## NOTICE TO DESIGN-BUILD CONTRACTORS

# CSCE CALGARY SECTION ANNUAL POPSICLE STICK BRIDGE CONTEST

## **SPECIFICATIONS**

**SCOPE:** Design and build a through-truss bridge that is structurally efficient and aesthetically pleasing using popsicle sticks and white glue.

SITE: Blackfoot Inn, Calgary (See October dinner meeting)

COMPLETION DATE: November Dinner Meeting, 5:00 pm MST

### PREQUALIFICATION OF CONTRACTORS:

- 1. Contractors shall be individuals or groups of up to four (4) individuals who are involved with the practice of Civil Engineering.
- 2. Contractors shall indicate their interest by posting a partially refundable cash bond of \$20 with the CSCE Publicity Chair or the CSCE Student Representative, on or before the second Thursday of November.
- 3. Contractors who are not students will compete in the Professional Division and will compete for the Golden Popsicle Stick Trophy Award. Student contractors will compete in the Student Division and are eligible for payment as outlined below.

#### **INSTRUCTIONS TO CONTRACTORS:**

- 1. Bridges shall be through-trusses with clear span, maximum height, width, maximum bearing length, loading platform details and minimum clearance for traffic as shown on the sheet titled "Dimensions Sheet 1/1".
- 2. Construction materials shall be only Popsicle sticks and white glue, as provided by CSCE. Popsicle sticks shall not be cut or split. A maximum of 100 whole Popsicle sticks may be used.

#### **TESTING:**

- 1. Contractors shall arrive at the site before the testing time with completed bridges and a written statement indicating:
  - a) the names of all members of the design/build team;
  - b) number of sticks used; and
  - c) the predicted failure load of the bridge.
- 2. Test loads will be applied by a hydraulic ram through a loading block (150 x 80) placed in the centre at the top of the bridge.

## PERFORMANCE CRITERIA:

- 1. Points will be awarded as follows:
  - a) Design and artistic appearance: up to 10 points.
  - b) Highest load/weight ratio (strongest) bridge: 30 points. Second strongest bridge: 25 points. Third strongest: 20 points. Fourth strongest: 15 points. Fifth strongest: 10 points. Sixth strongest: 5 points.
  - c) A bonus of 10 points will be awarded if the bridge fails within 10% of the predicted failure load.

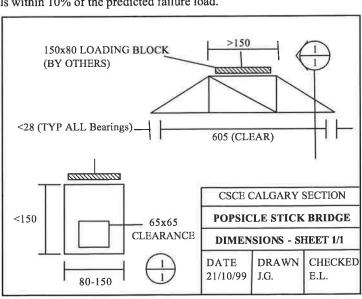
### **PAYMENT (Student Division only):**

Contractors satisfying the conditions of Testing Specification Clause 1 are eligible for immediate reimbursement of \$15.

Additional payments, depending on the performance of each contractor's bridge, will be as follows:

Best overall \$150 Second \$100 Third \$50

An additional cash prize will be awarded to the best overall bridge within the Western Region of the CSCE (Calgary, Edmonton, and Vancouver)



INQUIRIES: Inquiries should be directed to the CSCE Publicity Chair or the CSCE Student Representative (see web page).