

SECTION 02825 - ORNAMENTAL FENCE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Furnish and install an ornamental metal picket fence.
 - 1. The extent of fencing is shown on the drawings.

1.02 QUALITY ASSURANCE

- A. All work to be performed by a single firm specializing in ornamental fences.
- B. All fence materials shall be manufactured by a single source.

1.03 WARRANTY

- A. Manufacturer's fifteen-(15) year warranty against material defects, cracking, peeling, blistering and workmanship.

PART II - PRODUCTS

2.01 MANUFACTURERS

- A. Ameristar Fence, P.O. Box 581000, Tulsa, OK 74158-1000, phone 800-321-8724.
Ornamental Picket Fence, Aegis II®:
Style: Majestic™ 3 rail.
- B. Monumental Iron Works, by Master-Halco. 4000 w. Metropolitan Dr. Suite 400,
Orange, CA 92868, phone 1-800-229-5615.
Ornamental Picket Fence:
Style: "Imperial B".
- C. Boundary Fence & Railing Systems, Inc., 131-02 Jamaica Ave., Richmond Hill, NY
11418, phone 718-847-3400.
Ornamental Picket Fence:
Style: "Royal"
- D. Merchants Metals: 400 Sam Houston Pkwy. E., Houston, TX 77060, phone 1-866-888-
5611.
Ornamental Picket Fence:
Style: Basic Guardsman™, "The Monroe", 3 rail with pickets terminating in
top rail.

2.02 ORNAMENTAL PICKET FENCE

- A. Pickets: Galvanized square tubular steel, complying with ASTM A-787.
 - 1. Yield Strength: 45,000 psi (310 Mpa).
 - 2. Zinc Coating: G-90 zinc 0.90 oz/ft².
 - 3. Size: ¾ inch, wall thickness 18-Ga.

4. Picket Spacing: 3-5/16 inches face to face.
- B. Rails: Galvanized steel "U" channel, complying with ASTM A-653.
1. Yield Strength: 50,000 psi (344Mpa).
 2. Zinc Coating: G-90 zinc 0.90 oz/ft².
 3. Size: 1-1/2 inch by 1-3/8 inch, wall thickness 11-Ga.
- C. Posts: Galvanized square tubular steel, complying with ASTM A-787.
1. Yield Strength: 45,000 psi (310 Mpa).
 2. Zinc Coating: G-90 zinc 0.90 oz/ft². Note, posts must be galvanized on inside and outside surfaces.
 3. Size: 2 inch square 14-Ga. min., 2.164 lbs./ft. intermediate posts, 4 inch square 12 Ga. min., 5.770 lbs./ft. corner and end posts.
 4. Spacing: 8'- 0" o.c. maximum.
- D. Attachment: Use ¼ inch size #4 industrial drive rivets to attach pickets to rails and rails to posts.
- E. Finish: All pickets, channels, posts fittings and accessories shall receive a baked on polyester resin based coating applied by electrostatic spray, 2.5 mils thick, color; black. Apply coating to individual components prior to assembly.
- F. Post Tops; Flat style weather-tight ornamental closure cap, fitting over each post

2.03 CANTILEVER SLIDE GATES (at curb cuts)

- A. Frames: Two 2 inch square aluminum members complying with ASTM B 221, alloy and temper 6063-T6 weighing 1.88 lbs./ft. Weld members together to form one-piece frame integral with top track. Provide two truck assemblies for each gate leaf. Bottom rail shall be a 2" x 4" aluminum member weighing 1.71 lbs./ft.
- Gate leaf openings over 15 ft wide, provide 1" x 2" Aluminum internal uprights in gate frame spaced 6'- 2" max. face to face, subdividing frame into equal panels.
- Gate leaf openings 25 ft. to 32 ft. weld two top track/rails together forming a dual enclosed track. Provide two truck assemblies for each track for each gate leaf (total 4 truck assemblies). Bottom rail shall be 2"x 4" aluminum member weighing 1.71 lbs./ft.
- Gate leaf openings over 32 ft., consult manufacturer.
- B. Gate Picket Infill: 11-Ga. aluminum "U" channel rails 1-3/8" wide x 1-1/2" deep. Pickets to be galvanized steel sized to match fence.
- C. Bracing: Provide diagonal adjustable length truss rods of 3/8" galvanized steel in each panel of gate frame.
- D. Top Track/Rail: Enclosed, combination one-piece track and rail, aluminum extrusion weighing 3.72 lbs./ft. Track to withstand 2,000-lb. reaction load.

- E. Truck Assembly: Swivel type, zinc die cast, with 4 sealed lubricated ball bearing rollers 2" in dia. x 9/16" width and 2 side rolling wheels to ensure truck alignment in track. Mount trucks on post brackets using 7/8" dia. ball bolts with 1/2" shank. Truck assembly to withstand same reaction load as track.
- F. Gate hangers, latches brackets guide assemblies and stops: Malleable iron or steel, galvanized after fabrication. Provide positive latching with provisions for padlocking.
- G. Bottom Guide Wheel Assembly: Provide two 4" dia. rubber wheels, straddling bottom horizontal gate rail, allowing adjustment to maintain gate frame plumb and properly aligned. Attach one assembly to each guidepost.
- H. Gate Posts: 4" square galvanized steel weighing 5.77 lbs./ft. Provide 1 latch post and 2 support posts for single slide gates and 4 support posts for double slide gates.
- I. Accessories: Pre-assemble panels with ornamental accessories attached with industrial drive rivets to prevent removal and vandalism.
- J. Finish: All components shall have galvanized interior and exterior surfaces and shall receive a baked on polyester resin based coating applied by electrostatic spray, 2.5 mils thick, color; black. Apply coating to individual components prior to assembly.

2.04 SWING GATES (pedestrian access)

- A. Gate Frames: ASTM A-283 square galvanized steel.
 1. Tensile Strength: 45,000 psi, (310 Mpa).
 2. Zinc Coating: G-90 zinc 0.90oz. /ft. ².
 3. Size: 2-inch min. vertical uprights with 13-Ga. wall thickness.
 4. Weld member's together using stainless steel welds to form rigid one-piece unit (no substitutions).
- B. Ornamental Picket Infill: 11-Ga. hot rolled structural steel "U" channel rails 1-3/8" wide x 1-1/2" deep. Pickets to be galvanized steel sized to match fence. Punch rails to receive pickets, weld inside gate frame.
- C. Bracing: Provide diagonal adjustable length truss rods of 3/8" galvanized steel in each panel of gate frame.
- D. Hardware: Galvanized steel or malleable iron shapes to suite gate size.
- E. Hinges: Non-lift-off types, 180^o swing, capable of supporting gate leaf and allow opening/closing without binding.
- F. Latch: Double sided captive drop leafs with padlock a provision that pivots down around each side of gatepost.
- G. Gate Posts: Square structural steel, ASTM A 787.
 1. Tensile Strength: 45,000 psi (310 Mpa).

2. Zinc Coating; G-90 zinc 0.90oz. /ft. ².
 3. Size: provide 3 inch square (gates 3-ft. to 4-ft. wide), 4 inch square (gates 4-ft. to 8-ft. wide).
- H. Finish: All components shall have galvanized interior and exterior surfaces and shall receive a baked on polyester resin based coating applied by electrostatic spray, 2.5 mils thick, color; black. Apply coating to individual components prior to assembly.

PART III - EXECUTION

3.01 INSTALLATION

- A. Terminal Posts (end, corner and gate): shall be set at beginning and end of each continuous length of fence or horizontal alignments.
- B. Post Foundations: concrete, with hole diameters as shown, but not less than four times the largest cross section of post and hole bottom not less than 36" below finish grade. Crown concrete to shed water.
 1. Concrete: 3,000 psi at 28 days
Portland Cement: ASTM C-150.
Aggregates: ASTM C-33, 1" max. size.
Water: Drinkable.
Slump: 3"
Air Entrainment: 2% to 4%.
 2. Set bottom of posts 6" above bottom of hole.
- C. Posts; set vertically, plumb and properly aligned and evenly spaced.
- D. Surface mount (wall mount) posts with mounting plates where indicated. Fasten with lag bolts and shields.
- E. Align fence panels between posts; attach rail brackets to posts with ¼ inch bold and lock nut. Ensure that panels and posts remain plumb.

3.02 GATES

- A. Install gates plumb, level and secure for full opening without interference.
- B. Attach hardware by means, which will prevent unauthorized removal.
- C. Adjust hardware for smooth operation.

3.03 CLEANING

- A. Remove all debris and unused material from site.

END OF SECTION