

SECTION 01050 - FENCES

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 01050 of the Standard Specifications modified as follows:

(Use the following subsection .00 when SP00587 for protective fence is used.)

01050.00 Scope - Delete the bullet that begins "Protective Fences, on and...".

(Use the following subsection .01(e) when SP00587 for protective fence is used.)

01050.01(e) Run - Delete the bullet that begins "Bridge protective Fence...".

(Use the following subsection .10 when SP00587 for protective fence is used.)

01050.10 Materials - Delete "Protective Fence Materials, On and Off Structures."

01050.41 Lines, Grades, and Preparation Work - Replace the paragraph that begins "Clear, grub and prepare ..." with the following paragraph:

Clear, grub and prepare the Fence line area. Remove all shrubs, brush, snags, downed timber, float Rock, and other obstacles, including trees up to 6 inches in diameter that interfere with Fence construction. If directed, preserve trees and geographic features on Fence lines by varying the Fence alignment to miss them.

Replace the paragraph that begins "Fill or excavate ground ..." with the following paragraph:

Fill or excavate ground surface irregularities that interfere with maintaining specified clearance above ground surface of the bottom wire of the Fence. Limit the width as necessary to provide a clear way for the Fence.

~~*(Use the following subsection .43(a) when SP00587 for protective fence is used.)*~~

01050.43(a) General - Replace the paragraph that begins "Set posts to the depths ..." with the following paragraph:

Set posts to the depths shown. Reasonable variation in depths are allowed and posts may be appropriately shortened or left slightly high, as approved by the Engineer, to:

(Use the following subsection .43(a) when SP00587 for protective fence is used.)

Delete the paragraph that begins "For bridge protective Fence...".

01050.43(a)(1) Driven Posts - Replace this subsection, except for the subsection number and title, with the following:

Ensure posts set by driving are free of damage after installation. Remove and replace any driven posts that are split, twisted or bent, or have a badly misshapen tops.

01050.43(a)(3) Concrete Footings - Replace this subsection, except for the subsection number and title, with the following:

Construct footing to dimensions no less than shown. Place the concrete to fill the excavated areas with contact against firm Soil at the sides and bottom and tamp around the posts and brace ends after the posts and braces have been brought to and firmly held in proper position. Strike off, slope or crown and smooth the surface of the concrete at the ground level to shed water. Allow to cure for at least 5 Calendar Days before subjecting the posts and braces to strain.

(Use the following subsection .43(c) on Projects in Regions 4 and 5 as requested by the Designer.)

01050.43(c) Intermediate End Posts - Add the following sentence to the end of this subsection:

Space intermediate end posts a maximum of 300 feet apart.

01050.43(d)(1) Barbed and Woven Wire Fences - Replace this subsection, except for the subsection number and title, with the following:

At angle of deflection exceeding 5 degrees for Fences with steel line posts or 15 degrees for Fences with wood line posts. Changes in line where the angle of deflection does not exceed the above limitations are considered alignment angles. Make the adjacent line posts at alignment angles fast to the angle post by means of diagonal tension wires.

01050.43(g)(1) Metal Braces - Replace the paragraph that begins "Provide corner posts ..." with the following paragraph:

Furnish corner posts and intermediate end posts with two braces, one each direction from the post in the main Fence lines. Furnish end posts and Gate posts with one brace in the line of the Fence as shown.

01050.44(a) Placing Fabric and Wire - Replace the paragraph that begins "Place fabric and wire ..." with the following paragraph:

Place fabric and wire on the face of the post that is away from the Highway or as shown. On curved alignment, place the fabric and wire on the face of the post where the normal pull of the fabric and wire is exerted.

Attach Fence fabric and barbed wire to each post according to recognized standard practice for Fence construction and as shown or directed.

01050.44(b) Splicing Fabric and Wire - Replace this subsection, except for the subsection number and title, with the following:

Splices of fabric and splices of separate lines of wire between posts are allowed provided that not more than two fabric or separate wire splices, spaced at least 50 feet apart, occur in any one Run of Fence. Use wrap or telephone type splices for the longitudinal woven wire and barbed wire with each end wrapped around the other wire for not less than six complete turns.

01050.44(e) Swinging Panels at Waterway Crossings - Replace this subsection, except for the subsection number and title, with the following:

At waterway crossings subject to floating debris, if directed, construct wood framed swinging Panels of Fence fabric, barbed wire or combinations. Attach the Panels to the lower wires of the Fence to provide fenced closure of the waterway so there is no unfenced side or bottom openings exceeding 6 inches when the waterway is at its lightest flow or is dry.

01050.44(f) Additional Panels at Depressions - Replace this subsection, except for the subsection number and title, with the following:

If depressions in the ground surface leave unfenced openings greater than 12 inches in height beneath the bottom line of the Fence, provide additional Panels of Fence fabric, barbed wire, or combinations between line posts, as approved, across the opening so no side or bottom openings exceeds 6 inches. If the bottom line of the Fence leaves an unfenced opening beneath it of 12 inches or less, pull the fabric and wires down between posts and anchor with pins or posts driven at least 18 inches into the ground so there is no bottom opening at any point along the Fence greater than 6 inches in height.

01050.44(g) Stay Wires and Final Adjustments - Replace this subsection, except for the subsection number and title, with the following:

Free the fabric and barbed wire in final position from warp and sag with stay wires placed approximately vertical to the grade of the Fence. Retighten brace guys and leave the lever restrained against the Fence fabric or Fence wires.

01050.45(b)(1) Rails - Replace this subsection, except for the subsection number and title, with the following:

Attach rails to end, Gate and corner posts by clamps and sockets, and thread through loop caps on the end of line posts. Furnish expansion sleeves or couplings at spacings not exceeding 200 feet in longitudinal top and bottom rails.

01050.45(b)(2) Tension Wire - Replace this subsection, except for the subsection number and title, with the following:

Attach tension wire to end, Gate and corner posts by bands and clamps. Either thread the top tension wire through line post loop caps or hold in open slots in a manner to limit vertical movement. Tie or attach the bottom tension wire to the bottom of line posts by ties or clamps in a manner that prevents vertical movement. Furnish tension wires with one turnbuckle or one ratchet take-up in each Run of Fence.

(Use the following subsection .45(c) when SP00587 for protective fence is used.)

01050.45(c) Chain Link Fence Fabric and Wire - Delete the paragraph that begins "For bridge protective Fence only..."

(Use the following subsection .46 when SP00587 for protective fence is used.)

01050.46 Protective Fences for Bridges – Delete this subsection.

(Use the following subsection .47(a) when SP00587 for protective fence is used.)

01050.47(a) General - Replace the paragraph that begins "Except for bridge protective Fence..." with the following paragraph:

Provide at least one "ground" for each Run of Fence and place at any post within the Run according to 00960.45(b).

01050.48(a) Metal Gates - Replace this subsection, except for the subsection number and title, with the following:

Install metal Gates and fittings between Gate posts previously set as specified. Firmly attach the fittings to the posts and Gates. Hinge each Single Gate in a manner that prevents removal of the Gate without tools. Set the Gate in an approximately horizontal plane to swing freely inward and outward, and so it can be fastened securely in its latch holder, or in the case of Double Gates, in its latch holder and gate stops. Set Double Gates on their respective hinge pintles to provide a common horizontal plane where each Single Gate swings.

Install Gates to swing open at least of 90 degrees in each direction.

01050.49 Removing and Rebuilding Fence - Replace this subsection, except for the subsection number and title, with the following:

Remove and rebuild existing Fences as shown or directed. Construct Fences to approximately the same condition as the original Fence. Salvage the materials in existing Fences to be removed and rebuilt and incorporate in the rebuilt Fences. Replace Fence materials damaged beyond reuse at no additional cost to the Agency. Firmly reset posts to the staked alignment. Provide the same post spacing and number of wires to be strung and stapled to the posts as the original Fence. Furnish and use new staples or clips to fasten the wires to the posts.

01050.50(b) Line Posts, Braces, End Posts, Corner Posts, and Gate Post - Replace this subsection, except for the subsection number and title, with the following:

Furnish metal post and brace components. Do not use wood posts and braces.

01050.50(e) Jumpouts - Replace this subsection, except for the subsection number and title, with the following:

Construct jumpouts as shown or directed with Borrow Material according to 00330.12 that contains no particles with any dimension greater than 3 inches. Make jumpouts of uniform grade and compact until there is no reaction or yielding under the compactor. Jumpouts are visually accepted by the Engineer.

01050.80(a) Barbed and Woven Wire Fence and Gateways — Replace this subsection, except for the subsection number and title, with the following:

Barbed wire Fence, woven wire Fence, and barbed and woven wire Fence will be measured on the length basis. Measurement will be from center to center of posts, measured along the line and grade of each separate continuous Run of Fence as constructed, exclusive of Gates. Where existing Fences are extended to intersect the new Fence, the length of extension, from point of joining to the center of the new end post, will be measured and included for payment, if similar in design or type to a Pay Item, otherwise this Work will be paid for according to 00195.20.

(Use the following subsection .80(e) when SP00587 for protective fence is used.)

01050.80(e) Protective Fence for Bridges - Delete this subsection.

01050.90(a) Barbed and Woven Wire Fence - Replace the paragraph that begins "In item (a) ..." with the following paragraph:

In item (a) the type of Fence is inserted in the blank.

Replace the paragraph that begins "In items (b) and (c) ..." with the following paragraph:

In items (b) and (c) the width of the Gate opening is inserted in the blank.

01050.90(b) Chain Link Fence - Replace the paragraph that begins "In item (a) ..." with the following paragraph:

In item (a) the type of Fence is inserted in the blank.

Replace the paragraph that begins "In item (b) ..." with the following paragraph:

In item (b) the type of Fence is inserted in the first blank and the type of Material or pickets used for screening is inserted in the second blank.

Replace the paragraph that begins "In item (c) ..." with the following paragraph:

In items (c) and (d) the width of the Gate opening is inserted in the first blank and the height of Gate is inserted in the second blank.

(Use the following subsection .90(c) when SP00587 for protective fence is used.)

01050.90(c) Protective Fence for Bridges - Delete this subsection.

01050.90(e) Wildlife Fence - Replace the paragraph that begins "In item (c) ..." with the following paragraph:

In items (c) and (d) the width of the Gate is inserted in the blank.

Replace the paragraph that begins "Payment will be payment ..." with the following paragraph:

Payment will be payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.