

**GENERAL NOTES:**

- THESE DRAWINGS ARE DIAGRAMMATIC. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- WIRING DEPICTED ON THESE PLANS IS SCHEMATIC - ACTUAL WIRE LOCATIONS MAY DIFFER FROM THESE PLANS. WIRING SHALL BE PERFORMED AS ACTUAL BUILDING CONSTRUCTION CONDITIONS ALLOW AND TO MINIMIZE PENETRATIONS THROUGH AREA SEPARATION WALLS AND FIRE WALLS. THE USE OF A RACEWAY IS PERMITTED AS LONG AS NO 110V OR HIGHER VOLTAGE CABLES ARE IN THE SAME RACEWAY.
- FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
- POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25" AWAY FROM ANY NONPOWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXIT THE CABINET THROUGH DIFFERENT KNOCK OUTS AND/OR SEPARATE CONDUITS.
- WHEN UTILIZING CLASS "A" CIRCUITS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 48" WHERE RUN HORIZONTALLY.
- WHEN UTILIZING SHIELDED CABLE TIE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX. INSULATE AND TAPE BACK AT END.
- ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
- LOCATE SMOKE DETECTORS A MINIMUM OF THREE (3) FEET FROM MECHANICAL DIFFUSERS, WALL-MOUNTED, SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 4" AND A MAXIMUM OF 12" FROM CEILING. CEILING-MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON CEILINGS AND NOT ON THE BOTTOMS OF BEAMS OR JOISTS.
- PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- VERIFY ALL FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM, PER ALL APPLICABLE CODES, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION.
- PROVIDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- INSTALLING CONTRACTOR SHALL PHYSICALLY LABEL ALL INITIATING DEVICES AND NOTIFICATION APPLIANCE CIRCUIT END OF LINE (WHEN WIRING CLASS "B"). THESE LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.

**FIRE ALARM SYMBOL LEGEND**

SYMBOL	DESCRIPTION	MOUNTING
[E]	FIRE ALARM CONTROL PANEL	WALL-TOP @ 66"
[G]	FIRE ALARM POWER SUPPLY	FIELD VERIFY
[FSA]	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 66"
[K]	KEY BOX	BY OTHERS
[S]	SMOKE DETECTOR	CEILING
[SD]	DUCT SMOKE DETECTOR	BY OTHERS
[H]	HEAT DETECTOR	CEILING
[CM]	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
[MM]	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
[M]	MANUAL PULL STATION	WALL @ 48"
[R]	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
[RM]	ADDRESSABLE RELAY MODULE	FIELD VERIFY
[D]	MAGNETIC DOOR HOLDER	FIELD VERIFY
[WFS]	WATER FLOW SWITCH	BY OTHERS
[VTS]	VALVE TAMPER SWITCH	BY OTHERS
[B]	BELL	BY OTHERS
[CS]	CEILING MOUNT STROBE	FIELD VERIFY
[CH]	CEILING MOUNT HORN / STROBE	FIELD VERIFY
[CS]	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
[H]	HORN	WALL @ 10'-0"
[H]	HORN / STROBE	WALL 80"-96"
[S]	SPEAKER / STROBE	WALL 80"-96"
[S]	SPEAKER	WALL @ 90"
[S]	STROBE	WALL 80"-96"

ABBREVIATION	DESCRIPTION
E	EXISTING
G	WITH GUARD
P	PENDENT MOUNT
R	RESIDENTIAL (110V)
S	SOUNDER BASE
WP	WEATHER PROOF
EOL	END OF LINE RESISTOR
EOLR	END OF LINE RELAY
AWG	AMERICAN WIRE GAUGE
TWP	TWISTED PAIR
TWSP	TWISTED SHIELDED PAIR
PLP	FIRE POWER LIMITED PLENUM
PLPR	FIRE POWER LIMITED RISER

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	1/15/2012
1	REVISED PER CLIENT REVIEW	1/23/2013

**MAINE STATE SECURITY ALARMS**

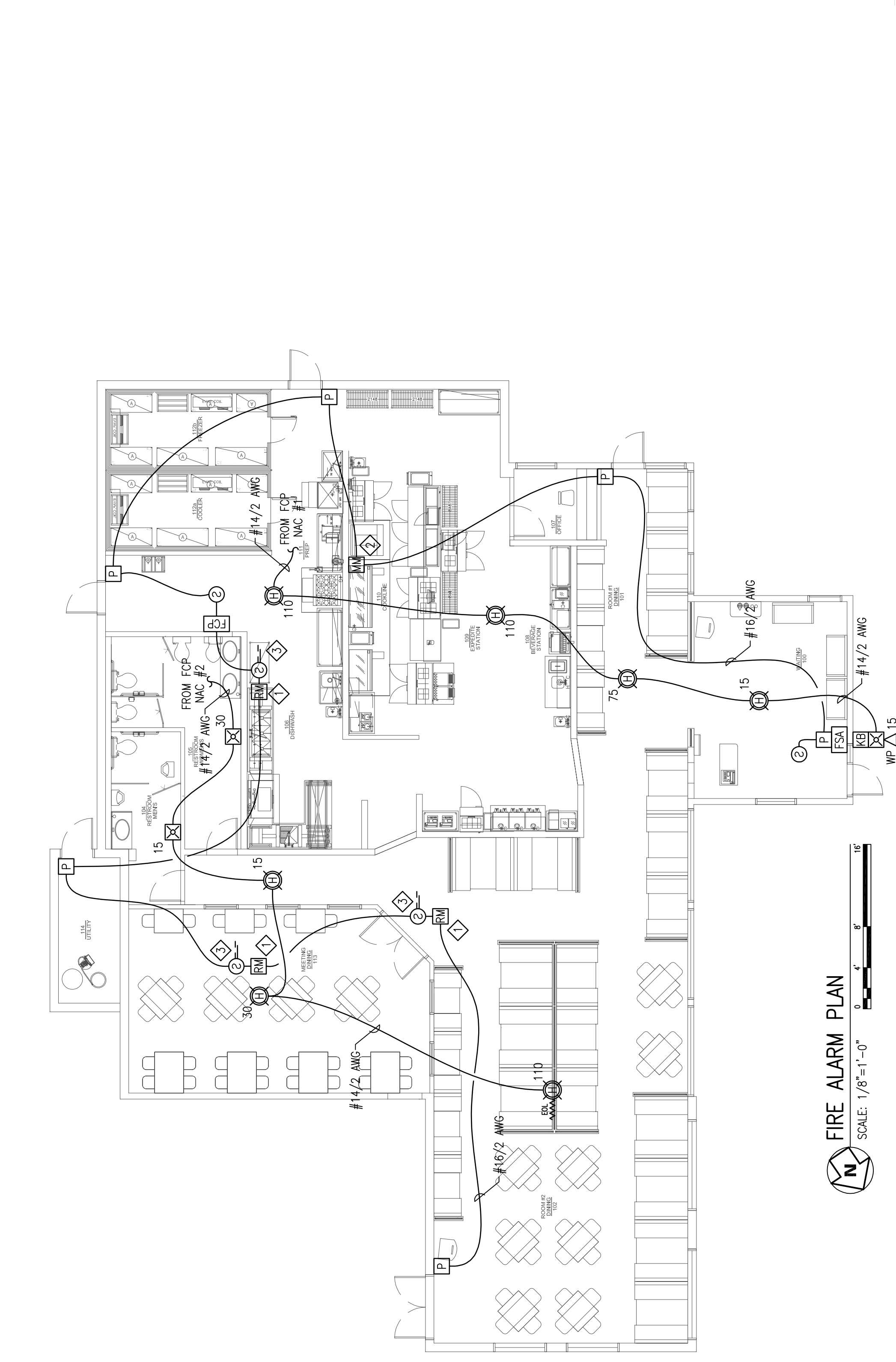
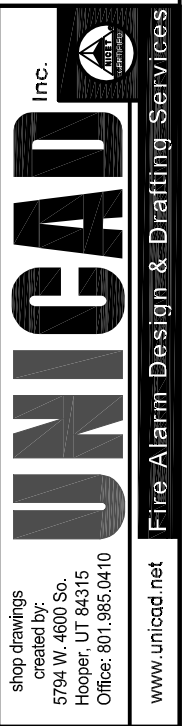
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**THE EGG & I  
 155 RIVERSIDE STREET  
 PORTLAND, MAINE 04103  
 FIRE ALARM PLAN**

DRAWN	DRH	UNICAD JOB #13005
CHECKED	WAYNE B HAWES	
DATE	1/23/2013	
REVISION	1	
SCALE	1/8" = 1'-0"	



**FIRE ALARM PLAN**  
 SCALE: 1/8"=1'-0"

**SILENT KNIGHT**  
 5808 Calculations  
 Version 12.30.10

Global Project Values:  
 Project Name: THE EGG AND I  
 Project ID: 13005  
 Prepared By: JABH  
 Date: 1/23/2013

Standby Hours: 24  
 Alarm Mins: 5  
 Derating Factor: 1.2  
 Voltage Drop Warning Threshold %: 20

Panel ID: 5808  
 Location: REAR HALLWAY  
 Model: 5808 Add Fire Alarm Control Panel  
 Vols: 24 VDC  
 Max NAC Current: 3.0 Amps  
 Max Panel Current: 6.0 Amps

Qty	Circuit Name	Wire	AVG	Length	Ohms	Per	1000 Ft.	One-Way	Actual	Volts @	% Drop
		& Type	& Type	1000 Ft.	Per	1000 Ft.	One-Way	Ohms	Ohms	EOL	
1	5808 CTRL Panel	1	0.170	0.325							
3	Dist. Photo-T	3	0.011	0.001							
3	SK	3	0.001	0.001							
6	SK	6	0.002	0.002							
1	SK	1	0.000	0.000							
3	SK	3	0.001	0.001							
3	SSRST515KEY	3	0.000	0.023							
1	5860	1	0.050	0.025	114'						
0.000	NAC #1		0.000	0.758	#14 Solid	2.52			100	0.24	20.16
0.000	NAC #2		0.000	0.558	#14 Solid	1.99			140	0.31	20.09
0.195	NAC #3		0.195	1.693	#14 Solid	1.99			140	0.31	20.09
4.674	NAC #4		4.674	1.014	#14 Solid	1.99			140	0.31	20.09
4.81	NAC #5		4.81	1.014	#14 Solid	1.99			140	0.31	20.09
24	Total Standby Current (Amps)		24	0.085	Total Alarm Current (Amps)						
4.81	Total Standby Current (Amps)		4.81	0.085	Total Alarm Current (Amps)						
1.20	Total Standby Current (Amps)		1.20	0.085	Total Alarm Current (Amps)						
5.78	Total Standby Current (Amps)		5.78	0.085	Total Alarm Current (Amps)						

**SHEET NOTES:**

- ADDRESSABLE RELAY MODULE(S) PROVIDED FOR FAN SHUT DOWN. TIE TO INDICATED UNIT FAN CONTROLLER. INSTALLING CONTRACTOR SHALL FIELD VERIFY EXACT MOUNTING, CIRCUITING, AND PROGRAMMING REQUIREMENTS. FIELD VERIFY POWER SOURCE. USE MULTI-VOLTAGE CONTROL RELAY(S) IF REQUIRED. FIELD VERIFY EXACT QUANTITY AND LOCATION(S) WITH MECHANICAL DIVISION.
- ADDRESSABLE MONITOR MODULE PROVIDED TO MONITOR THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM. INSTALLING CONTRACTOR SHALL FIELD VERIFY EXACT MOUNTING, CIRCUITING, AND PROGRAMMING REQUIREMENTS. FIELD VERIFY EXACT QUANTITY AND LOCATION(S).
- DUCT SMOKE DETECTORS PROVIDED FOR THE RETURN AIR PATH AT ALL AIR HANDLING UNITS HAVING A CAPACITY GREATER THAN 2,000 CFM AND FOR THE SUPPLY AIR PATH AT ALL AIR HANDLING UNITS HAVING A CAPACITY GREATER THAN 15,000 CFM. INSTALLING CONTRACTOR SHALL FIELD VERIFY EXACT MOUNTING, CIRCUITING AND PROGRAMMING REQUIREMENTS. PROVIDE FOR SHUT DOWN OF THE ASSOCIATED UNIT FAN(S). FIELD VERIFY UNIT POWER SOURCE. USE MULTI-VOLTAGE CONTROL RELAY(S) IF REQUIRED. FIELD VERIFY EXACT QUANTITY AND LOCATION(S) WITH MECHANICAL DIVISION. PROVIDE REMOTE ALARM/SUPERVISORY INDICATION IN A LOCATION ACCEPTABLE TO THE LOCAL AHU WHEN IN-DUCT SMOKE DETECTOR INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL.

**NAC Circuit Voltage Drop Calculation**

Project Name: THE EGG AND I  
 Circuit Number: FCP NAC 1

Nominal System Voltage: 20.4 volts  
 Minimum Device Voltage: 15 volts  
 Distance from source to 1st device: 14  
 Wire Gauge for balance of circuit: 14

Max Output Current: 3.0 amps  
 Total Circuit Current: 0.758 amps

Device	Current	Distance previous device	Voltage at source	Drop	Percent Drop
Device 1	0.212	20.33	0.07	0%	
Device 2	0.212	30	0.17	1%	
Device 3	0.212	20	0.23	1%	
Device 4	0.078	20.17	0.23	1%	
Device 5	0.078	15	0.24	1%	
Totals	0.758	100			

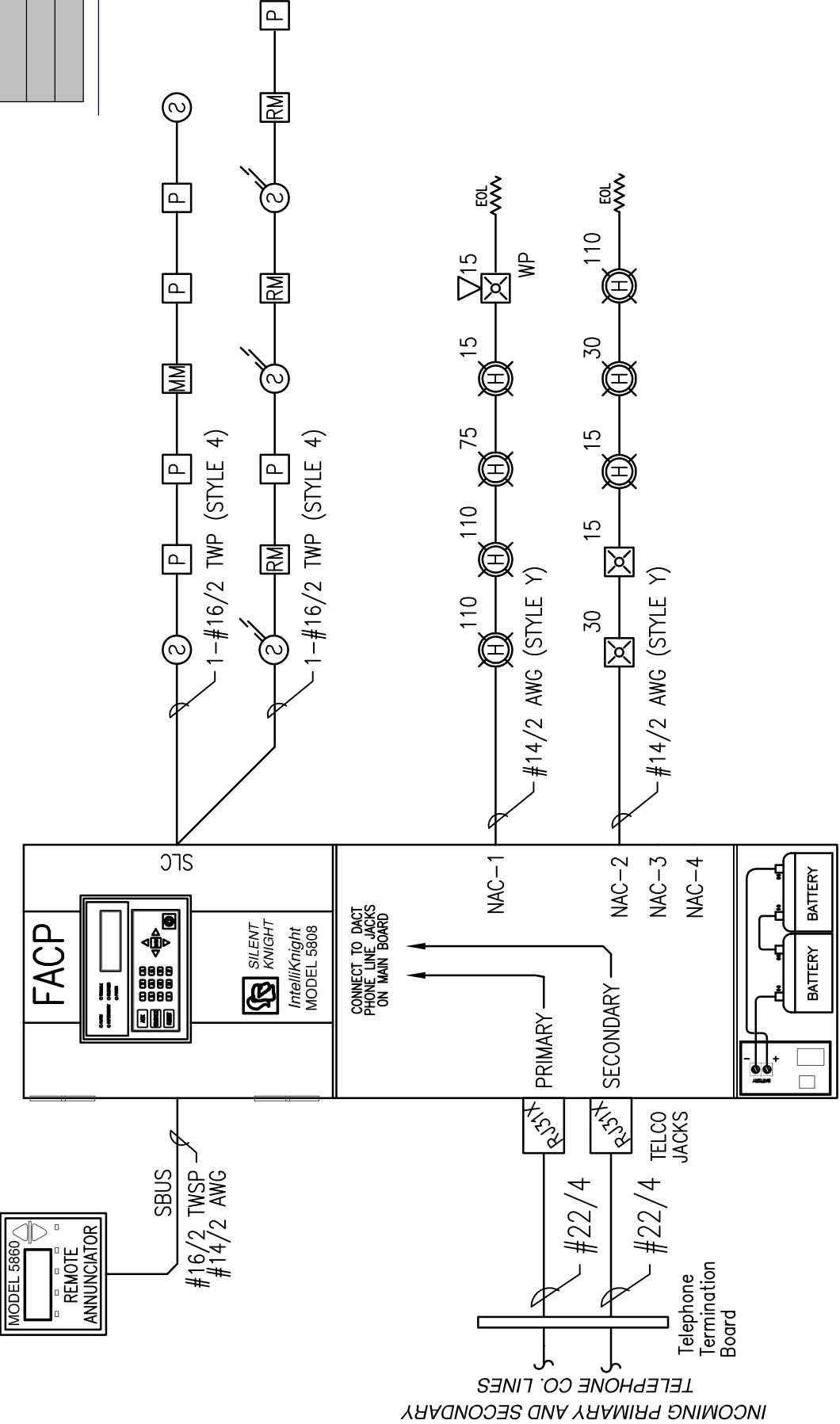
**NAC Circuit Voltage Drop Calculation**

Project Name: THE EGG AND I  
 Circuit Number: FCP NAC 2

Nominal System Voltage: 20.4 volts  
 Minimum Device Voltage: 15 volts  
 Distance from source to 1st device: 14  
 Wire Gauge for balance of circuit: 14

Max Output Current: 3.0 amps  
 Total Circuit Current: 0.558 amps

Device	Current	Distance previous device	Voltage at source	Drop	Percent Drop
Device 1	0.094	20.33	0.07	0%	
Device 2	0.058	20.26	0.14	1%	
Device 3	0.107	20.15	0.25	1%	
Device 4	0.212	20.09	0.31	2%	
Totals	0.558	140			



**FIRE ALARM RISER DIAGRAM**  
 SCHEMATIC: NO SCALE