GORRILL PALMER
An LJB Engineering Company

Pavement Management and Future Planning

December 16, 2025

Welcome and Introductions

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Ryan Barnes, PE – Senior Project Manager

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Introductions

- Ryan Barnes, PE CPESC
  - Senior Project Manager
  - Former Town Engineer
  - Secretary MCAPWA (President Elect)
  - Firsthand experience in planning, budgeting, and implementing municipal capital plans

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LEWISTON ME

Brunswick maine

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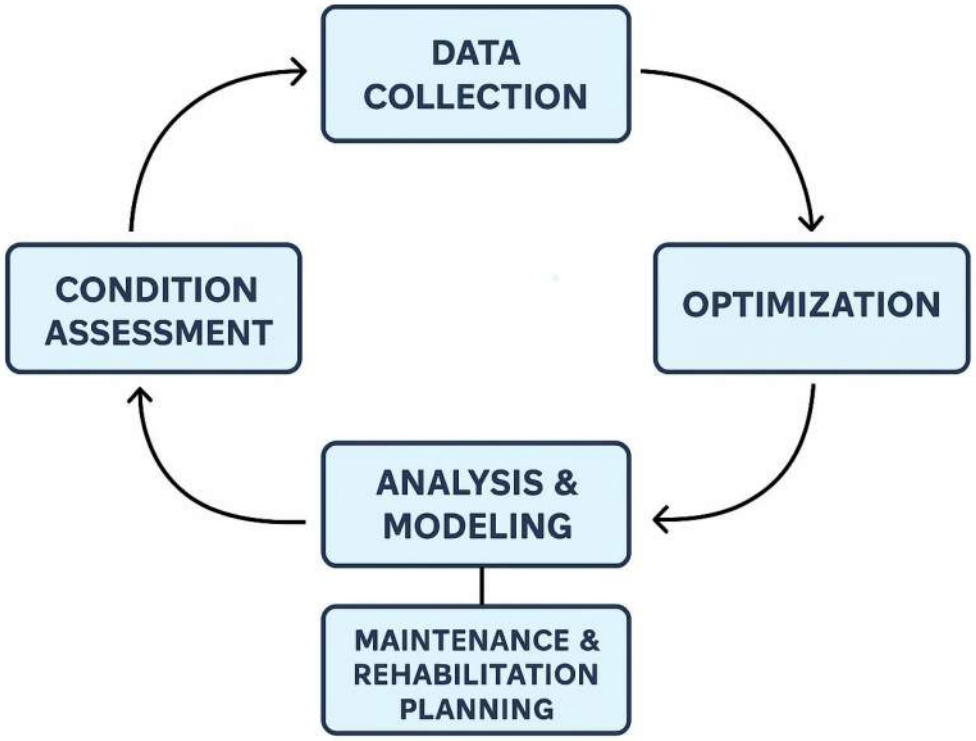
APWA
AMERICAN PUBLIC WORKS ASSOCIATION
Maine Chapter

Outline

- What is pavement management
- Why it matters
- Town paving history
- Future Planning
- Questions

What is Pavement Management?

- The systematic process of developing, operating, maintaining, and upgrading of assets in a cost-effective way.
  - Data Collection
  - Condition Assessment
  - Analysis & Modeling
  - Maintenance and Rehabilitation Planning



Why it matters?

- Extends pavement Life
- Reduces long-term costs
- Improves safety and ride quality
- Supports sustainable infrastructure management

- *In most communities' pavement is your most valuable asset*

- *Keep the good roads good!*

Why it matters?

Figure 1
*Graph from TRNews 228

Keep the Good Roads Good

Why it matters?

PCI	Maintenance Strategy
100	Good - Future Overlay
85	Satisfactory - Future Overlay
70	Fair - Light Overlay/Shim (1.0")
55	Poor - Heavy Overlay/Shim(2.25")
40	Very Poor – Reclaim/Reconstruct
25	Serious - Reconstruct
10 0	Failed - Reconstruct

Figure 3

PCI Gradation

Paving Preservation

Paving Reconstruction

Keep the Good Roads Good

Town Paving History (Data Collection)

- Road Surface Management System (RSMS) - MaineDOT
- PAVER (US Army Corp of Engineers)
- AI (Proprietary Vendors)

- 2020 RSMS Completed in by Gorrill Palmer
- 2024 AI Collection by Citylogix

Keep the Good Roads Good

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Figure 3

Failed Roads - $800K-1.5M+/Mile

3.76 Miles ($3,228,000)

Keep the Good Roads Good

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Figure 3

Good Roads - $10-200K/Mile

3.35 Miles ($1,339,000)

Keep the Good Roads Good

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Figure 3

Good Roads - $10-200K/Mile

20.35 Miles ($3,225,000)

Keep the Good Roads Good

Future Planning (Preservation)

- Develop a data driven five-year plan

Condition	Miles	% of Network	Treatment	Cost per Mile	Backlog Cost*
Failed	0.00	0.0%	Reconstruction	$ 1,500,000	$0
Serious	0.18	0.6%	Reconstruction	$ 1,500,000	$267,000
Very Poor	3.58	13.0%	Reclaim & pave or Strip & pave	$ 800,000	$2,867,000
	3.76	**13.7%**	**Pavement Reconstruction Subtotal**		**$3,134,000**
Poor	3.35	12.2%	Overlay (2.5")	$ 400,000	$1,339,000
Fair	2.89	10.5%	Overlay (2")	$ 325,000	$941,000
Satisfactory	9.81	35.7%	Overlay (1.25")	$ 225,000	$2,207,000
Good	7.65	27.9%	Preventive maintenance	$ 10,000	$77,000
	23.70	**86.3%**	**Pavement Preservation Subtotal**		**$4,564,000**
Network Total	27.46	100.0%	Network Total		$7,698,000

- Follow the Plan
- Update the Plan

Keep the Good Roads Good

Future Planning (Reconstruction)

- Identify opportunities for short term repairs
- Prioritize roadways
- Consider bonding for reconstruction projects

Keep the Good Roads Good

Future Planning (Safe Streets Policy)

- How do we incorporate the Safe Streets Policy into the Program?
  - Signage
  - Striping
  - Widening
  - Sidewalks

Keep the Good Roads Good

Future Planning (Safe Streets Policy)

- How does it impact cost?
- Example – Quaker Ridge Road
  - Preservation = $2,500,000
  - Widening = $5,200,000

Keep the Good Roads Good

Future Planning (Route 121)

Future Planning (Pine Hill @ Route 85)

Questions