

Toothpick Bridge Building Event Bridge Specifications

Note to all event participants: PLEASE read all bridge specifications prior to starting construction of your bridge. Note that there are two construction categories to select from—Toothpick Category and Open-Materials Category. Since this is a destructive test, you may want to take a picture of your bridge before you come to the event.

Toothpick Category Bridge Specifications

Materials: You must use only wooden toothpicks and glue to build your bridge.

Weight: The bridge must not weigh more than 121 grams (4.27 ounces).

Overall dimensions:

Longest allowed length 64.77cm (25 1/2 in.)

Longest allowed width 17.78cm (7 in.)

Longest allowed height 45.72cm (18 in.)

(See drawings and photograph.)

Span: The bridge must span a gap or opening of 42.23cm (16 5/8 in.).
(See drawings and photograph.)

Type of Bridge: You may not build a hanging bridge or suspension bridge. The bridge must be free standing. This may limit you to building a truss bridge or beam bridge.

Load: A gradually increasing force (weight) will be applied to the bridge from above by 20.32 cm (8 in.) square or circular metal plate.

Support: The bridge will be supported from below by two metal brackets that are approximately 11.27 cm by 17.78 cm wide.

Roadbed: A surface or roadbed is not required.

Open-Materials Category Bridge Specifications

Materials: You may use any material to build your bridge.

Weight: The bridge must not weigh more than 60 grams (2.12 ounces).

Overall dimensions:

Longest allowed length 64.77cm (25 1/2 in.)

Longest allowed width 17.78cm (7 in.)

Longest allowed height 45.72cm (18 in.)

(See drawings and photograph.)

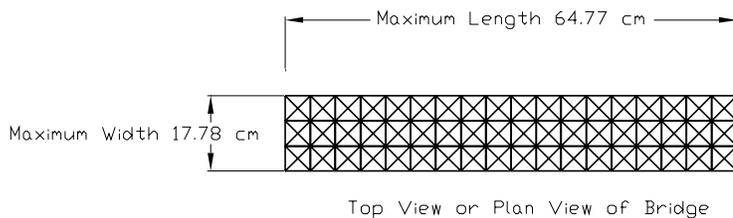
Span: The bridge must span a gap or opening of 42.23cm (16 5/8 in.).
(See drawings and photograph.)

Type of Bridge: You may not build a hanging bridge or suspension bridge. The bridge must be free standing. This may limit you to building a truss bridge or beam bridge.

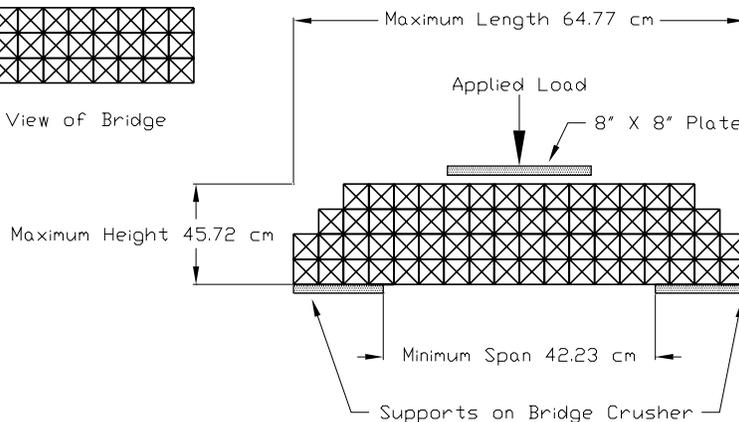
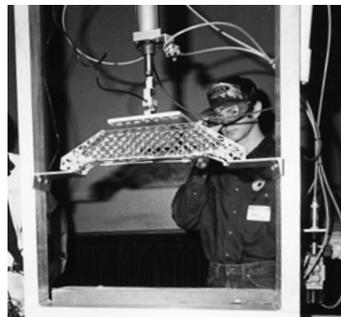
Load: A gradually increasing force (weight) will be applied to the bridge from above by 20.32 cm (8 in.) square or circular metal plate.

Support: The bridge will be supported from below by two metal brackets that are approximately 11.27 cm by 17.78 cm wide.

Roadbed: A surface or roadbed is not required.



photos by Rae Adams



Side View or Elevation View of Bridge in Bridge Crusher

