Committee on Right of Way, Utilities and Outdoor Advertising Control
2019 Annual Meeting

Chattanooga, Tennessee
April 28–May 2, 2019
Utility Locating Technologies R01B

Feasibility of Mapping & Marking Underground Utilities by DOTs

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Oregon DOT
Establishing a SUE Program

• Backing of ODOT’s Chief Engineer
• Recruited multi-skilled team of staff
• Created an initial set of documents
• Outreach to key stakeholders
• Went hunting for projects
Project Area
OR 8: Hocken to Short
Overall Project Scope

OR 8: Hocken to Short

- Signal replacement
- Roadway geometry adjustment
- Create a left turn lane
- Improvements to sidewalks and curb ramps, illumination, drainage and water quality treatment elements

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R01B: Why OR 8?

OR 8: Hocken to Short

- Located in the Portland-Metro area
- Project scope was a good fit
- Good mix of existing features to test MCGPR and TDEMI
- Reasonable sized project, appropriate for our first SUE project

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R01B: Why OR 8?

OR 8: Hocken to Short

Intersection at SW Cedar Hills Blvd

Intersection at SW Hocken Ave

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R01B: Trying Something New
OR 8: Hocken to Short
R01B Project
OR 8: Hocken to Short

- Field work – 300 man hours, approx.
  - MCGPR – IDS Stream EM system
  - TDEMI – A Geonics EM-61 MK2A
- Data analysis – 800 man hours, approx.

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R01B Project Challenges

OR 8: Hocken to Short

- Overcoming internal processes needed to execute a contract
- Maintaining the delivery schedule
Lessons Learned

Increased knowledge and awareness of SUE methods and applications

- Availability of tools
- Benefits SUE can provide
- Risk mitigation
- Acknowledgement of uncertainty
Lessons Learned

MCGPR and TDEMI are complex and complicated

- Field work is safer and quicker
- Equipment is easy to use
- Data processing requires more time and skill
Lessons Learned

SUE requires new contract language and dedicated procurement processes

- Start early
- Distinguish SUE from utility coordination
- Meet procurement team face-to-face
- Conduct outreach
- Know your end game

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Lessons Learned

At the onset of project development – Always be thinking SUE

- Timing is key
- Evaluate the project’s complexity early
- Engage the utility coordinator
- Determine needs – 2D or 3D
Lessons Learned

Never forget, cost is king

• Project leaders want to know “what’s my bottom line”
• Track every project to build a cost history
• Every job is different
Lessons Learned

Need for prequalified contractor list to expedite procurement process

• RFP process is long
• Establish standard contract language
• Make it easy for project leaders to use
Oregon DOT’s Next Steps

✓ Update our procurement and contracting documents
✓ Develop new tools and refine our existing ones
✓ Expand stakeholder outreach and education efforts
✓ Look for projects