

**ADDENDUM 1 TO ADVERTISEMENT OF BIDS & BID FORMS of Annual Water System Valve Bolt
Replacement Project Specification
ANNUL WATER SYSTEM VALVE BOLT REPLACEMENT PROJECT
SCOPE OF WORK**

Purpose: City of St. Charles, St. Charles, Illinois

00030 Advertisement for Bids: PART 1 GENERAL 1.1 Receipt of Bids A. Sealed bids will be received by the City of St. Charles at the Purchasing Department for the project entitled "Annual Water System Valve Bolt Replacement Project-City of St. Charles, Illinois" until 10:00 a.m. on Friday, March 21, 2014. The sealed bids will be publicly opened and read aloud immediately afterwards in the City Council Chambers, on the same date. Sealed bids shall be addressed to the City of St. Charles Purchasing Department, 2 East Main Street, St. Charles, Illinois 60174 and shall be labeled "Bid for Annual Water System Valve Bolt Replacement Project—City of St. Charles."

Work: The Work Description is unchanged. Section 02512 Water System Valve Rehabilitation was not delineated.

NOTICE: The bid has been rescheduled to 10:00 a.m. on Friday, March 21, 2014, to allow for the Section 02512 to be fully delineated.

SECTION 02512

WATER SYSTEM VALVE REHABILITATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Section includes the rehabilitation of existing water distribution system and hydrant auxiliary valves.
 - 1. All existing water mains and appurtenances shall be exclusively operated by the Owner.
- B. Related Sections:
 - 1. Section 02060 – Aggregate.
 - 2. Section 02315 – Excavation and Fill.
 - 3. Section 02320 – Backfill.
 - 4. Section 02324 – Trenching.

1.2 MEASUREMENT AND PAYMENT

- A. Distribution System Valve Bolt Replacement:
 - 1. Unit of Measure: Each
 - 2. Method of Measurement: By each distribution system valve located within a valve vault.
 - 3. Basis of Payment: At the Contract Unit Price per each distribution system valve with bolts replaced.
 - 4. Includes Costs of:
 - a. Mobilization.
 - b. Traffic Control and Protection.
 - c. All labor equipment and materials.
 - d. All dewatering and pumping.
 - e. Installation.
 - f. Cleanup and disposal of excess materials.
 - g. All other work or appurtenances needed to complete this pay item.
- B. Hydrant Auxiliary Valve Bolt Replacement – Type 1 (Parkway Restoration)
 - 1. Unit of Measure: Each
 - 2. Method of Measurement: By each hydrant auxiliary valve located more than 3 feet from the back of existing curb within the parkway but not within 4 feet of existing sidewalk.
 - 3. Basis of Payment: At the Contract Unit Price per each hydrant auxiliary valve of the type indicated with bolts replaced.
 - 4. Includes Costs of:
 - a. Mobilization.
 - b. Traffic Control and Protection.

- c. All labor equipment and materials.
- d. Excavation and trenching.
- e. Exploratory Trenching.
- f. All dewatering and pumping.
- g. Installation.
- h. Backfill.
- i. Topsoil furnishing and placement.
- j. Seeding.
- k. Erosion Control.
- l. Cleanup and disposal of excess materials.
- m. All other work or appurtenances needed to complete this pay item.

C. Hydrant Auxiliary Valve Bolt Replacement – Type 2 (Parkway and Pavement Restoration)

- 1. Unit of Measure: Each
- 2. Method of Measurement: By each hydrant auxiliary valve located within 3 feet from the back of existing curb within the parkway but not within 4 feet of existing sidewalk.
- 3. Basis of Payment: At the Contract Unit Price per each hydrant auxiliary valve of the type indicated with bolts replaced.
- 4. Includes Costs of:
 - a. Mobilization.
 - b. Traffic Control and Protection.
 - c. All labor equipment and materials.
 - d. Excavation and trenching
 - e. Exploratory Trenching.
 - f. All dewatering and pumping.
 - g. Installation.
 - h. Backfill.
 - i. Trench Backfill under or within 2' of paving.
 - j. Removal and replacement of existing concrete curb and gutter.
 - k. Removal and replacement of existing hot mix asphalt pavement.
 - l. Topsoil furnishing and placement.
 - m. Seeding.
 - n. Erosion Control.
 - o. Cleanup and disposal of excess materials.
 - p. All other work or appurtenances needed to complete this pay item.

D. Hydrant Auxiliary Valve Bolt Replacement – Type 3 (Parkway, Pavement and Sidewalk Restoration)

- 1. Unit of Measure: Each
- 2. Method of Measurement: By each hydrant auxiliary valve located within 3 feet from the back of existing curb within the parkway and within 4 feet of existing sidewalk.
- 3. Basis of Payment: At the Contract Unit Price per each hydrant auxiliary valve of the type indicated with bolts replaced.

4. Includes Costs of:
 - a. Mobilization.
 - b. Traffic Control and Protection.
 - c. All labor equipment and materials.
 - d. Excavation and trenching
 - e. Exploratory Trenching.
 - f. All dewatering and pumping.
 - g. Installation.
 - h. Backfill.
 - i. Trench Backfill under or within 2' of paving.
 - j. Trench backfill under sidewalk.
 - k. Removal and replacement of existing concrete curb and gutter.
 - l. Removal and replacement of existing hot mix asphalt pavement.
 - m. Removal and replacement of existing sidewalk.
 - n. Topsoil furnishing and placement.
 - o. Seeding.
 - p. Erosion Control.
 - q. Cleanup and disposal of excess materials.
 - r. All other work or appurtenances needed to complete this pay item.

1.3 REFERENCES

- A. References are made to the following:
 1. Standard Specification for Water and Sewer Main Construction in Illinois (SSWSMC), Current Edition (Illinois Society of Professional Engineers, etal).
 2. Standard Specifications for Road and Bridge Construction, Current Edition (Illinois Department of Transportation).
 3. American Association of State Highway and Transportation Officials (AASHTO):
 - a. T180, Moisture-Density Relations of Soils Using a 10 lb. Rammer and an 18" Drop.
 4. American Society of Mechanical Engineers (ASME):
 - a. B16.18, Cast Copper Alloy Solder Joint Pressure Fittings.
 - b. B16.22, Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.
 5. ASTM International (ASTM):
 - a. B88, Seamless Copper Water Tube.
 - b. D698, Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using a 5.5 lb. Rammer and 12" Drop.
 - c. D1557, Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using a 10 lb. Rammer and 18" Drop.
 6. American National Standards Institute (ANSI) / American Water Works Association (AWWA):
 - a. A21.51/C151, Ductile Iron Water Main.
 - b. C150, Thickness Design of Ductile Iron Pipe.
 - c. A21.53/C153, Ductile Iron Compact Fittings for Water Service.
 - d. C110, Ductile Iron and Gray Iron Fittings.
 - e. C111, Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings.

- f. C104, Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water.
- g. C600, Installation of Ductile Iron Water Mains and Their Appurtenances.
- h. A21.5/C105, Polyethylene Encasement for Ductile Iron Pipe Systems.
- i. C502, Dry Barrel Fire Hydrants.
- j. C509, Resilient Seated Gate Valves for Water Supply Service

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the City of St. Charles Municipal Code and applicable sections of the Standard Specifications for Water and Sewer Main Construction in Illinois (SSWSMC), Current Edition.

1.5 SUBMITTALS

- A. Section 01340 – Submittals: Submittal procedures.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves and accessories.
- C. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.

1.6 CLOSEOUT SUBMITTALS

- A. Section 01700 – Execution Requirements: Closeout procedures.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 – Product Requirements: Product storage and handling requirements.
- B. Deliver and store valves in shipping containers with labeling in place.

PART 2 PRODUCTS

2.1 DISTRIBUTION SYSTEM VALVES

- A. Valve Manufacturers:
 - 1. Clow Water Systems Corporation
 - 2. Waterous Company
- B. Bolt Materials:
 - 1. 304 Stainless Steel.

2.2 HYDRANT AUXILIARY VALVES

- A. Valve Manufacturers:
 - 1. Clow F-2450
 - 2. Mueller No. H-10357

- B. Bolt Materials:
 - 1. 304 Stainless Steel.

2.3 BEDDING AND COVER MATERIALS

- A. Bedding: As indicated in the City of St. Charles Municipal Code and in accordance with Standard Specifications for Water and Sewer Main Construction in Illinois (SSWSMC) Current Edition.
- B. Cover: Water main shall have a minimum cover of five (5) feet and maximum bury depth of ten (10) feet, unless approved by Owner.
- C. Fill: As indicated in the City of St. Charles Municipal Code and in accordance with SSWSMC.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 1300 – Administrative Requirements: Coordination and project conditions.
- B. Verify that building service connection and municipal utility water main size, location and invert are as indicated.

3.2 PREPARATION

- A. Contact the Owner at least 48 hours prior to the start of construction.

3.3 INSTALLATION – DISTRIBUTION SYSTEM VALVE BOLT REPLACEMENT

- A. Remove standing water from valve vaults to allow access to valve.
- B. Brace valves located within valve vaults prior to removal of valve bolts.
- C. Remove existing valve bolts and replace with type 304 stainless steel bolts.

3.4 INSTALLATION – HYDRANT AUXILIARY VALVE BOLT REPLACEMENT

- A. Excavate in accordance with SSWSMC.

- B. Remove and replace existing concrete curb and gutter, hot mix asphalt and/or sidewalk as required per the valve bolt replacement type.
- C. Remove existing valve bolts and replace with type 304 stainless steel bolts.
- D. Replace existing valve box stabilizer and valve box. Notify the City of St. Charles Water Department of damaged materials prior to replacement.
- E. Replace bedding material and backfill around sides and to top of pipe and valve with cover fill, tamp in place and compact to 95% Modified Proctor.
- F. Maintain optimum moisture content of fill materials to attain required compaction density.

3.5 FIELD QUALITY CONTROL

- A. Section 01700 – Execution Requirements: Testing, adjusting, and balancing.
- B. Adhere to the requirements of the City of St. Charles Municipal Code and SSWSMC.
- C. Compaction testing shall be in accordance with ASTM D1557.
- D. If tests indicate Work does not meet specified requirements, remove Work, replace, and retest.
- E. Frequency of Test: As directed by Owner.

END 02512