



Pavement Management Program Town of Canton

2021 Update

Presented by
Bob Martin, Glenn Cusano and Dan Manyak

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Presentation Outline



- Pavement Management Program
 - Background/Philosophy
 - Road Selection Process
 - Impact on Residents and Businesses
 - Cost Analysis
 - Current Conditions
 - 2021 Road List
 - Future Road List
 - Recommendations

What is Pavement Management?



... The practice of **planning**
for pavement **maintenance** and **rehabilitation**
with the goal of **maximizing**
the **value** and **life** of a
pavement network.

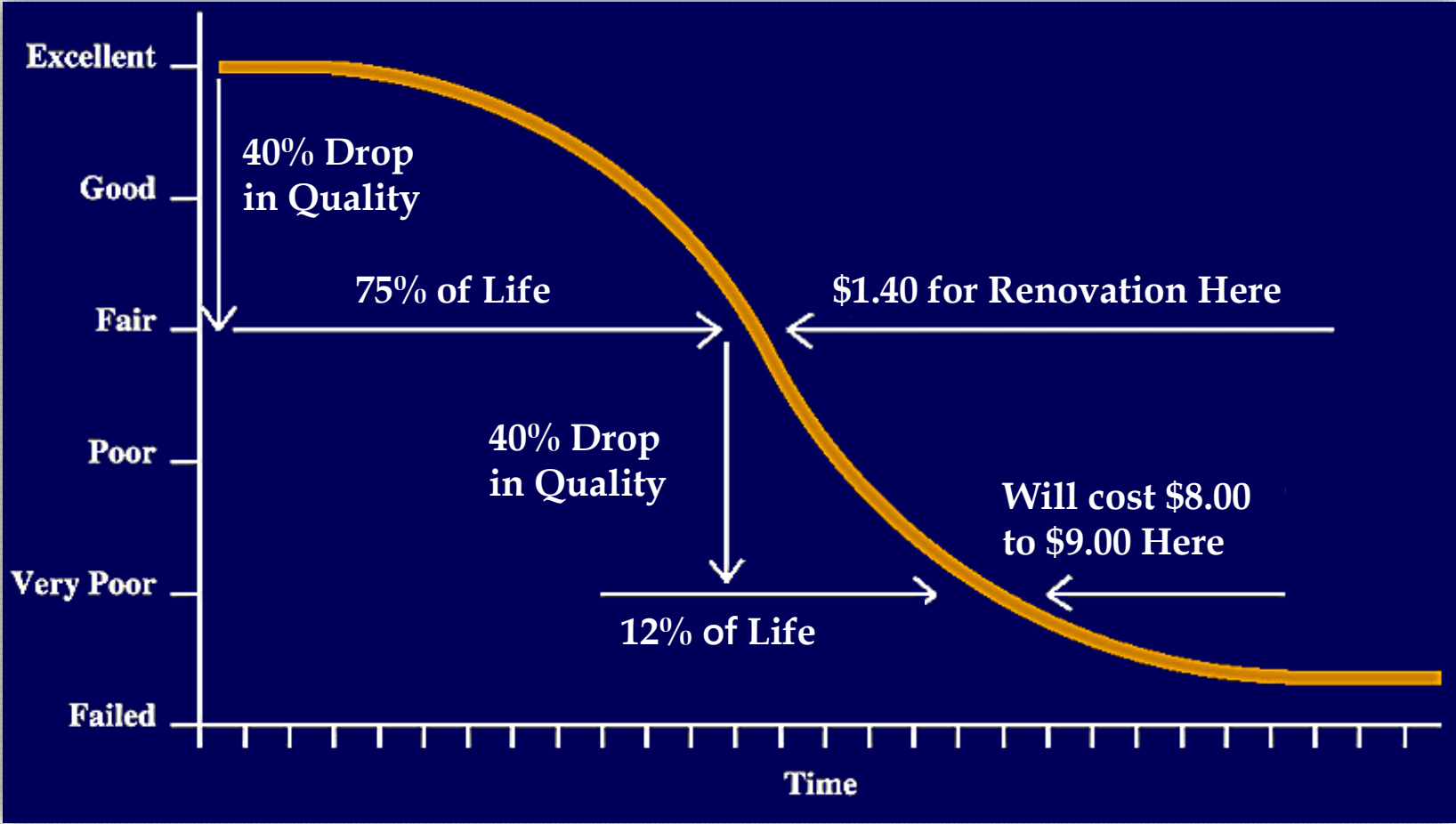
"Getting the Biggest Bang for your Buck"

The Process



1. Pavement Section Inventory
2. Pavement Distress Identification & Quantification by Visual Inspection
3. Pavement Condition Index (PCI) Calculation on a 0 to 100 Scale
4. GIS Integration
5. Define Repair Strategies and Costs
6. Test Various Budget Scenarios
7. Develop Annual Road Program

Pavement Deterioration Curve



Do Nothing

93-100 PCI



Routine Maintenance (Crack Seal)

73-92 PCI



Preventive Maintenance 59-72 PCI

(Crack Seal & Patch, Micro surface, Chip Seal)



Structural Improvement Condition (Overlay or Mill & Overlay)

52-58 PCI



Restoration Condition (Reclamation)

40-51 PCI

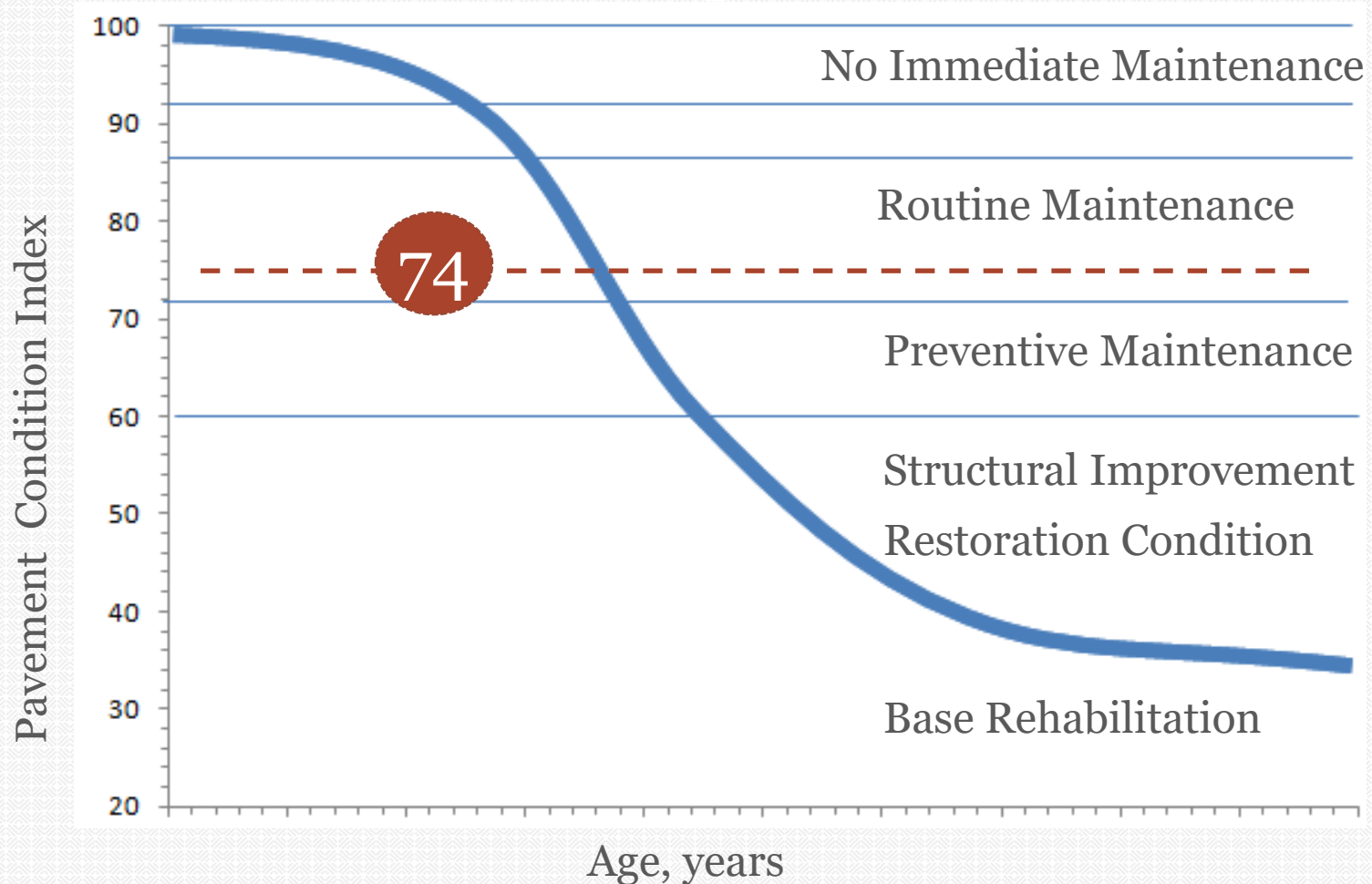


Reconstruction Condition

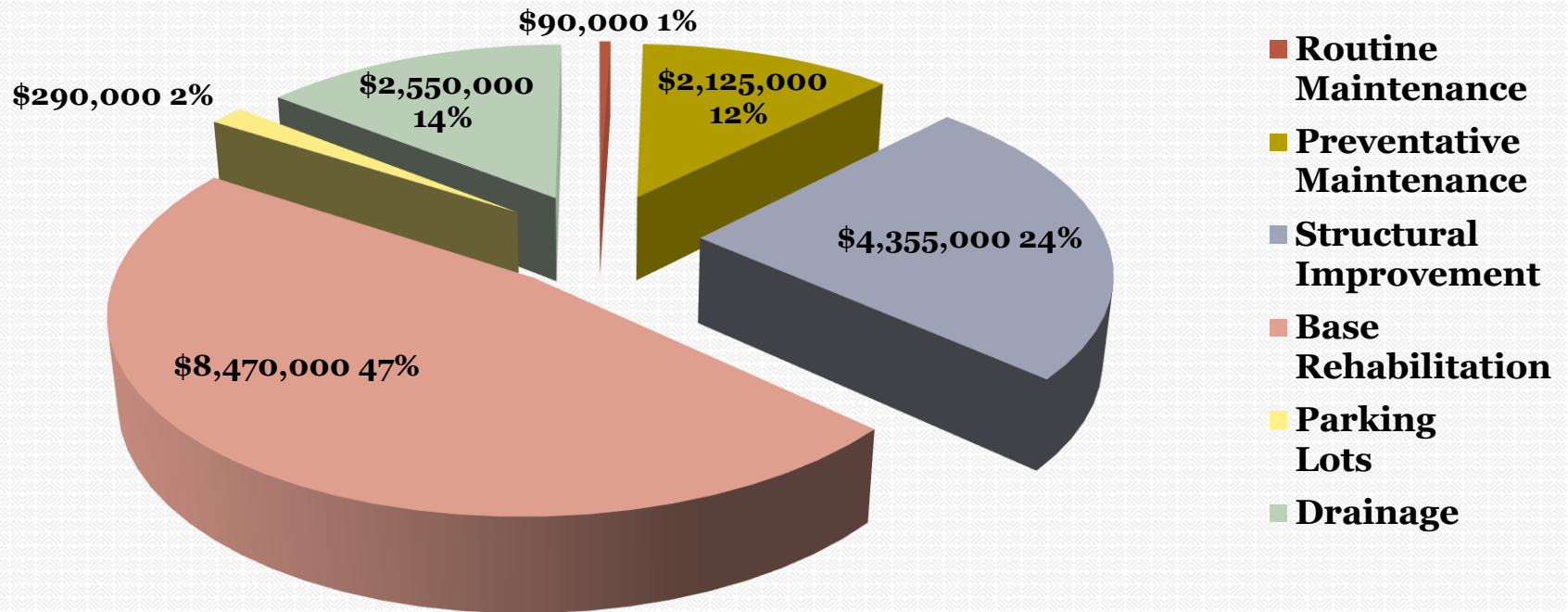
0-39 PCI



Average 2011 Pavement Condition Index- 74



2011 Total Backlog Summary- \$17,880,000



Funding History



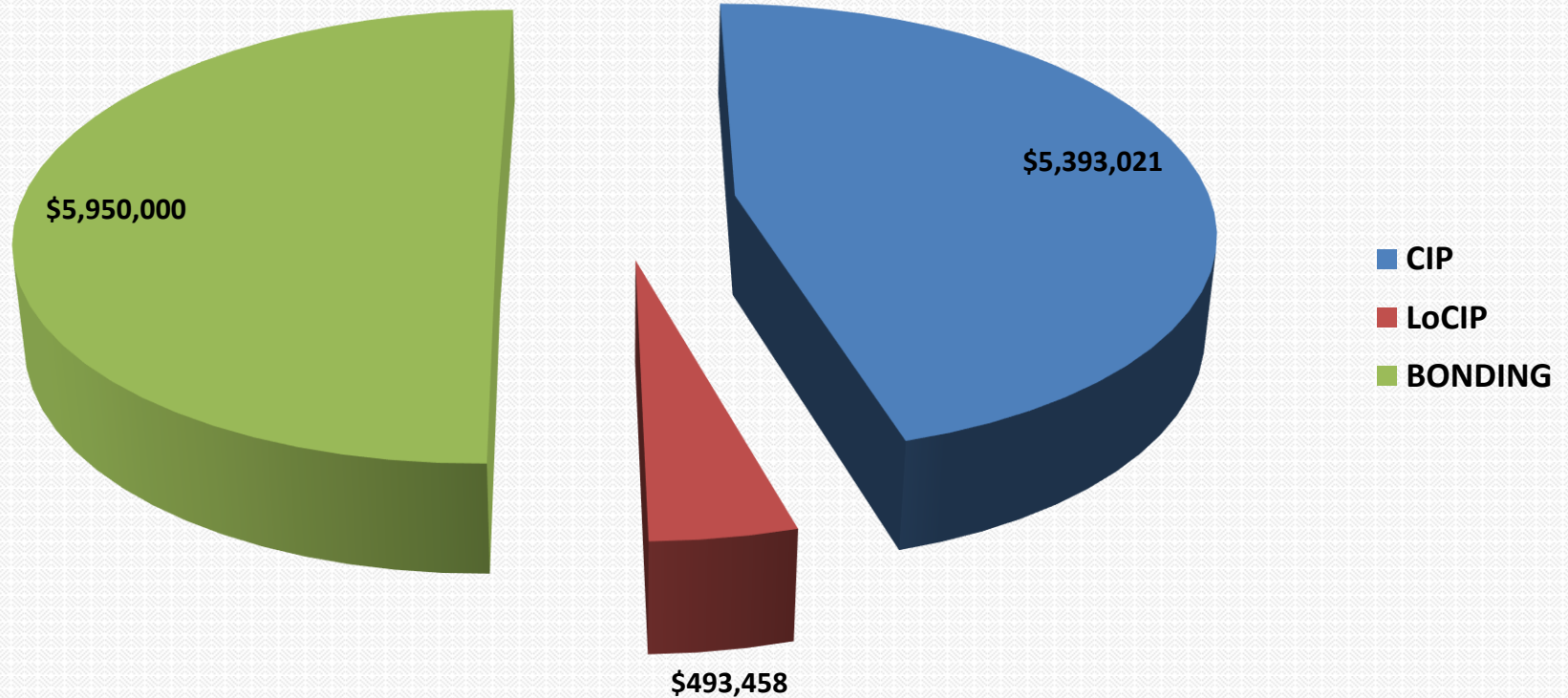
Funding 2000 to 2010

- \$200,000 +/- Year

Funding 2011 to 2020

- \$1,183,648 Average Per Year
- \$11,836,479 Total

2011 – 2020 Funding Summary - \$11,836,479



Initial Program Implementation Strategy



2011 Repair work strategy was performed using standard **“Book Job”** method.

Example:

Lower Dyer Avenue

- Engineering Services – Utilized pre-bid on-call engineering vendor, plans were developed.
- Repair Services - Went out to bid, contractor awarded job, contractor hired sub-vendors (paving, drainage, road marking etc.) – town made one payment to contractor after the road was finished.

Let's review how we made out.

Work In Progress – Program Strategy



2012 Repair work strategy executed with new **“In-House”** method.

Example:

Scoville Road

- Engineering Services – Performed in combination with Town staff {Project Administrator/Engineer and DPW}
- Repair Services – Drainage work performed by DPW, reclaiming/grading services and paving directly hired by DPW utilizing the CT State Bid Contract.

Town staff took over role of general contractor!

Current Program Strategy



2013 – 2020 Repair work strategy directed by town staff solely with “**Hybrid**” method.

Example:

All roads

- Engineering Services - Performed in combination with Town staff {Director, Project Administrator and Foreman} and pre-bid on-call engineering vendor.
- Road Improvements – Incidental Roadwork bid containing up to 107 different menu items that established distinct costs for each.
- Pavement Services/Rehab - Directly hired by DPW utilizing the CT State Bid Contract.

\$10 Million + Work performed the last eight years!!!

Powder Mill Road



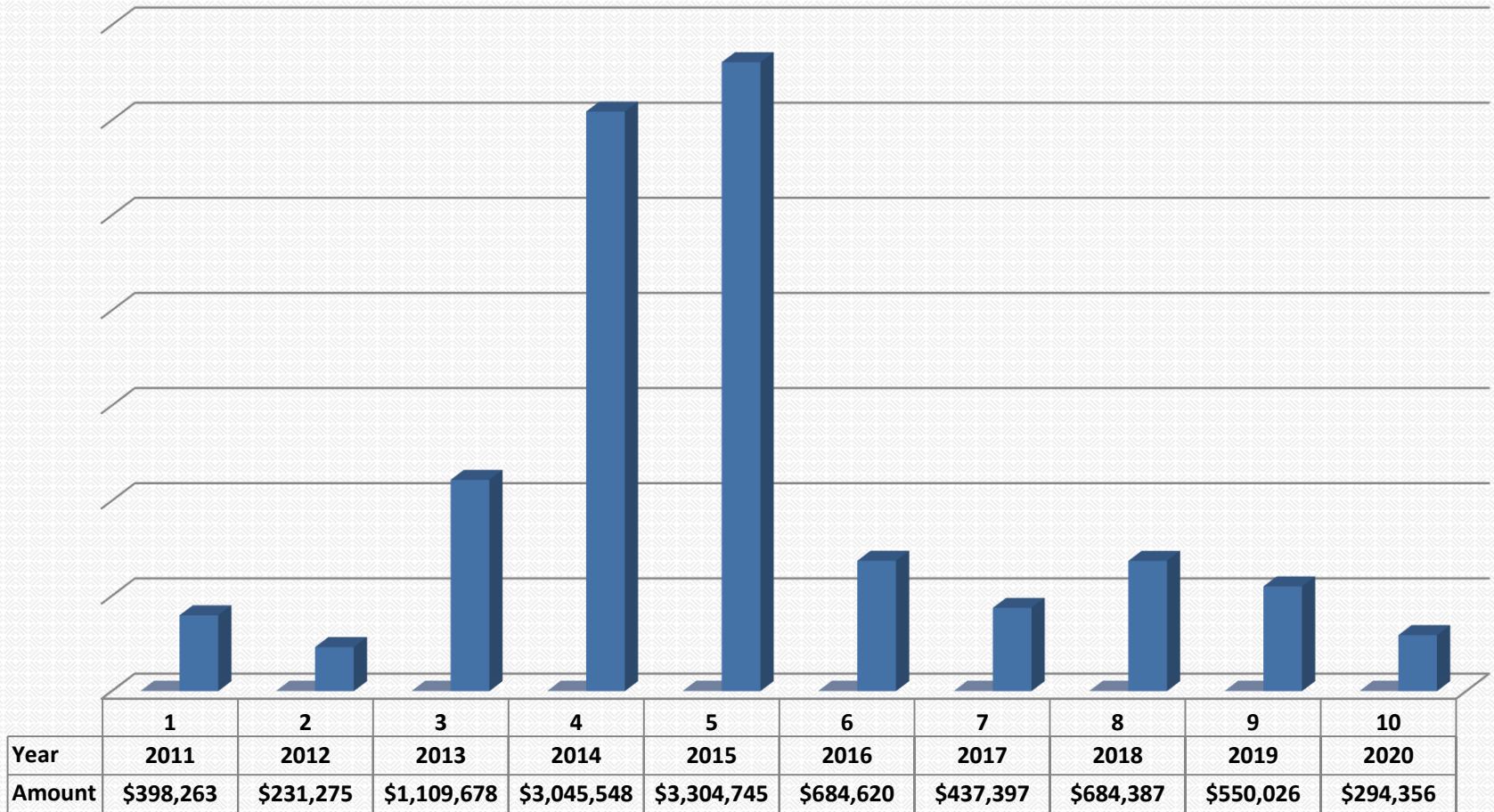
Before



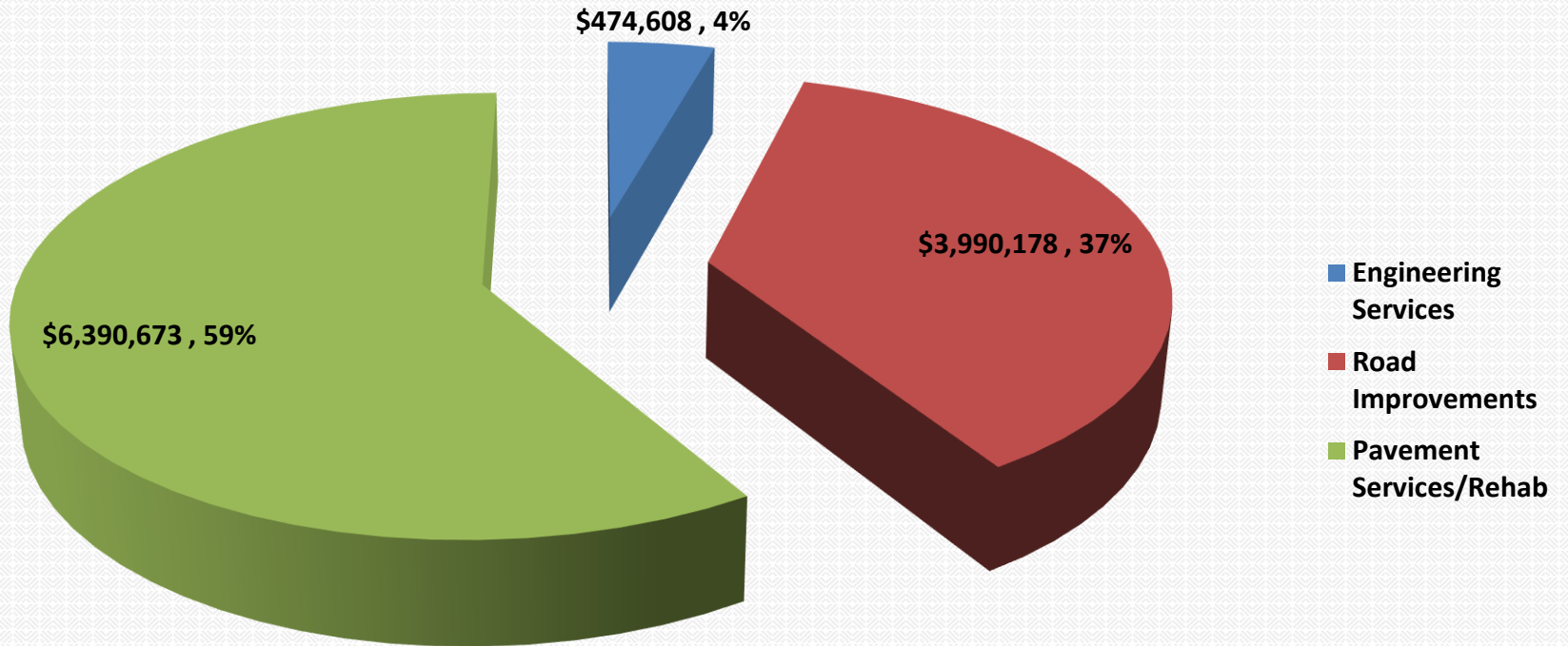
After



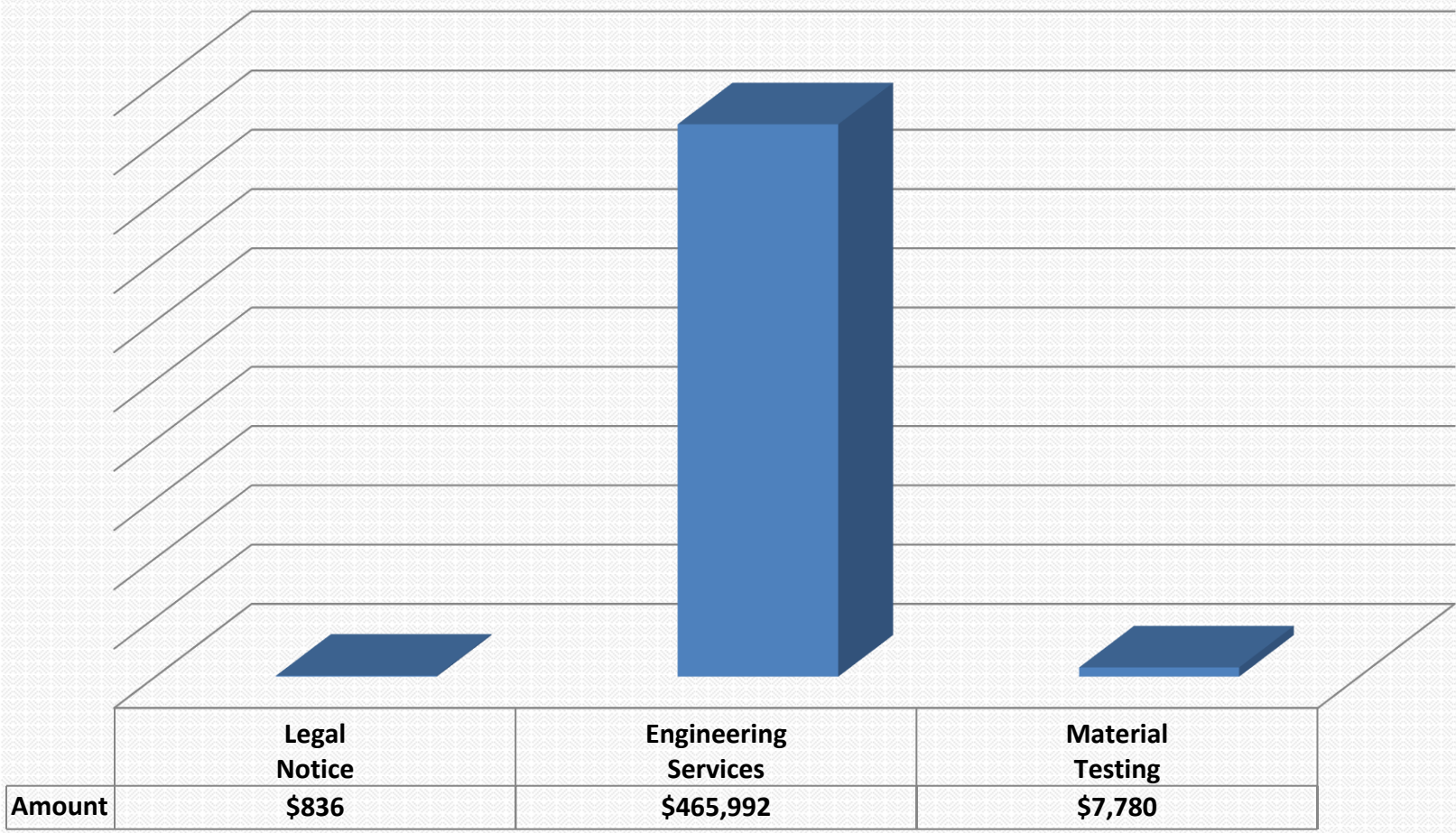
Yearly Work Performed



2011-2020 Breakdown of Work - \$10,855,459



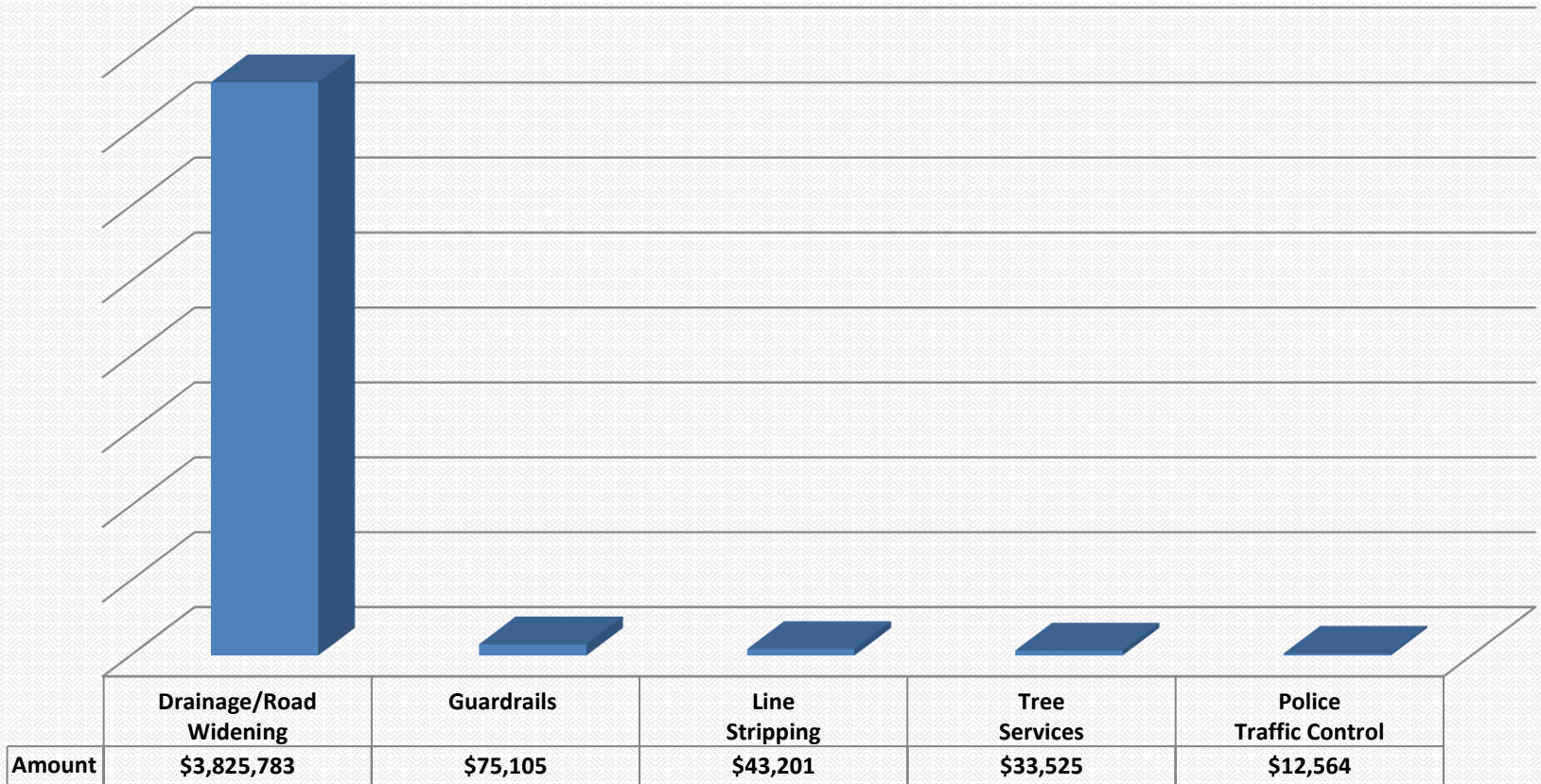
Engineering



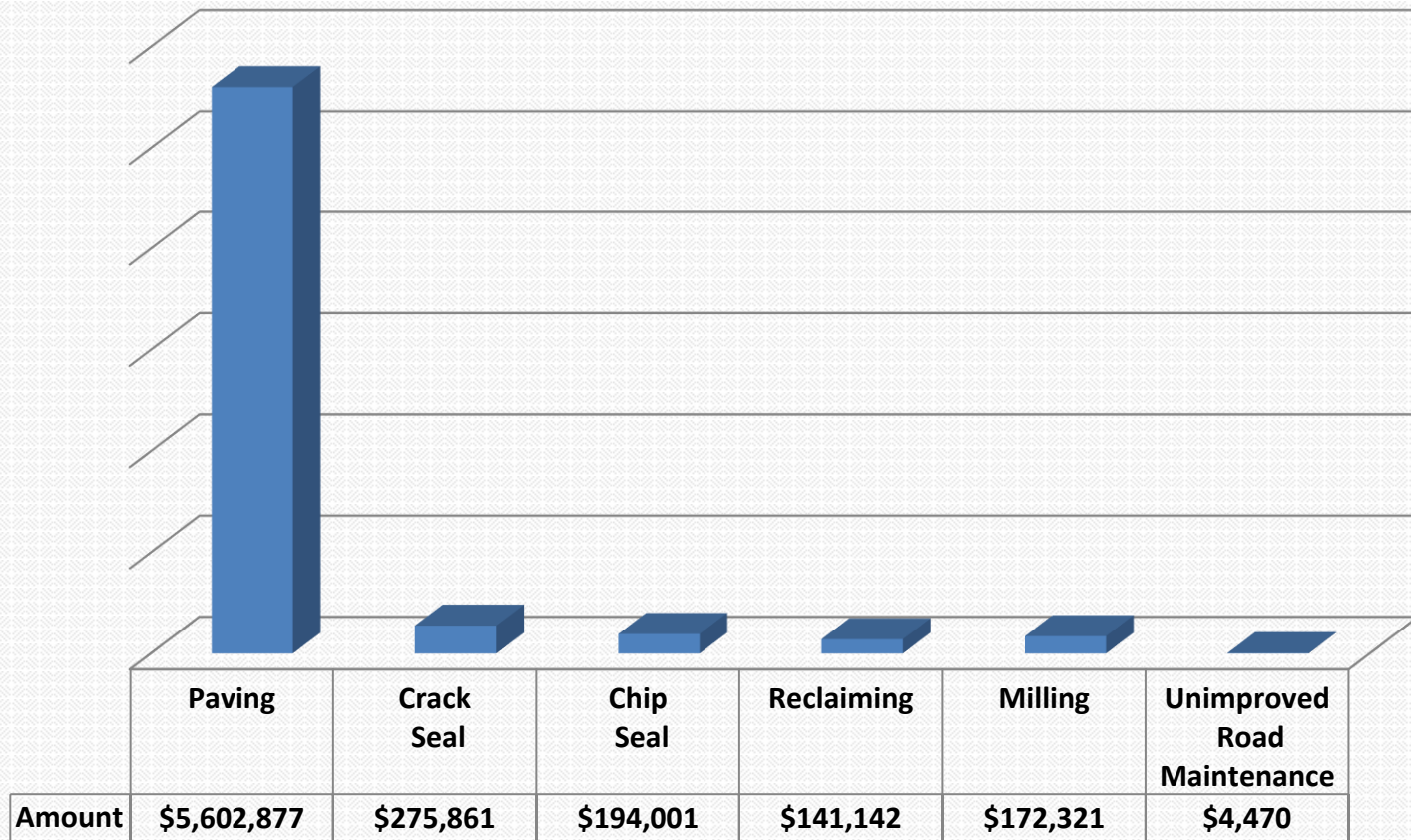
Road Improvements



ROAD IMPROVEMENTS

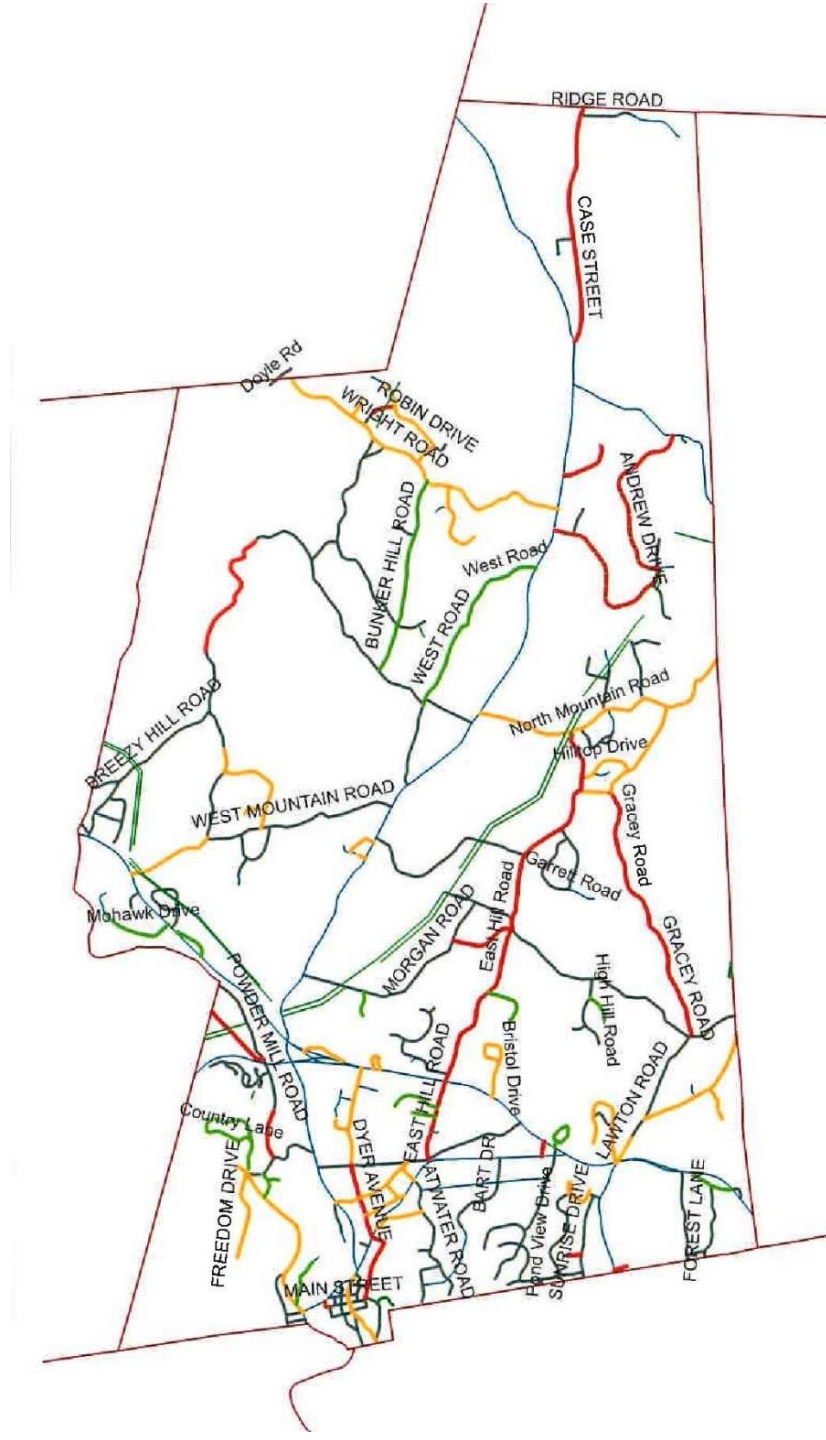


Paving Services/Rehab

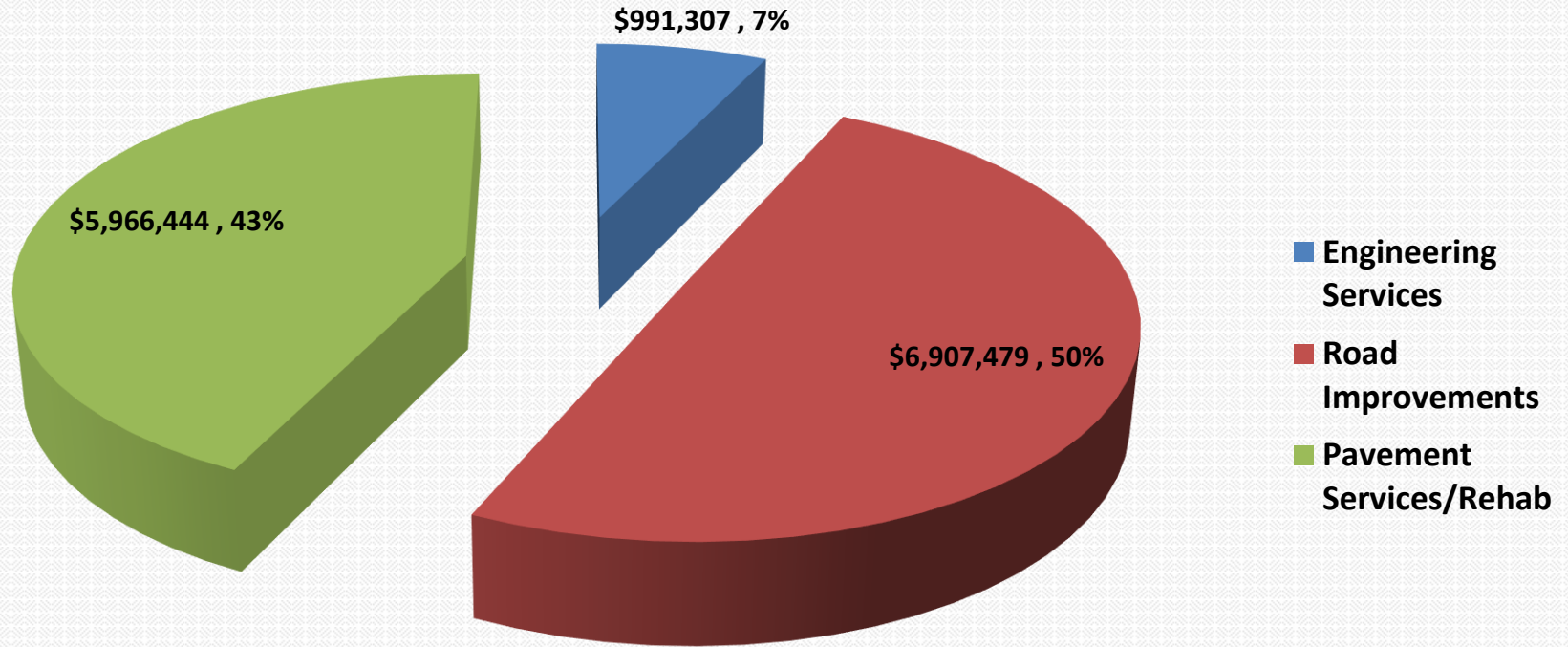


2011 – 2020 Historic Repairs

- Chip Seal
- Overlay
- Reclaim

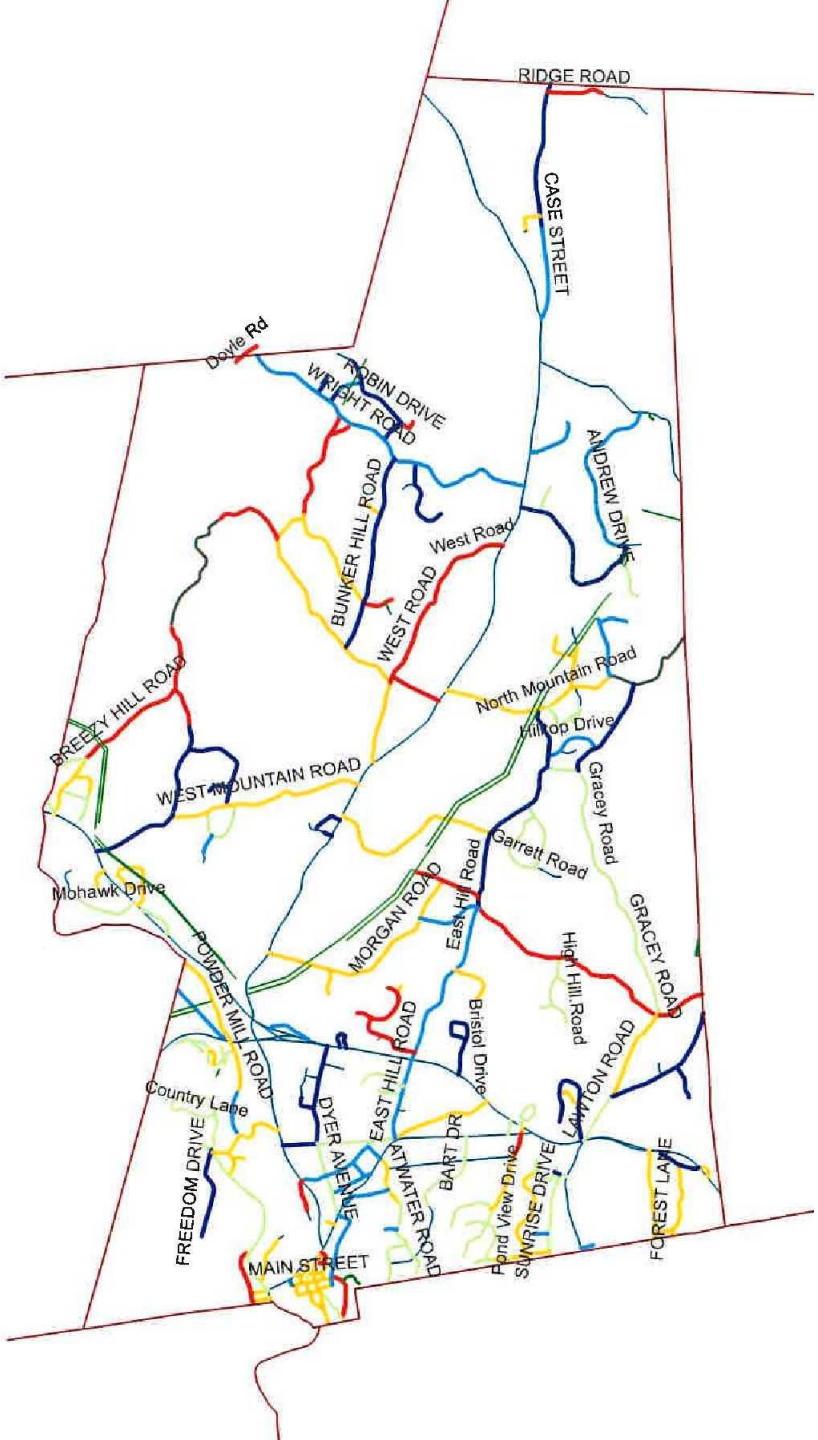


2021+ Backlog Work Summary - \$13,865,230



Current Pavement Condition Index (PCI) - 77

- 93-100
- 86-92
- 73-85
- 61-72
- 0-60



Proposed 2021 Roadway Improvements Schedule



Mill/Overlay w/drainage:

(Street Scape II Roads Mill/Overlay Only *)

- Carriage Drive - \$41,771
- Cemetery Road - \$45,284
- Christmas Tree Hill - \$68,858
- East Street - \$28,153
- Elizabeth Road - \$18,772
- Front Street - \$10,328 *
- Forrest Lane - \$82,110
- Johnson Place - \$23,331
- Main Street - \$58,449 *
- Market Street - \$7,973 *
- New Road - \$17,949
- Noja Trail - \$57,964
- Crack Seal Various Roads - \$30,000
- North Street - \$29,353 *
- Old Albany Turnpike - \$34,244
- Ridge Drive - \$37,091
- River Street - \$26,632 *
- Silver Mine Acres - \$56,927
- Spring Street - \$23,140
- South Street - \$42,885 *
- Sunset Terrace - \$31,035
- The Green - \$16,090 *
- Trailsend Drive - \$199,441
- Whitney Lane - \$20,535
- Woodland Drive - \$145,168
- Testing/Misc. Drainage - \$6,000

Total - \$1,153,483

Proposed 2022+ Road List



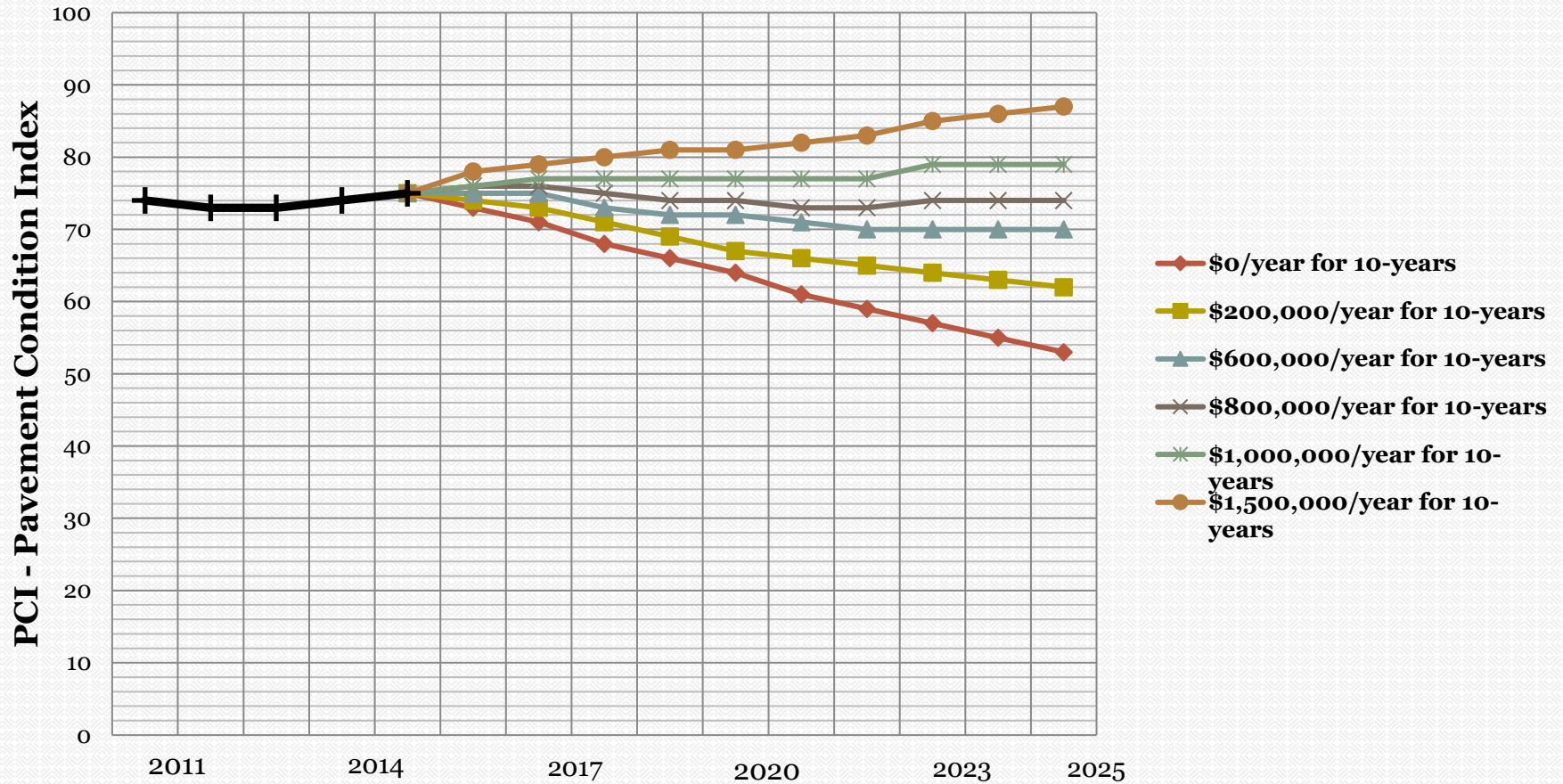
Mill/Overlay w/drainage:

(2021 Price Estimates – excludes engineering services)

- Bahre Corner Road - \$305,328
- Bunker Hill Road - \$295,171
- Colony Road - \$80,921
- Dunne Avenue - \$55,789
- Freeland Farms Road - \$70,352
- Morgan Road - \$310,605
- Olson Road - \$139,587
- Queens Peak Road - \$159,721
- Sunrise Drive - \$145,867
- West Road - \$295,170
- Barbourtown Road - \$533,501
- Canton Springs Road - \$139,586
- Doyle Road - \$34,965
- East Mountain Road - \$290,710
- Hanson Road - \$173,504
- Old Canton Road - \$165,504
- Pond View Drive - \$147,694
- Secret Lake Road - \$124,066
- Dry Bridge Road – 105,651

Total - \$3,573,692

Future PCI vs. Funding Level



Conclusions & Recommendations



- Average conditions have gradually improved with previous ten year funding level
- Town should allocate sufficient budget to achieve the desired condition goal
- Continue to include pavement preservation in program while funding major projects
- Provide resources to check quality during construction
- Perform updated road survey (2021 survey planned)
- Continue to monitor conditions and progress



Pavement Management Program
Town of Canton
Questions & Answers