Access Road, Code 560

I. References

A. Design Criteria

1. Alabama FOTG Section IV, conservation practice standard, Access Road, Code 560.

B. Design/Layout Surveys

1. TR-62 Engineering Layout, Notes, Staking & Calculations.
2. NEFH Part 650, Chapter 1, Engineering Surveys.

C. Computer Software Design Aids

1. USDA – NRCS Hydraulics Formula.

II. Documentation

A. Preliminary Investigation

Make a preliminary investigation to determine if the location and site are suitable, the need for water control structures, and to determine the appropriate surface treatment needed in order for the practice to meet the planned use and purpose(s).

B. Engineering Surveys

1. Record all surveys in the engineering field book.
2. Reference all surveys to a bench mark where needed to establish elevations for construction. Bench marks to NGVD should be used if possible.
3. Surveys shall be taken to determine the location, grades, length, cut and fill volumes, and structures needed. As a minimum, a profile should be taken along the proposed alignment with sufficient cross sections to determine earth work quantities.
4. Note the location of any utilities or utility markers.
5. All measurements for earth work quantities will be performed by field surveys.

C. Design

1. Design in accordance with the conservation practice standard Access Road, Code 560. Record design data on NRCS-ENG-523A (or equivalent) for needed appurtenances such as culvert size or drainage ditches.
2. Obtain sufficient soils/geologic investigations to design the road foundation.
3. Develop engineering plans and specifications. As a minimum the engineering plans and specifications shall include:
   a. Location of road. Can use a sketch on engineering plans, in field notes, on approved forms, or on the conservation plan map.
   b. Road width and length with profile and typical cross section(s).
   c. Location, size, type, length and invert elevations of all required structures.
   d. Design road grades or maximum grades when applicable.
   e. Type and thickness of surface treatment including any sub base preparation.
   f. Cut and fill slopes where applicable.
   g. Drainage areas and structure requirements for culverts, bridges, etc.

h. Vegetative requirements on slopes and road shoulders.

i. Safety requirements.

j. Location of utilities and notification requirements.

4. Develop a site specific O&M Plan for the practice.

D. Construction Layout

Review the plans and specifications with the landowner and contractor prior to the start of construction. Ensure the landowner/contractor thoroughly understand their responsibilities including obtaining all permits, easements, etc.

Record the layout information in the engineering field book or in the electronic field book.

1. Set a sufficient number of stakes to guide the landowner or contractor in constructing the access road. As a minimum, stake the centerline of the proposed road at the beginning, at changes in alignment, changes in grade, at the end, and on a maximum spacing of 500 feet.
2. Stake the location of required structures (e.g. culverts, etc.).

E. 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.

F. Construction Checkout

1. The length of the access road shall be measured in the field with a chain, calibrated measuring wheel, GPS, or other equivalent method to the nearest foot. Profile the road with elevations at changes in grade but not to exceed intervals of 500 feet. Determine if the road is constructed to the design grades.
2. Record and plot at least one cross section of the access road that represents the weakest section. Determine if the cross section meets the design width, side slopes, etc.
3. Check the type and thickness and extent of surface treatment installed.

4. Check the location, size, length, gage, coating, and type of material for all culvert structures.

5. Check invert elevations for all culvert structures.
6. Statement of adequacy of vegetation.
7. Prepare as-built drawings showing final construction dimensions, details, etc.
8. If the practice meets NRCS standards and specifications, then the statement "This practice meets NRCS practice standards and specifications" shall be placed on the checkout document and signed and dated by the responsible person with appropriate level of engineering job approval authority.

G. Reporting and/or Certifying

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 reported is the constructed length of road in feet. The extent of the practice to be certified is the quantities used as the basis of payment such as cubic yards of earth moved, area of surface treatment in acres or square yards, etc.