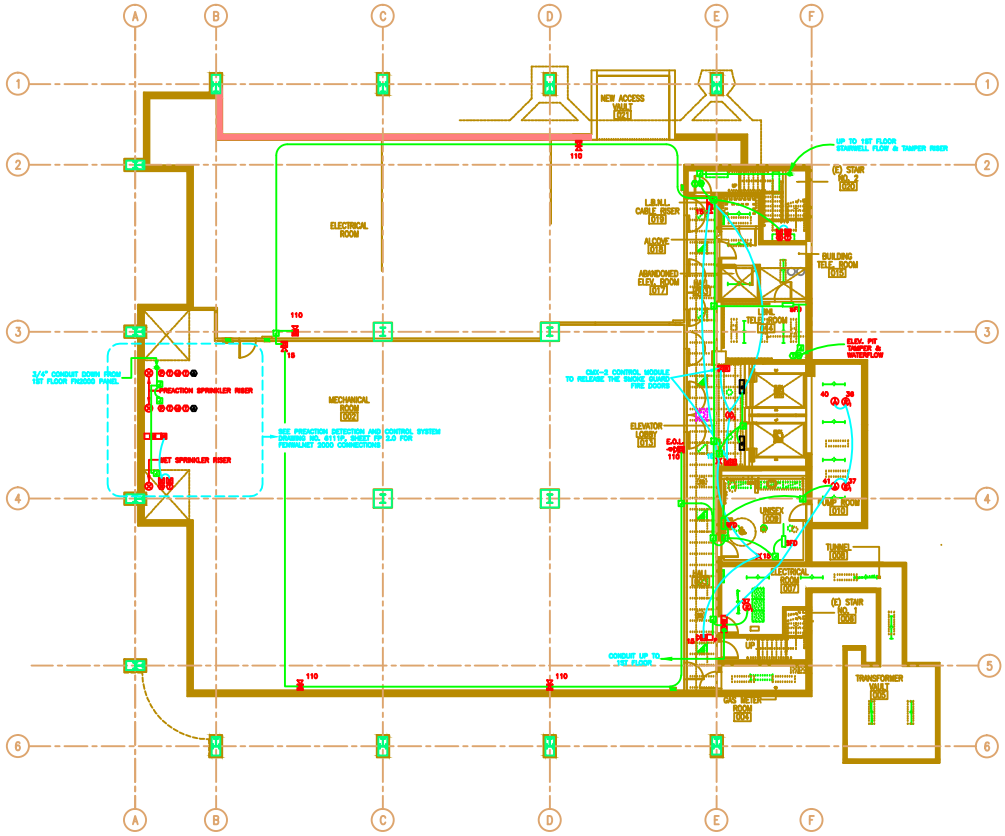

1 BASEMENT FLOOR PLAN
SCALE 1/8" = 1'-0"

NOTE:

1. ALL DEVICES ARE NEW.

2. THE AREA SMOKE DETECTORS SHALL NOT BE LOCATED WITHIN 3 FEET OF HVAC SUPPLY AIR DIFFUSERS.

LEGEND:

- FIRE ALARM CONTROL PANEL
- DIGITAL TRANSMITTER
- REMOTE SIGNAL CONTROL PANEL
- FIRE ALARM TERMINAL CABINET
- PREACTION CONTROL PANEL
- IONIZATION SMOKE SENSOR,
- THERMAL DETECTOR
- DUCT DETECTOR
- LIQUID CRYSTAL DISPLAY ANNUNCIATOR
- ADDRESSABLE CONTROL MODULE
- ADDRESSABLE MONITOR MODULE
- MANUAL PULL STATION
- ALARM STROBE, ∅ = CANDELA RATING
- ALARM HORN/STROBE, ∅ = CANDELA RATING
- ELECTROMAGNETIC DOOR HOLDER, 120 VAC
- PIV SWITCH (BY OTHERS)
- PRESSURE SWITCH – PREACTION (BY OTHERS)
- LOW AIR SWITCH – PREACTION (BY OTHERS)
- TAMPER SWITCH (BY OTHERS)
- WATERFLOW SWITCH (BY OTHERS)
- SPRINKLER RISER
- JUNCTION BOX
- WP WEATHERPROOF
- ALARM TRIP (BY OTHERS)
- SD SMOKE/FIRE DAMPER DUCT DETECTOR
- ELEVATOR FIRE CURTAIN CONTROLLER (BY OTHERS)

VOLTAGE DROP CALCULATIONS – (WORST CASE)

FACP PANEL: CIRCUIT #2

1 BRANCH – 0.038 AMPS DRAW PER DSM SYNC MODULE
2 BRANCHES – 0.060 AMPS DRAW PER 15 CANDELA STROBES
2 BRANCHES – 0.087 AMPS DRAW PER 15 CANDELA HORN/STROBES
1 BRANCHES – 0.117 AMPS DRAW PER 75 CANDELA HORN/STROBE
5 BRANCHES – 0.236 AMPS DRAW PER 110 CANDELA HORN/STROBES

VOLTAGE DROP = CURRENT X RESISTANCE
#14 GAUGE WIRE = 0.326 OHMS PER 100 FEET OF WIRE

5 FEET OF WIRE TO BRANCH 1
1.409 AMPS x .0163 OHMS = .024 VDC DROP

100 FEET OF WIRE FROM BRANCH 1 TO 2
1.401 AMPS x .326 OHMS = .576 VDC DROP

40 FEET OF WIRE FROM BRANCH 2 TO 3
1.374 AMPS x .1304 OHMS = .179 VDC DROP

40 FEET OF WIRE FROM BRANCH 3 TO 4
1.334 AMPS x .1304 OHMS = .173 VDC DROP

100 FEET OF WIRE FROM BRANCH 4 TO 5
1.274 AMPS x .326 OHMS = .415 VDC DROP

60 FEET OF WIRE FROM BRANCH 5 TO 6
1.167 AMPS x .1956 OHMS = .228 VDC DROP

130 FEET OF WIRE FROM BRANCH 6 TO 7
.765 AMPS x .0326 OHMS = .025 VDC DROP

10 FEET OF WIRE FROM BRANCH 7 TO 8
.763 AMPS x .0326 OHMS = .025 VDC DROP

130 FEET OF WIRE FROM BRANCH 8 TO 9
.681 AMPS x .0326 OHMS = .349 VDC DROP

100 FEET OF WIRE FROM BRANCH 9 TO 10
.404 AMPS x .326 OHMS = .132 VDC DROP

100 FEET OF WIRE FROM BRANCH 10 TO 11
.202 AMPS x .326 OHMS = .066 VDC DROP

2.367 VDC (TOTAL)

2.367 VDC / 24 V x 100 = 9.86% VOLTAGE DROP

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2600 MIRA MAR AVENUE
LONG BEACH, CA. 90815
P 562 494 3007
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TYPE OF WORK: FIRE ALARM SYSTEM

VIEW: SIMCO ELECTRIC
1400 MEDICAL DRIVE
SANTA CLARA, CALIFORNIA 95050-2642

NO.	DATE	DESCRIPTION	BY
1	4-24-2002	FOR SUBMITTAL	RGA
2	4-25-2002	FOR SUBMITTAL	RGA
3	6-3-2002	REV. PER PLAN CHECK CORRECTIONS	RGA
4	6-23-2002	CHANGE GRIDS 2A	RGA
5	6-25-2002	REV. PER PLAN CHECK CORRS. 2C	RGA
6	10-10-02	AS BUILT	HM

ELECTRICAL: SIMCO ENGINEERING INC. BY
MECHANICAL: SIMCO ENGINEERING INC. BY
CHECK-OUT TECHNICIAN: SIMCO ENGINEERING INC. BY

PROJECT TITLE:

LAWRENCE BERKELEY
NATIONAL LABORATORY
COMPUTING CENTER
415 20th STREET
OAKLAND, CALIFORNIA 94612

SHEET DESCRIPTION: BASEMENT FLOOR PLAN

PROFESSIONAL STAMP: EXP. 04/30/2004

PROJECT NUMBER: AL-00204
FILE NAME: AL-00204BLB3B
APPROVED BY: BY
CHECKED BY: HMB
DRAWN BY: RGA
SCALE: 1/8" = 1'-0"
DRAWING NUMBER: 6111
SHEET NUMBER: FP 2.0
FILE: 00012422
4N943E040
PROJ. NO. FH0113