

STATEMENT OF WORK

TERRACE

CODE (600)

DESIGN

Deliverables:

1. Design documents that demonstrate criteria in practice standard have been met and are compatible with planned and applied practices
 - a. Practice purpose(s) as identified in the conservation plan.
 - b. List of required permits to be obtained by the client along with other participant (client) responsibilities (Reference Form CO-ENG-13, Notification of Participant Responsibilities)
 - c. Compliance with NRCS national and state utility safety policy (NEM part 503-Safety, Section 503.00 through 503.22)
 - d. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Hydrology/Hydraulics
 - ii. Interval/Spacing
 - iii. Capacity of terrace channel and storage area
 - iv. Outlet Capacity and Stability
 - v. Erosion Control
2. Written plans and specifications shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits. All applicable State and Federal (OSHA) safety requirements shall be addressed in the plans and specifications where appropriate. As a minimum they must include:
 - a. A plan view of the layout of the terrace system.
 - b. Typical cross sections of the terrace(s).
 - c. Profile(s) or planned grade of the terrace(s).
 - d. Details of the outlet system.
 - e. If underground outlets are used, details of the inlet and profile(s) of the underground outlet.
 - f. Seeding requirements if needed.
 - g. Bill of materials needed for the construction.
 - h. Site specific construction specifications that describe in writing the installation of the terrace system.
3. Operation and maintenance plan for the operator to follow. The minimum requirements to be addressed in the written plan are:
 - a. Periodic inspections, especially immediately following significant runoff events.
 - b. Prompt repair or replacement of damaged components.
 - c. Maintenance of terrace ridge height, channel profile, terrace cross-sections and outlet elevations.
 - d. Removal of sediment that has accumulated in the terrace channel to maintain capacity and grade.
 - e. Regular cleaning of inlets for underground outlets. Repair or replacement of inlets damaged by farm equipment. Removal of sediment around inlets to ensure that the inlet remains the lowest spot in the terrace channel.
 - f. Where vegetation is specified, complete seasonal mowing, control of trees and brush, reseeding and fertilizing as needed.
 - g. Notification of hazards about steep slopes on the terraces.
4. Construction Quality Assurance Plan, where appropriate, to include, but not limited to, the following items:
 - a. General description of work

- b. Items of work requiring inspection or testing
 - c. Timing of inspections or tests
 - d. Skills or certifications required by inspectors
5. Certification that the design meets practice standard criteria and complies with applicable laws and regulations (NEM Subpart A, 505.03(b) (2)). For jobs completed by NRCS employees, affix the approval signature of the individual with delegated engineering job approval authority to the drawings. For jobs completed by non-NRCS employees, affix a Colorado Professional Engineer's seal to design and construction documents, when required by state laws and regulations.
6. Itemized cost estimate and list of materials.
7. Design modifications during installation as required

INSTALLATION

Deliverables

1. Pre-installation conference with client and contractor (Reference Form CO-ENG-13, Notification of Participant Responsibilities)
2. Verification that client has obtained required permits
3. Staking and layout according to plans and specifications including applicable layout notes
4. Installation inspection
 - a. Verification of materials used (NEM Part 512, Subpart D, Quality Assurance Activities, 512.33)
 - b. Field inspections during construction
 - c. Record of inspection activities
5. Facilitate and implement required design modifications with client and original designer
6. Advise client & NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation
7. Certification that the installation process and materials meets design and permit requirements (NEM Subpart A, 505.03(c) (1)). Form CO-ENG-1 may be used for this certification.

CHECK OUT

Deliverables

1. As-built documentation
 - a. Extent of practice units applied
 - b. As-built drawings documenting critical elevations, grades and changes from the design
 - c. Final quantities
 - d. Certification that the installation meets NRCS standards and specifications and is in compliance with permits. NEM Subpart A, 505.03 (c) (1). Form CO-ENG-12 may be used for this certification.
 - e. Progress reporting

REFERENCES

- Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Terrace, 600.
- CO-ENG Forms: eFOTG Section IV, Tools
- National Engineering Manual
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- USDA, NRCS. 2004. Revised Universal Soil Loss Equation, Ver. 2 (RUSLE2).
- USDA, NRCS. National Engineering Handbook, Part 650, Engineering Field Handbook, Chapter 7, Grassed Waterways.
- USDA, NRCS. National Engineering Handbook, Part 650, Engineering Field Handbook, Chapter 8, Terraces.