

Light Pole Assessment and Inventory Using Collector for ArcGIS City of Carlsbad, California

July 12, 2017



The Problem:

- Failure of several light poles in public areas
- Safety of the population at risk
- Realization that the city did not have knowledge of all assets

The Need:

- Perform structural assessment of all light poles
- Create inventory of all light pole assets



Project Considerations and Approach

- Staff and Experience with GIS/Field Data Collection
 - Structural Engineer
 - Client Account Manager
 - Project Manager
 - GIS Analyst



Project Considerations and Approach

- Database Design
 - SDE
 - Intuitive schema
 - Attachments for photo documentation
 - Domain: FHWA Standard for sign post inspections

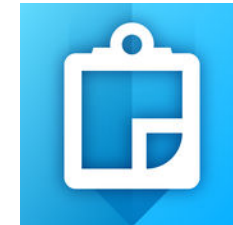
Element Condition Rating

Condition	Description	Feasible Action
0	Not Applicable	None
1	Element performs intended function with high degree of reliability (Good)	None
2	Element performs intended function with small reduction in reliability (Fair)	Repair element, increase inspection frequency, do nothing
3	Element performs intended function with significant reduction in reliability (Poor)	Repair or replacement of element within specified time frame
4	Element does not perform intended function with any degree of reliability (Critical)	Immediate repair or replacement of element

Project Considerations and Approach

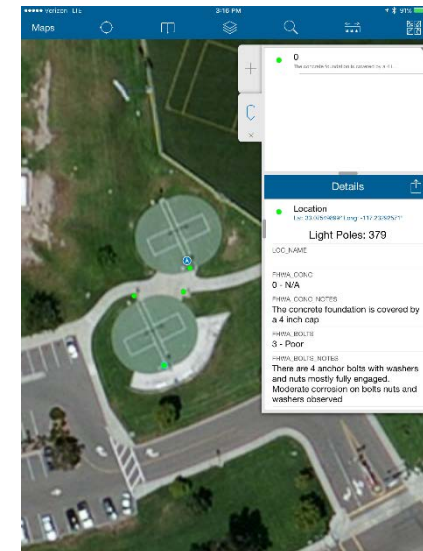
- Field Data Collection - Software
 - ArcGIS Server
 - ArcGIS Online
 - Collector for ArcGIS

- Field Data Collection - Hardware
 - iPad
 - Arrow 100 sub-meter GNSS
 - Office Laptop



Project Execution

- Structural Engineer
 - Performed integrity assessments on 861 light poles
 - Documented condition of all assets with photos
 - Communicated critical assessments to CAM
 - Collected sub-meter locations



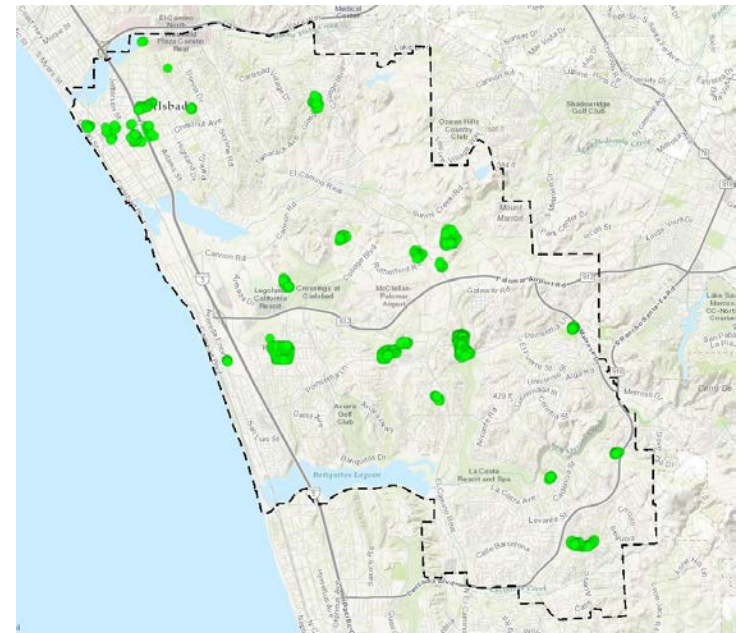
Project Execution

- Client Account Manager
 - Followed progress in the field from the office in AGO
 - Provided guidance on data capture based on personal knowledge of city infrastructure
 - Communicated critical assessments to client



Project Outcome

- Success!
 - Inventory complete (after change order)
 - Structural inspections/ratings completed
 - GIS data delivery completed
- Take away
 - Know your team
 - Organize for intuitive data capture
 - Test it all first!
 - Out of the box solution
 - Unlimited applications



Questions and Contact

QUESTIONS?

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