



## April 11, 2024

# 26th ANNUAL SKILLS MANITOBA COMPETITION

### CONTEST DESCRIPTION

#### CONTEST DETAILS

- **Contest Name:** Architectural Technology and Design
- **Contest Number:** 52
- **Level:** Secondary  
Maximum of two competitors per school.  
*Actual number of competitors per school may be reduced if room capacity is exceeded.*
- **Contest Location:** T230B - Red River College Polytech - Notre Dame Campus – Skilled Trades and Technology Centre
- **Contest Duration and Start Time:** 4 hours, beginning at 8:30 AM following registration. Competitors meet in room T230B

#### CONTEST INTRODUCTION

- **Purpose of the Challenge:** To assess the contestant's skills in performing technical design and drawing tasks, and their preparation for employment in the field of Architectural Technology.
- **Skills and Knowledge to be Tested:** The contestant's understanding of specifications and instructions and their ability to read and produce a set of working drawings for residential design adhering to Section 9 of the National Building Code. The contestant's ability to use CAD software to complete technical design and drawing tasks with regards to the key themes:
  - **Architecture** – Envelope design, space planning, and materials selection.
  - **Engineering** – Structural systems and spans.
  - **Construction** – Regulatory building codes, assembly, and use of drawing tools.
- **Tasks that may be Performed During the Competition:**
  - Reading and interpreting a set of architectural working drawings and instructions.
  - Modifying an existing set of working drawings using BIM / CAD software.
  - Creating interior and exterior presentation drawings.
  - Implementing sustainable or Healthy Housing design practices
  - Physically or digitally measuring and/or scaling provided drawings.

- Developing a set of architectural working drawings that may include a site plan, elevations, section views, detail views, roof plan, floor plans, and foundation plan.

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*Tasks may be altered slightly prior to the competition. Contestants should be prepared with any skills required to meet the criteria in the “Contest Introduction”.*

### ▪ Task

- Provided a partial set of working drawings of a residential building in either printed or PDF format, contestant will be asked to make modifications and/or additions to the existing structure and present their solution.
- Contestant will develop their own technical drawings (specific drawing sheets will be requested) using BIM / CAD software
- Contestant will submit their drawings in either printed or PDF format (this will be announced at the competition).

## ASSESSMENT: POINT BREAKDOWN (100 POINTS)

*In the event of a tie in scoring, the tie will be broken by the judge’s re-evaluation of the relevant documents of the tied competitors.*

### ▪ Task (100 pts)

- **Design Solutions (25 pts)**
  - Meet specifications, requirements, and are realistic and buildable.
- **Technical Drawings (55 pts)**
  - Accurate, complete, and to drafting standards.
- **Compliance to National Building Code (15 pts)**
  - Designs and drawings apply CMHC “Canadian Wood-Frame House Construction” content.

### ▪ TOTAL (100 pts)

## NATIONAL COMPETITION ELIGIBILITY

- A mark of **70% or higher** must be scored by the gold medalist in order to attend the National Skills Competition.

## EQUIPMENT, TOOLS, AND MATERIALS

### ▪ To be Provided by the Committee:

- Windows compatible hardware complete with Autodesk AutoCAD 2024, AutoCAD Architecture 2024, and Revit Architecture 2024
- A printed copy, or PDF, of the competition instructions and documents.
- Only files submitted to the contestant during the contest will be authorized for use.
- There will be **no** on-site laser printer provided for use by contestants and for judging purposes. Architectural competitors will submit electronic PDF files for evaluation.
- No software reference manuals, textbooks or electronic data will be permitted for the duration of the competition (see exceptions below).

### ▪ To be Provided by the Competitor:

- Architectural Scale (imperial) and Ruler (6” and/or 12” in metric and imperial)
- Calculator
- Pencil and sketch paper

- CMHC “Canadian Wood-Frame House Construction” reference (Printed or digital version).
  - If using a digital version, it must be available offline.
- Empty USB Flash Memory Stick. (No electronic files permitted other than the “Canadian Wood-Frame House Construction” digital version.)

**Note:** If the competitor wishes to use software other than that outlined within this scope, the competitor and coach mentor must contact the competition Chairperson no later than the official registration date outlined by Skills Manitoba for approval. If approved, the competitor may be required to bring their own software support (installation, licensing, printing, networking, etc.).

## **WORKSITE SAFETY RULES / REQUIREMENTS**

- No PPE required. Additional safety rules and requirements will be provided on site.

## **THE IMPORTANCE OF SKILLS FOR SUCCESS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY;**

In response to the evolving labor market and changing skill needs, the Government of Canada has launched the new Skills for Success (former Essential Skills) model defining nine key skills needed by Canadians to participate in work, in education and training, and in modern society more broadly. SCC is currently working with Employment and Social Development Canada (ESDC) to bring awareness of the importance of these skills that are crucial for success in Trade and Technology careers. Part of this ongoing initiative requires the integration and identification of the Skills for Success in contest descriptions, projects, and project documents. The following 9 skills have been identified and validated as key skills for success for the workplace: 1.Numeracy, 2.Communication, 3.Collaboration, 4.Adaptability, 5.Reading, 6.Writing, 7.Problem Solving, 8.Creativity and Innovation, 9.Digital

## **TECHNICAL COMMITTEE MEMBERS CONTACT INFORMATION:**

**Shelby Henderson**  
[shelby.klimack@gmail.com](mailto:shelby.klimack@gmail.com)