

SECTION 02711

VINYL CLAD CHAIN LINK FENCING

PART 1.00 – GENERAL

1.01 DESCRIPTION OF WORK

- A. Provide all materials, equipment, and labor necessary to complete the work as indicated on the drawings or as specified herein.
- B. The principal work of this Section includes:
 - 1. Installation of vinyl coated 9-gauge core fusion bonded class 2B chain link fencing (4ft to 10ft height) for various municipal properties and facilities.
 - 2. Installation of vinyl coated 6-gauge core fusion bonded class 2B chain link fencing (12ft height) for various municipal properties and facilities.
 - 3. Excavation for post bases.
 - 4. Add/Alt. Remove existing fence pole, fabric, gates, foundation bases etc., including the disposal of removed items.

1.02 REFERENCES

- A. ASTM STANDARDS
 - 1. A120 – Pipe, Steel, Black, and Hot-dipped zinc coated (Galvanized) welded and seamless, for ordinary use.
 - 2. A123 – Zinc (hot galvanized) coatings of products fabricated from rolled, presses and forged steel shapes, plates, bars and strips.
 - 3. F567 – Installation of chain – link fence
- B. Federal Standard (RS) RR-F-191 – Fencing, wire and post, metal.

1.03 SUBMITTALS

- A. Submit shop drawings and product data under provision of Section 01300, “Submittal and Substitutions. Submit shop drawings for fences and gates.

- B. Include layout, spacing of components, accessories, fittings, anchorages, and schedule of components.
- C. Submit manufacturer's installation instructions under provisions of Section 01300, "Submittals and Substitutions".
- D. Under provisions of Section 01300, "Submittals and Substitutions", submit sample of fence fabric finish, color and gauges. Sample size to be 6" x 12" minimum.

PART 2 – PRODUCTS

2.01 MATERIALS

A. FABRIC

1. Vinyl-coated chain link fabric (4ft to 10ft height) shall be No. 9 gauge core wire with a uniform square mesh measuring approximately two (2) inches between its parallel sides, woven with "Permafused" wire having a 9-gauge core which shall consist of a primed zinc coated steel to which seven (7) mil coating of Polyvinyl Chloride (PVC) has been bonded by the fusion method class 2B. The vinyl in the coating shall have a maximum specific gravity of 1.33, be evenly applied and free of blisters with the bond between the vinyl coating and the steel wire equal or greater than the cohesive strength of vinyl. The color of the coating shall be black. The minimum breaking strength of the coated core wire shall one thousand two hundred and ninety pounds (1290 lbs.).
2. Vinyl-coated chain link fabric (12ft height) shall be No. 6 gauge core wire with a uniform square mesh measuring approximately two (2) inches between its parallel sides, woven with "Permafused" wire having a 6-gauge core which shall consist of a primed zinc coated steel to which seven (7) mil coating of Polyvinyl Chloride (PVC) has been bonded by the fusion method class 2B. The vinyl in the coating shall have a maximum specific gravity of 1.33, be evenly applied and free of blisters with the bond between the vinyl coating and the steel wire equal or greater than the cohesive strength of vinyl. The color of the coating shall be black. The minimum breaking strength of the coated core wire shall one thousand two hundred and ninety pounds (1290 lbs.).
3. The fabric shall be installed opposite the playing side of the posts. The bottom of the fence fabric shall be three-quarters of an inch (3/4") plus or minus one-quarter (1/4") inch above the finished surface. Fabric shall be furnished with salvages knuckled on both

ON-CALL FENCE IMPROVEMENT
VINYL CLAD CHAIN LINK FENCING
PAGE 3

edges. Ends of each wire strand shall be coated with vinyl at the factory during the weaving process.

B. LINE POSTS

1. The line posts for the chain link fence shall be 2 ½ inch O.D., (5.79 lbs/ft) black poly 40 weight (schedule 40) as shown on the plans.

C. FITTINGS

1. All fixed component parts, such as post tops, bands, connectors, boulevard clamps, and rail ends, shall be pressed steel (No Aluminum) vinyl coated on visible surfaces. Non-visible portions of steel or iron components not vinyl-coated must be coated with a zinc coating of not less than 1.8 ounces of zinc per square foot of uncoated surface. All threaded parts shall be coated in the field with a vinyl-based compound after installation. (No Aluminum)

D. TERMINAL, CORNER, ANGLE, AND GATE POSTS

1. Terminal, corner, angle, and gate posts shall be three inch (3") round black poly 40 weight vinyl coated steel weighing 7.58 pounds per lineal foot, unless otherwise shown. Fabric shall be attached to these posts by means of vinyl coated or fiberglass reinforced (40 minimum glass content) bar held in place by clips spaced approximately fifteen (15") inches apart.

E. TOP, MIDDLE, BOTTOM, AND CORNER BRACE RAILS

1. The top, middle, bottom, and corner brace rails shall be one and five-eighths inch (1 5/8") outside diameter vinyl-coated steel pipe, 40 weight, weighing 1.84 pounds per lineal foot. The top rail shall pass through openings provided in the vinyl-coated post tops and each length shall be coupled with a vinyl-coated sleeve seven (7") inches long. Fabric shall be attached to the top, middle and bottom rail by means of a double wrap of "Permafused" black vinyl coated 6-gauge aluminum tie wire spaced at intervals of approximately 15 inches. The bottom rail shall be attached to the corner and line posts using boulevard clamps or bands and rail and cups as appropriate.
2. Brace rails shall be 40 weight vinyl coated steel pipe and be installed between each terminal post and the next adjacent line post. Each brace rail shall have attachments for a 5/16-inch vinyl coated truss rod and turn buckle attachment.

F. COATING

1. The framework consisting of line posts, terminal posts, top rail, bottom rail, braces, and gate frames shall be “Permafused” with black poly (Polyvinyl Chloride (PVC)) coating. The thickness of the coating shall be 7 mils. The vinyl shall be plasticized and thoroughly compounded so there are no undispersed pigments, stabilizers, or other discrete particles present. The color shall match the fabric (black).

G. FENCE COLOR

1. Fence color shall be black.

H. GATES

1. Gate frame(s) shall be 1 5/8” black poly 40 weight welded at all joints. Hinges shall be heavy duty commercial box hinges. Gate shall include heavy duty fulcrum latch which is lockable.
2. Gate frame(s) greater than 5ft shall be 2” black poly 40 weight welded at all joints. Hinges shall be heavy duty commercial box hinges. Gate shall include heavy duty fulcrum latch which is lockable.

PART 3 – EXECUTION

3.01 FENCE INSTALLATION

- A. Install new fencing as coordinated with city staff; accessories in accordance with ASTM F567.
- B. Provide dimensions as indicated and space line posts at intervals indicated.
- C. Excavate holes for concrete with vertical side in cylindrical form.
- D. Setting new posts:
 1. Remove loose and foreign materials from sides and bottom of holes and moisten soil prior to placing concrete.
 2. Center and align posts.
 3. Place concrete around posts in a continuous pour and vibrate or tamp for consolidation.

ON-CALL FENCE IMPROVEMENT
VINYL CLAD CHAIN LINK FENCING
PAGE 5

4. Check each post for vertical and top alignment and hold in position during placement.
5. Top of concrete footing shall be four (4") inches below finished grade.
6. Keep exposed concrete surfaces moist for at least seven (7) days after placement.
7. Posts for gates shall be set in concrete bases to a depth of three (3') feet.

E. CONCRETE STRENGTH

1. Concrete shall be minimum 3,000 psi. Allow concrete to attain at least seventy-five (75) percent of its minimum twenty-eight (28) day strength before rails, tension wire, and fabric are installed.
2. Do not, in any case, install such items in less than seven (7) days after placement of concrete.
3. Do not stretch and tension fabric and wire until concrete has attained its full design strength.

F. Stretch fabric between terminal posts.

G. Perimeter fencing on gates: Install fabric one (1) inch above finished grade.

H. Provide top rail through line post tops and splice with seven (7) inch long rail sleeve.

I. Fasten fabric to top rail, line posts, and bottom tension wire or bottom rail with black 6-gauge aluminum ties maximum fifteen (15) inches on centers.

J. Install bottom tension wire stretched taut between terminal posts.

K. Provide bottom rails where indicated.

L. All fencing shall be protected from damage until accepted. Any damaged items shall be removed and replaced at no expense to the CITY. Repairing of damaged items will not be acceptable. Damaged items and waste material shall be disposed of off-site by the CONTRACTOR.

END OF SECTION