

DIVISION II
TECHNICAL SPECIFICATIONS
SECTION S-001
WATER DISTRIBUTION SYSTEM

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I. **DESCRIPTION:**

All “water distribution system” work shall be performed in total conformance with Jefferson Parish standards, requirements, [<http://www.jeffparish.net/index.aspx?page=261>, <http://www.jeffparish.net/index.aspx?page=297>] and as per materials manufacturer’s requirements and recommendations.

All work associated with the water distribution system shall be performed under this section (S-001) and to the lines and grades shown on plans.

This work will include furnishing and constructing the water lines and appurtenances as indicated on the drawings and in accordance with the provisions of the Jefferson Parish Department of Engineering and the Specifications herein. Where the word “pipe” and/or “water line” are used it shall refer to pipe, fittings, or appurtenances unless otherwise noted.

The Contractor shall furnish all labor, equipment and materials required to perform all work required for removal of existing water lines and for installation of new waterlines. Removal and

installation, replacement or relocation shall be as indicated on the drawings and specified herein. Damage to any waterlines by the Contractor, subcontractors, material and equipment suppliers or other persons, shall be repaired by the Contractor to the satisfaction of the Engineer and Owner at the expense of the Contractor, prior to acceptance.

The drawings attempt to indicate the alignment of all known waterlines within the limits of the work. However, the Contractor shall be responsible to inspect the entire project to verify all existing waterlines and to determine the existence of any additional conflicts with his work. The location of proposed water lines may be field adjusted, with prior approval from the Jefferson Parish Department of Engineering, to avoid conflicts with other utilities.

II. COORDINATION:

Removal and replacement or relocation of waterlines shall be done in close coordination with the Owner. Removal and replacement or relocation work shall be planned in advance so that inconvenience to the Owner and utility users caused by the disruption of service is minimized. The contractor shall be responsible for immediately notifying the Owner and Engineer of existing conditions that differ from that shown on the plans.

III. CONSTRUCTION LAYOUT:

The Contractor will be responsible for establishing all lines and grades and staking out all “Water Distribution System” work on this project from controls provided in the construction documents. There shall be no separate payment for construction layout related to the “Water Distribution System”.

IV. MATERIALS:

All materials shall be as specified in Jefferson Parish Standard Notes and Drawings and as specified herein.

V. EXECUTION:

A. GENERAL

1. Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling and

installing pipe and fittings shall not damage the pipe and fittings. Hooks inserted in ends of pipe shall have broad, well-padded contact surfaces.

2. All pipe coatings which have been damaged shall be repaired by the Contractor before installing the pipe. Any such repairs shall be done in total conformance with the manufacturer's requirements and recommendations and shall require prior approval from the Jefferson Parish Department of Engineering.
3. Water distribution system installation shall be done with pipe sections and fittings such that pipe cutting is not required. Should pipe cutting be required, cutting shall be done in a neat manner, without damage to the pipe or to the lining. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed with a file to remove all roughness and sharp corners.
4. All cutting of ductile iron pipe shall be done with mechanical pipe cutters except where the use of mechanical cutters would be difficult or impracticable. Ends of ductile iron pipe shall be cut with a saw, abrasive wheel, or oxyacetylene torch. Field cut holes for saddles shall be cut with mechanical cutters; oxyacetylene cutting will not be permitted.
5. The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter and must be swabbed with chlorine prior to installation and shall be kept clean until the work has been accepted. Before jointing, all joint contact surfaces shall be wire brushed if necessary, wiped clean, and kept clean until jointing is completed.
6. Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.
7. A representative of the Jefferson Parish Engineering Department shall be present or be given the chance to inspect all water distribution items, installed, prior to backfill.

B. WATER VALVES AND HYDRANTS "OPERATING" REGULATIONS

1. Generally all water system valves and hydrants shall be operated by the Jefferson Parish Water or Engineering Departments.
2. The Contractor shall not operate water system valves or hydrants without written permission from the Jefferson Parish Water or Engineering Departments.
3. The contractor may operate water system valves or hydrants without written permission only when representatives from Jefferson Parish Water or Engineering Departments are present.

4. The contractor shall obtain, maintain, and annotate the Jefferson Parish Department of Water Form No. W-101, "Valve Operation Log" throughout the project.

C. TRENCHING

1. Excavation work shall be performed in a safe and proper manner with appropriate precautions being taken against all hazards. As always, Trench Safety shall remain the contractor's responsibility at all times.
2. Excavate and maintain trenches to the indicated or required depth and width. Provide minimum of 12" clearance on both sides of pipe or conduit.
3. Protect excavations, if necessary, by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.
4. Notify the Engineer and the Jefferson Parish Department of Engineering of any undesirable, unexpected subsurface conditions and discontinue work in affected area until notification to resume work.
5. Grade excavation top perimeter to prevent surface water run-off into excavation.
6. Hand trim excavation and leave free of loose matter.
7. Correct unauthorized excavation at no cost to Owner.

D. BACKFILL

1. Backfill material shall be Mississippi River "pumped sand", AASHTO A-4 or better having a maximum liquid limit of 25 and a maximum plasticity index of 6. All sands shall be free of trash, weeds, lumps, humus, pieces of wood or any other deleterious material. Backfill material shall have a group index number not to exceed 6.
2. Support pipe and conduit during placement and compaction of pipe backfill.
3. Document and photograph every fitting, restraint device, valves, hydrant, etc. prior to backfill.
4. A representative of the Jefferson Parish Engineering Department shall inspect all installed water distribution items prior to backfill.

E. CONNECTION TO EXISTING PIPING

1. A representative from the Jefferson Parish Engineering Department must be present during all work being done at the tie-in points.
2. All tie-ins to the existing water lines shall be done by the Contractor.
3. All tie-in locations shall be excavated and existing piping shall be investigated (material type, size, outside diameter, condition, photograph, etc.) prior to ordering material and equipment, and especially prior to the cutting of the existing pipe.
4. Connections between new work and existing piping shall be made using fittings suitable for the conditions encountered and as indicated on the drawings.
5. Each connection to an existing pipe shall be made at a time and under conditions which will least interfere with service to customers, and as authorized by the Owner.
6. Water line tie-ins shall not be permitted on Fridays or any days preceding a legal holiday, unless otherwise approved by the Jefferson Parish Engineering Department in writing.
7. Facilities shall be provided for proper dewatering and for disposal of all water removed from the dewatered lines and excavations without damage to adjacent properties.
8. Water system “test closures”, which are typically done by the Jefferson Parish Water Department must be witnessed and documented by the Resident Inspector (RI) and the contractor. Documentation may simply be done by signing or initialing a marked up copy of the Jefferson Parish Water Unit Sheets indicating which valves were closed and which hydrants were flowed. A successful “test closure” is one of the key elements necessary, prior to scheduling a tie-in.
 - a. Test Closures are typically done by the Jefferson Parish Water Department Forces, but they may be done by the contractor under direct supervision of the Jefferson Parish Engineering Department Inspectors.
 - b. Since the contractor will be responsible for the outcome of the tie-ins, it will be to his advantage to witness and fully understand a “successful test closure”.
9. Prior to scheduling a tie-in, the contractor must make certain {and convey this information to the Jefferson Parish Engineering Inspection Department through the Resident Inspector (RI)} that he would have a clear path to the tie-in point (no surprised conflicts). Since the RI is the only fulltime parish representative on the site, he can verify the contractor’s readiness for the tie-in, on behalf of the parish.

F. HANDLING, REMOVAL AND DISPOSAL OF "AC" WATERLINES

Cutting, Tapping, Tying-in to, Removal, handling, and disposal of Existing "AC" waterlines shall be in accordance with all applicable local, state, and federal regulations and requirements. This section's compliancy requirements shall also include any applicable regulatory provisions of AWWA's and OSHA's standards and guidelines.

G. ABANDONMENT OF EXISTING WATERLINES

All abandoned pipes shall be filled with Flowable Fill. Flowable fill shall be per DOTD Standard Specifications for Roads and Bridges section 710.

H. PIPELINE TESTING AND STERILIZATION

The pressure and leakage testing of all waterlines shall conform to the requirements of Jefferson Parish and AWWA C600.

VI. DEVIATION FROM JEFFERSON PARISH STANDARDS

None

VII. CONSTRUCTION DELAY CLAIMS:

1. Utility related Construction Delay Claims must be avoided at all costs. The contractor shall have the burden to prove that the actions or inactions of the owner or owner's representatives affected his activities. Burden of proof may include "Established Schedules" depicting Critical Path and Non-Critical Path Items, documentations of required notices to the owner or owner's representatives, documentations of minutes of meetings, etc.
2. In the preconstruction meeting (or shortly after) the contractor shall be provided with a list of contacts. The contractor is advised to understand the function of each contact person and the expected nature of his relationship and his responsibilities towards each contact. This list typically will include a parish utility inspector, a utility inspector supervisor, staff engineer, and utility chief engineer. The instant that the contractor feels that he may be delayed due to: differing site conditions; changes in requirements or design; weather; unavailability of material or equipment; errors in plans and specifications; and interference by the owner, he must, promptly (proactively /

aggressively), bring the situation to the attention of his contact points, in order to resolve the utility situation.

3. Typically, per contracts' special provisions, parish utility personnel do not have **direct authority** over the contractor; however, as owners, they have **total authority** to funnel, through the Parish Designated Construction Project Managers, any concerns that they may have to the contractor.
4. **Bottom line**; Considering the facts that typically, Jefferson Parish provides a multi-level contact points' list, a fulltime (A/E) inspector, two assigned project construction managers (Parish and the A/E), pre-bid and pre-construction meetings, etc., **if a contractor is delayed, most likely, it is his fault.**

VIII. MEASUREMENT AND PAYMENT:

1. **Payment** for this work will be made after receipt of approval from the Jefferson Parish Department of Engineering.

The price and payment shall constitute full compensation for furnishing all labor, materials, and equipment to construct the water line including trenching, bedding, pipe laying, backfill, tie-ins to existing water lines, pressure testing mains and all incidental work necessary for a complete and functional water distribution system.

2. **Water Lines and/or Water Mains** (terms "water lines" or "water mains" shall mean water pipe in general, including mains, hydrant leads, fire service pipes, etc.) shall be measured along the centerline of pipeline in place, through fittings and valves, and shall be paid for per linear feet. This method of Measurement and Payment shall apply to all water lines despite of the material type; PVC, Ductile Iron, HDPE, etc. and/or installation method; Open Trench, Jack and Bore (J&B), Directional Drill (DD), etc. An alternative for measurement and payment for Directional Drill would be to be measured horizontally. This alternative method of measurement, if considered, shall be stated as a "Deviation from Jefferson Parish Standards". *{[Non Open Trench Item Numbers shall be accompanied with an extension to identify the method of installation (e.g. the item number for an 8" HDPE pipe being installed by Directional Drilling shall be: "W-308-DD")], [Thickness class 52 Ductile Iron pipe items shall be accompanied with extension "C52"]}*.
3. **Existing AC waterlines** which shall be removed and disposed of shall be measured horizontally through fittings and valves along the centerline of pipeline and shall be paid for per linear feet of pipe, for specific size, removed and disposed. In case the contractor encounters AC pipes larger than the size that is in his contract, he shall be compensated 10%, per size, in addition to his bid price for smaller size pipe.

4. **Existing Waterlines** which shall be abandoned shall be measured horizontally through fittings and valves along the centerline of pipeline and shall be paid for per linear feet of pipe abandoned, regardless of size. There shall be no additional compensation or credit for different size water lines than shown on plans under this item unless otherwise specified.
5. There shall be no direct payment for non-AC pipe removal and disposal unless otherwise specified.
6. **Fire Hydrants** shall be measured and paid for per each hydrant installation complete in place. **This item shall only include the hydrant.** Fittings, hydrant valve, hydrant tee, valve box, pipes, etc. related to installation of a Fire Hydrant shall be paid separately and shall not be included in this item.
7. **Fire Hydrant Assemblies** shall be measured and paid for per each installation complete in place including hydrant, hydrant tee, all fittings, hydrant valve, valve box, pipes, etc. related to installation of a Fire Hydrant Assembly as per Jefferson Parish requirements.
8. **Water Meters and Meter Boxes** shall be measured and paid for per each, for specific size, installed, complete in place including meter, meter box, fittings, and other necessary accessories related to installation of a meter and a meter box as per Jefferson Parish and manufacturer's requirements.
9. **Water Meter/Meter-Box adjustment** shall be measured and paid for per each, for specific size, this item shall be full compensation for any necessary adjustments (Horizontal, Vertical, etc.), complete in place as per plans instructions or as directed by the Jefferson Parish Engineering Department.
10. **Gate and Butterfly Valves and Valve Boxes** where shown or required in accordance with Jefferson Parish Standards, shall be measured and paid for per each for specific size.
11. **Ductile Iron Fittings (Fittings)**, to include bends, crosses, tees (except the hydrant tee included in the "Fire Hydrant Assembly" item which includes the tee), reducers and any other required part to make sound and functional connections shall be measured and paid for per pound.
12. **Pipe restraints** shall be measured and paid for per each joint restrained for specific size. Pipe restraints shall mean any external device or devices that are used to restrain a joint by locking the joint into place so the joint cannot open, move, or turn. A flanged joint shall be considered a restrained joint and shall be measured and paid for as one.

13. **Transitional Couplings** shall be measured and paid for per each for a specific size in place. Measurement and Payment for Transitional Couplings shall be made at the
14. Contract unit price per each and shall include full compensation for providing all labor, materials, equipment, excavation, bedding and backfill, board foundation, etc. and Connection (Tie-in) to Existing Water Line per all applicable Jefferson Parish and Manufacture's Standards.
15. **Price Brothers Adapters** shall be measured and paid for per each for a specific size in place. Measurement and Payment for Price Brothers Adapters shall be made at the Contract unit price per each and shall include full compensation for providing all labor, materials, equipment, excavation, bedding and backfill, board foundation, etc. and Connection (Tie-in) to Existing Water Line per all applicable Jefferson Parish and Manufacture's Standards.
16. **Price Brothers Pipe Joint Field Welding** shall be measured and paid for per each, for a specific size of water main, in place. Measurement and Payment for Price Brothers Pipe Joint Field Welding shall be made at the Contract unit price per each and shall include full compensation for providing all labor, materials, equipment, excavation, bedding and backfill, board foundation, etc. All pipe joints shall receive a full, 360 degrees circumferential weld in accordance with the latest applicable Jefferson Parish, AWWA (AWWA c206, etc.) and Manufacture's Standards, Recommendations, and Requirements.
17. **Tie-ins**. There shall be no direct payment for tie-ins, unless otherwise specified.
18. **Water Service Connections** shall include all necessary work to install (or remove and replace) a service connection in accordance with the Jefferson Parish standards from the main to the meter, complete and in place, including tie-ins to the main and the meter. Water Service connections {"Direct-Buried" (DB) or "Directionally Drilled" (DD)} shall be measured and paid for per each for specific size. In case the contractor encounters water service connections larger than the size that is in his contract, he shall be compensated 10%, per size, in addition to his bid price for smaller size pipe.
19. **Fire Service Connections** shall be measured and paid for based on individual components involved (I.e. Pipes, fittings, couplings, check valves, gate valves, and double check valve assemblies). There shall be no "per each" pay item for fire service connections unless it is covered under "Deviation from Jefferson Parish Standard" section. There shall be no direct payment for removal and disposal of an existing fire service connection unless otherwise specified. Unless otherwise specified or directed by the owner, fire service connections shall be installed/replaced, as a minimum, from the main to the property line.

20. Check Valves {"Resilient Seated" (RS) or "Metal Seated" (MS)} shall be per Jefferson Parish Standards and Requirements and shall be measured and paid for per each for specific size.

21. Double check valve assemblies where shown or required in accordance with Jefferson Parish Standards, shall be measured and paid for per each for specific size.

IX. TABULATED GENERAL JEFFERSON PARISH PAY ITEMS

<u>Item No.</u>	<u>Item Description (Pay Item)</u>	<u>Unit of Measure (Pay Unit)</u>
a) 100 SERIES, PVC PIPES		
W-104	Water Main (4") (PVC/C-900 Pipe)	Linear Foot
W-106	Water Main (6") (PVC/C-900 Pipe)	Linear Foot
W-108	Water Main (8") (PVC/C-900 Pipe)	Linear Foot
W-110	Water Main (10") (PVC/C-900 Pipe)	Linear Foot
W-112	Water Main (12") (PVC/C-900 Pipe)	Linear Foot
W-114	Water Main (14") (PVC/C-905 Pipe)	Linear Foot
W-116	Water Main (16") (PVC/C-905 Pipe)	Linear Foot
W-118	Water Main (18") (PVC/C-905 Pipe)	Linear Foot
W-120	Water Main (20") (PVC/C-905 Pipe)	Linear Foot
W-124	Water Main (24") (PVC/C-905 Pipe)	Linear Foot
W-130	Water Main (30") (PVC/C-905 Pipe)	Linear Foot

b) 200 SERIES, DUCTILE IRON PIPES		
W-204	Water Main (4") (Ductile Iron Pipe)	Linear Foot
W-206	Water Main (6") (Ductile Iron Pipe)	Linear Foot
W-208	Water Main (8") (Ductile Iron Pipe)	Linear Foot
W-210	Water Main (10") (Ductile Iron Pipe)	Linear Foot
W-212	Water Main (12") (Ductile Iron Pipe)	Linear Foot

W-214	Water Main (14") (Ductile Iron Pipe)	Linear Foot
W-216	Water Main (16") (Ductile Iron Pipe)	Linear Foot
W-218	Water Main (18") (Ductile Iron Pipe)	Linear Foot
W-220	Water Main (20") (Ductile Iron Pipe)	Linear Foot
W-224	Water Main (24") (Ductile Iron Pipe)	Linear Foot
W-230	Water Main (30") (Ductile Iron Pipe)	Linear Foot
W-236	Water Main (36") (Ductile Iron Pipe)	Linear Foot
W-242	Water Main (42") (Ductile Iron Pipe)	Linear Foot
W-248	Water Main (48") (Ductile Iron Pipe)	Linear Foot
W-254	Water Main (54") (Ductile Iron Pipe)	Linear Foot
W-260	Water Main (60") (Ductile Iron Pipe)	Linear Foot
W-264	Water Main (64") (Ductile Iron Pipe)	Linear Foot

c) 300 SERIES, HDPE PIPES

W-302	Water Main (2") (HDPE Pipe) [DR ____]	Linear Foot
W-304	Water Main (4") (HDPE Pipe) [DR ____]	Linear Foot
W-306	Water Main (6") (HDPE Pipe) [DR ____]	Linear Foot
W-308	Water Main (8") (HDPE Pipe) [DR ____]	Linear Foot
W-310	Water Main (10") (HDPE Pipe) [DR ____]	Linear Foot
W-312	Water Main (12") (HDPE Pipe) [DR ____]	Linear Foot
W-314	Water Main (14") (HDPE Pipe) [DR ____]	Linear Foot
W-316	Water Main (16") (HDPE Pipe) [DR ____]	Linear Foot
W-318	Water Main (18") (HDPE Pipe) [DR ____]	Linear Foot
W-320	Water Main (20") (HDPE Pipe) [DR ____]	Linear Foot
W-324	Water Main (24") (HDPE Pipe) [DR ____]	Linear Foot
W-330	Water Main (30") (HDPE Pipe) [DR ____]	Linear Foot
W-336	Water Main (36") (HDPE Pipe) [DR ____]	Linear Foot

W-302-DD	Water Main (2") (HDPE Pipe) [DR ____]	Linear Foot
W-304-DD	Water Main (4") (HDPE Pipe) [DR ____]	Linear Foot
W-306-DD	Water Main (6") (HDPE Pipe) [DR ____]	Linear Foot
W-308-DD	Water Main (8") (HDPE Pipe) [DR ____]	Linear Foot
W-310-DD	Water Main (10") (HDPE Pipe) [DR ____]	Linear Foot
W-312-DD	Water Main (12") (HDPE Pipe) [DR ____]	Linear Foot
W-314-DD	Water Main (14") (HDPE Pipe) [DR ____]	Linear Foot
W-316-DD	Water Main (16") (HDPE Pipe) [DR ____]	Linear Foot
W-318-DD	Water Main (18") (HDPE Pipe) [DR ____]	Linear Foot
W-320-DD	Water Main (20") (HDPE Pipe) [DR ____]	Linear Foot
W-324-DD	Water Main (24") (HDPE Pipe) [DR ____]	Linear Foot
W-330-DD	Water Main (30") (HDPE Pipe) [DR ____]	Linear Foot
W-336-DD	Water Main (36") (HDPE Pipe) [DR ____]	Linear Foot

d) 400 SERIES, GATE VALVES

W-404	Gate Valve and Valve Box (4")	Each
W-406	Gate Valve and Valve Box (6")	Each
W-408	Gate Valve and Valve Box (8")	Each
W-410	Gate Valve and Valve Box (10")	Each
W-412	Gate Valve and Valve Box (12")	Each

e) 500 SERIES, BUTTERFLY VALVES

W-514	Butterfly Valve and Valve Box (14")	Each
W-516	Butterfly Valve and Valve Box (16")	Each
W-518	Butterfly Valve and Valve Box (18")	Each
W-520	Butterfly Valve and Valve Box (20")	Each
W-524	Butterfly Valve and Valve Box (24")	Each
W-530	Butterfly Valve and Valve Box (30")	Each
W-536	Butterfly Valve and Valve Box (36")	Each
W-542	Butterfly Valve and Valve Box (42")	Each
W-548	Butterfly Valve and Valve Box (48")	Each

f) 600 SERIES, TAPPING & VALVE ASSEMBLY

W-604X4	Tapping Sleeve & Valve Assembly (4"X4")	Each
W-606X4	Tapping Sleeve & Valve Assembly (6"X4")	Each
W-606X6	Tapping Sleeve & Valve Assembly (6"X6")	Each
W-608X4	Tapping Sleeve & Valve Assembly (8"X4")	Each
W-608X6	Tapping Sleeve & Valve Assembly (8"X6")	Each
W-608X8	Tapping Sleeve & Valve Assembly (8"X8")	Each
W-610X4	Tapping Sleeve & Valve Assembly (10"X4")	Each
W-610X6	Tapping Sleeve & Valve Assembly (10"X6")	Each
W-610X8	Tapping Sleeve & Valve Assembly (10"X8")	Each
W-610X10	Tapping Sleeve & Valve Assembly (10"X10")	Each
W-612X4	Tapping Sleeve & Valve Assembly (12"X4")	Each
W-612X6	Tapping Sleeve & Valve Assembly (12"X6")	Each
W-612X8	Tapping Sleeve & Valve Assembly (12"X8")	Each
W-612X10	Tapping Sleeve & Valve Assembly (12"X10")	Each
W-612X12	Tapping Sleeve & Valve Assembly (12"X12")	Each
W-614X4	Tapping Sleeve & Valve Assembly (14"X4")	Each
W-614X6	Tapping Sleeve & Valve Assembly (14"X6")	Each

W-614X8	Tapping Sleeve & Valve Assembly (14"X8")	Each
W-614X10	Tapping Sleeve & Valve Assembly (14"X10")	Each
W-614X12	Tapping Sleeve & Valve Assembly (14"X12")	Each
W-616X4	Tapping Sleeve & Valve Assembly (16"X4")	Each
W-616X6	Tapping Sleeve & Valve Assembly (16"X6")	Each
W-616X8	Tapping Sleeve & Valve Assembly (16"X8")	Each
W-616X10	Tapping Sleeve & Valve Assembly (16"X10")	Each
W-616X12	Tapping Sleeve & Valve Assembly (16"X12")	Each
W-616X16	Tapping Sleeve & Valve Assembly (16"X16")	Each
W-618X4	Tapping Sleeve & Valve Assembly (18"X4")	Each
W-618X6	Tapping Sleeve & Valve Assembly (18"X6")	Each
W-618X8	Tapping Sleeve & Valve Assembly (18"X8")	Each
W-618X10	Tapping Sleeve & Valve Assembly (18"X10")	Each
W-618X12	Tapping Sleeve & Valve Assembly (18"X12")	Each
W-618X16	Tapping Sleeve & Valve Assembly (18"X16")	Each
W-620X4	Tapping Sleeve & Valve Assembly (20"X4")	Each
W-620X6	Tapping Sleeve & Valve Assembly (20"X6")	Each
W-620X8	Tapping Sleeve & Valve Assembly (20"X8")	Each
W-620X10	Tapping Sleeve & Valve Assembly (20"X10")	Each
W-620X12	Tapping Sleeve & Valve Assembly (20"X12")	Each
W-620X16	Tapping Sleeve & Valve Assembly (20"X16")	Each
W-624X4	Tapping Sleeve & Valve Assembly (24"X4")	Each
W-624X6	Tapping Sleeve & Valve Assembly (24"X6")	Each
W-624X8	Tapping Sleeve & Valve Assembly (24"X8")	Each
W-624X10	Tapping Sleeve & Valve Assembly (24"X10")	Each
W-624X12	Tapping Sleeve & Valve Assembly (24"X12")	Each
W-624X16	Tapping Sleeve & Valve Assembly (24"X16")	Each
W-630X4	Tapping Sleeve & Valve Assembly (30"X4")	Each
W-630X6	Tapping Sleeve & Valve Assembly (30"X6")	Each
W-630X8	Tapping Sleeve & Valve Assembly (30"X8")	Each
W-630X10	Tapping Sleeve & Valve Assembly (30"X10")	Each
W-630X12	Tapping Sleeve & Valve Assembly (30"X12")	Each
W-630X16	Tapping Sleeve & Valve Assembly (30"X16")	Each

g) 700 SERIES, PIPE RESTRAINTS

W-704	Pipe Restraints (4")	Each
W-706	Pipe Restraints (6")	Each
W-708	Pipe Restraints (8")	Each
W-710	Pipe Restraints (10")	Each
W-712	Pipe Restraints (12")	Each

W-714	Pipe Restraints (14")	Each
W-716	Pipe Restraints (16")	Each
W-718	Pipe Restraints (18")	Each
W-720	Pipe Restraints (20")	Each
W-724	Pipe Restraints (24")	Each
W-730	Pipe Restraints (30")	Each
W-736	Pipe Restraints (36")	Each
W-742	Pipe Restraints (42")	Each

h) 800 SERIES, TRANSITIONAL COUPLINGS

W-804	Transitional Couplings (4")	Each
W-806	Transitional Couplings (6")	Each
W-808	Transitional Couplings (8")	Each
W-810	Transitional Couplings (10")	Each
W-812	Transitional Couplings (12")	Each
W-814	Transitional Couplings (14")	Each
W-816	Transitional Couplings (16")	Each
W-818	Transitional Couplings (18")	Each

i) 900 SERIES, MISCELLANEOUS

W-901	Ductile Iron Fittings	Pounds
W-902	Fire Hydrant	Each
W-902-A	Fire Hydrant Assembly	Each
W-903-0-DB	Water Service Connection (< 1")	Each
W-903-1-DB	Water Service Connection (1")	Each
W-903-2-DB	Water Service Connection (2")	Each
W-903-3-DB	Water Service Connection (3")†	Each
W-903-4-DB	Water Service Connection (4")	Each
W-903-6-DB	Water Service Connection (6")	Each
W-903-8-DB	Water Service Connection (8")	Each
W-903-0-DD	Water Service Connection (< 1")	Each
W-903-1-DD	Water Service Connection (1")	Each
W-903-2-DD	Water Service Connection (2")	Each
W-903-3-DD	Water Service Connection (3")†	Each
W-903-4-DD	Water Service Connection (4")	Each
W-903-6-DD	Water Service Connection (6")	Each

W-903-8-DD	Water Service Connection (8")	Each
W-904-4-RS	Check Valve (4")	Each
W-904-6-RS	Check Valve (6")	Each
W-904-8-RS	Check Valve (8")	Each
W-904-10-RS	Check Valve (10")	Each
W-904-12-RS	Check Valve (12")	Each
W-904-4-MS	Check Valve (4")	Each
W-904-6-MS	Check Valve (6")	Each
W-904-8-MS	Check Valve (8")	Each
W-904-10-MS	Check Valve (10")	Each
W-904-12-MS	Check Valve (12")	Each
W-905-2	"Double Check Valve Assembly" (2")	Each
W-905-4	"Double Check Valve Assembly" (4")	Each
W-905-6	"Double Check Valve Assembly" (6")	Each
W-905-8	"Double Check Valve Assembly" (8")	Each
W-906-0	Water Meter & Meter Box (< 1")	Each
W-906-1	Water Meter & Meter Box (1")	Each
W-906-2	Water Meter & Meter Box (2")	Each
W-906-3	Water Meter & Meter Box (3")†	Each
W-906-4	Water Meter & Meter Box (4")	Each
W-906-6	Water Meter & Meter Box (6")	Each
W-906-8	Water Meter & Meter Box (8")	Each
W-906-0-A	Water Meter/Meter-Box Adjustment (< 1")	Each
W-906-1-A	Water Meter/Meter-Box Adjustment (1")	Each
W-906-2-A	Water Meter/Meter-Box Adjustment (2")	Each
W-906-3-A	Water Meter/Meter-Box Adjustment (3")†	Each
W-906-4-A	Water Meter/Meter-Box Adjustment (4")	Each
W-906-6-A	Water Meter/Meter-Box Adjustment (6")	Each
W-906-8-A	Water Meter/Meter-Box Adjustment (8")	Each
W-907-4	Removal & Disposal of existing AC Waterline (4")	Linear Foot
W-907-6	Removal & Disposal of existing AC Waterline (6")	Linear Foot
W-907-8	Removal & Disposal of existing AC Waterline (8")	Linear Foot
W-907-10	Removal & Disposal of existing AC Waterline (10")	Linear Foot
W-907-12	Removal & Disposal of existing AC Waterline (12")	Linear Foot
W-907-14	Removal & Disposal of existing AC Waterline (14")	Linear Foot
W-907-16	Removal & Disposal of existing AC Waterline (16")	Linear Foot
W-907-18	Removal & Disposal of existing AC Waterline (18")	Linear Foot

W-907-20	Removal & Disposal of existing AC Waterline (20")	Linear Foot
W-908	Abandonment of existing Waterline	Linear Foot
W-909-16	Price Brothers Adapter (16")	Each
W-909-18	Price Brothers Adapter (18")	Each
W-909-20	Price Brothers Adapter (20")	Each
W-909-24	Price Brothers Adapter (24")	Each
W-909-30	Price Brothers Adapter (30")	Each
W-909-36	Price Brothers Adapter (36")	Each
W-909-42	Price Brothers Adapter (42")	Each
W-909-48	Price Brothers Adapter (48")	Each
W-909-54	Price Brothers Adapter (54")	Each
W-909-60	Price Brothers Adapter (60")	Each
W-909-66	Price Brothers Adapter (66")	Each
W-909-72	Price Brothers Adapter (72")	Each
W-910-16	Price Brothers Pipe Joint Field Welding (16")	Each
W-910-18	Price Brothers Pipe Joint Field Welding (18")	Each
W-910-20	Price Brothers Pipe Joint Field Welding (20")	Each
W-910-24	Price Brothers Pipe Joint Field Welding (24")	Each
W-910-30	Price Brothers Pipe Joint Field Welding (30")	Each
W-910-36	Price Brothers Pipe Joint Field Welding (36")	Each
W-910-42	Price Brothers Pipe Joint Field Welding (42")	Each
W-910-48	Price Brothers Pipe Joint Field Welding (48")	Each
W-910-54	Price Brothers Pipe Joint Field Welding (54")	Each
W-910-60	Price Brothers Pipe Joint Field Welding (60")	Each
W-910-66	Price Brothers Pipe Joint Field Welding (66")	Each
W-910-72	Price Brothers Pipe Joint Field Welding (72")	Each

† Typically Jefferson Parish does not approve installation of any 3" Meter