

SECTION 1129

FENCING**A. CHAIN LINK FENCING**

1. **General Requirements:** The requirements of Division One are applicable in full hereto.
2. **Scope:** Furnish and install fences of type and design as indicated herein. The extent and layout of fencing and fencing accessories is indicated on the drawings. Coordinate fencing, end posts, chain link transoms, etc. with gate systems included in Section 1123, shown in door schedule, and indicated on drawings, as provided by Detention Equipment Contractor.
3. **Exterior Fencing:** shall be steel chain-link, all parts galvanized, product and system of USS, Page, Waco or equal, meeting published standards of CLFMI. All ferrous members including fabric, hardware, posts, etc. shall have 1.8oz of zinc coating per sf of surface area, conforming to ASTM F1043- Group 1A; (external coatings per F1043 paragraph 7.1.1, internal coatings per F1043 paragraph 7.2.1) or, high strength steel pipe, triple coated per ASTM F1043- Group 1C; (external coatings per F1043 paragraph 7.1.2, internal coatings per F1043 paragraph 7.2.4). Furnish accessories or special fittings where required to attach posts or razor ribbon to the building structure. All bolts, screws, etc. shall be tamperproof type. Provide welding where indicated on the drawings.
4. **Catalog Data & Shop Drawings:** Submit shop drawings showing each fence type, gate design, and mounting details. Submit data indicating fabrics, posts, hardware, and accessories. Submit 8"x8" sample of each type of fence fabric.

B. TYPE "B" EXTERIOR PROTECTIVE PERIMETER FENCE

- **Fence Material-** 10' tall knuckle bottom and twist top, 2" x 9ga. Provide 14' tall fencing around entire vehicle sallyport. Locate material on secure side of posts and rails.
- **Posts-** Terminal and corner posts 2.87" od @ 5.79 plf. Gate posts 4" od (6" at sliding gate G100). Intermediate posts 2.3 @ 3.65, spaced at intervals not exceeding 8 feet. Fit all posts with malleable iron caps of proper type. Extend corner, terminal and gate post and line post at 16' oc to a point 24 inches above the fence top to accept tension wire for securing barbed tape.
- **Top rail-** Galvanized pipe not less than 1-5/8" od @ 2.28 plf with suitable expansion couplings. Required only in first section at gate, terminal and corner posts.
- **Intermediate rail-** Galvanized pipe not less than 1-5/8" od @ 2.28 plf with suitable expansion couplings.
- **Bottom rail-** Galvanized pipe not less than 1-5/8" od @ 2.28 plf with suitable expansion couplings. Contractor option to embed into concrete grade beam at fence surrounding vehicle sallyport. 12" wide grade beam by Fence Contractor, concrete pavement by General Works Contractor. Coordinate finish elevations of grade beam at pavement edge with General Works Contractor.

- Bracing- At corner, terminal, and gate posts, provide truss braces with turnbuckles extending to adjacent line posts.
- Bars and Bands: Tension bars shall be ¼" x ¾" (or larger as required) with bands at 14" o.c.
- Tension Wire: 7 ga. coiled spring tension wire shall be stretched continuously at fence top and for barbed tape. Secure to fabric with hog rings @ 12" oc.
- Wire Ties: 9 ga. tie wire shall be used to secure fabric to top, bottom and intermediate rails @ spacing not to exceed 14" o.c. (or as recommended by manufacturer, whichever is more strict). Twists shall be made on outside (away from prisoners). Provide ties in addition to tension bars at corners to pull slack fencing against corner posts.
- Barbed tape- Provide at fence top and at building locations where indicated. Material equal to Razor Ribbon II with offset barb installed with loop spacing @ 16" oc. Coils shall be tied to top tension wire and fence fabric in a manner as directed by coil manufacturer to remain upright and stable in all weather conditions.
- Gates: Full height, swing type of widths shown, complete with heavy padlock type latch, stops, keepers and pivot hinges. Frames shall be constructed of galvanized pipe (Sch. 40), free from sag or twist; corners may be welded or secured with fittings. Include intermediate members and truss rods as required by gate size. Fabric shall be same as type fence in which it occurs. Gates shall be designed so that when locked cannot be lifted off pivots. Frames of 1.90" od pipe. Double gates shall have off-set type pivots to permit 180 degrees opening, plunger rod, and center stop set in concrete and arranged to receive plunger. See attached drawings for gate designs.
- Other- At building locations where indicated, anchor 2-foot-long posts with 7 ga. coiled spring tension wire stretched between posts at top and bottom to provide for installation of barbed tape. Coordinate with Detention Equipment Contractor for gate hardware and electronics where indicated on door schedule.

C. INSTALLATION

1. Supervision and Erection: Contractor shall initiate a pre-fencing conference with Construction Manager, Architect, Detention Equipment Contractor, and General Works Contractor to ascertain and resolve any conditions not addressed via the shop drawings. Erect the fence system plumb, true, and tight with the fence surface to the secure side so that, to the maximum extent possible, the opportunity to climb over, under, or around the fence system is eliminated. Where required, make attachment to the building to secure the fence system or to eliminate openings larger than 3 inches. In erecting the fence, do not build in hand holds or steps.
2. Foundations: Furnish 3000 psi concrete as specified in 0330 for exterior concrete or small batches. Trowel tops smooth and with profile as indicated in paragraph drawings. Pour with poles in place such that poles are plumb. Embed fence fabric in concrete where detailed. Provide concrete releasing agent on bottom 18" of fence and posts for simplified cleaning of fence system after pouring of concrete slab or grade beam.

3. **Repair of welded surfaces:** Where galvanized surfaces are damaged by welding or otherwise, repair in shop or field with stick form galvanized repair compound.
4. **Fastening:** Furnish accessories or special fittings where required to attach posts or razor ribbon to the building structure. All bolts, screws, etc. shall be tamperproof type. Provide welding at interior post and rail system and elsewhere indicated on the drawings.