

Non Dwelling Service Calculation-Office

Noncontinuous Loads		Input #	2,700
# of receptacles x 180 VA	15	Input	2,700
First 10,000 VA at 100%		Input	2,700
Remainder over 10,000 VA at 50% per Table 220-13		Input	2,700
Total Noncontinuous Receptacles			2,700
Note: If number of General Outlets is unknown, a unit load of 1 VA shall be included in the General Lighting load below			
Other Loads			
Specific equipment or appliance. Enter total VA			
Water Heater			4,160
Hand Dryer			
Copy Machines			
EXERCISE EQUIP			
All Heat or AC, largest of the two			7,500
Range Loads per Table 220-19			
Kitchen Equipment per Table 220-20 (up to 2-100%, 3-100%, 4-100%, 5-100%, 6 or more 60%)			
Total Other Loads			11,660

Continuous Loads		Input Total Sq. ft.	3,732
General Lighting Load (va) Per Sq. ft.	3.5	1,066	3,732
Use Table 220-3(a)			
Show window receptacles = 200 VA x Length in feet of Show window			600
Sign circuit as required by 600-5			1,680
Motor loads in accordance with 430-22 and 430-24, 25, 26			1,123
Heavy Duty Lampholders at 600 VA each (lampholders connected to larger than 20 amp circ.)			
Plugmold at 180VA for every 5' or fraction thereof			
Track Lighting, 150 VA for every 2' of Track			
Total Continuous x 1.25%			8,920
Total Noncontinuous + Continuous + Other			23,280

SERVICE SIZE:		
1 Phase 120/240 =	97	
1 Phase 120/208 =	112	
3 Phase 120/240 =	58	
3 Phase 120/208 =	65	
3 Phase 277/480 =	28	

Note: Use next higher standard size from 240-5

Non Dwelling Service Calculation-Warehouse

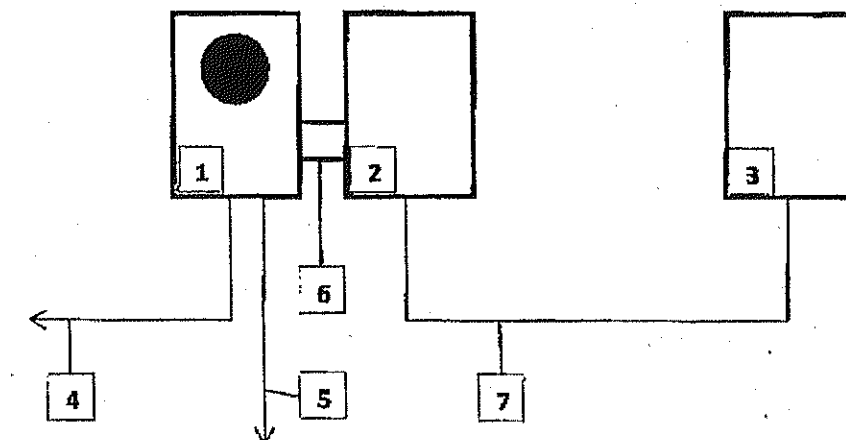
Noncontinuous Loads		Input #	1,980
# of receptacles x 180 VA	11	Input	1,980
First 10,000 VA at 100%		Input	1,980
Remainder over 10,000 VA at 50% per Table 220-13		Input	1,980
Total Noncontinuous Receptacles			1,980
Note: If number of General Outlets is unknown, a unit load of 1 VA shall be included in the General Lighting load below			
Other Loads			
Specific equipment or appliance. Enter total VA			43,680
Water Heater			
Hand Dryer			
Copy Machines			
EXERCISE EQUIP			
All Heat or AC, largest of the two			
Range Loads per Table 220-19			
Kitchen Equipment per Table 220-20 (up to 2-100%, 3-100%, 4-100%, 5-100%, 6 or more 60%)			
Total Other Loads			43,680

Continuous Loads		Input Total Sq. ft.	2,617
General Lighting Load (va) Per Sq. ft.	0.5	6,234	2,617
Use Table 220-3(a)			
Show window receptacles = 200 VA x Length in feet of Show window			
Sign circuit as required by 600-5			
Motor loads in accordance with 430-22 and 430-24, 25, 26			
Heavy Duty Lampholders at 600 VA each (lampholders connected to larger than 20 amp circ.)			
Plugmold at 180VA for every 5' or fraction thereof			
Track Lighting, 150 VA for every 2' of Track			
Total Continuous x 1.25%			3,271
Total Noncontinuous + Continuous + Other			48,931

SERVICE SIZE:		
1 Phase 120/240 =	204	
1 Phase 120/208 =	235	
3 Phase 120/240 =	118	
3 Phase 120/208 =	136	
3 Phase 277/480 =	59	

Note: Use next higher standard size from 240-5

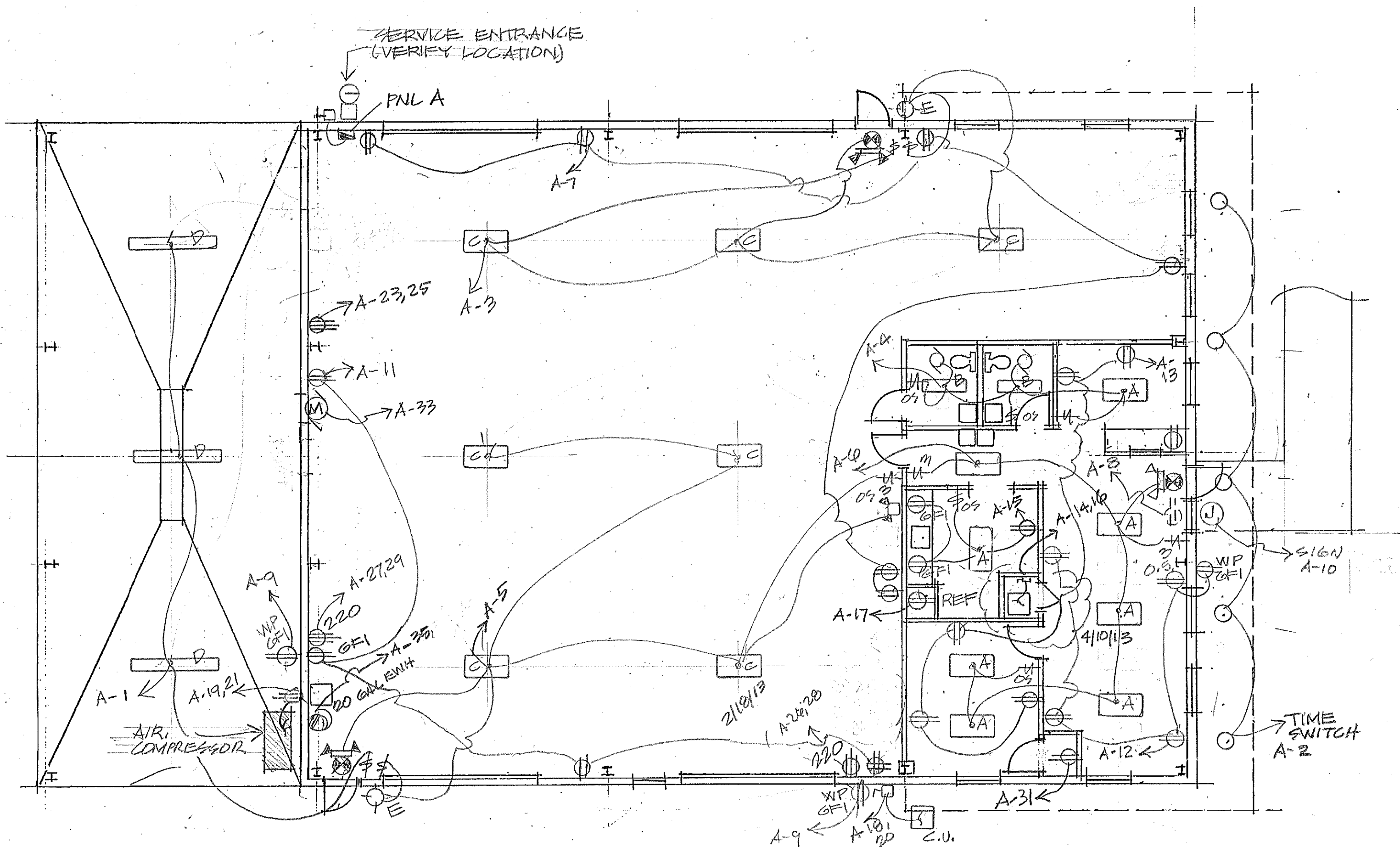
ELECTRICAL ONE-LINE DIAGRAM FOR BRONTOS SKYLIFT, INC.



KEYNOTE SCHEDULE	
1: 400 AMP 3-PHASE METERBASE	5: #2 Ground to Footer Steel, Building Steel, (2)
2: 400 AMP DISCONNECT FUSED 300A NEMA 3R	6: 5/8"x10' Ground Rods & Metal Cold Water Pipe
3: INTERIOR PANEL, REFERENCE PANEL SCHEDULE	7: (2) 2" w/ (4) 3/8" AL & (1) #2 Cu Conductors
4: (2) 2" w/ (4) 3/8" AL Conductors to Transformer	8: (2) 2" w/ (4) 3/8" AL & (1) #4 Cu Conductors

FEEDERS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD PER FBC 505.7.3.1
BRANCH CIRCUITS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD PER FBC 505.7.3.2

PANEL SCHEDULE										PANEL A		BRONTOS SKYLIFT, INC.	
MAINS: MLO										4 WIRE		3 PHASE	
AIC: 10k													
MOUNT: FLUSH												120/208V SYSTEM	
Description	Trip	KVA	No.	A	B	C	No.	KVA	Trip	Description			
Ltg. Washbay	20A 1P	0.36	1	0.85			2	0.80	20A 1P	Ltg. Sort			
Ltg. Warehouse	20A 1P	1.08	2		1.42		4	0.36	20A 1P	Ltg. RFBreak Office 3			
Ltg. Warehouse	20A 1P	1.38	5			1.96	6	0.58	20A 1P	Ltg. Htl/Office 1 & 2			
Rec. Warehouse	20A 1P	0.90	7	1.20			8	0.60	20A 1P	Rec. Show Window			
Rec. Warehouse/Ext.	20A 1P	0.72	9		2.40		10	1.68	20A 1P	Sign			
Rec. Warehouse	20A 1P	0.36	11			1.20	12	0.90	20A 1P	Rec. Ext./Office 1			
Rec. Office 2 & 3	20A 1P	1.08	13	6.44			14	5.36	60A 2P	AHU			
Rec. Break Room	20A 1P	0.54	15		3.40		16	5.36	"	"			
Refrigerator	20A 1P	1.28	17			2.31	18	1.03	30A 2P	CU			
Air Compressor	30A 2P	3.12	19	4.15			20	1.03	"	"			
"	"	3.12	21		8.32		22	5.20	50A 2P	Equipment			
Equipment	30A 2P	3.12	23			8.32	24	5.20	"	"			
"	"	3.12	25		10.40		26	5.20	50A 2P	Equipment			
Equipment	50A 2P	5.20	27			5.20	28	5.20	"	"			
"	50A 2P	5.20	29			5.20	30	0.00	20A 1P	Space			
SERVER RM	20A 1P	1.08	31	2.20			32	0.00	"	Space			
EXH FAN	20A 1P	1.08	33		0.00		34	0.00	"	Space			
EXH FAN	20A 1P	0.00	35			0.00	36	0.00	"	Space			
Space		0.00	37	0.00			38	0.00	"	Space			
Space		0.00	39		2.00		40	0.00	"	Space			
Space		0.00	41			0.00	42	0.00	"	Space			
				21.28	28.44	18.05							
Connected Load KVA							88.75						
Demand Factor 25% KVA							22.19						
Demand Load KVA							70.66						
Demand Amps							196.14						
Spare 20%							39.23						
Total Amps							235.37						
Service Size 300-Amps @ 120/208V 3-Phase													



ELECTRICAL PLAN 1/8" = 1'-0"

- 2X4, 3 LAMP FLUOR. LAT-IN
- 1X4, 2 LAMP FLUOR. LAT-IN
- 2X4 SURFACE
- 90" 2 LAMP FLUOR. WEATHERPROOF SURFACE
- EMERGENCY LIGHT
- EXIT/EMERGENCY LIGHT
- RECESSED SOFFIT LIGHT
- WALL MTD. LIGHT
- DUPLEX WALL OUTLET
- 220 V WALL OUTLET
- EXHAUST FAN
- WALL SW. W/OCCUPANCY SENSOR
- JUNCTION BOX
- DUPLEX CEILING OUTLET

REVISED
2/10/13
3/5/13
4/10/13

HERBERT L. BANKS, ARCHITECT FLA.REG.4313	HERBERT L. BANKS ARCHITECT, P.A. WILSHIRE BLVD., SUITE 232 CASSELBERRY, FL 32707 TEL: 407-678-7745 FAX: 407-678-1242	BUILDING FOR BRONTOS SKYLIFT, INC.	
		TAFT CO, ORANGE COUNTY, FLORIDA	
DATE		JOB NO. 1304	SHEET 8 OF 8