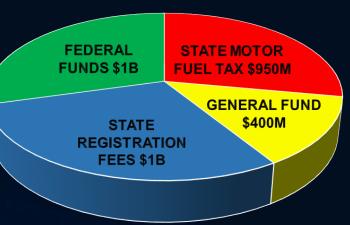
MDOT Perspective

KIRK STEUDLE, P.E., DIRECTOR MARCH 30, 2016



Transportation Funding

- Roads & Bridges are funded with "user fees"
 - Federal funds from federal gas tax: \$1 billion
 - Includes \$250 m to local agencies
 - State motor fuel taxes: \$950 million
 - State vehicle registration fees: \$1 billion
 - FY 15-16 General Fund: \$400 million
 - No state sales tax goes to roads
 - Not even the sales tax on gas



FAST Act Highway Funding to Michigan

| (in millions) | MAP-21 | FAST Act | | | | | |
|---|---------|----------|---------|---------|---------|---------|--|
| | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | |
| Total Apportioned Highway Program Funding | \$1,016 | \$1,068 | \$1,090 | \$1,114 | \$1,139 | \$1,166 | |
| Increase from Prior Year | 0.0% | 5.1% | 2.2% | 2.2% | 2.2% | 2.4% | |

Nationally Significant Freight and Highway Projects: FASTLANE

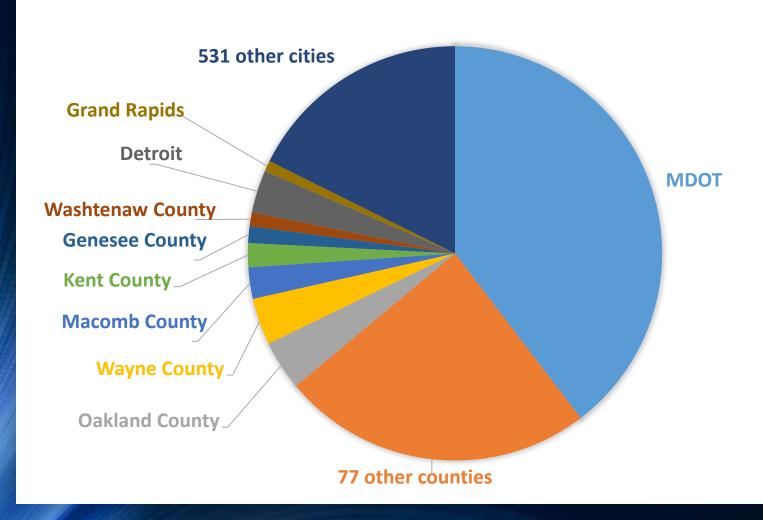
- FASTLANE: Fostering Advancements in Shipping & Transportation for the Long-term Achievement of National Efficiencies
- Projects on the National Highway Freight Network or NHS
- Applications due April 14, 2016, up to 3 per agency
- Projects over \$100 M can receive grants of at least \$25 M;
 Projects under \$100 M can receive grants of at least \$5 M
- MDOT submitting three large project applications on major interstate routes, to complete ongoing projects
 - I-75 in Monroe County
 - I-94 in Jackson
 - I-94 in Kalamazoo

State Revenue Package

- Beginning in January 2017:
 - \$410 M in additional fuel tax revenues
 - Tax on gasoline & diesel fuel rises to 26.3¢ & provides for diesel parity
 - 20% increase in vehicle registration fees totaling \$190 M
- General Funds transferred to transportation & distributed through 3-way Act 51 formula for road agencies:
 - 2019: \$150 M
 - 2020: \$325 M
 - 2021: \$600 M
- Beginning in 2022, fuel tax will be indexed, rising in proportion to increases in Consumer Price Index, or 5%, whichever is less

Distribution of Funding

ROAD DISTRIBUTIONS IN 2021, WITH 8 LARGEST LOCAL AGENCIES

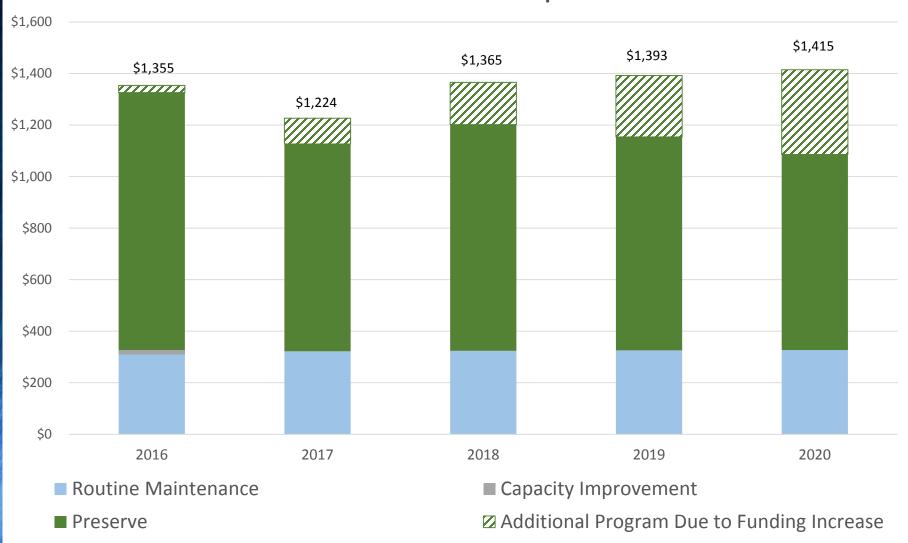


Additional Transportation Revenues to State Trunkline Fund (STF)

| Millions | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|--|---------|---------|---------|---------|
| Additional Fuel & Registration Revenue | \$158 | \$206 | \$207 | \$208 |
| Additional General Fund | \$0 | \$0 | \$59 | \$127 |
| Additional Funds for STF Debt Service | \$7 | \$7 | \$7 | \$7 |
| STF Revenue Package Total | \$165 | \$213 | \$273 | \$342 |
| State Funds Needed to Match Federal Aid | -\$122 | -\$126 | -\$129 | -\$132 |
| Available for Trunkline Program | \$43 | \$87 | \$144 | \$210 |
| Fast Act Increase (MDOT 75%) | \$43 | \$59 | \$77 | \$99 |

Highway Program Investment by Program Category FY 2016 to 2020

Includes New Federal and State Transportation Revenues



Bottom Line

- Now is the time to focus efforts on asset management process
- MDOT is investing almost all new money into concrete, asphalt, & steel



Public Act 175 of 2015

- Requires establishment of MDOT Roads Innovation Task Force (RITF) to produce comprehensive public report with specific requirements:
 - Evaluates road materials & construction methods
 - Focuses on materials that may cost more in upfront spending but produce life-cycle savings
 - Strives to achieve a reduction of at least 50% in net present value 50-year life-cycle costs
 - Focuses on longer-term time frames that maximize value to taxpayers on total cost basis
 - Includes a plan to achieve these targets

Evaluation of Materials & Processes



Vision Statement

MDOT will be recognized as a progressive & innovative agency with an exceptional workforce that inspires public confidence.

Tools Used for Evaluating Materials & Processes

- New Materials Evaluation Procedure
- Pavement Demonstration Program
- Research Findings & Results
- National & International Studies



Longer-Term Time Frames Improvements to HMA Pavements

- Regression of air voids to 3% to get more asphalt in the mixture
- Implemented longitudinal joint density specification
- Only allow fine-graded mixes for top courses
- Use of softer binders for preventive maintenance projects
- Performed HMA Peer Review reviewing recommendations for implementation
 - Acceptance specifications
 - Construction practices
 - Mix design practices

The Future

Infrastructure Committee

 The Commission for Building 21st Century Infrastructure will make recommendations to solve our state's infrastructure challenge

> - Governor Rick Snyder, 2016 State of the State

Autonomous Vehicle Deployment

- M-city
- American Center for Mobility



