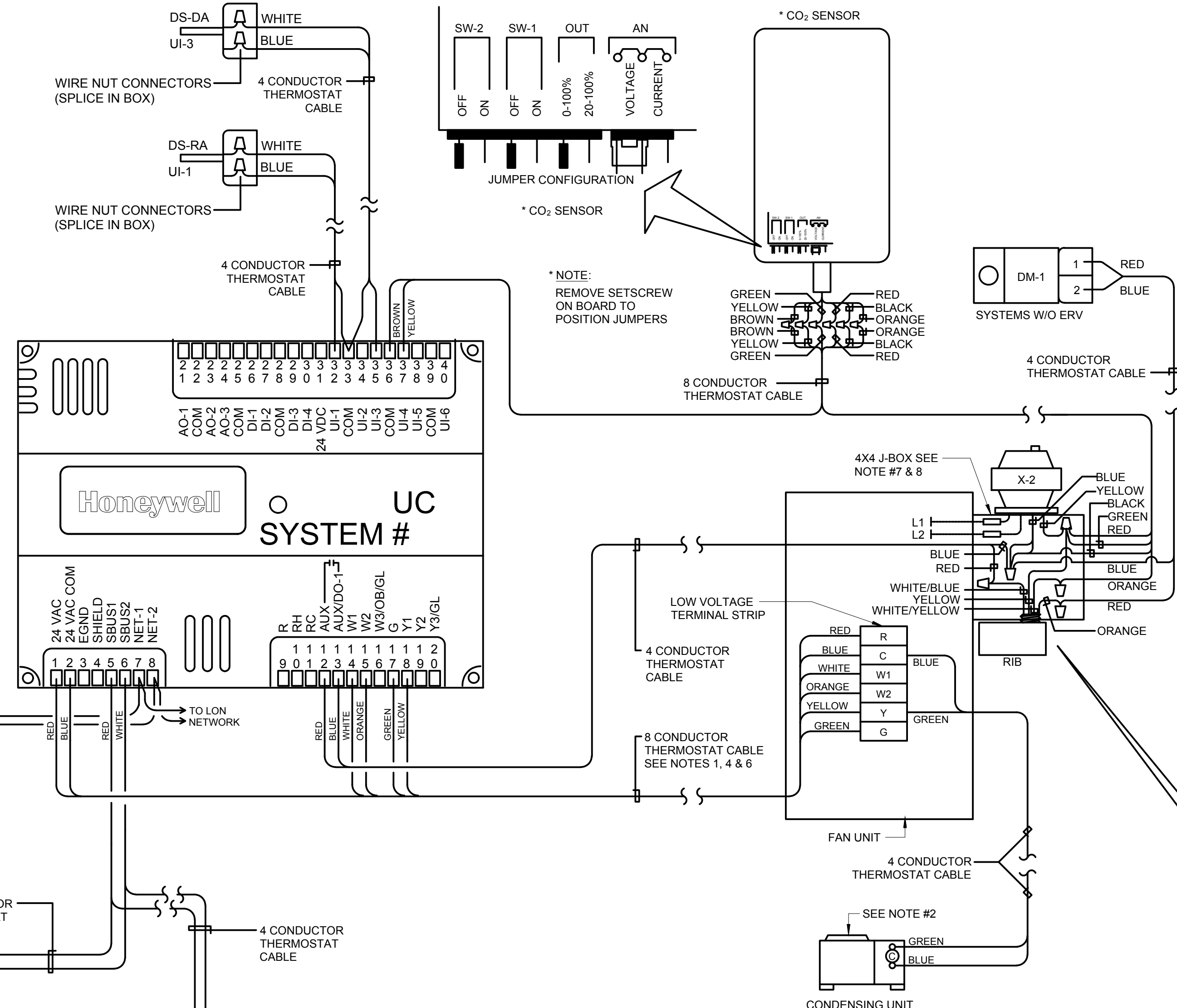


**LEGEND:**

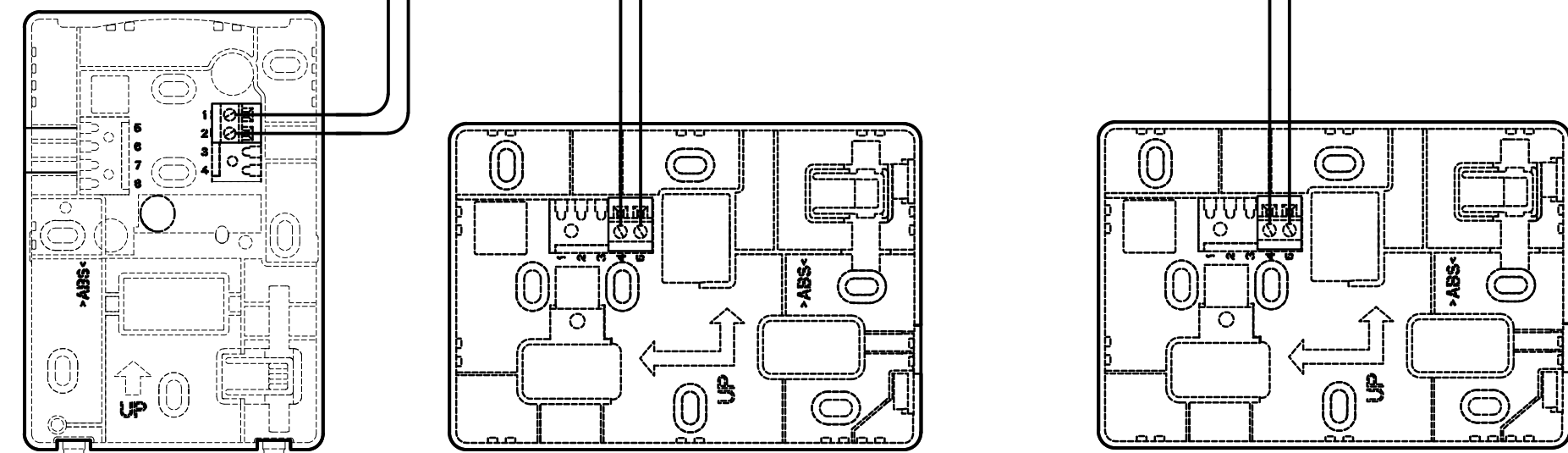
- DIVISION 26 OR FACTORY PRE-WIRED
- DIVISION 23 WIRING



**WIRING DIAGRAM**

SYSTEMS: FC-4, FC-5, FC-6, FC-7

- NOTES:**
- ECHOLON BUS (E-BUS) MUST BE INSTALLED AT LEAST 12" AWAY FROM ALL ELECTRICAL DEVICES: I.E. MOTORS, LIGHT, ETC.
  - DO NOT USE THERMOSTAT CABLE AS NETWORK CABLE. USE SPECIFIED CABLE.



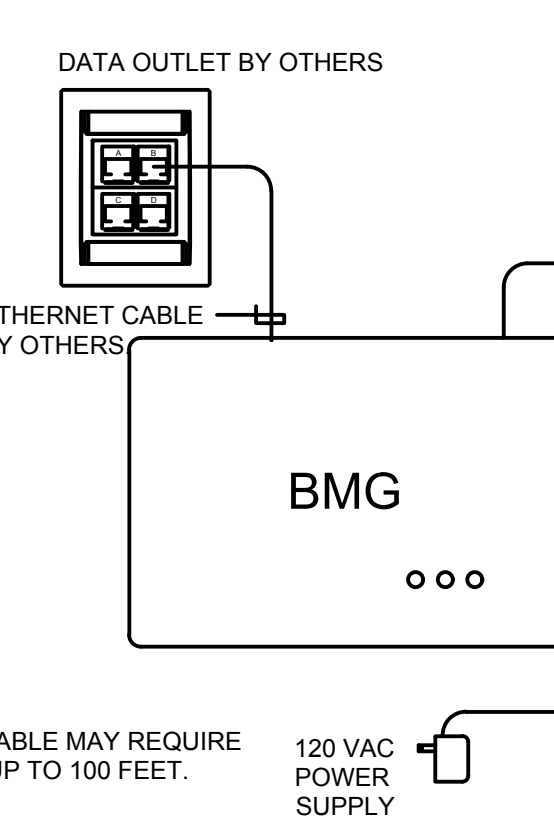
SYSTEMS: FC-4, FC-6, FC-7

SYSTEMS: FC-5

**BMG WIRING DIAGRAM**

BMG LOCATION TO BE FIELD VERIFIED DURING PRE-BID WALK THROUGH.

- NOTES:**
- ETHERNET CABLE MAY REQUIRE LENGTH OF UP TO 100 FEET.

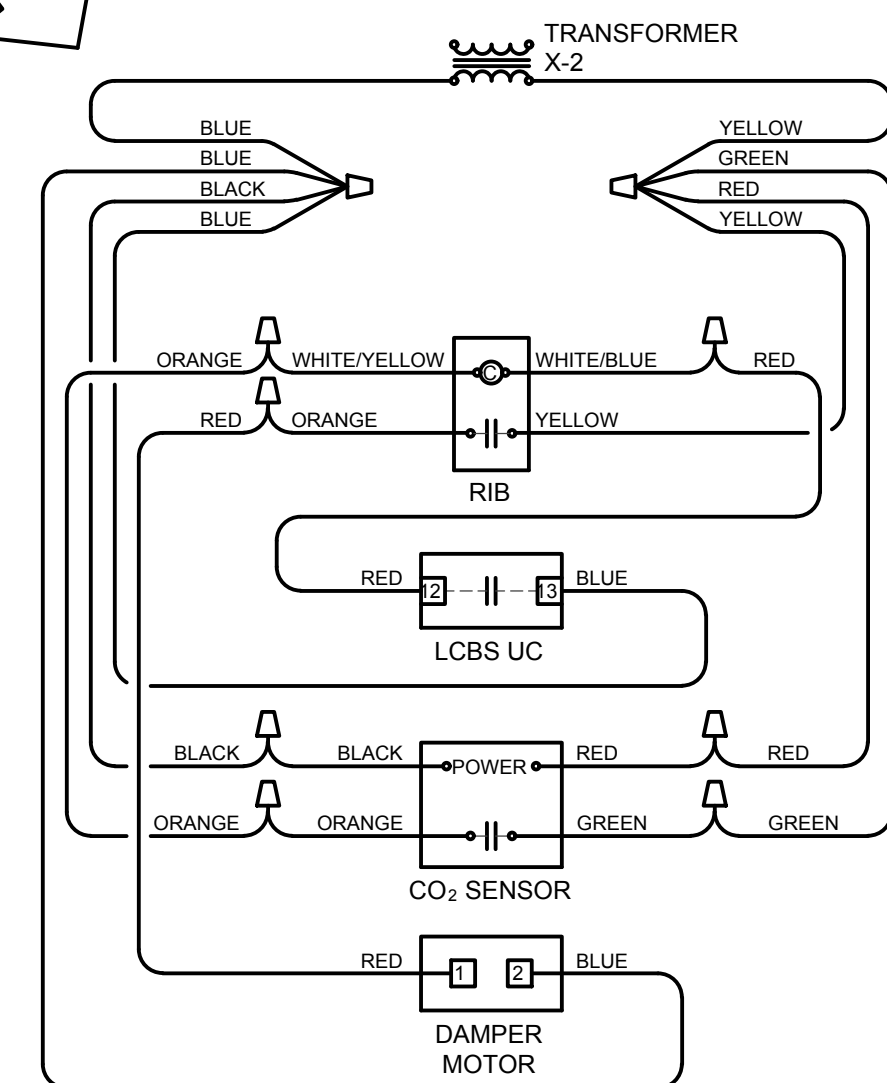


**NOTES:**

- THERMOSTAT CABLE- 4, 8 OR 12 CONDUCTOR- 18 AWG SOLID COPPER WIRE INSULATED WITH HIGH DENSITY POLYETHYLENE. CONDUCTORS PARALLEL. ENCLOSED IN BROWN PVC JACKET. (NO 22 AWG CABLE ALLOWED).
- IF COMPRESSOR UNITS HAVE THEIR OWN POWER SUPPLY IT MAY BE NECESSARY TO ADD ADDITIONAL RELAYS IN COMPRESSOR UNIT TO PROPERLY INTERFACE CONTROLS.
- USE WIRE NUT CONNECTORS FOR SPLICING CONDUCTORS IN SPECIFIED LOCATIONS. AND TYTON TYPE CRIMP CONNECTORS FOR TERMINAL CONNECTIONS. NO TERMINAL CONNECTORS REQUIRED AT THERMOSTAT OR SENSOR.
- DO NOT RUN ANY OTHER WIRING IN THIS CONDUIT EXCEPT THERMOSTAT CABLE.
- VERIFY THAT FAN UNIT FAN SPEED CONTROL WIRING IS SET TO MATCH SCHEDULE SHEET AND THAT FAN OPERATES AT COOLING SPEED ONLY.
- DO NOT SPLICE WIRE IN RUNS FROM SENSOR TO THERMOSTAT, THERMOSTAT TO FURNACE, AND THERMOSTAT TO DISCHARGE AIR SENSOR.
- PROVIDE CHASE NIPPLE WITH PLASTIC BUSHING WHEN ATTACHING J-BOX TO EQUIPMENT.
- PROVIDE CABLE-CLAMP SO THAT CABLES CANNOT BE PULLED OUT OF J-BOX.

CONTROL EQUIPMENT					
MARK	DESCRIPTION	CAT. NO. (1)	MARK	DESCRIPTION	CAT. NO. (1)
BMG	BUILDING MANAGEMENT GATEWAY	LGW1000 (GATEWAY) WPM-8000 (WALL PLUG)	RP-6	RELAY PANEL 24X18X6W/COVER	(2) (4)
UC	UNITARY CONTROLLER	YCRL64385R1000	DM-1	DAMPER MOTOR TWO POSITION	MS8105A1030
T	THERMOSTAT WALL MODULE	LCBS WALL MODULE	DM-2	DAMPER MOTOR 2 POS W/END SWITCH	MS8105A1130
	THERMOSTAT COVER PLATE ASSEMBLY	50002883-001	X-1	TRANSFORMER 120, 208, 240V/24V 75VA	AT175F1023
S	REMOTE SENSOR	TR40	X-2	TRANSFORMER 120V/24V 50VA	AT150F1022
G-1	THERMOSTAT GUARD	(2)	SD-1	DUCT SMOKE DETECTOR	(2)
DS	DUCT AIR SENSOR	C7041B2005	SR	SMOKE RELAY 30 AMP 120V COIL	DP2030B5003
CO <sub>2</sub>	CO <sub>2</sub> SENSOR	C7232B1006	RIB	TWO POLE RELAY 20 AMP	RIBU1C (2)
			RIB	TWO POLE RELAY 20 AMP	RIB2401B (6)
			OAS	GLOBAL OUTDOOR AIR SENSOR	C7041F2006 (7)
			CRO	COMBINATION RELAY & THERMAL OVERLOAD DISCONNECT	(2) (4)
			E-BUS	ECHOLON NETWORK CABLE	W221P-2001B

- ALL CATALOG NUMBERS SHOWN ARE HONEYWELL UNLESS NOTED OTHERWISE.
- SEE SPECIFICATIONS
- PROVIDE ENCLOSURE
- TO BE PURCHASED FROM AN APPROVED PER-BUILT PANEL BUILDER SEE SPECIFICATION.
- SEE PLAN FOR REQUIRED SIZE AND ZONE NUMBER.
- USE WITH CRO DISCONNECT FOR ELECTRIC WALL HEATER. CONTROL FROM UC.
- ONLY ONE REQUIRED FOR BUILDING. MAY BE CONNECTED TO ANY CONTROLLER AT NORTH SIDE.



**WIRING SCHEMATIC, X-2**

Architect / Engineer:  
**P.C. Architects Inc.**  
 Dennis B. Patten, AIA  
 P.O. Box 217  
 St. George, UT 84771  
 (435) 673-6579

Expiration date of license: 04/30/22  
 This work was prepared by me or under my supervision. Construction of this project will be under my observation.  
*Dwayne C. Sudweeks*  
 Dwayne C. Sudweeks, Professional Engineer  
 License No. 11515 For Professional Engineering  
 State of Hawaii  
 Mechanical Engineering

Project Name:  
**KALIHI RE-ROOF AND HVAC REFURBISHMENT**  
 HONOLULU, HAWAII WEST STAKE  
 TMK: 1-3-005:17  
 1120 Kahlili St. (1723 Beckley St.) Honolulu, HI 96819

Owner:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

Mark	Date	Rev	Description
1	09-01-2021		BID SET

Project Number:  
 PCA-2013  
 Plan Series:  
 EXISTING  
 Property Number:  
 500-0031-919010101

Sheet Title: **CONTROLS**

Sheet:

**M302**

**Engineered Systems Associates**  
 1355 EAST CENTER  
 POCAATELLO, IDAHO 83201  
 PHONE: (208) 233-0501  
 FAX: (208) 233-0529  
 EMAIL: esa@engsystems.com  
 ESA JOB NUMBER: 20078

**DWAYNE C. SUDWEKS**  
 LICENSED PROFESSIONAL ENGINEER  
 No. 12830-M  
 HAWAII U.S.A.  
 Aug 27, 2021