

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish and install proper grounding systems for the entire electrical installation.

1.02 REFERENCE DOCUMENTS

- A. The Special Provisions for Electrical Work are hereby made a part of this Section of the Work. Refer to Section 16010.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Special attention is directed to Article 250 and Article 517 National Electrical Code (NFPA-70) for sizing and connecting of the grounding systems.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Grounding conductors shall be green colored insulated annealed copper sized, unless specifically indicated otherwise, with an ampacity of at least 50 percent of feeder supplying the equipment to be grounded and no ground wire shall be smaller than No. 6 except, where the feeder supplying the equipment is smaller than No. 6, the grounding conductor in that case shall be the same size as the feeder conductor.
- B. System Ground connections shall be Burndy Type GAR or equal.
- C. Cable connections shall be solderless, bolted pressure connectors.
- D. A grounding conductor shall be installed in every conduit. All conduit, boxes, fixtures, etc. shall be bonded to the common grounding bus. At boxes provide Appleton or equal, green head, grounding screws. All fluorescent fixture ballast housings shall be securely bonded to the ground system.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. The common Ground Bus is defined as the main Ground Bus located within the Building Service Entrance Switchgear. This shall be the common Ground point for all ground connections. Stray grounds to the Building frame and/or structural members will not be permitted. A separate color coded insulated grounding conductor shall be run in each and every Raceway as noted on the accompanying drawings and shown in the panel Schedules. The Grounding conductor shall be of the same insulation as the circuit conductors sized in accordance with Article 250 NEC and as illustrated on the drawings.

- B. In the Lighting System, BX pigtails or Aluminum grounds will not be permitted. As such six foot fixture pigtails shall be installed in flexible Steel conduit "Greenfield" utilizing green coded copper grounding conductors. Fluorescent fixture ballasts shall be grounded by bonding jumper from the fixture frame to the ballast retaining bolt.

- C. Testing
 - 1. At the completion of the Grounding System, Meggar test all grounding to the satisfaction of the Architect and Engineer. The Ground System shall be Meggar 5 OHMS or less

END OF SECTION