

**U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK CONSERVATION PRACTICE GUIDELINE**

**FENCE
(FEET)**

382

REFERENCES

National Handbook of Conservation Practices—Code 382, Fence
Lead Discipline: ECS-Graz Land Sp

Commonly Associated Practices or Procedures

The following conservation practices are commonly used in conjunction with this practice to address natural resource concerns and opportunities in New York. This does not imply that any or all of the listed practices must be included or that others may not be included in a conservation management system (CMS). Consult Section III of the Field Office Technical Guide for assistance in developing a CMS.

To determine whether a Conservation Practice Standard applies to this and any other associated practices in New York, check the following website:
http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=NY. Select a County. On the eFOTG main screen, in the menu pane on the left side of the screen, open the Section IV folder to find the Conservation Practices for use in New York. Also included under Section IV are New York Construction Specifications, Engineering Job Sheets, Guidelines and/or Procedures relevant to the Practice Standards.

Table A: Commonly Associated Practice Standards or Procedures

Number	Name	Number	Name
313	Waste Storage Facility	561	Heavy Use Area Protection
342	Critical Area Planting	568	Recreation Trail & Walkway
350	Sediment Basin	574	Spring Development
359	Waste Treatment Lagoon	575	Animal Trails and Walkways
362	Diversion	578	Stream Crossing
378	Pond	580	Streambank and Shoreline Protection
390	Riparian Herbaceous Cover	612	Tree/Shrub Establishment
391	Riparian Forest Buffer	614	Animal Watering Facility
412	Grassed Waterway	635	Wastewater Treatment Strip
468	Lined Waterway or Outlet	638	Water and Sediment Control Basin
472	Use Exclusion	658	Wetland Creation
528	Prescribed Grazing	702	Agrichemical Mixing Facility
558	Roof Runoff Structure		

OTHER REFERENCES

Engineering Field Handbook – Chapter 17-Construction and Construction Materials
<http://www.info.usda.gov/CED/Default.cfm?xSbj=53&xAud=24>

NRCS: National Environmental Compliance Handbook
http://policy.nrcs.usda.gov/scripts/lpsiis.dll/H/H_190_610_Content.htm

NRCS Grazing Specialists

Fence Manufacturers' Product Literature and Recommendations

Additional references for other types of fence applications may need to be located by the designer of this practice.

CULTURAL RESOURCES

Cultural resource reviews will be conducted for all ground disturbing practices, components, or other activities, as per the State Level Agreement between NRCS and the New York State Historic Preservation Officer.

PERMITS AND NOTIFICATIONS

All permits, easements, and rights-of-way are the responsibility of the landowner.

Dig Safely NY (formerly the Underground Facilities Protection Organization, or UFPO) and non-member local utilities will be contacted according to the time required before construction to mark all applicable facilities in the construction area. This is the responsibility of the excavator.

Identification and the location of all other underground or overhead facilities is the responsibility of the landowner.

Erosion and Sediment Control - An erosion and sediment control plan shall be developed for all ground disturbing activities. For disturbed areas greater than one acre, the erosion and sediment control plan shall meet the planning, installation, and maintenance requirements of NYS Pollutant Discharge Elimination System General Permit for Stormwater Discharges. All erosion and sediment control structures and measures shall be installed prior to earth disturbing activities unless otherwise directed in the construction drawings and specifications.

Threatened and endangered (T&E) Species review will be conducted for all projects. This review will include an assessment of available records documenting the presence of T&E species in the project area. At a minimum, the New York State Department of Environmental Conservation and U.S. Fish and Wildlife Service will be contacted for potential presence of listed species. If a T&E species is or was historically present at a site, document findings on the NRCS-CPA-52 form as appropriate and contact the NRCS Area Biologist for guidance on how to proceed with the project.

DECISION MAKER INVOLVEMENT

Involve the decision maker at all stages of inventory and design. Ensure an operation and maintenance plan is provided to and reviewed with the decision maker.

INVENTORY AND EVALUATION

1. Determine landowner/operator fence applications whether it is agricultural, recreational, urban, other landuse area, livestock management, vegetative protection or safety issues.

2. Obtain the appropriate aerial imagery that will allow the planner to adequately document the alternatives and final decisions. Compile and review all relevant resource inventory maps. These include but are not limited to soils maps, topographic maps, and wetland maps.
3. Begin the NEPA documentation process on a NRCS CPA-52 form.
4. Based on field observation identify and label existing conservation practices within the proposed project area. Include practices that are adjacent to the project area that could have an impact on the project. The location of property lines, other land easements, utilities, etc.
5. Consider people of concern.
6. Consider safety issues.
7. Consider the type of livestock management and control, location and access to watering facilities, protection of shade trees from livestock in pasture settings
8. Consider vehicle traffic management and control, type of vehicle/equipment access needed for gate and lane widths, management conditions that may affect the fence, i.e. snow plowing and mowing along public roads, livestock crowding, etc.
9. Consider resources at the site such as soil characteristics, i.e. shallow to bedrock, wetness, etc.; topographic features such as slope, erosion, drainage ways, etc.; climatic conditions that may affect the fence, i.e. snow drifts, seasonal flooding, etc.
10. Determine the type of fence, materials and their effective uses for the planned application. Consider the fence height, size, post spacing, corner bracing, strand or rail spacing, wire type, fence chargers, gates, etc.
11. Evaluate the operation, maintenance, and management requirements for the project.
12. Review the completed NRCS-CPA-52 for the project for accuracy and to assure that no additional analysis is required.

DESIGN

1. Conduct a site survey and soil investigation based on the complexity of the site. A topographic map should be prepared for more complex sites and where several practices may be necessary to address the identified problems.
2. Prepare a plan view or topographic map depending upon the requirements of the job. This will allow for practices to be planned and designed, so that they function as a unit. This is also necessary to confirm that all planned practices are feasible for the site.
3. Determine the layout and configuration of the fence and its associated components. Factors may include the type of traffic (vehicular, animal, or human), the travel patterns, and intensity of usage. Safety and accessibility considerations shall be incorporated into the design.
4. Additional considerations may apply, based on the fence material selected and site conditions.
5. Develop detailed construction drawings that include plan view, profiles, etc. Standard details may be available for inclusion in the final drawings.
6. An erosion and sediment control plan shall be developed for all ground disturbing practices.
7. Develop construction specifications.
8. Calculate quantities for all materials and work items required for construction. Develop a cost estimate for the project.

9. Develop an Operation and Maintenance Plan (O&M) and an Inspection Plan for the project. Be certain to review these and the construction drawings with the landowner prior to layout and installation.
10. A statement requiring landowner/contractor to notify **Dig Safely NY** for proper utility notification is **REQUIRED** on the plan view drawing.
11. Determine your level of Job Approval Authority for the design class of this project, obtain approval from appropriate individual, if not qualified.
12. Assemble a complete final construction package.

INSTALLATION

The construction and inspection will be in accordance with the practice(s) being installed.

1. Provide copies of the construction specifications and drawings to the landowner. Explain all aspects of the job before a contractor is secured. Review the O&M plan with the landowner to assure proper maintenance of the completed practice.
2. Thoroughly review the job with the landowner and contractor prior to construction. Insure that all utilities applicable to the job site have been notified and are marked prior to construction.
3. Schedule the construction start with the landowner and contractor. Coordination of all staking and construction timing with the contractor and landowner can assure an efficient use of manpower.
4. Set stakes/flags to delineate fence layout. Mark the stakes with pertinent information for the proper installation of the fence and appurtenances.
5. Determine that materials ordered and delivered for installation on the project are those that are proposed in the design or meet the manufacturer's recommendations.
6. Ensure that necessary permits have been granted and property lines have been verified.
7. Make random construction checks during implementation. The checks should include:
 - Adherence to the layout, specified materials, grades, and elevations;
 - Proper installation of the fence (type and materials);
 - Proper installation of associated practices and fence appurtenances.
8. During the final construction check, assure that the:
 - Fence is stable, durable and installed to meet the design requirement.
 - Safety components (signs, locking gates, etc.) are installed as designed.
9. Document the progress of the construction in the Cooperator Assistance Notes (NRCS-CPA-6/6A) or a similar job log. In addition, photographs documenting construction progress are useful, although not required.

CHECK OUT

All properly planned, designed, and installed conservation practices require documentation in the appropriate case file. Documentation must be sufficient to show:

1. The design conforms to the applicable standard;
2. The prepared construction drawings, specifications, plan maps, and/or job sheets accurately reflect the design;
3. The installed practice meets the requirements of the construction drawings, specifications, and practice standard; and

4. The “As Built” condition of the practice. All drawings shall be identified “As Built” as drawn in red, and all changes shall be made in red. Practices not requiring construction drawings will have the “As Built” condition documented on plan maps, job sheets, and/or with narrative.

REPORTING

Enter all Planning documentation on the Conservation Plan (Toolkit), all contract document (Protracts) and Conservation Assistance Notes (NRCS-CPA-6/6A) or similar documentation.

Report the practice and applicable components in the NRCS progress reporting system (PRS). Be certain to report benefits for all applicable resources and resource concerns as allowed in the NRCS progress reporting system.

OPERATION AND MAINTENANCE

Facilities, structures, and practices must be operated and maintained to ensure proper function and longevity. Periodic follow-up with the landowner is essential to ensure that all operation and maintenance (O&M) requirements are understood and followed.