

Colorado
Practice Documentation Requirements Checklist
for
410 – Grade Stabilization Structure

Minimum documentation requirements for this practice are outlined below. Documentation for associated practices or system components shall follow the appropriate practice documentation requirements for those practices or components. Some items may not be applicable in all cases; mark "N/A" in the check box if such is the case.

Participant Name:	Address:
Project Name & Location:	

✓	By:	Date:
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RESOURCE INVENTORY & DESIGN INVESTIGATIONS

Purpose and objectives of practice clearly identified.			
Soils identified (soil map, description, properties, etc.) and foundation investigation, as needed.			
Resistivity readings of soils for corrosion potential, if necessary.			
Location of underground utilities.			
NRCS-CPA-52, Env. Effects Worksheet, & CO-SSC-1, Cult. Res. Survey Form, completed.			
Right of way easements, utility clearances, SHPO clearance, and applicable State and Federal permits are obtained.			
CO-ENG-13, Notice of Participant Responsibilities, has been reviewed with the cooperator, signed, and filed.			

DESIGN SURVEY

Profile and cross sections of channel			
Topographic survey to determine drainage area and basin topography to the extent needed for the design.			
Determine possible borrow areas.			
A sufficient number of temporary benchmarks placed so that horizontal and vertical control can be established throughout design, construction, and checkout of the structure.			

DESIGN

Engineering Job Class determined and noted.			
Hydrologic computations.			
Hydraulic design and structure sizing.			
Structural design, including stability analysis.			
Design for overflow protection where required.			
Spillway design where applicable.			

Quantity computations and cost estimate.			
Records indicating that NRCS obligations regarding State and Federal regulations have been met. Participant(s) have applied for all permits and cleared water rights issues.			
Design computations have been checked by the appropriate person(s).			

PLANS AND SPECIFICATIONS

Construction drawings drawn on appropriately-sized standard drawing sheets. Include standard drawings as appropriate. Drawings and/or specifications to include the following:			
• Engineering Job Class.			
• Location map or description.			
• Scaled or dimensioned plan view of site, including ditches, outlets, pipelines, etc.			
• Profiles, and cross sections, as needed.			
• Dimensioned plan view of structure.			
• Structure details, including elevation views, isometric view, sections, details, etc.			
• Reinforcing steel details and bar schedules (for concrete structures).			
• Requirements for diverting water during construction, dewatering the site, and/or waste disposal.			
• Requirements for fencing, seeding, etc.			
• Borrow area indicated.			
• Material quantities.			
• Fill material and compaction requirements, if not noted in specifications.			
• Construction notes and General notes as required.			
• Note on drawings to call the Utility Notification Center of Colorado (UNCC), 8-1-1 or 1-800-922-1987, prior to any excavation.			
Construction specifications prepared (Colorado FOTG Practice Specifications or other).			
All engineering reports, designs, drawings, specifications, and related information have been reviewed and checked by appropriate personnel in accordance with current Colorado NRCS policy.			
Construction drawings and specifications have been approved and drawings signed.			
O&M Plans prepared.			
Plans, specifications, and O&M plans have been reviewed with the cooperator.			
Preconstruction meeting with cooperator and contractor.			

CONSTRUCTION LAYOUT SURVEYS

Centerline and alignment location stakes.			
Grade and alignment stakes for conduits.			
Grade stakes.			
Reference stakes.			

COMPLIANCE CHECKS & FINAL DOCUMENTATION

Structure dimensions, elevations, alignment, etc.			
Certification of reinforcing steel placement for concrete structures (usually made during construction).			
Compaction test results or inspection observations recorded in tech. notes.			

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Material certification and quantities.			
Embankment and spillway cross sections and profiles as necessary to verify design.			
Seeding and/or fencing noted as complete.			
UNCC (Utility Notification) ticket number has been recorded.			
Construction inspection reports recorded.			
Changes in design are noted and approved by the landowner and the designer, and proper engineering review/approval is obtained.			
“As-Built” plans prepared and filed (Required if significant changes in design occur during construction and for Job Class V and above). If no significant changes, mark original plans “As-Built”.			
Practice completion certified on CO-ENG-1, CO-ENG-12, or checkout notes.			
Progress reported.			