# Pavement Preservation Update

Derek Nener-Plante
Pavement Design/Quality
Highway Program
MaineDOT

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# Pavement Preservation Program

- Responsible for over 8,400 centerline miles of the 24,000 total miles in Maine
- Work Plan created for every two year cycle by Planning

| HIGHWAY CORRIDOR PRIORITIES SUMMARY | | | | | | | |
|---|---|---|---|---|---|---|---|
| Priority | Miles (CL) | Miles | Cumulative Miles | VMT (Billions) | VMT | Cumulative VMT % | Average VMT / Mile (Thousands) |
| 1 - MTA | 247 | 1% | 1% | 1.3 | 9% | 9% | 5,408 |
| 1 - DOT | 1,503 | 6% | 7% | 4.7 | 32% | 41% | 3,094 |
| 2 | 965 | 4% | 12% | 1.7 | 12% | 53% | 1,759 |
| 3 | 1,982 | 8% | 20% | 2.4 | 17% | 70% | 1,234 |
| 4 | 1,961 | 8% | 28% | 1.3 | 9% | 79% | 688 |
| 5 | 2,405 | 10% | 38% | 1.1 | 8% | 87% | 472 |
| 6 | 14,394 | 61% | 100% | 1.8 | 13% | 100% | 128 |
| | | | | | | | |
| TOTAL | 23,457 | 100% | | 14.5 | 100% | | |

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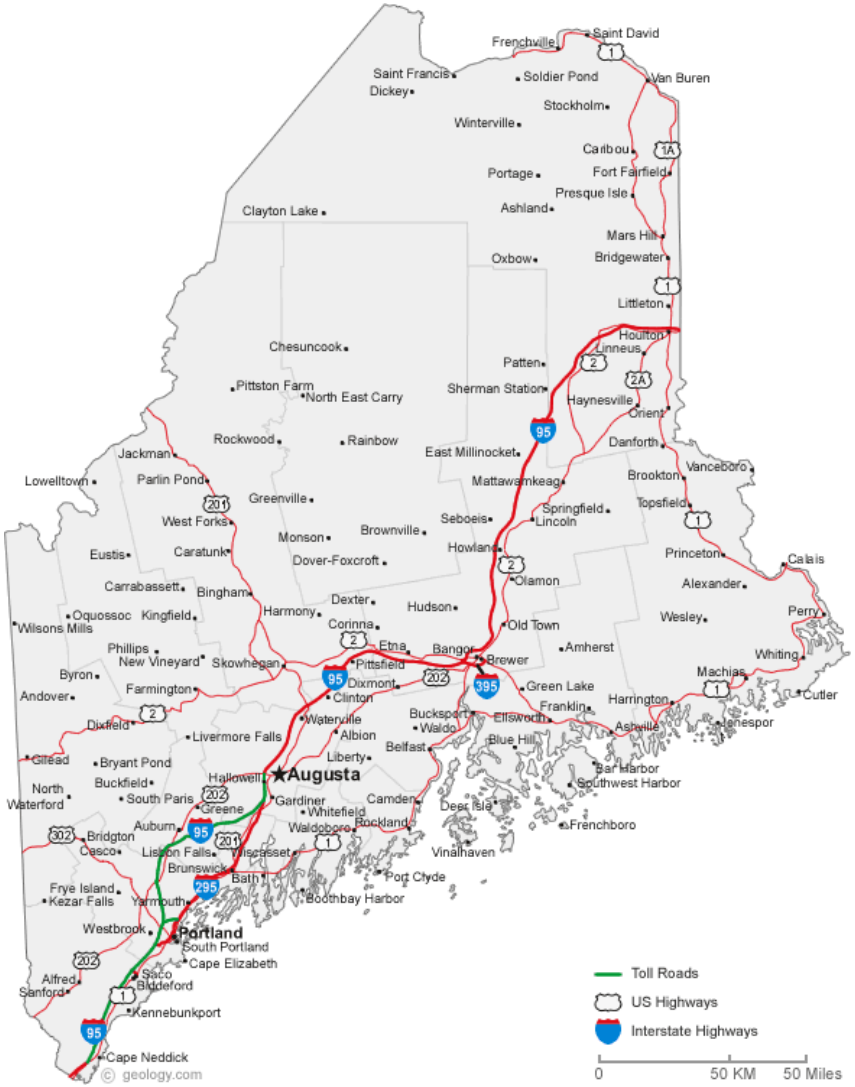
# Pavement Preservation Program

- Combination of thin HMA overlays and other surface treatments to prolong service life of roadways in addition to typical reconstruction / rehabilitation
- Recycling strategies for rehab is increasing due to cost effectiveness of treatments
- Durability has been a concern: trying new technologies to increase service life



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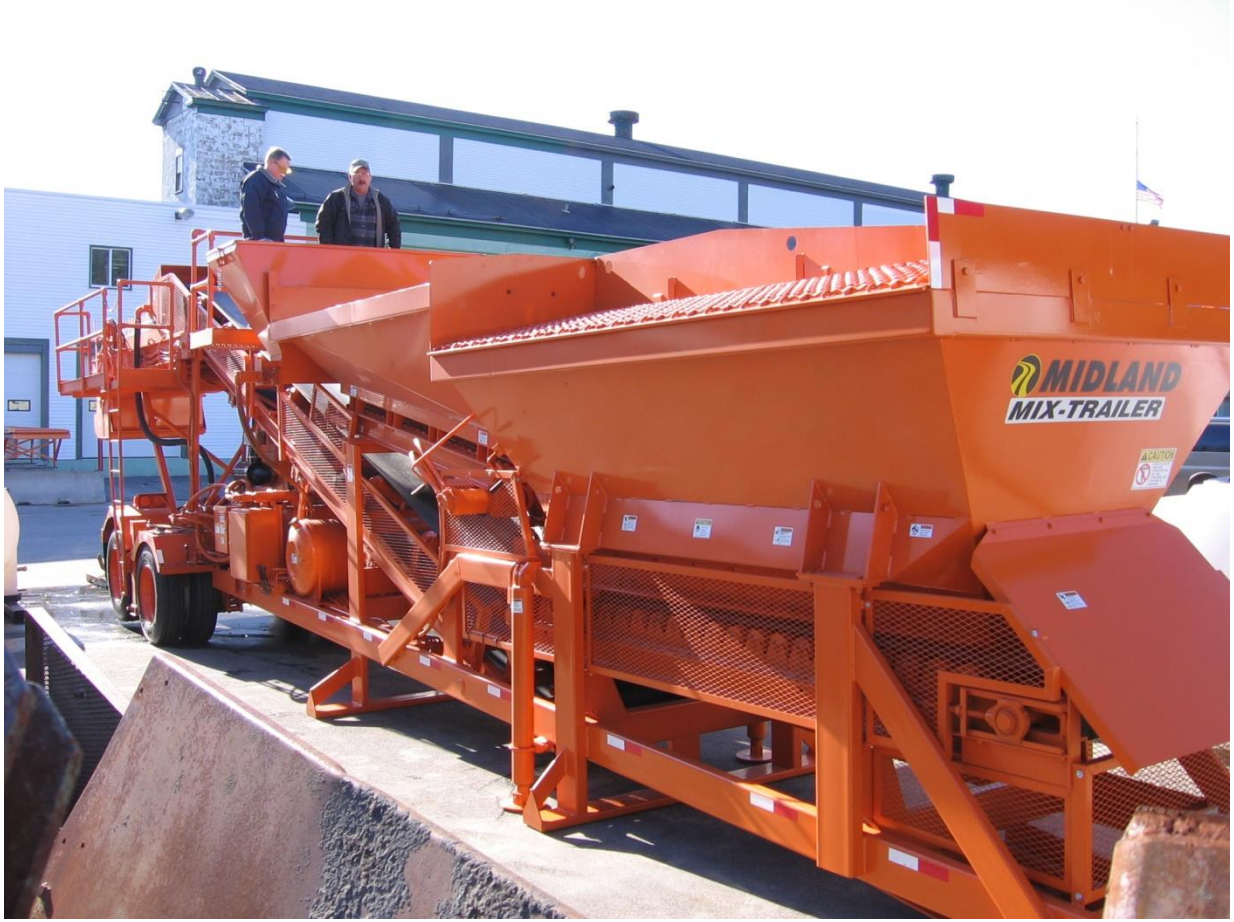
# PMRAP Program

- Plant-mixed recycled asphalt pavement is used on many lower priority roads in the state
- Variable depth course placed by crew (in multiple lifts), then covered by thin overlay
- Over 50,000 T placed last year



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# Thin HMA Overlays

- Work-horse treatment used for preservation
- Over 200 centerline lane-miles completed annually
- Different treatment types for different types of distress:
  - 5/8” overlay (4.75 mm NMAS)
  - ¾” overlay (9.5 mm NMAS)
  - 1 ¼” overlay (9.5 mm NMAS)
- Applied to roadway with adequate structure and shape

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# Other Preservation Activities

- Ultra-Thin Bonded Wearing Course
- Fog seal in shoulders (primarily Interstate)
- Crack-sealing
- Rehabilitation (91 miles per year)
  - FDR with cement &/or emulsion
  - Foaming
  - Rubblization
- Light Capital Paving
  - 600 centerline miles per year
  - Holding action for lower priority roadways
  - Sand mix

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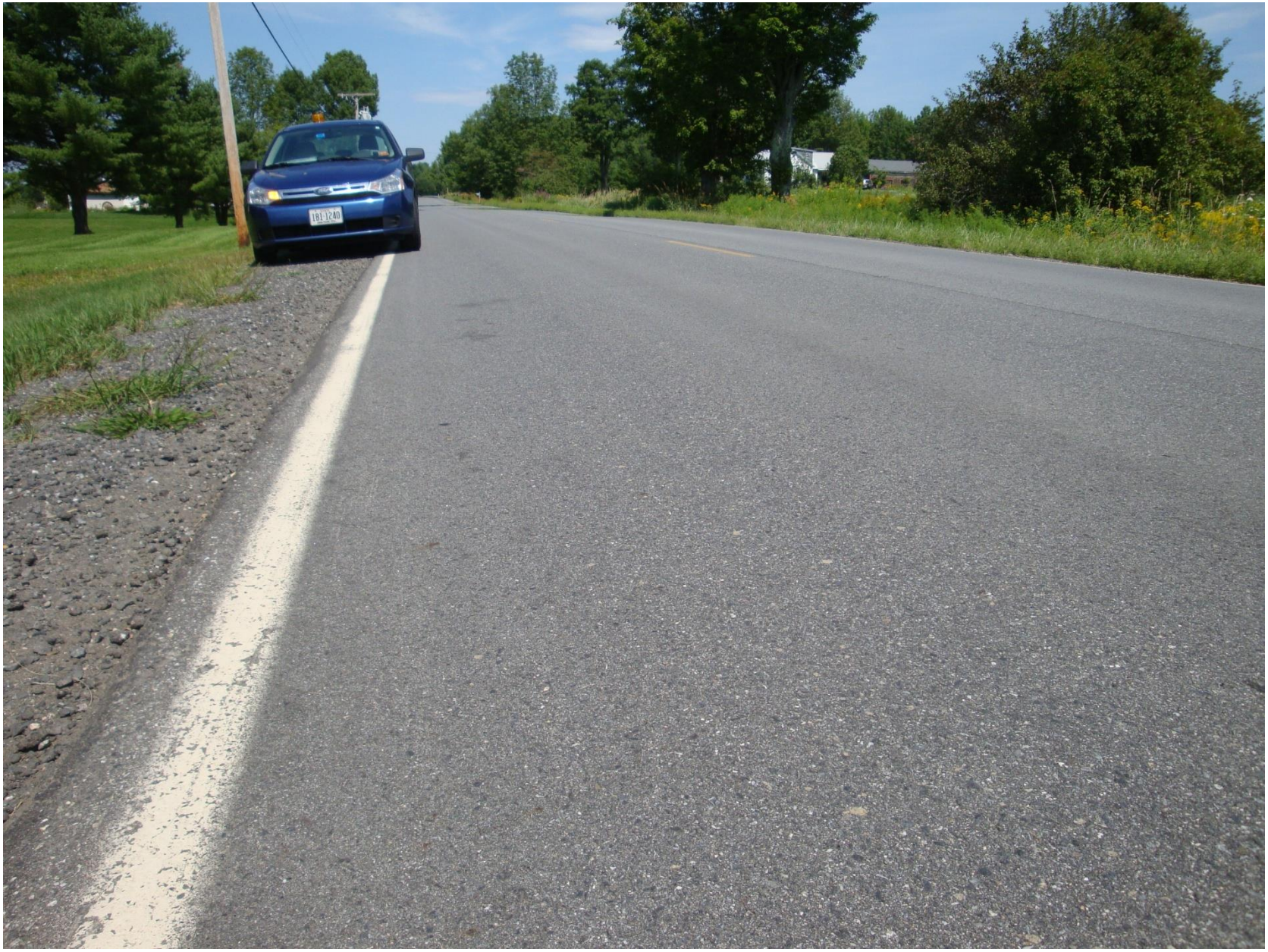
# Aggregate Loss / Erosion

- Distress increasingly identified in new HMA pavements in recent years
- Loss of matrix and or coarse aggregate stone from the mat within 6 months to 1 year
- Results in a very open textured mat
- Mat eventually wears away to underlying base layer



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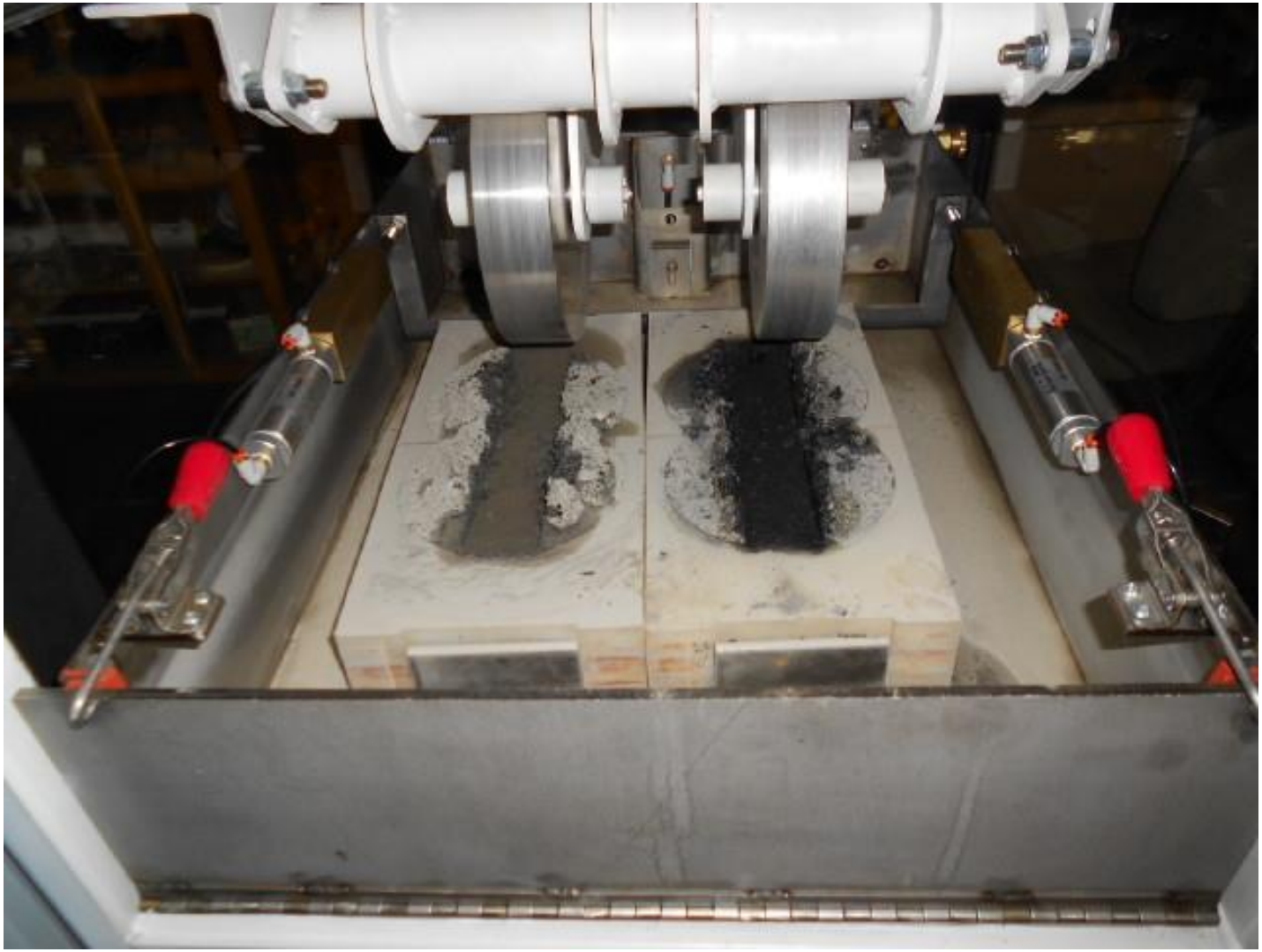
# Hamburg Wheel Tracker Device



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# Future Work

- Using an Asphalt Rubber Gap-Graded (ARGG) mix for the first time this summer in Portland
  - High traffic location in the biggest city in Maine
- Utilizing more polymer-modified binders and processes to enhance durability
- Fog sealing activities to increase
  - Shoulders
  - Some roadway surfaces to seal durability concerns
- Continued use of Ultra-Thin Bonded Wearing course

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# Questions?