

# 2010 Provincial Skills Canada Competition

## Scope Document

Edmonton Expo Centre, Edmonton

May 12 & 13, 2010

<b>EVENT:</b> Electrical Wiring	<b>LEVEL:</b> Secondary
<b>START TIME</b> <b>DAY ONE:</b> ORIENTATION: 8:00 COMPETITION: 8:30 <b>DAY TWO:</b> ORIENTATION: 8:00 COMPETITION: 8:30	<b>LOCATION:</b> Hall C, Edmonton Expo Centre, Edmonton
	<b>DURATION:</b> 10 Hours (over 2 days)
<b>WORLDSKILLS TRADE #:</b> 18	<b>REGIONALIZED EVENT:</b> No

### **SAFETY REQUIREMENTS:**

Competitors must provide their own safety equipment (all equipment must be CSA approved). Safety must be worn at all times on the competition site. No contestant will be allowed to take part in the competition if they do not have the required equipment or if they do not follow the safety rules and regulations. Required safety equipment consists of:

- Hard hat
- Steel toed work boots
- Safety glasses or goggles
- Gloves

### **RELATED CAREER AND TECHNOLOGY STUDIES MODULES (CTS)**

- Interpreting and using basic electrical design & diagrams of a physical facility
- Wiring a sub panel and various branch circuits using standard trade practices, complying with relevant sections of the current CEC.
- Basic conduit bending including offsets, saddles, 90 degree bends and strapping.
- Determining adequate protection for equipment and components.
- For related CTS modules (**ELT1030**-Conversion & Distribution, **ELT2030**-Branch Circuit Wiring) see the following website; [http://www.education.alberta.ca/media/1074919/elt\\_sum.pdf](http://www.education.alberta.ca/media/1074919/elt_sum.pdf)

### **EQUIPMENT & MATERIALS**

#### Supplied by Committee

Cordless Drills (Competitors must use drills provided by the Committee)

Ladders

Conduit benders

Canadian Electrical Code – current edition (will be available for use)

#### Supplied by Competitor

Pencil

Claw hammer

Measuring tape (metric)

Robertson screwdriver (black/red/green)

Side cutters

Philips screwdriver

Long nose pliers

Wire strippers

Flat screwdrivers

Electricians' knife (no snap off blades)

Water pump pliers

5/8" auger bit

Hacksaw and blades

Tapping tools (6/32 & 8/32)

Linesman pliers

Magnetic torpedo level

Crescent wrench

Half round or round file



**CLOTHING REQUIREMENTS:**

*Supplied by Competitor*

See "Safety Requirements & Additional Notes"

**JUDGING CRITERIA**

- Observance of Occupational Health and Safety rules
- Observance of Canadian Electrical Code regulations
- Interpretations of diagrams, plans and estimates
- Installation techniques
- Planning and organization of work
- Choice and economical use of materials
- Installation techniques: location of devices and conduit
- Verification of function
- Identification of circuit breakers
- Connection of conductors
- Housekeeping

**Tie Breaking Procedure**

- Compare overall time used by competitors to complete the project.

**ADDITIONAL NOTES:**

- All tools may be inspected before the competition.
- Electrical outlets will be made available for each competition site.
- All clothing shall be neat and clean. No ripped or torn clothes allowed. Casual wear such as shorts will not be permitted. No loose fitting clothes or jewelry.
- No school ID allowed.

**COMMITTEE MEMBERS:**

Mark Montgomery	SAIT
Ron Yanew	AIT
John Sumner	NAIT
Ronald Stocks	RDC
Brian Beingessner	RDC
Tim Arychuk	NAIT
Leigh Smithson	Red Deer Catholic Schools
Jim Ruller	Lakeland College
David Bates	Lakeland College