

SUE: Recognition of Importance, International Following, and New Technologies

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New Technologies / Practices

- ▶ RFID
 - ▶ Utilities
 - ▶ ROW
 - ▶ PIM (PipeTalker)
- ▶ Utility Databases / Repositories
- ▶ Utility Conflicts Matrix
- ▶ GPS Survey of One-Call Marks
- ▶ 3-D Utility Deliverables
- ▶ Combined Uses for Geophysics across Dept. silos



New Technologies / Practices

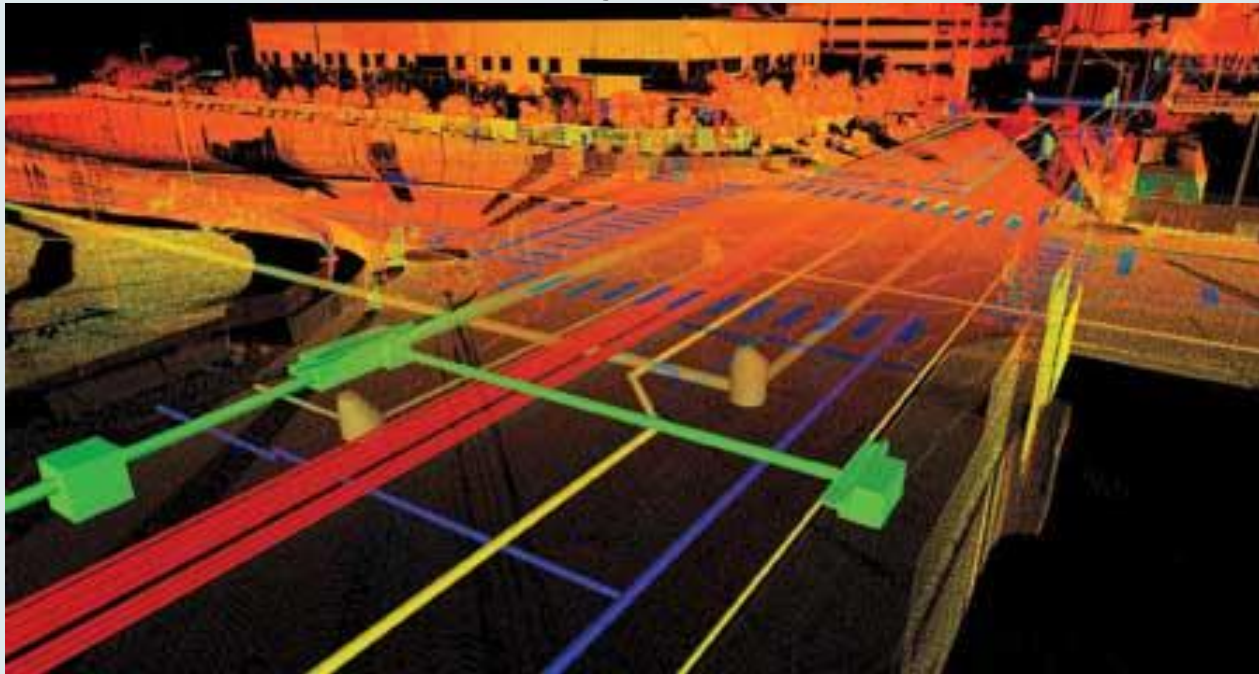
Utility Conflict Matrix Applications

- Systematic treatment of utility conflicts
- More effective project development process integration
- Easy to use given a correct implementation
- Training for all stakeholders is highly recommended to realize benefits of UCM implementation
- MDSHA serves as Trial DOT



New Technologies / Practices

3-D Utility Deliverables



Recent Pubs deliver clear message

▶ SHRP

- ▶ R-01
- ▶ R-15
- ▶ R-01A/B/C/
- ▶ R-15 B/C

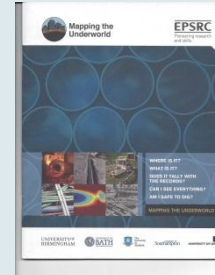
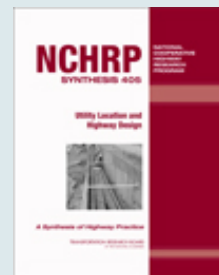
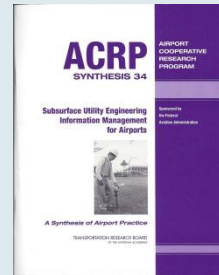
▶ NCHRP 405

▶ ACRP 34

▶ FAA AC 150-18b

▶ NRC: Underground Engineering for Sustainable Urban Development

▶ Mapping the Underworld



SUE: International Standards

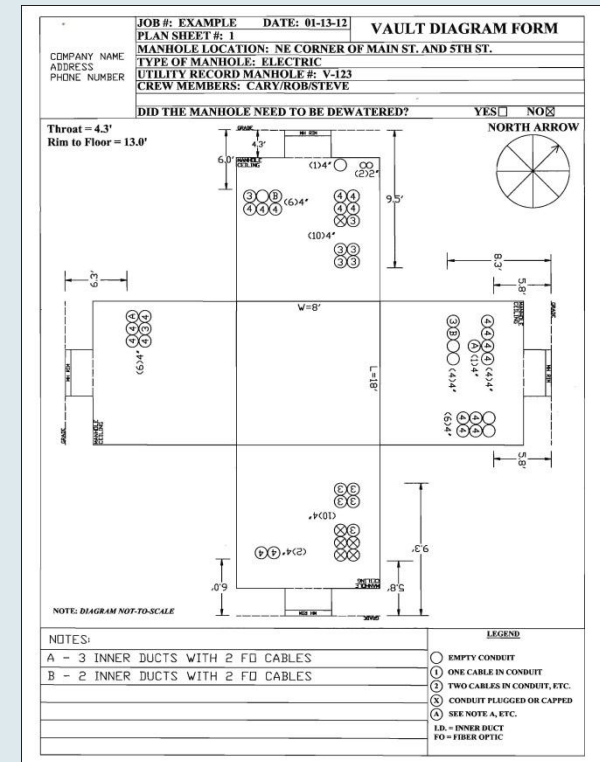
- ▶ Currently four international standards for SUE
 - ▶ ASCE 38-02 (America)
 - ▶ CSA 250-11 (Canada)
 - ▶ AS 5488 (Australia)
 - ▶ Standard Guideline for Underground Utility Mapping (Malaysia)
- ▶ Each one is a national consensus standard
- ▶ All the standards address three core principles:
 - ▶ How utility information should be obtained
 - ▶ The technologies available to obtain that information
 - ▶ How that information should be conveyed to information users



USA

ASCE 38 Update

- ▶ Vaults
- ▶ Depths
- ▶ One-Call
- ▶ Jurisdiction
- ▶ Acronym Examples



Canada

- ▶ CSA 250-11
- ▶ Use ASCE 38 for existing infrastructure
- ▶ For new infrastructure – or – exposed infrastructure
 - ▶ Takes QLA and subdivides into 5 new categories
- ▶ ASCE working with CSA to develop new “joint N.A. Standard for existing and new utility infrastructure mapping”



Australia/New Zealand

- ▶ Consensus achieved; publication imminent
- ▶ Very similar to ASCE 38
- ▶ SUI (Information, not Engineering)
- ▶ Requires +/- 300mm x,y,z for QLB.



United Kingdom

British Standards Institute - PAS 128

- ▶ Industry consultation event in January 2012 saw the start of the British process.
- ▶ June 2012 the technical committee was formed, chaired by the ICE.
- ▶ First Technical draft was reviewed by the committee in December 2012.
- ▶ Public / General industry review late 2013



Malaysia

- ▶ Dept. of S & M (JUPEM) to create national utility database
 - ▶ Separate from individual utility owners
- ▶ Standard parties are **Utility Owner**, Surveyor, and **JUPEM**
 - ▶ Utility Owners responsible to all project owners
 - ▶ Utility Owner to hire surveyor to achieve QLA for all newly installed utility facilities
 - ▶ Existing Utilities mapping generally follows ASCE 38 and is the responsibility of the utility owner and surveyor
 - ▶ Utility Owner must furnish info in standard format to JUPEM



Other Related SUE Standards

- ▶ Ecuador – INEN
 - ▶ Submitting SUE Proposal



- ▶ France – Association Française De Normalisation



Mandatory: Effective July 2012

- ▶ Italy - Italian Organization for Standardization
 - ▶ In the committee formalization phase



“In The Works”

- ▶ ASCE Utility Engineering Committee
 - ▶ ASCE SUE Certificate Programs
 - ▶ SUE and UE Prequalification Criteria
 - ▶ Coordination Manual of Practice
 - ▶ 2014-15 National Utility Summit
- ▶ ASCE Standards “licensing”



Questions?

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