

## **ITEM 05615.77 M - BOLLARD CHAINS AND LOCKS**

### **Description:**

Under this item the contractor shall furnish and install chain, and any fittings, steel plates and / or locking devices and hardware as shown on the plans and as ordered by the Engineer.

### **Materials:**

Chain shall be straight linked, case hardened welded steel chain, of the size and finish shown on the plans.

Nuts, bolts, and washers shall meet the requirements of ASTM A307 and be galvanized in accordance with subsection 719-01, Galvanized Coatings and Repair Methods, Type I.

Unless shown otherwise on the plans, the locking device shall be a 5 pin tumbler, complete with a rust proof brass cylinder. The shackle shall have a minimum diameter of 11 mm with a minimum vertical clearance of 30 mm. The lock case shall be either forged brass or cadmium plated laminated steel. The locking device shall be approved by the Engineer and furnished with 3 keys.

Basis of acceptance of all materials shall be the Engineer's written approval.

### **Construction Details:**

Case hardened steel chain shall be installed in accordance with the details shown on the plans.

The fittings, steel plates, and / or hardware shall be installed into the bollards as indicated. Extruded ends shall be hand cut and threads damaged to prevent removal of the nut. The chain shall be attached to the bollard post as shown.

### **Method of Measurement:**

The quantity of Bollard Chain to be paid for under this item shall be the number of meters of chain installed in accordance with the plans or as directed by the Engineer.

### **Basis of Payment:**

The unit price per meter shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work including fittings and locking devices.