

ARE WE THERE YET?

Presented to TPF-5(299)

November 4, 2016

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Where is There?

- ▣ There is where pavement condition data:
 - Provides decision support
 - Aids communication about pavement needs
 - Supports development and improvements to better understand, communicate about, and manage pavements

There is not just...

Decision Support

- ▣ Federal
 - Currently want roughness, rutting, cracking, and faulting data
 - Need info to determine type and size of federal programs to meet transportation needs
- ▣ State/Local
 - Varies, but similar to current federal data
 - Need info to determine type and size of state/local programs to meet transportation needs
 - Want info that helps determine project locations and scopes as well

Communication

- ▣ Really just a subset of decision support, but a very important subset
 - Document where we are
 - Describe where we want to be
 - Describe how we will get there

Building a Base for the Future

- ▣ Two examples
 - Rutting vs Pavement Deformation
 - IRI or some profile-based statistic for locations other than the wheelpath

- ▣ And what about cracking?

Adequate Description of There?

- ▣ There will be reached when pavement condition data:
 - Provides decision support
 - Aids communication about pavement needs
 - Supports development and improvements to better understand, communicate about, and manage pavements

Welcome to the Transportation Pooled Fund Study Site for the
**TPF-5(299) Improving the Quality of Pavement Surface Distress
and Transverse Profile Data Collection and Analysis**



How Do We Get There?

- ▣ Do we know what data we need?
- ▣ Do we know how to collect that data?
- ▣ Is the data we can collect of appropriate quality?
- ▣ Do we know how to assemble the data so we can make decisions?
- ▣ Does the data help us communicate
 - Where we are?
 - Where we are going?
 - How we will get there?
- ▣ Are we preparing for our future data needs?

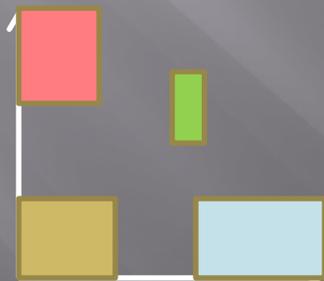
If Rick Did Not Require Sleep

- ▣ Evaluate longitudinal profiles from 3-D surfaces to learn about texture/IRI variability across the lane (use your distributions)
- ▣ Evaluate transverse profile shapes to communicate impacts on scope options
- ▣ Develop procedures to check how well data matched prediction models to allow for culling of historic data

If Rick Did Not Have a Family

- ▣ Develop procedures to check how well data being collected fits with the predicted values (quality check on data and/or prediction tools)
- ▣ Apply AASHTO cracking standards to obtain distributions of crack lengths (by zone?) and create 3-D spaces where cracking would drive scope decisions

Long Crack Measure



Trans Crack Measure

No Action

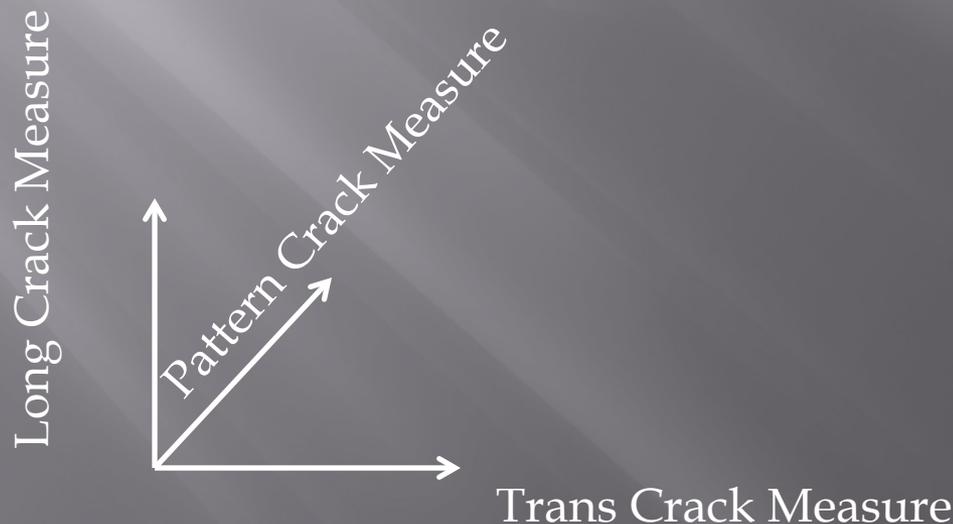
Crack Fill

Crack Seal

Chip Seal

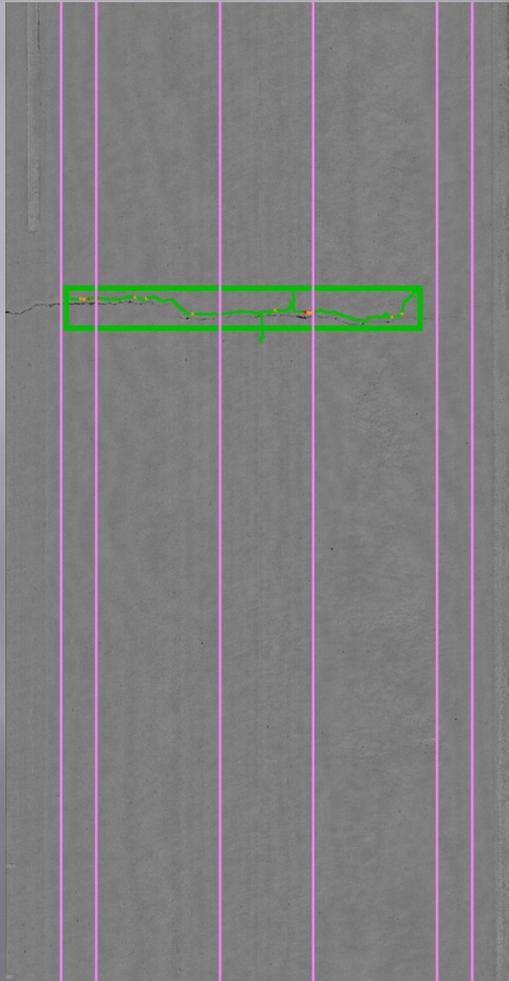
If Rick Did Not Still Have a Family

- ▣ Expand the dimensions to IRI/Transverse Deformation/Faulting to find regions where scopes should be considered
- ▣ Develop skills to visualize images from data tables and visualize data tables from images



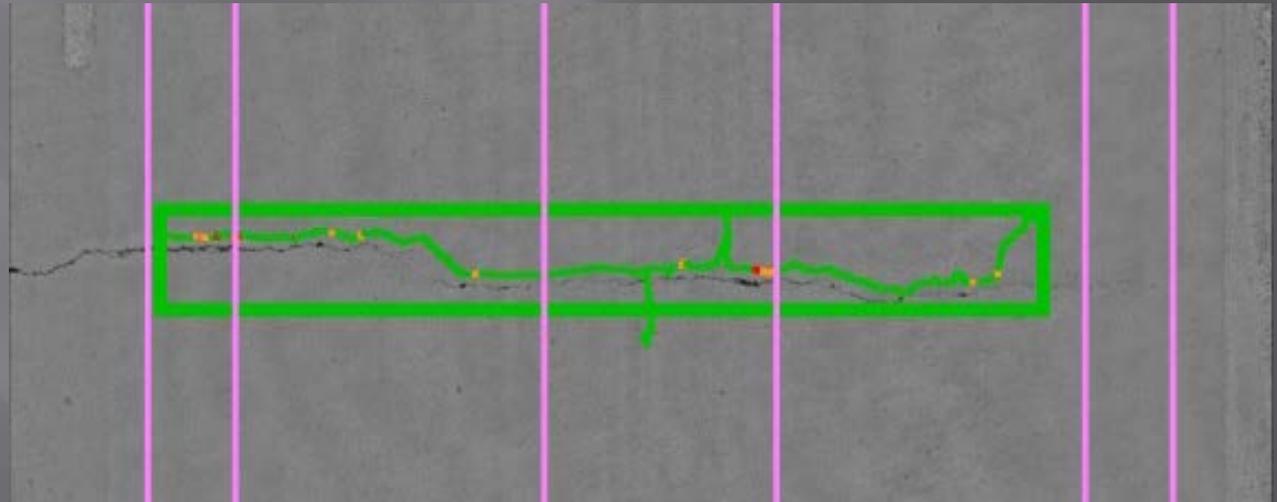
Sample Transverse Crack

1 2 3 4 5



Feet of cracking by zone in the frame

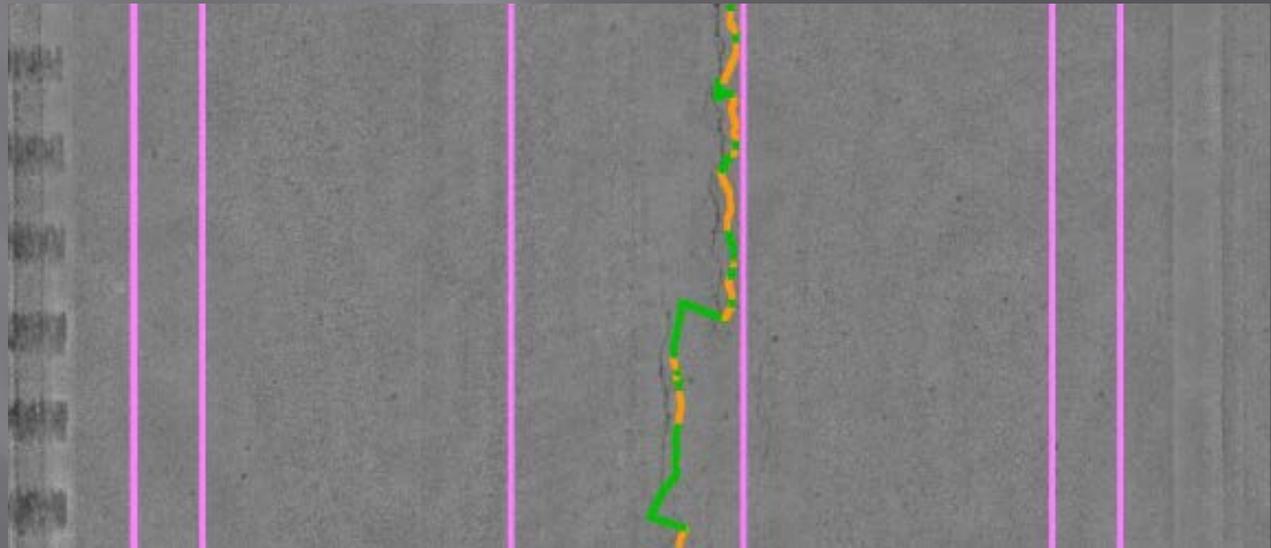
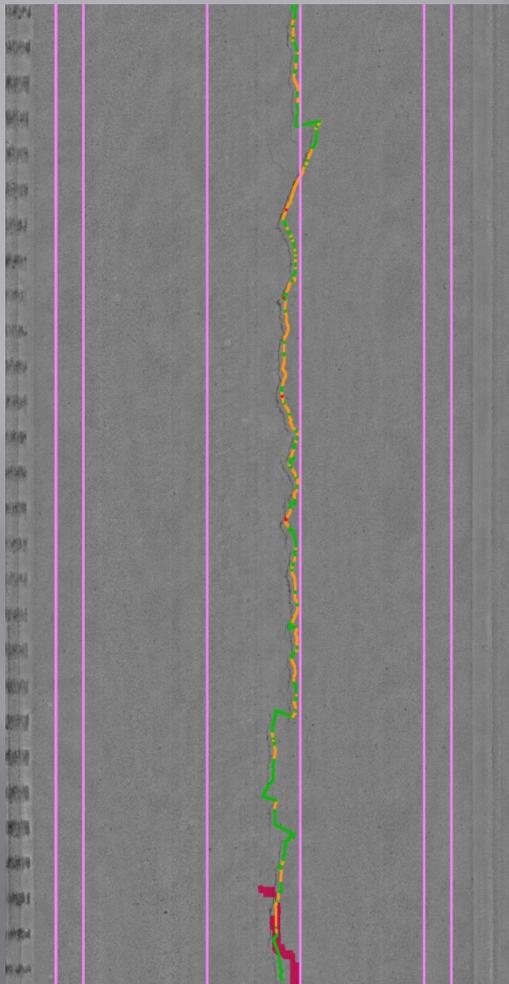
	Zone 1	2	3	4	5	Total
TCR	1.0	3.6	4.4	3.5	0	12.5
LCR	0	0	0	0	0	0
Other	0	0	0	0	0	0



Sample Longitudinal Crack

Feet of cracking by zone in the frame

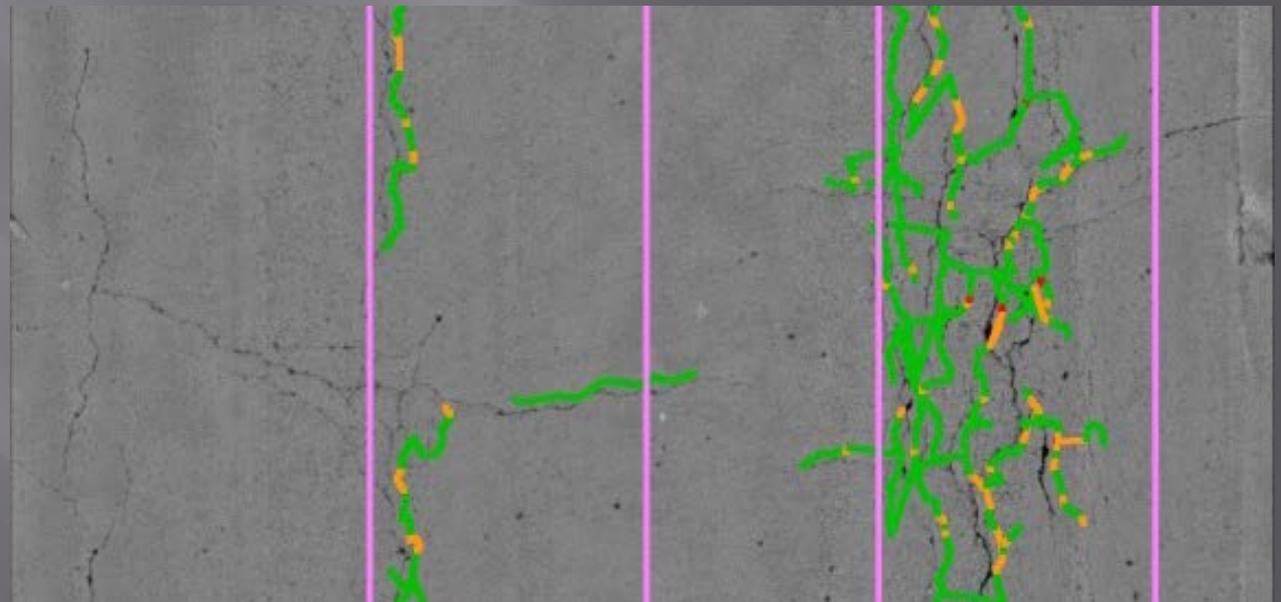
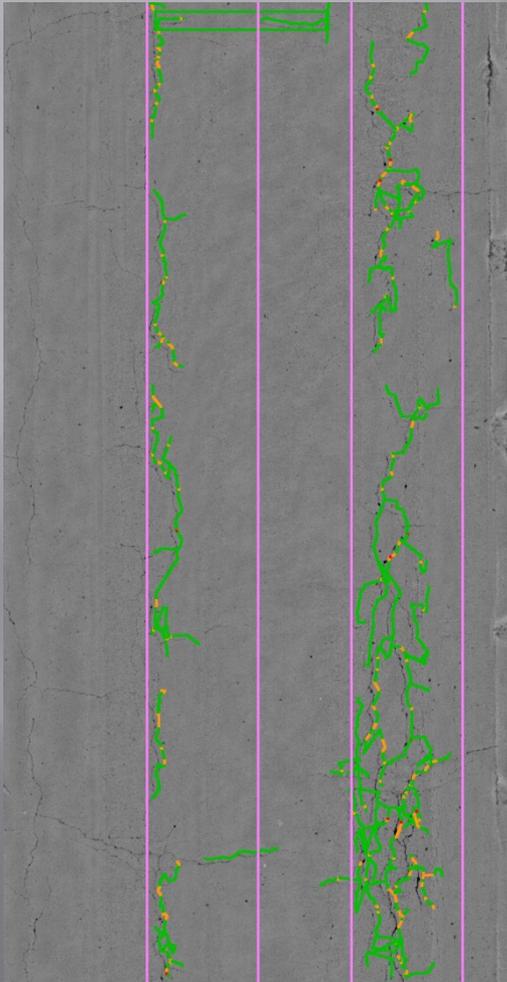
	Zone 1	2	3	4	5	Total
TCR	0	0	0	0	0	0
LCR	0	0	29.4	1.8	0	31.2
Other	0	0	0	0	0	0



Sample Pattern Crack

Feet of cracking by zone in the frame

	Zone 1	2	3	4	5	Total
TCR	0	0	0	0	0	0
LCR	0	25.0	0	0	0	25.0
Other	0.2	13.3	7.6	106.1	0	127.2



If Rick Did Not Have a Job

- ▣ Learn to drive in straight lines (relative to lane markers) at constant velocity