

Colorado Practice Documentation Requirements Checklist for 348 – Diversion Dam

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.			
Evaluate need for fish passage, accommodating recreational uses, maintaining in-stream flows, and any other multi-purpose uses appropriate for the site.			
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 stream channel sufficient to determine structure dimensions and to identify high water lines and flood prone width.			
Profile and cross sections of the irrigation ditch, canal, or watercourse receiving the diverted water of sufficient length to adequately determine the limiting hydraulic factors (e.g., water surface elevations) of the watercourse.			
Topographic survey to determine drainage area and basin topography to the extent needed for the design or use of USGS topographic maps when appropriate.			
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 of stream channel, as needed.			
• Profiles and cross sections of receiving ditch, 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

Location, alignment, elevation, and other reference stakes, as needed.			

COMPLIANCE CHECKS & FINAL DOCUMENTATION

Structure dimensions, elevations, alignment, etc.			
Certification of reinforcing steel placement for concrete structures (usually made during			

construction).			
Material certification and quantities.			
Compaction test results or inspection observations recorded in tech. notes.			
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.			