

Section 80 Fences

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Section 80 Fences

4-8001 General

This section describes the work for constructing barbed wire fence, wire mesh fence, and chain link fence. When a high-visibility temporary fence is specified, refer to Section 16-2.03, “High-Visibility Fences,” of the *Standard Specifications*.

4-8002 Before Work Begins

Review the plans, special provisions, and right-of-way agreements for any special details. If it is necessary to revise, add, or delete fence on a contract, review the *Highway Design Manual* for the general policy on such actions and consult with the project engineer. Also do the following:

- Do not move, add, or delete gates or openings without first consulting the design project engineer, the maintenance engineer, and other interested parties. If federal funds are involved, ensure the Federal Highway Administration (FHWA) approves any changes.
- Be alert to the necessity of constructing fences to prevent livestock escaping from adjacent properties. Refer to Section 80-15.02, “Reconstruct Fences,” of the *Standard Specifications*.
- Compare the planned location with actual field conditions to ensure that fences, gates, openings, and other fencing items will serve as intended.
- Fences should not obstruct flow in streams or drainage areas.
- Fences may be constructed on top of retaining walls and wing walls. Wherever this type of construction is necessary, check the location of postholes, and ensure provision is made for future post installation.
- Upon delivery of the materials to the job site, ensure that for chain link fences certificates of compliance are submitted for protective coating system, posts, and braces. All other fencing materials must be field inspected and released by the engineer. Refer to Section 6-202, “Responsibilities for Acceptance of Manufactured or Fabricated Materials and Products,” of this manual for additional information.
- Arrange for necessary control staking when the contractor has submitted the required survey request.

4-8003 During the Course of Work

During work operations, take the following steps:

- Ensure that the areas where fence is to be placed have been graded and high points that may interfere with the placement of wire or mesh have been leveled.

However, do not permit indiscriminate clearing where clearing and grubbing is restricted to the slope line.

- Observe the placing of fence posts. Also, measure the spacing of posts and measure the depth of holes to ensure placement to proper depths. Note such measurements in the daily report. Spacing should not exceed the spacing specified or shown on the plans.
- Observe the placement of corner posts and pull posts to ensure they are placed at required locations and according to specified details. Also, ensure that the proper type and number of brace posts and diagonal wires are used. The configuration of the brace posts depends on the distance between the corner post and the next corner, end, or pull post.
- Decide on which side of the posts the contractor should place fabric when the side is not specified. For barbed wire and wire mesh fence, the barbed wire or wire mesh is placed on the property owner's side of the posts, unless otherwise shown on plans or in right-of-way agreements. For chain link fence, the fabric generally is placed on the highway side of the posts. However, the wire or fabric may be placed on either side, and it is recommended that the maintenance superintendent be consulted for any preference.
- Inspect the fastening of wire or fabric to ensure the use of specified materials and methods.
- Ensure fencing is snubbed or guyed at all grade depressions as specified.

4-8004 Level of Inspection

Suggested levels of inspection for typical fence and gate work activities are:

- Benchmark inspection of graded area prior to placing fence
- Intermittent inspection during placement of fence posts
- Benchmark inspection of alignment according to plans
- Benchmark inspection of completed sections of fence and gate

4-8005 Quality Control

While specific levels of quality control sampling and testing for fences are not included in Section 80, "Fences," of the *Standard Specifications*, the contractor is responsible for providing quality control under Sections 5-1.01, "General," and 6-2.02, "Quality Control," of the *Standard Specifications*.

4-8006 Payment

Keep records and make measurements of fence and gate construction sufficient to support both partial and final payment. Pay only for completed lengths and number of units, except withhold for incidental work as covered in Section 3-906A, "Bid Items," of this manual.

Consider using a tracking system to help prevent duplication or omissions of quantities.