
Part 1 General

1.1 RELATED SECTIONS

- .1 Section 26 05 00 - Common Work Results for Electrical.
- .2 Section 26 05 28 - Grounding - Secondary.

1.2 REFERENCES

- .1 American National Standards Institute.
 - .1 ANSI J-STD-607-A-2002, Joint Standard - Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.
- .2 Telecommunications Industries Association (TIA)/Electronic Industries Alliance (EIA).
 - .1 TIA/EIA-606-2002, Administration Standard for the Commercial Telecommunications Infrastructure.
- .3 U.S. Department of Labor/Occupational Safety and Health Administration (OSHA).
 - .1 Nationally Recognized Testing Laboratory (NRTL).

1.3 SYSTEM DESCRIPTION

- .1 Telecommunications grounding and bonding system consist of grounding busbars, bonding backbones, and other bonding conductors.
- .2 Provides ground reference for telecommunications systems within building and bonding to it of telecommunications rooms.
- .3 Metallic pathways, cable shields, conductors, and hardware within telecommunications spaces are bonded to telecommunications grounding and bonding system.

1.4 QUALITY ASSURANCE

- .1 Health and Safety Requirements: do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.6 ACCEPTABLE PRODUCTS AND MATERIALS

- .1 Where a particular brand name is stipulated, see Instructions to Bidders for procedure for requesting approval of substitute materials and products.

Part 2 Products

2.1 TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB)

- .1 Predrilled copper busbar, listed by NRTL, electrotin plated with holes 8 mm diameter for use with standard-sized lugs to: ANSI J-STD-607-A.
- .2 Dimensions: 6 mm thick, 100 mm wide, 500 mm long (or 2 x 250 mm). to: ANSI J-STD-607-A.
- .3 Acceptable Products:
 - .1 CT-GIBB4X10X12 of Cable Talk.
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.2 TELECOMMUNICATIONS GROUNDING BUSBAR (TGB)

- .1 Predrilled copper busbar, listed by NRTL, electrotin plated with holes 8 mm diameter for use with standard-sized lugs to: ANSI J-STD-607-A.
- .2 Dimensions: 6 mm thick, 50 mm wide, 500 mm long (or 2 x 250 mm). to: ANSI J-STD-607-A.
- .3 Acceptable Products:
 - .1 CT-GIBB2X10X12 of Cable Talk.
 - .2 Replacement materials or products: approved by addendum according to Instructions to bidders.

2.3 BONDING CONDUCTOR FOR TELECOMMUNICATIONS

- .1 3/0 AWG copper conductor, green insulated to: ANSI J-STD-607-A.

2.4 TELECOMMUNICATIONS BONDING BACKBONE (TBB)

- .1 3/0 AWG copper conductor, green insulated to: ANSI J-STD-607-A.

2.5 TELECOMMUNICATION SECONDARY BONDING CONDUCTORS

- .1 6 AWG copper conductor, green insulated to: ANSI J-STD-607-A.

2.6 WARNING LABELS

- .1 Non-metallic warning labels in English and French to: ANSI J-STD-607-A.
- .2 Identify labels with wording "If this connector is loose or must be removed, please call the building telecommunications manager".

Part 3 Execution

3.1 TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB)

- .1 Install TMGB in telecommunications entrance room on insulated supports 50 mm high at location close to electrical power panel if one is installed in same room as indicated.

3.2 TELECOMMUNICATIONS GROUNDING BUSBAR (TGB)

- .1 Install TGB in main terminal/equipment room and each telecommunications room.

3.3 BONDING CONDUCTORS GENERAL

- .1 When placed in ferrous metallic conduit or EMT longer than 1 m, bond to each end of conduit or EMT using 6 AWG copper conductor.

3.4 BONDING CONDUCTOR FOR TELECOMMUNICATIONS

- .1 Install bonding conductor for telecommunications from TMGB to service equipment (power) ground.
- .2 Use approved 2-hole compression lugs for connection to TMGB.

3.5 TELECOMMUNICATIONS BONDING BACKBONE (TBB)

- .1 Install TBBs from TMGB to each TGB as indicated.
- .2 Use approved 2-hole compression lugs for connection to TMGB and TGBs.

3.6 BONDING TO TMGB

- .1 Bond metallic raceways in telecommunications entrance room to TMGB using No. 6 AWG green insulated copper conductor.
- .2 For cables within telecommunications entrance room having shield or metallic member, bond shield or metallic member to TMGB using No. 6 AWG green insulated copper conductor.
- .3 Bond equipment rack cabinet located in telecommunications entrance room to TMGB using No. 6 AWG green insulated copper conductor.

3.7 BONDING TO TGB

- .1 Bond metallic raceways in telecommunications room and telecommunications equipment room to TGB using No. 6 AWG green insulated copper conductor.
- .2 For cables within telecommunications room and equipment room having shield or metallic member, bond shield or metallic member to TGB using No. 6 AWG green insulated copper conductor.
- .3 Bond equipment racks and cabinets located in telecommunications room and equipment room to TGB using No. 6 AWG green insulated copper conductor.

3.8 LABELLING

- .1 Apply warning labels to telecommunications bonding and grounding conductors.
- .2 Apply additional administrative labels to: TIA/EIA-606.

END OF SECTION