## Road Maintenance

## A Planned Network Strategy of Maintaining Pavements in Good Condition to Maximize their Useful Life as Cost Effectively as Possible.

To accomplish this goal, the Town should be maintaining 10 miles of shoulders and ditches per year. Part of this is being able to maintain our road shoulders and ditches to keep the water away from the road base. For this to be possible the town is proposing to purchase an excavator to clear and regrade ditches as necessary.

As you have most likely noticed, several of our roads are badly in need of repaving, as they were last paved over 10 years ago and some of our roads do not have the recommended 3.25 inches of pavement. The road pavement standard is 2 inches of base pavement and 1.25 inches of surface pavement. However, in the past, Bowdoinham opted to only complete the base pavement.

To address the Town's current state of roads, we have created an aggressive -year road plan to catch up on our road maintenance. Our goal is to implement a pavement preservation road plan in the future.

Progressive Pavement Management


The Town of Bowdoinham is responsible for about 30 miles of roads. If the Town wants to maintain a 10-year maintenance plan, the Town should be paving 3 miles of road per year.

To pay for this paving, the Town will need to raise $\$ 300,000$ to $\$ 400,000$ per year to pave 3 miles of roads a year. If the Town had to borrow this funding every year, we would add $\$ 45,000$ in annual debt payments per $\$ 350,000$ bond and pay $\$ 100,000$ in interest. This would ultimately add $\$ 450,000$ to the Town's annual debt service payment: year $1-\$ 45,000$, year $2-\$ 90,000$, year 3 - $\$ 135,000$, year $4-\$ 180,000$, year $5-\$ 225,000$, year 6 - $\$ 270,000$, year $7-\$ 315,000$, year $8-\$ 360,000$, year $9-\$ 405,000$, year $10+$ - $\$ 450,000$.

Instead of borrowing, we're recommending that the Town include $\$ 350,000$ per year for road maintenance in its operating budget. This would save the Town approximately $\$ 100,000$ in interest per bond and $\$ 450,000$ per year in the operating budget long term, greatly reducing interest expense and ultimately helping to control resident taxes.
ten year road maintenance plan

| Road Name | Length <br> (miles) | Estimated <br> Cost | Year <br> Scheduled | Work Proposed |
| :--- | :---: | :---: | :---: | :---: |
|  | 0.4 | $\$ 50,000$ | 2023 | Surface Coat |
| Cemetery Road | 0.4 | $\$ 50,000$ | 2023 | Surface Coat |
| Center St | 0.2 | $\$ 20,000$ | 2023 | Surface Coat |
| Ridge Road - 1 | 2 | $\$ 140,000$ | 2023 | $1 / 4$ Width Shim (Rutting) |
| Ridge Road - 4 | 2 | $\$ 140,000$ | 2023 | $1 / 4$ Width Shim (Rutting) |
| Browns Point -1 | 1.8 | $\$ 130,000$ | 2023 | $1 / 4$ Width Shim (Rutting) |
| Fisher Road | 0.2 | $\$ 50,000$ | 2023 | Base Pave |
| Dingley Road - 2 |  | $\$ 87,000$ |  |  |
| 15\% Contingency |  | $\$ 10,000$ |  | Project Bidding \& Construction <br> Administration |
| Engineering | FY23 Total | 4 | $\$ 677,000$ |  |
|  |  |  |  |  |
|  | 2.4 | $\$ 310,000$ | 2024 |  |
| Shoulders |  |  |  |  |


| Dinsmore Cross Road | 0.3 | \$50,000 | 3/4" Full Width Shim |
| :---: | :---: | :---: | :---: |
| 15\% Contingency |  | \$60,000 |  |
| Engineering |  | \$10,000 | $\begin{gathered} \hline \text { Project Bidding \& Construction } \\ \text { Administration } \\ \hline \end{gathered}$ |
| FY27 Total | 3.7 | \$470,000 |  |
|  |  |  |  |
| Ridge Road - 2 \& 3 | 4 | \$400,000 | 3/4" Full Width Shim |
| 15\% Contingency |  | \$60,000 |  |
| Engineering |  | \$10,000 | Project Bidding \& Construction Administration |
| FY28 Total | 4 | \$470,000 |  |
|  |  |  |  |
| Millay Road | 3 | \$300,000 | 3/4" Full Width Shim |
| Back Hill Road | 0.1 | \$150,000 | Reconstruct |
| School Street | 0.1 | \$150,000 | 3/4" Full Width Shim \& Stormwater Infrastructure |
| 15\% Contingency |  | \$90,000 |  |
| Engineering |  | \$10,000 | Project Bidding \& Construction <br> Administration |
| FY29 Total | 3.2 | \$700,000 |  |
|  |  |  |  |
| Church Street | 0.05 | \$20,000 | 3/4" Full Width Shim |
| Lucas Lane | 0.15 | \$25,000 | 3/4" Full Width Shim OR Chip |
| Preble Road | 0.4 | \$60,000 | 3/4" Full Width Shim |
| Spear Drive | 0.2 | \$30,000 | 3/4" Full Width Shim OR Chip Seal |
| Wildes Road | 0.8 | \$35,000 | Chip Seal |
| Abagadasset Road | 1 | \$35,000 | Chip Seal |
| Carding Machine Road | 3.8 | \$200,000 | Chip Seal |
| 15\% Contingency |  | \$60,750 |  |
| Engineering |  | \$10,000 | Project Bidding \& Construction Administration |
| FY30 Total | 5.8 | \$475,750 |  |



## Asphalt Deterioration Curve

Applying the Right Treatment, to the Right Road, at the Right Time...


