



NOTTINGHAM ROAD SURFACE MANAGEMENT SYSTEM REPORT

This report was completed by the Town of Nottingham in collaboration with the Strafford Metropolitan Planning Organization. Road Surface Management System assessments were completed in the town in 2018, and the forecasting report was finalized in 2019.

AUTHORS

Stefanie Casella, Data Collection and Analysis Assistant
Colin Lentz, Senior Transportation Planner
Rachel Dewey, Data Analyst
Monique Duchesne, Data Collection Intern



Town of
NOTTINGHAM
New Hampshire

The Road Surface Management System

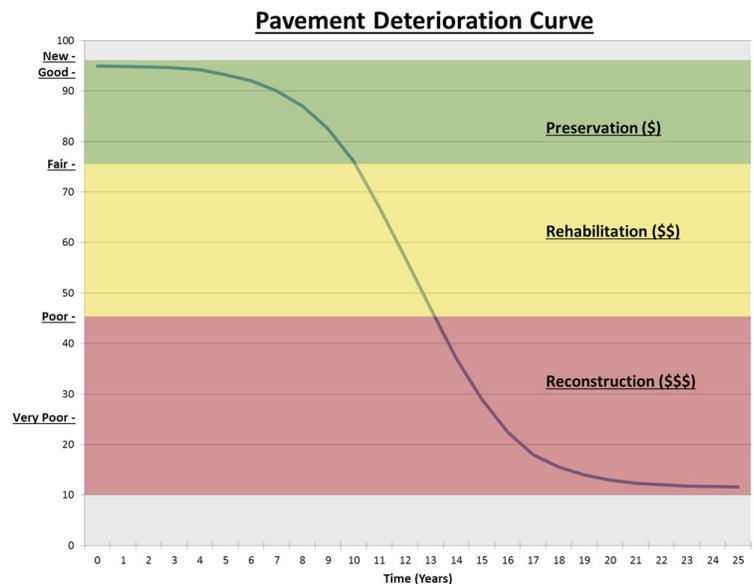
In partnership with the New Hampshire Department of Transportation (NH DOT) and the University of New Hampshire Technology Transfer Center (UNH T2), the Strafford Regional Planning Commission (SRPC) conducts Road Surface Management Systems (RSMS) assessments and forecasting. As part of the Statewide Asset Data Exchange System (SADES), the RSMS tool is a two phase process used to assist municipalities in asset management planning by providing current road conditions, predicting future road conditions, and developing up to a ten year maintenance schedule and budget.

Phase One

In phase one, current road conditions are assessed and scored. Local roads are identified and divided into one-quarter mile segments and each segment is driven and assessed via windshield survey. The segments are recorded on tablets and scored according to road surface distresses and severity. The road condition is represented on a 1-100 point scale called the Pavement Condition Index, also known as a PCI score. A perfect road with no distresses would score 100. The PCI score at the time of assessment is referred to as the Initial PCI score. Quality Assurance/Quality Control (QAQC) measures are taken to ensure all roads segments are assessed and conditions accurately represented. Each segment is then sent to municipal staff for approval and local knowledge ratings for frost heaving, importance, and relative traffic volume. Once the QAQC is complete and local knowledge ratings are assigned, the data is loaded into the SADES Forecasting software. For more information on the assessment parameters please see the RSMS Assessment hand book.¹

Phase Two

Phase two uses the PCI scores, derived from phase one, to guide the maintenance planning and budgeting. During this phase SRPC works very closely with municipal staff to find the best treatment options for the towns road network needs. When the data is uploaded to the SADES software, the segments are analyzed one by one. Each segment is assigned treatment options and a model of how the PCI score will deteriorate over time. The PCI score is broken out by year and given a steady degradation rate to account for wear and tear on the road surface over time. By visualizing road deterioration the team can estimate when treatments will be needed, how much it will cost, and how long it will be effective for.



Road Maintenance Condition and Treatment Thresholds			
Technique	PCI Range	Road Condition	Treatments
Preserve	95-100	Excellent	Crack Seal/ Fog Seal
Preserve	75-96	Good	Sand seal/ chip seal/ microsurfacing
Preserve	75-96	Good	ARSAM/ Cape seal/ Shim and chip seal
Rehabilitate	45-75	Fair	Bonded wearing course/ Thin HMA
Reconstruction	10-45	Poor	Mill and HMA/ In-place Recycling
Reconstruction	0-10	Failing	Full Reconstruction

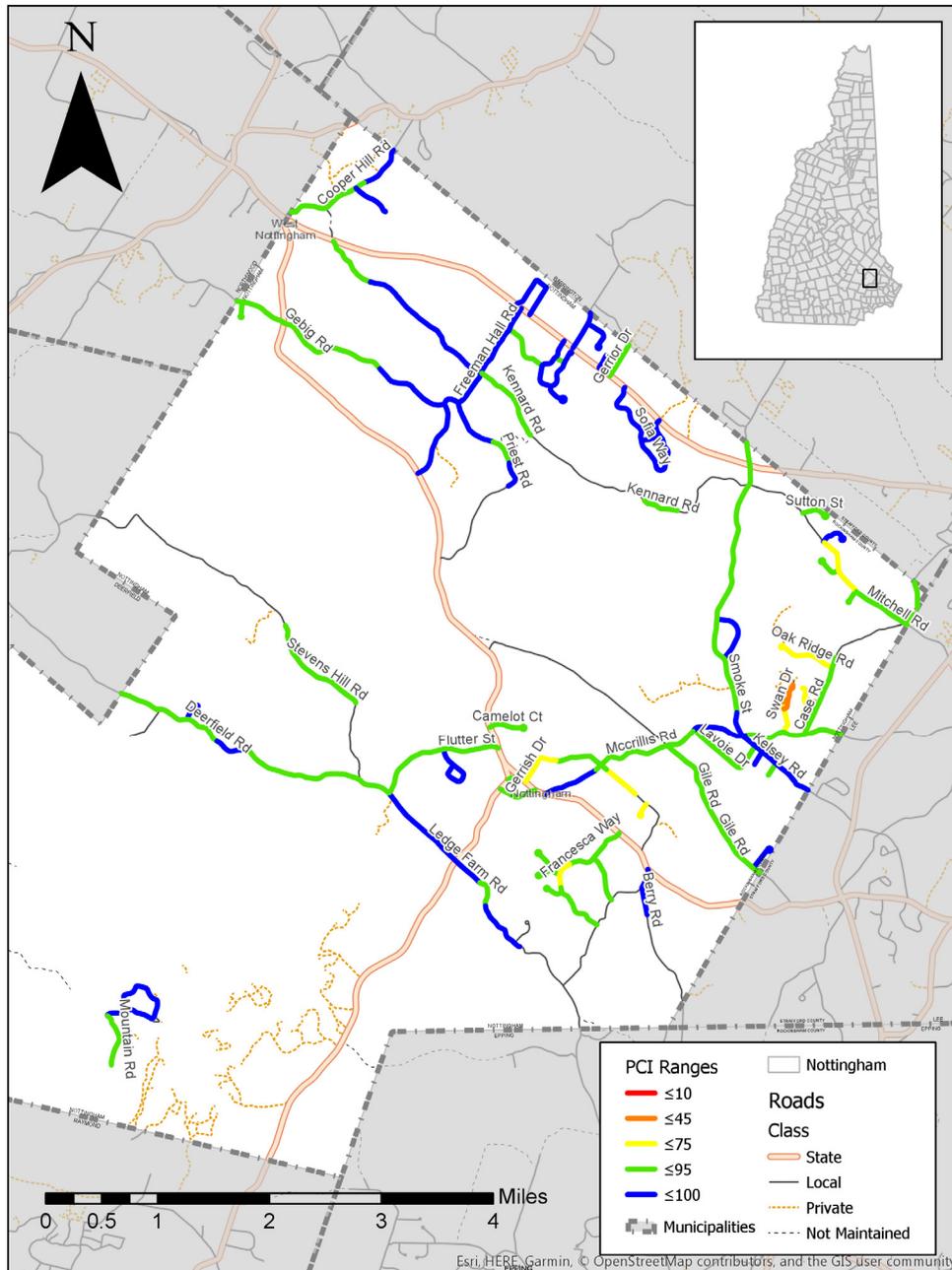
1 The RSMS hand book is distributed during the annual data collection training facilitated by UNH T2 staff. The 2018 collection manual can be found in the Appendix.

Nottingham Road Surface Management System

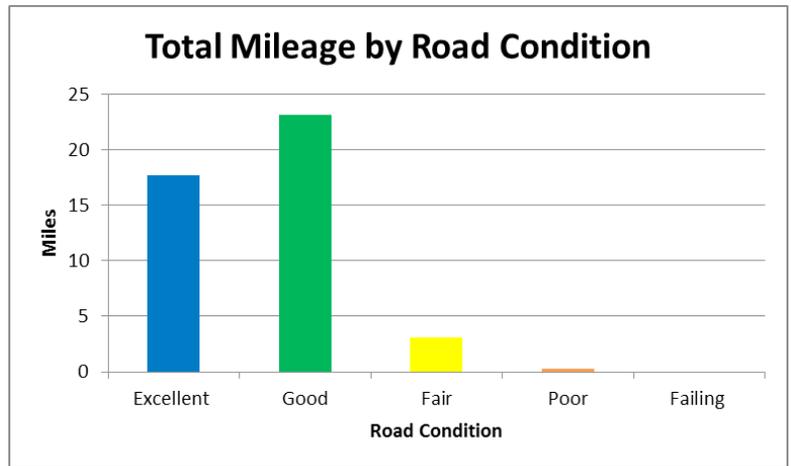
SRPC was contracted by the Town of Nottingham to survey locally owned (class 5) roads and assist in the development of a road maintenance schedule. A contract between the Town of Nottingham and SRPC for Phase 1 and Phase 2 was signed on July 2, 2018 and the first survey was conducted on July 3, 2018. Surveys continued throughout the months of July and August. QA/QC and forecasting occurred during the months of November 2018 through February 2019. Town Administrator Chris Sterndale and Highway Foreman Jack Meyers worked closely with SRPC staff to choose the best treatments and schedule for the Town of Nottingham.

Existing Road Conditions and Forecasting Analysis

After the initial PCI scores were generated, SRPC downloaded the information from the software and uploaded it to a Geographic Information Systems (GIS) database. GIS was used to generate a map of current road network conditions in the town of Nottingham.



While field assessments were underway, roadwork was also being conducted throughout the town. As a result, some road segments were assessed before their scheduled treatments were completed. This resulted in an inaccurate assigned road network PCI. The issue was resolved by adding and applying a custom overlay treatment option within the software. '2018 Overlay' was applied in budget year 2019 on roads that were paved during 2018. It was given an inflated 'fixed PCI' score to counteract the PCI degradation that the software automatically applies. An improvement price of \$0 was entered so as not to inaccurately skew the 2019 projected cost.



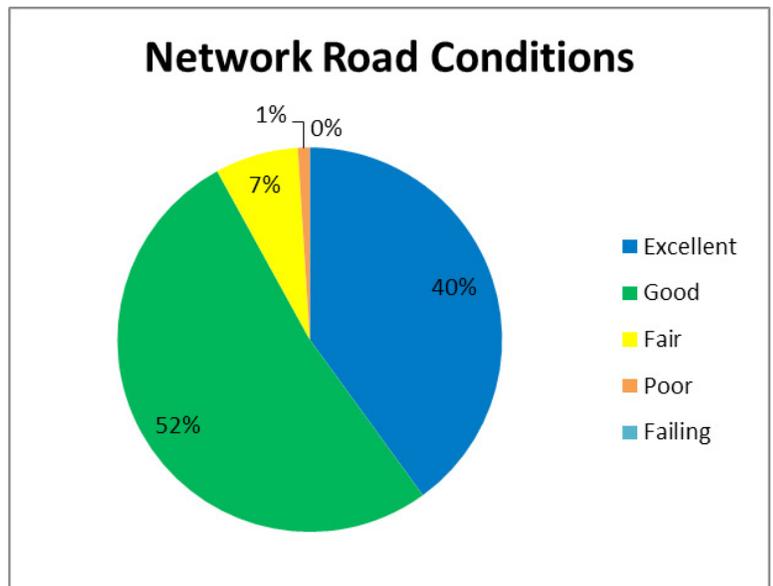
After seeing the results of phase one, it was clear that the majority of the roads were in good to excellent condition. Over 90% of Nottingham's road network scored 76 or higher with 8% of roads in fair to poor condition. The goal for phase two was to keep the overall network in good condition while also repairing roads in declining condition.

The first step was to identify which road maintenance techniques the town would focus on in the coming years. Municipal staff went through the list of treatments offered by the SADES software and picked six that reflected

Preservation	✓ Chip Seal	Repairs	✓ Crack Seal (Major)	Rehabilitate and Rebuild	Revert to Gravel
	Double Chip Seal		✓ Crack Seal (Minor)		FDR & Coldmix (4")
	Fog Seal		✓ Isolated Patch & HMA Shim		FDR & HMA (4")
	Sand Seal		✓ HMA Overlay (1")		FDR w/ Asphalt Stabilization & HMA (3")
	Microsurfacing (single)		✓ HMA Overlay (1.25")		FDR w/ CaCl2 and HMA (4")
	HMA Shim (1/2") & Chip Seal		✓ HMA Overlay (1.5")		
	Asphalt Rubber SAM		✓ Milling/HMA (1.5")		
	Bonded Wearing Course		2018 Overlay		
	HMA Shim (3/4" avg)				

the towns preferred techniques. After looking at the predicted degradation rate and reviewing historical treatment trends, it was determined by municipal staff that the pre-loaded PCI degradation rate did not accurately reflect pavement degradation in the town of Nottingham. This was taken into account when assigning treatments and PCI scores were permitted to fall beyond the determined thresholds at the discretion of municipal staff.

Municipal staff also identified road priority groups and determined PCI deterioration thresholds in order to better prioritize maintenance scheduling. Once a road dropped below the given threshold a treatment was assigned to regain the preferred pavement condition.



Another factor in the Nottingham forecasting process was to keep future development in mind. Heavy machinery on small roads with inadequate paving can lead to high deterioration rates and expensive repairs. With this in mind, Gile Road and Mitchell Road were identified as areas for potential development. Road maintenance was strategically planned in these areas.

Final Maintenance Schedule and Budgeting Information

Below please find road maintenance costs by year for the Town of Nottingham. The budget has been set for the next eight years with the last two being subject to change based on future assessments of the road conditions at that time. For the full road maintenance schedule, please see appendix.

Annual Cost by Repair								
Repair	2019	2020	2021	2022	2023	2024	2025	2026
2018 Overlay	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Chip Seal	\$0	\$119,141	\$30,507	\$169,113	\$10,446	\$52,401	\$60,450	\$0
Crack Seal (Major)	\$58,536	\$22,743	\$21,194	\$11,620	\$29,141	\$18,296	\$0	\$0
FDR & HMA (4")	\$0	\$0	\$0	\$124,785	\$47,193	\$0	\$0	\$0
HMA Overlay (1")	\$0	\$0	\$0	\$0	\$0	\$24,309	\$0	\$0
HMA Overlay (1.25")	\$93,851	\$153,464	\$164,419	\$17,118	\$132,920	\$0	\$0	\$74,460
HMA Overlay (1.5")	\$21,154	\$0	\$91,220	\$0	\$100,571	\$181,461	\$0	\$0
Isolated Patch and HMA Shim	\$0	\$15,461	\$0	\$0	\$4,591	\$8,383	\$2,582	\$0

Total Cost by Year								
Totals	2019	2020	2021	2022	2023	2024	2025	2026
	\$ 173,542	\$ 310,809	\$ 307,340	\$ 322,637	\$ 324,862	\$ 284,850	\$ 63,032	\$ 74,460

Conclusion

In summation the SRPC field team assessed a total of 44.2 miles of Nottingham roads and met with municipal staff a total of six times for condition forecasting. The team completed a six year budget and treatment projection (2024) and began budget planning for years 2025 and 2026. SADES RSMS plans and assessments are recommended to be updated every 5 years. For more details and analysis please see the appendix.

Appendix

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2018	Deerfield Rd	12	2018 Overlay	0.14	\$0	74.00	95.00	5	4	62.75
2018	Deerfield Rd	13	2018 Overlay	0.25	\$0	65.00	94.00	5	4	62.75
2018	Deerfield Rd	14	2018 Overlay	0.25	\$0	53.00	92.00	5	4	62.75
2018	Kelsey Rd	1	2018 Overlay	0.25	\$0	78.00	96.00	5	5	80.50
2018	Kelsey Rd	2	2018 Overlay	0.25	\$0	79.00	96.00	5	5	80.25
2018	Kelsey Rd	3	2018 Overlay	0.25	\$0	75.00	95.00	5	5	81.25
2018	Kelsey Rd	4	2018 Overlay	0.25	\$0	83.00	97.00	5	5	79.25
2018	Lakeview Dr	1	2018 Overlay	0.25	\$0	95.00	99.00	1	1	16.25
2018	Lakeview Dr	2	2018 Overlay	0.25	\$0	100.00	99.00	1	1	15.00
2018	Lakeview Dr	3	2018 Overlay	0.25	\$0	100.00	99.00	1	1	15.00
2018	Lakeview Dr	4	2018 Overlay	0.25	\$0	100.00	99.00	1	1	15.00
2018	Lakeview Dr	5	2018 Overlay	0.16	\$0	100.00	99.00	1	1	15.00
2018	Ledge Farm Rd	9	2018 Overlay	0.25	\$0	100.00	99.00	5	4	68.00
2018	Little River Rd	1	2018 Overlay	0.25	\$0	82.00	97.00	1	1	19.50
2018	Little River Rd	2	2018 Overlay	0.27	\$0	82.00	97.00	1	1	19.50
Total for Year 2018				3.57	\$ -					
2019	Autumn Ln	1	Crack Seal (Major)	0.15	\$1,236	84.00	92.09	1	1	19.00
2019	Canton Ct	1	HMA Overlay (1.25")	0.17	\$12,406	60.00	89.33	1	1	25.00
2019	Church St	1	HMA Overlay (1.5")	0.11	\$8,780	79.00	95.09	5	5	80.25
2019	Cooper Hill Rd	5	HMA Overlay (1.5")	0.17	\$12,374	96.00	98.34	3	3	46.00
2019	East Ln	1	Crack Seal (Major)	0.13	\$875	79.00	90.18	1	1	20.25
2019	Garland Road	1	Crack Seal (Major)	0.25	\$1,902	86.00	92.85	4	4	63.50
2019	Garland Road	2	Crack Seal (Major)	0.25	\$1,932	85.00	92.47	4	4	63.75
2019	Garland Road	3	Crack Seal (Major)	0.26	\$1,967	100.00	98.20	4	4	60.00
2019	Garland Road	4	Crack Seal (Major)	0.25	\$1,947	100.00	98.20	4	4	60.00
2019	Garland Road	5	Crack Seal (Major)	0.25	\$1,912	100.00	98.20	4	4	60.00
2019	Garland Road	6	Crack Seal (Major)	0.26	\$2,023	100.00	98.20	4	4	60.00
2019	Garland Road	7	Crack Seal (Major)	0.25	\$1,912	100.00	98.20	4	4	60.00
2019	Garland Road	8	Crack Seal (Major)	0.29	\$2,203	100.00	98.20	4	4	60.00
2019	Gebig Rd	3	Crack Seal (Major)	0.25	\$1,582	81.00	90.94	4	3	57.75
2019	Gebig Rd	4	Crack Seal (Major)	0.25	\$1,582	86.00	92.85	4	3	56.50
2019	Gebig Rd	5	Crack Seal (Major)	0.25	\$1,582	79.00	90.18	4	3	58.25
2019	Gebig Rd	6	Crack Seal (Major)	0.25	\$1,831	93.00	95.53	4	3	54.75
2019	Gebig Rd	7	Crack Seal (Major)	0.25	\$1,831	100.00	98.20	4	3	53.00
2019	Gebig Rd	8	Crack Seal (Major)	0.25	\$1,831	100.00	98.20	4	3	53.00
2019	Gebig Rd	9	Crack Seal (Major)	0.20	\$1,472	100.00	98.20	4	3	53.00
2019	Gerrish Dr	5	HMA Overlay (1.25")	0.19	\$12,509	77.00	93.38	1	1	20.75
2019	Gerrish Dr	6	HMA Overlay (1.25")	0.25	\$16,317	86.00	95.53	1	1	18.50
2019	Gerrish Dr	7	HMA Overlay (1.25")	0.25	\$17,058	67.00	91.00	1	1	23.25
2019	Gerrish Dr	8	HMA Overlay (1.25")	0.15	\$9,964	74.00	92.67	1	1	21.50
2019	Ledge Farm Rd	5	Crack Seal (Major)	0.25	\$1,582	100.00	98.20	5	4	68.00
2019	Ledge Farm Rd	6	Crack Seal (Major)	0.25	\$1,582	100.00	98.20	5	4	68.00
2019	Ledge Farm Rd	8	Crack Seal (Major)	0.25	\$1,750	100.00	98.20	5	4	68.00

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2019	Mountain Rd	1	Crack Seal (Major)	0.25	\$1,912	81.00	90.94	1	1	19.75
2019	Mountain Rd	2	Crack Seal (Major)	0.24	\$1,818	93.00	95.53	1	1	16.75
2019	Smoke St	5	Crack Seal (Major)	0.25	\$1,918	90.00	94.38	5	5	77.50
2019	Smoke St	6	Crack Seal (Major)	0.25	\$1,913	90.00	94.38	5	5	77.50
2019	Smoke St	7	Crack Seal (Major)	0.25	\$1,916	90.00	94.38	5	5	77.50
2019	Smoke St	8	Crack Seal (Major)	0.25	\$1,916	90.00	94.38	5	5	77.50
2019	Smoke St	9	Crack Seal (Major)	0.25	\$1,916	90.00	94.38	5	5	77.50
2019	Smoke St	10	Crack Seal (Major)	0.25	\$1,915	90.00	94.38	5	5	77.50
2019	Smoke St	11	Crack Seal (Major)	0.25	\$1,915	90.00	94.38	5	5	77.50
2019	Smoke St	12	Crack Seal (Major)	0.25	\$1,916	90.00	94.38	5	5	77.50
2019	Smoke St	13	Crack Seal (Major)	0.34	\$2,614	90.00	94.38	5	5	77.50
2019	South Summer St	4	HMA Overlay (1.25")	0.09	\$5,810	76.00	93.15	1	1	21.00
2019	South Summer St	5	HMA Overlay (1.25")	0.25	\$16,304	74.00	92.67	1	1	21.50
2019	South Summer St	6	HMA Overlay (1.25")	0.06	\$3,484	77.00	93.38	1	1	20.75
2019	Sutton St	1	Crack Seal (Major)	0.30	\$2,334	94.00	95.91	1	1	16.50
Total for Year 2019				9.61	\$ 173,542					
2020	Case Rd	1	HMA Overlay (1.25")	0.25	\$16,134	84.00	94.15	3	2	42.00
2020	Case Rd	2	HMA Overlay (1.25")	0.25	\$16,061	88.00	95.06	2	2	33.00
2020	Case Rd	3	HMA Overlay (1.25")	0.25	\$16,073	83.00	93.92	2	2	34.25
2020	Cooper Hill Rd	1	Chip Seal	0.25	\$8,436	80.00	91.89	3	3	50.00
2020	Cooper Hill Rd	2	Chip Seal	0.25	\$8,436	78.00	91.34	3	3	50.50
2020	Cooper Hill Rd	3	Chip Seal	0.25	\$8,430	86.00	93.53	3	3	48.50
2020	Cooper Hill Rd	4	Chip Seal	0.25	\$7,697	96.00	96.27	3	3	46.00
2020	Cooper Hill Rd	5	Chip Seal	0.17	\$5,174	96.00	98.17	3	3	46.00
2020	Flutter St	12	Isolated Patch and HMA Shim	0.25	\$3,365	88.00	93.09	5	4	71.00
2020	Flutter St	13	Isolated Patch and HMA Shim	0.25	\$3,518	88.00	93.09	5	4	71.00
2020	Flutter St	14	Isolated Patch and HMA Shim	0.25	\$3,518	78.00	89.90	5	4	73.50
2020	Flutter St	15	Isolated Patch and HMA Shim	0.25	\$3,215	87.00	92.77	5	4	71.25
2020	Flutter St	16	Isolated Patch and HMA Shim	0.14	\$1,845	95.00	95.32	5	4	69.25
2020	Francesca Way	1	Chip Seal	0.25	\$8,823	92.00	95.17	2	3	39.00
2020	Francesca Way	2	Chip Seal	0.25	\$9,177	93.00	95.45	2	3	38.75
2020	Francesca Way	3	Chip Seal	0.25	\$9,156	73.00	89.97	2	3	43.75
2020	Francesca Way	4	Chip Seal	0.25	\$8,449	91.00	94.90	2	3	39.25
2020	Francesca Way	5	Chip Seal	0.32	\$10,649	88.00	94.08	2	3	40.00
2020	Freeman Hall Rd	1	Crack Seal (Major)	0.25	\$1,889	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	2	Crack Seal (Major)	0.25	\$1,890	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	3	Crack Seal (Major)	0.25	\$1,891	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	4	Crack Seal (Major)	0.25	\$2,060	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	5	Crack Seal (Major)	0.25	\$2,063	100.00	96.48	5	5	75.00

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2020	Freeman Hall Rd	6	Crack Seal (Major)	0.25	\$2,060	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	7	Crack Seal (Major)	0.25	\$2,060	100.00	96.48	5	5	75.00
2020	Freeman Hall Rd	8	Crack Seal (Major)	0.15	\$1,256	100.00	96.48	5	5	75.00
2020	Kennard Rd	1	Crack Seal (Major)	0.29	\$1,975	84.00	90.64	2	2	34.00
2020	Kennard Rd	2	Crack Seal (Major)	0.25	\$1,746	84.00	90.64	2	2	34.00
2020	Kennard Rd	3	Crack Seal (Major)	0.19	\$1,321	84.00	90.64	2	2	34.00
2020	Kennard Rd	4	Crack Seal (Major)	0.32	\$2,531	91.00	93.20	2	2	32.25
2020	Michela Way	1	Chip Seal	0.25	\$8,810	95.00	95.99	1	1	16.25
2020	Michela Way	2	Chip Seal	0.17	\$5,987	92.00	95.17	1	1	17.00
2020	Mill Pond Rd	9	HMA Overlay (1.25")	0.25	\$17,591	85.00	94.38	5	4	71.75
2020	Mill Pond Rd	10	HMA Overlay (1.25")	0.25	\$17,577	81.00	93.47	5	4	72.75
2020	Mill Pond Rd	11	HMA Overlay (1.25")	0.25	\$17,604	90.00	95.52	5	4	70.50
2020	Mill Pond Rd	12	HMA Overlay (1.25")	0.15	\$10,562	87.00	94.84	5	4	71.25
2020	Nicholas Way	1	Chip Seal	0.17	\$6,040	98.00	96.81	1	1	15.50
2020	Oak Ridge Rd	1	HMA Overlay (1.25")	0.25	\$18,356	73.00	91.64	1	1	21.75
2020	Oak Ridge Rd	2	HMA Overlay (1.25")	0.32	\$23,505	72.00	91.42	1	1	22.00
2020	Obrien Way	1	Chip Seal	0.18	\$6,454	90.00	94.62	1	1	17.50
2020	Tayla Way	1	Chip Seal	0.21	\$7,422	92.00	95.17	1	1	17.00
Total for Year 2020				9.78	\$ 310,809					
2021	Deerfield Rd	1	Crack Seal (Major)	0.25	\$1,862	83.00	88.92	5	3	65.25
2021	Deerfield Rd	2	Crack Seal (Major)	0.25	\$1,863	95.00	93.10	5	3	69.75
2021	Deerfield Rd	3	Crack Seal (Major)	0.25	\$1,863	94.00	92.75	5	3	69.25
2021	Deerfield Rd	4	Crack Seal (Major)	0.25	\$1,949	95.00	93.10	5	3	74.50
2021	Deerfield Rd	5	Crack Seal (Major)	0.25	\$1,860	100.00	94.84	5	3	76.75
2021	Deerfield Rd	6	Crack Seal (Major)	0.25	\$1,860	93.00	92.40	5	3	79.75
2021	Deerfield Rd	7	Crack Seal (Major)	0.25	\$1,951	93.00	92.40	5	3	62.25
2021	Deerfield Rd	8	Crack Seal (Major)	0.25	\$1,952	93.00	92.40	5	3	62.50
2021	Deerfield Rd	9	Crack Seal (Major)	0.25	\$2,039	93.00	92.40	5	3	62.25
2021	Deerfield Rd	10	Crack Seal (Major)	0.25	\$2,041	93.00	92.40	5	4	61.00
2021	Deerfield Rd	11	Crack Seal (Major)	0.25	\$1,953	95.00	93.10	5	4	62.75
2021	Mccrillis Rd	1	HMA Overlay (1.25")	0.25	\$18,167	96.00	95.90	5	5	76.00
2021	Mccrillis Rd	2	HMA Overlay (1.25")	0.25	\$18,167	96.00	95.90	5	5	76.00
2021	Mccrillis Rd	3	HMA Overlay (1.25")	0.25	\$18,181	95.00	95.69	5	5	76.25
2021	Mccrillis Rd	4	HMA Overlay (1.25")	0.25	\$18,181	95.00	95.69	5	5	76.25
2021	Mccrillis Rd	5	HMA Overlay (1.25")	0.25	\$18,181	90.00	94.60	5	5	77.50
2021	Mccrillis Rd	6	HMA Overlay (1.25")	0.25	\$17,404	90.00	94.60	5	5	77.50
2021	Mccrillis Rd	7	HMA Overlay (1.25")	0.25	\$17,378	100.00	96.77	5	5	75.00
2021	Mccrillis Rd	8	HMA Overlay (1.25")	0.25	\$17,364	100.00	96.77	5	5	75.00
2021	Mitchell Rd	1	HMA Overlay (1.5")	0.29	\$24,076	78.00	93.59	4	3	58.50
2021	Mitchell Rd	2	HMA Overlay (1.5")	0.25	\$20,601	81.00	94.11	4	3	57.75
2021	Mitchell Rd	3	HMA Overlay (1.5")	0.24	\$20,657	72.00	92.54	4	3	60.00
2021	Mitchell Rd	4	HMA Overlay (1.5")	0.30	\$25,887	66.00	91.50	4	3	61.50
2021	Priest Rd	5	Chip Seal	0.25	\$7,576	100.00	96.13	3	3	45.00
2021	Priest Rd	6	Chip Seal	0.25	\$7,576	93.00	94.30	3	3	46.75
2021	Priest Rd	7	Chip Seal	0.25	\$7,571	98.00	95.61	3	3	45.50

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2021	Priest Rd	8	Chip Seal	0.26	\$7,783	98.00	95.61	3	3	45.50
2021	Stepping Stone Rd	1	HMA Overlay (1.25")	0.07	\$4,951	93.00	95.25	1	1	16.75
2021	Stepping Stone Rd	1	HMA Overlay (1.25")	0.24	\$16,443	90.00	94.60	1	1	17.50
Total for Year 2021				7.15	\$ 307,340					
2022	Gile Rd	4	Crack Seal (Major)	0.37	\$2,958	95.00	91.61	2	3	38.25
2022	Gile Rd	5	Crack Seal (Major)	0.27	\$2,149	95.00	91.61	2	3	38.25
2022	Gile Rd	6	Crack Seal (Major)	0.23	\$1,854	95.00	91.61	2	3	38.25
2022	Gile Rd	7	Crack Seal (Major)	0.30	\$2,448	95.00	91.61	2	3	38.25
2022	Gile Rd	8	Crack Seal (Major)	0.27	\$2,211	95.00	91.61	2	3	38.25
2022	Ledge Farm Rd	7	HMA Overlay (1.25")	0.25	\$17,118	90.00	93.72	5	4	70.50
2022	Lincoln Dr	1	Chip Seal	0.25	\$8,210	100.00	94.95	1	1	15.00
2022	Lincoln Dr	2	Chip Seal	0.25	\$8,210	100.00	94.95	1	1	15.00
2022	Lincoln Dr	3	Chip Seal	0.18	\$5,946	100.00	94.95	1	1	15.00
2022	Lucas Pond Rd	1	Chip Seal	0.25	\$8,614	93.00	93.21	3	3	46.75
2022	Lucas Pond Rd	2	Chip Seal	0.25	\$8,992	93.00	93.21	3	3	46.75
2022	Nottingham Ln	1	FDR & HMA (4")	0.37	\$68,039	53.00	97.20	1	1	26.75
2022	Shannon Dr	1	Chip Seal	0.30	\$11,131	98.00	94.45	1	1	15.50
2022	Smoke St	5	Chip Seal	0.25	\$9,005	90.00	94.66	5	5	77.50
2022	Smoke St	6	Chip Seal	0.25	\$8,985	90.00	94.66	5	5	77.50
2022	Smoke St	7	Chip Seal	0.25	\$8,999	90.00	94.66	5	5	77.50
2022	Smoke St	8	Chip Seal	0.25	\$8,999	90.00	94.66	5	5	77.50
2022	Smoke St	9	Chip Seal	0.25	\$8,999	90.00	94.66	5	5	77.50
2022	Smoke St	10	Chip Seal	0.25	\$8,992	90.00	94.66	5	5	77.50
2022	Smoke St	11	Chip Seal	0.25	\$8,992	90.00	94.66	5	5	77.50
2022	Smoke St	12	Chip Seal	0.25	\$8,999	90.00	94.66	5	5	77.50
2022	Smoke St	13	Chip Seal	0.34	\$12,275	90.00	94.66	5	5	77.50
2022	Stevens Hill Rd	9	Chip Seal	0.11	\$3,750	83.00	90.71	3	3	49.25
2022	Stevens Hill Rd	10	Chip Seal	0.25	\$8,210	83.00	90.71	3	3	49.25
2022	Stevens Hill Rd	11	Chip Seal	0.25	\$8,210	79.00	89.71	3	3	50.25
2022	Stevens Hill Rd	12	Chip Seal	0.25	\$8,992	93.00	93.21	3	3	46.75
2022	Stevens Hill Rd	13	Chip Seal	0.13	\$4,605	88.00	91.96	3	3	48.00
2022	Swan Dr	1	FDR & HMA (4")	0.25	\$45,729	40.00	96.66	1	1	30.00
2022	Swan Dr	1	FDR & HMA (4")	0.06	\$11,017	37.00	96.54	1	1	30.75
Total for Year 2022				7.19	\$ 322,637					
2023	Flutter St	12	HMA Overlay (1.5")	0.25	\$21,890	88.00	96.22	5	4	71.00
2023	Flutter St	13	HMA Overlay (1.5")	0.25	\$22,885	88.00	96.22	5	4	71.00
2023	Flutter St	14	HMA Overlay (1.5")	0.25	\$22,885	78.00	95.66	5	4	73.50
2023	Flutter St	15	HMA Overlay (1.5")	0.25	\$20,911	87.00	96.16	5	4	71.25
2023	Flutter St	16	HMA Overlay (1.5")	0.14	\$11,999	95.00	96.61	5	4	69.25
2023	Fort Hill Rd	1	FDR & HMA (4")	0.25	\$47,193	58.00	97.30	1	1	25.50
2023	Friar Tuck Ln	1	Chip Seal	0.27	\$10,446	92.00	91.92	1	1	17.00
2023	Halls Way	1	Isolated Patch and HMA Shim	0.34	\$4,591	91.00	90.30	4	4	62.25
2023	Mccrillis Rd	1	Crack Seal (Major)	0.25	\$2,172	96.00	94.99	5	5	76.00
2023	Mccrillis Rd	2	Crack Seal (Major)	0.25	\$2,172	96.00	94.99	5	5	76.00

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2023	Mccrillis Rd	3	Crack Seal (Major)	0.25	\$2,173	95.00	94.91	5	5	76.25
2023	Mccrillis Rd	4	Crack Seal (Major)	0.25	\$2,173	95.00	94.91	5	5	76.25
2023	Mccrillis Rd	5	Crack Seal (Major)	0.25	\$2,173	90.00	94.51	5	5	77.50
2023	Mccrillis Rd	6	Crack Seal (Major)	0.25	\$2,081	90.00	94.51	5	5	77.50
2023	Mccrillis Rd	7	Crack Seal (Major)	0.25	\$2,077	100.00	95.30	5	5	75.00
2023	Mccrillis Rd	8	Crack Seal (Major)	0.25	\$2,076	100.00	95.30	5	5	75.00
2023	Mill Pond Rd	9	Crack Seal (Major)	0.25	\$2,170	85.00	92.88	5	4	71.75
2023	Mill Pond Rd	10	Crack Seal (Major)	0.25	\$2,169	81.00	92.56	5	4	72.75
2023	Mill Pond Rd	11	Crack Seal (Major)	0.25	\$2,172	90.00	93.28	5	4	70.50
2023	Mill Pond Rd	12	Crack Seal (Major)	0.15	\$1,303	87.00	93.04	5	4	71.25
2023	Minuteman Ln	1	HMA Overlay (1.25")	0.09	\$7,602	92.00	93.27	3	1	33.00
2023	Mountain Rd	1	Crack Seal (Major)	0.25	\$2,169	81.00	90.26	1	1	19.75
2023	Mountain Rd	2	Crack Seal (Major)	0.24	\$2,062	93.00	91.78	1	1	16.75
2023	Patriots Ln	1	HMA Overlay (1.25")	0.25	\$20,190	83.00	91.48	1	2	26.25
2023	Patriots Ln	2	HMA Overlay (1.25")	0.23	\$18,339	83.00	91.48	1	2	26.25
2023	Revolutionary Ln	1	HMA Overlay (1.25")	0.25	\$17,653	100.00	94.86	1	2	22.00
2023	Revolutionary Ln	2	HMA Overlay (1.25")	0.25	\$17,640	100.00	94.86	1	2	22.00
2023	Revolutionary Ln	3	HMA Overlay (1.25")	0.25	\$17,680	100.00	94.86	1	2	22.00
2023	Revolutionary Ln	4	HMA Overlay (1.25")	0.23	\$16,114	100.00	94.86	1	2	22.00
2023	Washington Ln	1	HMA Overlay (1.25")	0.28	\$17,703	100.00	95.00	1	1	15.00
Total for Year 2023				7.21	\$ 324,862					
2024	Anna Lisa Way	1	HMA Overlay (1")	0.35	\$24,309	94.00	91.39	1	1	16.50
2024	Berry Rd	1	Crack Seal (Major)	0.25	\$1,850	96.00	89.13	2	2	31.00
2024	Berry Rd	6	Crack Seal (Major)	0.17	\$1,462	98.00	89.74	3	3	45.50
2024	Camelot Ct	1	Isolated Patch and HMA Shim	0.25	\$4,338	90.00	88.90	1	1	17.50
2024	Camelot Ct	2	Isolated Patch and HMA Shim	0.13	\$2,309	95.00	90.22	1	1	16.25
2024	Church St	1	Isolated Patch and HMA Shim	0.11	\$1,737	79.00	91.44	5	5	80.25
2024	Freeman Hall Rd	1	HMA Overlay (1.5")	0.25	\$22,591	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	2	HMA Overlay (1.5")	0.25	\$22,608	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	3	HMA Overlay (1.5")	0.25	\$22,625	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	4	HMA Overlay (1.5")	0.25	\$24,644	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	5	HMA Overlay (1.5")	0.25	\$24,682	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	6	HMA Overlay (1.5")	0.25	\$24,644	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	7	HMA Overlay (1.5")	0.25	\$24,644	100.00	96.05	5	5	75.00
2024	Freeman Hall Rd	8	HMA Overlay (1.5")	0.15	\$15,022	100.00	96.05	5	5	75.00
2024	Kelsey Rd	1	Crack Seal (Major)	0.25	\$2,145	78.00	90.48	5	5	80.50
2024	Kelsey Rd	2	Crack Seal (Major)	0.25	\$2,144	79.00	90.53	5	5	80.25
2024	Kelsey Rd	3	Crack Seal (Major)	0.25	\$2,141	75.00	90.33	5	5	81.25
2024	Kelsey Rd	4	Crack Seal (Major)	0.25	\$2,145	83.00	90.72	5	5	79.25
2024	Lavoie Dr	1	Crack Seal (Major)	0.25	\$2,046	95.00	88.83	1	1	16.25
2024	Lavoie Dr	2	Crack Seal (Major)	0.25	\$2,046	90.00	87.31	1	1	17.50
2024	Lavoie Dr	3	Crack Seal (Major)	0.28	\$2,316	95.00	88.83	1	1	16.25

Repair Detail by Year										
Year	Street	Order ID	Repair	Miles Treated	Cost	PCI 2019	PCI After	Importance	Volumes	Priority
2024	Merry Hill Rd	1	Chip Seal	0.35	\$11,778	100.00	92.76	1	2	22.00
2024	Mitchell Rd	1	Chip Seal	0.29	\$10,721	78.00	94.45	4	3	58.50
2024	Mitchell Rd	2	Chip Seal	0.25	\$9,174	81.00	94.59	4	3	57.75
2024	Mitchell Rd	3	Chip Seal	0.24	\$9,199	72.00	94.18	4	3	60.00
2024	Mitchell Rd	4	Chip Seal	0.30	\$11,528	66.00	93.91	4	3	61.50
Total for Year 2024				6.38	\$ 284,850					
2025	Devonshire Dr	1	Isolated Patch and HMA Shim	0.18	\$2,582	95.00	89.09	1	1	16.25
2025	Gebig Rd	3	Chip Seal	0.25	\$8,164	81.00	90.70	4	3	57.75
2025	Gebig Rd	4	Chip Seal	0.25	\$8,164	86.00	91.13	4	3	56.50
2025	Gebig Rd	5	Chip Seal	0.25	\$8,164	79.00	90.52	4	3	58.25
2025	Gebig Rd	6	Chip Seal	0.25	\$9,453	93.00	91.74	4	3	54.75
2025	Gebig Rd	7	Chip Seal	0.25	\$9,453	100.00	92.35	4	3	53.00
2025	Gebig Rd	8	Chip Seal	0.25	\$9,453	100.00	92.35	4	3	53.00
2025	Gebig Rd	9	Chip Seal	0.20	\$7,598	100.00	92.35	4	3	53.00
Total for Year 2025				1.88	\$ 63,032					
2026	Priest Rd	5	HMA Overlay (1.25")	0.25	\$18,492	100.00	94.09	3	3	45.00
2026	Priest Rd	6	HMA Overlay (1.25")	0.25	\$18,492	93.00	93.73	3	3	46.75
2026	Priest Rd	7	HMA Overlay (1.25")	0.25	\$18,478	98.00	93.99	3	3	45.50
2026	Priest Rd	8	HMA Overlay (1.25")	0.26	\$18,997	98.00	93.99	3	3	45.50
Total for Year 2026				1.01	\$74,460					
Total for Years 2019-2026				53.78	\$1,861,531					