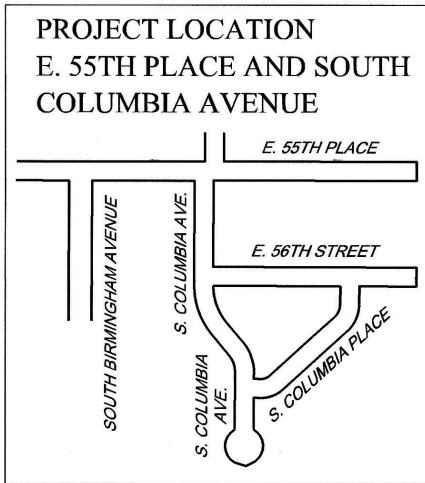


LEGEND

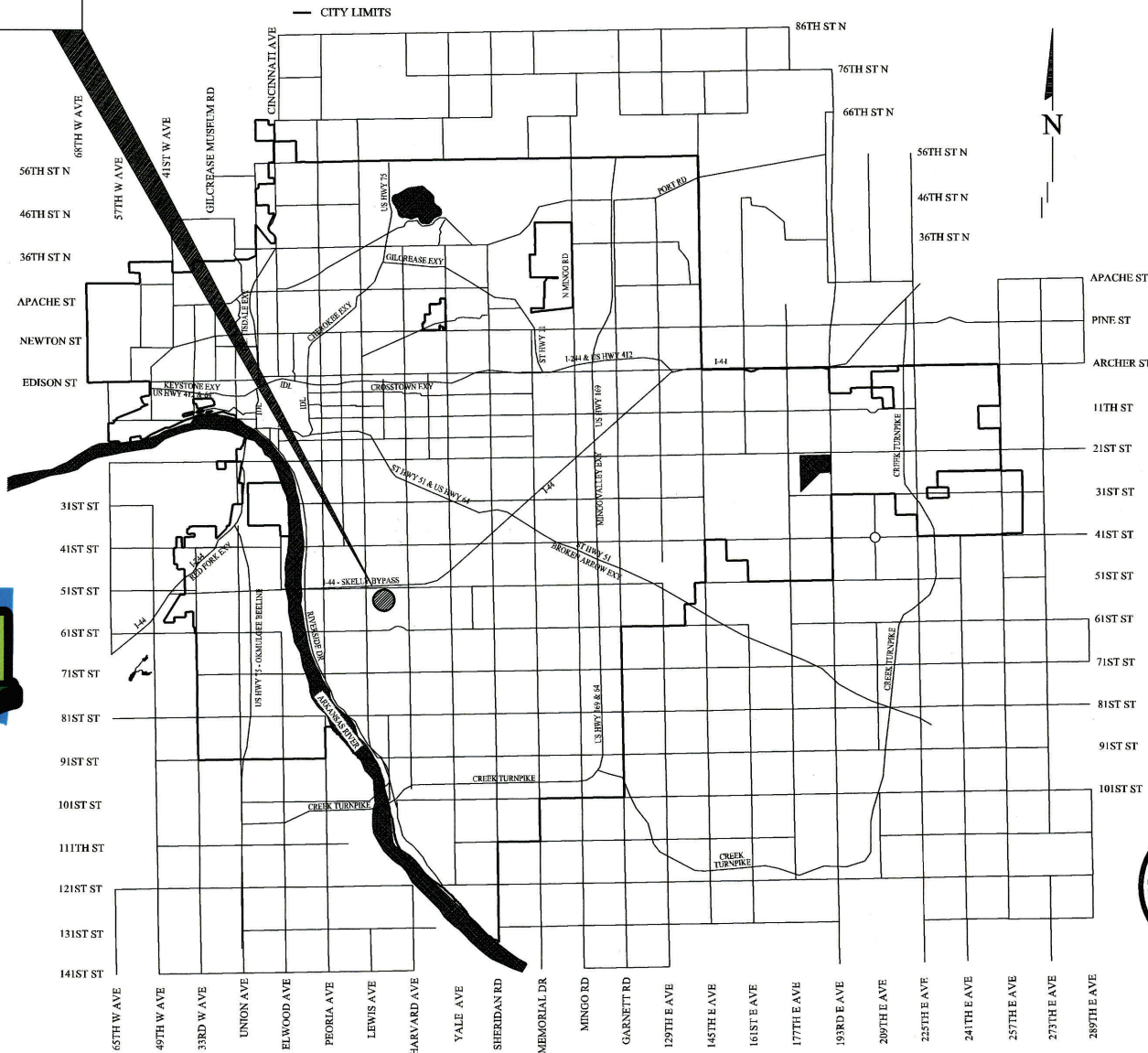
— X —	FENCE
— W —	WATER LINE
DHE —	OVERHEAD ELECTRIC LINE
— G —	GAS LINE
— SS —	SANITARY SEWER
— — — —	PROP. CENTERLINE ROADWAY
— — — —	ROW
— e — e —	PROPERTY LINE
— — — —	EASEMENT LINE
— SD —	STORM DRAIN
— UGT —	FIBER OPTIC
UGE —	UNDERGROUND ELECTRIC
RJ	RESTRAINED JOINT
SM	SANITARY MANHOLE
FO	FIBER OPTIC MANHOLE
ST	STORM MANHOLE
TM	TELE MANHOLE
WM	WATER METER
WV	WATER VALVE
FH	FIRE HYDRANT
PP	POWER POLE
GA	GUY ANCHOR
TR	TELE RISER
TRF	TRANSFORMER
GM	GAS METER
LP	LIGHT POLE
GI	GRATED INLET
CI	CURB INLET
GV	GAS VALVE
TBM	TEMPORARY BENCH MARK
S	SIGN
EB	ELECTRIC BOX
T	TREE
EG	EVERGREEN
SR	SHRUB

CONSTRUCTION PLANS FOR WATERLINE REPLACEMENT - VICINITY OF E. 55TH PLACE AND S. COLUMBIA AVE

PROJECT NO. TMUA-W 25-03 C1 WATER AND SEWER DEPARTMENT CITY OF TULSA, OKLAHOMA



PROJECT LOCATION



INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PAY ITEMS AND QUANTITIES
3	PAY ITEM AND GENERAL NOTES
4	WATERLINE SUMMARY CHARTS
5	RIGHT OF WAY DATA
6	SURVEY CONTROL DATA
7	STORMWATER MANAGEMENT PLAN
8	WATERLINE KEY MAP & FIRE HYDRANT SPACING
9-14	WATER LINE PLAN & PROFILE

CITY OF TULSA STANDARD DETAILS

102	PROJECT SIGN
304	BEDDING DETAIL-RIGID PIPE
304A	TRENCH DETAIL-WATERLINE
305	TRENCH DETAIL-FLEXIBLE PIPE
306	TRENCH DETAIL CONSTRUCTION ADJACENT TO ROADWAY
309	FIRE HYDRANT
310	BLOWOFF HYDRANT
312	FRAME AND LID FOR WATER VAULTS
313	VALVE BOX
315	THRUST BLOCKS AND TRENCH CONDITIONS
316	HDPE TEE DETAILS
317	HDPE DI FITTINGS DETAILS 1 OF 2
318	HDPE DI FITTINGS DETAILS 2 OF 2
319	HDPE SPLICE AND FH DETAILS
320	HDPE REALIGNMENT DETAILS
321	HDPE WALL ANCHOR DETAILS
322	LOCATOR BALL PLACEMENT DETAIL
501	STD METER SETTINGS FOR 5/8" X 3/4" AND 3/4" WATER SERVICE
501A	STD METER SETTINGS FOR 5/8" X 3/4" AND 3/4" WATER SERVICE (AQUAPEX BLUE)
505	METER CAN WITH RIM AND LID 3/4", 1", AND 1-1/2" WATER METER CAN INSTALLATION
608A	STREET NAME SIGNS
608B	TRAFFIC SIGNS
701	CONCRETE DRIVEWAY DETAILS 1 AND 2
713	PAVEMENT REMOVAL AND REPLACEMENT
714	PAVEMENT CUTS
725	STANDARD PAVEMENT PATCH AND REPAIR
726	ASPHALT PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL AND COLLECTOR STREETS
727	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL AND COLLECTOR STREETS
729	CONCRETE PAVEMENT STANDARD DETAILS FOR ALLEYS, RESIDENTIAL AND COLLECTOR STREETS (2 OF 2)
730	STANDARD ASPHALT PAVEMENT CUT AND REPAIR
731	STANDARD CONCRETE PAVEMENT CUT AND REPAIR

UTILITY COORDINATION INFORMATION INSIDE OF RIGHT OF WAY		
COMPANY	CONTACT	OFFICE
City of Tulsa	Tony Glynn	918-596-9245
AEP/PSO	Emergency	888-216-3523
ONG	Emergency	800-664-5463
AT&T	Emergency	800-288-2020
Cox	Customer Service	918-806-6000
Verizon	Customer Service	888-294-6804
Windstream	Customer Service	800-347-1991
MTTA	Customer Service	918-830-0024

UTILITY COORDINATION INFORMATION TULSA ENGINEERING SERVICES DEPARTMENT	
DESIGN TYPE	PHONE
WATER DESIGN	918-596-9580
WASTEWATER DESIGN	918-596-9564
TRANSPORTATION DESIGN	918-596-9636
TRAFFIC ENGINEERING DESIGN	918-596-9741
STORMWATER DESIGN	918-596-9498



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

ENGINEER'S STATEMENT - CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS AND ASSET MANAGEMENT GUIDELINES GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS AND IS ENTIRELY LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF TULSA. CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS GOVERN. ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.



APPROVED BY

WATER AND SEWER DIRECTOR

3/27/2026
DATE

ADVERTISE DATE

CHRIS M. LIVINGSTON, P.E.

3/10/26
DATE



GARVER

PLANS PREPARED BY

GARVER
6100 SOUTH YALE AVE, SUITE 1300
TULSA, OKLAHOMA 74136
918-250-5922 (PHONE) 918-858-0107 (FAX)
CERTIFICATE OF AUTHORIZATION NO. 4193 PE, PLS
RENEWAL DATE 6-30-2026

PAY QUANTITIES					
(SCHEDULE I) - BASE BID - WATERLINE REPLACEMENT					
ITEM NO.	SPEC NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	QUANTITY
1	COT 301	RIGHT-OF-WAY CLEARING AND RESTORING, COMPLETE IN PLACE	4,5,6,7,22	SY	2,519
2	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	14	CY	1,470
3	COT 303	MOBILIZATION		EA	1
4	COT 312	6 INCH DUCTILE IRON SLEEVE (RJ)	2, 8, 12	EA	2
5	COT 317	3-WAY FIRE HYDRANT, IN PLACE		EA	6
6	COT 317	6" FIRE HYDRANT EXTENSION		EA	6
7	COT 317	BLOW OFF HYDRANT ASSEMBLY		EA	1
8	COT 318	VALVE BOX	21	EA	16
9	COT 318	VALVE BOX EXTENSION	21	VF	12
10	COT 325	SODDING AND SEEDING	23	SY	2,519
11	COT 333	6 INCH WATERLINE ABANDONMENT	5, 9	LF	1,958
12	COT 333	4 INCH WATERLINE ABANDONMENT	5, 9	LF	561
13	COT 334	CONSTRUCTION AS-BUILT	24, 25, 27	EA	1
14	COT 335	CONTRACTOR QUALITY CONTROL		LSUM	1
15	ODOT 220	SWPPP DOCUMENTATION AND MANAGEMENT	32, 33, 34, 35	LSUM	1
16	ODOT 619	PAVEMENT, REMOVAL AND REPLACEMENT (CONCRETE)	30, 36	SY	523
17	ODOT 619	PAVEMENT, REMOVAL AND REPLACEMENT (ASPHALT)	31, 36	SY	25
18	ODOT 642	CONSTRUCTION STAKING LEVEL II		EA	1
19	SPECIAL	TRAFFIC CONTROL		CD	180
20	SPECIAL	OWNER ALLOWANCE	18	ALLOW	100,000

ITEM NO.	SPEC NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	QUANTITY
(SCHEDULE II) - OPTION 1 - DIP					
21	COT 307	6-INCH DIP, CL51, POLYETHYLENE WRAPPED	1,2,3,9,11,27,28	LF	1,091
22	COT 307	6-INCH DIP, CL51, POLYETHYLENE WRAPPED (RJ)	1,2,3,8,9,11,27,28	LF	1,428
23	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	2, 8	EA	13
24	COT 312	6 INCH DUCTILE IRON 22.5 DEGREE BEND (RJ)	2, 8	EA	3
25	COT 312	6 INCH DUCTILE IRON 11.25 DEGREE BEND (RJ)	2, 8	EA	8
26	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)	2, 8	EA	10
27	COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	25
28	COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	24
29	COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	13,15,16,17	LF	14
30	COT 315	3/4 INCH WATER METER CAN, LID & RIM		EA	24
31	COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	2
32	COT 315	1 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	2
33	COT 315	1 INCH WATER METER CAN, LID & RIM		EA	2
34	COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	13, 17	EA	6
35	COT 317	6" GATE VALVE (RJ)	8	EA	16
36	COT 328	6-INCH BORE		LF	200

ITEM NO.	SPEC NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	QUANTITY
(SCHEDULE II) - OPTION 2 - PVC					
37	COT 309	6-INCH PVC AWWA C900 CLASS 200 DR14	1,2,3,9,10,27,28,29	LF	1,091
38	COT 309	6-INCH PVC AWWA C900 CLASS 200 DR14 (RJ)	1,2,3,8,9,10,27,28,29	LF	1,428
39	COT 312	6 INCH DUCTILE IRON 45 DEGREE BEND (RJ)	2, 8	EA	13
40	COT 312	6 INCH DUCTILE IRON 22.5 DEGREE BEND (RJ)	2, 8	EA	3
41	COT 312	6 INCH DUCTILE IRON 11.25 DEGREE BEND (RJ)	2, 8	EA	8
42	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE (RJ)	2, 8	EA	10
43	COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	25
44	COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	24
45	COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	13,15,16,17	LF	14
46	COT 315	3/4 INCH WATER METER CAN, LID & RIM		EA	24
47	COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	2
48	COT 315	1 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	2
49	COT 315	1 INCH WATER METER CAN, LID & RIM		EA	2
50	COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	13, 17	EA	6
51	COT 317	6" GATE VALVE (RJ)	8	EA	16
52	COT 328	6-INCH BORE		LF	200

ITEM NO.	SPEC NO.	DESCRIPTION	PAY ITEM NOTES	UNIT	QUANTITY
(SCHEDULE II) - OPTION 3 - HDPE					
53	COT 309A	8 INCH HDPE AWWA C906 PE4710 DR-11 (DIPS)	1,2,3,8,9,10,19,20,27,28	LF	2,519
54	COT 312	8 INCH X 6 INCH DUCTILE IRON REDUCER (RJ)		EA	8
55	COT 312A	8 INCH HDPE 45 DEGREE BEND (DIPS)		EA	13
56	COT 312A	8 INCH HDPE 22.5 DEGREE BEND (DIPS)		EA	3
57	COT 312A	8 INCH HDPE 11.25 DEGREE BEND (DIPS)		EA	8
58	COT 312A	8 INCH X 8 INCH HDPE TEE (DIPS)		EA	10
59	COT 312A	8 INCH HDPE MJ ADAPTOR (DIPS) (RJ)		EA	2
60	COT 312A	8 INCH HDPE WALL ANCHOR (DIPS)(RJ)	26	EA	8
61	COT 315	3/4 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	25
62	COT 315	3/4 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	24
63	COT 315	3/4 INCH WATER SERVICE LINE EXTENSION	13,15,16,17	LF	14
64	COT 315	3/4 INCH WATER METER CAN, LID & RIM		EA	24
65	COT 315	1 INCH WATER SERVICE CONNECTION (LONG)	13,15,16,17	EA	2
66	COT 315	1 INCH WATER SERVICE CONNECTION (SHORT)	13,15,16,17	EA	2
67	COT 315	1 INCH WATER METER CAN, LID & RIM		EA	2
68	COT 315	PRIVATE SERVICE CONNECTION BY LICENSED BONDED PLUMBER	13, 17	EA	6
69	COT 317	8" GATE VALVE (RJ)	8	EA	16
70	COT 328	8-INCH BORE		LF	200

GENERAL NOTE: ITEMS LISTED OR SHOWN ON DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED AS A SEPARATE PAY ITEM QUANTITY SHALL BE CONSIDERED INCIDENTAL AND THE COST SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS. THE PRICE BID FOR ALL WORK SHALL INCLUDE ALL MATERIALS, EQUIPMENT, LABOR, INCIDENTALS, AND ALL OTHER REQUIRED ITEMS TO COMPLETE THE WORK AS SHOWN ON PLANS AND SPECIFICATIONS.

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PAY QUANTITIES - WATERLINE			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: 6100 S. YALE AVE. SUITE 1300 Phone: (918) 250-5922 TULSA, OKLAHOMA 74136 Fax: (918) 858-0107			
	DRAWN	EM	8/25
	DESIGNED	CML	8/25
	SURVEY	RM	5/25
	PROJ. MGR.		
	LEAD MGR.	<i>Ben 3/26</i>	
	FIELD MGR.	<i>Ben 3/26</i>	
	RECOMMENDED:		
		<i>Thomas G. My</i>	
	DESIGN MANAGER		
PLAN SCALE	N/A		
PROFILE SCALE	N/A		
HORIZONTAL:	N/A		
VERTICAL:	N/A		
FILE:	DRAWING:	DATE:	
ATLAS PAGE NO. 314 & 389		SHEET 2 OF 14 SHEETS	

ADVERTISE DATE:			
REVISION	BY	DATE	

PAY ITEM NOTES-WATERLINE (5/15/2025)

- TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CITY OF TULSA. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH SECTION 109.3 OF THE GENERAL SPECIFICATIONS.
 - CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, AS DIRECTED BY CITY TESTING PERSONNEL, THEN, ONCE TESTING, CHLORINATION AND FLUSHING BY CITY PERSONNEL IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.
 - TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY CITY PERSONNEL ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.
 - ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.
- BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.
- CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.
- CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL HYDRANTS, VALVES AND OTHER FITTINGS FROM ABANDONED WATER MAINS SHALL BE SALVAGED AND DELIVERED TO SOUTH YARD, 2317 S JACKSON. PAYMENT TO BE MADE UNDER RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS, ROOF DRAINS, AND FENCING DAMAGED IN THE ZONE OF CONSTRUCTION DURING THE COURSE OF CONSTRUCTION TO SATISFACTION OF THE PROPERTY OWNER. PAYMENT SHALL BE INCLUDED IN RIGHT-OF-WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- COST OF ANY TEMPORARY LIVESTOCK FENCING AND POLES SHALL BE INCLUDED IN COST OF RIGHT OF WAY CLEARING AND RESTORING. NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS.
 - DUCTILE IRON PIPE RESTRAINED JOINT SYSTEMS: US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING, EBAA MEGALUG, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH UNCASSED BORES, ONLY US PIPE TRFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. LOCKING GASKETS NOT PERMITTED.
 - POLYVINYL CHLORIDE (PVC) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. SHOULD RJ PIPE BE SPECIFIED THROUGH BORE CERTALOCK JOINTS ARE REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE.
 - HIGH DENSITY POLYETHYLENE (HDPE) RESTRAINED JOINT SYSTEMS: EBAA MEGALUG, STAR STARGRIP OR EQUAL SHALL BE USED ON THIS PROJECT.

NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL WATER MAINS TO BE ABANDONED SHALL BE FILLED TO 100% OF THE ABANDONED PIPE VOLUME. FILL MATERIAL SHALL BE EITHER CELLULAR CONCRETE OR FLOWABLE FILL AS APPROVED BY THE ENGINEER. COST OF CONCRETE PLUGGING TO BE INCLUDED IN THE UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
- TRACER WIRE AND DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL AS PER CONST SPEC 310. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. CONST SPEC 310.1 NOW ALLOWS #12 COPPER-CLAD STEEL (CCS) WIRE, 21% CONDUCTIVITY, IN LIEU OF #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.
- DETECTABLE MYLAR MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONST SPEC 307.3 AND 307.4. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.
- ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES/ADAPTORS. CONTRACTOR TO EXCAVATE ALL EXISTING WATER MAINS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ACCORDINGLY. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING EXISTING WATER MAINS SHALL BE INCLUDED IN UNIT PRICE BID FOR SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
- AT THE DIRECTION OF THE ENGINEER, CONTRACTOR SHALL FURNISH A "LICENSED AND BONDED PLUMBER", WHICH SHALL INCLUDE ALL COSTS OF LABOR, TOOLS, PERMIT FEES, AND EQUIPMENT TO REROUTE THE EXISTING CUSTOMER SERVICE ON CUSTOMER PROPERTY TO THE PROPOSED CUSTOMER METER CAN. COST SHALL NOT EXCEED AN ALLOWANCE OF \$1000 PER OCCURRENCE. MATERIALS COSTS SHALL BE INCLUDED UNDER THE UNIT PRICE FOR WATER SERVICE CONNECTION AND/OR WATER SERVICE LINE EXTENSION. NO ADDITIONAL PAYMENT SHALL BE MADE.
- CONTRACTOR IS REMINDED TO BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1 1/2-IN TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN COST OF EXCAVATION AND BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE.
- WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, SERVICE CLAMPS, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, SETTERS AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH EXCEPTION OF METER CANS, RIMS AND LIDS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS, LIDS AND RIMS SHALL BE PAID AS A SEPARATE BID ITEM.
 - SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25-FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT. I.E. 3/4-INCH WATER SERVICE CONNECTIONS (SHORT SERVICE)
 - LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25-FEET UP TO 80-FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/OR COST TO BORE. EXAMPLE: 3/4-IN WATER SERVICE CONNECTIONS (LONG SERVICE)
 - SHORT AND LONG SERVICE LINES EXCEEDING THE ABOVE PARAMETERS WILL BE COMPENSATED FOR LINEAR FOOTAGE ABOVE AND BEYOND. COMPENSATION SHALL BE PAID AS "SERVICE LINES, EXTENSION", PER LF
- SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (UPON OR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY. WHEN CONTRACTOR ELECTS TO USE PEX TUBING:
 - 3/4-INCH WATER SERVICE CONNECTION SHALL USE 1-INCH PEX TUBING MINIMUM
 - 1-INCH WATER SERVICE CONNECTION SHALL USE 1 1/4-INCH PEX TUBING MINIMUM

PAY ITEM NOTES-WATERLINE-CONTINUED

- CONTRACTOR'S PLUMBER SHALL PROVIDE AN INFORMATIONAL BROCHURE TO THE PROPERTY OWNERS OUTLINING THE STEPS REQUIRED TO THOROUGHLY FLUSH THEIR WATERLINES AFTER CONNECTION TO THE NEW WATER MAIN. ALL COSTS TO PRODUCE AND DISTRIBUTE THE BROCHURE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.
- THE "OWNER ALLOWANCE" CAN BE USED FOR VARIOUS WORK AND MISCELLANEOUS ITEMS NOT IDENTIFIED IN THE CONTRACT DOCUMENTS WITH THE FOLLOWING PROVISIONS:
 - THE ALLOWANCE SHALL BE USED FOR THE COST OF MATERIALS, LABOR, INSTALLATION, OVERHEAD, AND PROFIT FOR ADDITIONAL WORK AND MISCELLANEOUS ITEMS THAT ARE NOT IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND PLANS, AND NOT INCLUDED IN THE BID ITEMS OF THE CONTRACT. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO:
 - WATER SERVICE LINES OF UNKNOWN OR UNEXPECTED SIZE.
 - THE ALLOWANCE SHALL BE USED ONLY AT THE DISCRETION OF THE CITY. ANY ALLOWANCE BALANCE REMAINING AT THE COMPLETION OF THE PROJECT WILL BE CREDITED BACK TO THE CITY ON THE FINAL APPLICATION FOR PAYMENT SUBMITTED BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL PROVIDE, TO THE CITY, A WRITTEN REQUEST FOR THE USE OF ANY ALLOWANCE, WITH A SCHEDULE OF VALUES, AND ALL ASSOCIATED BACKUP INFORMATION, INCLUDING ANY TIME EXTENSIONS REQUIRED TO PERFORM THE WORK.
 - THE CONTRACTOR SHALL PROCEED WITH THE WORK INCLUDED IN THE ALLOWANCE ONLY AFTER RECEIVING A WRITTEN ORDER FROM THE ENGINEER AND CITY AUTHORIZING SUCH WORK. PROCEEDING WITH WORK IN THE ALLOWANCE WITHOUT A WRITTEN ORDER FROM THE CITY WILL BE AT THE CONTRACTOR'S EXPENSE.
- WHERE PLANS IDENTIFY A 22.5-DEG OR 11.25 DEG VERTICAL OR HORIZONTAL BEND, HDPE WILL BE DEFLECTED PER MANUFACTURER'S MINIMUM ALLOWABLE BEND RADIUS.
- WHERE PLANS IDENTIFY A CROSS, HDPE WILL USE TWO (2) TEE'S. NO ADDITIONAL PAYMENT SHALL BE MADE.
- TOP OF VALVE BOX SHALL BE FLUSH WITH FINISHED GRADE.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING IMPROVEMENTS. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9-FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. STREETS, DRIVEWAYS AND ASSOCIATED ITEMS SHALL BE PAID FOR UNDER OTHER ITEMS OF WORK.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. LIMITS OF DISTURBANCE SHALL NOT EXCEED 9-FEET CENTERED ON THE WATERLINE. ANY DISTURBANCE OUTSIDE OF THIS AREA SHALL BE RESTORED AT THE CONTRACTORS EXPENSE. PLASTIC NETTING MUST BE REMOVED FROM SOD. PAY ITEM INCLUDES ALL MOWING WITHIN THE RIGHT-OF-WAY AS DIRECTED DURING CONSTRUCTION. NETTING SHALL BE REMOVED FROM SOD PRIOR TO PLACEMENT.
- SPOT ELEVATIONS ON THE MAIN WATER LINE RELATIVE TO FINISHED GRADE SHALL BE PROVIDED AT EACH 100-FT INTERVAL, COMPLETE WITH STATION AND OFFSET. IN ADDITION, ALL VALVES, FITTINGS, FIRE HYDRANTS (TOP OF NUT) AND OTHER MAJOR APPURTENANCES ITEMS SHALL BE SHOWN WITH THE PROPER DESCRIPTION, STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM.
- SPOT ELEVATIONS ON WATER METER CANS, VAULTS, SHALL BE SHOWN WITH THE PROPER DESCRIPTION (METER TYPE, METER SIZE, METER NUMBER, SERVICE MATERIAL, SERVICE SIZE), STATION, OFFSET (NORTHING, EASTING) AND ELEVATION PER PLAN SURVEY CONTROL DATUM. UPON DISCOVERY OF A LEAD SERVICE, NOTIFICATION SHALL BE MADE TO WATER DISTRIBUTION AND WORK SHALL CEASE UNTIL RELEASED AT WHICH TIME ANY AND ALL SERVICE LINES LOCATED THAT ARE LEAD OR GALVANIZED ARE TO BE REPLACED WITH APPROVED MATERIALS.
- WORK UNDER THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING HDPE WALL ANCHOR AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE UNIT PRICE SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION, BACKFILLING, OR CONCRETE BLOCKING.
- PRESSURE TESTING AND CHLORINATION OF WATER MAINS SHALL NOT BE PERFORMED UNTIL THE CITY INSPECTOR HAS RECEIVED REQUIRED CONSTRUCTION AS-BUILT RECORDS.
- MARKER BALLS SHALL BE INSTALLED ABOVE ALL FITTINGS, BLIND FLANGES, SERVICE TAPS AND EVERY 100 FEET, IF THE DISTANCE BETWEEN FITTINGS IS GREATER THAN 100 FEET. COST OF MARKER BALLS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE. MARKERS SHALL BE VIVAX WATER MARKER BALLS OR EQUAL THAT WORK WITH THE VIVAX VLOC3 -PRO RECEIVER AND LOC3-10TX TRANSMITTER.
- COST INCLUDES EBAA MEGASTOPS OR EQUAL, INSTALLED ON ALL PVC JOINTS THROUGH BORES TO PREVENT OVERBELLING.
- AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 701 - 702, SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
- AGG BASE AND SUBGRADE, PER CITY STANDARD SPECIFICATIONS AND STANDARD DETAILS 703 - 704, SHALL BE PAID UNDER EXCAVATION AND BACKFILL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
- EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:
 - AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM.
 - IN LOCATIONS THROUGHOUT PROJECT SITE TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY.
 - FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS.
 - WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN.

ALL COSTS FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.
- PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
- INCLUDES TEMPORARY SILT FENCE, FIBER LOGS, AND INLET SEDIMENT FILTERS AS SHOWN IN THE STORMWATER MANAGEMENT PLAN.
- PAVEMENT REMOVAL AND REPLACEMENT: THIS PAY ITEM SUPERSEDES CITY OF TULSA STANDARD SPECIFICATION SECTION 329.6. WITH RESPECT TO SAW CUTTING AND DOWELS AND INCLUDES THE FOLLOWING (THESE ITEMS SHALL NOT BE PAID SEPARATELY): SAWCUTTING, DOWELS, DISPOSAL OF BROKEN PAVEMENT, TEMPORARY SURFACES, ASSOCIATED EXCAVATION, PREPARATION OF SUBGRADE, FORMS OR REINFORCING, REMOVAL OR REPLACEMENT OF GRAVEL, ADDITIONAL SAW CUTTING OR REPLACEMENT OF PAVEMENT DAMAGED BY THE CONTRACTOR, JOIN SEALER, TACK COATS OR EDGE SEALING.

GENERAL CONSTRUCTION NOTES-WATERLINE

- THE CITY OF TULSA FIELD ENGINEERING DEPARTMENT SHALL INSPECT ALL TRENCHING, BEDDING, PIPE INSTALLATION, BACKFILL AND COMPACTION.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS AND STANDARD DETAILS, CITY OF TULSA ENGINEERING SERVICES DEPARTMENT.
- EXISTING SERVICE CONNECTIONS ARE TO BE KEPT IN SERVICE UNTIL CONNECTIONS TO NEW MAIN ARE MADE. ALL SERVICE LINE RECONNECTIONS SHALL BE MADE BY THE CONTRACTOR. SERVICE RECONNECTIONS SHALL BE INSTALLED AS PER CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS.
- MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.
- CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
- CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.
- CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.
- WATER OPERATIONS SHALL OPERATE ALL VALVES ON TRANSMISSION MAINS (16" AND LARGER). CONTRACTOR SHALL OPERATE ALL VALVES ON DISTRIBUTION MAINS (SMALLER THAN 16") WITH THE COORDINATION OF FIELD ENGINEERING AND WATER OPERATIONS AND IN THE PRESENCE OF A FIELD ENGINEERING INSPECTOR.
 - ATTEMPTS WILL BE MADE WITH ASSISTANCE FROM THE CONTRACTOR TO NOTIFY ALL AFFECTED CUSTOMERS 48-HOURS IN ADVANCE, PARTICULARLY IF COMMERCIAL OR INDUSTRIAL CUSTOMERS ARE INVOLVED. PRIOR TO SHUTDOWN, FIELD ENGINEERING WILL NOTIFY WATER OPERATIONS, AT 918-596-9488, GIVING AN ESTIMATED DOWNTIME. WATER OPERATIONS WILL NOTIFY THE FIRE DEPARTMENT OF ALL FIRE HYDRANTS OUT OF SERVICE AND WHEN THEY ARE BACK IN SERVICE, BY STREET ADDRESS OR INTERSECTION.
 - WHERE COMMERCIAL, INDUSTRIAL, OR CRITICAL CUSTOMERS ARE AFFECTED, AND FOR ALL LINES 16-INCH AND LARGER IN SIZE, FIELD ENGINEERING WILL REQUEST WATER OPERATIONS TO SHUT DOWN THE MAIN. THERE WILL BE A MINIMUM OF 48-HOUR NOTICE TO WATER OPERATIONS.
- CONTRACTOR SHALL PROVIDE AT LEAST 48 HOUR NOTICE TO ALL RESIDENTS OR BUSINESSES AFFECTED BEFORE TURNING OFF ANY WATER. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING DOOR HANGERS ON AFFECTED HOMES AND BUSINESSES.
- CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC, NOTICE OF ANY EXCAVATION NO SOONER THAN 48 HOURS OR LATER THAN 10 DAYS, EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAYS PRIOR TO COMMENCEMENT OF WORK, PHONE 1-800-522-6543.
- LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
- ANY DAMAGE CAUSED BY CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
- PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES, TRAFFIC OPERATIONS, 918-596-9766, FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.
- CONSTRUCTION FOR ALL ENGINEERING SERVICES FACILITIES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF TITLE 252, DEPARTMENT OF ENVIRONMENTAL QUALITY, CHAPTER 626, PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ).
- ALL EXCAVATED MATERIAL NOT REQUIRED IN OTHER AREAS OF THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY EXCESS MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS OF TULSA.
- ANY CHANGES FROM APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF TULSA FOR WRITTEN APPROVAL PRIOR TO INSTALLATION.
- CONTRACTOR SHALL NOTIFY CITY OF TULSA UTILITY COORDINATION 72 HOURS IN ADVANCE FOR A UTILITY POLE BRACING TRUCK.

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WATERLINE PAY ITEM AND GENERAL NOTES			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: 6100 S. YALE AVE SUITE 1300 Phone: (918) 250-5922 TULSA, OKLAHOMA 74136 Fax: (918) 658-0107			
DRAWN	EM	8/25	APPROVED:
	CML	8/25	
DESIGNED	RM	5/25	
SURVEY	RM	5/25	
PROJ. MGR.			DESIGN MANAGER
LEAD MGR.			
FIELD MGR.			
RECOMMENDED:			
PLAN SCALE	N/A		
PROFILE SCALE	N/A		
HORIZONTAL:	N/A		
VERTICAL:	N/A		
FILE:	DRAWING:		DATE:
ATLAS PAGE NO. 314 & 389		SHEET 3 OF 14 SHEETS	

ADVERTISE DATE:			
REVISION	BY	DATE	

WATERLINE SERVICE CONNECTIONS

STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS	SERVICE LINE MATERIAL - CITY SIDE	SERVICE LINE MATERIAL - PRIVATE SIDE
10+03	LEFT	RECONNECT	3/4"	2601 E 55 PL S		
10+74	LEFT	RECONNECT	3/4"	2605 E 55 PL S		
10+90	LEFT	RECONNECT	3/4"	2615 E 55 PL S		
11+57	LEFT	RECONNECT	3/4"	2623 E 55 PL S		
12+87	LEFT	RECONNECT	3/4"	2625 E 55 PL S		
13+83	RIGHT	RESET	3/4"	5535 S COLUMBIA AVE		
13+90	LEFT	RECONNECT	3/4"	2701 E 55 PL S		
14+51	RIGHT	RESET	3/4"	2710 E 55 PL S		
14+66	LEFT	RECONNECT	3/4"	2711 E 55 PL S		
15+13	RIGHT	RESET	3/4"	2714 E 55 PL S		
15+27	LEFT	RECONNECT	3/4"	2713 E 55 PL S		
15+78	RIGHT	RESET	3/4"	2722 E 55 PL S		
16+34	RIGHT	RESET	3/4"	2728 E 55 PL S		
16+36	LEFT	RECONNECT	3/4"	2729 E 55 PL S		
17+08	RIGHT	RECONNECT	3/4"	2732 E 55 PL S		
17+32	LEFT	RECONNECT	3/4"	2731 E 55 PL S		
17+70	RIGHT	RECONNECT	3/4"	2740 E 55 PL S		
17+73	LEFT	RECONNECT	3/4"	2735 E 55 PL S		
18+35	RIGHT	RESET	3/4"	2748 E 55 PL S		
20+57	LEFT	RECONNECT	3/4"	2705 E56 ST S		
20+75	RIGHT	RESET	3/4"	2708 E 56 ST S		
21+26	LEFT	RECONNECT	3/4"	2711 E 56 ST S		
21+65	RIGHT	RESET	3/4"	2714 E 56 ST S		
21+94	LEFT	RECONNECT	3/4"	2717 E 56 ST S		
22+25	RIGHT	RESET	3/4"	2720 E 56 ST S		
22+65	LEFT	RECONNECT	3/4"	2721 E 56 ST S		
22+94	RIGHT	RESET	3/4"	2728 E 56 ST S		
23+29	LEFT	RECONNECT	3/4"	2727 E 56 ST S		
23+99	LEFT	RECONNECT	3/4"	2729 E 56 ST S		
24+41	RIGHT	RESET	3/4"	2742 E 56 ST S		
24+67	LEFT	RECONNECT	3/4"	2737 E 56 ST S		
30+19	LEFT	RECONNECT	3/4"	5646 S COLUMBIA AVE		
30+27	LEFT	RECONNECT	3/4"	5638 S COLUMBIA AVE		
30+58	LEFT	RECONNECT	3/4"	5632 S COLUMBIA AVE		
31+06	LEFT	RECONNECT	3/4"	5630 S COLUMBIA AVE		
31+75	LEFT	RECONNECT	3/4"	5626 S COLUMBIA AVE		
32+04	RIGHT	RESET	3/4"	5630 S COLUMBIA PL E		
32+70	LEFT	RECONNECT	3/4"	5622 S COLUMBIA AVE		
33+96	LEFT	RECONNECT	3/4"	5610 S COLUMBIA AVE		
34+87	LEFT	RECONNECT	3/4"	5604 S COLUMBIA AVE		
35+40	LEFT	RESET	3/4"	5546 S COLUMBIA AVE		
36+14	LEFT	RESET	3/4"	5540 S COLUMBIA AVE		
36+93	LEFT	RESET	3/4"	5534 S COLUMBIA AVE		
40+44	RIGHT	RESET	3/4"	5633 S COLUMBIA PL E		
41+10	RIGHT	RESET	3/4"	5629 S COLUMBIA PL E		
41+73	RIGHT	RESET	3/4"	5625 S COLUMBIA PL E		
42+47	RIGHT	RESET	3/4"	5621 S COLUMBIA PL E		
43+03	RIGHT	RESET	3/4"	5613 S COLUMBIA PL E		
43+55	RIGHT	RESET	3/4"	5607 S COLUMBIA PL E		

REQUIRED RESTRAINED LENGTH ON BOTH SIDES OF FITTINGS				
FITTING	6" RESTRAINED JOINT LENGTH (FEET)	8" RESTRAINED JOINT LENGTH (FEET)	10" RESTRAINED JOINT LENGTH (FEET)	12" RESTRAINED JOINT LENGTH (FEET)
11.25° HORIZONTAL	2	2	3	3
22.5° HORIZONTAL	3	4	5	5
45° HORIZONTAL	6	8	9	11
45° VERTICAL	29	38	45	53
90° HORIZONTAL	14	18	21	25
DEAD END/VALVE	69	90	108	128

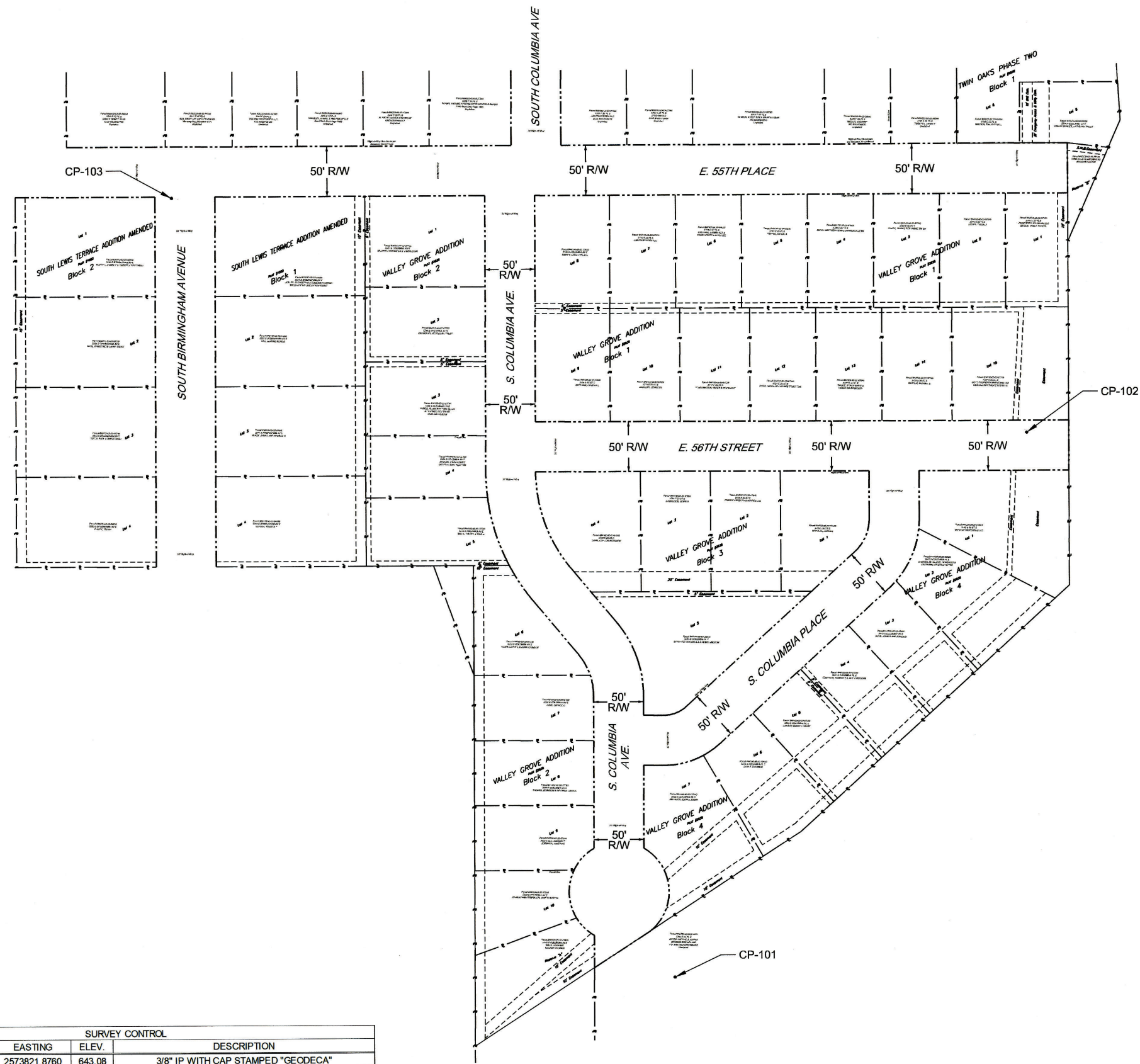
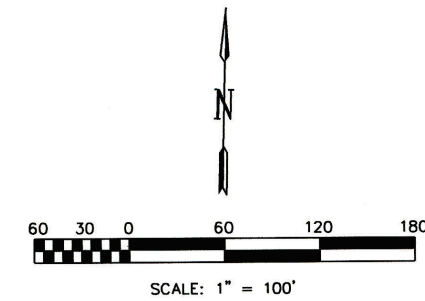
CALCULATED USING THRUST RESTRAINT CALCULATOR FOUND HERE: <https://ric.ebaa.com/calculator.php>
 INPUTS: POLY WRAPPED DIP, GC, 1.5 TO 1 SAFETY FACTOR, TYPE 5 TRENCH, 4' BURY DEPTH, 150 PSI

SUMMARY OF VALVES & HYDRANTS				
STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
10+12.20	0.00	400745.21	2573354.74	6" GATE VALVE
12+72.47	0.00	400751.70	2573614.93	6" GATE VALVE
13+25.40	1.90' RT	400751.13	2573667.89	6" GATE VALVE
13+25.40	3.39' RT	400749.64	2573667.93	3-WAY FIRE HYDRANT
18+29.96	0.00	400764.72	2574172.26	6" GATE VALVE
18+37.31	0.00	400764.88	2574179.61	3-WAY FIRE HYDRANT
20+03.39	0.00	400475.94	2573669.72	6" GATE VALVE
20+06.72	1.63' RT	400474.38	2573673.08	6" GATE VALVE
20+06.72	3.03' RT	400472.99	2573673.11	3-WAY FIRE HYDRANT
23+43.29	1.90' RT	400481.54	2574009.57	6" GATE VALVE
23+43.29	3.40' RT	400480.03	2574009.62	3-WAY FIRE HYDRANT
23+89.81	0.00	400484.47	2574056.04	6" GATE VALVE
24+70.49	0.00	400486.24	2574136.71	6" GATE VALVE
24+73.66	0.00	400486.31	2574139.88	BLOW OFF VALVE
30+00.00	0.00	400070.26	2573806.30	3-WAY FIRE HYDRANT
30+02.65	0.00	400072.09	2573804.39	6" GATE VALVE
31+19.48	0.00	400180.38	2573782.47	6" GATE VALVE
31+25.70	3.64' RT	400186.68	2573785.97	6" GATE VALVE
31+25.70	6.53' RT	400186.73	2573788.86	3-WAY FIRE HYDRANT
34+45.46	0.00	400471.99	2573666.37	6" GATE VALVE
37+60.00	0.00	400748.10	2573622.76	6" GATE VALVE
40+03.67	0.00	400183.84	2573786.06	6" GATE VALVE
44+34.81	0.00	400480.51	2574052.71	6" GATE VALVE





WATERLINE SUMMARY CHARTS																			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1																			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT																			
PLANS AND ESTIMATES PREPARED BY: 6100 S. YALE AVE. SUITE 1300 Phone: (918) 250-5922 TULSA, OKLAHOMA 74136 Fax: (918) 858-0107																			
	<table border="1"> <tr><td>DRAWN</td><td>EM</td><td>8/25</td></tr> <tr><td>DESIGNED</td><td>CML</td><td>8/25</td></tr> <tr><td>SURVEY</td><td>RM</td><td>5/25</td></tr> <tr><td>PROJ. MGR.</td><td></td><td></td></tr> <tr><td>LEAD MGR.</td><td>Chris Livingston</td><td>3/26</td></tr> <tr><td>FIELD MGR.</td><td>Chris Livingston</td><td>3/26</td></tr> </table>	DRAWN	EM	8/25	DESIGNED	CML	8/25	SURVEY	RM	5/25	PROJ. MGR.			LEAD MGR.	Chris Livingston	3/26	FIELD MGR.	Chris Livingston	3/26
	DRAWN	EM	8/25																
DESIGNED	CML	8/25																	
SURVEY	RM	5/25																	
PROJ. MGR.																			
LEAD MGR.	Chris Livingston	3/26																	
FIELD MGR.	Chris Livingston	3/26																	
PLAN SCALE: N/A PROFILE SCALE: HORIZONTAL: N/A VERTICAL: N/A FILE: N/A DRAWING MANAGER: <i>Chris Livingston</i>	APPROVED: _____ DATE: _____ ATLAS PAGE NO. 314 & 389 SHEET 4 OF 14 SHEETS																		

ADVERTISE DATE:	BY:	DATE:
REVISION:	BY:	DATE:



SURVEY CONTROL				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
CP101	399970.1010	2573821.8760	643.08	3/8" IP WITH CAP STAMPED "GEODECA"
CP102	400520.9190	2574163.4650	649.59	CHISELED "X" ON CURB
CP103	400738.2730	2573303.5830	648.00	CHISELED "X" ON CURB
BM1	401765.7100	2574970.7410	650.98	CHISELED "X" ON CURB - OFFSITE
BASE	401688.9230	2575019.1270	648.50	3/8" IP WITH CAP STAMPED "GEODECA" - OFFSITE

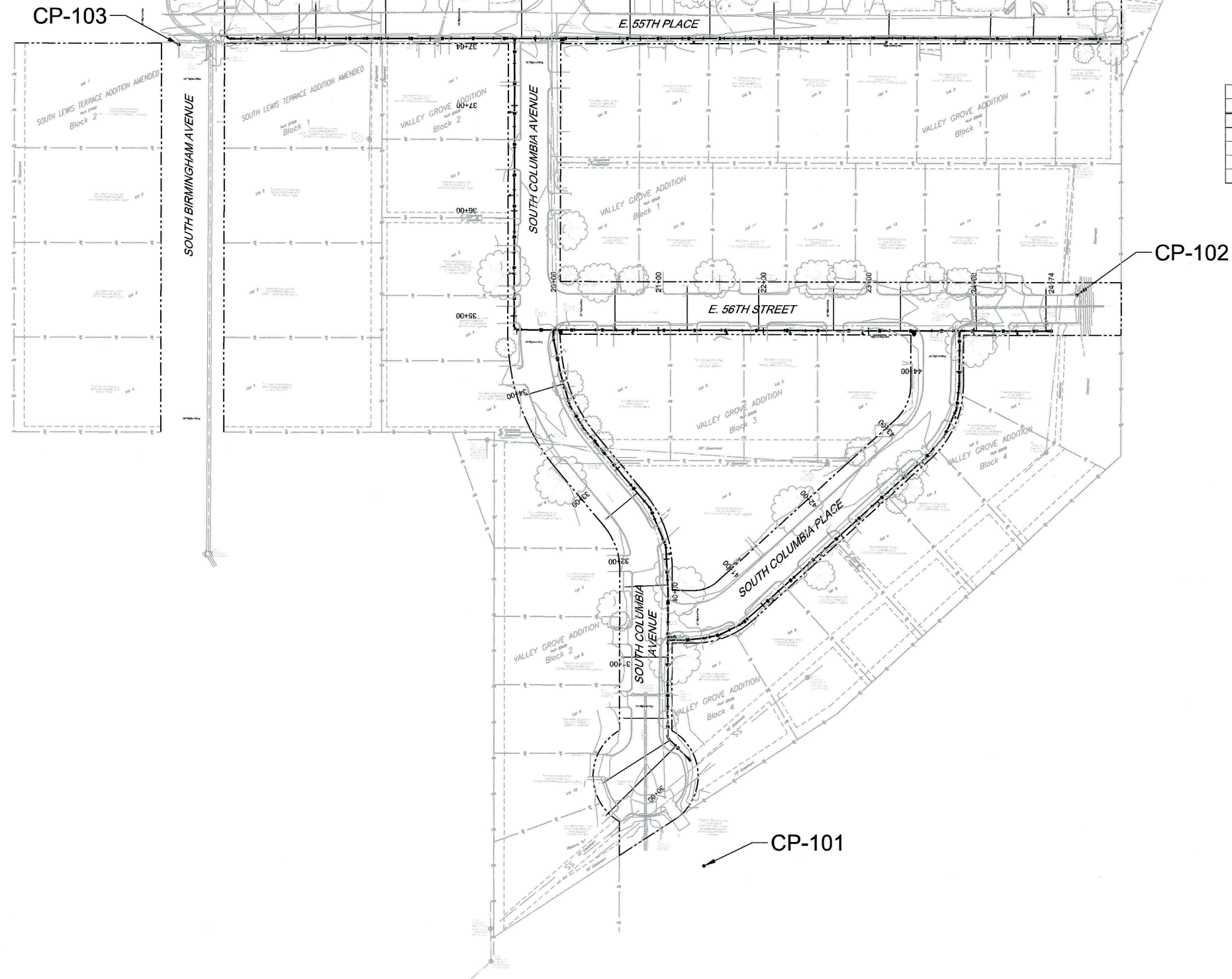
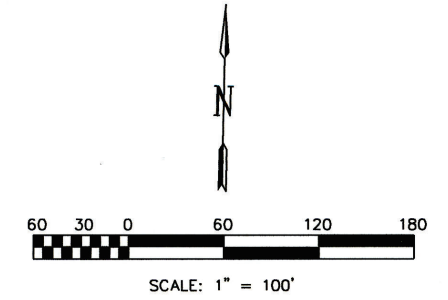


RIGHT OF WAY DATA			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:			
6100 S. YALE AVE. SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 838-0107	
DRAWN EM 8/25		APPROVED:	
DESIGNED CML 8/25		 DESIGN MANAGER	
SURVEY RM 5/25			
PROJ. MGR.			
LEAD MGR. <i>RM 3/20</i>		RECOMMENDED:	
FIELD MGR. <i>RM 3/20</i>		 DESIGN MANAGER	
PLAN SCALE			
PROFILE SCALE			
HORIZONTAL:			
VERTICAL:			
FILE: _____ DRAWING: _____ DATE: _____ ATLAS PAGE NO. 314 & 389 SHEET 5 OF 14 SHEETS			

ADVERTISE DATE:		
REVISION	BY	DATE

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BM-1 (OFFSITE) BASE (OFFSITE)



POINT	SURVEY CONTROL			DESCRIPTION
	NORTHING	EASTING	ELEV.	
CP101	399970.1010	2573821.8760	643.08	3/8" IP WITH CAP STAMPED "GEODECA"
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BASE	401688.9230	2575019.1270	648.50	3/8" IP WITH CAP STAMPED "GEODECA" - OFFSITE

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SURVEY CONTROL DATA			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1 CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: 6100 S. YALE AVE, SUITE 1300 Phone: (918) 250-5922 TULSA, OKLAHOMA 74136 Fax: (918) 858-0107			
	DRAWN	EM	8/25
	DESIGNED	CML	8/25
	SURVEY	RM	5/25
	PROJ. MGR.		
	LEAD MGR.	CFW	3/26
FIELD MGR.	Jam	3/26	
PROFILE SCALE	RECOMMENDED:		
HORIZONTAL:	RECOMMENDED:		
VERTICAL:			
FILE:	DESIGN MANAGER		
ADVERTISE DATE:	REVISION	BY	DATE
ATLAS PAGE NO. 314 & 389	DATE: SHEET 6 OF 14 SHEETS		

STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: EAST 55TH PLACE SOUTH AND COLUMBIA AVENUE. EAST 56TH STREET SOUTH, COLUMBIA PLACE SOUTH AND COLUMBIA AVENUE SOUTH.

PROJECT DESCRIPTION: TMUA-W 25-03 C1
6" AND 4" CIP WATERLINE REPLACEMENT

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. PLACE TEMPORARY SEDIMENT CONTROL DEVICES AT DRAINAGE LOCATIONS PRIOR TO STRUCTURE MODIFICATION AND CLEARING OPERATIONS.
2. PERFORM CLEARING OPERATIONS AND REMOVALS, PRESERVING ANY VEGETATION NOT IMPEDING CONSTRUCTION. PROVIDE ADDITIONAL EROSION CONTROL DEVICES AS NEEDED TO PREVENT EROSION.
3. AS PERMANENT VEGETATION IS ESTABLISHED (70% COVER) TEMPORARY SEDIMENT DEVICES MAY BE REMOVED.
4. AS CONDITIONS WARRANT, THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, MAY MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIC PRACTICE OR CONTROLS TO IMPROVE EFFECTIVENESS.

NOTE: THIS SHOULD INCLUDE MAJOR ACTIVITIES REQUIRED TO CONSTRUCT THE PROJECT AND EROSION CONTROL ITEMS.

SOIL TYPE: PRIMARILY SILTY SAND AND LEAN CLAY

TOTAL AREA OF THE CONSTRUCTION SITE: 0.54 ACRES

ESTIMATED AREA TO BE DISTURBED: 0.54 ACRES

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.54 ACRES

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.54 ACRES

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.81

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N 36°04'58.8" - W 95°57'04.0"

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: JOE CREEK MAIN STEM

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: NO

MS4 ENTITY YES NO

IF YES, LOCATION: CITY OF TULSA

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- _____ TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- _____ VEGETATIVE MULCHING
- _____ SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- _____ STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- _____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- _____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- _____ ROCK FILTER DAMS
- _____ TEMPORARY SLOPE DRAIN
- _____ PAVED DITCH W/ DITCH LINER PROTECTION
- _____ TEMPORARY DIVERSION CHANNELS
- _____ TEMPORARY SEDIMENT BASINS
- _____ TEMPORARY SEDIMENT TRAPS
- _____ TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- _____ RIP RAP
- INLET SEDIMENT FILTER
- _____ TEMPORARY BRUSH SEDIMENT BARRIERS
- _____ SANDBAG BERMS
- _____ TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

- SILT SHALL BE REMOVED FROM TEMPORARY EROSION CONTROL DEVICES WHEN HALF FULL. COST TO BE INCLUDED IN THE PRICE BID FOR EROSION CONTROL DEVICE.
- INLETS, JUNCTION BOXES, AND PIPES TO BE CLEANED AT END OF CONSTRUCTION ACTIVITIES BEFORE FINAL ACCEPTANCE OF PROJECT. COST TO BE INCLUDED IN THE PRICE BID FOR EROSION CONTROL DEVICE.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIAL IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

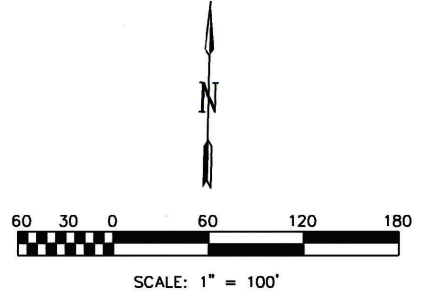
"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.



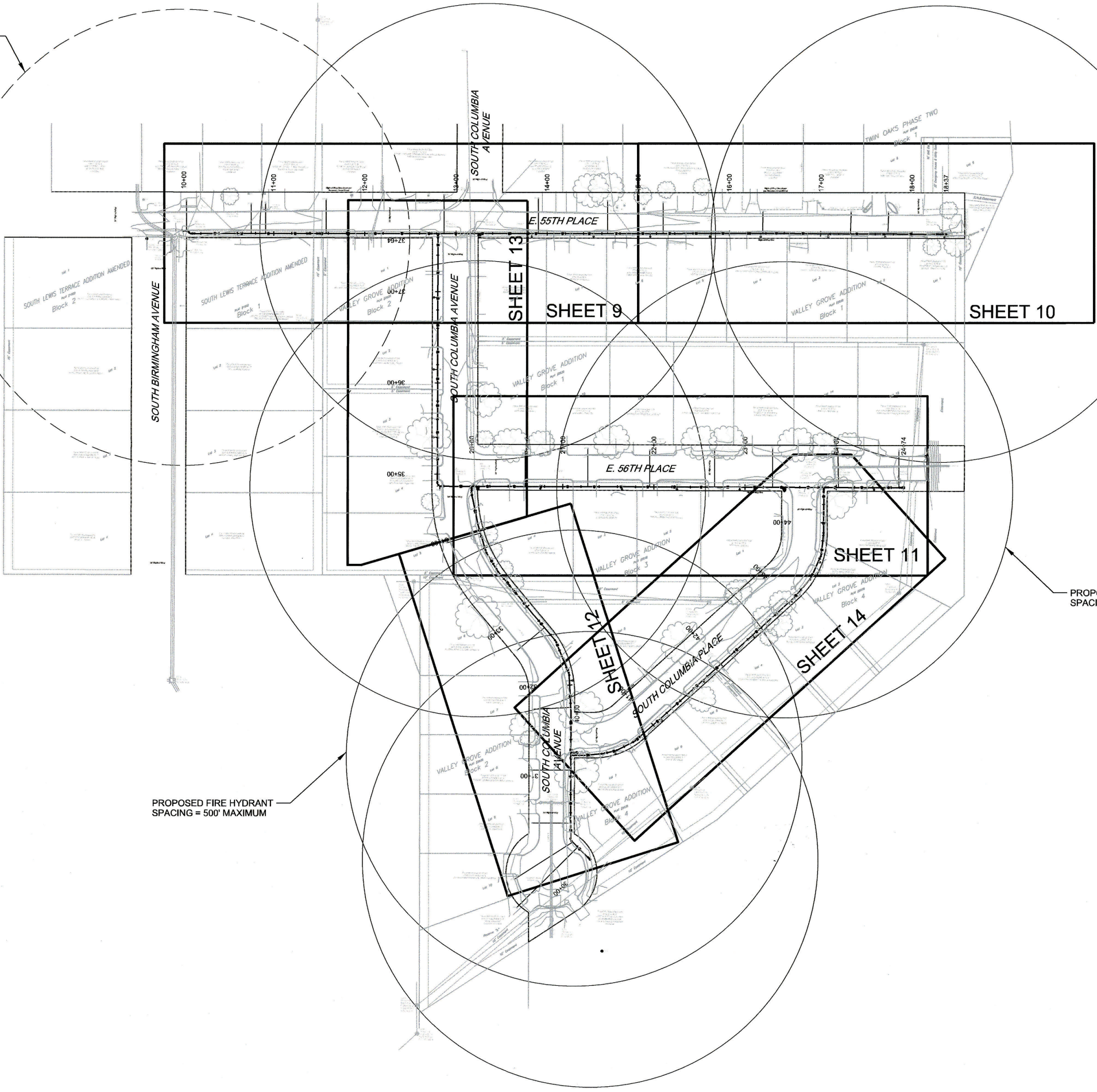
STORMWATER MANAGEMENT PLAN			
WATERLINE REHABILITATION AREA WIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY:			
6100 S. YALE AVE, SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 858-0107	
DRAWN	EM	8/25	APPROVED: <i>Chris M. Livingston</i> 6/10/20 OKLAHOMA
DESIGNED	CMJL	8/25	
SURVEY	RM	5/25	
PROJ. MGR.			
LEAD MGR.		8/25	
N/A			
PROFILE SCALE			
HORIZONTAL:			
N/A			
VERTICAL:			
N/A			
FILE:	DRAWING MANAGER		DATE:
ATLAS PAGE NO. 314 & 389			SHEET 7 OF 14 SHEETS

EXISTING FIRE HYDRANT SPACING = 500'

PROPOSED FIRE HYDRANT SPACING = 500' MAXIMUM



ITEM DESIGNATORS	
	SHEET BOUNDARY
	PROPOSED FIRE HYDRANT SPACING
	EXISTING FIRE HYDRANT SPACING
XX	SHEET REFERENCE NUMBER



PROPOSED FIRE HYDRANT SPACING = 500' MAXIMUM

PROPOSED FIRE HYDRANT SPACING = 500' MAXIMUM



WATERLINE KEY MAP & FIRE HYDRANT SPACING			
WATERLINE REHABILITATION AREAWIDE E. 55TH PLACE AND S. COLUMBIA AVE PROJECT NO. TMUA-W 25-03 C1			
CITY OF TULSA, OKLAHOMA PUBLIC WORKS DEPARTMENT			
PLANS AND ESTIMATES PREPARED BY: 6100 S. YALE AVE, SUITE 1300 Phone: (918) 250-5922 TULSA, OKLAHOMA 74136 Fax: (918) 858-0107			
	DRAWN	EM	8/25
	DESIGNED	CML	8/25
	SURVEY	RM	5/25
	PROJ. MGR.		
	LEAD MGR.	CGW	3/26
FIELD MGR.		RM	3/26
RECOMMENDED: <i>Chris M. Livingston</i> DESIGN MANAGER			
PLAN SCALE 1" = 20'		DATE:	
PROFILE SCALE HORIZONTAL: 1" = 20'		FILE:	
VERTICAL: 1" = 5'		DRAWING:	
ADVERTISE DATE:		DATE:	
REVISION	BY	DATE	
ATLAS PAGE NO. 314 & 389			SHEET 8 OF 14 SHEETS

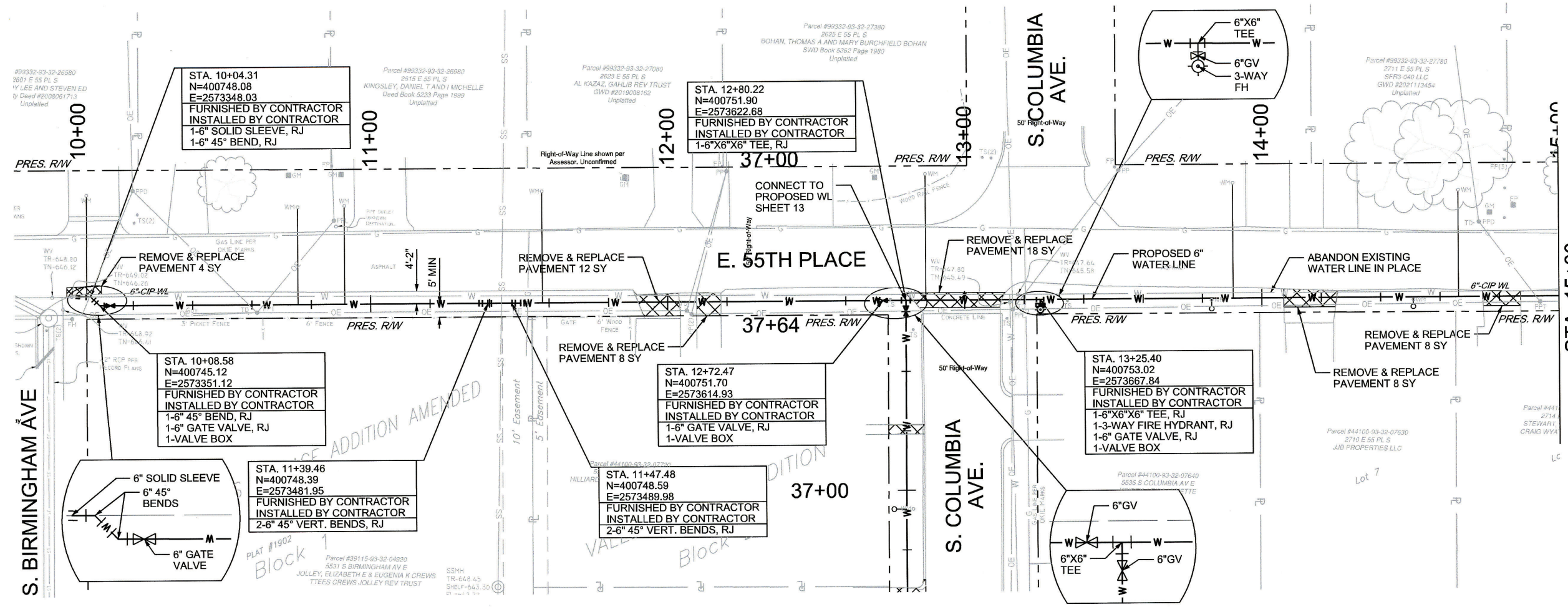
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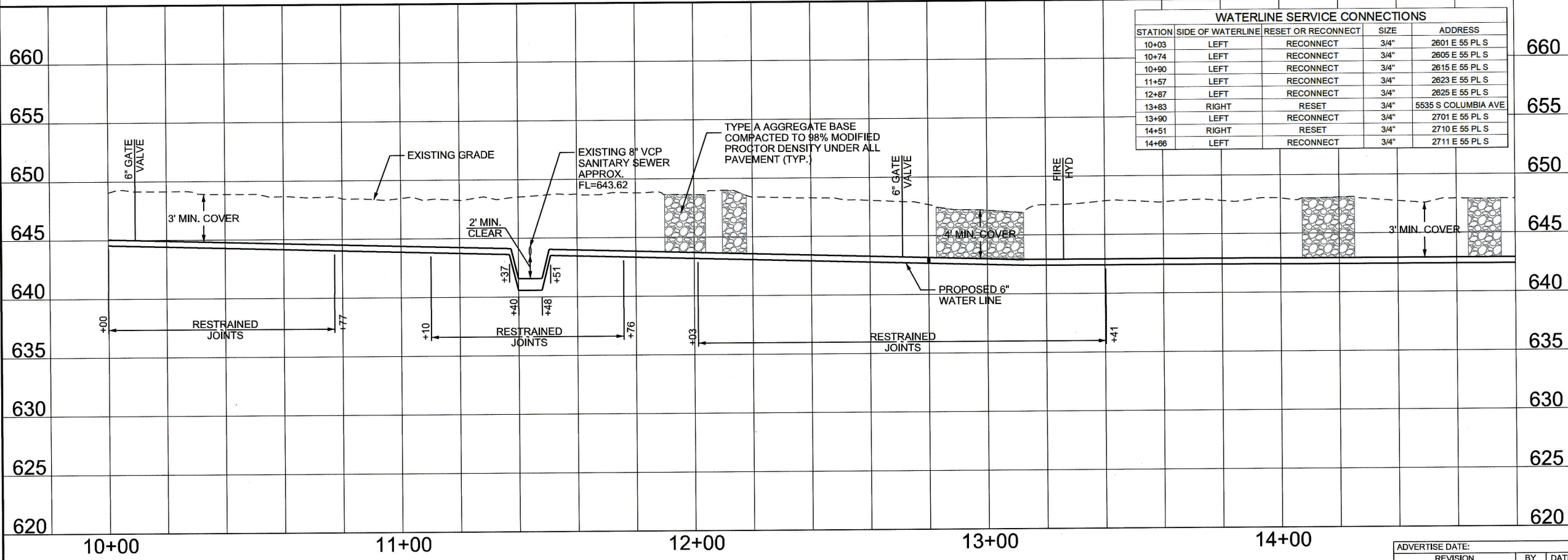
SCALE: 1" = 20'

WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHART FOR WATER METER INFORMATION



WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
10+03	LEFT	RECONNECT	3/4"	2601 E 55 PL S
10+74	LEFT	RECONNECT	3/4"	2605 E 55 PL S
10+90	LEFT	RECONNECT	3/4"	2615 E 55 PL S
11+57	LEFT	RECONNECT	3/4"	2623 E 55 PL S
12+87	LEFT	RECONNECT	3/4"	2625 E 55 PL S
13+83	RIGHT	RESET	3/4"	5535 S COLUMBIA AVE
13+90	LEFT	RECONNECT	3/4"	2701 E 55 PL S
14+51	RIGHT	RESET	3/4"	2710 E 55 PL S
14+66	LEFT	RECONNECT	3/4"	2711 E 55 PL S



WATERLINE PLAN AND PROFILE - E. 55TH PLACE
WATERLINE REHABILITATION AREA WIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

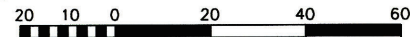
PLANS AND ESTIMATES PREPARED BY:
6100 S. YALE AVE. SUITE 1300 Phone: (918) 250-5922
TULSA, OKLAHOMA 74136 Fax: (918) 858-0107

DRAWN	EM	825	APPROVED:
DESIGNED	CML	825	
SURVEY	RM	525	
PROJ. MGR.			

PLAN SCALE: 1" = 20'
PROFILE SCALE: 1" = 5'
HORIZONTAL: RECOMMENDED:
VERTICAL: RECOMMENDED:
DESIGN MANAGER: *Thomas D. M...*

ADVERTISE DATE: _____
REVISION: _____ BY: _____ DATE: _____
FILE: _____ DRAWING: _____ DATE: _____
ATLAS PAGE NO. 314 & 389 SHEET 9 OF 14 SHEETS

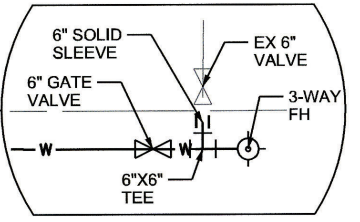
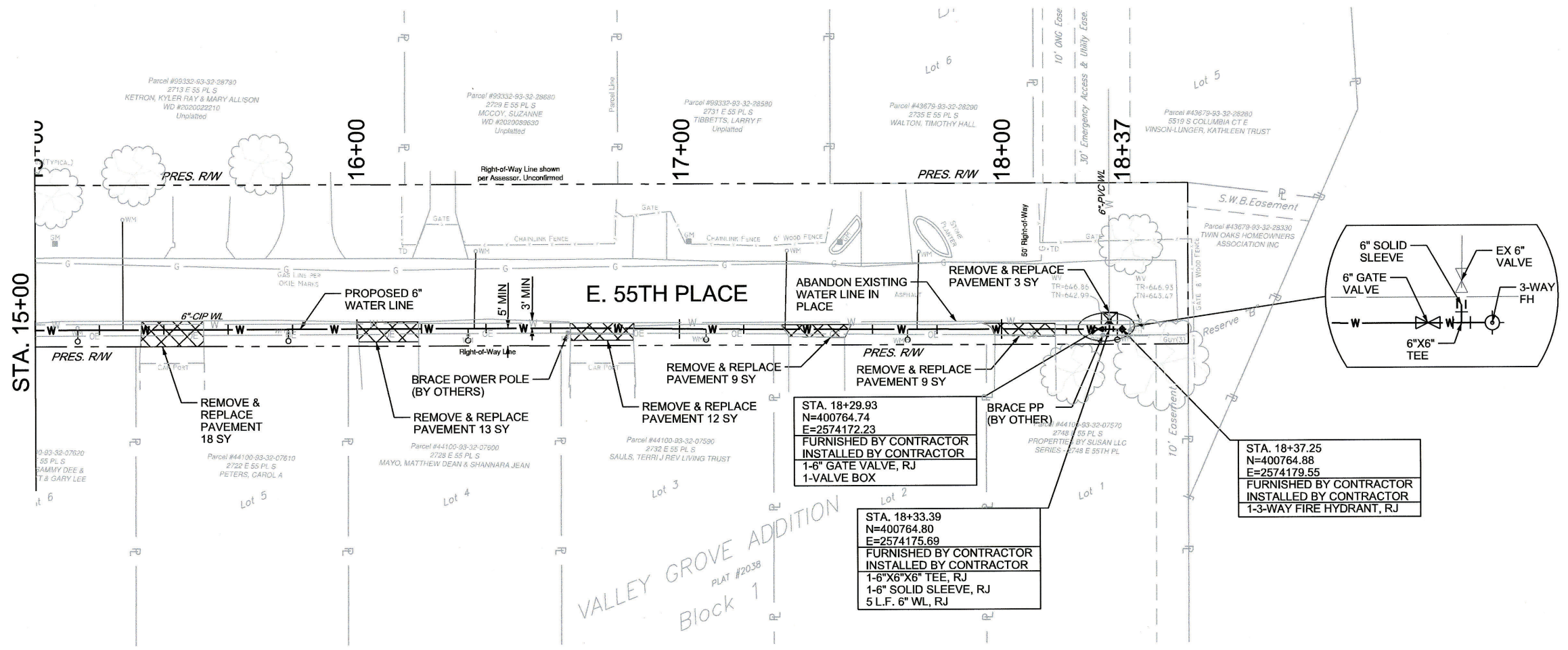
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SCALE: 1" = 20'

WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHARTS FOR WATER METER INFORMATION.

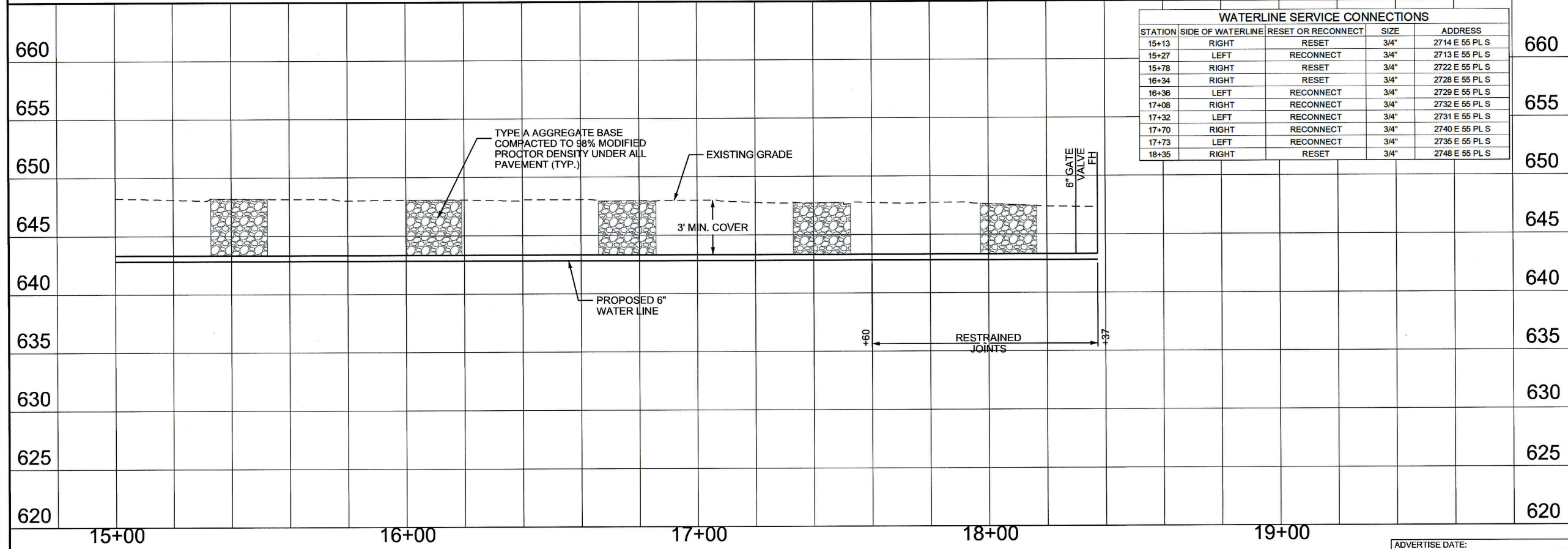


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E=2574172.23
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INSTALLED BY CONTRACTOR
1-6" GATE VALVE, RJ
1-VALVE BOX

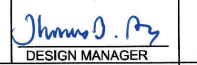
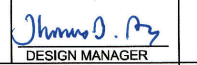
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INSTALLED BY CONTRACTOR
1-3-WAY FIRE HYDRANT, RJ

STA. 18+33.39
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5 L.F. 6" WL, RJ

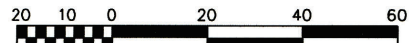
WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
15+13	RIGHT	RESET	3/4"	2714 E 55 PL S
15+27	LEFT	RECONNECT	3/4"	2713 E 55 PL S
15+78	RIGHT	RESET	3/4"	2722 E 55 PL S
16+34	RIGHT	RESET	3/4"	2728 E 55 PL S
16+36	LEFT	RECONNECT	3/4"	2729 E 55 PL S
17+08	RIGHT	RECONNECT	3/4"	2732 E 55 PL S
17+32	LEFT	RECONNECT	3/4"	2731 E 55 PL S
17+70	RIGHT	RECONNECT	3/4"	2740 E 55 PL S
17+73	LEFT	RECONNECT	3/4"	2735 E 55 PL S
18+35	RIGHT	RESET	3/4"	2748 E 55 PL S



WATERLINE PLAN AND PROFILE - E. 55TH PLACE
WATERLINE REHABILITATION AREA WIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:		6100 S. YALE AVE. SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 658-0107	
DRAWN	EM	8/25	APPROVED:	 DESIGN MANAGER	
DESIGNED	CML	8/25			
SURVEY	RM	5/25			
PROJ. MGR.					
LEAD MGR.	CML	3/24	RECOMMENDED:		
FIELD MGR.	RM	3/26	 DESIGN MANAGER		
PLAN SCALE 1" = 20'			DATE:		
PROFILE SCALE HORIZONTAL: 1" = 20'			DRAWING:		
VERTICAL: 1" = 5'			DATE:		
ATLAS PAGE NO. 314 & 389			SHEET 10 OF 14 SHEETS		

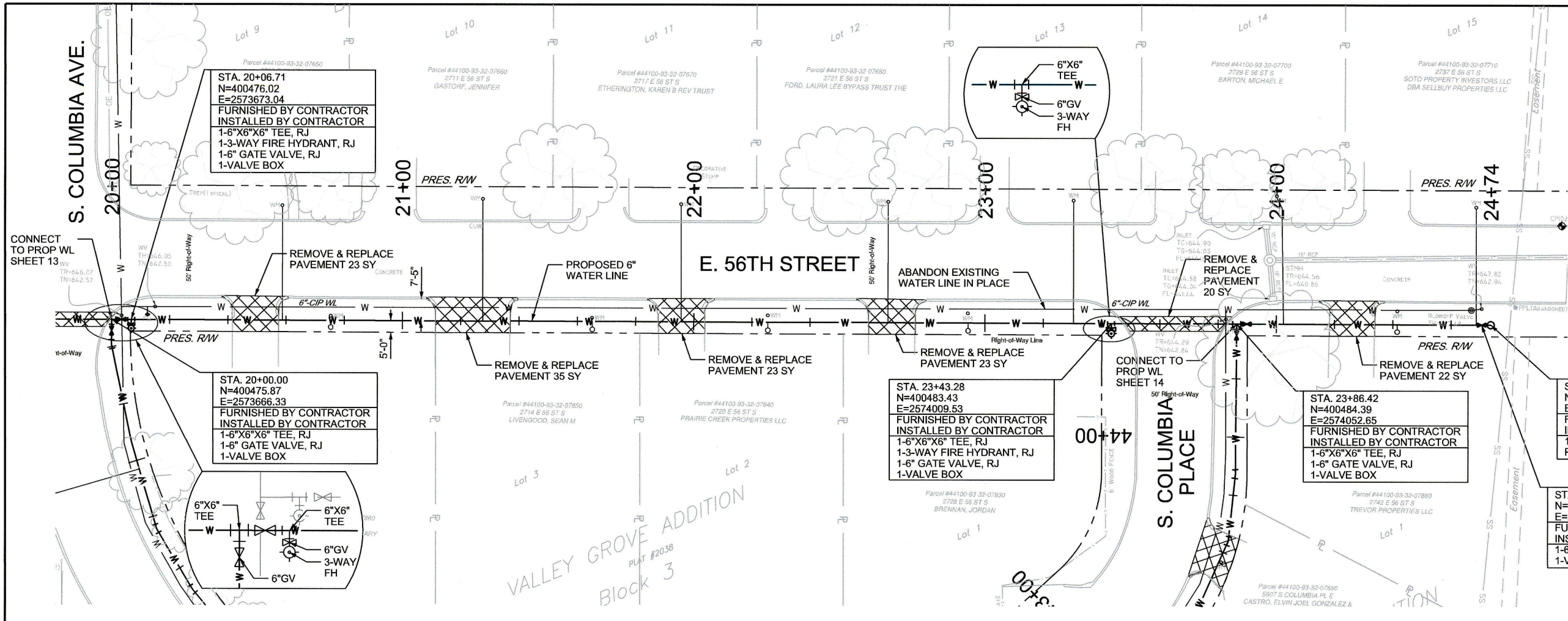
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SCALE: 1" = 20'

WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHARTS FOR WATER METER INFORMATION.



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E=2573673.04
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INSTALLED BY CONTRACTOR
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1-3-WAY FIRE HYDRANT, RJ
1-6" GATE VALVE, RJ
1-VALVE BOX

STA. 20+00.00
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INSTALLED BY CONTRACTOR
1-6"X6"X6" TEE, RJ
1-6" GATE VALVE, RJ
1-VALVE BOX

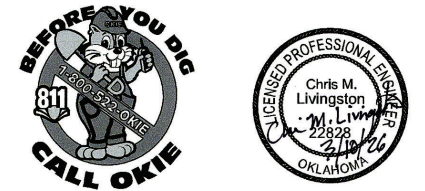
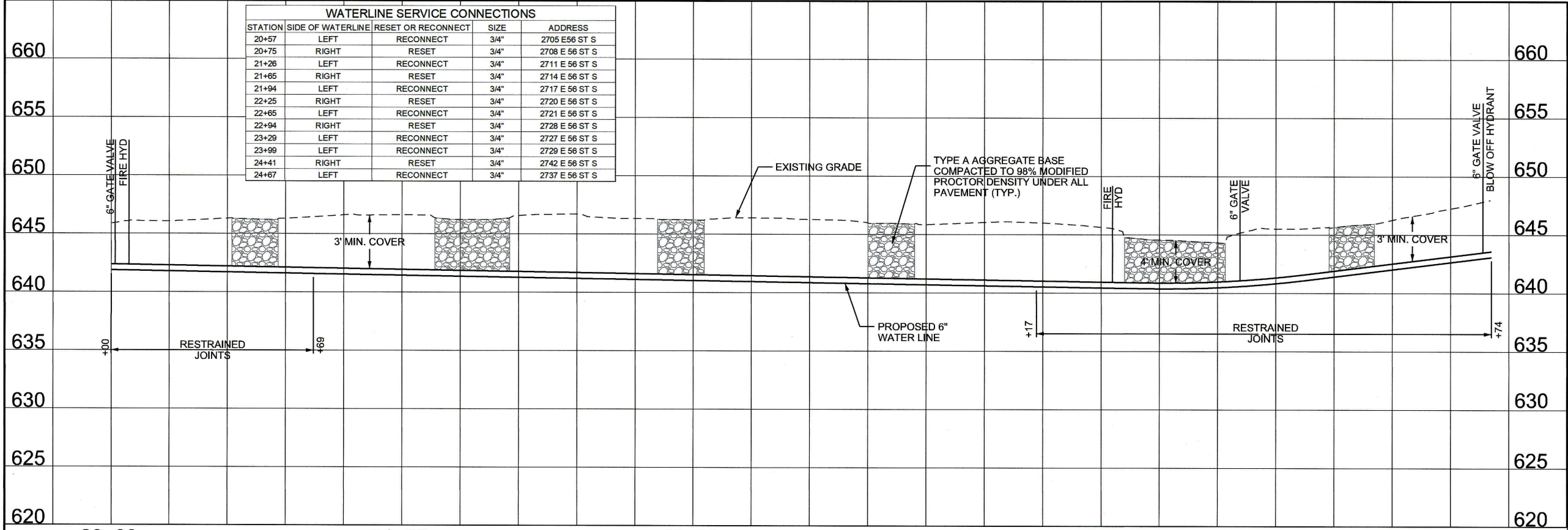
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E=2574009.53
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INSTALLED BY CONTRACTOR
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1-6" GATE VALVE, RJ
1-VALVE BOX

STA. 23+86.42
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E=2574052.65
FURNISHED BY CONTRACTOR
INSTALLED BY CONTRACTOR
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1-6" GATE VALVE, RJ
1-VALVE BOX

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INSTALLED BY CONTRACTOR
1-BLOW OFF HYDRANT ASSEMBLY
PER COT STD. 310

STA. 24+70.49
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FURNISHED BY CONTRACTOR
INSTALLED BY CONTRACTOR
1-6" GATE VALVE, RJ
1-VALVE BOX

WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
20+57	LEFT	RECONNECT	3/4"	2705 E 56 ST S
20+75	RIGHT	RESET	3/4"	2708 E 56 ST S
21+26	LEFT	RECONNECT	3/4"	2711 E 56 ST S
21+65	RIGHT	RESET	3/4"	2714 E 56 ST S
21+94	LEFT	RECONNECT	3/4"	2717 E 56 ST S
22+25	RIGHT	RESET	3/4"	2720 E 56 ST S
22+65	LEFT	RECONNECT	3/4"	2721 E 56 ST S
22+94	RIGHT	RESET	3/4"	2728 E 56 ST S
23+29	LEFT	RECONNECT	3/4"	2727 E 56 ST S
23+99	LEFT	RECONNECT	3/4"	2729 E 56 ST S
24+41	RIGHT	RESET	3/4"	2742 E 56 ST S
24+67	LEFT	RECONNECT	3/4"	2737 E 56 ST S

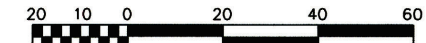


WATERLINE PLAN AND PROFILE - E. 56TH STREET
WATERLINE REHABILITATION AREA WIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:		6100 S. YALE AVE. SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 858-0107	
DRAWN	EM	8/25	APPROVED:	 DESIGN MANAGER	
DESIGNED	CML	8/25			
SURVEY	RM	5/25			
PROJ. MGR.					
LEAD MGR.		8/26			
FIELD MGR.		8/26			
RECOMMENDED:					

ADVERTISE DATE:			
REVISION	BY	DATE	
FILE:	DATE:		
ATLAS PAGE NO. 314 & 389		SHEET 11 OF 14 SHEETS	

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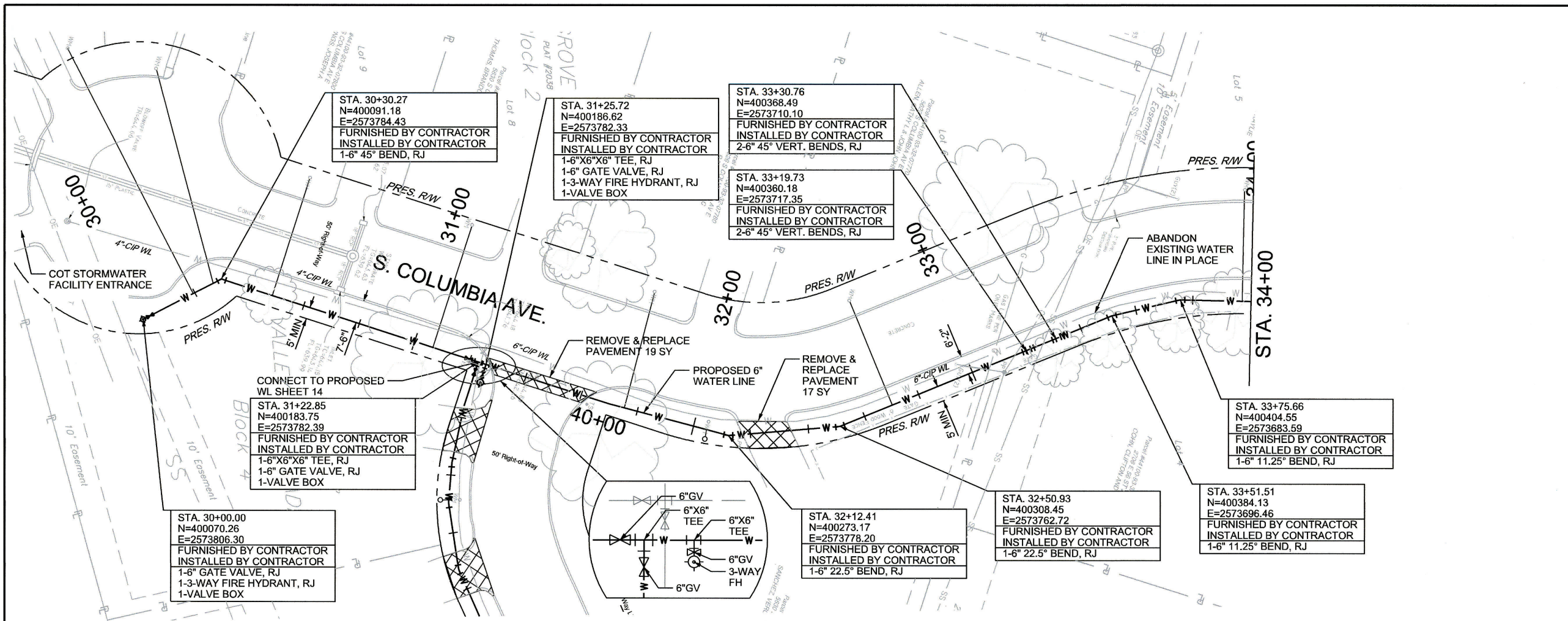


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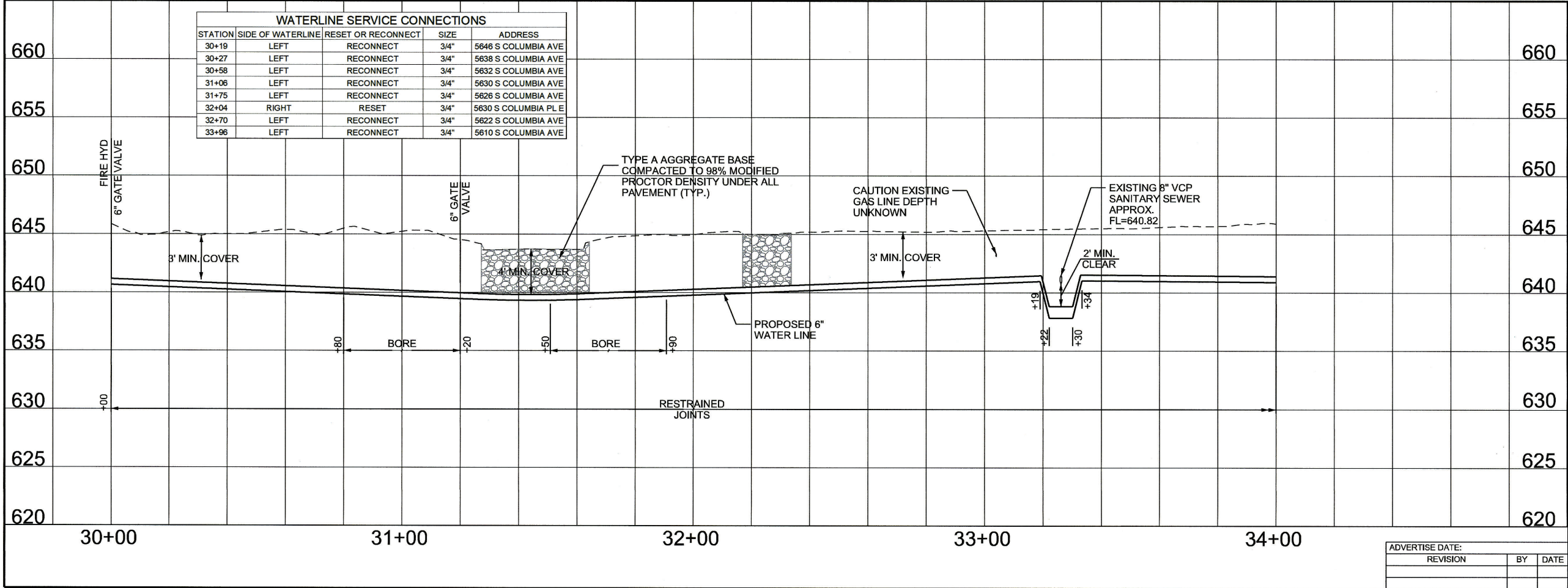


WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHARTS FOR WATER METER INFORMATION.



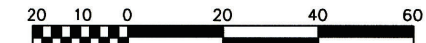
WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
30+19	LEFT	RECONNECT	3/4"	5646 S COLUMBIA AVE
30+27	LEFT	RECONNECT	3/4"	5638 S COLUMBIA AVE
30+58	LEFT	RECONNECT	3/4"	5632 S COLUMBIA AVE
31+06	LEFT	RECONNECT	3/4"	5630 S COLUMBIA AVE
31+75	LEFT	RECONNECT	3/4"	5626 S COLUMBIA AVE
32+04	RIGHT	RESET	3/4"	5630 S COLUMBIA PLE
32+70	LEFT	RECONNECT	3/4"	5622 S COLUMBIA AVE
33+96	LEFT	RECONNECT	3/4"	5610 S COLUMBIA AVE



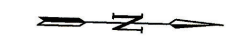
WATERLINE PLAN AND PROFILE - S. COLUMBIA AVE.
WATERLINE REHABILITATION AREAWIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:			
6100 S. YALE AVE. SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 858-0107	
DRAWN	EM	8/25	APPROVED:
DESIGNED	CML	8/25	
SURVEY	RM	5/25	
PROJ. MGR.			
LEAD MGR.		3/26	
FIELD MGR. [Signature]			RECOMMENDED:
DESIGN MANAGER [Signature]			
PLAN SCALE	1" = 20"		
PROFILE SCALE	1" = 5"		
HORIZONTAL:	1" = 20"		
VERTICAL:	1" = 5"		
FILE:	DRAWING:	DATE:	
ATLAS PAGE NO. 314 & 389		SHEET 12 OF 14 SHEETS	

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SCALE: 1" = 20'



WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHARTS FOR WATER METER INFORMATION.

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E=2573628.80
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INSTALLED BY CONTRACTOR
2-6" 45° BENDS, RJ

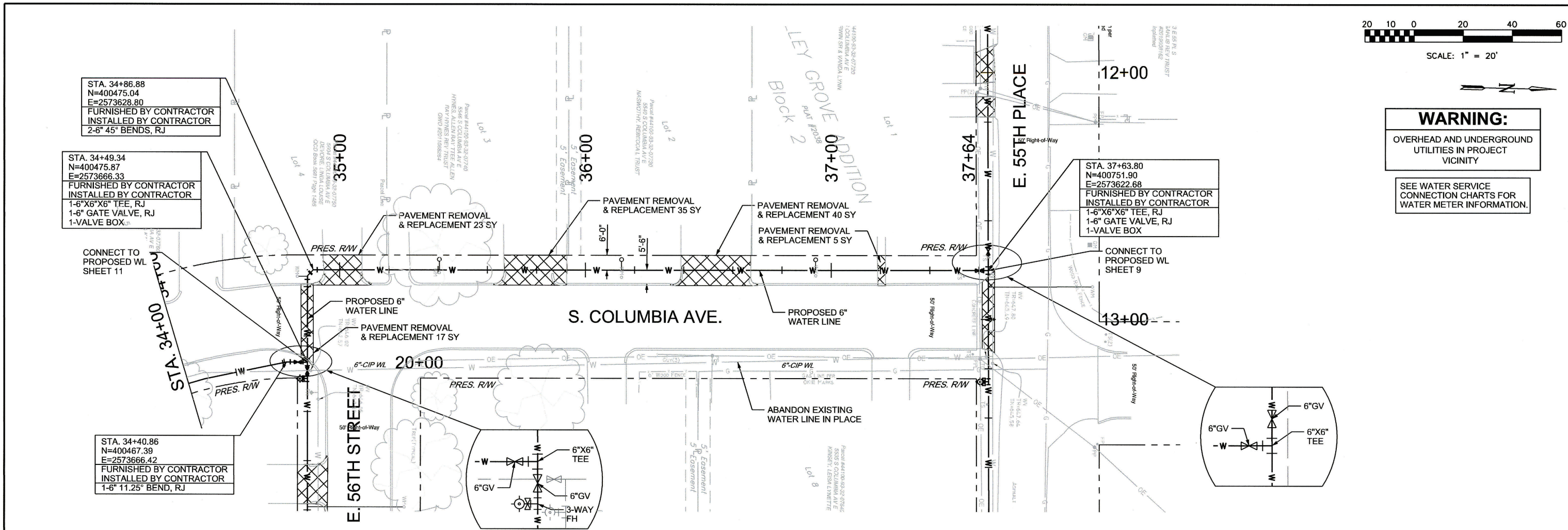
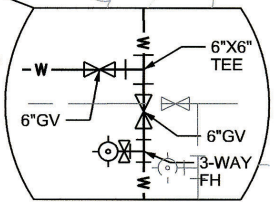
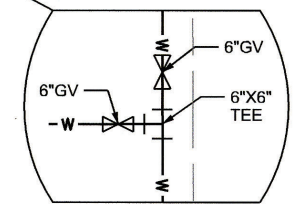
STA. 34+49.34
N=400475.87
E=2573666.33
FURNISHED BY CONTRACTOR
INSTALLED BY CONTRACTOR
1-6"X6"X6" TEE, RJ
1-6" GATE VALVE, RJ
1-VALVE BOX

STA. 37+63.80
N=400751.90
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INSTALLED BY CONTRACTOR
1-6"X6"X6" TEE, RJ
1-6" GATE VALVE, RJ
1-VALVE BOX

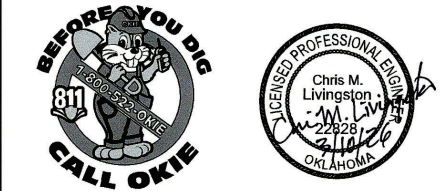
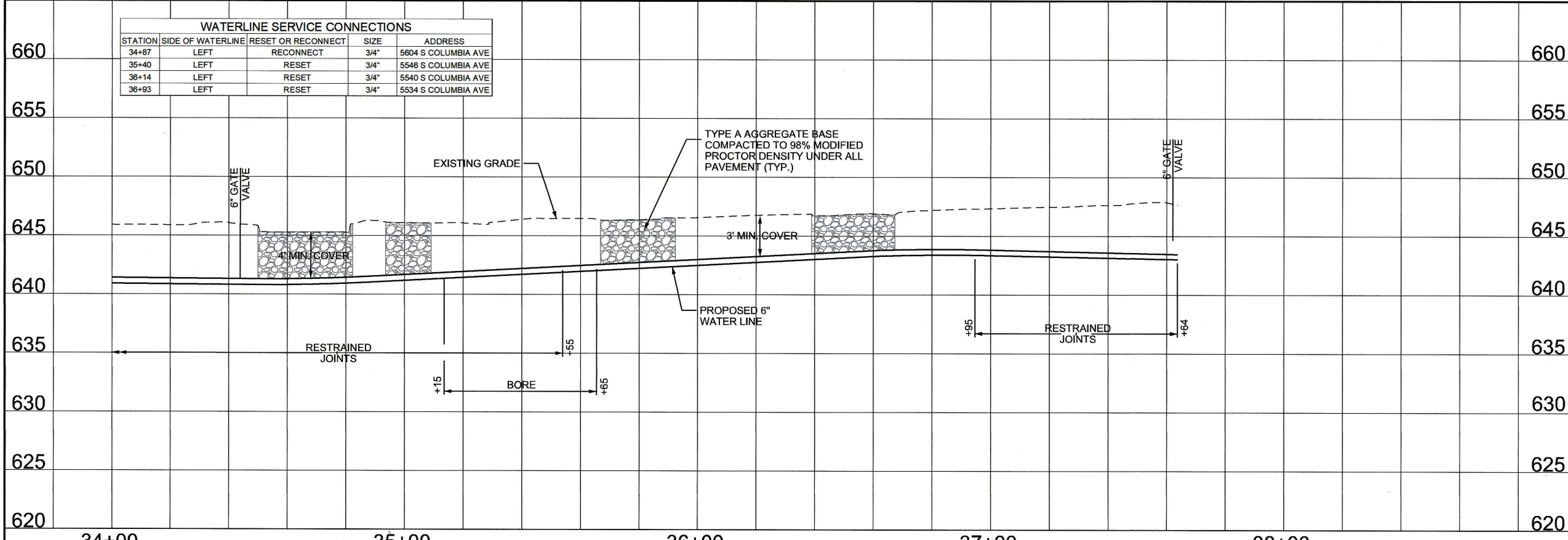
STA. 34+40.86
N=400467.39
E=2573666.42
FURNISHED BY CONTRACTOR
INSTALLED BY CONTRACTOR
1-6" 11.25° BEND, RJ

CONNECT TO PROPOSED WL SHEET 11

CONNECT TO PROPOSED WL SHEET 9



WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
34+87	LEFT	RECONNECT	3/4"	5604 S COLUMBIA AVE
35+40	LEFT	RESET	3/4"	5546 S COLUMBIA AVE
36+14	LEFT	RESET	3/4"	5540 S COLUMBIA AVE
36+93	LEFT	RESET	3/4"	5534 S COLUMBIA AVE

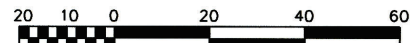


WATERLINE PLAN AND PROFILE - S. COLUMBIA AVE.
WATERLINE REHABILITATION AREAWIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

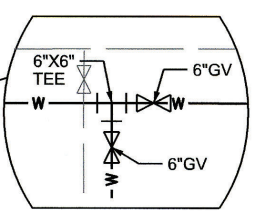
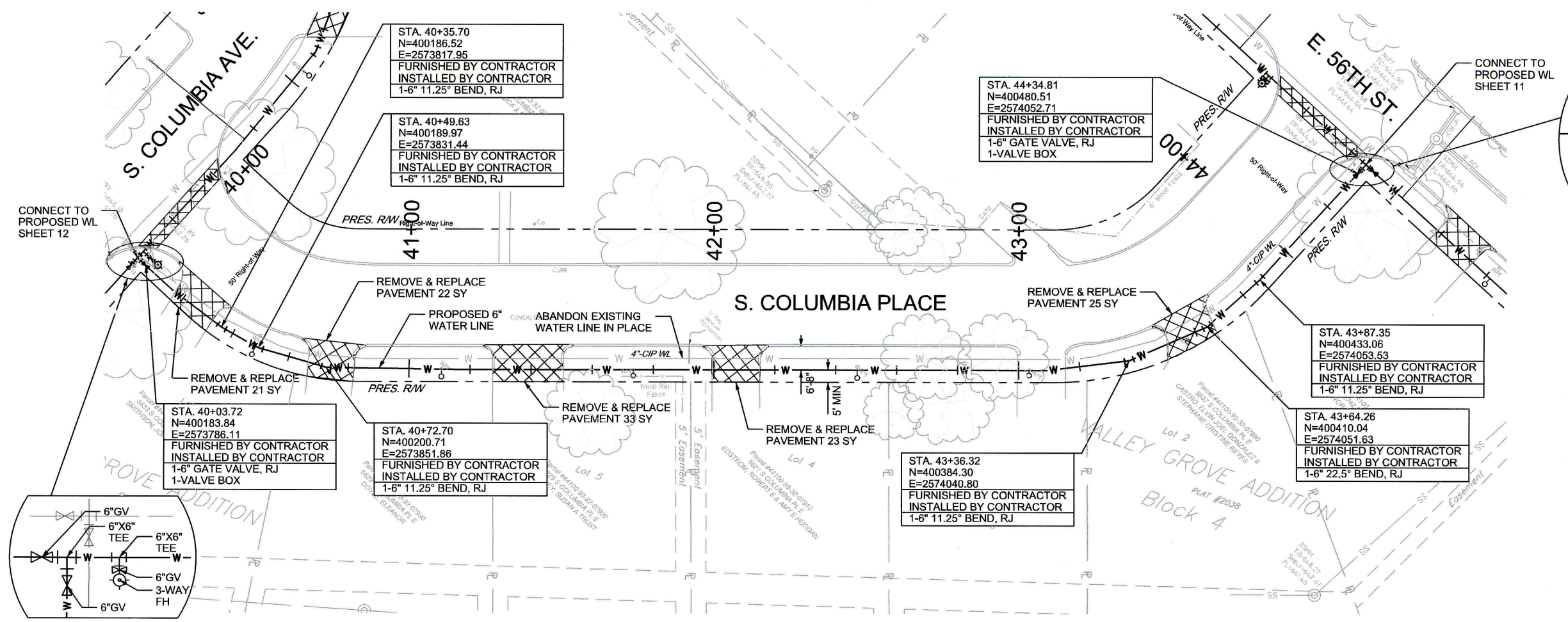
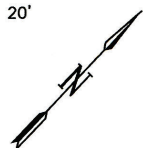
PLANS AND ESTIMATES PREPARED BY:		6100 S. YALE AVE. SUITE 1300 TULSA, OKLAHOMA 74136		Phone: (918) 250-5922 Fax: (918) 858-0107	
DRAWN	EM	8/25	APPROVED:		
DESIGNED	CML	8/25	Chris M. Livingston		
SURVEY	RM	5/25	Chris M. Livingston		
PROJ. MGR.			Chris M. Livingston		
LEAD MGR.			Chris M. Livingston		
FIELD MGR.			Chris M. Livingston		
RECOMMENDED:			Chris M. Livingston		

ADVERTISE DATE:			
REVISION	BY	DATE	
FILE:	DRAWING:	DATE:	

CML Livingston 3/10/2026 3:58:07 PM
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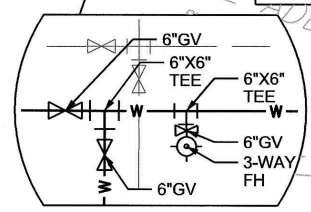


SCALE: 1" = 20'

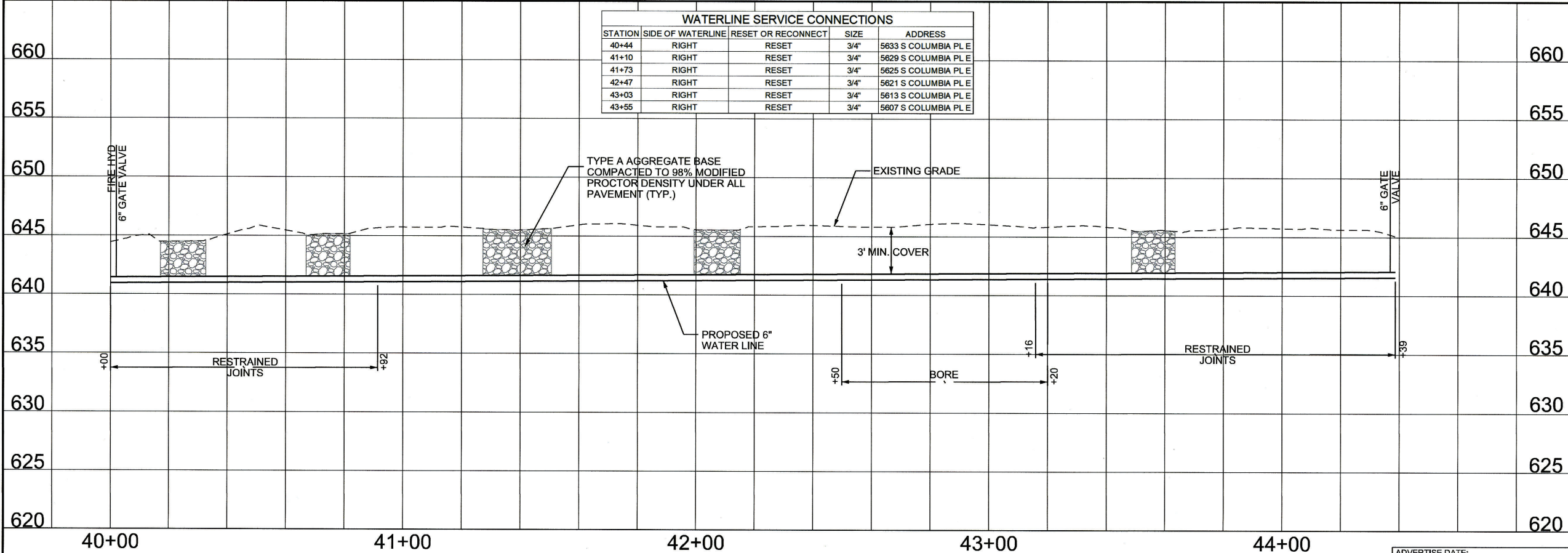


WARNING:
OVERHEAD AND UNDERGROUND UTILITIES IN PROJECT VICINITY

SEE WATER SERVICE CONNECTION CHARTS FOR WATER METER INFORMATION.



WATERLINE SERVICE CONNECTIONS				
STATION	SIDE OF WATERLINE	RESET OR RECONNECT	SIZE	ADDRESS
40+44	RIGHT	RESET	3/4"	5633 S COLUMBIA PL E
41+10	RIGHT	RESET	3/4"	5629 S COLUMBIA PL E
41+73	RIGHT	RESET	3/4"	5625 S COLUMBIA PL E
42+47	RIGHT	RESET	3/4"	5621 S COLUMBIA PL E
43+03	RIGHT	RESET	3/4"	5613 S COLUMBIA PL E
43+55	RIGHT	RESET	3/4"	5607 S COLUMBIA PL E



WATERLINE PLAN AND PROFILE - S. COLUMBIA PLACE
WATERLINE REHABILITATION AREA WIDE
E. 55TH PLACE AND S. COLUMBIA AVE
PROJECT NO. TMUA-W 25-03 C1
CITY OF TULSA, OKLAHOMA
PUBLIC WORKS DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
6100 S. YALE AVE. SUITE 1300 Phone: (918) 250-5922
TULSA, OKLAHOMA 74136 Fax: (918) 858-0107

DRAWN	EM	8/25	APPROVED:
DESIGNED	CML	8/25	
SURVEY	RM	5/25	
PROJ. MGR.			
LEAD MGR.	<i>John B. [Signature]</i>	3/26	
FIELD MGR.	<i>Tom B. [Signature]</i>	3/26	
RECOMMENDED:			
DESIGN MANAGER	<i>John B. [Signature]</i>		

PLAN SCALE: 1" = 20'
PROFILE SCALE: HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'

FILE: _____ DRAWING: _____ DATE: _____
ATLAS PAGE NO. 314 & 389 SHEET 14 OF 14 SHEETS

3/10/2026 3:58:14 PM
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