

BOND HIGH VOLTAGE & LOW VOLTAGE WIREWAYS TO NEW GROUND BUS WITH A #6 AWG (MIN.) COPPER BONDING JUMPER. SEE NOTE 1.

1/4" THICK x 2" HIGH COPPER GROUND BUS WITH STANDOFF INSULATORS. LENGTH TO BE 8 FEET. GND BUS SHALL REPLACE EXISTING 1/8" THICK x 3/4" HIGH BUS BEHIND LOW VOLTAGE WIREWAY LOCATED BEHIND CONSTANT CURRENT REGULATORS. GROUND BUS SHALL BE AS MANUFACTURED BY HARGER OR APPROVED EQUAL. GROUND BUS SPLICES SHALL BE EXOTHERMIC WELD OR WITH MANUFACTURER SPLICE PLATES (MIN. DIMENSIONS 1/4" THICK, 2" HIGH, 6" LENGTH WITH 4 BOLTS).

RECONNECT EXISTING GROUNDING ELECTRODE CONDUCTOR TO NEW VAULT GND BUS WITH 2-HOLE TONGUE LONG BARREL COMPRESSION LUG BOLTED TO THE BUS BAR. PROVIDE BARRELL TYPE COMPRESSION SPLICES TO EXISTING GROUNDING ELECTRODE CONDUCTORS WHERE NECESSARY TO REACH NEW GROUND BAR.

CONNECT EACH CCR FRAME TO THE NEW GROUND BUS WITH A #6 AWG (MINIMUM) COPPER GND CONDUCTOR. EXISTING #6 AWG GND WIRES MAY BE RE-USED AT CONTRACTOR'S OPTION, (WHERE APPLICABLE). SEE NOTE 1. (TYP. FOR EACH CCR)

#2 AWG COPPER BONDING JUMPER BETWEEN NEW GROUND BAR & EXISTING GND BUS.

EXISTING GROUND BUS IN VAULT

EXISTING GROUND ROD (TYP. EACH CORNER OF GND RING)

CCR GROUND BUS RISER

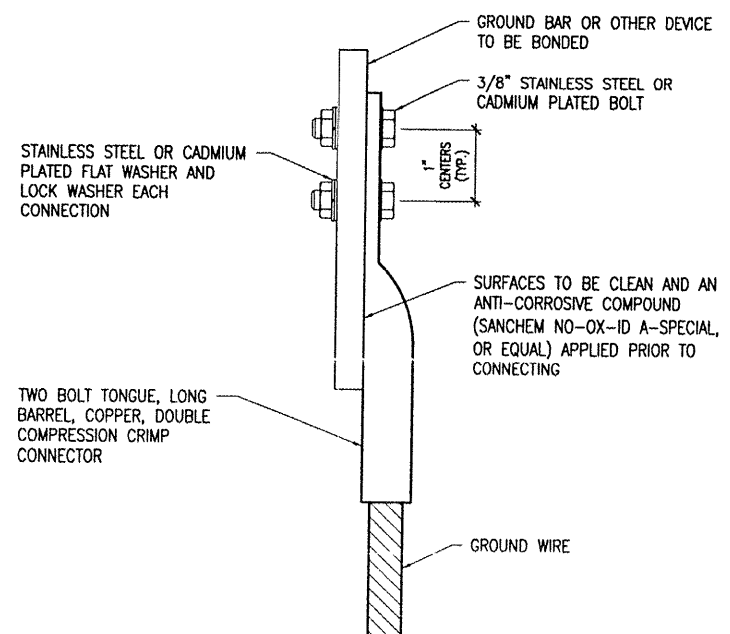
2 HOLE LONG BARREL COMPRESSION LUG TABLE			
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.	PENN-UNION CAT. NO.
#8 AWG STRANDED	YA8C-2TC38	256-30695-1157	BBLU-8D-2TC38
#6 AWG SOLID	YA8C-2TC38 OR YGA6C-2TC38E2G1		
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158	BBLU-6D-2TC38
#4 AWG STRANDED	YA4C-2TC38	256-30695-1159	BBLU-4D-2TC38
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160	BBLU-2D-2TC38
#2 AWG SOLID	YA3C-2TC38	256-30695-1160	BBLU-3D-2TC38
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162	BBLU-1/0D-2TC38
#2/0 AWG STRANDED	YA26-2TC38	256-30695-1116	BBLU-2/0D-2TC38
#3/0 AWG STRANDED	YA27-2TC38	548168E	BBLU-3/0D-2TC38
#4/0 AWG STRANDED	YA28-2TC38	256-30695-1117	BBLU-4/0D-2TC38

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 EQUIP MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.
- GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY RENCIRCLE 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.
- ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM INC. NO-OX-ID A-SPECIAL, OR BURNDY PENETROX E, OR APPROVED 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.

NOTES FOR CCR GROUND BUS RISER

- CONNECTIONS TO GROUND BUS BARS SHALL BE WITH 2-HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
- CONSTANT CURRENT REGULATORS SHALL BE SHUT OFF PRIOR TO DISCONNECTING EXISTING FRAME GROUNDS AND SHALL REMAIN OFF UNTIL GROUNDING UPGRADES AND NEW GROUND CONNECTIONS ARE COMPLETED.
- ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM AR109210 "VAULT MODIFICATIONS" PER LUMP SUM.



GROUNDING LUG CONNECTION DETAIL

BY	REVISION	DATE

FAIRFIELD MUNICIPAL AIRPORT
FAIRFIELD, ILLINOIS

IL. PROJ.: FWC-3829 A.I.P. PROJ.: 3-17-0043-B10

HESI Project No. 08A0073D_0800	10/02/08
Drawings E-605.DWG	10/02/08
Scale NONE	10/02/08
Date 10/10/08	10/02/08
LAYOUT KNL	CAH
DRAWN MV	CAH
REVIEWED	CAH

HANSON
Hanson Professional Services Inc.
1000 South Main Street
Springfield, Illinois 62763-3886
Offices Nationwide

REPLACE RUNWAY & TAXIWAY LIGHTING
CCR GROUND BUS RISER AND GROUNDING DETAILS

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