PLAN NORTH

BASEMENT FIRE ALARM PLAN

SCALE: 1/8"=1'-0" 0 4' 8' 16'

RESERVED FOR CITY STAMP

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	10/19/2013

SMOKE DETECTOR WIRING DETAIL

SCHEMATIC: NO SCALE

SERIAL INTERFACE MODULE WIRING DETAIL

SCHEMATIC: NO SCALE

TYPICAL 2 WIRE STROBE WIRING DETAIL

SCHEMATIC: NO SCALE

NAC Circuit Voltage Drop Calculation 10/18/2013

Project Name	108 SHERMAN STREET			
Circuit Number	FPS1-1			
Nominal System Voltage	20.4	volts	Wire Gauge	Resistance Per 1000
Minimum Device Voltage	16	volts		
Distance from source to 1st device	15		14	6.14
Wire Gauge for balance of circuit			14	6.14
Max Output Current	1.5	amps		
Total Circuit Current	0.679	amps		

Circuit is within limits

	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.176		20.34	0.06	0%
Device 2	0.212	10	20.31	0.09	0%
Device 3	0.212	16	20.28	0.12	1%
Device 4	0.079	46	20.26	0.14	1%
Totals	0.679	87			

NAC Circuit Voltage Drop Calculation 10/18/2013

Project Name	108 SHERMAN STREET			
Circuit Number	FPS1-2			
Nominal System Voltage	20.4	volts	Wire Gauge	Resistance Per 1000
Minimum Device Voltage	16	volts		
Distance from source to 1st device	30		14	6.14
Wire Gauge for balance of circuit			14	6.14
Max Output Current	1.5	amps		
Total Circuit Current	0.813	amps		

Circuit is within limits

	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.079		20.25	0.15	1%
Device 2	0.017	15	20.18	0.22	1%
Device 3	0.017	33	20.04	0.36	2%
Device 4	0.079	19	19.96	0.44	2%
Device 5	0.017	7	19.93	0.47	2%
Device 6	0.079	8	19.90	0.50	2%
Device 7	0.079	7	19.88	0.52	3%
Device 8	0.079	19	19.82	0.58	3%
Device 9	0.079	19	19.78	0.62	3%
Device 10	0.079	27	19.73	0.67	3%
Device 11	0.079	7	19.73	0.67	3%
Device 12	0.017	8	19.72	0.68	3%
Device 13	0.079	7	19.71	0.69	3%
Device 14	0.017	19	19.71	0.69	3%
Device 15	0.017	33	19.71	0.69	3%
Totals	0.813	258			

NAC Circuit Voltage Drop Calculation 10/18/2013

Project Name	108 SHERMAN STREET			
Circuit Number	FPS1-3			
Nominal System Voltage	20.4	volts	Wire Gauge	Resistance Per 1000
Minimum Device Voltage	16	volts		
Distance from source to 1st device	40		14	6.14
Wire Gauge for balance of circuit			14	6.14
Max Output Current	1.5	amps		
Total Circuit Current	0.446	amps		

Circuit is within limits

	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.079		20.29	0.11	1%
Device 2	0.017	26	20.23	0.17	1%
Device 3	0.017	31	20.17	0.23	1%
Device 4	0.079	17	20.13	0.27	1%
Device 5	0.017	7	20.12	0.28	1%
Device 6	0.079	8	20.11	0.29	1%
Device 7	0.079	7	20.10	0.30	1%
Device 8	0.079	27	20.09	0.31	2%
Totals	0.446	163			

NAC Circuit Voltage Drop Calculation 10/18/2013

Project Name	108 SHERMAN STREET			
Circuit Number	FPS1-4			
Nominal System Voltage	20.4	volts	Wire Gauge	Resistance Per 1000
Minimum Device Voltage	16	volts		
Distance from source to 1st device	60		14	6.14
Wire Gauge for balance of circuit			14	6.14
Max Output Current	1.5	amps		
Total Circuit Current	0.378	amps		

Circuit is within limits

	Device Current	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.017		20.26	0.14	1%
Device 2	0.107	18	20.22	0.18	1%
Device 3	0.079	10	20.21	0.19	1%
Device 4	0.079	32	20.17	0.23	1%
Device 5	0.017	8	20.17	0.23	1%
Device 6	0.079	12	20.16	0.24	1%
Totals	0.378	140			

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BASEMENT FIRE ALARM PLAN

DRAWN	JPB UNICAD JOB #13608
CHECKED	WAYNE B. HAWS NICET IV 90496
DATE	10/18/2013
REVISION	
SCALE	

shop drawings created by:
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Reviewed for Code Compliance
Inspection Division
Approved with Conditions

CITY OF PORTLAND, MAINE