NAC Circuit Voltage Dran Coloulation						
NAC Circuit Voltage Drop Calculation						
Project Name		WCSH6				
Date		7/13/15				
Circuit Number		NAC #1		1		
Area Covered		Basement				
NAC Source A	larm Voltage	20.4		Wire	Resistance	
Minimum Devi	_	16	,	Gauge	Per MFt Cable	
Distance to fire	•	25	•	14	5.84	
Total Circuit C		1.546	•			
Wire Gauge fo	or balance of ci	ircuit		14	5.84	
		Distance				
Circuit is with	nin limits	from				
	Device	previous	Voltage at	Drop from	Percent	
	Current	device	Device	source	Drop	
Appliance 1	0.113		20.17	0.23	1.1%	
Appliance 2	0.064	25	19.97	0.43	2.1%	
Appliance 3	0.113	40	19.65	0.75	3.7%	
Appliance 4	0.195	40	19.35	1.05	5.1%	
Appliance 5	0.098	50	19.04	1.36	6.7%	
Appliance 6	0.078	40	18.82	1.58	7.8%	
Appliance 7	0.064	50	18.56	1.84	9.0%	
Appliance 8	0.064	50	18.32	2.08	10.2%	
Appliance 9	0.078	35	18.16	2.24	11.0%	
Appliance 10	0.078	35	18.03	2.37	11.6%	
Appliance 11	0.098	45	17.87	2.53	12.4%	
Appliance 12	0.233	50	17.72	2.68	13.1%	
Appliance 13	0.064	40	17.66	2.74	13.4%	
Appliance 14	0.064	40	17.61	2.79	13.7%	
Appliance 15	0.078	50	17.57	2.83	13.9%	
Appliance 16	0.064	35	17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
END			17.55	2.85	13.9%	
Totals	1.546	650	•			

NAC Circuit Voltage Drop Calculation						
Project Name		WCSH6				
Date		7/13/15				
Circuit Number		NAC #2				
Area Covered		1st Floor				
NAC Source A	Narm Voltage	20.4		Wire	Resistance	
Minimum Devi	ice Voltage	16	•	Gauge	Per MFt Cable	
Distance to fire	st appliance	50	1	14	5.84	
Total Circuit C	urrent	1.085	•			
Wire Gauge for	or balance of ci	ircuit		14	5.84	
		Distance				
Circuit is with	nin limits	from				
	Device	previous	Voltage at	Drop from	Percent	
	Current	device	Device	source	Drop	
Appliance 1	0.064		20.08	0.32	1.6%	
Appliance 2	0.259	75	19.64	0.76	3.7%	
Appliance 3	0.113	75	19.30	1.10	5.4%	
Appliance 4	0.259	75	19.02	1.38	6.8%	
Appliance 5	0.195	75	18.85	1.55	7.6%	
Appliance 6	0.195	75	18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
END			18.76	1.64	8.0%	
Totals	1.085	425	•			

NAC Circuit Voltage Drop Calculation						
D : AN						
Project Name		WCSH6 7/13/15				
Date				1		
Circuit Numbe) [NAC #3		<u> </u>		
Area Covered		2nd Floor 20.4		Wire	Desistance	
NAC Source A	_		ı	_	Resistance Per MFt Cable	
Minimum Devi	U	16	ı	Gauge		
Distance to fire		50		14	5.84	
Total Circuit C	urrent	0.978				
Wire Gauge fo	or balance of c	ircuit		14	5.84	
		Distance				
Circuit is with	nin limits	from				
	Device	previous	Voltage at	Drop from	Percent	
	Current	device	Device	source	Drop	
Appliance 1	0.078	1	20.11	0.29	1.4%	
Appliance 2	0.259	60	19.80	0.60	2.9%	
Appliance 3	0.078	40	19.65	0.75	3.7%	
Appliance 4	0.064	40	19.52	0.88	4.3%	
Appliance 5	0.195	50	19.37	1.03	5.0%	
Appliance 6	0.098	35	19.31	1.09	5.3%	
Appliance 7	0.064	35	19.27	1.13	5.5%	
Appliance 8	0.064	35	19.24	1.16	5.7%	
Appliance 9	0.078	35	19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
END			19.22	1.18	5.8%	
Totals	0.978	380	•			

NAC Circuit Voltage Drop Calculation						
Project Name		WCSH6				
Date		7/13/15				
Circuit Number		NAC #4				
Area Covered		3rd Floor				
NAC Source A	Narm Voltage	20.4		Wire	Resistance	
Minimum Devi	ice Voltage	16		Gauge	Per MFt Cable	
Distance to fire	st appliance	75		14	5.84	
Total Circuit C	urrent	0.796	•			
Wire Gauge fo	or balance of c	ircuit		14	5.84	
		Distance				
Circuit is with	nin limits	from				
	Device	previous	Voltage at	Drop from	Percent	
	Current	device	Device	source	Drop	
Appliance 1	0.078		20.05	0.35	1.7%	
Appliance 2	0.064	50	19.84	0.56	2.7%	
Appliance 3	0.195	60	19.61	0.79	3.9%	
Appliance 4	0.175	75	19.41	0.99	4.8%	
Appliance 5	0.078	40	19.35	1.05	5.2%	
Appliance 6	0.064	40	19.30	1.10	5.4%	
Appliance 7	0.064	35	19.27	1.13	5.5%	
Appliance 8	0.078	35	19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
END			19.25	1.15	5.6%	
Totals	0.796	410				

NAC Circuit Voltage Drop Calculation						
Project Name WCSH6						
Project Name Date		7/13/15				
Circuit Number		NAC #5		1		
Area Covered		4th Floor				
NAC Source A		20.4		Wire	Resistance	
Minimum Devi	_	16		Gauge	Per MFt Cable	
Distance to fire	U	100		14	5.84	
Total Circuit C		0.866		14	5.04	
Total Circuit C	unem	0.000				
Wire Gauge fo	or balance of ci	ircuit		14	5.84	
g		Distance				
Circuit is with	nin limits	from				
	Device	previous	Voltage at	Drop from	Percent	
	Current	device	Device	source	Drop	
Appliance 1	0.078	1	19.89	0.51	2.5%	
Appliance 2	0.064	40	19.71	0.69	3.4%	
Appliance 3	0.195	30	19.58	0.82	4.0%	
Appliance 4	0.195	50	19.43	0.97	4.8%	
Appliance 5	0.064	50	19.33	1.07	5.2%	
Appliance 6	0.064	50	19.25	1.15	5.6%	
Appliance 7	0.064	60	19.18	1.22	6.0%	
Appliance 8	0.064	35	19.15	1.25	6.1%	
Appliance 9	0.078	35	19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
END			19.14	1.26	6.2%	
Totals	0.866	450	•			