

Section 10 22 13
WIRE MESH PARTITIONS DATA CENTER SPECIFICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section. Attachments: 1) Proposal Form reflecting base proposal and all required alternatives 2) General and Supplemental Conditions.

1.2 SUMMARY

- A. Secure wire cage system to meet below specifications with drawings, freight, delivery, and installation to meet code regulations for application.

1.3 SUBMITTALS (Submittals due with the proposal, failure to do so will be cause for disqualification)

- A. Product Data: Submit manufacturer's product literature and installation instructions for each type of wire mesh, posts, fasteners and accessory required. Include data substantiating that products to be furnished comply with requirements of the specifications.
- B. Drawings: Includes details of layout and installation including clearances, spacing, and relation to adjacent construction in plan and elevation. Submit drawings showing location, plans elevations sections and details.
- C. Samples: submit a minimum of 12" x 12" panel constructed of specified frame members and wire mesh. Show method of finishing members at intersections.
- D. Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.
- E. Warranty: Submit a written warranty agreeing to repair or replace units which fail in materials or workmanship within the specified warranty period. This warranty shall be in addition to and not a limitation of other rights the Owner may have against the Contractor under Contract Documents.
 - 1. The entire wire cage system and installation will be warranted against defects in material and workmanship for a period of 1 year from date of acceptance by the Owner.
- F. Project detailed completion timeline from the date of award showing detailed milestones for manufacturing, delivery, and installation.
- G. Reference List: Provide a list of 5 installed data center wire cage systems.

1.4 QUALITY ASSURANCE (Submittals due with the proposal, failure to do so will be cause for disqualification)

- A. Installer Qualifications: Engage an experienced installation supervisor who is an authorized and certified representative of the wire cage manufacturer with not less than 2 years' experience installing systems similar to those required for this project.
- B. Lead installers to be company employees trained in OSHA requirements
- C. Vendor to provide named certificate of insurance required by project guidelines
- D. Other mandatory requirements.

1.5 Deliver, Storage, and Handling

- A. Deliver wire mesh items in an A-frame crate to provide protection during transit and project site storage. do not use non-vented plastic
- B. Vendor to have warehouse capable of staging, and protecting, material in the event the project is delayed

1.6 Project Conditions

- A. Field measurements; verify actual locations of construction contiguous with wire mesh items by field measurements before fabrication and indicate measurements on approval drawings.

1.7 Coordination

- A. Coordinate installation of anchorages for wire mesh items supported or anchored to permanent construction. Furnish setting drawings, templates and directions for installing anchorages including sleeves, concrete inserts, anchor bolts, and items with integral anchors that are to be embedded in concrete or masonry. Deliver such items to the project site in time for installation.
- B. Provide logistics coordinator capable of providing support regarding production, shipping, and installation.

Part 2 – Products

2.1 Manufactures

- A. Available manufactures: subject to compliance with requirements, manufactures offering products that may be incorporated into the work include
 1. Basis of design: Style 840, by Wire Crafters / Southwest Solutions Group. Toll-Free Phone 1-800-803-1083 ccrock@southwestsolutions.com POC: Craig Crock ext. 3693 www.southwestsolutions.com/wirecrafters

2.2 Materials

- A. Panels

Shall be 10-gauge steel wire crimped and welded into 2" x 2" opening rectangular mesh, securely welded into a frame of 1 1/4" x 1 1/4" x 1/8" steel angle factory punched with 7/8" x 7/16" slotted holes to accept 3/8" mounting hardware. Panels four to six feet wide shall have one 1/4" x 3/4" flat stiffener, wider panels receive two 1/4" x 3/4" stiffeners. All panels shall be fastened to posts with 3/8" x 3" plated bolts and nuts.
- B. Hinged Doors

Shall be constructed of the same materials as the panels with two 1/4" x 3/4" horizontal stiffeners across the width, and two diagonal 1/4" x 3/4" stiffeners from center to the corner. Hinged doors shall be equipped with padlock lugs (cylinder lock optional), three 4" x 4" spun pin hinges, and pick plate/slam bar assembly.
- C. Sliding Doors

Shall be constructed of the same materials as the panels with two 1/4" x 3/4" horizontal stiffeners across the width, and two vertical 1/4" x 3/4" stiffeners from center to top or bottom. Sliding doors shall be equipped with two 4-wheel trolley trucks, 1 7/8" x 2 3/8" door track, padlock lugs (cylinder lock optional), and doorkeeper assembly.

- D. Posts
Shall be made of 2" x 2" x 14-gauge steel tubing. Base plates of 2" x 7" x 1/4" steel flat with two 7/16" round holes for anchoring, shall be welded to each tube. Posts are factory drilled with 1/2" holes to accept hardware for mounting panels.
- E. Hardware
Shall be 3/8" standard thread grade two plated nuts and bolts. Floor anchors are 3/8" wedge type-provided.
- F. Finish
Non-plated parts receive one coat of gray acrylic enamel. Touch up paint included with each shipment

2.3 Fabrication

- A. General: Fabricate wire mesh items from components of sizes not less than those indicated. Provide bolts, hardware, and accessories as required for a complete installation.
 - 1. Fabricate wire mesh items to be readily disassembled
 - 2. Welding; weld corner joints of framing and grind smooth
- B. Standard duty wire mesh partitions: fabricate wire mesh partitions to allow for field cutouts for pipe, ducts beam and other items indicated. Finish edges of the cutout to provide a neat edge.
 - 1. Mesh securely weld to framing
 - 2. Provide horizontal stiffeners as indicated for panel heights as recommended by wire mesh partition manufacture that is the basis of design. Weld stiffeners to frame.
 - 3. Fabricate partitions and door framing with holes for connecting panels to posts.
 - 4. Fabricate wire mesh partitions with 3 inches of clear space between the finished floor and bottom of horizontal framing.
 - 5. Doors: align the bottom of the door with the bottom of adjacent panels.
 - a. For doors that do not exceed the full height of partition, provide transom over the door, fabricated from the same mesh and framing as partition panels.

2.4 Finishes

- A. General; Comply with NASAMM's metal finishes manual for architectural and metal products for recommendations for applying and designating finishes.
 - 1. All components to be pre-finished with one coat gray enamel paint
 - 2. Appearance of finished work: variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved samples.
 - 3. Provide appropriate color touch-up paint for repairing damage to paint finish.

Part 3- Execution

3.1 Examination

- A. Examine areas with installer present for compliance with requirements for installation tolerances and other conditions affecting the performance of work.
- B. Examine the floor for suitable conditions where wire mesh items will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Erection

- A. Wire mesh gates, panels, ceiling, and doors
 - 1. Provide line posts at locations indicated
 - 2. Install doors complete with door hardware
 - 3. Install security windows complete with window hardware
 - 4. Weld metal bases
 - 5. Bolt accessories to wire mesh partition framing with all secure side hardware.
 - 6. Provide verifiable installation according to manufactures specifications.

3.3 Adjusting and cleaning

- A. Adjust doors to operate easily without binding
- B. Check and readjust operating hardware items just before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work including doors and panels that are warped, bowed, or otherwise unacceptable
- C. Touch up painting immediately after erection, clean field welds, bolted connections and abrade areas of shop paint; paint exposed areas with the same material as used for shop painting to comply with SSPC PA1 for touching up shop painted surfaces