

PLYMOUTH PUBLIC WORKS 2025 BOND PACKAGE PRESENTATION



DPW Director Carl R. Johnson



AGENDA

3

INTRODUCTION

4

PRIMARY GOALS & METHODS

6

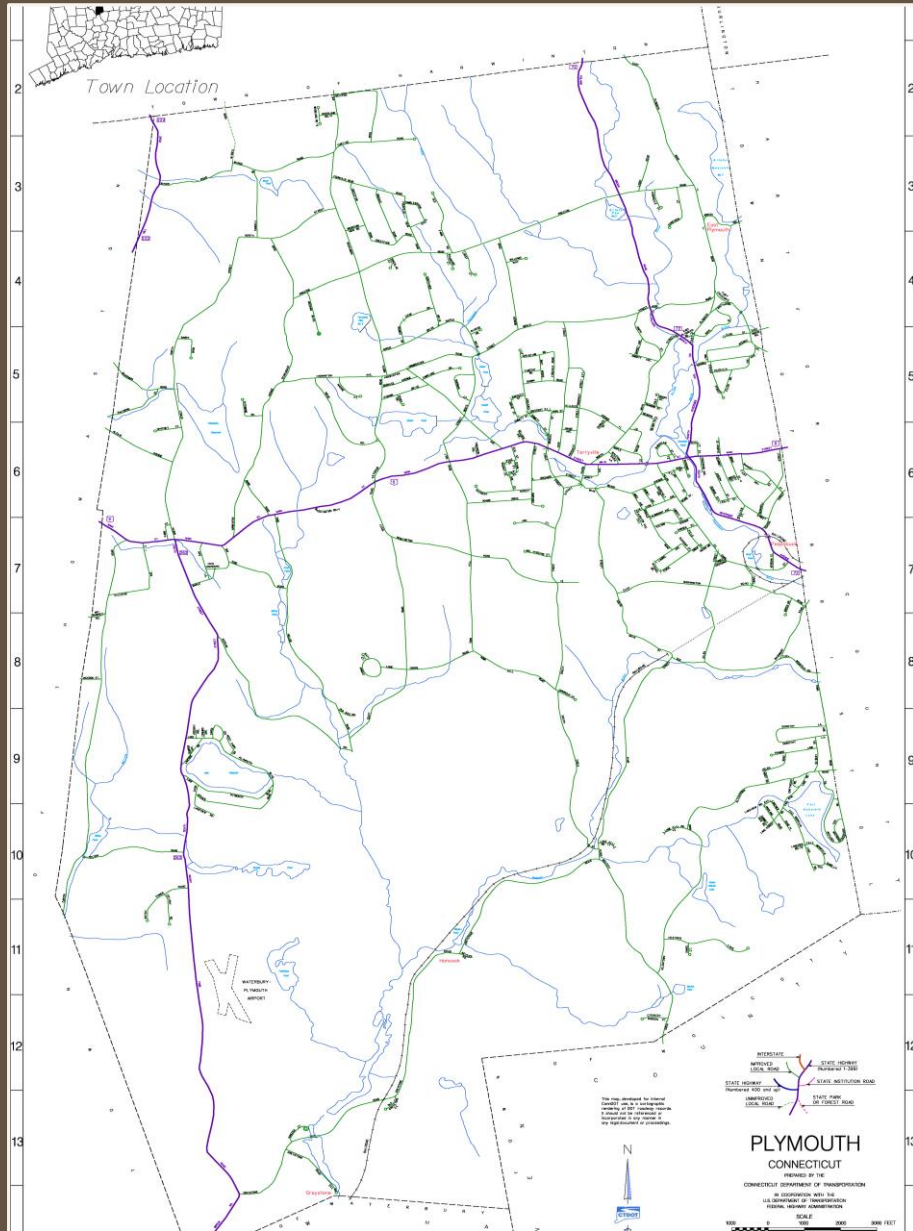
PROJECTS INCLUDED

11

TIMELINE

14

SUMMARY



INTRODUCTION

Plymouth has 81.66 miles of paved two-lane roads. A Pavement Condition Study was completed in Summer of 2024. The study shown that 58.4% of our roads require substantial or major attention. In addition to the roads, the Plymouth DPW also is responsible 4 dams and 18+ bridges over significant water bodies.

PRIMARY GOALS:

ADDRESS PREVIOUSLY PLANNED
ROADS IN VERY POOR CONDITION
AND PREVENTATIVE TREATMENTS
ON ROADS TO EXTEND SERVICE LIFE.

2025 ROADS BOND

2025 PLYMOUTH DPW ROAD BOND

Bridges:

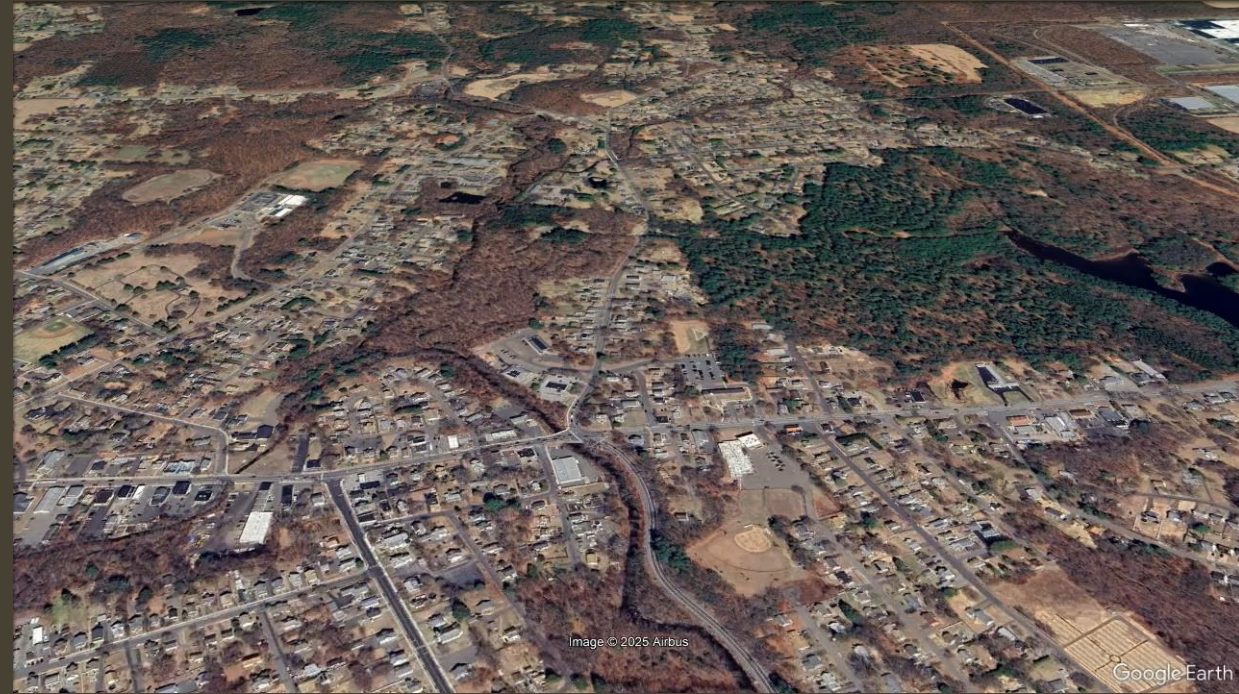
<u>South Main Street Bridge ConnDOT 9110018</u>		
WMC Engineer's Total Cost Estimate		\$ 2,321,000.00
Preliminary engineering	\$ 146,500.00	
Estimated construction costs	\$ 1,700,000.00	
Construction engineering	\$ 304,500.00	
Contingencies	\$ 170,000.00	
<u>Todd Road Crossing at Todd Hollow</u>		\$ 661,104.90
Crossing Engineers Estimate	\$ 400,000.00	
Drainage and Structures	\$ 57,500.00	
3,986 SY reclaim and pave	\$ 203,604.90	

TODD RD BRIDGE



Photo No. 1: Downstream Elevation (Looking North)

LOCATED ON TODD HOLLOW ROAD



BRIDGE CLOSED FOR MANY YEARS

- This bridge is not eligible for the Connecticut Department of Transportation's Local Bridge Program but may be for infrastructure grant which provides up to a 50% cost share.

Todd Road Bridge Pictures



2025 PLYMOUTH DPW ROAD BOND

Road Projects: Full Depth Reclamation, drainage, paving

<u>The Farms part II</u>			
Oakdale Road			\$ 267,907.80
Oakdale Road FDR, Pave, curbing. Aprons	\$	184,207.80	
Replace up to 12 catch basin tops/ repoint / repair	\$	21,200.00	
Drainage contingency	\$	62,500.00	
Fountainhead Road x			\$ 878,191.00
Fountainhead FDR, pave, curbing, aprons	\$	376,661.00	
Replace up to 26 catch basin tops/ repoint / repair	\$	45,630.00	
Add up to 4 precast catch basin structures with tops	\$	32,400.00	
3000' ADS (SCS606) 6" channel muck pipe installed	\$	129,000.00	
Add up to two 18" N-12 cross Stormwater pipe to 48" outfall basin	\$	44,500.00	
Clear & Grub stormwater detention basin, excavate, riprap, add fabric/stone	\$	100,000.00	
Drainage contingency	\$	150,000.00	
Tumblebrook Road			\$ 192,407.50
Tumblebrook FDR pave curbing aprons	\$	142,407.50	
Structures/tops/drainage contingency	\$	50,000.00	
The Farms - Traffic Markings, Signs, Barriers		\$	\$ 85,000.00

2025 PLYMOUTH DPW ROAD BOND

Road Projects: Chip Sealing Program #1 & #2

<u>Chip Seal Program - single treat1</u>		\$ 327,698.65
Altair Avenue	\$ 21,830.00	
Scott road	\$ 73,160.00	
Cross Road	\$ 16,204.00	
Town Hill Road	\$ 65,064.00	
Magnolia Lane	\$ 9,537.00	
Knollwood Drive	\$ 9,980.00	
South Eagle Road	\$ 83,582.00	
Washington Road	\$ 48,341.65	
<u>Chip Seal Program - single treat2</u>		\$ 245,994.45
Preston Road	\$ 77,290.00	
Bombard Court	\$ 9,177.45	
Lassy Court	\$ 10,555.10	
Swiklas Road	\$ 6,929.55	
North Harwinton Road	\$ 49,807.65	
Woodland Road	\$ 13,767.65	
Minor Road	\$ 42,636.35	
Saw Mill Road	\$ 17,148.35	
Barry Road	\$ 9,832.35	
Whitney Court	\$ 8,850.00	

TYPES OF ROAD TREATMENTS

- CRACK FILLING AND PATCHING
- CHIP SEALING
- MILL AND OVERLAY
- "CIPR" COLD-IN-PLACE RECYCLING
- "FDR" FULL DEPTH RECLAMATION
- RECONSTRUCTION

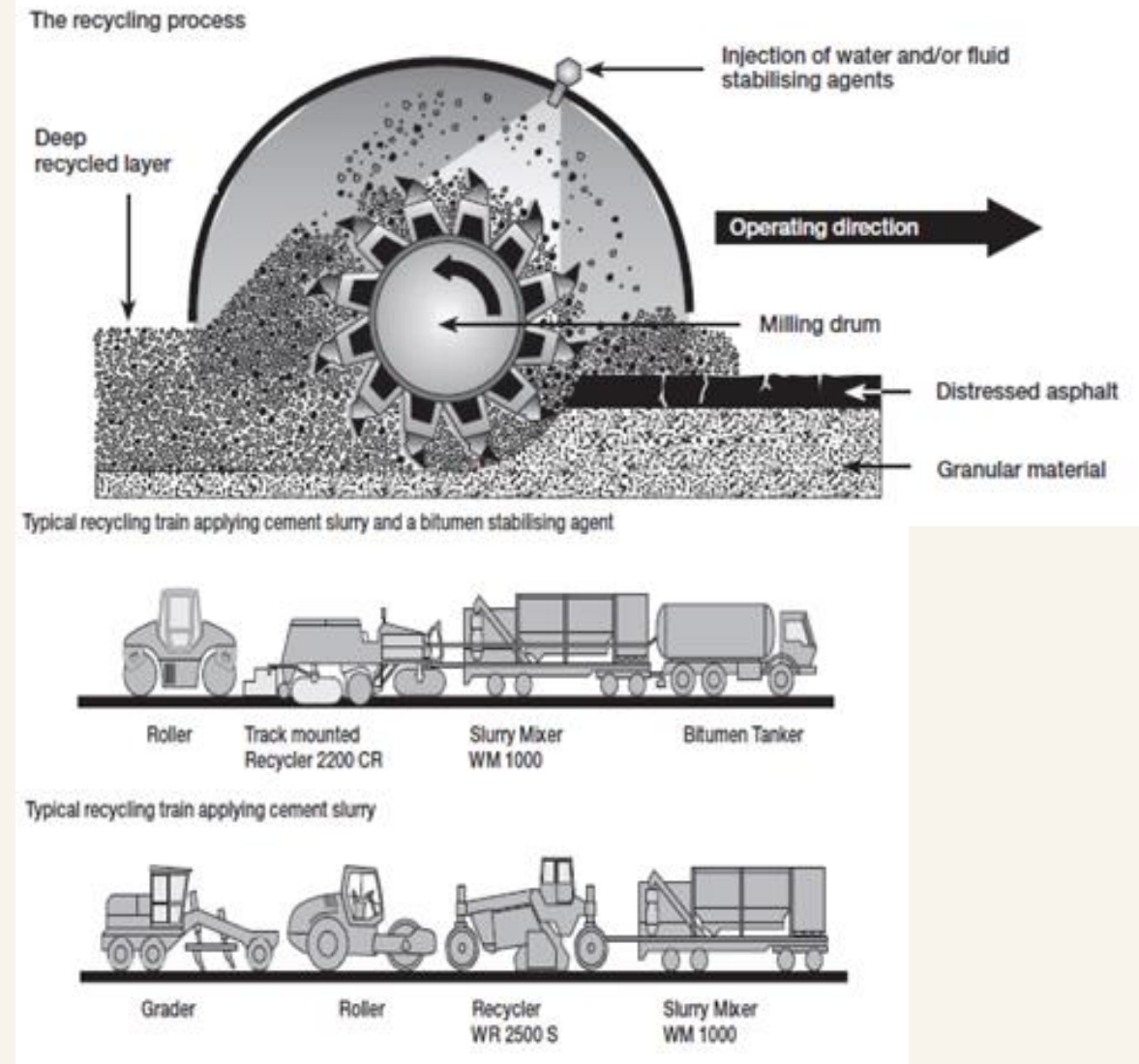
CHIP SEALING

- Chip sealing is a pavement maintenance technique where a layer of liquid asphalt is applied to a road surface, followed by a layer of small crushed rock (chips). This process seals cracks, improves skid resistance, and protects the underlying pavement from water damage and deterioration. Chip sealing is a cost-effective way to extend the life of roads and can be significantly cheaper than resurfacing with asphalt

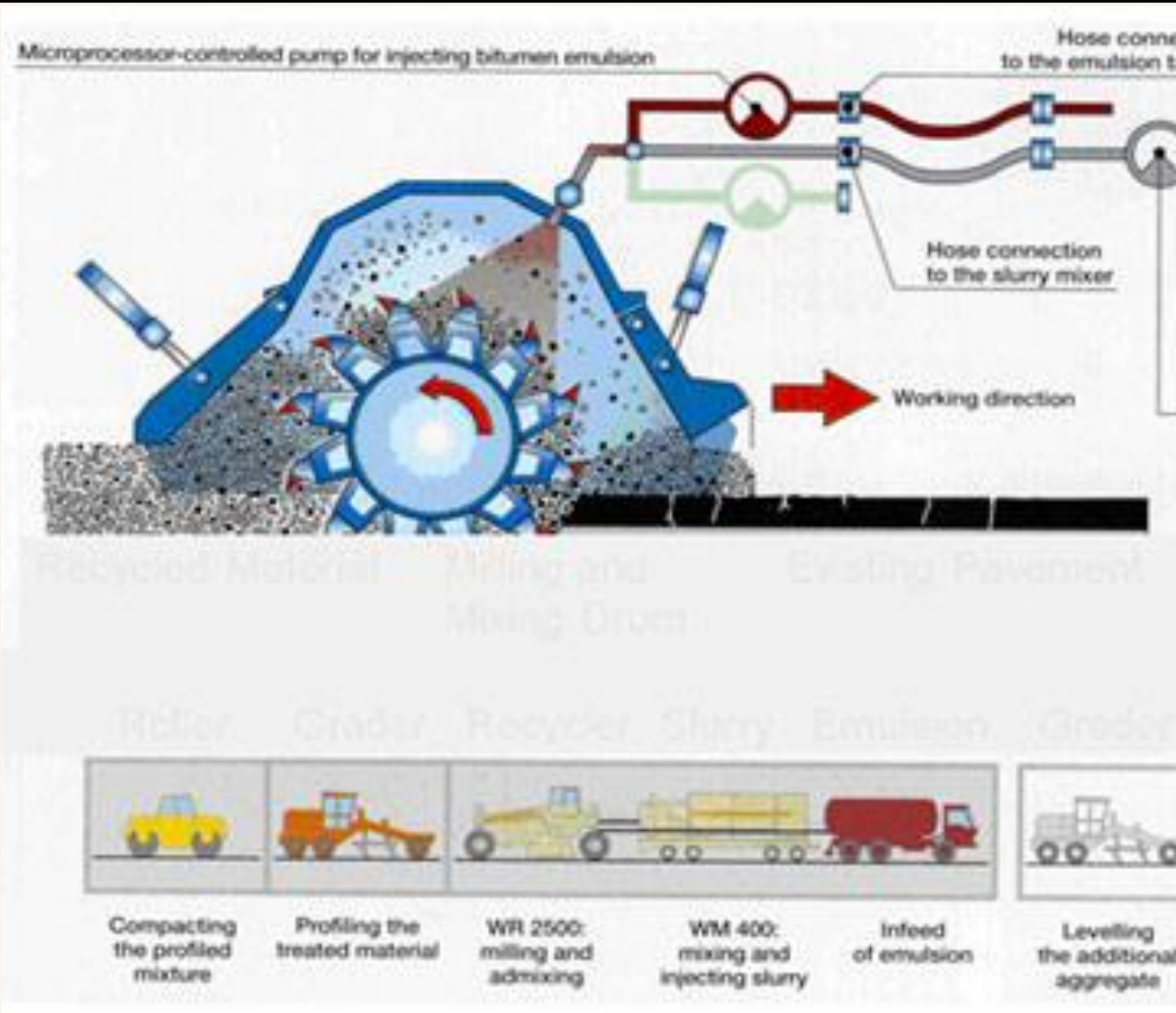


CAST-IN-PLACE-RECYCLING (CIPR)

- CIPR Asphalt, or Cold In-Place Recycling, is a pavement rehabilitation technique where existing asphalt pavement is milled, mixed with a stabilizing agent (like asphalt emulsion or foamed asphalt), and then relaid and compacted, often with a new surface layer. It's a cost-effective and environmentally friendly method for addressing distressed pavements



FULL DEPTH RECLAMATION (FDR)



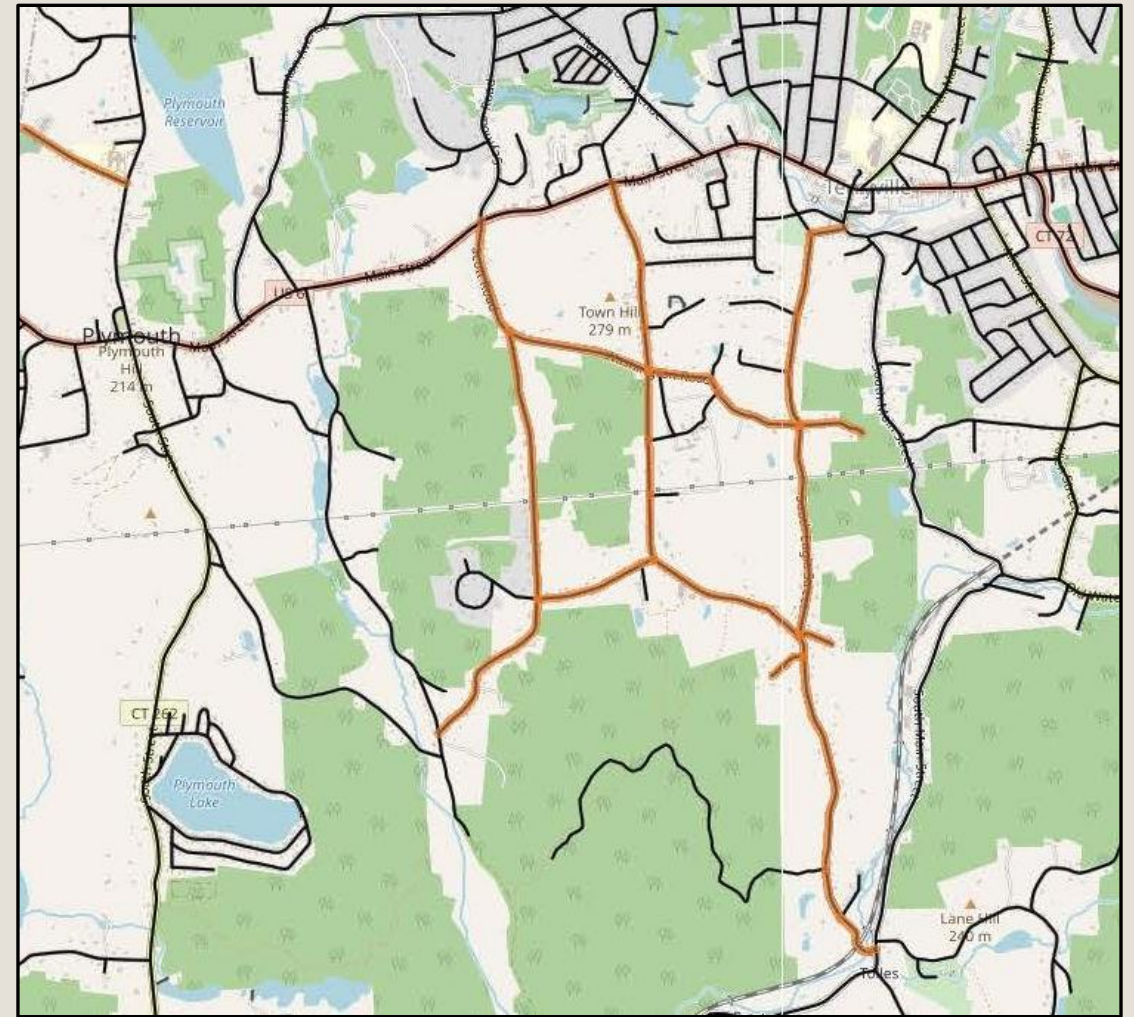
- Full Depth Reclamation (FDR) is an asphalt pavement rehabilitation technique where the existing asphalt pavement layers and a portion of the underlying materials are pulverized, mixed, and stabilized to create a new, stronger base layer. This process essentially recycles the existing pavement materials, making it a cost-effective and environmentally friendly alternative to complete reconstruction.



UNDERDRAINS

An underdrain is designed to collect subsurface water before it saturates the road surface or the road ditch. By intercepting springs and groundwater, underdrains can help to dry and stabilize the road base, road ditches, and banks that would otherwise be softened by emerging springs and seeps. Underdrains also help to reduce erosive surface flow in the road ditch and prevent subsurface water from mixing with sediment-laden surface runoff.

ALTAIR AVENUE
SCOTT ROAD
CROSS ROAD
TOWN HILL ROAD
MAGNOLIA LANE
KNOLLWOOD DRIVE
SOUTH EAGLE ROAD
WASHINGTON ROAD



CHIP SEALING PROGRAM

#1

PRESTON ROAD
BOMBARD COURT
LASSY COURT
SWICKLAS COURT
N. HARWINTON ROAD
WOODLAND ROAD
MINOR ROAD
SAWMILL ROAD
BARRY ROAD
WHITNEY COURT



CHIP SEALING PROGRAM #2



NORTH STREET

CIPR PROGRAM

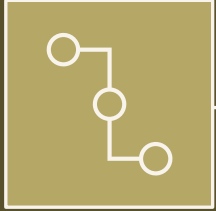


FOUNTAINHEAD RD,
OAKDALE RD, &
TUMBLEBROOK RD

***FDR & Underdrains
Detention basin
rehab***

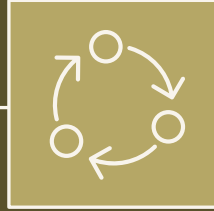
<u>South Main Street Bridge ConnDOT 9110018</u>			
WMC Engineer's Total Cost Estimate			\$ 2,321,000.00
<u>Todd Road crossing at Todd Hollow</u>			\$ 689,104.90
<u>The Farms part II</u>			
Oakdale Road			\$ 267,907.80
Fountainhead Road	x		\$ 878,191.00
Tumblebrook Road			\$ 192,407.50
The Farms - Traffic Markings, Signs, Barriers			\$ 85,000.00
<u>Chip Seal Program - single treat1</u>			\$ 327,698.65
<u>Chip Seal Program - single treat2</u>			\$ 245,994.45
<u>Cold In Place Recycling Treatment</u>			\$ 209,525.00
		<u>subtotal</u>	\$ 5,216,829.30
<i>15% ESCALATION CONTINGENCY</i>			\$ 782,524.40
		TOTAL	\$ 5,999,353.70

TIMELINE



FALL 2025

Town Referendum is voted on for this 6 million dollar roads plan



WINTER 2025

Procurement, Bids, Contracts, Scheduling for Road Projects. Apply for Local Bridge Grant



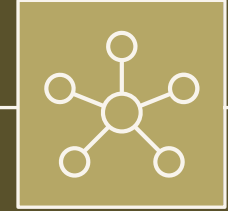
SPRING 2026

Start FDR project in Plymouth Farms Design and bid Todd Road Bridge rehab



SUMMER 2026

Chip Seal and CIPR projects

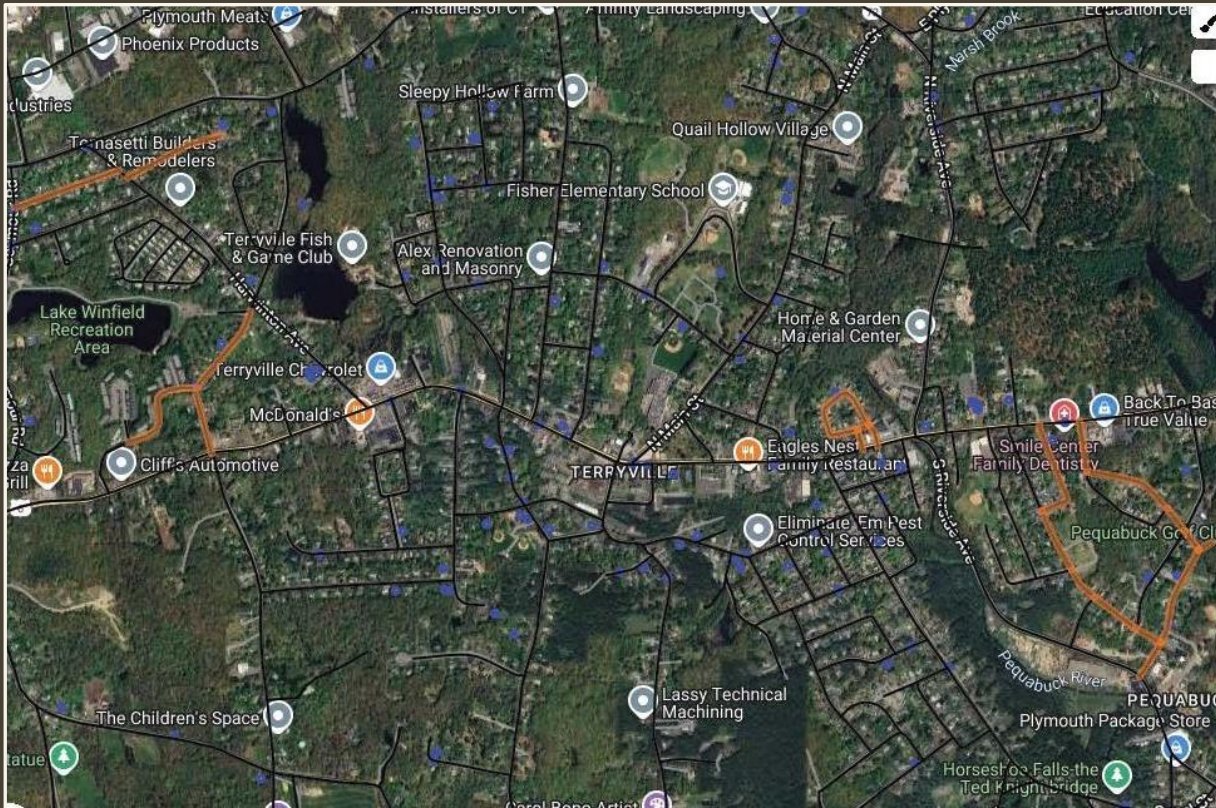


SPRING – SUMMER 2027

Any left over road items
*Start S.Main Street Bridge

2025-2027

OTHER PROJECTS IN MULTI-YEAR ROADS PLAN



STEAP GRANT APPLICATION ROADS

- HOLT STREET
- SCHOOL STREET
- CARRIAGE DRIVE
- MAKARA STREET
- BERNICE AVENUE
- BIRCH STREET
- BEMIS ST PARTIAL
- KEARNEY ST PARTIAL
- BURNHAM STREET

FUTURE LARGER PROJECTS

- BEACH AVENUE w/ SIDEWALKS & DRAINAGE
- KNIGHT LANE
- KEEGAN ROAD & BRIDGE
- TORY CROSSING – INTERSECTION REALIGNMENT OF E.PLYMOUTH RD, JUDD RD, & MATTHEWS ST

BY IMPROVING DRAINAGE AND USING FULL DEPTH RECLAMATION PROCESS FOR REBUILDING THE PROPOSED ROADS, THE ANTICIPATION IS A LONGER SERVICE LIFE AND ENVIRONMENTAL BENEFIT OF CLEANER DRAIN WATER PLUS RECYCLING OF THE ASPHALT.

THE PREVENTATIVE TREATMENT MEASURES WILL LENGTHEN THE REMAINING SERVICE LIFE OF ROADS STARTING TO SHOW AGE.

THIS BOND PACKAGE WILL ALLOW THE PUBLIC WORKS TO HAVE MUCH NEEDED FUNDING TO IMPROVE THE CONDITION AND SAFETY OF OUR ROADS.

SUMMARY



THANK YOU



CARL R. JOHNSON

CJOHNSON@PLYMOUTHCT.US

PLYMOUTH DEPT. PUBLIC WORKS