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The Illinois Tollway

DRIVING THE FUTURE

Connected Vehicles in a Smart Corridor

February 18, 2015

Today's Agenda

- Building a 21st century corridor
- Connected vehicles
- Federal pilot project opportunity
- Next steps

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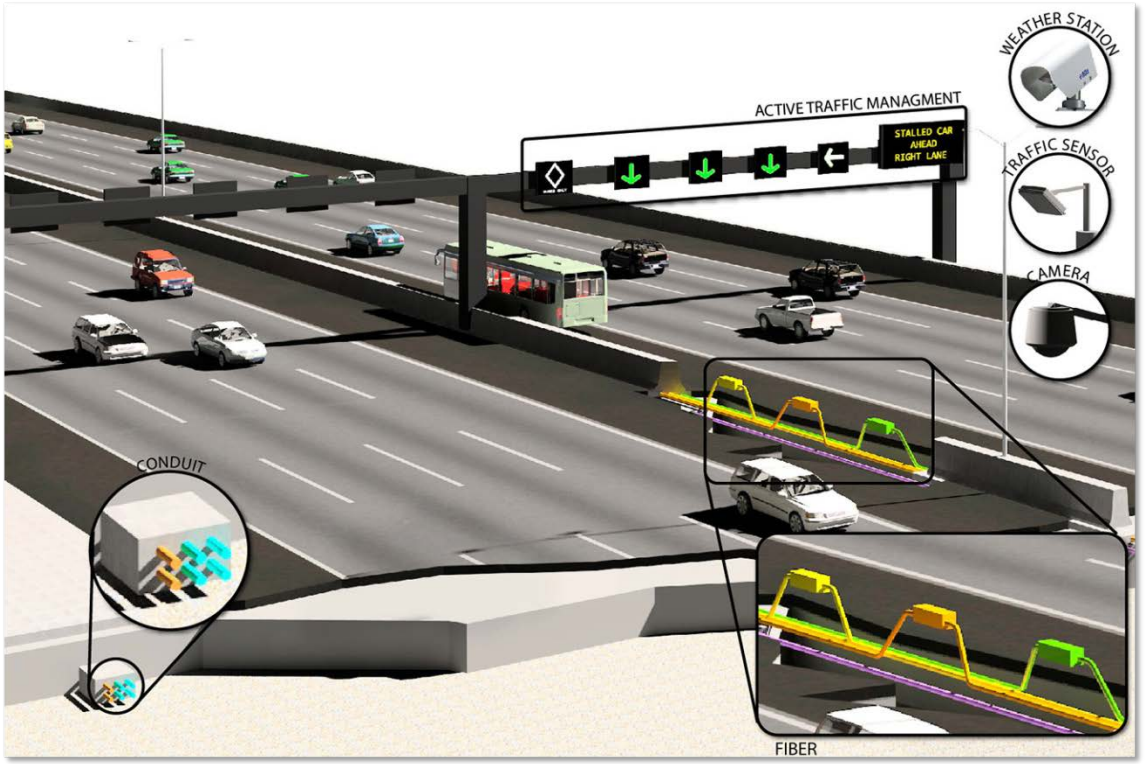
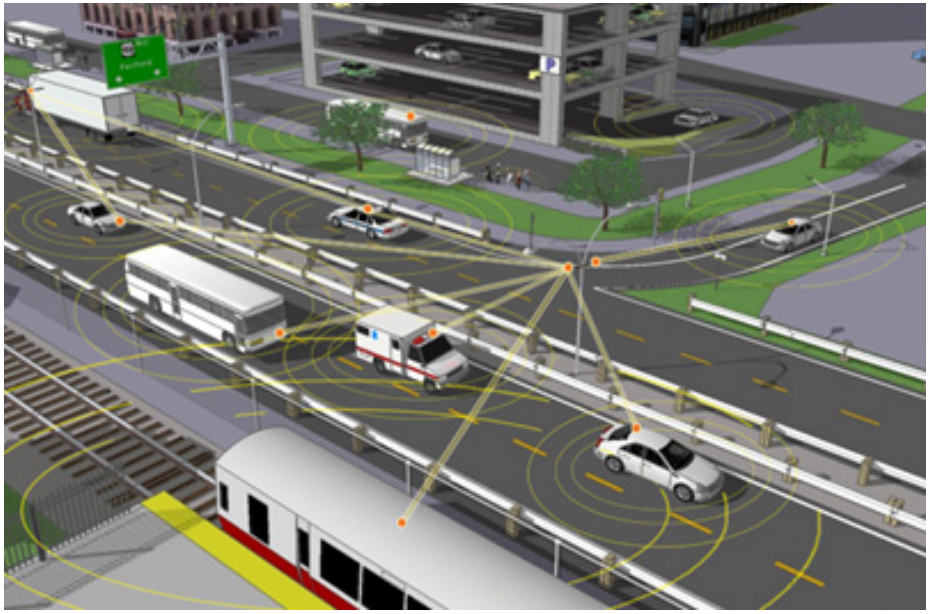
Building a 21st Century Corridor

- **Jane Addams Memorial Tollway (I-90) Rebuilding and Widening Project**
- **Flexible infrastructure to incorporate smart features, such as**
  - Active traffic management
  - Connected vehicles



What is a Connected Vehicle (CV)?

- Has an independent onboard wireless capability to establish a two-way data linkage
- Transfers information by vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I)
- Potential to communicate important safety and mobility information that can help save lives, prevent injuries, ease traffic congestion and improve the environment



Potential Applications of CV

- **Curve speed warning**
  - Warns drivers to slow down due to curves
- **Spot weather impact warning**
  - Warns drivers of roadway impacts from weather conditions (ice, snow, etc.)
- **Reduced speed/work zone warning incident scene**
  - Provides pre-arrival staging guidance for emergency responders in advance of incident scenes
- **Incident scene work zone alerts for drivers and workers**
  - Warns drivers of incidents and construction work zones
- **Queue warning**
  - Warns drivers of congestion and stop-and-go traffic conditions
- **Enable advanced traveler information system (ATIS)**
  - ATIS collects and analyzes roadway information to assist travelers before and during trips

Federal Pilot Project Opportunity

Federal Highway Administration issued a Request for Proposals for Connected Vehicle (CV) Pilot Deployment

- **Encouraged testing and development of CV technology**
- **Focus is on CV technology that will allow vehicles to collect, distribute and receive information in real-time**
- **Multiple awards available**
- **Typically between $2 million and $20 million**
- **Encouraging multiple stakeholder partnerships lead by private sector**

Tollway is a Strong Candidate

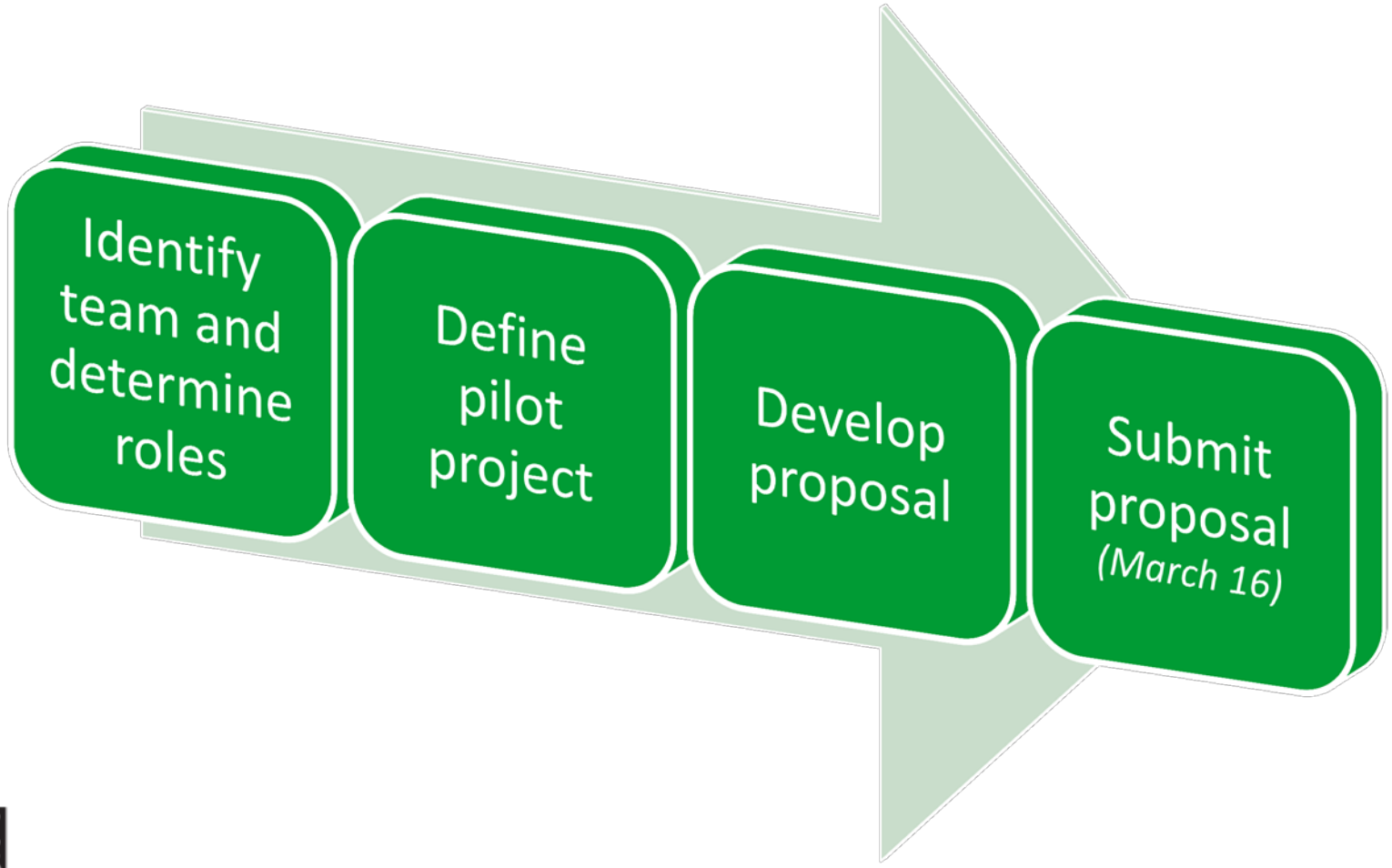
- **Proven commitment to "smarter" operations**
  - Significant investments on I-90 and Illinois Route 390
  - Tollway one of only five federally-affiliated test beds for CV technology that operate roads
- **Proven success delivering major capital programs**
  - Delivered Congestion-Relief Program
  - First three years of *Move Illinois*
- **Proven partnerships with universities, transportation agencies and the private sector**

Potential benefits:
- *Cost savings*
- *Frees up resources*
- *Limited risk*
- *National leadership role*

Potential Partners for Pilot Program

- Regional and local transportation and transit agencies
- First responders
- Academic institutions and universities
- Consultants with expertise in requisite fields and established relationships with the Tollway and CDM Smith
- Outreach and education experts
- Partnership will include DBE firms

Next Steps: Submit Proposal



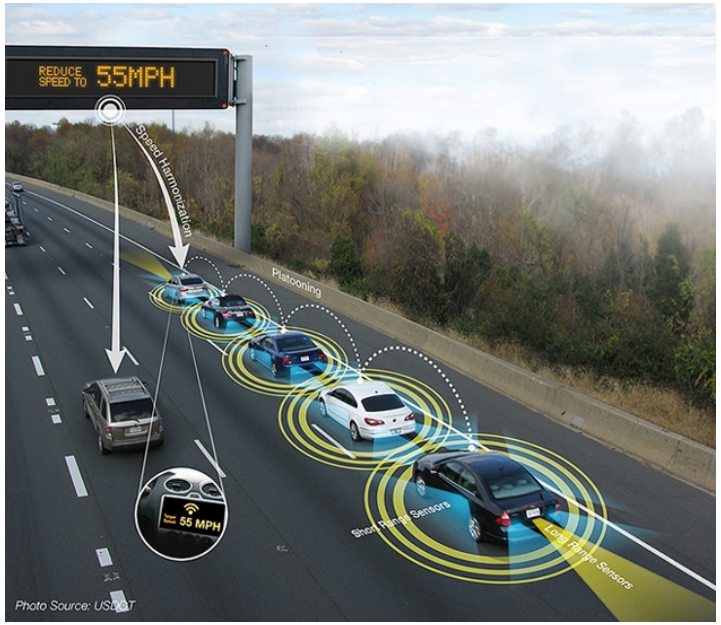
Anticipated Pilot Program Schedule

- **Planning Phase**
  - 2015-2016
- **Development and Testing Phase**
  - 2017-2018
- **Operational Period**
  - 2018-2019
- **Transition to Permanent Operation**
  - After 2019

Promise of Connected Vehicle Technology

"In the past, the U.S. Department of Transportation has focused on helping people survive crashes. Connected vehicle technology will change that paradigm by giving people the tools to *avoid* crashes."

U.S. Department of Transportation



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THANK YOU