

SECTION 02850 – TUBULAR METAL FENCING

Related Documents:

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Section 01000 – General Requirements, apply to this Section.

Summary of Work:

1. Demolish and remove existing perimeter fencing and other fencing as indicated.
2. Provide all labor, materials, appurtenances and incidentals necessary for the installation of new of perimeter fencing and gates and other fencing as indicated on the drawings and specified herein.

Submittals:

Prior to fabrication submit for approval product data, test data, fabrication drawings including foundation design, plan layout showing location of all fencing, posts and gates, typical and unique fence panel elevations and details, gate elevations and details. Provide three copies of each submittal item. One copy of each reviewed submittal will be returned to the contractor.

Quality Assurance:

1. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years or more.
2. Use experience installers. Furnish evidence of experience if requested.

Product Handling and Storage:

Upon receipt at job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in a location approved by the owner in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

Scheduling Work:

Contractor shall coordinate the demolition and construction work so that the project site shall remain secure upon completion of each day's work.

Demolition:

1. Remove all existing fencing and gates, including foundations, and dispose of offsite in a legal manner. Storage or sale of items at project site is prohibited.

2. Remove existing plant material only as required to accomplish demolition and new construction work. Upon completion of the fence installation replace removed plant material with new plants to match type and size of the plant material that was removed.
3. Fill excavations left from fence or plant removal with compacted material equal to the type and density of adjacent soil.

Fence System Design:

1. Fence design shall be a 3-rail, 8 foot high pressed-point tubular picket fence as indicated on the drawings and in these specifications.
2. The material sizes and gages indicated herein and on the drawings are minimum requirements. The fence fabricator shall be responsible for designing fence panels, gates and posts that meet the performance requirements indicated.

Fence System Materials:

1. Steel material for fence framework (i.e., tubular pickets, rails, posts and brackets), when galvanized prior to forming, shall conform to the requirements of ASTM A924/A924m, with a minimum yield strength of 50,000 psi. The interior and exterior of the steel shall be hot-dipped galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/sq. ft., coating designation G-90.
2. The manufactured galvanized framework shall be subjected to a thermal stratification coating process consisting of a phosphate anti-rust coating and bonding agent with an minimum thickness of 2 mils and an electrostatically applied, thermal bonded, polyester TGIC powder coating topcoat with a minimum thickness of 2 mils. The topcoat color shall be black.
3. Material for fence pickets shall be minimum 1" square x 16 ga. tubing. Material for the rails shall be minimum 1-1/2" square x 11 ga. tubing. Material for posts shall be minimum 2-1/2" square x 11 ga. tubing. "U" shaped brackets shall be fabricated from 11 ga. steel. Materials for gate ends shall be minimum 1-1/2" square x 11 ga. tubing. Field applied bolts shall be minimum 1/4-inch diameter, hot-dipped galvanized and factory coated to match fence framework.
4. Concrete material for fence post foundations shall be meet a compressive strength of 3000 psi at 27 days.

Fence System Fabrication:

1. Pickets, rails and posts shall be factory cut to specified lengths. Pickets shall have pressed point tops and bottom of picket shall be capped with plastic caps with weep hole to prevent moisture accumulation inside the picket. Pickets shall be spaced at 4.5" on center and factory welded to the top and bottom sides of each rail with weld lengths equal to the picket width . Ends of rails shall be pre-punched for field attachment to post brackets. "U" shaped brackets with pre-punched holes to receive field bolted rails shall be factory welded to posts. Posts shall have pressure applied plastic or galvanized steel post caps to match post color..
2. Completed panels shall be capable of supporting a 600 lb. load at mid-span without permanent deformation.
3. Gates shall be fabricated to match fence design. Gate ends shall be factory welded to gate rails with mitered outside corners. Sliding gate shall be fabricated to work with existing operator.
4. Completed gates shall be capable of supporting a 300 lb. load at the unsupported end without permanent deformation.
5. All welds shall be ground smooth.
6. All material shall be hot-dipped galvanized after fabrication.

Fence System Installation:

1. Fence posts shall be set according to drawings and approved submittals but spacing shall not exceed 8'-0" on center. Gate posts shall be set according to gate openings indicated.
2. Fence panels shall be bolted to brackets factory welded to posts. No field welding shall be allowed.
3. Clean jobsite of excess material and debris including material for post hole excavations.

END OF SECTION 02850