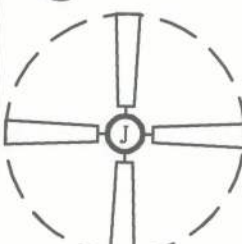


SYMBOL LEGEND

	SPST SWITCH MTD. 48" A.F.F.		DOORBELL CHIMES
	3 WAY SWITCH MTD 48" A.F.F.		TELEPHONE OUTLET MTD 15" A.F.F. UNLESS OTHERWISE NOTED
	4 WAY SWITCH MTD 48" A.F.F.		COMPUTER OUTLET CAT-5 MTD 15" A.F.F. UNLESS OTHERWISE NOTED
	DIMMING SWITCH MTD 48" A.F.F.		JUNCTION BOX
	PUSH BUTTON SWITCH MTD 48" A.F.F.		TELEVISION OUTLET
	DUPLEX RECEPTACLE MTD 15" A.F.F.		LIGHT FIXTURE CLG. SURFACE MTD
	DUPLEX RECEPTACLE MTD ABV CNTR		LIGHT FIXTURE CEILING MTD 6" RECESSED CAN TYPE
	DUPLEX RECEPTACLE MTD ABV CNTR GFCI PROTECTION		LIGHT FIXTURE CEILING MTD 3" RECESSED CAN TYPE PIN SPOT
	DUPLEX RECEPTACLE MTD AS REQ. SPECIAL PURPOSE AS NOTED		THERMOSTAT - MNT 48" AFF
	DUPLEX RECEPTACLE MTD 15" A.F.F. AFCI PROTECTION		LIGHT FIXTURE CEILING MTD WATER RESISTANT
	DUPLEX RECEPTACLE MTD AS NOTED GFCI PROTECTION		LIGHT FIXTURE WALL BRACKET MTD
	DUPLEX RECEPTACLE MTD 15" A.F.F. BOTTOM OUTLET SWITCHED		EXTERIOR FLOOD LIGHT FIXTURE SURFACE MTD
	DUPLEX RECEPTACLE MTD 15" A.F.F. EXTERIOR WATER RESISTANT		EXHAUST FAN CEILING MTD
	240V EQUIPMENT RECEPTACLE		SMOKE DETECTOR - 110 V.
	30 AMP 240V DRYER RECEPTACLE		ELECTRICAL PANEL 'H'
	CEILING MOUNTED FAN W/ OPTIONAL LIGHT & 2 SWITCH CONTROL		ELECTRICAL METER AS PER FP&L
			DISCONNECT SWITCH
			12x48 FLOURESCENT LIGHT FIXTURE CLG SURFACE MTD 2 - 40 W COOL WHITE

ELECTRICAL RISER

The diagram illustrates the electrical riser assembly. It begins with a 'METER' and '400 AMP CAP' connected to 'ELECT. PANEL 'B''. This panel is rated for '100 A', '1Ø & 3W', and 'MCB-WP'. The riser then passes through a 'BRKR DISC' rated for '200 A', '1Ø & 3W'. The final stage is 'ELECT. PANEL 'A'', also rated for '200 A', '1Ø & 3W', and 'MLO'. The riser is constructed from '3 - #3 THW-CU' and 'IN 1 1/4" RIGID METAL COND'. A '4 TW-CU GRND' is run 'TO 2- 5/8"Ø x 10' GROUND RODS, COLD WATER PIPE & FOUNDATION STEEL'. The riser terminates in an 'UNDERGROUND SERVICE' consisting of '3 - #250 THW-CU' and 'IN 2" RIGID MTL COND AS PER FP&L'. The service is protected by '3 - #2/0 THW-CU W/ #4 GRND IN 2" PVC COND'.

METER
400 AMP CAP

ELECT. PANEL
'B'
100 A
1Ø & 3W
MCB-WP

BRKR DISC
200 A
1Ø & 3W

ELECT. PANEL
'A'
200 A
1Ø & 3W
MLO

3 - #3 THW-CU
IN 1 1/4" RIGID METAL COND

#4 TW-CU GRND
TO 2- 5/8"Ø x 10'
GROUND RODS, COLD
WATER PIPE &
FOUNDATION STEEL

UNDERGROUND SERVICE
3 - #250 THW-CU
IN 2" RIGID MTL COND
AS PER FP&L

3 - #2/0 THW-CU
W/ #4 GRND IN 2" PVC COND

ELECTRICAL PANEL SCHEDULE				
PANEL 'A' LOAD CENTER SQUARE 'D' QO42L225 200 AMP 1Ø 3 WIRE 120/240 VOLT MLO				
CIRCUIT	DESCRIPTION	POLE	TRIP	WATTS
1,3	AIR HANDLER 1 W/10 KW HS	2	60A. #6 THW	11500
2,4	OVEN/RANGE	2	60A. #6 THW	12000
5,7	WATER HEATER	2	60A. #6 THW	4500
6,8	DRYER	2	30A. #10 THW	5000
9	REFRIGERATOR	1	20A. #12 THW	1500
10	REFRIGERATOR	1	20A. #12 THW	1500
11	FREEZER	1	20A. #12 THW	1500
12	DISHWASHER	1	20A. #12 THW	1000
13	DISPOSAL	1	20A. #12 THW	1000
14	MICROWAVE	1	20A. #12 THW	1000
15,17	SMALL APPLIANCES	1	20A. #12 THW	3000
16,18	WASHER / DRYER	1	20A. #12 THW	2500
19	WASHER	1	20A. #12 THW	1500
20	MASTER BATH	1	20A. #12 THW	1500
21	BATHROOM 2	1	20A. #12 THW	1500
22	BATHROOM 3	1	20A. #12 THW	1500
23	POWDER ROOM	1	20A. #12 THW	1500
24-40	GENERAL LIGHTING & RECEPTALS @ 3W SF (2630 SF)	1	15 A. #14 THW	7890
41-42	SPACE			
	TOTAL			44490

	FIRST 10000 WATTS @ 100% = 10000 AC 11500 WATTS @ 100% = 11500 BALANCE 34490 @ 40% = 13796 WATTS
TOTAL LOAD:	35296 WATTS → 240 VOLTS = 147.1 AMPS
FEEDER:	3 - #2/0 THW-CU & #4 CU GRND IN 2" PVC CONDUIT FROM 200 AMP BRKR DISCONNECT

CIRCUIT	DESCRIPTION	POLE	TRIP	WIRE	WATTS
1.3	AC UNIT 5 TON	2	45 A.	#8 THW	4600
2.4	WELL PUMP 1 HP	2	20 A.	#12 THW	1800
5.7	IRRIGATION PUMP 1 HP	2	20 A.	#12 THW	1800
6.8	POOL PUMP 1.5 HP	2	20 A.	#12 THW	2300
	TOTAL				10500

TOTAL LOAD:	AC 4600 WATTS @ 100% = 4600 WATTS BALANCE 5900 @ 100% = 5900 WATTS 10500 WATTS → 240 VOLTS = 43.8 AMPS
FEEDER:	3 - #3 THW-CU IN 1 1/4" RIGID METAL CONDUIT

TOTAL LOAD:	PANEL 'A' = 147.1 AMPS PANEL 'B' 5900 WATTS = 25.6 AMPS PANEL 'A' + PANEL 'B' = 172.7 AMPS PROVIDE 200 AMP SERVICE FEED
FEEDER:	3 - #2/0 THW-CU IN 2" RIGID METAL CONDUIT

1. THE SCOPE OF THE ELECTRICAL WORK ENCOMPASSES OPERATING ELECTRICAL SYSTEM AS INDICATED ON AND NOTED HEREIN. IT IS NOT THE INTENT OF THESE TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION, THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PAY FOR ALL REQUIRED ELECTRICAL PERMITS AND NECESSARY LABOR, MATERIALS AND EQUIPMENT. THE INTENT OF THE SCOPE OF THE WORK. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH ALL RULES AND THE NATIONAL ELECTRICAL CODE, STANDARD BUILDING AND THE REGULATIONS OF THE PUBLIC UTILITY COMPANY FOR THE PRIMARY SERVICE.
2. THE ELECTRICAL DISTRIBUTION FOR THIS FACILITY SHALL BE SINGLE PHASE, SIXTY CYCLE, ALTERNATING CURRENT.
3. ALL ELECTRICAL CONDUCTORS SHALL BE THW TYPE WHEN REQUIRED SHALL BE INSTALLED IN THE CONDUIT BENEATH SLAB. MINIMUM WIRE SIZE SHALL BE #12.
4. THE SYSTEM NEUTRAL CONDUCTOR FOR THE WIRING SHALL BE GROUNDED TO A METAL COLD WATER PIPE AND A CONTINUOUS PATH TO EARTH AND GROUND SHALL BE ACCESSIBLE FOR INSPECTION. ALL EQUIPMENT SHALL BE BONDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
5. ALL MATERIALS, EQUIPMENT, DEVICES, ETC. UTILIZED SHALL BE UNDERWRITER'S LABORATORY (UL) LISTED AND THE UL LABEL.

