SECTION 27 05 26 - GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS

PART 1 - General

1.01 SUMMAry

A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communication bonding required by these specifications and related construction drawings.

B. Division 26 - Electrical specifications and accompanying drawings are particularly applicable to this section of this Division 27 specification.

C. The specification sections of this Division 27 that are particularly applicable to this section include, but are not limited to, the following:

1. Section 27 00 00 - Communications

2. Section 27 06 00 - Communications Schedules

3. Section 27 11 00 - Communications Equipment Room Fittings

4. Section 27 11 13 - Communications Entrance Protection

5. Section 27 11 16 - Communications Cabinets, Racks, Frames, and Enclosures

6. Section 27 13 00 - Communications Backbone Cabling

7. Section 27 11 19 - Communications Termination Blocks and Patch Panels.

1.02 quality control

Comply with Section 27 00 00 - Communications.

1.03 warranties

Comply with Section 27 00 00 - Communications.

1.04 material substitutions

Comply with Section 27 00 00 - Communications.

1.05 Submittals

Comply with Section 27 00 00 - Communications.

1.06 Delivery, storage, and handling

Comply with Section 27 00 00 - Communications.

Part 2 - products

2.01 Quantity determination

Comply with Section 27 00 00 - Communications.

2.02 Busbars

Furnish all required telecommunications grounding system busbars - see Section 27 06 00 - Schedules for Communications, UCSC Master Pre-Approved Product/Material/Manufacturer List Index, Product/Material Category, "Bonding."

2.03 bonding conductors

Furnish all required 6 AWG green thermoplastic insulated stranded copper wire - see Section 27 06 00 - Schedules for Communications, UCSC Master Pre-Approved Product/Material/Manufacturer List Index, Product/Material Category, "Bonding."

2.04 bonding conductor Terminations

A. Furnish all required two-hole compression lugs: Color coded to appropriate cable, high conductivity wrought copper, electro tin plated - see Section 27 06 00 - Schedules for Communications, UCSC Master Pre-Approved Product/Material/Manufacturer List Index, Product/Material Category, "Bonding."

B. All bonding compression lugs and other bonding hardware shall be Underwriters Laboratories (UL), or other nationally recognized testing laboratory acceptable to UCSC, listed for the application intended.

Part 3 - Execution

3.01 General

The contractor shall comply with all requirements as listed in ANSI/TIA/EIA-STD-607-A “Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications” whether shown on the drawings or not.

3.02 INSTALLATION

A. Install busbars per manufactures instructions and at locations shown on the accompanying drawings. If locations are unclear, clarify location with PP&C project manager before installing.

B. Provide all bonding as specified by these Division 27 specifications and the conjoined construction drawings. In particular make sure, when present in a Telecommunication Room (TR), that the following elements are bonded:

1. Metallic equipment racks.

2. Cable shields.

3. All metal raceways and cable trays.

C. Bonding conductors shall be continuous and routed in as direct a route as possible to the point of termination while adhering to the following: No bonding conductor shall vertically traverse a wall except at wall corners.

D. Clean ground bars prior to terminating bonding conductors.

3.03 examination

Comply with Section 27.00 00 – Communications.

3.04 labeling

A. Reference construction drawings accompanying this Division 27 specification.

B. Label all telecommunications bonding conductors as close as possible to the termination points with an ANSI/TIA/EIA 606 compliant label for bonding.

3.05 as-built drawings

Comply with Section 27 15 53 - Communications Cable Plant Testing.

Comply with Section 27 00 00 – Communications.

**END OF SECTION**