# **MoDOT Asset Management Plan** 2021 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 33,832 Miles of Roads

#### **MAJOR ROUTES**



#### Major Route System

- 5,542 miles = 16% of System
- Travel total = 77%
- Pavement condition goal = 90% Good
- Current pavement condition = 91% Good

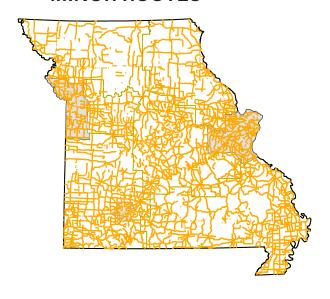
#### Costs

- \$115,986/lane mile
- Total yearly pavement cost = \$222 million

#### Pavement Treatment

- Miles treated per year = 1,910 lane miles
- Treatment cycle = 9 years
- Work done by contractors

#### MINOR ROUTES



#### Minor Route System

- 17,333 miles = 51% of System
- Travel total = 22%
- Pavement condition goal = 80% Good\*
- Current pavement condition = 81% Good

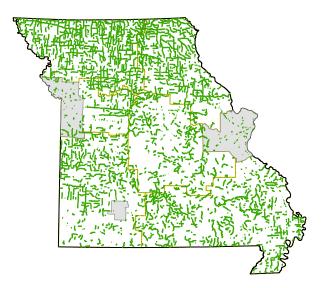
#### Costs

- \$33,796/lane mile
- Total yearly pavement cost = \$103 million

#### Pavement Treatment

- Miles treated per year = 3,051 lane miles
- Treatment cycle = 9 years
- Work done by contractors

#### **LOW VOLUME ROUTES**



#### Low Volume Route System

- Maintained by MoDOT Maintenance
- 10,957 miles = 33% of System
- Travel total = 2%
- Pavement condition goal = 70% Good\*
- Current pavement condition = 70% Good

#### Costs

Total yearly pavement cost = \$36 million

#### Pavement Treatment by MoDOT Maintenance

\*based on current funding levels

<sup>\*</sup>based on current funding levels

#### Typical Bridges (<1,000 feet in length)



#### Major Bridges (≥1,000 feet in length)



## Missouri's 10,397 Bridges

#### Number of typical bridges: 10,188

- Costs:
  - Replacement = \$272/square foot
  - Redeck = \$99/square foot
  - Preventive Maintenance/Rehabilitation = \$31/ square foot
- Total Yearly Cost for Typical Bridges:
  - Replacement = \$87 million
  - Redeck = \$21 million
  - Preventive Maintenance/Rehabilitation = \$46 million
- Treatment Type (% of work by square feet)
  - Replacement = 16%
  - Redeck = 11%
  - Preventive Maintenance/Rehabilitation = 73%

#### Number of major bridges: 209

- Treatment Type (% of work by dollar amount)
  - Replacement = 48%
  - Repair = 50%
  - Preventive maintenance = 2%
- 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

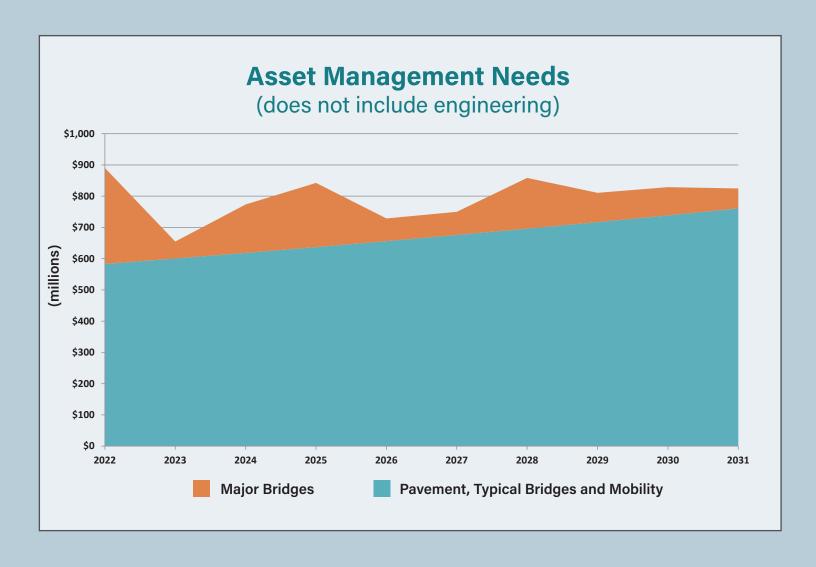
#### **Overall Bridge Goal**

- Typical and Major Bridges:< 900 Poor Condition Bridges (at current funding level)</li>
- Currently: 893 Poor Condition Bridges

### **COSTS (MILLIONS):**

Major Bridge Costs - Inflated											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Totals
NW	\$4.8	\$8.1	\$0.0	\$58.0	\$0.0	\$0.0	\$14.4	\$0.0	\$0.0	\$52.2	\$137.5
NE	\$0.5	\$11.2	\$0.8	\$0.1	\$0.0	\$12.8	\$0.0	\$0.1	\$63.3	\$0.0	\$88.7
KCR	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.3	\$16.8	\$0.0	\$0.0	\$23.2
KCU	\$0.2	\$9.4	\$32.1	\$0.3	\$51.8	\$6.5	\$90.0	\$45.3	\$15.2	\$0.0	\$250.9
CD	\$230.1	\$0.4	\$.05	\$0.0	\$0.0	\$5.0	\$0.0	\$0.1	\$1.5	\$0.0	\$237.6
SL	\$37.5	\$21.5	\$120.7	\$45.3	\$20.2	\$41.3	\$50.8	\$14.0	\$0.5	\$6.0	\$357.6
SWR	\$30.1	\$0.0	\$0.0	\$0.7	\$0.5	\$1.2	\$0.7	\$3.4	\$7.4	\$5.8	\$49.7
SWU	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
SE	\$5.0	\$3.5	\$0.7	\$100.8	\$0.0	\$7.0	\$0.4	\$39.4	\$2.5	\$0.0	\$159.3
Totals	\$308.2	\$54.2	\$154.9	\$205.2	\$72.5	\$73.8	\$162.5	\$119.0	\$90.4	\$64.0	\$1,304.6

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).

