

## **SECTION 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS**

### **PART 1 - GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. This sections is a Division 26 Basic Electrical Materials and Methods section and is part of each Division 26 section making reference to electrical connections for equipment specified herein.

#### **1.02 SCOPE OF WORK**

- A. The work shall include all labor and material for a completely interconnected system of grounding including the following:
  - 1. Ground ring buried in the earth around the perimeter of the building consisting of ground rods and bare cable and connections as indicated by the drawings.
  - 2. Equipment "Green Wire" personnel safety ground.

### **PART 2 - PRODUCTS**

#### **2.01 GROUND RODS**

- A. Ground Rods shall be 5/8-inch diameter by 10-foot long copper clad steel, with minimum 27 percent of the rod weight in the copper cladding.
- B. The ground electrode ring conductors (outside) shall be bare tinned solid or stranded copper wire as indicated by the drawings.

### **PART 3 - EXECUTION**

#### **3.01 INSTALLATION**

- A. Ground rods shall be driven vertically into the earth in the bottom of the trench dug for the footings.
- B. The ground electrode ring shall be placed in the trench to form a continuous ring around the building connected to the ground rods.
- C. Extensions from the electrode ring shall enter the building through PVC conduit sleeves.
- D. Cables shall be formed so that all radius bends are not less than 12-inches.
- E. Connections generally shall be made by the exothermic process such as CADWELD or THERMALWELD.

1. Connections to door frames and similar pieces of equipment where they are completely accessible may be made with T & B two-hole tongue compression lugs.
- F. Provide an equipment "Green Wire" personnel safety ground consisting of an insulated copper conductor in each branch circuit and feeder conduit.
- G. The equipment grounding "green wire" shall be used to connect electrical equipment and the electrical circuit network to a system of grounding electrodes, rings, etc.
- H. All exposed metallic parts and systems shall be effectively bonded together to form an electrically continuous and conductive path, with adequate capacity to safely conduct any exposed currents to the interconnected grounding system.
- I. Equipment bonding jumpers of suitable capacity shall be used to connect all metallic conduits, enclosures, and supporting devices to limit potential to ground.
- J. Cable supports for grounding conductors shall be such that they do not form a continuous metallic ring around the conductor.

**END OF SECTION 260526**