



# SCNC SKILLS CANADA NATIONAL COMPETITION



# OCMT OLYMPIADES CANADIENNES DES MÉTIERS ET DES TECHNOLOGIES

  
**SkillsCompétences**  
Canada  
Halifax2019

CONTEST DESCRIPTION / DESCRIPTION DE CONCOURS

## **BRICKLAYING BRIQUETAGE**

POST- SECONDARY / NIVEAU POSTSECONDAIRE



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## **1 THE ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY**

SCC is currently working with Employment and Social Development Canada (ESDC) in order to bring awareness to the importance of Essential Skills that are absolutely crucial for success in the workforce. Part of this ongoing initiative requires the integration and identification of Essential Skills in contest descriptions, projects, and project documents. The next phase and very important aspect of our Essential Skills (ES) initiative is to provide an ES report card to each competitor at the Skills Canada National Competition. The purpose of the ES report card is to inform the competitor about their current level of essential skills based on their competition scores. With this knowledge, the competitor will be made aware which essential skill may require improvement. Full implementation is expected in the next Skills Canada National Competition.

The following 9 skills have been identified and validated as key essential skills for the workplace in the legend below:

1Numeracy, 2Oral Communication, 3Working with Others, 4Continuous Learning, 5Reading Text, 6Writing, 7Thinking, 8Document Use, 9Digital

These essential skills have been identified in section 3.2 of your Contest Description and if applicable, in your Project and all other supporting project documents.

## **2 CONTEST INTRODUCTION**

### **2.1 Description of the associated work role(s) or occupation(s).**

<http://skillscompetencescanada.com/en/skills/construction/brick-masonry/>

### **2.2 Purpose of the Challenge.**

Bricklaying covers the construction of buildings and parts of buildings, brick, and/or block, artificial and natural stone walls.

### **2.3 Duration of contest.**

12 hours

### **2.4 Skills and Knowledge to be tested**

The test project consists of practical work including bricks, glass block, block and/or stone laying by respecting the indications on the plan/design (for cutting and detail). The theoretical knowledge is limited to that which is necessary to carry out the practical work. Knowledge on rules, regulations and standards is not tested. The test project includes the construction of brick and block walls, or surfaces of with brick facing. For example, decorative brickwork with projections and recesses in all possible bonds, sections of walls with segmental, semi-circular, triangular, flat, gothic arches; curved walls and cavity walls.

### 3 CONTEST DESCRIPTION

3.1 List of documents produced and timeline for when competitors have access to the documents.

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
Test Project	January, 2019

3.2 Tasks that may be performed during the contest

- Practical work
  - Only the metric system will be used
  - The competition may be designed from the following
  - 80 to 85% brickwork (clay brick and/or concrete brick)
  - 10 to 25% block, stone work and /or glass block
  - 15 to 30% Arch set out other detail
- The appropriate technical skills are
  - Measuring lengths<sup>1</sup>
  - Calculating and marking of angles<sup>1</sup>
  - Determining the layout<sup>7</sup>
  - Determining the gauge<sup>7</sup>
  - Cutting brickwork
  - Levelling and plumbing
  - Making corners
  - Building walls with brick, block or stone in different bonds: using stretcher or header, brick on end, brick on edge, raking; corbels, decorative bond, practical and/or aesthetics details
  - Sloping or battering walls according to the drawing and using material indicated in 2.1 <sup>8</sup>
  - Compliance with the plans<sup>8</sup>
  - Jointing pointing according to required profile<sup>8</sup>
  - Cleaning
- Material
  - Bricks, face bricks, backing bricks, uniformly baked or formed, dimensionally accurate and sharp-edge, blocks or stone maximum 15 kg (30 lbs.)<sup>1</sup>
  - Bounding agent: lime and cement or masonry cement (Type N)
  - Aggregate: sand grain size 0 to 3 mm max.
  - Mortar additive may be used to make mortar softer (workable)
  - The use of brick cleaning fluids or oil is not allowed
  - Brick cutting not including 90 degrees to be limited do a maximum of 25% of the total numbers of bricks.<sup>1</sup>
- Technical assessment. This may include:
  - Problem solving<sup>7</sup>
  - Knowledge of bonding

- Calculations<sup>1</sup>
- Drawing interpretation<sup>8</sup>
- General work health and safety

*Essential Skills – <sup>1</sup>Numeracy, <sup>7</sup>Thinking (Problem Solving, Job Task Planning and Organizing), <sup>8</sup>Document Use*

## **4 EQUIPMENT, MATERIAL, CLOTHING**

### **4.1 Equipment and material provided by Skills/Compétences Canada**

- Each competitor will have a working area of least 9 m<sup>2</sup>. The floor surface will be even ( $\pm 5$  mm and 2 m long), horizontal and have an adequate loading capacity. There will be sufficient space for delivery and storage of material.
- There will be a space of 1 m between public barrier and the competitor materials.
- Each workstation floor area will be covered by a material that is suitable to set out and construct masonry
- Water supply
- Electric power
- Mortar board
- Water bucket
- Block (support for mortar board)
- Straight edges 2 m
- Static electric brick cutting machines (one machine for 2 competitors, if necessary)
- Wood for template if necessary
- 4 table saws with 14" diamond blades
- Metric Square 24"
- Tape rules 8m 26'

COMPETITORS WILL BE REQUIRED TO USE THE MATERIAL AND EQUIPMENT PROVIDED BY SCC. ALL OTHER MATERIAL AND EQUIPMENT WILL BE REMOVED FROM THE SKILL AREA.

### **4.2 Equipment and material provided by the competitor.**

- Line blocks
- Levels
- Steel jointers
- Trowel
- Slicker
- Hammer
- Square
- Chalk line
- Measuring tapes

- Brush
- Line
- Joint raker

#### 4.2.1 Toolboxes Guidelines

One of the objectives of SCC is the sustainability of the Competition. As a result, the toolboxes brought by Competitors will be restricted to the following maximum specifications.

The Competitor toolbox must not exceed 1 meter<sup>3</sup> in volume. It can be multiple toolbox but the total of all toolbox, must not exceed the maximum volume indicated. There is no exception to this rule. If the Competitor toolbox is larger than what is indicated, the Competitor with the guidance of the NTC, will need to remove items from the toolbox and those items will not be used during the competition. All tools must fit inside one or more toolboxes. Tools outside of a toolbox will not be permitted.

#### 4.3 Required clothing provided by the competitor.

- Appropriate clothing

### 5 SAFETY REQUIREMENTS

#### 5.1 Safety workshop

Upon arrival at the Skill area, Competitors will participate in a Safety workshop and they will be expected to work and maintain a safe working area during the competition. Any Competitor breaking any health, safety and environmental rules, may be required to undertake a second safety workshop, this will not affect the Competitor's competition time.

#### 5.2 Personal protective equipment (PPE) provided by Skills/Compétences Canada

- N/A

#### 5.3 Personal protective equipment (PPE) provided by the competitor.

- Safety Glasses
- Hard Hat
- Hearing protection
- CSA approved Safety shoes

**Note:** Contestants who do not have the required protective gear will not be allowed to participate in the contest

## 6 ASSESSMENT

### 6.1 Point breakdown

POINT BREAKDOWN		/100
Measurement	Dimensions	20
	Levelling	12
	Plumb	16
	Alignment	13
	Angles	05
	Detail	14
Judgement	Health and safety	05
	Joint uniformity and finishing	10
	Overall appearance and cleanliness	05

## 7 CONTEST SPECIFIC RULES

Contest specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from contest to contest. Any additional contest rules will be reviewed during competitor orientation.

TOPIC/TASK	CONTEST SPECIFIC RULE
Project distribution	Competitors will be receiving their final test project during competitor orientation.

## 8 ADDITIONAL INFORMATION

### 8.1 Translation

If a competitor requires translation during the competition, the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this service might not be guaranteed.

### 8.2 Ties

- Tiebreaker #1: In the event of a tie, the competitor with the highest score for Plumb (vertical alignment) criteria will be declared the winner.
- Tiebreaker #2: If a second tie occurs, the competitor with the highest score in the Joint uniformity and finishing criteria will be declared the winner.
- Tiebreaker #3: If a third tie occurs the competitor with the highest score in the Detail criteria will be declared the winner.

### 8.3 Test Project change at the Competition

Where the Test Project has been circulated to Competitors in advance, NTC shall change a maximum of 30% of the work content. Please refer to the Competition Rules.

#### 8.4 Competition rules

Refer to the competition rules of the Skills Canada National Competition which can be found on our website.

### 9 NATIONAL TECHNICAL COMMITTEE MEMBERS

Member Organization	Name
Alberta	Richard Kokotilo
Manitoba	Brian Gebhardt
Ontario	Rene Letoile
Québec	Danny Groleau
New Brunswick – Co-Chair	Dwayne Giberson
Saskatchewan – Chair	Brian Adams
British Columbia	Archie McDonald
Nova Scotia	John Clark

Contact the Skills/Compétences Canada national secretariat for any questions or concerns: Nathalie Maisonneuve ([nathaliem@skillscanada.com](mailto:nathaliem@skillscanada.com)).