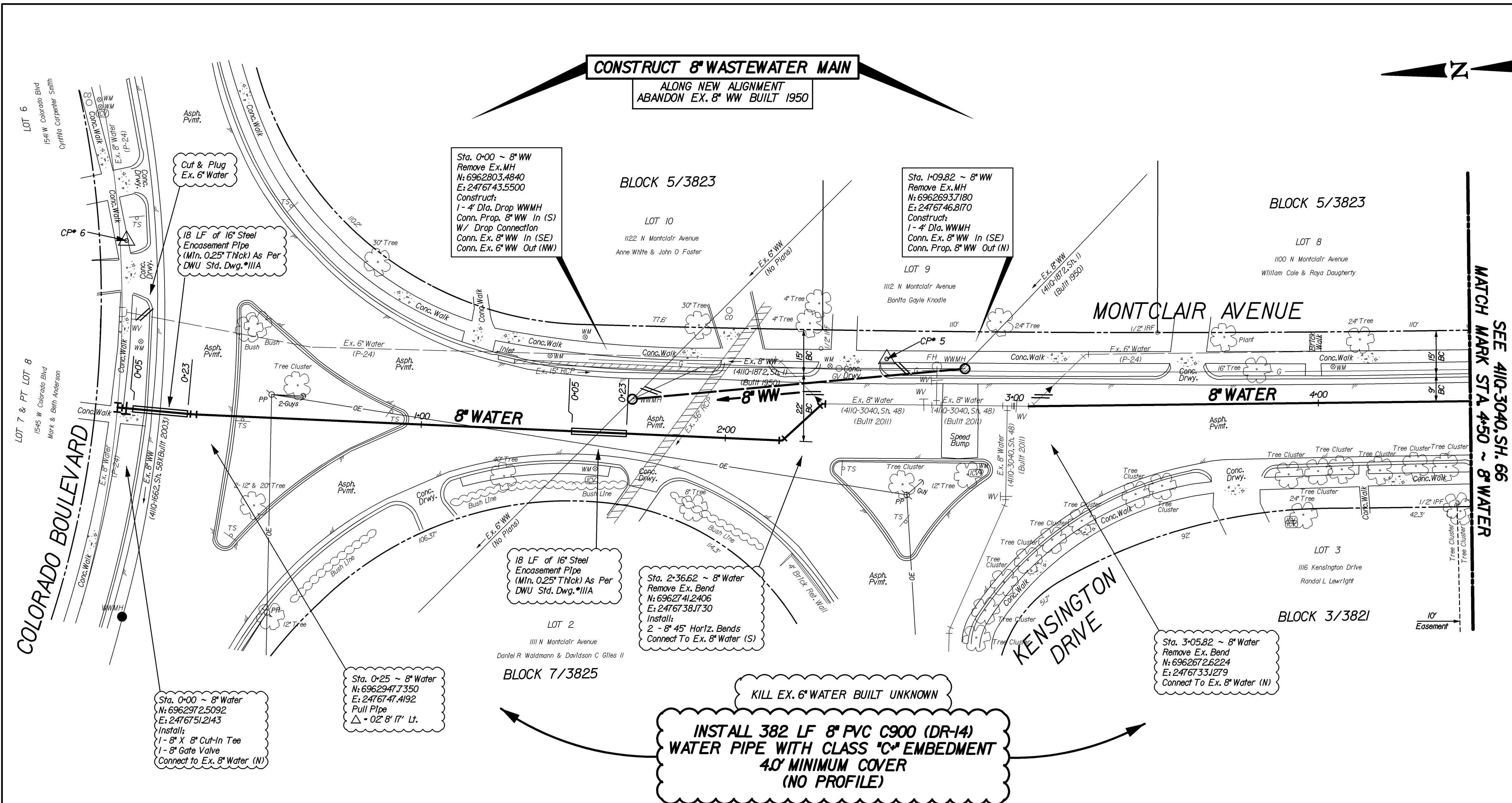


<b>Pacheco Koch</b> DALLAS FIRM WORKING 7557 RAMBLER ROAD, SUITE 1400 DALLAS, TEXAS 75251 TX REG. ENGINEERING FIRM F-409 TX REG. SURVEYING FIRM LS-100088-000	DESIGN BY: <b>urban engineers group inc.</b> 167 turtle creek blvd, ste a dallas, texas 75207 (214) 252-1600 p FIRM REGISTRATION No: F5332
	CONTRACT NO. 20-001/002 PID: 5348

**8" WW PROFILES**  
**CADIZ STREET (CBD)**  
**HARWOOD ST. TO BROWDER ST.**  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	APR. 2018	411Q	1599	224





**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&OS Energy Corp. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working Days Prior To Construction.  
Tele: 1-800-344-8377

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY
1			
2			

**BENCHMARKS & CONTROL POINTS**

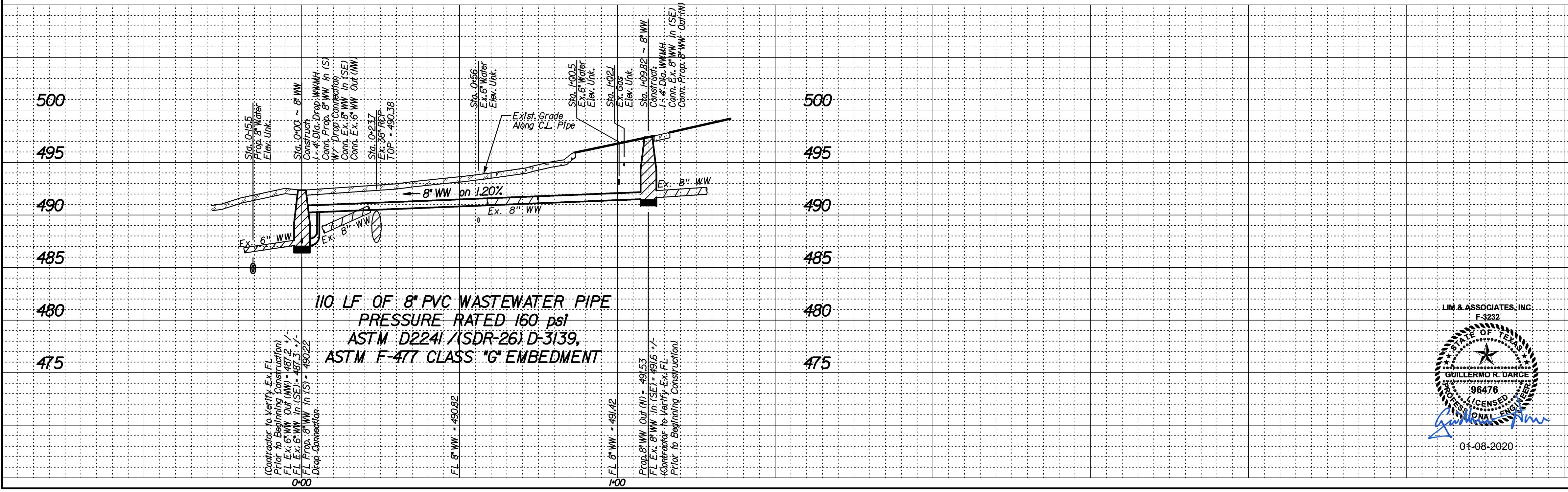
**DWU BENCHMARK\* 44W-15**  
A STANDARD WATER DEPARTMENT BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT POINT OF CURVE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF COLORADO BOULEVARD AND MAYFLOWER DRIVE.  
ELEV = 519.670'

**CONTROL POINT\* 3**  
\*X CUT ON CONCRETE WALK AT WEST SIDE OF MONTCLAIR AVENUE AT THE INTERSECTION OF MONTCLAIR AVENUE AND ARGONNE DRIVE.  
N: 6962147.8880 ; E: 2476754.8680 ; ELEV = 532.85'

**CONTROL POINT\* 4**  
\*X CUT ON CONCRETE WALK AT THE EAST SIDE OF MONTCLAIR AVENUE IN FRONT OF HOUSE 1022 N MONTCLAIR AVENUE.  
N: 6962471.6130 ; E: 2476739.8547 ; ELEV = 514.31'

**CONTROL POINT\* 5**  
\*X CUT ON CONCRETE WALK AT EAST SIDE OF MONTCLAIR AVENUE AT THE INTERSECTION OF MONTCLAIR AVENUE AND KENSINGTON DRIVE.  
N: 6962719.3170 ; E: 2476753.5553 ; ELEV = 496.10'

**CONTROL POINT\* 6**  
\*X CUT ON CONCRETE WALK AT THE NORTH SIDE OF COLORADO BOULEVARD AT THE INTERSECTION OF MONTCLAIR AVENUE AND COLORADO BOULEVARD.  
N: 6962966.4070 ; E: 2476807.6928 ; ELEV = 494.42'



**110 LF OF 8" PVC WASTEWATER PIPE**  
PRESSURE RATED 160 psi  
ASTM D2241 / (SDR-26) D-3139,  
ASTM F-477 CLASS 'G' EMBEDMENT

**INSTALL 382 LF 8" PVC C900 (DR-14) WATER PIPE WITH CLASS 'C' EMBEDMENT 4.0' MINIMUM COVER (NO PROFILE)**

Horizontal Scale: 1" = 20'  
Vertical Scale: 1" = 6'

**REFERENCES**  
WATER 42-20W  
WASTEWATER 42-20S

**LIM & ASSOCIATES, INC.**  
F-3232  
SIANG W. LIM  
82011  
LICENSED PROFESSIONAL ENGINEER  
01-08-2020

**HUITT-ZOLLARS & ASSOCIATES, INC.**  
Engineers & Surveyors  
1777 MORNEY AVENUE, SUITE 1400  
DALLAS, TEXAS 75202-1236  
FED. REG. NO. 788

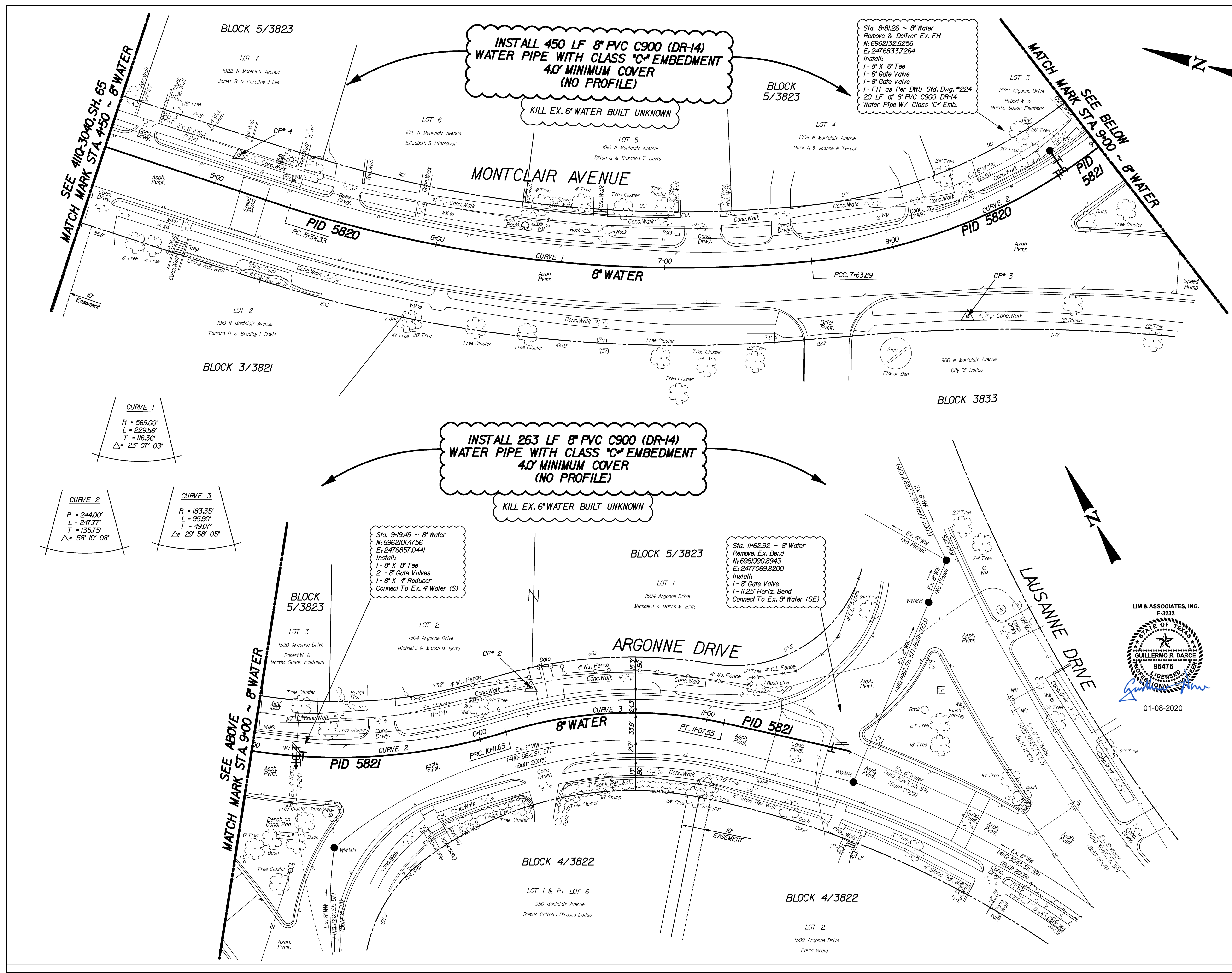
**LIM & ASSOCIATES, INC.**  
F-3232  
GUILLERMO R. DARCE  
96476  
LICENSED PROFESSIONAL ENGINEER  
01-08-2020

**CONTRACT NO. 20-001/20-002** PID: 5820

**8" WATER MAIN**  
MONTCLAIR AVENUE  
fr. COLORADO BLVD to ARGONNE DRIVE  
DALLAS WATER UTILITIES  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LIM	LIM	JAN 2020	411Q	3040	65





**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area  
Contact S.B.C. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ POWER !**  
Underground Electrical Cables In Area  
Contact TXU Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377

**CAUTION ~ GAS !**  
Underground Gas Main In Area  
Contact AT&MOS Energy Corp. Two Working  
Days Prior To Construction.  
Tele: 1-800-344-8377 / 1-800-545-6005



REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

**DWV BENCHMARK\* 44-W-15**  
A STANDARD WATER DEPARTMENT BENCH MARK IS SET ON TOP OF A CONCRETE CURB AT POINT OF CURVE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF COLORADO BOULEVARD AND MAYFLOWER DRIVE .  
ELEV = 519.670'

**CONTROL POINT\* 2**  
\*X CUT ON CONCRETE WALK NORTH OF ARGONNE DRIVE IN FRONT OF HOUSE 1504 ARGONNE DRIVE.  
N: 6962079.8250; E: 24769627.483; ELEV = 536.58'

**CONTROL POINT\* 3**  
\*X CUT ON CONCRETE WALK AT THE WEST SIDE OF MONTCLAIR AVENUE AT THE INTERSECTION OF MONTCLAIR AVENUE AND ARGONNE DRIVE.  
N: 6962147.8880; E: 2476754.8680; ELEV = 532.85'

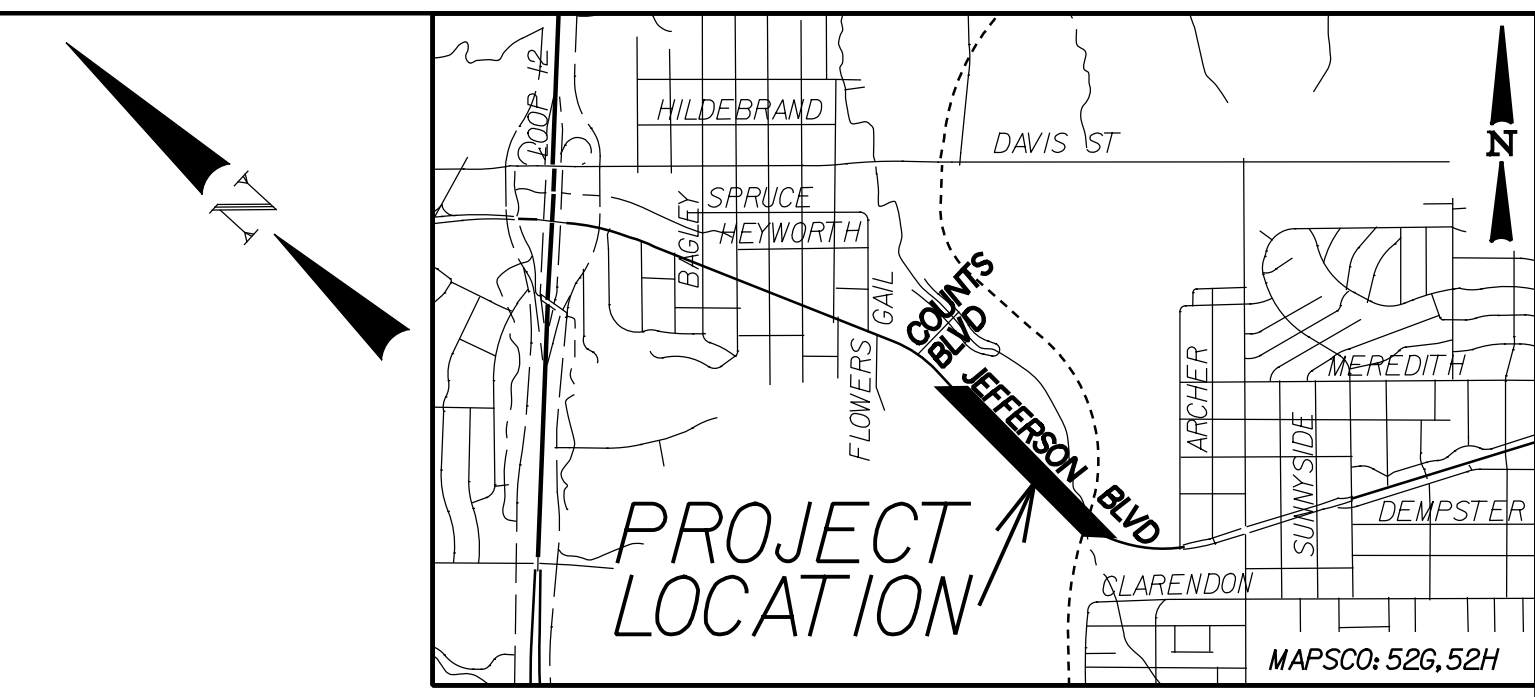
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 6'
<b>REFERENCES</b>
WATER 42-20W
WASTEWATER 42-20S

**HUITT-ZOLLARS & ASSOCIATES, INC.**  
Engineers & Surveyors  
1717 MORNEY AVENUE, SUITE 1400  
DALLAS, TEXAS 75202-1236  
TEL: (214) 942-1888

CONTRACT NO. 20-001/20-002    PID: 5820 & 5821  
**8" WATER MAIN**  
**MONTCLAIR AVE. & ARGONNE DR.**  
**fr. MONTCLAIR AVE. to LAUSANNE DRIVE**  
**DALLAS WATER UTILITIES**  
**CITY OF DALLAS, TEXAS**

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
LIM	LIM	JAN 2020	41IQ	3040	66





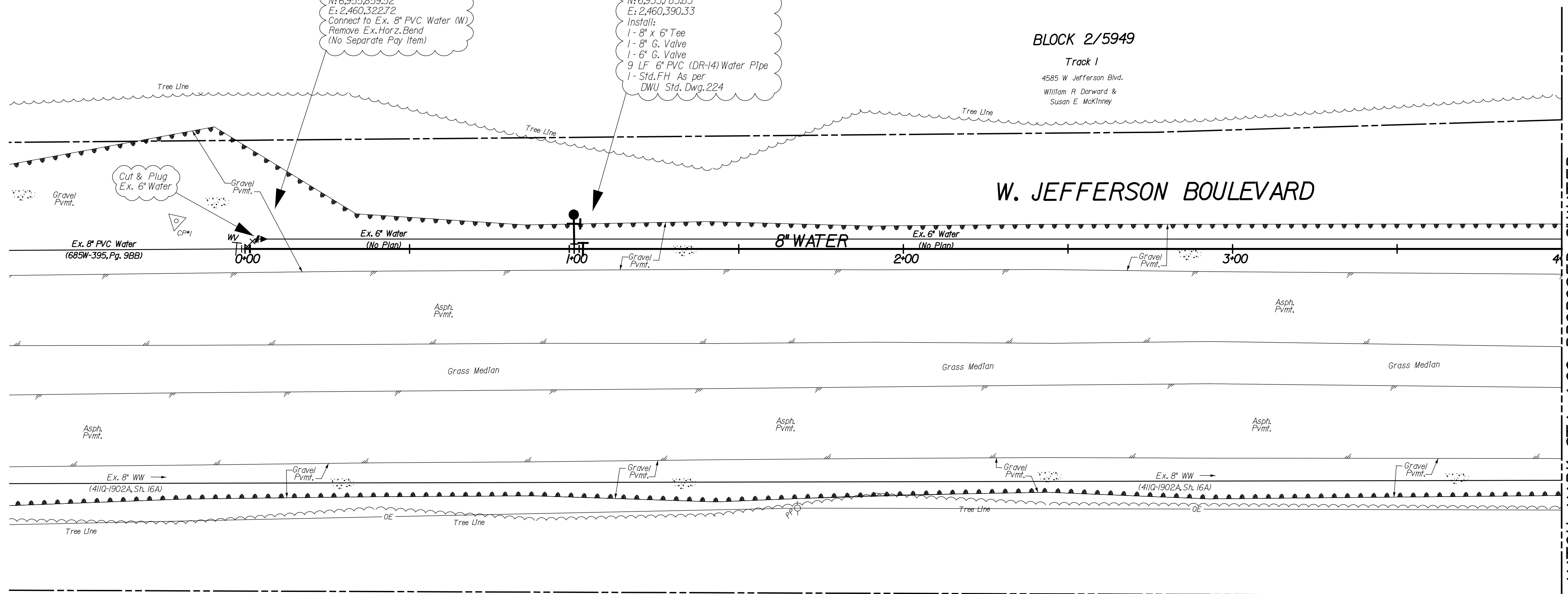
INSTALL 400 LF 8" PVC WATER MAIN  
 AWWA C900 (DR14) /  
 ASTM D-3139 / ASTM F-477  
 (MIN. 6.0' COVER) NO PROFILE  
 CLASS "C" EMBEDMENT

Kill Ex. 6" Water  
 Built Unknown

Sta. 0+00.0 Proposed 8" Water  
 N: 6,955,859.52  
 E: 2,460,322.72  
 Connect to Ex. 8" PVC Water (W)  
 Remove Ex. Horz. Bend  
 (No Separate Pay Item)

Sta. 1+00.0 Proposed 8" Water  
 N: 6,955,785.83  
 E: 2,460,390.33  
 Install:  
 1- 8" x 6" Tee  
 1- 6" G. Valve  
 1- 6" G. Valve  
 9 LF 8" PVC (DR14) Water Pipe  
 1- Std. FH As per  
 DWU Std. Dwg. 224

BLOCK 2/5949  
 Track 1  
 4585 W Jefferson Blvd.  
 William R. Dorward &  
 Susan E. McKinney



BLOCK 2/5949  
 LOT 1  
 1515 Knoxville Street  
 DNGC Member Club Inc.

MATCH MARK STA. 4+00 PROPOSED 8" WATER  
 See 411Q-1902A, Sh. 49

- GENERAL NOTES
- SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES IN SEPTEMBER, 2017. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DMU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.
  - CONTRACTOR TO FIELD VERIFY THE TYPE, LOCATION AND DEPTH OF EXISTING WATER AND WASTE WATER MAINS AND UTILITY CROSSING PRIOR TO CONSTRUCTION TO AVOID CONFLICTS. SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.

**CAUTION ~ ELECTRIC !**  
 Underground & Overhead Electrical Cables In Area. Contact ONCOR Two Working Days Prior To Construction. Tele: 1-800-344-8377

WARNING: EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORD DRAWINGS AND ABOVE GROUND SURVEY DATA. THEREFORE THERE MAY BE UTILITIES PRESENT THAT ARE NOT SHOWN ON THESE CONSTRUCTION PLANS. CONTRACTOR TO FIELD VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND USE CAUTION DURING CONSTRUCTION. NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES.

**CAUTION ~ TELEPHONE !**  
 Underground Telephone Cables In Area Contact AT&T Two Working Days Prior To Construction. Tele: 1-800-344-8377

**CAUTION ~ FIBER OPTIC !**  
 Underground Fiber Optic Cables In Area Contact Fiber Optic Co. Two Working Days Prior To Construction. Tele: 1-800-344-8377

REVISIONS			
REV NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

A SQUARE IS CUT IS FOUND ON THE NORTH SIDE OF A CONCRETE WALK AT THE END OF THE WALK IN FRONT OF HOUSE #1226 COCKRELL HILL ROAD  
 ELEV = 671.64

CITY OF DALLAS STANDARD WATER DEPT. BENCHMARK ON TOP OF CONCRETE CURB AT SOUTHWEST CORNER OF INTERSECTION OF CLARENDON DRIVE AND COCKRELL HILL ROAD  
 ELEV = 661.22

Point	Northing	Easting	Elev.	Description
1	6955880.622	2460314.882	601.48	Mag Nail
2	6955535.298	2460574.151	604.02	60D Nail
3	6955314.139	2460772.942	599.36	1/2 IRS

Point	Northing	Easting	Elev.	Description
1	6955880.622	2460314.882	601.48	Mag Nail
2	6955535.298	2460574.151	604.02	60D Nail
3	6955314.139	2460772.942	599.36	1/2 IRS

Horizontal Scale: 1" = 20'  
 Vertical Scale: 1" = 6'

REFERENCES  
 WATER 46-15W  
 WASTEWATER 46-15S

TOPOGRAPHIC SURVEY PROVIDED BY: LIM & ASSOCIATES INC. 187 turtle creek Blvd, Suite A Dallas, Texas 75207  
 TEL: 972-942-1880 FAX: 972-942-1888 FIRM REGISTRATION NO. FRS192

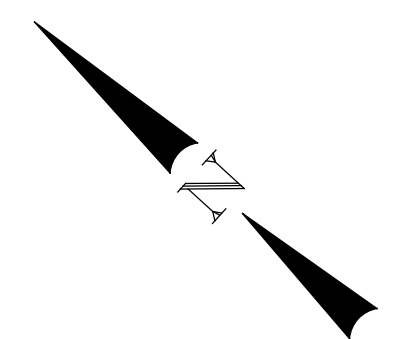
DESIGN BY: **urban engineers | group inc.**

CONTRACT NO. 20-001/002 PID: 6066

**8" WATER**  
 WEST JEFFERSON BOULEVARD  
 4500 - 4600 BLOCK  
 DALLAS WATER UTILITIES  
 CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	MARCH 2020	411Q	1902A	48

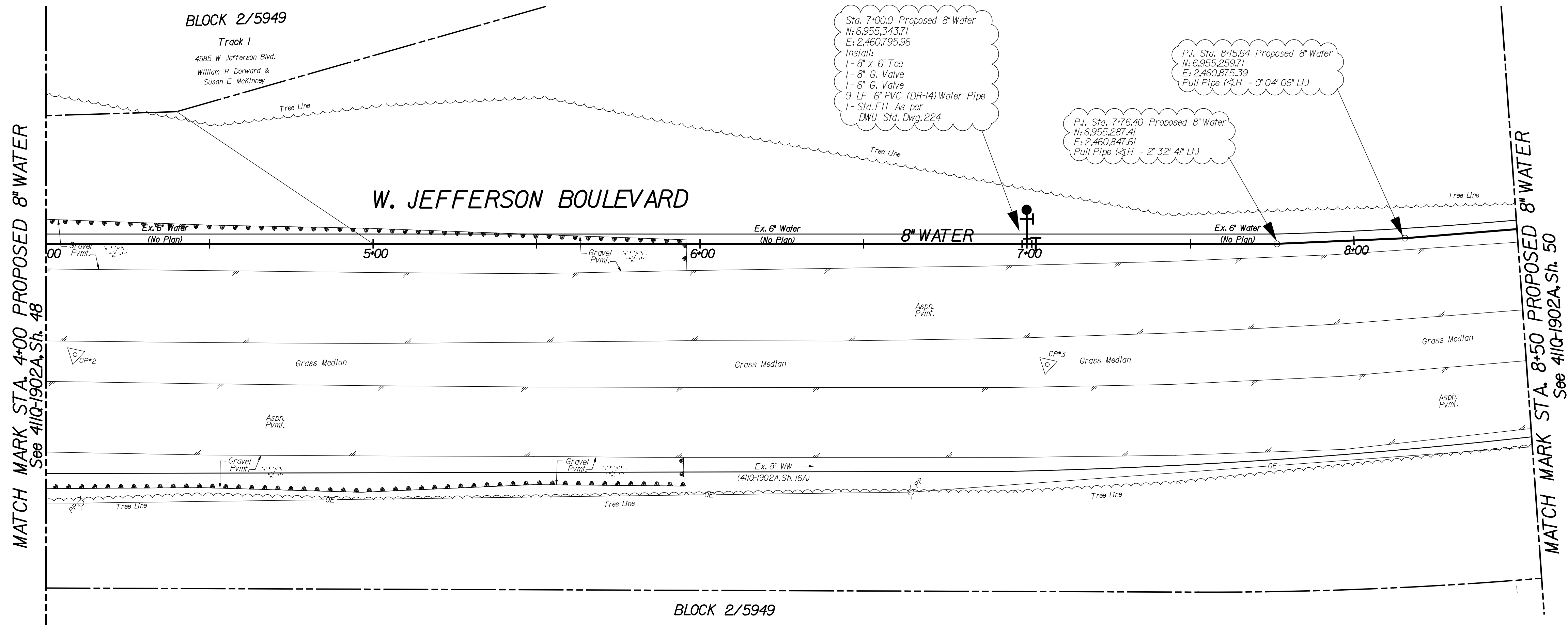




INSTALL 450 LF 8" PVC WATER MAIN  
 AWWA C900 (DR14) /  
 ASTM D-3139 / ASTM F-477  
 (MIN. 6.0' COVER) NO PROFILE  
 CLASS "C" EMBEDMENT

Kill Ex. 6" Water  
 Built Unknown

- GENERAL NOTES
1. SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.
  2. THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES IN SEPTEMBER, 2017. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  3. CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DMU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.
  4. CONTRACTOR TO FIELD VERIFY THE TYPE, LOCATION AND DEPTH OF EXISTING WATER AND WASTE WATER MAINS AND UTILITY CROSSING PRIOR TO CONSTRUCTION TO AVOID CONFLICTS. SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.



**CAUTION ~ ELECTRIC !**  
 Underground & Overhead Electrical Cables In Area. Contact ONCOR Two Working Days Prior To Construction.  
 Tele: 1-800-344-8377

WARNING: EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORD DRAWINGS AND ABOVE GROUND SURVEY DATA. THEREFORE THERE MAY BE UTILITIES PRESENT THAT ARE NOT SHOWN ON THESE CONSTRUCTION PLANS. CONTRACTOR TO FIELD VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND USE CAUTION DURING CONSTRUCTION. NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES.

**CAUTION ~ TELEPHONE !**  
 Underground Telephone Cables In Area Contact AT&T Two Working Days Prior To Construction.  
 Tele: 1-800-344-8377

**CAUTION ~ FIBER OPTIC !**  
 Underground Fiber Optic Cables In Area Contact Fiber Optic Co. Two Working Days Prior To Construction.  
 Tele: 1-800-344-8377

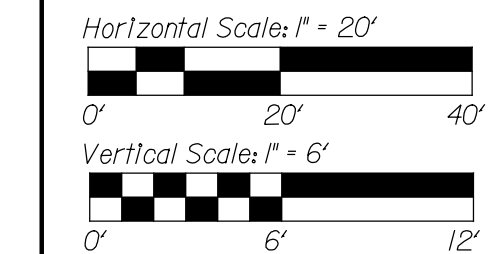
REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

A SQUARE IS CUT IN THE NORTH SIDE OF A CONCRETE WALK AT THE END OF THE WALK IN FRONT OF HOUSE #1226 COCKRELL HILL ROAD  
 ELEV = 671.64

CITY OF DALLAS STANDARD WATER DEPT. BENCHMARK ON TOP OF CONCRETE CURB AT SOUTHWEST CORNER OF INTERSECTION OF CLARENDON DRIVE AND COCKRELL HILL ROAD  
 ELEV = 661.22

Point	Northing	Easting	Elev.	Description
1	6955880.622	2460314.882	601.48	Mag Nail
2	6955335.298	2460574.151	604.02	60D Nail
3	6955314.139	2460772.942	599.36	1/2 IRS



REFERENCES

WATER	46-15W
WASTEWATER	46-15S

TOPOGRAPHIC SURVEY PROVIDED BY: LIM & ASSOCIATES, INC. 187 TURTLE CREEK BLVD, STE A DALLAS, TEXAS 75207  
 TEL: 972-352-1000 FAX: 972-352-1000 FIRM REGISTRATION NO. FRS392

DESIGN BY: **urban engineers | group inc.**

CONTRACT NO. 20-001/002 PID: 6066

**8" WATER**

**WEST JEFFERSON BOULEVARD**

**4500 - 4600 BLOCK**

**DALLAS WATER UTILITIES**

**CITY OF DALLAS, TEXAS**

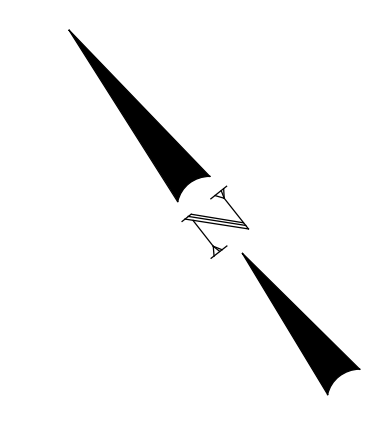
DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	MARCH 2020	411Q	1902A	49

**BLOCK 2/5949**  
 LOT 1  
 1515 Knoxville Street  
 DNCG Member Club Inc.

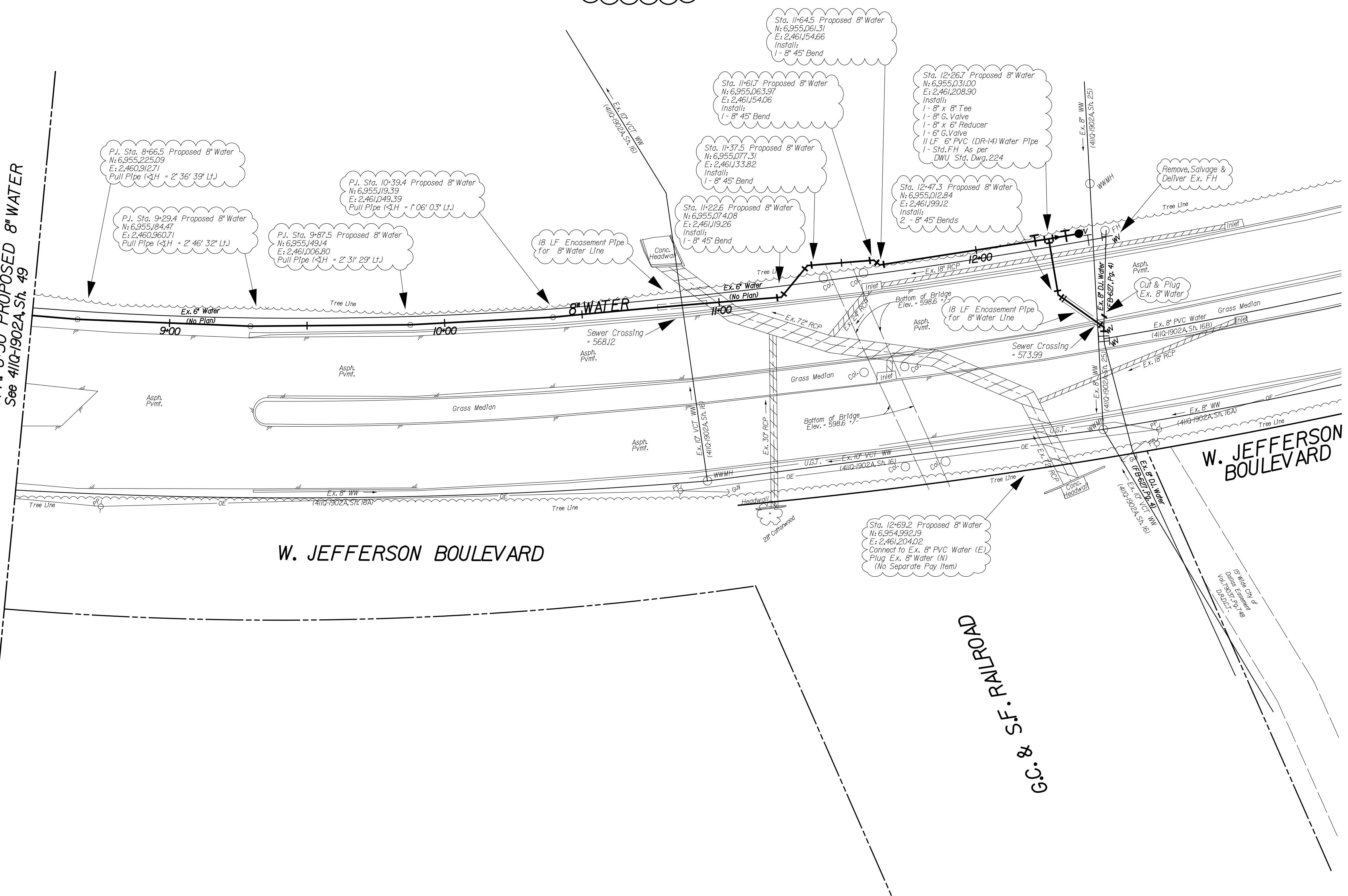


INSTALL 420 LF 8" PVC WATER MAIN  
AWWA C900 (DR14) /  
ASTM D-3139 / ASTM F-477  
(MIN. 6.0' COVER) NO PROFILE  
CLASS "C" EMBEDMENT

KIII Ex. 8" Water  
Built Unknown



MATCH MARK STA. 8+50 PROPOSED 8" WATER  
See 411Q-1902A, Sh. 49



- GENERAL NOTES
- SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.
  - THE GROUND SURVEY WAS PERFORMED BY LIM & ASSOCIATES IN SEPTEMBER, 2017. THE DESIGN RELIES ON THE ASSUMPTIONS PROVIDED BY THE SURVEY.
  - CONTRACTOR TO COORDINATE ACTUAL LOCATION OF FIRE HYDRANTS WITH DIRECTLY AFFECTED CITIZENS AND WITH DWU INSPECTOR AT LEAST 48 HOURS PRIOR TO PLACEMENT OF HYDRANT. NO SEPARATE PAY ITEM.
  - CONTRACTOR TO FIELD VERIFY THE TYPE, LOCATION AND DEPTH OF EXISTING WATER AND WASTE WATER MAINS AND UTILITY CROSSING PRIOR TO CONSTRUCTION TO AVOID CONFLICTS. SEE PROJECT GENERAL NOTES SHEET FOR ADDITIONAL NOTES.

**CAUTION ~ ELECTRIC !**  
Underground & Overhead Electrical Cables In Area. Contact ONCOR Two Working Days Prior To Construction. Tele: 1-800-344-8377

**CAUTION ~ TELEPHONE !**  
Underground Telephone Cables In Area Contact AT&T Two Working Days Prior To Construction. Tele: 1-800-344-8377

**WARNING: EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORD DRAWINGS AND ABOVE GROUND SURVEY DATA. THEREFORE THERE MAY BE UTILITIES PRESENT THAT ARE NOT SHOWN ON THESE CONSTRUCTION PLANS. CONTRACTOR TO FIELD VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND USE CAUTION DURING CONSTRUCTION. NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES.**

**CAUTION ~ FIBER OPTIC !**  
Underground Fiber Optic Cables In Area Contact AT&T Two Working Days Prior To Construction. Tele: 1-800-344-8377

REVISIONS			
REV. NO.	DATE	DESCRIPTION	BY

**BENCHMARKS & CONTROL POINTS**

A SQUARE IS CUT IN THE NORTH SIDE OF A CONCRETE WALK AT THE END OF THE WALK IN FRONT OF HOUSE #1226 COCKRELL HILL ROAD  
ELEV - 671.64

CITY OF DALLAS STANDARD WATER DEPT. BENCHMARK ON TOP OF CONCRETE CURB AT SOUTHWEST CORNER OF INTERSECTION OF CLARENDON DRIVE AND COCKRELL HILL ROAD  
ELEV - 661.22

Point	Northing	Easting	Elev.	Description
3	6954993.420	2461268.164	587.69	"X" CUT
4	6955158.184	2460942.157	591.75	"X" CUT
5	6954993.420	2461268.164	587.69	"X" CUT

Horizontal Scale: 1" = 20'

Vertical Scale: 1" = 6'

REFERENCES

WATER  
46-15W

WASTEWATER  
46-15S

TOPOGRAPHIC SURVEY PROVIDED BY: LIM & ASSOCIATES, INC. Reg. F-3912  
TAPES: RECORDED 1-12-10  
1-12-10 942-1888

DESIGN BY: **urban engineers | group inc.**  
187 turtle creek Blvd, suite a dallas, texas 75207  
(214) 252-1000 FIRM REGISTRATION No. FRS32

CONTRACT NO. 20-001/002 PID: 6066

**8" WATER**

WEST JEFFERSON BOULEVARD  
4500 - 4600 BLOCK  
DALLAS WATER UTILITIES  
CITY OF DALLAS, TEXAS

DESIGN	DRAWN	DATE	FILE	NUMBER	SHEET
UEG	UEG	MARCH 2020	411Q	1902A	50