

## **SECTION 02 87 10 – BICYCLE RACKS**

### **PART 1 -- GENERAL**

#### **Section 1.01 SCOPE OF WORK**

- A. Fabricate and install metal bike racks in accordance with the requirements set forth in this section.

#### **Section 1.02 ADDITIONAL WORK INCLUDED IN THIS SECTION**

- A. Field measuring for weld plates, sleeves and insert locations.
- B. Field measuring.
- C. Anchors or inserts for terrazzo or precast concrete.
- D. Prime painting of galvanized materials

#### **Section 1.03 RELATED WORK SPECIFIED IN OTHER SECTIONS**

- A. Section 02 90 00: Landscaping: Installation Location and Coordination
- B. Section 03 30 00: Cast-in-Place Concrete
- C. Section 03 40 00: Precast Concrete
- D. Section 03 62 00: Non-Shrink Grouting
- E. Section 03 63 00: Epoxy Grouting
- F. Section 04 20 00: Unit Masonry
- G. Section 04 40 00: Stone Assemblies
- H. Section 09 90 00: Painting and Coating

#### **Section 1.04 QUALITY ASSURANCE**

- A. Fabricator Qualifications: Furnish references listing projects of similar size and scope  
*If special or unusual capabilities are required they should be set forth here.*
- B. Installer Qualifications  
*State as required in 1.05.A or state specific qualifications required.*
- C. Regulatory Requirements
  1. Components and installation are to be in accordance with state and local code authorities  
*Determine code regulations that govern this work. Specify requirements and drawings that are necessary to meet governing codes.*
- D. Certifications
  1. Furnish certification that all components and fittings are furnished by the same manufacturer or approved by the primary component manufacturer.

#### **Section 1.05 REFERENCES**

*Include only reference standards that are to be indicated within the text of this section. Edit the following, adding and deleting as required for project and product selection.*

- A. American Concrete Institute (ACI)
  1. ACI 347 Recommended Practice for Concrete Formwork
- B. American Society for Testing and Materials (ASTM)
  1. A 53 Pipe, Steel, Black and Hot Dipped, Zinc Coated Welded and Seamless.
  2. A 123 Specification for Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products.
  3. A 269 Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
  4. A 312 Specification for Seamless and Welded Austenitic Stainless Steel Pipe.
- C. Americans With Disabilities Act Accessibility Guidelines (ADAAG)
- D. Green Globes System
- E. International Code Council (ICC)
  1. International Building Code (IBC)
  2. International Residential Code (IRC).
- F. National Association of Architectural Metal Manufacturers (NAAMM) and National Ornamental and Miscellaneous Metals Association (NOMMA)
  1. Metal Finishes Manual
- G. National Association of Home Builders (NAHB)
  1. Model Green Home Building Guidelines.

- H. Institute of Building Sciences
  - 1. Metric Guide for Federal Construction
- I. U.S. Green Building Council
  - 1. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™

#### **Section 1.07 SUBMITTALS**

- A. Submit shop drawings and product data under provisions of Section [01 30 00] [01 34 00].
  - 1. Show sections and plans of site, dimensions and assembly of components.
  - 2. Show all field connections
  - 3. Provide setting diagrams for installation of anchors, location of pockets, and weld plates for attachment of rails to structure.
  - 4. Indicate all required field measurements.
  - 5. Submit [one] [ ] set[s] of CAD files for approval.
- B. Indicate component details, materials, finishes, connection and joining methods, and the relationship to adjoining work.
- C. Submit manufacturer's installation instructions under provisions of Section [01 30 00] [01 34 00].
- D. Substitutions:
  - 1. Any changes in specified material must meet requirements of the General Conditions "or equal" clause. (See # \_\_\_\_\_)  
*Indicate Section and Paragraph of the General Conditions that sets out "or equal" requirements.*
  - 2. Changes in architectural details to fabricator's standard procedures will be allowed when appearance and strength are not affected.  
*State any alternatives that affect the work and/or bid price of this section, such as a change in material or a change to contractor's standard details.*

#### **Section 1.08 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials to the job site in good condition and properly protected against damage to finished surfaces.
- B. Storage on site:
  - 1. Store material in a location and in a manner to avoid damage. Stacking shall be done in a way, which will prevent bending.
  - 2. Store material in a clean, dry location away from uncured concrete and masonry. Cover with waterproof paper, tarpaulin, or polyethylene sheeting in a manner that will permit circulation of air inside the covering.
  - 3. Keep handling on site to a minimum. Exercise particular care to avoid damage to finishes of material.

### **PART 2 -- PRODUCTS**

#### **Section 2.01 ACCEPTABLE MANUFACTURER**

- A. Bike Rack and components shall be as manufactured or supplied by The Wagner Companies; P.O. Box 423; Butler, WI 53007. Phone: 888-243-6914. Fax: 414-214-0550. Web site: [www.wagnercompanies.com](http://www.wagnercompanies.com). E-mail: [info@mailwagner.com](mailto:info@mailwagner.com).

#### **Section 2.02 MATERIALS AND FINISHES**

- A. Steel:
  - 1. Pipe: ASTM A 53
- B. Stainless Steel: Type [304] [316] [316L]
  - 1. Pipe: ASTM [A 269] [A 312]

#### **Section 2.02 BICYCLE RACK**

- A. Material shall conform to 2.02. and be finished in accordance with 2.02.
- B. [Bicycle Rack] [BikeRail™]
  - 1. Fabricate from [painted] [galvanized] [steel] [stainless steel] 2" (2.375" OD) [Wagner No. \_\_\_\_\_]
  - 2. Capacity: [2] [5] [7] [9] [11] [ ] bicycles.
  - 3. Mount: [Surface] [Below grade].
  - 4. Color: [Black] [ ]

#### **Section 2.04 FASTENERS**

- A. All mechanical fasteners used in the assembly of stainless steel bike racks shall be manufactured from stainless steel.
- B. Cement: Hydraulic, ASTM C 595, factory prepared with accelerator.

**Section 2.05 FABRICATION**

- A. Cut material square and remove burrs from all exposed edges, with no chamfer.
- B. Make exposed joints butt tight and flush.
- C. For posts set in concrete, furnish matching sleeves or inserts not less than 5 inches long.
- D. Verify dimensions on site prior to shop fabrication.

**PART 3 --EXECUTION****Section 3.01 PREPARATION**

- A. Supply items to be [cast in concrete] [embedded in masonry] [placed in partitions].

**Section 3.02 INSTALLATION**

- A. Install in accordance with shop drawings [and manufacturer's instructions] at locations indicated on the drawings.
- B. Erect work [square and level.] [rigid, [and] free from distortion or defects detrimental to appearance or performance.
- C. Expansion joints shall be provided as needed to allow for thermal expansion or contraction.

**Section 3.03 CLEANING**

- A. As installation is completed, wash thoroughly using clean water and soap; rinse with clean water.
- B. Do not use acid solution, steel wool or other harsh abrasives.
- C. If stain remains after washing, remove finish and restore in accordance with *NAAMM/NOMMA Metal Finishes Manual*.

**Section 3.04 REPAIR OF DEFECTIVE WORK**

- A. Remove stained or otherwise defective work and replace with material that meets specification requirements.
- B. Repair damaged finish as directed by Architect
- C. Replace defective or damaged components as directed by Architect.