

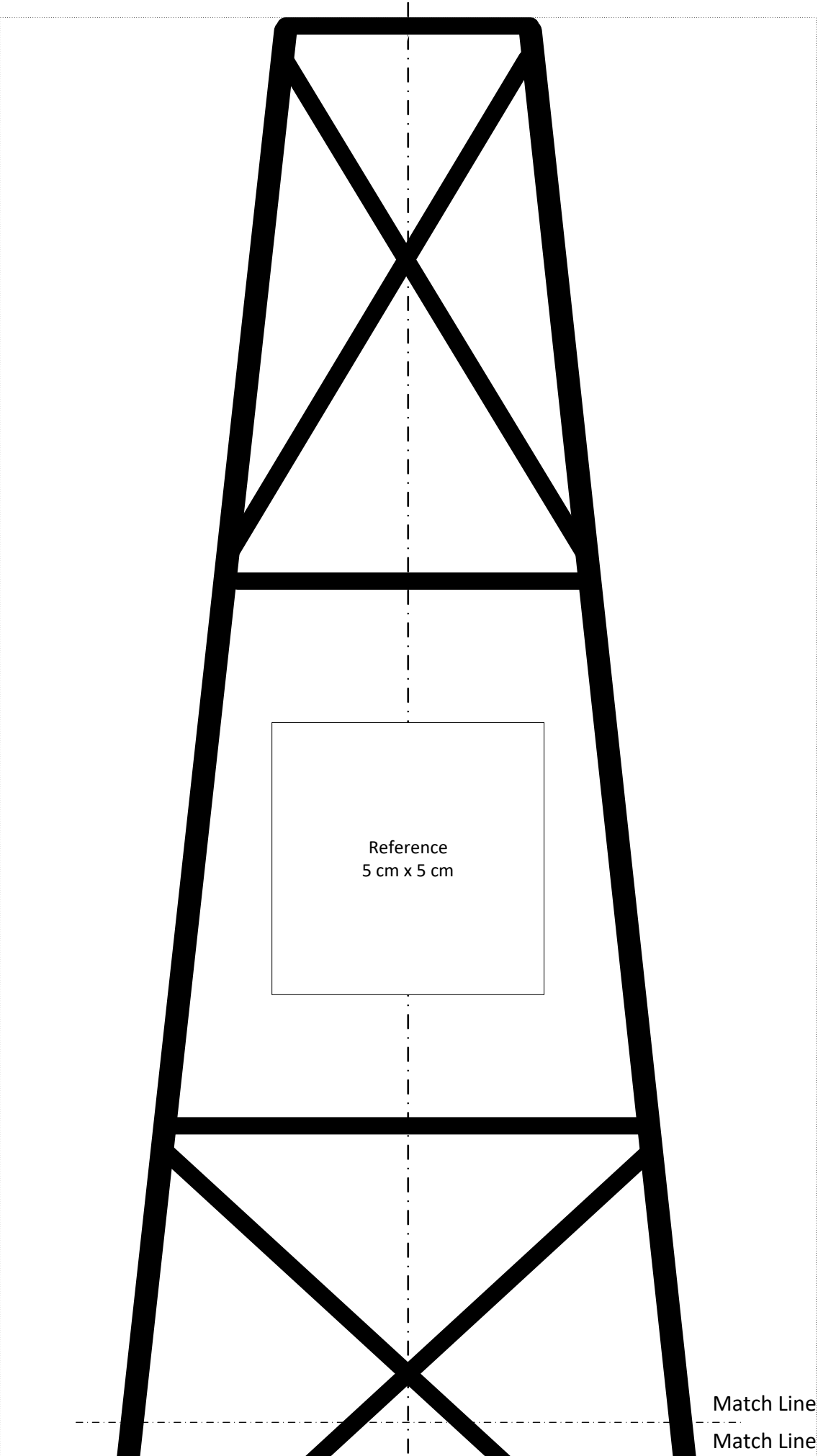
# Tower Building Template and Guide

## Division B 2024

Based on rules as of 5/29/2023

General instructions for building a bridge to span a 20 cm by 20 cm opening. (Bonus points can be obtained by spanning a 29 cm circle. See rules.)

- Print out template and verify the reference square measure 5 cm in both directions
- Tape together template pieces. The tower should measure at least 51.0 cm tall, 4.8 cm at top and 15.0 cm at bottom (14.9 cm on inside of bottom).
- Pin or glue template to flat foam building board, cover with wax paper if you wish
- Build 2 sides:
  - Long members: Cut two (2) -  $3/16'' \times 3/16''$  pieces. Use pins to hold the pieces in place on the template.
  - Horizontal cross members: Cut  $1/8'' \times 1/8''$ . Glue in place.
  - Diagonal cross members: Cut  $1/8'' \times 1/8''$ . Glue in place.
  - When dry, remove sides from board. Clean-up and remove excess glue
  - Make 2 sides
- Set 2 sides on template in a vertical orientation so one Long member is on the template (on the Long member line) and one Long member is in the air. Pin in place and add:
  - Cross members: Cut  $1/8'' \times 1/8''$ . Glue in place.
  - Diagonal cross members: Cut  $1/8'' \times 1/8''$ . Glue in place.
- When dry, turn bridge over and repeat previous step
- When dry, remove excess glue
- Check Tower for level (set loading block on top with small level). Adjust if necessary
- Test Tower!!
- Repeat!



Reference  
5 cm x 5 cm

Match Line  
Match Line

