

PAY ITEM NOTES-WATERLINE

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

NO ADDITIONAL PAYMENT SHALL BE MADE.
9. ALL CUT ENDS AND WHERE SALVAGED FITTINGS HAVE BEEN REMOVED FROM ABANDONED WATER LINES LEFT IN PLACE, SHALL BE PLUGGED WITH 24" OF CONCRETE INSIDE THE PIPE. COST OF CONCRETE PLUGGING TO BE INCLUDED IN UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
10. NOT USED
11. DETECTABLE MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE AS PER CONST SPEC 310.2 AND 310.3. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.
12. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES. NO ADDITIONAL PAYMENT SHALL BE MADE.
13. NOT USED
14. CONTRACTOR IS REMINDED TO BED AND BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1-1/2" 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.

PAY ITEM NOTES-WATERLINE (CONTINUED)

15. WATER SERVICE CONNECTIONS SHALL INCLUDE COST OF MATERIAL, LABOR AND EQUIPMENT TO REMOVE AND INSTALL SADDLES, CORPORATION STOPS, BENDS, 3-PART UNIONS, COUPLINGS, AND ANY OTHER INCIDENTALS REQUIRED FOR A COMPLETE WATER SERVICE CONNECTION WITH EXCEPTION OF METER CANS. NO ADDITIONAL PAYMENT SHALL BE MADE. METER CANS SHALL BE PAID AS SEPARATE BID ITEM.
 - A. SHORT SERVICE SHALL BE ANY SERVICE LINE THAT IS 25 FEET OR LESS IN LENGTH. SHORT SERVICES DO NOT INCLUDE PAVEMENT REPLACEMENT.
 - B. LONG SERVICE SHALL BE ANY SERVICE LINE THAT IS GREATER THAN 25 FEET UP TO 80 FEET IN LENGTH. LONG SERVICES INCLUDE PAVEMENT REPLACEMENT AND/ OR COST TO BORE.
 - C. SERVICE LINES EXCEEDING THE ABOVE PARAMETERS WILL BE COMPENSATED FOR LINEAR FOOTAGE ABOVE AND BEYOND 80 FEET.
16. SERVICE LINES ON NON-ARTERIALS SHALL BE EITHER COPPER TUBING (TYPE K SOFT ANNEALED CONFORMING TO ASTM B 88) OR PEX TUBING (UPONOR AQUA PEX 5206 BLUE CONFORMING TO ASTM F876/F877/F2023). PEX TUBING IS NOT PERMITTED WITHIN ARTERIAL RIGHT OF WAY.
17. NOT USED
18. EXISTING SERVICE LINES ACROSS STREETS MAY BE USED IF MINIMUM DEPTH OF 3 FT IS MET; OTHERWISE, SERVICE LINE SHALL BE LOWERED TO MEET 3 FT DEPTH.
19. NOT USED
20. NOT USED
21. THE COST FOR STREET WASHDOWN SHALL BE INCLUDED IN THE PRICE BID FOR PIPE. SEE CONSTRUCTION SPECIFICATION 326. ESTIMATED QUANTITY 1,000 LF.
22. THE COST FOR SAFETY FENCE SHALL BE INCLUDED IN THE PRICE BID FOR PIPE. SEE CONSTRUCTION SPECIFICATION 327. ESTIMATED QUANTITY 600 LF.
23. THE COST FOR 8" WATER LINE BORE SHALL BE INCLUDED IN THE PRICE BID FOR PIPE. SEE CONSTRUCTION SPECIFICATION 328. ESTIMATED QUANTITY 811 LF. NO ADDITIONAL PAYMENT SHALL BE MADE.
24. PAY ITEM INCLUDES 1,968 LF OF RESTRAINED JOINT PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
25. PAY ITEM SHALL BE RESTRAINED JOINT PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.
26. CONTRACTOR IS REMINDED THE PAY ITEM "UNCLASSIFIED EXCAVATION" INCLUDES ALL EXCAVATED MATERIAL INCLUDING ROCK EXCAVATION PER CITY OF TULSA SPECIFICATION 302. NO ADDITIONAL PAYMENT WILL BE MADE.

GENERAL CONSTRUCTION NOTES-WATERLINE

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SPECIFICATIONS AND STANDARD DRAWINGS FOR WATER AND WASTEWATER, CITY OF TULSA ENGINEERING SERVICES DEPARTMENT.
2. 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 WATER AND WASTEWATER STANDARDS. METERS ON THE SAME SIDE OF THE STREET AS THE PROPOSED MAIN SHALL HAVE THE SERVICE LINE ENTIRELY REPLACED FROM THE PROPOSED MAIN TO THE METER. METERS SERVED ON THE OPPOSITE SIDE OF THE STREET FROM THE PROPOSED MAIN SHALL HAVE THEIR EXISTING SERVICE LINES ADJACENT THE PROPOSED MAIN CONNECTED TO A NEW SERVICE LINE FROM THE PROPOSED MAIN BY A FLARED-END 3-PART UNION.
3. MINIMUM COVER OVER WATER LINES SHALL BE AS NOTED ON PLANS.
4. CONTRACTOR SHALL REPLACE EXISTING GRASS WITH SEED/SOD OF SAME TYPE AND VARIETY OR AS NOTED ON PLANS.
5. CONTRACTOR SHALL BORE EXISTING TREES UNDER DRIP LINE, UNLESS DIRECTED OTHERWISE BY ENGINEER.
6. CONTRACTOR SHALL BORE EXISTING DRIVEWAYS, UNLESS DIRECTED OTHERWISE BY ENGINEER.
7. CITY CREWS ONLY ARE TO OPERATE ALL VALVES. CONTRACTOR SHALL NOTIFY CITY THRU INSPECTOR.
8. 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.
9. 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.
10. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THOROUGH PROJECT AT ALL TIMES. OPEN CUT STREET CROSSINGS REQUIRE AN APPROVED TRAFFIC CONTROL PLAN WITH TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH CURRENT MUTCD REQUIREMENTS.
11. ANY DAMAGE CAUSED BY CONTRACTOR TO ADJACENT TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE TRAFFIC ENGINEER.
12. PRIOR TO PAVEMENT SAWING AND EXCAVATION NEAR SIGNALIZED INTERSECTION, CONTRACTOR SHALL CONTACT ENGINEERING SERVICES, TRAFFIC OPERATIONS, 596-9766, FOR SITE SPECIFIC, UNDERGROUND TRAFFIC UTILITY LOCATES.
13. 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).
14. 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.
15. THE CONTRACTOR IS REMINDED TESTING AND DISINFECTION OF NEW LINES IS INCLUDED IN THE CONTRACT TIME FOR PROJECT COMPLETION. THE CONTRACTOR SHALL COORDINATE TESTING AND DISINFECTION WITH CITY PERSONNEL AND PROVIDE A MINIMUM OF 7 DAYS ADVANCE NOTICE.

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
X	OKLA.	21899(04)				
DESCRIPTION						DATE

CITY OF TULSA ENGINEERING SERVICES DEPARTMENT	TMUA-W 14-01	ES 2014-02	SECTION MANAGER	<i>ECM 7/15</i>	DESIGN	CML	12/14	TULSA & ROGERS COUNTIES
			FIELD MANAGER	<i>SPR 7/20/15</i>	DRAWN	MAM	12/14	
			DEPUTY DIRECTOR	<i>WBJ 7/15</i>	CHECKED	CML	4/15	
			RECOMMENDED: W & S DIRECTOR	<i>CE 8/15</i>	APPROVED			
			APPROVED: CITY ENGINEER	<i>PBB 8/15</i>	SQUAD	GARVER		

PAY ITEM AND GENERAL NOTES (WATERLINE)

STATE JOB NO. 21899(04) SHEET NO. W-2