



Professional Engineers
and Geoscientists of BC
www.apegbc.ca

APEGBC South Central Branch
&
University College of the Cariboo

Present

The 2nd Annual Popsicle-Stick Bridge Contest!



Location: UCC Trades & Technology Center

Date: March 5, 2005

Time: 10:00 – 3:30

Entries will be accepted in the following categories:

- **Elementary** - Grades 7 and Under
- **Secondary** - Grades 8 to 12
- **Open** - Ages 19 and Older. Not open to professional engineers.
- **Corporate** - Open to professional engineers or engineering firms only.

Judging in each category will be held according to the tentative schedule below. Contestants should arrive in advance of their category event to have their entries officially signed in before judging begins.

<i><u>CATEGORY/EVENT</u></i>	<i><u>EVENT START</u></i>	<i><u>PRIZES</u></i>
Elementary* Sign In	9:30 AM	
Opening Ceremonies (For all)	10:00 AM	
Elementary* (grade 7 and under)	10:15 AM	Gift Certificate
Secondary (grades 8 to 12)	11:45 AM	\$100
Open and Corporate (19 years and older)	1:30 PM	\$100 and Corporate Cup

*Children under 13 must be accompanied by an adult.

Prizes:

- All contestants will receive participation certificates.
- Prizes to be awarded following completion of judging in each category.
- In the Open and Corporate event a \$100 prize will be awarded to the first place entry. This prize is not available to entries from professional engineers. The winning entry from an engineer or engineering firm will be awarded the Corporate Cup.

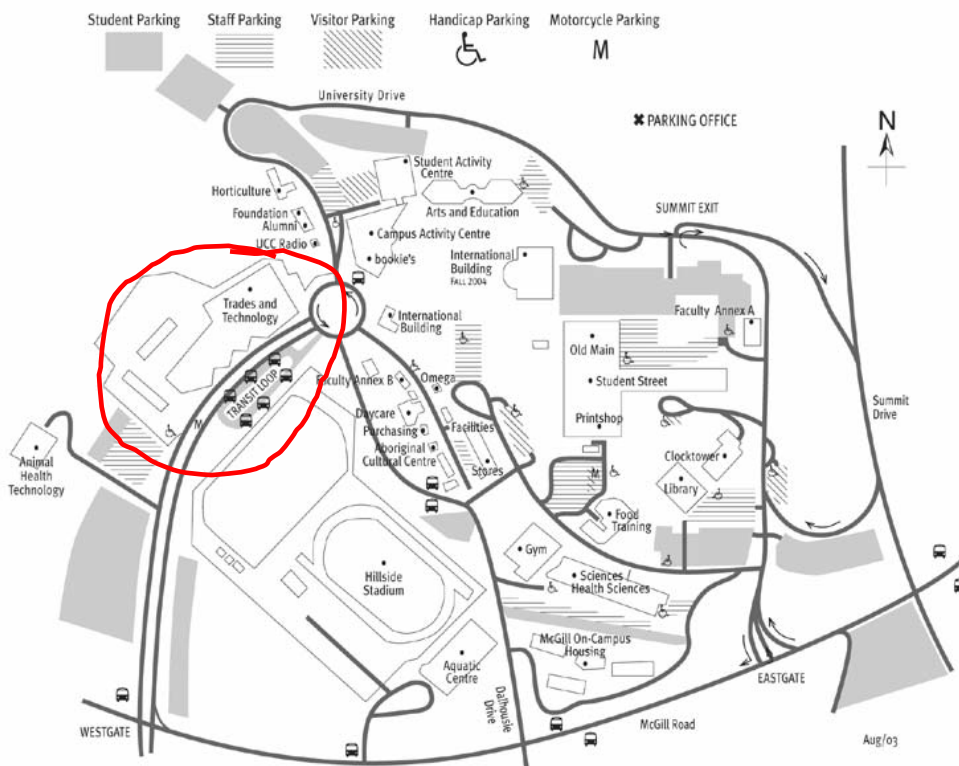
The goal of the contest is to construct the strongest bridge possible with 100 Popsicle sticks and white glue. The bridge must span a 500 mm gap, and a matchbox car must be able to traverse the bridge on a construction paper deck; otherwise, the design of the bridge is left up to the competitor. Specifications are included on the following pages.

Anyone is welcome to participate. You are encouraged to register early. Contestants may enter bridges individually or as a team.

Want to learn about the fundamentals of bridge design?? Download the Westpoint Bridge Designer. It's free. <http://bridgecontest.usma.edu/download.htm>

UCC staff will be on hand throughout the day on March 5, to provide information on Electronics and Engineering program offerings, careers, and tours of our labs. Please contact Jeff Holm at 372-5252, Ben Giudici at 828-5108, or the UCC Electronics and Engineering office at 371-5853 if you require more information on the contest or judging day events.

UCC Campus Map



Official Popsicle Stick Bridge 2005 Contest Rules

Pre-Registration:

1. Each bridge built by a team or an individual contestant is considered 1 entry.
2. **The registration form must be completed and returned by the deadline.** Please print legibly.
3. Start early, as you will have to build the bridge in steps. It would be difficult to build it in one go due to the varying orientations of surfaces to be glued.

Construction:

1. The bridge must be built with a maximum of 100 Popsicle sticks and **white all purpose glue or white wood glue. No other glues are acceptable.**
2. Only construction paper may be used as the deck of the bridge.
3. Popsicle sticks must be left whole. They must not be cut, split, or otherwise altered.
4. A matchbox car must be able to be rolled across the bridge.
5. The bridge must span a 500mm gap and fit within the attached clearance envelope. We recommend that the bridge be at least 550mm long to ensure that the bridge does not fall through the 500mm gap when the load is applied.
6. The highest centre portion of the bridge must be designed to contact a 100mm wide loading plate through which the "Bridge Buster" will apply loading to the bridge
7. Bridges will be inspected at registration. Any violations of the rules outlined above will result in disqualification from the official results, but the contestant(s) will still be allowed to unofficially have their bridge tested.

Testing the Bridges:

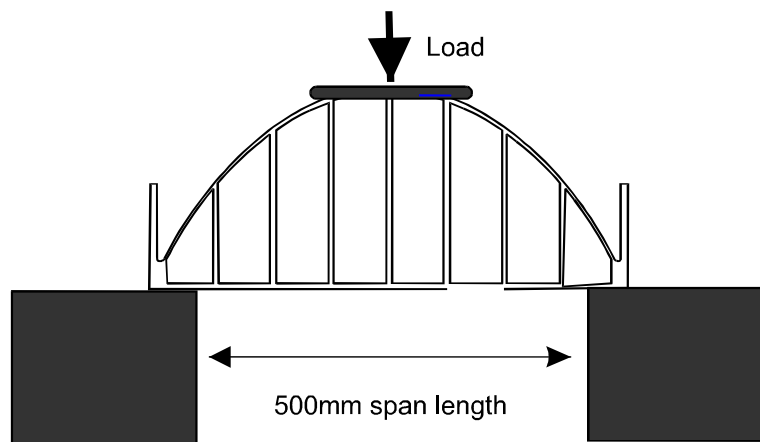
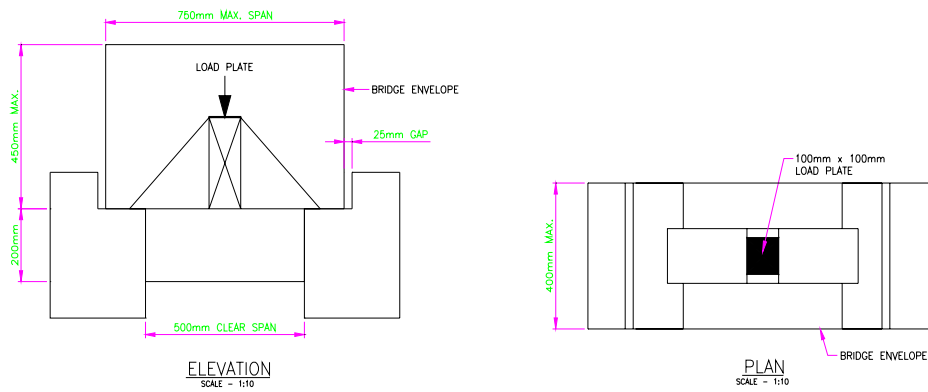
1. Bridges will be weighed before being loaded. In the event of a tie, the lightest bridge wins.
2. Bridges will be loaded from the top with a loading plate as described in 6 above and shown in the diagram below. Loading will be increased and measured electronically until the bridge fails.
3. For the safety of all involved, bridge loading will be done behind a protective screen. Contestants and spectators will be expected to stand clear of the loading area and follow directions of officials at all times during the event.

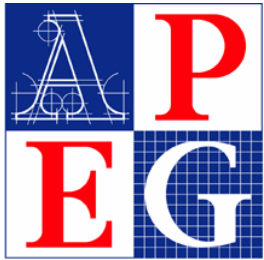
4. The winner is the bridge that holds the largest load prior to failure.
5. All bridges will be loaded to the point of failure unless the contestant decides not to continue with incremental loads in order to save their bridge!

Teams:

1. The oldest team member will determine the team's entrance category.

Dimensional Specifications





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Bridge Contest
March 5, 2005

Entry Form



NOTE: ALL BRIDGES WILL BE TESTED TO FAILURE

Contest Judging Date: March 5, 2005

Please fax (250-828-5148) or deliver your completed form by Mar 2, 2005 to Anne Redford in the UCC Electronics and Engineering office, Room TT260 of the UCC Trades and Technology Center.

Team Name (optional):

Team member's names and birth dates (please print legibly):

1) First name:	Last name:	Birth Date:
_____	_____	_____
2) First name:	Last name:	Birth Date:
_____	_____	_____
3) First name:	Last name:	Birth Date:
_____	_____	_____
4) First name:	Last name:	Birth Date:
_____	_____	_____

Phone Number _____ of member No. _____:

- Category:
- Elementary (grades 7 and under)
 - Secondary (grades 8 to 12)
 - Open (Open to non-engineers 19 years and older)
 - Corporate Cup (Open to engineers or engineering firms only)

School, Business or Corporation Name:

Registration No. _____