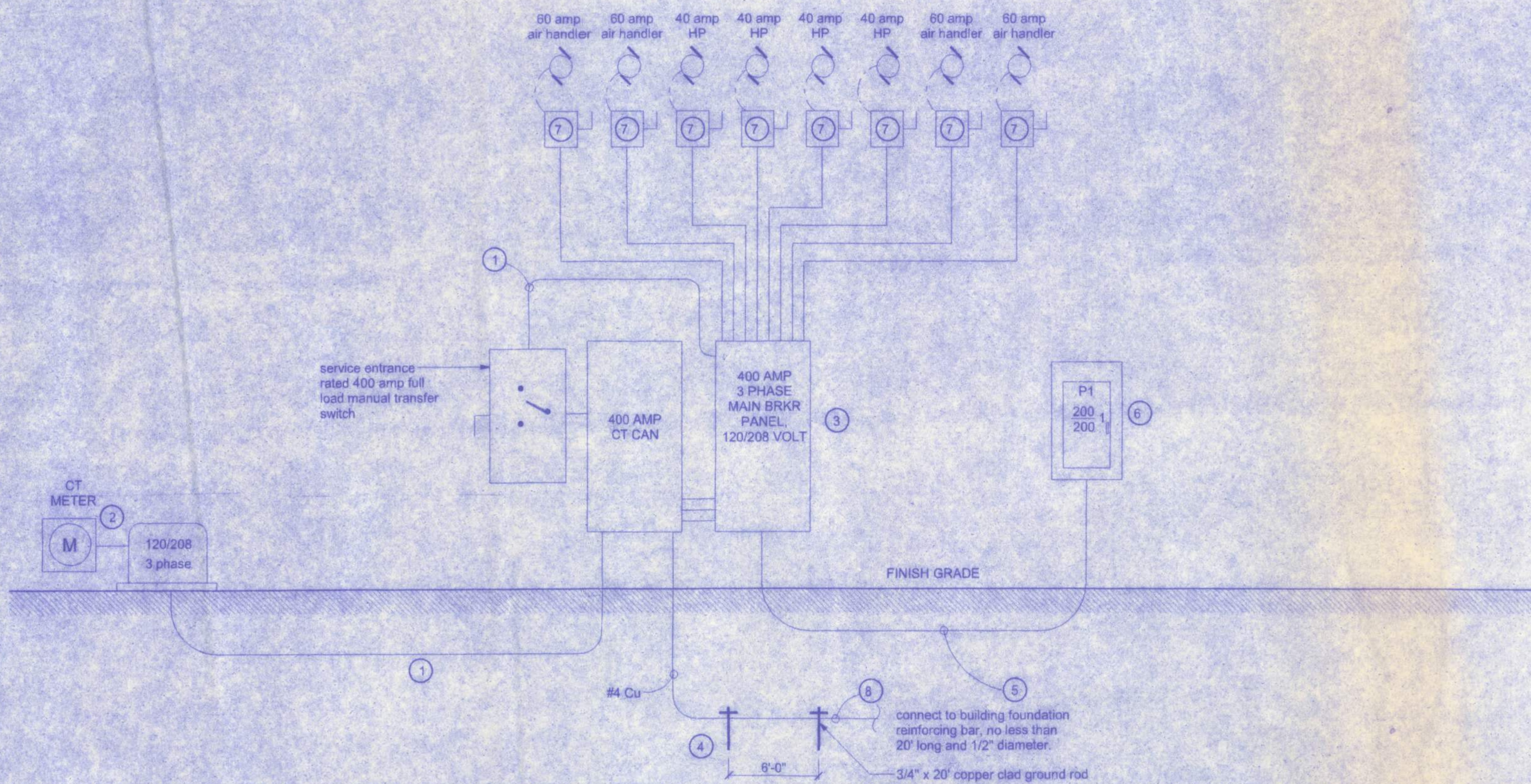




ELECTRICAL RISER
NTS

- Service/Feeder Entrance Conductors: 3" rigid pvc conduit, min 18" deep, w. continuous ground bonding conductor. Service/Entrance Conductors shall not be spliced except that bolted connections at the Meter, Disconnecting Devices and Panel shall be allowed; (2) sets 4-300 MCM THWN in each conduit.
- New Meter Enclosure, weatherproof, U.L. Listed.
- Main Disconnect Switch: fused or Main Breaker, weatherproof, U.L. Listed.
- Service entrance ground: (2) 3/4" diameter iron/steel rod x 20'-0" long and/or concrete encased foundation steel rebar x 20'-0" long. Grounding conductor shall be bonded to each piece of Service/Entrance Equipment, and shall be sized per Item #5 below.
- 200 Ampere Feeder: 4-3/0- THWN-Cu, 1-#6-THWN-Cu-GND, 2" Conduit
- House Panel (PNL), U.L. Listed, sized per schedule.
- Equipment Disconnect Switch: non-fused, in weather proof enclosure, size according to Panel Schedule loads.
- Provide Ground Bond Wire to metal piping or foundation steel, size in accordance with the Service Ground Conductor.

GENERAL LIGHTING LOAD (CONTINUOUS)		
COMMUNITY CENTER		
TOTAL BUILDING AREA (SF)		6750
2.0 VA PER SQUARE FOOT		13500
SUBTOTAL		13500
DEMAND FACTOR	125 %	16875 kw

OUTSIDE LIGHTING (CONTINUOUS)		
3,000 VA X 125% =		3750 kw

RECEPTACLE LOADING (NON-CONT.)		
Number of Receptacles	50	
180 VA per receptacle		9,000
FIRST 10,000 VA X 100% =		9,000
REMAINING 800 X 50% =		0
		9,000 kw

WATER HEATER		
4,500 VA per water heater		4500 kw
1 Number of water heaters		

RANGE LOAD		
8,000 VA per range		8000 kw
1 Number of ranges		

WELL PUMP		
1 hp submersible pump		1,900
pumps =	1	1900
TOTAL		1900 kw

SEWAGE PUMP		
1/2 hp submersible pump		1,500
pumps =	2	3000
TOTAL		3000 kw

HEATING LOADS		
5 ton heat pump		5,000
heat pumps =	8	40000
TOTAL		40000 kw

A/C MOTOR LOADS		
5 ton air handler		6,050
air handlers =	4	24200
TOTAL		24200 kw

CALCULATING LARGEST MOTOR LOAD		
heat pump load		6,050
demand factor =	25 %	1512.5 kw

OCPD		
GENERAL LIGHTING		16875
OUTSIDE LIGHTING		3750
RECEPTACLE LOAD		9,000
WATER HEATER		4500
HEATING LOADS		40000
A/C LOADS		24200
RANGE LOADS		8000
SEWAGE PUMP LOADS		3000
WELL PUMP LOADS		1900
LARGEST MOTOR		1512.5
TOTAL LOAD		112737.5 kw

I = total load/208*1.73 = 313.30 AMPS

USE 400 AMP 3 PHASE POWER 120/208

ELECTRICAL PLAN NOTES

WIRE ALL APPLIANCES, HVAC UNITS AND OTHER EQUIPMENT PER MANUF. SPECIFICATIONS.

ELECTRICAL CONTR SHALL PREPARE "AS-BUILT" SHOP DWGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELEC. PLAN, ADDS TO THE ELEC. PLAN, RISER DIAGRAM, AS-BUILT PANEL SCHEDULE W/ ALL CKTS IDENTIFIED W/ CKT NO., DESCRIPTION & BRKR, SERVICE ENT & ALL UNDERGROUND WIRE LOCATIONS/ROUTING/DEPTH. RISER DIA. SHALL INCLUDE WIRE SIZES/TYPE & EQUIPMENT TYPE W/ RATINGS & LOADS. CONTRACTOR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER & 1 COPY TO THE ENGINEER.

Main Lugs Only 225A		
1	BAB 1020	BAB 1020
2	BAB 1020	BAB 1020
3	BAB 1020	BAB 1020
4	BAB 1020	BAB 1020
5	BAB 1020	BAB 1020
6	BAB 1020	BAB 1020
7	BAB 1020	BAB 1020
8	BAB 1020	BAB 1020
9	BAB 1020	BAB 1020
10	BAB 1020	BAB 1020
11	BAB 1020	BAB 1020
12	BAB 1020	BAB 1020
13	BAB 1020	BAB 1020
14	BAB 1020	BAB 1020
15	BAB 1020	BAB 1020
16	BAB 1020	BAB 1020
17	BAB 1020	BAB 1020
18	BAB 1020	BAB 1020
19	BAB 1020	BAB 1020
20	BAB 1020	BAB 1020
21	BAB 1020	BAB 1020
22	BAB 1020	BAB 1020
23	BAB 1020	BAB 1020
24	BAB 1020	BAB 1020
25	BAB 1020	BAB 1020
26	BAB 1020	BAB 1020
27	BAB 1020	BAB 1020
28	BAB 1020	BAB 1020
29	BAB 1020	BAB 1020
30	BAB 1020	BAB 1020
31	BAB 1020	BAB 1020
32	BAB 1020	BAB 1020
33	BAB 1020	BAB 1020
34	BAB 1020	BAB 1020
35	BAB 1020	BAB 1020
36	BAB 1020	BAB 1020
37	BAB 1020	BAB 1020
38	BAB 1020	BAB 1020
39	BAB 1020	BAB 1020
40	BAB 1020	BAB 1020
41	BAB 1020	BAB 1020
42	BAB 1020	BAB 1020
Blank Cover 2 inches		

General Information		
Service Voltage:	208Y/120V 3PH 4W	Enclosure: Type 1
Bus Rating & Type:	400A Aluminum	Neutral Rating: 225A
Ground Bar:	Std. Bolted Aluminum, Al or Cu cable	
S.C. Rating:	10k A.I.C. Fully Rated	
Main Device Type:	Main Lugs Only - Top Cable Entry	
Main Terminals:	Mechanical - (2) #6-300kcmil (Cu/Al)	
Neutral Terminals:	Mechanical - (2) #6-300kcmil (Cu/Al)	
Box Catalog No.:	EZB2042R	
Trim:	EZ Trim, Door In Door, Concealed Hardware (EZT2042S)	
	Surface Mounted	
Box Dimensions:	60"H x 20"W x 5.75"D	
Min Gutter Size:	Top = 5.5" Bottom = 5.5" Left = 6.0" Right = 6.0"	
Panel ID Nameplate:	(1) 200 mil	
Type:	(2) 208Y/120V 3Ph 4W	
Color:	(3)	
NEC Lighting & Appliance, UL CTL ***Non-Interchangeable Main Device***		
Branch Devices		
Qty	Poles	Trip
42	1	20
		Frame: BAB
		Amps: 100
		KAIC: 10
Exterior Surface Mounted		
1 225A, Main Lugs Only		
42 20A, 1P BAB Branch Breaker		
1 Std. Bolted Al Ground Bar (A1/Cu Cable)		
1 Panel Nameplate - White with Black Letters		
1 Type 1 Enclosure: EZB2042R		
1 EZ Trim, Door In Door, Concealed Hardware: EZT2042S		
Designations: 200mil		

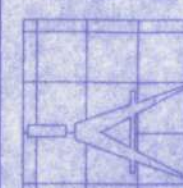
Bus Cover 6X		
1		2
3		4
5		6
7	BAB 2060	BAB 3040H
9		10
11	BAB 2030	12
13		14
15	BAB 2020	BAB 3040H
17		18
19	BAB 3040H	BAB 3030H
21		22
23		24
25		26
27	BAB 3040H	BAB 3030H
29		30
31	BAB 3030H	BAB 3030H
33		34
35		36
37		38
39	BAB 3030H	BAB 3030H
41		42
43		44
45	BAB 3030H	BAB 3030H
47		48
49		50
51		52
53		54
55		56
57		58
59		60
EDB3200 200A		
PROVEDB3 200A		
Neutral		
Main Breaker 400A DK3400W, Vert. Mtd.		

General Information					
Service Voltage:	208Y/120V 3PH 4W	Enclosure:	Type 1		
Bus Rating & Type:	400A Aluminum	Neutral Rating:	400A		
Ground Bar:	Std. Bolted Aluminum, Al or Cu cable				
S.C. Rating:	10k A.I.C. Fully Rated				
Main Device Type:	Main Breaker - Bottom Cable Entry				
Main Terminals:	Mechanical - (2) #1-2/0 - 500 kcmil (Cu/Al)				
Neutral Terminals:	Mechanical - (2) #4-500kcmil (Cu/Al)				
Box Catalog No.:	EZB2080R				
Trim:	EZ Trim, Door In Door, Concealed Hardware (EZT2080S)				
	Surface Mounted				
Box Dimensions:	90"H x 20"W x 5.75"D				
Min Gutter Size:	Top = 5.5" Bottom = 5.5" Left = 4.0" Right = 4.0"				
Panel ID Nameplate:	(1) MDP				
Type:	Plastic, adhesive backed (2) 208Y/120V 3PH 4W				
Color:	White with Black Letters (3)				
NEC Lighting & Appliance, UL CTL ***Non-Interchangeable Main Device***					
Branch Devices					
Qty	Poles	Trip	Frame	Amps	KAIC
1	3	200	EDB	225	10
1	3		PROVEDB3		
8	3	30	BAB	100	10
4	3	40	BAB	100	10
1	3	30	BAB	100	10
1	2	50	BAB	100	10
1	2	20	BAB	100	10

William H. Hays
3/2/10
P.E. # 58001

WEST SIDE COMMUNITY CENTER

128 SW MASSAU STREET
LAKE CITY, FL 32025
(386)758-4209



Freeman
Design Group

DATE	DRAWN BY
11/5/10	W.H.F.
	APPROVED
	W.H.F.
REVISIONS	
SHEET E-4	
OF 5	
PROJECT NO. 09.C037	