

## **SECTION 2225 - VALVE BOXES**

### **PART 1 - GENERAL**

#### **1.1 SCOPE OF WORK:**

Provide all labor, materials, equipment and services required to furnish and install valve boxes at valve locations shown on the drawings, designated by the ENGINEER, and/or specified herein.

#### **1.2 SUBMITTALS:**

- A. Descriptive literature, catalog cuts, and dimensional prints clearly indicating all dimensions and materials of construction, shall be submitted on all items specified herein to the ENGINEER for review before ordering.
- B. A letter of certification shall be provided by the manufacturer to the ENGINEER stating compliance with these specifications.
- C. At the time of submission, the CONTRACTOR shall, in writing, call ENGINEER's attention to any deviations that the submittals may have from the requirements of the ENGINEER's Contract drawings and specifications.

### **PART 2 - PRODUCTS**

#### **2.1 VALVE BOXES:**

- A. Cast iron valve boxes shall be installed for all valves installed underground. Only valve boxes manufactured of cast iron will be allowed. The casting shall be manufactured of clean, even grain, grey cast iron with a minimum tensile strength of 21,000 psi. The valve box shall be smooth, true to pattern, free from blowholes, sand holes, projections and other harmful defects.
- B. Valve boxes shall have a minimum 5-1/4 inch shaft, a weight of at least 60 pounds and a wall thickness of at least 1/4". Valve boxes shall be of two piece design including bottom section and top section with lid and shall be adjustable to fit the depth of earth cover over the valve. Three-piece valve boxes will be allowed for excessively deep valves.
- C. Valve boxes shall be accurately centered over valve operating nuts, and backfill shall be thoroughly tamped around them. They shall be set vertically plumb and properly adjusted so that the tops of boxes will be at grade in any paving, walk, road or ground surface.
- D. Valve boxes shall be designed so as to prevent the transmission of surface loads directly to the valve or piping. Valve boxes inside paving, walks, or road surfaces shall not be set on the valves but shall be supported on crushed stone fill.
- E. The seating surface of both the lid cover and the top section of the valve box shall be cast so the cover will not rock after it has been seated and will fit tightly with little or no play in the fit. Valve boxes shall have the word "WATER" cast into the covers.
- F. Wherever valve boxes fall outside of the roadway pavement, the top of the box shall be set in a concrete slab 18" x 18" x 6" thick (or 18" circular x 6" thick) with the top of the slab and box flush with the top of the ground. This provision shall apply to all new and all existing valve boxes that fall within the limits of the contract, unless otherwise stated on the plans or ordered by the ENGINEER.
- G. Valve boxes shall have extension stems, where necessary, when operating nut is raised to be within 4 feet of the existing grade. Extensions must be securely attached to the operating nut so the shaft will not pull off of the operator.

**PART 3 - BASIS OF PAYMENT**

Payment for valve boxes is not a pay item. The cost of valve boxes and concrete slabs shall be part of the overall unit price each for the different type and size valves shown on the drawings.

END OF SECTION