SECTION 260526 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL:

1.1 SCOPE:

A. Grounding and bonding of the electrical power system.

1.2 GENERAL:

A. The power distribution system shall be grounded at each voltage level. The conduit and neutral conductors of the wiring systems and all electrical equipment shall be grounded. The ground connection of the electrical system neutral and conduit system shall be made at the main service switchboard or main power device.

B. Each conductive, non-current carrying, part of the electrical system shall be bonded to an equipment grounding conductor sized in accordance with NEC.

C. The raceway system shall not be relied on as the sole grounding path for ground continuity. A green grounding conductor, properly sized per NEC Table 250-122, shall be run in all raceways to ground each conductive, non-current carrying part of the electrical power system. This conductor shall be bonded to each metallic conduit, box and cabinet that is part of the related power system raceway.

1.3 TESTS:

A. Test each circuit grounding conductor for continuity and direct path to earth. Refer to Section 260235 “Electrical Testing.”

PART 2 - PRODUCTS:

2.1 GENERAL:

A. All products shall be new and listed for the use intended.

B. Grounding conductors, where insulated, shall be colored solid green. Conductors intended as neutral shall be colored solid white on 120/208V, or 120/240V circuits and natural gray on 277/480V circuits.

C. Grounding connector fittings shall be listed for the intended use.

D. Ground rods shall be copper-clad steel rods not less than 3/4 inch in diameter and not less than 10 feet long. The rods shall be rolled to a commercially round shape from welded copper clad steel manufactured by the electro-forming process and shall have a hard, clean, and smooth continuous copper surface. Ground rods shall be sectional type with cone shape point and shall

be die stamped near top with the name or trademark of the manufacturer and the length of the rod in feet.

PART 3 - EXECUTION:

3.1 INSTALLATION AND WORKMANSHIP:

A. Installation of Grounding Rods: Grounding rods shall be installed with top of rod not less than 24 inches below grade, unless otherwise noted.

B. Installation of Connectors: Connectors shall be installed in strict accordance with manufacturer's instructions.

C. Bond grounding rod at each fixture with #6 AWG copper wire to fixture concrete base re-bar, circuit equipment grounding conductor, metal pole and fixture surge protection system.

END OF SECTION 260526