



CITY OF EAST PROVIDENCE

ENGINEERING DIVISION

SPECIFICATIONS

RFP EP 20/21-24

**MYRON FRANCIS ELEMENTARY SCHOOL FENCING
BID OPENING FRIDAY, SEPTEMBER 24, 2021 AT 11AM**

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 approximately 45 feet of 4-foot high by 2-inch square mesh green vinyl 9 gauge core fusion bonded class 2B fencing at the Myron Francis School as shown on the attached plan. Top and bottom rails only, including two 4-foot wide gates with panic hardware, two 5-foot wide gates with new posts (four (4) total) with panic hardware and two 6 ½ foot double swing gates with panic hardware. All gates shall accommodate the necessary gate plate for the panic hardware.
 - 2. Excavation for post bases. Concrete to be flush with existing hot-mix asphalt.

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 3 copies of shop drawings and product data for posts, rails, fabric panic hardware and gates.
- B. Include layout, spacing of components, accessories, fittings, anchorages, and schedule of components.
- C. Submit manufacturer’s installation instructions.
- D. Submit sample of fence fabric finish, color and gauges. Sample size to be 6” x 12” minimum.
- E. Submit 3 copies of shop drawings for the gate plate kit and panic hardware.

PART 2 – PRODUCTS

2.01 MATERIALS

A. FABRIC

1. Vinyl-coated chain link fabric shall be No. 9 gauge core with a uniform square mesh measuring approximately two (2) inches between its parallel sides, woven with wire having a 9 gauge core which shall consist of a fusion bonded class 2B coating of Polyvinyl Chloride (PVC). 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 green. The minimum breaking strength of the coated wire shall be one thousand two hundred and ninety pounds (1290 lbs).

2. 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 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, SS-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 parts may be uncoated in the case of aluminum components. 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 green poly 40 weight 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, schedule 40 (40 weight), weighing 2.95 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 six (6") inches long. Fabric shall be attached to the top and bottom rail by means of a double wrap of fusion bonded class 2B vinyl coated 6 gauge aluminum tie wire spaced at intervals of

approximately fifteen (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 schedule 40 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 core fusion bonded class 2B with 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 (green).

G. FENCE COLOR

1. Fence color shall be green.

H. GATES

1. Gate frame(s) shall be 1 5/8" green poly 40 weight welded at all joints. Hinges shall be heavy duty commercial box hinges, self closing by National Industries or approved equal. Gate shall accommodate gate plate for panic hardware. Gate shall open out, away from the school building.
2. Panic Hardware DETEX 10xW630CD99 48"EC1 with a gate plate GTPLKIT 10"-12" tall, gray include O3GS lock for exterior, or approved equal.

2.02 CONCRETE MIX

A. CONCRETE

1. Concrete shall be 3,500 PSI per RIDOT standards.

PART 3 – EXECUTION

3.01 FENCE INSTALLATION

- A. Install new fencing as indicated on drawings; 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.
 - 4. Check each post for vertical and top alignment, and hold in position during placement.
 - 5. Top of concrete footing shall be flush with finished grade.
 - 6. Keep exposed concrete surfaces moist for at least seven (7) days after placement.
 - 7. Posts for corners and gates shall be set in 12-inch diameter concrete bases to a depth of three and one-half feet (42"). Line and intermediate posts shall be 10" diameter by 36" depth.
- E. CONCRETE STRENGTH
 - 1. Concrete shall be 3,500 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 ties maximum fifteen (15) inches on centers.
- J. Install bottom tension wire stretched taut between terminal posts (N/A).
- K. Provide bottom rails.
- 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