
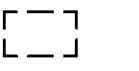
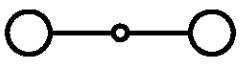
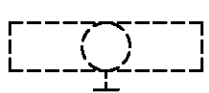
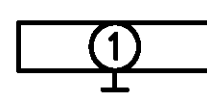








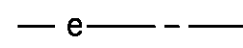
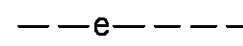
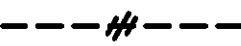
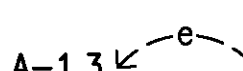

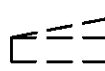
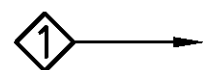



4/26/23 8:03 V:\04\044\083 Kahului Harbor_Pier 1 Shed\044\083 KahuluiPier1 Shed E-1.G01.dwg

ELECTRICAL SYMBOL LIST		
SYMBOL		DESCRIPTION
EXISTING	NEW	
	A1	HIGH MAST LIGHT POLE ASSEMBLY (LIGHT POLE A1 INDICATED)
		ELECTRICAL MANHOLE OR HANDHOLE
		STREET LIGHT STANDARD, DOUBLE HEAD ASSEMBLY
		WALL MOUNTED LINEAR LUMINAIRE, NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE TYPE, SEE E-6
		WALL MOUNTED LUMINAIRE, NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE TYPE, SEE E-6
		JUNCTION BOX, HORIZONTALLY MOUNTED
		JUNCTION BOX, WALL MOUNTED, MOUNTING HEIGHT AS INDICATED
		PHOTOELECTRIC CELL, WALL MOUNTED, MOUNTING HEIGHT AS INDICATED
		LIGHT SWITCH, WALL MOUNTED, TOP AT +48", 1P20A, 120/277V, (LETTER INDICATES LUMINAIRE CONTROLLED)
		3-WAY LIGHT SWITCH, WALL MOUNTED, TOP AT +48" (LETTER INDICATED LUMINAIRES CONTROLLED)
		UNDERGROUND CONDUIT
		SURFACE MOUNTED CONDUIT, PROVIDE STRAPS AT 8'-0" ON CENTER MAXIMUM, HASHMARKS INDICATE QUANTITY OF CURRENT-CARRYING CONDUCTORS WITHIN, NO HASHMARKS INDICATE 2 CURRENT-CARRYING CONDUCTORS WITHIN
		HOMERUN ARROW TO PANELBOARD, LETTER INDICATES PANELBOARD, NUMBERS INDICATE CIRCUITS, HASHMARKS INDICATE QUANTITY OF CURRENT-CARRYING CONDUCTORS WITHIN, NO HASHMARKS INDICATE 2 CURRENT-CARRYING CONDUCTORS WITHIN
		PANELBOARD
	+42"	DENOTES 42" ABOVE FINISHED FLOOR OR GRADE
	GRS	GALVANIZED RIGID STEEL
	GND	GROUND
	LED	LIGHT EMITTING DIODE
	KW	KILOWATT
	PFB	PROVISION FOR FUTURE BREAKER
	WP	WEATHERPROOF
		NOTE INDICATOR
		DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER

GENERAL NOTES:

- THE CONTRACTOR SHALL COMPLY WITH THE CLEAN WATER ACT AND THE STATE HARBORS DIVISION STORMWATER MANAGEMENT PROGRAM. NO POLLUTANT IS ALLOWED TO BE DISCHARGED DIRECTLY OR INDIRECTLY THROUGH THE HARBORS SMALL MS4 OR OTHER POTENTIAL PATHWAY INTO HARBORS WATERS.
- THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC BEST MANAGEMENT PRACTICE PLAN AND HEALTH & SAFETY PLAN TO HARBORS ENGINEERING BRANCH PRIOR TO THE START OF ANY CONSTRUCTION WORK.
- IN CASE OF RELEASE OF HAZARDOUS SUBSTANCE, OIL OR ENCOUNTER OF CONTAMINATED SOIL, THE CONTRACTOR SHALL NOTIFY APPROPRIATE FACILITY PERSONNEL, EMERGENCY RESPONSE AGENCIES, AND REGULATORY AGENCIES FOLLOWING NOTIFICATION PROCEDURES, AND SHALL NOTIFY HARBORS CONSTRUCTION ENGINEER IMMEDIATELY (I.E., WITHIN 24-HOURS). CONTACT INFORMATION MUST BE IN LOCATIONS THAT ARE READILY ACCESSIBLE AND AVAILABLE.


LIGHTING CALCULATION NOTES:

- ILLUMINANCE CALCULATIONS SHALL BE PROVIDED USING THE APPROVED LUMINAIRE. CONTRACTOR SHALL SUBMIT ILLUMINANCE CALCULATIONS ALONG WITH THE PROPOSED LUMINAIRE FOR REVIEW.
- CALCULATE HORIZONTAL ILLUMINANCE IN FOOTCANDLES AT FINISHED PAVEMENT LEVEL FOR ALL GRID POINTS WITHIN THE INDICATED CALCULATION LIMITS. GRID POINTS SHALL BE LOCATED AT THE BOUNDARIES OF THE INDICATED LIMITS AND EVENLY SPACED WITHIN. MAXIMUM SPACING OF GRID POINTS SHALL BE 10 FEET ON CENTER.
- NUMBER OF LUMINAIRES INDICATED IS THE MINIMUM QUANTITY TO BE PROVIDED. CONTRACTOR SHALL PROVIDE ADDITIONAL LUMINAIRES AND ASSOCIATED EQUIPMENT NECESSARY TO ATTAIN REQUIRED ILLUMINANCE LEVELS, WITHOUT ANY ADDITIONAL COST TO THE STATE.
- LIGHTING CRITERIA:
AVERAGE HORIZONTAL FOOTCANDLES: 3.0
MAXIMUM/MINIMUM UNIFORMITY RATIO: 10:1
LIGHT LOSS FACTOR (LLF): 0.85

GENERAL ELECTRICAL NOTES:

- ALL WORK SHOWN ON ELECTRICAL DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
- VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT OF NEW WORK. EXERCISE CAUTION TO PREVENT DAMAGE TO EXISTING STRUCTURES, UTILITIES AND EQUIPMENT IN THE AREA.
- EXISTING CONDITIONS: ALL EXISTING DUCTLINES AND UTILITIES INDICATED ON THE DRAWINGS ARE APPROXIMATE LOCATIONS BASED UPON AVAILABLE "AS-BUILT" DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR TONING TO IDENTIFY ANY POTENTIAL CONFLICTS PRIOR TO EXCAVATION, IF EXCAVATION WORK IS NECESSARY. DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR AS A RESULT OF THE FAILURE TO TONE PRIOR TO EXCAVATION WORK, WILL REQUIRE THE CONTRACTOR TO REPAIR THE DAMAGE AT NO COST TO THE STATE, TO THE SATISFACTION OF THE CONSTRUCTION ENGINEER.
- THE WORK SCHEDULE SHALL BE COORDINATED WITH USERS, HARBORS DIVISION CONSTRUCTION ENGINEER AND HARBORS DIVISION MAUI DISTRICT MANAGER.
- THE CONTRACTOR SHALL SCHEDULE ALL WORK TO MINIMIZE DISRUPTION OF USERS' OPERATIONS.
- ALL EXISTING LUMINAIRES NOT SCHEDULED FOR REMOVAL/REPLACEMENT SHALL BE OPERATIONAL DURING THE HOURS OF DARKNESS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY POWER SOURCE (E.G. PORTABLE GENERATOR, ETC.) FOR EXISTING LUMINAIRES TO REMAIN AT NO ADDITIONAL COST TO THE STATE.
- ALL EXISTING ELECTRICAL EQUIPMENT AND FACILITIES NOT SCHEDULED FOR DEMOLITION SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. CONTRACTOR TO MINIMIZE OUTAGES AND COORDINATE WITH THE HARBORS DIVISION CONSTRUCTION ENGINEER, HARBORS DIVISION MAUI DISTRICT, AND ALL USERS AND TENANTS AT LEAST TWO WEEKS PRIOR TO ALL OUTAGES.

REVISION	DATE	DESCRIPTION		BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION					
JOB TITLE REPAIR LIGHTING AT PIER 1 SHED KAHULUI HARBOR, MAUI, HAWAII					
SHEET TITLE ELECTRICAL SYMBOL LIST AND GENERAL NOTES					
DESIGNED BY: MA	JOB NUMBER S30226				SHEET E-1
DRAWN BY: OL					
CHECKED BY: MA					
DATE: APRIL 2023					
SCALE: AS SHOWN					4 OF 10 SHTS.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Michele N. Adorpio

PROJECT ENGINEER for ECS, Inc.

APRIL 30, 2024

EXPIRATION DATE OF THE LICENSE