ASSET MANAGEMENT
Michigan Transportation Asset Management Council

Senate Transportation Funding Task Force Meeting

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Kent County Road Commission
Member
Michigan Transportation Asset Management Council

October 2, 2012

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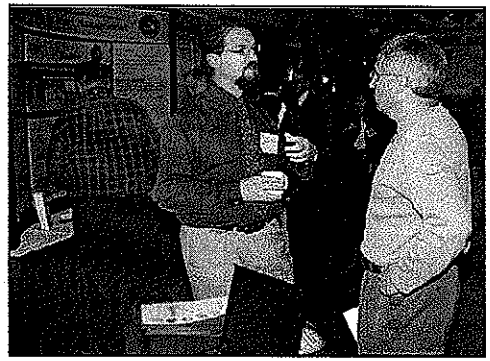
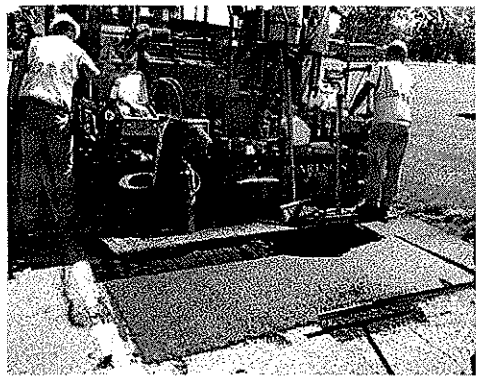
Michigan Transportation Asset Management Council

Overview of Asset Management

- ✓ What is Asset Management
- ✓ Use in Michigan & Other States
- ✓ Pavement Distress Rating
- ✓ What Roads to Fix & When
- ✓ Maximizing Return on Investment





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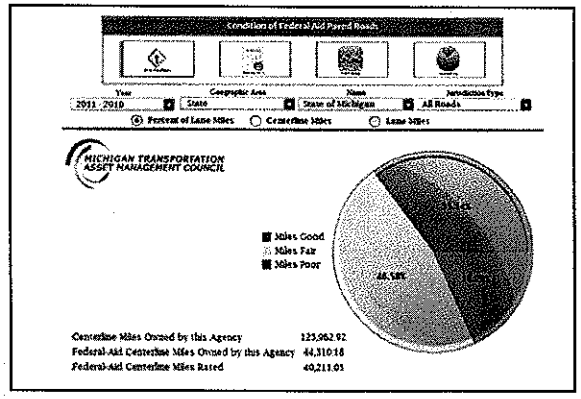
What is Asset Management?

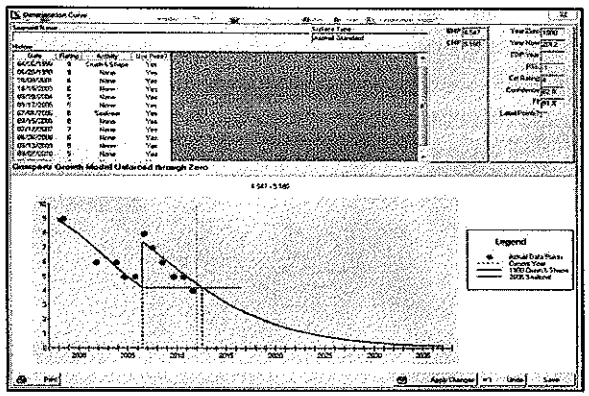
Asset Management : "An **ongoing process** of maintaining, upgrading and operating assets cost-effectively, based on a continuous, physical inventory and condition assessment." [MCL 247.659(a)]

TAMC responsibility : "…advising the Commission on a statewide asset management **strategy** and the processes and necessary tools to implement such a strategy…" [MCL 247.659(2)]

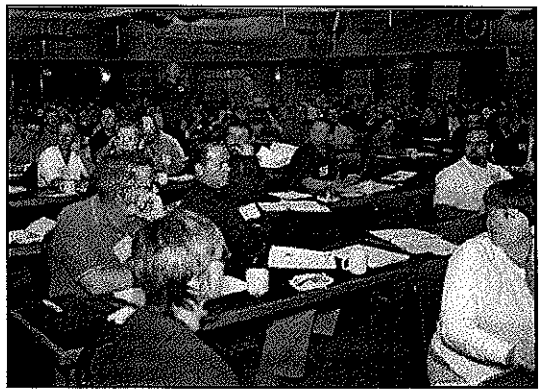
Promote Best Practice in Pavement and Bridge Preservation



Data



Tools



Training

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What is Asset Management?

Four Step Process

Monitoring & Reporting
(Road Condition Rating)

↓

Goals & Objectives
(Long-Range Vision)

↓

Plans & Programs
(Multi-Year Program)

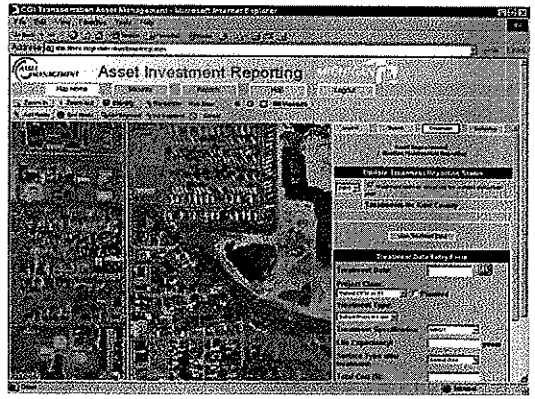
↓

Program Delivery
(Implementation)

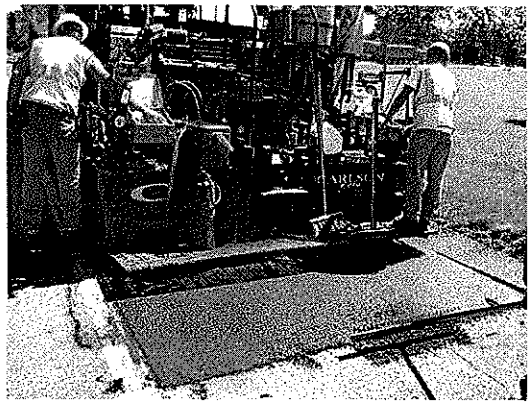
TAMC Support

Surface condition rating: PASER
- MDOT, county, city/village, RPO
- Federal and non-federal aid roads

Analyze improvement scenarios
- RoadSoft Training
- Network and project level analysis



Three – Five Year Program
- Pavement Preservation Targets
- Major Rehab. and Reconstruction
- Report to TAMC (Act 51 Report)



Document project completion
- Completed improvements
- 3yrs planned projects
- Report to TAMC (Act 51 Report)

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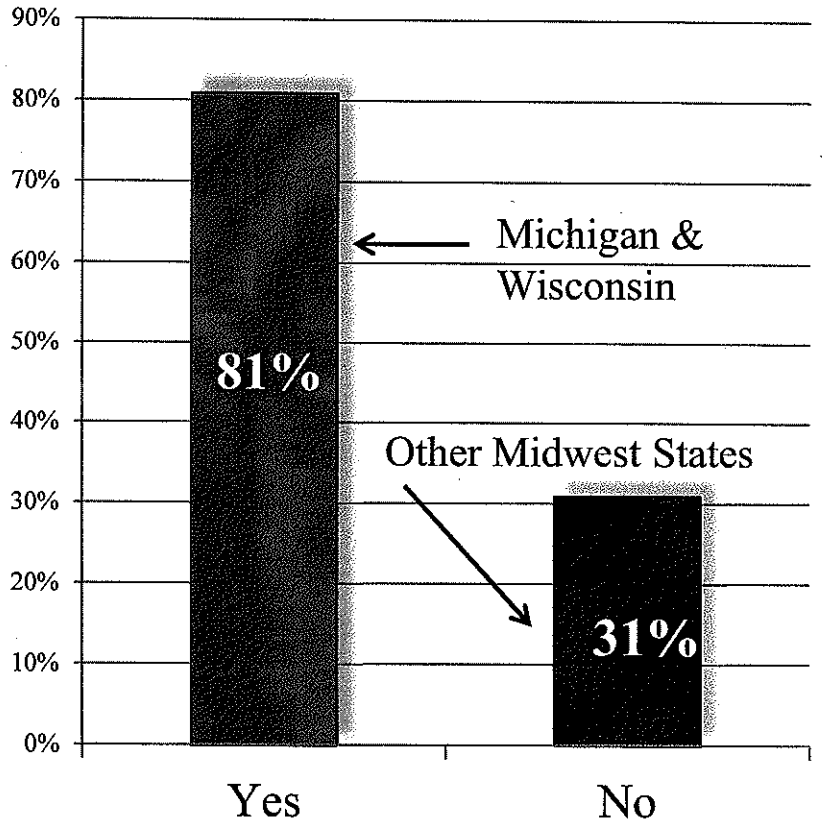
Michigan & Other States



Statewide Pavement Preservation Initiative

Source: Midwest Regional University Transportation Center
University of Wisconsin, 2008

2012	Participants	Agencies
County	1374	83
City	991	178
Village	157	72
Total	2522	333
Townships	620	(including 526 elected)

Asset Management Implementation in Michigan Local Agencies: Survey Results

- 76% of agencies have implemented asset management.
- 80% use a mix-of-fixes approach
- 83% are collecting more than minimum pavement condition rating
- 8% are not using PASER ratings
- 31% of agencies in other states are using asset management.

Source: Michigan Local Technical Assistance Program, Michigan Tech. University, 2012

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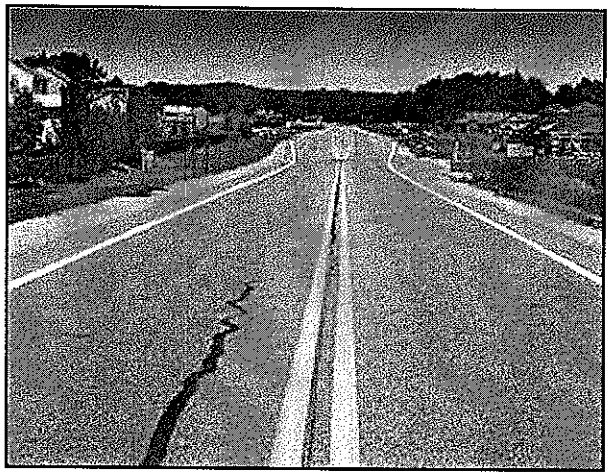
Pavement Distress Rating

GOOD

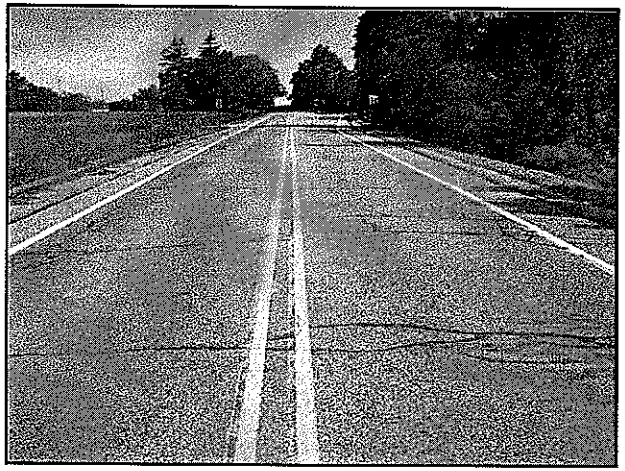


PASER = 10, 9, 8

Routine Maintenance

- Crackseal
- Minor Patching

FAIR



PASER = 7, 6, 5

Preventive Maintenance

- Crackseal
- Patching
- Surface Treatment
- Concrete Joint Repair

POOR

PASER = 4, 3, 2,1

Rehab/Reconstruct

- Resurface
- Structural Overlay
- Replace Concrete Slab
- Complete Reconstruct

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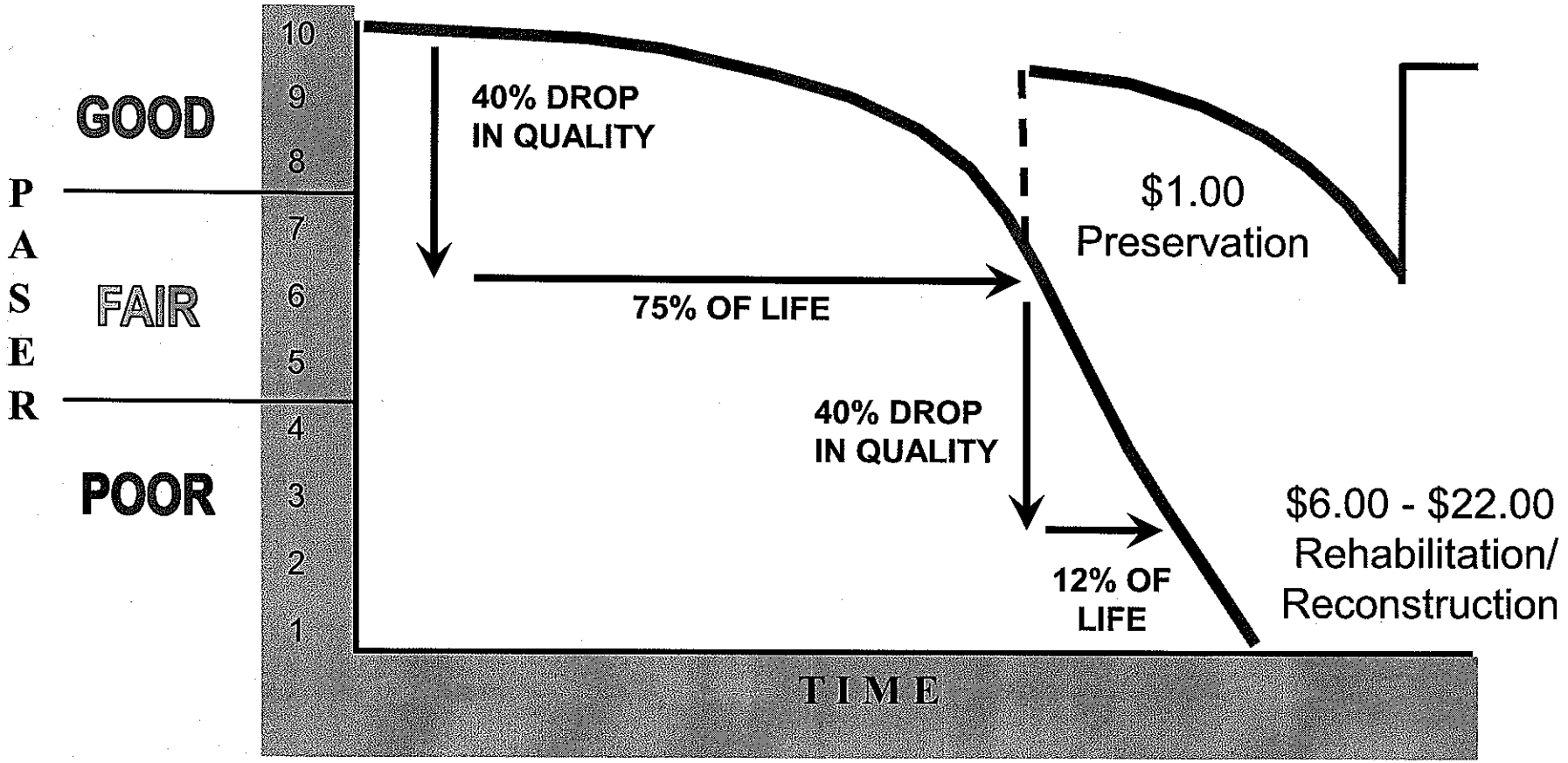
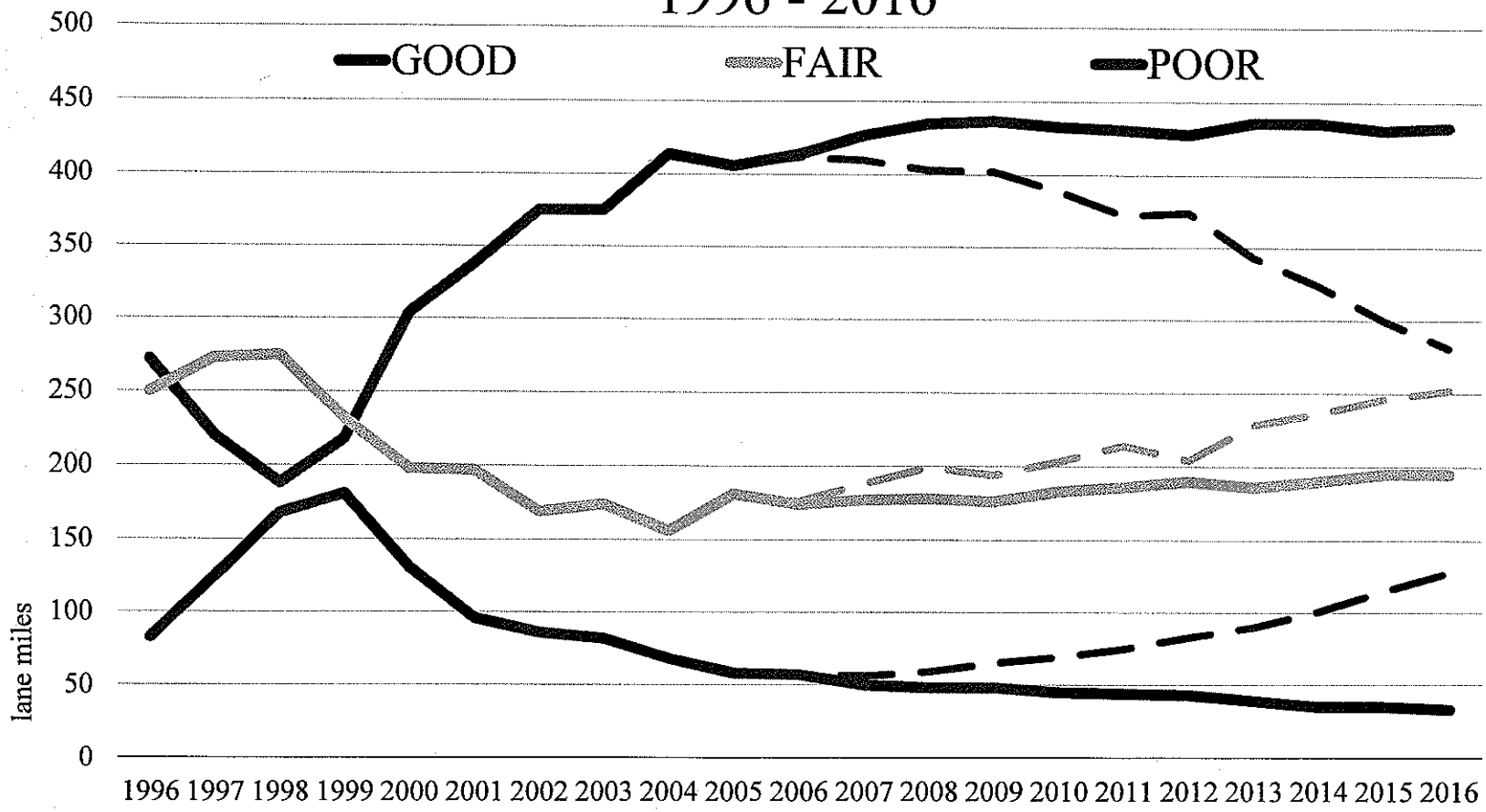
What Roads to Fix and When

Maintaining Roads in Good Condition

"Right Fix on the Right Road at the Right Time to Maximize Return on Investment"



Kent County Road Commission
Pavement Preservation Program



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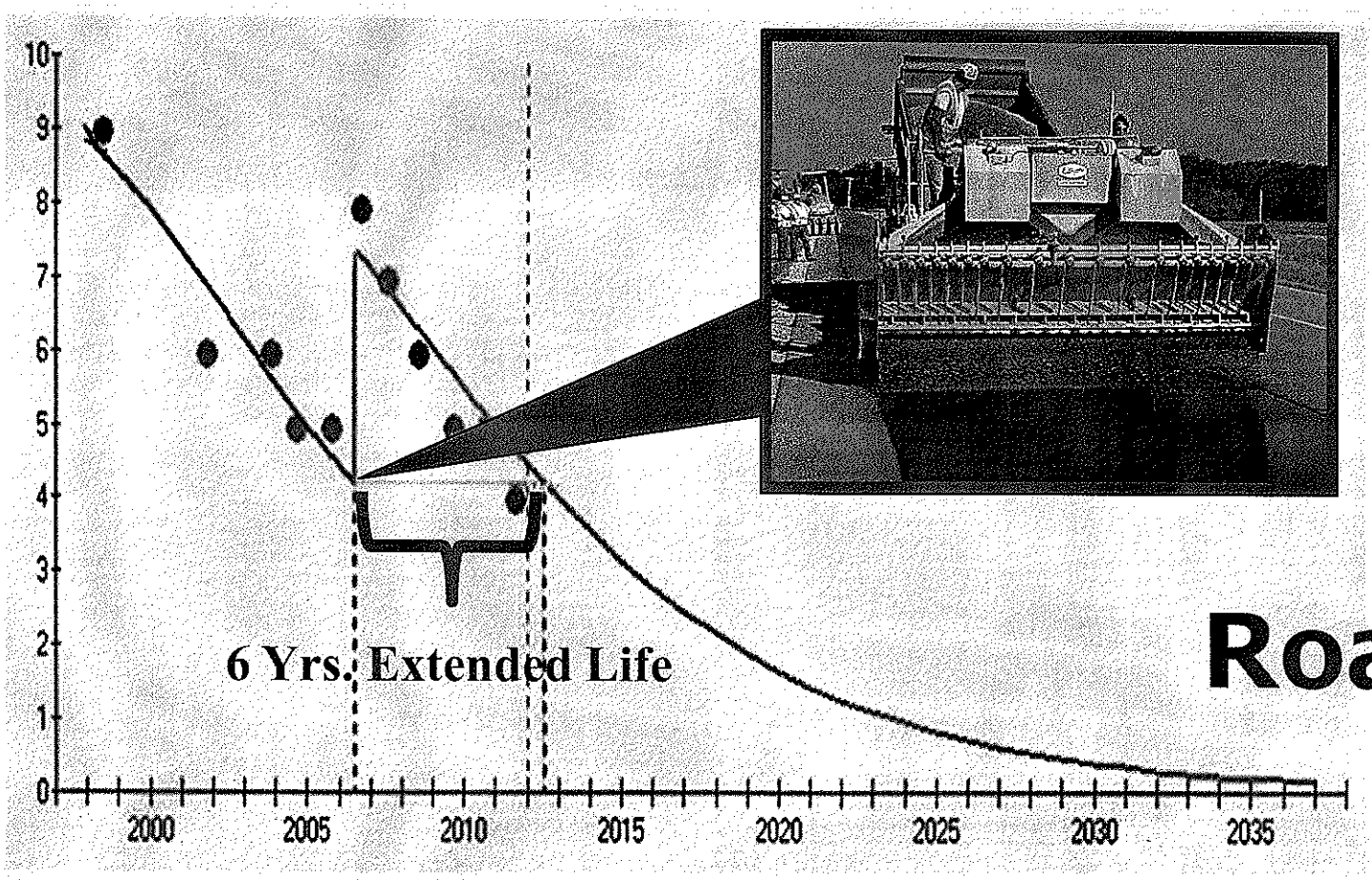
Maximizing Return on Investment

Gompertz Growth Model Unforced through Zero

4.547 - 5.180



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Road Name	Year Applied	Extended Life (yrs.)
Alden Nash Ave SE	2004	5
Edgerton Ave NE	2005	10.5
Freeport Ave SE	2006	8.5
Knapp St NE	2006	9
Larsen Ave NE	2006	9
Northland Dr NE	2005	5.5
Old Belding Rd NE	2005	4
Pettis Ave NE	2004	6.5
Rooksby St NE	2007	8.5
Wabasis Ave NE	2006	3.5
Whitneyville Ave SE	2006	4.5
Whitneyville Rd SE	2003	4.5
3 Mile Rd NE	2006	9
10 Mile Rd NE	2006	6
17 Mile Rd NE	2003	7
68th St SE	2005	6
92nd St SE	2005	7.5
Average Years of Extended Life		**6.7**

Maximizing Return on Investment

RoadSoft®

Unit Cost / Avg. Extended Life

=

Cost per Year of Extended Life

Example:

$26,000/lane mile / 6.7 years

=

$3,880 / Yr. of Extended Life