Making Pavement Decisions Using Automated Conditions Following AASHTO Standards

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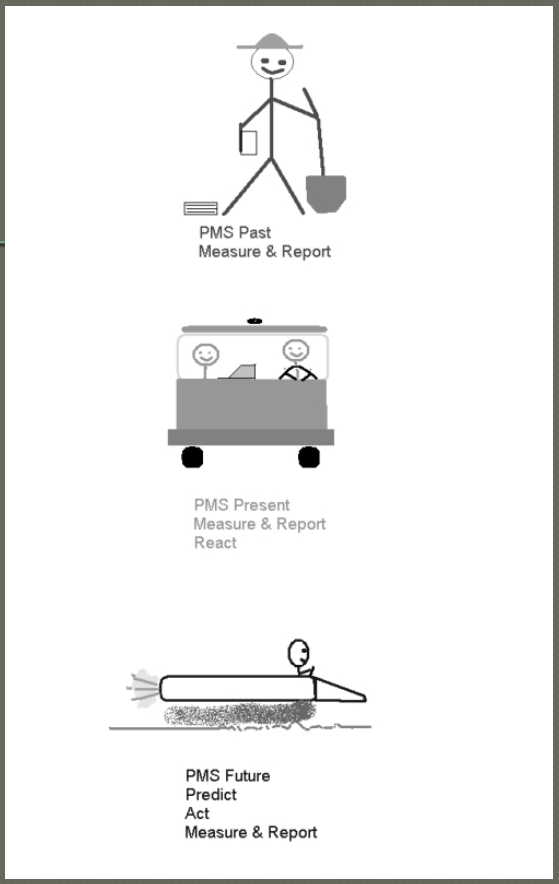
Introduction

- 20 minutes of presentation
- 20 minutes for rebuttals



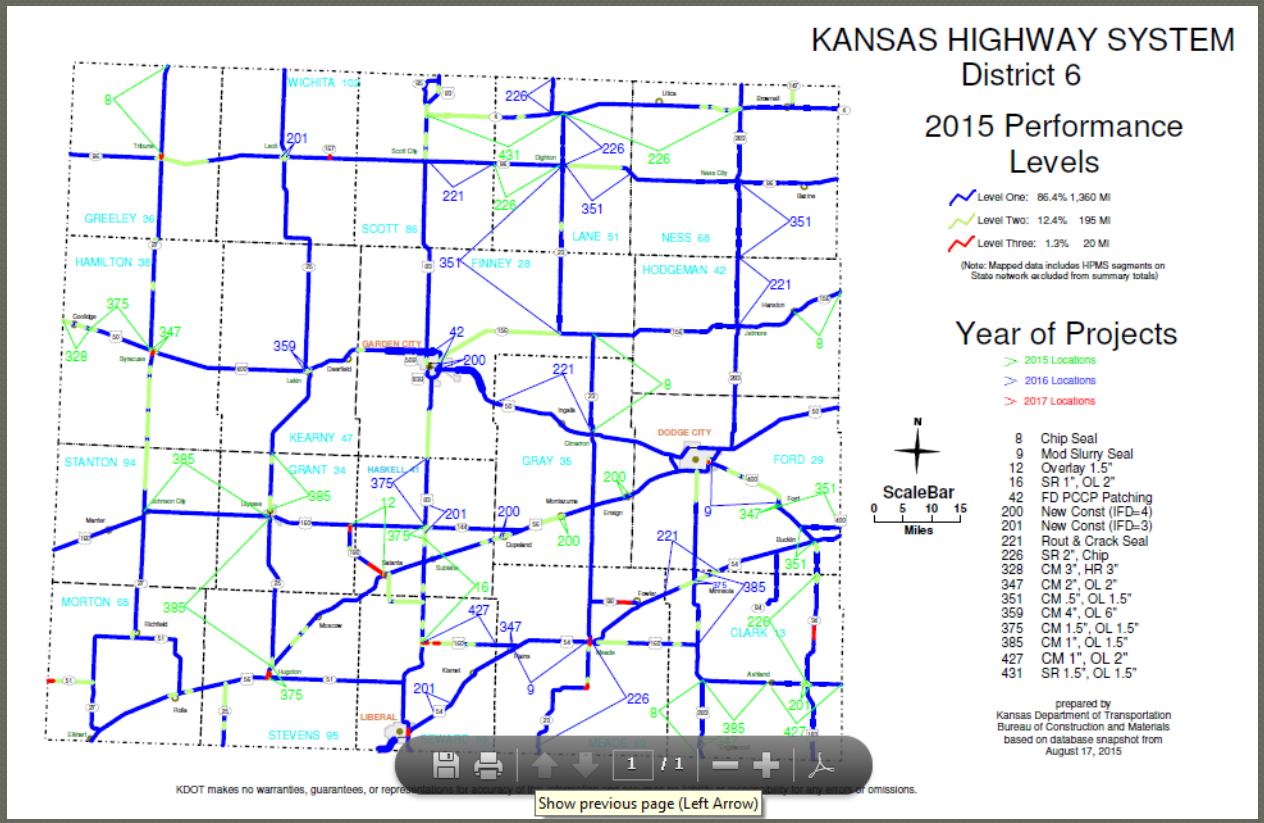
- Step out of the forest and look at the trees

Decisions

- What Pavement Decisions do we need to make?
- What information do we need to support those decisions?
- How do we get that information?
- Does that information coincide with information we need for other decisions?

Two Questions Answer Most Questions about Pavement Decisions

- Where - do we need to do something
- What – do we need to do



Kansas Tiers in Pavement Decisions

- Major Rehab/Replacement (Pavement Driven)
- Routine Maintenance
- Rehab/Preservation/Preventive

Kansas Tiers in Pavement Decisions

- Major Rehab/Replacement (Pavement Driven)
  - Prioritization – Where are the pavements really bad?
    - Roughness, cracking, joint distress, rutting, faulting
- Routine Maintenance
  - Crystal Ball Reading – Reactive, but can plan for anticipated material, equipment, and staffing needs
    - Roughness, cracking, joint distress, rutting, faulting
- Rehab/Preservation/Preventive
  - Optimization – Where can we maximize our benefit by doing what?
    - Roughness, cracking, joint distress, rutting, faulting

Current

Very Near Future

Current and at many future times

AASHTO Standards

- While this is a presentation about making pavement management decisions; it really is a setup for can we use the data from the AASHTO Standards for making these decisions or do they need modifications?
  - Roughness, cracking, joint distress, rutting, faulting

What do our customers want?

- Safe
- Smooth
- Efficient to use
- Efficient to maintain

Users want smooth roads

- We got a standard for that – R43
- Are we good here?
  - Aggregation limits, bridges in/out, quarter car/half car, Ride Quality…

Users want safe roads

- PMS and Safe means?
  - Smooth with good friction?
  - Not having to dodge surface defects?
  - Not rutted (wet weather)
  - As expected (color, joints, boundaries, markings, cross shape, etc.)
- Do we have appropriate standards? T 242, E 274, …
- Some yes, some no. Any priorities?

Users want efficient roads

- Smooth (again), surface defects (again), fast, reliable, etc.
- Applicable Standards:
  - Roughness-R 43, cracking-R55/PP68/PP67, joint distress-?, rutting-R48/PP70/PP69, faulting-R 36, friction, marking, …

Users want roads that last

- Get in – Get out → STAY OUT
  - Or get in (after I go to work {or at night})
  - Get out (before I come home {before I get up})
  - And leave only the evidence that the road is better

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- So, while it is fun to argue about the standards and it is important that we get them "right", we need to step back at times and remember that the public doesn't care what kind of crack they are on, they just don't want it to give them a bad trip.