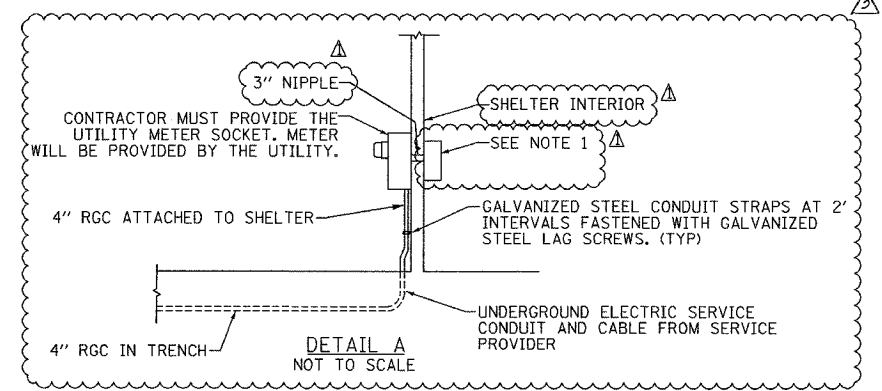
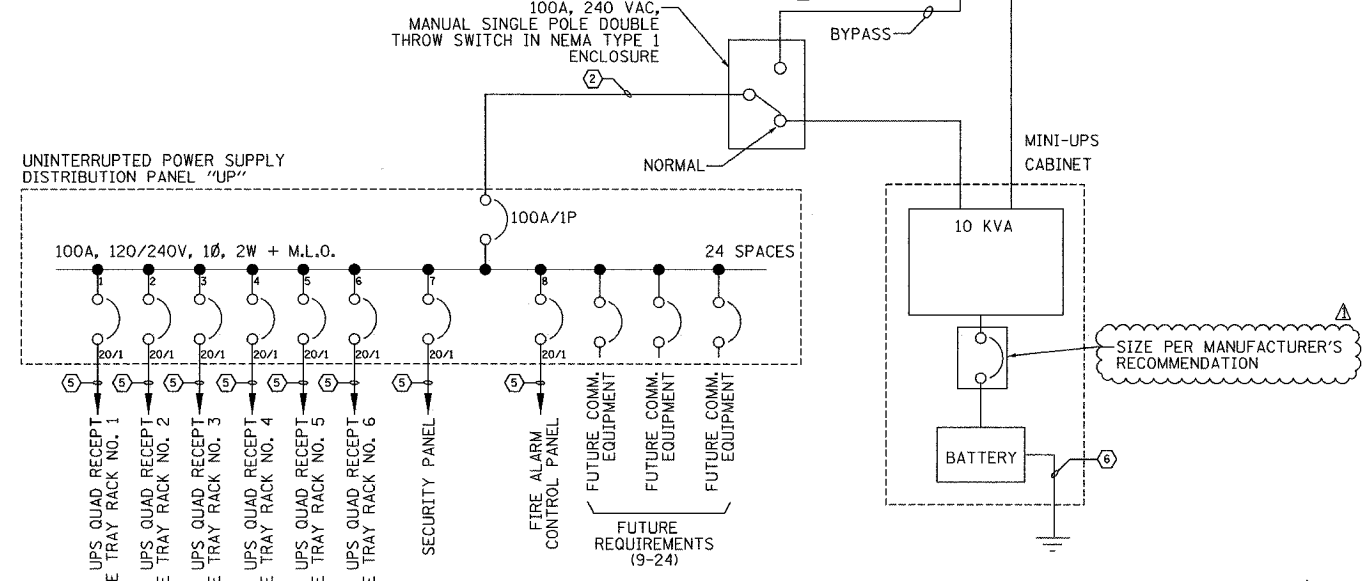
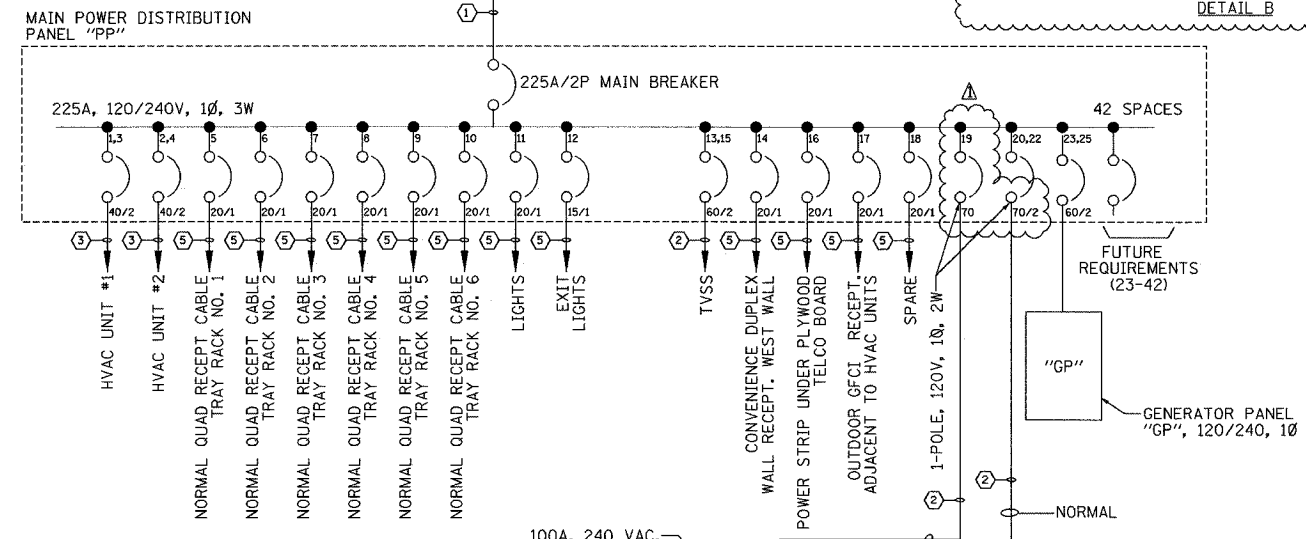
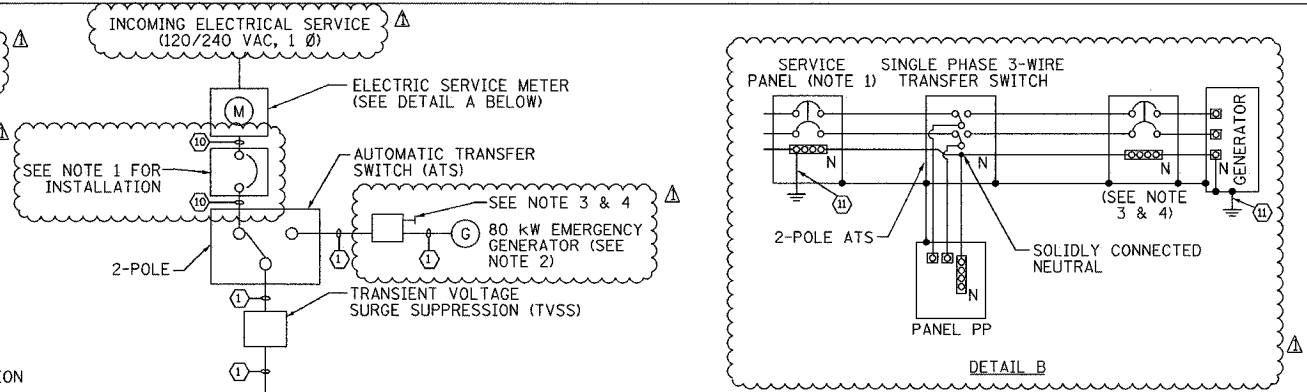


- (1) (2) #4/0, (1) #4/0 NEUTRAL & (1) #2 GND, 3" C
- (2) (1) #3, (1) #3 NEUTRAL, & (1) #8 GND, 1" C
- (3) (2) #8 & (1) #10 GND, 3/4" C
- (4) (2) #10 & (1) #12 GND, 3/4" C
- (5) (2) #12 & (1) #12 GND, 3/4" C
- (6) #6 GND WIRE, 3/4" C
- (7) #4/0, BARE COPPER GROUND
- (8) QUANTITY & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION, 3/4" RGS
- (9) #8 BARE COPPER GROUND
- (10) (3) #4/0, 3" C
- (11) (1) #2 GND, 1" C



### PANEL CIRCUIT AND LOAD SCHEDULE

WIRE SIZE: #3/0

SERVICE: 120/240VAC, 1Ø, 3W

DESIGNATION: IDOT-SHELTER NORMAL POWER (PP)

LOCATION: EAST SHELTER (R03)

LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(KVA)		TRIP	POLES	WIRE SIZE	LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(W)	
			A	B							A	B
HVAC UNIT 1 (36K BTU)	1	10300	5150	5150	40	2	HVAC UNIT 2 (36K BTU)	1	10300	5150	5150	
NORMAL QUAD RECEPTACLE - RACK 1	1	900	900	900	20	1	NORMAL QUAD RECEPTACLE - RACK 2	1	900	900	900	
NORMAL QUAD RECEPTACLE - RACK 3	1	900	900	900	20	1	NORMAL QUAD RECEPTACLE - RACK 4	1	900	900	900	
NORMAL QUAD RECEPTACLE - RACK 5	1	900	900	900	20	1	NORMAL QUAD RECEPTACLE - RACK 6	1	900	900	900	
LIGHTS	8	50	400	400	20	1	EXIT LIGHT	1	35	35	35	
TVSS	1	N/A	—	—	60	2	DUPLEX RECEPTACLE	5	180	180	180	
OUTDOOR GFCI RECEPTACLE	1	180	180	180	20	1	RECEPTACLE- POWER STRIP	5	180	180	180	
UPS BYPASS (LOAD NOT INCLUDED IN TOTALS)	1	10000	—	—	70	1	SPARE	1	—	—	—	
GENERATOR PANEL "GP"	1	—	—	—	60	2	UPS INPUT (10 KVA)	1	10000	10000	10000	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
<b>SUBTOTAL LEFT</b>			<b>1980</b>	<b>6450</b>			<b>SUBTOTAL RIGHT</b>				<b>27,265</b>	
VOLTAGE: 120/240V	CYCLE: 60 HZ	PHASE: 1	WIRES: 3									
SOLID NEUTRAL: 225 AMP												
MAIN BREAKER: 225 AMP FRAME 225 AMP TRIP												
MAIN LUGS: - AMPS MAIN COPPER BUS: 225 AMPS												
MAINS: TOP <input checked="" type="checkbox"/> BOTTOM <input type="checkbox"/>												

### PANEL CIRCUIT AND LOAD SCHEDULE

WIRE SIZE: #2

SERVICE: 120/VAC, 1Ø

DESIGNATION: IDOT-SHELTER UPS POWER (UP)

LOCATION: EAST SHELTER (R03)

LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(KVA)		TRIP	POLES	WIRE SIZE	LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(W)	
			A	B							A	B
UPS QUAD RECEPTACLE - CAB 1	1	900	900	900	20	1	UPS QUAD RECEPTACLE - CAB 2	1	900	900	900	
UPS QUAD RECEPTACLE - CAB 3	1	900	900	900	20	1	UPS QUAD RECEPTACLE - CAB 4	1	900	900	900	
UPS QUAD RECEPTACLE - CAB 5	1	900	900	900	20	1	UPS QUAD RECEPTACLE - CAB 6	1	900	900	900	
SECURITY PANEL	1	260	260	260	20	1	FIRE/ALARM CONTROL PANEL	1	260	260	260	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
SPARE	1	—	—	—	20	1	SPARE	1	—	—	—	
<b>SUBTOTAL LEFT</b>			<b>1800</b>	<b>1180</b>			<b>SUBTOTAL RIGHT</b>				<b>5,920</b>	
VOLTAGE: 120/240V	CYCLE: 60 HZ	PHASE: 1	WIRES: 2									
SOLID NEUTRAL: 100 AMP												
MAIN BREAKER: 100 AMP FRAME 100 AMP TRIP												
MAIN LUGS: - AMPS MAIN COPPER BUS: 100 AMPS												
MAINS: TOP <input checked="" type="checkbox"/> BOTTOM <input type="checkbox"/>												

- NOTES:**
- INSTALL NEW 225 AMP MAIN CIRCUIT BREAKER DISCONNECT SWITCH WITH NEUTRAL AND GROUND BUS IN NEMA 1 ENCLOSURE.
  - PACKAGED STANDBY GENERATOR AND TRANSFER SWITCH, INSTALLATION ONLY.
  - INSTALL NEW 225 AMP CIRCUIT BREAKER DISCONNECT SWITCH WITH NEUTRAL AND GROUND BUS IN NEMA TYPE 3R ENCLOSURE.
  - MOUNT NEMA 3R DISCONNECT SWITCH TO STRUCTURAL FRAME OF GENERATOR. NOTE: DESIGNATED WORK SHALL BE PAID FOR AS PART OF COMMUNICATION SHELTER.
  - ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
  - ALL WIRE SHALL BE TYPE THWN UNLESS OTHERWISE NOTED.

**COMM-77**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
31st STREET to I-57

**EAST SHELTER (R03)**  
**POWER SINGLE LINE DIAGRAM**

SCALE: NOT TO SCALE      DRAWN BY: JM  
DATE: October 29, 2004      CHECKED BY: CS