

DIVISION 2 - SITE WORK

SECTION 02832 - VINYL COATED CHAIN LINK FENCING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The provisions of the General Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section as though bound herein.

1.02 SUMMARY

- A. The work includes all labor, materials, equipment, and appliances necessary to furnish and install the various height chain link fences and gates as shown on the plans, detailed in the specifications, and directed by and to the approval of the District.

1.03 RELATED SECTIONS

- A. Section 02000 - Sitework General Provisions
- B. Section 02200 - Earthwork
- C. Section 02801 - Topsoil, Lawns and Grasses
- D. Section 03300 - Cast-in-Place Concrete

1.04 SUBMITTALS

- A. Comply with the requirements of Section 01300 and as modified below.
- B. Manufacturer's Data:
 - 1. Submit copies of manufacturer's product data, specifications, installation instructions, and copy of manufacturer's warranty.
- B. Shop Drawings: Layout of items with dimensions, details, recommended footing details, finishes of components, and accessories.

PART 2 - MATERIALS

2.01 FENCE MATERIALS

- A. Fabric: The fabric shall have knuckled edges at the top and bottom and shall be fastened to the top rail, and bottom rail when provided, which shall be run through loop caps.
 - 1. PVC coating bonded and thermally fused to metallic coated steel core wire: ASTM F668 Class 2b, 7 mil thickness. Core wire tensile strength 75,000 psi. 2" diamond mesh, 9 gauge core wire with a diameter of 0.148" and a breakload of 1,290 lbs except where noted differently on the plans.
- B. Posts: Line, terminal (corner and end), and gate posts shall be a minimum of 3'-8" greater in length than the fabric height in order to be embedded in 3'-6" deep concrete footings.

1. Line Posts: Line posts shall be 2.5 inch O.D. steel pipe, weight 3.65 lbs. per foot, copper bearing and hot dip galvanized; PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. Complete with all necessary fittings.
2. Terminal Posts: End and corner posts shall be 3.0-inch O.D. steel pipe, weight 5.79 lbs. per foot, copper bearing and hot-dip galvanized; PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. Complete with all necessary fittings.
3. Gate Posts: Gate posts shall be copper bearing steel, hot-dip galvanized; PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. Complete with all necessary fittings. Conforming to the following sizes, except where noted differently on the plans:
 - a. Gate leaf up to 3 ft. wide: Schedule 40, 2.875" o.d., 5.79 lbs. per lineal foot.
 - b. Gate leaf over 3 ft. to 5 ft. wide: Schedule 40, 4.0" o.d., 9.10 lbs. per lineal foot.
 - c. Gate leaf over 5 ft. to 10 ft. wide: Schedule 40, 6.625" o.d., 18.97 lbs. per lineal foot.
- C. Gates: Gate frames shall be 2.0-inch O.D., copper bearing fabric to match the fence line. All frames shall be hot-dipped, galvanized 1.8 oz. zinc/s.f. uncoated surface, conforming to ASTM 120, Schedule 40. PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. All gates to be provided with necessary hinges and gate padlock fittings. Provide diagonal bracing when gate leaves are over 4'-0" wide.
- D. Bracing: Braces not less than 1 5/8-inch O.D., weighing not less than 2.27 lbs. per foot, or approved equivalent section, complete with 3/8-inch galvanized truss rod and turnbuckle, all PVC coated, shall be installed at all corner, end, and gate posts, and as required at changes of vertical grade.
- E. Post Tops: All posts shall be fitted with heavy malleable iron or pressed steel tops, PVC coated. Tops shall permit passage of top rails.
- F. Bottom Rail: Bottom shall be 1 5/8-inch O.D., copper bearing steel pipe, hot-dipped, galvanized, weight 2.27 lbs. per foot. PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. Bottom rail shall be installed between posts with appropriate fittings and accessories.

- G. Top Rail: Top rail shall be 1 5/8-inch O.D., copper bearing steel pipe, hot-dipped, galvanized, weight 2.27 lbs. per foot. PVC-Coated finish in accordance with ASTM F1043; supplemental color coating of 10-15 mils of thermally fused PVC in color as selected by the Architect. Top rail shall pass through the line post tops and form a continuous brace from end to end of each run of fence. Couplings shall be outside sleeve type and at least seven inches long; one coupling every five shall contain a heavy spring to take up expansion and contraction of the top rail.
- H. Truss Rods: Galvanized steel rods, 5/16" min. diameter.
- I. Tension (stretcher) bars: one piece lengths 2" shorter than fabric height, 3/16" x 3/4", hot dip galvanized, PVC coated.
- J. Wire ties and clips: 9 gauge galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge for rails and braces. Hog ring ties of 12 1/2 gauge for attachment of fabric to tension wire. All PVC coated
- K. Nuts and bolts are galvanized but not vinyl coated. Utilize PVC paint color coat nuts and bolts.
- L. Fence Post Footings:
 - 1. The line, corner, and end gate posts shall be as detailed on the plans. All concrete footings shall be 3,000 psi., air-entrained. Footings shall be crowned to shed water and protect posts at ground line.
 - a. If footings are not detailed on plans, they shall be provided with a diameter 4 times greater than the outside dimension of post, 3'-6" deep, or deeper as the post condition warrants.

2.02 TENNIS COURT WINDSCREEN

- A. Provide tennis court windscreens at full perimeter of tennis courts if the work of this section is related to tennis court construction as indicated on the drawings.
 - 1. Manufacturer: Douglas Industries, Eldridge, Iowa.
 - a. Model: VCP-9 Windscreen
 - 2. Fabric:
 - a. Open mesh vinyl-coated (50%) polyester with 70% windbreak, 320 x 200 tensile strength, 9 x 12 inch weave, 7 oz. per square yard. Color as selected by Architect.
 - b. 3 ply hems, vinyl coated polyester reinforced and double sewn with heavy duty polyester thread.
 - c. No. 2 brass grommets.
 - d. Douglas AVR reinforced, die-cut, heat sealed air vents

3. Fasteners:

- a. lightweight, self-locking plastic fasteners with 150lb. break strength, C-snaps, and lacing cord.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries of work are clearly established.

3.02 CHAIN LINK FENCE FRAMING INSTALLATION

- A. Install chain link fence in accordance with ASTM F567 and manufacturer's instructions.
- B. Concrete Set Posts: Drill hole in firm, undisturbed earth to approximately 6" deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post bottom 36" below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts.
 1. Line posts shall be spaced at uniformly at approximately 8 ft. o.c., maximum of 10'-0" o.c., unless otherwise noted.
 2. Terminal posts shall be located at each fence termination and change in horizontal or vertical direction of 30 degrees or more.
 - a. Install horizontal pipe brace at mid-height for fences 6' and taller, at first section on each side of terminal, corner, and gate posts. Firmly attach with appropriate fittings. Install diagonal truss rods at these points. Install braces and adjust truss rod, ensuring posts remain plumb.
- C. Check each post for vertical and top alignment, and maintain in position during placement and finishing operation.
- E. Rails: Continuous top rails in 21 ft. sections. Bottom and mid rails (if required), single lengths between posts.
 1. Install mid-rails for fabric heights of 10 ft. and over.
- F. Gates: Install gates plumb, level and secure for full opening without interference. Attach hardware by means which will prevent unauthorized removal. Adjust hardware for smooth operation.

3.03 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on secure side and attach so that fabric remains in tension after pulling force is released. Leave approximately 1" between finish grade and bottom selvage. Attach

fabric with 9 ga. galvanized PVC coated wire ties or clip to line posts at 12" on center and to rails, braces, and tension wire at 12" on center.

- B. Tension (stretcher) bars): Pull fabric taut; thread tension bar through fabric and attach to terminal posts with bands spaced maximum of 15" on center.

3.04 ACCESSORIES

- A. Tie wires: Bend ends of wire to minimize hazard to persons and clothing.
- B. Fasteners: Install nuts on fence side opposite fabric side for added security.

3.05 CLEANING

- A. Clean up debris and unused material, and remove from site.

3.06 RESTORATION

- A. Any areas of the project site that are disturbed by the work shall be restored to the condition in which they existed prior to this work.
- B. Grass areas disturbed by this work shall be restored with topsoil & seed.

END OF SECTION