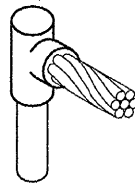
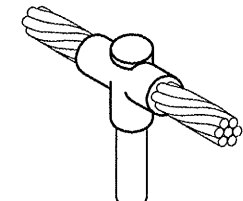


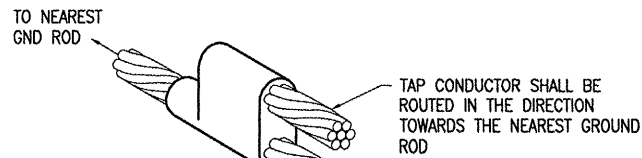
CABLE TO GROUND ROD



CABLE TO GROUND ROD



CABLE TO GROUND ROD

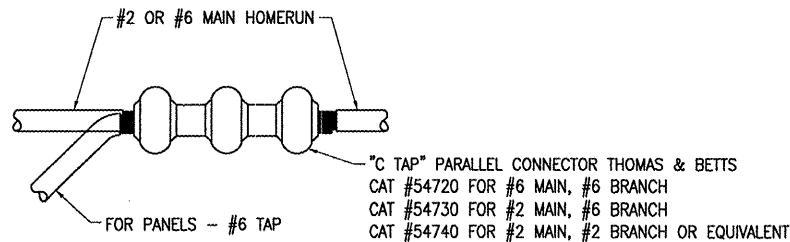


CABLE TO CABLE HORIZONTAL PARALLEL TAP

DETAIL NOTES

- ALL BELOW GRADE CONNECTIONS TO GROUND RODS & GROUND RING CONDUCTORS SHALL BE EXOTHERMIC WELD TYPE CONNECTIONS. EXOTHERMIC WELDS SHALL BE CADWELD AS MANUFACTURED BY ERICO PRODUCTS, SOLON, OHIO, ULTRAWELD AS MANUFACTURED BY HARGER LIGHTNING PROTECTION & GROUNDING EQUIPMENT, GRAYSLAKE, IL, OR THERMOWELD AS MANUFACTURED BY CONTINENTAL INDUSTRIES, TULSA, OKLAHOMA. VERIFY PROPER SIZES, MOLDS, TYPES, AND REQUIREMENTS FOR THE RESPECTIVE APPLICATION WITH THE MANUFACTURER, AND INSTALL PER THEIR DIRECTIONS.
- FOR APPLICATIONS TO GALVANIZED STEEL OR PAINTED STEEL, REMOVE GALVANIZING AND/OR PAINT & CLEAN THE SURFACE TO EXPOSE BARE STEEL BEFORE MAKING EXOTHERMIC WELD CONNECTION.
- INDIVIDUAL GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE INSTALLED IN METAL CONDUIT. INSTALL GROUNDING ELECTRODE CONDUCTORS IN SCHED 40 PVC CONDUIT AS REQUIRED IN FOUNDATIONS, FOR PROTECTION, WHERE ENTERING ENCLOSURES, ETC. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY ENCIRCLE THE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. WHERE METAL CLAMPS ARE INSTALLED USE NYLON BOLTS, NUTS, WASHERS, & SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT.

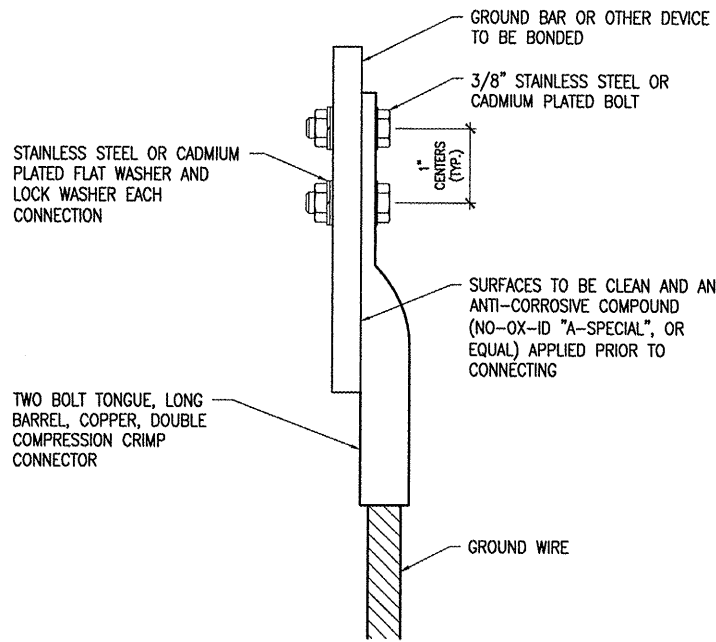
EXOTHERMIC WELD DETAILS



NOTES

- COMPRESSION CONNECTORS SHALL BE THOMAS & BETTS 600 VOLT, C TAPS OR H TAPS, BURNDY COPPER CRIMPIT TYPE YC-C, OR EQUIVALENT, SIZED & SUITABLE FOR THE RESPECTIVE CONDUCTORS. INSTALL PER MANUFACTURER'S DIRECTIONS.
- COMPRESSION CONNECTORS SHALL BE FOR INDOOR APPLICATIONS. OUTDOOR APPLICATIONS SHALL REQUIRE EXOTHERMIC WELD.

GROUND DOUBLE COMPRESSION CONNECTOR DETAIL

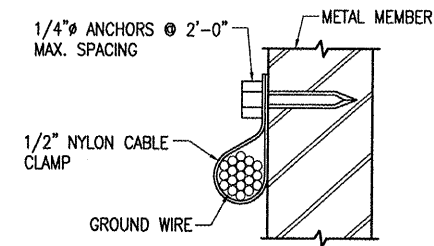


| 2 HOLE LONG BARREL COMPRESSION LUG TABLE |                 |                         |
|--|-----------------|-------------------------|
| WIRE SIZE                                | BURNDY CAT. NO. | THOMAS & BETTS CAT. NO. |
| #6 AWG STRANDED                          | YA6C-2TC38      | 256-30695-1158          |
| #4 AWG STRANDED                          | YA4C-2TC38      | 256-30695-1159          |
| #2 AWG STRANDED                          | YA2C-2TC38      | 256-30695-1160          |
| #2 AWG SOLID                             | YA3C-2TC38      | 256-30695-1160          |
| #1/0 AWG STRANDED                        | YA25-2TC38      | 256-30695-1162          |
| #2/0 AWG STRANDED                        | YA26-2TC38      | 256-30695-1116          |
| #3/0 AWG STRANDED                        | YA27-2TC38      | 54816BE                 |

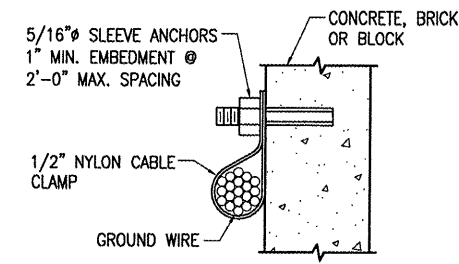
NOTES

- ALL CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
- GROUND WIRE CONNECTIONS TO EQUIPMENT SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE OR WITH THE RESPECTIVE EQUIPT MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.
- GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT.
- ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM INC. NO-OX-ID "A-SPECIAL", BURNDY PENETROX E, OR EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

GROUNDING LUG CONNECTION DETAIL



SUPPORT FOR BUS WIRE FROM METAL BAR, ANGLE, OR SIMILAR METAL MEMBER



SUPPORT FOR BUS WIRE FROM CONCRETE WALL, BRICK, OR BLOCK

NOTE: WHERE NOTED ON THE PLANS GROUND WIRES SHALL BE RUN IN SCHED 40 PVC CONDUIT (SIZE AS DETAILED). PVC CONDUIT CONTAINING GROUND CONDUCTORS SHALL NOT HAVE METAL SUPPORTS THAT COMPLETELY ENCIRCLE THE CONDUIT. USE NYLON BOLTS, NUTS, WASHERS, AND/OR REINFORCED FIBERGLASS STRUT SUPPORT. DO NOT USE CABLE TIES OR TIE WRAPS.

TYPICAL GROUND WIRE SUPPORT DETAIL

|          |  |
|----------|--|
| BY       |  |
| REVISION |  |
| DATE     |  |

**SAINT LOUIS DOWNTOWN AIRPORT**  
 A Division of Bi-State Development Agency  
 A.I.P. PROJ.: 3-17-0039-B19

|                    |                   |
|--------------------|-------------------|
| Hanson Project No. | 84507ELEC.D. 0800 |
| Etchmark           | E-506.DWG         |
| Scale              | NONE              |
| Date               | 07/16/07          |
| LAYOUT             | KNL 05/03/07      |
| DRAWN              | CCC 05/18/07      |
| REVIEWED           | CAH 07/13/07      |

**HANSON**  
 Hanson Professional Services Inc.  
 4227 Earth City Expressway, Suite 130  
 St. Louis, MO 63045-1308  
 Offices Nationwide

|                         |                   |
|-------------------------|-------------------|
| ATCT INTERFACE TO VAULT | GROUNDING DETAILS |
|-------------------------|-------------------|