

NATURAL RESOURCES CONSERVATION SERVICE
GENERAL SPECIFICATION WOODEN BOARD FENCE

FENCE

(Feet)

CODE 382

Standard Drawings can be found here: <http://www.mt.nrcs.usda.gov/technical/eng/drawings.html>

GENERAL REQUIREMENTS

SCOPE

The work shall consist of furnishing materials and installing materials for the specified design at the location(s) shown on the plan map, drawings, or as staked in the field.

Fencing includes brace assemblies, gates, cattle guards, and other components required for meeting site conditions and achieving the objectives of the practice application.

It shall be the responsibility of the owner to obtain all necessary permits and/or rights, and to comply with all regulations and laws pertaining to this installation.

Boundary fences shall comply with state laws and standards for construction. NRCS will not survey property boundaries.

On Federal, State, or Tribal lands, the landowner / leasee must have clearances and approvals or permits from the responsible permitting agency prior to any construction.

For federally funded practices the area of potential effect for each undertaking must be investigated for cultural resources under section 106 of the National Historical Preservation Act of 1966, as amended, before soil disturbance occurs.

For federally funded practices, NRCS must determine if installation of this practice will affect any federal, tribal, or state listed threatened or endangered species or their habitat prior to application or construction. If

this action may affect a listed species or result in modification of critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatment(s) that avoid adverse effects. Further assistance will be provided only if the land user selects one of the alternative conservation treatments for installation; or at the request of the land owner, NRCS may initiate consultation with the U.S. Fish and Wildlife Service. Any special requirements for endangered species are shown under Special Requirements.

For federally funded practices, if during installation any cultural resources, historical resources, threatened or endangered species are found, the landowner / leasee agrees to stop all work and immediately notify NRCS.

NRCS assumes no responsibility for interference with private or public utilities or facilities.

Installation shall be in accordance with these specifications and special requirements. For federally funded practices, no changes are to be made in the specifications, design, or drawings without prior approval of NRCS.

Installation shall be done in such a manner that erosion and air and water pollution are minimized and held within legal limits.

The owner, operator, contractor or other persons will conduct all work and operations in accordance with proper safety codes with due regards to the safety of all persons and property.

The completed job shall be workmanlike and present a good appearance. The job site

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shall have a neat appearance after completion.

Waste materials shall be burned, buried, or removed from the site as required by local laws and regulations.

Chemicals pollutants such as oil, transmission fluid, lubricant, and grease spills shall be cleaned up, disposed of, and removed from the site in accordance to Federal, State, Tribal and Local governmental regulations. The contractor shall be responsible for preventing his operation from contamination open and ground water sources.

TYPE OF FENCES

Wooden Board Fence

There are several types of wooden fence designs that are neat in appearance but require a lot of maintenance. Wooden fences are not widely used because of the expense of labor and materials. However, in some cases, all wood fences are more suited for aesthetic reasons or animal control purposes.

WOODEN BOARD FENCE: Materials and Construction Specifications

Wooden boards

The boards shall be Douglas fir, western larch, southern yellow pine, white oak, or other wood of equal life and strength.

The boards shall be at least 2 inches thick and at least eight (8) inches wide (nominal). Board lengths of sixteen (16) feet are more desirable so as to stagger the unions when placed on posts in 8-foot centers.

Lumber shall be painted or treated with creosote or comparable preservative. If painting is desired, lumber shall be treated with an anti-fungal agent in a light oil (mineral spirits or kerosene) or a waterborne preservative such as acid copper chromate or chromated zinc chloride.

Alternative materials may be used when the manufacturer's literature certifies the materials equal or exceed in strength and durability wooden boards.

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Where appropriate, materials other than the wooden fence materials will be in accordance with standard post-and-wire fence specifications.

Posts

Posts will meet or exceed the requirements of Table 1 Post Requirements.

Fasteners

Nails shall be galvanized or cadmium coated 30-d to 60-d nails for 2-inch stock. Deformed shank (flute, screw, helically threaded or annually threaded) aluminum or galvanized hardened nails are also acceptable.

CONSTRUCTION: WOODEN BOARD FENCE

Standard drawing MT-SD-382.120.

Where wooden fences are to accommodate deer traffic, they shall not exceed 42 inches in height.

Wooden boards

The union joints shall be staggered so that no more than one-half (1/2) the number of board rails on a fence post is a butt joint. This staggering of unions provides additional strength to the fence system. Where wood surfaces come in contact with soil, water, or may be buried under snow for extended time periods, those wood surfaces shall be painted or treated with a preservative material for protection against rot. Boards shall be flat and fit tight against the post.

NAILING

Nail holes shall be predrilled into the boards to prevent splitting. If using dense hardwood posts, nail in a diamond shape whenever possible to keep the wood from splitting. The drill bit shall be slightly smaller than the nail. The nails shall be driven perpendicular to the grain of the wood (not toenailed). Each board shall be attached with three nails.

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POST DEPTH

Wooden line posts shall be set solidly in the ground a minimum depth of 36 inches in the ground. The deeper a post is set, the stronger it will be. If soil conditions prevent the proper setting of posts in the ground, rock-jacks may be used.

minimum spacing between boards is 6 inches. The bottom board shall be at least 5 inches above ground level.

INSTALLATION

Installation of the fence shall conform to the specifications and Exhibits or other drawings, as provided. Minimum life expectancy is 20 years.

POST SPACING

8 feet maximum post interval.

The completed job shall be workmanlike and present a good appearance. The installer and other persons will conduct all work in accordance with proper safety procedures.

FENCE HEIGHT and BOARD SPACING

The intended use of the fence determines fence height and board spacing. The

Table 1 Post Requirements for Wooden Board Fence

Post Type	Min. Diameter /Weight	Min. Setting Depths	Minimum Length	Other
Posts need not be new materials; however, all posts shall meet the minimum quality criteria for durability and protective coating. Sound and free from decay, with all limbs trimmed substantially flush with the body				
Wood-juniper, cedar, black locust.	6 inches	3 feet	Fence Design Height + 3 feet	Flat face for nailing.
Wood-pine or similar woods, or railroad ties.	6 inches	3 feet	Fence Design Height + 3 feet	Complete penetration of the sapwood with ammonical-copper-arsenate, chromated-copper-arsenate mixture or other approved treatment materials that extend a minimum of 42 inches up the post from the butt. Flat face for nailing.