

Point and Shoot: Enhancing Coastal Lighting Evaluations with the Use of Laser Sighted GPS

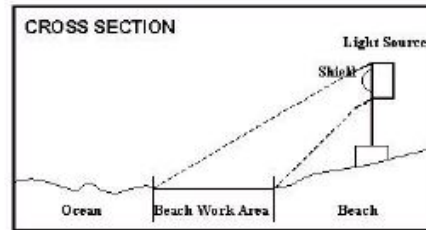
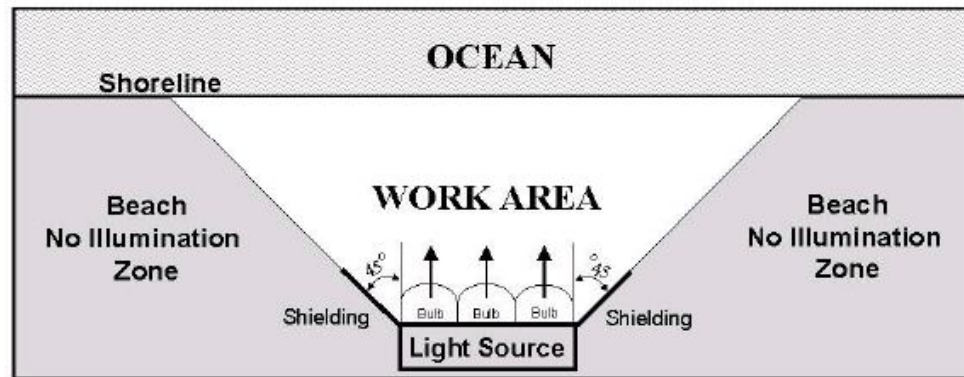
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FLORIDA SHORE & BEACH
PRESERVATION ASSOCIATION
A League of Cities and Counties on Beach and Coastal Issues

FDEP Permit Conditions and the Programmatic Biological Opinion for Beach Nourishment Projects



BEACH LIGHTING SCHEMATIC

Figure 1. Beach Lighting Schematic



Disorientations

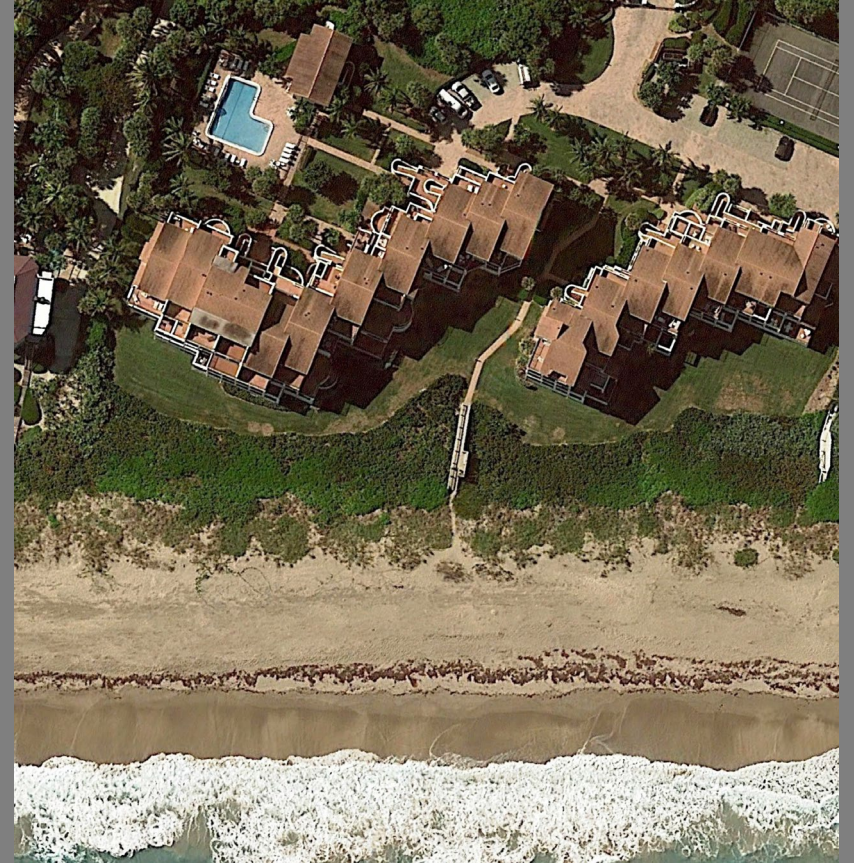


Challenges

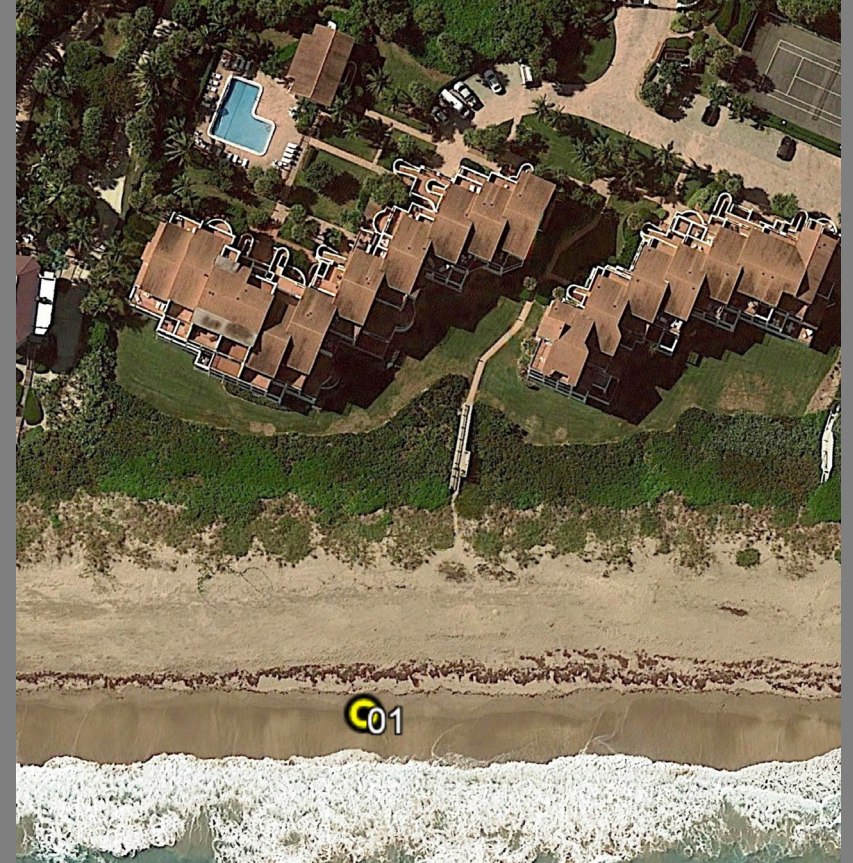
- Identifying the exact location of a light source without entering private property



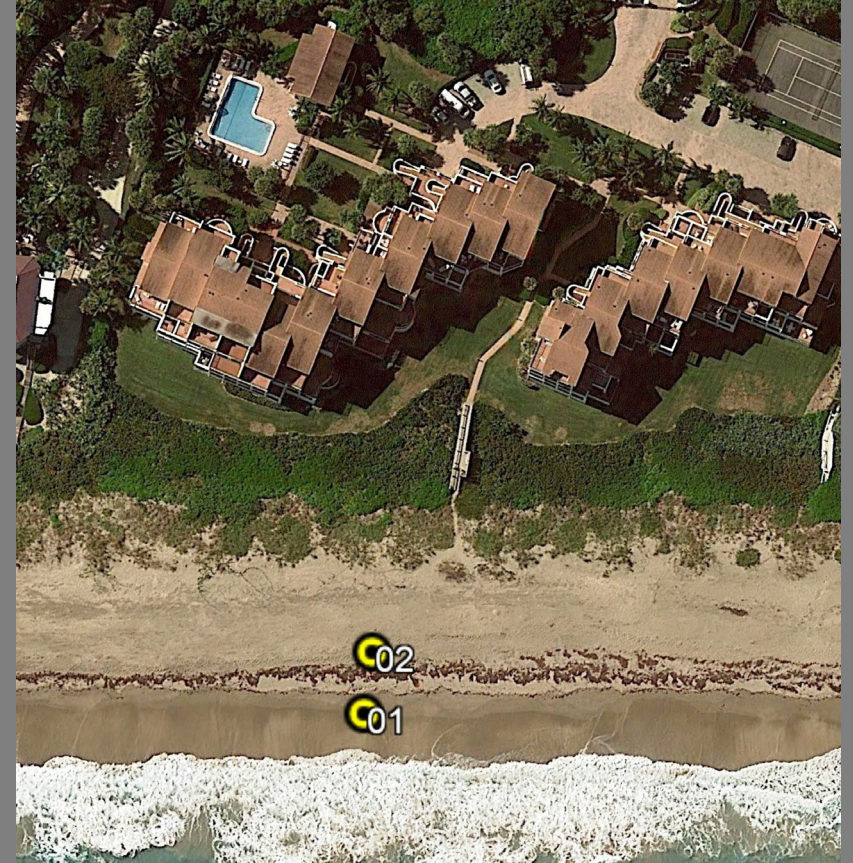
Pole Mounted Trimble RTK GPS



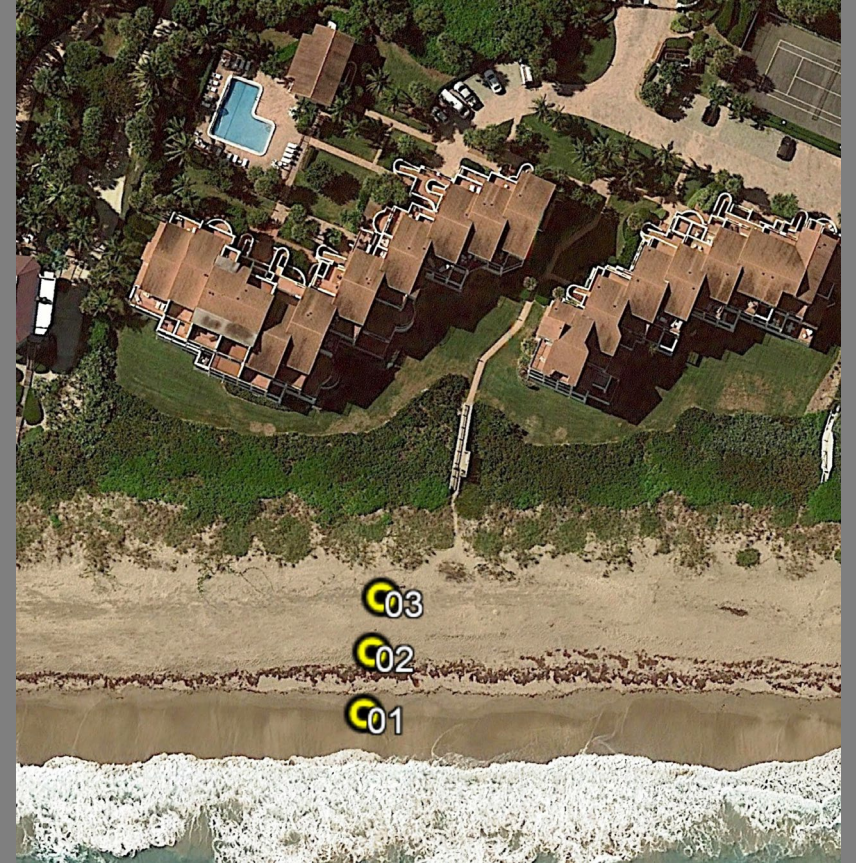
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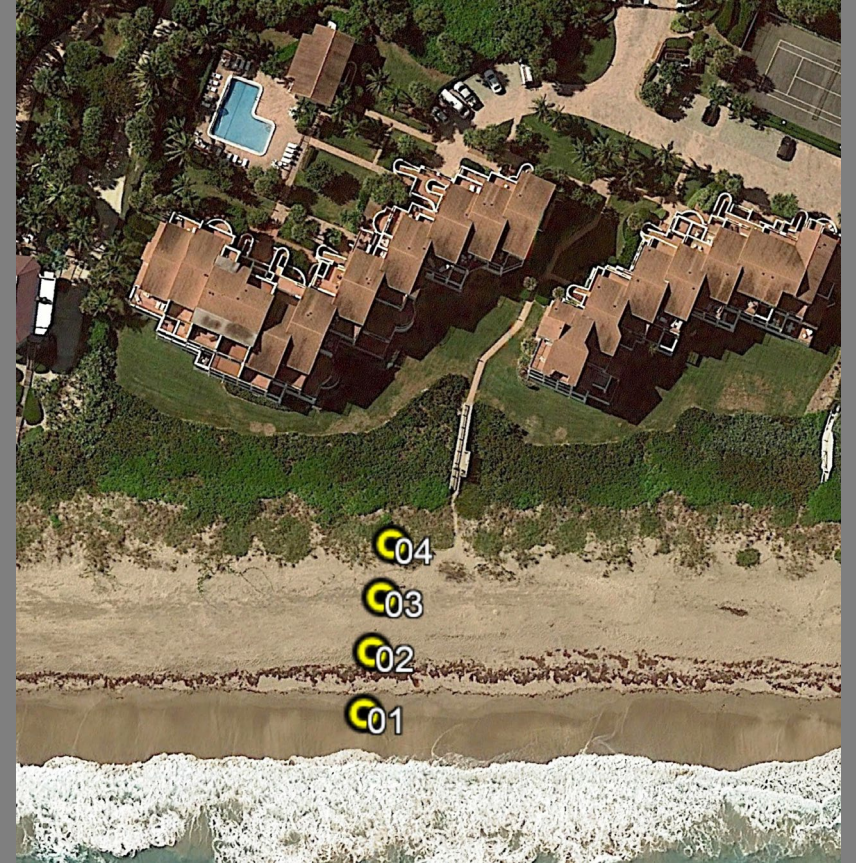
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Laser-Sighted GPS Systems Enhance Lighting Evaluations



Trimble Geo 7X



Nighttime Lighting Evaluation

Challenges

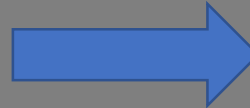
- Identifying the exact location of a light source without entering private property
- Providing property owners/managers with accurate information about their lighting violation




Reports with Photos and Aerial Images



Photo of light and an aerial image



Panama City Beach
Panama City Beaches Nourishment Project
Site Lighting Evaluation Form



Property/Facility: Streetlight
Address: Along Crane St Rd
Observer(s): J. Scarola
Date of Observation: 5/3/2018
Lights Visible From The Beach: Yes
General Comments:

Type of Observation: Initial Nighttime
Survey Start Time: 21:00 Survey End Time: 0:10

Type of Light: STL - Streetlights on roadways and drives; generally high intensity lights mounted on poles.

Current Problem Code: 2 - Light intensity appears high from beach. The lamp or reflective surface is visible over a small area of beach and/or causes illumination of small sections of beach.

Location of Light: 2 lights along Crane St Rd near 13626 Front Beach Rd


Recommended Modifications: S or RE - Attach 180 degree shield to fixture so light source is not directly visible from beach or Replace with modern alternative, such as recessed opaque fixture or directional fixture.

Observed Modifications: None


Additional Modifications Require No Violates Ordinance No

Waypoint: 123 Light Latitude: 30.20011 °N Light Longitude: -85.84766 °W

Photo of Light:



Aerial Photo:



Survey Conducted by Ecological Associates, Inc.

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Interactive Maps Using Google Earth



Challenges

- Identifying the exact location of a light source without entering private property
- Providing property owners/managers with accurate information about their lighting violation
- **Resolving lighting violations in a timely manner**



Conclusions

These new methods for lighting evaluations have:

- Streamlined the process
- Provided more detailed and accurate reports
- Resolved lighting issues in a timely matter

Ultimate Goal

- *minimize impacts to sea turtles from artificial lighting*
- *reduce disorientations on our beaches*



Thank You!

