2018 PAPA BUS TOUR

Goals, Objectives and Future Direction

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Deputy Secretary of Highway Administration
Topics

- PennDOT Overview
- Collaboration/Partnering
- Asset Management
- County Accreditation
- Secondary Road Improvement Program
  - RoadMaP
  - Rural Commercial Routes
- Reclaimed Asphalt Pavement (RAP)
- High RAP WMA
- Resurface PA
- Quality Control/Quality Assurance
- Extended-Season Paving
- Construction Program
PennDOT Overview

- 40,000 Miles of Roadway
- 25,400 Bridges
- $10.1 Billion Budget
- $2.4+ Billion Annual Construction Contracts Awarded
- 11,500 Employees
- 7,400 Maintenance Employees
- 56 Transit Systems
- 65 Operating Railroads
- 3 Ports
- 130 Public Use Airports
- 10.7 Million Licensed Drivers & ID Holders
- 11.9 Million Registered Vehicles
- 102 Billion Annual Vehicle Miles Traveled
- 2,100 Miles of BicyclePA Routes
Collaboration / Partnering

- Transportation Quality Initiative (TQI)
  - Partnering
  - Steering quality initiatives

- Asphalt Pavement Quality Improvement Committee (APQIC)

- Other Improvement Committees
  - Concrete Pavement Quality Improvement Committee (CPQIC)
  - Aggregate Quality Improvement Committee (AQIC)
Collaboration / Partnering (Continued)

- Future Leaders of Industry (FLI)
- PACA Young Leaders Development Group
- APC Regional Sessions
- PAPA Regional Technical Meetings
- Winter School Efforts (including Industry Day)
- Pennsylvania Association of Asphalt Material Applicators (PAAMA) – QIC
- Slag industry QIC
Asset Management

- Transportation Asset Management Plan (TAMP) approved by FHWA

- Pavement Asset Management System (PAMS)
  - Developing the upgrade to implement by winter, 2018/19

- Bridge Asset Management System (BAMS)
  - PennDOT BAMS calculations, reports, & capabilities - December 2018
  - Web based interface - July 2019

- Performance Metrics – MAP-21
County Accreditation

- Districts presented formal plans in 2017
- 2018 Business plans to speak to progress made
- Assembling a statewide team to aid in these efforts
- Focus on:
  - Winter Maintenance Success
  - Core cyclical Maintenance
  - Productive with remaining capacity
Secondary Road Improvement Program

- Low cost treatments on low volume roads
- Minimum of 2” structure added to roadway

Roadway Criteria
- **Up to 1,500 ADT and up to 75 trucks**
  1. Recycled Asphalt Paving (RAP)
  2. Flexible Base Paving (FB)
  3. High RAP WMA Binder Overlay
- **1,500 to 3,000 ADT and up to 300 trucks**
  1. Recycled Asphalt Paving (RAP)
  2. High RAP WMA Binder Overlay
- **3,000 to 5,000 ADT and up to 750 trucks**
  1. High RAP WMA Binder Overlay
  2. Traditional Warm Mix Asphalt Binder Overlay
RoadMaP

- Funds generated from adjustments to the MLF to support PSP efforts
- Funds distributed by formula
- $16 Million Increase/Year; Total $1 Billion over 10 years
RoadMaP (Continued)

- RAP identification exercise

- Plans will be submitted and approved by the Deputy Secretary of Highway Administration.

- Funding will be loaded into the new 721 program
Rural Commercial Routes

- New Appropriation
  - 5 Year Program
  - $30 Million / FY
  - Additional $50 Million
    FY 18/19 Only
Rural Commercial Routes (Continued)

- Projects will be completed by Dept Force, Contract, or hybrid approach
- Formal plan submission process being developed.
- Funds will be placed in a new appropriation.
Reclaimed Asphalt Pavement (RAP)

- Beneficial Uses
- Plan / Track
- Retainage
  - Quantities
  - Bid Prices
- Policies
## Savings from Creative Approaches

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mileage</th>
<th>Quantity</th>
<th>Unit of Measure</th>
<th>Cost Savings</th>
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<tbody>
<tr>
<td>RAP Paving</td>
<td>94</td>
<td>233,431</td>
<td>Tons</td>
<td>8,543,645</td>
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<td>FB paving</td>
<td>3</td>
<td>6,220</td>
<td>Tons</td>
<td>387,500</td>
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<td>High RAP Binder</td>
<td>130</td>
<td>55,067</td>
<td>Tons</td>
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<td>High RAP Wearing</td>
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<td>FDR</td>
<td>19</td>
<td>211,017</td>
<td>Square Yards</td>
<td>3,869,349</td>
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<td>Cold IN Place</td>
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<td>RAP Base Repair</td>
<td>60</td>
<td>25,229</td>
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<td>RAP Widening</td>
<td>21</td>
<td>27,113</td>
<td>Tons</td>
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<td>Fracturing #8's</td>
<td>292</td>
<td>33,625</td>
<td>Tons</td>
<td>574,901</td>
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<td>Shoulder Backup with RAP</td>
<td>359</td>
<td>111,277</td>
<td>Tons</td>
<td>1,745,055</td>
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<td><strong>Totals</strong></td>
<td>1,069</td>
<td>1,388,897</td>
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<td><strong>$21,214,450</strong></td>
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Reclaimed Asphalt Pavement (RAP)

Amount of RAP Milled from Pavements

- Districts: D1, D2, D3, D4, D5, D6, D8, D9, D10, D11, D12
- Y-axis: Tons
- Data for years 2015, 2016, 2017

Pennsylvania Department of Transportation
Reclaimed Asphalt Pavement (RAP)

Reclaimed Asphalt Pavement (RAP) Usage Trend in HMA & WMA

- **With RAP**
  - 2004: 69.7%
  - 2005: 62.5%
  - 2006: 50.6%
  - 2007: 51.2%
  - 2008: 60.3%
  - 2009: 39.7%
  - 2010: 85.5%
  - 2011: 86.8%
  - 2012: 92.0%
  - 2013: 90.8%
  - 2014: 91.9%
  - 2015: 91.9%
  - 2016: 93.7%

- **Without RAP**
  - 2004: 30.3%
  - 2005: 37.5%
  - 2006: 49.4%
  - 2007: 48.8%
  - 2008: 39.7%
  - 2009: 23.7%
  - 2010: 14.5%
  - 2011: 12.9%
  - 2012: 10.5%
  - 2013: 8.0%
  - 2014: 9.2%
  - 2015: 8.1%
  - 2016: 8.1%
  - 2017: 6.3%
High RAP WMA

- Use Guidelines for 19.0 mm WMA High RAP Mixtures for Low Volume Roadways
  - Worked with PAPA to develop the SSP
  - Developed in support of increased use of RAP
  - SSP was available for immediate use on projects
  - Mix Design Approval and Production
  - Acceptance Sampling and Testing
Gov. Tom Wolf announced a campaign to accelerate repaving work on interstates and fix potholes across PA.

Investments:
- $22.3M – pothole repairs through June 30
- $7M – interstate maintenance projects
- $30M – interstate improvements
- $60M – reinvested in resurfacing
- $62M – interstate preservation projects

17 projects, 255 miles
Resurface PA (Continued)

Pothole Patching - Manual

- April 2018 – 23,000 Tons
- Through mid July – 42,400 Tons
- 2017 – 15,418 Tons
- 2016 – 14,673 Tons
Department Force QC/QA

• The Dept has drafted a Quality Control Program
  – Department Force resurfacing projects

• Implementation
  – Partially implemented July 1, 2018
  – Full implementation spring of 2019
Extended-Season Paving

- 7 Extended-Season Pilot Projects
  - Pilot density averaged 95.1%
  - Results for binder and wearing mixes (after Oct 31) averaged 94.7%
Extended-Season Paving (Continued)

• Clearance Transmittal (step 2)
  – Extension until Nov. 15 for PG 76-22 and >10 million ESALS wearing courses
  – Extension until Dec. 15 and beginning March 1 for all other courses
  – Enhanced QC effort with Spring Inspection
  – Cores could be optional provided technician monitors
       • Dept still has option to take cores
  – Implementation this fall
Construction Program

Target remains $2.4B or more

On track to deliver

For 2018 we anticipate up to 15 projects greater than $20 Million