Managing Florida's Pavement Assets

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Southeastern Pavement Preservation Partnership (SEPPP)

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Topics

- FDOT Synopsis
- Pavement Overview
- Opportunities
- Research Projects

FDOT Synopsis

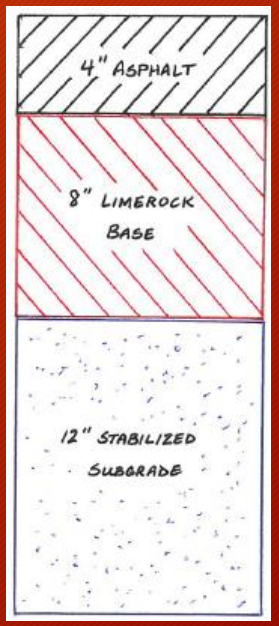
- 43,402 lane miles
- 97.6% flexible, 2.4% rigid
- Almost exclusive use of milling and thin hot-mix overlays
- Primary roads only, no secondary roads
- Required by law to maintain 80% of SHS roadways meeting minimum standards
  - Distress criteria: cracking, rutting, ride quality

Pavement Overview

- Consistently ranked near the top of national polls rating pavement condition
  - Well-drained, A-3 type soils
  - Limerock base (native resource)
  - Annual Pavement Condition Survey
  - Dedicated funding source (maintain existing before building new)
  - Performance based specs

Pavement Overview

- Typical Florida pavement section
  - Thin HMA layer (3 – 6”)
  - Limerock base (LBR 100, 8 – 10”)
  - Stabilized subgrade (LBR 40, 12”)
- Typical distress is top-down cracking
- Mill depth is set to remove cracks



Pavement Overview

- Life-span
  - Open graded: 14 years
  - Dense graded: 20 years
- No other pavement rehab is generally required between resurfacing projects

Opportunities

- Lots of room for new techniques
- Need to do more with less
- Upper Management is open to “bold and innovative” ideas
  - Pavement preservation test section
  - Crack seal research project
  - Microsurfacing 319 in Leon County
- Inclusive of asphalt contractors
  - Warm mix, HiMA, Ultra-thin wearing courses

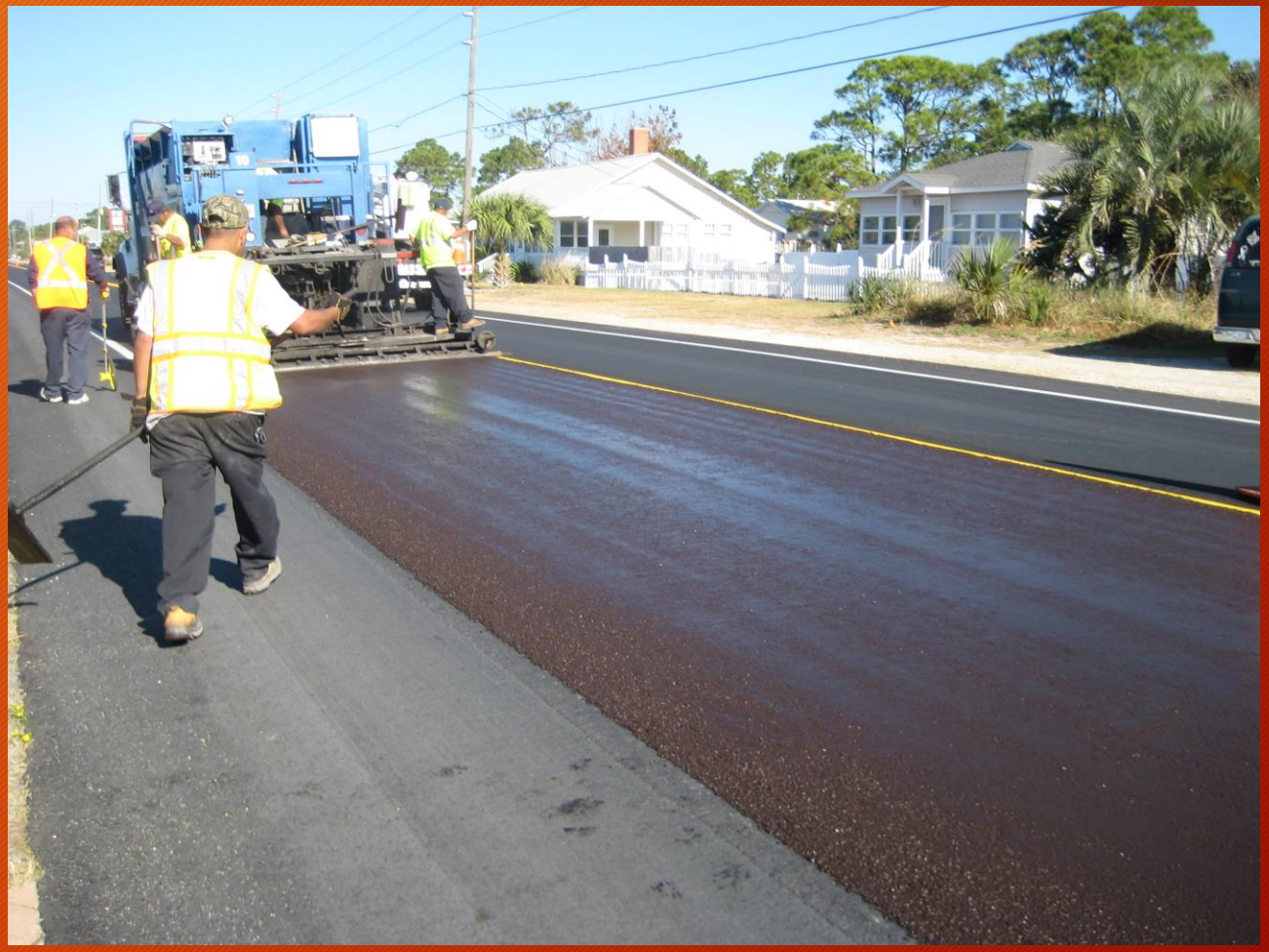
Opportunities

- Florida Pavement Preservation Council
- Expand local agency awareness and use
- Research
- Education and training

Pavement Preservation Test Section

- Mexico Beach, Florida
- Constructed in 2012
- Contains 10 Test Sections with 2 control sections.
- Test Sections contain various asphalt mixes along with Microsurfacing and Reworked Asphalt.

Pavement Preservation Test Section



Crack Seal Research

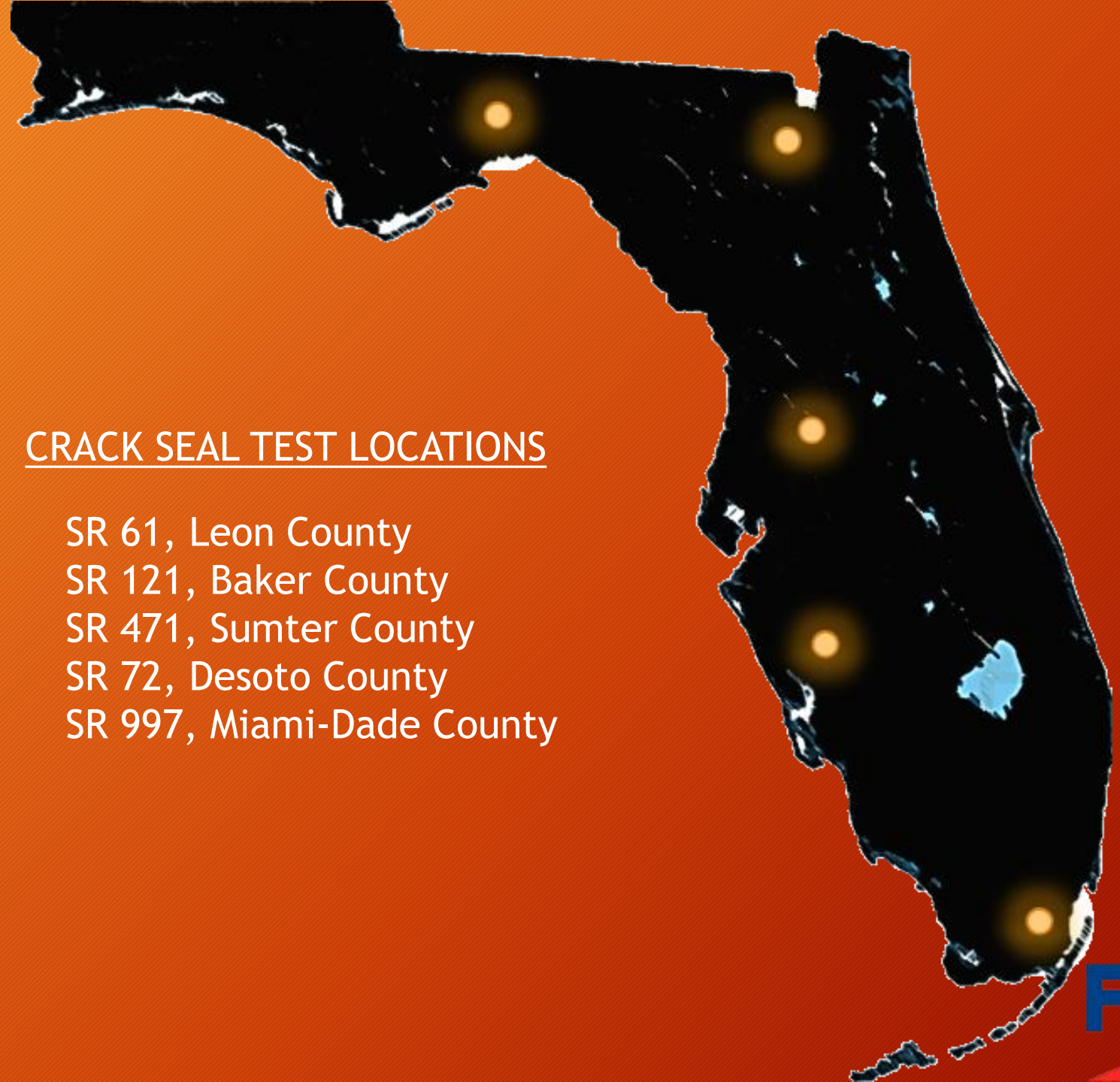
- FDOT does not use crack sealing on state highways
- Result of study conducted by FDOT in 1985 that found no benefit
- In 2011, FDOT began a research project to re-examine the potential benefit of crack sealing

Crack Seal Research

- Roadway characteristics:
  - Two-lane, rural roads
  - AADT ranges from 1,500 vpd to 16,800 vpd
  - % Trucks ranges from 3.6% to 38.2%
- Each location is 1.25 miles long, divided into (5) ¼-mile sections
- Crack sealing/filling in NB/EB lane only, from centerline to edge of travel lane
  - Section 1: Rout and seal w/ asphalt rubber binder
  - Section 2: Crack fill w/ asphalt rubber binder
  - Section 3: Control (no treatment)
  - Section 4: Rout and seal w/ polymer modified binder
  - Section 5: Crack fill w/ polymer modified binder

Crack Seal Research

- Cost $75,000 to construct(each site, 5 Total)
- Constructed in March 2013
- Will analyze for 3 – 5 years
- Annual condition surveys
- Life-cycle cost analysis to determine if process is of any benefit



CRACK SEAL TEST LOCATIONS

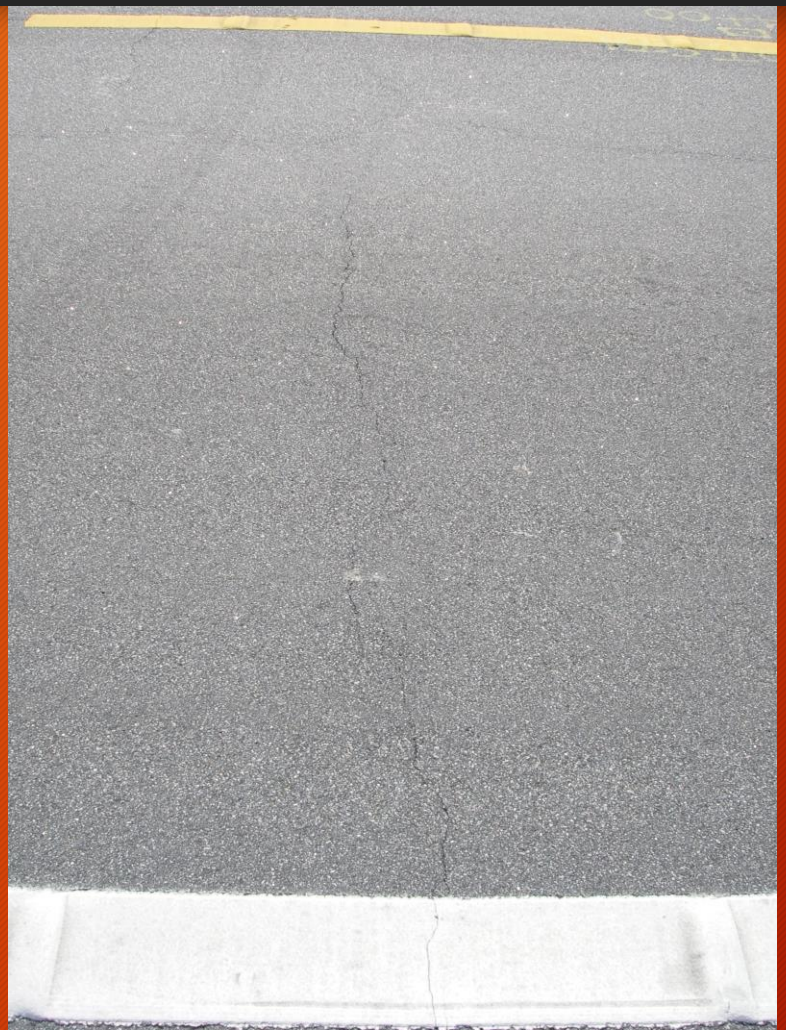
SR 61, Leon County
SR 121, Baker County
SR 471, Sumter County
SR 72, Desoto County
SR 997, Miami-Dade County

Krome Ave. Miami-Dade County

Microsurfacing – Hwy 319

- Constructed in March, 2010.

Microsurfacing



THANK YOU