

SECTION 27 05 26 GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS

PART 1 – GENERAL

1.1 SUMMARY

- A. Provide grounding and bonding for communications systems in accordance with ANSI/TIA-607 and applicable codes.
- B. Submittals (product data, materials, and installation details) shall be submitted in accordance with Division 01 procedures.

PART 2 – PRODUCTS

2.1 BUSBARS AND COMPONENTS

- A. Provide a Telecommunications Main Grounding Busbar (TMGB) at the building entrance/main equipment room and a Telecommunications Grounding Busbar (TGB) in each telecom room (MDF/IDF) as applicable.
- B. Provide bonding conductors, lugs, and compression connectors sized per ANSI/TIA-607 and NEC. Minimum bonding conductor size shall be #6 AWG copper unless otherwise required by design.
- C. The Drawings or Division 26 grounding/bonding details shall identify any telecommunications bonding backbone (TBB), interconnection bonding conductor, or bonding conductor routing and sizing required beyond the minimum provisions of this Section. Where larger conductors or specific routes are not shown, provide the minimum sizes required by ANSI/TIA-607, NFPA 70, and the installed equipment/manufacture requirements. Coordinate final routing and connection to the building grounding electrode system with Division 26; Division 26 remains responsible for the building grounding electrode system and electrical grounding infrastructure unless the Contract Documents assign otherwise.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Bond racks/cabinets, ladder rack/runway, cable trays, splice cases, and metallic raceways serving communications systems to the nearest TGB/TMGB.
- B. Provide bonding jumpers across non-continuous metallic sections and across hinges where required to ensure electrical continuity.
- C. Coordinate grounding/bonding terminations with the Electrical Contractor and provide labeling identifying bonding conductors and busbars.

D. Surge protection and bonding at exterior/exposed communications runs: Where Category 6A (or other metallic communications) cabling serves a device located outside the building envelope — including exterior-mounted video surveillance cameras, devices on poles, canopies, parking areas, or site structures, and runs extending between separate structures — the run is exposed to lightning-induced surge and shall be protected as follows. 1. Surge protective device (device end, required): Provide a surge protective device (SPD) listed for Ethernet/Power-over-Ethernet data circuits at the exterior device end of each such run, rated for the Power-over-Ethernet type/class serving the device, with data-rate performance not less than the Category rating of the installed cabling, and installed in an enclosure suitable for the exterior environment and location. 2. Surge protective device (telecommunications-room end): Provide a corresponding SPD at the telecommunications-room end of the run where indicated on the Drawings or directed by KU IT. 3. Bonding (required): Bond each SPD, the metallic device mount, housing, and support hardware, and any metallic pathway serving the exterior device, to the nearest TGB/TMGB in accordance with this Section. An SPD that is not effectively bonded does not satisfy this requirement. 4. Code compliance: Provide protection and bonding for communications conductors exposed to lightning in accordance with NFPA 70 (National Electrical Code) Article 800 and, where applicable, Article 840, and the requirements of this Section. 5. Quantities: SPD locations and quantities are a deferred quantity under Section 27 05 00 §1.10.E and shall be identified on the Drawings and in the Division 27 Project Schedule; they shall not be left to “as required” determination in the field.