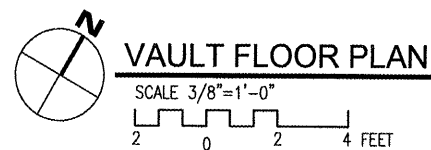
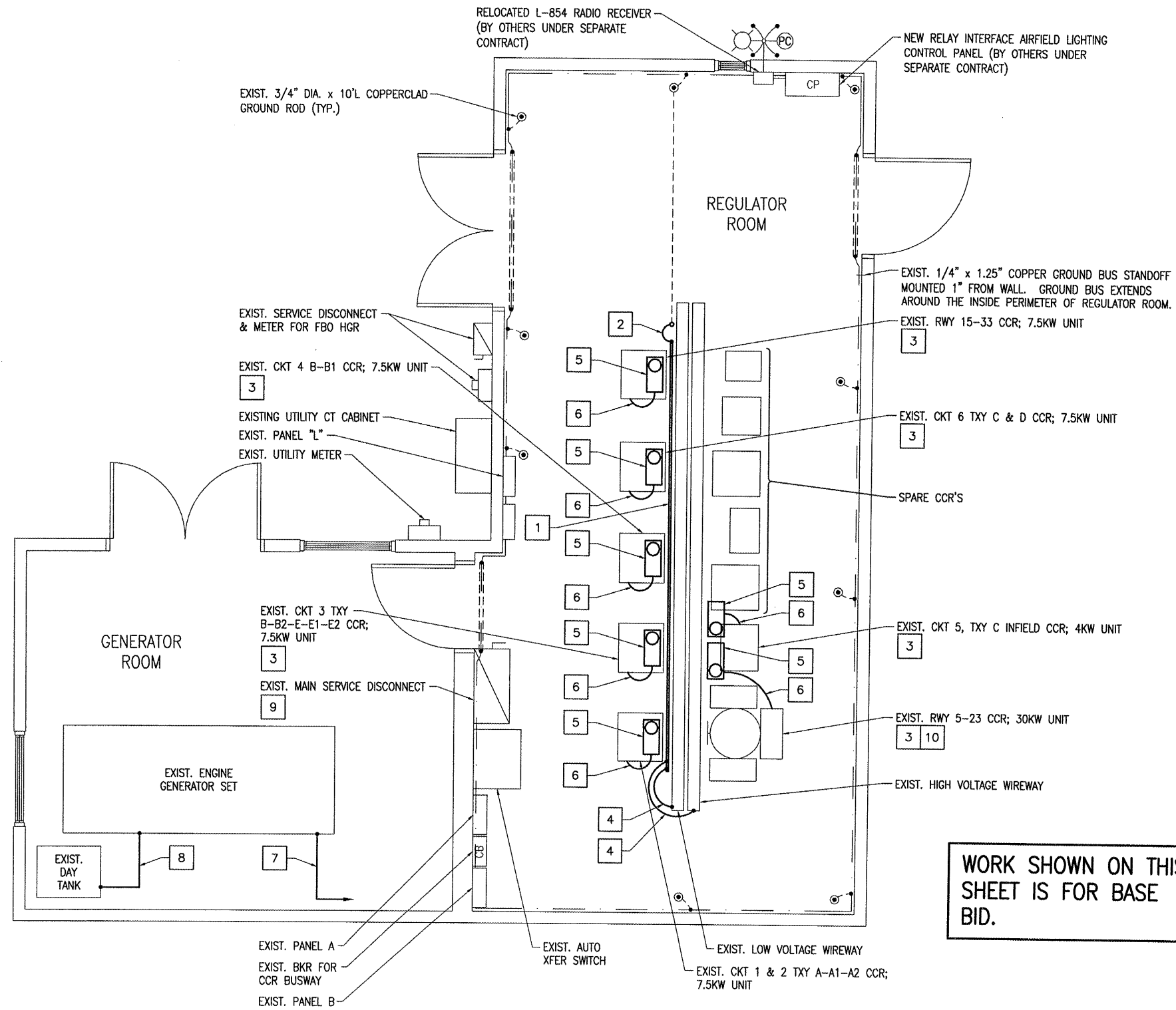


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THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

WORK SHOWN ON THIS SHEET IS FOR BASE BID.

NOTES

- ALL VAULT WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR AND AIRPORT MAINTENANCE STAFF.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE UL LISTING, ETL LISTING, OR OTHER THIRD PARTY LISTING AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- SEE "CCR GROUND BUS RISER AND GROUNDING DETAILS" SHEET FOR ADDITIONAL INFO ON THE NEW GROUND BAR FOR CCR'S.
- SEE HIGH VOLTAGE WIRING SCHEMATICS FOR REQUIREMENTS ON CUTOUT WIRING.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY.
- LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE UL LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. INTERNAL EQUIPMENT GROUND WIRES FOR CCR SERIES CIRCUITS SHALL BE #8 AWG COPPER (MINIMUM). EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED.
- 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.
- ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM NO-OX-ID "A-SPECIAL", OR EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTION TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

KEYED NOTES

- NEW GROUND BAR FOR CCR'S; 1/4" THICK BY 2" WIDE BY 17'-10" LONG COPPER BUS BAR WITH STANDOFF INSULATORS AND MOUNTING HARDWARE. NEW GROUND BAR SHALL REPLACE EXISTING 1/4" THICK BY 1.25" WIDE GROUND BAR AT CCR'S. MOUNT TO EXISTING STRUT SUPPORT STRUCTURE. SEE NOTE 3.
- CONNECT EXISTING #1/0 GROUNDING ELECTRODE CONDUCTOR TO NEW GROUND BAR.
- BOND EACH CCR FRAME TO NEW GROUND BAR WITH #6 AWG (MIN.) STRANDED COPPER CONDUCTOR. SEE NOTE 3.
- BOND HIGH VOLTAGE & LOW VOLTAGE WIREWAYS TO NEW GROUND BAR WITH #6 AWG (MIN.) STRANDED COPPER CONDUCTOR. ALSO BOND STRUT SUPPORT RACK TO NEW GROUND BAR WITH #6 AWG (MIN.) STRANDED COPPER CONDUCTOR.
- BOND EACH CUTOUT ENCLOSURE TO NEW GROUND BAR WITH #6 AWG (MIN.) STRANDED COPPER CONDUCTOR. FURNISH AND INSTALL AN L-861 LIGHT FIXTURE, ON EACH CUTOUT CABINET, FOR GROUND FAULT INDICATION. SEE NOTES 3 & 4.
- REPLACE EXISTING 3/4" LTFMC BETWEEN EACH CCR AND CUTOUT ENCLOSURE WITH 1" LTFMC. REINSTALL EXISTING 5000V SERIES CIRCUIT CONDUCTORS BETWEEN CCR & CUTOUT. INCLUDE #8 EQUIPT. GND WITH SERIES CIRCUIT CONDUCTORS FROM CCR TO CUTOUT ENCLOSURE. SEE NOTE 6.
- #1/0 AWG COPPER BONDING JUMPER FROM ENGINE GENERATOR FRAME TO GROUND BUS IN REGULATOR ROOM. PROVIDE 3/4" SCHED 40 PVC FOR SUPPORT OF GROUND CONDUCTOR AND AT WALL PENETRATION. CORE DRILL WALL BETWEEN ENGINE ROOM AND REGULATOR ROOM. SEAL WALL SLEEVE WITH DUCT SEAL.
- #6 AWG COPPER FROM DAY TANK FRAME/SUPPORT TO ENGINE GENERATOR FRAME.
- REPLACE THE EXISTING 1000 AMP FUSES IN THE SERVICE DISCONNECT WITH 3-800 AMP, CLASS L LOW PEAK TIME-DELAY, 600V FUSES, BUSSMANN CAT. NO KRP-C-800SP, OR APPROVED EQUAL. PROVIDE ONE SPARE FUSE OF SAME TYPE, SIZE, AND MANUFACTURER. EXISTING FUSES SHALL BE TURNED OVER TO THE AIRPORT.
- FURNISH & INSTALL AN AC POWER SURGE ARRESTER AT THE INCOMING POWER TERMINALS OF THE RWY 5-23 CCR. SURGE ARRESTER SHALL BE SUITABLE FOR 208VAC, 3 PHASE WITH GND, WITH 45KA MAX SINGLE PULSE RATING, 8/20 MICROSECOND PER LINE, LIGHTNING PROTECTION CORP MODEL LPC 11765U-13 OR APPROVED EQUAL.

MV056

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| MT. VERNON, ILLINOIS | |
| I.L. PROJ.: MW-3818 A.I.P. PROJ.: 3-17-0074-B18 | |

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| Hanson Project No. 08A0003D | |
| Electronics E-101.DWG | |
| Scale 3/8"=1'-0" | |
| Date 06/18/08 | |
| LAYOUT | 02/08/08 |
| DRAWN | MV |
| REVIEWED | CAH |
| | 02/08/08 |
| | 06/11/08 |

HANSON

Hanson Professional Services Inc.
 1525 South Sixth Street
 Springfield, Illinois 62703-2886
 Offices Nationwide

REHABILITATE TAXIWAYS
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