

PRIMARY USE: Minimize bank erosion.

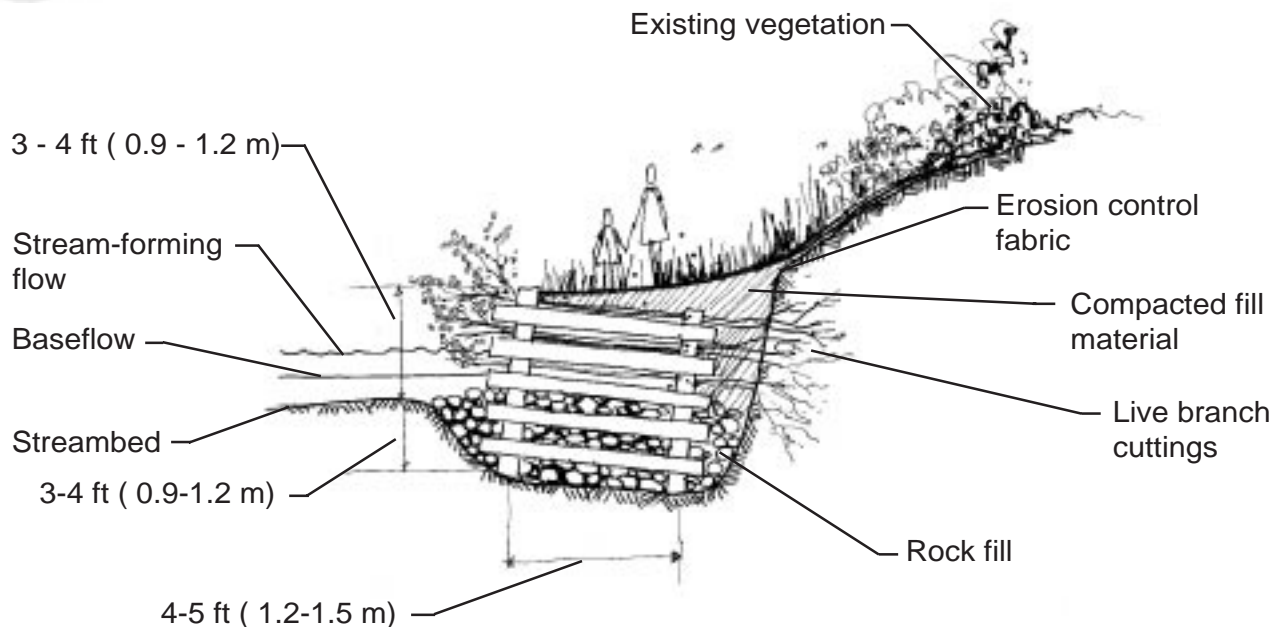
ADDITIONAL USES: Enhance aesthetics through establishment of vegetation.

LIVE CRIBWALL

What is it? Live cribwalls are chambers made of untreated, interlocking timbers or logs which are filled with alternating layers of soil and live branches above the stream's base flow level.

Purpose

They provide effective, immediate protection of very steep banks where it is not possible to regrade the slope, and they hasten the rapid establishment of woody vegetation. It has a more natural appearance than a structural treatment alone.



**Live Cribwall
Section View**

Limitations

This technique should only be used to build walls which are 7 ft (2 m) or less in height and not longer than 20 ft (6 m). Materials should be available on site. Branches must be in dormant state and can not be allowed to dry out between harvest and installation. Must be implemented during low water period.

Materials

Logs should be from 4-6 in (102-152 mm) in diameter and long enough to suit the specific project design. Live branches should be from 0.5-2.5 in (12-64 mm) in diameter and long enough to penetrate the bank at the back of the crib structure. Rock and soil for alternate layers.

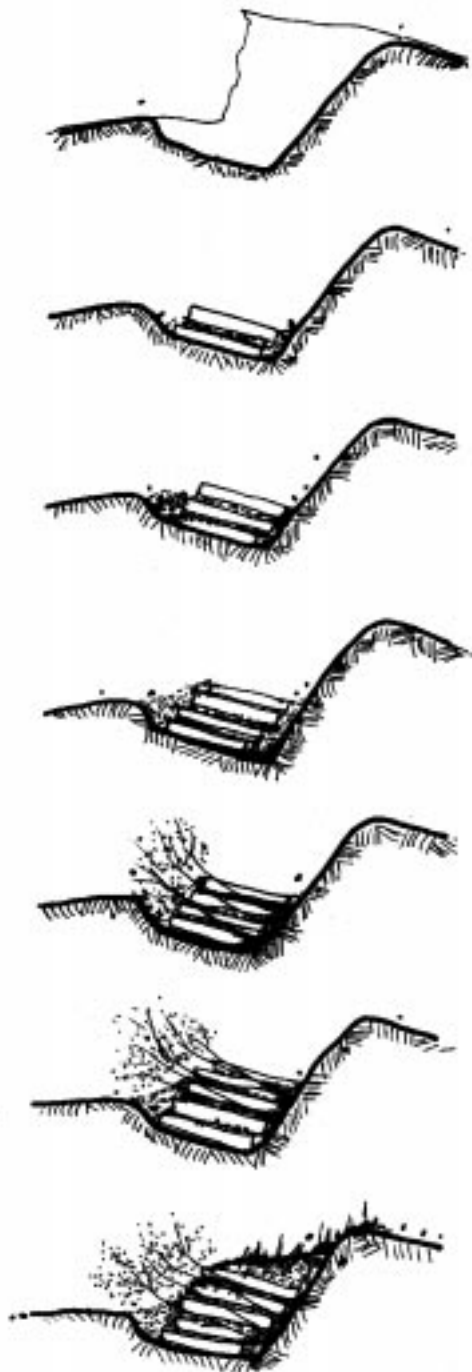
Installation

Excavate streambank side of the footing 6-12 in (152-305 mm) deeper than the front so that crib wall tips toward the bank. The first course of logs is place 4-5 ft (1.2-1.5 m) apart, parallel to the bank's contour. Add the next course at right angles to the bank face with 3-6 in (76-152 mm) of overhang beyond the first course. Secure the courses together with reinforcing bars or nails. Repeat until desired height is reached. Place rock up to the height of base flow surface. Then add soil and a layer of branch cuttings which extend into undisturbed soil in streambank. Repeat alternating layers of soil and cuttings, ending with soil. Grade to join existing streambank.

Source: Stream Corridor Restoration Handbook, USDA.

LIVE CRIBWALL

Additional Drawings:



**Construction Sequence for Live Cribwall Construction
Section View**