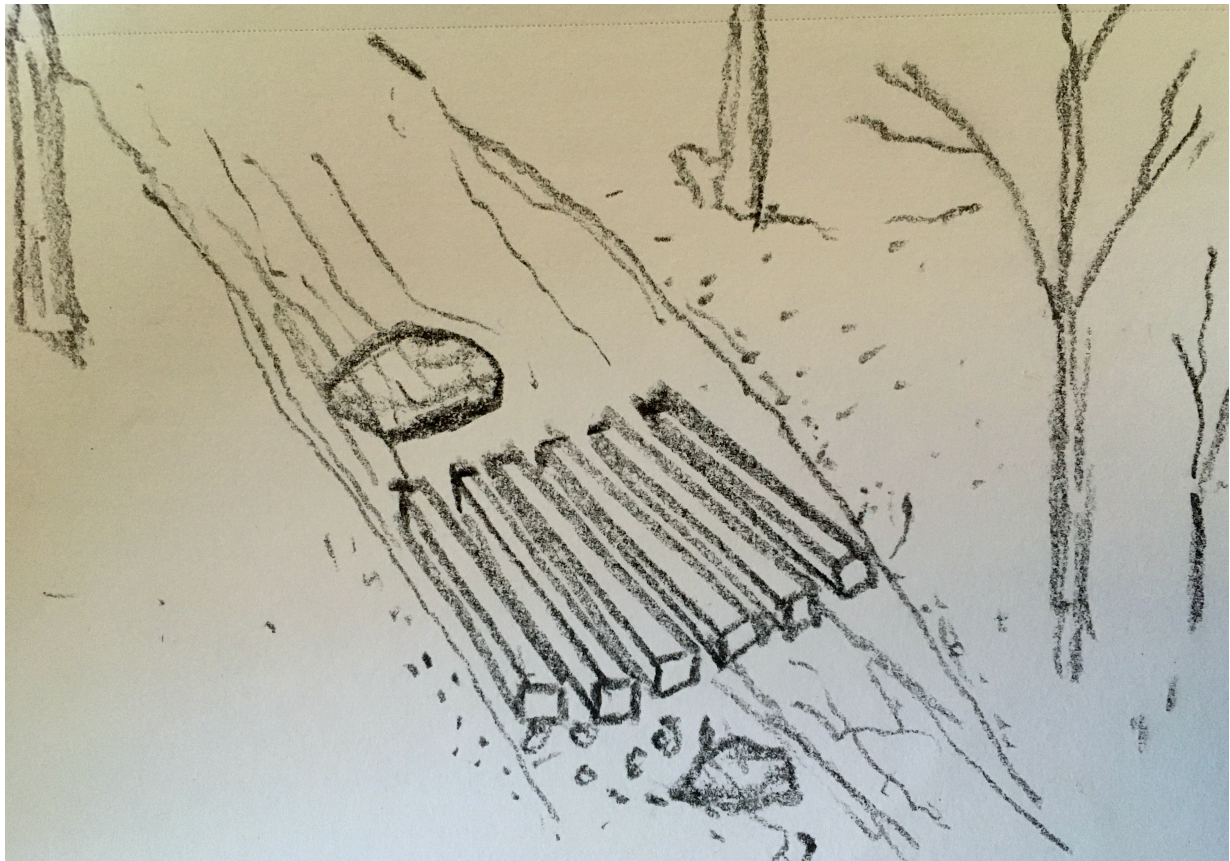


This crossing is for the emergency use of installing a curtain drain to prevent water migration from damaging the house. It was determined by our contractor (Mark Williams) that an excavator would be necessary for proper installation. The possibility of any future emergency need of an excavator would be the only reason for future use of a crossing. Contacting the IWEO before each use would be agreeable.

As a temporary crossing used only in periods of low water levels, one of the least invasive methods would be a pole ford\* made with 4"x4"x 8' or 6"x6"x 8' timbers laying parallel to the brook (see *illustration*). This would allow water flow while installed and protect the bed as well as providing a rise above the bed to prevent the banks from damage. The bank elevation from bed is a 12-14" gradual slope. The brook bed in the proposed area is stone with larger rocks. The area should be unaffected by the weight of the excavator. These timbers could be easily installed and removed from the location without impact.

As demonstrated during the IWEO site visit, the crossing location is at the lowest bank slope on the property.

Mark Williams indicated that his excavator would not leave any impact that would cause a change in the slope. If the IWEO requires protective sheeting, we would be happy to comply.



### Temporarily constructed fords

A firm base for a ford can be temporarily established by using materials such as mats made of wood or tires, or by using expanded metal grating, logs, or floating rubber mats. (See the section on wetland crossing options for a description of wood mats, tire mats, and expanded metal grating.) Wood or tire mats or expanded metal grating, in combination with a non-woven geotextile, can be placed directly across a stream to create a firm base for the ford (fig. 16). Installation is quick and easy. Removal is also simple, but may require re-turning at a later date if the site is frozen when the operation is finished. In some instances,

Figure 16.—A tire mat used to provide support in a temporary ford.

the stream bed or bank may be too weak for the geotextile and mats or expanded metal grating to provide sufficient support for traffic. Supplemental corduroy, gravel, or rock fill may be needed in the weakest portions of the crossing to create a firm base for the ford.

In some jurisdictions, a pole or **log ford\*** may be established for crossing small streams. For this type of ford, the stream channel is filled with logs laid parallel to the direction of stream flow. This works well for crossings that will be used only a few times and where the logs can be easily removed as soon as the work is completed. It is best suited for dry ditches and intermittent stream channels because of the risk of blocking stream flow, particularly during spring breakup or

following a heavy rain. Placement of two or more steel cables laid bank-to-bank below the pole ford will facilitate removal of the logs. To minimize the risk of blocking stream flow, polyvinyl chloride (PVC) pipe bundles can be used in place of logs. (See the section on PVC pipe bundles below for a description of this option.)

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