Transportation’s Role in Broadband Deployment
What’s In It For Me?

You will be able to:

• Explain the six steps in planning a community broadband roadmap and where the Transportation Department fits into their planning efforts.

• Explain what information you can provide to the broadband deployment team.

• Explain what other resources are available for accommodating utilities and broadband deployment.
Importance of Internet

• How important is internet connection for you?
• How much do you use the internet every day?
• What do you use the internet for?
• How would your life be different without internet?
What’s the Problem?
FCC Estimate from GAO Report – 2018

Broadband Service (America)
- Access: 92%
- No Access: 8%

Broadband Service (Tribal Lands)
- Access: 65%
- No Access: 35%
What’s the Problem?
FCC Estimate from GAO Report – 2018

Broadband Service (Rural America)
- Access 69%
- No Access 31%

Broadband Service (Rural America - Tribal Lands)
- Access 40%
- No Access 60%
What’s the Problem?

• Closing Digital Gap = Greater impact to those w/o Broadband
• Digital Divide = Inequality
• Challenges
  o Low population = increased cost to providers
  o Increased cost to providers = increased cost to subscribers
  o Low Benefit-Cost for Providers
• Technology changes
What’s The Problem?

- President Biden’s “Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government”, January 20, 2021

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Remember that the Interstate System wasn’t built overnight:

https://www.youtube.com/watch?v=J_G7oc41x6M
The Broadband Deployment Team (Tribal Task Force) will:

- Develop a community broadband vision
- Assess existing Broadband resources, gaps, and needs
- Engage local stakeholders
- Choose appropriate technology
- Select a business or organizational model (framework for implementation)
- Develop a project plan(s), e.g. implementation and financial plans

Permitting and Asset Agencies, Includes Transportation Dept.

Transportation Dept. provide input through LRTP and TTIP
Poll Question

Do you currently engage broadband deployment teams in the LRTP, TTIP, or Project Development?

If you do, choose all that apply:

- LRTP
- TTIP
- Project Development
Federal Work Groups
Identify Stakeholders

Executive Order 13616 (June 2012)

Executive Order 13821 (January 2018)
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Permitting and Asset Agencies, Includes Transportation Dept.
Federal Agency Stakeholders

- **Technical Expertise**
  - Federal Communications Commission (FCC), including the Broadband Deployment Advisory Committee (BDAC)
  - U.S. Department of Commerce – National Telecommunications and Information Administration (NTIA)

- **Supporting Federal Agencies**
  - Streamline Federal Permitting
  - Leverage Federal Assets
  - Maximize Impact of Federal Funding
Federal Agency Stakeholders

Streamlining Federal Permitting Workstream Members include:

- Department of Homeland Security
- **Department of the Interior**
- **Department of Agriculture**
- Department of Commerce (NTIA)
- Department of Defense
- **Department of Transportation**
- Department of Veteran Affairs
- General Services Administration
- Council on Environmental Quality
- Advisory Council on Historic Preservation
- Federal Communications Commission
- Office of Management and Budget
Leverage Federal Assets Workstream Members include:

- Department of the Interior
- General Services Administration
- Department of Agriculture
- Department of Commerce
- Department of Defense
- **Department of Transportation**
- Department of Energy
- Department of Homeland Security
- Department of Housing and Urban Development
- Office of Management and Budget
- Environmental Protection Agency
- Department of Veteran Affairs
- National Aeronautics and Space Administration
Federal Funding Workstream Members include:

- Department of Agriculture
- Department of Commerce (NTIA)
- Appalachian Regional Commission
- Delta Regional Authority
- Department of Education
- Environmental Protection Agency
- Federal Communications Commission
- Department of Health and Human Services
- Department of Homeland Security
- Department of Housing and Urban Development
- Institute of Museum and Library Services
- Department of the Interior
- Department of Labor
- National Science Foundation
- Office of Management and Budget
- Department of Treasury
- Department of Veteran Affairs
- USDOT Discretionary Grant Criteria
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Broadband Network

- **Backbone (Core) Network**
  - Regional Internet Point of Presence
  - Middle Mile Communication Hut
  - Middle Mile Communication Hut
  - Middle Mile Communication Hut

- **Middle-Mile Network**
  - Area Node

- **Last-Mile Network**
  - Community Anchor Institutions

[Image of a network diagram showing the connections between different nodes and institutions.]
Transportation Network

Freeway

Arterial Road

Local Road

Community Anchor Institutions
Executive Order 13616 (June 2012) signed to facilitate deployment of broadband technology on Federal:
  - Lands
  - Buildings
  - Rights-of-way
  - Highways
  - Tribal lands

FHWA Working Group on Broadband developed list of considerations (https://www fhwa dot gov/policy/otps/pubs/policy_brief_rural_broadband pdf)
Your Transportation Department Should:

- Familiarize yourself with State Accommodation Plan or BIA’s 25 CFR Part 169
- Provide State or BIA Utility Accommodation Plan to Broadband Deployment Team
- Publish broadband plans or utility accommodation policies on Transportation Dept. Website
- Make existing utility location and proposed highway project information available electronically
- Develop or update asset management system to collect broadband data

FHWA Policy Brief
Facilitate Deployment of Broadband Technology

Your Transportation Department Should:

- Include broadband stakeholders and service providers in transportation planning
  - LRTP
  - TTIP
- Coordinate transportation and highway construction plans with other statewide telecommunications plans
- Coordinate with utilities to minimize number and scale of repeated excavations

Chapter 1 – Utility Relocations, Adjustments, and Reimbursements

Chapter 2 – Utility Accommodation
  - Policy for accommodating utilities
  - Authority for accommodating utilities
  - Safety
  - Median Installations
  - Access to Utility Facilities
  - Competitive Issues
  - Fees charged for Telecommunication Use on Highway R/W
Utility Relocation and Accommodation on Federal Aid Highway Program Projects

- Public Interest Finding
- Transportation Safety
- Dig Once Policy
- Facilitating the deployment of broadband technology
23 CFR 645.205(a) states that:

“It is in the public interest for utility facilities to be accommodated on the right-of-way of a Federal-aid or direct Federal highway project when such use and occupancy of the highway right-of-way do not adversely affect highway or traffic safety, or otherwise impair the highway or its aesthetic quality, and do not conflict with the provisions of Federal, State or local laws or regulations.”
23 CFR 645.205(c) states that:

“...it is necessary that such use and occupancy, where authorized, be regulated by transportation departments in a manner which preserves the operational safety and the functional and aesthetic quality of the highway facility...”
Executive Order 13616 (June 2012) required FHWA to review “dig once” requirements.

- FCC – Burying utilities is largest cost for deploying broadband.
- Coordinate highway construction with broadband installation.
- Minimizes duplicative federal reviews and permits.

Cost of Broadband Installation

- 90% Excavation
- 10% Other

Strategies include:

- Joint-trench agreements
- Moratoriums on street excavation
- Installation of empty conduit in R/W
- Trenchless technologies
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Resources

- FHWA Program Guide – Utility Relocation and Accommodation on Federal-Aid Highway Projects
  (https://www.fhwa.dot.gov/reports/utilguid/if03014.pdf)

- FHWA’s Dig Once Policies
  (https://www.fhwa.dot.gov/policy/otps/policy_brief_dig_once.pdf)

- FCC – Broadband Deployment Advisory Committee (BDAC)
  (https://www.fcc.gov/broadband-deployment-advisory-committee)

- NTIA Broadband Deployment – “A Toolkit for Local and Tribal Governments” from Broadband USA
  (https://broadbandusa.ntia.doc.gov/ntia-resources/publications)
What’s In It For Me?

We discussed the following topics:

- The six steps in planning a community broadband roadmap and where the Transportation Department fits into their planning efforts.

- What information you can provide to the broadband deployment team.

- What other resources are available for accommodating utilities and broadband deployment.