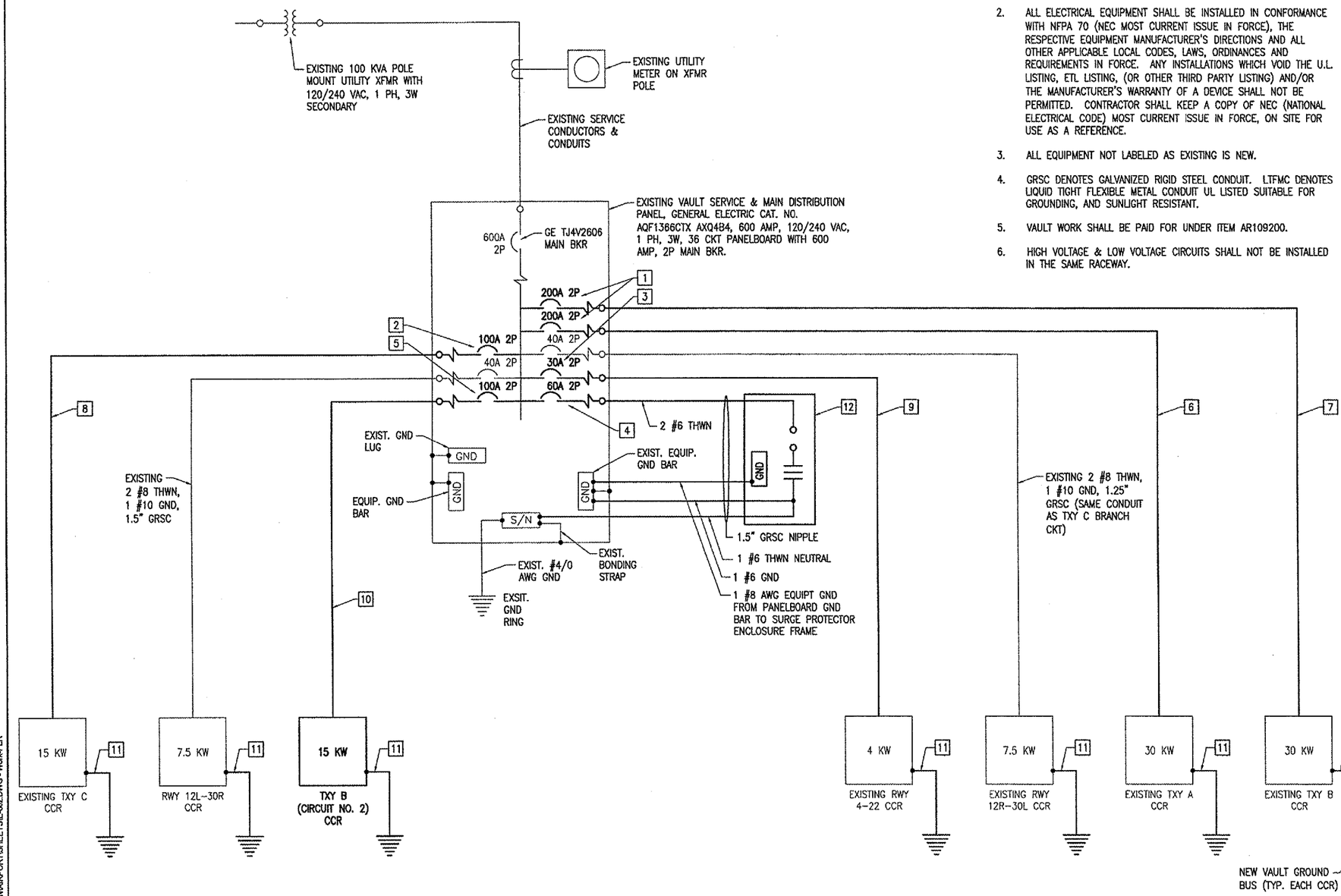

PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT

NOTES

1. ALL VAULT WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT AUTHORITY, AND THE RESIDENT ENGINEER.
2. 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 U.L. LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED. CONTRACTOR SHALL KEEP A COPY OF NEC (NATIONAL ELECTRICAL CODE) MOST CURRENT ISSUE IN FORCE, ON SITE FOR USE AS A REFERENCE.
3. ALL EQUIPMENT NOT LABELED AS EXISTING IS NEW.
4. GRSC DENOTES GALVANIZED RIGID STEEL CONDUIT. LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED SUITABLE FOR GROUNDING, AND SUNLIGHT RESISTANT.
5. VAULT WORK SHALL BE PAID FOR UNDER ITEM AR109200.
6. HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY.

KEYED NOTES

[1] REPLACE EXISTING 150 AMP, 2P BREAKER FOR RESPECTIVE 30 KW CCR WITH A 200 AMP, 2 POLE, BOLT-ON BREAKER WITH 22,000 AIC AT 240VAC, GENERAL ELECTRIC CAT. NO. THQD22200WL. CONTRACTOR SHALL CONFIRM PROPER CAT. NO. WITH MFR. REP.

[2] REPLACE EXISTING 80 AMP, 2P BREAKER FOR TAXIWAY C CCR WITH A 100 AMP, 2 POLE BOLT-ON BREAKER WITH 22,000 AIC AT 240VAC, GENERAL ELECTRIC CAT. NO. THHQB22100.

[3] REPLACE EXISTING 20 AMP, 2P BREAKER FOR RUNWAY 4-22 CCR WITH A 30 AMP, 2 POLE BOLT-ON BREAKER WITH 22,000 AIC AT 240VAC, GENERAL ELECTRIC CAT. NO. THHQB22030.

[4] FURNISH & INSTALL A 60 AMP, 2 POLE BOLT-ON BREAKER WITH 22,000 AIC AT 240VAC THAT IS COMPATIBLE WITH THE EXISTING PANELBOARD, GENERAL ELECTRIC CAT. NO. THHQB22060, FOR THE AC SURGE PROTECTOR/TVSS DEVICE. INSTALL ON RIGHT HAND SIDE OF PANELBOARD.

[5] FURNISH & INSTALL A 100 AMP, 2 POLE BOLT-ON BREAKER WITH 22,000 AIC AT 240VAC THAT IS COMPATIBLE WITH THE EXISTING PANELBOARD, GENERAL ELECTRIC CAT. NO. THHQB22100, FOR THE NEW CCR.

[6] REPLACE EXISTING BRANCH CIRCUIT CONDUCTORS TO TAXIWAY A CCR WITH 2 #3/0 THWN, 1 #6 GND. EXISTING CONDUIT TO BE REUSED. PROVIDE 1.5" LTFMC AT FINAL CONNECTION TO CCR.

[7] FURNISH & INSTALL 2 #3/0 THWN, 1 #6 GND IN 2" GRSC FROM THE VAULT SERVICE & DISTRIBUTION PANEL TO TAXIWAY B CCR. PROVIDE 2" LTFMC AT FINAL CONNECTION TO CCR. EXISTING BRANCH CKT CONDUCTORS TO TAXIWAY B CCR SHALL BE REMOVED. EXISTING CONDUIT SHALL BE DEDICATED ONLY FOR USE WITH RWY 12L-30R CCR BRANCH CIRCUIT.

[8] REPLACE EXISTING BRANCH CIRCUIT CONDUCTORS TO TAXIWAY C CCR WITH 2 #2 THWN, 1 #6 GND. EXISTING CONDUIT TO BE REUSED. PROVIDE 1" LTFMC AT FINAL CONNECTION TO CCR.

[9] REPLACE EXISTING BRANCH CIRCUIT CONDUCTORS TO RUNWAY 4-22 CCR WITH 2 #10 THWN, 1 #10 GND. EXISTING CONDUIT TO BE REUSED. PROVIDE 3/4" LTFMC AT FINAL CONNECTION TO CCR.

[10] FURNISH & INSTALL 2 #2 THWN, 1 #6 GND IN 1.5" GRSC FROM VAULT SERVICE & DISTRIBUTION PANEL TO NEW TAXIWAY B (CIRCUIT NO. 2) CCR. PROVIDE 1.5" LTFMC AT FINAL CONNECTION TO CCR.

[11] FURNISH & INSTALL A #6 AWG (MIN.) COPPER GROUND CONDUCTOR FROM CCR FRAME TO NEW VAULT GROUND BUS (TYP. EACH CCR)

[12] AC SURGE PROTECTOR/TVSS, SUITABLE FOR 120/240 VAC, 1 PH, 3W PLUS GROUND SYSTEM WITH SURGE CURRENT RATING OF 240 KA, 8 x 20 MICROSECOND WAVE PER MODE & STATUS INDICATION LIGHTS IN A NEMA 12 ENCLOSURE, LIGHTNING PROTECTION CORP. MODEL LPC 2020-8U-G, OR APPROVED EQUAL. AC POWER SURGE ARRESTER/ TVSS SHALL BE UL 1449, 2ND EDITION LISTED. AC SURGE PROTECTOR/TVSS DEVICE SHALL BE INSTALLED ON THE RIGHT HAND SIDE OF THE VAULT PANELBOARD. MAINTAIN LEADS AS SHORT & AS STRAIGHT AS POSSIBLE FROM THE PANELBOARD TO THE AC SURGE PROTECTOR/TVSS DEVICE. PROVIDE DUCT SEAL AT CONDUIT TERMINATIONS. EXISTING BOOST TRANSFORMERS SHALL BE REMOVED AND/OR RELOCATED TO PROVIDE WALL MOUNTING SPACE FOR THE AC SURGE PROTECTOR/TVSS DEVICE.

BY	REVISION	DATE

SAINT LOUIS DOWNTOWN AIRPORT
A Division of Bi-State Development Agency
A.I.P. PROJ.: 3-17-0039-816
IL PROJ.: CPS-3480

HSI Project No. 845-05SGND_0800
Filename E-602.DWG
Scale AS SHOWN
Date 06/16/05

LAYOUT	KNL	06/17/05
DRAWN	MV	06/20/05
REVIEWED	C.A.H.	06/30/05

HANSON

Henson Professional Services Inc.
4227 Earth City Expressway, Suite 150
St. Louis, Missouri 63045
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TAXI GUIDANCE SIGN IMPROVEMENTS

PROPOSED ELECTRICAL ONE LINE DIAGRAM FOR AIRPORT VAULT

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25 of 28 sheets

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