

Industrial Complex

Monday, Jul. 03, 2006

OCPD vs Conductor Size Report

Page # 1

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
MSWB	3	480.00	1,228.79	900 kcmils	6	0.32%	3120A	3000A
4PB1	3	480.00	92.93	3/0 ga.	0	0.27%	200A	600A **
Office HVAC	1	277.00	11.46	12 ga.	0	1.03%	20A	20A
Work room Heater	3	480.00	7.03	12 ga.	0	0.39%	20A	20A
Bathroom Heater	1	277.00	8.44	12 ga.	0	0.94%	20A	20A
2 ton Crane	3	480.00	7.54	12 ga.	0	0.34%	20A	20A
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	1.97%	20A	20A
Exterior Wallpak Lights	1	277.00	2.24	12 ga.	0	0.28%	20A	20A
Air compressor	3	480.00	7.54	12 ga.	0	0.34%	20A	20A
Rooftop HVAC	3	480.00	10.56	12 ga.	0	0.48%	20A	20A
4LP1	3	208.00	37.21	8 ga.	0	2.12%	50A	250A **
Bathroom Fan	1	120.00	1.00	12 ga.	0	0.30%	20A	20A
Exhaust Louvers	1	120.00	3.00	12 ga.	0	1.10%	20A	20A
Work Room Outlets	1	120.00	7.89	12 ga.	0	2.73%	20A	20A
Shop Outlets	1	120.00	4.74	12 ga.	0	1.64%	20A	20A
Shop Outlets	1	120.00	6.32	12 ga.	0	2.18%	20A	20A
Office Outlets	1	120.00	7.89	12 ga.	0	2.73%	20A	20A
Bay Lites	1	120.00	22.50	8 ga.	0	4.61%	55A	30A
Bay Lites	1	120.00	22.50	8 ga.	0	4.61%	55A	30A
Bay Lites	1	120.00	22.50	10 ga.	0	5.86%	30A	30A
Work Room Lights	1	120.00	6.67	12 ga.	0	2.45%	20A	20A
Office Lights	1	120.00	6.67	12 ga.	0	2.45%	20A	20A
5PB1	3	480.00	67.50	3/0 ga.	0	0.35%	200A	150A
HVAC	3	480.00	10.68	12 ga.	0	0.51%	20A	20A
6LP1	1	240.00	67.50	3/0 ga.	0	0.86%	200A	200A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
Outlets	1	120.00	15.00	10 ga.	0	2.87%	30A	20A
5LP1	3	208.00	6.33	3/0 ga.	0	0.09%	200A	200A
Outlets	1	120.00	6.32	12 ga.	0	1.74%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.74%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.74%	20A	20A
3SW1	3	480.00	417.68	1/0 ga.	4	0.01%	600A	1600A **
3PB1	3	480.00	72.78	500 kcmils	0	0.57%	380A	400A **

** The conductor's maximum ampacity is less than the OCPD size.

Industrial Complex

Monday, Jul. 03, 2006

OCPD vs Conductor Size Report

Page # 2

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
3PB1	3	480.00	72.78	500 kcmils	0	0.57%	380A	400A **
Condensing Unit #4	3	480.00	18.19	10 ga.	0	0.58%	30A	30A
Condensing Unit #3	3	480.00	18.19	10 ga.	0	0.58%	30A	30A
Condensing Unit #2	3	480.00	18.19	10 ga.	0	0.58%	30A	30A
Condensing Unit #1	3	480.00	18.19	10 ga.	0	0.58%	30A	30A
3PB2	3	480.00	378.14	4/0 ga.	2	1.19%	460A	500A **
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	1.95%	20A	20A
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	1.95%	20A	20A
Office Lighting	1	277.00	3.47	12 ga.	0	0.43%	20A	20A
Office Lighting	1	277.00	3.47	12 ga.	0	0.43%	20A	20A
Office Lighting	1	277.00	6.35	12 ga.	0	0.78%	20A	20A
Office Lighting	1	277.00	2.89	12 ga.	0	0.36%	20A	20A
Office Lighting	1	277.00	5.20	12 ga.	0	0.64%	20A	20A
Office Lighting	1	277.00	2.89	12 ga.	0	0.36%	20A	20A
Office Lighting	1	277.00	6.35	12 ga.	0	0.78%	20A	20A
Office Lighting	1	277.00	2.31	12 ga.	0	0.28%	20A	20A
Office Lighting	1	277.00	3.47	12 ga.	0	0.43%	20A	20A
Exterior Wall sign	1	277.00	1.81	12 ga.	0	0.22%	20A	20A
Bay Lights	1	277.00	7.94	12 ga.	0	1.00%	20A	20A
Bay Lights	1	277.00	7.94	12 ga.	0	1.00%	20A	20A
Bay Lights	1	277.00	7.94	12 ga.	0	0.98%	20A	20A
Bay Lights	1	277.00	7.94	12 ga.	0	0.98%	20A	20A
Bay Lights	1	277.00	7.94	12 ga.	0	0.98%	20A	20A
Exterior Wallpak Lighting	1	277.00	2.80	12 ga.	0	0.34%	20A	20A
Exterior Wallpak Lighting	1	277.00	3.36	12 ga.	0	0.41%	20A	20A
Jib Crane	3	480.00	5.00	12 ga.	0	0.23%	20A	20A
Overhead Crane	3	480.00	30.16	8 ga.	0	0.66%	50A	45A
Overhead Crane	3	480.00	30.16	8 ga.	0	0.66%	50A	45A
Test Pump	3	480.00	6.00	12 ga.	0	0.28%	20A	20A
Air Compressor	3	480.00	27.00	8 ga.	0	0.59%	50A	40A
Ice machine	1	277.00	12.13	12 ga.	0	1.12%	20A	20A
Welder	3	480.00	67.92	3 ga.	0	0.76%	100A	100A
Welder	3	480.00	67.92	3 ga.	0	0.76%	100A	100A
Welder	3	480.00	67.92	3 ga.	0	0.76%	100A	100A
Pressure Washer	3	480.00	3.11	12 ga.	0	0.15%	20A	20A
Pressure Washer	3	480.00	3.11	12 ga.	0	0.15%	20A	20A
Condensing Unit #2	3	480.00	5.66	12 ga.	0	0.26%	20A	20A
Condensing Unit #1	3	480.00	5.66	12 ga.	0	0.26%	20A	20A
AHU #2	3	480.00	7.92	12 ga.	0	0.37%	20A	20A
AHU #1	3	480.00	7.92	12 ga.	0	0.37%	20A	20A
3LP1	3	208.00	66.50	500 kcmils	0	0.87%	380A	400A **
Bathroom Exhaust Fan	1	120.00	6.27	12 ga.	0	1.32%	20A	20A
Bathroom Exhaust Fan	1	120.00	3.13	12 ga.	0	0.66%	20A	20A
Kitchen Outlets	1	120.00	4.17	12 ga.	0	1.17%	20A	20A
Water Heater	1	120.00	18.75	10 ga.	0	3.29%	30A	25A
Outlets	1	120.00	4.50	12 ga.	0	1.27%	20A	20A

** The conductor's maximum ampacity is less than the OCPD size.

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
Outlets	1	120.00	4.50	12 ga.	0	1.27%	20A	20A
Outlets	1	120.00	6.00	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	7.50	12 ga.	0	2.11%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	9.00	12 ga.	0	2.53%	20A	20A
3LP2	3	208.00	36.88	3/0 ga.	0	0.64%	200A	200A
SP Outlets	1	120.00	4.90	12 ga.	0	1.07%	20A	20A
SP Outlets	1	120.00	4.90	12 ga.	0	1.07%	20A	20A
SP Outlets	1	120.00	4.90	12 ga.	0	1.07%	20A	20A
SP Outlets	1	120.00	4.90	12 ga.	0	1.07%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
2SW1	3	480.00	370.36	1/0 ga.	4	0.01%	600A	2000A **
2PB2	3	480.00	246.22	500 kcmils	0	1.52%	380A	400A **
Welder	3	480.00	30.00	8 ga.	0	0.70%	50A	45A
Welder	3	480.00	30.00	8 ga.	0	0.70%	50A	45A
Crane Trolley	3	480.00	1.51	12 ga.	0	0.07%	20A	20A
15 Ton Crane	3	480.00	30.16	8 ga.	0	0.70%	50A	45A
Sump Pump	3	480.00	7.54	12 ga.	0	0.36%	20A	20A
Air Compressor	3	480.00	92.00	1/0 ga.	0	0.89%	150A	150A
Steam Cleaner	3	480.00	30.00	8 ga.	0	0.70%	50A	45A
Hyd Tong	3	480.00	25.00	8 ga.	0	0.58%	50A	35A
2PB1	3	480.00	124.98	1/0 ga.	0	0.97%	150A	450A **
Bay Lites	1	277.00	23.83	10 ga.	0	1.95%	30A	30A
Bay Lites 17	1	277.00	15.88	12 ga.	0	2.03%	20A	20A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites 15	1	277.00	23.83	10 ga.	0	1.95%	30A	30A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A

** The conductor's maximum ampacity is less than the OCPD size.

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	15.88	12 ga.	0	2.03%	20A	20A
Bay Lites 10	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites 7	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Workroom Lites	1	277.00	4.33	12 ga.	0	0.55%	20A	20A
Workroom Lites	1	277.00	4.33	12 ga.	0	0.55%	20A	20A
Workroom Lites	1	277.00	6.50	12 ga.	0	0.83%	20A	20A
Workroom Lites	1	277.00	3.79	12 ga.	0	0.48%	20A	20A
Bay Lites	1	277.00	19.86	10 ga.	0	1.63%	30A	25A
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	2.05%	20A	20A
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	2.05%	20A	20A
Exterior Wallpak Lighting	1	277.00	3.36	12 ga.	0	0.43%	20A	20A
Exterior Wallpak Lighting	1	277.00	3.36	12 ga.	0	0.43%	20A	20A
2LP1	3	208.00	85.14	500 kcmils	0	0.84%	380A	400A **
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.29%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.82%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.46%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	1.58	12 ga.	0	0.41%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.64%	20A	20A
Outlets	1	120.00	1.58	12 ga.	0	0.41%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.82%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.82%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.82%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.82%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.46%	20A	20A
2LP2	3	208.00	51.52	3/0 ga.	0	0.73%	200A	200A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Breakroom Stove	1	208.00	13.50	12 ga.	0	2.08%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.38%	20A	20A
Outlets 15	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A

** The conductor's maximum ampacity is less than the OCPD size.

Industrial Complex

Monday, Jul. 03, 2006

OCPD vs Conductor Size Report

Page # 5

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.38%	20A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.38%	20A	20A
Outlets	1	120.00	6.32	12 ga.	0	1.69%	20A	20A
Outlets	1	120.00	7.89	12 ga.	0	2.11%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
1SW1	3	480.00	352.53	1/0 ga.	4	0.01%	600A	2000A **
<hr/>								
1PB2	3	480.00	99.74	2 ga.	0	1.16%	115A	225A **
Air Handling Unit #2	3	480.00	15.08	12 ga.	0	0.79%	20A	25A **
Air Handling Unit #1	3	480.00	15.08	12 ga.	0	0.79%	20A	25A **
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	2.12%	20A	20A
Exterior Pole Lights	1	277.00	15.88	12 ga.	0	2.12%	20A	20A
Exterior Wallpak Lighting	1	277.00	3.92	12 ga.	0	0.52%	20A	20A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Bay Lites	1	277.00	15.88	12 ga.	0	2.10%	20A	20A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Bay Lites	1	277.00	19.86	10 ga.	0	1.71%	30A	25A
Off Lites 2nd Floor	1	277.00	4.04	12 ga.	0	0.54%	20A	20A
Off Lites 2nd Floor	1	277.00	3.47	12 ga.	0	0.46%	20A	20A
Off Lites 2nd Floor	1	277.00	4.62	12 ga.	0	0.61%	20A	20A
Off Lites 2nd Floor	1	277.00	5.78	12 ga.	0	0.76%	20A	20A
Off Lites 1st Floor	1	277.00	4.62	12 ga.	0	0.61%	20A	20A
Off Lites 1st Floor	1	277.00	4.62	12 ga.	0	0.61%	20A	20A
Off Lites 1st Floor	1	277.00	3.47	12 ga.	0	0.46%	20A	20A
Off Lites 1st Floor	1	277.00	4.62	12 ga.	0	0.61%	20A	20A
Off Lites 1st Floor	1	277.00	2.89	12 ga.	0	0.38%	20A	20A
<hr/>								
1PB1	3	480.00	246.22	500 kcmils	0	1.82%	380A	400A **
Welder	3	480.00	30.00	8 ga.	0	0.69%	50A	45A
Welder	3	480.00	30.00	8 ga.	0	0.69%	50A	45A
Crane Trolley	3	480.00	1.51	12 ga.	0	0.07%	20A	20A
15 Ton Crane	3	480.00	30.16	8 ga.	0	0.70%	50A	45A
Sump Pump	3	480.00	7.54	12 ga.	0	0.36%	20A	20A
Air Compressor	3	480.00	92.00	1/0 ga.	0	0.88%	150A	150A
Steam Cleaner	3	480.00	30.00	8 ga.	0	0.69%	50A	45A
Hyd Tong	3	480.00	25.00	8 ga.	0	0.58%	50A	35A
<hr/>								
1LP1	3	208.00	113.94	500 kcmils	0	1.47%	380A	400A **

** The conductor's maximum ampacity is less than the OCPD size.

Item	Phase	Rated Voltage	Rated Amperes	Conductor Size	Number of Parallel Conductor	% Voltage Drop	Conductor Maximum Ampacity	OCPD Size
1LP1	3	208.00	113.94	500 kcmils	0	1.47%	380A	400A **
Outlets	1	120.00	12.63	12 ga.	0	3.29%	20A	20A
Breakroom	1	120.00	13.16	12 ga.	0	3.42%	20A	20A
Outlets	1	120.00	11.05	12 ga.	0	2.87%	20A	20A
Outlets	1	120.00	7.89	12 ga.	0	2.05%	20A	20A
Bay Door	1	208.00	4.52	12 ga.	0	0.55%	20A	20A
Outlets	1	120.00	7.89	12 ga.	0	2.05%	20A	20A
Outlets	1	120.00	7.89	12 ga.	0	2.05%	20A	20A
Kitchen Outlet	1	120.00	13.16	12 ga.	0	3.42%	20A	20A
Outlets	1	120.00	11.05	12 ga.	0	2.87%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.46%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.46%	20A	20A
Outlets	1	120.00	11.05	12 ga.	0	2.87%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.55%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.55%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.55%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.55%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.55%	20A	20A
Water Heater	1	120.00	14.62	10 ga.	0	2.39%	30A	20A
1LP2	3	208.00	58.96	3/0 ga.	0	1.01%	200A	200A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	3.16	12 ga.	0	0.84%	20A	20A
Outlets	1	120.00	11.05	12 ga.	0	2.96%	20A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.38%	20A	20A
Outlets	1	120.00	9.47	12 ga.	0	2.53%	20A	20A
Outlets	1	120.00	12.63	10 ga.	0	2.16%	30A	20A
Outlets	1	120.00	12.63	10 ga.	0	2.16%	30A	20A
Outlets	1	120.00	12.63	12 ga.	0	3.38%	20A	20A
Fridge	1	120.00	21.01	10 ga.	0	3.01%	30A	30A
Bay Door	1	208.00	4.52	12 ga.	0	0.57%	20A	20A
Paint Booth Feed	1	208.00	30.00	8 ga.	0	2.19%	50A	40A
Outlets	1	120.00	1.58	12 ga.	0	0.42%	20A	20A

** The conductor's maximum ampacity is less than the OCPD size.