



TOWN OF SOMERS

5-YEAR ROAD RESURFACING

PLAN

Proposal

We propose resurfacing approximately 23 miles of primarily local roads and the School and Field Road Park parking lots over five (5) years. This proposal begins by resurfacing 7.40 miles of roads in 2025, estimated at \$1,980,144.00, and continues annually until all 23 miles of roads are complete.

The annual mileage and costs are as follows:

Year	Miles	Cost
2025	7.40	\$1,980,144
2026	3.81	\$1,021,383
2027	3.67	\$1,892,814
2028	3.53	\$1,038,194
2029	<u>3.61</u>	<u>\$1,001,267</u>
	22.02	\$6,933,802

The first year's road resurfacing plan includes the following:

- | | |
|---|--|
| <ul style="list-style-type: none"> • HILL PASTURE RD • BROW HILL RD • PINEDALE RD • WHITE OAK RD • MEADOWBROOK RD • BLUE RIDGE DR • MEADOW LN • GRACIE DR • LOUBIER DR • MCCULLOCH DR • GRANT DR • THERESE DR | <ul style="list-style-type: none"> • WRIGHTS BROOK DR • WHITE BIRCH CIR • RYE HILL CIR • POLO VIEW RD • BRACE RD • LAMPSON DR • HIGHLAND VIEW DR • KENSINGTON CT • ROYAL MANOR • HERON DR • POND CIRCLE • PHEASANT RUN |
|---|--|

The second year's road resurfacing plan includes:

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| <ul style="list-style-type: none"> • SCHNEIDER RD • BRADLEY RD • GRIST MILL TER • ROSEHAVEN RD • MALLARD CIR • BLUNT CIR | <ul style="list-style-type: none"> • NOAH CHAPIN DR • PARSON RD • COLTON RD • MAPLE RIDGE DR • MICHELE DR |
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The third year's road resurfacing plan includes:

- SCHOOL & PARK LOTS
- BITTERSWEET HL
- WINWOOD CIR
- BIRCH HILL RD
- BRADWAY RD
- COOKSVILLE RD
- LOVERS LN
- HANGDOG LN
- ROCKY DUNDEE RD
- DILLENBACK RD
- EAGLEBROOK DR
- GILLETTE LN
- PINE KNOB RD
- BUGBEE LN
- ROBERT ST
- OLMSTED MANOR

The fourth year's road resurfacing plan includes:

- MAPLE ST
- SCHOOL ST
- LOUISE ST
- PATSUN RD
- SALEM DR
- CONCORD TER
- HERITAGE DR
- VASALIE RD
- VISION BLVD

The fifth year's road resurfacing plan includes:

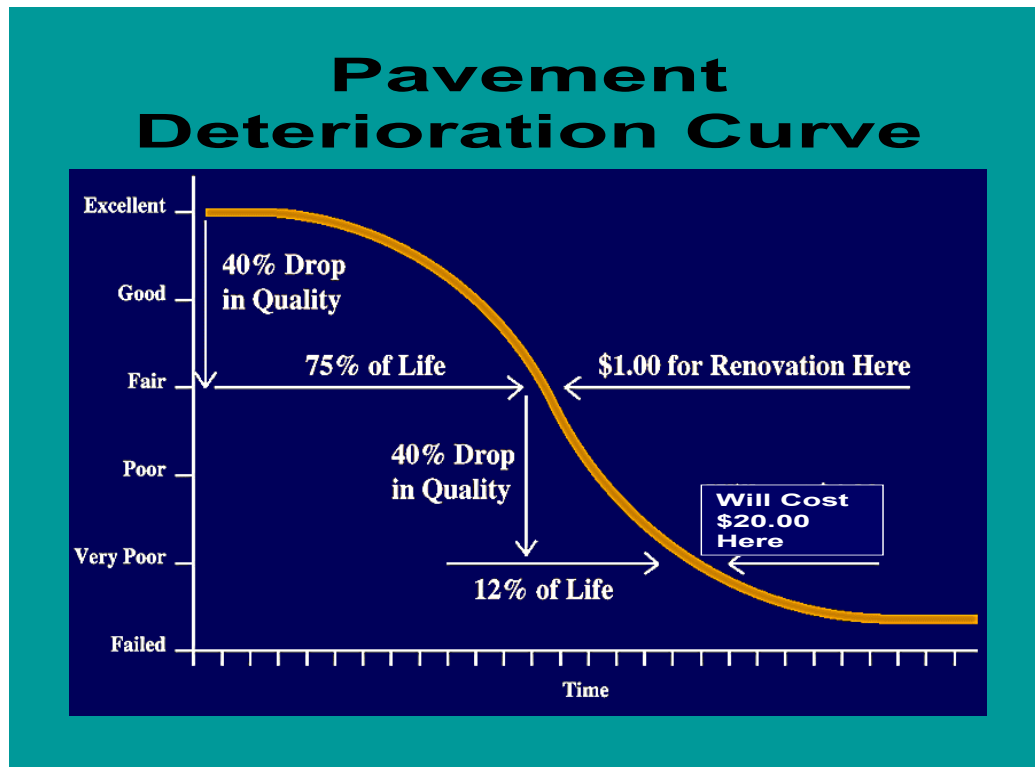
- EGYPT RD
- SUNSHINE FARMS
- LITTLE SORREL LN
- COUNTRY FAIR DR
- MILRIDGE RD
- STILL MEADOW LN
- BLUE RIDGE MOUNTAIN DR
- DENISON RD
- PARKER RD

Theory of Pavement Management

The Road Resurfacing Plan is a significant investment in our community's infrastructure. Pavement management, a cost-effective practice involving pavement repairs and maintenance planning, plays a crucial role. Its primary goal is to maximize the value and lifespan of a pavement network, thereby reducing the overall cost of road maintenance for the community. Understanding the importance of this practice is critical to making informed decisions about the resurfacing proposal.

A community must have several repair techniques and know when to apply them. This is where pavement management comes into play. With a comprehensive database of road conditions, the pavement management software can model when to perform repairs on a road network. Of course, engineering judgment is required to finalize any list of street repairs, as no computer model can take every variable analyzed in making a repair decision into account. The computer system is an excellent springboard to help a community start its repair program each year.

The Pavement Deterioration Curve



Understanding the model of how a street's pavement deteriorates over time is critical. A street starts out in excellent condition when it is newly constructed. Midway through its life, a low-cost repair such as crack sealing and full-depth patch will cost approximately a few dollars per square yard. It takes only a few years for the window of opportunity to perform this low-cost maintenance to pass, after which the road will need reconstruction costing \$20.00+ per square yard. By investing in timely maintenance, we can significantly improve road conditions and extend the life of the road, thereby maximizing the value of our investment.

Repair Strategies

Depending on the condition of the road surface, the condition of the base, the condition of the drainage, and available funding, the community can choose from a range of repair strategies. These include Routine Maintenance, Chip Sealing, Mill and fill (overlay), Reclamation, and Reconstruction. By understanding these strategies, the community can be better prepared to make informed decisions about their road maintenance. Surface treatments such as chip sealing of proper candidate roads typically give five to seven years of useful life, and milling and filling of proper candidate roads typically gives ten to twelve years of useful life.

Process

The Public Works Department contracted with StreetScan, an approved Connecticut Conference of Municipalities (CCM) Road Survey vendor.

StreetScan surveyed our roads in the summer of 2022. The data collected was input into a web-based mapping system (GIS), and each road segment was rated using the Pavement Condition Index (PCI). The PCI is a scale from 0 to 100, with 0 being a total failure and 100 being a newly constructed road.

This data was converted into an Excel file and processed into actionable segments. Each road is rated according to its function class, which ranges from Aerial to Local. The Connecticut Department of Transportation sets function classes. They are based on average daily traffic (ADT) and type of traffic, such as lightweight vehicles (cars) or commercial vehicles (trucks). Somers town roads have function classes from Urban Minor Arterial (highest) to Local (lowest).

We averaged the segments of each road into a PCI for that road. For example, Battle Street had seven segments ranging in PCI from 69 to 79. Once averaged, Battle Street has a PCI of 73.71. We did this because applying different treatments to seven segments of the same road is impractical. These results gave us PCI ratings of 100 to 21 for all town roads.

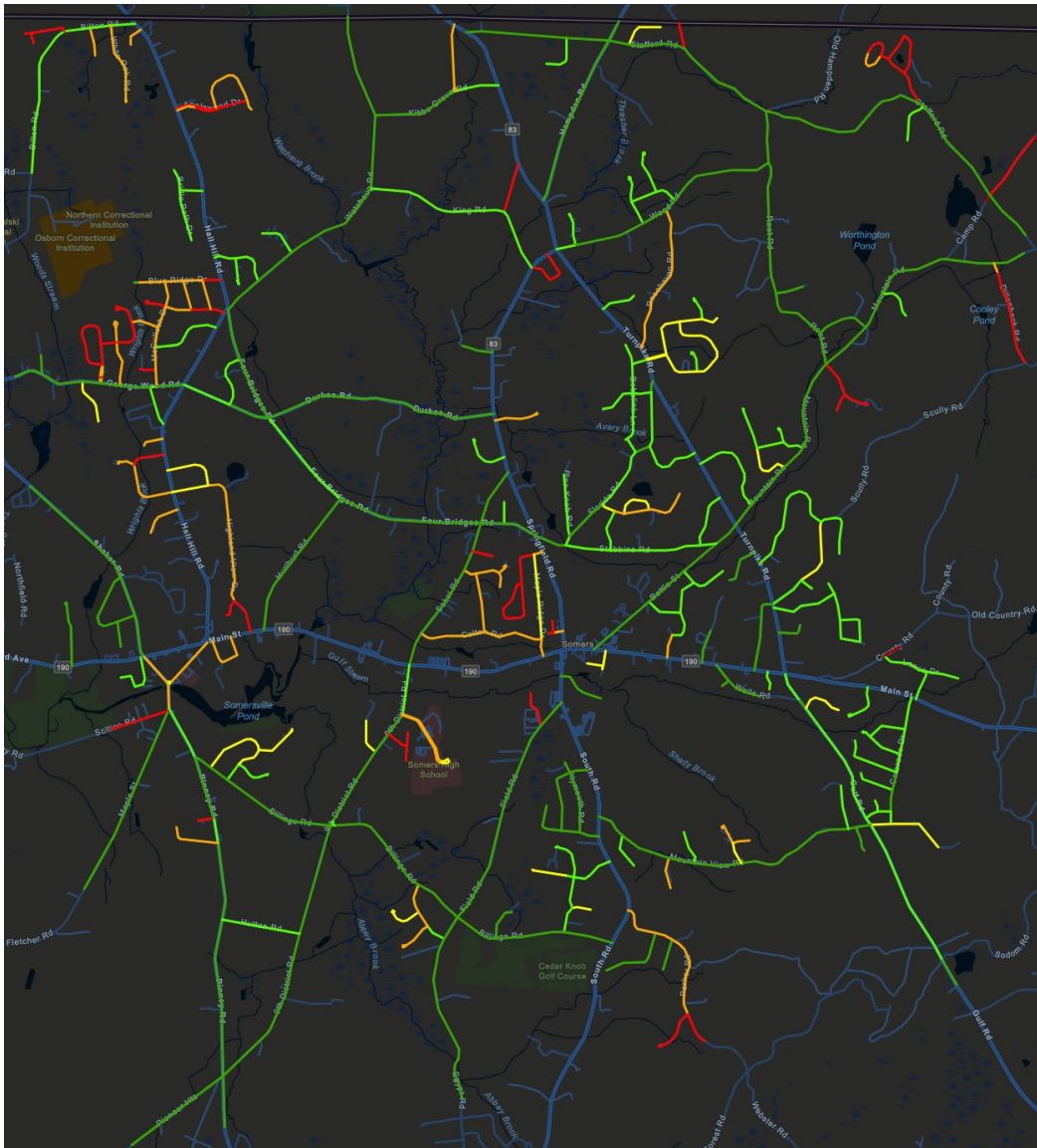
To produce actionable information, we used the results from the road survey and assigned the following levels of service:

- PCI of 88.5 to 100 – Defer Maintenance
- PCI of 68 to 88.5 - Crack Seal/Chip Seal
- PCI of 45 to 68 - Mill & Fill
- PCI of 30 to 45 - Reclamation
- PCI of 0 to 30 - Reconstruction

We then applied cost estimates from the current state bid for road repair, resulting in a cost estimate of \$6,047,554.00 to resurface all local town roads.

In 2018-2019, the voters passed a road bond. This funding and state and local funding allowed us to resurface 50 of our 90 miles of roads.

The remaining roads that need resurfacing are the focus of this proposal.



Summary

We respectfully request funding in the approximate amount of Seven Million dollars over five years to resurface local roads and School and Park lots.

Respectfully,

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