

CITY OF SWISHER

SUPPLEMENTAL SPECIFICATIONS

TO

**IOWA STATEWIDE URBAN STANDARD
SPECIFICATIONS FOR PUBLIC IMPROVEMENTS**

January 2021

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DIVISION 1 – GENERAL PROVISIONS AND CONVENANTS

SECTION 1070 – LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

1.03 PERMITS AND LICENSES:

Replace Article A with the following:

- A. The Contractor shall procure and pay for all necessary permits and licenses for the construction of the work and for temporary excavations, obstructions, enclosures, and street openings arising from the construction and completion of the work described in the Contract Documents. The Contractor shall be responsible for all violations of the law for any cause in connection with the construction of the work or caused by the obstruction of roads, streets, highway, or sidewalks, and shall give all requisite notices to the Jurisdiction or other public authorities in connection therewith.

Add Article B with the following:

- B. For work within street right-of-way, or public easements, procurement and payment for a permit from the Jurisdiction shall be required. The cost for all Jurisdictional permits and licenses will be waived for work associated with projects for the Jurisdiction, or work associated with a new house or business for which a building permit has been obtained.

3.01 PERFORMANCE, PAYMENT AND MAINTENANCE BOND:

Replace Article A and Article B with the following:

- A. The lowest responsive, responsible bidder shall be required to file, before the contract is awarded, a surety bond for performance and payment, and a surety bond for maintenance on forms provided by the Jurisdiction. The penal sum for a Performance and Payment Bond shall be one hundred and twenty percent (120%) of the total bid amount, or of the opinion of probable construction cost (as approved by the Jurisdiction) for private developments. The penal sum for a Maintenance Bond shall be one hundred percent (100%) of the total bid amount or of the opinion of probable construction cost (as approved by the Jurisdiction) for private developments. Said bonds shall be executed by a corporation authorized to contract as a surety in the State of Iowa. Said bonds shall be filed in the specified number of copies as part of the executed contract documents for the Jurisdiction's approval and award.
- B. Said Performance and Payment Bond shall provide that the Contractor shall well and satisfactorily perform and execute the work in all respects, according to the contract documents therefore, and according to the time and conditions of the contract documents, and also that the Contractor shall pay all debts incurred by it in the

prosecution of such work, including those for labor and materials furnished. Said Maintenance Bond shall provide for a period of four (4) years for street pavement improvements, and for a period of two (2) years for all other improvements. Said Maintenance Bond shall remain in full force for the entire maintenance period. Said bonds shall in all cases comply with the laws of the State of Iowa and shall be subject to the approval of the Jurisdiction.

DIVISION 4 – SEWERS AND DRAINS

SECTION 4010 – SANITARY SEWERS

2.01 SANITARY SEWER (GRAVITY MAINS):

Replace Article H with the following:

H. Vitrified Clay Pipe (VCP) 8 inch to 42 inch:

1. Vitrified Clay Pipe (VCP) is not approved for use.

3.06 SANITARY SEWER SERVICE STUBS:

Replace Article C.5 with the following:

5. For undeveloped properties, place watertight stopper, cap, or plug in end of sanitary sewer service. Mark the end of the service line with a metal post, #4 reinforcing steel, or painted wood 4" x 4" at least 24 inches in length buried within one foot of the finished grade.

DIVISION 5 – WATER MAINS AND APPURTENANCES

SECTION 5020 – VALVES, FIRE HYDRANTS, AND APPURTENANCES

2.01 VALVES:

Add Article A.4 with the following:

4. **Operating Nuts:** Valves shall be furnished with 2 inch square operating nuts. Use Cor-Ten steel or Jurisdiction approved equal.

2.02 FIRE HYDRANT ASSEMBLY:

Replace Article B with the following:

- B. **Manufacturers:** Waterous Trend Traffic (WB77) or Jurisdiction approved equal. Flushing hydrants shall be approved by the Jurisdiction.

Replace Article C.6 with the following:

- 6. Items to be Specified:** The following items have been specified by the Jurisdiction.
 - a. Operating Nut: 1 1/2 inch, standard pentagon.
 - b. Pumper Nozzle: One, 4 1/2 inches in diameter.
 - c. Nozzle Threads: National standard hose threads.
 - d. Main Valve Nominal Opening Size: 5 1/4 inches minimum.
 - e. Packing: Conventional or O-Ring.
 - f. Working Pressure: 150 PSI.
 - g. Type of Shutoff: Compression.

Replace Article D.2 with the following:

2. Above grade exterior color shall be yellow.

3.03 FIRE HYDRANT:

Replace Article D.2 with the following:

2. Set bottom of breakaway flange between 2 and 5 inches above finished grade.
Distance from finished grade to top of connecting pipe shall be 5 1/2 feet.

DIVISION 6 – STRUCTURES FOR SANITARY AND STORM SEWERS

SECTION 6010 – STRUCTURES FOR SANITARY AND STORM SEWERS

1.08 MEASUREMENT AND PAYMENT:

Replace Article A.3 with the following:

3. **Includes:** Unit price includes, but is not limited to, excavation, furnishing bedding material, placing bedding and backfill material, compaction, base, structural concrete, reinforcing steel, precast units (if used), inverts, pipe connections, infiltration barriers, castings, and adjustment rings.

PART 2 – PRODUCTS

Add Article 2.18:

2.18 ADDITIONAL MATERIALS FOR STORM SEWER MANHOLES

A. Infiltration Barrier:

1. External Chimney Seal:

a. Rubber Sleeve and Extension:

- 1) Corrugated; minimum thickness of 3/16 inches, according to ASTM C 923.
- 2) Minimum allowable vertical expansion of at least 2 inches.

- b. **Compression Bands:**
 - 1) One-piece band assembly to compress sleeve or extension against manhole and casting surfaces.
 - 2) 16 gauge ASTM C 923, Type 304 stainless steel, minimum 1 inch width, minimum adjustment range of 4 inches more than the manhole outside diameter.
 - 3) For standard two-piece castings, shape top band to lock sleeve to manhole frame's base flange. For three-piece adjustable castings, shape top band to lock sleeve to upper piece of adjustable frame.
 - 4) Stainless steel fasteners complying with ASTM F 593 and 594, Type 304.
- 2. **Internal Chimney Seal:**
 - a. **Rubber Sleeve and Extension:**
 - 1) Double pleated, minimum thickness 1/8 inch thick, according to ASTM C 923.
 - 2) Minimum allowable vertical expansion of at least 2 inches.
 - 3) Integrally formed expansion band recess top and bottom with multiple sealing fins.
 - b. **Expansion Bands:**
 - 1) One-piece band assembly to compress sleeve or extension against manhole and casting surfaces to make a watertight seal.
 - 2) 16 gauge ASTM C 923, Type 304 stainless steel, minimum 1 inch width, minimum adjustment range of 2 inches more than the manhole inside diameter.
 - 3) Positive stainless steel locking mechanism permanently securing the band in its expanded position after tightening.
- 3. **Molded Shield:**
 - a. **Barrier Shield:**
 - 1) Medium density polyethylene, according to ASTM D 1248.
 - 2) Certified for 40,000 pound proof-load according to AASHTO M 306.
 - 3) Diameter to match cone section and internal dimension of casting.
 - b. **Sealant:** Butyl material meeting ASTM C 990.

3.01 GENERAL REQUIREMENTS FOR INSTALLATION OF MANHOLES AND INTAKES:

Replace Article K with the following:

- K. **Infiltration Barrier:** Install on sanitary sewer and storm sewer manholes.
 - 1. **Internal or External Chimney Seal:**
 - a. Do not use external chimney seal if seal will be permanently exposed to sunlight.
 - b. Extend seal 3 inches below the lowest adjustment ring.
 - c. Extend seal to 2 inches above the flange of the casting for a standard two-piece casting, or 2 inches above the top of the base section of the casting for an adjustable three-piece casting.
 - d. Use multiple seals, if necessary.
 - e. Install compression bands (external Chimney seal) or expansion bands (internal chimney seal) to lock the rubber sleeve or extension into place and to provide a positive watertight seal. One tightened, lock the bands into place. Use only manufacturer recommended installation tools and sealants.

2. Molded Shield:

- a. Clean surface of structure cone section.
- b. Apply sealant to the top surface of the cone section. Use sufficient sealant to accommodate flaws in the surface of the cone section.
- c. Cut molded shield to height by adding the dimensions of the adjustment rings and casting height. Be sure not to interfere with seating of the lid into the casting frame.
- d. Seat the molded shield against the sealant on the cone section.
- e. Add adjustment rings and casting to meet final grade.

