

Section 02821**CHAIN LINK FENCES AND GATES****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Fence framework, fabric, and accessories.
- B Excavation for post bases, concrete foundation for posts and center drop for gates.
 - 1. Manual gates and related hardware.
- C References to Technical Specifications:
 - 1. Section 01200 – Measurement and Payment Procedures
 - 2. Section 01350 – Submittals
- D Referenced Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM A 570, “Standard Practice for Roof System Assemblies Employing Steel Deck, Performed Roof Insulation, and Bituminous Built-Up Roofing”
 - b. ASTM A 1011, “Standard Specification for Steel, Sheet, and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low Alloy and High-Strength Low Alloy with Improved Formability”
 - c. ASTM A 307, “Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength”
 - 2. American Association of State Highway and Transportation Officials (AASHTO)

1.02 MEASUREMENT AND PAYMENT

- A Measurement for fencing shall be on a linear foot basis for height noted, measured and complete in place.
- B Measurement for gates shall be per each, complete in place.
- C Payment for chain link fences and gates includes all labor and materials required to complete installation as indicated on Plans.
- D Refer to Section 01200 – Measurement and Payment Procedures.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

- B Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, and schedule of components.
- C Product Data: Provide data on fabric, posts, accessories, fittings and hardware that indicates that items match or exceed the quality of existing.

1.04 SYSTEM DESCRIPTION

- A Fence Height shall be as indicated on Plans or as noted to match height of existing.
- B Extension arms for barbed wire shall match existing.
- C Line Post Spacing shall not exceed 10 feet, or as shown on Plans.

1.05 QUALIFICATIONS

- A Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three years experience.

1.06 FIELD MEASUREMENTS

- A Verify that field measurements are as indicated on Shop Drawings.

2.0 PRODUCTS

2.01 GALVANIZED FENCING

- A Fence fabric shall be No. 9 steel wire, hot galvanized after weaving, to match or exceed existing.
- B Framework shall be hot-dipped galvanized with a minimum coating of 2 ounces/sf, or one ounce/sf plus 30 micrograms/square inch chromate conversion coating.
- C Line posts shall be 2" and conform to ASTM A 570 Grade 45 steel or ASTM A 569, cold rolled steel. All posts shall have spherical plugs.
- D End corner, angle, and pull posts shall be 2 1/2" and conform to ASTM A 570 Grade 45 steel or ASTM A 569 for steel pipe.
- E Top rails shall be 1.65 x 1.25 inch formed C-section; or 1.6 inch round ASTM A 569, 1.35 lbs/ft; or one 5/8 inch outside diameter steel pipe, 2.27 lbs/ft. Top rails shall pass through openings provided for that purpose in post tops.
- F Fabric ties shall be hog rings, galvanized steel wire not less than 9-ga with a zinc coating of not less than 1.2 ounces/sf.
- G Bolts and nuts shall be in conformance with ASTM A 307 and shall be galvanized in accordance with AASHTO M232.

- H Install horizontal braces fabricated of one 5/8 inch, 2.27lb copper bearing steel pipe at all corner, gate, and end posts.
- I All posts to have malleable iron top caps.
- J Bottom tension wire shall be #7 gauge wire.
- K Gates shall be either swing or slide as shown on the plans. Swing gates shall be hinged to swing 90 degrees from closed to open or hinged to swing 180 degrees from close to open. Slide gates shall be roller type with no vertical obstructions. All gate leaves shall have intermediate members and diagonal stress rods as required for rigid construction and shall be free from sag or twist. All gates shall be fitted with vertical extension arms or shall have frame end number extended to carry barbed wire. Gate posts for gates shall be 4-inch, 9.1 lb pipe. Gate frames shall be made of 2-inch outside diameter, castings. Fabric shall be the same as for the fence. Gates shall have malleable iron ball and socket hinges, catches, stops and padlocks with 3 keys each. Posts for single gates shall be the same as end posts.

3.0 EXECUTION

3.01 INSTALLATION

- A Install chain link fence in accordance with the directions of the manufacturer and these Specifications.
- B Install line fence posts at not more than 10ft centers and concreted at least 36 inches x 12" diameter into the ground in a Class B concrete base. Allow concrete to cure for at least 7 days before erecting remainder of fence. Fasten fabric to line posts with wire ties spaced about 14 inches apart and to top rail spaced about 24 inches apart.
- C Use standard chain link fence stretching equipment to stretch the fabric before tying it to the rails and posts. Repeat the stretching and tying operations about every 100 feet.
- D Erect gates so they swing or slide in the appropriate direction. Provide gate stops as required. Secure hardware, adjust, and leave in perfect working order. Adjust hinges and diagonal bracing so that gates will hang level. Adjust rollers and guides of sliding gates so that gates are level.
- E At small natural or drainage ditches where it is not practical for the fence to conform to the contour of the ground, span the opening below the fence with wire fastened to stakes of required length. The finished fence shall be plumb, taut, true to line and ground contour. When directed, stake down the chain link fence at several points between posts.

- F Where new fence joins an existing fence, set a corner post and brace post at the junction and brace as directed. If the connection is made at other than the corner of the new fence the last span of the old fence shall contain a brace.

END OF SECTION