PART 1 - GENERAL

1.1 Related Work

.1 General requirements: Division 1

.2 Refer to other specification sections for related work.

PART 2 - PRODUCTS

2.1 Wire & Cable

.1 Wire and cable shall conform fully to the latest specifications of the Canadian Standards Association (CSA), Electrical & Electronic Manufacturers Association of Canada, (EEMAC) the Insulated Power Cable Engineers Association (IPCEA), and the American Society of Testing Materials (ASTM).

.2 Wiring on circuits exceeding 50 V to ground shall be of solid copper of 98% conductivity and of full size AWG gauge, minimum #12. Insulation shall be cross linked polyethylene rated 600 V on conductors smaller than No 8 and 1000 volts larger than No. 10. Wiring shall be colour coded as follows:

Phase A - Black

Phase B - Red

Neutral - White

Ground - Green

.3 Copper conductors sized as indicated with 1000 V insulation of Chemically cross-linked thermosetting polyethylene material rated RW 90: to CSA C22.2 No. 75-M1983.

.4 Teck Cable; Rated 90°C:
.1 Conductor: Class B stranded soft copper.
.2 Insulation: cross-linked polyethylene or ethylene propylene rubber, as approved by CSA on Types RW90 (X-LINK) Minus 40°C or RW90 (EP) Minus 40°C per CSA C22.2, No. 131 (and IPCEA).

2.1 Wire & Cable (Cont'd)

.4 Teck Cable; Rated 90°C: (Cont'd)
.3 Identification: Surface color coding for sizes up to and including #2 AWG. For sizes larger than #2 AWG, number coding.
.4 Grounding Conductor: grounding conductor included in the cable assembly.
.5 Multiple conductor cables assembled with suitable fillers and binder tape.
.6 Inner Jacket: Polyvinyl Chloride (PVC) heat, flame and moisture resistant jacket, suitable for installation in temperatures down to Minus 40°C.
.7 Armour: Aluminum interlocking armour.
.8 Outer Jacket: Polyvinyl Chloride (PVC) heat, flame and moisture resistant jacket, black, suitable for installation in temperatures down to Minus 40°C.
.9 Size and number of conductors as indicated on the drawings.

2.2 Wire Connections

.1 Splices and joints in circuit wiring shall be made using: a) Mechanical connectors of the copper sleeve pressure crimping type with four indentation and a snap-on nylon insulating cap. Acceptable manufacturers - Buchanan "pressure" connectors, Thomas & Betts.

.2 Teck Connectors:
.1 PVC coated teck connectors.
.2 Standard of acceptance:
.1 T & B Star Series.

.3 Cable Guards:
.1 Galvanized steel cable guards to protect cables at all poles, to meet utility standards.

PART 3 - EXECUTION

3.1 Installation of Wire & Cable

.1 Identify wiring with permanent indelible identifying marks, either numbered or coloured plastic tapes, on both ends of phase conductors of feeders and branch circuit.

.2 Maintain phase sequence and colour coding throughout in accordance with Item 4-036 of the Canadian Electrical Code Part I.

.3 Install teck cable as indicated on the drawings.

.4 Support teck cable as indicated on drawings and according to requirements of the Canadian Electrical Code. Use corrosion resistant cable supports.

.5 All Teck cables to be continuous with no splices.

3.2 Wire & Cable Connection

.1 All connections shall be made electrically and mechanically secure. Sizes of connectors shall be according to manufacturer's recommendations for each wire size and combination of wires.

.2 Install PVC coated teck connectors at all teck cable termination points.

END