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
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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