Florida Pavement Preservation Council



2019 Fall Meeting Fort Lauderdale

Chris Evers, FPPC Coordinator



Florida Pavement Preservation Council

"What is Pavement Preservation and why is everyone doing it (or should be)?"

Connect with us on LinkedIn, Facebook and on the web at www.floridapavementpreservationcouncil.com

FPPC Mission

The Council will provide regional education workshops through the National Center for Pavement Preservation for promoting the sound principles and genuine benefits of pavement preservation practices.



Members & Government Affiliates

















Ergon Asphalt

& Emulsions, Inc.

a company that works*











FPPC / NCPP Current Training Courses

- Applied Asset Management
- Basic Concepts for Pavement Preservation
- Chip Seal Best Practices
- Milling Practices

PDH/CEU credits offered through Michigan State University



FPPC / NCPP Current Training Courses

- Pavement Recycling
- Slurry Seal & Micro Surfacing
- Top of the Curve: Fog Seals, Rejuvenators and Crack Filling

PDH/CEU credits offered through Michigan State University



FPPC Strategic Goals

- Promote the implementation and benefits of pavement preservation principles through training and education throughout communities in Florida.
- Provide recommended regional specifications and guidelines for pavement preservation techniques in Florida.
- Foster beneficial technology transfers between academia, industry, and agencies.



FPPC Resources

- Quarterly live workshops and webinars. First one on December 17th at USF from 9:30 to 3:30.
- 2. Social media groups for information exchange.
- Educational video content.
- 4. Quarterly newsletter with case studies and project stories



Today's Objectives:

- 1. What is Pavement Preservation?
- 2. If everyone is doing it (or should be), why is it so important?
- 3. Bury the "Worst First" mentality!



Pavement Preservation goals:

- 1. Identify and quantify the problem
- 2. What's holding you back? *hint it's not money
- 3. Introduce the solution (why everyone should preserve their pavements)



Definition of Preservation



:the activity or process of keeping something valued alive, intact, or free from damage or decay

Preservation implies protection, taking care of an asset for future use. Shielding from destruction.

When is the best time for Preservation:



:while that something (ROAD) of value is **STILL** alive, intact, or free from damage or decay

We don't typically wait to begin protecting something of value. We do it early on.



Goal Number 1:

Identify and quantify the problem

- a. 96% of Florida pavement is asphalt and it has a 20 year design life (does it even last that long?)
- b. Does concrete need preservation?
- c. 10,000 lane miles of pavement die in Florida every year!
- d. As if that's not dire enough, thousands more are in hospice, waiting to die next year.

Goal Number 2:

What's holding you back? Think different

- a. Whether it's the Federal Highway Administration, APWA, NACE, FDOT or FACERS...
- b. Admit we have a problem, will doing more of the same thing solve it?
- c. Are we willing to adopt our neighbors best practices if it helped us solve the problem?



Goal Number 3:

Introduce the solutions

- a. What information are you missing to implement Pavement Preservation?
- b. Where would you go to find solutions to pavement challenges?
- c. How many solutions should you implement?



Goal Number 1: ID/Quantify

What is a County Engineer/Public Works Director responsible for?





Goal Number 1: ID/Quantify

"The principal duties of the County Engineer include the responsibility for **all maintenance**, repair, widening, resurfacing, traffic control, mowing, and snow removal of County Roads."





We've been focused on the dying, not the healthy roads. That's not maintenance.



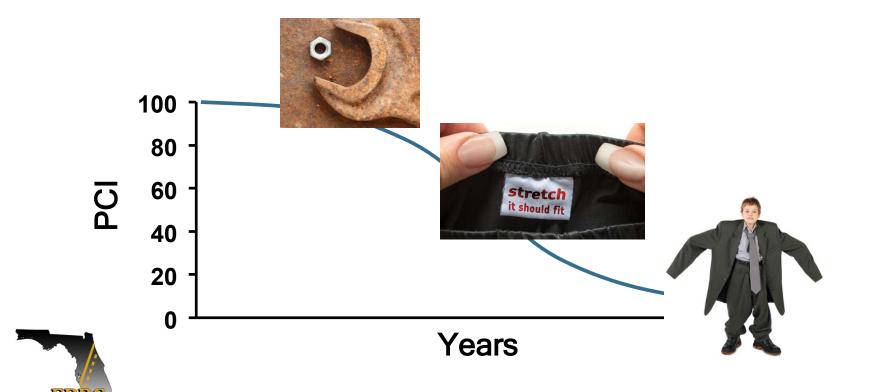


Goal Number 1: ID/Quantify

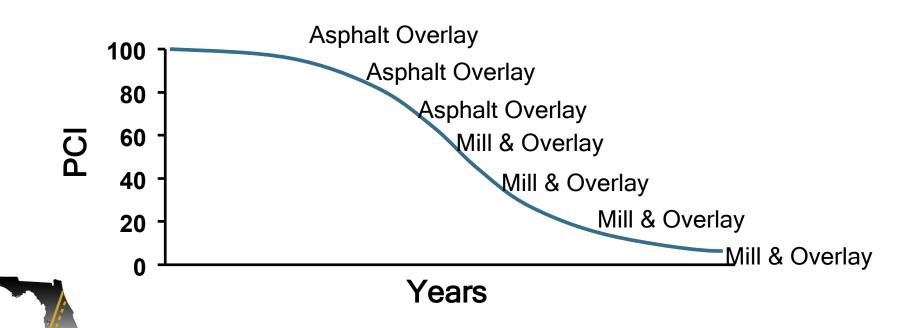
- Each County Engineer should define the "PAVEMENT" problem and look at key metrics (what is the paving cycle for instance)
- Can you forecast current and future needs?
- Can you forecast current and future funding levels?
- Lastly, what **solutions** provide the lowest life cycle cost for the network.



When does "One size fit all?"



#&\$%^*# County, Florida



One size never fits all!





Goal Number 2:

Define the problem differently

- a. Challenge staff to look at the issue creatively
- b. Have we been doing the same thing expecting different results?
- c. Do our elected officials expect the same thing in 2020 they expected in 1990?
- d. What innovations could create better results?



Are you changing with the times?







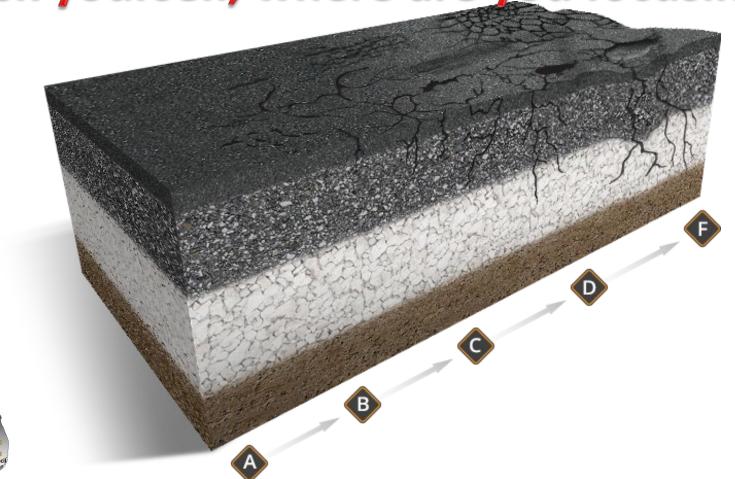
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Ask yourself, where are you focusing?

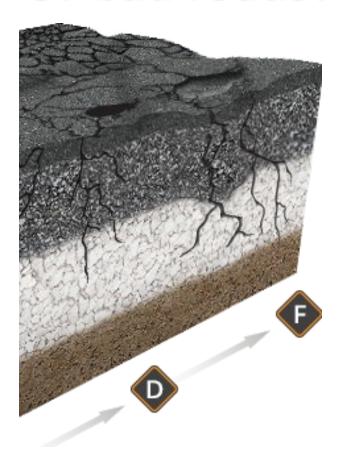


On good roads?



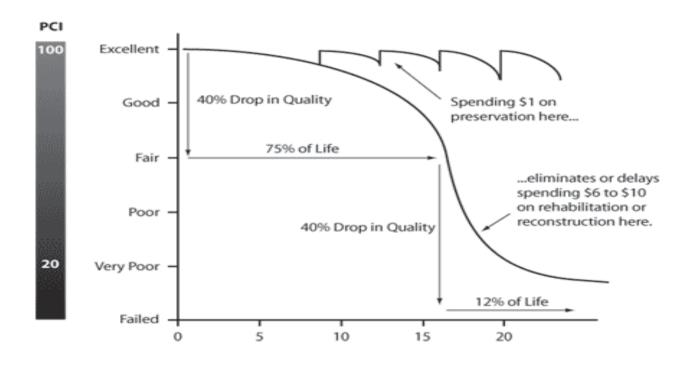


Or bad roads?





FHWA has been preaching preservation





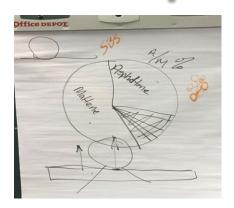
FHWA EDC-4

Pavement Preservation Workshop



Florida Pavement Preservation Counci







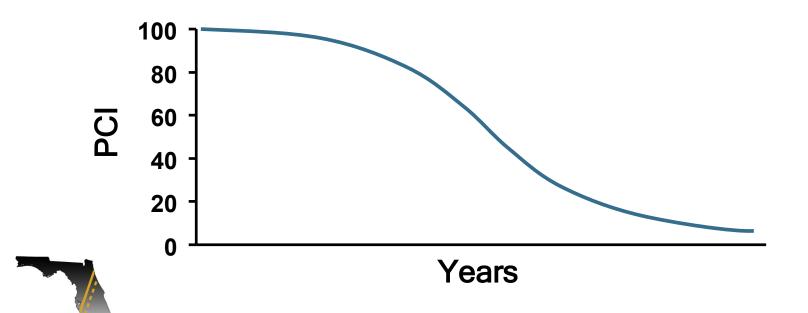
The biggest challenge you face on your roads?

- They don't last long enough for the amount of funding you have!
- What then is the solution?
- Is it more money?



What is the cost of inaction? A ton!

"Right Treatment" not "One size fit all"



FOG SEAL

REJUVENATING FOG SEAL

SLURRY SEAL

MICRO SURFACING

CAPE SEAL

ULTRA THIN LIFT HMA

CHIP SEAL

CRACK SEAL

SCRUB SEAL

TACK COAT

PRIME COAT

COLD PLANING & MICRO MILLING

HOT IN-PLACE RECYCLING

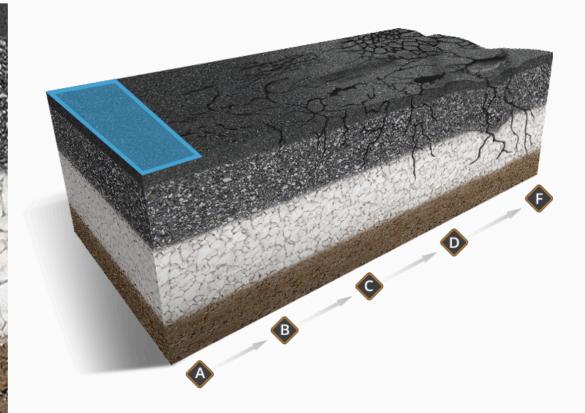
COLD IN-PLACE RECYCLING

COLD CENTRAL PLANT RECYCLING

FULL DEPTH RECLAMATION

BASE STABILIZATION

SOIL STABILIZATION & SOIL MODIFICATION



PCI 80 to 100 = A's and B's

FOG SEAL

REJUVENATING FOG SEAL

SLURRY SEAL

MICRO SURFACING

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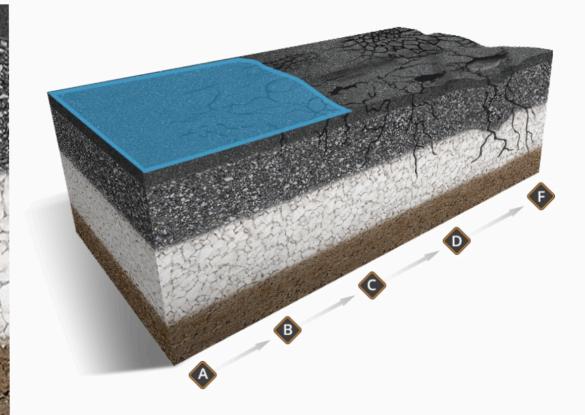
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PCI 70 to 80 = B's and C's

FOG SEAL

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SLURRY SEAL

MICRO SURFACING

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HOT IN-PLACE RECYCLING

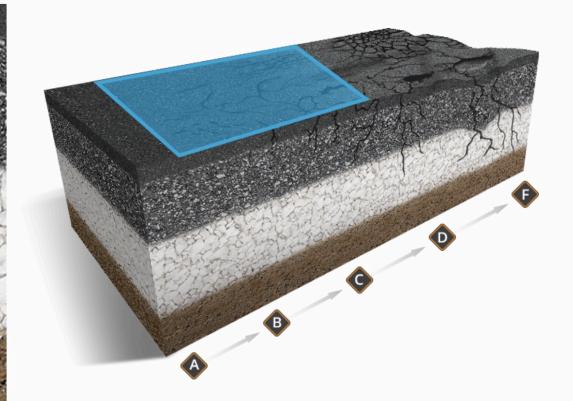
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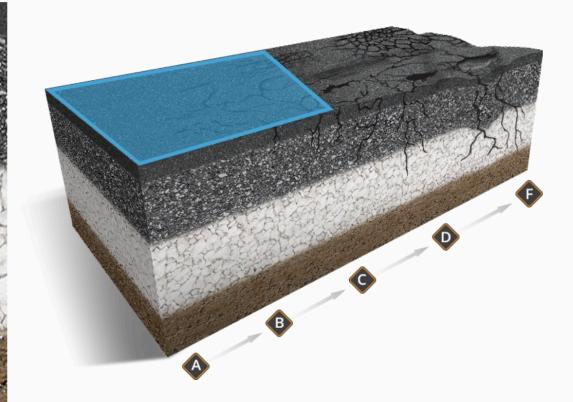
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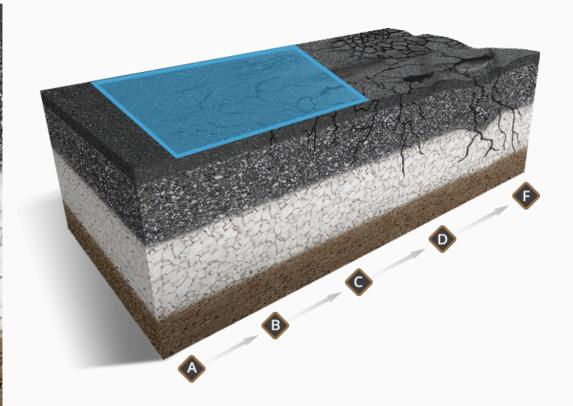
HOT IN-PLACE RECYCLING

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PCI 65 to 80 = B's, C's, D's

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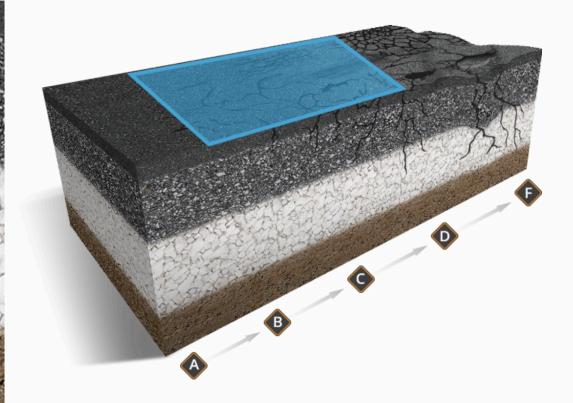
HOT IN-PLACE RECYCLING

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PCI 80 to 60 = B's, C's, D's

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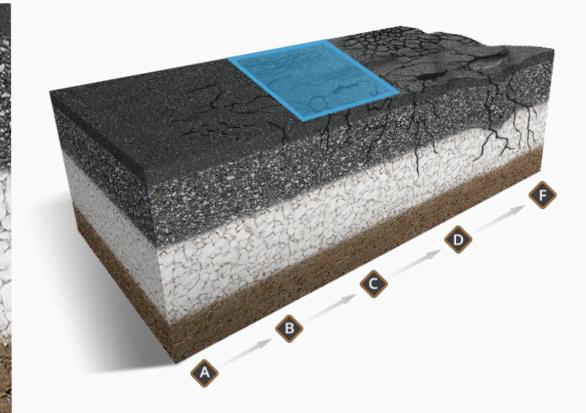
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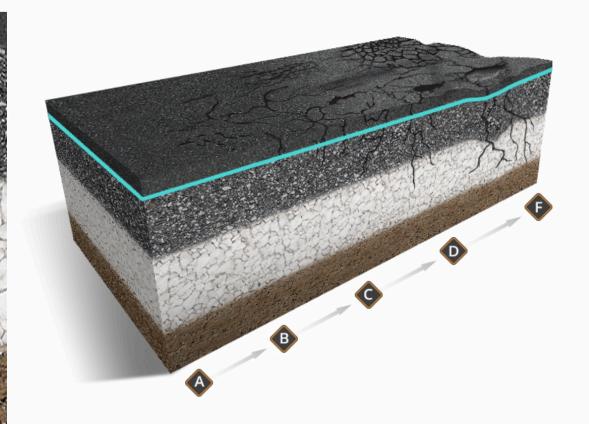
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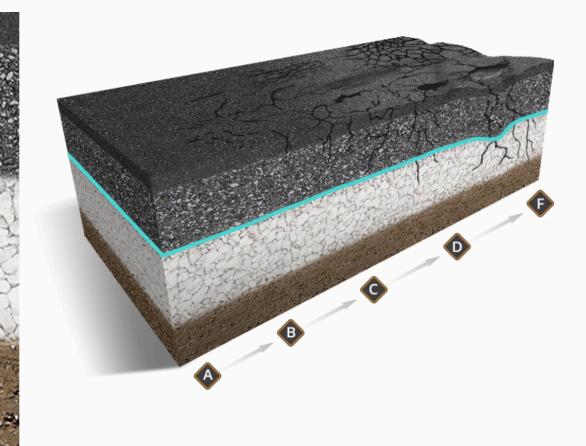


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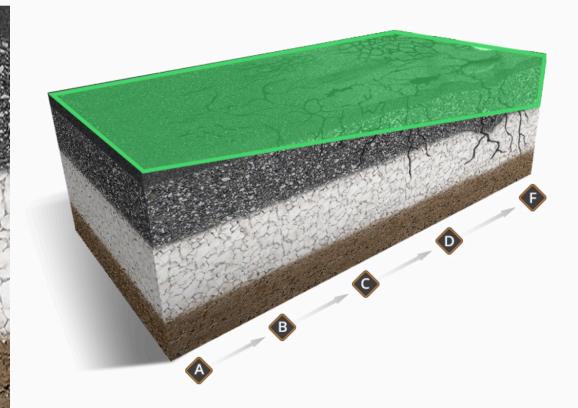
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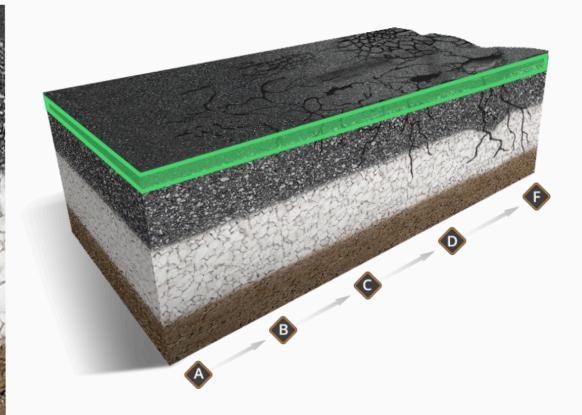
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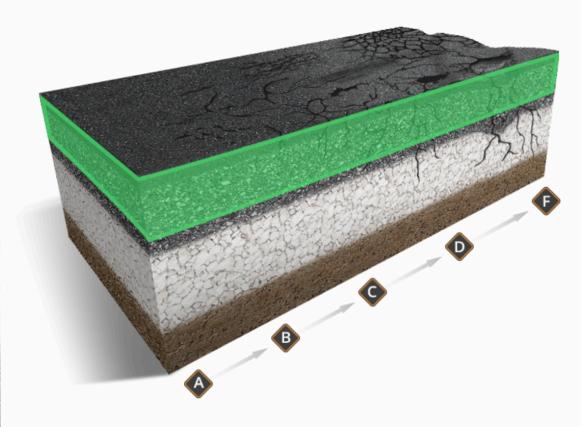
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So what is the secret?

During the FHWA EDC Workshop the secret Was revealed...



Asphalt is a black, cementing material that varies widely in consistency from solid to semi-solid at normal air temperatures. It is thermoplastic and when heated sufficiently softens and eventually

amounts of sulfur, oxygen, nitrogen, and other elements. By dissolving in a solvent such as heptane, asphalts can be separated into two major

The asphaltenes (insoluble in heptane) are solid

parse graphite

ed in what

Thus, the secret of ensuring a long service life of asphalt pavements is to retard

carbons and hydrocarbon related molecules which

heating or aging processes

in pavements is to retard the aging process.

decreased air-voids in a pavement, and providing



It's kinda like going to the dentist



Preventative Medicine is the model we want to shoot for



In infrastructure, the longer we wait the bigger the bill

When you brush your teeth, do you brush only the worst teeth?



Why then would we only address the worst roads?

Florida Pavement Preservation Council

www.floridappc.org

www.floridapavementpreservationcouncil.com



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