



U.S. Department  
of Transportation  
Federal Highway  
Administration



## FLEXIBILITIES IN UTILITY RELOCATION

Module : 1

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Level of Audience: Engineers, Personnel of Utilities Agencies

Duration: 30 minutes



## Acronyms

- AASHTO American Association of State Highways and Transportation Officials
- DOT Department of Transportation
- DTWP Department of Transportation and Public Works
- EDC Every Day Counts
- FHWA Federal Highway Administration
- MOU Memorandum of Understanding
- OGPe “Oficina de Gerencia de Permisos”
- PRHTA Puerto Rico Highway and Transportation Authority
- PRLTAP Puerto Rico Local Technical Assistance Program



## Acronyms

- PRASA Puerto Rico Aqueduct and Sewer Authority
- PREPA Puerto Rico Electrical Power Authority
- PRTCO Puerto Rico Telephone Company
- Q&A Questions and Answers
- ROW Right of Way
- SUE Subsurface Utility Engineering



## Introduction

- EDC is designed to focus on a finite set of initiatives.
- The often conflict between state transportation agencies and utility companies can adversely affect the timely completion of transportation projects.
- Half of all highway and bridge projects eligible for federal funding involve the relocation of utility facilities.





## Introduction

- The initiative will spotlight existing flexibilities currently in place under Federal Law and regulations and describe techniques that foster effective utility coordination during project development which warrant more widespread use.



## What is expected after the module ?

- How to improve the time of relocation of existing utilities.
- The importance of applying and respect the “Master Agreements”.
- The importance of satisfactory coordination with utility agencies and companies.
- Importance of safety on roads and the intention to follow the “Policy on the Accommodation of Utilities on Highways Row”.



## Objectives

- General Information about the Office
- Description of the Problem
- Facts
- Proposal
- Barriers for Implementation
- Practical tips for Implementation
- Impact of Implementation
- Conclusion



## General Information about the Office

- The Utilities and Illumination Office works with the existing utilities and illumination system in state roads, affected with works to be performed by PRHTA; at the same time, works with the evaluation of proposed project presented or submitted by other agencies or private entities, that required Roadway ROW to install their infrastructure.



## General Information about the Office

- Our Office has the main responsibility of:
  - Design and review relocation plans of existing utilities affected with projects.
  - Coordinate the projects with utilities agencies and private companies in order to obtain information of their utilities and endorsement of final plans.
  - Evaluation of private projects submitted by Access Control Office, of PRHTA.
  - Observe that agencies comply with “The Policy”, Federal Guides, Requirements of DTOP, etc.



## General Information about the Office

- Our Office has the main responsibility of:
  - Design and evaluate the requirements to implement a Lighting System in State Roads.
  - Create “Master Agreements” between utility agencies and companies, or a specific agreement required by a specific project.
  - Evaluate special resolutions for “Cámara and Senado” of P.R., etc.



## Description of the Problem

- Utility relocations are a major cause of project delays during the construction of highway projects.
- PRHTA is responsible for the relocation of PREPA and PRASA utilities while PRTCO, Cable TV and other communication utilities are relocated at their own cost.
- FHWA and AASHTO guidelines are required by PRHTA for all new utility installation proposed by utility agencies and companies on PRHTA/DTOP ROW, specially in roads and expressways inside the National Highway System.



## Facts

- Laws or Regulations to be revised
  - PRASA: Under provisions of Section 10 of Act. No. 163, approved May 3, 1949. PRASA has the right and power to construct or place any parts of its works, project, and operate, maintain and extend the same across, in, over, under, along any street, public highway, etc.
  - PREPA – Under provisions of Section 14 of Act. No. 83, approved May 2, 1941. PREPA has the right and power to construct or place any parts of its works across, in, over, under, along any street, public highway, etc., without obtain any franchise or permit.
  - These laws must comply with the regulations of PRHTA.



## Facts

- Too much time to deliver the exact information:
  - Utility companies have many utilities that are not identified.
  - It takes a lot of time to obtain the exact information on their location.
  - Agencies do not have a specialized office with a qualified personnel to obtain the information.
  - Utility companies like PRASA do not have the required equipment and personnel to obtain an exact location of underground utilities.



## Facts

- Liability issues:
  - Private and public utility installation on Highway ROW has to be done in accordance with the “Policy on the Accommodation of Utilities on Highways ROW” (“The Policy”). All works have to be coordinated and approved by PRHTA. There are many agencies, like PREPA, that install it’s utilities without the required endorsement.
  - Utility installation on Highway ROW can affect the safe operation, maintenance and appearance of the highway.



## Facts

- Memorandum of Understanding:
  - PRHTA has developed and established a “Master Utility Relocation Agreement” with utility agencies and companies.
  - It is important that personnel of agencies and companies respect them in order to improve the coordination and time of relocation of the utilities during construction of the PRHTA’s projects.



## Facts

- Local vs. National or Worldwide Problems:
  - PRHTA is responsible with PREPA and PRASA for the affected infrastructure during PRHTA projects
  - Projects involving PRTCO and Cable TV utilities, the relocation is their responsibility
  - Some state DOTs have attempted to address the utility delay problem by the use of incentives. These incentives have been in financial form. (Ex. 100% relocation reimbursement) and non-financial (Ex. efforts to improve working relationships and efforts to avoid utility relocations).



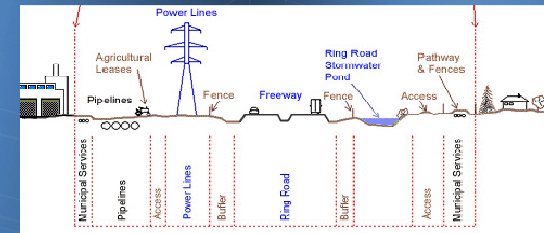
## Proposal (EDC Initiative)

- PRHTA should consider the next steps in order to improve the process for utility relocation:
  - Improve coordination, cooperation and communication with the utility agencies and companies.
  - Subsurface Utility Engineering (SUE), to obtain exact location of utilities.
  - Utilities in Value Engineering.
  - High level Memorandums of Understanding (MOU).
  - Simplified utility permitting and documentation requirements.



## Proposal (EDC Initiative)

- PRHTA should consider the next steps in order to improve the process for utility relocation:
  - Identification of abandoned or out of service utilities.
  - Designated utility coordinators.
  - Utility coordination during construction
  - Utility corridors (in areas where can be implemented).



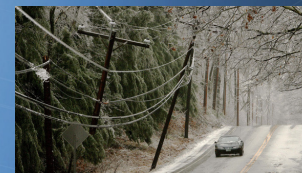
## Proposal (EDC Initiative)

- Utility relocation and accommodation of new installation is a very important highway element not only in the construction cost evaluation, but also in the security aspect. In terms of the application of these regulations, PRHTA has to be more restrictive with the next considerations:
  - Apply the roadside manual to advice the clear zone or recovery area:
  - Apply the “policy” in NHS roads as Toll Roads or Freeways.



## Proposal (EDC Initiative)

- Use breakaway mechanism, as used in lighting poles, in areas where utilities are inside the “clear zone”.
- Coordinate works with utility companies; the project and the works shall proceed in accordance with the Master Agreements.





## Proposal (EDC Initiative)

- Before the beginning of construction works, utility needs the endorsement of the “Excavation and Demolition Coordination Center” under Puerto Rico Public Service Commission.



## Barriers for Implementation

- Limitation of land for implementation of the “Corridor” for utilities.
- OGPe – New office created for submittal of documents for government agencies endorsement. The transition to the new system required agencies to learn the new law of permits and the new process on the acquisition of permits.
- Time required to review and translate the “Master Agreement” to English version.



## Practical tips to implement EDC

- Assign a person to coordinate with “Legal Office Area” of PRHTA, the revision and translation works of the “Master Agreements”.
- Continue with the negotiation and coordination with the communications and Cable TV companies, in order to obtain a signed agreement.
- Create a “Transportation Research Board Utilities Committee”, to evaluate and make research of the needs of PRHTA, in coordination with the needs of utility agencies and companies.



## Impact of Implementation

- Short – (0 – 6 months) – Implementing the new system. Not necessary observed changes.
- Medium – (6 – 18 months) – Transition. Improvement in coordination and relocation time of utilities.
- Long Term – (2 or more years) – Better relocation time, with a new “Master Agreement” review.





## Conclusion

- Utility relocation is a major cause of project delays during construction of highway projects and a source of frustration to both highway and utility agencies. Also, relocation and accommodation is a very important highway element not only in cost evaluation, but also in security aspect.



## Conclusion

- Puerto Rico has a problem due to lack of space or ROW in state highways. Our recommendations for improvement and best practice for utility installations in Roadway ROW are:
  - Utilities understanding of these highways security matters.
  - More public agencies and private companies coordination, more effort from concerning entities and new needed legislation as agreed between the parts.
  - Legislation is needed to create State Department, directive in charge of whole utilities coordination and work plans covering State Highway Utility.
  - One Call System.
  - Utility ROW corridor.



## References

All the information provided in this presentation has been published by Federal Highway Administration. To learn more about EDC, visit:

<http://www.fhwa.dot.gov/everydaycounts>