We’ve (all) come a long way, baby

- Interstate system is, pretty much, done
- National design guidance has improved consistency
- Vastly improved safety
- At WSDOT, we are completing the largest capital delivery program in our history
**Themes - Trends**

- Autonomous Vehicles
- Connected Vehicles
- Intelligent Transportation Systems
- Millennials

**What’s next?**

- Aging infrastructure
- More problems than $$ to fix
What to do about it?

- Transforming our approach to finding practical transportation solutions
- The goal: fix more problems, system wide

Implementation Challenges - Opportunities

- WSDOT Project Development Training program has lacked funding
- New/emerging tools for design/safety analysis
- Planning, political process, habits
- Evolving environmental considerations
- Constant push for regulatory reform
What have we done?

• Define practical solutions (how big?)
• Policy
• Guidance
• Training

What we are doing

• Support decisions that will focus on the need for the project
• Move from a standards-based to performance-based designs
• Empower agency staff to make decisions
• Provide tools that support decision making
• Support our staff through training and development
How WSDOT defines Practical Solutions

- **Performance Based** vs. Standards Based
- Focus on **need** and **least cost solution**
- Results geared to benefit the Transportation System
- Emphasis on **Community Engagement**
- **Interdisciplinary** and **collaborative** decision making
- Design based on **context** $\rightarrow$ **land use** and **transportation**
- **Data driven** strategies

Practical Solutions: What it is vs. What it is not

**What it is -**

- Focuses on project purpose and need
- Engages local stakeholders at the earliest stages of defining scope to ensure their input is included

**What it is not -**

- Does not compromise safety
- Is not a "new tool" or "new method"
- Not an excuse to usurp environmental process
Focus areas

- Major WSDOT Design Manual changes
- Multimodal, demand management, operational, and off-system strategies
- Incremental solutions (as opposed to all-in-one projects)

Fixing more problems, sooner

Slater Road Compact Roundabouts
Winter Maintenance

- $43 Million Annually
- 19,000 Lane Miles
- 10 Major Mt. Passes
- Traffic Volumes
- 500 Plow Trucks
- 140 Storage Facilities
- 122 RWIS (Road Weather Information Systems)
- 1200 Staff
- Weather Forecast Contractor - Shed Specific Detailed Roadway Forecast
- Two Full Time Avalanche Crews
- 60,000 tons of Salt Annually
- $122/ton for Salt

Chemical Deicers

- Proactive tool
- Prevent the bond between roadway and snow/ice (anti-icer)
- Return to bare and wet condition very quickly
- Reduced mountain pass closures
- Increased mobility
- Less time consuming
- Reduced Tort Liability
Planning – Training - Guidelines

- Statewide, regional and area snow and ice plans
- Application guidelines
- Annual review of snow and ice procedures
- Pre-winter meetings with crew and managers – WSP - Stakeholders
- Pre-winter material planning
- Equipment preparation and calibration

Smart Technology

- Advanced application equipment
- Precision controllers
- Calibration units
- Automated Vehicle Location (AVL) Program (7th year)
- Data collection processes
- Archiving records
Storage - Containment

[Images of storage facilities and containment structures]
Monitoring

Lessons Learned

- Modernize your program
- Have a prioritized plan
- Increases reliance on data to evaluate solutions
- Small fixes can make big differences
- Relationships/sharing/trust