SECTION 16131

CABINETS AND ENCLOSURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes hinged cover enclosures, cabinets, terminal blocks, and accessories.

1.2 REFERENCES

A. NECA (National Electrical Contractors Association) – Standard of Installation

B. NEMA ICS 4 (National Electrical Manufacturers Association) – Terminal Blocks for Industrial Control Equipment and Systems.

C. NEMA 250 (National Electrical Manufacturers Association) – Enclosures for Electrical Equipment (1000 Volts Maximum).

1.3 SUBMITTALS:

A. Product Data: Submit manufacturer's standard data for enclosures, cabinets, and terminal blocks.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.5 EXTRA MATERIALS

A. Supply key per key schedule. There should be a key schedule for each project. If not, list the key numbers by cabinet function.

1.6 DELIVERY, STORAGE AND HANDLING

A. Materials: Materials shall be new and shall be delivered to the job site in the original packaging.

PART 2 - PRODUCTS

2.1 HINGED COVERED ENCLOSURES

A. Construction: NEMA 250, Type 1, 3R or 4 steel or stainless steel enclosures.

B. Covers: Continuous hinge, held closed by flush latch operable by screwdriver or key if location requires for security.

C. Provide interior painted plywood or metal panel for mounting terminal blocks and electrical components; finish with white enamel.

D. Enclosure Finish: Manufacturer's standard enamel or color as required by design.

2.2 CABINETS

A. Boxes: Galvanized steel with removable endwalls.

B. Box Size: Per design and location

C. Backboard: Provide ¾-inch thick plywood backboard or metal panel for mounting terminal blocks. Paint matte white.

D Fronts: Steel, flush or surface type depending on design and location with screw cover front or door with concealed hinge and flush lock keyed to match branch circuit panelboard. Finish with gray baked enamel.

E. Knockouts: To be determined by design and location

F. Provide metal barriers to form separate compartments wiring of deifferent systems and voltages.

G. Provide accessory feet for free-standing equipment.

2.3 TERMINAL BLOCKS

A. Terminal Blocks: NEMA ICS 4.

B. Power Terminals: Unit construction type with closed back and tubular pressure screw connectors, rated 600 volts.

C. Signal and Control Terminals: Modular construction type, suitable for channel mounting, with tubular pressure screw connectors, rated 300 volts.

D. Provide ground bus terminal block, with each connector bonded to enclosure.

2.4 PLASTIC RACEWAY

A. Product Description: Plastic channel with hinged or snap-on cover.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install in accordance with NECA "Standard of Installation."

B. Install enclosure and boxes plumb. Anchor securely to wall and structural supports at each corner under the provisions of Section 16050.

C. Install cabinet fronts plumb.

D. Label as required.

3.2 CLEANING

A. Clean electrical parts to remove conductive and harmful materials

B. Remove dirt and debris from enclosure.

C. Clean finishes and touch up damage.

3.3 EXISTING WORK

A. Remove abandoned cabinets, wiring, piping and enclosures, including above accessible ceiling finishes. Patch surfaces and remove any reference labels in panel.

B. Ensure access to existing cabinets and enclosures and other installations which remain active and which require access. Modify installation or provide access panel as appropriate.

C. Extend existing cabinets and enclosures using materials and methods compatible with existing electrical installations or as specified.

D. Clean and repair existing cabinets and enclosures, which remain or are to be reinstalled.

END OF SECTION