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North Carolina's Pavement Preservation Initiative

2003 SEAUPG
Annual Meeting

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Pavement Preservation

Pavement Preservation is the sum of all activities undertaken to provide and maintain serviceable roadways including preserving the investment in the National Highway System, enhancing pavement performance, ensuring cost-effectiveness, extending pavement life, reducing user delays, and improving safety and mobility.

AASHTO

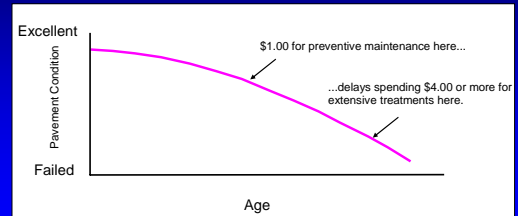


Why Pavement Preservation?

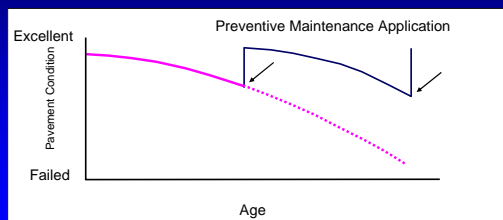
- Cost Effective Approach
 - Planned vs. Reactive Strategy
 - Up to a 6:1 savings ratio vs. "worst first"
- Good Pavements stay good
 - Prevents failures before they occur
 - Results in smoother, safer roads
 - Reduces vehicle operating costs
 - Improved highway/user satisfaction
 - Reflects favorably on agency and paving industry



Preventive Maintenance Concept



Preservation Strategy



Pavement Preservation: A National Initiative

- Agencies and Organizations
 - AASHTO
 - FHWA
 - TRB
 - Foundation for Pavement Preservation
 - National Center for Pavement Preservation



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How Does NC “fit” into National Picture?

- Funding
 - Secured funding from NC General Assembly
- Training
 - Participation in NHI Pavement Preservation Courses
- Research
 - Funded a research project at a local university to look at optimizing surface treatment gradations
 - Plan to participate in national studies



Legislative Initiatives

- Senate Bill 1005: 2001 – 2004
- Funding for Maintenance and Contract Resurfacing also increased: 2001 to date
- North Carolina Moving Ahead: 2003 – 2005



2001 Legislation “Jumpstarts” Program

- SB1005
 - Landmark Legislation
 - Allowed use of Trust Fund cash balances
 - \$423 Million investment over 3 years
 - Focused on preserving Primary Highway System pavements
- Funding for Maintenance and Contract Resurfacing also increased
 - Resurfacing funds “leveraged” to address roads in better condition



2003 Legislation NC Moving Ahead!

- Background
 - Used unexpended bond monies
 - \$630 Million investment over 2 years
 - \$560 million to Highway Projects
 - \$70 million to Bridge Projects
- Program Development
 - MPO’s, RPO’s, local governments, and legislators, had input in the program
 - Programs were developed by the 14 Divisions



2003 Legislation NC Moving Ahead!

- Program Goals
 - Enhance safety
 - Reduce congestion
 - Reduce accidents
 - Reduce fatal crashes
 - Improve safety and operation of intersections
 - Provide wider and smoother pavements
 - Extend pavement life
 - Rehabilitate or replace deficient bridges
 - Enhance night time visibility

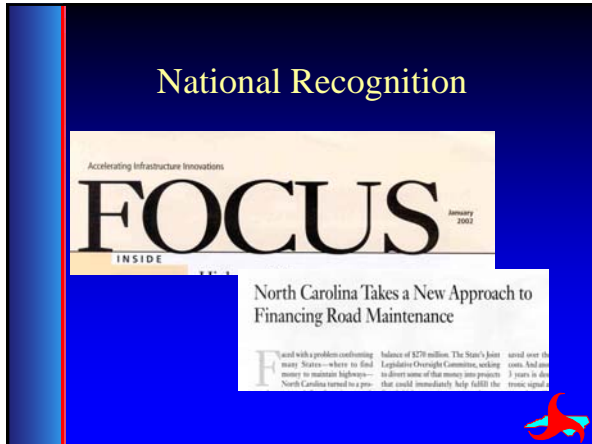


2003 Legislation NC Moving Ahead!

- Program Goals
 - Enhance safety
 - Reduce congestion
 - Reduce accidents
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 - Improve safety and operation of intersections
 - **Provide wider and smoother pavements**
 - **Extend pavement life**
 - Rehabilitate or replace deficient bridges
 - Enhance night time visibility



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Implementation Strategy

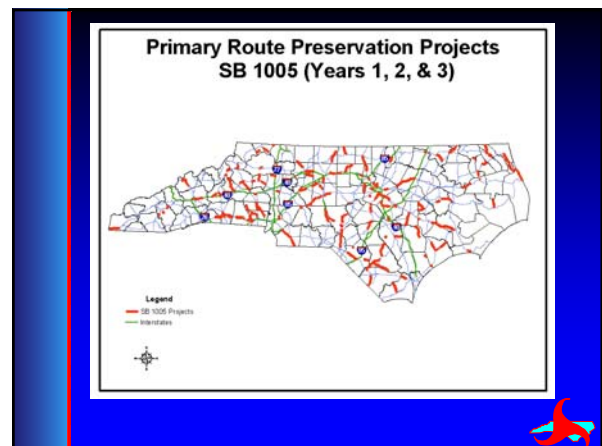
- Utilize non recurring funds to address highways in fair to poor condition
 - SB1005 focuses on heavy maintenance and rehabilitation of major primary corridors, increasing pavement structure to meet traffic demands
 - Cash flow additional \$50 M in Contract Resurfacing
 - NCMA focuses on the backlog of resurfacing needs on all systems
- Utilize recurring funding to preserve highways in fair to good condition on all systems
 - Contract Resurfacing Fund
 - Highway Maintenance Fund
 - Interstate Maintenance Fund

- Secure sufficient recurring funding for contract resurfacing & maintenance to sustain improved conditions
 - Biennial report to Transportation Oversight
 - Statewide Multimodal Transportation Plan

Implementation Strategy

- SB-1005**
 - 2002- 532 miles (2.5 M tons) completed
 - 2003- 499 miles (2.1 M tons) completed
 - 2004- 427 miles (1.8 M tons)-under contract to date

Accomplishments



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Accomplishments

- **NC Moving Ahead**
2004 - 264.4 miles under contract to date
2004 Fiscal Year Program - \$270 Million
- **Contract Resurfacing**
2002 - 2569 miles completed
2003 - 2171 miles completed
2004 - 1855 miles under contract to date
Annual program - \$157 Million
- **Maintenance Retreatment Program**
2002 - 2580 miles completed
2003 - 2560 miles completed to date
Annual Program - \$35 Million



The Road Ahead...

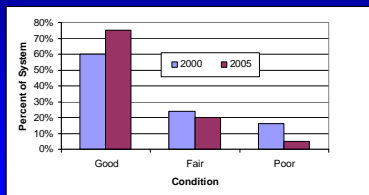
2003 Report to the Legislature on Maintenance Needs

	Fiscal Year (\$ Millions)				
Maintenance Programs	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Disasters/Emergencies	25.00	30.00	32.00	15.00	15.00
Total Maintenance Needs	656.60	691.78	728.55	766.30	804.54
Total Resurfacing Needs	237.77	249.45	261.71	274.57	288.08
Total Maint. Funding Needed	919.36	971.23	1,022.25	1,055.88	1,107.62
Supplemental Maint. Funds	(179.90)	(35.06)	(40.13)	(44.64)	(48.00)
Adj. Total Maint. Fund. Need	739.46	936.16	982.12	1,011.24	1,059.62
Estimated Maint. Fund Alloc.*	582.50	572.30	572.30	572.30	572.30
Shortfall	(156.96)	(363.86)	(409.82)	(438.94)	(487.32)



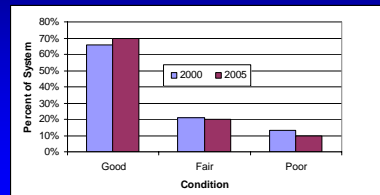
The Road Ahead...

Primary System



The Road Ahead...

Secondary System



The Road Ahead...

- SB1005 is addressing our primary system needs



NC Moving Ahead



- NCMA will help fill the resurfacing funding gap and address other maintenance needs



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Comprehensive Approach

- Strategy
 - On Going Training
 - Dedicated position to Pavement Preservation
 - Utilize emerging technology to manage system
 - Maintenance and Pavement Management Systems
 - Continue using engineering decision making
 - Effectively use the “toolbox”
 - crack sealing, surface treatments, thin overlays, etc.
 - Participate in research projects
 - Document our findings



Questions?

