



Blount County, Tennessee Pavement Management Implementation Report

Prepared For:

Blount County, Tennessee
347 Court Street
Maryville, Tennessee 37804

Prepared By:

Applied Pavement Technology, Inc.
115 W Main Street, Suite 400
Urbana, Illinois 61801

December 15, 2022

SUMMARY AND RECOMMENDATIONS

As part of the Knoxville TPO pavement management support project APTEch collected condition data for the Blount County roadway network in 2021. The condition survey found that the County roadway network has an overall area-weighted average PCI of 73 which is in the Satisfactory condition category. The County maintains roads in two main groups (State Aid and non-State Aid) and three functional classifications: collector, local, and subdivision. The local roads make up a majority of the network and have overall average PCIs of 71 and 75 for the non-state aid and state aid segments, respectively. The collector roads make up the smallest percentage of the roadway network and have average PCIs of 65 and 80 for the non-state aid and state aid segments, respectively. We noted that there wasn't a dramatic difference in PCIs among any of the road groups, indicating that funding is well distributed. Maintenance and preservation approaches may extend the performance of these roads cost-effectively, allowing funding to be applied to roads in need of major repairs as needed.

Budget scenario analyses indicated that all road groups are under-funded at current budget levels and will decline in condition over time. A comparison of the current annual funding to the funding required to maintain current conditions is provided in table 1.

Table 1. Blount County funding comparisons.

Road Group	Current Annual Budget	Budget Required to Maintain Current Condition	Difference
Full Network	\$2,600,000	\$8,000,000	-\$5,400,000
State Aid Network	\$600,000	\$2,200,000	-\$1,600,000
Non-State Aid Network	\$2,000,000	\$5,800,000	-\$3,800,000

Another observation from these analyses supports the use of preservation approaches above worst-first repair considerations. In all cases the preservation approach out-performed the worst-first approach. This means that use of preservation practices will result in more efficient and effective use of available funds.

Work plans are produced as an outcome of each budget scenario run in StreetLogix. The work plans provide a list of projects to achieve the scenario result by year. They are available electronically and can be exported from StreetLogix. Instructions for accessing the work needs list for each scenario in StreetLogix are provided in an attachment to this report. The work needs lists may be quite long and are not well suited to inclusion in a report.

The StreetLogix PMS that has been established for the County can be used in future years to perform additional analyses and evaluate different strategies. To do this the County will need to maintain the PMS by periodically updating work history information and collecting updated condition data.