

Stream Crossing

North Carolina Practice Job Sheet 578

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



A water crossing for livestock.

DEFINITION

A stream crossing is a stabilized area or structure constructed across a stream to provide a travel way for people, livestock, equipment, or vehicles.

PURPOSE

- ☐ Improve water quality by reducing sediment, nutrient, organic, and inorganic loading of the stream.
- ☐ Reduce streambank and streambed erosion.

CRITERIA

It shall be the responsibility of the owner/lessee to obtain all necessary permits and/or rights, and to comply with all Federal, state, and local laws pertaining to this installation.

Cuts and fills in wetlands and the waters of the United States will require permits. Consult the Army Corps of Engineers and

the North Carolina State Division of Water Quality and Department of Environment and Natural Resources for permit requirements.

Locate crossings, where possible, out of shady riparian areas to discourage cattle loafing time in the stream.

Stream crossings shall provide a way for normal passage of water, fish and other aquatic animals within the channel during all seasons of the year.

Crossings shall be installed perpendicular to the direction of the flow of the stream.

Approaches to the stream crossing shall blend with existing site conditions where possible.

Surface runoff shall be diverted around the approaches to prevent erosion.

All rock shall be chosen to withstand exposure to air, water, freezing and thawing.

Areas adjacent to the stream crossing shall be permanently fenced or otherwise excluded, as needed, to manage livestock access to the crossing.

All areas to be vegetated shall be planted as soon as practical after construction.

Consider the overall effect on erosion and sedimentation that will be caused by the installation of the crossing and any necessary stream diversion.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared for the specific field sites in accordance with the Stream Crossing NC NRCS Practice Standard (578) and shall describe the requirements for applying the practice

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer. To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

to achieve its intended uses. This plan is attached or will be received

Do not begin construction without NRCS or District approval.

OPERATIONS AND MAINTENANCE

This practice will require periodic maintenance and may also require operational items to maintain satisfactory performance. Your operation and maintenance program includes:

- Underground outlets shall be maintained by keeping inlets, trash guards, and collection boxes and structures clean and free of materials that can reduce the flow.
- All leaks shall be repaired promptly to insure proper functioning of the conduit.
- Animal guards must be inspected periodically and maintained in proper working order.

Plant Materials information for Stream Crossing (if applicable).

☐ Not applicable.

Species	Permanent (P) or Temporary (T)	Seed (PLS) lbs./ac. or lbs./1000 sq. ft.	Mulch lbs./ac. or lbs./sq. ft.	Planting Dates

A. Fertilizer and Lime

- a. Fertilize and Lime according to current soil tests.

B. Site Preparation

- a. Site preparation (including removal of rocks, stumps and other obstructions) shall be the minimum necessary to ensure close contact of seeds or sprigs with the soil and to ensure safe and efficient operation of equipment.
- b. Herbicide may be used to control competing growth, but it is still critical to keep competing vegetation height to a minimum.
- c. Where conventional tillage seedbed preparation is necessary, prepare the seedbed across the dominant slope.
- d. The conventionally prepared seedbed should be firm enough to permit seed placement at the desired depth and protect against erosion. A firm seedbed should hardly reveal adult footprints. This will allow for placement of the seeds at a depth of $\frac{1}{4}$ to $\frac{3}{4}$ of an inch into the soil.

Landowner: _____ Field Number: _____

OPERATION AND MAINTENANCE

This practice will require periodic maintenance and may also require operational items to maintain satisfactory performance. Your operation and maintenance program requirements include (check if applicable):

- ☐ Inspect the crossing regularly, especially after heavy rains. Stream crossings will need periodic maintenance throughout the lifespan. Damaged areas will be filled, compacted, and re-graded immediately. Remove debris or blockages. Repair and/or restore flow capacity as needed.
- ☐ You can expect the top surface of the stone to be eroded away during flooding. This stone must be replaced to ensure a safe and stable travel surface for the livestock.
- ☐ Culvert type crossings impose a restriction to stream flow, and can receive excessive damage from floods, requiring regular maintenance to preserve their integrity.
- ☐ The fencing component should be checked after every high flow event as well as on a regular basis. Any fencing that has been damaged due to high flow should be repaired immediately. Care should have been taken during installation to minimize the damage caused to the corridor fencing (parallel to the stream) by the cross-fencing (perpendicular to the stream). Replace or repair any fencing as necessary
- ☐ Maintain road ditch and drainage facility capacities. Maintain vegetated areas in adequate cover. Re-seed and mow as needed.
- ☐ Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.
- ☐ Immediately repair any vandalism, vehicular, or livestock damage to earthfills, side slopes, spillways, outlets or other appurtenances.
- ☐ If flooding has caused excessive damage to the crossing, contact your local NRCS or SWCD office for assistance.

Additional operations and maintenance requirements specific to this plan:
