SECTION 271116 - COMMUNICATIONS CABINETS, RACKS, FRAMES, AND ENCLOSURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

Section Includes:

1. WE Wall-Mount Cabinet

1.3 DEFINITIONS

A. BICSI: Building Industry Consulting Service International

B. EIA: Electronic Industries Alliance.

C. TIA: Telecommunications Industry Association.

D. ANSI: American National Standard Institute.

E. LAN: Local area network.

F. RCDD: Registered Communications Distribution Designer.

1.4 REFERENCES

A. ANSI/TIA-569-D Telecommunications Pathways and Spaces, 2015

B. ANSI/TIA-568-D.0 Generic Telecommunications Cabling for Customer Premises, 2015

C. ANSI/TIA – 568-D.1 Commercial Building Telecommunications Cabling Standard, 2015.

D. ANSI/NECA/BICSI 568-2006 – Standard for Installing Commercial Building Telecommunications Cabling.

E. ANSI/TIA-942-A Telecommunications Infrastructure Standard for Data Centers, 2014.

F. ANSI/TIA – 606-B Administration Standard for Telecommunications Infrastructure, 2012.

G. ANSI/TIA – 607-C Generic Telecommunications Bonding and Grounding (Earthing) For Customer Premises, 2015.

H. ANSI/NFPA 70 – National Electric Code, 2008, 2014.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for equipment racks and cabinets.

2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Shop Drawings: For communications equipment room fittings.

1. Include plans, elevations, sections, details, and attachments to other work.

2. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

3. Equipment Racks and Cabinets: Include workspace requirements and access for cable connections.

4. Grounding: Indicate location of bonding bus bar and its mounting detail showing standoff insulators and wall mounting brackets.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For [Installer] qualified layout technician, installation supervisor, and field inspector.

B. Seismic Qualification Certificates: For equipment frames from manufacturer.

C. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

1. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions. Base certification on the maximum number of components capable of being mounted in each rack type. Identify components on which certification is based.

2. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Cabling Installer must have personnel certified by BICSI on staff.

B. Layout Responsibility: Preparation of Shop Drawings shall be under the direct supervision of [RCDD] [RCDD/NTS] [Commercial Installer, Level 2].

1. Installation Supervision: Installation shall be under the direct supervision of [Registered Technician] [Level 2 Installer], who shall be present at all times when Work of this Section is performed at Project site.

2. Field Inspector: Currently registered by BICSI as [RCDD] [Commercial Installer, Level 2] to perform the on-site inspection.

PART 2 - PRODUCTS

2.1 WALL-MOUNT CABINETS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Great Lakes (GL); WE Wall-Mount Cabinet.

Description: Wall-mount cabinets manufactured from steel sheet. Non-seismic applications - Maximum equipment weight of {{weight}} when secured to the structural wall with standard anchors. Non-seismic load is tested per UL 2416 and the cabinet is UL Listed NWIN.E227626.

1. Color: Black textured powder coated steel

2. Size: 24 inches (610 mm), 10 RU

3. UL Listed: 350 lb Capacity

4. Construction Material: Body 18GA CRS, Doors 18GA CRS, Rails 14GA CRS

5. Doors: Mesh Door

6. Front Panel: Removable front panel.

7. Access Control: Keyed quarter turn locks on doors and front panel.

8. Center Section: 36 inches (914 mm) wide by 20.51 inches (521 mm) deep center section with door access on the left and right and removable panel on the front.

9. Equipment Mounting Rails: Two pair of adjustable 3/8” square (M6); spaced vertically to support 19 inches (482.6 mm) wide EIA-310-E compliant rack-mount equipment and shall provide 10 RU of rack-mount space.

10. Mounting: Fixed mounting – equipment can be installed from left or right.

13. Usable Depth: 34 inches (864mm)

14. Provision for optional 7217 fan kit.

PART 3 - EXECUTION

3.1 INSTALLATION OF WALL MOUNT CABINETS

 Follow the manufacturer's installation instructions (Great Lakes MS-5.02-10) when securing the cabinet to the wall and backboard.

Attach the cabinet directly into studs through a 3/4 inch (19 mm) plywood backboard.

The cabinet may be attached to a masonry wall when the installer provides hardware.

Use appropriate hardware as defined by local code or the authority having jurisdiction.

Cables shall enter/exit the cabinet through conduit knockouts in the top, bottom and/or rear of the cabinet. Use edge-protection grommets on conduit knockouts when cables pass through a conduit knockout but are not enclosed in conduit.

END OF SECTION 271100