

ROAD STABILIZATION COMMITTEE



2022-2031 ROAD PROGRAM
November 15, 2021

MUNICIPAL ROAD PROGRAM

The largest and perhaps most important asset of municipal infrastructure are the roads. Simply put paved roads are used as a primary mode of transportation and preserving the condition should be a top priority. Municipalities are best served implementing a Pavement Management Plan that uses geographic information system technology to measure and evaluate the road conditions creating comprehensive data. This process allows a municipality to maximize its reinvestment in a feasible manner while maintaining a sound road network.



ROAD STABILIZATION COMMITTEE

PROGRAM PRINCIPAL GUIDELINES

- Spend ~\$1.2M annually on Maintenance
- Spend Balance on Reconstruction
 - ~\$500K annually in Neighborhoods (Local)
 - Remainder on Main Roads (Operational)
- ~\$60-100K annually in Crack Seal
- Funding Model - 3% annually to Maintain Scope
- Address Roads relative to PCI
- Update PCI Index about every 5 years
- Update the overall plan yearly
- Complete Short/Gravel Roads with Remaining Funds
- Industrial Roads (1 per year) beginning in 2017



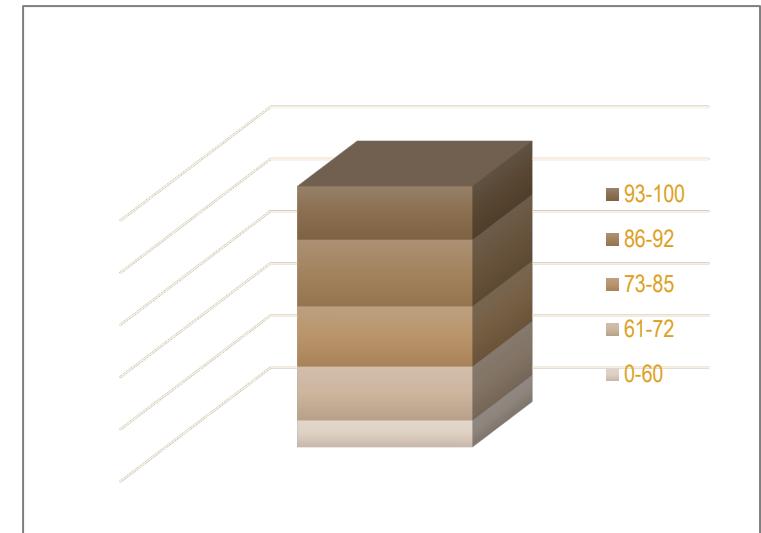
PROGRAM PRINCIPAL GUIDELINES

- Pavement Condition Index (PCI)
- PCI derived from established measurements of pavement surface condition distresses and deficiencies
- 0 to 100 scale, 100 being excellent
- PCI is one of the principal factors in treatment and scheduling
- Town wide assessment completed in 2017

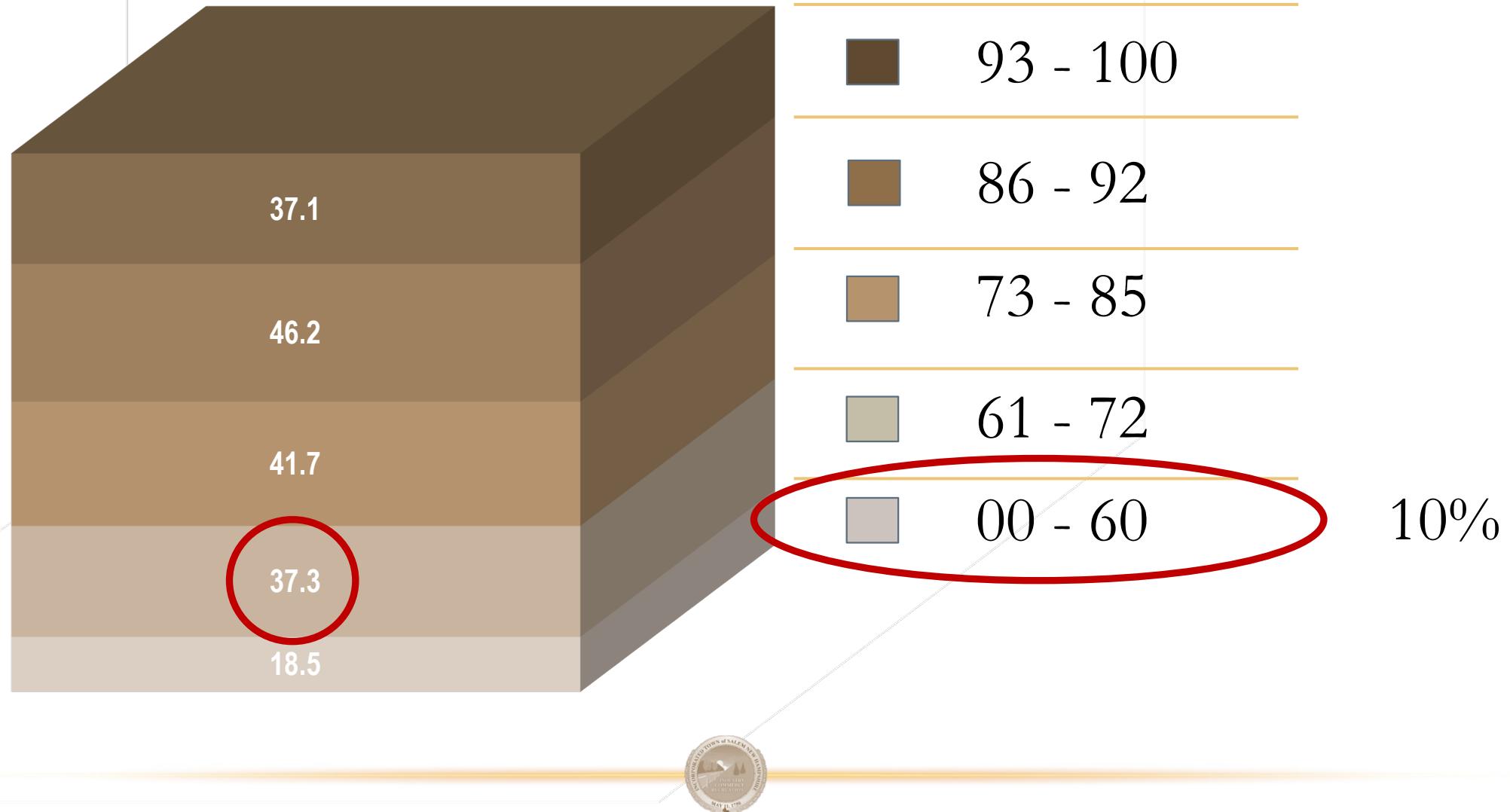


PAVEMENT CONDITION INDEX

TREATMENT BAND	PCI	Description
DO NOTHING	93-100	Excellent condition - in need of no maintenance.
ROUTINE MAINTENANCE	86-92	Good condition – may be in need of minor crack sealing or minor localized repair.
PREVENTIVE MAINTENANCE	73-85	Fair condition – pavement surface may be in need of surface sealing, full depth patch and/or crack sealing. Mill/overlay some areas
MILL and OVERLAY	61-72	Deficient condition – pavement surface structure in need of added strength for existing traffic. Typical repairs are overlay with or without milling.
RECONSTRUCTION	0-60	Poor condition – in need of base improvement. Typical repairs are reclamation or full depth reconstruction.



PCI BREAKDOWN BY MILES



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TREATMENT COST COMPARISON



Treatment Bands	Miles	% Miles	Cost	% Cost
Do Nothing	37.1	20%		
Routine Maintenance	46.2	26%	\$270,000	1%
Crack Seal	41.7	23%	\$2,639,000	10%
Mill and Overlay	37.3	21%	\$8,189,000	31%
Reconstruction	18.5	10%	\$15,640,000	58%
Totals:	180.8		\$26,738,000	



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TREATMENT COST COMPARISON

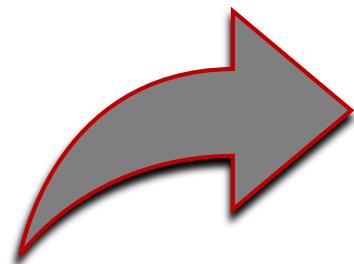


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Crack Seal	41.7	23%	\$2,639,000	10%
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Reconstruction	18.5	10%	\$15,640,000	58%
Totals:	180.8		\$26,738,000	



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TREATMENT COST COMPARISON



TOTAL MILL / OVERLAY

Total Length = 28,854 LF

Total Cost = \$930,347

Price per linear foot = \$32.28



TOTAL RECONSTRUCTION

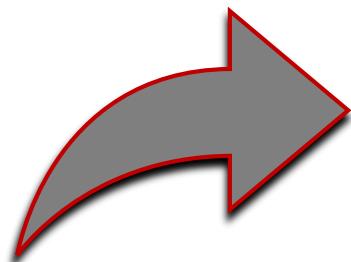
Total Length = 14,523 LF

Total Cost = \$4,124,968



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TREATMENT COST COMPARISON



TOTAL MILL / OVERLAY

Total Length = 28,854 LF

Total Cost = \$930,347

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TOTAL RECONSTRUCTION

Total Length = 14,523 LF

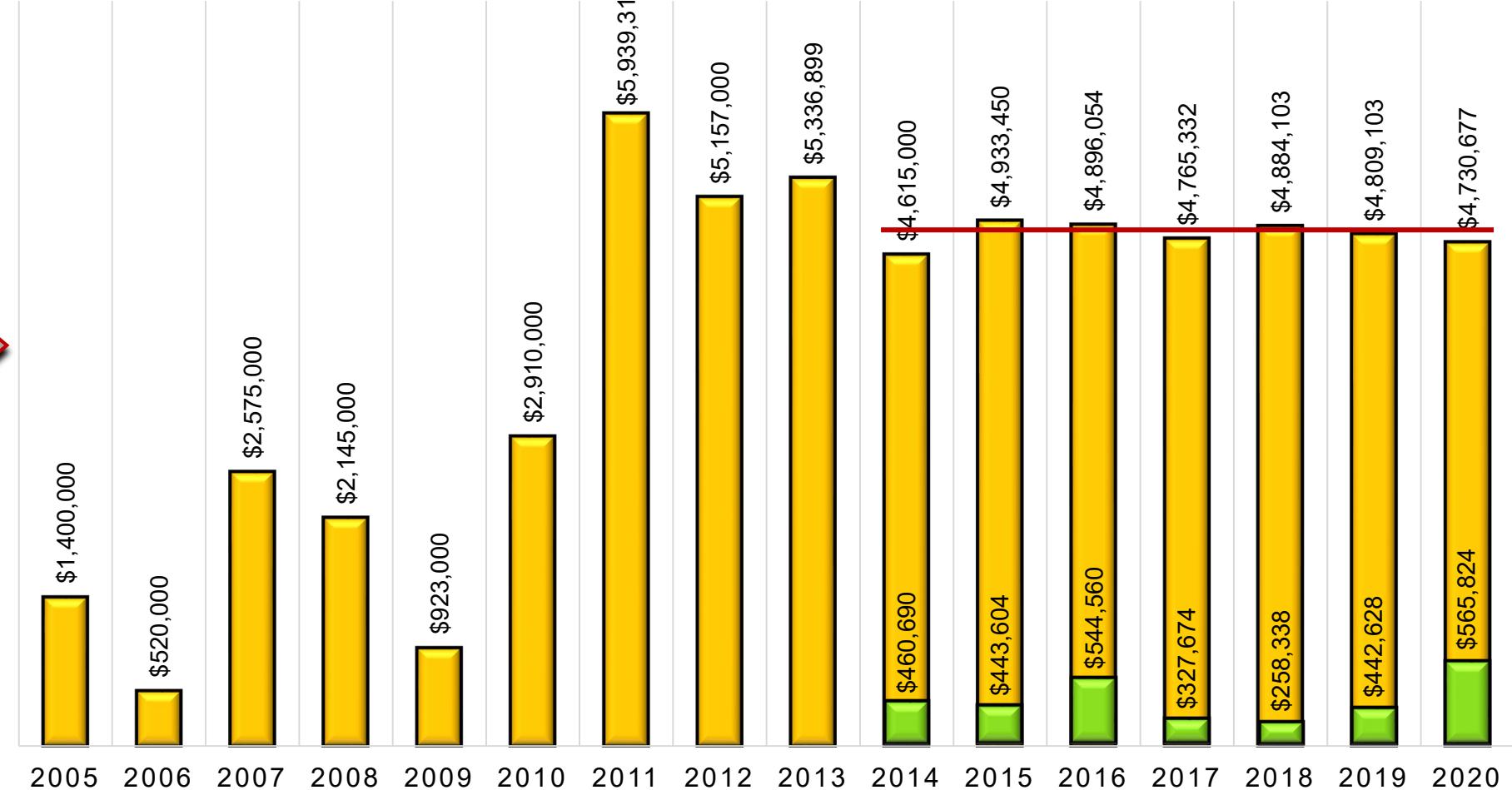
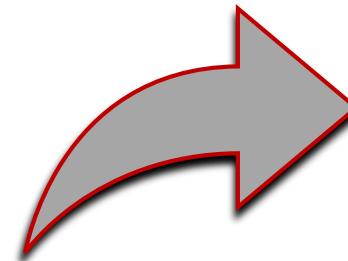
Total Cost = \$4,124,968

Price per linear foot = \$284.00



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HISTORICAL FUNDING



— Program Funding Request Trendline

■ Program Funding Returned to Reserve



ROAD PROGRAM

The upkeep of a rolling 10-year plan would ensure a noticeably better Road System and instill public confidence.

2022 ROAD LIST

Work Type	Road	From	To	Category	Length (If)	PCI
Recon	Northwestern Dr	Commercial Dr	Industrial Way	Local	4,337	62
	Bannister Rd	School St	Lou Av	Local	2,250	52
	Corinthian Dr	N Main St	Cul De Sac Loop	Local	3,514	50
	Tilton Ter	Independence Dr	Cul De Sac Loop	Local	654	52
	Settlers Ln	N Main St	Cul De Sac Loop	Local	854	53
	Wilson St	Henry Taylor St	Dead End	Local	987	50
	Gillis Ter	N Main St	Dead End	Local	900	54
M&O	S. Broadway	720' north of Cluff Crossing (Staples Entrance)	50' north of Cluff Crossing	Oper	2,680	78
	Pleasant St	200' South of Main Street	South Policy Street	Oper	5,719	86
	Ivan Gile Rd	Shepard Ave	Cul De Sac Loop	Local	2,079	73
	Elizabeth Ln	Gordon Av	Cul De Sac	Local	1,563	66
	Erin Ln	Liberty St	Cul De Sac	Local	1,254	73
	Meghan Cir	Erin La	Cul De Sac	Local	549	72
	Wesley Ln	Wheeler Ave	Cul De Sac	Local	1,188	73
	Webb St	Merrill Av	Dead End	Local	510	73
	Westerdale Ave	Town Farm Rd	McLaughlin Av	Local	428	73
	Oak Ave	Town Farm Rd	McLaughlin Av	Local	442	77
	Kenthill Ave	North Main St	Dead End	Local	248	74
	Ellsmere Ave	Cul De Sac	Dawson Av	Local	851	73
	Ballard Ln	Hampstead Rd	Cul De Sac Loop	Local	1,528	75
Crack Seal	Misc. Locations					
Design	2023 Roadway Design - Pleasant St, Duston Rd, Neighborhood Rds					
Transportation Enhancement	Pleasant Street Drainage & Sidewalk Improvements	200' South of Main Street	South Policy Street			
	Update Road Inventory PCI					
			Total Length (If)		32,535	

RECOMMENDATION

“The Board of Selectmen adopts the 2022-2031 Road Program as proposed by the Road Stabilization Committee.”

