

## SECTION 32 31 13 (Addendum 3)

### CHAIN LINK FENCING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Includes But Not Limited To
  - 1. Furnish and install complete fence as described in Contract Documents.

##### 1.2 REFERENCES

- A. American Society For Testing And Materials
  - 1. ASTM A 123-00, 'Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products'
  - 2. ASTM A 153-98, 'Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware'
  - 3. ASTM A 392-96, 'Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric'
  - 4. ASTM A 570-98, 'Standard Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality'
  - 5. ASTM A 1011-01, 'Standard Specification Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability'
  - 6. ASTM C 1107-99, 'Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)'
  - 7. ASTM F 1043-00, 'Standard Specification for Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework'
  - 8. ASTM F 1083-97, 'Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures'

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. Fabric
  - 1. Chain link fabric of 9 gauge wire galvanized after weaving with 1.2 ounce zinc coating conforming to requirements of ASTM A 392, Class I, 2 inch mesh.
- B. Framework
  - 1. Posts and rails shall be roll-formed, self-draining shapes meeting strength requirements of ASTM F 669, Table 3, and with 2 ounce zinc coating per sq ft of surface area conforming to ASTM A 123.
  - 2. Line Posts - 4 inch outside diameter Schedule 40 tubular section weighing 6.65 lbs/lin ft meeting requirements of ASTM F 1083.

3. Terminal And Gate Posts - 4 inch outside diameter Schedule 40 pipe weighing 6.65 pounds per lineal foot meeting requirements of ASTM F 1083.
4. Top And Brace Rail - 1.660 inch outside diameter Schedule 40 pipe weighing 2.27 lbs/lin ft meeting requirements of ASTM F 1083.
5. Fittings - Pressed steel or malleable iron, hot-dip galvanized conforming to ASTM A 153. Tie wires shall be 12 gauge minimum galvanized steel or 9 gauge minimum aluminum wire.
6. Tension Wire - 7 gauge minimum galvanized spring steel.

## **2.2 MIXES**

- A. Post Foundation Concrete
  1. One cu ft cement, 2 cu ft sand, 4 cu ft gravel, and 5 gallons minimum to 6 gallons maximum water.
  2. Mix thoroughly before placing.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. Fence shall be installed by mechanics skilled and experienced in erecting fences of this type and in accordance with Contract Documents.
  1. When general ground contour is to be followed, make changes of grade in gradual, rolling manner.
  2. Evenly space posts in line of fence a maximum of 10 feet center to center.
- B. Post Foundations
  1. Except atop retaining walls, set posts with concrete post foundations as specified below -
    - Line Posts -, Diameter 18 inches, Depth 54 inches
    - Gate, End, And Corner Posts - Diameter 18 inches, Depth 54 inches
    - a. At mow strips, set top of post foundation below grade sufficient to allow for placing of mow strip. Measure post foundation depth from top of mow strip.
    - b. Where fences are incorporated into slabs, measure post foundation depth from top of slab. Extend bottom of slab footing sufficient to allow specified amount of concrete around post. At existing slabs, install fence outside perimeter of slab.
    - c. For fences on retaining walls, provide 12 inch long sleeves to be cast into retaining wall. Set pipe in sleeve and grout space between sleeve and post full.
- C. Fence
  1. After posts have been permanently positioned and concrete cured for one week minimum, install framework, braces, and top rail. Join top rail with 6 inch minimum couplings at not more than 21 foot centers.

2. Stretch fabric by attaching one end to terminal post and supplying sufficient tension to other end of stretch so slack is removed.
  - a. Fasten fabric to line posts with tie wires. Pass ties over one strand of fabric and hook under line post flange.
  - b. Place one tie as close to bottom of fabric as is possible with additional ties equally spaced between top and bottom band on approximately equal spacings not to exceed 14 inches on center.
  - c. Attach fabric to roll formed terminals by weaving fabric into integral lock loops formed in post. Attach fabric to tubular terminals with tension bars and bands.
  - d. Hold fabric approximately 2 inches above finish grade line.
  - e. On top rail, space tie wires at no more than 24 inches on center.
  - f. Securely attach fittings and firmly tighten nuts.

### **3.2 CLEANING**

- A. Spread dirt from foundation excavations evenly around surrounding area unless otherwise directed. Leave area free of excess dribbles of concrete, pieces of wire, and other scrap materials.

### **PART 4 PAYMENT**

- A. Payment for chain-link fence installation shall be paid for on a unit price basis as listed in the bid schedule. Said payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work described herein.

END OF SECTION