

# Nevada Street & Highway Conference May 2005

Utility Relocation  
&  
Subsurface Utility Engineering

# Nevada Department of Transportation

## Utility Section of the R/W Division:

- 1) Provides liaison between NDOT & Utility Companies.
- 2) Provides Location information.
- 3) Does not identify utility conflicts.

# Federal & State Regulations

1. 23 CFR Part 645: Sets reimbursement criteria for Federal aid projects.
2. NRS 408: State law for highway and roads.
3. NAC 408: State regulations for utility reimbursement.

# Minimize Utility Conflicts

1. Include Utility Relocations in Construction Contracts.
2. Acquire Utility Replacement Easements.
3. Joint Use of Trenches.
4. Headquarter Issued Occupancy Permits.
5. S.U.E. (Subsurface Utility Engineering)

# S.U.E. (Subsurface Utility Engineering)

## History

Invented by Henry Stutzman.

First SUE Provider So-Deep Inc.

First State SUE contract 1985.

First NDOT Contract 1990.

# S.U.E.

## (Subsurface Utility Engineering)

### Phased Approach

Designation Phase: This is the 1<sup>st</sup> Phase of SUE and should be performed on the entire project limits. Provides exact horizontal locations of all utilities.

Location Phase: This is the 2<sup>nd</sup> Phase of SUE and it involves excavating test holes to obtain the exact vertical location of a utility.

# SUE Quality Levels

- I. **Quality Level D:** The Review of existing records.
- II. **Quality Level C:** Field review of existing information.
- III. **Quality Level B:** Designation Phase or Phase 1 of SUE.
- IV. **Quality Level A:** The location Phase of SUE.

# Purdue University Study

## Potential Benefits of using SUE:

1. Reduction in unforeseen utility conflicts.
2. Reduction in project delays due to utility relocations.
3. Reduction of claims and change orders.
4. Reduction in delays due to utility cuts.
5. Lower project bids.



# Purdue University Study

## Potential Benefits of using SUE:

(continued)

6. Reduction in the cost caused by conflict redesign.
7. Reduction in the cost of project design.
8. Reduction in utility companies cost to repair damaged facilities.
9. Minimization of damage to existing pavements.

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