

Section 1000.20

Supplemental Specifications

The following specifications are intended to supplement the Rogers Water Utilities Standard Specifications.

Section I - METHODS OF MEASUREMENT AND PAYMENT FOR SEWER MAIN

The methods of measurement and payment for work completed as set out in the specifications covering various items of construction are hereby clarified and are superseded as set out herein. Payment for each bid item shall be made at the unit and lump sum prices as set forth in the Proposal under the various items of the Bid as hereinafter set out.

1 UTILITY MOBILIZATION

Payment for Mobilization shall be made at a time when all necessary equipment has been transported on the construction site and the site ingress/egress has been established.

2 GRAVITY SEWER MAIN CONSTRUCTION - OPEN TRENCH

Payment for gravity sewer main by open trench shall be made at the unit price bid per linear foot per diameter as indicated in the Proposal, complete in place. The unit price bid shall be in full compensation for all sewer pipe in the size and type indicated, pipe bedding and protection material, concrete anchorage (as shown on the plans), furnishing and laying various sizes and types of gravity sewers as shown on the plans, back fill, cleanup, seeding, fertilizing and mulching, testing, utility repair, and every item of construction for a complete installation not specifically set out in the Bid.

Measurement shall be based on the total length of sewer main laid per diameter, including pipe required for ties to the existing system, with no deductions made for manholes.

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Payment for both methods shall be apportioned to the following schedule:

<i>Sewer Main installation</i>	<i>70% of unit bid price</i>
<i>Sewer Main testing</i>	<i>10% of unit bid price</i>
<i>Sewer Main cleanup</i>	<i>20% of unit bid price</i>

Payment for sewer main installation is allowable when pipe is in the trench, bedded and backfilled. Payment for sewer main testing is allowable when acceptable air test and mandrel test. Payment for

sewer main cleanup is allowable when cleanup is complete to the satisfaction of the Utility.

3 SANITARY SEWER MANHOLES

Payment for sanitary sewer manholes shall be made at the unit price bids for each manhole indicated in the Proposal, complete in place for four (4) foot diameter manholes up to six (6) feet in depth. These prices shall be full compensation for every item of work required to complete the manholes as shown on the Plans and as specified, including excavation, forming of barrel and cone sections, concrete, back fill, vacuum testing by the Contractor, manhole stub outs in the size and length indicated in the plans, and every other item required for a complete installation not specifically set out as a bid item.

4 TEMPORARY CONNECTION TO EXISTING MAIN

Payment for connection to existing main shall be made at the unit price bid per lump sum. The unit price bid shall be in full compensation for all materials and labor necessary to connect new sewer main to existing main.

5 Steel Encasement

Payment for steel encasement shall be made at the unit price bid per linear foot. The unit price bid shall be in full compensation for all materials and labor necessary for installation of steel encasement per RWU specifications.

6 TRENCH SAFETY

The contractor is responsible for the provision of all equipment and actions necessary to meet the requirements of federal and state law pertaining to trench and excavation safety. Payment shall be made at the lump sum bid price upon the completion of construction trenching/backfill and after the contractor submits a statement declaring his compliance with all applicable laws.

7 CRUSHED STONE BACKFILL

Payment for crushed stone back fill will made at the unit price bid per ton of AHTD Class 7 crushed stone placed in 6 inch lifts and compacted to 95% Standard Proctor as determined by AASHTO T99. Trenches in paved areas will be completely back-filled will crushed stone as indicated on the plans. Tonnage will be verified by measure of trench volume. At the discretion of the engineer, quarry receipts may be requested to verify actual stone quantities. If AHTD Class 7 crushed stone backfill is also used for pipe bedding, the bedding material will be deducted from billable tonnage at the following rate:

Pipe Diameter (in)	Pipe Bedding (Tons / Ft)
6	0.21
8	0.25
10	0.28
12	0.32

All costs associated with laboratory and field testing will be paid by the Engineer/Owner. The laboratory

and field testing cost of failed test will be bore by the Contractor. The Contractor shall obtain the approval of the Engineer before placing any and all lifts or layers of fill. The Contractor shall give the Engineer ample time to schedule the necessary testing of each layer.

8 WATER LINE CONSTRUCTION

Payment of water line construction shall be made at the unit prices bid per linear foot for the various types and sizes of water line, complete in place. The unit prices bid shall include all water line in the size and type indicated, connection to existing water lines, clearing, timber/brush and pavement removal and disposal, right-of-way preparation, stripping and stockpiling where required, excavation, trenching, shoring, de-watering, pipe bedding material, backfill, cleanup, topsoil, seeding, fertilizing and mulching, testing, traffic control/signage, #12 trace wire, removal of existing fire hydrants, utility repair, and every item of construction not specifically set out in the Bid.

Payment shall be apportioned to the following schedule:

Water Main installation	70% of unit bid price
Water Main testing	10% of unit bid price
Water Main cleanup	20% of unit bid price

Payment for water main installation is allowable when pipe is in the trench, bedded and backfilled. Payment for water main testing is allowable when acceptable pressure/leakage and bacteriological test are achieved. Payment for water main cleanup is allowable when cleanup is complete to the satisfaction of the Utility.

Measurement shall be based on the total length of water line laid in place as indicated on the Plans as constructed. Measurement shall be made with a steel tape or other measuring device commonly used in civil engineering or surveying along the centerline of the top of the water line.

9 FIRE HYDRANT INSTALLATION

Payment for fire hydrant installations shall be made at the unit price bid each, complete in place. The unit price bid shall include furnishing and installation of the fire hydrant, the 6-inch auxiliary valve, valve box, concrete valve box pad at ground surface, concrete reaction backing, and every other item required for a complete installation which is not specifically compensated for under other items of the Bid. The unit price bid under this item shall also include furnishing and installing fire hydrant barrel extension if required, as directed by the Engineer.

10 4" – 6" TAPPING SLEEVES AND VALVES

Payment for tapping valves and sleeves shall be made at the unit price bid each of the various sizes as indicated on the Plans, complete in place. The unit price bid shall include furnishing and installing each tapping valve (size as shown on the Plans), ductile iron split case tapping sleeve (size as shown on the Plans), connection to the existing water line, valve box, making the tap, testing the tap, blocking/backing, concrete valve box pad at ground surface, valve operator extension stems (as required

by the Engineer), thrust restraint devices, and every other item of work required for a complete installation as specified. The Rogers Water Utilities will perform 'making the tap' for the sizes of 4" and 6" at no charge to the Contractor.

11 WATER MAIN VALVES

Payment for water main valves (except 6-inch guard gate valves which are included in the cost of fire hydrant installations) shall be made at the unit price bid for each of the various types and sizes of valves complete in place. The unit price bid shall include furnishing and installing each valve, valve box, concrete valve box pad at ground surface, valve operator extension stems (as required by the Engineer), thrust restraint devices, and every other item of work required for a complete installation as specified.

12 CUT, CAP, AND BLOCKING OF EXISTING WATER MAIN

Payment for cut, cap and blocking of existing water main shall be made at the unit price bid. The disconnecting, sealing, and blocking of existing water mains is required after the new mains are approved for service. Work shall include furnishing and installing each component necessary to disconnect those portions of existing mains to be abandoned, capping at the point where cut into those portions of existing mains that are to remain in service, and blocking the capped mains to prevent separation of the water main when re-pressurized and every other item of work required for a complete installation as specified.

13 SERVICE CONNECTIONS

Under this item, the contractor shall build new services as indicated on the plans or directed by the Engineer. The unit prices shall not include crushed stone backfill or pavement repair when services cross the street. Service crossings may be bored when specified. The unit bid price shall include service tap, meter box, meter service assembly, service line between main and meter service assembly (meter box), removing existing meter service assembly (meter box), cut/cap/plug abandoned/relocated service at the main, close the corporation stop of the abandoned/relocated service at the main and connecting the existing customers service line to the new meter set. A licensed plumber shall perform all work on the outlet side of the water meter. (The connecting of existing customers service line to the new meter set is only applicable for water main relocation/replacement projects.)

14 DUCTILE IRON WATER MAIN FITTINGS

Payment for ductile iron water main fittings shall be made at the unit price bid per ton for all fittings indicated on the Plans or as directed by the Engineer, complete in place. The unit price bid shall include furnishing and installation all fittings in the configuration and size indicated on the plans or as directed by the Engineer, concrete reaction backing (vertical tie-down blocking, cradle blocking, anchor collars and horizontal blocking) in accordance with the Plans and Specification, mechanical joint glands, thrust restraint glands, stainless steel tie rods, solid sleeve couplings, and all other related work not specifically compensated for under other items of the Bid. Measurement of payment shall be based on the weight of the fitting bends, tees, crosses, and plugs as stipulated within standard weight tables for naked mechanical fittings without glands and bolts. Measurement of payment shall be based on the individual weight of the retainer glands and Foster glands. Stainless steel tie rods are considered incidental work. Materials and labor for cut, cap and blocking of existing water main are to be included in the cut, cap

and blocking of existing water main bid item.

15 MAINTENANCE OF TRAFFIC

Payment for maintenance of traffic shall be made at the unit price bid lump sum. The unit price bid shall include furnishing all equipment deemed necessary and any manpower needed to allow two (2) lanes of traffic to drive through the work area as needed and any pedestrian signage required. This shall NOT include the diverting of traffic itself, any signage needed to redirect traffic, and planning/permitting as this will be performed by the City of Rogers Street Department. There will need to be coordination with the Street Department so the work and the traffic flows will be corresponding.

16 FINAL INSPECTION

The final estimate will be prepared and approved for final payment upon the completion of the work after a final inspection of the work has been made. The inspection shall be made by the Engineer in the presence of the Contractor. The final acceptance of the job and the issuance of the Date of Final Completion of the Work will be based on the Work performed and material used with respect to meeting all specifications set forth herein. The final acceptance of the job and the payment to the Contractor in full will not reduce the continuing liability of the Contractor as set out in these specifications.

17 GUARANTEE

The Contractor shall guarantee and warranty his work including all materials for a period of one (1) year from the Date of Final Completion of the Work to the extent that he shall repair any defects due to faulty workmanship or materials.