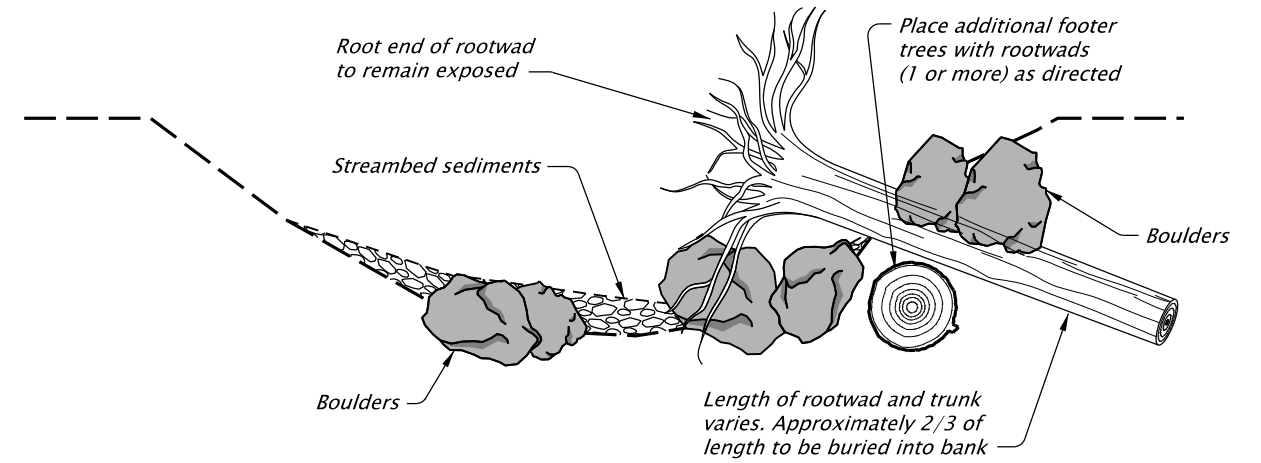
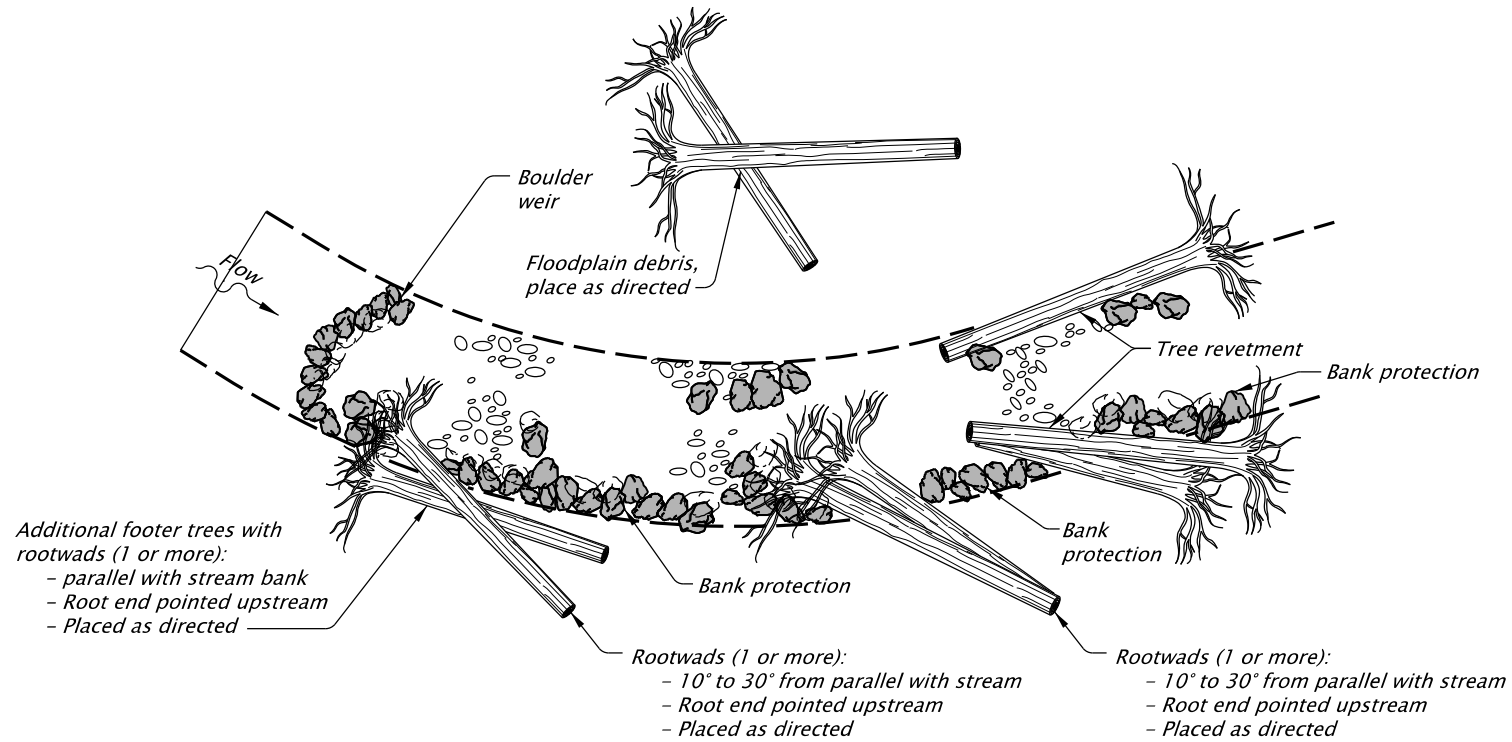




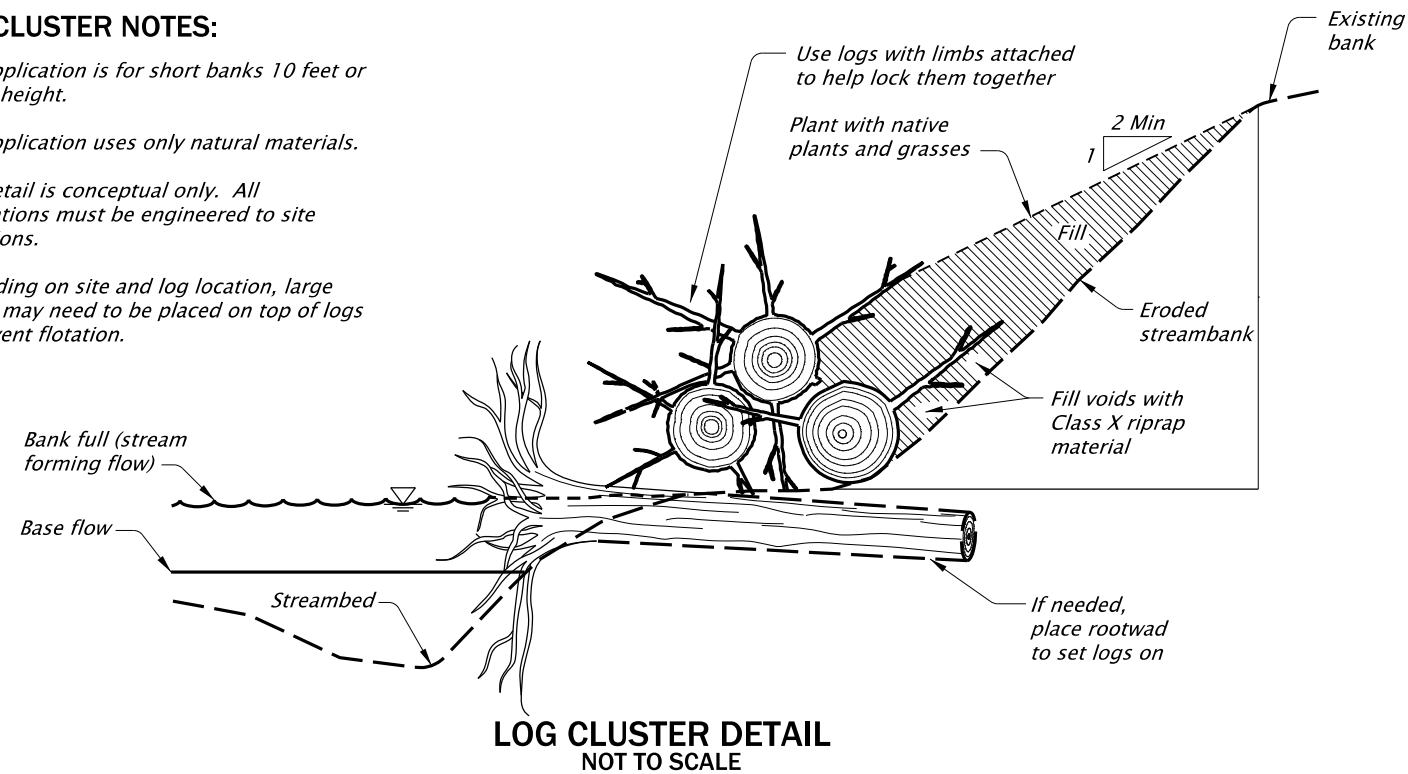
#### LOG CLUSTER NOTES:

This application is for short banks 10 feet or less in height.

This application uses only natural materials.

This detail is conceptual only. All applications must be engineered to site conditions.

Depending on site and log location, large stones may need to be placed on top of logs to prevent flotation.



The selection and use of this detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

**OREGON DEPARTMENT OF TRANSPORTATION**  
TECHNICAL SERVICES  
DETAILS

LARGE WOODY DEBRIS

DETAIL NO.

DET 5104