

| <b>DATE</b>           | <b>LOCATION</b>                                       |
|-----------------------|---|
| Friday, April 14 2023 | Building Trades Advancement College<br>IBEW Local 625 |

## **1. Schedule**

| <b>Time</b>        | <b>Task</b>       |
|--------------------|-------------------|
| 8:30 am – 9:00 am  | Orientation       |
| 9:00 am – 12:00 pm | Project           |
| 12:00 pm – 1:00 pm | Lunch (provided)  |
| 1:00 pm – 3:00 pm  | Project continues |
| 3:00 pm – 4:00 pm  | Judging           |

## **2. Purpose of the Contest**

Assess the contestant's skills and abilities performing various installation tasks in the field of residential and commercial electrical wiring.

## **3. Criteria**

## **4. Number of Stations / Allocations**

There is a maximum of eight (8) spaces available. One (1) student from each Regional Centre for Education, and Mi'kmaw Kina'matnewey for a total of eight (8). Additional applicants will be put on a waitlist. If there are vacancies when registration closes, waitlisted applicants can fill the spots based on a first-come, first-serve basis while continuing with equal representation per region.

## **5. Skills & Knowledge to be Tested**

Throughout the final contest, contestants can expect to be evaluated in one, two, three or all of the following areas:

- Installing residential, commercial wiring and control systems;
- Installing branch circuit components;
- Installing heating equipment and components;
- Installing warning devices and various types of detectors.

## **6. Prerequisites**

### *Contest-Specific Prerequisites*

Contestants must provide a document proving:

- Completion of provincially recognized Safety Orientation and WHMIS courses;
- Journey person or instructor consent for use of power and hand-tools.

Contestants **must demonstrate mastery of the following technical skills:**

- Measuring and marking dimensions on a work surface using scale plans and drawings based on both metric and imperial measuring systems;
- Measuring and accurately taping holes in control panels;
- Installing electrical equipment, cables, conduit, tubing and raceways;
- Measuring, sawing, drilling and deburring metals and plastics;
- Assembling components using screws, staples and bolts;
- Linking lines and equipment to control panels and their components;
- Wiring and connecting electrical components;
- Identifying and marking conductors according to plans and drawings.

Contestants **must demonstrate mastery of the following theoretical skills:**

- Reading, interpreting and executing plans, drawings, diagrams and schematics in compliance with standards;
- Knowledge of electrical materials and construction work methods;
- Knowledge of basic electrical circuits along with devices and equipment;
- Knowledge of OH&S standards and regulations;
- Knowledge and application of electrical code requirements in Canada and installation to comply with CEC 2021 edition.

### *SCNS Prerequisites*

- Attend a public or private recognized secondary institute, or be enrolled in a registered home school program through the Nova Scotia Department of Education and Early Childhood Development (DOEECD);
- Be between 13 and 21 years of age on January 1 of the year of the Competition. Competitors are responsible for verifying this information, if requested.
- Have been earning junior or senior high school credits any time during the current academic year (September to June);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- Possess Canadian citizenship or Landed Immigrant status and be a resident of Nova Scotia. Competitors are responsible for verifying this information, if requested;

Note: International students are eligible to compete in the Nova Scotia Skills Competition, however they are not eligible to advance to the Skills Canada National Competition. International competitors will be required to sign an additional release form acknowledging.

- Have completed and submitted a signed release form or submitted by a parent or guardian if under the age of 19.

### **7. Equipment & Clothing**

#### **a) What Will Be Supplied**

- A ladder;
- ½" EMT Bender;
- All power tools (cordless drill)

#### **b) What Competitors Must Supply**

- CSA-approved safety gear (hard-hat, boots, goggles and gloves);
- Supplies for writing and drawing, i.e. pencil, eraser;
- Metric / Imperial measuring tape;
- Set of screwdrivers (Robertson, Flat and Phillips);
- Pliers (Linesman, Needle nose and Side cutting);
- Tri-Square;
- Electrician's knife;
- Wire Strippers;
- Torpedo Level;
- Multi-purpose pliers (Channel-Locks);
- Hammer;
- Adjustable wrench (Crescent);
- Set of Hex wrenches;
- Wood Bits (1/2 - 5/8 - 3/4);
- Fish Tape;
- Metal Unibit;
- Manual Hole Punches (1/2 - 3/4 - 1");
- Tapping Screwdriver (6/32 - 8/32 - 10/32 - 10/24 - 1/4 X 20);

- Metal Hand Saw (Hack-Saw);
- Set of Metal Drill Bits;
- Canadian Electrical Code Book (2021 Edition);
- Safety Equipment.

**PLEASE NOTE:** Safety equipment must be worn at all times on the competition site while complying with occupational health and safety regulations. Rings, chains, metal watches etc. will not be permitted while the competition is in progress. Contestants clothing must be neat and clean in appearance (torn, lose or ripped clothing will not be permitted).

### 8. Evaluation & Judging Criteria

| Item                               | Point Value |
|------------------------------------|-------------|
| Operation                          | 35          |
| Equipment / Component Installation | 10          |
| Use of Supplies                    | 5           |
| Measurement                        | 10          |
| Cable Installation                 | 10          |
| Conduit Installation               | 10          |
| Connection of Conductors           | 10          |
| OH&S Compliance                    | 10          |
| <b>TOTAL</b>                       | <b>100</b>  |

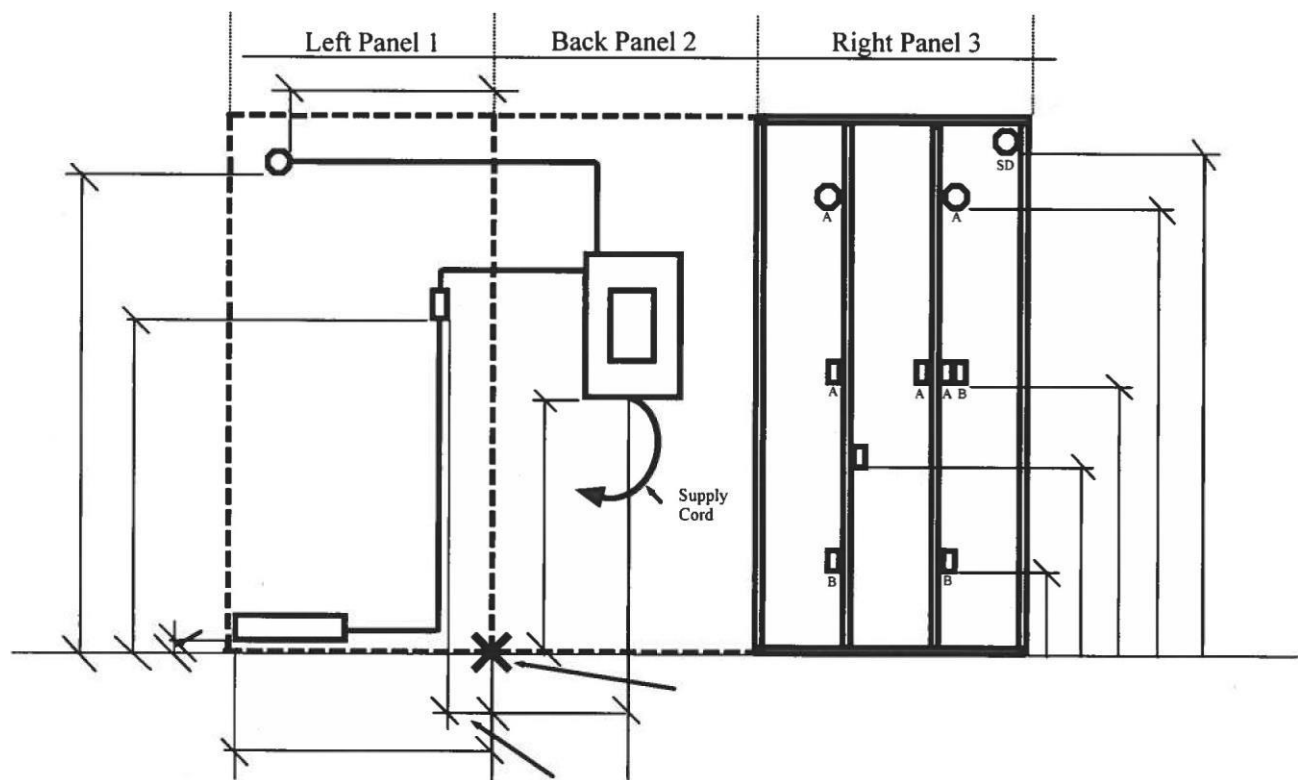
### 9. Additional Information

Tie-break procedures:

- a) Project time completion;
- b) Operation score;
- c) OH&S Compliance

### 10. PTC Contact Information

| Name            | Employer          | Email  |
|-----------------|-------------------|--|
| John Harding    | IBEW Local 625    | <a href="mailto:jharding@ibew625.ca">jharding@ibew625.ca</a>       |
| Jennifer Geddes | NSCC Ivany Campus | <a href="mailto:jennifer.geddes@nsc.ca">jennifer.geddes@nsc.ca</a> |



Scale: Not  
to Scale

Skills Canada Nova Scotia - Electrical Installations (S)