

PENNDOT



**SCOTT NAZAR, SECTION CHIEF
PAVEMENT INNOVATION MGT**

**CHARLIE C. GOODHART, DIRECTOR
BUREAU OF MAINTENANCE & OPERATIONS**

Preservation program status and highlights for the past year



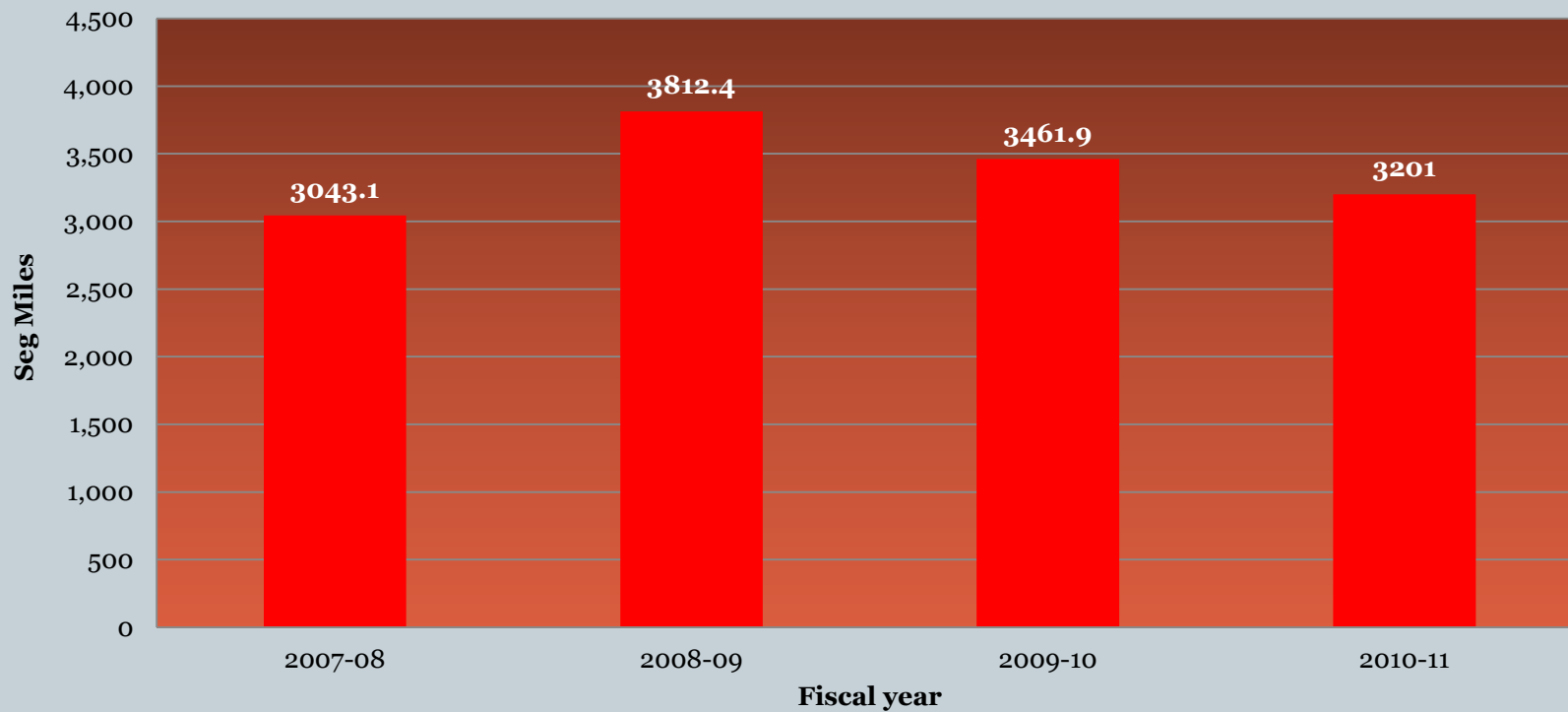
- Crack Sealing (3-5 year cycle)
- Seal Coats (7 year cycle)
- Micro Surfacing Program is Emerging
- Cold RAP recycling (District 1-0)
 - 157,556 tons placed this year
- Concrete patching 203,000 SY
- Diamond Grinding 430,000 SY

Seal Coats



- Seal Coats, the bread & butter of preservation program

Actual Seal Coat Miles



Micro Surfacing



- Specification for Micro Surfacing now published in Pub. 408 under section 483
- Over 301 lane miles of Micro Surfacing for fiscal year 2010/11
- 903 lane miles planned for 2011/12

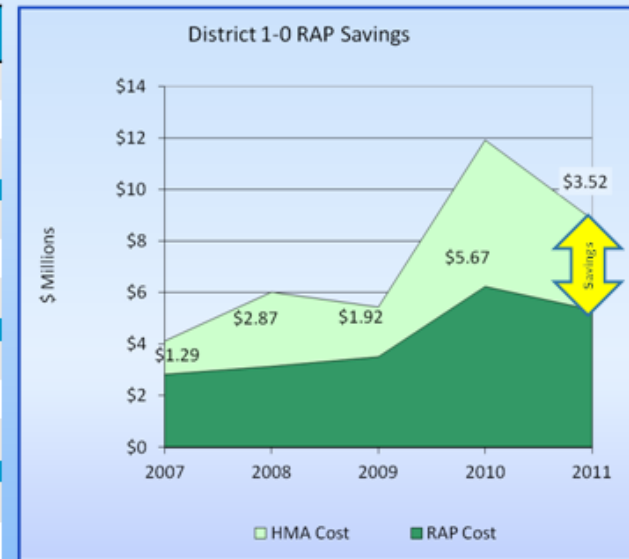
RAP Recycling (District 1-0)



Stretching Available Dollars

Cold Recycled Asphalt Pavement Production

Savings	Tons	Unit Cost	Total Cost
2011 RAP	157,556	\$33.93	\$ 5,346,084.77
2011 Hot Mix	118,167	\$75.00	\$ 8,862,495.36
		2011 Savings:	\$ 3,516,410.59
2010 RAP	244,636	\$25.55	\$ 6,251,600.00
2010 Hot Mix	183,477 **	\$65.00	\$11,926,019.00
		2010 Savings:	\$ 5,674,419.00
2009 RAP	121,044	\$29.13	\$ 3,525,721.00
2009 Hot Mix	90,783 **	\$60.00	\$ 5,446,980.00
		2009 Savings:	\$ 1,921,259.00
2008 RAP	133,973	\$23.55	\$ 3,155,064.15
2008 Hot Mix	100,479 **	\$60.00	\$ 6,028,785.00
		2008 Savings:	\$ 2,873,720.85
2007 RAP	122,376	\$23.24	\$ 2,844,607.47
2007 Hot Mix	91,782 **	\$45.00	\$ 4,130,190.00
		2007 Savings:	\$ 1,285,582.53



** For cost savings comparisons, a ratio of 0.75 Tons of Hot Mix/Ton of RAP was used due to strength factors for the respective products

Fibers In Hot Mix Asphalt



- **Forta FI HMA fibers.**

- Aramid, polypropylene, ????????, fiber blend.
- 1 lb fiber per 1 ton HMA





SR 3036 Lancaster, HMA Fiber project

Thomas Bennert, Ph.D.

Assistant Research
Professor

Rutgers University

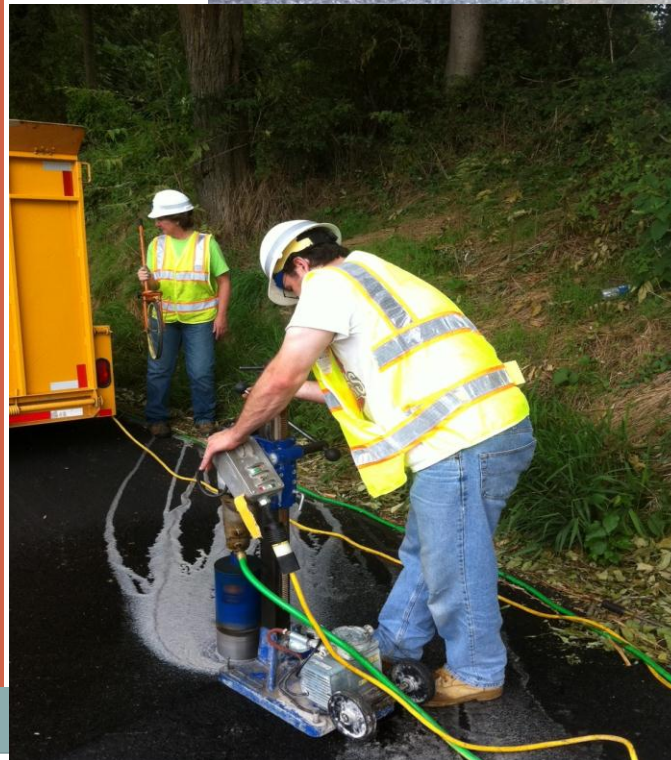
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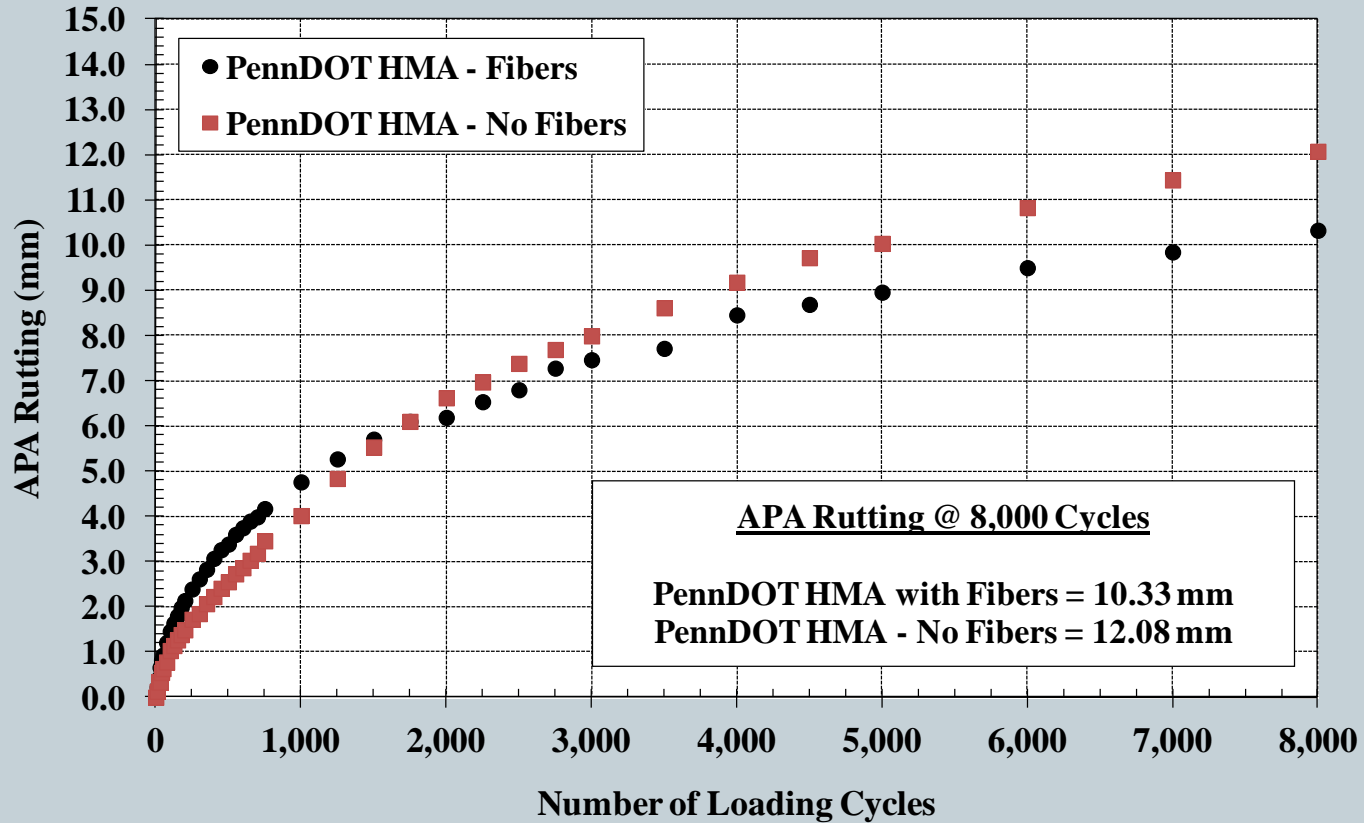
Fax (732) 445-0577



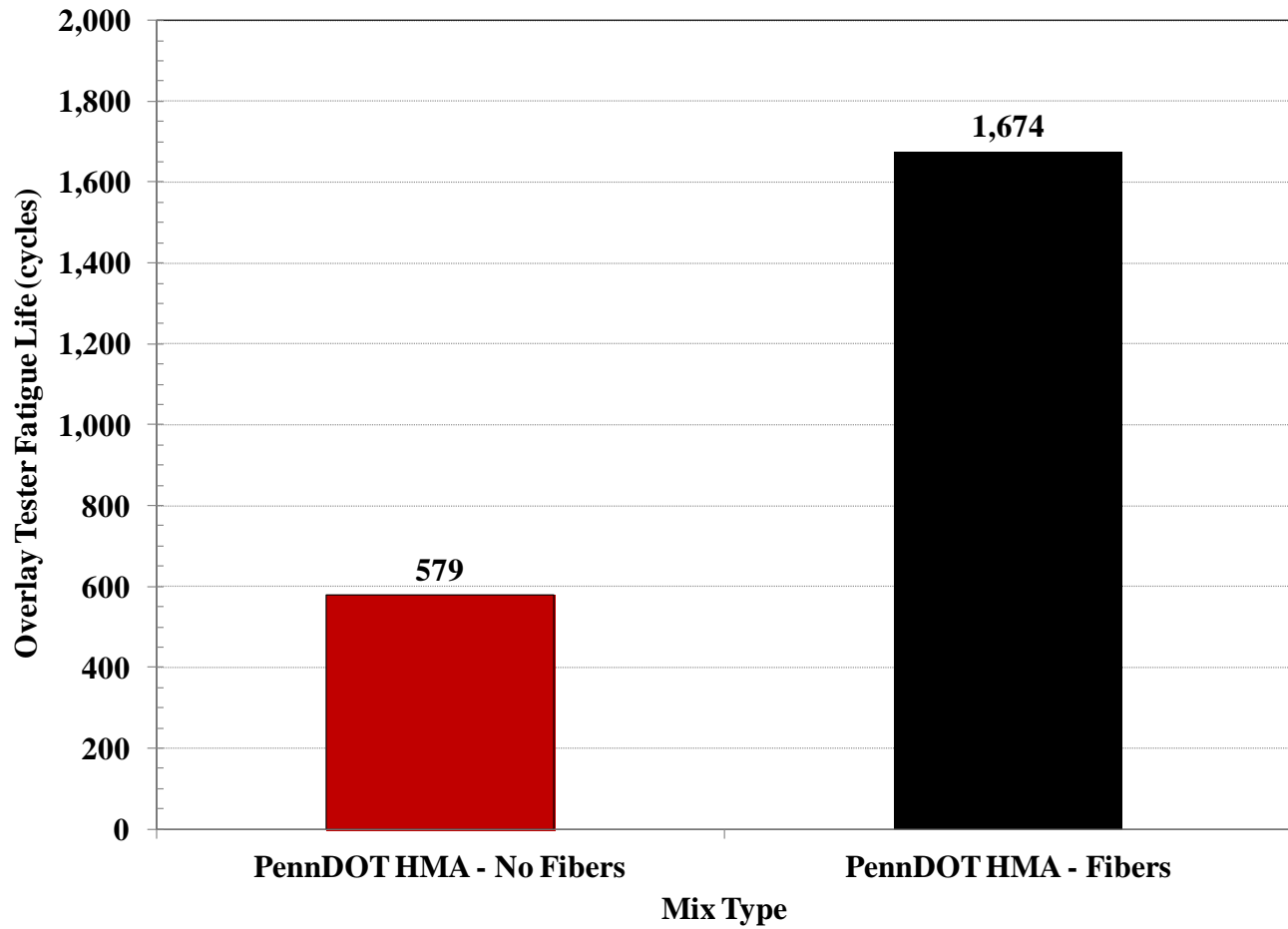
Rut resistance testing



64°C Test Temp.; 100psi Hose Pressure; 100 lb Load Load



Fatigue crack testing



What's new



- New spec for Diamond Grinding
- CPR Team developing specification for cross stitching

The Future



- **Thin Hot Mix Asphalt Overlay research Project**
 - 6.3mm Mix; 3/4" to 1 1/4" thick
- **New research project to investigate Flexible Micro Surfacing :**
 - Reduce fatigue cracking
 - A good surface treatment to be placed over cold recycled asphalt paving projects and concrete overlays
- **Demonstration projects:**
 - Fog sealing (Grip tight, Tyregrip)
 - Trackless tack
 - Heliman 100% RAP cold mix
 - Seal Coat using more cubical 1 size aggregate (District 2-0)

Steelers 25
New England 17



• Questions

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