

12/8/2021 Public Works Commission Meeting



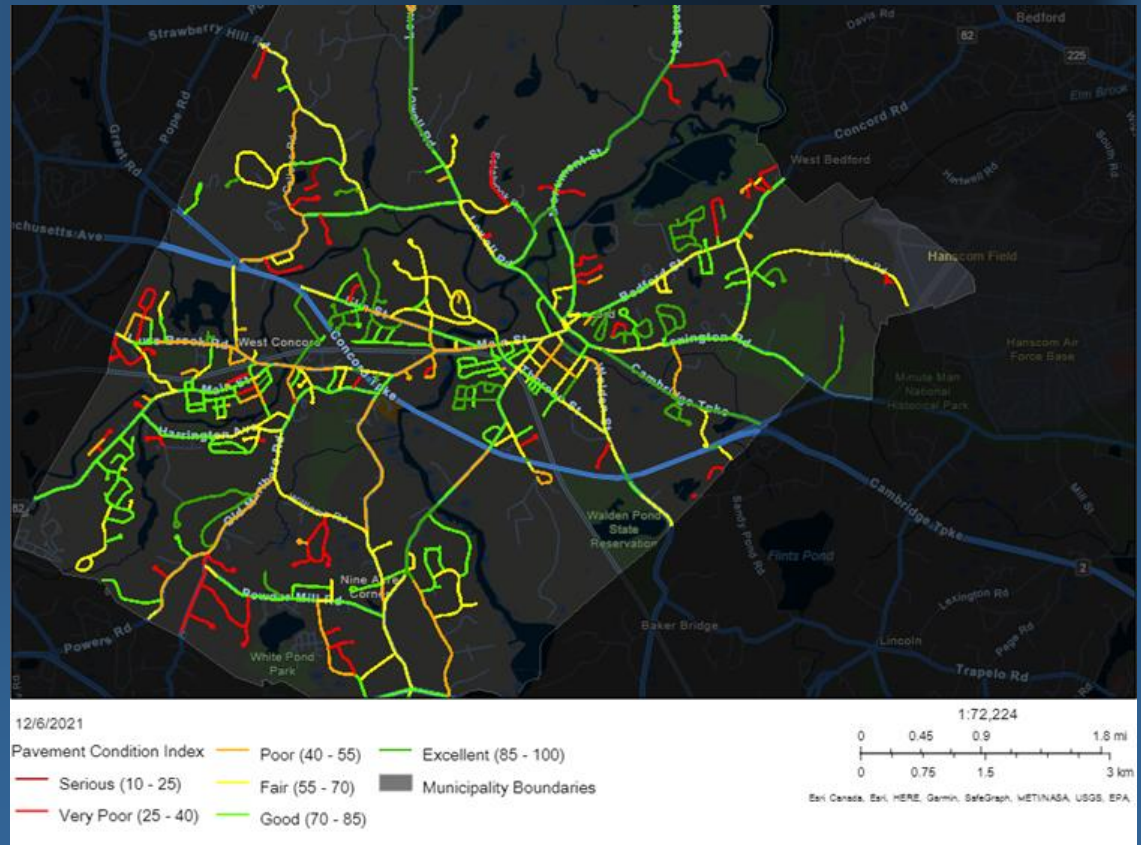
Roads Program Update

Steve Dookran, P.E.
Town Engineer

Stephane Cherduville
Public Works Engineer
Project Manager

Concord Public Works
133 Keyes Road
Concord, MA 01742

Telephone: (978) 318-3210

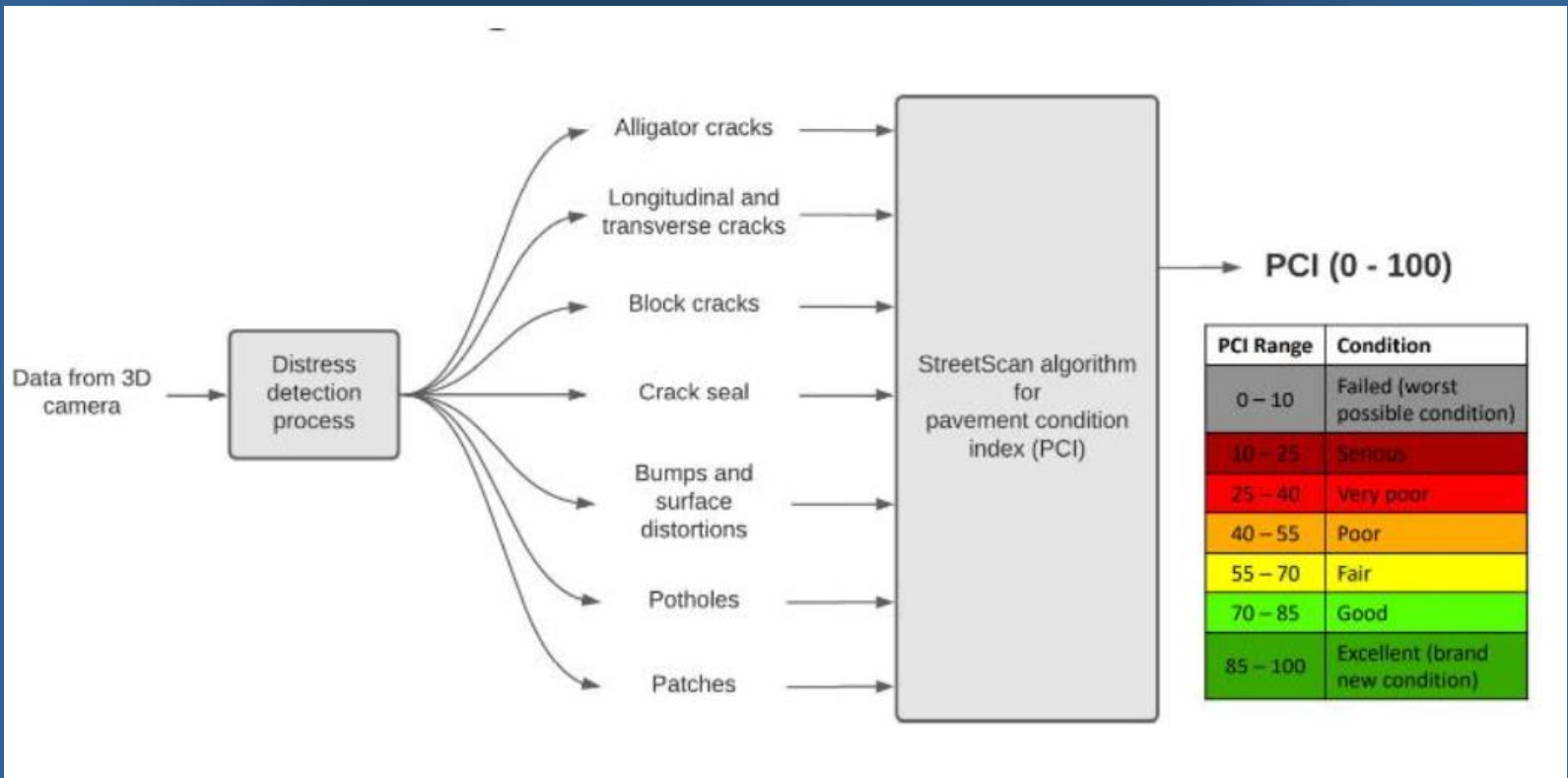




Topics

1. Pavement Condition Survey Results
2. Preservation Techniques
3. Strategies & Goals of Multi-year Program

StreetScan's Road Survey: Pavement Condition Index (PCI)



- PCI is a ranking assessment of the health of the pavement on a scale of 0 (worst) to 100 (best)
- 2018 Average 78.4 for Public Streets
- 2021 Average 66 for Public Streets

Road Network Inventory By StreetScan



108 Miles – Public

37.7 Miles Arterials

8.5 Miles Collectors

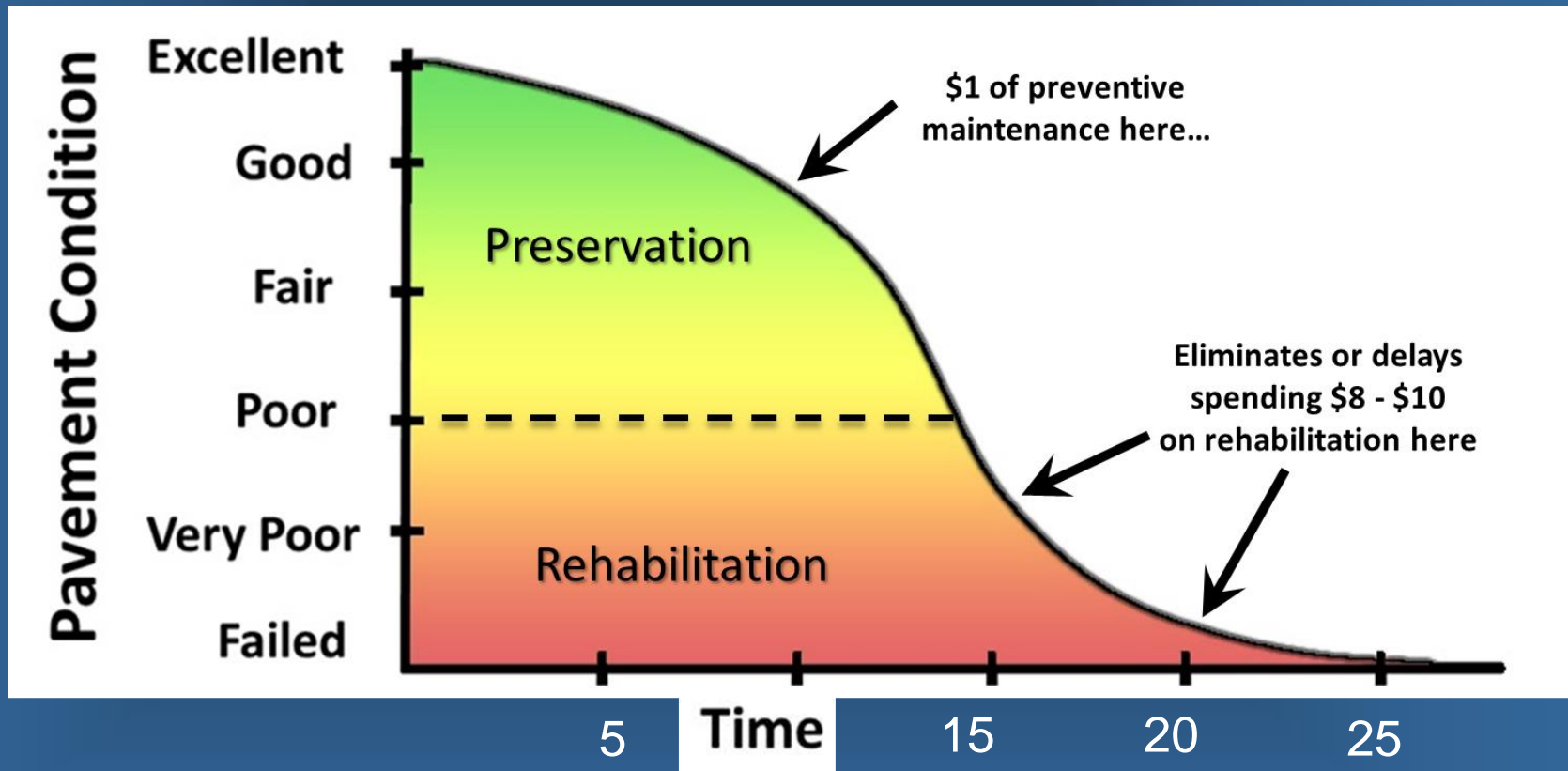
62.4 Miles Local Roads

~25 Miles – Private

Pavement Condition Deterioration Curve

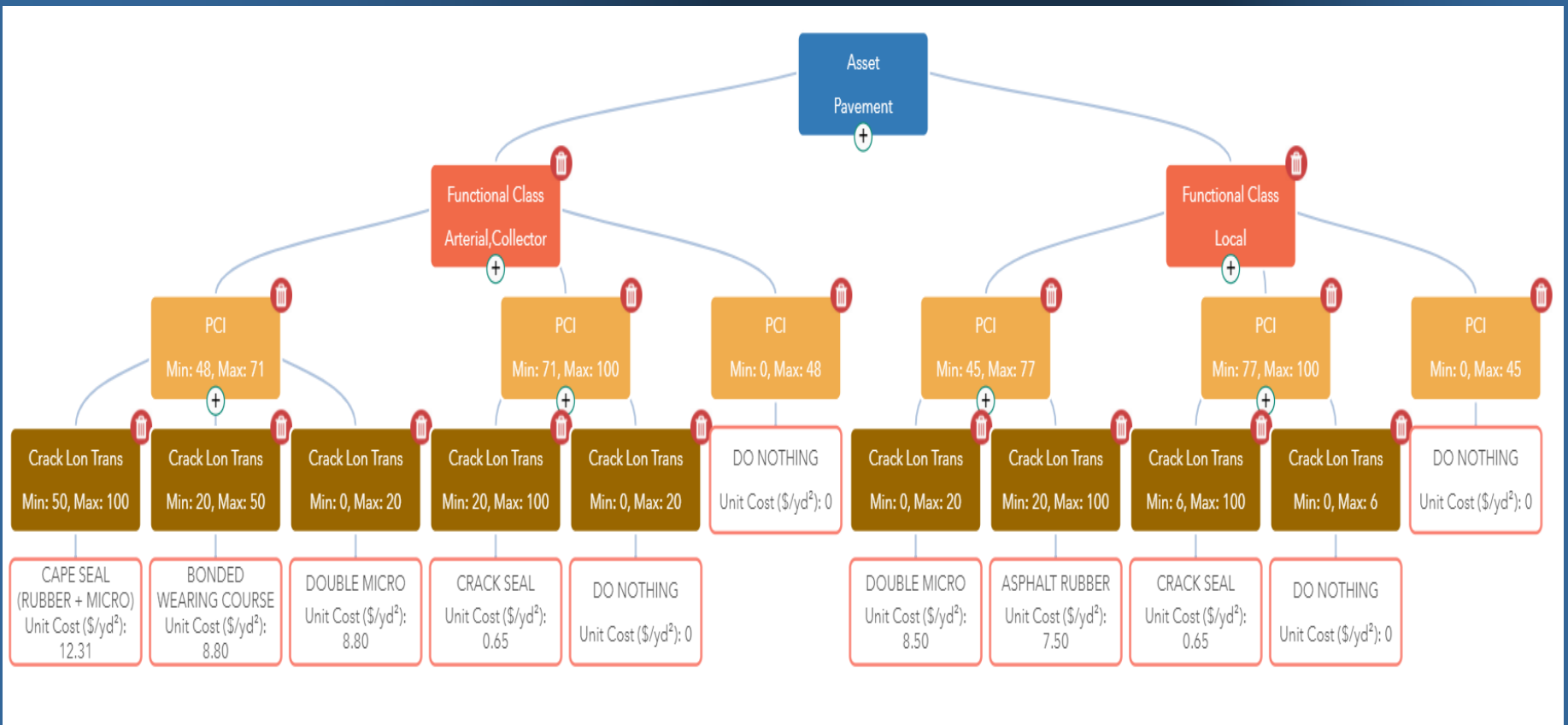


- 20-Year Life (Residential)
- Average PCI = 66 (2021) - Fair

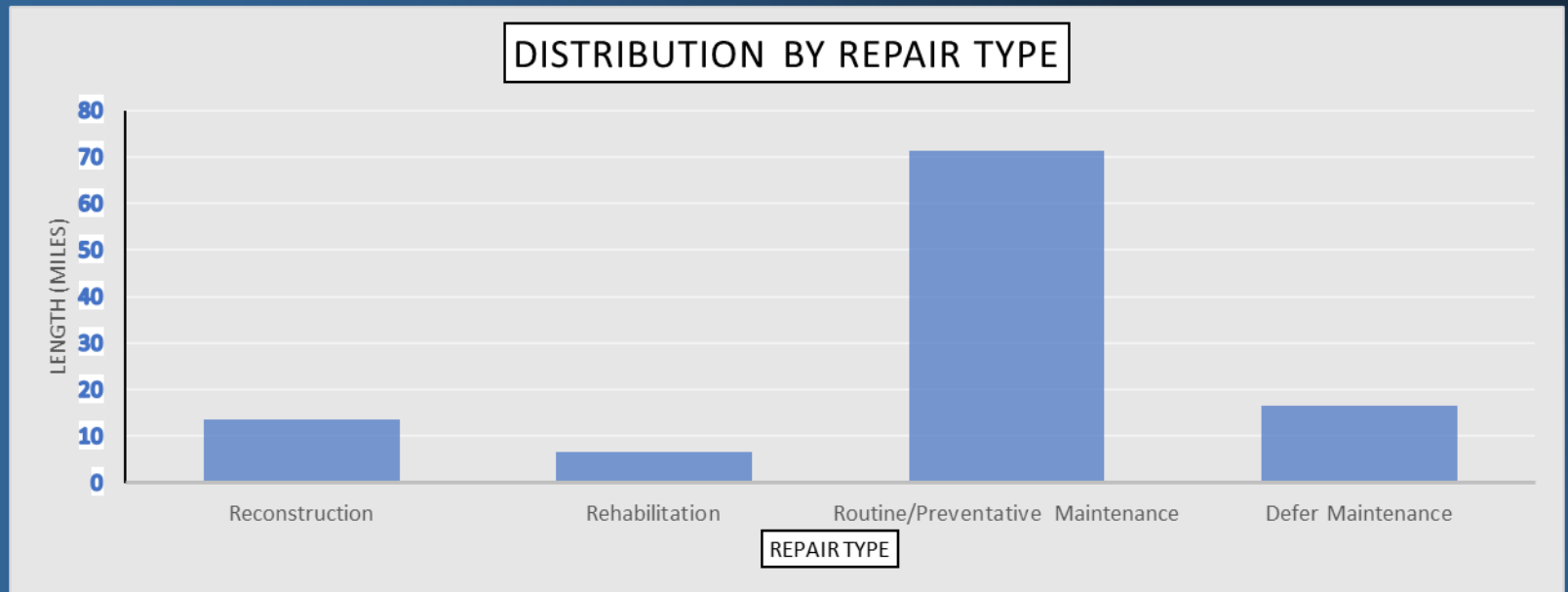


2021 Survey Results are 12.4 pts Lower than 2018 Survey

DECISION TREE MATRIX



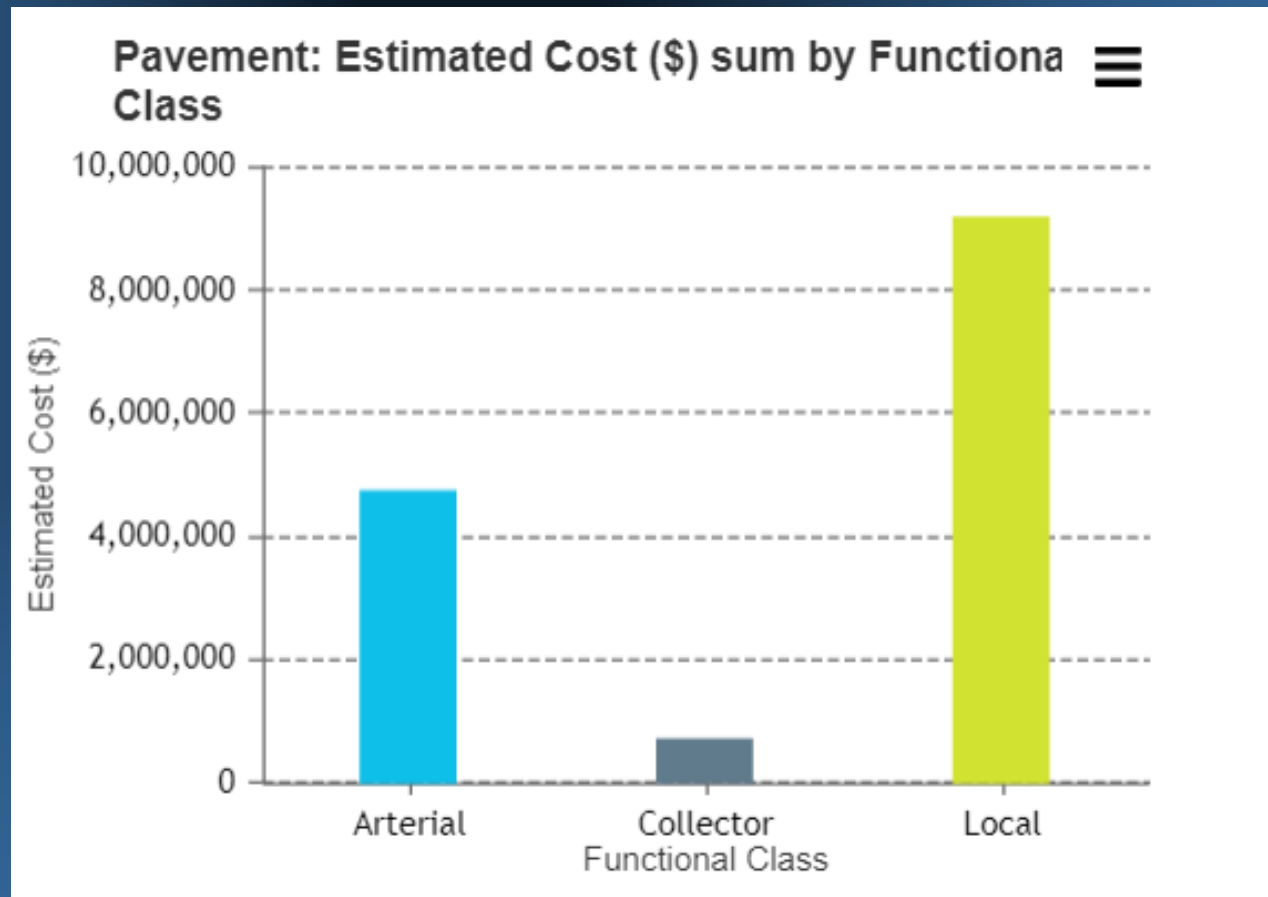
MAINTENANCE & REPAIR NEEDS



Reconstruction Type	PCI RANGE	Description	Cost
Defair Maintenenance	>90	DO NOTHING	\$0
Routine Maintenance	71 - 90	Crack Seal - Fog Seal	\$ 0.50 - \$ 1.50
Preventative Maintenance	48 - 71	Micro- Bonded Wearing Course- Asphalt Rubber - Cape Seal	\$ 8 - \$ 13
Rehabilitation	40 - 48	Mill & Overlay - Overlay	\$ 18 - \$21
Reconstruction	0 - 40	FDR - CIR	\$ 29 - \$ 44



NETWORK \$ BACKLOG

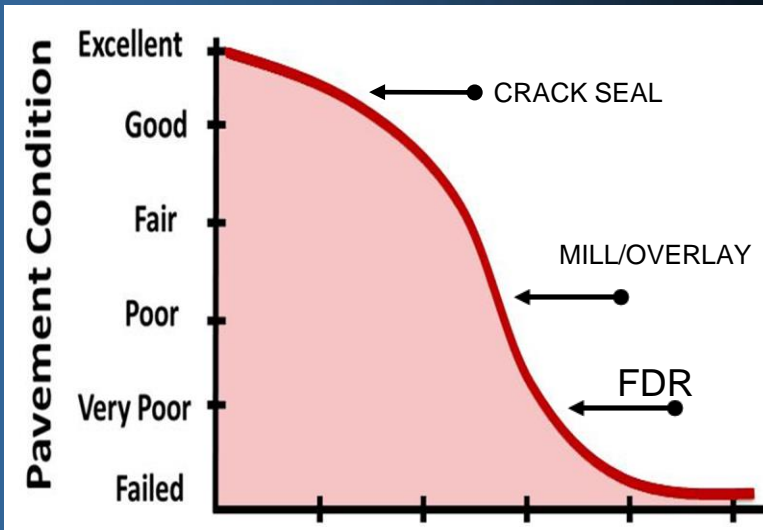


Backlog Cost: \$ 14,711,000

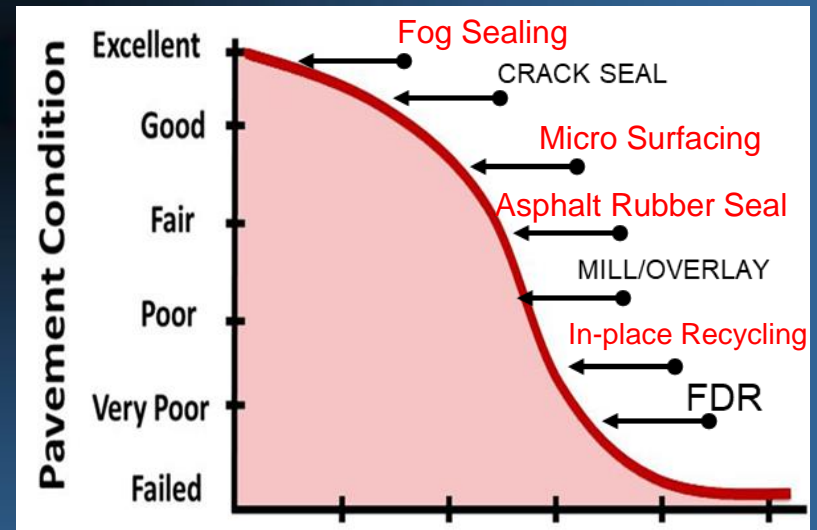


Pavement Management – Preserve with Alternative Treatments

CURRENT TOWN PRACTICES

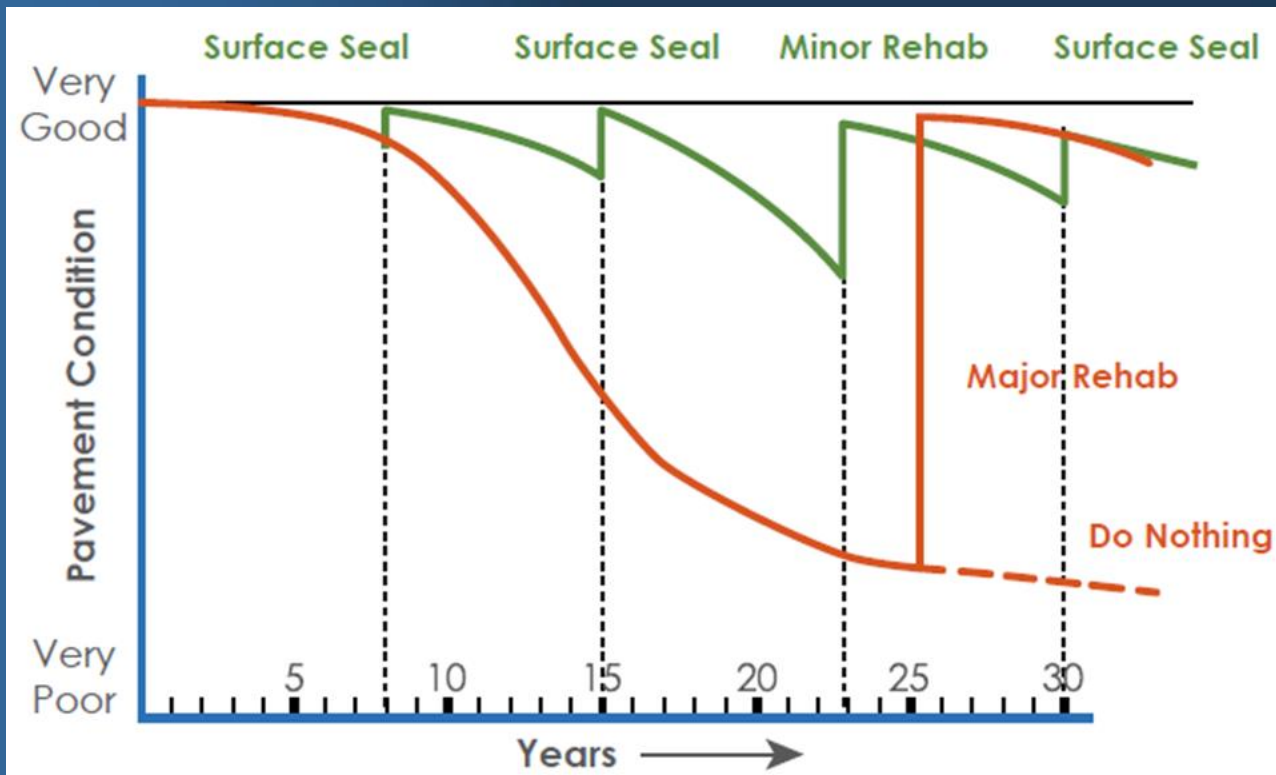


SHIFT TOWARDS PRESERVATION STARTING IN 2022 WITH TRIAL RUN





Preserve with Alternative Treatments – Keep PCI at Higher Level Throughout Life



Preservation

Fog Seal

Crack Seal

Micro Surfacing

Asphalt Rubber

Cape Seal

Bonded Wearing Course



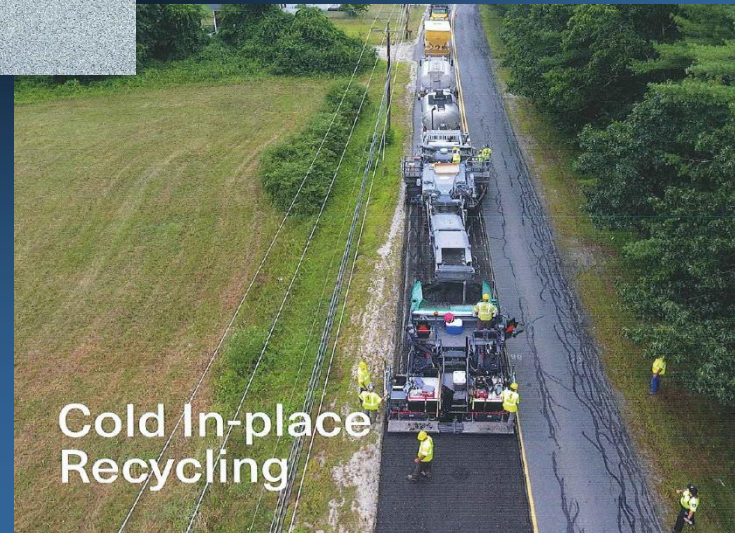
Pavement Management – Benefits of Alternative Treatments



Cape
Seal



Micro
Surfacing



Cold In-place
Recycling

Benefits:

- Enable you to be Proactive
- Keep complaints down
- Less Expensive than traditional Reconstruction Techniques
- Less Impact for Abutters



Asphalt Treatments Cost Comparison

Traditional vs Alternative/Preservation

<i>Asphalt Treatments</i>				
<i><u>Arterial/Collector/Local</u></i>	Life extension (years)	Equivalent Annual Cost \$/SY/Year	Total Cost/SY	Total Value (\$/Mile)
FDR + 5.5" asphalt (Arterial/ Collector)	20	\$ 1.74	\$ 43.45	\$ 611,776.00
Major Mill + Fill 3.5" asphalt	15	\$ 1.47	\$ 27.65	\$ 389,312.00
CIR + 3.5" asphalt (Arterial/Collector)	20	\$ 1.46	\$ 36.40	\$ 512,512.00
Minor Mill + Fill (2" asphalt)	11	\$ 1.29	\$ 16.26	\$ 228,954.88
CIR + Double Micro	15	\$ 1.23	\$ 23.13	\$ 325,600.00
CIR + 1.5" asphalt (Local)	15	\$ 1.23	\$ 23.10	\$ 325,248.00
FDR + 3.5" asphalt (Local)	20	\$ 1.21	\$ 30.15	\$ 424,512.00
2" overlay	10	\$ 1.06	\$ 12.24	\$ 172,282.88
Double Micro	8	\$ 1.00	\$ 8.80	\$ 123,904.00
Cape Seal (Rubber + Micro)	12	\$ 0.93	\$ 12.88	\$ 181,350.40
Cape Seal Traditional (Chip seal + Micro)	10	\$ 0.93	\$ 10.18	\$ 143,264.00
Bounded Wearing Course	10	\$ 0.80	\$ 8.80	\$ 123,904.00
Fog seal	2	\$ 0.75	\$ 1.50	\$ 21,120.00
1.5" overlay	11	\$ 0.73	\$ 8.78	\$ 123,594.24
Rubber Asphalt SAM	10	\$ 0.56	\$ 6.11	\$ 85,958.40
Crack seal	3	\$ 0.22	\$ 0.65	\$ 9,152.00

Updated Summer 2021

Cost are per Mile of Road; Assuming a 24 foot width

Pavement Management Program 2022

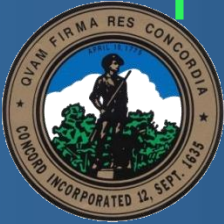


Reconstruction/Rehab. Program: 4.8 Miles of Road

Street Name	From Street Name	To Street Name	PCI	Maintenance Suggestion	Estimated Cost (\$)
Alford Ci	Mattison Dr	Cul-De-Sac Loop	39	RECONSTRUCTION	\$ 62,461.00
Autumn Ln	Lincoln Townline	Cul-De-Sac Loop	40	RECONSTRUCTION	\$ 82,200.00
Ayrshire Ln	Mattison Dr	Cul-De-Sac Loop	31	RECONSTRUCTION	\$ 73,075.00
Bradford St	Commonwealth Av	Dead End	45	MILL AND FILL	\$ 35,165.00
College Rd	Annursac Hill	Barretts Mill Rd	44	MILL AND FILL	\$ 84,609.00
Commonwealth Av	Main St	Laws Brook Rd	48	MILL AND FILL	\$ 170,766.00
Coolidge Rd	Main St	Oak Rd	41	MILL AND FILL	\$ 45,207.00
Davis Ct	Bedford St	Dead End	42	MILL AND FILL	\$ 23,077.00
Florio Dr	Main St	Cul-De-Sac Loop	43	MILL AND FILL	\$ 31,409.00
Hildreth Ln	Lowell Rd	Cul-De-Sac	42	MILL AND FILL	\$ 25,363.00
Macmillan Dr	Mattison Dr	Cul-De-Sac Loop	41	MILL AND FILL	\$ 31,387.00
Mattison Dr	Williams Rd	Mattison Dr	40	RECONSTRUCTION	\$ 362,691.00
Old Mill Rd	Harrington Av	Range Rd	35	RECONSTRUCTION	\$ 30,130.00
Pine St	Main St	Cold Seam	45	MILL AND FILL	\$ 57,558.00
Plainfield Rd	Powder Mill Rd	Anson Rd	44	MILL AND FILL	\$ 143,990.00
Stacey Cir	Old Mill Rd	Cul-De-Sac Loop	40	RECONSTRUCTION	\$ 77,694.00
Turning Mill Rd	Monument St	Silver Hill Rd	26	RECONSTRUCTION	\$ 75,775.00
Winthrop St	Commonwealth Av	End	44	MILL AND FILL	\$ 19,944.00
Alden Rd	Plainfield Rd	Cul-De-Sac Loop	38	RECONSTRUCTION	\$ 107,077.00
Anson Rd	Alden Rd	Plainfield Rd	35	RECONSTRUCTION	\$ 126,365.00
Raymond Rd	Plainfield Rd	Cul-De-Sac Loop	34	RECONSTRUCTION	\$ 73,818.00

* Traditional Maintenance Suggestion May Vary due to Field Condition & Lab Sample Results

Pavement Management Program 2022



Preservation Technique Program: 3 Miles of Road

Street Name	From Street Name	To Street Name	PCI	Maintenance Suggestion	Estimated Cost (\$)
Annursnac Hill	College Rd	Annursnac Hill	67	ASPHALT RUBBER	\$ 112,927.00
Annursnac Hill	Strawberry Hill Rd	College Rd	71	ASPHALT RUBBER	\$ 42,298.00
Farmer'S Cliff	Lowell Rd	Cul-De-Sac	64	ASPHALT RUBBER	\$ 33,007.00
Dalton Rd	Old Bedford Rd	Cul-De-Sac Loop	77	DOUBLE MICRO	\$ 24,976.00
Meriam Rd	Old Bedford Rd	675' W Of Old Bedford Rd	77	DOUBLE MICRO	\$ 14,854.00
Meriam Rd	675' W Of Old Bedford Rd	Dead End	75	DOUBLE MICRO	\$ 7,173.00
Prairie St	Dead End	Chase Rd	76	DOUBLE MICRO	\$ 10,198.00
Prairie St	Main St	Brown St	76	DOUBLE MICRO	\$ 38,993.00
Wright Rd	First Loop	Cul-De-Sac	69	DOUBLE MICRO	\$ 29,580.00
Wright Rd	Laws Brook Rd	First Cul-De-Sac Loop	73	DOUBLE MICRO	\$ 24,848.00

Crack Seal: Various Locations (11.2 Miles of Road)

Fog Seal: Various Location (4.9 Miles of Road)



Goal: Comprehensive Roads Program FY-23 & Beyond

Reconstruct Road Base and Pave Full Thickness

- Redesign for Drainage
- Redesign for Traffic Improvements
- Improve/Add Sidewalks and Crosswalks
- Provide Stormwater Improvements

Utility Project Coordination

- Schedule Flexibility - Utilities have longer life cycles
- \$ Efficiencies - Utilities Piggy Back (cost sharing)
- Integration - Utilities incentivized to share Long Term Capital Plans
- Predictability - Can make project 2-3 year schedule (Design thru Construction)

Consultant Design



2023 Roads Program Traditional & Preservation

Reconstruction List

Assabet Av	Barretts Mill Road	Cul de Sac Loop	34	RECONSTRUCTION	\$ 142,557.00	2
Black Duck Rd	Mallard Dr	Cul-De-Sac	34	RECONSTRUCTION	\$ 45,195.00	2
Brister'S Hill	Walden St	Cul-De-Sac Loop	34	RECONSTRUCTION	\$ 109,137.00	2
Butternut Ci	Old Bedford Rd	Cul-De-Sac	28	RECONSTRUCTION	\$ 74,259.00	2
Coburn Hill Rd	Elm St	Adams Rd	34	RECONSTRUCTION	\$ 76,483.00	2
Commonwealth Av	Laws Brook Rd	Bridge	46	MILL AND FILL	\$ 18,263.00	2
Fox Ln	Butternut Ci	Minot Rd	62	RECONSTRUCTION	\$ 24,070.20	2
Lanes End	College Rd	Cul-De-Sac Loop	36	RECONSTRUCTION	\$ 123,687.00	2
Lee Dr	Barrett'S Mill Rd	Cul-De-Sac Loop	38	RECONSTRUCTION	\$ 138,172.00	2
Mallard Dr	Butternut Ci	Cul-De-Sac	46	RECONSTRUCTION	\$ 47,031.60	2
Minot Rd	Old Bedford Rd	Cul-De-Sac	31	RECONSTRUCTION	\$ 130,630.00	2
Oak Hill Ci	Shagbark Rd	Oak Hill Ci	39	RECONSTRUCTION	\$ 221,725.00	2
Peabody Ct	Fuller Ln East	Fuller Ln West	33	RECONSTRUCTION	\$ 24,645.00	2
Pheasant Ln	Lincoln Town Line	Cul-De-Sac Loop	34	RECONSTRUCTION	\$ 23,486.00	2
Pope Rd	Acton Town Line	Carlisle Town Line	38	RECONSTRUCTION	\$ 44,422.00	2
Sorrel Rd	Laws Brook Rd	Shagbark Rd	34	RECONSTRUCTION	\$ 82,355.00	2
Winslow St	Main St	Cul-De-Sac Loop	35	RECONSTRUCTION	\$ 63,813.00	2



2023 Roads Program Traditional & Preservation

Preservation List

From Street Name	To Street Name	PCI	Maintenance Suggestion	Estimated Cost (\$)	Year
Main St	Sudbury Rd	71	ASPHALT RUBBER	\$ 9,424.00	2
Ridgeway Rd	Bedford St	73	ASPHALT RUBBER	\$ 18,621.00	2
Musketquid Rd	Simon Willard Rd	74	ASPHALT RUBBER	\$ 14,505.00	2
Elm St	357' W Allen Farm Ln	72	ASPHALT RUBBER	\$ 9,990.00	2
Main St	Hayward Mill Rd	76	ASPHALT RUBBER	\$ 44,081.00	2
Grant St	Dead End	72	ASPHALT RUBBER	\$ 10,473.00	2
Central St	End	73	ASPHALT RUBBER	\$ 9,231.00	2
Fairhaven Rd	Cul-De-Sac Loop	76	ASPHALT RUBBER	\$ 17,033.00	2
Laws Brook Rd	820' S Laws Brook Rd	73	ASPHALT RUBBER	\$ 13,520.00	2
Belknap St	Main St	71	DOUBLE MICRO	\$ 12,432.00	2
Laws Brook Rd	Shagbark Rd	72	ASPHALT RUBBER	\$ 17,742.00	2
Old Bridge Rd	Cottage St	71	ASPHALT RUBBER	\$ 17,441.00	2
Conant St	Main St	71	ASPHALT RUBBER	\$ 10,769.00	2
Main St	Riverside Av	71	ASPHALT RUBBER	\$ 12,749.00	2
Hayward Mill Rd	Main St	73	ASPHALT RUBBER	\$ 14,610.00	2
Belknap St (W)	Belknap St (E)	77	DOUBLE MICRO	\$ 22,776.00	2
Cedar Way (P)	Barnes Hill Rd	72	ASPHALT RUBBER	\$ 15,701.00	2
Concord Tpk	Arena Te	68	ASPHALT RUBBER	\$ 6,548.00	2
Belknap St	Sudbury Rd	74	ASPHALT RUBBER	\$ 22,704.00	2
Hayward Mill Rd	Cul-De-Sac	64	ASPHALT RUBBER	\$ 4,853.00	2
Edgewood Rd	Cul-De-Sac	76	ASPHALT RUBBER	\$ 10,635.00	2
Brook Trail Rd	Edgewood Rd	75	ASPHALT RUBBER	\$ 25,142.00	2
Sudbury Rd	The Valley Rd	76	ASPHALT RUBBER	\$ 66,209.00	2
Hayward Mill Rd	Hayward Mill Rd	75	ASPHALT RUBBER	\$ 39,464.00	2
Holdenwood Rd	Cul-De-Sac	83	CRACK SEAL	\$ 469.00	2
The Valley Rd	Garfield Rd	72	ASPHALT RUBBER	\$ 70,370.00	2

2023 Roads Program Traditional & Preservation



Preservation List

Union St	Thoreau St	74	ASPHALT RUBBER	\$ 6,613.00	2
Lowell Rd	Cul-De-Sac	74	ASPHALT RUBBER	\$ 14,196.00	2
Hayward Mill Rd	Cul-De-Sac	70	ASPHALT RUBBER	\$ 13,621.00	2
Bow St	Monument St	67	ASPHALT RUBBER	\$ 17,223.00	2
Stow St	Walden St	70	ASPHALT RUBBER	\$ 19,264.00	2
Paul Revere Rd	Powder Mill Rd	77	ASPHALT RUBBER	\$ 12,121.00	2
Old Marlboro Rd	Main St	74	ASPHALT RUBBER	\$ 20,739.00	2
Hayward Mill Rd	Cul-De-Sac Loop	72	ASPHALT RUBBER	\$ 3,893.00	2
The Valley Rd	Cul-De-Sac	66	ASPHALT RUBBER	\$ 11,868.00	2
Academy Ln	Thoreau St	71	ASPHALT RUBBER	\$ 25,110.00	2
Bow St	Cul-De-Sac	74	ASPHALT RUBBER	\$ 5,568.00	2
Simon Willard Rd	Cul-De-Sac Loop	70	ASPHALT RUBBER	\$ 32,413.00	2
Main St	345' N of Main St	73	ASPHALT RUBBER	\$ 8,616.00	2
Wood St	287' E Of Garland St	74	DOUBLE MICRO	\$ 32,963.00	2
Old Rd	Cul-De-Sac Loop	76	ASPHALT RUBBER	\$ 31,245.00	2
Old Marlboro Rd	Main St	67	ASPHALT RUBBER	\$ 24,219.00	2
Powder Mill Rd	Cul-De-Sac	70	ASPHALT RUBBER	\$ 20,070.00	2
Virginia Rd	Cul-De-Sac Loop	72	ASPHALT RUBBER	\$ 28,205.00	2
Cold Seam	Upland Rd	72	ASPHALT RUBBER	\$ 12,424.00	2
Anson Rd	Fitchburg Tpk	76	ASPHALT RUBBER	\$ 19,397.00	2
Birch Dr	Ash St	76	DOUBLE MICRO	\$ 10,280.00	2
Elm St	Main St	68	ASPHALT RUBBER	\$ 8,631.00	2
Old Rd	Cul-De-Sac Loop	69	ASPHALT RUBBER	\$ 19,626.00	2
Musterfield Rd	Cul-De-Sac Loop	67	ASPHALT RUBBER	\$ 39,161.00	2
Elm St	Musterfield Rd	67	ASPHALT RUBBER	\$ 43,976.00	2
Acton Townline	Westford Rd	74	ASPHALT RUBBER	\$ 35,125.00	2
Old Marlboro Rd	Cul-De-Sac Loop	77	ASPHALT RUBBER	\$ 31,585.00	2
Ministerial Dr (E)	Ministerial Dr (W)	77	ASPHALT RUBBER	\$ 36,713.00	2
275' W Of Walden St	Walden St	76	CRACK SEAL	\$ 277.00	2
Thoreau St	Cul-De-Sac	76	DOUBLE MICRO	\$ 19,761.00	2
Strawberry Hill Rd	Cul-De-Sac Loop	77	DOUBLE MICRO	\$ 14,220.00	2
Old Marlboro Rd	Cul-De-Sac Loop	70	ASPHALT RUBBER	\$ 13,645.00	2



2024 Roads Program Traditional & Preservation

Reconstruction List

Street Name	From Street Name	To Street Name	PCI	Maintenance Suggestion	Estimated Cost (\$)	Year
Cressbrook Rd	Silver Hill Rd	Cul-De-Sac Loop	56	DOUBLE MICRO	\$ 22,272.80	3
Silver Hill Rd	359' E Of Turning Mill Rd	Cul-De-Sac Loop	44	MILL AND FILL	\$ 134,825.00	3
Silver Hill Rd	Monument St	Cressbrook Rd	43	MILL AND FILL	\$ 39,273.00	3
Silver Hill Rd	Cressbrook Rd	359' E Of Turning Mill Rd	32	RECONSTRUCTION	\$ 118,163.00	3
Balls Hill Rd	Monument St	Dead End	33	RECONSTRUCTION	\$ 120,732.00	3
Bartlett Hill Rd	Monument St	Cul-De-Sac Loop	31	RECONSTRUCTION	\$ 129,761.00	3
Blue Jay Dr	Hillside Av	Cul-De-Sac Loop	39	RECONSTRUCTION	\$ 56,783.00	3
Buttricks Hill Rd	Monument St	Cul-De-Sac Loop	34	RECONSTRUCTION	\$ 116,534.00	3
Central St	West St	Pine St	33	RECONSTRUCTION	\$ 77,243.00	3
Channing Rd	Strawberry Hill Rd	Cul-De-Sac Loop	32	RECONSTRUCTION	\$ 126,893.00	3
Drum Hill Rd	Old Marlboro Rd	Cul-De-Sac Loop	40	RECONSTRUCTION	\$ 87,969.00	3
Fuller Ln	Virginia Rd	Dead End	31	RECONSTRUCTION	\$ 38,171.00	3
Hayes Rd	Main St	North Branch Rd	27	RECONSTRUCTION	\$ 34,971.00	3
Indian Pipe Ln	Old Pickard Rd	Stone Root Ln	32	RECONSTRUCTION	\$ 230,918.00	3
Isaac Davis Rd	Temple Rd	Cul-De-Sac Loop	31	RECONSTRUCTION	\$ 55,702.00	3
Lapham Rd	Ministerial Dr	Cul-De-Sac	38	RECONSTRUCTION	\$ 42,362.00	3
Martin Rd	550' E Of Monument St	Cul-De-Sac	45	MILL AND FILL	\$ 30,813.00	3
Martin Rd	Monument St.	550' E Of Monument St	30	RECONSTRUCTION	\$ 39,092.00	3
Monsen Rd	375' N Of Bedford St	1781' N Of Bedford St	33	RECONSTRUCTION	\$ 99,924.00	3
Monsen Rd	1781' N Of Bedford St	540' N of Cul-De-Sac	30	RECONSTRUCTION	\$ 42,632.00	3
North Branch Rd	House #87	Cul-De-Sac Loop	33	RECONSTRUCTION	\$ 57,955.00	3
North Branch Rd	Cul-De-Sac	House #87	48	RECONSTRUCTION	\$ 75,721.80	3
Pond View Ln	Lowell Rd	Cul-De-Sac Loop	32	RECONSTRUCTION	\$ 37,247.00	3
Temple Rd	Annurnsnac Hill Rd	Isaac Davis Rd	24	FDR BASE TOP	\$ 100,047.00	3



2024 Roads Program Traditional & Preservation

Preservation List

From Street Name	To Street Name	PCI	Maintenance Suggestion	Estimated Cost (\$)	Year
Lowell Rd	Estabrook Rd	64	ASPHALT RUBBER	\$ 39,359.00	3
Laws Brook Rd	Shagbark Rd	52	ASPHALT RUBBER	\$ 21,395.00	3
Commonwealth Av	End	60	ASPHALT RUBBER	\$ 9,907.00	3
Hayward Mill Rd	High Pine Ci	67	ASPHALT RUBBER	\$ 37,226.00	3
High Pine Cir	Border Rd	64	ASPHALT RUBBER	\$ 62,331.00	3
Lang St	Lowell Rd	62	ASPHALT RUBBER	\$ 14,817.00	3
Old Bridge Rd	Cul-De-Sac Loop	62	ASPHALT RUBBER	\$ 12,747.00	3
Old Bedford Rd	Cul-De-Sac Loop	54	ASPHALT RUBBER	\$ 12,015.00	3
Love Ln	Grant St	48	ASPHALT RUBBER	\$ 3,734.00	3
Strawberry Hill Rd	Annursnac Hill	50	DOUBLE MICRO	\$ 37,181.00	3
820' S Laws Brook Rd	225' S Domino Dr	64	ASPHALT RUBBER	\$ 13,004.00	3
300' North Of Old Marlboro Rd	Main St	54	ASPHALT RUBBER	\$ 28,243.00	3
Silver Hill Rd	Cul-De-Sac Loop	56	ASPHALT RUBBER	\$ 18,974.00	3
Sudbury Rd	Hubbard St	60	ASPHALT RUBBER	\$ 14,286.00	3
Sudbury Rd	235' N Of Rt 2	67	ASPHALT RUBBER	\$ 30,829.00	3
510' S Of Sudbury Rd	Fitchburg Tpk	53	ASPHALT RUBBER	\$ 76,498.00	3
Barrett'S Mill Rd	Barrett'S Mill Rd	56	ASPHALT RUBBER	\$ 25,868.00	3
Border Rd	Cul-De-Sac Loop	75	ASPHALT RUBBER	\$ 16,447.00	3
Old Stow Rd	200' S Of Laws Brook Rd	62	ASPHALT RUBBER	\$ 26,998.00	3
Ministerial Dr	Cul-De-Sac Loop	61	ASPHALT RUBBER	\$ 17,483.00	3
Laws Brook Rd	Bradford St	54	ASPHALT RUBBER	\$ 11,405.00	3
Harrington Av	396' S Of Loring Rd	56	ASPHALT RUBBER	\$ 17,483.00	3
Elm St	Simon Willard Rd	63	ASPHALT RUBBER	\$ 32,308.00	3
Simon Willard Rd	Nashawtuc Rd	59	ASPHALT RUBBER	\$ 29,953.00	3
Nashawtuc Rd	Simon Willard Rd	56	ASPHALT RUBBER	\$ 27,381.00	3

2024 Roads Program Traditional & Preservation



Preservation List

Bedford St	Powers Rd	63	ASPHALT RUBBER	\$ 11,996.00	3
345' N of Main St	2723' N Of Main St	66	ASPHALT RUBBER	\$ 47,413.00	3
2723' N Of Nashawtuc Rd	Main St	65	ASPHALT RUBBER	\$ 36,464.00	3
Main St	Hillside Av	66	ASPHALT RUBBER	\$ 21,888.00	3
Old Marlboro Rd	Main St	61	ASPHALT RUBBER	\$ 18,461.00	3
Sudbury Rd	Sudbury Rd	65	ASPHALT RUBBER	\$ 21,832.00	3
Riverside Av	West St	51	ASPHALT RUBBER	\$ 21,379.00	3
Fairhaven Rd	Dead End	63	ASPHALT RUBBER	\$ 16,300.00	3
Stone Root Ln	441' W Of Stone Root Ln	85	CRACK SEAL	\$ 758.00	3
Bedford St	Cul-De-Sac	59	ASPHALT RUBBER	\$ 18,037.00	3
Bayberry Rd	Crabtree Rd	54	ASPHALT RUBBER	\$ 13,498.00	3
Dead End	Chase Rd	65	ASPHALT RUBBER	\$ 6,392.00	3
Sudbury Rd	Laurel St	53	ASPHALT RUBBER	\$ 49,925.00	3
Holdenwood Rd	Garfield Rd	56	ASPHALT RUBBER	\$ 76,236.00	3
Thoreau St	Dead End	56	ASPHALT RUBBER	\$ 4,128.00	3
Harrington Av	Old Marlboro Rd	63	ASPHALT RUBBER	\$ 28,736.00	3
Main St	End	52	ASPHALT RUBBER	\$ 8,367.00	3
Lowell Rd	900' W of Lowell Rd	46	ASPHALT RUBBER	\$ 16,465.00	3
Carlisle Town Line	Spencer Brook Rd	51	ASPHALT RUBBER	\$ 16,685.00	3
Plainfield Rd	Sudbury Rd	58	ASPHALT RUBBER	\$ 32,363.00	3
Elm St	Main St	54	ASPHALT RUBBER	\$ 17,143.00	3



Budgets – Funding Needs

<u>Funding Sources</u>	FY-21	FY-22	FY-23	FY-24
Chapter 90	\$ 677,874	\$ 681,000	\$ 700,000	\$ 700,000
Roads Bond	\$ 1,250,000	\$1,300,000	\$3,521,000	\$3,680,000

To achieve a more comprehensive & successful multi-year road program, the department requested a significant budget increase for pavement management through the capital planning process starting in FY23, that increase will need to be maintain for the next several years to achieve our goal of increasing the network PCI to the mid 80's.



December 8, 2021 PWC Road Program Update

Questions can be forwarded to the Engineering Division:

Stephane Cherduville.
Public Works Engineer
(978) 318-3210
scherduville@concordma.gov