

Preliminary Electrical Service Calculation (based on estimated watts/square foot)			
BUILDING ELECTRICAL SERVICE (NORMAL POWER)			
Area	126,445 sq. ft.		
Voltage	480 Y /277 - 60Hz		
Phase	3		
Wire	4		
General Lighting Load		1.20 va/sq. ft.	151.7 kVA
Appliance and general purpose receptacle load		1.50 va/sq. ft.	189.7 kVA
Technology (computers, printers, telephone, servers, etc.)		1.50 va/sq. ft.	189.7 kVA
Fire Protection and Plumbing		1.00 va/sq. ft.	126.4 kVA
HVAC	126,445 sq. ft. @	8.00 va/sq. ft.	1011.6 kVA
General Ventilation		2.00 va/sq. ft.	252.9 kVA
Mechanical Equipment (pumps, etc.)		1.00 va/sq. ft.	126.4 kVA
Misc. Other Loads (Elevator, Medical Equip., Etc.)			200.0 kVA
<b>Subtotal Connected Load</b>			<b>2248.4 kVA</b>
Future Growth @	20	% of Connected Load	449.7 kVA
<b>Total Connected Load</b>			<b>2698.1 kVA</b>
<b>~Estimated Demand Load</b>	80	% Total Connected Load	##### KVA
Minimum Demand Amps @		480 /277	2596.24 Amps
<b>Recommended Pad Mounted Transformer Size:</b>			<b>2500.0 kVA</b>
Transformer-Rated Current @		480 /277	3007.0 amps
Transformer Secondary Protection @	125	%	3758.8 amps
	(Per NEC Table 450.3(B))		
<b>Recommended Service Size (Using 100% Rated Main):</b>			<b>4000 Amps</b>

Preliminary Electrical Service Calculation (based on estimated watts/square foot):			
BUILDING ELECTRICAL SERVICE (EMERGENCY POWER)			
Area	126,445 sq. ft.		
Voltage	480 Y /277 - 60Hz		
Phase	3		
Wire	4		
General Lighting Load		0.20 va/sq. ft.	25.3 kVA
Appliance and general purpose receptacle load		0.50 va/sq. ft.	63.2 kVA
Technology (computers, printers, telephone, servers, etc.)		0.50 va/sq. ft.	63.2 kVA
Fire Protection and Plumbing		1.00 va/sq. ft.	126.4 kVA
HVAC	126,445 sq. ft. @	2.00 va/sq. ft.	252.9 kVA
General Ventilation		0.50 va/sq. ft.	63.2 kVA
Mechanical Equipment (pumps, etc.)		0.50 va/sq. ft.	63.2 kVA
Misc. Other Loads (Elevator, Medical Equip., Etc.)			100.0 kVA
<b>Subtotal Connected Load</b>			<b>757.5 kVA</b>
Future Growth @	20	% of Connected Load	151.5 kVA
<b>Total Connected Load</b>			<b>909.0 kVA</b>
<b>~Estimated Demand Load</b>	80	% Total Connected Load	<b>727.21 KVA</b>
Minimum Demand Amps @		480 /277	874.70 Amps
<b>Recommended Generator Size:</b>		600 kW	<b>750.0 kVA</b>
Generator-Rated Current @		480 /277	902.1 amps
Generator Ampacity of Conductors @	115	%	1037.4 amps
	(Per NEC 445.13)		
<b>Recommended Service Size (Using 100% Rated Main):</b>			<b>1000 Amps</b>