



City of Carmel, Indiana
South Hazel Dell Parkway Water Main
Contract No. 75

ADDENDUM 1

June 23, 2009

Plan holders on the South Hazel Dell Parkway Water Main, Contract No. 75, for the City of Carmel, Indiana are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

Specifications

Add the attached Section C-02557 (3 pages) on Valves.

Section C-02555, Paragraph 3.03 a); Replace the first sentence with; "Detectable marking tape shall be installed in the trench of each pipe installed by means of open cut".

Section C-02555, Paragraph 3.06.: The Contractor will not be charged for reasonable use of drinking water to flush and pressure test the water mains. The Contractor will be charged for the water needed for repeated flushing and testing.

Section C-02555, Paragraph 4.01 B.: Change 1800 degrees to 180 degrees.

Section C-02555, Paragraph 4.01.: The 4-in. fiber optic conduit shall be installed by means of open cut methods unless the Contractor elects to install by horizontal directional drill methods for the same unit price as indicated in the Bid. The open cut method of installation from sta. 20+50 to sta. 44+60 shall be trenching with a suitable trenching machine to reduce impact to trees and vegetation. The trench shall be backfilled with select excavated material, no bedding material or special backfill is required. The horizontal location of the 4-in. fiber optic conduit can vary from the planned location up to 5-ft. (+/-) to reduce impact to mature trees.

Drawings

Sheet 2: A note on Sheet 2 states, "Contractor shall take measures to protect all trees" This note is intended to apply to all trees that are individually shown and/or identified on sheets 1 through 4. Bore pits, valves and hydrants should be located to avoid removing these trees. It is the City's intent to save as many trees as possible during construction. Trees and vegetation that are not specifically shown may need to be removed as part of the Clearing & Grubbing procedures. The City wants notification prior to removal of any trees 8-in. dia. or larger.

Sheet 4: In the profile view at sta. 36+30, change the size of the existing 30-in. force main to 36-in.

Sheet 6: In the Trench Detail, change the designation of bedding material from No.8 stone to sand. Sand shall be installed as bedding material to 1-ft. over the pipe.

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE A-B-1 OF THE BID.

SECTION 02557

VALVES

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes furnishing and installing valves, valve boxes, floor boxes, extension stems, and appurtenances as specified, shown on the drawing.
- B. Valves in hydrant assemblies are included in this Item.
- C. Related Sections:
 - 1. 01300 - Submittals
 - 2. 02555 - Pipe

1.02 SUBMITTALS

- A. Submittals shall be in accordance with the requirements of Sections 01300 and shall include:
 - 1. Shop Drawings for Review:
 - a. Manufacturer's assembly drawings and parts list including model number and materials of construction.
 - 2. Information for the Record:
 - a. A certificate of compliance with AWWA C-509, or AWWA C-504 shall be submitted, if required by the Engineer.
 - b. Certification of NSF approval.

PART 2 PRODUCTS

2.01 GATE VALVES

- A. Gate valves shall be cast iron body, bronze mounted, AWWA C-509 resilient seat, nonrising stem type with mechanical joint ends by Mueller, American or Dezurik.
- B. Valves shall be furnished with an O-ring seal incorporating two rubber O-ring seals.
- C. Valves shall be designed for 150 psi working pressure and shall be shop tested at 300 psi pressure, with the pressure held on the valve for at least one minute.
- D. Unless specified otherwise, valves shall be designed to open in counterclockwise directions with an arrow indicating the direction for opening. Wrench nuts shall be 2-inch square.
- E. Iron parts shall be painted before leaving the shop with two coats of acceptable high grade bituminous paint or epoxy paint.
- F. Bolts and nuts on buried valves shall be a low alloy steel cathodic to the valve body and having a minimum yield strength of 45,000 psi. All other nuts and bolts shall be low carbon steel conforming with the mechanical and chemical requirements of ASTM A-307, Grade B.

2.02 BUTTERFLY VALVES

- A. Except as modified or supplemented herein, the butterfly valves and operators shall conform to the requirements specified in AWWA C-504 and be by Mueller, American or Dezurik..
- B. The valves shall have an open/shut function in a buried condition. The valves shall be designed for a normal working pressure of 150 psi with a maximum pressure differential

of 150 psi. The design wide open valve flow shall be for free discharge in either direction.

- C. The valve bodies shall be cast iron conforming to ASTM A-48, Class 40, or ductile iron conforming to ASTM A-536, Grade 65-45 12. The ends shall either be Class 125 cast iron flanges with suitable adapters or mechanical joints conforming to ANSI 21.11.
- D. The valve shafts shall be continuous, one piece shaft type extending through the valve disc hubs. Shafts shall be of 304 stainless steel.
- E. The valve disc shall be cast ductile iron with a 304 stainless steel seating edge.
- F. The seats shall be of rubber of BUNA-N material and retained to the body of the valve by a stainless steel clamp ring.
- G. The valve shall be equipped with a thrust bearing, other than the seat, to hold the disc in the center of the valve seat.
- H. The operator shall be sized in accordance with AWWA C-504 and be designed for underground service. The operator gear shall be designed for a maximum pull-push of 25 lbs on a standard tee wrench. Traveling nut type operators are not acceptable.
- I. Unless specified otherwise, valves shall operate in a counterclockwise direction to open the valve. Wrench nuts shall be AWWA 2-inch square. The operator and stem shall be enclosed by a valve box as specified herein.

2.03 ACCESSORIES

A. Valve Boxes:

- 1. All buried valves shall be provided with valve boxes. Valve boxes shall be standard, three-piece screw type, cast iron adjustable boxes, with tops of boxes set flush to finished grade. Valve boxes shall not be less than 5-inch in diameter and shall have a minimum thickness at any point of 3/16-inch. The cover shall have cast thereon an appropriate name for the kind of service for which the valve is used.
- 2. A valve box shall be provided for each curb stop. At least three keys shall be furnished to operate curb stops.
- 3. All parts of valve boxes, bases, and covers shall be coated by dipping in bituminous varnish.
- 4. Extension stems shall be provided for buried valves when the operating nut is 5-feet or more below finished grade. Extension stem shall extend to within 6-inch of the ground surface, shall be provided with spacers which will center the stem in the valve box, and shall be equipped with 2-inch square wrench nut.
- 5. Valve boxes shall be cast iron three-piece screw type with cover marked "Water" by Union or Tyler. Posi Caps or Boxlocks shall be installed with each valve.

PART 3 EXECUTION

3.01 COORDINATION

A.

3.02 INSTALLATION

A. Gate and Butterfly Valves:

- 1. Valves shall be installed in their respective positions, free from distortion and stress. Connecting joints shall be restrained as specified in Section 02555.
- 2. Where specified, the anode caps shall be installed on exposed bolts and nuts on valve.

B. Accessories:

1. Valve Boxes shall be installed in a plumb position and in alignment with the operating nut.
2. Valve Box with extension stems
3. Extensions stems and stem guides shall be in alignment with operating nut and prevent binding and stresses on connecting pins.

PART 4 SPECIAL PROVISIONS

N/A

END OF SECTION