Areas of Emphasis

• Performance-based materials
• End-result construction specs
  – Incentivizing quality
• Rapid (& relevant) evaluation
• Deep stiffness & strength
• A sustainable system
Performance-Based Materials

• Investigation of various performance testing criteria
  – Crack tests
  – Durability tests
  – Rutting tests
• Objective – preparing for more performance-oriented material specifications
Construction Acceptance/Payment

❖ Incentivize Quality
❖ Incentivize Quality
Rapid Evaluation
Deep Strength/Stiffness
Sustainable

- Safe
- Healthy
- Affordable
- Renewable
- Operates fairly
- Limits emissions
- Limits use of resources

⇒ Optimized surface properties
⇒ Long lasting, well preserved
⇒ Life-cycle cost analysis (LCCA)
⇒ Maximize reuse & recycle
⇒ Asset management
⇒ LCA-optimized materials, processes, & policies
Smart Vehicles - Connectivity

Connected Vehicles

Vehicle to Infrastructure - V2I

Autonomous Vehicle

➢ Highly Dependent On Infrastructure Health

Source: Gerardo Flintsch, VTTI
Thanks to everyone for your support of our research program!

Kevin McGhee
Kevin.McGhee@vdot.Virginia.gov