Portable Timber Bridge for Truck Traffic

Traditional Longitudinal Glued-Laminated Timber Bridge for portable bridge applications

Bridge Design Specifications

**Bridge Application:** Used by truck traffic in logging operations or other temporary bridge applications

**Design Vehicle:** AASHTO HS20 truck

**Design Deflection Limitation:** L/240

**Curb / Rail Requirements:** structural curb designed for AASHTO loading

**Supplemental Wearing Surface:** none

**Bridge Material:** glued-laminated timbers, southern pine Combination 47, creosote preservative treatment

**Bridge Length:** 30 ft – 0 in.

**Bridge Width:** 16 ft – 0 in.

**Bridge Module Width:** 4 ft – 0 in.

**Bridge Module Depth:** 10.5 in.

**Installation Equipment:** Excavators, loaders, crawler tractors or similar construction or forestry equipment

**Installation Time:** Less than six hours

**Installation Procedures:** Excavators can pick up the modules using eye bolts placed through the modules; the modules can then be carried to the stream crossing and placed side by side on the stream banks. Crawler tractors can also winch the modules into place. The modules are typically placed on spread footings to prevent settling into the soil. A transverse stiffener beam is bolted to the lower side of the bridge to distribute loads among the bridge modules. For most installations, cables should be used to secure the bridge modules to nearby trees or deadmen.

**Bridge Fabricator:** Structural Wood Systems, Inc. Greenville, Alabama.

For more information, contact Steve Taylor at Auburn University: staylor@eng.auburn.edu  ✆ 334-844-3534 ✆ www.eng.auburn.edu/users/staylor
Bridge Installation with Crawler Tractor

Bridge Removal with Excavator