PART 1 GENERAL

**1.01 SECTION INCLUDES**

A. Steel Ornamental Picket Fencing.

**1.02 RELATED SECTIONS**

A. Section 32 13 00 - Paving and Surfacing

B. Section 03 06 30 - Cast-In-Place Concrete

C. Section 04 20 00 - Unit Masonry

**1.03 SUBMITTALS**

A. Changes in specifications may not be made after the published date

 of bid. All submittals of substitutions must be approved before bid date.

B. Shop drawing of fences and gates with all dimensions, details, and

 finishes. Drawings must include post foundations.

C. Product data: Manufacturer's catalog cuts indicating materials

 compliance that all conditions of the specifications have been met.

**1.04 SPECIAL WARRANTY**

 Provide manufacturer’s standard limited warranty that its ornamental

 fence system is free from defects in material and workmanship

 including cracking, peeling, blistering and corroding for a period of 20

 years from the date of purchase.

**PART 2 PRODUCTS**

**2.01 MANUFACTURER**

A. Fortress Fence – Richardson, TX. 75081. (Phone 866-323-4766, Fax

972-644-3720) Products from other qualified manufacturers who have five years or more experience manufacturing steel ornamental picket fencing will be considered by the architect as equal if approved in writing 10 days prior to biddings, and they meet all specifications for design, size gauge of metal parts and fabrication.

B. Picket fences and gates must be obtained from a single source.

C. Approved Supplier:

**2.02 ORNAMENTAL PICKET FENCE**

Style: Titan Industrial -1” Spear Point, Extended, Flat Top or Curved Top

Height: 3’, 4’, 5’, 6’, 7', 8’, 9’, 10’, 11’ & 12’

A. Pickets: Domestic Galvanized square steel tubular members

 manufactured per ASTM A-924/A-924M, having a 45,000 psi (310

 MPa) yield strength and hot-dip galvanized per ASTM A653/A653M

 with a G90 zinc coating, 0.90 oz/ft2 (0.27 kg/M2. Minimum size

 pickets 1”. Space pickets 3-15/16” maximum (100 mm) face to face.

 Attach pickets to each rail with Slide Lock System Patent No.

 6752386. Picket minimum gauge wall thickness 16 gauge.

B. Rails: Domestic 1-3/4” x 1-3/4”, 14 gauge thick galvanized steel

 square rail per ASTM A-653/A-653M, having a 50,000 psi (344 MPa)

 yield strength and G90 zinc coating, 0.90 oz/fl2 (0.27 kg/M2). Punch

 rails to receive pickets and attach rails to rail brackets with, 1/4”

 (6 mm) industrial bolt.

C. Posts: Made of domestic galvanized steel tube, galvanized inside

 and outside, produced per ASTM A-653/653M G90 zinc coating, 0.90

 oz/fl2 (o.27 kg/M2), steel to have 45,000 psi (310 MPa) yield strength.

 Post size 2-1/2” to have 12,14 or 16 gauge wall thickness. Post size

 3” to be 12 Gauge and post size 4” to be 11 or 12 Gauge.

D. Finish: All primary components receive a thorough cleaning and

pre-treatment – This 12-step process consists of 1.) Hot alkaline cleaner, 2.) Clear water rinse, 3.) Zinc Rinse application, 4.) Clean water rinse, 5.) Z-153 sealer application 6.) Ring rinse, 7.) Deinoized water rinse, 8..)Dry off oven heat at 425° F, 9.) Zinc enriched expoxy powder coat at 2-4 mils., 10.) Gel oven heat at 400° F, 11.) Ultra polyester finish powder coat at 2-4 mils., 12.) Final curing oven at 450° F Choose color – [Black] [Brown] [White] [Green] [Bronze] [Black Textured] or [Sandstone].

**2.03 ACCESSORIES**

A. Grommets inserted into pre-punched holes in the rails and pickets

 inserted through the grommets so that the pre cut grove in the picket

 align with the Slide Lock Channel in the rail.

B. Assembled panel capable of supporting a 680 lb. load (applied at

 midspan) without permanent deformation.

C. Post Caps: Cast aluminum, malleable iron or formed steel manufac

 tured to form a weather-tight closure. Caps to be (flat tops) style on all

 posts. (Choose ball type or flat tops.)

D. Rings: Cast aluminum, malleable iron or formed steel rings attached

to rails by insertion of mounting block into upper rail. Ring to be secure and unremovable.

E. Finial Tops for Pickets: Cast aluminum, All Finials extend 6" (150 mm)

 above rail.

**2.04 GATES**

 Ornamental picket swing gates (see section 32 31 19.13)

 Ornamental picket cantilever slide gates (see section 32 31 19.14)

**2.05 SETTING MATERIALS**

A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20

 Mpa).

B. Flanged Post: Provide flanged base plates with 4 holes for surface

 mounting where indicated. (For wall mount or pad mount situations.)

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify areas to receive fencing are completed to final grades and

 elevations.

B. Property lines and legal boundaries of work to be clearly established

 by the general contractor or property owner.

**3.02 FENCE INSTALLATION**

A. Install fence per manufacturer's recommendations.

B. Space posts uniformly at 96" center to center unless instructed

 otherwise.

C. Set posts in concrete. Dig holes having a diameter 4 times the

 diameter of the post, and 6" (152 mm) deeper than the bottom of the

 post. Forms are not necessary or recommended. Crown concrete at

 top to shed water.

D. Check each post for vertical and top alignment.

E. Attach brackets using 1/4" (6 mm) carriage bolts with lock nuts.

**3.03 CLEANING**

A. Clean up debris and remove from the site.