

ENERGY
LAB

Hawaii
Preparatory
Academy

Kamuela, Hawaii
Tmk: 6-5-01: 33

FLANSBURGH ARCHITECTS

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Architecture
Master Planning
Space Planning
Interior Design

PROJECT MANAGEMENT
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SUSTAINABILITY
Burt Hoppard Consulting Engineers PC
400 West 12th Street, Suite 200
New York, NY 10005

212.334.2025 tel

CIVIL ENGINEERING

Belt Collins Hawaii Ltd.
2183 North King Street, Suite 200
Honolulu, HI 96819

808.521.5361 tel

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STRUCTURAL ENGINEERING

Water Vorfeld & Associates
1000 South Street
Honolulu, HI 96708

808.572.3535 tel

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MECHANICAL ENGINEERING

Haleiua Engineering
1000 South Street
Honolulu, HI 96710

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ELECTRICAL ENGINEERING

Wallace T. Oki, PE, Inc.
808.961.9666 x22

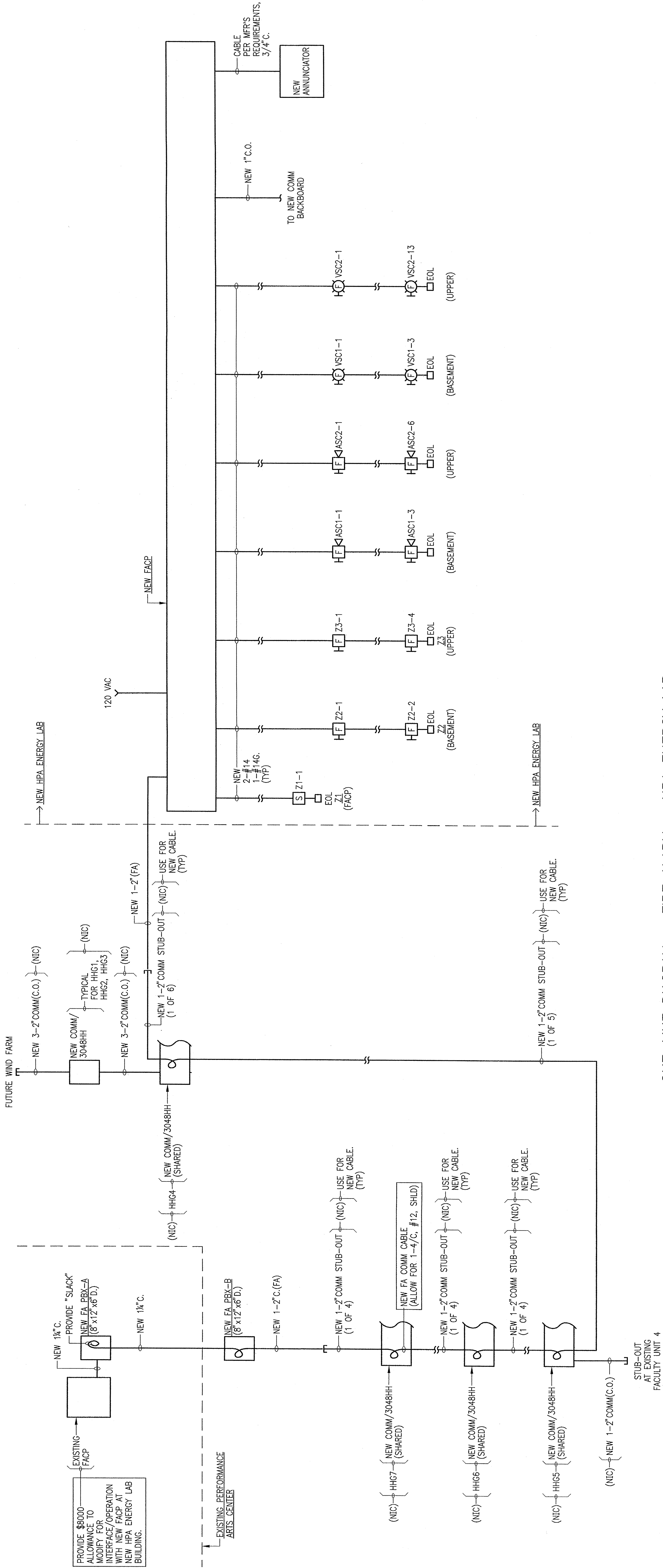
ALL ELECTRICAL WORK SHALL CONFORM TO
CHAP. 9, HAWAIIAN ELECTRICAL CODE, AND
INSTALLATIONS AND MATERIALS SHALL BE
IN ACCORDANCE WITH THE NATIONAL
ELECTRICAL CODE

WALLACE T. OKI
LICENSED PROFESSIONAL
ENGINEER
5339-E

THIS WORK WAS PREPARED BY ME
OR UNDER MY CLOSE PERSONAL
SUPERVISION AND I AM AWARE OF
THE CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION
WALLACE T. OKI, P.E., INC.
ELECTRICAL ENGINEERING
1000 South Street, Suite 200
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TEL: 808.961.9666 FAX: 808.961.9666
WTO REG. NO. 82008149

ELECTRICAL WORK

Drawn by:	-	Job Number:	2804.00
Checked by:		Scale:	AS NOTED
Plot Date:		Issue Date:	17 OCT 08
PERMIT ISSUE			E-8



ONE-LINE DIAGRAM - FIRE ALARM - HPA ENERGY LAB

NOTES - FIRE ALARM SYSTEM

- CONTRACTOR SHALL PROVIDE A COMPLETE FIRE ALARM SYSTEM CONSISTING OF CONTROL PANEL, INITIATING APPLIANCES, AUDIO AND VISUAL INDICATING APPLIANCES AND ALL REQUIRED ACCESSORIES.
- ALL EQUIPMENT SHALL BE OF THE SAME BRAND OR MANUFACTURER.
- FIRE ALARM SYSTEM SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF THE UFC, NFPA, NEC, AND THE FIRE MARSHALL'S REQUIREMENTS.
- CONTROL PANEL
 - 8 ZONE MINIMUM (3 USED, 5 SPARES)
 - NON-CODED
 - SMoke INITIATE/VISUAL SIGNAL CIRCUIT, SUPERVISED, 24 VDC
 - PARALLEL/SHARED SIGNAL CIRCUITS, SUPERVISED, 24 VDC (1-SPARE CIRCUIT EACH)
 - ALARM RESOUND WITH ACKNOWLEDGE
 - VOLTAGE, WITH BATTERY CHARGER AND BATTERY
 - AUXILIARY ALARM CONTACTS
 - SURGE/LIGHTNING ARRESTOR
 - TIMER MODULE FOR AUTO-SHUT-OFF
 - POWER FAILURE MONITOR
 - ALL SIGNAL CIRCUITS ENERGIZED, MARCH TIME
 - FUSE AND RESET MODULES
 - SUPERVISED REMOTE ANNUNCIATOR OUTLETS
- MANUAL UNIT LATCHING APPLIANCE, NON-CODED, SINGLE ACTION, NON-BREAK GLASS TYPE, RECESSED PULL LEVER LOCKED OPEN WHEN OPERATED, KEY LOCK RESET - KEYS WITH CONTROL PANEL, COMPLYING WITH ADAAG GUIDELINES: FLUSH MOUNTING OUTLET BOX, .038 AMPERES, 87db AT 10 FEET, RED HOUSING, APPROX. 4-3/4"X 4-3/4", FLUSH MOUNTING OUTLET BOX.
- VISUAL INDICATING APPLIANCE: 24 VDC, 115 CANDELA-SECOND XENON FLASHER, ADJUSTABLE, 1 HZ RATE, CLEAR LENS, RED HOUSING WITH WHITE "FIRE" LABEL, FLUSH MOUNTING OUTLET BOX.
- SMoke DETECTORS: 2-WIRE TYPE, NON-POLARIZED, TAMPERPROOF, VDC NOMINAL BATTERY, LOCATED 8 FEET FROM CEILING, 22 VDC NOMINAL BATTERY, FIELD ADJUSTABLE SENSITIVITY, FLUSH OUTLET BOX MOUNTING, 135 DEGREES F. RATED, FIXED, LOW PROFILE, HEAT DETECTORS.
- ACTUATED INDICATOR, FLUSH OUTLET BOX MOUNTING.

FREE ALARM - SHALL BE IN ACCORDANCE WITH UFC
ARTICLE 34 AND NFPA 72