

Part 540 - Field Surveys

SUBCHAPTER E - SUPPORT OPERATIONS

PART 540 - FIELD SURVEYS

AL540.01

AL540.00 General.

The Alabama Engineering Survey Guide is to be followed for planning, design, and construction surveys on the project and larger non-project activity jobs.

AL540.01 Format

Technical Release (TR)-62, (Filed as Engineering Reference 13-9), Engineering Layout, Notes, Staking, and Calculations, contains the recommended NRCS format for engineering notes and related staking.

It is imperative that engineering surveys and note-keeping procedures be performed with efficiency and in a manner that will provide the information needed in planning, designing, applying, and checking conservation practices. This calls for a uniform procedure for surveying, designing, and recording information at all locations in Alabama.

The sample engineering notes included in TR-62 illustrate the Natural Resources Conservation Service standard format for recording survey information obtained for planning, designing, installing, and checking engineering work. Detail sample notes for the most common engineering practices are included in the Engineering Field Manual. These sample notes are not intended to serve as an inflexible guide in determining the intensity of a survey or the degree of staking required for satisfactory installation of engineering work under all conditions. These determinations must be made on the basis of topographic conditions at the site.

Layout and checkout notes for engineering practices will be recorded as one set of loose-leaf engineering notes and filed as noted under AL540.01(b). Engineering field books used will be numbered consecutively as they are filed and each practice indexed. Any changes made in the design during construction will be recorded in the field notes, bound, or loose-leaf with approval noted by a qualified technician. Changes will be recorded in red pencil.

The format for recording layout, checkout, and spot-checking data will be as outlined in the Alabama Survey Guide, TR-62, and the Alabama Engineering Field (Design) Manual. Supporting data for engineering practices is prescribed in General Manual 450, Part 407, Subpart B, with the following additional items recorded in the engineering field book:

1. Embankment Ponds and Sediment Basins
 - a. A statement that the cut-off trench (core trench) under the embankment was inspected and approved for backfilling before any backfilling was started.
 - b. The dimensions of trashrack or deep water release and type of material.
 - c. Statement on number and kind of anti-seep collars installed.
 - d. Statement that the pipe was the diameter and quality specified.

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2. Terraces and Diversions. Check-out surveys will be performed according to instructions for the Alabama Engineering Field (Design) Manual.
3. Grade Stabilization Structures and Water and Sediment Control Basins. Elevation of crest of inlet and invert of barrel at outlet end and the condition and adequacy of vegetation.

A single title page will suffice for all surveys relating to the same engineering practice if the design surveys, construction layout, and construction check surveys are recorded on consecutive pages. Otherwise, a new title page is necessary and must be cross-referenced by book and page number to the original bound book. When a design survey is completed, enough pages should be reserved immediately following for the construction layout and construction check survey notes.

Additional information and instructions can be found in the Engineering Field Manual for Conservation Practices: Chapter 1 - Engineering Surveys; Chapter 5 - Preparation of Engineering Plans; and the applicable conservation practice chapter.

AL540.01(b) Class I-V Jobs.

Loose-leaf notebook forms SCS-ENG-28 and SCS-ENG-29 or special forms are to be used for recording engineering surveys, notes, and design data on landuser conservation practices, Long-Term Agreements (LTAs), Rural Clean Water Program (RCWP), and Long-Term Contracts (LTC's). Special forms may be used in lieu of loose-leaf notebooks to facilitate notekeeping and provide construction details for installation of practices. Approved forms are available and are made a part of the applicable chapter of the Alabama Engineering Field (Design) Manual. When requested, or it is determined to be useful, copies of appropriate specifications, forms, designs, etc., are to be furnished to the owner and/or contractor. Construction requirements form for listing information and construction detail data furnished is to be filled out and made a part of the information given. A copy of the construction requirements form furnished the owner and/or contractor is to be filed in the owner's case file.

The loose-leaf notes and special forms must provide the minimum information shown in the sample notes in TR-62 and follow the format and example provided in the Alabama Engineering Field (Design) Manual. Additional data on engineering notes and supporting data for conservation practices is found in General Manual 450 - Part 407, Subpart B (Documentation and Certification) and disposal schedule for these loose-leaf notes will be in accordance with General Manual 120, 210-11, Conservation Practices. Disposal is 5 years for all practices except inventory size earth fill ponds and waste management systems (waste storage ponds, storage structures, and waste treatment lagoons) which shall be retained for the life of the structure.

The loose-leaf engineering notes will be filed in the conservation plan, case file, or with a case file set up for each program cost-share referrals.

AL540-2(2)

(210-V-NEM, Amend. AL45, January 2000)

Loose-leaf notes, designs, special forms, and drawings and specifications will be handled as follows:

1. Number the pages of notes in order beginning with the title page (SCS-ENG-28) through design surveys, (SCS-ENG-29) construction layout, and construction check surveys. The upper right corner will be used to number the pages and show the number of pages in the set of notes, i.e., page 3 of 12, 12 of 12 for total of 12 pages for a 12-page survey. Actual number of pages will vary with total survey needs.
2. When the practice is completed and certified, the notes will be removed from the loose-leaf binder and stapled together as a set of notes for filing in locations noted above. If a practice is not completed in a reasonable time, the notes should be removed from the loose-leaf binder stapled together and filed in the case file as noted in 3 and 4 below.
3. Completed loose-leaf notes will be attached to appropriate design forms, drawings, and specifications prior to filing.
4. Completed notes will be filed in the case file in an envelope placed in the case file folder for that purpose. Notes, forms, drawings, and specifications attached and filed together will be filed in large envelopes. Loose-leaf notes filed with no support data will be filed in small envelopes. These envelopes will be positioned and securely fastened to the inside of the conservation plan folder or case file folder so that the flap will be facing the fold of the folder and will close the flap securely (retaining the contents) when the case file is closed.