



CHEROKEE NATION ENTERPRISES, INC.

TAHLEQUAH, OKLAHOMA
HIWAY 62

TAHLEQUAH CASINO EMERGENCY POWER ADDITIONS

ISSUE DATE: 01/09/2014

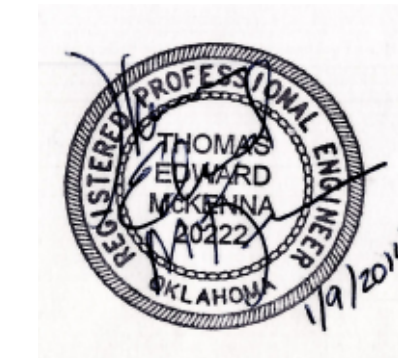
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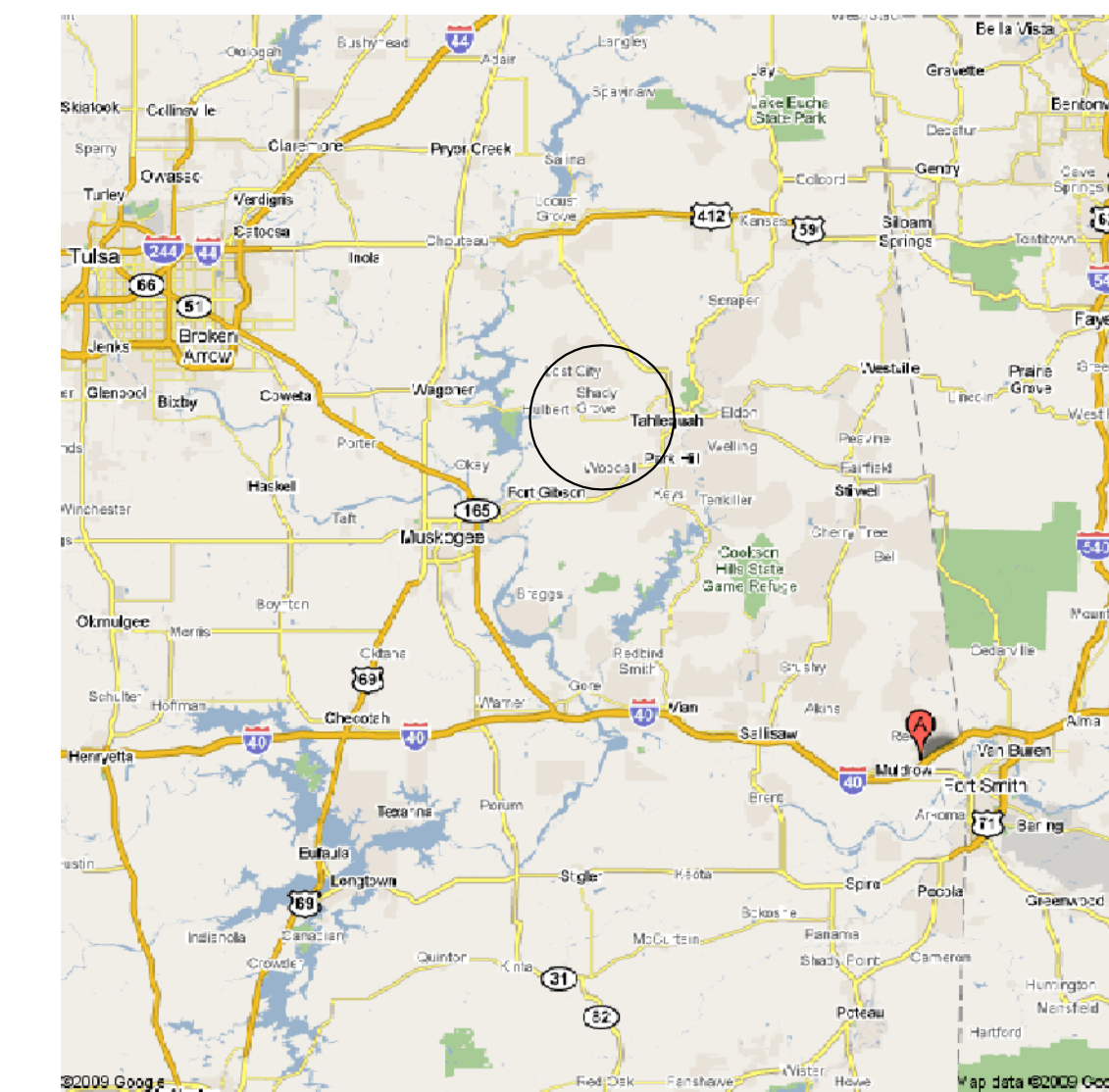
CONSULTING ENGINEER AND MEP CONSTRUCTION MANAGER



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C.A. # : 3995 Expires 06/30/2014



SITE MAP



DEVICE SUBSCRIPT	ELECTRICAL GRAPHIC SYMBOL LEGEND
<p>'a' LOWER CASE LETTER INDICATES DEVICE CONTROL ARRANGEMENT</p> <p>A WITH AUXILIARY CONTACTS</p> <p>AF ABOVE FINISHED FLOOR</p> <p>AFG ABOVE FINISHED GRADE</p> <p>A/C HVAC</p> <p>APL APPLIANCE</p> <p>AF AMP FUSE</p> <p>AT AMP TRIP</p> <p>BT BRANCH TO CONNECTION</p> <p>C ITEM INSTALLED FLUSH IN CEILING</p> <p>C* CONTROL POINT IDENTIFIER (*INDICATES CONTROL NUMBER)</p> <p>CKT CIRCUIT</p> <p>CT CONTACTOR</p> <p>CTL CONTROL</p> <p>D 120 VOLT DISCONNECT SWITCH ARRANGEMENT</p> <p>DR DUPLEX RECEPTACLE</p> <p>DPP FOR AUTO DOOR PUSH PLATE</p> <p>(E) EXISTING</p> <p>(E) EXISTING RELOCATED</p> <p>EM EMERGENCY CIRCUIT</p> <p>EQ ITEM INSTALLED IN EQUIPMENT</p> <p>FACP FIRE ALARM CONTROL PANEL</p> <p>FL ITEM INSTALLED IN FLUSH IN FLOOR</p> <p>FMC FLEXIBLE METAL CONDUIT</p> <p>GFCI GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE</p> <p>GF GROUND FAULT PROTECTED BREAKER</p> <p>GFP FEED THROUGH GROUND FAULT CIRCUIT INTERRUPTING PROTECTED</p> <p>H HORIZONTALLY MOUNTED</p> <p>HW HARD WIRED</p> <p>IG ISOLATED GROUND RECEPTACLE</p> <p>JB JUNCTION BOX</p> <p>K KEY OPERATED</p> <p>L LOW VOLTAGE</p> <p>LFMC LIQUID-TIGHT FLEXIBLE METAL CONDUIT</p> <p>LGT LIGHTING</p> <p>M MULLION (DESPARD TYPE) SWITCH</p> <p>MTR MOTOR</p> <p>OCPP OVER-CURRENT PROTECTION DEVICE</p> <p>OE ON EQUIPMENT</p> <p>OHE OVERHEAD ELECTRIC</p> <p>OHT OVERHEAD TELEPHONE</p> <p>P PILOT LAMP SWITCH</p> <p>PNL PANELBOARD</p> <p>PP POWER POLE</p> <p>RC RECEPTACLE</p> <p>RI ROUGH-IN ONLY</p> <p>S SURFACE MOUNTED</p> <p>S.E.R. SERVICE ENTRANCE RATED</p> <p>SP SURGE PROTECTOR RECEPTACLE</p> <p>SPD SURGE PROTECTION DEVICE</p> <p>SR SINGLE PURPOSE RECEPTACLE</p> <p>SWBD SWITCHBOARD</p> <p>SW SPLIT WIRED RECEPTACLE FOR HALF SWITCHING</p> <p>T TAMPER PROOF RECEPTACLE</p> <p>U.C. UNDER COUNTER</p> <p>UGE UNDERGROUND ELECTRIC</p> <p>UGT UNDERGROUND TELEPHONE</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>W ITEM INSTALLED 44" AFF OR AS DETAILED IN ARCH. ELEVATIONS</p> <p>WP WEATHERPROOF WHILE IN USE</p> <p>WPS WEATHERPROOF SPRING COVER DEVICE</p> <p>(X) EXISTING TO BE REMOVED</p> <p>Z* DEVICE ZONE IDENTIFIER (*INDICATES ZONE NUMBER)</p>	<p>WALL MOUNTED DEVICES</p> <p>⊕ WALL MOUNTED, SIMPLEX RECEPTACLE</p> <p>⊕ WALL MOUNTED, DUPLEX RECEPTACLE</p> <p>⊕ WALL MOUNTED, QUAD RECEPTACLE</p> <p>⊕ WALL MOUNTED, SPECIAL RECEPTACLE</p> <p>⊕ WALL MOUNTED ELECTRICAL JUNCTION BOX</p> <p>⊕ WALL MOUNTED, DUPLEX RECEPTACLE W/GFCI</p> <p>⊕ WALL MOUNTED, QUAD RECEPTACLE W/GFCI</p> <p>WALL MOUNTED, EMERGENCY POWER DEVICES</p> <p>⊕ WALL MOUNTED, EMERGENCY CIRCUIT SIMPLEX RECEPT</p> <p>⊕ WALL MOUNTED, EMERGENCY CIRCUIT DUPLEX RECEPT</p> <p>⊕ WALL MOUNTED, EMERGENCY CIRCUIT QUAD RECEPT</p> <p>WALL MOUNTED, ISOLATED GROUND DEVICES</p> <p>⊕ WALL MOUNTED, ISOLATED GROUND SIMPLEX RECEPT</p> <p>⊕ WALL MOUNTED, ISOLATED GROUND DUPLEX RECEPT</p> <p>⊕ WALL MOUNTED, ISOLATED GROUND QUAD RECEPT</p> <p>SWITCHES/MOTORS/TRANSFORMERS,ETC</p> <p>⊕ NON-FUSED DISCONNECT</p> <p>⊕ FUSED DISCONNECT</p> <p>⊕ MOTOR ENCLOSED SWITCH</p> <p>⊕ W/ SHUNT TRIP BREAKER</p> <p>⊕ COMBO MTR. STARTER DISCONNECT</p> <p>⊕ MOTOR</p> <p>⊕ VARIABLE FREQUENCY DRIVE</p> <p>⊕ ATS-AUTOMATIC TRANSFER SWITCH</p> <p>⊕ MANUAL TRANSFER SWITCH</p> <p>⊕ RECESSED PANELBOARD</p> <p>⊕ ISOLATION TRANSFORMER</p> <p>⊕ TRANSFORMER</p> <p>⊕ METER - POWER MONITORING SYSTEM</p> <p>⊕ JUNCTION BOX</p> <p>⊕ CURRENT TRANSFORMER</p> <p>⊕ CIRCUIT BREAKER</p> <p>⊕ FUSED SWITCH</p> <p>⊕ BUSWAY</p> <p>⊕ SURGE PROTECTION DEVICE - INTEGRAL (U.N.O.)</p> <p>⊕ UNIVERSAL TRANSFER SWITCH BY PHILLIPS VENDOR UPS</p> <p>CONTROL DEVICES</p> <p>⊕ SWITCH</p> <p>⊕ 2 POLE SWITCH</p> <p>⊕ THREE WAY SWITCH</p> <p>⊕ FOUR WAY SWITCH</p> <p>⊕ DIMMER SWITCH</p> <p>⊕ KEYED SWITCH</p> <p>⊕ MOTOR RATED SWITCH</p> <p>⊕ CEILING MOUNTED, OCCUPANCY SENSOR</p> <p>RACEWAYS</p> <p>----- UNDERGROUND CONDUIT</p> <p>——— CONCEALED CONDUIT</p> <p>——— EXPOSED CONDUIT</p> <p>——— HOMERUN</p> <p>——— INTERCONNECTED HOMERUN CKT.</p>

SCOPE OF WORK:

THIS PROJECT INVOLVES THE ADDITION OF A NEW 480-VOLT, THREE-PHASE FLYWHEEL UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM STEPPED-DOWN TO PROVIDE 208Y/120V, 3-PHASE BACK-UP POWER DEDICATED FOR SERVING THE GAMING, I.T. AND SURVEILLANCE SYSTEM SERVERS. NEW EMERGENCY POWER SYSTEM SHALL SERVE PRIMARY SERVER ROOM HVAC SYSTEMS FROM 480-VOLT DISTRIBUTION PANEL SERVED FROM EMERGENCY GENERATOR. GENERAL EQUIPMENT ADDITION AND DESCRIPTIONS:

- * TEMPORARY POWER CONNECTION ASSOCIATED WITH EXISTING GENERATOR
- * DEMOLITION ASSOCIATED WITH EXISTING GENERATOR
- * RELOCATION AND CONNECTION OF EXTERIOR CONDENSING UNIT
- * GENERATOR MANUFACTURER MODIFICATION OF VOLTAGE OUTPUT TO 480Y/277.
- * 600A 480Y/277V, 3PH, 4W SWITCHBOARD AND BREAKERS
- * EXTERIOR CONCRETE PAD FOR NEW UPS BUILDING - FIELD VERIFY SIZE
- * INSTALLATION OF OWNER PROVIDED FLYWHEEL UPS
- * INSTALLATION OF OWNER PROVIDED BYPASS SWITCHBOARD
- * 480/208Y/120V, 3PH, 4W DRY-TYPE TRANSFORMER
- * 600A 208Y/120V, 3PH, 4W SWITCHBOARD AND BREAKERS
- * REMOVAL OF EXISTING BREAKERS IN 'MSB' FOR ADDITION OF NEW BREAKER
- * NEW 125A/3P 480V BREAKER TO SERVE NEW 125A NEMA 1 PANELBOARD
- * SET NEW PANELBOARD ON UNISTRUT RACK IN MIDDLE OF ELECTRICAL ROOM
- * SERVE FLYWHEEL WITH 400A BREAKER AND ROUTE TO EXTERIOR OUT-BUILDING
- * RACK 208Y/120V, 3PH 4W PANELBOARD ON BACK SIDE OF UNI-STRUT TO SERVE NEW AND EXISTING GAME SERVER LOADS.

THE ELECTRICAL CONTRACTOR WILL BE THE PRIME CONTRACTOR FOR THE ENTIRE PROJECT AND SCOPE OF WORK. ELECTRICAL CONTRACTORS WILL BE REQUIRED TO VERIFY A MINIMUM OF 10-YEARS OF DOCUMENTED SIMILAR WORK WITH FLYWHEEL UPS SYSTEM INSTALLATIONS, NFPA 701 AND 70 WITH PAST EXPERIENCE SERVING AS THE PRIME CONTRACTOR FOR SIMILAR SIZE OF INSTALLATIONS.

WORK SHALL INCLUDE CAPABILITIES TO SUB-CONTRACT MECHANICAL WORK AND BUILDING MATERIALS WORK INDICATED, INCLUDING PLUMBING, PIPING, ETC. REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. ELECTRICAL CONTRACTOR SHALL BE CAPABLE TO COORDINATE SYSTEM MODIFICATIONS AND OUTAGES WITH THE OWNER A MINIMUM 24-HOURS IN ADVANCE OF ANY WORK. INCLUDE ALL COSTS ASSOCIATED WITH THE HOURS OF WORK, PLACEMENT OF EQUIPMENT, RIGGING AND DEMOLITION, BOTH TEMPORARY AND PERMANENT TO MOBILIZE EQUIPMENT INTO AND OUT OF THE INDICATED FACILITY LOCATIONS MEETING GAMING AND OSHA REGULATIONS. WHERE INDICATED ON DRAWINGS, EXISTING GENERATOR(S) SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO OWNER.

FINAL TESTING AND COMMISSIONING SHALL BE ONSITE AND THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND OWNER. FAILURE TO MEET THE EQUIPMENT MANUFACTURER TESTING PROCEDURES WILL REQUIRE THE ELECTRICAL CONTRACTOR TO ENLIST THE SERVICES OF THE EQUIPMENT MANUFACTURERS PERSONNEL TO PROVIDE THE FINAL COMMISSIONING AND REPORTS TO SATISFY THE WARRANTY.

ABOVE CEILING WORK PERMIT PROGRAM:

PURPOSE

THIS PROGRAM SHALL ESTABLISH MINIMUM REQUIREMENTS TO ENSURE THAT ALL PENETRATIONS IN SMOKE AND FIRE PARTITIONS ARE PROPERLY SEALED. THE LIFE SAFETY CODE, NFPA 101, REQUIRES THAT ALL SMOKE AND FIRE PARTITIONS BE SEALED WITH THE PROPERLY RATED MATERIAL ON BOTH SIDES AND AROUND ALL PENETRATIONS FROM THE FLOOR TO THE UNDERSIDE OF THE NEXT FLOOR LEVEL.

PROCEDURE

THE FOLLOWING PROCEDURE MUST BE FOLLOWED ANY TIME ABOVE THE CEILING WORK IS CONDUCTED IN THE FACILITY. OUTSIDE CONTRACTORS PERFORMING WORK SHALL BE INFORMED OF THE PROGRAM AND ITS REQUIREMENTS.

- PRIOR TO BEGINNING ABOVE THE CEILING WORK, AN ABOVE THE CEILING WORK PERMIT MUST BE OBTAINED FROM THE SUPPORT SERVICES DEPARTMENT. THIS PERMIT MUST BE SIGNED BY THE SAFETY OFFICER, DIRECTOR OF SUPPORT SERVICES, MAINTENANCE SUPERVISOR OR THEIR DESIGNEE AND IS VALID FOR THE LENGTH OF THE CONTRACT OR ONE WEEK IF NO CONTRACT EXISTS. THE MAINTENANCE SUPERVISOR OR DESIGNEE SHALL INFORM ALL PARTIES PERFORMING THE WORK ABOVE THE CEILING ON THE REQUIREMENTS OF THIS POLICY. ALL CONTRACTORS BIDDING PROJECTS, WHICH MAY REQUIRE ABOVE CEILING WORK, SHALL BE INFORMED OF THIS POLICY PRIOR TO BIDDING SAID PROJECT AND AGAIN AFTER BID IS AWARDED. NO ABOVE CEILING WORK MAY BEGIN UNTIL THE POLICY IS COMMUNICATED AND PERMIT IS SIGNED AND APPROVED BY SUPPORT SERVICES.
- CONTRACTORS ARE RESPONSIBLE FOR SEALING EVERY PENETRATION, ON BOTH SIDES, IN EVERY WALL OR FLOOR THEY MUST PENETRATE. SEALING MATERIALS MUST BE APPROPRIATELY RATED ACCORDING TO NFPA AND OWNER. THE SUPPORT SERVICES DEPARTMENT WILL ASSIST THE CONTRACTOR IN DETERMINING THE APPROPRIATE MATERIAL FOR THE AREA PENETRATED. MINERAL WOOL, FIBERGLASS AND STEEL WOOL ARE NOT ACCEPTABLE MATERIALS.
- ANY EXISTING PENETRATION FOUND WHICH IS NOT PROPERLY SEALED IS TO BE REPORTED IMMEDIATELY TO THE SUPPORT SERVICES DEPARTMENT BEFORE WORK BEGINS IN THAT AREA. ONCE WORK BEGINS IN THAT AREA, THE CONTRACTOR IS RESPONSIBLE FOR SEALING ALL UNREPORTED PENETRATIONS.
- CONTRACTORS ARE ENCOURAGED TO USE EXISTING PROPER PENETRATIONS (PIPE SLEEVES, ETC.) AND ARE RESPONSIBLE FOR RESEALING AFTER USE. CONTRACTORS ARE NOT PERMITTED TO USE IMPROPER EXISTING OPENINGS (WIRE STUFFED BESIDE DUCTWORK THROUGH WALL) FOR ANY REASON. IF A CONTRACTOR IS TO WORK ON A WALL OR FLOOR WHICH CONTAINS ANY IMPROPER PENETRATIONS, THEY ARE TO CONTACT SUPPORT SERVICES BEFORE MAKING A NEW PENETRATION.
- AFTER THE WORK IS COMPLETED & PRIOR TO REPLACING CEILING TILE OR COVERING PENETRATION WORK, THE INDIVIDUAL PERFORMING THE WORK MUST CONTACT THE SUPPORT SERVICES DEPARTMENT, FOR AN ABOVE THE CEILING INSPECTION OF PENETRATIONS BEFORE LEAVING THE JOB. THE SAFETY OFFICER, DIRECTOR OF SUPPORT SERVICES OR MAINTENANCE SUPERVISOR SHALL CONDUCT A FINAL CHECK OF THE AREA. IF EVERYTHING IS FOUND TO BE SATISFACTORY, THE PERMIT WILL BE SIGNED AND MAINTAINED BY THE OWNER FOR ONE MONTH.

HOT WORK PERMIT PROGRAM:

PURPOSE

THIS PROGRAM SHALL ESTABLISH THE MINIMUM REQUIREMENTS FOR THE SAFE APPLICATION OF ANY HOT WORK WITHIN THE BUILDING. HOT WORK IS DEFINED AS ANY SPARK PRODUCING OPERATION. THIS INCLUDES OPERATIONS WHICH USE FLAMES OR SPARK PRODUCING EQUIPMENT, SUCH AS GRINDERS, WELDING, BURNING OR BRAZING, THAT ARE CAPABLE OF IGNITING FLAMMABLES, VAPORS, OR GASES.

PROCEDURE

THE FOLLOWING PROCEDURE MUST BE FOLLOWED ANY TIME HOT WORK IS CONDUCTED IN THE FACILITY. OUTSIDE CONTRACTORS PERFORMING WORK SHALL BE INFORMED OF THE PROGRAM AND ITS REQUIREMENTS.

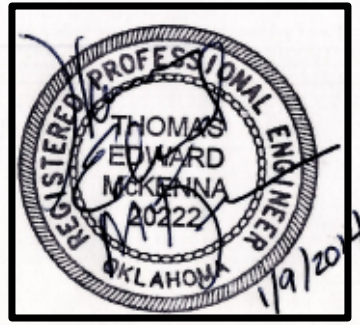
- PRIOR TO BEGINNING HOT WORK, A HOT WORK PERMIT MUST BE OBTAINED FROM THE SAFETY OFFICER OR MAINTENANCE SUPERVISOR. THIS PERMIT MUST BE SIGNED BY THE SAFETY OFFICER OR MAINTENANCE SUPERVISOR AND IS VALID FOR ONLY THE SHIFT ON THE DATE SIGNED. EACH DAY, OR WITH EACH NEW SHIFT, OR PROJECT, A NEW PERMIT MUST BE OBTAINED.
- THE SAFETY OFFICER OR MAINTENANCE SUPERVISOR SHALL INSPECT THE AREA WHERE THE HOT WORK WILL BE CONDUCTED TO CHECK THAT THE FOLLOWING PRECAUTIONS TO PREVENT FIRE WERE COMPLETED:
 1. SPRINKLER SYSTEM IN SERVICE.
 2. FIRE EXTINGUISHER CHARGED AND READY FOR USE.
 3. EQUIPMENT USED FOR HOT WORK IN GOOD CONDITION.
 4. ALL COMBUSTIBLES NOT WITHIN 35 FEET OF PROPOSED WORK AREA.
 5. NO COMBUSTIBLE OR FLAMMABLE LIQUIDS PRESENT.
 6. ALL WALL AND FLOOR OPENINGS COVERED.
- A FIRE WATCH SHALL BE PROVIDED DURING AND FOR 30 MINUTES AFTER OPERATION.
- AFTER THE WORK AND FIRE WATCH ARE COMPLETED, THE SAFETY OFFICER OR MAINTENANCE SUPERVISOR SHALL CONDUCT A FINAL CHECK OF THE AREA. IF EVERYTHING IS FOUND TO BE SATISFACTORY, THE PERMIT WILL BE SIGNED AND MAINTAINED BY THE OWNER FOR 3 DAYS.

PERSONAL PROTECTION EQUIPMENT

- RESPIRATORY PROTECTION MUST BE WORN IF GASES, DUST OR FUMES ARE ABOVE EXPOSURE LIMITS OR ANY TIME THE SAFETY OFFICER FEELS THERE IS A POTENTIAL HAZARD.
- EYE PROTECTION GOGGLES OR SHIELD MUST BE WORN AT ALL TIMES DURING HOT WORK
- PROPER LEVEL OF PPE SHALL BE UTILIZED WHEN WORKING ON 480-VOLT ENERGIZED SYSTEMS.

ELECTRICAL GENERAL NOTES:

- CONTRACTOR AND ASSOCIATED DIVISION TRADE SUB-CONTRACTORS SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK DESIGNATED FOR THIS FACILITY PRIOR TO BIDDING.
- ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES. IN EVENT OF CONFLICT BETWEEN DRAWINGS, SPECIFICATIONS, CODES AND ORDINANCES, THE MOST STRINGENT REQUIREMENT FROM THE AUTHORITY HAVING JURISDICTION SHALL TAKE PRECEDENCE.
- INSTALL EQUIPMENT AND DEVICES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS, ADHERING TO REQUIRED CLEARANCES FOR OPERATION AND ACCESS FOR PRODUCT SERVICING. COORDINATE FINAL LOCATION WITH OTHER DIVISION TRADE CONTRACTORS REQUIRED FOR PROPER INSTALLATION.
- TYPICAL DEVICE MOUNTING HEIGHTS - UNLESS NOTED OTHERWISE:
 - PANELBOARDS - 78" AFF TO TOP OF CABINET (MAXIMUM)
 - CONTROL PANELS - 72" AFF TO TOP OF CABINET
 - DISCONNECTS - 64" AFF TO TOP OF CABINET (MAXIMUM)
 - POWER/COMM. OUTLETS - 18" AFF TO CENTER OF DEVICE
 - TOGGLE SWITCHES - 48" AFF TO CENTER OF DEVICE
 WHERE DEVICES ARE INDICATED TO BE ABOVE DOORS, CENTER BETWEEN TOP OF DOOR TRIM AND CEILING LINE. ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER TYPICAL HEIGHTS LISTED. DEVICES INDICATED ABOVE COUNTERS SHALL BE MOUNTED 8" ABOVE COUNTER TO CENTER OF DEVICE.
- PROCURE ALL NECESSARY PERMITS AND LICENSES REQUIRED FOR WORK. PAY ALL LAWFUL FEES, INCLUDING, BUT NOT LIMITED TO UTILITY DEPOSITS, INSPECTION FEES, AND TEMPORARY AND PERMANENT CONSTRUCTION PERMITS.
- COORDINATE WITH DIVISION TRADES AND THE ACTUAL SITE CONDITIONS OF CONSTRUCTION. RESOLVE CONFLICTS BETWEEN DIVISION TRADES FOR LOCATION OF EQUIPMENT INSTALLED AND ACCESSORIES REQUIRED, SO THAT ANY CONFLICTS ARE COORDINATED AND THE EQUIPMENT IS INSTALLED AS A COMPLETE AND OPERABLE SYSTEM. COORDINATE POWER PERMITS FOR EQUIPMENT PRIOR TO SUBMITTAL REVIEW BY ENGINEER OF RECORD. COORDINATION OF OTHER TRADES SCOPE-OF-WORK AND MATERIALS ARE A NORMAL PART OF THE CONSTRUCTION PROCESS. THE INTENT OF THE WORK IS IDENTIFIED IN THE FULL SET OF CONTRACT DOCUMENTS, AND IS NOT LIMITED BY DIVISION TRADE DOCUMENTS. FAILURE TO COORDINATE THE WORK SHALL NOT BE SUBJECT TO MONETARY CLAIMS.
- NOTIFY ENGINEER AND REQUEST ADDITIONAL INFORMATION FOR PROPOSED ALTERNATE OR ALTERED EQUIPMENT OTHER THAN LISTED IN THE CONTRACT DOCUMENTS OR SUBMITTED DURING PRODUCT REVIEW WHICH REQUIRES ADDITIONAL SPACE, SUPPORT, LAYOUT CONDITIONS, OR OTHER ELECTRICAL REQUIREMENTS. PROVIDE REQUIRED WORK ONLY AFTER WRITTEN NOTICE-TO-PROCEED FROM ENGINEER OF RECORD.
- ALL MATERIALS SHALL BE NEW AND U.L. LISTED FOR THE APPLICATION. REUSE OF EXISTING MATERIALS MUST BE APPROVED PRIOR TO BID BY THE ENGINEER OF RECORD. PROVIDE PROTECTION FOR ALL ITEMS OF APPARATUS, FIXTURES, APPLIANCES, MATERIALS, EQUIPMENT AND INSTALLATION SO AS TO PREVENT DAMAGE BY ANY TRADE. CONTRACTOR SHALL REPLACE, AT NO EXPENSE TO THE OWNER, ANY ITEM THAT IS MARRED, DEFACED, OR BROKEN PRIOR TO ACCEPTANCE BY OWNER.
- MECHANICAL AND ELECTRICAL PLANS ARE DIAGRAMMATIC, BUT THEY SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION OF THE BUILDING AND WORK OF OTHER TRADES WILL ALLOW. CONTRACTOR SHALL COORDINATE THE GENERAL WORK IN ORDER THAT THEIR WORK AND THE WORK OF THESE SUB-CONTRACTORS WILL BE PROPERLY INSTALLED IN THE BUILDING. THE APPROVAL OF THE ARCHITECT SHALL BE OBTAINED BEFORE ANY DEVIATIONS FROM THESE PLANS ARE MADE.
- CONTRACTOR SHALL PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
- CONTRACTOR SHALL INFORM ENGINEER OF EXISTING CONDITIONS THAT ARE DISCOVERED DURING WORK IN PROGRESS THAT WOULD REQUIRE DEVIATIONS AND ADDITIONAL COSTS FROM THE ORIGINAL CONSTRUCTION DOCUMENTS BEFORE PROCEEDING WITH WORK.
- CONTRACTOR SHALL COORDINATE ALL POWER AND LIGHTING J-BOXES WITH DIVISION 15 MECHANICAL DUCTWORK SO AS NOT TO INSTALL ANY JUNCTION BOXES ABOVE DUCT WORK UNITS.
- CONTRACTOR SHALL USE BLUE JACKETED CAT 5E CABLE FOR ALL DATA OUTLETS AND WHITE JACKETED CAT 5E CABLE FOR TELEPHONE OUTLETS. TERMINATE ALL DATA CABLES AT OWNER'S EXISTING EQUIPMENT. CONTRACTOR SHALL PROVIDE WORK FOR ALL NEW DATA LINES. COORDINATE ADDITIONAL REQUIREMENTS WITH ACTIVE POWER EQUIPMENT AND OWNER'S REPRESENTATIVE, DEAN BURWELL.
- CONTRACTOR SHALL PROVIDE 1/2" EMT CONDUIT CONCEALED IN WALL FROM FLUSH MOUNTED J-BOXES TO CEILING CAVITY FOR ALL THERMOSTATS. PROVIDE END BUSHINGS TO PROTECT ALL LOW VOLTAGE WIRE BEING PULLED. COORDINATE LOCATIONS AND QUANTITY WITH DIVISION 15 CONTRACTOR.
- EXPOSED CONDUIT, JUNCTION BOXES AND ACCESSORIES IN FINISHED AREAS TO BE PAINTED AS DIRECTED BY OWNER. COORDINATE CONDUIT RUNS IN EXPOSED AREAS SO THAT ALL RUNS ARE MADE PARALLEL OR PERPENDICULAR TO STRUCTURE.
- CONTRACTOR SHALL IDENTIFY ALL EXPANSION JOINTS AND PROVIDE FOR EXPANSION JOINTS IN ALL CONDUITS CROSSING BUILDING BOUNDARIES.
- CONTRACTOR SHALL IDENTIFY ALL FIRE RATED WALLS AND SMOKE RATED WALLS AND PROVIDE SEALS IN ALL PENETRATIONS THROUGH RATED WALLS.
- ALL EXPOSED EXTERIOR CONDUIT SHALL BE RIGID UNLESS NOTED OTHERWISE.
- CONDUIT SHALL BE COMMERCIAL GRADE STEEL AND ALUMINUM U.L. LISTED FOR THE APPLICATION AND NOT LESS THAN 3/4" IN TRADE SIZE.
- THE EMERGENCY POWER SYSTEM CIRCUITS SHALL NOT ENTER THE SAME RACEWAYS, BOXES, OR CABINETS WITH NORMAL BRANCH WIRING.
- REMOVE ALL ABANDONED LOW VOLTAGE CABLING IN ALL AREAS OF CONSTRUCTION. PROVIDE PROPER VERIFICATION WITH LABELING FOR SYSTEM IN SERVICE THAT REMAINS.
- ELECTRICAL SYSTEMS RATED 120V AND HIGHER SHALL BE ROUTED IN METAL RACEWAYS WITH INDIVIDUAL PHASE, NEUTRAL, AND GROUND COPPER CONDUCTORS. INTERMEDIATE AND TERMINATING JUNCTION BOXES SHALL BE METAL AND U.L. LISTED FOR THE INSTALLATION.
- COVERPLATES IN UNFINISHED AREAS AND CEILING CAVITIES SHALL BE LABELED WITH PERMANENT BLACK MARKER WITH CORRESPONDING CIRCUIT. PROVIDE ADHESIVE LABELS WITH PANEL AND CIRCUIT DESIGNATION ON COVERPLATES OF DEVICES IN FINISHED AREAS.



EMERGENCY POWER SYSTEM ADDITION
TAHLEQUAH CASINO
16489 HIGHWAY 62
TAHLEQUAH, OK 74464

DRAWN BY:	TEM
CHECKED BY:	TEM
ISSUED:	01/09/14
REVISIONS:	

ELECTRICAL
GENERAL NOTES
AND SCHEDULES

JOB NUMBER: SDG1407.3

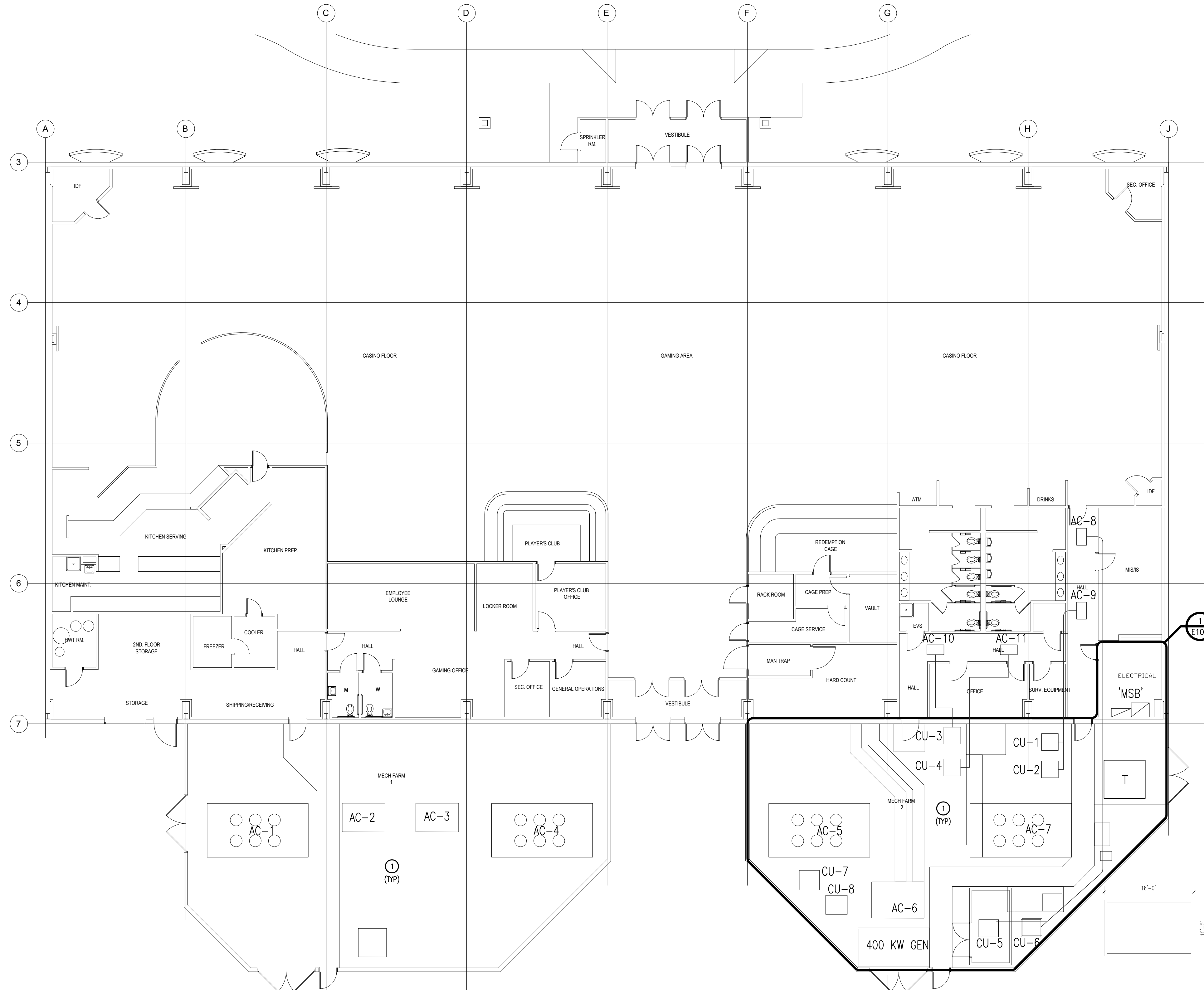
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KEYNOTES: (X)

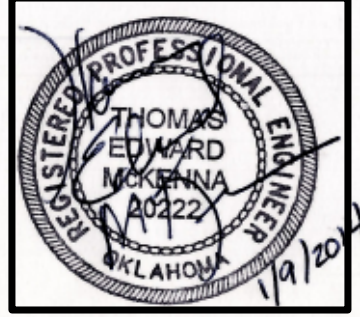
1. FIELD VERIFY EXISTING HVAC SYSTEMS AND AREAS OF SERVICE. COORDINATE THE BREAKERS TO BE REMOVED FROM EXISTING 'MSB' TO MAKE ROOM FOR NEW 600A BREAKER TO SERVE NEW EXTERIOR UPS. THE FOLLOWING DESCRIBE THE UNITS AND SERVICES BASED ON AS-BUILT DRAWINGS FROM 06-03-2005:

- AC-1 NORTH GAMING FLOOR
- AC-2 KITCHEN
- AC-3 BACK-OFF-HOUSE
- AC-4 NORTH-CENTRAL GAMING FLOOR
- AC-5 SOUTH-CENTRAL GAMING FLOOR
- AC-6 RESTROOMS AND OFFICES
- AC-7 SOUTH GAMING FLOOR
- CU-3 PRIMARY SERVER ROOM HVAC
- CU-4 PRIMARY SERVER ROOM HVAC
- CU-5 BACKUP SERVER ROOM HVAC
- CU-6 BACKUP SERVER ROOM HVAC

LIMIT OUTAGES REQUIRED TO THE LEAST POSSIBLE. SUBMIT TO ENGINEER AND OWNER PROPOSED SYSTEMS AND DURATION OF OUTAGE PRIOR TO WORK.

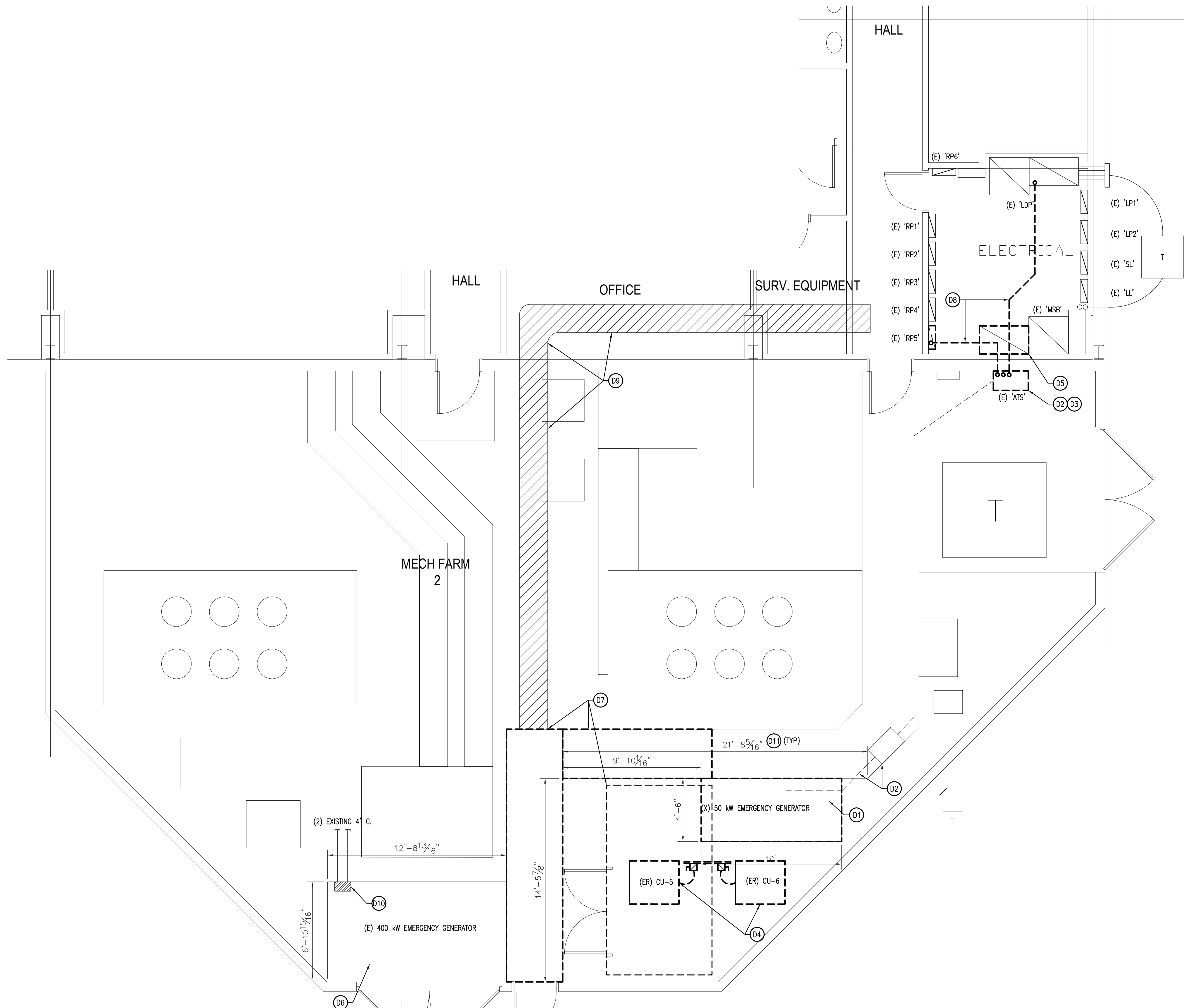


1 ELECTRICAL OVERALL FLOOR PLAN
 Scale: 3/32" = 1'-0"
 NORTH



DRAWN BY:	TEM
CHECKED BY:	TEM
ISSUED:	01/09/14
REVISIONS:	

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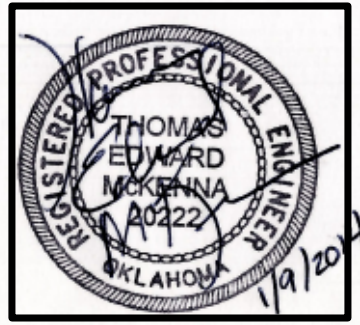


1 ENLARGED ELECTRICAL DEMO PLAN
 Scale: 1/4" = 1'-0"
 NORTH

DEMOLITION KEYNOTES: (DX)

- D1. REMOVE EXISTING GENERATOR COMPLETELY AND RETURN TO OWNER. EVACUATE ALL FUEL/FLUIDS PER MANUFACTURER INSTRUCTIONS. REMOVED FLUIDS MUST BE DISPOSED OF PER EPA AND OSHA GUIDELINES. PROVIDE TEMPORARY POWER TO EXISTING A.T.S. TO LIMIT DOWNTIMES AND SWITCHOVER TIMES.
- D2. EXISTING EXTERIOR PULLBOX TO REMAIN. REMOVE CONDUCTORS AND ABANDON RACEWAYS IN PLACE. REUSE FOR SWITCHOVER/TEMPORARY SERVICES TO MINIMIZE OUTAGES.
- D3. COORDINATE SWITCHOVER AND REMOVAL OF EXISTING EMERGENCY POWER TRANSFER SWITCH WITH OWNER.
- D4. RELOCATE EXISTING CONDENSING UNITS TO ALLOW NEW WORK INDICATED ON E103. EVACUATE EXISTING SYSTEM SUCTION AND DISCHARGE LINES PER MANUFACTURER INSTRUCTIONS. REMOVE AND RELOCATE ELECTRICAL SYSTEM. FIELD VERIFY CU-5 AND CU-6 SERVE THE BACK-UP SERVER HVAC SYSTEM AND COORDINATE SHUT-DOWN REQUIREMENTS WITH OWNER PRIOR TO OUTAGES. RECHARGE SYSTEMS PER MANUFACTURER SPECIFICATIONS.
- D5. FIELD VERIFY EXISTING HVAC SYSTEMS OR COMPACTOR (NON-ESSENTIAL) ELECTRICAL SYSTEM BREAKERS TO BE REMOVED. COORDINATE SHUTDOWN AND SWITCH-OVER SCHEDULE WITH OWNER AND ENGINEER 10-DAYS IN ADVANCE.
- D6. CONTACT EXISTING GENERATOR MANUFACTURER VENDOR REPRESENTATIVE TO SCHEDULE VOLTAGE CHANGE TO 480Y/277V, 3PH, 4W CONNECTION. SCHEDULE AS CRITICAL PATH ITEM.
- D7. POTHOLE/REMOVAL OF EXISTING CONCRETE SIDEWALK IN AREA INDICATED BY DASHED LINES. MARK ALL EXISTING UTILITIES PRIOR TO WORK.
- D8. COORDINATE WITH OWNER REMOVAL AND SWITCH-OVER OF EXISTING SERVER PANEL. SCHEDULE AS CRITICAL PATH ITEM.
- D9. FIELD VERIFY REQUIRED DEMOLITION AND POTHOLE OF EXISTING EXTERIOR YARD TO ALLOW PATH FOR NEW WORK. PROPOSED ROUTING TO BE SUBMITTED TO OWNER AND ENGINEER PRIOR TO WORK.
- D10. FIELD VERIFY POTHOLE AND OUTGOING CONDUITS TO ALLOW NEW 1" CONDUIT FOR BATTERY CHARGER AND BLOCK HEATER.
- D11. DIMENSIONS SHOWN REQUIRE FIELD VERIFICATION AND SHOWN FOR APPROXIMATE REFERENCE ONLY. SUBMIT PROPOSED LAYOUT TO ENGINEER AND OWNER PRIOR TO WORK.

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 C.A.#.: 3985 Expires 06/30/2014

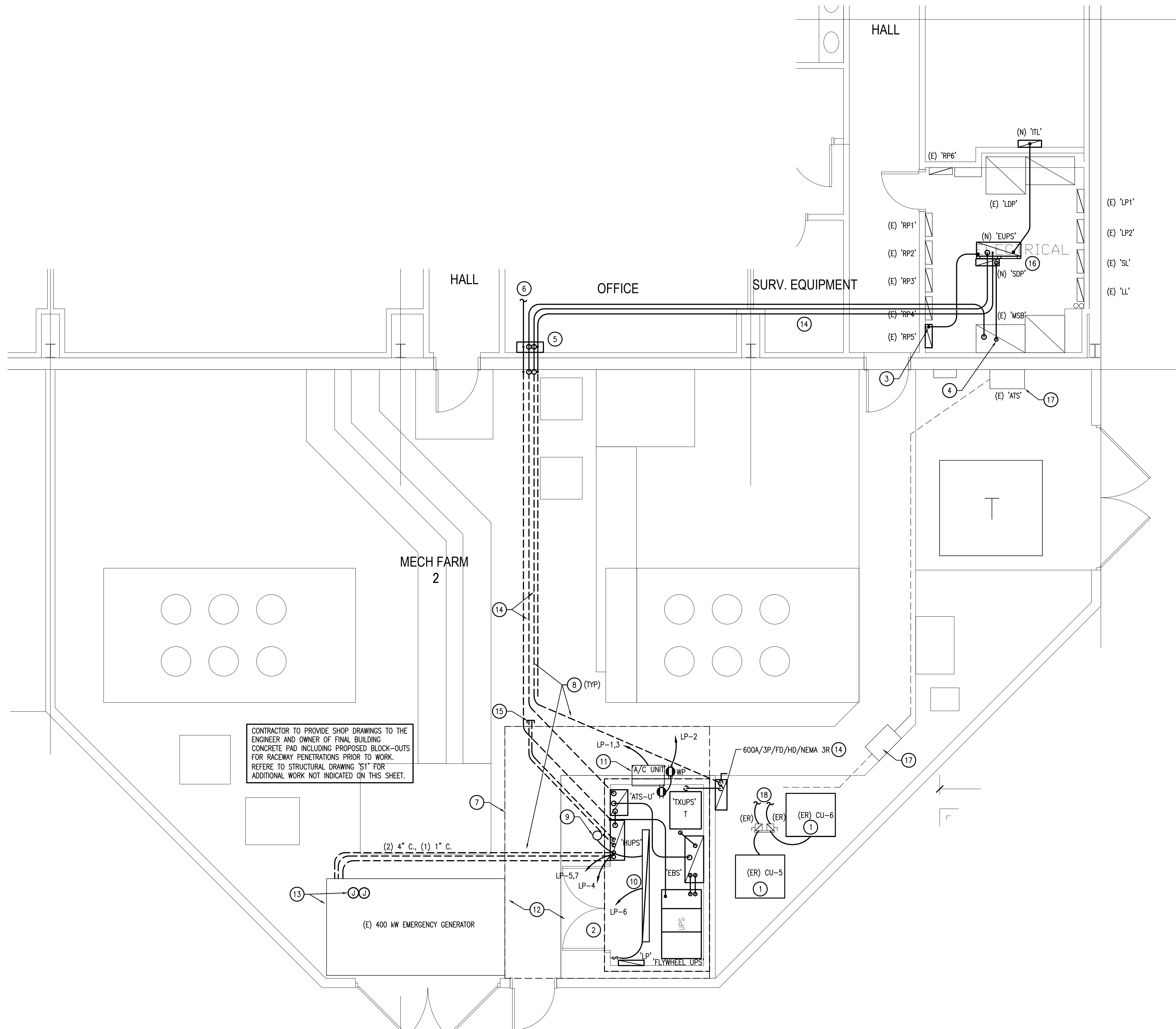


EMERGENCY POWER SYSTEM ADDITION
TAHLEQUAH CASINO
16489 HIGHWAY 62
TAHLEQUAH, OK 74464

DRAWN BY:	TEM
CHECKED BY:	TEM
ISSUED:	01/09/14
REVISIONS:	

SHEET TITLE:
ENLARGED DEMO
ELECTRICAL PLAN

JOB NUMBER: SDG1407.3
E102

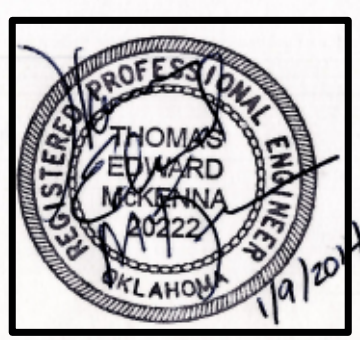


CONTRACTOR TO PROVIDE SHOP DRAWINGS TO THE ENGINEER AND OWNER OF FINAL BUILDING CONCRETE PAD INCLUDING PROPOSED BLOCK-OUTS FOR RACEWAY PENETRATIONS PRIOR TO WORK. REFER TO STRUCTURAL DRAWING 'ST' FOR ADDITIONAL WORK NOT INDICATED ON THIS SHEET.

1 ENLARGED ELECTRICAL NEW PLAN
 Scale: 1/4" = 1'-0"
 NORTH

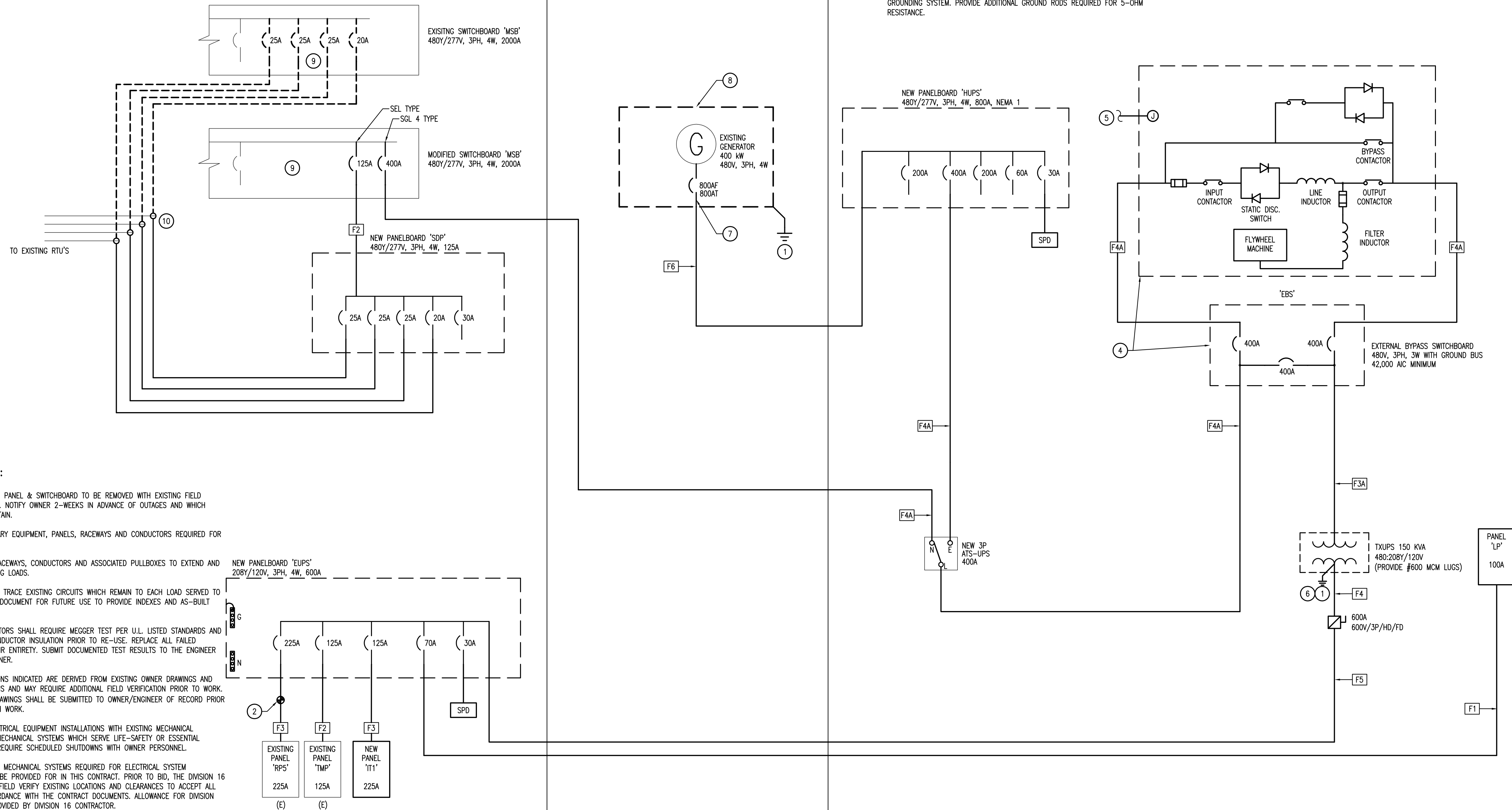
KEYNOTES: (X)

1. RELOCATE EXISTING CONDENSING UNITS TO ALLOW NEW WORK. RECHARGE EXISTING SYSTEM LINES PER MANUFACTURER SPECIFICATIONS. RELOCATE EXISTING ELECTRICAL SYSTEMS TO APPROVED LOCATION. POT-HOLE AREA TO EXPOSE OTHER SHALLOW UNDERGROUND SYSTEMS NOT READILY IDENTIFIED SO THAT DISTURBANCE DOES NOT INTERRUPT NEW WORK.
2. PROVIDE NEW STRUCTURAL CONCRETE PAD PER SHEET S1 (SIMILAR) FOR NEW EXTERIOR BUILDING TO BE PROVIDED BY OWNER. PAD DIMENSIONS SHALL BE 7'-6" X 13'-9". SUBMIT PROPOSED BLOCKING AND EQUIPMENT LAYOUT TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO WORK.
3. INTERCEPT EXISTING 2-1/2" C. FED TO EXISTING 'RPS' FROM 'LDP'. EXTEND TO NEW 'EUPS' SERVED FROM NEW 225A/3P BREAKER.
4. PROVIDE NEW 125A/3P BREAKER IN NEW SWITCHBOARD 'MSB'. ROUTE NEW RACEWAY TO SERVE NEW PANELBOARD 'SDP' LOCATED IN CENTER OF ROOM ON UNISTRUT RACK.
5. NEW ACCESSIBLE PULLBOX ABOVE ACCESSIBLE CEILING GRID.
6. ROUTE 1-1/2" C. FOR GENERATOR, ATS AND UPS REMOTE STATUS TO OWNER DESIGNATED SECURITY ROOM. PROVIDE SHIELDED CAT 5e CABLE FOR UPS AND LISTED CONTROL WIRING FOR THE GENERATOR PER MANUFACTURER SPECIFICATIONS. EXTEND NEW A.T.S. DRY CONTACTS TO EXISTING GENERATOR.
7. PROVIDE #3500 PSI 4" THICK CONCRETE SIDEWALK WITH EXPANSION AND CONTROL JOINTS TO MATCH EXISTING.
8. FIELD COORDINATE EXACT ROUTING OF RACEWAYS TO MAIN BUILDING WITH LOCAL UTILITY CO. AND OWNER. SUBMIT PROPOSED ROUTING TO ENGINEER AND OWNER PRIOR TO WORK.
9. NEW STAR: NWORS-1-42-UN-BK-AH-PC OR EQUAL, 42W CFL MOUNTED AT 8'-0" AFG.
10. LITHONIA T232 MV 4-LAMP, 96" CHAIN HUNG FIXTURE OR EQUAL.
11. HVAC UNIT: BARD W24A2-A 2-TON WALL MOUNTED UNIT WITH 'BFAD', 'BOP' AND 'MFAD' ACCESSORIES. PROVIDE 6 KW NOMINAL STRIP HEAT FOR LEFT HAND INSTALLATION WITH SINGLE POINT CONNECTION. PROVIDE THERMOSTAT COMPATIBLE WITH UNIT. INSTALL PER MANUFACTURER SPECIFICATIONS.
12. COORDINATE DELIVERY OF EQUIPMENT AND REMOVAL OF EXISTING FENCE WITH OWNER. PROVIDE LEVEL PATH ACROSS EQUIPMENT YARD TO MOVE ELECTRICAL EQUIPMENT INTO PLACE. PROVIDE RIGGING WHERE REQUIRED PER MANUFACTURER SPECIFICATIONS TO SET UPS LEVEL INTO BUILDING.
13. COORDINATE VOLTAGE CHANGE FROM 208Y/120V TO 480Y/277V. CONTACT GENERATOR VENDOR FOR REQUIRED CONNECTIONS AND MODIFICATION TO BE SCHEDULED AND PROVIDED BY ELECTRICAL CONTRACTOR. PROVIDE CONNECTIONS FOR BATTERY CHARGER AND BLOCK HEATERS. PROVIDE CONNECTIONS FOR STARTING GENERATOR FROM NEW A.T.S. PROVIDE NEW S.E.R. BREAKER.
14. EXTEND NEW RACEWAY FROM NEW 'MSB' TO EXTERIOR BUILDING A.T.S. ROUTE NEW RACEWAY FROM NEW 'TXUPS' 600A FUSED DISCONNECT BACK TO BUILDING ELECTRIC ROOM NEW SWITCHBOARD 'EUPS'. ROUTE RACEWAY FROM 'EUPS' BACK OUT TO EXTERIOR BUILDING PANEL 'LP'.
15. ROUTE (2) SPARE 2" C. UNDERGROUND TO EXTERIOR QUANZITE ELECTRICAL PULLBOX.
16. PROVIDE UNISTRUT STRUCTURE TO SUPPORT NEW SWITCHBOARDS AND PANELBOARDS CENTER OF ROOM. FIELD VERIFY AND MAINTAIN WORKING CLEARANCES OF 3'-0" IN FRONT OF NEW AND EXISTING EQUIPMENT.
17. REUSE EXISTING A.T.S. AND GENERATOR RACEWAY AND CONDUCTORS AS REQUIRED TO MINIMIZE OUTAGES TO PANEL 'RPS'.
18. RECONNECT EXISTING CU-5 AND CU-6 TO NEW PANELBOARD 'HUPS'-8-18.



DRAWN BY:	TEM
CHECKED BY:	TEM
ISSUED:	01/09/14
REVISIONS:	

XX FEEDER SCHEDULE				
MARK	CONDUCTORS	CONDUIT	SETS	CAPACITY
F1	(4)#3, (1)#8 GND	1" C.	1	100A
F2	(4)#1, (1)#6 GND	1-1/2" C.	1	125A
F3	(4)#4/0, (1)#4 GND	2-1/2" C.	1	225A
F3A	(3)#4/0, (1)#4 GND	2" C.	1	225A
F4	(4)#600 MCM, (1)#3 GND	4" C.	1	400A
F4A	(3)#600 MCM, (1)#3 GND	4" C.	1	400A
F5	(4)#350 MCM, (1)#1 GND	3" C.	2	600A
F6	(4)#600 MCM, (1)#3 GND	4" C.	2	800A
F7	(3)#8 AWG, (1)#10 GND	3/4" C.	1	50A



GENERAL NOTES:

- A. COORDINATE EACH PANEL & SWITCHBOARD TO BE REMOVED WITH EXISTING FIELD VERIFIED CONDITIONS. NOTIFY OWNER 2-WEEKS IN ADVANCE OF OUTAGES AND WHICH SYSTEM IT WILL PERTAIN.
- B. PROVIDE TEMPORARY EQUIPMENT, PANELS, RACEWAYS AND CONDUCTORS REQUIRED FOR MINIMAL OUTAGES.
- C. PROVIDE NEW RACEWAYS, CONDUCTORS AND ASSOCIATED PULLBOXES TO EXTEND AND RE-CONNECT EXISTING LOADS.
- D. FIELD VERIFY AND TRACE EXISTING CIRCUITS WHICH REMAIN TO EACH LOAD SERVED TO BE RE-CONNECTED. DOCUMENT FOR FUTURE USE TO PROVIDE INDEXES AND AS-BUILT DRAWINGS.
- E. EXISTING CONDUCTORS SHALL REQUIRE MEGGER TEST PER U.L. LISTED STANDARDS AND VERIFICATION OF CONDUCTOR INSULATION PRIOR TO RE-USE. REPLACE ALL FAILED CONDUCTORS IN THEIR ENTIRETY. SUBMIT DOCUMENTED TEST RESULTS TO THE ENGINEER OF RECORD AND OWNER.
- F. EXISTING CONDITIONS INDICATED ARE DERIVED FROM EXISTING OWNER DRAWINGS AND CASUAL OBSERVATIONS AND MAY REQUIRE ADDITIONAL FIELD VERIFICATION PRIOR TO WORK. DEVIATIONS FROM DRAWINGS SHALL BE SUBMITTED TO OWNER/ENGINEER OF RECORD PRIOR TO PROCEEDING WITH WORK.
- G. COORDINATE ELECTRICAL EQUIPMENT INSTALLATIONS WITH EXISTING MECHANICAL SYSTEMS. EXISTING MECHANICAL SYSTEMS WHICH SERVE LIFE-SAFETY OR ESSENTIAL OPERATIONS SHALL REQUIRE SCHEDULED SHUTDOWNS WITH OWNER PERSONNEL.
- H. MODIFICATIONS TO MECHANICAL SYSTEMS REQUIRED FOR ELECTRICAL SYSTEM INSTALLATION SHALL BE PROVIDED FOR IN THIS CONTRACT. PRIOR TO BID, THE DIVISION 16 CONTRACTOR SHALL FIELD VERIFY EXISTING LOCATIONS AND CLEARANCES TO ACCEPT ALL NEW WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALLOWANCE FOR DIVISION 15 WORK TO BE PROVIDED BY DIVISION 16 CONTRACTOR.

KEYNOTES: (X)

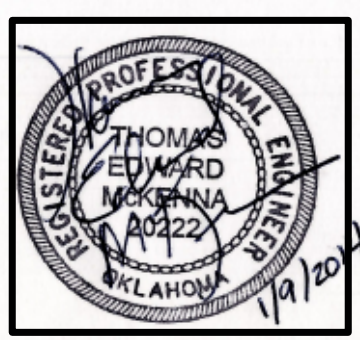
- 1. GROUNDING PER NEC 250.
- 2. INTERCEPT AND EXTEND 1-1/2" C. AND FEEDER FROM GENERATOR AND TERMINATE AT EXISTING PANEL 'EPH'.
- 3. INTERCEPT EXISTING 1-1/2" C. FED TO EXISTING 'TX2' FROM 'EPH'. EXTEND 'TX2' PRIMARY FEEDER UP THROUGH ACCESSIBLE CEILING CAVITY, THRU EXTERIOR WEST WALL TO NEW EXTERIOR UPS BUILDING. FIELD VERIFY EXACT LOCATION.
- 4. FLYWHEEL UPS AND BYPASS INPUT/OUTPUT INTERFACE TO UPS PROVIDED BY OWNER. CONTRACTOR TO PROVIDE ALL RIGGING, SETTING AND FINAL TERMINATIONS PER EQUIPMENT MANUFACTURER SPECIFICATIONS INCLUDING SPECIFIC CABLING FOR A COMPLETE AND OPERABLE SYSTEM.
- 5. ROUTE LOW-VOLTAGE CONTROLS AND SHIELDED SIGNAL WIRES/CABLE TO OWNER DESIGNATED LOCATIONS FOR REMOTE MONITORING OF GENERATOR AND FLYWHEEL UPS.
- 6. BONDING AND GROUNDING AT FIRST MEANS OF DISCONNECT PER NEC ART. 250. PROVIDE GROUNDING SYSTEM WITHIN NEW BUILDING SLAB AND INTERCONNECT TO MAIN GROUNDING SYSTEM. PROVIDE ADDITIONAL GROUND RODS REQUIRED FOR 5-OHM RESISTANCE.

KEYNOTES:

- 7. COORDINATE AND SCHEDULE GENERATOR MANUFACTURER LOCAL VENDOR TO CHANGE EXISTING SYSTEM VOLTAGE AND OVER-CURRENT PROTECTION DEVICE TO 480Y/277V, 3PH, 4W. CONTRACTOR TO PROVIDE ALL TERMINATIONS, COMMISSIONING AND WARRANTY FOR SYSTEM CHANGES. SCHEDULE AS CRITICAL PATH.
- 8. FIELD VERIFY EXISTING GENERATOR CONNECTION FOR BATTERY CHARGER AND ENGINE BLOCK HEATER. PROVIDE MANUFACTURER REQUIRED CIRCUITING FROM EXISTING OR NEW SERVICES. ROUTE CONDUIT AND CONDUCTORS AS REQUIRED.
- 9. RELOCATE EXISTING BREAKERS IN SWITCHBOARD 'MSB' TO NEW PANELBOARD 'SDP'. COORDINATE WITH OWNER WHICH EQUIPMENT AND HVAC SYSTEMS CAN ENDURE OUTAGES AND SCHEDULE. SUBMIT PROPOSED SCHEDULE TO ENGINEER AND OWNER PRIOR TO WORK.
- 10. MATCH EXISTING CONDUCTORS AND RACEWAYS WHERE REQUIRED TO REMOVE AND RELOCATE HVAC/EQUIPMENT SYSTEMS TO NEW SWITCHBOARD 'SDP'.

1 MODIFIED ONE-LINE DIAGRAM
Scale: NTS

STARR
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C.A.# : 3985 Expires 06/30/2014



EMERGENCY POWER SYSTEM ADDITION
TAHLEQUAH CASINO
16489 HIGHWAY 62
TAHLEQUAH, OK 74464

DRAWN BY: TEM
CHECKED BY: TEM
ISSUED: 01/09/14
REVISIONS:

PARTIAL ONE-LINE DIAGRAM

JOB NUMBER: SDG1407.3

E201

NEW PANELBOARD 'LP'												
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 208Y/120V, 3PH, 4 WIRE AMPS: 125 AMP, MCB AIC: 22,000				
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT		
1	RTU-E	30	3	1.60	A	1.00	1	20	GENERATOR BATTERY CHARGER	2		
3	-	-	-	1.60	B	1.50	2	20	GENERATOR ENGINE HEATER	4		
5	-	-	-	1.60	C	1.50	-	-	-	6		
7	LIGHTING	15	1	0.26	A	0.10	1	20	CONTROLS	8		
9	RECEPTACLE	20	1	0.36	B	-	1	20	SPARE	10		
11	RECEPTACLE	20	1	0.72	C	-	1	20	SPARE	12		
13	-	-	-	-	A	-	1	20	SPARE	14		
15	-	-	-	-	B	-	1	20	SPARE	16		
17	-	-	-	-	C	-	1	20	SPARE	18		
			KVA	AMPS				KVA	AMPS			
PHASE A			50.00	180.50	CONNECTED FEEDER			150.00	180.50			
PHASE B			50.00	180.50								
PHASE C			50.00	180.50								

NEW SWITCHBOARD 'SDP'												
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 480Y/277V, 3PH, 4W AMPS: 125 AMP, MLO AIC: 42,000				
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT		
1	SWITCHBOARD 'MSB' CIRCUIT	25	3	-	A	-	3	25	SWITCHBOARD 'MSB' CIRCUIT	2		
3	-	-	-	-	B	-	-	-	-	4		
5	-	-	-	-	C	-	-	-	-	6		
7	SWITCHBOARD 'MSB' CIRCUIT	20	3	-	A	-	3	25	SWITCHBOARD 'MSB' CIRCUIT	8		
9	-	-	-	-	B	-	-	-	-	10		
11	-	-	-	-	C	-	-	-	-	12		
13	SPACE	50	3	-	A	-	3	30	SPACE	14		
15	SPACE	-	-	-	B	-	-	-	-	16		
17	SPACE	-	-	-	C	-	-	-	-	18		
			KVA	AMPS				KVA	AMPS			
PHASE A			-	-	CONNECTED FEEDER			-	-			
PHASE B			-	-				-	-			
PHASE C			-	-				-	-			

* PROVIDE LOCK-ON DEVICE AT BREAKER HANDLE

EXISTING PANELBOARD 'MSB'											
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 480Y/277V, 3PH, 4 WIRE AMPS: 2000 AMP, MCB AIC: 65,000			
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT	
1	CU-13	25	3	-	A	-	3	25	CU-14	2	
3	-	-	-	-	B	-	-	-	-	4	
5	-	-	-	-	C	-	-	-	-	6	
7	AC-9	25	3	-	A	-	3	25	AC-8	4	
9	-	-	-	-	B	-	-	-	-	10	
11	-	-	-	-	C	-	-	-	-	12	
13	AC-7	125	3	-	A	-	3	125	AC-4	6	
15	-	-	-	-	B	-	-	-	-	8	
17	TRANSFORMER 'T1'	800	3	-	A	-	3	800	-	9	
19	-	-	-	-	B	-	-	-	-	10	
21	-	-	-	-	C	-	-	-	-	11	
23	AC-1	125	3	-	A	-	3	125	AC-5	10	
25	-	-	-	-	B	-	-	-	-	11	
27	AC-2	30	3	-	A	-	3	25	AC-3	12	
29	-	-	-	-	B	-	-	-	-	13	
31	-	-	-	-	C	-	-	-	-	14	
33	AC-6	25	3	-	A	-	3	20	TRASH COMPACTOR	14	
35	-	-	-	-	B	-	-	-	-	15	
37	CU-12	25	3	-	A	-	3	25	CU-15	16	
39	-	-	-	-	B	-	-	-	-	17	
41	-	-	-	-	C	-	-	-	-	18	

FIELD VERIFY AND SUBMIT PROPOSED OUTAGE SCHEDULE AND CONFLICTS WITH BREAKERS INDICATED TO BE RELOCATED IN MOM-HATCHED APACES.

NEW PANELBOARD 'ITL'												
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 208Y/120V, 3PH, 4 WIRE AMPS: 125 AMP, MLO AIC: 22,000				
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT		
1	RACK UPS #1	60	2	4.00	A	-	1	20	SPARE	2		
3	-	-	-	4.00	B	-	1	20	SPARE	4		
5	SPARE	60	2	4.00	C	-	1	20	SPARE	6		
7	-	-	-	4.00	A	-	1	-	SPACE	8		
9	RACK OUTLET	20	1	1.80	B	-	1	-	SPACE	10		
11	RACK OUTLET	20	1	1.80	C	-	1	-	SPACE	12		
13	SPACE	-	1	-	A	-	1	-	SPACE	14		
15	RACK OUTLET	20	1	1.80	B	-	1	-	SPACE	16		
17	RACK OUTLET	20	1	1.80	C	-	1	-	SPACE	18		
			KVA	AMPS				KVA	AMPS			
PHASE A			-	-	CONNECTED FEEDER			24.0	66.0			
PHASE B			-	-				-	-			
PHASE C			-	-				-	-			

NEW SWITCHBOARD 'HUPS'												
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 480Y/277V, 3PH, 4W AMPS: 800 AMP, MLO AIC: 42,000				
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT		
1	FLYWHEEL UPS	300	3	-	A	-	3	45	TRANSFORMER 'T1P'	2		
3	-	-	-	-	B	-	-	-	-	4		
5	-	-	-	-	C	-	-	-	-	6		
7	SPARE	125	3	-	A	-	-	-	SPACE	8		
9	-	-	-	-	B	-	-	-	SPACE	10		
11	-	-	-	-	C	-	-	-	SPACE	12		
13	SPARE	125	3	-	A	-	3	MATCH	CU-5	14		
15	-	-	-	-	B	-	-	-	-	16		
17	-	-	-	-	C	-	-	-	-	18		
19	-	-	-	-	A	-	3	MATCH	CU-6	20		
21	-	-	-	-	B	-	-	-	-	22		
23	-	-	-	-	C	-	-	-	-	24		
25	-	-	-	-	A	-	3	30	SPD	26		
27	-	-	-	-	B	-	-	-	-	28		
29	-	-	-	-	C	-	-	-	-	30		
			KVA	AMPS				KVA	AMPS			
PHASE A			-	-	CONNECTED FEEDER			-	-			
PHASE B			-	-				-	-			
PHASE C			-	-				-	-			

EXISTING PANELBOARD 'TMP'											
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 208Y/120V, 3PH, 4 WIRE AMPS: 125 AMP, MLO AIC: 22,000			
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT	
1	* RACK UPS #1	60	2	4.00	A	-	1	20	SPARE	2	
3	-	-	-	4.00	B	-	1	20	SPARE	4	
5	RACK UPS #2	60	2	4.00	C	-	1	20	SPARE	6	
7	-	-	-	4.00	A	-	1	-	SPACE	8	
9	SPACE	-	-	-	B	-	1	-	SPACE	10	
11	SPACE	-	-	-	C	-	1	-	SPACE	12	
13	SPACE	-	-	-	A	-	1	-	SPACE	14	
15	SPACE	-	-	-	B	-	1	-	SPACE	16	
17	SPACE	-	-	-	C	-	1	-	SPACE	18	

* RELOCATE TO NEW PANEL 'ITL' TO BALANCE LOADS

NEW SWITCHBOARD 'EUPS'												
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 208Y/120V, 3PH, 4W AMPS: 400 AMP, MLO AIC: 42,000				
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT		
1	EXISTING PANELBOARD 'RPS'	225	3	-	A	-	3	125	NEW PANELBOARD 'ITL'	2		
3	-	-	-	-	B	-	-	-	-	4		
5	-	-	-	-	C	-	-	-	-	6		
7	TEMPORARY PANELBOARD 'TMP'	125	3	-	A	-	-	-	SPACE	8		
9	-	-	-	-	B	-	-	-	SPACE	10		
11	-	-	-	-	C	-	-	-	SPACE	12		
13	FUTURE	70	2	-	A	-	3	30	SPD	14		
15	-	-	-	-	B	-	-	-	-	16		
17	-	-	-	-	C	-	-	-	-	18		
			KVA	AMPS				KVA	AMPS			
PHASE A			-	-	CONNECTED FEEDER			-	-			
PHASE B			-	-				-	-			
PHASE C			-	-				-	-			

MODIFIED PANELBOARD 'MSB'											
SURFACE MOUNTED GROUND BUS NEMA 1 ENCLOSURE								VOLT: 480Y/277V, 3PH, 4 WIRE AMPS: 2000 AMP, MCB AIC: 65,000			
CKT	DESCRIPTION	BRKR	PL	KVA	PHASE	KVA	PL	BRKR	DESCRIPTION	CKT	
1	CU-13	25	3	-	A	-	3	25	CU-14	2	
3	-	-	-	-	B	-	-	-	-	4	
5	-	-	-	-	C	-	-	-	-	6	
7	AC-9	25	3	-	A	-	3	25	AC-8	4	
9	-	-	-	-	B	-	-	-	-	10	
11	-	-	-	-	C	-	-	-	-	12	
13	AC-7	125	3	-	A	-	3	125	AC-4	6	
15	-	-	-	-	B	-	-	-	-	8	
17	TRANSFORMER 'T1'	800	3	-	A	-	3	800	TRANSFORMER 'T1'	9	
19	-	-	-	-	B	-	-	-	-	10	
21	-	-	-	-	C	-	-	-	-	11	
23	AC-1	125	3	-	A	-	3	125	AC-5	10	
25	-	-	-	-	B	-	-	-	-	11	
27	AC-2	30	3	-	A	-	3	25	AC-3	12	
29	-	-	-	-	B	-	-	-	-	13	
31	-	-	-	-	C	-	-	-	-	14	
33	NEW SWITCHBOARD 'SDP'	125	3	-	A	-	3	25	TRASH COMPACTOR	14	
35	-	-	-	-	B	-	-	-	-	15	
37	NEW ATS	400	3	-	A	-	3	400	-	16	
39	-	-	-	-	B	-	-	-			