

NATURAL RESOURCES CONSERVATION SERVICE

DOCUMENTATION REQUIREMENTS

ANIMALS TRAILS AND WALKWAYS

CODE 575

REFERENCES

Methods used in the survey, design, and construction of this standard should reference:

- Louisiana FOTG IV Conservation Practice Standard for this practice.
- National Engineering Handbook (NEH) - Part 640, Technical Release 62, Engineering Layout, Notes, Staking and Calculations
- NEH - Part 650, Engineering Field Handbook (EFH) Chapter 1 Engineering Surveys.
- National O&M Manual, Part 500

PRELIMINARY INVESTIGATION

A preliminary investigation shall be conducted to determine the feasibility of the practice in regards to the purpose and applicability of the conservation practice relative to the site conditions, topography, soils, cost, etc. The designer shall review the criteria in the conservation practice standard prior to the preliminary investigation and during the final design to insure the implementation of this practice addresses the intended resource concerns.

During the preliminary investigation, sufficient data must be gathered and analyzed to determine whether to proceed with the practice.

DESIGN SURVEY

All surveys shall be tied to temporary or permanent benchmarks (assumed or actual) that will not be damaged during construction.

A profile of normal ground shall be run and recorded if practicable. Profile shots shall be taken at 100 foot intervals and at critical locations such as changes in slope, utility locations or stream crossing, etc.

Marsh Land Walkways. Determination of embankment supportability shall be made by probing along the centerline of the proposed walkway and by observation of marsh vegetation and other significant natural conditions. If marsh vegetation and unstable natural conditions make a survey profile impracticable, a preliminary profile need not be obtained.

Livestock Water Access Points. A study of the pond or stream area shall be conducted to determine the best location for the ramp. Existing fences, grazing patterns, shoreline slope, and water depth should be considered when choosing the optimum location for the ramp. Ground elevations at the proposed access point location shall be taken to document the pre-existing foundation slope and the need for foundation excavation or fill in order to meet the design slopes specified in the conservation practice standard.

DESIGN

1. Design in accordance with the design criteria in the conservation practice standard for this practice.
2. Compute earthfill or excavation quantities.
3. Develop engineering plans and specifications.
4. Develop a site specific O&M Plan for the practice.

PLANS AND SPECIFICATIONS

Specifications. A copy of the Conservation Practice Standard and the Construction Specifications for this practice shall be provided to the cooperator. The specifications shall provide sufficient details to facilitate a quality installation and reflect the intent of the designer.

Plans. The engineering drawings that represent the location, shape, size, and configuration of the engineering practice to be installed with sufficient detail to support a quality installation shall be provided to the cooperater. Plans shall be in accordance with policy stated in 210-V-NEM §541. As a minimum plans shall be provided that include the following:

1. Planned location of the proposed practice. Can be a sketch on job plans, or on the conservation plan map. Also benchmarks used in the design surveys shall be shown on the plan drawings.
2. Design width and length of trail, walkway or access point.
3. Type, location and dimensions of fence where required.
4. Grade or percent of slope of trail, walkway or access point.
5. Critical elevations if applicable.
6. Type and thickness of surface treatment including any base course requirement or reinforcement if concrete is used.
7. Cut and fill slopes where applicable.
8. Drainage and structure requirements including size and elevation of required structures.
9. Vegetative requirements for disturbed areas.
10. Location of utilities and notification requirements.

REVIEW AND APPROVAL OF PLANS AND SPECIFICATIONS BY LANDOWNER

A copy of the Conservation Practice Standard, the Construction Specifications for this practice and project specific plans shall be reviewed and approved by the cooperater in accordance with 210-V-NEM LA501.00-80.

Ensure the landowner/contractor thoroughly understand their responsibilities including obtaining all permits, easements, etc.

OPERATION AND MAINTENANCE.

An operation and maintenance (O&M) Plan shall be developed during the design process

and provided to the landowner. The O&M Plan shall provide sufficient information for the landowner or operator to properly operate and maintain the practice for its intended life. The O&M Plan must be reviewed with the landowner. See the respective conservation practice standard and the National O&M Manual, Part 500 for further policy and guidance.

CONSTRUCTION LAYOUT

For existing ponds or streams where a livestock water access point is proposed, dewatering of the site to a level below the bottom of the ramp will be required.

Set a sufficient number of stakes to guide the landowner or contractor in constructing the animal trail or walkway or livestock water access point. As a minimum, locate the trail or walkway or access point and stake cuts and fills. In marsh land, if it is not practical to stake the proposed walkway and borrow location prior to beginning construction due to unstable natural conditions the centerline shall be flagged.

Stake the location and elevations of required structures such as water control structures.

CONSTRUCTION

Adequate site visits and checks shall be made during construction to verify that the plans and specifications are followed.

Any changes in the design must be reviewed and concurred by the landowner and shall be approved by the designer and person with appropriate engineering design job approval authority.

CONSTRUCTION CHECK

Reference notes to a bench mark and to normal marsh water elevation.

Visually observe all of the completed walkway. Take a representative cross-section at a minimum of every 1,000 feet and at other questionable locations. Extend the cross-section to the edge of the borrow area to show berm width. Also take centerline readings at all areas that appear not to meet the minimum height requirements and at both ends. Record

cross-section data, dimensions, elevations and kind of material used for all structures.

Chain walkways, if an accurate quantity figure is required, otherwise they may be paced or scaled from an aerial photo.

Check the field notes carefully to determine all specifications have been met. Date and sign statement, "This practice meets specifications." Note any exceptions.

RECORDING DATA

Engineering field notes shall conform to the National Engineering Handbook (NEH) Part 640, Technical Release No. 62 (TR-62) Engineering Layout, Notes, Staking and Calculations.

Field notes shall be recorded in looseleaf or bound field notebooks. Hard copies of electronically generated survey and design data shall also be attached to the field notes.

When survey data is gathered electronically, conventional field notes shall also be recorded to capture any survey information not electronically captured. This type of information may include but not be limited to project name, practice name, purpose of survey (i.e. design, construction layout, etc.), survey party members and their assignments, benchmark descriptions and general location sketch of the project, surveyor comments regarding observations in the field relative to the conservation practice being planned or applied.

CERTIFYING QUANTITIES

After it has been determined and documented that the practice meets NRCS plans and specifications, it can be reported and certified. The extent of the practice to be certified is the number of linear feet of animal trail or walkway installed. The extent of the practice certified is the quantities used as the basis for payment such as linear feet, square feet, etc.

RECORDING COMPLETED PRACTICE

The animal trail or walkway shall be shown in red on an aerial photograph or overlay to avoid overcrowding. (See Standard Conservation Symbols). Show date work completed in black text.

FILING NOTES AND RECORDS

See General Manual 120, Administrative Services; Part 408, Records; Subpart D, Exhibits; 210, Engineering; 210-11, Conservation Practices.

A hard copy of all conventional and electronic survey notes and design information shall be retained and filed in the engineering folder.

All electronic files shall also be filed in the client's Engineering Folder of the Customer Service Toolkit.