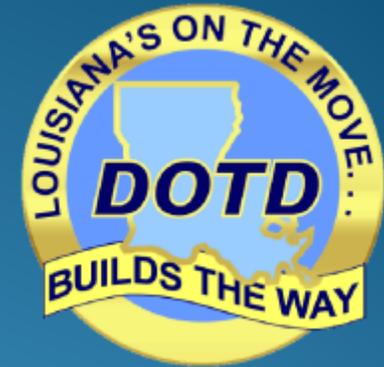


Restoring Surface Friction/ Extending Service Life



2009 Midwestern Pavement
Preservation Partnership Conference
Chicago Marriott Schaumburg Hotel
Schaumburg, Illinois
October 26 - 29, 2009

Janice P. Williams, P. E.
Chief, Systems Engineering Division
LA DOTD

Restoring Surface Friction/Extending Service Life



Restoring Surface Friction/Extending Service Life

- Need
- Background/Technology
- Study in Progress
- What Comes Next

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“In 2008, there were an estimated 5,811,000 police-reported traffic crashes, in which 37,261 people were killed and 2,346,000 people were injured; 4,146,000 crashes involved property damage only.”

National Highway Traffic Safety Administration

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D– ...One-third of America's major roads are in poor or mediocre condition ... Current spending of \$70.3 billion per year for highway capital improvements is well below the estimated \$186 billion needed annually to substantially improve conditions.

ASCE's Infrastructure Report Card 2009

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Citizens demand:

- Safe Roads
- Smooth Roads



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State Highway Agencies want:

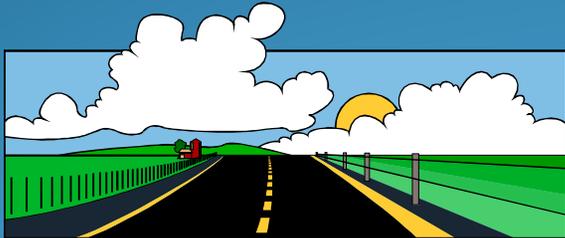
- Long Lasting Roads
- Smooth (but not slick)



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Pavement Preservation:

Applying the right treatment



... At the right time



... To the right pavement



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Louisiana's preservation toolbox

- Chip seal
- Micro-surfacing
- Thin Overlay



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What's missing?

Fog seal

Slurry Seal

Why?

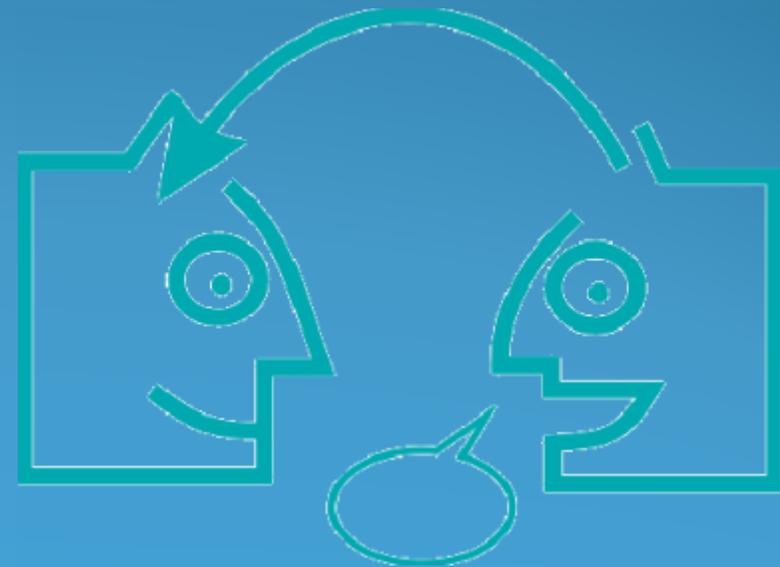
60"+/- LA avg yearly rainfall



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May 2009, New Orleans LA
SEPPP meeting = Synergy

Gary Billiard – Skidabrader
Colin Durante - Pavement
Technology Inc.



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“Two great tastes that taste great together”



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What if we combine Skidabrasion pavement texture with the Reclamite[®] rejuvenator?



DOTD says let's try it !

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Developed Test Section/Study Procedures

- DOTD to provide traffic control
- Skidabrader service and Reclamite product provided at no cost to DOTD
- Before and after skid tests with bald tire
- LTRC to monitor for three years
- 2 test sections approx 1000'

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What is Skidabrader?



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Skidabrader

High production pavement texturing service

Removes pavement surface using steel shot

Propels shot at high speed/variable angle

Vacuums shot for re-use



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What is Reclamite?

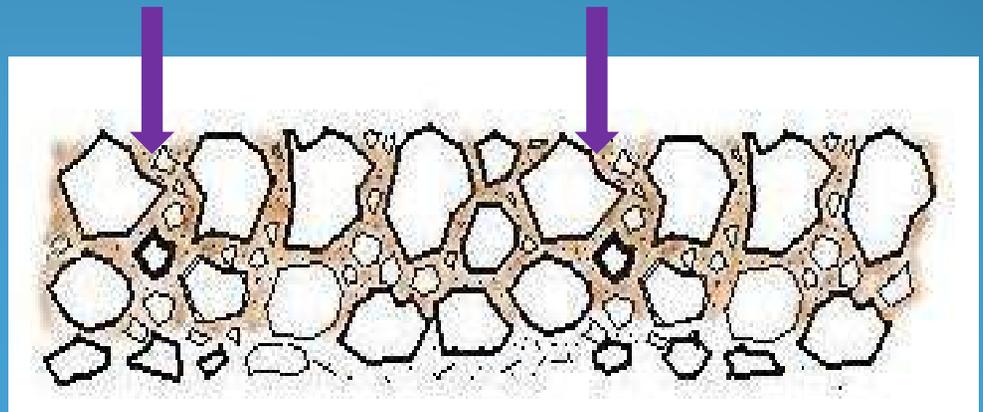
Asphalt Rejuvenator

Cationic Maltene Emulsion

Penetrates the pavement and fluxes with the AC

Restores and preserves plasticity and durability of the AC

Works on both older and new pavements



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Site Selection

★ US-80

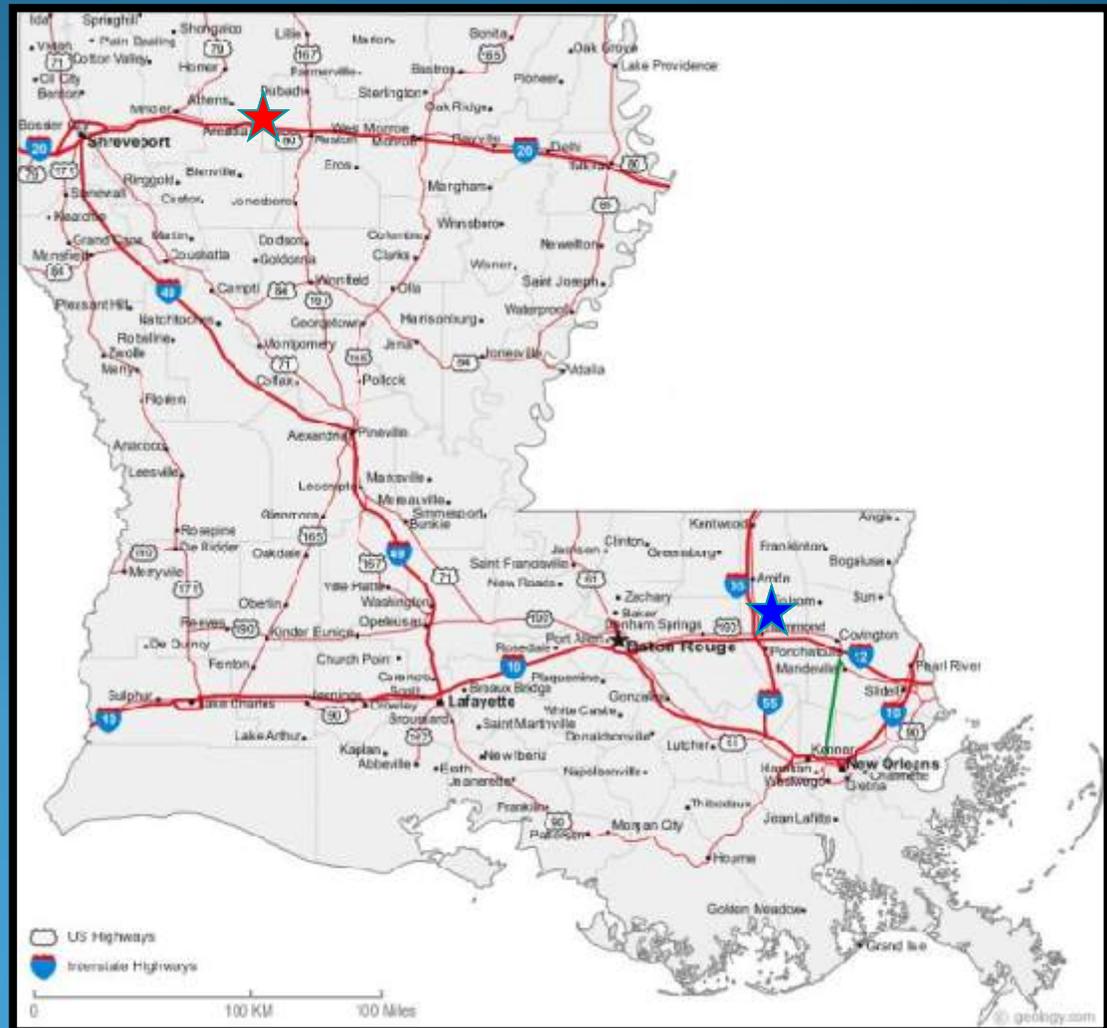
Bienville Parish,
Arcadia, LA

2006 ADT : 5637

★ US-51

Tangipahoa Parish
Hammond, LA

2007 ADT : 21279



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Skidabrader Vehicle

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Test Section After
Skidabrader Operation

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Reclamite
Application Vehicle

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**Maltenes Absorbed Into The
Abraded Surface**

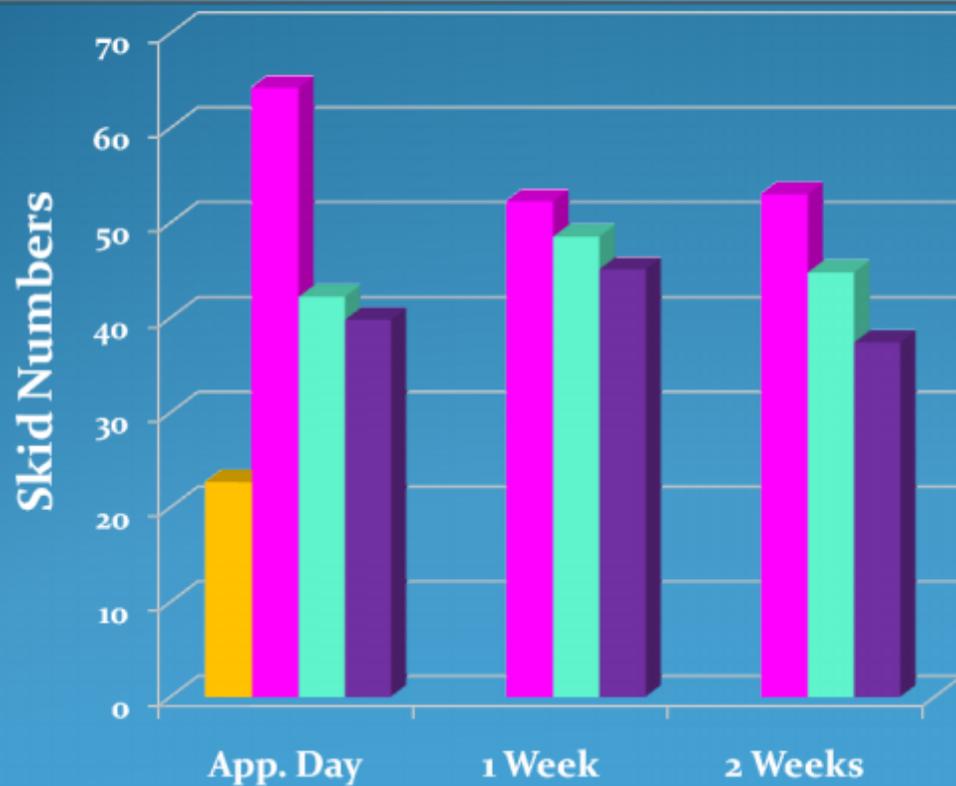
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Skid Truck

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- Pretreatment
- Skidabraded Only
- Reclamite-0.04 Gsyd
- Reclamite-0.05 Gsyd

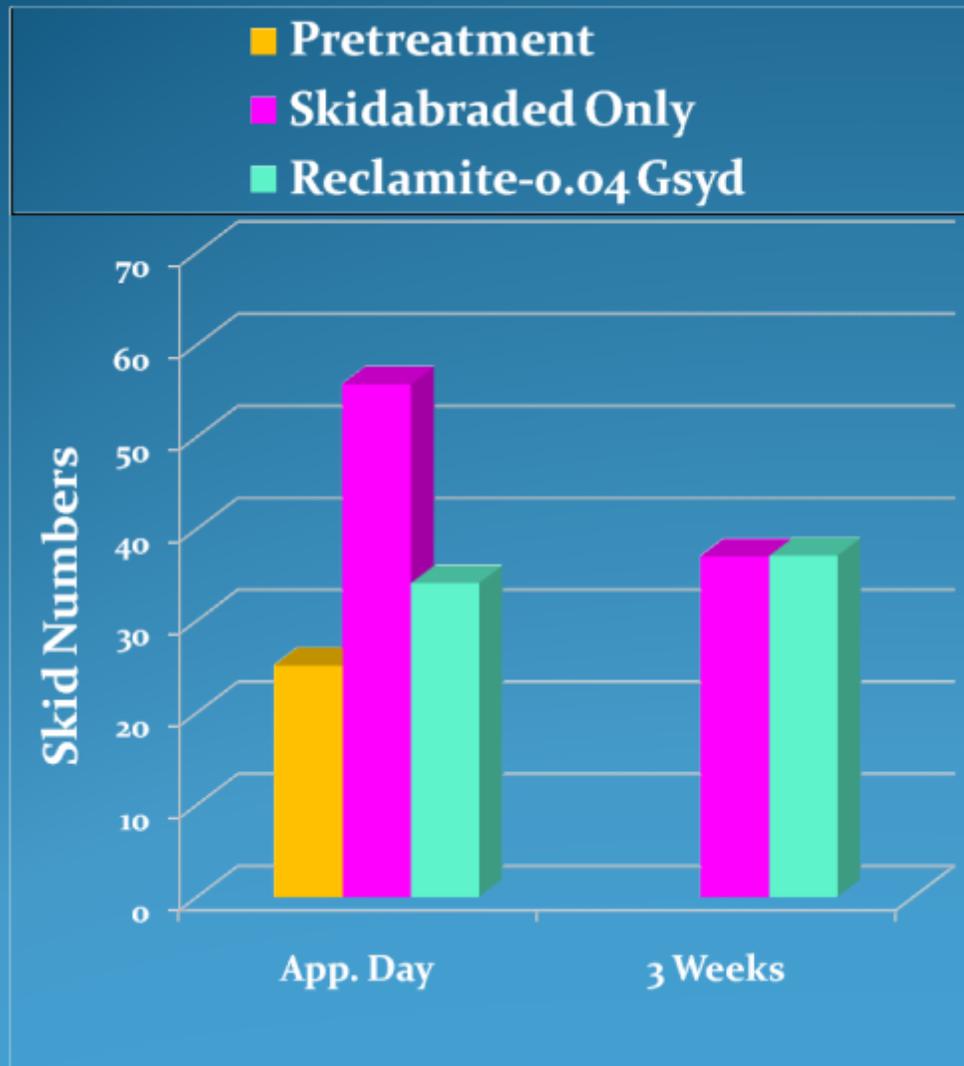


US 80 Results



- Vehicle Speed: 40 mph
- Tire Type: Bald Tire
- ASTM E-274

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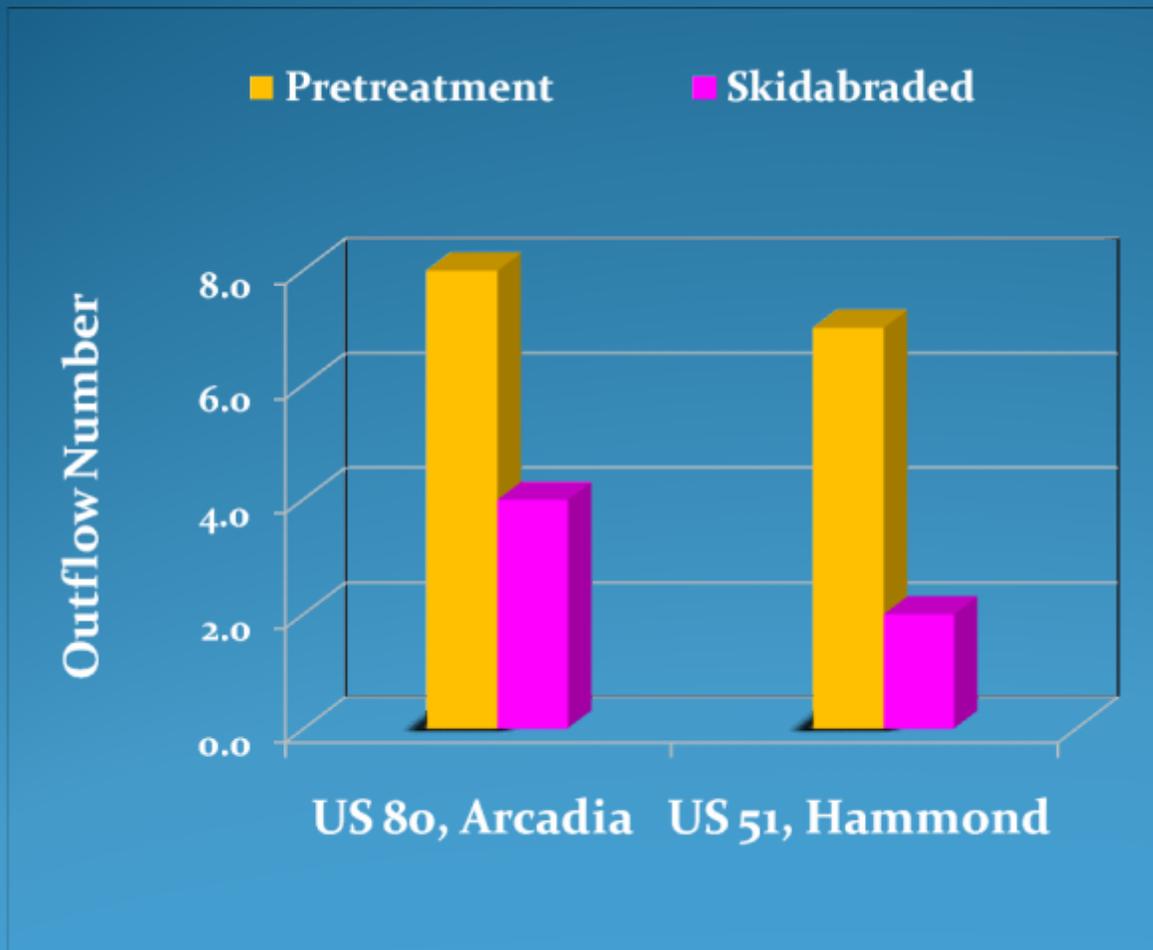


US 51 Results



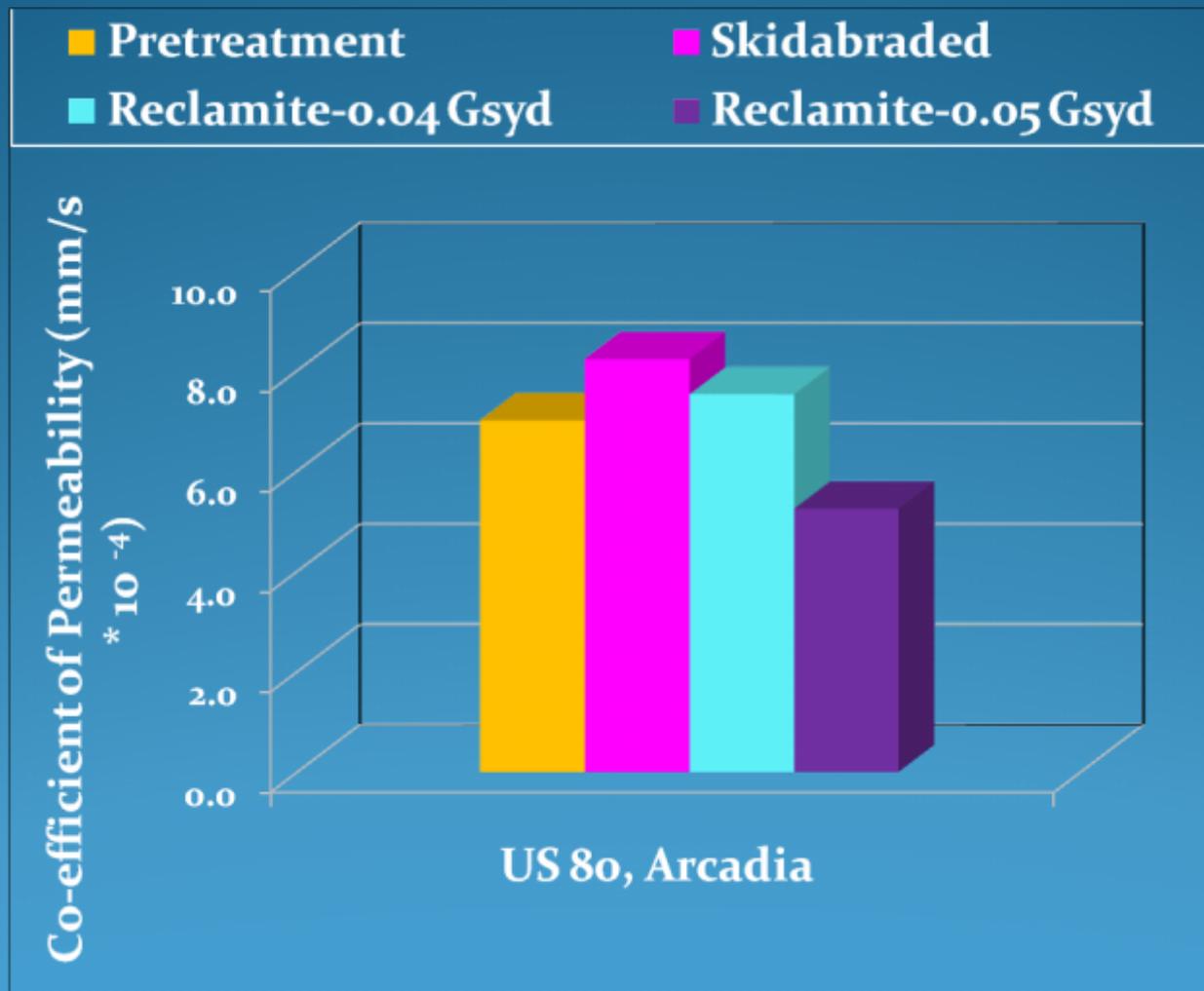
- ASTM E-274
- Vehicle Speed: 40 mph
- Tire Type: Bald Tire

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➤ ASTM E-2380

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Outcome:

- Early results very promising
- Skid numbers increased
- Permeability decreased
- Quick re-open to traffic

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What's next?

- Develop construction specifications/design criteria
- Full scale project test

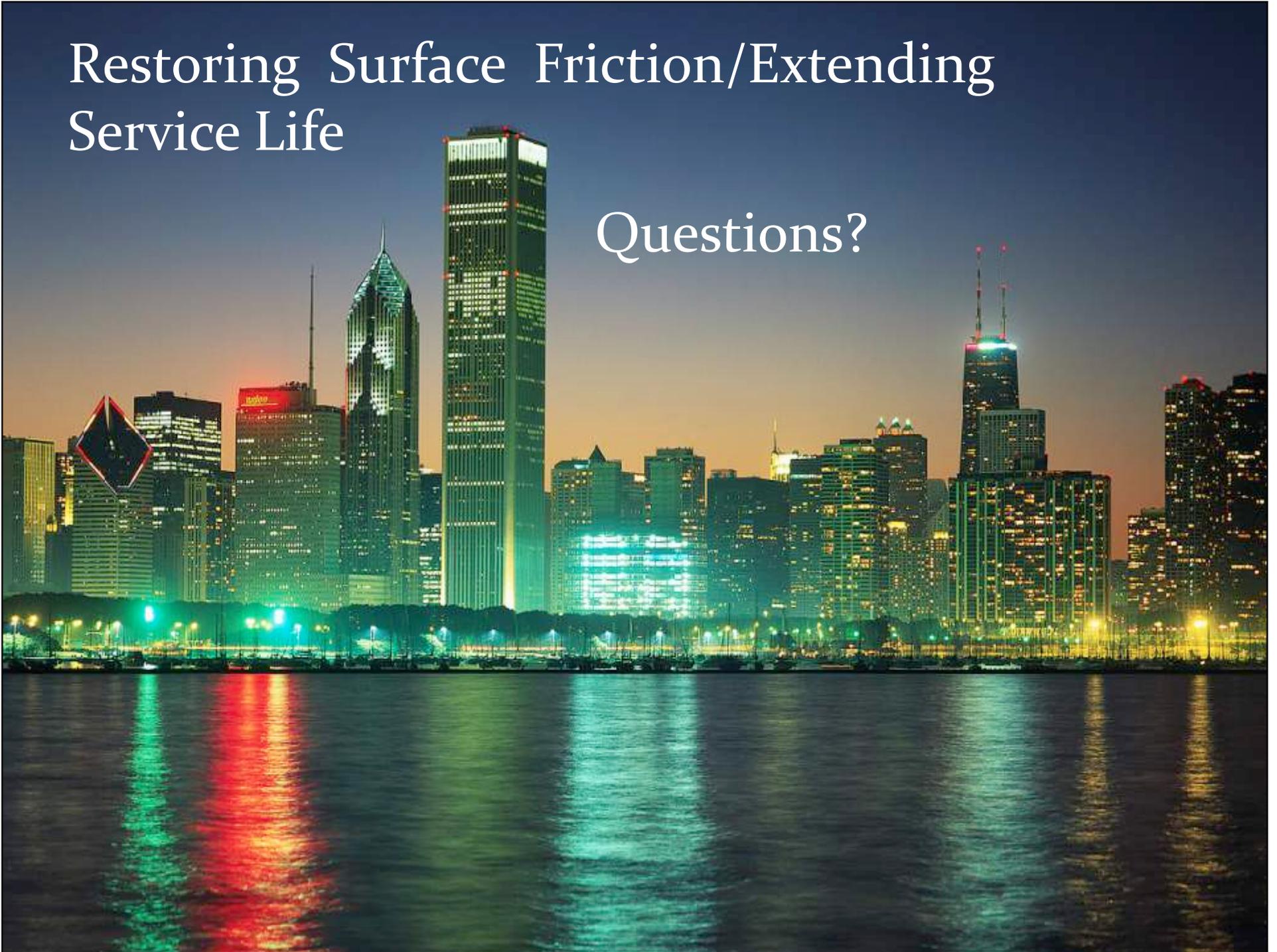
If successful...

- Alternative to chip seal – low volume roads
- Alternative to microsurfacing/single lift overlay – high volume roads

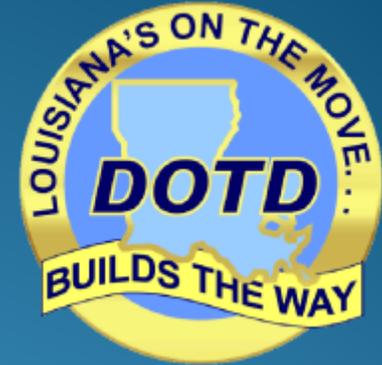


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Questions?



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Thank You!

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