

600 INCIDENTALS

ITEM 607 - FENCE

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607.01 Description. This work shall consist of furnishing and erecting fence and gates of the types designated, in reasonably close conformance with lines, grades and locations specified on the plans or established by the Engineer. Construction shall be accomplished in a manner that will provide a rigid, taut fence closely conforming to the surface of the ground.

Fence will be designated by the following types:

- (a) Type 47 (47 inch (1.2 m) woven wire fence fabric with steel line posts)
- (b) Type 47RA (47 inch (1.2 m) woven wire fence fabric with wood line posts)
- (c) Type CL (60 inch (1.5 m) chain link fence fabric with top rail)
- (d) Type CLT (60 inch (1.5 m) chain link fence fabric with tension wire)

607.02 Materials. Fence materials shall meet the following requirements:

Fence posts, braces and dimension lumber.....	710.11
Woven steel wire fence	710.02
Steel line posts and ties (Type 47 fence).....	710.11
Barbed wire	710.01
Chain link fence	710.03
Reinforcing steel.....	509.02
Concrete (Class C).....	499, 511
Expansion shield anchors, self drilling	712.01

607.03 Clearing and Grading. The Contractor shall perform such clearing and grading as may be necessary to construct the fence to the required alignment and shall provide a reasonably smooth ground profile at the fence line.

607.04 Post Assemblies. End, corner, gate, and pull or intermediate anchor posts shall be placed at designated locations in holes of the sizes specified. The posts shall be securely braced and the holes filled with concrete. Forms will not be required for post encasement.

Wood post fabricated with square cut ends and set or driven within 1 inch (25 mm) of grade will not require cutting or trimming. Concrete encasement of wood posts driven to grade shall be omitted.

For Type 47 and Type CLT fence, the maximum spacing between intermediate anchor post assemblies, or between end post assemblies and intermediate anchor post assemblies, shall be 660 feet (200 m).

607.05 Horizontal Deflection. At points of horizontal deflection, construction shall be as follows:

- (a) Type 47 fences, either steel line posts encased in concrete or driven wood posts without encasement shall be installed at all horizontal deflection points where the fence changes alignment by more than 1 degree but not more than 4 degrees. Where the change in alignment is in excess of 4 degrees and less than 30 degrees, an intermediate anchor post assembly shall be built at the deflection point. If the change in alignment is 30 degrees or more, a corner post assembly shall be built at the deflection point.
- (b) For Type CL fence, *if the fence changes alignment by more than 1 degree but not more than 4 degrees, install line posts encased in concrete at all horizontal deflection points.* At points of deflection where the fence changes alignment by more than 5 degrees, a post brace and truss rod shall be provided in each fence panel adjacent to the post located at the angle point. The footings for all post located at points where the change in alignment exceeds 5 degrees shall be constructed as specified for end posts.

607.06 Line Posts. The setting of line posts shall conform to the following:

- (a) For Type 47 fences, line posts shall be driven to the depth called for on the plans, at intervals not to exceed 12 feet (3.6 m). Line posts at the bottom of dips or depressions in the ground surface shall be anchored in concrete as specified on the plans. Where ditches and channels less than 16 feet (4.9 m) wide cross the fence line, posts shall be so located that they do not come in the ditch channel. However, no interval between posts shall

exceed 16 feet (4.9 m) at this location across channel. Where channels or streams greater than 16 feet (4.9 m) in width cross the fence line, crossings shall be as specified on the plans.

On tangents, line posts shall be placed so that the fabric, when installed on the side toward the highway, will be 2 feet (1.8 m) from the right-of-way line. Adjacent to right-of-way lines in excess of 1 degree curvature, line posts shall be constructed on chords so that the fabric when installed on the side toward the highway, will be not less than 2 feet (0.6 m) or more than 8 feet (2.4 m) from the right-of-way line.

Posts at points of horizontal deflection shall be located so that the fence fabric will bear against the post.

- (b) For Type CL fence, line posts shall be spaced at not more than 10 foot (3.0 m) centers and shall be so placed that, when the wire is fastened on the side toward the highway, it shall be 1 foot (0.3 m) from the right-of-way line.

607.07 Post Braces. For Type 47 fences, post braces shall be in accordance with plan details.

For Type CL and CLT fence, a brace and truss assembly shall support each gate, corner, pull, or end post. The brace shall extend to each adjacent line post at mid-height of fabric. The truss shall extend from the line post back to the gate, corner, pull, or end post.

607.08 Fabric. The fence shall not be erected until after 5 days from the time of setting posts in concrete when regular cement is used, or until after 3 days when high-early-strength cement is used.

Type 47 fabric shall be stretched and securely fastened in accordance with plan details. Galvanized ties shall be used for fastening fabric to line posts. The minimum number of ties shall be one each for top and bottom horizontal wire and one for each alternate horizontal wire below the top horizontal wire.

Chain link fabric shall be fastened to the line posts with clips or bands spaced approximately 14 inches apart, and to the top rail with bands or tie wires at approximately 24 inch (0.6 m) intervals. *Join successive rolls of fabric by weaving a single picket into the ends of the rolls to form a continuous mesh.*

607.09 Barbed Wire. Where barbed wire is specified, it shall be stretched and fastened in the same manner as woven wire fabric.

607.10 Method of Measurement. Fence will be measured by the linear foot (meter), complete in place. Measurement will be along the top of the fence from outside

to outside of end posts, exclusive of gates and other openings. Gates will be measured as complete units of the size and type specified.

607.11 Basis of Payment. The accepted quantities of fence and gates measured as provided above will be paid for under:

Item	Unit	Description
607	Linear Foot (Meter)	Fence, Type _____
607	Each	Gate