



## **APPENDIX A**

# **TUMON BAY LIGHTING IMPROVEMENT PHASE II PROJECT**

## **SCOPE OF WORK**

## **Objective**

The Guam Visitors Bureau “GVB”, a non-stock, non-profit membership corporation, will receive sealed proposals from professional and experienced companies for the Tumon Bay Lighting Improvement Phase II Project.

The scope of work includes repair of all **Street Lighting Panels (SLP)** which includes replacement of all stainless steel panels, replacement of wiring to and between street light fixtures, installation of new LED street lighting fixtures and median lighting panels, concrete footings and fixtures.

The project may require digging, trenching, and restoration to replace damaged conduits.

GVB does not warrant the condition of any existing underground conduit. The Contractor shall be solely responsible for performing all work and for furnishing all additional materials other than GVB supplied, labor and equipment necessary to complete the Work. The Contractor shall make necessary survey measurements of existing facilities prior work on each SLP to ensure proper materials are on hand.

Work shall be scheduled, sequenced, and performed in a manner which minimizes disruption to the public. Contractor shall prepare daily QC (Quality Control) Reports and Contractor Production Reports submitted to Construction Manager for approval. Contractor shall provide with any daily report photographs taken prior construction and after finishing work for each SLP.

The Contractor shall incorporate the construction and schedule constraints in preparing the Construction Progress Schedule. The schedules shall include the Contractor's activities necessary to satisfy all constraints of the Contract Documents.

The Work shall be performed and coordinated in such order or precedence as determined by the Contractor, subject to the conditions and the approval of the Construction Manager. Each completed street light panel shall be inspected and approved by Construction Manager prior payment.

Coordinate power disconnections with GPA and street control with GPW.

## **Time of Completion**

The Contractor shall begin Work within ten (10) days after the date set forth in the Notice to Proceed and shall complete all Work under the Contract within the 60 days.

## **Payment**

Certify and sign statement on each invoice that all work to be paid under the invoice has been completed in accordance with contract requirements.

## **Safety**

Continuous operation of Street Lighting is of critical importance. The Contractor shall schedule and conduct activities to enable the existing facilities to operate continuously, unless otherwise approved by Construction Manager.

The Contractor shall comply with all applicable laws and regulations relating to the safety of persons or property or to the protection of persons or property from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall be responsible for preventing health hazards arising from work related activities of its employees. Persons shall be afforded safe passages around areas of demolition.

The Contractor shall exercise care in preserving vegetation and protecting property, to avoid disturbing areas beyond the limits of the Work and promptly repair any damage caused by Contractor operations.

Stock piles of earth and other construction-related materials shall be protected from being transported from the Site by wind or water.

## **Background**

The Street Lighting Evaluation was conducted by GVB's Capital Improvement Projects Manager to evaluate the effectiveness of the street lighting system along Pale San Vitores Road in Tumon, Guam. The evaluation aimed to identify the problems and provide alternative solutions to fix the street lighting on the main hotel strip in Tumon. Refer to attached drawings for details. The Contractor shall verify the scope of the Work. The Contractor shall comply with the maintenance and guarantee requirements.

## **Materials**

Due to time constraints long lead materials have already been ordered. Refer to attached list at end of this document for long lead materials. There is still a requirement for additional materials for this project to be purchased by contractor, which should be readily available on Guam.

There is a material management concept in place that long lead materials are managed in an integrative way for economic reasons by the supplier. The contractor must request materials in advance by supplying a requisition form with all materials listed by name, SLP number and quantity. This requisition form shall be approved by GVB prior handing materials to the contractor.

Any additional material shall be approved by construction manager.

Any removed existing materials will remain the property of GVB and can only be removed after construction manager's approval.

## **Inspection and Testing**

Assure that all applicable tests, special inspections, and observations required by the contract are performed and approved by Construction Manager.

Perform and participate in Pre-Final and Final Inspection. Submit a list of deficiencies to the Contracting Officer for each inspection. Correct all deficiencies prior to the Final inspection. Notify Contracting Officer prior to final inspection to establish a schedule date acceptable by the Contracting Officer.

Contractor shall maintain a testing plan and log. Ensure that all testing is performed in accordance with the U.S. Department of Transportation Federal Highway Administration FHWA Lighting Handbook August 2012 and the manufacturer's recommendations. Review all test reports and notify the Contracting Officer of all deficiencies, along with a proposal for corrective actions.

## **Lighting System**

The Tumon Bay Street Lighting System was partly installed under the Tumon Infrastructure and Beautification Phase I and Phase II Project in 1998 and 2002. The different phases included improvements to the infrastructure and utilities. Construction of 4 miles of highway with Sidewalk. No detailed drawings are available.

**Overview of Existing Street Lighting.** Phase II was completed in 2004.

Due to lack of qualified maintenance and repair the Tumon Bay Street Lighting System is in a desolate state of emergency. Lights that work today may not work tomorrow but maybe the following day. Nuisance tripping of circuits based on weather conditions.

An assessment was conducted to provide information about the as-built status as much as possible and condition of the Street Lighting System. This information is valuable for developing an asset status, introduction of maintenance programs and proactively rebuilding an aging system. The assessment was extensive utilizing visual inspection from ground, visual inspection from bucket-truck and use of selected specialized testing equipment to be as objective as possible to ensure valuable consistency of collected data. The assessment started at the Street Lighting Panel (SLP) enclosure. Not included are the transformer, its connectivity, and metering at the SLP. The entire Tumon Bay Street Lighting System consists of 18 SLPs (panels). This project covers only 5 SLPs, refer to attached drawings.

Any electrical installation ages if exposed to the environment, not just due to damages by rain and earthquakes but also vandalism and road vehicle traffic, affecting the functionality of a street lighting system. Electrical insulation of conductors and connections tends to become brittle over time and may crack resulting in circuit breaker nuisance tripping; this insulation degradation accelerates if rainwater and other contaminations (i.e. rodents) can enter the electrical system.

There are three different types of Street Lighting Concrete Poles (pole) configurations. The first consists of poles with both a street (larger fixture) and a side walk (smaller fixture) lighting fixture, the second one is a street lighting fixture alone and the third is a sidewalk lighting fixture alone.

Some street light fixtures have been already replaced by energy efficient LED fixtures. Data was collected using tools such as megger testing equipment to test the insulation properties of the wires. During the evaluation, many of the light fixtures were not operational and some worked sporadically.

#### **Scope of Work** (for details per SLP refer to Light Assessment Forms Tumon Bay)

- Submit Schedule
- Replace all non LED lighting fixtures with new LED energy efficient lighting fixtures complete with housing. (Smaller size fixtures for sidewalk and larger size fixtures for street).
- Replace all other lighting fixtures with LED energy efficient lighting fixtures complete with housing. (Smaller size fixtures for sidewalk and larger size fixtures for street).
- Clean all concrete footing at SLPs to remove overgrown vegetation and other dirt.
- Remove all overgrown vegetation's at the SLPs and Street Lighting Fixture.
- Replace all damaged concrete footing at Median as required. Place new concrete footing central and as far away from traffic as possible on Median. Install two red retro reflective safety devices (cat eyes or similar) on each side of the concrete footing in each driving direction.
- Replace all conductors from the SLPs to all street lighting concrete poles and conduits as required. Contractor needs to determine total conductor length.
- Replace all lighting conductors at SLPs.
- Replace all wiring inside of all street lighting concrete poles. From wire cover plate to lighting fixture.
- Replace all conductors from the SLPs to all Median Panels and conduits as required. Contractor shall supply all conductors for the medians.
- Install new circuit breakers into new Median panels.
- Replace all conductors from the Median panel to all spotlights on median and conduits as required.
- Install new fused lighting connectors for every lighting fixture at each concrete pole. There are
- Replace all deteriorated hardware from enclosures, conduits to bolts and replace all corroded framing hardware.

- Replace all SLP stainless steel enclosures (reuse internal panels and enclosures). Install new rigid conduit entering from concrete footing to enclosure and use Myers Hub to connect to the enclosure. Replace all lighting contactors. Reuse all other materials inside the SLP.
- Replace all Median stainless steel enclosures. Install new rigid conduit and use Myers Hub to connect to the enclosure.
- Replace all conduits entering the SLPs and use only Myers hub.
- In addition, replace all photocells and install locking type photo control devices and mating receptacles in compliance with ANSI C136.10 and UL 773.
- Replace one damaged concrete pole and two missing poles.
- Replace damaged and missing concrete pole base plate covers.
- Replace missing wire cover plate at concrete poles as required.
- Install conduit sealant/putty on all new and existing conduits to prevent intrusion of water.
- Install new fused inline watertight connector's at all concrete poles.
- Install new conductors and other wiring system as deemed necessary. Use for each wiring connection in addition two layers of rubber mastic tape.
- Provide concrete pole numbering per SLP. Provide one-line diagram for each SLP. Base concrete pole numbering on one-line diagram.
- Any other work and materials not listed here that are required to have a full functioning Street Lighting System. Be aware to purchase wire between SLP and median locally.
- Provide any equipment and tools required for this project.
- As a separate second bid item provide a quote replacing damaged underground conduits as required.
  - Concrete encase conduit all around 3" with 2500 PSI concrete. 24" minimum depth under roadway/driveway, install detectable warning tape at 12" below finish grade. Provide selected backfill no larger than 2". Provide compaction at 95%. Repair pavement to existing condition.
  - Sand cushion (sand backfill) conduit all around 4" with selected sand (sieve size of 3/8" or less). 24" minimum depth sidewalk (no roadway/driveway), install detectable warning tape at 12" below finish grade. Provide selected backfill no larger than 2". Provide compaction at 95%. Repair finished grade to existing condition.
- As a separate third bid item provide a quote for a maintenance program for 3 years broken down annually after the contractual 1-year warranty expired. Inspect street lighting system at a minimum once per week that all light fixture and photocell are working correctly and provide findings to GVB for review. Get additional work authorization and materials approvals immediately the next working day. Include cost for replacement of defective LED lighting fixtures under warranty. The LED fixtures are coming with a 7 years' warranty if installed and maintained correctly in confirmation with manufacturer installation and maintenance recommendation. Provide maintenance of LED lighting fixtures in confirmation with manufacturer recommendations. Be proactive and be able to react in a timely fashion in order to upkeep a working street lighting system. Maintain proper maintenance, repair and inventory records providing details on the state of the lighting system. Submit these records at the first Monday of every month. Identify shortcomings and implement best practice maintenance standards. Keep maintenance and repair records together with the lighting systems operation and maintenance documentation. Ensures that repairs or replacements are carried out in compliance with industry standards and that materials are installed within manufacturer's recommendations.

Routine Maintenance, Inspection, and Repair Reports for all routine work and shall contain the following:

1. SLP and Pole number
2. Date, time, and reported by
3. Short description of defect
4. Troubleshooting performed

5. Work performed
6. Materials replace/used
7. Materials on order
8. Date, time, work completed

**Note: This project shall include a 1-year warranty on all work performed by the contractor.**

**Contractor shall provide all other required materials for a complete and functioning Street Lighting System.**

**The contractor is responsible for the correct count of all street light fixtures and poles.**

**The contractor shall update the one-line diagrams in all SLPs.**

Estimated Conductor Length per SLP, this quantity will be provided by GVB and contractor installed (These are only rough length estimates, contractor needs to measure total conductor length and shall supply additional conductor)

Lighting Circuit #	Poles Quantity	Estimated Conductor Length
SLP-1	13	3300
SLP-2	19	4000
SLP-3	16	3150
SLP-4	18	4250
SLP-5	19	4800
TOTAL	85	19500

#### Findings by Circuit

Circuit #	Street				Sidewalk				Poles
	LED Fixture		Light Working		LED Fixture		Light Working		
	Y	N	Y	N	Y	N	Y	N	
SLP-1	4	9	7	6	2	5	3	4	13
SLP-2	5	14	10	9	3	12	9	6	19
SLP-3	7	9	10	6	3	10	10	3	16
SLP-4	3	15	10	8	3	13	12	4	18
SLP-5	5	14	10	9	3	5	4	4	19
	23	63	47	39	15	44	38	21	85

Lighting Circuit #	Poles Quantity	Estimated Conductor Length

SLP-6	18	4400
SLP-7	17	3200
SLP-8	14	3750
SLP-10	19	4600
SLP-11	17	4500
SLP-12	20	3650
Total	105	24100

#### Findings by Circuit

Circuit #	Street				Sidewalk				Poles
	LED Fixture		Light Working		LED Fixture		Light Working		
SLP-6	Y	N	Y	N	Y	N	Y	N	18
	9	10	17	2	3	12	10	5	
SLP-7	3	14	13	4	5	11	11	5	17
SLP-8	6	9	10	5	1	14	10	5	14
SLP-10	5	14	14	5	4	15	15	4	19
SLP-11	4	13	8	9	2	15	10	7	17
SLP-12	7	13	12	8	6	14	11	9	20
	34	73	74	33	21	81	67	35	<b>105</b>

Lighting Circuit #	Poles Quantity	Estimated Conductor Length
SLP-13A	25	7600
SLP-13	20	4700
SLP-14	19	4000
SLP-15	20	4400
SLP-16	17	2800
SLP-17	17	3200
SLP-18	15	3100
TOTAL	133	29800

#### Findings by Circuit

Circuit #	Street		Sidewalk		Poles
	LED Fixture	Light Working	LED Fixture	Light Working	

	Y	N	Y	N	Y	N	Y	N	
SLP-13A	9	16	12	13	0	1	0	1	25
SLP-13	4	12	9	7	2	9	9	2	20
SLP-14	3	7	5	5	0	10	6	4	19
SLP-15	2	8	6	4	0	10	6	4	20
SLP-16	5	3	6	2	1	9	6	4	17
SLP-17	5	3	7	1	1	9	6	4	17
SLP-18	3	4	4	3	1	13	11	3	15
	31	53	49	35	5	61	44	22	<b>133</b>

## Assessment Spreadsheet by SLP





**Lighting Assessment Form Tumon Bay PANEL # SLP - 1**

**DATE:** 7-Oct-15

CIRCUIT #	LIGHT POLE #	Fixture		Arm		Pole		Megger Test										Notes:															
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conducto Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conducto Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
		V	Y		V	Y		K	K	K	8 K	K	K	8 K	2.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	186.1 MΩ	275 MΩ	275 MΩ	190.6 MΩ	Home Run.						
9,11	1-1	V	N		V	Y		K	K	K	8	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	173 MΩ	275 MΩ	275 MΩ	173 MΩ							
9,11	1-2	V	N		V	Y																											
5,7	1-3	V	N		V	N		K	K	K	8 K	K	K	8	3.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Additional outlet not connected. Home Run.						
5,7	1-4	V	N		V	N		K	K	K	8 K	K	K	8	3.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	pole #5 to #6.						
5,7	1-5	V	Y					K	K	K	8 K	K	K	8	3.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Conduit tap in to electrical cover old wiring abandon from pole #5 to #6.						
5,7	1-6	V	N		V	N		K	K	K	8 K	K	K	8	3.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
5,7	1-7	V	N		V	N		K	K	K	8 K	K	K	8	3.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
																									MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ
																									MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No





**Lighting Assessment Form Tumon Bay** | **PANEL #** SLP - 2

**DATE:** 5-Oct-15

**Lights:** Y = Working or N = Not Working

**Arm:** D = Damaged or M = Missing

**Pole:** Concrete Base: K = Ok or D = Damaged

**GFCI:** K = Ok, D = Damaged or M = Missing

**Lens:** D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

**Continuity:** K = Ok or N = No Continuity

**Y = Yes or N = No**

CIRCUIT #	LIGHT POLE #	Luminar				Arm	Pole	GFCI	Megger Test Results (Set for 250 Volts) Lights & GFCI																							
		Street	LED Fixture	Old Style Fixture	Light				Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G	L3 to G	
<b>BAYVIEW SIDE</b>																											Notes:					
10, 12	2-11	V	Y			V	Y		K	K	K	K	8 K	K	K	8	1.4 Amp	Failed	Failed	Failed	145 MΩ	155 MΩ	143 MΩ	Failed	Failed	Failed						
10, 12	2-12	V	N			V	Y		K	K	K	K	8 K	K	K	8	1.5 Amp	Failed	Failed	Failed	145 MΩ	155 MΩ	143 MΩ	Failed	Failed	Failed						
10, 12	2-13	V	Y			V	Y		K	K	K	K	8 M	K	K	8	1.5 amp	Failed	Failed	Failed	145 MΩ	155 MΩ	143 MΩ	Failed	Failed	Failed	Transmitter connected to GFCI outlet. Not original GFCI cover. Light fixture rusted.					
10, 12	2-14	V	N			V	Y		K	K	K	K	8 K	K	K	8	1.4 amp	Failed	Failed	Failed	145 MΩ	155 MΩ	143 MΩ	Failed	Failed	Failed						
10, 12	2-15	V	Y			V	N		K	K	K	K	8 K	K	K	8	1.4 amp	Failed	Failed	Failed	145 MΩ	155 MΩ	143 MΩ	Failed	Failed	Failed						
6, 8	2-16	V	Y						K	K	K	K	8 K	K	K	8	3.2 Amp	213 MΩ	225 MΩ	182 MΩ	251 MΩ	203 MΩ	133 MΩ	147 MΩ	98 MΩ	69.6 MΩ	Home Run.					
6, 8	2-17	V	N						K	K	K	K	8 K	K	K	8	3.2 Amp	213 MΩ	225 MΩ	182 MΩ	251 MΩ	200 MΩ	133 MΩ	147 MΩ	98 MΩ	67 MΩ						
6, 8	2-18	V	N						K	K	K	K	8 K	K	K	8	3.2 Amp	213 MΩ	225 MΩ	182 MΩ	250 MΩ	200 MΩ	130 MΩ	140 MΩ	98 MΩ	66 MΩ						
6, 8	2-19	V	Y						K	K	K	K	8 K	K	K	8	3.0 Amp	213 MΩ	225 MΩ	182 MΩ	250 MΩ	200 MΩ	132 MΩ	140 MΩ	98 MΩ	67 MΩ						

Lights: Y= Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity



Lighting Assessment Form Tumon Bay | PANEL # SLP - 3

P - 3

DATE:

5-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																		
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G
<b>ACROSS TARZA LAND SIDE</b>																															<b>Notes:</b>	
9, 11	3-5	V	Y					K		K	K	K	8	K	K	K	8	3.0 Amp	Failed	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
9, 11	3-6	V	Y			V	N	K		K	K	K	8	K	K	K	8	0.0 Amp	Failed	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
9, 11	3-7	V	N			V	N	K		K	K	K	8	K	K	K	8	0.0 Amp	Failed	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
<b>ACROSS PACIFIC PLACE LAND SIDE</b>																																
1, 3	3-8	V	N			V	Y	K	M	K	K	K	8	K	K	K	8	6.0 Amp	122.9 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-9	V	Y			V	Y	K	K	K	K	K	8	K	K	K	8	0.4 Amp	122.9 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-10	V	N			V	Y	K	K	K	K	K	8	K	K	K	8	0.4 Amp	122.9 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover.			
1, 3	3-11	V	N					K	M	K	K	K	8	K	K	K	8	0.4 Amp	122.9 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-12	V	Y					K	M	K	K	K	8	K	K	K	8	0.4 Amp	122.9 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-13	V	Y			V	Y	K	K	K	K	K	8	K	N	N	8	0.4 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed				
1, 3	3-14	V	N			V	Y	K	K	K	K	K	8	K	K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-15	V	N			V	Y	K	K	K	K	M	8	K	K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
1, 3	3-16	V	Y			V	Y	K	K	K	K	K	8	K	K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				

**Lights:** Y = Working or N = Not Working

**Arm:** D = Damaged or M = Missing

**Pole:** Concrete Base: K = Ok or D = Damaged

**GFCI:** K = Ok, D = Damaged or M = Missing

**Lens:** D = Damaged or M = Missing

**Metal Base Plate:** D = Damaged or M = Missing

**Continuity:** K = Ok or N = No Continuity

Y = Yes or N = No



**Lighting Assessment Form Tumon Bay PANEL # SLP - 4**

**DATE:** 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar		Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI												VIOLATIONS BASED ON THE LATEST ASSESSMENT AND CONDITION.										
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
																															Disconnect inside the street lights enclosure could not identify.	
																															Circuit breaker for street lights ckt. are all under size.	
																															Need to update panel schedule and 1 line diagram.	
																															Need dedicated neutral line for GFCI.	
																															GFCI circuit is being utilized by camera and transmitter.	
																															Inadequate circuit breaker size for wire being used.	
																															Undersize circuit breaker for light circuit and median circuit	
																															Corrosion on conduit connectors.	
<b>OCEAN SIDE</b>																														<b>Notes:</b>		
6, 8	4-1	V	Y		V	Y		K	K	K	K	8 K	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Metal baseplate cover has slight rust.	
6, 8	4-2	V	Y		V	Y		K	K	K	K	8 K	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Over grown vegetation.	
6, 8	4-3	V	N		V	Y		K	K	K	K	8	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover.	
6, 8	4-4	V	Y		V	Y		K	K	K	M	8 K	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ		
6, 8	4-5	V	Y		V	Y		K	K	K	K	8 K	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Failed	
10, 12	4-6	V	Y		V	Y		K	K	K	K	8 K	K	K	8	1.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Over grown vegetation.	
10, 12	4-7	V	Y		V	N		K	K	K	K	8	K	K	8	1.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover.	
10, 12	4-8	V	N		V	N		K	K	K	K	8 K	K	K	8	1.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ		
10, 12	4-9	V	N		V	Y		K	K	K	K	8 K	K	K	8	1.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ		

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

Metal Base Plate: D = Damaged or M = Missing

GFCI: K = Ok, D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																											Notes:						
9, 11	4-10	V	N				K	K	K	K	K	8	K	K	K	8	3.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
9, 11	4-11	V	N	V	Y		K	K	K	K	K	8	M	K	K	8	3.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
9, 11	4-12	V	Y	V	Y		K	K	K	K	K	8		K	K	8	3.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover.				
9, 11	4-13	V	N				K	K	K	K	K	8		K	K	8	3.5 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover.				
5, 7	4-14	V	Y	V	N		K	K	K	K	K	8	K	K	8	1.5 Amp	275 MΩ	275 MΩ	275 MΩ	Failed	275 MΩ	275 MΩ	Failed	275 MΩ	275 MΩ	275 MΩ	275 MΩ						
5, 7	4-15	V	Y	V	Y		K	K	K	K	K	8	K	N	N	8	1.2 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed					
5, 7	4-16	V	N	V	N		K	K	K	K	K	8	K	N	N	8	1.1 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed					
5, 7	4-17	V	Y	V	Y		K	K	K	K	K	8	K	K	8	1.3 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ						
5, 7	4-18	V	N	V	Y		K	K	K	K	K	8	M	K	K	8	0.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Electrical cover missing screw - 1ea.				
<b>Lights: Y= Working or N = Not Working</b>		<b>Arm: D = Damaged or M = Missing</b>		<b>Pole: Concrete Base: K = Ok or D = Damaged</b>		<b>GFCI: K = Ok, D = Damaged or M = Missing</b>		<b>Continuity: K = Ok or N = No Continuity</b>																									
<b>Lens: D = Damaged or M = Missing</b>		<b>Metal Base Plate: D = Damaged or M = Missing</b>		<b>Notes:</b>																													
<b>Y = Yes or N = No</b>																																	



**Lighting Assessment Form Tumon Bay PANEL # SLP - 5**

**DATE:** \_\_\_\_\_ 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar								Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																	
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													<b>Notes:</b>				
10, 12	5-11	V	Y		V	Y	K	K	K	K	K	8	M	K	K	8	0.1 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover is rusted.				
10, 12	5-12	V	Y		V	Y	K	K	K	K	K	8	K	K	8	0.1 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ					
10, 12	5-13	V	N		V	N	K	K	K	K	K	8	K	K	8	0.1 Amp	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	MΩ	Shorted breaker tripping off Ckt 10, 12.					
10, 12	5-14	V	N		V	N	K	K	K	K	K	8	K	K	8	0.1 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Pole #14 to 13 Wire needs to be replace.						
10, 12	5-15	V	N				K	K	K	K	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover.					
10, 12	5-16	V	Y		V	N	K	K	K	K	K	8	K	K	8	4.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
6, 8	5-17	V	Y		V	N	K	K	K	K	K	8	K	K	8	2.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
6, 8	5-18	V	Y		V	Y	K	K	K	K	K	8	K	K	8	0.0 Amp	50.1 MΩ	220 MΩ	220 MΩ	Failed	Failed	220 MΩ	Failed	Failed	220 MΩ								
6, 8	5-19	V	Y		V	Y	K	K	K	K	K	8	K	K	8	0.0 Amp	50.1 MΩ	220 MΩ	220 MΩ	Failed	Failed	220 MΩ	Failed	Failed	220 MΩ								
Lights: Y = Working or N = Not Working		Arm: D = Damaged or M = Missing		Pole: Concrete Base: K = Ok or D = Damaged		GFCI: K = Ok, D = Damaged or M = Missing		Lens: D = Damaged or M = Missing		Metal Base Plate: D = Damaged or M = Missing		Continuity: K = Ok or N = No Continuity																					
Y = Yes or N = No																																	



**Lighting Assessment Form Tumon Bay PANEL # SLP - 6**

**DATE:** 1-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													<b>Notes:</b>				
10,12	6-10	V	Y		V	Y	K	K	K	K	K	8	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Failed	275 MΩ	275 MΩ	Failed	CCTV connected to GFCI outlet. Not original GFCI cover. Damage CCTV.							
10,12	6-11	V	Y		V	Y	K	K	K	K	K	8 K	K	K	8	2.0 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Failed	275 MΩ	275 MΩ	275 MΩ	Metal baseplate cover missing screw - 1ea.							
10,12	6-12	V	Y		V	Y	K	K	K	K	K	8 K	N	N	8	2.0 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed							
10,12	6-13	V	Y		V	Y	K	K	K	K	K	8 K	N	N	8	2.0 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed							
6,8	6-14	V	Y		V	Y	K	K	K	K	K	8 K	K	K	8	1.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
6,8	6-15	V	Y		V	N	K	K	K	K	K	8 K	K	K	8	1.6 Amp	275 MΩ	275 MΩ	275 MΩ	150 MΩ	180 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
6,8	6-16	V	Y		V	N	K	K	K	K	K	8 K	K	K	8	0.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
6,8	6-17	V	N		V	N	K	K	K	K	K	8 K	K	K	8	0.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							
6,8	6-18	V	Y		V	N	K	K	K	K	K	8 K	K	K	8	1.1 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ							

Lights: Y = Working or N = Not Working      Arm: D = Damaged or M = Missing      Pole: Concrete Base: K = Ok or D = Damaged  
 Lens: D = Damaged or M = Missing      GFCI: K = Ok, D = Damaged or M = Missing  
 Y = Yes or N = No      Metal Base Plate: D = Damaged or M = Missing      Continuity: K = Ok or N = No Continuity



**Lighting Assessment Form Tumon Bay PANEL # SLP - 7**

**DATE:** \_\_\_\_\_ 1-Oct-15

**Lights:** Y = Working or N = Not Working

**Arm:** D = Damaged or M = Missing

**Pole:** Concrete Base: K = Ok or D = Damaged

**GFCI:** K = Ok, D = Damaged or M = Missing

**Lens:** D = Damaged or M = Missing

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI										Circuit breaker enclosure inside SLP-7 can not identify Clean inside panel SLP-7. Panel cover missing SLP-7 - 2ea.									
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													<b>Notes:</b>				
10, 12	7-9	V	N		V	N				K	K	K	8	M	K	K	8	2.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover.					
10, 12	7-10	V	N		V	Y			K	K	K	8	K	K	K	8	2.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ							
10, 12	7-11	V	Y		V	Y			K	K	K	8	K	K	K	8	2.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ	Over grown vegetation.						
10, 12	7-12	V	Y		V	Y			K	K	K	8	M	K	K	8	2.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ							
10, 12	7-13	V	N		V	Y			K	K	K	6 & 8	K	K	K	8	0.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea.						
6, 8	7-14	V	Y		V	N			K	K	K	8	M	K	K	8	2.3 Amp	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	182 MΩ	99 MΩ	220 MΩ	Failed	CCTV connected to GFCI outlet. Not original GFCI cover. Over grown vegetation.						
6, 8	7-15	V	Y		V	Y			K	K	K	8	K	K	K	8	0.6 Amp	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	182 MΩ	99 MΩ	220 MΩ	Failed	Electrical cover missing screw - 1ea. Banner arm missing - 1ea.						
6, 8	7-16	V	Y		V	Y			K	K	K	8	K	K	K	8	0.6 Amp	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	182 MΩ	99 MΩ	220 MΩ	Failed	Electrical cover missing screw - 1ea. Banner arm missing - 1ea.						
6, 8	7-17	V	N		V	N			K	K	K	8	K	K	K	8	0.6 Amp	220 MΩ	102 MΩ	220 MΩ	220 MΩ	220 MΩ	182 MΩ	99 MΩ	220 MΩ	Failed							

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



**Lighting Assessment Form Tumon Bay PANEL # SLP - 8**

**DATE:** 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																														<b>Notes:</b>			
10, 12	8-8	V	Y			V	N			K	K	K	8	K	K	8	2.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Transmitter connected to GFCI Outlet. Not original GFCI cover.				
10, 12	8-9	V	N			V	Y			K	K	K	8 K	K	K	8	2.6 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
10, 12	8-10	V	N			V	N			K	K	K	8 K	K	K	8	2.5 Amp	274 MΩ	275 MΩ	275 MΩ	256 MΩ	Failed	275 MΩ	207 MΩ	Failed	275 MΩ							
10, 12	8-11	V	Y			V	Y			K	K	K	8 K	K	K	8	2.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Home Run.				
10, 12	8-12	V	Y			V	Y			K	M	K	8 K	K	K	8	2.9 Amp	Failed	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	Light fixture missing - Sidewalk side. Home Run. GFCI wire not connected in the panel.				
6, 8	8-13	V	Y			V	Y			K	M	M	8 K	K	K	8	2.6 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed						
6, 8	8-14	V	Y			V	Y			K	K	K	8 K	K	K	8	2.0 Amp	Failed	Failed	62.5 MΩ	167.1 MΩ	255 MΩ	178.7 MΩ	Failed	75.8 MΩ	Failed	Over grown vegetation. Sidewalk light being tied down with wire.						

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



## Lighting Assesment Form Tumon Bay PANEL # SLP - 10

DATE: 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar				Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI										Ckt #6 for GFCI, breaker tripping. Need dedicated neutral line for GFCI. GFCI circuit is being utilized by camera and transmitter. Inadequate circuit breaker size for wire being used. Undersize circuit breaker for light circuit and median circuit Corrosion on conduit connectors. Need to update panel schedule and one line diagram.										
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>OCEAN SIDE</b>																												Notes:				
7,9	10-1	V	Y		V	N				K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ				
7,9	10-2	V	Y	V	Y				K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
7,9	10-3	V	Y		V	Y			K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
7,9	10-4	V	N		V	Y			K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
7,9	10-5	V	Y	V	Y				K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
3,5	10-6	V	N		V	Y			K	K	K	8 K	K	K	8	3.2 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
3,5	10-7	V	Y		V	N			K	K	K	8 K	K	K	8	1.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
3,5	10-8	V	Y		V	Y			K	K	K	8 K	K	K	8	1.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
3,5	10-9	V	N		V	Y			K	K	K	8 K	K	K	8	1.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					
3,5	10-10	V	N		V	N			K	K	K	8 K	K	K	8	1.7 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ					

Lights: Y= Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar								Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																	
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													<b>Notes:</b>				
12, 14	10-11	V	Y		V	Y				K	K	8 K	N	K	8	3.4 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	
12, 14	10-12	V	Y		V	Y				K	K	8 K	N	K	8	3.4 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	
12, 14	10-13	V	Y		V	Y				K	K	8 K	N	K	8	3.4 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	
12, 14	10-14	V	N		V	N				K	K	8 K	N	K	8	3.4 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	
12, 14	10-15	V	Y		V	Y				K	K	8 K	N	K	8	3.4 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	
11, 13	10-16	V	Y		V	Y				K	K	K	8 K	N	K	8	2.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ
11, 13	10-17	V	Y		V	Y				K	K	K	8 K	N	K	8	2.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ
11, 13	10-18	V	Y		V	Y				K	K	K	8 K	N	K	8	2.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ
11, 13	10-19	V	Y		V	Y				K	K	K	8 K	N	K	8	2.8 Amp	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ	275 MΩ

Lights: Y = Working or N = Not Working      Arm: D = Damaged or M = Missing      Pole: Concrete Base: K = Ok or D = Damaged or M = Missing  
 Lens: D = Damaged or M = Missing      GFCI: K = Ok, D = Damaged or M = Missing  
 Y = Yes or N = No      Metal Base Plate: D = Damaged or M = Missing      Continuity: K = Ok or N = No Continuity



## Lighting Assesment Form Tumon Bay

PANEL # SLP - 11

DATE: 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar								Arm	Pole	GFCI	Megger Test Results (Set for 250 Volts) Lights & GFCI																					
		Street LED Fixture	Old Style Fixture	Light	Lens dirty	Lens	Sidewalk LED Fixture	Old Style Fixture	Light				Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>OCEAN SIDE</b>																														<b>Notes:</b>				
3,5	11-1	V	Y	Y			V	Y	Y		K	K	K	8	K	K	K	8	0.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has some bad rust areas.			
3,5	11-2	V	Y	Y			V	Y	Y		K	K	K	8	K	K	K	8	0.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Over grown vegetation.			
3,5	11-3	V	N	N			V	Y	Y		K	K	K	8		K	K	8	0.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover. Additional conduit for CCTV attached to pole. Over grown vegetation.			
3,5	11-4	V	Y	Y			V	Y	Y		K	K	M	8	K	K	K	8	0.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Over grown vegetation.			
3,5	11-5	V	Y	Y			V	Y	Y		K	K	K	8	K	K	K	8	0.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea. Over grown vegetation.			
3,5	11-6	V	Y	Y			V	Y	Y		K	K	K	8	K	K	K	8	4.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.			
3,5	11-7	V	Y	Y			V	Y	Y		K	K	K	8	K	K	K	8	4.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.			
11,13	11-8	V	N	N			V	Y	Y		K	D	K	8	K	K	K	8	1.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover. Metal baseplate cover has slight rust.			
11,13	11-9	V	N	N			V	N	N		K	K	K	8		K	K	8	0.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
Lights: Y = Working or N = Not Working		Arm: D = Damaged or M = Missing		Pole: Concrete Base: K = Ok or D = Damaged		GFCI: K = Ok, D = Damaged or M = Missing		Lens: D = Damaged or M = Missing		Metal Base Plate: D = Damaged or M = Missing		Continuity: K = Ok or N = No Continuity		Y = Yes or N = No																				

CIRCUIT #	LIGHT POLE #	Luminar								Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI															
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	Arm	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																															<b>Notes:</b>
7,9	11-9	V	Y	Y				V	Y	Y			K	K	K	8;K	K	K	8		220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Light fixture damage Sidewalk side. Over grown vegetation.	
7,9	11-10	V	N	N				V	Y	Y			K	K	K	8;K	K	K	8		220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover missing screw - 1ea. & has slight rust. Light fixture damage Streetside.	
7,9	11-11	V	Y	Y				V	Y	Y			K	K	K	8;K	K	K	8		220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover missing screw - 1ea.	
7,9	11-12	V	Y	Y				V	Y	Y			K	K	K	8;K	K	K	8		220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ		
7,9	11-13	V	Y	Y				V	N	N			K	K	K	8;K	N	N	8		Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Need to replace wire. 1" flex conduit with box connected to 240V light. 2 #8 wires red and 1 #10 ground.	
7,9	11-14	V	Y	Y				V	Y	Y			K	K	K	8;K	K	K	8		220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.	
7,9	11-15	V	Y	Y				V	Y	Y			K	K	K	8;K	K	K	8		Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed		
12,14	11-16	V	N	N				V	Y	Y			K	K	K	8;K	N	N	8		Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	SLP-11 to pole #18 need to replace wire.	
12,14	11-17	V	Y	Y				V	Y	Y			K	K	K	8;K	N	N	8		Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Need to replace wire.	
12,14	11-18	V	N	N				V	N	N			K	K	K	8;K	N	N	8		Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed		

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



## **Lighting Assessment Form Tumon Bay**

PANEL # SLP - 12

**DATE:** 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar				Arm		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																												
		Street	LED Fixture	Old Style Fixture	Light	Lens dirty	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens dirty	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Site AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G	L3 to G	2" SS unistrut clamp - 1ea.	
		V	N	N				V	N	N				K	K	K	8	K	K	8	3.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	3/4" SS unistrut clamp - 1ea.
		V	Y	Y				V	Y	Y				K	K	K	8	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	3/4" SS C Strap - 2ea.
OCEAN SIDE																																	Cabinet seal - 2ea.					
3,5	12-1	V	N	N				V	N	N				K	K	K	8	K	K	8	3.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Cabinet has no tag.
3,5	12-2	V	Y	Y				V	Y	Y				K	K	K	8	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Cabinet dirty.
3,5	12-3	V	Y	Y				V	N	N				K	D	K	8	K	K	8	3.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Swapping circuit wire 12-14 to 16-18.
3,5	12-4	V	Y	Y				V	N	N				K	D	K	8	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Need dedicated neutral line for GFCI.
3,5	12-5	V	Y	Y				V	Y	Y				K	K	K	8	K	K	8	3.1 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	GFCI circuit is being utilized by camera and transmitter.
12,14	12-6	V	N	N				V	N	N				K	K	K	8	N	N	8	0.0 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Inadequate circuit breaker size for wire being used.	
12,14	12-7	V	N	N				V	N	N				K	K	K	8	N	N	10	0.0 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Undersize circuit breaker for light circuit and median circuit	
12,14	12-8	V	N	N				V	N	N				K	K	K	8	K	K	8	3.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Corrosion on conduit connectors.
12,14	12-9	V	N	N				V	N	N				K	K	K	8	K	K	8	3.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Need to update panel schedule and one line diagram.
12,14	12-10	V	N	N				V	N	N				K	D	K	8	K	K	8	3.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover corroded in some areas.

CIRCUIT #	LIGHT POLE #	Luminar								Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																				
		Street	LED Fixture	Old Style Fixture	Light	Lens	Lens dirty	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Lens dirty	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																														Notes:						
7, 9	12-11	V	Y	Y		V				Y	Y				K	K	K	8	K	K	K	8	3.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7, 9	12-12	V	Y	Y		V	Y	Y							K	K	K	8	K	K	K	8	3.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7, 9	12-13	V	Y	Y		V	N	N							K	K	K	8	K	K	K	8	3.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7, 9	12-14	V	Y	Y		V	Y	Y							K	K	K	8	K	K	K	8	3.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-15	V	Y	Y		V	Y	Y							K	K	K	8	K	K	K	8	4.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-16	V	Y	Y		V	Y	Y							K	K	K	8		K	K	8	4.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-17	V	N	N		V	Y	Y							K	K	K	8	K	K	K	8	4.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-18	V	Y	Y		V	Y	Y							K	K	K	8	K	K	K	8	4.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-19	V	N	N		V	Y	Y							K	K	K	8	K	K	K	8	4.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
11, 13	12-20	V	Y	Y		V	Y	Y							K	K	K	8	K	K	K	8	4.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				

**Lights:** Y = Working or N = Not Working

**Arm:** D = Damaged or M = Missing

**Pole:** Concrete Base: K = Ok or D = Damaged

**GFCI:** K = Ok, D = Damaged or M = Missing

**Lens:** D = Damaged or M = Missing

**Metal Base Plate:** D = Damaged or M = Missing

**Continuity:** K = Ok or N = No Continuity

**Y** = Yes or **N** = No



**Lighting Assessment Form Tumon Bay PANEL # SLP - 13A**

**DATE:** 2-Oct-15

CIRCUIT #	LIGHT POLE #	Luminar		Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI										Cabinet missing 7ea. Lock. 3/4" unistrut clamp rusted - 1ea. All bolts securing cabinet rusted. Cabinet missing bottom seal. Cabinet has no tag. All bolts of cabinet frame rusted. Need dedicated neutral line for GFCI. GFCI circuit is being utilized by camera and transmitter. Inadequate circuit breaker size for wire being used. Need to update panel schedule and one line diagram.													
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity/Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>JFK SIDE</b>																																	
7,9	13A-1	V	Y									K	K	K	8	K	K	8	1.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Transmitter connected to GFCI outlet. Not original GFCI cover. Metal baseplate cover has slight rust.			
7,9	13A-2	V	N									K	K	K	K	K	K	8	2.5 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Metal baseplate cover has some bad rust areas.			
7,9	13A-3	V	N									K	K	K	8 K	K	K	8	2.5 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
7,9	13A-4	V	N									K	K	K	8 K	K	K	8	2.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Metal baseplate cover has some bad rust areas.			
7,9	13A-5	V	N									K	K	K	8 K	K	K	8	2.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Electrical cover missing screw - 1ea.			
7,9	13A-6	V	N									K	K	K	8 K	K	K	8	2.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Home Run.			
7,9	13A-7	V	Y									K	K	K	8 K	K	K	8	2.5 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Metal baseplate cover has some bad rust areas. Home Run.			
7,9	13A-8	V	Y		V	N						K	K	K	8 K	K	K	8	2.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
3,5	13A-9	V	Y									K	K	K	8 K	K	K	8	2.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Metal baseplate cover has slight rust.			
3,5	13A-10	V	Y									K	K	K	K	K	K	8	2.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
3,5	13A-11	V	N									K	K	K	K	K	K	8	2.5 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
3,5	13A-12	V	Y									K	K	K	K	K	K	8	2.5 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
3,5	13A-13	V	N									K	K	K	K	K	K	8	3.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO				
3,5	13A-14	V	N									K	K	K	K	K	K	8	1.8 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Added light originally from SLP-13.			





**Lighting Assessment Form Tumon Bay PANEL # SLP - 13**

**DATE:** 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																											<b>Notes:</b>						
7,9	13-10	V	Y								K	D	K	8 K	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Metal baseplate cover badly rusted.				
7,9	13-11	V	N							D	K	K	8 K	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	1 corner of concrete base damaged.					
7,9	13-12	V	N							K	K	K	8 K	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO						
7,9	13-13	V	Y							K	K	K	8	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Transmitter connected to GFCI outlet. Not original GFCI cover.					
7,9	13-14	V	N							K	K	M	8 K	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Electrical cover missing. Replaced with disconnect switch over electrical cover opening. Over grown vegetation. Home Run.					
3,5	13-15	V	Y		V	Y				K	K	K	8 K	K	K	8	0.3 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Over grown vegetation. Home Run.					
3,5	13-16	V	N							K	K	M	8 K	K	K	8	3.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Over grown vegetation. Electrical cover missing & 1 broken screw . Not original Electrical cover.					
3,5	13-17	V	Y		V	Y				K	K	K	8 K	K	K	8	3.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	Over grown vegetation.					
3,5	13-18			V	Y				K	K	K	8 K	K	K	8	3.0 Amp	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO	275 MO							
3,5	13-19	V	Y		V	Y																											
3,5	13-20			V	N																												

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



## Lighting Assessment Form Tumon Bay PANEL # SLP - 14

DATE: 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar				Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI									Notes: 2" Unistrut Clamp SS - 1ea. 3/4" Unistrut Clamp SS - 1ea. Channel Strut SS - 3ea. Cabinet bolts all corroded and 3 bolts on the bottom area broke off. 3/8" x 5" SS bolts - 6ea., 3/8" x 2" SS bolts - 10ea., 3/8" SS nuts & washers - 18ea. Cabinet dirty. Cabinet has no tag. Need dedicated neutral line for GFCI. GFCI circuit is being utilized by camera and transmitter. Inadequate circuit breaker size for wire being used. Need to update panel schedule and one line diagram.										
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewall Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G
4, 6	14-1	V	Y							K	K	K	8	K	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	88.7 MΩ	220 MΩ	248 MΩ	220 MΩ	Over grown vegetation.			
4, 6	14-2			V	Y				K	K	K	8	K	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	Failed	21.5 MΩ	Failed	220 MΩ	220 MΩ	220 MΩ					
4, 6	14-3	V	N						K	D	K	8		N	N	8	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Transmitter connected to GFCI outlet. Not original GFCI cover. Metal baseplate cover has slight rust. Pole 3 to 4 (Line is defective).				
4, 6	14-4			V	N				K	K	K	8	K	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ					
12, 14	14-5			V	Y																										
12, 14	14-6	V	Y						K	K	K	8	K	K	K	8	0.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
12, 14	14-7			V	Y				K	K	K	8	K	K	K	8	0.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Missing light fixture. Metal baseplate cover has slight rust.				
12, 14	14-8	V	N		V	N			K	K	K	8	K	K	K	8	0.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
12, 14	14-9			V	Y				K	K	K	8	K	K	K	8	0.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Missing light fixture. Metal baseplate cover has slight rust.				

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													Notes:				
7,9	14-10				V	N					K	K	K	8 K		K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7,9	14-11				V	N					K	K	K	8 K		K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7,9	14-12					V	N				K	K	K	8 K		K	K	8	0.3 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
7,9	14-13				V	Y					K	K	K	8 K		K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	244 MΩ	220 MΩ	220 MΩ	Metal baseplate cover missing screw - 1ea.				
7,9	14-14					V	N				K	K	K	8 K		K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	244 MΩ	220 MΩ	220 MΩ					
11,13	14-15				V	Y					K	K	K	8 K		K	K	8	0.4 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
11,13	14-16					V	Y				K	K	K	8 K		K	K	8	1.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
11,13	14-17				V	Y					K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
11,13	14-18				V	N					K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust.				
11,13	14-19				V	N					K	K	K	8 K		K	K	8	1.8 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal baseplate cover has slight rust and missing screw - 2ea.				

Lights: Y= Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



**Lighting Assessment Form Tumon Bay PANEL # SLP - 15**

**DATE:** 30-Sep-15

**Lights:** W = Working or N = Not Working

**Arm:** D = Damaged or M = Missing

**Pole:** Concrete Base: K = Ok or D = Damaged

**GFCI:** K = Ok, D = Damaged or M = Missing

**Continuity:** K = Ok or N = No Continuity

**Lens:** D = Damaged or M = Missing

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													Notes:				
16, 18	15-11	V	N							K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ					
16, 18	15-12				V	Y				K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ					
16, 18	15-13	V	Y						K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
16, 18	15-14				V	Y			K	K	K	8 K		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
16, 18	15-15	V	Y						K	K	K	8		K	K	8	1.7 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover.					
16, 18	15-16				V	N			K	K	K	8 K		K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
3, 5	15-17				V	Y			K	K	K	8 K		K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
3, 5	15-18	V	N						K	K	K	8 K		K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
3, 5	15-19				V	Y			K	K	K	8		K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Missing equipment connected to GFCI outlet. Not original GFCI cover. Additional conduit for missing equipment attached to pole.					
3, 5	15-20	V	Y						K	K	K	8 K		K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



**Lighting Assessment Form Tumon Bay PANEL # SLP - 16**

**DATE:** 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																													<b>Notes:</b>				
11,13	16-10	V	Y								K	K	K	8		K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover.			
11, 13	16-11				V	Y				K	K	K	8 K		K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	Failed	220 MΩ	220 MΩ	220 MΩ						
11, 13	16-12	V	Y							K	K	K	8 K		K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	Failed	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
11, 13	16-13				V	N										K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ						
11, 13	16-14	V	Y							K	K	K	8		K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	Failed	150.3 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover. Additional conduit for CCTV attached to pole.					
7, 9	16-15				V	Y				K	K	M	8 K		K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Not original Electrical cover.					
7, 9	16-15		V	N					K	D	K	8 K		K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ							
7, 9	16-17				V	Y			K	D	K	8 K		K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ							

Lights: Y = Working or N = Not Working      Arm: D = Damaged or M = Missing      Pole: Concrete Base: K = Ok or D = Damaged  
 Lens: D = Damaged or M = Missing      GFCI: K = Ok, D = Damaged or M = Missing  
 Metal Base Plate: D = Damaged or M = Missing      Continuity: K = Ok or N = No Continuity  
 Y = Yes or N = No



## Lighting Assessment Form Tumon Bay PANEL # SLP - 17

DATE: 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar		Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI												VIOLATIONS BASED ON THE LATEST ASSESSMENT AND CONDITION.										
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
OCEAN SIDE																						Notes:										
8,10	17-1			V	Y			K	K	K	8 K	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
8,10	17-2	V	Y					K	K	K	8	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover. Additional conduit for CCTV attached to pole. There is an additional conduit attached to pole going into altered electrical cover.		
8,10	17-3			V	Y			K	K	K	8 K	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	There is an additional conduit attached to pole going into altered electrical cover.		
8,10	17-4	V	Y		V	Y		K	K	K	8 M	K	K	8	3.2 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea.		
7,9	17-5	V	Y					K	D	K	8 K	K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
7,9	17-6				V	N		K	K	K	8 K	K	K	8	1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
7,9	17-7	V	Y												1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
7,9	17-8				V	Y									1.9 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			

Lights: Y = Working or N = Not Working      Arm: D = Damaged or M = Missing      Pole: Concrete Base: K = Ok or D = Damaged  
 Lens: D = Damaged or M = Missing      Metal Base Plate: D = Damaged or M = Missing      GFCI: K = Ok, D = Damaged or M = Missing  
 Y = Yes or N = No      Continuity: K = Ok or N = No Continuity

CIRCUIT #	LIGHT POLE #	Luminar								Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																	
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																												Notes:					
11,13	17-9				V	N						K	D	M	8	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Not original Electrical cover.			
11,13	17-10	V	Y									K	K	K	8	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea.			
11,13	17-11				V	N						K	K	K	8	K	K	8	0.5 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea.			
12,14	17-12	V	N									K	K	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Electrical cover missing screw - 1ea.			
12,14	17-13				V	N						K	D	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
12,14	17-14	V	Y									K	K	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Metal base plate cover has some slight rust.			
12,14	17-15				V	Y						D	K	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
12,14	17-16	V	Y									K	K	K	8	K	K	8	2.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ				
12,14	17-17				V	Y																											

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No



## Lighting Assessment Form Tumon Bay PANEL # SLP - 18

DATE: 30-Sep-15

CIRCUIT #	LIGHT POLE #	Luminar				Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI										VIOLATIONS BASED ON THE LATEST ASSESSMENT AND CONDITION.												
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewall Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Conductor Size AWG	Electrical Cover	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G	L3 to G
																																	Rusted pipe strap - 2ea.	
																																	Isolate extra wire.	
																																	Contactor panel - 3ea. 1 1/4" conduit KO to big need reducing washer.	
																																	Cabinet has no tag.	
																																	Cabinet brace and bolts corroded.	
																																	Cabinet dirty.	
																																	Need dedicated neutral line for GFCI.	
																																	GFCI circuit is being utilized by camera and transmitter.	
																																	Inadequate circuit breaker size for wire being used.	
																																	Need to update panel schedule and one line diagram.	
	OCEAN SIDE																																Notes:	
3,5	18-01	V	N			V	Y			D	K	K	8	K	K	8	1.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	CCTV connected to GFCI outlet. Not original GFCI cover. Additional conduit for CCTV attached to pole.
3,5	18-02					V	Y		K	D	K	8	K	K	8	1.0 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ		
12,14	18-03					V	N		K	K	K	8	K	K	8	2.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ			
12,14	18-04	V	Y			V	Y		K	K	K	8	K	K	8	2.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Over grown vegetation		
12,14	18-05					V	N		K	M	K	8	K	K	8	2.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Over grown vegetation		
12,14	18-06	V	Y			V	Y		K	K	K	8	K	K	8	2.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	Transmitter connected to GFCI outlet. Not original GFCI cover. Additional conduit attached to pole. Metal baseplate cover notched for the additional conduit. End of #6 receptacle wire.		
12,14	18-07					V	Y		K	K	K	8	K	K	8	2.6 Amp	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	220 MΩ	#8, #12 wire tap to #6 wire. #12 wire is inside additional conduit that is outside of pole.		
12,14	18-08	V	Y					K	K	M	8	K	N	N	8	2.6 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed				

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged or M = Missing

GFCI: K = Ok, D = Damaged or M = Missing

Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No

CIRCUIT #	LIGHT POLE #	Luminar						Arm		Pole		GFCI		Megger Test Results (Set for 250 Volts) Lights & GFCI																			
		Street	LED Fixture	Old Style Fixture	Light	Lens	Sidewalk	LED Fixture	Old Style Fixture	Light	Lens	Streetlight Arm	Arm/Bracket	Sidewalk Arm	Arm/Bracket	Concrete Base	Metal Baseplate Cover	Electrical Cover	Conductor Size AWG	GFCI Cover	GFCI Outlet	GFCI Continuity Test	Continuity	Conductor Size AWG	Amper Load	L1 to L2	L1 to L3	L2 to L3	L1 to N	L2 to N	(GFCI) L3 to N	L1 to G	L2 to G
<b>LAND SIDE</b>																											<b>Notes:</b>						
11, 13	18-9				V	Y				K	K	K	8	K	K	K	8	3.1 Amp	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO					
11, 13	18-10				V	N				K	D	K	8	K	K	K	8	3.1 Amp	220 MO	220 MO	220 MO	Failed	220 MO	Failed	Failed	220 MO	Failed	Over grown vegetation					
11, 13	18-11	V	N		V	Y				K	K	K	8	K	K	K	8	3.1 Amp	168.7 MO	220 MO	220 MO	Failed	220 MO	220 MO	Failed	220 MO	Failed						
11, 13	18-12				V	Y				K	D	K	8	K	N	K	8	3.1 Amp	148.1 MO	220 MO	220 MO	Failed	150.3 MO	Failed	Failed	220 MO	Failed	Electrical cover missing screw - 1ea.					
11, 13	18-13	V	Y		V	Y				K	K	K	8	K	K	K	8	3.1 Amp	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO						
11, 13	18-14				V	Y				K	K	K	8	K	N	N	8	3.1 Amp	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed	Failed						
11, 13	18-15	V	N		V	Y				K	K	K	8	K	K	K	8	3.1 Amp	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	220 MO	Electrical cover missing screw - 1ea.					
																		MO	MO	MO	MO	MO	MO	MO	MO	MO							
																		MO	MO	MO	MO	MO	MO	MO	MO	MO							

Lights: Y = Working or N = Not Working

Arm: D = Damaged or M = Missing

Pole: Concrete Base: K = Ok or D = Damaged

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Lens: D = Damaged or M = Missing

Metal Base Plate: D = Damaged or M = Missing

Continuity: K = Ok or N = No Continuity

Y = Yes or N = No

## SUMMARY OF PICTURES

Median



SLP



## Pole and Fixture



**SUPPLY, SHIPPING, MATERIAL MANAGEMENT CONCEPT,**

**MATERIAL MANAGER AND MATERIAL STORAGE**

**FOR**

**GVB TUMON BAY**

**STREET LIGHTING LONG LEAD ITEMS**

**GVB SUPPLIED AND CONTRACTOR INSTALLED**

**CONTRACTOR SHALL PROVIDE ALL OTHER REQUIRED  
MATERIALS AND EQUIPMENT AS NEEDED TO ACCOMPLISH THE  
WORK FOR A COMPLETE AND FUNCTIONING  
STREET LIGHTING SYSTEM**



## GVB TUMON BAY STREET LIGHTING LONG LEAD ITEMS

ITEM NO.	DESCRIPTION	MAT. SPEC. REF.	UNIT	QUANTITY
1.00	THWN-2, 8 awg Stranded Copper Conductor, 600V, Black, 5000 ft. Reel	1	FT	75000
2.00	CN35BN4AC, Cutler Hammer, NEMA Ligthing Conductor, 20 Amp, 4 Pole, Electrically Held, Open, 600V Rated, 120 VAC/60Hz,	2	EA	60
3.00	CN35GN4AC, Cutler Hammer, NEMA Ligthing Conductor, 60 Amp, 4 Pole, Electrically Held, Open, 600V Rated, 120 VAC/60Hz,	3	EA	20
4.00	Myers Hub 1 1/4, Insulated, Threaded Ridgid Gasketed Conduit Hub	4	EA	0
5.00	Myers Hub 3/4, Insulated, Threaded Ridgid Gasketed Conduit Hub	4	EA	0
6.00	NEMA 4X (SSLP) Stainless Steel Single door, continuous hinge, with padlock and optional back panel for internal mount of accessories 48"x48"x12"	5	EA	18
7.00	NEMA 4X (SSLP) Stainless Steel Single door,continuous hinge, with padlock and optional back panel for internal mount of accessories 16"x12"x8"	5	EA	18
8.00	K803 (150 W) complete fixture with LED Array, #K803-P4SH-III-150W(ssl)-8084-120:277V-S/F KPL10	7	EA	201
9.00	K703 (150 W) complete fixture with LED Array, #K703-P4SH-III-75W(SSL)-7030-120:277V-S/F KPL10	8	EA	204
10.00	Concrete Pole, #KTT25-G-Exx-FBP c/w GFI, BANNER ARS, POLE TOP FINIAL & BASEPLATE COVER	9	EA	2
11.00	KA30-S-8' (8' Arms) (Street)	9	EA	5
12.00	KA40-S-4' (4' Arms) (Sidewalk)	9	EA	5
13.00	SLK 6, Stranded #8, Flood-Seal® Street and Highway Lighting Compression Fuse Kits — In-Line, Single Housing	10	EA	160
14.00	SLT 6, Stranded #8, Flood-Seal® Street and Highway Lighting Compression Fuse Kits — In-Line, Twin Housing	10	EA	180
15.00	Flood-Seal® Installation Tool, T&B WT111M, C Die or Equal	10	EA	5

16.00	10 Amp Fuse, Time Delay, Terminal Type: Cartridge, Rejection, Dimensions: 13/32 Diameter x 1 1/2 Length Inch, Voltage Rating: 600 VAC/300 VDC, Features: Time Delay for items 16.00 and 17.00	11	EA	480
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**NOTE:** Deleted Item Nos. 4.00 and 5.00 shall be provided by contractor in the quantities necessary. Contractor shall provide all other required materials for a complete and functioning Street Lighting System.

## **MATERIAL SPECIFICATION REFERENCE FOR LONG LEAD MATERIALS**

**These materials are being supplied, except as noted.**

### **1. THWN-2 COPPER CONDUCTOR**

#### **SPECIFICATIONS**

Conductors shall be UL-listed Type MTW or THHN or THWN-2\* gasoline and oil resistant II, suitable for operations at 600 volts as specified in the National Electrical Code.® Sizes 14 AWG through 6 AWG shall be rated VW-1. Conductors shall be annealed copper, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or listed equivalent, or approved equal. **Note: Be aware to purchase wire between SLP and Median locally.**

#### **APPLICATION**

- Type THWN-2 conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the National Electrical Code®2
- When used as Type THWN-2\*, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C when exposed to oil or coolant

#### **CONSTRUCTION**

- THWN-2 copper conductors are annealed (soft) copper, insulated with a tough heat and moisture resistant polyvinyl chloride (PVC), over which a nylon (polyamide) or UL-listed equal jacket is applied
- Black color

#### **STANDARD & REFERENCE**

THWN-2 meets or exceeds all applicable ASTM specifications, UL Standard 83, UL Standard 1063 (MTW), Federal Specification A-A-59544, and requirements of the National Electrical Code.®

### **2. CN35BN4AC**

CUTLER HAMMER, EATON, WESTINGHOUSE, 20A, 4P, Electrically Held, Lighting Contactor, 120 VAC/60 Hz Coil



### **3. CN35BN4AC**

CUTLER HAMMER, EATON, WESTINGHOUSE, 60A, 4P, Electrically Held, Lighting Contactor, 120 VAC/60 Hz Coil



### **4. Myers Hub (To be purchased by contractor)**

- Stainless Steel Body and Nut Material
- O-ring Gasket Material Nitrile Expanded operating temperature of -15°C to +120°C
- Expanded and updated certifications to current applicable standards
- Vibration-proof
- Grounding screw for added safety
- Captive o-ring gasket
- No welding
- Posi-Lok insulated throat (insuliner)
- Fit standard knockouts
- Easy installation
- Controlled thread lengths
- NPSL on male thread
- No sharp edges (along parting line)
- Male thread (NPT)
- NEMA 4X
- UL Listed – UL Standard 514B



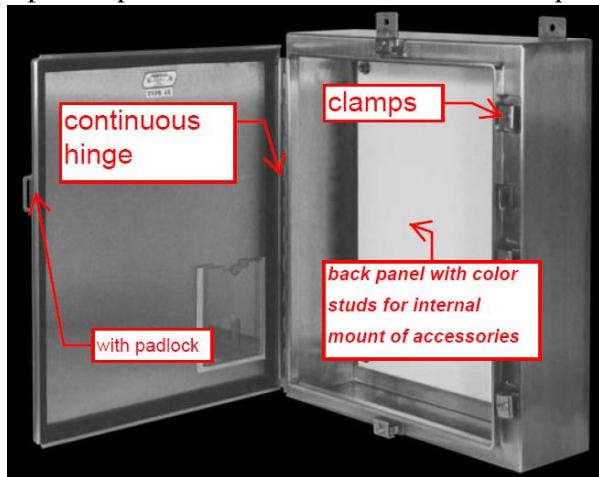
## 5. ENCLOSURE

NEMA 4X stainless steel single door enclosures are Underwriters Laboratories Listed and are designed for use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose directed water and damage from external ice formation.

- INDUSTRY STANDARDS

### NEMA TYPES 4X

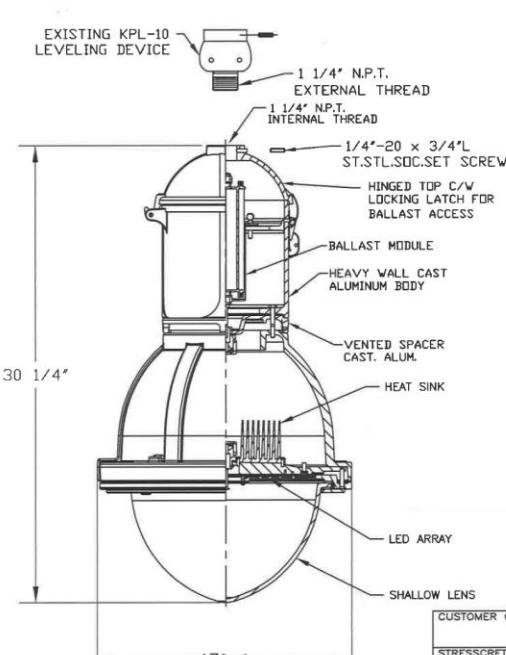
- Fabricated in accordance with UL specifications from 14 or 12 gauge Type 304 stainless steel standard, Type 316 stainless steel optional.
- All seams continuously welded and ground smooth.
- Rolled lip around three sides of door and all sides of door opening for watertight seal.
- Neoprene gasket attached to door with oil resistant adhesive.
- Clamps on three sides of door for watertight seal.
- Stainless steel external hardware.
- Continues door hinge.
- Padlock type hasp.
- Hasp and staple provided for padlocking.
- External mounting feet.
- Standard plastic self-adhesive print pocket.
- Standard collar studs for mounting optional panel.
- Optional panel to cover interior back wall completely.



## 6. DELETED

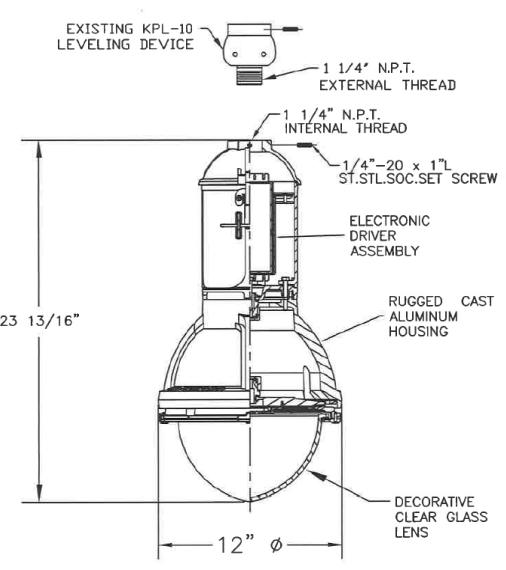
## 7. K803 LIGHTING FIXTURE COMPLETE WITH LED ARRAY

**Manufacturer Distributor for Guam:**  
**KENCLAIRE (WEST) ELECTRICAL AGENCIES, INC.**  
**1326 WEST HERNDON AVENUE, SUITE 103**  
**FRESCO, CALIFORNIA 93711**  
**TEL.: (559) 435-2617**  
**FAX: (559) 435-9161**  
**E-MAIL: [kenclairewest@sbcglobal.net](mailto:kenclairewest@sbcglobal.net)**

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">REV.</td> <td style="width: 40%;">ALTERATION</td> <td style="width: 10%;">DATE</td> <td style="width: 10%;">BY</td> </tr> <tr> <td>A</td> <td>CAT. # UPDATED</td> <td colspan="2">A.A.</td> </tr> </table> <p><b>SPECIFICATIONS</b></p> <p>CATALOGUE NO.: K803-P4SH-III-150&lt;SSL&gt;  -8084-120:277 S/F KPL10  QUANTITY: <b>201</b>  OPTICAL SYSTEM: FLAT ARRAY, SHALLOW LENS  IES LTG. CLASS.: TYPE III  INPUT WATTAGE: 150W  SOLID STATE LIGHTING  SERIES: 8084  CCT: 4500K  LINE VOLTAGE: 120:277V  PAINT: TAUPE &amp; CLINT TO ADVISE * OPTIONS: S/F KPL10  <u>BALLAST TO BE SUPPLIED:</u>  BALLAST TYPE: ELECTRONIC  BALLAST MANU.: -  CATALOG NUMBER: -  OPTIONS:  <input checked="" type="checkbox"/> QUICK DISCONNECT  <input type="checkbox"/> OTHER: 540 JOULE @ 2ms 20KA-8/20μS SURGE PROTECTION</p> <p><b>CUSTOMER APPROVAL &amp; DATE:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">   <b>King Luminaire • StressCrete • Est. 1953</b>  <b>STRESSCRETE GROUP</b> </td> <td style="width: 50%; text-align: center;"> <i>Manufacturing Locations:</i>  Burlington, Ontario 1-800-268-7809  Northport, Alabama 1-800-435-6563  Atchison, Kansas 1-800-837-1024  Jefferson, Ohio 1-800-268-7809 </td> </tr> <tr> <td colspan="2" style="text-align: center;">PROJECT/CUSTOMER: GUAM</td> </tr> <tr> <td style="text-align: center;"> CUSTOMER ORDER No:  -  STRESSCRETE ORDER No:  -  KMFG. ORDER No:  -  KING U.S. ORDER No:  -</td> <td style="text-align: center;"> DRAWN BY: A. ALVELA  AT: SC1  CHECKED BY:  DATE: 03/27/14  REVISION: A  DRAWING TYPE: APPROVAL DWG.  DRAWING NUMBER: 206A7879-1 </td> </tr> </table>	REV.	ALTERATION	DATE	BY	A	CAT. # UPDATED	A.A.		 <b>King Luminaire • StressCrete • Est. 1953</b> <b>STRESSCRETE GROUP</b>	<i>Manufacturing Locations:</i> Burlington, Ontario 1-800-268-7809 Northport, Alabama 1-800-435-6563 Atchison, Kansas 1-800-837-1024 Jefferson, Ohio 1-800-268-7809	PROJECT/CUSTOMER: GUAM		CUSTOMER ORDER No: - STRESSCRETE ORDER No: - KMFG. ORDER No: - KING U.S. ORDER No: -	DRAWN BY: A. ALVELA AT: SC1 CHECKED BY: DATE: 03/27/14 REVISION: A DRAWING TYPE: APPROVAL DWG. DRAWING NUMBER: 206A7879-1
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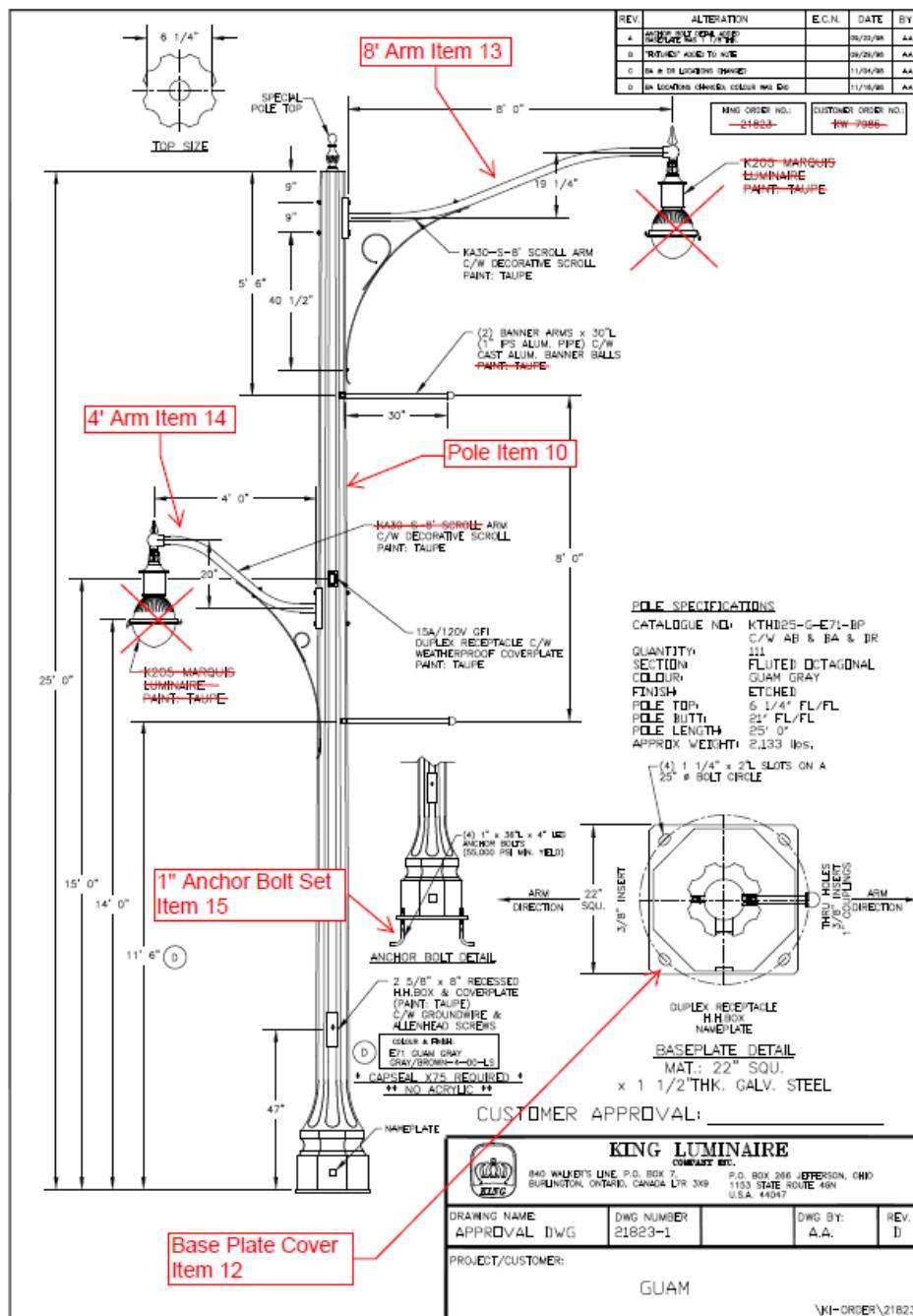
## 8. K703 LIGHTING FIXTURE COMPLETE WITH LED ARRAY

**Manufacturer Distributor for Guam:**  
**KENCLAIRE (WEST) ELECTRICAL AGENCIES, INC.**  
**1326 WEST HERNDON AVENUE, SUITE 103**  
**FRESCO, CALIFORNIA 93711**  
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**FAX: (559) 435-9161**  
**E-MAIL: [kenclairewest@sbcglobal.net](mailto:kenclairewest@sbcglobal.net)**

 <p>EXISTING KPL-10 LEVELING DEVICE 1 1/4" N.P.T. EXTERNAL THREAD 1 1/4" N.P.T. INTERNAL THREAD 1/4"-20 x 1" L ST. STL. SOC. SET SCREW ELECTRONIC DRIVER ASSEMBLY RUGGED CAST ALUMINUM HOUSING DECORATIVE CLEAR GLASS LENS 23 13/16" 12" <math>\phi</math></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">REV.</td> <td style="width: 25%;">ALTERATION</td> <td style="width: 25%;">DATE</td> <td style="width: 25%;">BY</td> </tr> <tr> <td>A</td> <td>CAT. # UPDATED: IES CLASS. WAS TYPE II</td> <td>09/20/14</td> <td>A.A.</td> </tr> </table> <p><b>SPECIFICATIONS</b></p> <p>CATALOGUE NO.: K703-P4SH-III-75(SS) 7030-120277 S/F KPL10 QUANTITY: <b>204</b> OPTICAL SYSTEM: FLAT ARRAY, SHALLOW LENS IES LTG. CLASS: TYPE III INPUT WATTAGE: 75W SOLID STATE LIGHTING SERIES: 7030 CCT: 4500K LINE VOLTAGE: 120/277V PAINT: TAUPE <del>* CLINT TO ADVISE</del> OPTIONS: S/F KPL10 <b>BALLAST TO BE SUPPLIED:</b> BALLAST TYPE: ELECTRONIC BALLAST MANU.: - CATALOG NUMBER: - <b>OPTIONS:</b> QUICK DISCONNECT <input checked="" type="checkbox"/> OTHER: 540 JOULE @ 2ms 20kA-8/20μs SURGE PROTECTION</p> <p><b>CUSTOMER APPROVAL &amp; DATE:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">    King Lumber • StressCrete • Est. 1953 <b>STRESSCRETE GROUP</b> </td> <td style="width: 50%; text-align: center;"> <i>Manufacturing Locations:</i>          Burlington, Ontario 1-800-268-7809          Northport, Alabama 1-800-435-6563          Atchison, Kansas 1-800-837-1024          Jefferson, Ohio 1-800-268-7809       </td> </tr> <tr> <td colspan="2" style="text-align: center;">         PROJECT/CUSTOMER: GUAM       </td> </tr> <tr> <td colspan="2" style="text-align: center;">         DRAWN BY: A. ALVELA SCI   CHECKED BY:   DATE: 03/27/14   REVISION: A       </td> </tr> <tr> <td colspan="2" style="text-align: center;">         DRAWING TYPE: APPROVAL DWG.   DRAWING NUMBER: 206A7879-2       </td> </tr> </table>	REV.	ALTERATION	DATE	BY	A	CAT. # UPDATED: IES CLASS. WAS TYPE II	09/20/14	A.A.	  King Lumber • StressCrete • Est. 1953 <b>STRESSCRETE GROUP</b>	<i>Manufacturing Locations:</i> Burlington, Ontario 1-800-268-7809 Northport, Alabama 1-800-435-6563 Atchison, Kansas 1-800-837-1024 Jefferson, Ohio 1-800-268-7809	PROJECT/CUSTOMER: GUAM		DRAWN BY: A. ALVELA SCI   CHECKED BY:   DATE: 03/27/14   REVISION: A		DRAWING TYPE: APPROVAL DWG.   DRAWING NUMBER: 206A7879-2	
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## **9. Concrete Pole, Base Plate Cover, 8' Arm, 4' Arm, Anchor Bolt**

**Manufacturer Distributor for Guam:  
KENCLAIRE (WEST) ELECTRICAL AGENCIES, INC.  
1326 WEST HERNDON AVENUE, SUITE 103  
FRESCO, CALIFORNIA 93711  
TEL.: (559) 435-2617  
FAX: (559) 435-9161  
E-MAIL: [kenclairewest@sbcglobal.net](mailto:kenclairewest@sbcglobal.net)**



## **10. FLOOD-SEAL**

Street and Highway Lighting Compression Fuse kit with single and twin housing for watertight and submersible connection. With safe separation of load. Rated 600V and 30 Ampere minimum. Supply manufacturer suggested installation tool or equivalent.

## Flood-Seal® Street and Highway Lighting Compression Fuse and Non-Fused Kits — In-Line

Copper In-Line Fuse Kits include Flood-Seal housing, fuse clips, silicone lubricant and instruction sheet. Fuse is not included. Fuse Kits accept non-glass standard cartridge fuses of  $\frac{1}{2}$ " diameter and  $1\frac{1}{2}$ " length.

Copper In-Line Non-Fused Kits include Flood-Seal housing, connecting link, silicone lubricant and instruction sheet.

- EPDM rubber housing ensures a fully insulated, watertight and submersible connection
- Breakaway design separates under tension so wires don't break
- Safe separations — fuse or connecting link stays in load side when separated
- Rated for 600V, 30A maximum — perfect for heavy-duty applications

**Compression In-Line Fuse Kits**

SINGLE HOUSING CAT. NO.	TWIN HOUSING CAT. NO.	CU WIRE SIZE		INSTALLATION TOOL
		STR.	SOL.	
SLK 6	SLT 6	#14/#10 #8/#6	#14/#8 #6/#4	T&B WT111M, C Die or Equal T&B TBM20S, Blue Die or Equal
SLK 2	SLT 2	#4 #2	#2	T&B TBM20S, Gray Die or Equal T&B TBM20S, Brown Die or Equal

**Stranded #8**

**installation tool?**

#6 SIDE				#2 SIDE			
SINGLE HOUSING CAT. NO.	TWIN HOUSING CAT. NO.	CU WIRE SIZE		INSTALLATION TOOL	CU WIRE SIZE		INSTALLATION TOOL
		STR.	SOL.		STR.	SOL.	
SLK 6-2	SLT 6-2	#14/#10 #8/#6	#14/#8 #6/#4	T&B WT111M, C Die or Equal T&B TBM20S, Blue Die or Equal	#4 #2	#2	T&B TBM20S, Gray Die or Equal T&B TBM20S, Brown Die or Equal

### 11. FUSE



General Purpose Cartridge Type Fuse, 600 Volt AC, 10 Ampere, Interrupt Rating 20000.

Dimensions: Diameter  $13/32$  x Length  $1\frac{1}{2}$  inch.

Feature: Time Delay (Slo-Blo).