

# 2022 SECONDARY SKILLS CANADA ALBERTA VIRTUAL COMPETITION

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## CONTEST DESCRIPTION

<b>CONTEST AREA: ARCHITECTURAL TECHNOLOGY</b>	<b>LEVEL:</b> Secondary
<b>COMPETITION SCHEDULE:</b> <b>Competition Date:</b> Thursday, April 14 <b>Duration:</b> 7 Hours Mandatory Registration – 7:30AM Mandatory Orientation - 8:00AM Start 8:30AM Lunch 12:00-12:30PM Ends – 4:00PM Submission due – 4:15PM	<b>LOCATION:</b> COMPETITOR’S SCHOOL. SEE COMPETITION FORMAT INFORMATION BELOW  <b>LIVESTREAMED:</b> <b>NO – COMPETITORS WILL BE REQUIRED TO REMAIN ON WEBEX, BUT CAMERAS CAN BE TURNED OFF</b>
<p><b>COMPETITION FORMAT: (VIRTUAL/ IN SCHOOL)</b>            All secondary competitors will be competing with in their school environment and must arrange in advance with a teacher for a safe competition location, according to their school’s Covid-19 safety policies. They will need to prepare their competition space with all of the required tools, equipment, materials, and technology (as listed below) that will be needed to complete the competition. Teachers and competitors will need to work together to ensure the competitor is ready for success on their competition day.</p> <p>Each competitor must have a teacher/supervisor available throughout the day, in case of incident. (Teacher/Supervisor must be present at the competition orientation.)</p> <p>Competitors and Teachers should be prepared to receive additional information about the competition projects, livestreams, shipping, etc. prior to the competition. Please ensure you are double checking for emails from Skills, including checking junk mail.</p> <p><b>WEBEX LIVESTREAMS:</b>  <b>Competition Registration and Orientation:</b> The competition will begin with a mandatory virtual registration. Competitors will join the assigned link that will be emailed to all registered competitors and registering teachers in advance. This will be the time that competitors are able to check in and ensure sound, cameras, and tech are working appropriately. The registration will be followed by competition orientation. Camera’s <b>MUST</b> be on and competitors visible on the camera during the orientation.</p>	



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## PROJECT SUBMISSION LINK:

- <https://form.jotform.com/SkillsAB/2022SCAVC>
- Multiple files can be uploaded at once, each file has a maximum size of 1G. If file sizes are larger than 1G, please follow alternate instructions through the submission link.

**ACCEPTED FILE TYPE:** pdf, doc, docx, xls, xlsx, csv, txt, rtf, html, zip, mp3, wma, mpg, flv, avi, jpg, jpeg, png, gif. If you would like to submit a different type of file, please place it in a zip folder.

To create a zip file – Select all the files that you would like to submit and right-click your mouse, a menu will open, select Send To, and then click on Compressed (zipped) folder. A zip file will then be created containing your submission documents.

**Submissions will be due within 15 minutes of the end of competition time. Please note: Late submissions sent after the date and time specified above will not be accepted.**

## SAFETY:

The health, safety and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

**AWARDS CEREMONY INFORMATION:** Please join us for a live virtual awards ceremony on May 6<sup>th</sup> at 6:30PM.

**Please note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in yellow.**

## CONTEST INTRODUCTION

Competitors will be challenged with interpreting given information to develop a constructible architectural design solution for a small light wood-frame building. Competitors will complete and **print to PDF files** of their drawings in 11 x 17 paper size, using an imperial and/or metric standard scale.

This challenge assesses technical knowledge of smaller buildings (e.g. single-family houses), light wood-frame construction practices, and the skills necessary to produce and print construction drawings using computer-aided design & drafting (CADD) software. The competition will also gauge competitors' abilities to solve technical and functional problems to produce a building design. Competitors should be able to produce typical plans, elevations and sections.



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## SKILLS AND KNOWLEDGE TO BE TESTED

**Architecture:** Topics will include; building envelope design, space planning, materials selection, National Building Code and environmental sustainability concepts such as natural ventilation and lighting.

**Engineering:** Topics will include; structural design and planning (e.g. identify posts, beams and load-bearing elements)

**Construction:** Topics will include; regulatory standards, assembly, maintainability, environmental considerations and sustainability.

Competitors will be required to demonstrate knowledge and skills in the following areas:

- CADD application including (but not limited to) practical knowledge of building modelling, drawing setup, printing, dimensioning, and annotation.
- Architectural detailing skills in 2D, with a proper understanding of real construction.
- Planning design concepts, architectural space layout and relationships.
- Fundamentals of building structural systems and incorporate it with the building envelopes. Presentation skills, including sheet layout, use of standard scale, illustration and graphical communication.

## PROJECT DESCRIPTION

Competitors will receive the project information the morning of the competition prior to **8:30 AM** via email. Submissions are to be made to the Skills Alberta link provided on page one in this document.

Competitors will receive three simple functional diagrams for a three-bedroom house; including the main floor, second floor and unfinished basement. The competitor should use typical room sizes and standards of wood-frame house construction to produce a full drawing set on the standard scale; based on the diagram received. Competitors should NOT change the received diagram and rearrange the relationship between the spaces. For example; if in the original diagram the washroom is located in the southeast corner of the plan besides the kitchen that is where the washroom should be, do not relocate it. The challenge is to develop the diagram provided to a set of working drawings; plans, elevations and sections for a constructible and functional house.

## EQUIPMENT & MATERIALS

Competitors are required to provide and use their own device that is installed with licenced CADD software necessary for the competition. Competitors must have access to the internet to receive and submit the projects. Each competitor can choose their own device and software to suit their workflow and process they are familiar with. Additionally, competitors are required to use their own supplies required for the competition. Theses supplies are outlined below. Competitors are responsible for their files back up. Make sure not to lose your work; we recommend saving your file often and back up when needed.



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## Equipment and Materials Competitors/Schools\* Must Supply:

- Computer / Monitor(s) / Mouse / Keyboard
- Canadian Wood-Frame House Construction published by CMHC
- Paper (for notes and sketching)
- Pencils or Pens
- Calculator / Imperial-Metric Convertor
- Scales (metric and/or imperial)

**Important Note:** Please make sure that your computer is capable to print to PDF at the standard scale on 11x17 paper size. You will be submitting your CADD file as well as the full set in PDF.

\*Competitors and schools will need to work together to arrange for the tools, equipment, and materials provided by the competitor. If a competitor and/or school is not able to procure a certain item, please contact [mikes@skillsalberta.com](mailto:mikes@skillsalberta.com) to inquire if additional arrangements can be made.

## JUDGING CRITERIA PRESENTATION

Showcasing computer drafting skills employ the Canadian construction standards, demonstrate architectural solutions and problem-solving, and effective operation of CADD applications.

## ACCURACY OF DRAWING

Technical design and presentation including (but not limited to); architectural drafting standards, dimensioning, line type, line weight, annotation, hatch/fill patterns, standard symbols, etc.

## WORK ORGANIZATION

- Graphic layout and presentation of architectural drawings, designs, and technical solutions.
- Demonstrate the ability to follow conceptual design intent and specifications through to solutions of design and technical problems.
- Referencing of drawings and technical resources.
- Compliance with standards and building codes.
- Integration of Structural systems.

## SOLUTIONS AND ASSESSMENT

Competitors will demonstrate technical competence in:

- resolving building construction and design problems;
- the application of architectural design and drafting standards; and
- the operation of industry-standard CADD application(s).

Solutions shall be original, innovative, sustainable, energy-efficient, complete, simple, functional, and durable for Alberta's climate.



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## ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations  
[Regional and Provincial Rules and Regulations](#)

### Competitor Registration

Registration for Secondary Skills Canada Alberta Virtual Competition will open online at <https://portal.skillsalberta.com/> on January 26, 2022 at 8:30 AM.

### Lunch

Lunch will NOT be provided.

### Virtual Awards Ceremony

The Virtual Awards Ceremony will take place **Friday, May 6<sup>th</sup> at 6:30PM**. A link will be made available on the website with additional information.

### Team Alberta Information

Team Alberta will be selected from competition Gold medalists who will then be eligible to participate at the Skills Canada National Competition (SCNC) in a virtual format May 25-28, 2022. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillsCanada.com/>.

### Ethical Conduct

We recognize that participants will be competing individually in their own unique environments. We expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Alberta.

### Letter of Participation

Competitors who participate in the 2022 Provincial Skills Canada Competition are eligible for a Letter of Participation that can be downloaded on the Registration Portal after the competition ends.

## COMMITTEE MEMBERS

Peter Kelly

Jacob Waldbillig

