



TOWN OF PLYMOUTH

Department of Public Works
Engineering Division
11 Lincoln Street
Plymouth, Massachusetts 02360

TO: ADVISORY AND FINANCE COMMITTEE

FROM: SID KASHI, P. E. *SK*
TOWN ENGINEER

Through: Jonathan Beder, Director of Public Works

CC: Melissa Arrighi, Town Manager
Roads Advisory Committee

DATE: January 25, 2017

**SUBJECT: 2017 SPRING ANNUAL TOWN MEETING – ARTICLE EXPLANATION –
ARTICLE 14 - \$1,000,000. FUNDING FOR PUBLIC AND UNACCEPTED
GRAVEL ROADS IMPROVEMENT PROGRAM**

Over half of the roads in Plymouth are unaccepted AS PUBLIC WAY. There are approximately 150 miles of unaccepted roads, and 40% (65 miles) of these roads are unpaved (gravel). A large percentage of requests to the DPW for road repairs involve gravel roads, and many of them being used as Town-Wide connectors, which are located in areas with significant build-out potential.

Many residents living on gravel roads expect that the Town should be doing more to maintain or improve these roads.

There are not any funding sources available to support adequate levels of Town maintenance on gravel roads. The DPW and the Roads Advisory Committee (RAC) have been exploring various options to create a program to help fund desired improvements to gravel roads. To accomplish this goal the RAC recommended placing an article in the Town Meeting Warrant requesting \$1,000,000.00 to make improvements on gravel roads.

Funding to repair /maintain gravel roads has been authorized in the past by Town Meeting.

Representatives of the Engineering Division and the Roads Advisory Committee will be available on February 1st to present the materials and answer any questions that you may have.

The D.P.W. recommends that the ADVISORY AND FINANCE COMMITTEE Members vote to approve and support Article 14 as presented.

Encl: Special Act passed by Legislators and signed by the Governor authorizing spending public funds to improve unaccepted roads
Report prepared by "BETA" (a pavement management firm)

THE COMMONWEALTH OF MASSACHUSETTS

In the Year Two Thousand and Twelve

AN ACT AUTHORIZING THE TOWN OF PLYMOUTH TO MAKE IMPROVEMENTS ON UNACCEPTED ROADS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Notwithstanding section 5N of chapter 40, any other general or special law or charter provision to the contrary, the town of Plymouth may transfer money from available funds or borrow money to implement a road improvement program to prepare road layout or make improvements to unaccepted roads and to conduct studies associated with such layouts or improvements.

SECTION 2. This act shall take effect upon its passage.

House of Representatives, June 5, 2012.

Passed to be enacted,

Robert J. Fahnestock, Speaker.

In Senate, June 6, 2012.

Passed to be enacted,

William J. Buckley, President.

13 June 2012.

Approved,

at 1 o'clock and 10 minutes, P. M.

Deval Patrick
Governor.

Town of Plymouth, Massachusetts

Pavement Management Program

Roadway Status Summary - Town Classification

	Roadway Type	Length (Miles)
Town Classification:	Accepted	
	BC	200.93
	GR	17.98
	Total:	218.91
Town Classification:	Unaccepted	
	BC	89.40
	GR	62.31
	Total:	151.71
Town Classification:	State	
	BC	74.02
	Total:	74.02
Town Classification:	Exclusion	
	BC	61.90
	GR	63.90
	Total:	126.15
	Total:	570.80

FY 2016 Chapter 90 Accepted Road Miles - 215



Town of Plymouth Department of Public Works

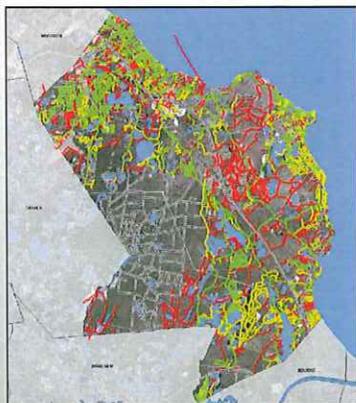
PAVEMENT MANAGEMENT PROGRAM UNACCEPTED ROADWAYS



JANUARY 8th, 2015

Roadway Inventory and GIS

Plymouth Roadway Profile

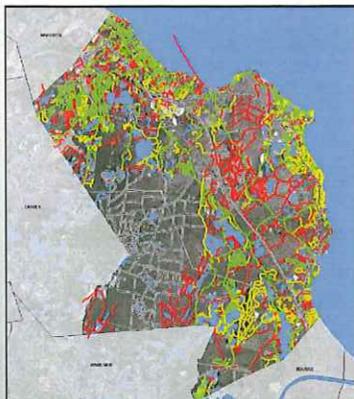


Classification	Miles
Town – Accepted	218.9
Town – Unaccepted	152.5
Town – Private/Exclusion	125.7
Total	497.1



Roadway Inventory and GIS

Plymouth Unaccepted Roadway Profile



Road Type	Miles
Unaccepted – Asphalt	87.5
Unaccepted – Gravel	65.0
Total	152.5



Pavement Management



Maintenance

- Crack Seal
- Pothole/Utility Patching

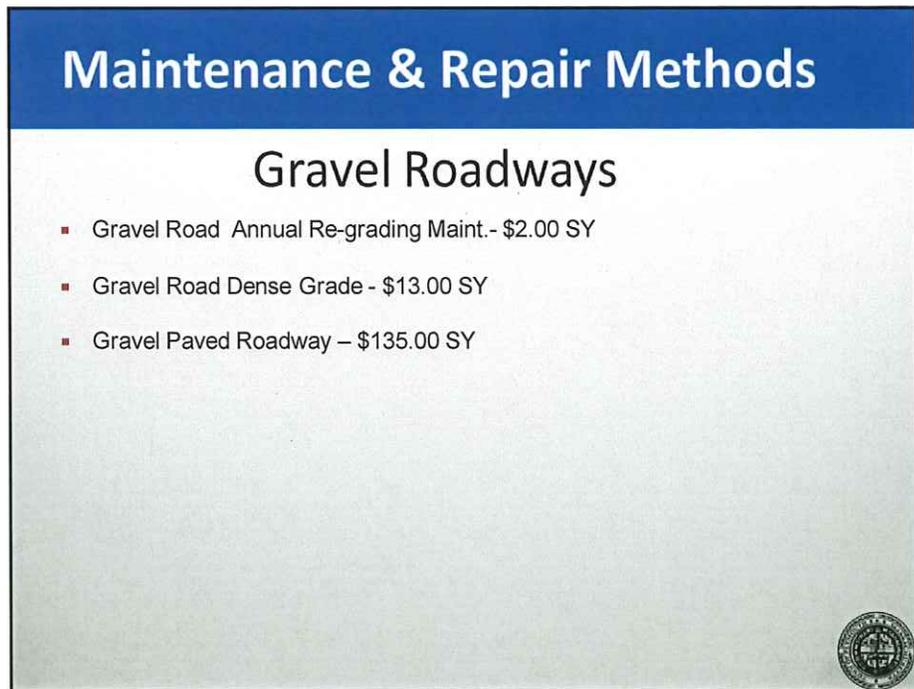
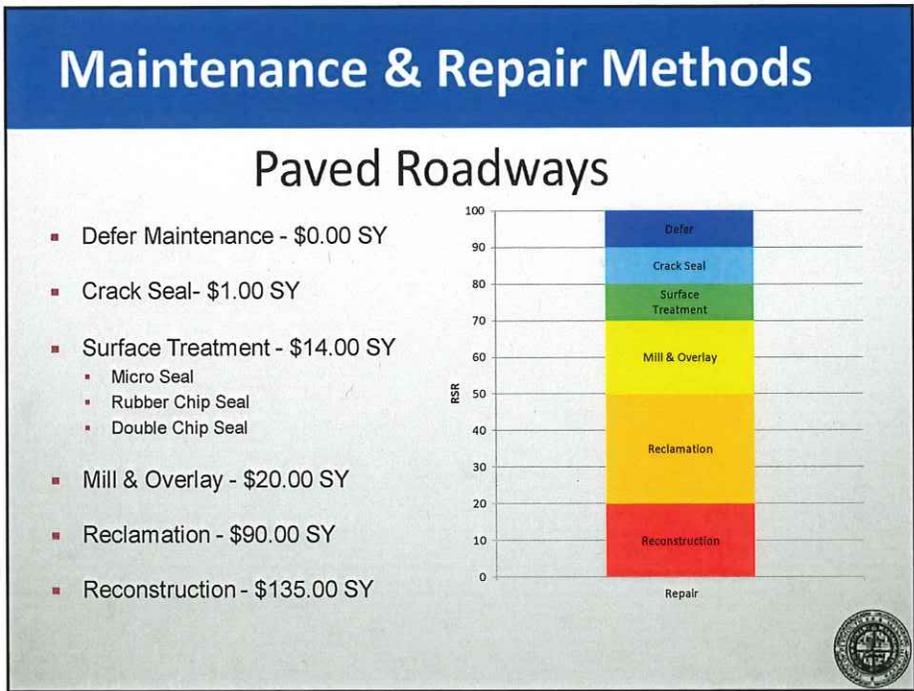
Surface Treatment

- Microsurfacing
- Rubber Chip Seal
- Double Chip Seal

Structural Repair

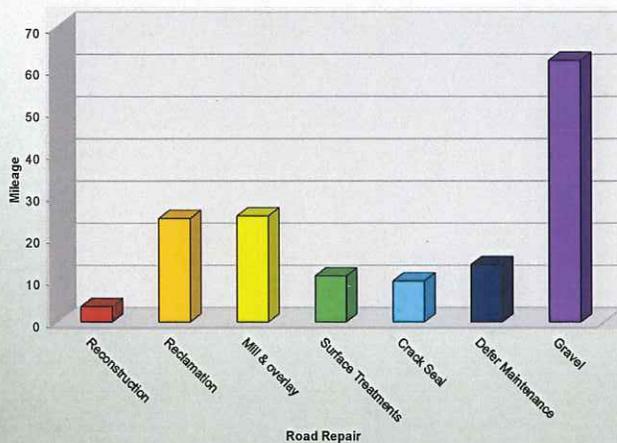
- Mill and Overlay
- Reclamation
- Reconstruction





Existing Conditions Summary

General Rating by Mile – Unaccepted Roads



Approx. 87.5
Road Miles
RSR = 63.61
Paved Roadways



Existing Conditions Summary

Breakdown by Repair Method*

Repair Method	Length (Miles)	Est. Cost	% By Repair
Reconstruction	3.7	\$5,156,726	4.3%
Reclamation	24.5	\$29,353,354	28.0%
Mill and Overlay	25.1	\$7,152,040	28.6%
Surface Treatment	10.9	\$1,960,430	12.5%
Crack Seal	9.7	\$114,501	11.1%
Defer Maintenance	13.6	\$0	15.5%
TOTAL:	87.5	\$43,737,048	100.0%

Backlog* = Approx. \$43.7 Million

*Excludes Gravel Roads



Construction History - Unaccepted



2013 Construction

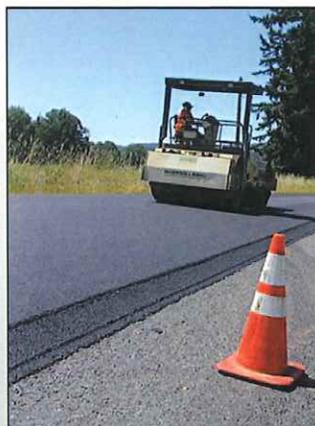
- Bruce Road – Overlay/Crack Seal
- Ashbury Street - Overlay/Crack Seal
- Cox Lane – Overlay/Crack Seal
- Donna Drive – Crack Seal
- Little Sandy Pond Road – 1,000ft
 - Full Depth Reconstruction



Anticipated Construction

2015 Unaccepted Roads

- George Street
 - \$510K (Money Allocated)
- Queen Drive
 - \$165K (Money Allocated)
- Birch Street
 - \$225K (Money Not Allocated)

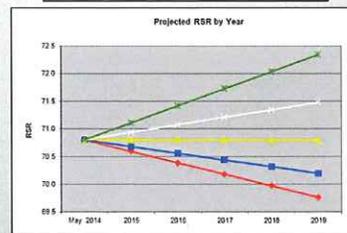


*Asking for \$500K at Town Meeting FY2016



Next Steps

- Determine target funding levels
- Identify funding sources
- Prioritize Roadway Construction
- Installation and Train of Town Staff



Town of Plymouth
Department of Public Works

PAVEMENT MANAGEMENT PROGRAM
UNACCEPTED ROADWAYS

Thank You

January 08, 2015

