PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Welded wire mesh animal enclosures, including swinging and sliding
      gates and hardware.
   2. Supplementary parts and components, such as inserts, clips, bracing,
      anchors, fasteners, and other miscellaneous supports required for a
      complete installation.

1.2 APPLICABLE PUBLICATIONS

A. Comply with the references to extent specified in the Section.
B. American Welding Society (AWS):
C. ASTM International (ASTM):
   A53/A53M-20...............Pipe, Steel, Black and Hot-Dipped, Zinc-Coated,
   Welded and Seamless.
   A123/A123M-17..............Zinc (Hot-Dip Galvanized) Coatings on Iron and
   Steel Products.
   A153/A153M-16a............Zinc Coating (Hot-Dip) on Iron and Steel
   Hardware.
D. Master Painters Institute (MPI):
   No. 18.....................Primer, Zinc Rich, Organic.

1.3 SUBMITTALS

A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA,
   AND SAMPLES.
B. Submittal Drawings:
   1. Large scale, dimensioned, for each enclosure, showing design,
      construction and materials.
   2. Layout drawings with detailed erection drawings.
C. Manufacturer's Literature and Data:
   1. Description of each product.
   2. Installation instructions.
D. Sustainable Construction Submittals:
1. Recycled Content: Identify post-consumer and pre-consumer recycled content percentage by weight.

E. Certificates: Indicate products comply with specifications.
   1. Galvanized coating.

F. Qualifications: Substantiate qualifications comply with specifications.
   1. Manufacturer // with project experience list //.
   2. Welders and welding procedures.

1.4 QUALITY ASSURANCE
A. Manufacturer Qualifications:
   1. Regularly manufactures specified products.
   2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.
      a. // Project Experience List: Provide contact names and addresses for completed projects. //

B. Welders and Welding Procedures Qualifications: AWS D1.1/D1.1M.

1.5 DELIVERY
A. Deliver products in manufacturer's original sealed packaging.
B. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

1.6 STORAGE AND HANDLING
A. Protect products from damage during handling and construction operations.

1.7 WARRANTY
SPEC WRITER NOTE: Always retain construction warranty. FAR includes Contractor's one year labor and material warranty.

A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION
A. Factory fabricate welded wire mesh animal enclosures. Design for rapid field erection using simple tools.
   1. Fabricate modular units, designed as free standing.

2.2 PRODUCTS - GENERAL
A. Sustainable Construction Requirements:
SPEC WRITER NOTE:
1. Specify products containing greatest recycled content practicable to maximize material recovery. Section 01 81 13 sets overall project recycled content requirements.
2. Steel recycled content depends upon furnace type. AISC reports industry wide 32 percent for basic oxygen furnace and 93 percent for electric arc furnace.

1. Steel Recycled Content: 30 percent total recycled content, minimum.

2.3 MATERIALS

A. Frames: Pipe or tubing, galvanized, as specified. Use one material throughout.
   1. Steel Pipe: ASTM A53, Grade A, Type S; 1.651 mm (16 gauge) 41mm (1-5/8 inch).
   2. Steel Tubing: 41 mm (1-5/8 inch) outside diameter.

SPEC WRITER NOTE:
1. Powder coating or PVC coating adds durability and is available for welded wire, although at an added cost. Specify coating when applicable for project.
2. Typically manufacturers provide welded wire mesh units, but chain link may be available where custom fabrications are required. Research manufactures.

B. Welded Wire Mesh: Galvanized, 5.2 mm (0.20 inch) diameter wire, manufacturer's standard opening size.

C. Hardware and Accessories:
   1. Latches, Hinges, and Other Accessories: Galvanized steel.
      a. Hinges: Pressed steel or malleable iron hinges to suit gate size, non-lift-off type, offset to permit 180 degree gate opening. Two hinges minimum per leaf.
      b. Latch: Forked type or plunger-bar type to permit operation from both sides of gate. Provide padlock eye as integral part of latch.
   2. Tracks and Carriers for Slide Gates: Two bottom guides and two overhead carriers.
      b. Track: 16 mm (0.64 inch) thick galvanized steel.
   3. Miscellaneous Clamps and Fasteners:
      a. Panel Clamps: 19 mm (0.75 inch) thick galvanized steel.
b. Masonry Clamps: 19 mm (0.75 inch) thick galvanized steel.
c. Nuts and Bolts: Corrosion-resistant metal or cadmium plated steel.


2.4 FABRICATION

B. Panel Construction:
   1. Attach welded wire mesh panel securely to their support with tamper-proof fasteners.
   2. Install partitions within 6 mm (1/4 inch) from their indicated locations, without deviation of more than 6 mm (1/4 inch) from plumb or level. Misalignment between components not to exceed 3 mm (1/8 inch).
C. Gates:
   1. Fabricate gate frame of welded steel pipe or tubes.
   2. Provide additional horizontal members to ensure rigidity, proper gate operation, and for attachment of fabric, hardware and accessories.
   3. Bolt or weld hardware in place.
   4. Factory install gates in gate frames.

SPEC WRITER NOTE: Add powder coating or PVC coating below, if they will be used for project.

2.5 FINISHES

A. Steel Framing and Components: ASTM A123/A123M, hot dipped galvanized, after fabrication.
B. Hardware: ASTM A153, hot dipped galvanized.

2.6 ACCESSORIES

A. Welding Materials: AWS D1.1/D1.1M, type to suit application.
B. Galvanizing Repair Paint: MPI No. 18.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install products according to manufacturer's instructions and approved submittal drawings.
1. When manufacturer's instructions deviate from Specifications, submit proposed resolution for Contracting Officer's Representative consideration.

B. Install gates plumb and level within 6 mm (1/4 inch) in 3 m (10 feet).
   1. Adjust hardware for smooth operation.

C. Replace bent framing and welded wire mesh or entire damaged enclosure.

   SPEC WRITER NOTE: If powder coating or PVC coating was added, keep the following paragraph. If not, remove.

D. Touch up damaged finish with compatible air drying enamel of same color as shop applied finish, so as to be invisible from adjacent undamaged surface.

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