



11111 Katy Freeway
Suite 910
Houston, TX 77079
TEL 713.491.8333
FAX 713.973.5777
www.GarverUSA.com



July 18, 2014

**Addendum No.3
To Plans, Contract Documents and Specifications
IFB 14-024/KJS, Electrical Vault Replacement**

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents and Specifications with which it might conflict. All bidders shall acknowledge receipt of this Addendum on page C-5 of the sealed bid proposal.

Modifications to the Specifications:

- 1. Modification to Specification “SS-300”, section 300-3.8. Insert the following text at the end of section 300-3.8,**

Vault Automatic Transfer Switch (ATS) and Standby Generator – Control and Monitoring:

The system shall include these control and monitoring functions. The ALCMS system submittals shall include specifics on how this integration will be implemented.

- a. The ALCMS shall provide control of the emergency diesel generator and automatic transfer switch located at the airfield lighting vault from all of the control stations.
- b. The ALCMS shall provide optically isolated, dry-contact output points at the Vault.
- c. The ALCMS shall close the output to command the generator ON and open the output to turn the generator OFF.
- d. The ALCMS system shall provide the optically isolated digital inputs to monitor the following feedback points:
 1. Utility Available
 2. Utility On-line
 3. Generator Available
 4. Generator On-line
 5. Generator Alarm

- e. Locating and wiring of the monitoring points within the ATS and generator equipment shall be completed by the Contractor in coordination with the Engineer and equipment manufacturer.

The Contractor will test the operation of the generator with the Owner and Engineer. Based upon test results and the response of the generator to the airfield lighting load, the ALCMS Manufacturer shall make adjustments including on/off and delay adjustments in the regulator controls as required by the Owner and the Engineer. The intent is for the generator to provide standby power to the electrical vault including its constant current regulator loads.

Navigational Aid Control:

The system shall include control and monitoring of the new beacon.

- a. The ALCMS shall provide control of the rotating beacon from the ALCMS node.
- b. The ALCMS shall provide one (1) optically isolated, dry-contact output point at the ALCMS node. The contact shall be rated 1A at 120Vac.
- c. The ALCMS shall close the output to command the beacon ON and open the output to turn the beacon OFF. The Contractor shall provide an interface relay/contactors to connect power to the beacon.
- d. Locating and wiring of the output points within the Beacon equipment shall be completed by the Contractor in coordination with the Engineer and equipment manufacturer.

Ancillary Control and Monitoring:

The system shall include monitoring of the new vault HVAC system.

- a. The ALCMS shall provide monitoring of the new vault HVAC system from the ALCMS node as shown in the plans and herein.
- b. The ALCMS shall provide a peripheral input/output (I/O) module for reading of the annunciation of the HVAC system. The system shall output three signals as mentioned above. Relays shall be provided for input of three of eight (8) optical-isolated input points.
- c. The annunciation shall illuminate an alarm graphic box on the ALCMS screen on every page viewed. No audible alarm shall be required for the HVAC annunciation.
- d. Annunciation shall be reset by physical means in the new vault only.

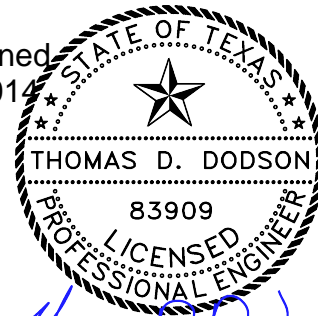
Modifications to the Plans:

1. **Replace Sheet E-002 with the attached revised Sheet E-002.**
2. **Replace Sheet E-201 with the attached revised Sheet E-201.**

3. Replace Sheet E-204 with the attached revised Sheet E-204.
4. Replace Sheet E-207 with the attached revised Sheet E-207.

Questions were received by Garver by email and telephone. Responses to these questions are attached to this addendum. Questions are paraphrased and are as understood by Garver.

digitally signed
on 7/18/2014



By: Thomas D Dodson, PE

Attachments: Plan Sheets: 4 pages
Response to Bidder Questions: 1 page

Thomas D Dodson



REGISTRATION NO. F-5713



DIGITALLY SIGNED 07/17/2014

REV.	DATE	DESCRIPTION	BY
1	07/17/14	ADDENDUM NO. 3	MCL

JACK BROOKS REGIONAL AIRPORT
JEFFERSON COUNTY, TX

ELECTRICAL VAULT REPLACEMENT

KEYED NOTES

JOB NO.: 13121730
DATE: JUNE, 2014
DESIGNED BY: MCL
DRAWN BY: JKS

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER

E-002

INSTALLATION KEYED NOTES:

- 1 CONSTRUCT NEW ELECTRICAL VAULT AND EMERGENCY GENERATORS. SEE E-203 FOR MORE DETAILS.
- 2 EXISTING AIRFIELD ELECTRICAL HOMERUN DUCT TO REMAIN.
- 3 INTERCEPT EXISTING HOMERUN DUCT AND INSTALL NEW H-20 RATED HANDHOLE. PROVIDE HANDHOLE COVER WITH "AIRFIELD ELECTRIC" INSCRIPTION.
- 4 CONSTRUCT NEW 8W-4"C AND 4W-1"C CONCRETE ENCASED DUCT BANK WITH CONDUCTORS. PERFORM OPEN SAWCUT OF EXISTING PAVEMENT AND REPAIR ACCORDING TO DETAIL 4 ON SHEET E-209. INSTALL NEW CABLES AS FOLLOWS:
 - A. 4" CONDUIT WITH:
R/W 16-34 & R/W 12-30 CIRCUITS
 - B. 4" CONDUIT WITH:
T/W D, T/W A/B, AND T/W E/F CIRCUITS
 - C. 4" CONDUIT WITH PULLWIRE
 - D. 4" CONDUIT WITH PULLWIRE
 - E. 4" CONDUIT WITH:
1 SET(3#350+1#350N) FOR TERMINAL ATS
 - F. 4" CONDUIT WITH:
1 SET(3#350 +1#350N) FOR TERMINAL ATS
 - G. 4" CONDUIT WITH:
WINDCONE CIRCUIT
 - H. 4" CONDUIT WITH:
2 SETS (3-CELL, 1.5" MESH INNERDUCT) WITH:
 - 1. 1-12 STRAND, SINGLE MODE FIBER OPTIC CABLE
 - 2. TWO (2) TELEPHONE LINES FROM THE JERRY WARE TERMINAL
 - 3. FAA RLIM 2-STRAND FIBER OPTIC CABLE (2-STRAND MULTIMODE)
 - 4. SPARE
 - 5. SPARE
 - 6. SPARE
 - I. 1" CONDUIT WITH:
CONTROL CIRCUIT FOR TERMINAL ATS
 - J. 1" CONDUIT WITH:
CONTROL CIRCUIT FOR TERMINAL ATS
 - K. 1" CONDUIT WITH:
TERMINAL GENERATOR BATTERY CHARGER CIRCUIT
 - L. 1" CONDUIT WITH:
TERMINAL GENERATOR BLOCK HEATER POWER CIRCUIT
- 5 CONSTRUCT NEW UNDERGROUND SECONDARY ELECTRICAL SERVICE FOR NEW ELECTRICAL VAULT. COORDINATE WITH ENTERGY FOR THE INSTALLATION OF THE SECONDARY SERVICE CONDUCTORS. INSTALL NEW 2W-3" CONCRETE-ENCASED DUCT BANK WITH A MINIMUM COVER OF 30". CONCRETE-ENCASEMENT SHALL BE RED IN COLOR. PATCH PAVEMENT OVER TRENCH. PERFORM OPEN SAWCUT OF EXISTING PAVEMENT AND REPAIR ACCORDING TO DETAIL 4 ON SHEET E-209.
- 6 REMOVE EXISTING 150kW KOHLER GENERATOR SYSTEM AND STORE AT LOCATION AS DIRECTED BY THE AIRPORT.
- 7 REMOVE EXISTING 2400V-240/120V TRANSFORMER AND STORE AT LOCATION AS DIRECTED BY THE AIRPORT.
- 8 REMOVE EXISTING 100kW KOHLER GENERATOR SYSTEM AND STORE AT LOCATION AS DIRECTED BY THE AIRPORT.
- 9 EXISTING AIRFIELD ELECTRICAL VAULT ROOM IN THE JERRY WARE TERMINAL. REMOVE EXISTING (3) 30kW REGULATORS, CIRCUIT SELECTOR SWITCHES, AND ASSOCIATED S-1 CUTOUTS AND WIRING BACK TO PANEL.
- 10 INSTALL NEW 12-STRAND, SINGLE MODE FIBER OPTIC CABLE IN 3/4" CONDUIT AND JUNCTION BOX SYSTEM. COORDINATE EXACT ROUTE WITH ENGINEER.
- 11 INSTALL NEW FIBER TERMINATION CABINET AT FUEL SERVICES DESK.
- 12 EXISTING FIBER TERMINATION CABINET. TERMINATE NEW FO CABLE FROM FUEL SERVICES DESK TO EXISTING TERMINATION CABINET.
- 13 EXISTING FIBER OPTIC CABLE BETWEEN JERRY WARE TERMINAL AND THE ATCT.
- 14 EXISTING FAA-OWNED, RUNWAY LIGHT INTENSITY MONITOR (RLIM). COORDINATE RELOCATION OF THE RLIM TO THE NEW VAULT WITH THE FAA. SEE SHEET E-203 FOR NEW RLIM LOCATION. INSTALL NEW FIBER TERMINATION CABINET TO REPLACE RLIM. TERMINATE EXISTING RLIM FIBER AND NEW RLIM FIBER AT TERMINATION CABINET.

- 15 REMOVE EXISTING AIRFIELD LIGHTING CONTROL CABINET AND L-854 RADIO. REMOVE EXISTING L-854 RADIO ANTENNA FROM THE JERRY WARE TERMINAL. RETURN L-854 RADIO AND ANTENNA TO AIRPORT. EXISTING BEACON RADIO MODEM, COAXIAL CABLE, AND ANTENNA TO BE REMOVED, STORED, AND REINSTALLED WITHIN THE NEW VAULT. SEAL WALL PENETRATIONS TO PATCH EXISTING WALL.
- 16 EXISTING ENTERGY PRIMARY DUCT BANK. PROTECT DURING CONSTRUCTION.
- 17 EXISTING ARFF SECONDARY ELECTRICAL SERVICE. PROTECT DURING CONSTRUCTION.
- 18 INSTALL NEW H-20 RATED HANDHOLE FOR COMMUNICATIONS. PROVIDE HANDHOLE COVER WITH "COMMUNICATIONS" INSCRIPTION.
- 19 REMOVE EXISTING 600A 240/120V, 3φ AUTOMATIC TRANSFER SWITCH (KOHLER KSS-DFTC-0600S) SYSTEM AND STORE AS DIRECTED BY THE AIRPORT. PATCH WALL PENETRATIONS WEATHERTIGHT.
- 20 EXISTING 400A AUTOMATIC TRANSFER SWITCH SERVING THE JERRY WARE TERMINAL TO REMAIN. CONNECT NEW POWER AND CONTROL FROM THE NEW TERMINAL GENERATOR. ROUTE TERMINAL GENERATOR BATTERY CHARGER CIRCUIT AND BLOCK HEATER CIRCUIT IN RIGID CONDUIT TO SPARE SLOTS IN NEARBY POWER PANEL. INSTALL A NEW BREAKER FOR EACH CIRCUIT.
- 21 CONSTRUCT NEW EQUIPMENT RACK FOR METER BASE AND JUNCTION BOX WITH CONDUCTOR LUGS. COORDINATE NEW SERVICE CONNECTION WITH UTILITY.
- 22 CONSTRUCT NEW 2W-4"C AND 4W-1"C CONCRETE ENCASED DUCT BANK FOR THE EMERGENCY SERVICE AND CONTROLS TO THE TERMINAL ATS. INSTALL NEW CABLES AS FOLLOWS:
 - A. 4" CONDUIT WITH:
1 SET(3#350+1#350N) FOR TERMINAL ATS
 - B. 4" CONDUIT WITH:
1 SET(3#350+1#350N) FOR TERMINAL ATS
 - C. 1" CONDUIT WITH:
CONTROL CIRCUIT FOR TERMINAL ATS
 - D. 1" CONDUIT WITH:
CONTROL CIRCUIT FOR TERMINAL ATS
 - E. 1" CONDUIT WITH:
TERMINAL GENERATOR BATTERY CHARGER CIRCUIT
 - F. 1" CONDUIT WITH:
TERMINAL GENERATOR BLOCK HEATER POWER CIRCUIT
- 23 CONSTRUCT NEW 6W-4" CONCRETE ENCASED DUCT BANK FOR AIRFIELD LIGHTING CIRCUITS AND COMMUNICATIONS. INSTALL NEW CABLES AS FOLLOWS:
 - A. 4" CONDUIT WITH:
R/W 16-34 & R/W 12-30 CIRCUITS
 - B. 4" CONDUIT WITH:
T/W D, T/W A/B, AND T/W E/F CIRCUITS
 - C. 4" CONDUIT WITH PULLWIRE
 - D. 4" CONDUIT WITH PULLWIRE
 - E. 4" CONDUIT WITH:
WINDCONE CIRCUIT
 - F. 4" CONDUIT WITH:
2 SETS (3-CELL, 1.5" MESH INNERDUCT) WITH:
 - 1. 1-12 STRAND, SINGLE MODE FIBER OPTIC CABLE (ALCMS)
 - 2. TWO (2) TELEPHONE LINES FROM THE JERRY WARE TERMINAL
 - 3. FAA RLIM 2-STRAND FIBER OPTIC CABLE
 - 4. SPARE
 - 5. SPARE
 - 6. SPARE
- 24 INSTALL NEW H-20 RATED HANDHOLE FOR TERMINAL GENERATOR EMERGENCY SERVICE CONDUCTORS. PROVIDE HANDHOLE COVER WITH "GENERATOR FEED" INSCRIPTION.
- 25 INSTALL NEW H-20 RATED HANDHOLE FOR AIRFIELD ELECTRICAL CIRCUITS. PROVIDE HANDHOLE COVER WITH "AIRFIELD ELECTRIC" INSCRIPTION.
- 26 INSTALL NEW VAULT GENERATOR ATS ANNUNCIATOR PANEL AT FUEL SERVICES DESK. COORDINATE CABLE ROUTING AND EXACT DEVICE LOCATION WITH ENGINEER. ROUTE CABLING IN A MINIMUM 3/4" EMT CONDUIT ABOVE THE CEILING AND DOWN THROUGH THE COLUMN ADJACENT TO THE FUEL SERVICES DESK.
- 27 INSTALL NEW TOUCHSCREEN AND ALCMS SYSTEM IN ATCT. SEE SHEET E-206 FOR DETAILS.

- 28 REMOVE EXISTING ROTATING BEACON LIGHT FROM EXISTING TOWER. INSTALL A NEW L-802A HIGH INTENSITY BEACON AND RECONNECT TO EXISTING CONDUCTORS. ALL EXISTING ANTENNAS SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION. TEST CONTROL SYSTEM WITH NEW ALCMS.

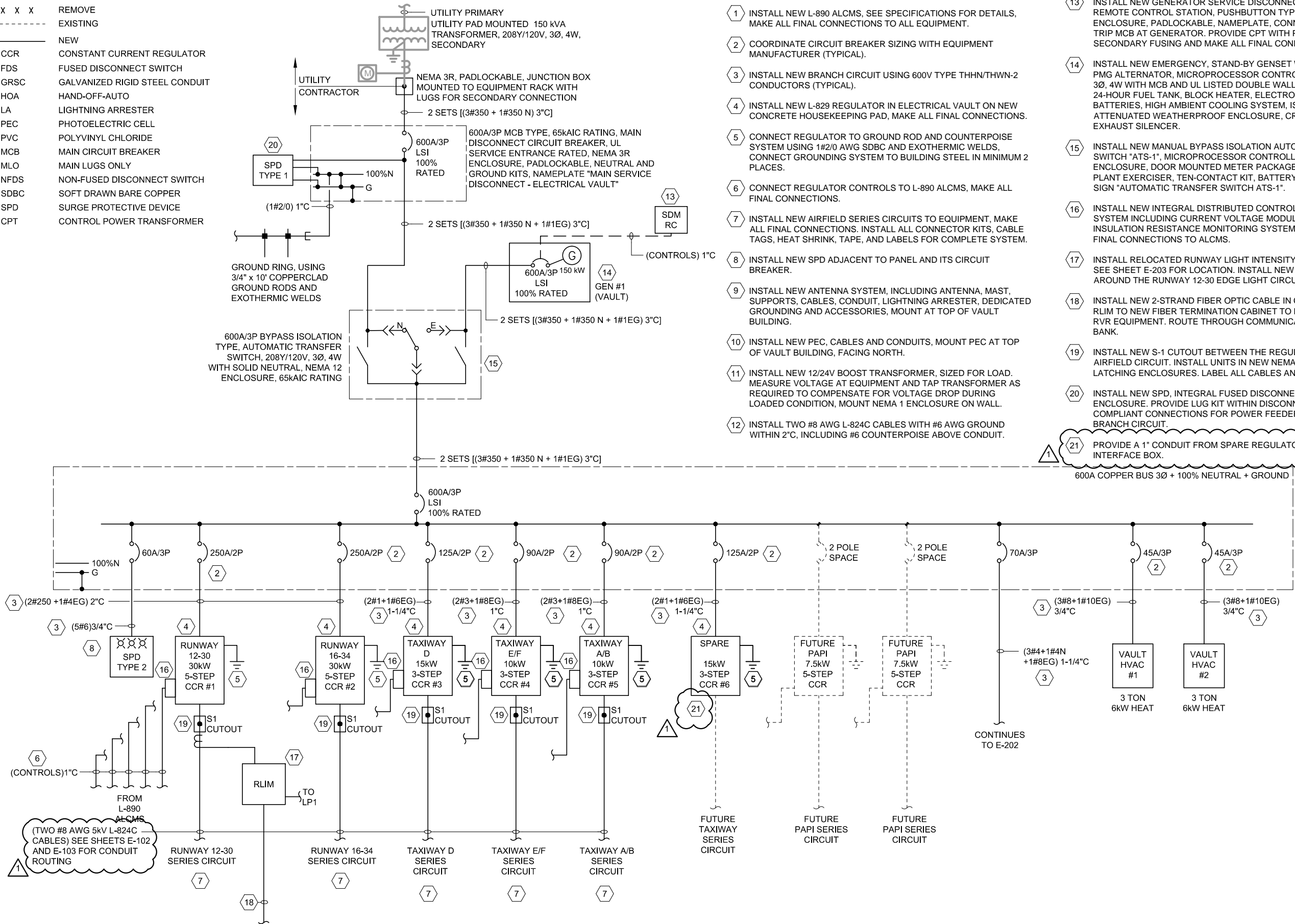
File: N:\2013\13121730 - BPT Taxiway D\Drawings\TWD\IBPT - ELECTRICAL VAULT\BPT - ELECTRICAL VAULT\BPT - TWD_E002_GN.dwg
Last saved by: JKSchmitt
Last plotted by: Schmitt, James K. Plot Date: 7/17/2014 9:54 PM Plotter used: \gfyvcc02\Canon IR C4080 FS

LEGEND:

X X X X	REMOVE
-----	EXISTING
-----	NEW
CCR	CONSTANT CURRENT REGULATOR
FDS	FUSED DISCONNECT SWITCH
GRSC	GALVANIZED RIGID STEEL CONDUIT
HOA	HAND-OFF-AUTO
LA	LIGHTNING ARRESTER
PEC	PHOTOELECTRIC CELL
PVC	POLYVINYL CHLORIDE
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
NFDS	NON-FUSED DISCONNECT SWITCH
SDBC	SOFT DRAWN BARE COPPER
SPD	SURGE PROTECTIVE DEVICE
CPT	CONTROL POWER TRANSFORMER

KEYED NOTES:

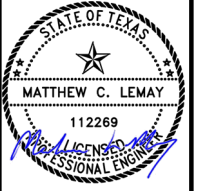
- 1 INSTALL NEW L-890 ALCMS, SEE SPECIFICATIONS FOR DETAILS, MAKE ALL FINAL CONNECTIONS TO ALL EQUIPMENT.
- 2 COORDINATE CIRCUIT BREAKER SIZING WITH EQUIPMENT MANUFACTURER (TYPICAL).
- 3 INSTALL NEW BRANCH CIRCUIT USING 600V TYPE THHN/THWN-2 CONDUCTORS (TYPICAL).
- 4 INSTALL NEW L-829 REGULATOR IN ELECTRICAL VAULT ON NEW CONCRETE HOUSEKEEPING PAD, MAKE ALL FINAL CONNECTIONS.
- 5 CONNECT REGULATOR TO GROUND ROD AND COUNTERPOISE SYSTEM USING 1/2" AWG SDBC AND EXOTHERMIC WELDS, CONNECT GROUNDING SYSTEM TO BUILDING STEEL IN MINIMUM 2 PLACES.
- 6 CONNECT REGULATOR CONTROLS TO L-890 ALCMS, MAKE ALL FINAL CONNECTIONS.
- 7 INSTALL NEW AIRFIELD SERIES CIRCUITS TO EQUIPMENT, MAKE ALL FINAL CONNECTIONS. INSTALL ALL CONNECTOR KITS, CABLE TAGS, HEAT SHRINK, TAPE, AND LABELS FOR COMPLETE SYSTEM.
- 8 INSTALL NEW SPD ADJACENT TO PANEL AND ITS CIRCUIT BREAKER.
- 9 INSTALL NEW ANTENNA SYSTEM, INCLUDING ANTENNA, MAST, SUPPORTS, CABLES, CONDUIT, LIGHTNING ARRESTER, DEDICATED GROUNDING AND ACCESSORIES, MOUNT AT TOP OF VAULT BUILDING.
- 10 INSTALL NEW PEC, CABLES AND CONDUITS, MOUNT PEC AT TOP OF VAULT BUILDING, FACING NORTH.
- 11 INSTALL NEW 12/24V BOOST TRANSFORMER, SIZED FOR LOAD. MEASURE VOLTAGE AT EQUIPMENT AND TAP TRANSFORMER AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP DURING LOADED CONDITION, MOUNT NEMA 1 ENCLOSURE ON WALL.
- 12 INSTALL TWO #8 AWG L-824C CABLES WITH #6 AWG GROUND WITHIN 2', INCLUDING #6 COUNTERPOISE ABOVE CONDUIT.
- 13 INSTALL NEW GENERATOR SERVICE DISCONNECTING MEANS REMOTE CONTROL STATION, PUSHBUTTON TYPE, NEMA 4X ENCLOSURE, PADLOCKABLE, NAMEPLATE, CONNECT TO SHUNT TRIP MCB AT GENERATOR. PROVIDE CPT WITH PRIMARY AND SECONDARY FUSING AND MAKE ALL FINAL CONNECTIONS.
- 14 INSTALL NEW EMERGENCY, STAND-BY GENSET WITH 105 DEGREE PMG ALTERNATOR, MICROPROCESSOR CONTROLLER, 208Y/120, 3Ø, 4W WITH MCB AND UL LISTED DOUBLE WALL SUBBASE 24-HOUR FUEL TANK, BLOCK HEATER, ELECTRONIC GOVERNOR, BATTERIES, HIGH AMBIENT COOLING SYSTEM, ISOLATORS, SOUND ATTENUATED WEATHERPROOF ENCLOSURE, CRITICAL GRADE EXHAUST SILENCER.
- 15 INSTALL NEW MANUAL BYPASS ISOLATION AUTOMATIC TRANSFER SWITCH "ATS-1", MICROPROCESSOR CONTROLLER, NEMA 12 ENCLOSURE, DOOR MOUNTED METER PACKAGE, LOAD/NO LOAD PLANT EXERCISER, TEN-CONTACT KIT, BATTERY CHARGER, WITH SIGN "AUTOMATIC TRANSFER SWITCH ATS-1".
- 16 INSTALL NEW INTEGRAL DISTRIBUTED CONTROL AND MONITORING SYSTEM INCLUDING CURRENT VOLTAGE MODULE (CVM) AND INSULATION RESISTANCE MONITORING SYSTEM (IRMS). MAKE ALL FINAL CONNECTIONS TO ALCMS.
- 17 INSTALL RELOCATED RUNWAY LIGHT INTENSITY MONITOR (RLIM). SEE SHEET E-203 FOR LOCATION. INSTALL NEW CURRENT SENSOR AROUND THE RUNWAY 12-30 EDGE LIGHT CIRCUIT.
- 18 INSTALL NEW 2-STRAND FIBER OPTIC CABLE IN CONDUIT FROM RLIM TO NEW FIBER TERMINATION CABINET TO RECONNECT TO RVR EQUIPMENT. ROUTE THROUGH COMMUNICATIONS DUCT BANK.
- 19 INSTALL NEW S-1 CUTOUT BETWEEN THE REGULATOR AND THE AIRFIELD CIRCUIT. INSTALL UNITS IN NEW NEMA 1-RATED LATCHING ENCLOSURES. LABEL ALL CABLES AND DEVICES.
- 20 INSTALL NEW SPD, INTEGRAL FUSED DISCONNECT, NEMA 3R ENCLOSURE. PROVIDE LUG KIT WITHIN DISCONNECT FOR CODE COMPLIANT CONNECTIONS FOR POWER FEEDER AND SPD BRANCH CIRCUIT.
- 21 PROVIDE A 1" CONDUIT FROM SPARE REGULATOR TO REGULATOR INTERFACE BOX.



ONE-LINE DIAGRAM
SCALE: NONE



REGISTRATION NO. F-5713



DIGITALLY SIGNED 07/17/2014

REV	DATE	DESCRIPTION	BY
1	07/17/14	ADDENDUM NO. 3	MCL

JACK BROOKS REGIONAL AIRPORT
JEFFERSON COUNTY, TX
ELECTRICAL VAULT REPLACEMENT

ONE LINE DIAGRAM I

JOB NO.: 13121730
DATE: JUNE, 2014
DESIGNED BY: MCL
DRAWN BY: JKS

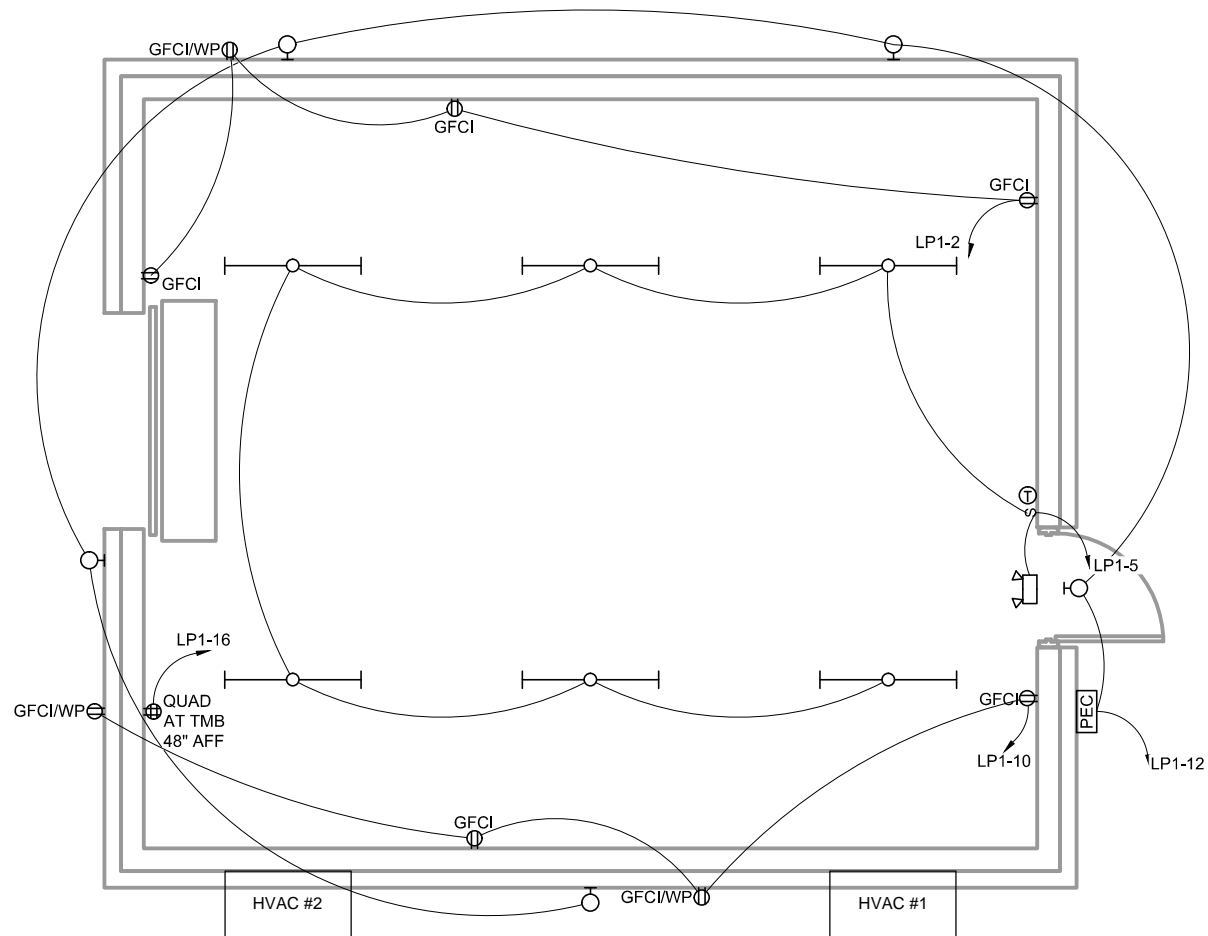
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER

E-201

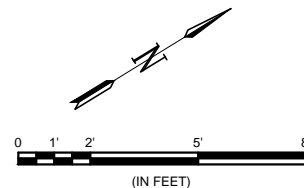
File: N:\2013\13121730 - BPT Taxiway Drawings\TWD ABPT ELECTRICAL VAULT\BPT_TWD_E301_OL.dwg Last Save: 7/17/2014 3:09 PM Last saved by: JKSchmitt
Last Plotted by: Schmitt, James K. Plot Date: 7/17/2014 3:56 PM Plotter used: DWG To PDF.pc3

REV.	DATE	DESCRIPTION	BY
1	07/17/14	ADDENDUM NO. 3	MCL



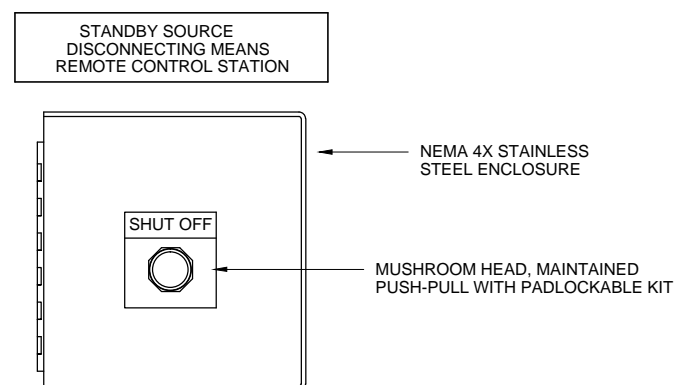
LEGEND

- ENCLOSED STEEL HOUSING, DAMP LOCATION, SHATTER RESISTANT DIFFUSER INDUSTRIAL TYPE LED LIGHT FIXTURE WITH 5800 LUMEN OUTPUT, 3500K COLOR TEMPERATURE, AND 1/2" CONDUIT KNOCKOUTS ON EACH END. MOUNT FIXTURES AT 8'-0" AFF USING JUNCTION BOXES AND 1/2" CONDUIT STEMS. THE LIGHT FIXTURE SHALL BE METALUX VT-LD2-58DR-100%-W-UNV-L835-CD2-WL-TH-U, OR APPROVED EQUAL.
- VANDAL-RESISTANT, WEATHERPROOF, FULL CUTOFF LED WALL PACK FIXTURE, 2000 LUMEN OUTPUT. THE LIGHT FIXTURE SHALL BE LUMARK XTOR3A WITH WG/XTOR WIRE GUARD, OR APPROVED EQUAL.
- EMERGENCY LIGHT MOUNTED 7'-0" ABOVE FINISHED FLOOR, 2 LAMP HEADS AND BATTERY PACK FOR 90 MINUTE EMERGENCY OPERATION. THE LIGHT FIXTURE SHALL BE SURELITES UEL1SD, OR APPROVED EQUAL.
- 20 AMP DUPLEX RECEPTACLE MOUNTED 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED, GFCI TYPE
- COMMERCIAL GRADE LIGHT SWITCH, MOUNTED 48" ABOVE FINISHED FLOOR
- NON-FAA WEATHERPROOF PHOTOELECTRIC CELL
- 20 AMP QUADPLEX RECEPTACLE MOUNTED 48" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED, GFCI TYPE
- THERMOSTAT FOR HVAC. SEE MECHANICAL PLAN FOR MORE INFORMATION.



1 ELECTRICAL VAULT POWER AND LIGHTING PLAN
E-204 SCALE: 3/8" = 1'-0"

- NOTES:**
- ALL ITEMS SHALL BE CORROSION RESISTANT.
 - SUBMIT COMPLETE WIRING DIAGRAMS FOR BOTH STATIONS.
 - STANDBY REMOTE CONTROL STATION POWER DERIVED FROM GENSET BATTERY SOURCE.

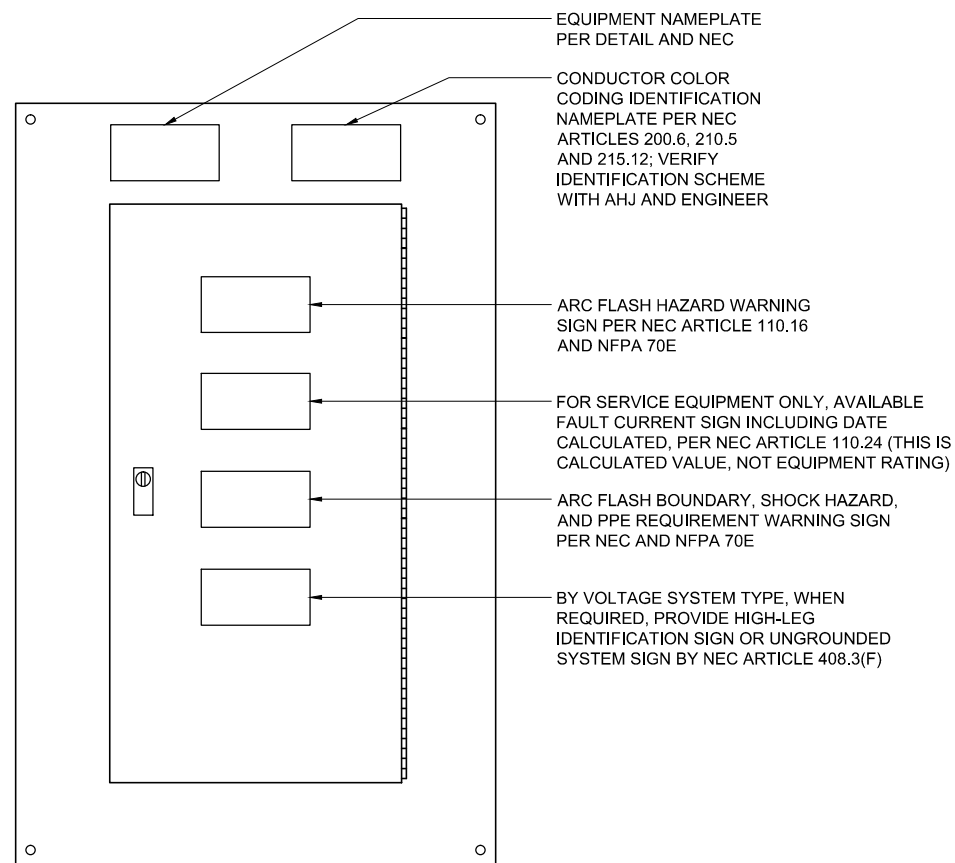


2 REMOTE CONTROL STATIONS
E-204 SCALE: NONE

ARC FLASH LABELING NOTES:

- SUBMIT TO THE ENGINEER THE COMPLETE ONE-LINE INFORMATION FOR THE EXISTING AND NEW VAULT BUILDING ON AS-BUILT DRAWINGS. THIS INFORMATION SHALL INCLUDE ALL NEW AND EXISTING EQUIPMENT WITHIN THE POWER DISTRIBUTION SYSTEM INCLUDING:
 - PANELBOARD NAMEPLATE DATA
 - TRANSFORMERS NAMEPLATE DATA
 - CIRCUIT BREAKER/FUSE RATINGS AND MODEL NUMBERS
 - CONDUCTOR SIZES, LENGTHS, AND TYPES
 - CONDUIT SIZES AND TYPES
 - OTHER INFORMATION AS REQUESTED
- TRACE EXISTING CIRCUITS AS REQUIRED TO COMPLETE THE AS BUILT DRAWINGS.
- ENGINEER WILL COMPLETE ARC FLASH STUDY FOLLOWING RECEIPT OF INFORMATION FROM CONTRACTOR. ENGINEER WILL PROVIDE FLASH LABEL LEGEND TO CONTRACTOR FOR ORDERING LABELS.
- SUBMIT LABEL TYPE, STYLE, AND APPEARANCE TO ENGINEER FOR APPROVAL PRIOR TO PURCHASING LABELS.
- PROCURE LABELS AND INSTALL ON EQUIPMENT.
- ALL WORK REQUIRED TO COMPLETE ARC FLASH LABELING SHALL BE CONSIDERED SUBSIDIARY TO THE ELECTRICAL VAULT MODIFICATIONS PAY ITEMS.

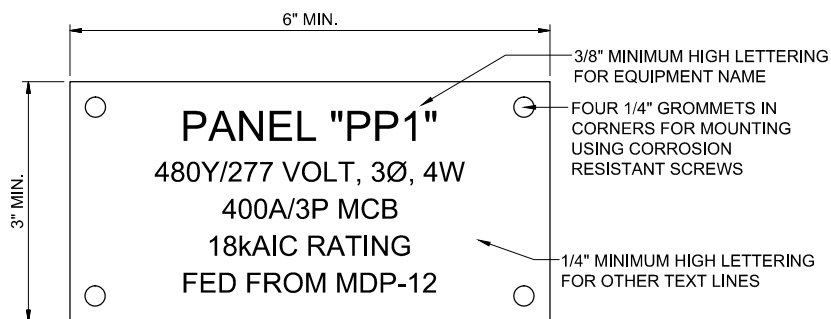
REV.	DATE	DESCRIPTION	BY
1	07/17/14	ADDENDUM NO. 3	MCL



PANEL FRONT VIEW

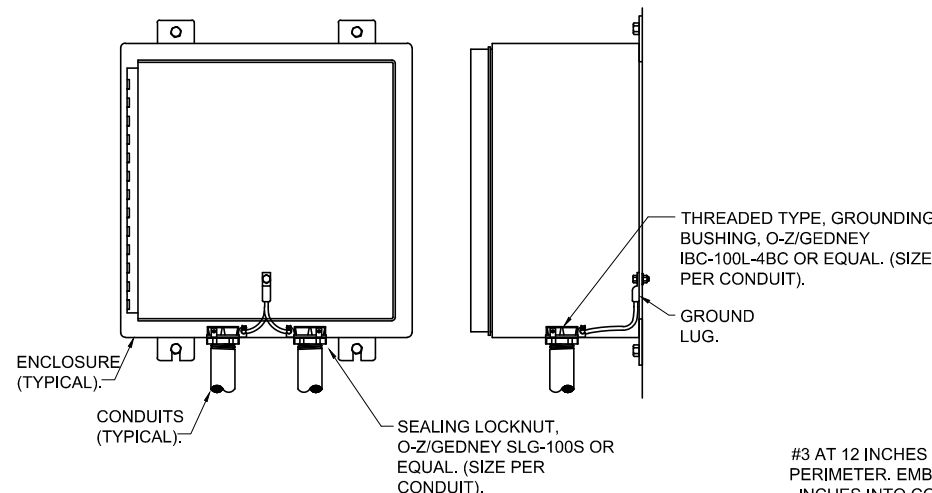
GENERAL NOTE:

1. INSTALL ALL NAMEPLATES AND WARNING SIGNS IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
2. INSTALL NAMEPLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS AND MOTOR CONTROL CENTERS.
3. EXTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAMEPLATES AND SIGNAGE.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE AND SIGNAGE REQUIREMENTS.



EQUIPMENT NAMEPLATE NOTES:

1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, MULTIPLE LINES TEXT, CUSTOM ENGRAVED NAME PLATES.
2. MOUNT WITH STAINLESS STEEL SCREWS.
3. SEAL SCREW HOLES WITH SILICONE RUBBER.
4. NAMEPLATE INFORMATION SHALL INCLUDE:
 - A. IDENTIFICATION NAME
 - B. VOLTAGE SYSTEM
 - C. AMPACITY RATING AND TYPE
 - D. EQUIPMENT AIC RATING
 - E. FEEDER DESCRIPTION

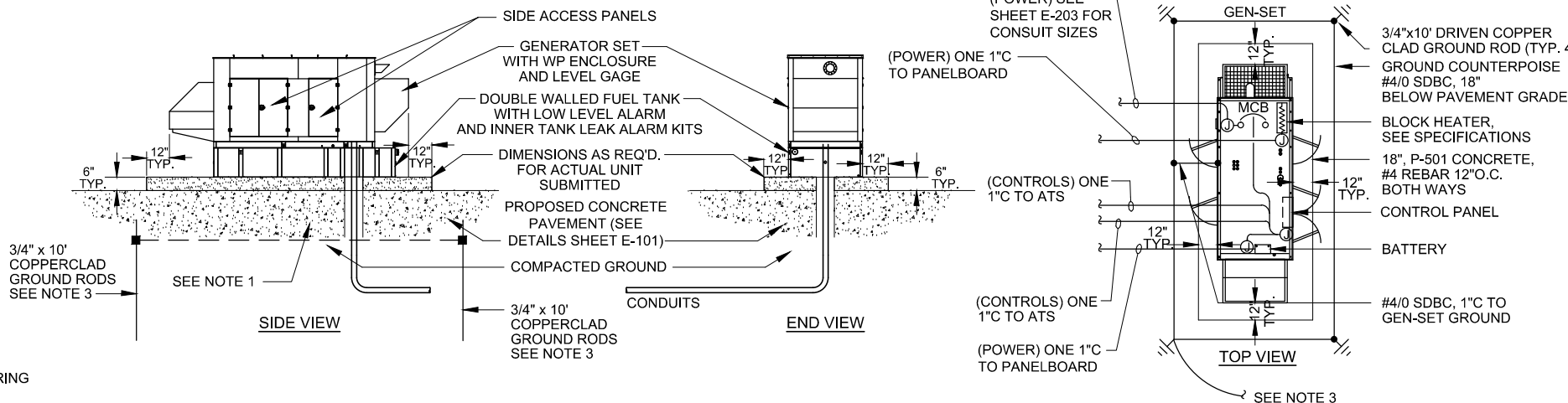
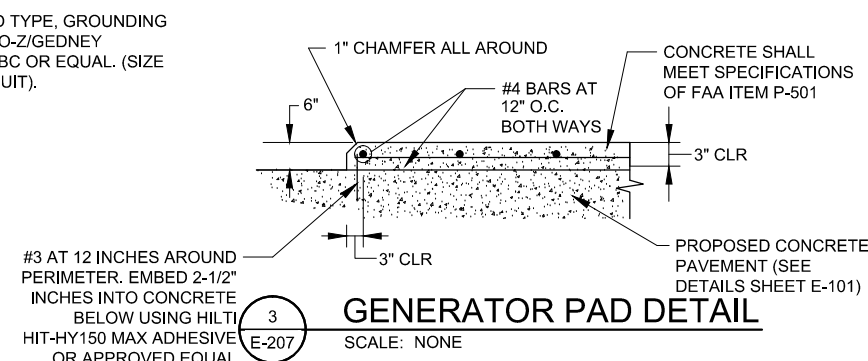


NOTES:

1. ALL SERVICE, FEEDER, AND BRANCH CIRCUIT CONDUITS SHALL BE GROUNDED ON BOTH ENDS.

2 CONDUIT GROUNDING DETAIL

SCALE: NONE



4 GENERATOR INSTALLATION DETAIL

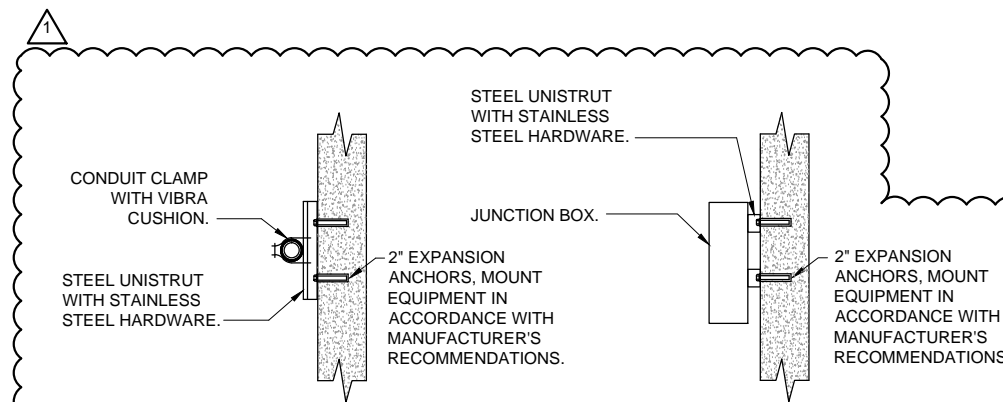
SCALE: NONE

GENERATOR NOTES:

1. SUBMIT COMPLETE SHOP DRAWINGS FOR GENSET AND PAD CONSTRUCTION.
2. FUEL TANK SIZED FOR 24-HOUR 100% LOAD SERVICE.
3. CONNECT GENSET GROUND RING TO ELECTRICAL BUILDING GROUND RING USING #4/0 SDBC.
4. PROVIDE 12" WIDE STEP LANDING AT CONTROL PANEL ACCESS LOCATION SIDES OF GENERATOR; MAINTAIN SECTION REQUIREMENTS.
5. UNLESS OTHERWISE NOTED, CONSTRUCT CONCRETE PAD AT ELEVATIONS INDICATED.

NOTES:

1. INDOOR DRY LOCATIONS: UTILIZE HOT-DIPPED GALVANIZED STEEL UNISTRUT.
2. OUTDOORS AND INDOOR WET OR DAMP LOCATIONS: UTILIZE STAINLESS STEEL UNISTRUT.
3. SINGLE CONDUIT SHOWN, SIMILAR FOR MULTIPLE CONDUITS.
4. SIMILAR FOR ALL ELECTRICAL ENCLOSURES AND PANELS.
5. PROVIDE END CAPS ON UNISTRUT.



5 CONDUIT AND JUNCTION BOX SUPPORT DETAIL FOR CONCRETE WALLS

SCALE: NONE

1 TYPICAL ENGRAVED NAMEPLATE AND SIGNAGE DETAIL

SCALE: NONE



11111 Katy Freeway
Suite 910
Houston, TX 77079
TEL 713.491.8333
FAX 713.973.5777
www.GarverUSA.com



MEMORANDUM

To: Potential Bidders **Date:** July 18, 2014
From: Thomas D Dodson, PE
RE: Jack Brooks Regional Airport – Electrical Vault Replacement Project
Bidder Questions

See below for responses to Bidder questions regarding the Electrical Vault Replacement project at Jack Brooks Regional Airport. This listing is a continuation of the question and answers previously posted on July 10, 2014.

Question 9: The plans show a one-line diagram for the generator that supports the vault building. Is there a one-line diagram for the other generator?

Answer 9: There is not a one-line diagram for the generator supporting the Jerry Ware terminal. Conduit and cable sizes and routes are shown on E-102 and E-203.

Question 10: The 64-bit version of Windows is specified. Is 32-bit version of Windows acceptable?

Answer 10: Yes, the 32-bit version of Windows is acceptable.

Question 11: Is 5-wire resistive touchscreen technology acceptable in lieu of Sound Acoustical Wave (SAW) technology?

Answer 11: Yes, 5-wire resistive touchscreen technology is acceptable.

Question 12: Please define the function of the photocell.

Answer 12: The photocell is present for future control capabilities such as controlling an airport-owned PAPI. The photocell will not have a function in the current control arrangement.

Question 13: Previous versions of this specification had monitoring and control of the generator/ATS. Is this still desired?

Answer 13: Yes, this functionality is still desired. See **Modifications to the Specifications** for system requirements.

Question 14: Previous versions of this specification had monitoring of the HVAC. Is this still desired?

Answer 14: Yes, this functionality is still desired. See **Modifications to the Specifications** for system requirements.