

2A

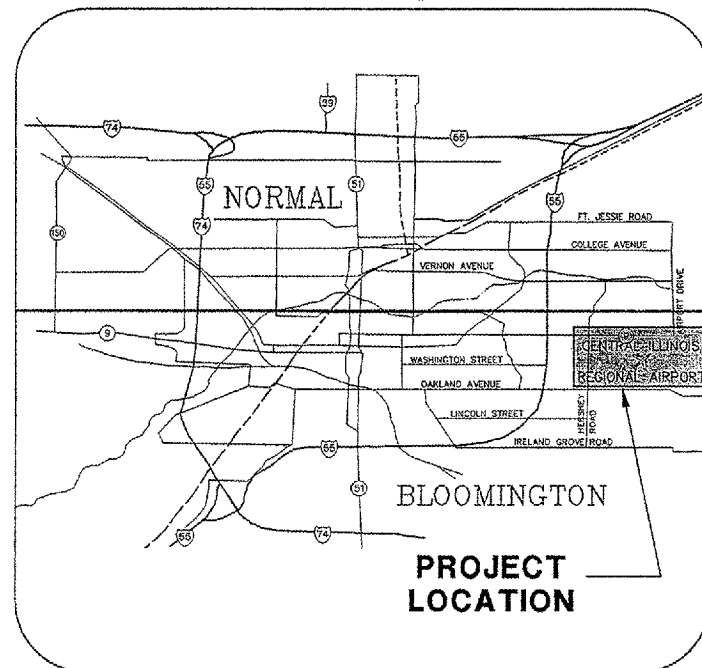
# CONSTRUCTION PLANS FOR CENTRAL ILLINOIS REGIONAL AIRPORT

## BLOOMINGTON-NORMAL AIRPORT AUTHORITY BLOOMINGTON, ILLINOIS

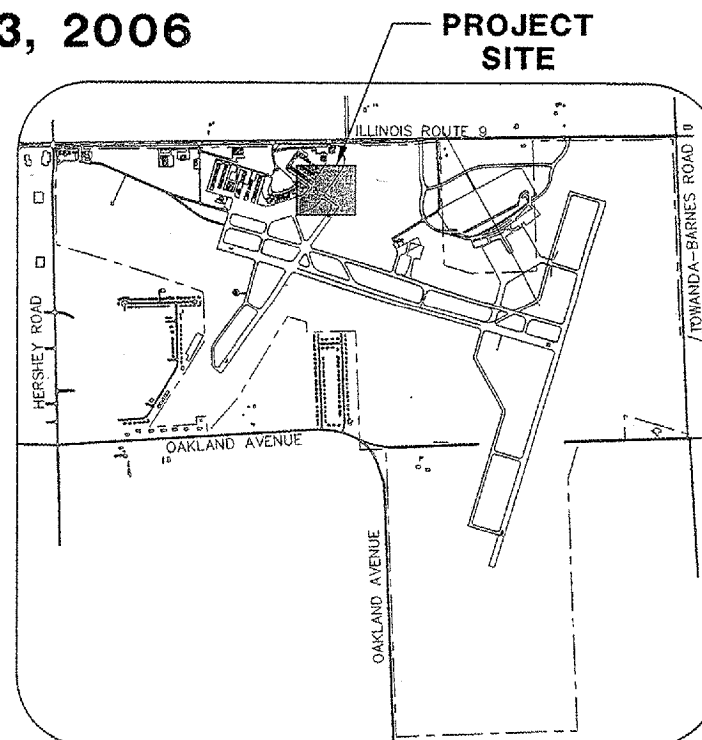
### ILLINOIS PROJECT BMI - 3451 A. I. P. PROJECT 3-17-0006-XX

## REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR

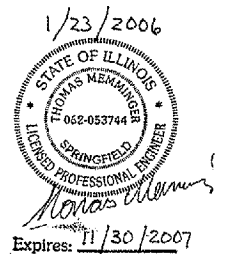
JANUARY 13, 2006



LOCATION MAP



SITE PLAN



BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
CENTRAL ILLINOIS REGIONAL AIRPORT  
BLOOMINGTON, ILLINOIS

APPROVED *[Signature]*  
EXECUTIVE DIRECTOR OF AVIATION

DATE \_\_\_\_\_

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SUBMITTED BY *[Signature]*  
DATE 1/23/2006

CMT JOB NUMBER 05085-06-00

CALL J.U.L.I.E.  
BEFORE EXCAVATING  
1-800-892-0123

TOWNSHIP: 23 NORTH  
RANGE: 3 EAST OF THE 4TH P.M.  
SECTION 5 & 6  
COUNTY: McLEAN  
CIVIL TOWNSHIP: OLD TOWN

**BL060**

K:\Bloomington\0508506\Draw\Sheets\  
FILE: 002\_INDEX.dwg  
UPDATE BY: dburris  
SURVEY BOOK #  
DATE: Thu 1/12/06 11:39am  
XREF DWG: CLNTINF.DWG

### SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	RECORDED QUANTITY
AR109928	REPLACE GENERATOR	L.S.	1	
AR800338	REPLACE FUEL SYSTEM	L.S.	1	
AR800342	REPLACE AUTOMATIC TRANSFER SWITCH	L.S.	1	
AR109200	INSTALL ELECTRICAL EQUIPMENT	L.S.	1	

### INDEX TO SHEETS

1. COVER SHEET
2. INDEX TO SHEETS/ SUMMARY OF QUANTITIES
2. AIRPORT SITE PLAN
3. ONE-LINE DIAGRAM
4. EXISTING LAYOUT
5. NEW LAYOUT
6. NEW NON-AIRFIELD LIGHTING PANEL
7. DETAILS
8. TOWER PANEL IMPROVMENTS
9. L-821 TOWER LIGHTING CONTROL PANEL PLC IMPROVEMENTS
10. ELECTRICAL VAULT PLC IMPROVEMNETS

#### REVISIONS

NUMBER	BY	DATE

0 1 2  
THIS BAR IS EQUAL TO 2"  
AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
CENTRAL ILLINOIS REGIONAL AIRPORT  
BLOOMINGTON, ILLINOIS

REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR

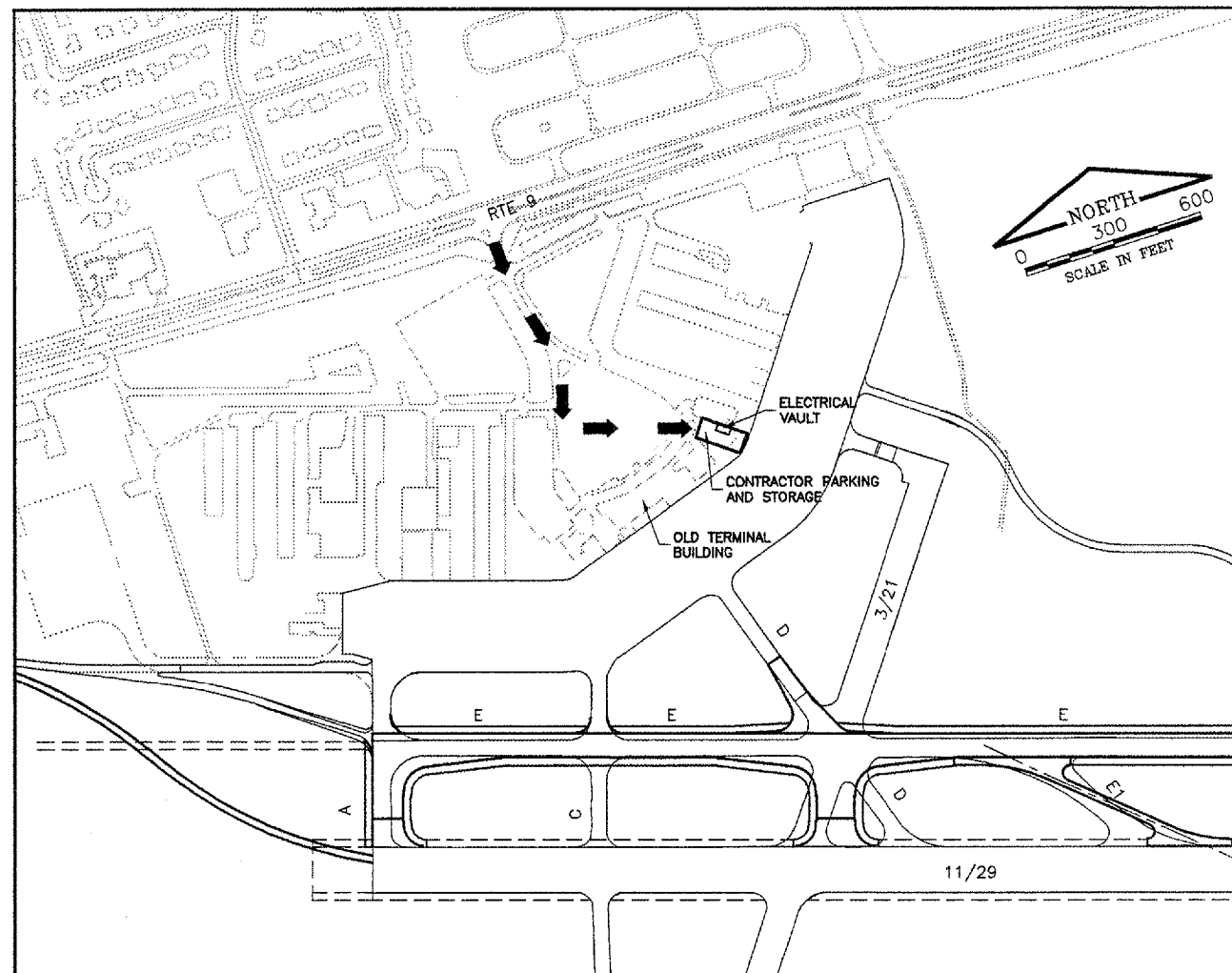
INDEX TO SHEETS /  
SUMMARY OF QUANTITIES

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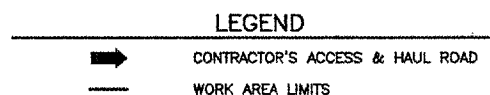
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DRAWN BY: CMT  
CHECKED BY: *YED*  
APPROVED BY: *TCW*  
DATE: 1/13/06  
JOB No: 05085-06-00

**GENERAL NOTES**

1. ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION.
2. ALL CONSTRUCTION TRAFFIC OPERATING ON APRONS OPEN TO AIRCRAFT SHALL BE UNDER CONTROL OF A FLAGMAN IN RADIO CONTACT WITH FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS.
3. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT DIRECTOR.
4. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN.
5. BROKEN CONCRETE SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY.
6. VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN AREAS 95' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 250' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
7. ALL PAVEMENTS, DRIVES, OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
8. EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE AIRPORT.
9. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN ALL CONSTRUCTION AREAS WHICH WILL BE OPENED TO AIR TRAFFIC.
10. IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS SO AS TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT AND TO THE OWNER OF THE UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE OWNER OF THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL MAINTAIN A SECURE AIRFIELD PERIMETER WITH EXISTING, TEMPORARY, RELOCATED OR PERMANENT 6' TALL FENCE THROUGHOUT THE DURATION OF THE PROJECT. COST OF ERECTION AND REMOVAL OF TEMPORARY FENCE WILL BE INCIDENTAL TO CONTRACT.
12. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
  - A) THE CONTRACTOR'S ACCESS TO THE WORK SHALL BE AS SHOWN IN THE PLANS.
  - B) THE CONTRACTOR SHALL COMPLETE A TEN YEAR CRIMINAL AND EMPLOYMENT BACKGROUND CHECK AND A SECURITY FORM FOR THE SUPERINTENDENTS AND SUPERVISING FOREMEN HE PROPOSES TO USE ON THE AIRPORT. THESE FORMS SHALL BE COMPLETED PRIOR TO THAT PERSON BEING ALLOWED ON THE AIRFIELD. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO THE RESIDENT ENGINEER BY THE CONTRACTOR.
  - C) THE CONTRACTOR SHALL USE AN EXISTING GATE(S) FOR ACCESS TO THE AIRFIELD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR THIS PADLOCK TO THE RESIDENT ENGINEER AND BNAA MAINTENANCE SUPERVISOR. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE RESIDENT ENGINEER.
  - D) THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. IF THE CONTRACTOR CHOOSES TO LEAVE THE GATE(S) OPEN, THEN HE SHALL POST A COMPETENT SECURITY GUARD TO PREVENT UNAUTHORIZED ENTRIES. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS IF SO DIRECTED.
  - E) THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL TRAFFIC CONTROL SIGNAGE REQUIRED BY THE CITY, COUNTY, TOWNSHIP, OR I.D.O.T..
  - F) DURING ADVERSE WEATHER THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK SITE.
  - G) THE CONTRACTOR WILL CLOSE AND LOCK THE ACCESS GATE(S) UPON LEAVING THE SITE.
  - H) ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - I) THE CONTRACTOR SHALL NOT STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS TO VIOLATE AIRSPACE SURFACES, OR RUNWAY AND TAXIWAY OBJECT FREE OR SAFETY AREAS.
  - J) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ACTIVE AIRFIELD PAVEMENTS WHICH ARE CROSSED BY HIS VEHICLES ACCESSING THE WORK OR DEPARTING THE WORK IMMEDIATELY FOLLOWING SAID VEHICLE.

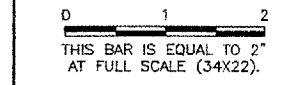


(PHASE 1)  
 MAXIMUM EQUIPMENT HEIGHT = 25'



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NUMBER	BY	DATE



**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR  
 AIRPORT SITE PLAN**

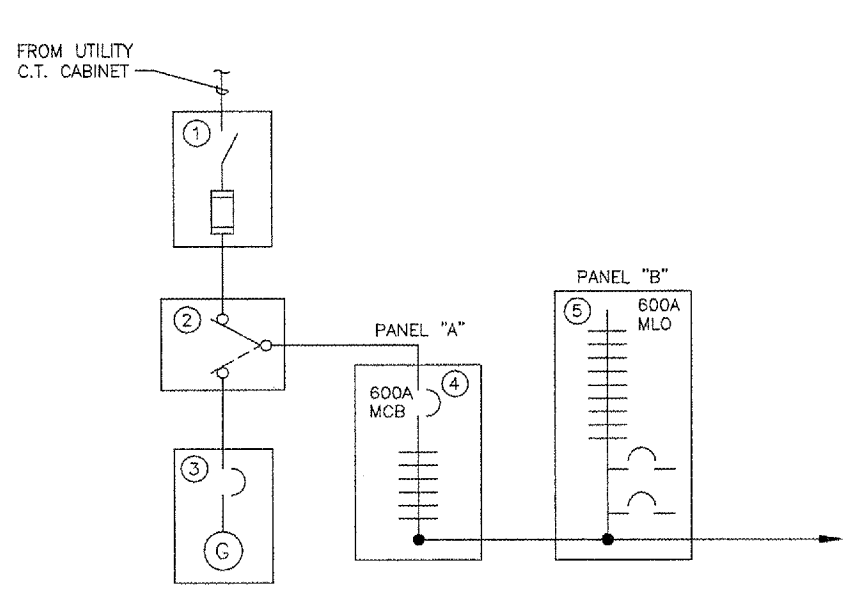
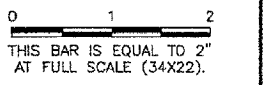
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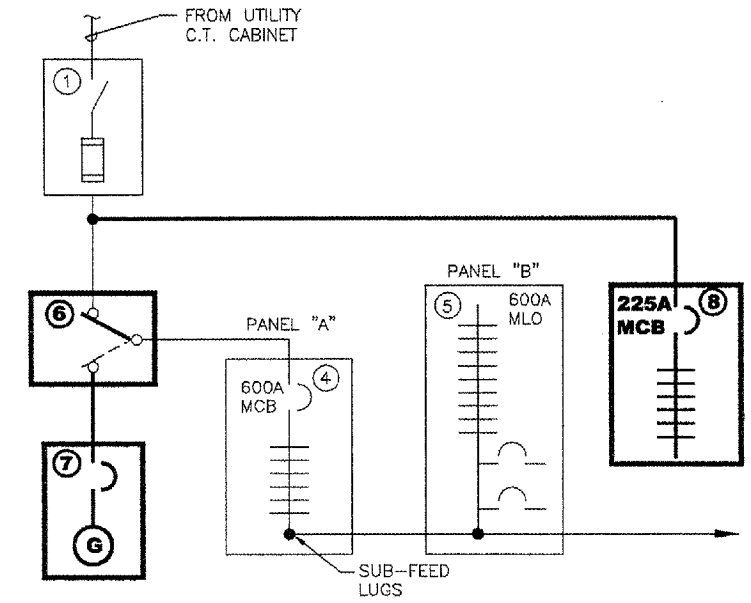
IMAGE FILES:

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NUMBER	BY	DATE



EXISTING ONE-LINE DIAGRAM



NEW ONE-LINE DIAGRAM

NOTES:

- ① EXISTING 600A MAIN FUSED DISCONNECT WITH CLASS "L" FUSES.
- ② EXISTING 600A AUTOMATIC TRANSFER SWITCH.
- ③ EXISTING STANDBY GENERATOR 150KW/188KVA WITH 600A MAIN CIRCUIT BREAKER.
- ④ EXISTING PANELBOARD "A", 600A MAIN C.B., 600A BUS INTERIOR.
- ⑤ EXISTING PANELBOARD "B", 600A M.L.O., 600A BUS INTERIOR.
- ⑥ **NEW 800A AUTOMATIC TRANSFER SWITCH.**
- ⑦ **NEW STANDBY GENERATOR 200 KW WITH 600A MAIN CIRCUIT BREAKER.**
- ⑧ **NEW PANELBOARD, 225A MAIN C.B. MAKE TAP CONNECTION IN THE NEW ATS**

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

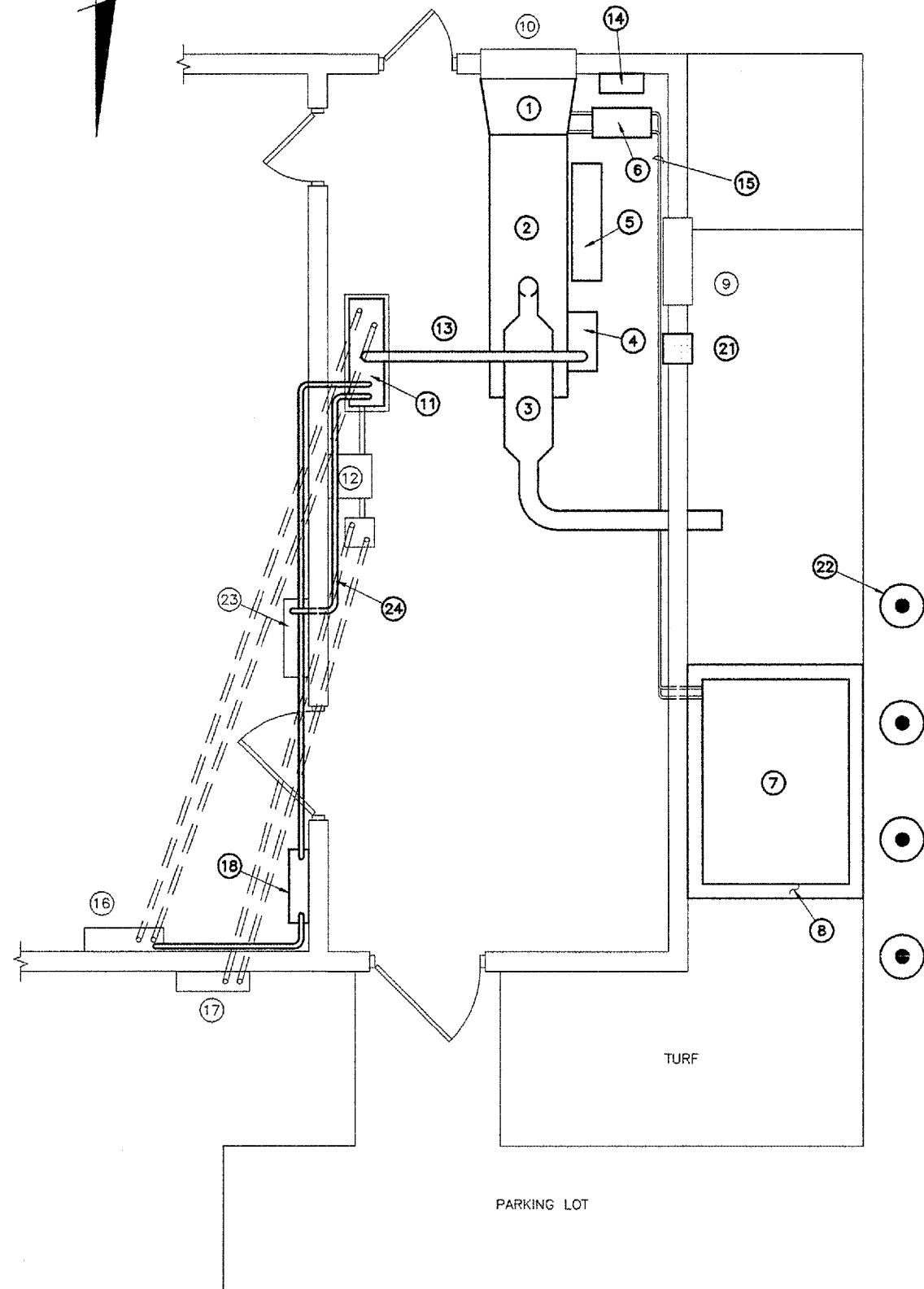
REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR

ONE-LINE DIAGRAMS

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**NEW LAYOUT**  
 3/8" = 1'-0"

**LEGEND**

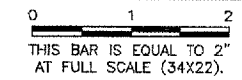
- ① NEW GENERATOR FAN SHROUD
- ② NEW 200 KW, 208V, 3PH, STANDBY GENERATOR
- ③ NEW CRITICAL GRADE SOUND ATTENUATING EXHAUST SILENCER, WITH THERMAL INSULATION
- ④ NEW 600A, 3P 240V MAIN CIRCUIT BREAKER, MOUNTED ON GENERATOR
- ⑤ NEW 24 VOLT LEAD-ACID GENERATOR START BATTERIES
- ⑥ NEW 50 GALLON DAY TANK
- ⑦ NEW 500 GALLON FUEL STORAGE TANK
- ⑧ NEW CONCRETE PAD FOR FUEL STORAGE TANK
- ⑨ EXISTING COMBINATION DAMPER/LOUVER - INLET
- ⑩ EXISTING COMBINATION DAMPER/LOUVER - OUTLET
- ⑪ NEW 800A, 208V, 3P ATS, ENLARGE HOUSEKEEPING PAD AS REQUIRED.
- ⑫ EXISTING 600A, 240V, 3P ENCLOSED DISCONNECT SWITCH
- ⑬ NEW 4" GR, 8-350 MCM CONNECTED AT GENSET CIRCUIT BREAKER WITH 2' OF 4" FMC.
- ⑭ NEW 24 VOLT BATTERY CHARGER
- ⑮ NEW, BLACK PIPE FUEL PLUMBING FROM EXT. FUEL STORAGE TANK TO DAYTANK AND GENSET, PER TANK MFR. REQUIREMENTS.
- ⑯ EXISTING MAIN 600A, 3P DISTRIBUTION PANEL. USE EXISTING CIRCUITS TO FEED NEW BATTERY CHARGER, DAY TANK, NEW AND EXISTING LOUVERS, WATER JACKET HEATERS AND OTHER ACCESSORIES AND CONTROLS AS NEEDED. ALL WIRING IN GRSC. CONTRACTOR MAY USE EXISTING CONDUIT WHERE PRACTICAL.
- ⑰ EXISTING UTILITY METERING
- ⑱ NEW 225A, 240V, 3P DISTRIBUTION PANEL, WITH TVSS SQUARE D NQOD OR EQUIVALENT
- ⑲ NEW 4-#6 AWG THHN COND. IN 2 1/2" GRSC
- ⑳ NEW 6 #10 AWG THHN COND. IN 1" GRSC
- ㉑ NEW 12"x63" DRAINABLE COMBINATION LOUVER, RUSKIN MODEL ELC6375DAX OR EQUIVALENT, W/ 120V OPERATOR
- ㉒ BOLLARD, TYPICAL OF 4, CENTER 16" FROM EDGE OF PAVEMENT, 48" BETWEEN CENTERS. SEE DETAIL SHEET. BOLLARDS ARE INCIDENTAL TO PAY ITEM AR800338 REPLACE FUEL SYSTEM.
- ㉓ EXISTING PLC CABINET
- ㉔ NEW 3 #12 AWG CONTROL CONDUCTORS, 6 #12 AWG SPARES IN 1" GRSC.

**NOTES**

- 1. PLUG AND SEAL ALL WALL OPENINGS CREATED BY EQUIPMENT REMOVALS. PAINT TO MATCH EXISTING

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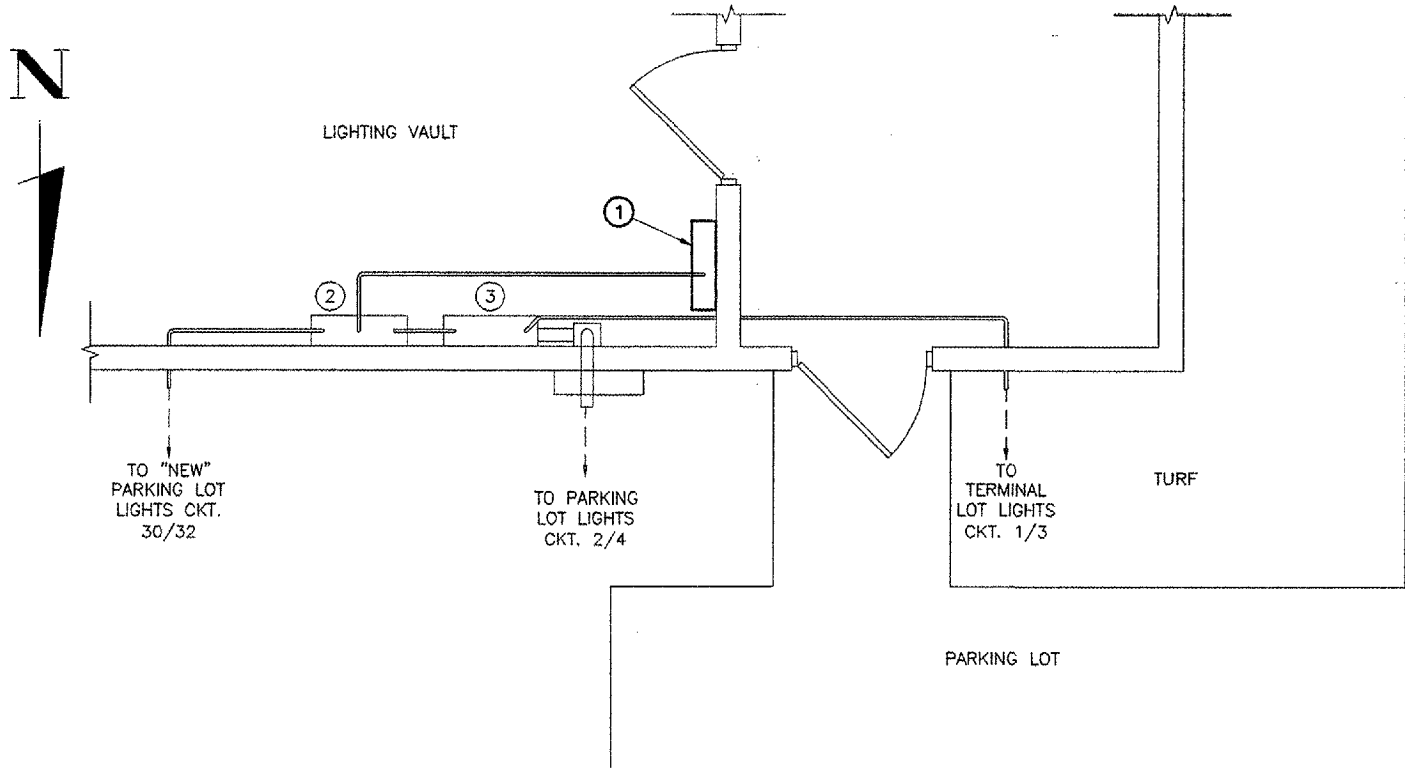
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**  
**REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR  
 NEW LAYOUT**

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DATE:	1/13/06
JOB No:	05085-06-00

**BL060**

K:\Projects\RegionAp\0508506\Draw\Sheets\FILE: 007\_Pr\_Vault & Sched.dwg  
 LAYOUT: Work  
 UPDATE BY: dburris  
 SURVEY BOOK #  
 DATE: Thu 1/12/06 1:14pm  
 XREF DWG: Vault\_plan.dwg  
 CLNTINF.DWG



REVISIONS		
NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2'  
 AT FULL SCALE (34X22).

**NEW LAYOUT**  
 3/8" = 1'-0"

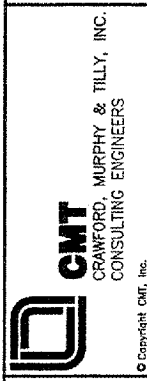
**LEGEND**

- ① NEW 225A, 208V, 3 PH., 4W, NEMA 1, PANEL NALP WITH 225A MCB, SQUARE D NQOD OR EQUIVALENT.
- ② EXISTING 600A SUB PANEL INTERCEPT CIRCUITS 1/3, 2/4 & 30/32 AT THIS PANEL AND FEED FROM NEW 225A PANEL ①. WIRE NEW CIRCUITS IN A 1" GRSC.
- ③ EXISTING 600A MAIN DISTRIBUTION PANEL.

PANEL SCHEDULE																	
PANEL DESIGNATION:		NALP		BOND NEUTRAL AND GROUND BAR:NO						TYPE:		Square D NQOD		42			
LOCATION:		Airfield Lighting Vault		SHORT CIRCUIT RATING: 10,000 A						POLE:							
VOLTS: 208Y / 120				WIRE: 4				AMPS: 225									
PHASE: THREE				MOUNTING: Surface				MAIN CIRCUIT BREAKER: 225A									
CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS (USAGE)			POLE NO.	PHASE AMPS (USAGE)			USAGE FACTOR	LOAD AMPS	BREAKER SIZE	LOAD	CKT NO.	
					A	B	C		A	B	C						
1	TERMINAL LOT LIGHTS	30A-2P	24	1	24			1	2	0				20A-1P	SPARE	2	
3			24	1	24			3	4	0				20A-1P	SPARE	4	
5	PARKING LOT LIGHTS	30A-2P	24	1	24		24	5	6		0			20A-1P	SPARE	6	
7			24	1	24			7	8	0						8	
9	"NEW" PARKING LOT LIGHTS	20A-2P	16	1		16		9	10		0					10	
11			16	1		16		11	12		0					12	
13					0			13	14	0						14	
15					0			15	16	0						16	
17					0			17	18	0						18	
19					0			19	20	0						20	
21					0			21	22	0						22	
23					0			23	24	0						24	
25					0			25	26	0						26	
27					0			27	28	0						28	
29					0			29	30	0						30	
SECTION TOTAL:					48	40	40		0	0	0						
MIN. MAIN CIRCUIT BREAKER CAPACITY:					67			PHASE TOTAL AMPS:			48	40	40	TOTAL USAGE LOAD:			15360 VA
					PHASE TOTAL VA:			5760	4800	4800	MIN. XFMR VA:			18200 VA			

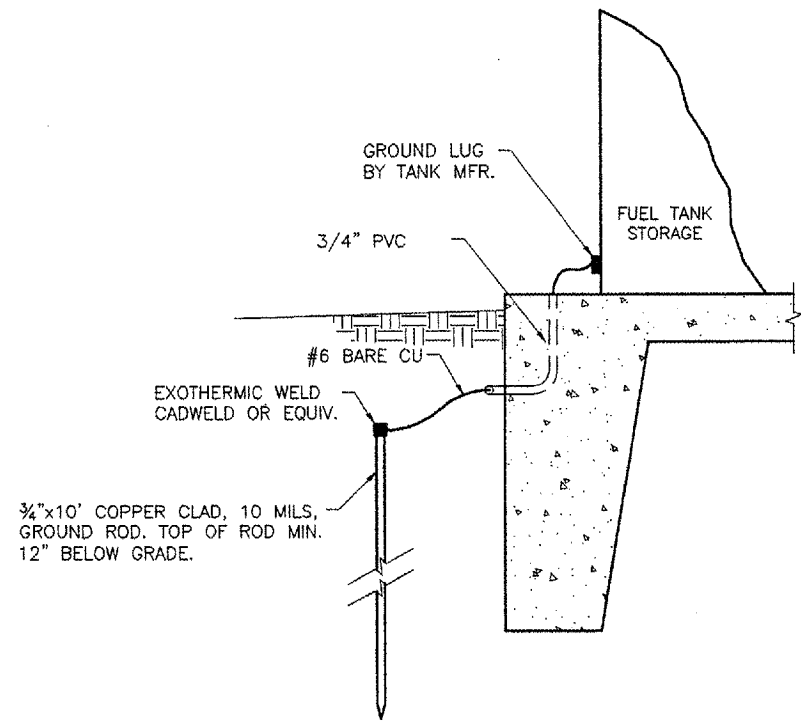
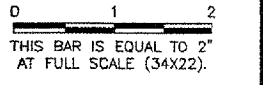
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR  
 NEW NON-AIRFIELD LIGHTING PANEL



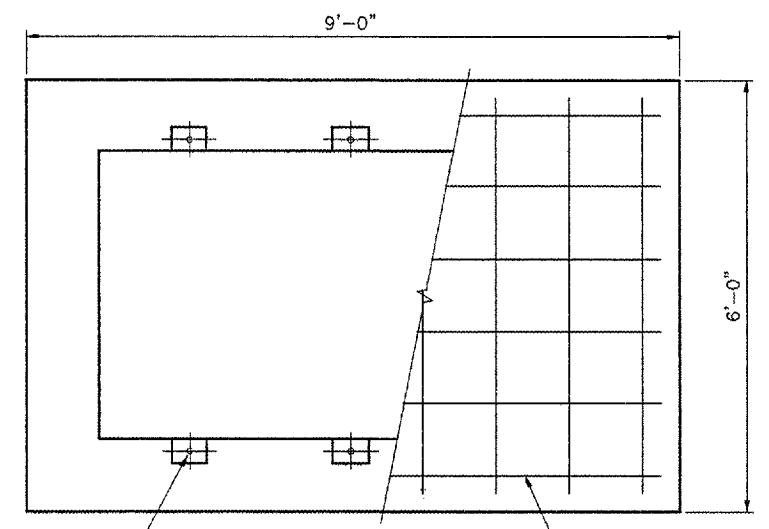
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 APPROVED BY: RLW  
 DATE: 1/13/06  
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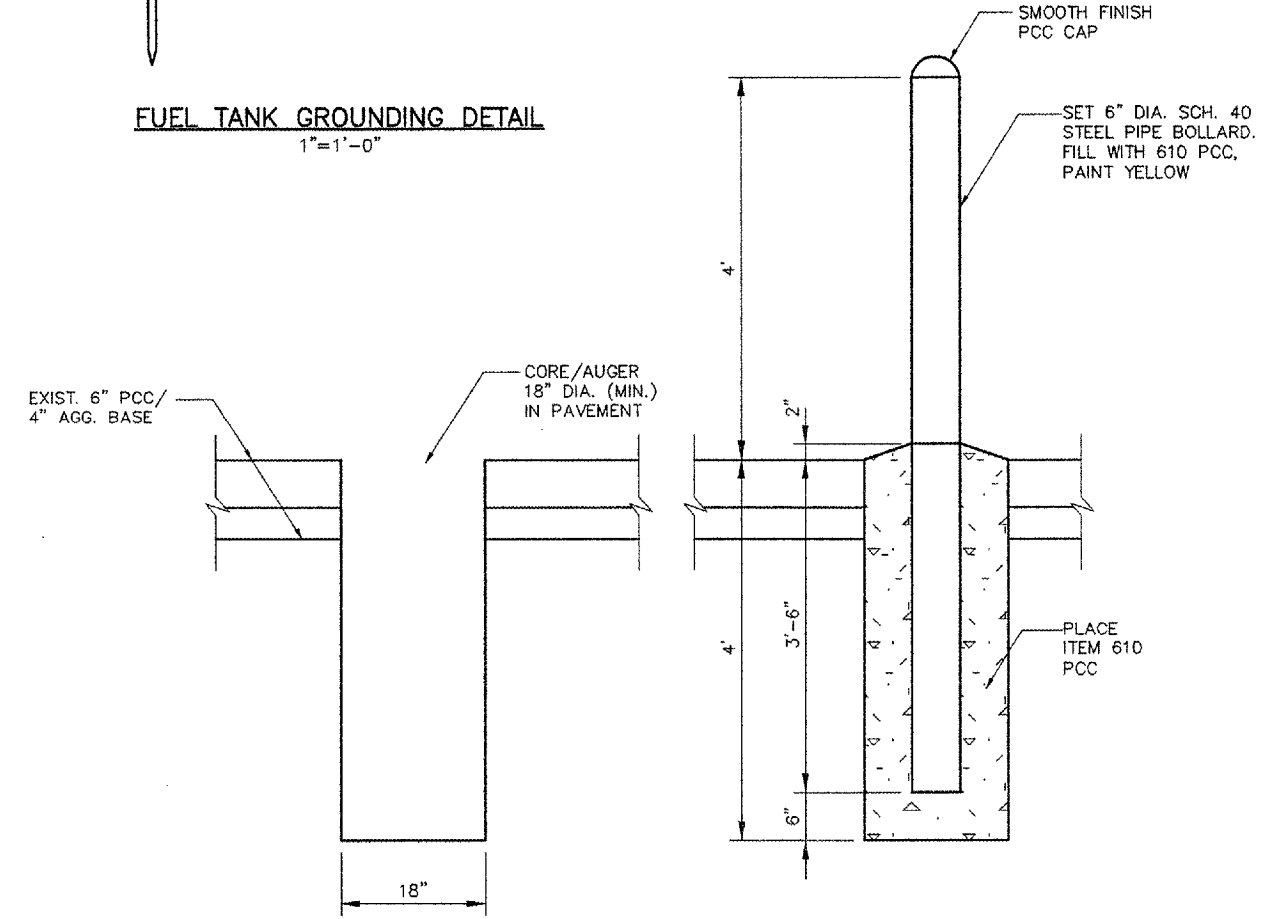
**FUEL TANK GROUNDING DETAIL**  
 1"=1'-0"

**NOTES:**  
 VERIFY SLAB SIZE WITH TANK DRAWING PRIOR TO CONSTRUCTION.  
 CONCRETE SLAB SHALL BE SET TRUE AND LEVEL.  
 CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 3500 PSI. AT 14 DAYS.

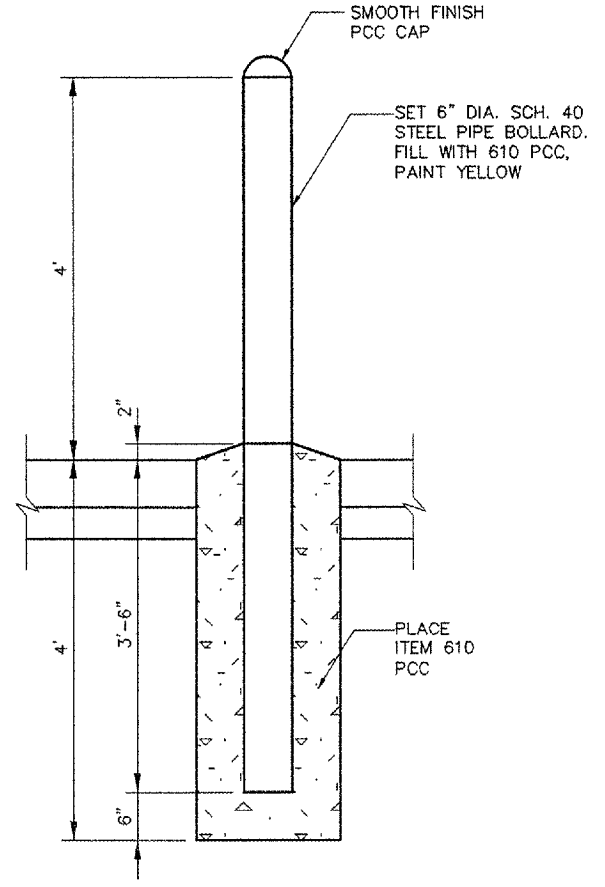


3/4" DIA. ANCHOR BOLTS (TYPICAL)  
 #4 REBAR @ 12" EA. WAY IN CENTER OF 6" THICK CONCRETE SLAB

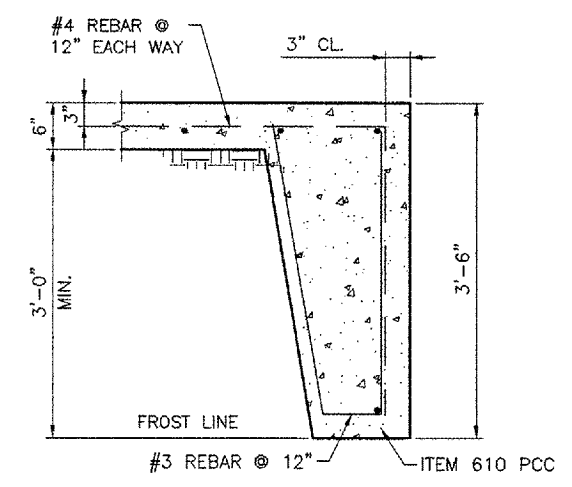
**FOUNDATION PLAN**  
 3/4"=1'-0"



**STEP 1**  
**BOLLARD INSTALLATION DETAIL**  
 N.T.S.



**STEP 2**  
**NOTE:** PROPOSED BOLLARDS WILL BE FIELD LOCATED



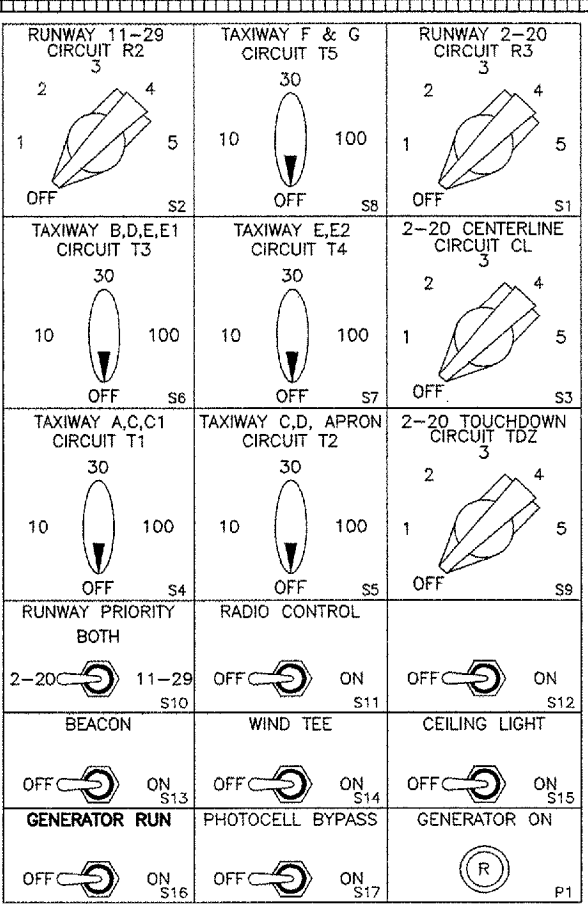
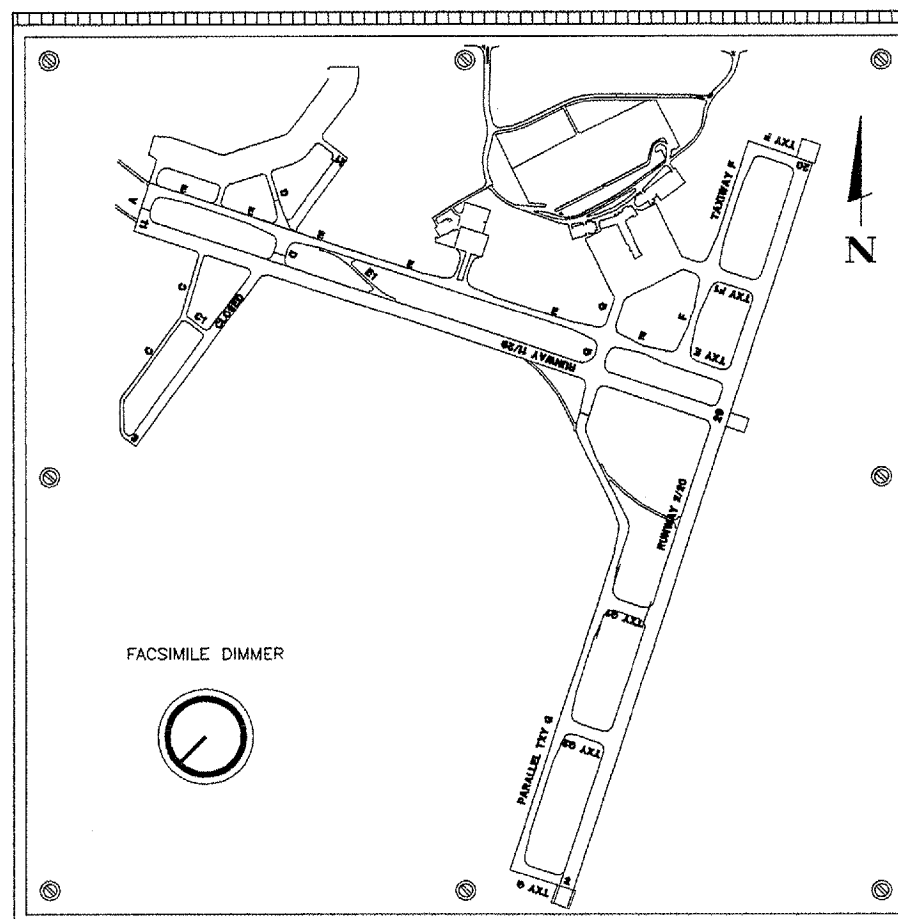
**TYPICAL ELEVATION**  
 1"=1'-0"

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR**  
**DETAILS**

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**TB-1**

120 VAC	CC1 6-1	1	S2-21	R2
120 VAC	CC1 6-2	2	S1-21	R3
120 VAC	CC1 6-3	3	S4-5	T1
120 VAC	CC1 6-4	4	S5-5	T2
120 VAC	CC1 6-5	5	S3-5	TDZ
120 VAC	CC1 6-6	6	S7-5	T4
120 VAC	CC1 6-7	7	S6-5	T3
120 VAC	CC1 6-8	8	S8-5	T5
120 VAC	Y 6-9	9	S10-4	2-20
120 VAC	PUR 6-10	10	S10-6	11-29
120 VAC	ORG 6-11	11	S10-3	BOTH
120 VAC	BRN 6-12	12	S10-2	PRIORITY
120 VAC	CC1 6-13	13	S9-5	CL
		14		
		15		

**TB-3**

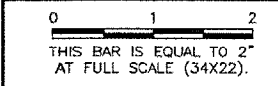
P1-X	1	PL1	GENERATOR
P1-Y	2	PL2	GENERATOR
S17-A	3	PC1	P.C. BYPASS
S15-A	4	CL1	CEILING LT
S14-A	5	WT1	WIND T
S13-A	6	B1	BEACON
S17-B	7	PC2	P.C. BYPASS
S15-B	8	CL2	CEILING LT
S14-B	9	WT2	WIND T
S13-B	10	B1	BEACON
S16-A	11	GR1	GENERATOR RUN
S16-B	12	GR2	GENERATOR RUN
	13		
	14		
	15		

**TB-2**

S2-17	1	B5	1-B5	R2
S2-16	2	B4	1-B4	
S2-15	3	B3	1-B3	
S2-14	4	B2	1-B2	
S2-13	5	B1	1-B1	
	6			
	7			
S1-17	8	B5	2-B5	R3
S1-16	9	B4	2-B4	
S1-15	10	B3	2-B3	
S1-14	11	B2	2-B2	
S1-13	12	B1	2-B1	
	13			
	14			
S4-4	15	B100	3-100	T1
S4-3	16	B30	3-30	
S4-2	17	B10	3-10	
	18			
	19			
S5-4	20	B100	4-100	T2
S5-3	21	B30	4-30	
S5-2	22	B10	4-10	
	23			
	24			
	25			
S3-17	26	B5	5-B5	TDZ
S3-16	27	B4	5-B4	
S3-15	28	B3	5-B3	
S3-14	29	B2	5-B2	
S3-13	30	B1	5-B1	
	31			
S7-4	32	B100	6-100	T4
S7-3	33	B30	6-30	
S7-2	34	B10	6-10	
	35			
	36			
	37			
S6-4	38	B100	7-100	T3
S6-3	39	B30	7-30	
S6-2	40	B10	7-10	
	41			
	42			
	43			
S8-4	44	B100	8-100	T5
S8-3	45	B30	8-30	
S8-2	46	B10	8-10	
	47			
S9-17	48	B5	9-B5	CL
S9-16	49	B4	9-B4	
S9-15	50	B3	9-B3	
S9-14	51	B2	9-B2	
S9-13	52	B1	9-B1	
	53			
	54			
	55			
	56			
	57			
S12-A	58	SPARE		
S12-B	59	SPARE		
S11-A	60	RS-1	RADIO CTRL	
S11-B	61	RS-2	RADIO CTRL	
120VAC	62	120V	+	
NEUTRAL	63	N	N	
	64			
	65			

REVISIONS

NUMBER	BY	DATE



**L-821, TYPE II, CLASS F, STYLE 2, MODE 1  
 TOWER PANEL LAYOUT**  
 N.T.S.

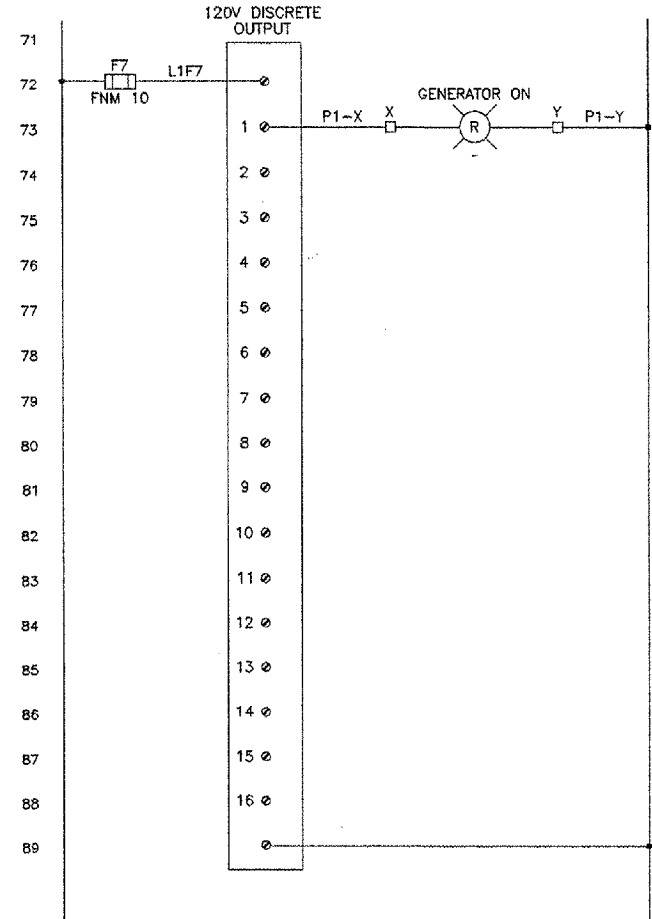
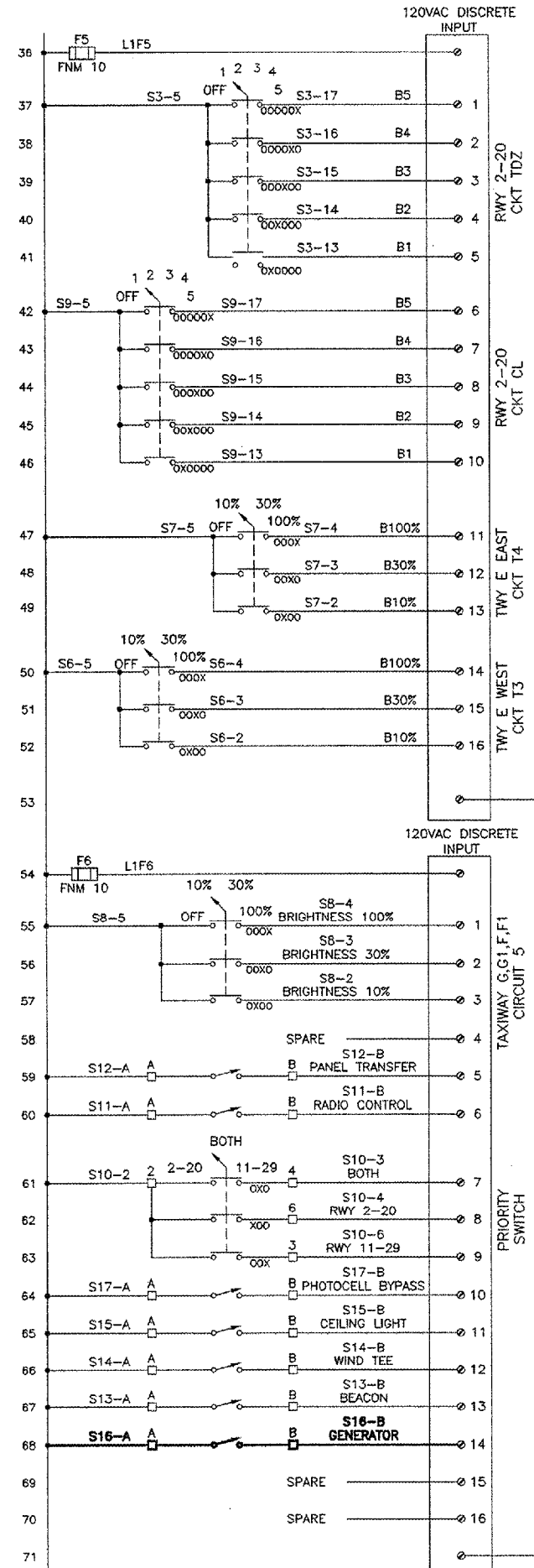
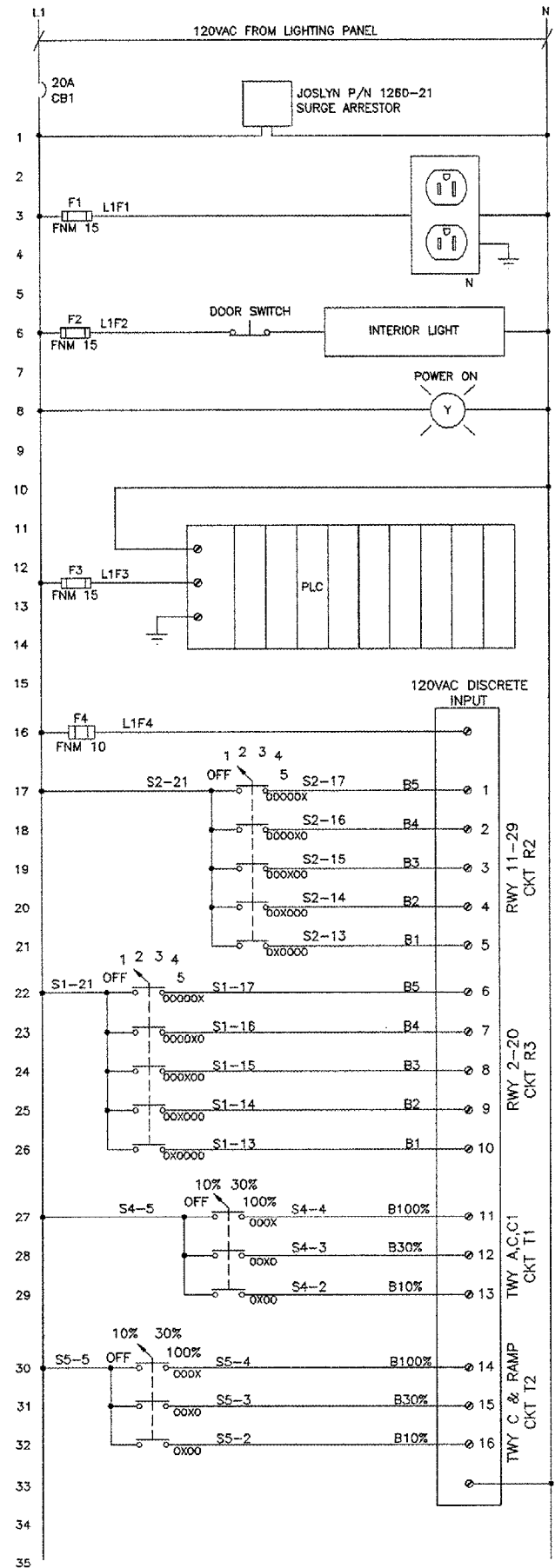
- NOTES:
1. REPLACE FACSIMILE PANEL WITH NEW FACSIMILE PANEL REFLECTING CURRENT AIRPORT LAYOUT. ARTWORK TO BE PROVIDED BY ENGINEER.
  2. PANEL TYPE, CLASS, STYLE & MODE ARE PER AC 150/5345-3E (9-1-98)
  3. PANEL TERMINALS AND COMPONENTS ARE NUMBERED USING SYSTEM INCORPORATED IN EXISTING L-821 PANEL.
  4. THE EXISTING L-821 CONTROL PANEL WAS MANUFACTURED BY:  
 UNIVERSE, INC.  
 1833 WEST HOVEY AVE.  
 NORMAL, IL 61761-4315  
 (309) 454-5665
  5. REPLACE NAMEPLATE FOR SWITCH S16 ON L-821 PANEL LABEL AS INDICATED.

**L-821, TYPE II, CLASS F, STYLE 2, MODE 1  
 TOWER PANEL TERMINAL BLOCK LAYOUT**

**REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR  
 TOWER PANEL IMPROVEMENTS**

**CMT**  
 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 © Copyright CMT, Inc.

DESIGN BY:	TM
DRAWN BY:	DLB
CHECKED BY:	JET
APPROVED BY:	RLW
DATE:	1/13/06
JOB No:	05085-06-00



KEYED NOTES:

① WIRE SPARE SWITCH S16 TO DISCRETE INPUT ON PLC.

NOTES:

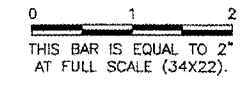
1.) THE PROPOSED WORK OR ITEMS BEING MODIFIED ARE SHOWN IN BOLD. ALL OTHER ITEMS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.

2.) CONTROL TOWER AND ELECTRICAL VAULT PLC'S MUST BE RECONFIGURED TO REFLECT THESE CHANGES.

3.) PROVIDE PLC PROGRAMMING NECESSARY TO IMPLEMENT THE CONTROL SYSTEM CHANGES AND ADDITIONS. BACK-UP EXISTING PLC LOGIC BEFORE MAKING ANY MODIFICATIONS TO SYSTEM LOGIC

REVISIONS

NUMBER	BY	DATE



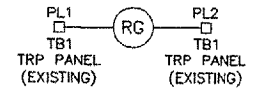
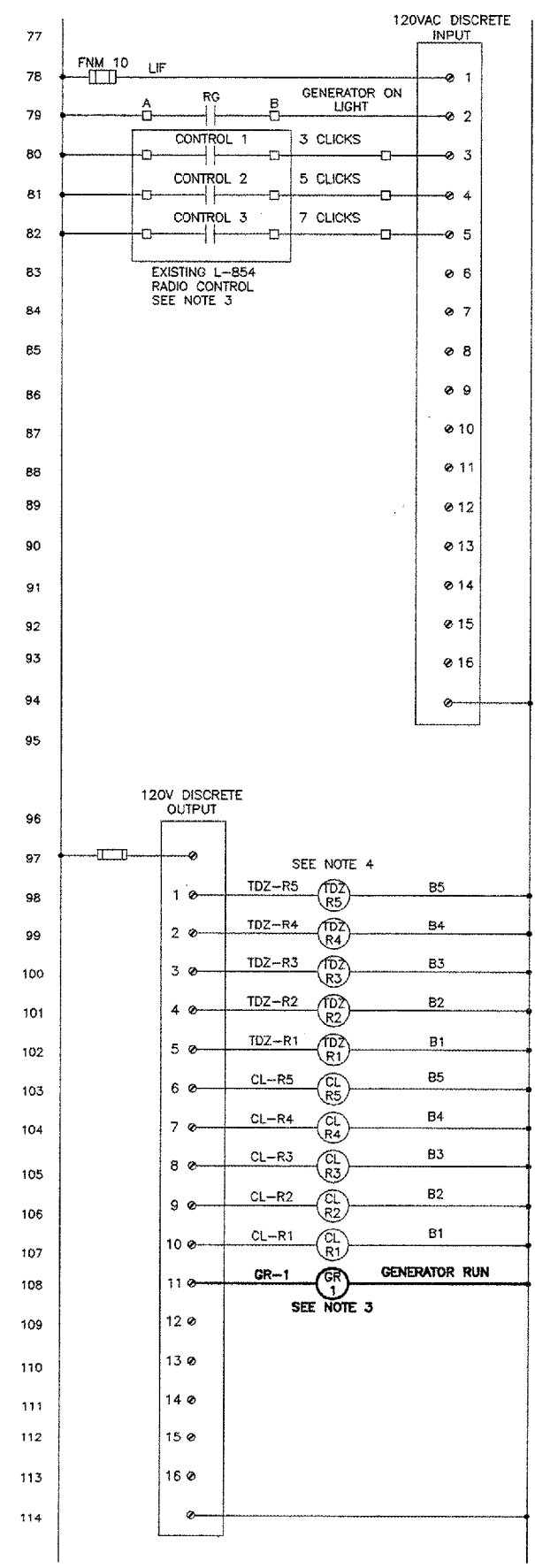
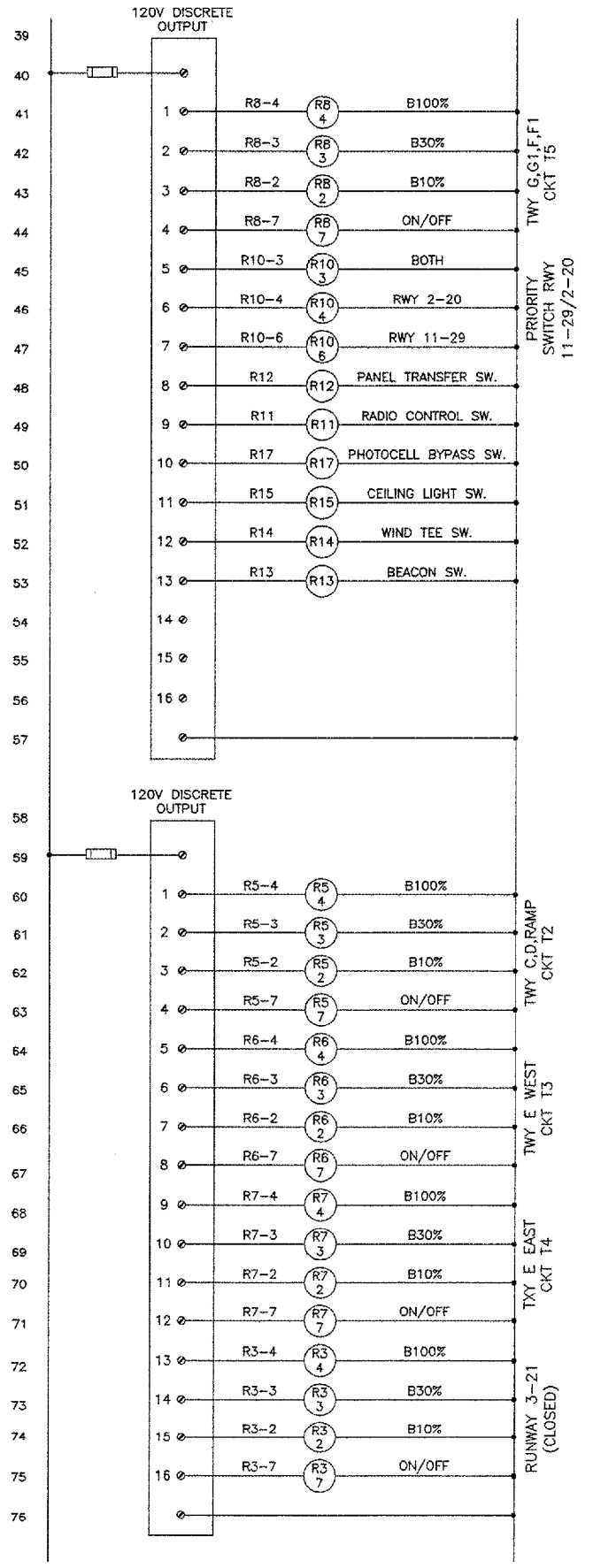
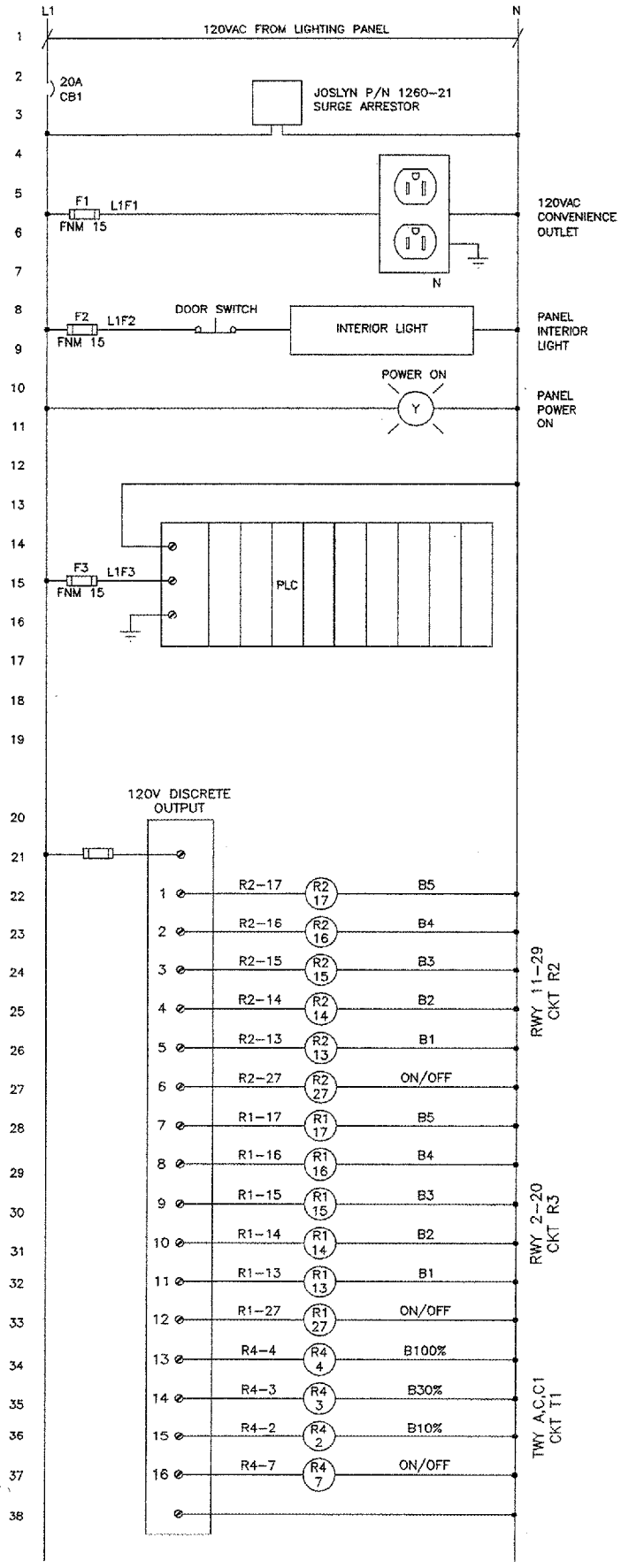
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR  
 L-821 TOWER LIGHTING CONTROL PANEL  
 PLC-IMPROVEMENTS**

**CMT**  
 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS

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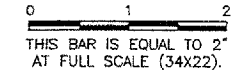
DESIGN BY:	TM
DRAWN BY:	DLB
CHECKED BY:	<i>[Signature]</i>
APPROVED BY:	<i>[Signature]</i>
DATE:	1/13/06
JOB No:	05085-06-00



NOTES:

- 1. THE PROPOSED WORK OR ITEMS BEING MODIFIED ARE SHOWN IN BOLD. ALL OTHER ITEMS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.
2. PROVIDE PLC PROGRAMMING NECESSARY TO IMPLEMENT THE CONTROL SYSTEM CHANGES AND ADDITIONS. BACK-UP EXISTING PLC LOGIC BEFORE MAKING ANY MODIFICATIONS TO SYSTEM LOGIC.
3. IDEC SINGLE POLE RELAY, MODEL RH1B-U WITH SHIB-05C DIN SNAP MOUNT SOCKETS. WIRE NORMALLY OPEN CONTACTS TO GENERATOR START IN ATS. UPON CONTACT CLOSURE ATS SHALL INITIATE GENSET STARTUP AND TRANSFER LOAD TO "EMERGENCY" UNTIL CONTACT OPENS OR GENERATOR FAILS, AT WHICH TIME ATS SHALL TRANSFER TO "NORMAL".

Table with 3 columns: NUMBER, BY, DATE. Title: REVISIONS



BLOOMINGTON-NORMAL AIRPORT AUTHORITY
CENTRAL ILLINOIS REGIONAL AIRPORT
BLOOMINGTON, ILLINOIS

REPLACE AIRFIELD LIGHTING VAULT STANDBY GENERATOR
ELECTRICAL VAULT PLC IMPROVEMENTS



Table with 2 columns: FIELD, VALUE. Fields include DESIGN BY, DRAWN BY, CHECKED BY, APPROVED BY, DATE, JOB No.