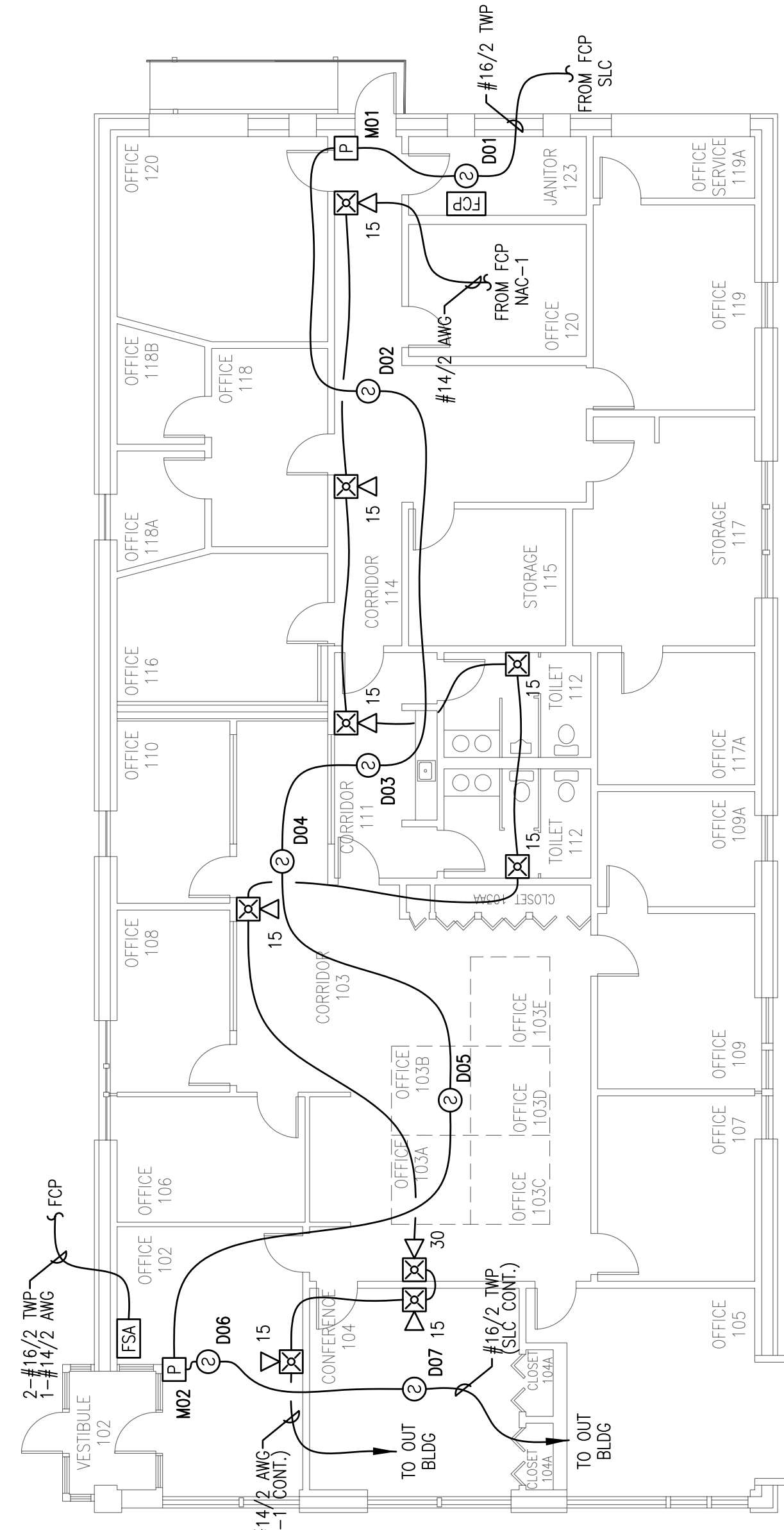


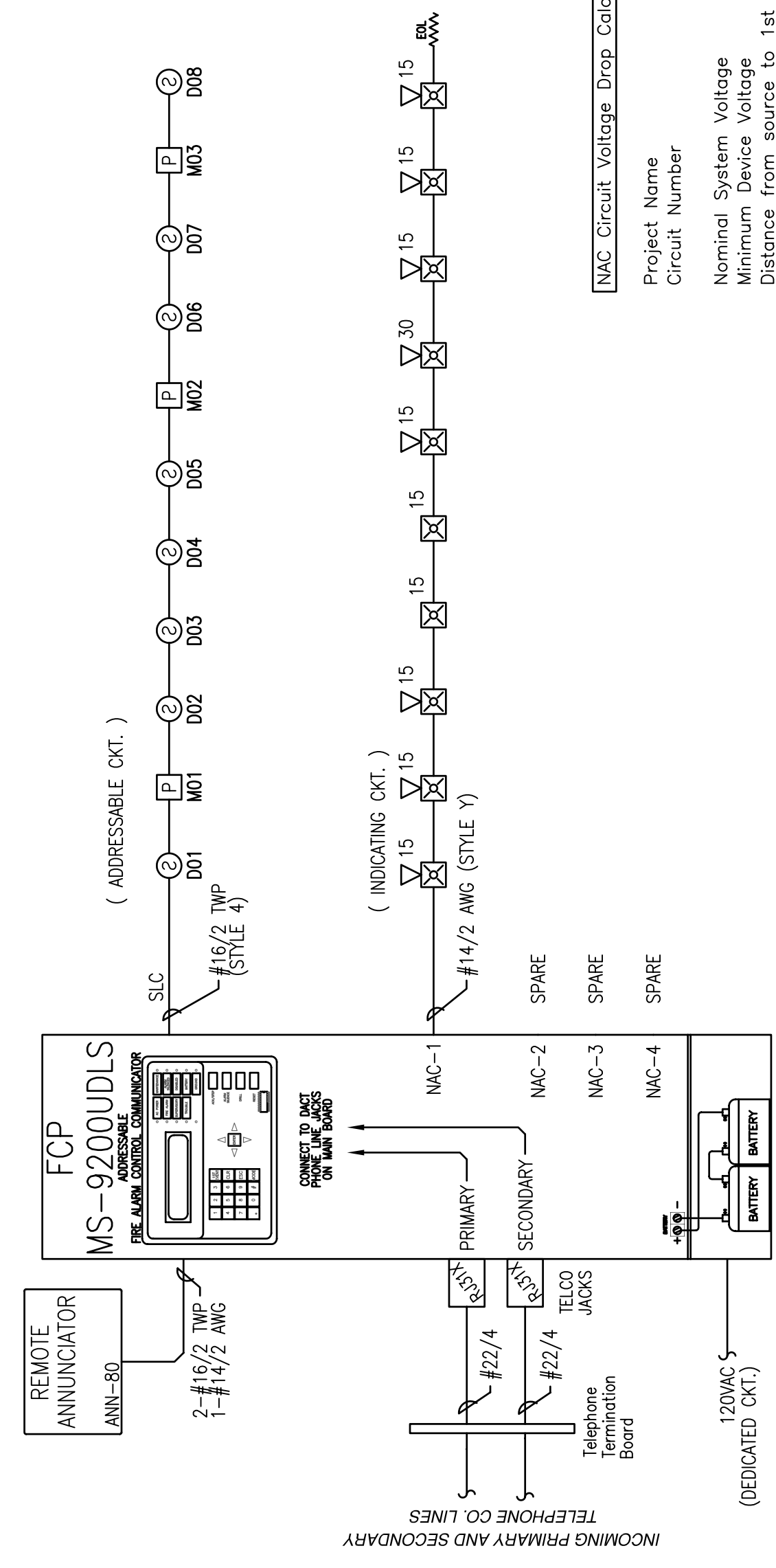
GENERAL NOTES:

- 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, SEPARATE OUTGOING AND RETURN CONDUCTORS OF 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.



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

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

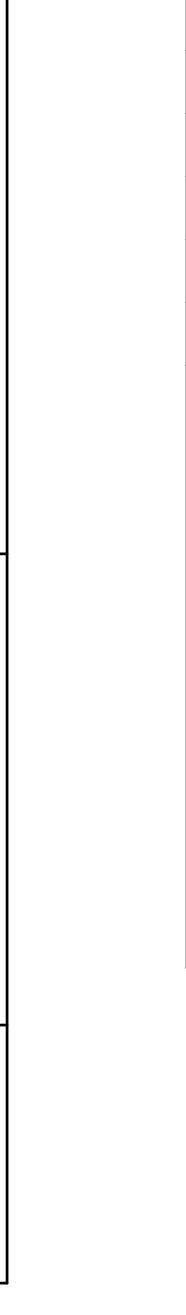


FIRE ALARM RISER DIAGRAM
SCHEMATIC: NO SCALE

FIRE ALARM SYMBOL LEGEND
NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT

SYMBOL	DESCRIPTION	MOUNTING
FCP	FIRE ALARM CONTROL PANEL	WALL-TOP @ 66"
FPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
FSA	FIRE SYSTEM ANNUNCIATOR	WALL-TOP @ 66"
FSD	FIRE/SMOKE DAMPER	BY OTHERS
⊙	SMOKE DETECTOR	CEILING
⊙-	DUCT SMOKE DETECTOR	BY OTHERS
⊙	HEAT DETECTOR	CEILING
⊙M	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
⊙M	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
P	MANUAL PULL STATION	WALL @ 48"
⊙	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
⊙M	ADDRESSABLE RELAY MODULE	FIELD VERIFY
⊙	MAGNETIC DOOR HOLDER	FIELD VERIFY
⊙	WATER FLOW SWITCH	BY OTHERS
⊙	VALVE TAMPER SWITCH	BY OTHERS
⊙	BELL	BY OTHERS
⊙	CEILING MOUNT STROBE	FIELD VERIFY
⊙	CEILING MOUNT HORN / STROBE	FIELD VERIFY
⊙	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
⊙	HORN	WALL @ 10'-0"
⊙	HORN / STROBE	WALL 80"-96"
⊙	SPEAKER / STROBE	WALL 80"-96"
⊙	SPEAKER	WALL @ 90"
⊙	STROBE	WALL 80"-96"

ABBREVIATION	DESCRIPTION
E	EXISTING
G	WITH GUARD
P	PENDANT 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
FPLP	FIRE POWER LIMITED PLENUM
FPLR	FIRE POWER LIMITED RISER



**15 BAXTER BOULEVARD
PORTLAND, MAINE
FIRE ALARM PLAN**

OPERATIONS MATRIX	FIRE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE TROUBLE INDICATOR	ACTIVATE AUDIBLE TROUBLE INDICATOR	TRANSMIT TROUBLE SIGNAL
FIRE ALARM INPUT	●	●	●	●	●
SMOKE DETECTORS	●	●	●	●	●
PULL STATIONS	●	●	●	●	●
FIRE ALARM AC POWER FAIL	●	●	●	●	●
FIRE ALARM LOW BATTERY	●	●	●	●	●
OPEN CIRCUIT	●	●	●	●	●
GROUND FAULT	●	●	●	●	●
NAC SHORT CIRCUIT	●	●	●	●	●
LOSS OF AC TO BUILDING	●	●	●	●	●

FCP Battery Calculation

PROJECT NAME: 15 BAXTER BOULEVARD
Required Standby Time: 24 Hours
Required Alarm Time: 5 Minutes

Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
MS-9200UDLS - Main Circuit Board	1	0.13700	0.13700
ANN-80 Annunciator	1	0.01500	0.01500
SD355 Smoke Detectors	8	0.00030	0.00240
BC-12LX Pull Stations	3	0.00023	0.00069
TOTAL STANDBY LOAD			0.15509

Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
MS-9200UDLS - Main Circuit Board	1	0.36000	0.36000
ANN-80 Annunciator	1	0.04000	0.40000
Max. Alarm Draw - All Addressable Devices	1	0.40000	0.40000
NAC-1	1	0.79200	0.79200
TOTAL ALARM LOAD			1.59200

Standby Load	Current (Amps)	Required Standby Time in Hours
Standby Load	0.15509	24.0000
Alarm Load	1.59200	3.72216
Total Ampere Hours (before derating factor)		3.85483
Derating Factor		X
TOTAL AMPERE HOURS REQUIRED		4.62579

BATTERIES TO BE PROVIDED (2 - 12v)

NAC Circuit Voltage Drop Calculation

Project Name: 15 BAXTER BLVD
Circuit Number: NAC-1

20.4 volts
16 Gauge
1.5 amps
0.792 amps

Resistance Per 1000: 6.14
Wire Gauge for balance of circuit: 14

Circuit is within limits

Device	Current	Distance previous device	Voltage at device	Drop from source	Percent Drop
Device 1	0.079	20.36	20.36	0.04	0%
Device 2	0.079	19	20.27	0.13	1%
Device 3	0.079	16	20.21	0.19	1%
Device 4	0.068	16	20.16	0.24	1%
Device 5	0.068	14	20.11	0.29	1%
Device 6	0.079	2	20.08	0.31	2%
Device 7	0.079	35	19.99	0.41	2%
Device 8	0.079	2	19.98	0.42	2%
Device 9	0.079	13	19.97	0.43	2%
Device 10	0.079	15	19.95	0.45	2%
Totals	0.792	195			