



VAULT ELECTRICAL EQUIPMENT PLAN
 SCALE 1/2"=1'-0" [FULL-SIZE (22x34)]
 1 0 2 4 FEET

ELECTRICAL LEGEND - PLANS	
---	CONDUIT (EXPOSED)
---	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
⊕	POLE OR CONDUIT MOUNTED LIGHT FIXTURE
⊕ ⊕ ⊕	WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE
⊏	SINGLE THROW DISCONNECT SWITCH
⊏	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
⊏	ENCLOSED CIRCUIT BREAKER
⊏	DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH
⊏	CONTROL PANEL
T	TRANSFORMER
⊏	ELECTRIC UTILITY METER
⊏	ENCLOSURE
⊏	CIRCUIT BREAKER PANEL-SEE SCHEDULES
⊕	GROUND ROD
---	#12 AWG TWN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT OR SWITCHED LEG. SLASHES WITH DOT OR A "G" INDICATE SEPARATE GROUND WIRE.
PNL A	HOMERUN TO PANEL PNL A INDICATES PANEL 1,3,5 INDICATES CIRCUIT NUMBERS
⊕	PHOTO-ELECTRIC CELL

GENERAL NOTES

- SEE "PROPOSED ELECTRICAL ONE-LINE FOR VAULT AND AIRFIELD" FOR LOW VOLTAGE INPUT POWER WIRING REQUIREMENTS TO CCR'S (CONSTANT CURRENT REGULATORS). SEE "HIGH VOLTAGE WIRING SCHEMATIC" FOR CCR OUTPUT WIRING REQUIREMENTS. SEE "AIRFIELD LIGHTING WIRING SCHEMATIC" FOR CCR CONTROL WIRING REQUIREMENTS. PROVIDE 5 FEET MINIMUM CLEAR WORKING SPACE IN FRONT OF EACH CCR AND EACH SERIES PLUG CUTOUT.
- CONSTANT CURRENT REGULATORS AND THEIR RESPECTIVE SERIES PLUG CUTOUTS SHALL BE CLEARLY LABELED TO IDENTIFY THE RESPECTIVE REGULATOR DESIGNATION, RUNWAY OR TAXIWAY SERVED, POWER SOURCE OR CIRCUIT, AND VOLTAGE SYSTEM.
- SEE ELEVATION VIEWS FOR ADDITIONAL INFORMATION ON PROPOSED EQUIPMENT LAYOUTS.
- COORDINATE CONDUIT & SLEEVE ENTRANCES THROUGH FLOOR SLAB AND WALLS.
- VAULT FOUNDATION PIERS SHALL BE SIZED IN ACCORDANCE WITH THE RESPECTIVE VAULT SHELTER MANUFACTURER AND EXTEND 5 FEET MINIMUM BELOW FINISHED GRADE.

KEYED NOTES

- ELECTRIC POWER FEEDER CONDUCTORS AND CONDUIT FROM SERVICE SWITCHBOARD, TRANSITION TO GRSC WHERE EMERGING FROM GRADE. SEE "PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR VAULT AND AIRFIELD".
- VAULT MAIN DISTRIBUTION PANELBOARD
- AC SURGE PROTECTIVE DEVICE, SEE "PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR VAULT AND AIRFIELD."
- LIGHTING CONTACTOR PANEL. SEE AIRFIELD LIGHTING WIRING SCHEMATIC AND LIGHTING CONTACTOR PANEL DETAIL.
- L-854 RADIO CONTROL UNIT. EXTEND GRSC & RADIO ANTENNA CABLE AND MOUNT ANTENNA ABOVE THE ADJACENT HANGAR BUILDING ROOF AS REQUIRED FOR PROPER OPERATION. BOND GRSC AT BLDG EXTERIOR TO GND RING WITH #2 AWG BARE CU. PROVIDE 1" SCHED 40 PVC TO PROTECT GND WIRE. GRSC WITH ANTENNA CABLE SHALL TRANSITION TO SCHED 40 PVC AT ENTRY TO VAULT.
- RADIO RELAY INTERFACE PANEL WITH PHOTOCELL BYPASS SWITCH FOR AIRFIELD LIGHTING SYSTEM. SEE AIRFIELD LIGHTING WIRING SCHEMATIC FOR WIRING REQUIREMENTS. MOUNT PHOTOCELL ABOVE ROOF. FIELD VERIFY LOCATION FOR PROPER CONTROL AND OPERATION. BOND GRSC AT BLDG EXTERIOR TO GND RING WITH #2 AWG BARE CU. PROVIDE 1" SCHED 40 PVC TO PROTECT GND WIRE. GRSC WITH PHOTOCELL CABLE SHALL TRANSITION TO SCHED 40 PVC AT ENTRY TO VAULT.
- 60AMP, 240VAC, 2P DOUBLE THROW NOT FUSIBLE SAFETY SWITCH FOR RUNWAY CCR'S.
- ELECTRIC WALL HEATER EH-1, 3000 WATT, 208 VAC, 1 PHASE, SUITABLE FOR SURFACE MOUNTING WITH INTEGRAL THERMOSTAT, Q-MARK MODEL CWH3404, OR EQUAL. HEATER SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT.
- ELECTRIC WALL HEATER EH-2 3000 WATT, 208 VAC, 1 PHASE, SUITABLE FOR SURFACE MOUNTING WITH INTEGRAL THERMOSTAT, Q-MARK MODEL CWH3404 OR APPROVED EQUAL. HEATER SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT. BOTTOM OF HEATER SHALL BE 3" (MIN.) ABOVE THE UPPER ELECTRICAL WIREWAY. COORDINATE WITH CCR INSTALLATION & FAN INSTALLATION. LOCATE HEATER ON WALL SUCH THAT IT IS NOT DIRECTLY BEHIND CCR.

- EXHAUST FAN EF-1, 2000 CFM (MINIMUM) AT .25" STATIC PRESSURE WITH 1/3 HP (MINIMUM), 120 VAC MOTOR, COOK MODEL 20S10D, OR APPROVED EQUAL. INCLUDE WALL HOUSING WITH GUARD, GRAVITY BACK DRAFT DAMPER, ALUMINUM WEATHER-HOOD PAINTED TO MATCH BUILDING EXTERIOR, STAINLESS STEEL INSECT SCREEN, AND FRACTIONAL HP ELECTRICAL DISCONNECT. INSTALL FAN AS HIGH AS REASONABLE. PROVIDE 120 VAC THERMOSTAT, AT 48" AFF. SEE EXHAUST FAN CONTROL SCHEMATIC FOR WIRING REQUIREMENTS. FAN SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT.
- INTAKE LOUVER L-1, 24" WIDE BY 48" HIGH INTAKE LOUVER WITH STAINLESS INSECT SCREEN. 120 VAC MOTORIZED DAMPER DWITH LIMIT SWITCH, KYNAR FINISH MATCHING BUILDING EXTERIOR, RUSKIN MODEL ELF375DX, OR APPROVED EQUAL. SEE EXHAUST FAN CONTROL SCHEMATIC FOR WIRING REQUIREMENTS. LOUVER / DAMPER SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT.
- 6" BY 6" LOW VOLTAGE WIREWAY. LABEL "LOW VOLTAGE" EVERY 4 FEET. INSTALL ABOVE HIGH VOLTAGE WIREWAY.
- 6" BY 6" HIGH VOLTAGE WIREWAY. LABEL "HIGH VOLTAGE" EVERY 4 FEET. INSTALL BELOW LOW VOLTAGE WIREWAY.
- NEW RUNWAY 13-31 CONSTANT CURRENT REGULATOR. SEE GENERAL NOTE 1.
- BACKUP/SPARE CONSTANT CURRENT REGULATOR FOR RUNWAY 13-31 RELOCATED FROM EXISTING VAULT. SEE GENERAL NOTE 1.
- NEW TAXIWAY CONSTANT CURRENT REGULATOR. SEE GENERAL NOTE 1.
- ENTRANCE PAD/STEP CONSTRUCTED OF 6" CONCRETE SLAB W/6X6-W5XW5 WELDED WIRE FABRIC ON A COMPACTED SUBGRADE. MINIMUM DIMENSIONS OF PAD WILL BE 7'Wx5'Dx6"H, SLOPED AT A MIN. OF 0.5"/FT AWAY FROM THE VAULT ENTRANCE. PCC USED TO CONSTRUCT THE PAD WILL CONFORM TO ITEM 610. ALL MATERIALS, LABOR AND EQUIPMENT USED TO CONSTRUCT THE PAD INCLUDING ANY GRADING REQUIRED WILL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE PROPOSED ELECTRICAL VAULT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. COORDINATE WITH ENTRY TO VAULT. VAULT FLOOR ELEVATION TO BE APPROXIMATELY 6 INCHES ABOVE PAD/STEP.
- TRANSFER PAIR SERIES PLUG CUTOUTS (TYPE S-1) FOR RUNWAY LIGHTING WITH ENCLOSURE. SEE GENERAL NOTES 1 & 2.
- SERIES PLUG CUTOUT (TYPE S-1) FOR TAXIWAY LIGHTING WITH ENCLOSURE. SEE GENERAL NOTES 1 & 2.
- 2-3" PVC COATED GRSC WITH PVC COATED GRSC ELBOWS FROM HIGH VOLTAGE WIREWAY TO HIGH VOLTAGE HANDHOLE. TRANSITION TO SCHED 40 PVC OR HDPE DUCT 20 FT BEYOND VAULT.
- 3-3" PVC COATED GRSC WITH PVC COATED GRSC ELBOWS AT VAULT FROM LOW VOLTAGE WIREWAY TO LOW VOLTAGE HANDHOLE. TRANSITION TO SCHED 40 PVC OR HDPE DUCT 20 FT BEYOND VAULT. COORDINATE LOCATION WITH BUILDING FOUNDATION/PIERS.
- VEGETATION BARRIER CONSISTING OF A MIN. 3" PEA GRAVEL SURFACE OVER FILTER OR LANDSCAPING FABRIC. PROPOSED SURFACE TREATMENT WILL COVER ENTIRE AREA BENEATH VAULT STRUCTURE AS WELL AS 18" AROUND THE PERIMETER OF THE BUILDING EDGE. THE STONE AND FABRIC AS WELL AS ANY EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS TASK WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE PROPOSED ELECTRICAL VAULT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- FURNISH AND INSTALL A UL RATED, 10 POUND CARBON DIOXIDE FIRE EXTINGUISHER SUITABLE FOR USE ON CLASS C FIRES AND A 10 POUND CLASS 4A:80B:C DRY CHEMICAL ABC FIRE EXTINGUISHER SUITABLE FOR USE ON CLASS A,B,C FIRES, IN THE VAULT SHELTER. PER NFPA 10 "PORTABLE FIRE EXTINGUISHERS" CLASS C ARE FOR FIRES THAT INVOLVE ENERGIZED ELECTRICAL EQUIPMENT. FIRE EXTINGUISHERS SHALL BE MADE IN THE UNITED STATES OF AMERICA TO COMPLY WITH BUY AMERICAN REQUIREMENT. FIRE EXTINGUISHER TYPE CO2 SHALL BE AMEREX MODEL 330, ANSUL SENTRY 10 MODEL CD10A-1 OR APPROVED EQUAL. FIRE EXTINGUISHER DRY CHEMICAL TYPE ABC SHALL BE AMEREX MODEL B456, OR APPROVED EQUAL. PROVIDE WALL MOUNTING BRACKET FOR EACH FIRE EXTINGUISHER. CONFIRM MODEL NUMBERS WITH THE RESPECTIVE FIRE EXTINGUISHER MANUFACTURER.

REVISION	DATE				
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PROPOSED AIRPORT VAULT EQUIPMENT PLAN					
CONSTRUCT A STAND ALONE ELECTRICAL VAULT, REPLACE RUNWAY LIGHTS AND INSTALL TAXIWAY LIGHTS					
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