SECTION 260523 – WIRE AND CABLE, 31V TO 2000V

PART 1 - GENERAL

1.1 SCOPE

A. Power and control systems, A-C or D-C, for voltages from 31 volts to 2000 volts line-to-ground.

B. Does not apply to instrumentation or communication signal conductors, or other signal systems where special conductors are required.

PART 2 - PRODUCTS

2.1 GENERAL

A. Underwriters Laboratory labeled.

B. Comply with ANSI C33.80 (UL-83).

C. All copper shall be soft annealed per ASTM B 33-81, stranded per ASTM B 8-81.

2.2 SINGLE OCNDUCTOR (600 volts)

A. Power, No. 12 and No. 10 AWG

1. Materials: Stranded copper conductor, RHW insulation.
2. Colors:Neutral-white, phase A-Black, phase B-red, phase C-blue. Other colors permissible by the NEC for special identification.

B. Power, No. 8 to No. 4 AWG

1. Materials: Stranded copper conductor, RHW insulation.
2. Color: Black. (Identify phases or other distinctions with colored tape.)

C. Power, No. 2 AWG and Larger

1. Materials: Stranded copper conductor. RHW insulation.
2. Color:Black. (Identify phases or other distinctions with colored tape.)

D. Control, above 30 volts

1. Material:Stranded copper, No.14 AWG, or as otherwise indicated. THWN-THHN insulation.
2. Colors:Any colors other than green, black, red, blue, white, or other color selected for power.

E. Multi-Conductor Assemblies: Where indicated, type MC or non-metallic jacketed of the above specified conductors as noted on the Drawings.

2.3 TERMINATIONS AND SPLICES

A. Lighting and Receptacle Circuits: Splices in No. 14, No. 12, and No. 10 AWG wire sizes may be insulated screw-on type connectors (wire nuts), with square-edge live-action spring. Ideal 451 or 452, or equal.

B. All Others: Crimp or bolted compression type connectors, terminal lugs, and splices with insulating covering.

PART 3 - EXECUTION

3.1 CONNECTIONS AND TERMINATIONS

A. General: Install splices and taps only in junction boxes or access enclosures.

B. Outdoor Connections: Wrap or seal cable connection with insulating tape or other means to prevent moisture entering cable.

C. Tape Insulation: Where tape is used as the splice or connector insulation, wrap tape to 1 1/2 times the thickness of the conductor insulation.

3.2 IDENTIFICATION

A. Identify all conductors at each terminal or splice location using pre-printed sleeves or tape for wire number or terminal number as follows:

1. Single Phase Power: Panel and circuit number; label neutrals when more than one neutral is carried in the same conduit.
2. Three Phase Branches and Motor Leads: L1, L2, L3, or T1, T2, T3, as applicable.
3. Control: Cable or terminal number.

END OF SECTION 260523