ELECTRICAL LEGEND

SYMBOLS EXIST	SYMBOLS NEW	DESCRIPTION
		FLUORESCENT FIXTURE, WRAPAROUND, 1'x4', STEM OR SURFACE MOUNTED
		FLUORESCENT FIXTURE, TROFFER, 2'x4', RECESSED, CEILING MOUNTED
		FLUORESCENT FIXTURE, TROFFER, 2'x4', RECESSED, CEILING MOUNTED, BATTERY PACK
		FLUORESCENT FIXTURE, INDUSTRIAL TYPE, 4'L, STEM MOUNTED
		FLUORESCENT FIXTURE, INDUSTRIAL TYPE, 4'L, STEM MOUNTED, BATTERY PACK
		INCANDESCENT DARK ROOM LIGHT, RECESSED CEILING MOUNTED
		FLUORESCENT FIXTURE, TROFFER, 2'x2', RECESSED CEILING MOUNTED
		FLUORESCENT FIXTURE, TROFFER, 2'x2', RECESSED CEILING MOUNTED, BATTERY PACK
		LED ILLUMINATED SIGN, WALL MOUNTED
		FLUORESCENT FIXTURE, 4'L, WALL MOUNTED
		FLUORESCENT FIXTURE, 4'L, WALL MOUNTED BATTERY PACK
		COMPACT FLUORESCENT DOWN LIGHT, RECESSED CEILING MOUNTED, WET LOCATION
		HALOGEN EMERGENCY LIGHT, WALL MOUNTED
		HPS HIGHBAY FIXTURE
		HPS WALL MOUNTED
		SELF ILLUMINATED EXIT SIGN, WALL MOUNTED
		HAZARDOUS LOCATION FLUORESCENT FIXTURE, 4'L, CEILING MOUNTED
		HAZARDOUS LOCATION FLUORESCENT FIXTURE, 4'L, CEILING MOUNTED BATTERY PACK
		HAZARDOUS LOCATION FLUORESCENT FIXTURE, 4'L, WALL MOUNTED
		HAZARDOUS LOCATION FLUORESCENT FIXTURE, 4'L, WALL MOUNTED BATTERY PACK
		RELOCATED HPS POLE MOUNTED FLOOD LIGHT, 2 HEADS INDICATED
		RELOCATED HPS POLE MOUNTED FLOOD LIGHT, 3 HEADS INDICATED
		HPS POLE MOUNTED AREA LIGHT
		EXIT SIGN, WALL MOUNTED, SINGLE FACED
		EXIT SIGN, CEILING MOUNTED, SINGLE FACED WITH DIRECTIONAL ARROW AS NOTED
		EXIT SIGN, CEILING MOUNTED, DOUBLE FACED WITH DIRECTIONAL ARROW AS NOTED
	$	SWITCH, SINGLE POLE, 20A, 48" AFF, OR AS NOTED
	$3	SWITCH, 3 WAY, 20A, 48" AFF, OR AS NOTED
	$4	SWITCH, 4 WAY, 20A, 48" AFF, OR AS NOTED
	$M	MANUAL MOTOR STARTER, HP RATED
		NON-FUSED SAFETY SWITCH, HEAVY DUTY TYPE, HP RATED
		MOTOR STARTER, HP RATED
	(M)	MOTOR CONNECTION
	(H)	HEATER CONNECTION
	(E)	EQUIPMENT CONNECTION
		SINGLE RECEPTACLE, WALL MTD. NEMA 5-20R, 18" AFF, OR AS NOTED.
		RECEPTACLE, DUPLEX, WALL MTD, NEMA 5-20R, 18" AFF, OR AS NOTED
		RECEPTACLE, DUPLEX, WALL MTD, NEMA 5-20R, GFCI, +18" AFF, OR AS NOTED
		COUNTERTOP RECEPTACLE, DUPLEX, WALL MTD, NEMA 5-20R, 6" ABOVE COUNTERTOP, OR AS NOTED
		COUNTERTOP RECEPTACLE, DUPLEX, WALL MTD, NEMA 5-20R, GFCI, 6" ABOVE COUNTERTOP, OR AS NOTED
		RECEPTACLE, QUADRAPLEX, WALL MTD, NEMA 5-20R, 18" AFF, OR AS NOTED
		RECEPTACLE, ISOLATED GROUND, WALL MTD, NEMA 5-20R, 18" AFF, OR AS NOTED

ELECTRICAL LEGEND (CONT.)

SYMBOLS EXIST	SYMBOLS NEW	DESCRIPTION
		RANGE OUTLET, TO MATCH EQUIPMENT PLUG CAP
		RECEPTACLE, DUPLEX, FLOOR MOUNTED
		WALL MOUNTED SPECIAL PURPOSE RECEPTACLE
		PANELBOARD
		TELEPHONE CABINET
	T	TRANSFORMER, DRY-TYPE, SIZE AS NOTED
		RACEWAY & WIRING, CONCEALED IN WALL OR CEILING
		CONCEALED HOMERUN RACEWAY & WIRING
		HATCH MARKS INDICATE NO. OF CURRENT CARRYING CONDUCTORS PLUS GROUND WIRES
		NO HATCH MARKS INDICATE 2 CURRENT CARRYING CONDUCTORS PLUS GROUND WIRE
		EXPOSED RACEWAY & WIRING
		RACEWAY & WIRING, CONCEALED BELOW GRADE OR FLOOR SLAB
		FLEXIBLE METALLIC CONDUIT, LIQUIDTIGHT IN WET/DAMP LOCATIONS
	GB	GROUND BUS
	A	DUCT SECTION DESIGNATION
		TELEPHONE/FAX OUTLET, 18" AFF, OR AS NOTED
		CATV OUTLET, 18" AFF, OR AS NOTED
	PA 1	PA SPEAKER WALL MOUNTED, +12'-0" AFF, OR AS NOTED, ZONE 1 INDICATED
	SP 1	PA SPEAKER CEILING MOUNTED, ZONE 1 INDICATED
		TELEPHONE/DATA OUTLET, +18" AFF, OR AS NOTED
		DATA OUTLET, 18" AFF, OR AS NOTED
		DATA OUTLET, +18" AFF, OR AS INDICATED
		TEL/DATA OUTLET, +18" AFF, OR AS INDICATED
	R	RCAS DATA OUTLET, 18" AFF, OR AS NOTED. TERMINATE ON A SEPARATE PATCH PANEL.
		FIRE ALARM CONTROL PANEL
	P	PUSH BUTTON
	ST	PUSH BUTTON (SHUNT TRIP)
	J	JUNCTION BOX, 4" SQ. CEILING MOUNTED
	J	JUNCTION BOX, 4" SQ. WALL MOUNTED
	PC	PHOTOCELL, WALL MTD.
	T	TIME CLOCK
	IC	INTERCOM MASTER STATION, TOP AT +48" AFF OR AS NOTED
	F1	LIGHT FIXTURE DESIGNATOR
	M	BALANCED MAGNETIC SWITCH
	K	KEY PAD, +48" AFF OR AS NOTED
	CR	CARD READER, WALL MTD, 48"
		HATCHED ITEMS INDICATES EXISTING ITEM TO BE REMOVED
		DUAL TECHNOLOGY MOTION SENSOR
		SECURITY CAMERA WITH PAN, TILT, AND ZOOM
		FIXED SECURITY CAMERA
	1 / X X	DETAIL INDICATOR: TOP HALF - DETAIL NUMBER BOTTOM LEFT - SHEET NUMBER WHERE DETAIL REFERENCED BOTTOM RIGHT - SHEET NUMBER WHERE DRAWN

ELECTRICAL ABBREVIATIONS

AIC	AMPERE--INTERRUPTING CAPACITY	MTD	MOUNT OR MOUNTED
A/C	ASPHALT CONCRETE	MTG	MOUNTING
AFF	ABOVE FINISH FLOOR	(N)	NEW
AMP, A	AMPERE	NEMA	NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
AWG	AMERICAN WIRE GAUGE	NO., #	NUMBER
AFG	ABOVE FINISH GRADE	O.C.	ON CENTER
BKR	BREAKER	PFB	PROVISION FOR BREAKER
BLDG	BUILDING	PNL	PANEL
C	CONDUIT, CONDUCTOR	PVC	POLYVINYL CHLORIDE
CMU	CONCRETE MASONRY UNIT	RM	ROOM
CONC	CONCRETE	S/S	STAINLESS STEEL
D	DEEP	SURF	SURFACE
EHH	ELECTRICAL HANDHOLE	SWBD	SWITCHBOARD
EM	EMERGENCY	TH	THICK
EMH	ELECTRICAL MANHOLE	TYP	TYPICAL
EOL	END OF LINE	UG	UNDERGROUND
EP	EXPLOSIONPROOF	UV/IR	ULTRAVIOLET/INFRARED
(E),EXIST	EXISTING	UON	UNLESS OTHERWISE NOTED
FA	FIRE ALARM	V	VOLTS
FACP	FIRE ALARM CONTROL PANEL	W	WIRE, WIDE, WATTS, WITH
G	GROUND	WP	WEATHERPROOF
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	XFMR	TRANSFORMER
HP	HORSEPOWER	ø	PHASE
JB	JUNCTION BOX	'	FOOT, FEET
KVA	KILO-VOLT AMPERE	"	INCH, INCHES
KW	KILOWATT	&	AND
MIN	MINIMUM		

DEVICE MOUNTING HEIGHT SCHEDULE

DEVICE ON PLAN	MOUNTING HEIGHT	REFERENCE POINT: FLOOR	CEILING	TO	℄	TOP	BOTTOM	REMARKS
$ $3 $4 ø	48"	●					●	SPECIAL MTG. HTS. INDICATED ON PLAN.
ø ø ø	18"	●					●	SPECIAL MTG. HTS. INDICATED ON PLAN.
	6"	COUNTER TOP			●			
	18"	●					●	SPECIAL MTG. HTS. INDICATED ON PLAN.
							●	SPECIAL MTG. HEIGHTS INDICATED ON PLAN.
							●	SPECIAL MTG. HTS. INDICATED ON PLAN.
	18"	●					●	SPECIAL MTG. HTS. INDICATED ON PLAN.
	18"	●				●		SPECIAL MTG. HTS. INDICATED ON PLAN.
CR	48"	●						
F	60"	●						

"AS-BUILT"
COMMERCIAL ELECTRIC, INC.
1010 Paapu Street
Honolulu, HI 96819
By Donna Lau Date 1/30/14

SUBMITTAL: 100% DESIGN SUBMITTAL

Revision Schedule

Rev #	Description	Date	Approved:

CALVIN C. B. KWAN
LICENSED PROFESSIONAL ENGINEER
NO. 8967-E
HAWAII, U.S.A.
exp.4/30/12

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin C. B. Kwan
SIGNATURE

DEPARTMENTS OF THE ARMY AND AIR FORCE
ARMY NATIONAL GUARD OF HAWAII
FACILITY MANAGEMENT OFFICE

COMBINED SUPPORT MAINTENANCE FACILITY #1
ADDITIONS & ALTERATIONS TO BUILDING 117, PHASE 2
KALAELOA (FORMER BARERS POINT NAS), HAWAII

ELEC LEGEND, ABBREVIATIONS, AND MOUNTING HTS SCHEDULE

R. MATSUNAGA AND ASSOC., ARCH. INC.		PROJECT NO. 150077	DRAWING NO. E0.01
DESIGNED BY: CK	CHECKED BY: GO		
DRAWN BY: SN	APPROVED BY: GO	DATE APRIL 8, 2011	SHEET 255 OF 392 SHEETS
SCALE:			

SHEET ISSUE DATE: 04/08/11