

FACT SHEET

Skidder bridge

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ISSUED IN FURTHERANCE OF COOPERATIVE EXTENSION WORK, ACTS OF MAY 8 AND JUNE 30,
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UMASS EXTENSION OFFERS EQUAL OPPORTUNITY IN PROGRAMS AND EMPLOYMENT.

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Logging operators in Massachusetts report increased use of skidder bridges to cross small streams and brooks. While the percentage of stream crossings that are bridged during harvesting varies from year to year, the trend is clear. Forest Cutting Practices records show an increased use of bridges at stream crossings in a 16-town study area in north central Massachusetts in the last 10 years. Between 1985 and 1994, the percent of stream crossings that were bridged increased from roughly 5 to 30.

More and more of these bridges are portable, and can be easily moved and used again to save time on future jobs. These portable bridges are an improvement over those made from logs and poles cut on the site. Bridges can reduce skidding time because the machine operator doesn't have to slow down, drop and raise a hitch, or negotiate the banks. Reduced wear and tear on a machine can keep maintenance costs and downtime low. In addition, portable skidder bridges keep the hitch out of the stream and off muddy banks. Cleaner wood reduces saw chain maintenance. Portable skidder bridges protect banks and can reduce the amount of soil entering streams and small brooks. For all these reasons, skidder bridges provide the highest level of water quality and fish and wildlife habitat protection during a timber harvest.

TWENTY-ONE WESTERN MASSACHUSETTS LOGGERS who use portable skidder bridges contributed their best ideas and experiences to describe the state-of-the-art in successful portable skidder bridges. Their combined wisdom suggests:

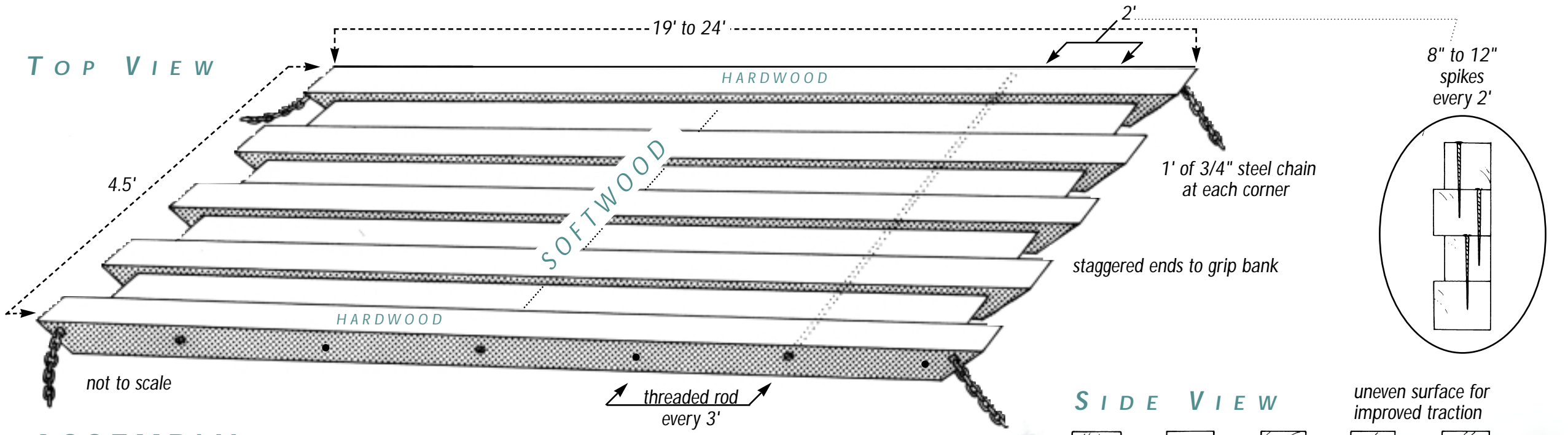
COST: on the average, \$550, with estimates ranging from \$200 to \$1200

TIME to ASSEMBLE: on average, 8 hours, with estimates ranging from 2 to 24

LIFE SPAN: 4-5 years, with estimates ranging from 2 to 10

LENGTH: average was 19 feet, ranging from 12 to 24

WIDTH: average of 4.5 feet per section, ranging from 3 to 6 feet per section (Two sections are used for the crossing, one for each tire.)



ASSEMBLY:

Pre-drill and inset 3/4" threaded steel rods every 3' and secure with at least one nut. To increase rigidity, nail individual timbers together every 2' with 8" to 12" barn spikes. This prevents flexing between the threaded rods.

Most loggers use a two-piece bridge design, dragging both pieces into place with the skidder, or moving them with a forwarder. The pieces can be moved from job to job on a log truck.

Longer is better, as long as it can fit on a log truck.

Many loggers own two bridges, one short [19'] and one long [24'].

Proper installation is very important; a bridge must be level, and provide sufficient clearance for stream flow.

Use larger hardwood timbers on the outside edges for strength, to prevent the hitch from sliding off, and to make it easier for the grapple to grab.

Use softwood timbers on the inside to minimize weight, make drilling easy, and keep the cost down.

Alternate 6x6" and 6x8" softwood timbers on the inside to create an uneven surface for better traction.

Provide for water drainage to prevent rot.

Staggered and beveled ends of the bridge grip the bank and lie flat.

Use 1' of 3/4" chain on the corners to be able to skid the sections from the landing, and hold the two pieces of bridge together.

