
Appendix III - Road Maintenance Costs

A significant decision factor in the Road Rationalization discussion is cost. The County and LMPs must always consider the cost of annual maintenance, the cost lifecycle renewals, insurance and financial commitments. It will be difficult to make sound, long term decisions without some historical analysis. The more information the County can share on each of the cost considerations, the greater the understanding, and therefore the increased likelihood of success. The County also encourages the LMPs to do the same.

1.1 Annual Cost of Maintenance

The annual cost of typical operation of roadways could include: mowing/brushing, winter control, bridge repairs, crack sealing, traffic signals, signage and streetlighting.

For discussion, analysis and comparison, County of Essex data was used to determine annual costs, and costs per kilometre, using available data from a 10-year period. The County owns approximately 1500 lane km of roadway, 42 traffic signals, 560 streetlights, and 210 bridges/culverts spanning greater than 3.0m. A cost per kilometre was calculated for all basic assets, including bridges/culverts using data presented in Figure 1 and Figure 2.

Table 1 – Operations/Annual Maintenance

Task	Ten Year Average	Average/lane km
Operations and Annual Maintenance	\$6,327,148	\$4,218
Annual Contracted Maintenance	\$596,962	\$397
Annual Cost of Equipment Replacement	\$1,700,000	\$1,133
Total	\$8,624,110	\$5,748

Assuming an average annual cost of \$8,624,110 (Table 1), and for example only, should 10 lane km of road be transferred between municipalities, the expected annual increase in cost would be:

$$10\text{km} \times \$5,748 = \$57,480.$$

With respect to staff requirements, the County of Essex Roads group has a total full-time staff compliment of 39 people, maintaining 1,500 lane km of roadway. The County road network operates at a responsibility rate of 38.6 km/person.

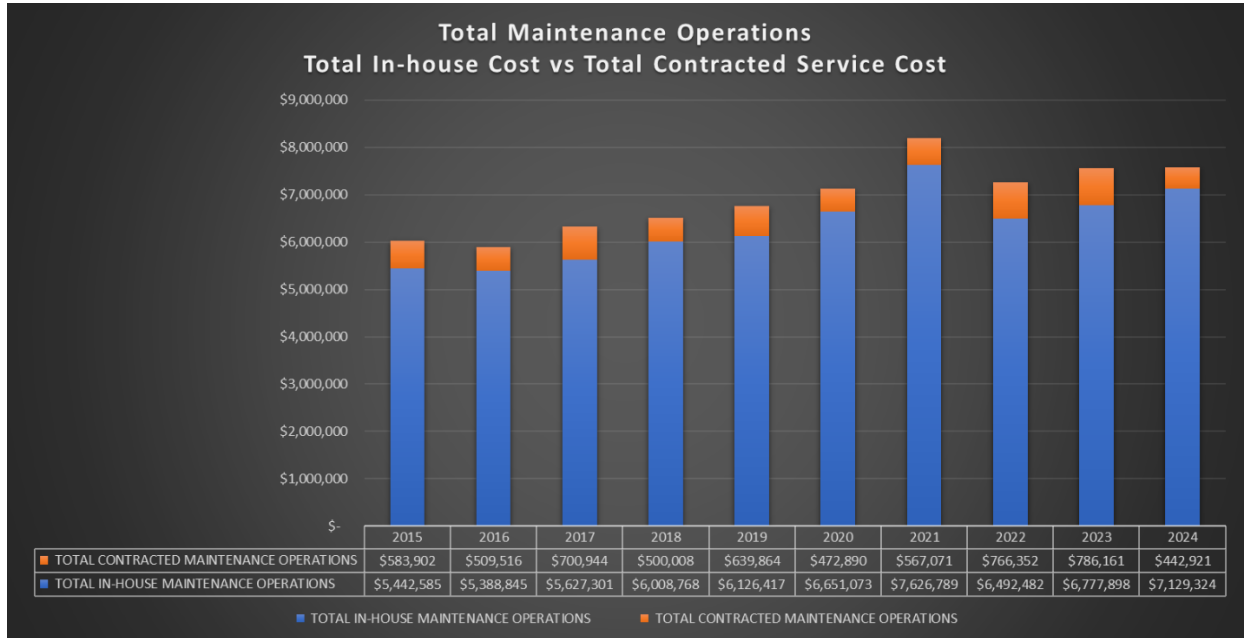


Figure 1 – Trending cost of Maintenance

1.2 Lifecycle Renewals

More significant is the investment in annual expenditures on road and bridge/culvert rehabilitation. In 2024 the County budgeted approximately \$19,665,550 toward the “State of Good Repair” program. The program includes for lifecycle renewals of pavement, bridges and culverts (greater than 3.0m span).

Between 2015 and 2024, \$79,035,775 was spent on paving and recycling operations over approximately 410km. The 10-year average is \$187,867/km, and is shown in Figure 2.

It is very difficult to provide some sort of benchmarking for the cost of bridges/culverts as the rehabilitations are somewhat random. The structures vary in size and location, and further, work ranges from renewal of a few components, or complete replacement.

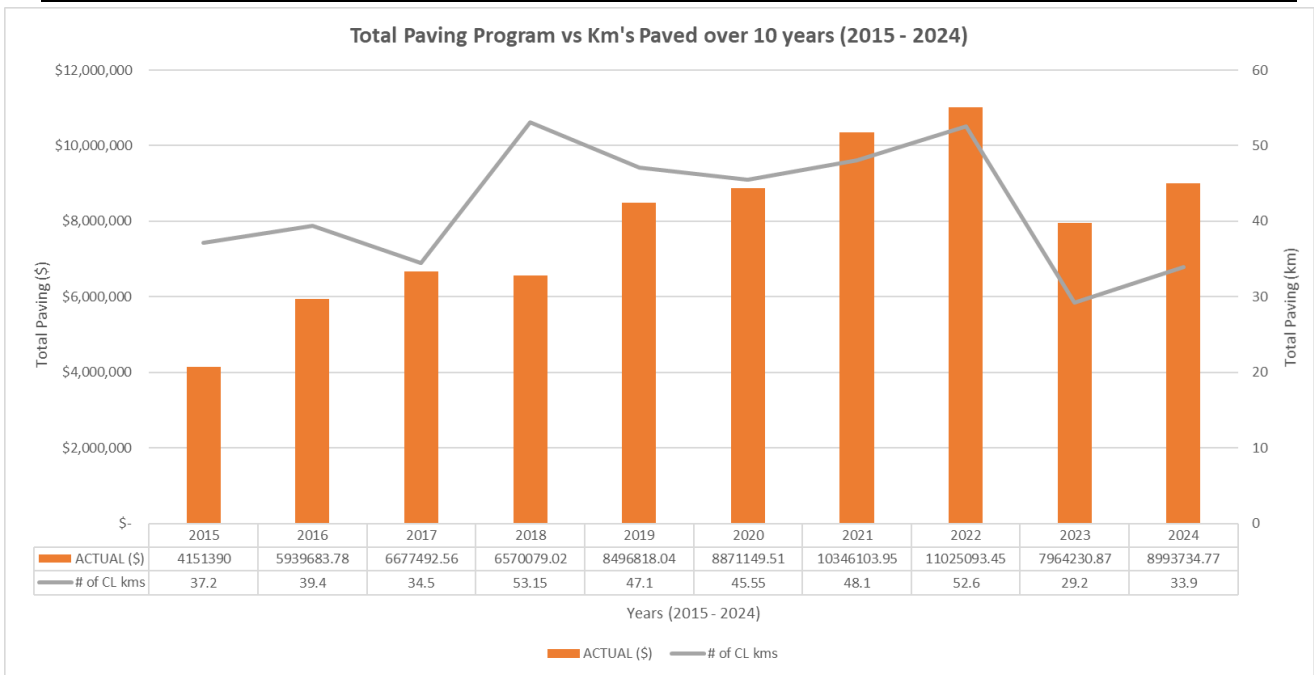


Figure 2

1.3 Insurance Premiums

The County of Essex carries a blanket policy for liability on traffic accidents. No insurance premiums are paid for liabilities resulting from natural disasters and storm events. Reconstruction of roads and bridges after events would be funded from reserves.

It may be reasonable to assume an increase or decrease in the number of road allowances would:

- 1.3.1 Increase or lower a municipality's probability of incurring costs from accident or storm events.
- 1.3.2 Increase or lower a municipality's insurance premiums

1.4 County Levy

The County Levy is legislated by the Province and solely based on weighted property assessment.