MoDOT Asset Management Plan 2022 Summary

MoDOT has adopted an asset management approach to make the best decisions with transportation investments. The goal of the plan is to keep roads and bridges in good condition for as long as possible given current funding levels. The plan also clearly demonstrates the investment level needed in order to maintain the system at its current condition.







Missouri's 33,825 Miles of Roads

MAJOR ROUTES



Major Route System

- 5,554 miles = 16% of System
- Travel total = 75%
- Pavement condition goal = 90% Good
- Current pavement condition = 91% Good

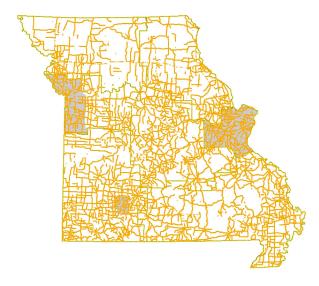
Costs

- \$112,262 /lane mile
- Total yearly pavement cost = \$229 million

Pavement Treatment

- Miles treated per year = 2,036 lane miles
- Treatment cycle = 9 years
- Work done by contractors

MINOR ROUTES



Minor Route System

- 17,848 miles = 50% of System
- Travel total = 23%
- Pavement condition goal = 80% Good*
- Current pavement condition = 82% Good

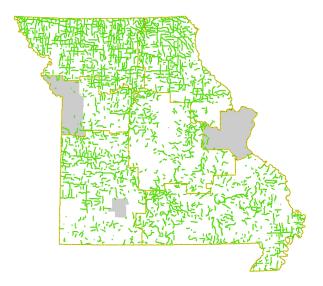
Costs

- \$36,287/lane mile
- Total yearly pavement cost = \$116 million

Pavement Treatment

- Miles treated per year = 3,194 lane miles
- Treatment cycle = 9 years
- Work done by contractors

LOW VOLUME ROUTES



Low Volume Route System

- Maintained by MoDOT Maintenance
- 10,423 miles = 34% of System
- Travel total = 2%
- Pavement condition goal = 70% Good*
- Current pavement condition = 71% Good*

Costs

- Total yearly pavement cost = \$60 million**
- Pavement Treatment by MoDOT Maintenance

*based on current funding levels

** includes \$100 million from the 2022 Governor's Rural Road Program

^{*}based on current funding levels

Typical Bridges (<1,000 feet in length)



Major Bridges (≥1,000 feet in length)



Missouri's 10,387 Bridges

Number of typical bridges: 10,183

- Costs:
 - Replacement = \$299/square foot
 - Redeck = \$150/square foot
 - Preventive Maintenance/Rehabilitation = \$27/square foot
- Total Yearly Cost for Typical Bridges:
 - Replacement = \$92 million
 - Redeck = \$23 million
 - Preventive Maintenance/Rehabilitation = \$51 million
- Treatment Type (% of work by square feet)
 - Replacement = 13%
 - Redeck = 9%
 - Preventive Maintenance/Rehabilitation = 78%

Number of major bridges: 204

- Treatment Type (% of work by dollar amount)
 - Replacement = 56%
 - Repair = 25%
 - Preventive Maintenance = 19%
- Over 100 Major Bridges getting work done over next 10 years
- For more detailed information on Major Bridge work, please visit epg.modot.org/files/9/99/121.5.5_needs.pdf

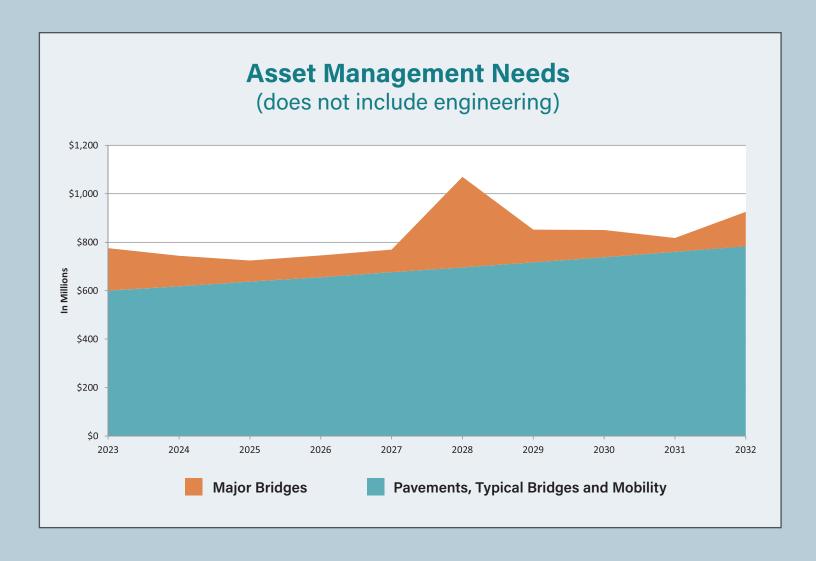
Overall Bridge Goal

- Typical and Major Bridges:< 900 Poor Condition Bridges (at current funding level)
- Currently: 823 Poor Condition Bridges

COSTS (MILLIONS):

| Major Bridge Costs - Inflated | | | | | | | | | | | |
|-------------------------------|-------|------|------|------|-------|-------|------|-------|-------|-------|--------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | Totals |
| NW | 7.3 | 0.0 | 5.1 | 0.0 | 2.5 | 61.5 | 0.0 | 0.0 | 16.1 | 0.0 | 92.5 |
| NE | 0.0 | 0.0 | 3.9 | 0.0 | 0.0 | 0.0 | 13.9 | 0.0 | 67.2 | 0.0 | 85.1 |
| KCR | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 7.1 |
| KCU | 106.1 | 4.8 | 0.0 | 0.0 | 35.8 | 12.9 | 7.6 | 78.3 | 0.0 | 70.6 | 316.1 |
| CD | 19.1 | 8.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.4 |
| SL | 4.2 | 44.8 | 41.6 | 10.6 | 130.1 | 56.1 | 20.0 | 36.1 | 51.3 | 141.8 | 536.5 |
| SWR | 6.9 | 2.1 | 42.8 | 0.0 | 0.0 | 0.7 | 0.0 | 2.9 | 0.0 | 0.0 | 55.4 |
| SWU | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SE | 2.3 | 0.0 | 0.0 | 2.3 | 0.0 | 10.6 | 50.7 | 7.8 | 0.0 | 0.0 | 73.7 |
| Totals | 145.9 | 59.8 | 93.7 | 12.9 | 168.4 | 141.8 | 92.2 | 125.1 | 141.7 | 212.4 | 1193.9 |

Asset Management 10-year funding needs are shown in the figure below. Pavement and Typical Bridge costs are determined for the first year and inflation is applied every year thereafter. Major Bridge costs vary from year to year.



For more information on MoDOT's Asset Management Plan, please visit MoDOT's Engineering Policy Guide at epg.modot.org/index.php/121.5_Asset_Management (EPG 121.5 Asset Management).

