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New York State
Department of Transportation

OVERCOMING UTILITY ISSUES

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OVERCOMING UTILITY ISSUES

- Background
- Issues
- Times are Changing...
- NYSDOT Strategies

- Alert: Controlled Access Freeways are next!

NYSDOT BACKGROUND

- 70% of All Non-Maintenance Projects Have Some Degree of Utility Involvement
- Amounts to \$900 M per Year in Utility Impacted Projects

NYSDOT BACKGROUND

TYPES OF UTILITIES

- Electric
- Gas
- Water
- Sewer
- Telephone
- Cable
- Wireless Communications
- Traffic Signals
- Street Lights
- Oil/Crude Products
- Liquid Products
- Steam

PRIMARY ISSUES

- **Cost**
 - Some at the expense of NYSDOT.
 - Some at the expense of the utility.
 - Regardless who pays – it's costly.
- **Schedule**
 - Contactor Delay Claims.
 - Highway User Delays.
- **Scope of Work**
- **Safety**

Changes In...

- Utility Industry
- NYSDOT/DOT's
- Construction Industry
- Demand

Changes In...

Utility Industry

- Downsizing → Less Resources
- Need/Desire for More Time to Relocate
- Technologically Becoming More Complex
- Increased Competition → Less Stability
- Competing Resources → Revenue vs. Non-Revenue Generating Projects

Changes In...

NYSDOT/Other DOT's

- Limited Corridor Space (in many cases law requires utility accommodation)
- Desire to Minimize Impact on Traveling Public
 - (A+B, Incentive/Disincentive Contracts, Night Work, etc.)
- Downsizing → Less Resources / Less Expertise

Changes In...

Construction Industry

- Construction schedule/staging/bids influenced by utilities. They would like to have full control of their schedule/operations.
- Contractors need to improve & increase coordination of their work with the utility companies. Must keep precise records of all written and verbal correspondence.
- Utility Hits → Safety and Liability Issues/regulatory oversight.

Changes In...

Public Demand For Power Increasing

- Limited Corridors Elsewhere.
 - Non-highway Corridors Generally Require Numerous Easements → Time Consuming And Costly
 - Highway Corridors Generally Require A Highway Work Permit → Quick And Usually No Use And Occupancy Fee
- Political Pressure To Accommodate Utilities Along Highways → NIMBY

NYSDOT PHILOSOPHY

If we know where they are, we will do our best to design around them!

If necessary to relocate utilities, relocations should be incorporated into, or be well coordinated with, our projects.

STRATEGY: PARTNERING

Executive Level

- NYSDOT meets with representatives of the Utility and Contracting industries.
- Discuss broad policy issues
- Meetings are held 2 -4 times per year for each group.
- A joint meeting involving both groups is held once per year.

STRATEGY: PARTNERING

Regional (District) Level

- NYSDOT Regions conduct Program Update Meetings with Regional Utility Reps.
 - discuss 5-yr, 3-yr and 1-yr plans
- Provides the utilities with an idea of upcoming relocation projects. Allows the utilities to plan / allocate resources.
- Allows the utilities to plan their build-outs and provides the opportunity to incorporate betterments in conjunction with our highway projects
- Meetings are held 2 -4 times per.

STRATEGY: PARTNERING

Project Specific Level

- Communication Early and Often -- Project designer coordinates utility activities (inventories, on-site “walk-through”, etc) in conjunction with the utility companies
- Once it has been determined that a utility conflict exists, a Utility Work Agreement is drafted
- Utility Work Agreement is signed by both NYSDOT and the utility company

STRATEGY: PARTNERING

Project Specific Level (Cont'd)

- Utility Work Agreement Identifies
 - Party responsible for the costs of utility adjustment
 - Party responsible for physically adjusting the utility facility
 - Time schedules associated with the construction contract

STRATEGY: SUBSURFACE UTILITY ENGINEERING (SUE)

- SUE is an engineering process to accurately locate and map underground utilities during the early design of a highway project.
- The SUE process involves three major activities:
 - Utility Designating
 - Utility Locating
 - Data Management

STRATEGY: SUBSURFACE UTILITY ENGINEERING (SUE)

Utility Designating - using geophysical prospecting techniques to determine the existence and horizontal position of underground utilities.



STRATEGY: SUBSURFACE UTILITY ENGINEERING (SUE)

Utility Locating - using non-destructive digging equipment, such as vacuum excavation, to determine the precise horizontal and vertical position of the underground utility line.



STRATEGY: SUBSURFACE UTILITY ENGINEERING (SUE)

Data management - surveying utility information obtained and entering it into the computer-aided design (CAD) system



STRATEGY: SUBSURFACE UTILITY ENGINEERING (SUE)

The benefits of SUE:

- Accurate and timely utility information to the designer.
- Possible reduction in utility relocation costs – allows the designer to make informed design decisions to avoid potential utility conflicts.
- Possible reduction in unexpected conflicts -- avoid construction delays, damages, service disruptions, claims, and even injuries or lost lives.
- A recent study commissioned by the FHWA determined a savings of \$4.62 for every dollar spent on subsurface utility engineering.

STRATEGY: COORDINATION

- The more utility work controlled by our contractor, the less chance of utility delay claims.
- NYSDOT has worked with the State Comptroller and Attorney General to incorporate methods to accomplish this while providing protection to NYSDOT and its contractor.

STRATEGY: COORDINATION

- Problems with NYSDOT contractor performing utility work:
 - Union Rules
 - Lack of Technical Experience
- In some cases work is divided:
 - Contractor trenches, installs vaults, sets poles, etc.
 - Utility performs the union regulated or highly technical operations.

STRATEGY: SAFETY

NYSDOT employs many of these same "tools" to enhance safety

- SUE
- Relocations avoidance
- Incorporation of utility work into the contract
- Increased coordination and communication

STRATEGY: ACCOUNTABILITY

- NYSDOT is implementing and/or revising its procedure to recoup funds due to delays.
- We are actively seeking to clarify roles and responsibilities of NYSDOT and Utilities in a legal context.

THE CHALLENGE CONTINUES....

- Requires dedicated resources, constant attention
- NYSDOT continues to face complications such as construction delays, utility hits, undue inconvenience to the public.
- NYSDOT continually reviews its policies and procedures related to utility accommodation in order to minimize the impacts utilities have on our highways.

LONGITUDINAL OCCUPATION OF CONTROLLED ACCESS FREEWAYS

- Recent increase in the number of requests by utilities – six requests within the last year.
- Driven by increased demand for power, especially gas and electric.
- NYSDOT's policy is to allow longitudinal accommodation of communication facilities, only. Requests by other utilities are reviewed on a case-by-case exception basis.

LONGITUDINAL OCCUPATION OF CONTROLLED ACCESS FREEWAYS

- NYSDOT is approaching this issue carefully since deviation from our current policy would be precedent setting and would likely bring on further requests.
- FHWA, which must give approval on most freeways in New York State, has expressed similar reluctance.
- As the number of requests increases, so does the political pressure to accommodate these utilities.
- This is an issue likely to be seen in more and more states eventually.