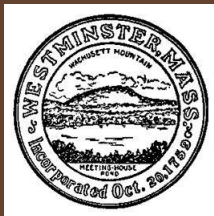


Summary Report

Pavement Management Update

Westminster, Massachusetts



PREPARE FOR
Town of Westminster
Department of Public Works
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PREPARED BY 

May 2015



Table of Contents

TABLE OF CONTENTS	II
TABLE OF TABLES	III
TABLE OF FIGURES	III
INTRODUCTION	1
THEORY OF PAVEMENT MANAGEMENT	1
THE PAVEMENT DETERIORATION CURVE.....	2
METHODOLOGY	3
NETWORK IDENTIFICATION	3
PAVEMENT MANAGEMENT SECTION IDENTIFICATION.....	3
SURFACE DISTRESS ASSESSMENT.....	4
<i>PCI Defined</i>	4
<i>PCI Calculation</i>	4
THE FIVE TREATMENT BANDS	5
GENERAL ROADWAY INDICES	5
CUSTOMIZING REPAIR STRATEGIES.....	6
PREPARING BUDGET SCENARIOS	6
<i>Deterioration Curves</i>	7
<i>Strategy Table</i>	7
<i>Project Prioritization</i>	7
EXISTING CONDITIONS	8
PAVED ROAD CONDITION SUMMARY	8
BACKLOG OF WORK	9
BUDGET ANALYSIS	11
SCENARIOS EXPLORED	11
<i>Scenario Detail</i>	11
<i>Budget Summary</i>	13
CONCLUDING REMARKS	14
RECOMMENDATIONS – PAVEMENT MANAGEMENT	14
RECOMMENDATIONS – <i>ROADMANAGER™</i>	14
APPENDICES	
APPENDIX A – REPAIR ALTERNATIVE COSTS	
APPENDIX B – PAVEMENT BACKLOG (ALPHABETICAL)	
APPENDIX C – PAVEMENT BACKLOG (BY TREATMENT)	



Table of Tables

Table 1 - Treatment Band Descriptions.....	5
Table 2 - Summary of Miles and Dollars of Outstanding Work on Paved Roads	9

Table of Figures

Figure 1 - Typical Pavement Deterioration Curve	2
Figure 2 - PCI Distribution of All Paved Town Streets.....	8
Figure 3- Miles of Outstanding Work	10
Figure 4 - Dollars of Outstanding Work.....	10
Figure 5 - Projected PCI Summary	13
Figure 6 - Projected Dollar Backlog Summary	13

Introduction

The Town of Westminster, Massachusetts retained the firm of Vanasse Hangen Brustlin, Inc. (VHB) to perform pavement management services. A comprehensive study was undertaken to evaluate pavement conditions in Westminster and to allow for the analysis of various funding scenarios.

Under the scope of this project, VHB performed a detailed inspection of the condition of the pavement on all Town maintained roads, and updated the towns pavement management database with this information which can be viewed, edited and analyzed using VHB's RoadManager™ software. VHB has delivered this software to staff in the Public Works Department, and trained them on its use. This report describes the steps taken in this project, the results of the field evaluations, and also compares the results of potential roadway funding scenarios.

Theory of Pavement Management

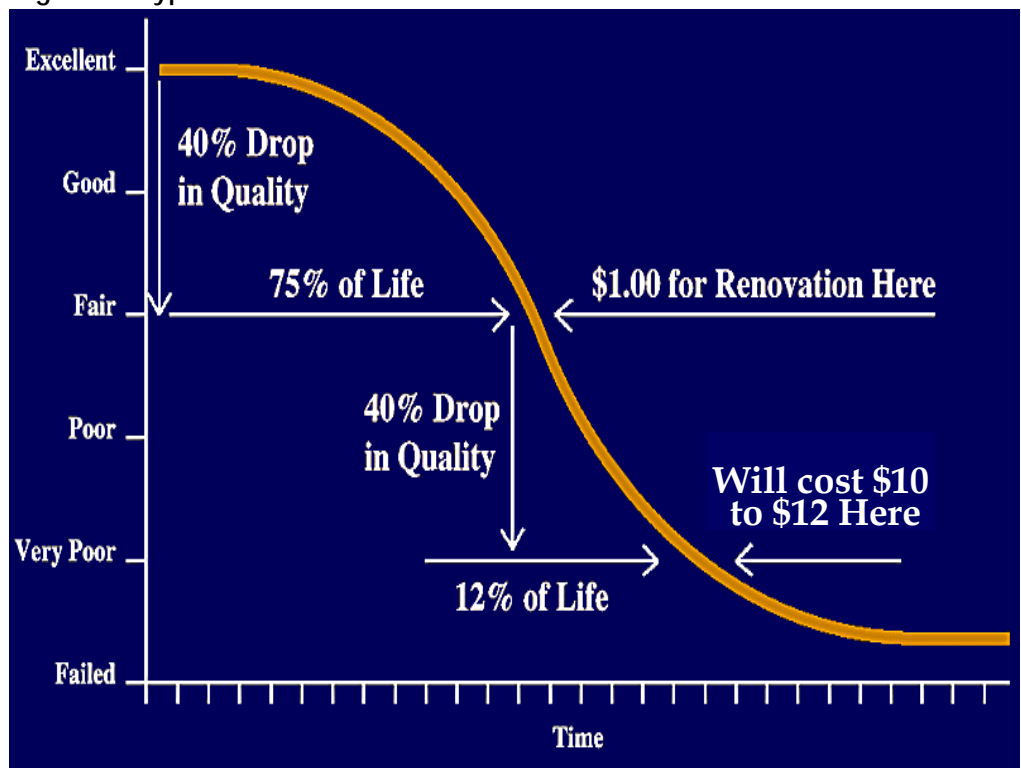
Pavement management is the practice of planning for pavement repairs and maintenance with the goal of maximizing the value and life of a pavement network.

To accomplish this, a community needs to have several repair techniques in its arsenal and the knowledge of when to apply them. This is where pavement management comes into play. With a comprehensive database of road conditions, the RoadManager™ software can model when to perform which repairs on a road network. Of course, engineering judgment is required to finalize any list of street repairs, as no computer model can take every variable analyzed in making a repair decision into account. The computer system is a great springboard to help a community start its repair program for each year and is an excellent method of storing the repair data.

The Pavement Deterioration Curve

Below is a model of how a street's pavement deteriorates over time. Interpreting the curve, a street starts out in excellent condition when it is newly constructed. Midway through its life, a low cost repair such as crack seal and patch will cost approximately a dollar a square yard. It takes only a few years for the window of opportunity to perform this low cost maintenance to pass after which the road would need an overlay costing \$10 - \$12 per square yard. By performing timely maintenance, road conditions can be improved today thereby extending the life of the road.

Figure 1 - Typical Pavement Deterioration Curve



To expand a bit on the theory described in the chart above; a typical, low traffic, hot-mix asphalt road has a useful life span of 20 years before needing to be rebuilt, if no preventative maintenance is performed. As will be discussed later in this report, it costs the Town of Westminster approximately \$18.00 per square yard to reclaim a road. However, it costs the Town an average of \$1.50 to seal cracks and do some local base repairs, which can add about 5 years of life to a road. It would cost Westminster about \$5.00 per square yard to put a preventative maintenance surface treatment on a road, which can extend the life of a road by about 8 years.

Methodology

VHB performed a detailed condition evaluation on Westminster's 84.9 (79.1 paved) miles of Town maintained roads to build the pavement management system. The first step was to identify the Town accepted streets, thereby comprising the roadway network. The second step was to further break each street in the roadway network into pavement management sections. The third step was to carefully categorize, measure, and record the individual pavement distresses within each pavement management section. Finally, the fourth step was to customize the road repair unit costs within the RoadManager™ software through discussions with Town officials. All these steps were performed prior to the study of future funding scenarios.

Network Identification

Network Identification builds an inventory of streets that describe the municipality's complete roadway network. The direction of travel, street length, width, ownership, classification, zone and pavement type are among the items identified at this initial phase in the pavement management process. This integral step ensures the streets surveyed are the definitive set to be analyzed.

Pavement Management Section Identification

Once the Network Identification is complete, the field work begins. Each street contains one or more pavement management sections. A pavement management section defines the limits of previous construction or maintenance activities within each street. Sections are defined by having the same width, typical distresses, functional class, etc. The goal is to set up homogenous areas of pavement to aid in assigning the appropriate repair. A street may be one section, or it may be comprised of several pavement management sections, depending on its construction history.

Surface Distress Assessment

For each pavement management section, the severity and extent of nine major pavement distresses are recorded, then entered into a weighted formula to arrive at a Pavement Condition Index (PCI). The distresses are categorized as base related or surface related distresses. Base related distresses indicate that the subsurface soil strength is inadequate for the existing traffic load. Streets that show significant base related distresses may need to have the subsurface soils fortified with stone to strengthen the structure and/or the street may need a significantly thicker layer of pavement. Surface related distresses are caused by age and weathering of the pavement. Streets that have predominantly surface related distresses are excellent candidates for maintenance sealing to inhibit further pavement oxidization (the main effect of aging). Streets with more of the base related distresses will most likely need some full depth patching, structural overlays or reclamation/reconstruction.

The four base related distresses are:

- potholing or non-utility patching
- alligator cracking
- distortion
- rutting

The five surface related distresses are:

- block cracking
- transverse or longitudinal cracking
- bleeding or polished aggregate
- surface wear or raveling
- shoving, slippage or corrugation



PCI Defined

A PCI was generated for each inventoried pavement management section in Westminster using the surface distress data collected by VHB. PCI is measured on a scale of zero to one hundred, with one hundred representing a pavement in perfect condition and zero describing a road in impassable condition. Each type of observed pavement distress is assigned a deduct value based on the type, severity and extent of the distress.



PCI Calculation

A weighted sum of the deduct points is subtracted from the perfect “one hundred” road in order to generate a PCI for each pavement management section. In general, base related (pavement foundation) distresses are weighted more heavily than surface related distresses. For example, if 15% of a road section had medium severity “Alligator Cracking” it would receive a deduct of 40 points. Whereas the same area of “Block Cracking” would only receive a deduct of 15 points. The actual PCI calculation follows:

$$\text{PCI} = 100 - (\text{Highest Deduct Value}) - (25\% \text{ of remaining base related deduct values}) - (10\% \text{ of remaining surface related deduct values})$$

The Five Treatment Bands

VHB's RoadManager™ software uses broad ranges to group the individual repair types into five major treatment bands. Treatment bands are a useful tool to summarize data on a Town-wide basis. An individual road segment will fall into a particular category based on the strategy table's output of repair types and will vary due to functional classification. The goal is to gain a broad understanding of the existing conditions in simple yet meaningful terms.

Table 1 - Treatment Band Descriptions

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 crack sealing or minor localized repair.
PREVENTIVE MAINTENANCE	78-85	Fair condition - pavement surface may be in need of surface sealing, full depth patch and/or crack sealing.
STRUCTURAL IMPROVEMENT	61-77	Deficient condition - pavement surface structure in need of added strength for existing traffic. Typical repairs are overlay with or without milling.
BASE REHABILITATION	0-60	Poor condition - in need of base improvement. Typical repairs are reclamation or full depth reconstruction.

*These are only general PCI ranges for reference purposes, and represent only one pavement type. There are several fields considered by the strategy table when assigning repair types to each individual street.

General Roadway Indices

In addition to the pavement distress survey, each pavement management section was characterized by a series of general roadway indices that describe a number of roadway attributes and are also factors in the decision making process. Each index is based on a scale of 0 to 100 with 100 indicating an ideal condition. Definitions of each index can be found in Appendix D. They include:

- Rideability Index (RI)
- Drainage Condition Index (DCI)
- Utility Condition Index (UCI)
- Sidewalk Condition Index (SCI)



Customizing Repair Strategies

VHB met with Town officials to review VHB's typical repair strategies, and to learn how to customize these strategies to meet the Town's specific needs. VHB also refined repair unit costs. VHB's goal was to understand Westminster's decision-making process and simulate that process in the budget analysis software based on the pavement condition and other criteria of each pavement section.

Preparing Budget Scenarios

Once the roadway conditions are inventoried and analyzed, and the repair strategies are defined, the impact of various spending programs on the roadway network is assessed. These studies can range from 1 to 20 years; however, for the purpose of this report 5-year studies are used. The purpose of the budget planning process is to determine the impact of various spending levels to find a funding level that will best meet Westminster's needs. The budget module uses deterioration curves, unit costs, and the strategy tables developed in the repair strategy definition phase to assign each street a repair type and associated cost for each year of the study. The module also assigns each street a benefit value that is used to prioritize which streets the software will select for repair each year.

The results of the budget analysis are two-fold. Pavement management deals with the life cycle of pavement structures and the various repair treatments to maintain the condition of the pavement. The pavement management system and the various repair types utilized in the study do not directly address other physical improvements associated with a roadway. Some of the items, which might be encountered on a roadway project, include the storm drainage system, traffic signals, sidewalks and utility adjustments. In an attempt to develop a reasonable cost of various improvements, the overall scope of a typical project associated with the various repair types was estimated to develop a network level unit cost for the work.

Deterioration Curves

In order to properly plan for future repairs, the budget analysis feature of RoadManager™ utilizes deterioration curves. The deterioration curves estimate the rate at which the pavement condition decreases over time. These pavement deterioration curves depict two major categories of functional class - arterials and collectors in one curve and local roads in the other.



Strategy Table

RoadManager™ uses a table of repair strategies to assign specific road repair types to individual roadway segments. The repair strategy table incorporates PCI ranges as well as functional class and pavement type to simulate decisions consistent with Westminster's repair practices and procedures.



Project Prioritization

The Budget Analysis module prioritizes needed system repairs based on the estimated "Benefit Value". The Benefit Value formula is calculated using variables representing traffic volume, repair service life, PCI, and unit repair costs for each pavement management section. For each plan year, the software prepares a future roadway condition projection, exhausts the assigned budget, and then produces an annual list of roads included in the repair program. The system also allows the user to enter an inflation rate to account for estimated increases in future year construction costs. A 4% inflation rate was used for Westminster.

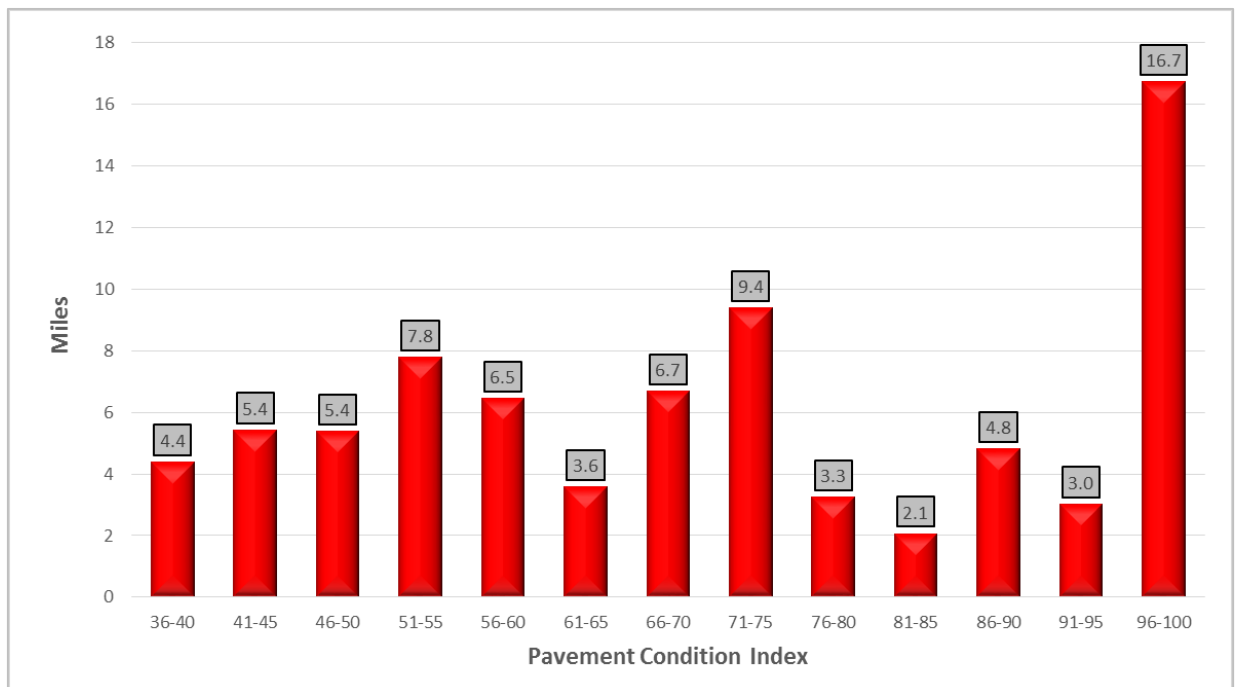
The Benefit Value prioritization process generally favors cost effective maintenance alternatives. Repair actions are typically delayed on those sections that require reconstruction or major rehabilitation because the benefits for dollars spent are generally lower than maintenance candidates. After the relatively good roads are "saved", improvements are directed towards the poorer arterial and collector roads, and then to the local roads in need of major rehabilitation.

Existing Conditions

Paved Road Condition Summary

VHB has been performing pavement condition survey updates on 25% of the Town's paved roads every year since the 100% system update performed in 2007. Following this cycle of resurveys, no pavement condition survey in the town's network is ever more than 3 years old. In order to summarize the "current" conditions, roadway PCI's that are one, two, or three years old are projected to the current date using the deterioration curve assigned to that roadway segment. Using these curves, VHB has summarized the roadway network in terms of the number of miles in 5 point PCI bands as shown below. **The town-wide average PCI is a 72.**

Figure 2 - PCI Distribution of All Paved Town Streets



Backlog of Work

Applying the five treatment bands shown in Table 1 and unit costs to Westminster's road network, a summary of outstanding work was developed. The following table gives the miles and dollars associated with each treatment band for the conditions at the time of the evaluation.

Table 2 - Summary of Miles and Dollars of Outstanding Work on Paved Roads

Treatment band	Miles	Dollar Backlog
Base Rehabilitation	28.1	\$6,989,000
Structural Improvement	13.8	\$2,447,000
Preventive Maintenance	12.4	\$655,000
Routine Maintenance	6.5	\$39,000
Do Nothing	18.4	\$0
Totals:	79.1	\$10,129,000

The charts on the following page present the information from Table 2 graphically. They show how smaller percentages of funds put towards maintenance will have an effect on a larger percentage of mileage, emphasizing the importance of preventative maintenance.

Figure 3- Miles of Outstanding Work

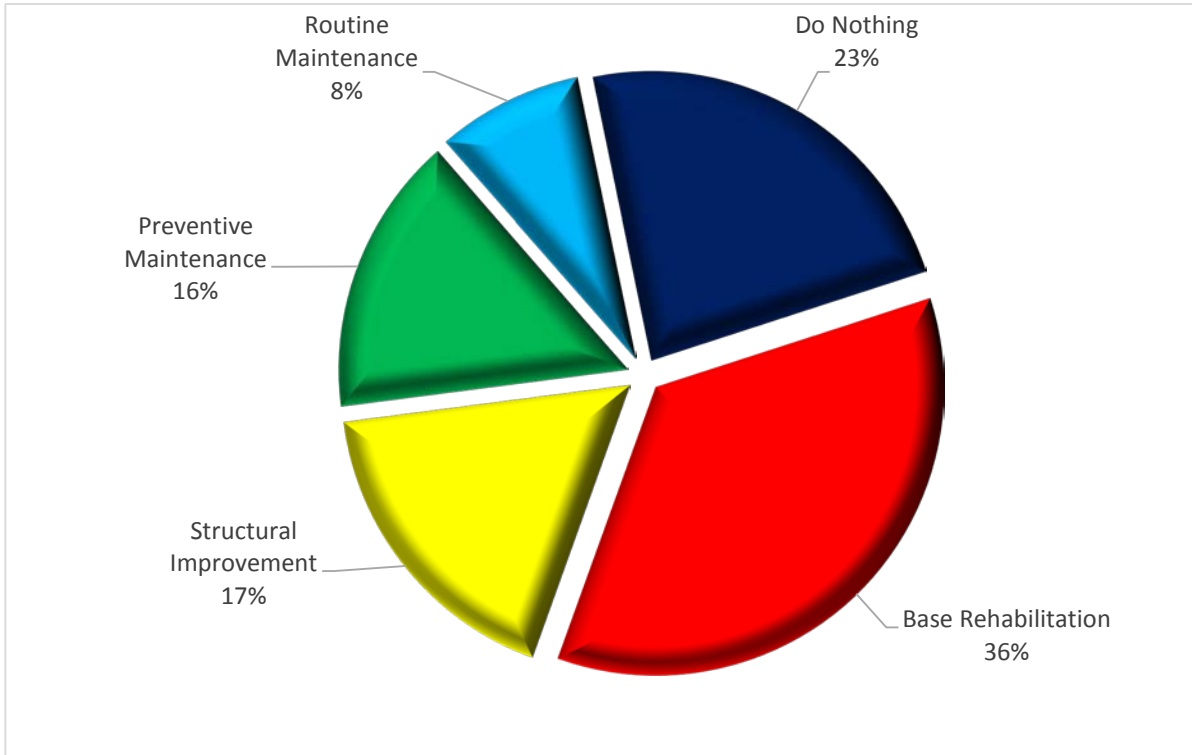
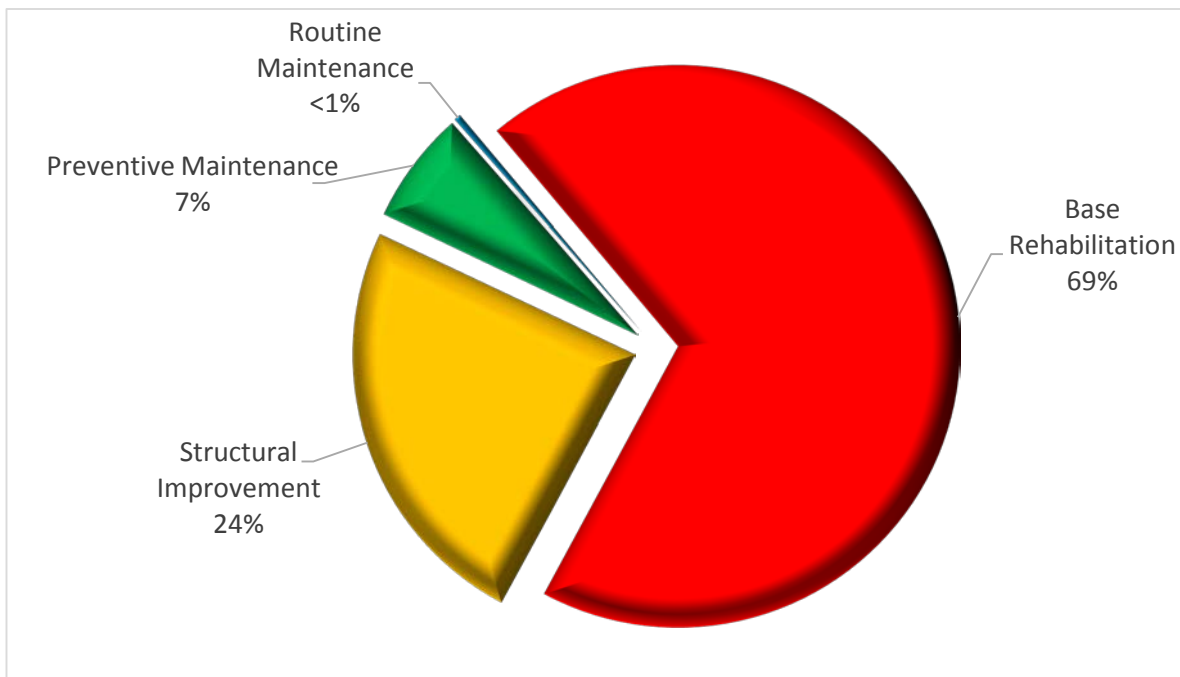


Figure 4 - Dollars of Outstanding Work



Budget Analysis

Westminster has a major investment in its 79.1 miles of paved Town-maintained roads. It is easy to forget that roadways are a community's single largest investment. Based on the unit cost established for reconstruction of Westminster's roads, without considering signs, signals, curbing, or sidewalks, it would cost Westminster at least 40 million in today's dollars to replace the existing Town accepted roadway infrastructure. The final phase of the pavement management process that VHB undertook for this report was the examination of various annual spending levels.

Scenarios Explored

VHB projected the PCI and dollar backlog for three funding scenarios that accounted for all town-maintained paved roads. These scenarios explored the possibility of applying four different levels over a period of 5 years.



Scenario Detail

This section will outline the specific annual funding levels used in the budget scenarios and will compare their results.



\$500,000/Year

This scenario shows the results of spending \$500,000 annually on Westminster's road program for 5 years. If this is the only funding the Town-wide average PCI will deteriorate quickly.

Plan Date	Budget Amount	PCI	Backlog
Current		72	\$10,129,000
2015	\$500,000	70	\$12,066,000
2016	\$500,000	69	\$12,675,000
2017	\$500,000	69	\$13,351,000
2018	\$500,000	69	\$14,404,000
2019	\$500,000	68	\$15,447,000

\$750,000/Year

This scenario shows the potential results of continuing to spend \$750,000 annually on Westminster's road program. This is still not an adequate funding level.

Plan Date	Budget Amount	PCI	Backlog
Current		72	\$10,138,000
2015	\$750,000	71	\$12,076,000
2016	\$750,000	71	\$12,427,000
2017	\$750,000	71	\$12,830,000
2018	\$750,000	70	\$13,607,000
2019	\$750,000	70	\$14,334,000

\$1,000,000/Year

This plan shows the cost of maintaining the Town's average PCI over the 5 year analysis period.

Plan Date	Budget Amount	PCI	Backlog
Current		72	\$10,129,000
2015	\$1,000,000	71	\$12,066,000
2016	\$1,000,000	72	\$12,160,000
2017	\$1,000,000	72	\$12,288,000
2018	\$1,000,000	72	\$12,718,000
2019	\$1,000,000	73	\$13,183,000

Budget Summary

Figure 5 and 6 show the effects of the three funding levels analyzed on Westminster's road network over the next 5 years. It will cost nearly \$1,000,000 per year to maintain today's condition while the backlog of work continues to increase.

Figure 5 – Projected PCI Summary

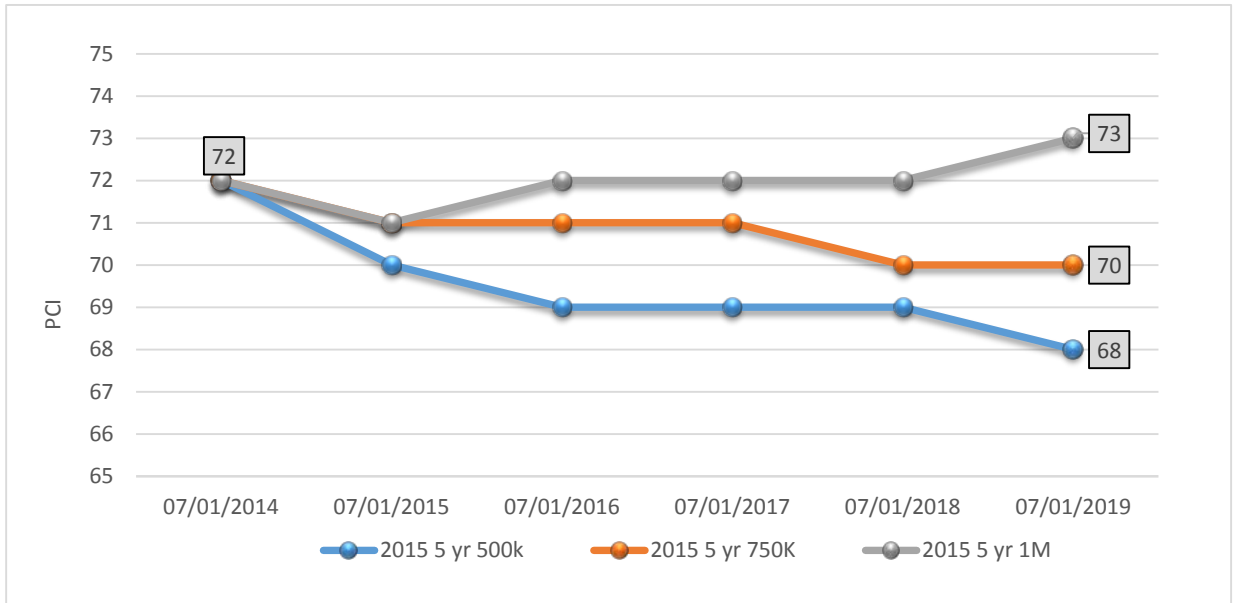
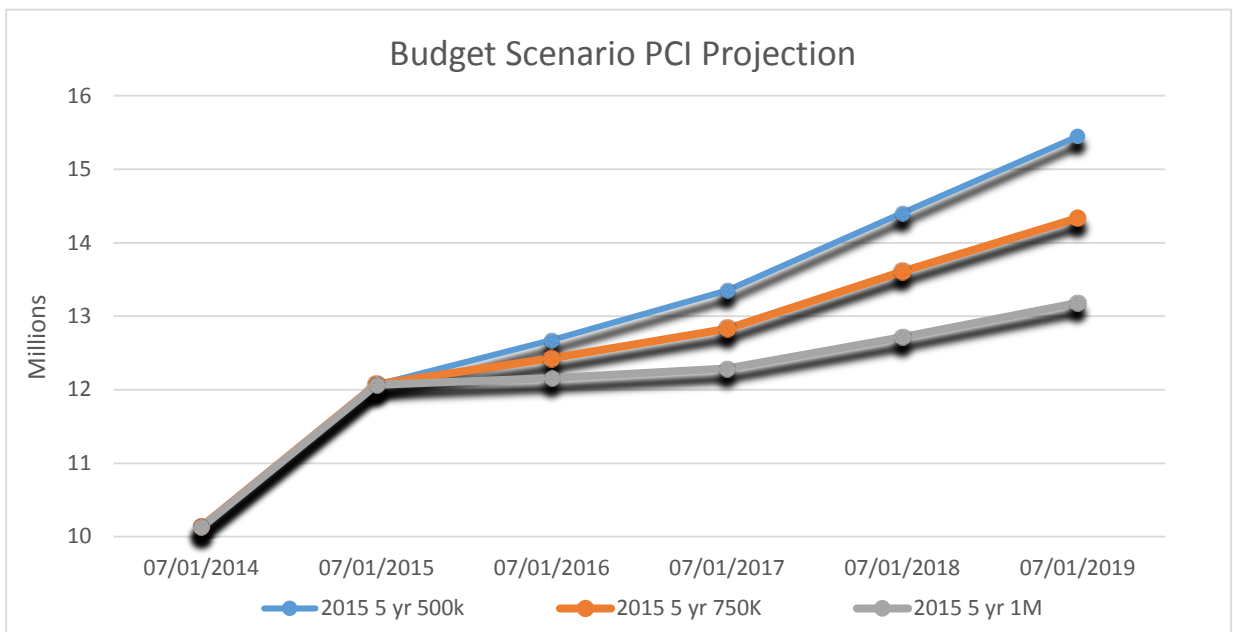


Figure 6 – Projected Dollar Backlog Summary



Concluding Remarks

The Town of Westminster has a pavement management system based on road condition data and descriptive information updated on a 4-year cycle. The Town is urged to fully utilize the considerable volume of data it now possesses. The Westminster pavement management system gives Town decision-makers a picture of existing roadway infrastructure conditions and **a dollar estimate to improve streets in poor condition while protecting those pavements already in good condition.**

The findings of this study reveal a street network in fair condition, however, there is still a significant backlog of work. **Westminster needs to continue performing maintenance on the roads in fair condition, while rehabilitating the roads in poor condition as funds are available. Westminster will benefit most from a balanced attack of maintenance, overlays, and reclamation.**

Recommendations – Pavement Management

- Make timely maintenance repairs
- Repair localized base problems before overlaying
- Address major rehabilitation needs as funding allows
- **Provide staff or hire consultants for construction inspection at the plant and in the field to ensure quality material is provided and quality work is being performed.**

Recommendations – *RoadManager*™

- Update system to reflect work that has been done
- Track specific and overall conditions periodically
- Evaluate funding levels periodically
- Develop multi-year road programs
- Update pavement condition ratings at a minimum of every 4 years



Appendix A

Repair Alternatives Unit Costs ■

Code	Description	Unit Cost (/SY)
BCBRSI	Reclamation w/ 50% Concrete Sidewalk Replacement	\$29.20
BCBRAC	Reclamation of a Major Road	\$20.40
BCBRLO	Reclamation of a Local Road	\$18.50
BCSIAC	Overlay of a Major Road	\$12.30
BCSIAM	Mill and Overlay of a Major Road	\$12.90
BCSILO	Overlay of a Local Road	\$11.30
BCSILM	Mill and Overlay of a Local Road	\$11.90
BCPMBB	Double Chip Seal w/ 1/2" leveling	\$5.70
BCPMGB	Single Chip Seal	\$3.40
BCRMBB	Crackseal & Local Base Repair	\$1.50
BCRMGB	Crack Seal	\$0.40

Appendix B

Backlog (Alphabetical) ■

Backlog Report (Alphabetical)

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
ACADEMY HILL RD	LEOMINSTER ST	327' E OF LEOMINSTER ST	BaseRehab w/Sidewalk	327	53	\$30,680	23
ACADEMY HILL RD	327' E OF LEOMINSTER ST	FOSTER ST	BaseRehab w/Sidewalk	778	50	\$70,562	25
ACADEMY HILL RD	FOSTER ST	WORCESTER RD	BaseRehab Local	1,475	40	\$70,143	59
ADAMS ST	MAIN ST	125' N OF MAIN ST	BaseRehab Local	125	54	\$4,221	11
ADAMS ST	125' N OF MAIN ST	DEAD END	Do Nothing	346	100	\$0	0
AMBER RD	WOODLAND DR	1ST CUL-DE-SAC	RoutineMaint CrSl or Patch	519	87	\$578	70
AMBER RD	1ST CUL-DE-SAC	2ND CUL-DE-SAC	PrevMaint Chipseal	565	80	\$5,349	13
ANDREA LN	WORCESTER RD	WORCESTER RD	RoutineMaint CrSl and Patch	1,135	89	\$4,012	74
BACON ST	MAIN ST	100' N OF ELLIOTT ST	Do Nothing	1,210	100	\$0	0
BACON ST	100' N OF ELLIOTT ST	2006' N OF ELLIOTT ST	Struct Imprmt A/C w/ mill	796	72	\$43,992	54
BACON ST	2006' N OF ELLIOTT ST	NORTH COMMON RD	Do Nothing	1,224	100	\$0	0
BARREL RD	SOUTH ASHBURNHAM RD	712' W OF BRAGG HILL RD	RoutineMaint CrSl or Patch	4,475	87	\$3,067	279
BARREL RD	712' W OF BRAGG HILL RD	BRAGG HILL RD	Do Nothing	712	94	\$0	0
BATHERICK RD	STATE RD EAST	600' N STATE RD EAST	PrevMaint Chipseal	600	79	\$5,244	52
BATHERICK RD	600' N STATE RD EAST	NEWCOMB RD	PrevMaint Chipseal	4,200	76	\$30,589	54
BATHERICK RD	NEWCOMB RD	HOWARD RD	BaseRehab Local	1,260	40	\$37,449	59
BATHERICK RD	500'E OF TOWN FARM RD	TOWN FARM RD	Do Nothing	500	100	\$0	0
BATTLES RD	STATE RD EAST	CUL DE SAC	BaseRehab Local	2,771	41	\$105,511	58
BEAN PORRIDGE HILL R	SOUTH ASHBURNHAM RD	1920' N OF S ASHBURNHAM R	BaseRehab A/C	1,920	57	\$83,902	77
BEAN PORRIDGE HILL R	1920' N OF S ASHBURNHAM R	2362' N OF S ASHBURNHAM R	BaseRehab A/C	442	60	\$21,246	73
BEAN PORRIDGE HILL R	2362' N OF S ASHBURNHAM R	3451' N OF S ASHBURNHAM R	BaseRehab A/C	1,089	58	\$57,105	76
BEAN PORRIDGE HILL R	3451' N OF S ASHBURNHAM R	400' S OF POTATOE HILL RD	BaseRehab A/C	4,024	45	\$167,051	98
BEAN PORRIDGE HILL R	400' S OF POTATOE HILL RD	100' N OF POTATOE HILL RD	BaseRehab A/C	500	51	\$25,127	86
BEAN PORRIDGE HILL R	100' N OF POTATOE HILL RD	3487' S OF ASHBURNHAM RD	Struct Imprmt A/C	3,122	67	\$67,645	63
BEAN PORRIDGE HILL R	3487' S OF ASHBURNHAM RD	ASHBURNHAM RD	Struct Imprmt A/C	3,487	67	\$75,554	63
BETTY SPRING RD (NB)	415' S OF WEST MAIN ST	WEST MAIN ST	RoutineMaint CrSl or Patch	421	86	\$451	706
BETTY SPRING RD (SB)	WEST MAIN ST	415' S OF WEST MAIN ST	RoutineMaint CrSl or Patch	415	86	\$444	706
BETTY SPRING RD (SB)	415' S OF WEST MAIN ST	GARDNER TOWN LINE	RoutineMaint CrSl or Patch	500	86	\$814	706
BLUEBERRY HILL LN	NORTH COMMON RD	CUL DE SAC	PrevMaint Chipseal	662	77	\$7,948	13
BOLTON RD	WEST PRINCETON RD	495' W OF MILE HILL RD	Do Nothing	4,858	99	\$0	0
BOLTON RD	495' W OF MILE HILL RD	MILE HILL RD	Do Nothing	495	99	\$0	0
BRAGG HILL RD	SOUTH ASHBURNHAM RD	3500' N OF S ASHBURNHAM R	BaseRehab Local	3,500	54	\$124,830	44
BRAGG HILL RD	3500' N OF S ASHBURNHAM R	BARREL RD	BaseRehab Local	3,770	53	\$134,460	45

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
BRAGG HILL RD	1799' S OF ASHBURNHAM TL	ASHBURNHAM TOWN LINE	BaseRehab Local	1,799	40	\$60,598	59
BROOKS AV	MAIN ST	DEAD END	BaseRehab Local	240	56	\$9,035	11
CARPENTER LN	FENNO DR	SCENIC DR	PrevMaint Chipseal	868	79	\$7,586	52
CARTER RD	ELLIS RD	KNOWER RD	BaseRehab Local	1,361	57	\$64,722	42
CARTER RD	KNOWER RD	#64 or 1785' W KNOWER RD	Struct Imprmt LO	1,785	65	\$51,849	33
CARTER RD	#64 or 1785' W KNOWER RD	SOUTH STREET	BaseRehab Local	917	57	\$39,973	42
CHURCH ST	MAIN ST	CUL DE SAC	BaseRehab w/Sidewalk	2,006	47	\$165,186	7
COLONY RD	DEAD END	GARDNER TOWN LINE	BaseRehab Local	3,570	54	\$148,548	44
CROSS RD	KNOWER RD	MINOTT RD	BaseRehab Local	1,435	40	\$39,807	59
CUDAK CT	TOMMY FRANCIS RD	CUL DE SAC	PrevMaint Chipseal	276	80	\$3,512	13
CURTIS RD	231' N OF TURNPIKE RD	TURNPIKE RD	PrevMaint Chipseal	233	80	\$1,273	51
DAVIS RD	WEST PRINCETON RD	260' S OF WEST PRINCETON	Do Nothing	260	100	\$0	0
DAVIS RD	260' S OF WEST PRINCETON	1370' N OF SPRUCE ST	Do Nothing	2,238	100	\$0	0
DAVIS RD	1370' N OF SPRUCE ST	SPRUCE ST	Do Nothing	1,129	100	\$0	0
DAVIS RD	SPRUCE ST	1143' S OF SPRUCE ST	Struct Imprmt LO w/ mill	1,143	70	\$29,136	29
DAVIS RD	1143' S OF SPRUCE ST	HARRINGTON RD	BaseRehab Local	2,135	53	\$101,529	45
DAVIS RD	HARRINGTON RD	1725' N OF LANES RD	Struct Imprmt LO	4,763	62	\$126,821	34
DAVIS RD	1725' N OF LANES RD	LANES RD	BaseRehab Local	1,725	60	\$54,688	40
DAWLEY RD	ACADEMY HILL RD	SOUTH ST	BaseRehab Local	2,598	40	\$108,103	59
DEAN HILL RD	ASHBURNHAM RD	LAWS RD	RoutineMaint CrSl or Patch	1,442	93	\$1,112	654
DEAN HILL RD	LAWS RD	1823' E OF LAWS RD	Do Nothing	1,823	98	\$0	0
DEAN HILL RD	1823' E OF LAWS RD	FITCHBURG TOWN LINE	Do Nothing	2,229	98	\$0	0
DEPOT RD	RT 2	TURNPIKE RD	Do Nothing	1,240	100	\$0	0
DEPOT RD	TURNPIKE RD	400' S OF STATE RD EAST	Do Nothing	2,750	100	\$0	0
DEPOT RD	400' S OF STATE RD EAST	STATE RD EAST	Do Nothing	411	100	\$0	0
EAST GARDNER RD	NORTH COMMON RD	OAKMONT AV	PrevMaint Prep/Dblchip	1,247	75	\$15,226	37
EAST GARDNER RD	OAKMONT AV	GATE ENTRANCE	BaseRehab Local	5,058	55	\$180,398	11
EAST RD	NARROWS RD	1078' S OF NARROWS RD	PrevMaint Chipseal	1,078	74	\$9,814	139
EAST RD	1078' S OF NARROWS RD	49' N OF STONE HILL RD	PrevMaint Chipseal	810	74	\$7,374	139
EAST RD	49' N OF STONE HILL RD	LAUREL LA	Struct Imprmt A/C	2,270	61	\$75,224	69
EAST RD	LAUREL LA	95' S OF GATEHOUSE RD	Struct Imprmt A/C	2,642	71	\$84,184	59
EATON ST	MAIN ST	DEAD END	BaseRehab Local	380	52	\$21,082	11
EDRO ISLE	LAURIE LANE	DEAD END	PrevMaint Chipseal	1,080	74	\$7,079	14
EDRO ISLE	VIRGINIA AV (W)	VIRGINIA AV (E)	Do Nothing	1,152	95	\$0	0
ELLIOT ST	MAIN ST	BACON ST	Do Nothing	1,291	100	\$0	0
ELLIS RD	KNOWER RD	550' W OF CARTER RD	Struct Imprmt LO	2,502	63	\$69,647	34
ELLIS RD	550' W OF CARTER RD	LAKE DR WEST	Do Nothing	4,000	97	\$0	0

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
ELLIS RD	LAKE DR WEST	PARTRIDGE HILL RD	Do Nothing	2,189	97	\$0	0
ELLIS RD	PARTRIDGE HILL RD	1712' W OF PARTRIDGE HILL	Do Nothing	1,712	97	\$0	0
ELLIS RD	1712' W OF PARTRIDGE HILL	999' E OF MINOTT RD	Do Nothing	895	97	\$0	0
ELLIS RD	999' E OF MINOTT RD	MINOTT RD	Do Nothing	999	97	\$0	0
ELM ST	LOVELL ST	HOWARD AV	BaseRehab Local	284	48	\$11,255	12
FENNO DR	WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	1,387	92	\$1,426	66
FITCHBURG RD	PRINCETON TOWN LINE	NOTOWN RD	Struct Imprmt A/C	3,500	68	\$111,523	62
FITCHBURG RD	NOTOWN RD	CODY RD	BaseRehab A/C	2,350	60	\$123,230	73
FITCHBURG RD	CODY RD	FITCHBURG TOWN LINE	Do Nothing	3,543	100	\$0	0
FOSTER ST	DAWLEY RD	ACADEMY HILL RD	BaseRehab Local	315	44	\$12,483	54
FRED SMITH RD	ASHBURNHAM RD	1500' E OF ASHBURNHAM RD	BaseRehab Local	1,501	40	\$53,527	59
FRED SMITH RD	1500' E OF ASHBURNHAM RD	2151' E OF ASHBURNHAM RD	PrevMaint Chipseal	650	79	\$4,262	52
FRED SMITH RD	272' S OF DEAN HILL RD	DEAN HILL RD	Do Nothing	273	98	\$0	0
FROG HOLLOW RD	CARTER RD	625' S OF CARTER RD	Struct Imprmt LO	625	66	\$12,103	32
GATEHOUSE RD	EAST RD	WORCESTER RD	PrevMaint Chipseal	2,851	74	\$30,108	139
GOODRIDGE DR	SHADY AV	DEAD END	BaseRehab Local	564	54	\$22,351	11
HAGER PARK RD	STATE RD EAST	NARROWS RD	BaseRehab A/C	440	51	\$46,146	173
HAGER PARK RD	NARROWS RD	WORCESTER RD	Struct Imprmt A/C	3,317	71	\$173,334	118
HANKS HILL RD	STONEHILL RD	DEAD END	Do Nothing	720	100	\$0	0
HARRINGTON RD	SOUTH ST	350' W OF DAVIS ST	Do Nothing	3,214	100	\$0	0
HARRINGTON RD	350' W OF DAVIS ST	DAVIS ST	Do Nothing	350	100	\$0	0
HOWARD AV	SMITH AV	DEAD END	BaseRehab Local	900	45	\$39,232	13
HY RD	EAST RD	VAL RD	Struct Imprmt LO	745	72	\$21,640	29
HY RD	VAL RD	CUL DE SAC	BaseRehab Local	228	58	\$14,813	10
KENDALL CT	FENNO DR	FENNO DR	Do Nothing	863	93	\$0	0
KIRALI CT	SOUTH ASHBURNHAM RD	CUL DE SAC	PrevMaint Chipseal	530	79	\$6,091	13
KNOWER RD	ELLIS RD	CARTER RD	Do Nothing	1,905	97	\$0	0
KNOWER RD	CARTER RD	1915' S OF CARTER RD	BaseRehab Local	1,915	43	\$83,478	55
KNOWER RD	1915' S OF CARTER RD	CROSS RD	BaseRehab Local	2,469	40	\$107,628	59
KNOWER RD	CROSS RD	476' S OF CROSS RD.	BaseRehab Local	476	50	\$16,977	48
KNOWER RD	467' OF CROSS RD.	MINOTT RD	PrevMaint Chipseal	774	74	\$5,073	55
KNOWER RD	MINOTT RD	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	3,880	76	\$32,497	54
KURIKKA RD	MINOTT RD	DEAD END	PrevMaint Chipseal	1,062	76	\$6,574	13
LANES RD	WEST PRINCETON RD	400' E OF DAVIS RD	BaseRehab w/Sidewalk	3,277	46	\$194,725	27
LANES RD	400' E OF DAVIS RD	DAVIS RD	PrevMaint Chipseal	400	74	\$2,768	55
LANES RD	DAVIS RD	HUBBARDSTON TOWN LINE	Struct Imprmt LO	1,833	65	\$39,932	33
LAURIE LN	PATRICIA RD	CUL DE SAC	Struct Imprmt LO	2,038	72	\$61,325	7

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
LAWS RD	ASHBURNHAM RD	DEAN HILL RD	Do Nothing	695	94	\$0	0
LEOMINSTER ST	MAIN ST W	50' E OF ACADEMT HILL RD	Do Nothing	168	97	\$0	0
LEOMINSTER ST	50' E OF ACADEMT HILL RD	MAIN ST E	PrevMaint Chipseal	3,118	84	\$30,657	49
LOVELL ST	MAIN ST	DEAD END	BaseRehab Local	1,377	52	\$65,483	11
MARK NEWTON RD	NEWTON RD	CUL DE SAC	RoutineMaint CrSl or Patch	650	92	\$784	66
MARSHALL HILL RD	LEOMINSTER STREET	167' E OF LEOMINSTER ST	Do Nothing	167	93	\$0	0
MARSHALL HILL RD	167' E OF LEOMINSTER ST	HOUSE #17	BaseRehab Local	605	40	\$21,578	59
MARSHALL HILL RD	HOUSE #17	WORCESTER RD	BaseRehab Local	576	51	\$20,544	47
MEETINGHOUSE RD	SOUTH ST	CUL DE SAC	BaseRehab Local	434	50	\$37,394	12
MERRIAM RD	STATE RD EAST	STATE RD EAST	BaseRehab Local	1,340	48	\$47,792	49
MILE HILL RD	PRINCETON TOWN LINE	BOLTON RD	Struct Imprmt A/C	2,665	72	\$101,900	58
MILE HILL RD	BOLTON RD	WORCESTER RD	PrevMaint Chipseal	2,708	78	\$29,584	131
MILES AV	RIDGE ST	NORWOOD ST	Struct Imprmt LO	1,256	63	\$36,483	34
MINOTT RD	SOUTH ST	KNOWER RD	Do Nothing	2,160	97	\$0	0
MINOTT RD	KNOWER RD	3000' W OF KNOWER RD	Do Nothing	3,000	97	\$0	0
MINOTT RD	3000' W OF KNOWER RD	NEWTON RD	Do Nothing	3,105	97	\$0	0
MINOTT RD	NEWTON RD	1988' W OF NEWTON RD	Do Nothing	1,988	97	\$0	0
MINOTT RD	1988' W OF NEWTON RD	2117' W NEWTON RD	Do Nothing	129	97	\$0	0
MINOTT RD	2117' W NEWTON RD	WHITNEY ST	Do Nothing	3,666	97	\$0	0
MINOTT RD	WHITNEY ST	GARDNER TOWN LINE	Do Nothing	2,535	97	\$0	0
MOSSMAN RD	OAKMONT AV	EAST GARDNER RD	Do Nothing	1,874	93	\$0	0
NARROWS RD	HAGER PARK RD	1033' E OF HAGER PARK RD	Do Nothing	1,033	100	\$0	0
NARROWS RD	1033' E OF HAGER PARK RD	1636' E OF HAGER PARK RD	Do Nothing	604	100	\$0	0
NARROWS RD	1636' E OF HAGER PARK RD	2600' E OF HAGER PARK RD	PrevMaint Chipseal	962	74	\$9,111	139
NARROWS RD	2600' E OF HAGER PARK RD	840' W OF WYMAN RD	BaseRehab A/C	1,288	47	\$73,158	94
NARROWS RD	840' W OF WYMAN RD	EAST RD	BaseRehab A/C	2,037	47	\$115,719	94
NARROWS RD	EAST RD	340' W OF STONEHILL RD	Do Nothing	1,652	97	\$0	0
NARROWS RD	340' W OF STONEHILL RD	1304' S OF RT 2	Do Nothing	2,456	97	\$0	0
NARROWS RD	1304' S OF RT 2	RT 2	Struct Imprmt A/C	1,304	61	\$59,832	69
NEEDHAM RD	SOUTH ASHBURNHAM RD	ASHBURNHAM TOWN LINE	BaseRehab Local	1,694	49	\$67,131	48
NEWCOMB RD	STATE RD EAST	#33 or 2100' N STATE RD E	PrevMaint Chipseal	2,100	80	\$16,059	51
NEWCOMB RD	#33 or 2100' N STATE RD E	BATHERICK RD	Struct Imprmt LO	1,330	67	\$28,974	32
NEWTON RD	MINOTT RD	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	2,642	84	\$20,204	49
NICHOLS ST	MAIN ST	SMITH ST	BaseRehab w/Sidewalk	427	50	\$37,392	25
NICHOLS ST	SMITH ST	KNOWER RD	BaseRehab Local	1,544	47	\$85,661	51
NORTH COMMON RD	OVERLOOK RD	228' N OF OVERLOOK RD	Do Nothing	338	100	\$0	0
NORTH COMMON RD	228' N OF OVERLOOK RD	OAKMONT AV (S)	Struct Imprmt A/C w/ mill	2,538	63	\$105,186	61

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
NORTH COMMON RD	OAKMONT AV (S)	TOWN FARM RD	Do Nothing	1,424	100	\$0	0
NORTH COMMON RD	TOWN FARM RD	EAST GARDNER RD	PrevMaint Prep/Dblchip	2,486	75	\$37,942	37
NORTH COMMON RD	EAST GARDNER RD	OAKMONT AV (N)	Do Nothing	3,194	98	\$0	0
NORWOOD ST	MILES AV	RIDGE ST	Struct Imprmt LO	340	64	\$9,053	33
NOTOWN RD	NARROWS RD	2500' E OF NARROWS RD	BaseRehab Local	2,500	45	\$99,072	53
NOTOWN RD	2500' E OF NARROWS RD	FITCHBURG RD	BaseRehab Local	3,282	45	\$130,061	53
OAKMONT AV	NORTH COMMON RD	325' N OF NORTH COMMON RD	BaseRehab w/Sidewalk	325	53	\$25,411	58
OAKMONT AV	325' N OF NORTH COMMON RD	928' N OF NORTH COMMON RD	PrevMaint Prep/Dblchip	603	74	\$9,203	95
OAKMONT AV	928' N OF NORTH COMMON RD	EAST GARDNER RD	PrevMaint Prep/Dblchip	3,850	75	\$63,461	93
OAKMONT AV	EAST GARDNER RD	200' S OF MOSSMAN RD	PrevMaint Prep/Dblchip	1,699	74	\$28,010	95
OAKMONT AV	200' S OF MOSSMAN RD	542' N OF MOSSMAN RD	RoutineMaint CrSl or Patch	743	93	\$859	654
OAKMONT AV	542' N OF MOSSMAN RD	SOUTH ASHBURNHAM RD	Struct Imprmt A/C	1,754	72	\$60,360	58
OAKWOOD CT	WOODLAND DR	CUL DE SAC	PrevMaint Chipseal	326	79	\$5,000	13
OLD COUNTY RD	ELLIS RD	1025' N OF ELLIS RD	Do Nothing	1,025	97	\$0	0
OLD COUNTY RD	1025' N OF ELLIS RD	DEAD END	BaseRehab Local	600	50	\$22,588	12
OLD GARDNER RD	WHITMANVILLE RD	350' E OF WHITMANVILLE RD	BaseRehab Local	353	55	\$21,978	11
OLD GARDNER RD	350' E OF WHITMANVILLE RD	CUL DE SAC	Do Nothing	951	92	\$0	0
OLD HUBBARDSTON RD	SOUTH ST	SPRUCE ST	BaseRehab Local	341	46	\$10,811	52
OLD TOWN FARM RD	TOWN FARM RD	CUL DE SAC	BaseRehab Local	852	52	\$27,011	11
OLD WORCESTER RD	MARSHALL HILL RD	WORCESTER RD	BaseRehab Local	749	40	\$29,682	59
OVERLOOK RD	NORTH COMMON RD	25' N OF SIMPLEX DR	Do Nothing	475	100	\$0	0
OVERLOOK RD	25' N OF SIMPLEX DR	2250' N OF SIMPLEX DR	BaseRehab Local	2,200	51	\$91,542	47
OVERLOOK RD	2250' N OF SIMPLEX DR	3410' N OF SIMPLEX DR	BaseRehab Local	1,160	51	\$50,566	47
OVERLOOK RD	3410' N OF SIMPLEX DR	4955' N OF SIMPLEX DR	BaseRehab Local	1,545	46	\$67,349	52
OVERLOOK RD	4955' N OF SIMPLEX DR	GATE ENTRANCE	Do Nothing	2,485	100	\$0	0
PARK ST	MILES AV	DEAD END	Struct Imprmt LO	458	68	\$13,303	8
PATRICIA RD	WORCESTER RD	LAURIE LN	BaseRehab Local	1,910	60	\$90,829	40
PLEASANT ST	MAIN ST	BACON ST	Do Nothing	719	100	\$0	0
POTATO HILL RD	ASHBURNHAM RD	376' W OF ASHBURNHAM RD	Struct Imprmt LO	376	72	\$12,742	29
POTATO HILL RD	376' W OF ASHBURNHAM RD	TOWN LINE	PrevMaint Chipseal	1,982	78	\$14,435	53
RIDGE ST	STATE RD WEST	NORWOOD ST	PrevMaint Chipseal	1,758	76	\$15,364	54
RIPLEY RD	NICHOLS ST	DEAD END	BaseRehab Local	325	47	\$13,523	13
ROPER RD	SOUTH ASHBURNHAM RD	25' E OF WEST HILL DR	Struct Imprmt LO	387	68	\$11,709	31
ROPER RD	25' E OF WEST HILL DR	459' W OF FITCHBURG TN LN	BaseRehab Local	1,066	40	\$27,459	59
SARGENT RD	DEAD END (BY SIMPLEX DR)	BEECH HILL RD	Do Nothing	858	93	\$0	0
SARGENT RD	BEECH HILL RD	COLONY RD	Do Nothing	1,473	93	\$0	0
SARGENT RD	COLONY RD	250' S OF WEST MAIN ST	RoutineMaint CrSl or Patch	975	92	\$1,253	265

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
SARGENT RD	250' S OF WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	1,010	87	\$1,298	70
SAWIN DRIVE	HARRINGTON RD	CUL DE SAC	Do Nothing	1,297	97	\$0	0
SCENIC DR	WEST MAIN ST	CUL DE SAC	PrevMaint Chipseal	1,645	84	\$21,565	12
SEAVER ST	LEOMINSTER ST	MAIN ST	PrevMaint Prep/Dblchp	251	74	\$2,758	38
SHADY AV	STATE RD WEST (W)	767' W OF GOODRIDGE DR	BaseRehab Local	2,938	48	\$116,429	49
SHADY AV	767' W OF GOODRIDGE DR	STATE RD WEST (E)	BaseRehab Local	3,579	48	\$141,831	49
SIMPLEX DR	160' N OF WEST MAINST	525' N OF WEST MAINST	BaseRehab Local	365	51	\$41,224	47
SIMPLEX DR	525' N OF WEST MAIN ST	SIMPLEX PROPERTY	Struct Imprmt LO	1,075	65	\$74,160	33
SMITH AV	NICHOLS ST	HOWARD ST	BaseRehab Local	349	51	\$14,501	47
SMITH AV	HOWARD ST	LOVELL ST	BaseRehab Local	284	49	\$11,820	48
SOUTH ASHBURNHAM RD	STATE RD EAST	WEST HILL DR	BaseRehab A/C	1,267	60	\$71,976	73
SOUTH ASHBURNHAM RD	WEST HILL DR	WOODLAND DR	BaseRehab A/C	2,188	55	\$119,516	80
SOUTH ASHBURNHAM RD	WOODLAND DR	BEAN PORRIDGE HILL RD	RoutineMaint CrSl or Patch	3,236	87	\$3,466	698
SOUTH ASHBURNHAM RD	BEAN PORRIDGE HILL RD	WHITMANVILLE RD	RoutineMaint CrSl or Patch	6,360	87	\$7,084	698
SOUTH ASHBURNHAM RD	WHITMANVILLE RD	ASHBURNHAM TOWN LINE	Struct Imprmt A/C	9,714	69	\$309,523	61
SOUTH ST	LEOMINSTER ST	CARTER RD	Do Nothing	2,259	100	\$0	0
SOUTH ST	CARTER RD	2660' N OF SPRUCE ST	BaseRehab A/C	2,186	56	\$119,412	79
SOUTH ST	2660' N OF SPRUCE ST	OLD HUBBARDSTON RD	BaseRehab A/C	3,360	46	\$176,193	96
SOUTH ST	OLD HUBBARDSTON RD	MINNOTT RD	BaseRehab A/C	2,195	55	\$119,898	80
SOUTH ST	MINNOTT RD	5691' N OF HUBBARDSTON TL	PrevMaint Chipseal	3,075	75	\$27,994	137
SOUTH ST	5691' N OF HUBBARDSTON TL	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	5,712	76	\$52,001	135
SPRING ST	STATE RD WEST	RIDGE ST	BaseRehab Local	673	59	\$32,004	40
SPRUCE ST	SOUTH ST	DAVIS RD	BaseRehab Local	3,077	52	\$115,841	46
STONEHILL RD	NARROWS RD	EAST RD	Do Nothing	2,240	100	\$0	0
SUNSET RD	SHADY AV	CUL DE SAC	BaseRehab Local	2,057	58	\$88,301	10
SYD SMITH RD	NORTH COMMON RD	DEAD END	Do Nothing	543	100	\$0	0
TAYMAX RD	WOODLAND DR	CUL DE SAC	RoutineMaint CrSl or Patch	494	87	\$676	70
TOMMY FRANCIS RD	SOUTH ASHBURNHAM RD	SOUTH ASHBURNHAM RD	RoutineMaint CrSl or Patch	3,143	87	\$3,501	279
TOWN FARM RD	STATE RD EAST	BATHERICK RD	Do Nothing	1,036	100	\$0	0
TOWN FARM RD	BATHERICK RD	518' S OF NORTH COMMON RD	Do Nothing	5,127	100	\$0	0
TOWN FARM RD	518' S OF NORTH COMMON RD	NORTH COMMON RD	Do Nothing	368	100	\$0	0
TURNPIKE RD	WILLARD RD	925' E OF WILLARD RD	PrevMaint Chipseal	925	79	\$8,758	52
TURNPIKE RD	925' E OF WILLARD RD	DEPOT RD	RoutineMaint CrSl or Patch	3,164	87	\$2,711	279
TURNPIKE RD	DEPOT RD	585' E OF CURTIS RD	PrevMaint Chipseal	1,305	79	\$10,930	52
TURNPIKE RD	585' E OF CURTIS RD	FITCHBURG TOWN LINE	BaseRehab Local	2,559	40	\$86,198	59
VAL RD	EAST RD	HY RD	BaseRehab Local	491	58	\$23,349	41
VILLAGE INN RD	WYMAN RD	800' W OF RT 2 RAMPS	Struct Imprmt LO	3,905	61	\$155,963	35

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
VILLAGE INN RD	800' W OF RT 2 RAMPS	NARROWS RD	RoutineMaint CrSl or Patch	828	92	\$1,171	265
WACHUSETT DR	GATEHOUSE RD	CUL DE SAC	BaseRehab Local	1,224	52	\$60,632	11
WASHINGTON DR	EDRO CIR	CUL DE SAC	BaseRehab Local	554	49	\$33,431	12
WEST MAIN ST	MAIN ST	860' E OF WILSON DR	PrevMaint Chipseal	2,212	84	\$22,554	122
WEST MAIN ST	860' E OF WILSON DR	111' W OF FENNO DR	RoutineMaint CrSl or Patch	1,281	92	\$1,372	661
WEST MAIN ST	111' W OF FENNO DR	SCENIC DR	PrevMaint Chipseal	383	79	\$3,766	130
WEST PRINCETON RD	WORCESTER RD	DAVIS RD	BaseRehab Local	2,235	45	\$106,284	53
WEST PRINCETON RD	DAVIS RD	1100' S OF DAVIS RD	BaseRehab Local	1,100	60	\$43,592	40
WEST PRINCETON RD	1100' S OF DAVIS RD	2800' N OF BOLTON RD	BaseRehab w/Sidewalk	4,286	60	\$321,703	21
WEST PRINCETON RD	2800' N OF BOLTON RD	31' S OF BOLTON RD	BaseRehab w/Sidewalk	2,834	59	\$212,717	21
WEST PRINCETON RD	31' S OF BOLTON RD	180' S OF LANES RD	BaseRehab Local	2,711	46	\$112,805	52
WHITMAN TRAIL	TOMMY FRANCIS RD	CUL DE SAC	RoutineMaint CrSl or Patch	549	87	\$612	70
WHITMANVILLE RD	SOUTH ASHBURNHAM RD	100' N OF OLD GARDNER RD	RoutineMaint CrSl and Patch	631	87	\$1,825	19
WHITMANVILLE RD	100' N OF OLD GARDNER RD	DEAD END	BaseRehab Local	1,598	40	\$56,983	15
WHITNEY ST	MINOTT RD	GARDNER TOWN LINE	Do Nothing	3,858	97	\$0	0
WILLARD RD	CUL-DE-SAC	100' N OF WYMAN RD	BaseRehab Local	508	59	\$25,220	40
WILLARD RD	100' N OF WYMAN RD	600' W OF DEPOT RD	BaseRehab Local	4,152	40	\$164,538	59
WILLARD RD	600' W OF DEPOT RD	DEPOT RD	Struct Imprmt LO	599	65	\$13,049	33
WILSON DR	WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	744	91	\$574	67
WOODLAND DR	SOUTH ASHBURNHAM RD	SOUTH ASHBURNHAM RD	PrevMaint Chipseal	3,801	78	\$35,988	53
WORCESTER RD	LEOMINSTER ST	HAGER PARK RD	Struct Imprmt LO	5,418	72	\$163,933	29
WORCESTER RD	HAGER PARK RD	700' S OF PATRICIA RD	Struct Imprmt A/C	3,669	70	\$191,729	120
WORCESTER RD	700' S OF PATRICIA RD	PRINCETON TOWN LINE	BaseRehab A/C	7,312	56	\$415,382	157
WYMAN RD	NARROWS RD	RT 2	Struct Imprmt LO	1,610	65	\$50,662	33
WYMAN RD	RT 2	WILLARD RD	BaseRehab Local	1,504	59	\$98,343	40

2014 PCI

79.14 Miles

\$ 9,996,936

Appendix C

Backlog (by Treatment Type) ■

Backlog Report (by Treatment)

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
<u>BaseRehab A/C</u>							
HAGER PARK RD	STATE RD EAST	NARROWS RD	BaseRehab A/C	440	51	\$46,146	173
WORCESTER RD	700' S OF PATRICIA RD	PRINCETON TOWN LINE	BaseRehab A/C	7,312	56	\$415,382	157
BEAN PORRIDGE HILL R	3451' N OF S ASHBURNHAM R	400' S OF POTATOE HILL RD	BaseRehab A/C	4,024	45	\$167,051	98
SOUTH ST	2660' N OF SPRUCE ST	OLD HUBBARDSTON RD	BaseRehab A/C	3,360	46	\$176,193	96
NARROWS RD	840' W OF WYMAN RD	EAST RD	BaseRehab A/C	2,037	47	\$115,719	94
NARROWS RD	2600' E OF HAGER PARK RD	840' W OF WYMAN RD	BaseRehab A/C	1,288	47	\$73,158	94
BEAN PORRIDGE HILL R	400' S OF POTATOE HILL RD	100' N OF POTATOE HILL RD	BaseRehab A/C	500	51	\$25,127	86
SOUTH ST	OLD HUBBARDSTON RD	MINNOTT RD	BaseRehab A/C	2,195	55	\$119,898	80
SOUTH ASHBURNHAM RD	WEST HILL DR	WOODLAND DR	BaseRehab A/C	2,188	55	\$119,516	80
SOUTH ST	CARTER RD	2660' N OF SPRUCE ST	BaseRehab A/C	2,186	56	\$119,412	79
BEAN PORRIDGE HILL R	SOUTH ASHBURNHAM RD	1920' N OF S ASHBURNHAM R	BaseRehab A/C	1,920	57	\$83,902	77
BEAN PORRIDGE HILL R	2362' N OF S ASHBURNHAM R	3451' N OF S ASHBURNHAM R	BaseRehab A/C	1,089	58	\$57,105	76
SOUTH ASHBURNHAM RD	STATE RD EAST	WEST HILL DR	BaseRehab A/C	1,267	60	\$71,976	73
BEAN PORRIDGE HILL R	1920' N OF S ASHBURNHAM R	2362' N OF S ASHBURNHAM R	BaseRehab A/C	442	60	\$21,246	73
FITCHBURG RD	NOTOWN RD	CODY RD	BaseRehab A/C	2,350	60	\$123,230	73
<u>BaseRehab Local</u>							
OLD WORCESTER RD	MARSHALL HILL RD	WORCESTER RD	BaseRehab Local	749	40	\$29,682	59
TURNPIKE RD	585' E OF CURTIS RD	FITCHBURG TOWN LINE	BaseRehab Local	2,559	40	\$86,198	59
FRED SMITH RD	ASHBURNHAM RD	1500' E OF ASHBURNHAM RD	BaseRehab Local	1,501	40	\$53,527	59
BRAGG HILL RD	1799' S OF ASHBURNHAM TL	ASHBURNHAM TOWN LINE	BaseRehab Local	1,799	40	\$60,598	59
ROPER RD	25' E OF WEST HILL DR	459' W OF FITCHBURG TN LN	BaseRehab Local	1,066	40	\$27,459	59
WILLARD RD	100' N OF WYMAN RD	600' W OF DEPOT RD	BaseRehab Local	4,152	40	\$164,538	59
DAWLEY RD	ACADEMY HILL RD	SOUTH ST	BaseRehab Local	2,598	40	\$108,103	59
CROSS RD	KNOWER RD	MINOTT RD	BaseRehab Local	1,435	40	\$39,807	59
BATHERICK RD	NEWCOMB RD	HOWARD RD	BaseRehab Local	1,260	40	\$37,449	59
ACADEMY HILL RD	FOSTER ST	WORCESTER RD	BaseRehab Local	1,475	40	\$70,143	59
MARSHALL HILL RD	167' E OF LEOMINSTER ST	HOUSE #17	BaseRehab Local	605	40	\$21,578	59
KNOWER RD	1915' S OF CARTER RD	CROSS RD	BaseRehab Local	2,469	40	\$107,628	59
BATTLES RD	STATE RD EAST	CUL DE SAC	BaseRehab Local	2,771	41	\$105,511	58
KNOWER RD	CARTER RD	1915' S OF CARTER RD	BaseRehab Local	1,915	43	\$83,478	55
FOSTER ST	DAWLEY RD	ACADEMY HILL RD	BaseRehab Local	315	44	\$12,483	54
NOTOWN RD	NARROWS RD	2500' E OF NARROWS RD	BaseRehab Local	2,500	45	\$99,072	53

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
WEST PRINCETON RD	WORCESTER RD	DAVIS RD	BaseRehab Local	2,235	45	\$106,284	53
NOTOWN RD	2500' E OF NARROWS RD	FITCHBURG RD	BaseRehab Local	3,282	45	\$130,061	53
OLD HUBBARDSTON RD	SOUTH ST	SPRUCE ST	BaseRehab Local	341	46	\$10,811	52
OVERLOOK RD	3410' N OF SIMPLEX DR	4955' N OF SIMPLEX DR	BaseRehab Local	1,545	46	\$67,349	52
WEST PRINCETON RD	31' S OF BOLTON RD	180' S OF LANES RD	BaseRehab Local	2,711	46	\$112,805	52
NICHOLS ST	SMITH ST	KNOWER RD	BaseRehab Local	1,544	47	\$85,661	51
MERRIAM RD	STATE RD EAST	STATE RD EAST	BaseRehab Local	1,340	48	\$47,792	49
SHADY AV	STATE RD WEST (W)	767' W OF GOODRIDGE DR	BaseRehab Local	2,938	48	\$116,429	49
SHADY AV	767' W OF GOODRIDGE DR	STATE RD WEST (E)	BaseRehab Local	3,579	48	\$141,831	49
NEEDHAM RD	SOUTH ASHBURNHAM RD	ASHBURNHAM TOWN LINE	BaseRehab Local	1,694	49	\$67,131	48
SMITH AV	HOWARD ST	LOVELL ST	BaseRehab Local	284	49	\$11,820	48
KNOWER RD	CROSS RD	476' S OF CROSS RD.	BaseRehab Local	476	50	\$16,977	48
OVERLOOK RD	25' N OF SIMPLEX DR	2250' N OF SIMPLEX DR	BaseRehab Local	2,200	51	\$91,542	47
MARSHALL HILL RD	HOUSE #17	WORCESTER RD	BaseRehab Local	576	51	\$20,544	47
OVERLOOK RD	2250' N OF SIMPLEX DR	3410' N OF SIMPLEX DR	BaseRehab Local	1,160	51	\$50,566	47
SIMPLEX DR	160' N OF WEST MAINST	525' N OF WEST MAINST	BaseRehab Local	365	51	\$41,224	47
SMITH AV	NICHOLS ST	HOWARD ST	BaseRehab Local	349	51	\$14,501	47
SPRUCE ST	SOUTH ST	DAVIS RD	BaseRehab Local	3,077	52	\$115,841	46
DAVIS RD	1143' S OF SPRUCE ST	HARRINGTON RD	BaseRehab Local	2,135	53	\$101,529	45
BRAGG HILL RD	3500' N OF S ASHBURNHAM R	BARREL RD	BaseRehab Local	3,770	53	\$134,460	45
BRAGG HILL RD	SOUTH ASHBURNHAM RD	3500' N OF S ASHBURNHAM R	BaseRehab Local	3,500	54	\$124,830	44
COLONY RD	DEAD END	GARDNER TOWN LINE	BaseRehab Local	3,570	54	\$148,548	44
CARTER RD	ELLIS RD	KNOWER RD	BaseRehab Local	1,361	57	\$64,722	42
CARTER RD	#64 or 1785' W KNOWER RD	SOUTH STREET	BaseRehab Local	917	57	\$39,973	42
VAL RD	EAST RD	HY RD	BaseRehab Local	491	58	\$23,349	41
WYMAN RD	RT 2	WILLARD RD	BaseRehab Local	1,504	59	\$98,343	40
WILLARD RD	CUL-DE-SAC	100' N OF WYMAN RD	BaseRehab Local	508	59	\$25,220	40
SPRING ST	STATE RD WEST	RIDGE ST	BaseRehab Local	673	59	\$32,004	40
DAVIS RD	1725' N OF LANES RD	LANES RD	BaseRehab Local	1,725	60	\$54,688	40
PATRICIA RD	WORCESTER RD	LAURIE LN	BaseRehab Local	1,910	60	\$90,829	40
WEST PRINCETON RD	DAVIS RD	1100' S OF DAVIS RD	BaseRehab Local	1,100	60	\$43,592	40
WHITMANVILLE RD	100' N OF OLD GARDNER RD	DEAD END	BaseRehab Local	1,598	40	\$56,983	15
HOWARD AV	SMITH AV	DEAD END	BaseRehab Local	900	45	\$39,232	13
RIPLEY RD	NICHOLS ST	DEAD END	BaseRehab Local	325	47	\$13,523	13
ELM ST	LOVELL ST	HOWARD AV	BaseRehab Local	284	48	\$11,255	12
WASHINGTON DR	EDRO CIR	CUL DE SAC	BaseRehab Local	554	49	\$33,431	12
MEETINGHOUSE RD	SOUTH ST	CUL DE SAC	BaseRehab Local	434	50	\$37,394	12

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
OLD COUNTY RD	1025' N OF ELLIS RD	DEAD END	BaseRehab Local	600	50	\$22,588	12
EATON ST	MAIN ST	DEAD END	BaseRehab Local	380	52	\$21,082	11
LOVELL ST	MAIN ST	DEAD END	BaseRehab Local	1,377	52	\$65,483	11
OLD TOWN FARM RD	TOWN FARM RD	CUL DE SAC	BaseRehab Local	852	52	\$27,011	11
WACHUSETT DR	GATEHOUSE RD	CUL DE SAC	BaseRehab Local	1,224	52	\$60,632	11
GOODRIDGE DR	SHADY AV	DEAD END	BaseRehab Local	564	54	\$22,351	11
ADAMS ST	MAIN ST	125' N OF MAIN ST	BaseRehab Local	125	54	\$4,221	11
EAST GARDNER RD	OAKMONT AV	GATE ENTRANCE	BaseRehab Local	5,058	55	\$180,398	11
OLD GARDNER RD	WHITMANVILLE RD	350' E OF WHITMANVILLE RD	BaseRehab Local	353	55	\$21,978	11
BROOKS AV	MAIN ST	DEAD END	BaseRehab Local	240	56	\$9,035	11
SUNSET RD	SHADY AV	CUL DE SAC	BaseRehab Local	2,057	58	\$88,301	10
HY RD	VAL RD	CUL DE SAC	BaseRehab Local	228	58	\$14,813	10
<u>BaseRehab w/Sidewalk</u>							
OAKMONT AV	NORTH COMMON RD	325' N OF NORTH COMMON RD	BaseRehab w/Sidewalk	325	53	\$25,411	58
LANES RD	WEST PRINCETON RD	400' E OF DAVIS RD	BaseRehab w/Sidewalk	3,277	46	\$194,725	27
ACADEMY HILL RD	327' E OF LEOMINSTER ST	FOSTER ST	BaseRehab w/Sidewalk	778	50	\$70,562	25
NICHOLS ST	MAIN ST	SMITH ST	BaseRehab w/Sidewalk	427	50	\$37,392	25
ACADEMY HILL RD	LEOMINSTER ST	327' E OF LEOMINSTER ST	BaseRehab w/Sidewalk	327	53	\$30,680	23
WEST PRINCETON RD	2800' N OF BOLTON RD	31' S OF BOLTON RD	BaseRehab w/Sidewalk	2,834	59	\$212,717	21
WEST PRINCETON RD	1100' S OF DAVIS RD	2800' N OF BOLTON RD	BaseRehab w/Sidewalk	4,286	60	\$321,703	21
CHURCH ST	MAIN ST	CUL DE SAC	BaseRehab w/Sidewalk	2,006	47	\$165,186	7
<u>Do Nothing</u>							
ELLIOT ST	MAIN ST	BACON ST	Do Nothing	1,291	100	\$0	0
OVERLOOK RD	NORTH COMMON RD	25' N OF SIMPLEX DR	Do Nothing	475	100	\$0	0
MOSSMAN RD	OAKMONT AV	EAST GARDNER RD	Do Nothing	1,874	93	\$0	0
BARREL RD	712' W OF BRAGG HILL RD	BRAGG HILL RD	Do Nothing	712	94	\$0	0
SARGENT RD	DEAD END (BY SIMPLEX DR)	BEECH HILL RD	Do Nothing	858	93	\$0	0
SARGENT RD	BEECH HILL RD	COLONY RD	Do Nothing	1,473	93	\$0	0
NARROWS RD	HAGER PARK RD	1033' E OF HAGER PARK RD	Do Nothing	1,033	100	\$0	0
NARROWS RD	340' W OF STONEHILL RD	1304' S OF RT 2	Do Nothing	2,456	97	\$0	0
STONEHILL RD	NARROWS RD	EAST RD	Do Nothing	2,240	100	\$0	0
BOLTON RD	WEST PRINCETON RD	495' W OF MILE HILL RD	Do Nothing	4,858	99	\$0	0
DAVIS RD	WEST PRINCETON RD	260' S OF WEST PRINCETON	Do Nothing	260	100	\$0	0
DAVIS RD	260' S OF WEST PRINCETON	1370' N OF SPRUCE ST	Do Nothing	2,238	100	\$0	0
DAVIS RD	1370' N OF SPRUCE ST	SPRUCE ST	Do Nothing	1,129	100	\$0	0
MINOTT RD	SOUTH ST	KNOWER RD	Do Nothing	2,160	97	\$0	0

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
MINOTT RD	KNOWER RD	3000' W OF KNOWER RD	Do Nothing	3,000	97	\$0	0
KNOWER RD	ELLIS RD	CARTER RD	Do Nothing	1,905	97	\$0	0
ELLIS RD	550' W OF CARTER RD	LAKE DR WEST	Do Nothing	4,000	97	\$0	0
TOWN FARM RD	STATE RD EAST	BATHERICK RD	Do Nothing	1,036	100	\$0	0
DEPOT RD	RT 2	TURNPIKE RD	Do Nothing	1,240	100	\$0	0
KENDALL CT	FENNO DR	FENNO DR	Do Nothing	863	93	\$0	0
NORTH COMMON RD	OAKMONT AV (S)	TOWN FARM RD	Do Nothing	1,424	100	\$0	0
NORTH COMMON RD	EAST GARDNER RD	OAKMONT AV (N)	Do Nothing	3,194	98	\$0	0
HANKS HILL RD	STONEHILL RD	DEAD END	Do Nothing	720	100	\$0	0
ELLIS RD	1712' W OF PARTRIDGE HILL	999' E OF MINOTT RD	Do Nothing	895	97	\$0	0
ELLIS RD	999' E OF MINOTT RD	MINOTT RD	Do Nothing	999	97	\$0	0
MINOTT RD	NEWTON RD	1988' W OF NEWTON RD	Do Nothing	1,988	97	\$0	0
MINOTT RD	WHITNEY ST	GARDNER TOWN LINE	Do Nothing	2,535	97	\$0	0
WHITNEY ST	MINOTT RD	GARDNER TOWN LINE	Do Nothing	3,858	97	\$0	0
LAWS RD	ASHBURNHAM RD	DEAN HILL RD	Do Nothing	695	94	\$0	0
BOLTON RD	495' W OF MILE HILL RD	MILE HILL RD	Do Nothing	495	99	\$0	0
DEAN HILL RD	LAWS RD	1823' E OF LAWS RD	Do Nothing	1,823	98	\$0	0
DEAN HILL RD	1823' E OF LAWS RD	FITCHBURG TOWN LINE	Do Nothing	2,229	98	\$0	0
MINOTT RD	3000' W OF KNOWER RD	NEWTON RD	Do Nothing	3,105	97	\$0	0
MINOTT RD	2117' W NEWTON RD	WHITNEY ST	Do Nothing	3,666	97	\$0	0
MINOTT RD	1988' W OF NEWTON RD	2117' W NEWTON RD	Do Nothing	129	97	\$0	0
MARSHALL HILL RD	LEOMINSTER STREET	167' E OF LEOMINSTER ST	Do Nothing	167	93	\$0	0
PLEASANT ST	MAIN ST	BACON ST	Do Nothing	719	100	\$0	0
NARROWS RD	EAST RD	340' W OF STONEHILL RD	Do Nothing	1,652	97	\$0	0
HARRINGTON RD	350' W OF DAVIS ST	DAVIS ST	Do Nothing	350	100	\$0	0
BACON ST	MAIN ST	100' N OF ELLIOTT ST	Do Nothing	1,210	100	\$0	0
EDRO ISLE	VIRGINIA AV (W)	VIRGINIA AV (E)	Do Nothing	1,152	95	\$0	0
NARROWS RD	1033' E OF HAGER PARK RD	1636' E OF HAGER PARK RD	Do Nothing	604	100	\$0	0
SOUTH ST	LEOMINSTER ST	CARTER RD	Do Nothing	2,259	100	\$0	0
DEPOT RD	TURNPIKE RD	400' S OF STATE RD EAST	Do Nothing	2,750	100	\$0	0
DEPOT RD	400' S OF STATE RD EAST	STATE RD EAST	Do Nothing	411	100	\$0	0
FRED SMITH RD	272' S OF DEAN HILL RD	DEAN HILL RD	Do Nothing	273	98	\$0	0
BATHERICK RD	500'E OF TOWN FARM RD	TOWN FARM RD	Do Nothing	500	100	\$0	0
SAWIN DRIVE	HARRINGTON RD	CUL DE SAC	Do Nothing	1,297	97	\$0	0
LEOMINSTER ST	MAIN ST W	50' E OF ACADEMT HILL RD	Do Nothing	168	97	\$0	0
NORTH COMMON RD	OVERLOOK RD	228' N OF OVERLOOK RD	Do Nothing	338	100	\$0	0
BACON ST	2006' N OF ELLIOTT ST	NORTH COMMON RD	Do Nothing	1,224	100	\$0	0

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
ADAMS ST	125' N OF MAIN ST	DEAD END	Do Nothing	346	100	\$0	0
FITCHBURG RD	CODY RD	FITCHBURG TOWN LINE	Do Nothing	3,543	100	\$0	0
OVERLOOK RD	4955' N OF SIMPLEX DR	GATE ENTRANCE	Do Nothing	2,485	100	\$0	0
HARRINGTON RD	SOUTH ST	350' W OF DAVIS ST	Do Nothing	3,214	100	\$0	0
ELLIS RD	LAKE DR WEST	PARTRIDGE HILL RD	Do Nothing	2,189	97	\$0	0
TOWN FARM RD	BATHERICK RD	518' S OF NORTH COMMON RD	Do Nothing	5,127	100	\$0	0
SYD SMITH RD	NORTH COMMON RD	DEAD END	Do Nothing	543	100	\$0	0
OLD COUNTY RD	ELLIS RD	1025' N OF ELLIS RD	Do Nothing	1,025	97	\$0	0
ELLIS RD	PARTRIDGE HILL RD	1712' W OF PARTRIDGE HILL	Do Nothing	1,712	97	\$0	0
TOWN FARM RD	518' S OF NORTH COMMON RD	NORTH COMMON RD	Do Nothing	368	100	\$0	0
OLD GARDNER RD	350' E OF WHITMANVILLE RD	CUL DE SAC	Do Nothing	951	92	\$0	0
<u>PrevMaint Chipseal</u>							
EAST RD	NARROWS RD	1078' S OF NARROWS RD	PrevMaint Chipseal	1,078	74	\$9,814	139
EAST RD	1078' S OF NARROWS RD	49' N OF STONE HILL RD	PrevMaint Chipseal	810	74	\$7,374	139
GATEHOUSE RD	EAST RD	WORCESTER RD	PrevMaint Chipseal	2,851	74	\$30,108	139
NARROWS RD	1636' E OF HAGER PARK RD	2600' E OF HAGER PARK RD	PrevMaint Chipseal	962	74	\$9,111	139
SOUTH ST	MINNOTT RD	5691' N OF HUBBARDSTON TL	PrevMaint Chipseal	3,075	75	\$27,994	137
SOUTH ST	5691' N OF HUBBARDSTON TL	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	5,712	76	\$52,001	135
MILE HILL RD	BOLTON RD	WORCESTER RD	PrevMaint Chipseal	2,708	78	\$29,584	131
WEST MAIN ST	111' W OF FENNO DR	SCENIC DR	PrevMaint Chipseal	383	79	\$3,766	130
WEST MAIN ST	MAIN ST	860' E OF WILSON DR	PrevMaint Chipseal	2,212	84	\$22,554	122
LANES RD	400' E OF DAVIS RD	DAVIS RD	PrevMaint Chipseal	400	74	\$2,768	55
KNOWER RD	467' OF CROSS RD.	MINOTT RD	PrevMaint Chipseal	774	74	\$5,073	55
RIDGE ST	STATE RD WEST	NORWOOD ST	PrevMaint Chipseal	1,758	76	\$15,364	54
BATHERICK RD	600' N STATE RD EAST	NEWCOMB RD	PrevMaint Chipseal	4,200	76	\$30,589	54
KNOWER RD	MINOTT RD	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	3,880	76	\$32,497	54
POTATO HILL RD	376' W OF ASHBURNHAM RD	TOWN LINE	PrevMaint Chipseal	1,982	78	\$14,435	53
WOODLAND DR	SOUTH ASHBURNHAM RD	SOUTH ASHBURNHAM RD	PrevMaint Chipseal	3,801	78	\$35,988	53
CARPENTER LN	FENNO DR	SCENIC DR	PrevMaint Chipseal	868	79	\$7,586	52
TURNPIKE RD	WILLARD RD	925' E OF WILLARD RD	PrevMaint Chipseal	925	79	\$8,758	52
TURNPIKE RD	DEPOT RD	585' E OF CURTIS RD	PrevMaint Chipseal	1,305	79	\$10,930	52
BATHERICK RD	STATE RD EAST	600' N STATE RD EAST	PrevMaint Chipseal	600	79	\$5,244	52
FRED SMITH RD	1500' E OF ASHBURNHAM RD	2151' E OF ASHBURNHAM RD	PrevMaint Chipseal	650	79	\$4,262	52
NEWCOMB RD	STATE RD EAST	#33 or 2100' N STATE RD E	PrevMaint Chipseal	2,100	80	\$16,059	51
CURTIS RD	231' N OF TURNPIKE RD	TURNPIKE RD	PrevMaint Chipseal	233	80	\$1,273	51
NEWTON RD	MINOTT RD	HUBBARDSTON TOWN LINE	PrevMaint Chipseal	2,642	84	\$20,204	49
LEOMINSTER ST	50' E OF ACADEMT HILL RD	MAIN ST E	PrevMaint Chipseal	3,118	84	\$30,657	49

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
EDRO ISLE	LAURIE LANE	DEAD END	PrevMaint Chipseal	1,080	74	\$7,079	14
KURIKKA RD	MINOTT RD	DEAD END	PrevMaint Chipseal	1,062	76	\$6,574	13
BLUEBERRY HILL LN	NORTH COMMON RD	CUL DE SAC	PrevMaint Chipseal	662	77	\$7,948	13
OAKWOOD CT	WOODLAND DR	CUL DE SAC	PrevMaint Chipseal	326	79	\$5,000	13
KIRALI CT	SOUTH ASHBURNHAM RD	CUL DE SAC	PrevMaint Chipseal	530	79	\$6,091	13
AMBER RD	1ST CUL-DE-SAC	2ND CUL-DE-SAC	PrevMaint Chipseal	565	80	\$5,349	13
CUDAK CT	TOMMY FRANCIS RD	CUL DE SAC	PrevMaint Chipseal	276	80	\$3,512	13
SCENIC DR	WEST MAIN ST	CUL DE SAC	PrevMaint Chipseal	1,645	84	\$21,565	12
<u>PrevMaint Prep/Dbchchip</u>							
OAKMONT AV	325' N OF NORTH COMMON RD	928' N OF NORTH COMMON RD	PrevMaint Prep/Dbchchip	603	74	\$9,203	95
OAKMONT AV	EAST GARDNER RD	200' S OF MOSSMAN RD	PrevMaint Prep/Dbchchip	1,699	74	\$28,010	95
OAKMONT AV	928' N OF NORTH COMMON RD	EAST GARDNER RD	PrevMaint Prep/Dbchchip	3,850	75	\$63,461	93
SEAVER ST	LEOMINSTER ST	MAIN ST	PrevMaint Prep/Dbchchip	251	74	\$2,758	38
EAST GARDNER RD	NORTH COMMON RD	OAKMONT AV	PrevMaint Prep/Dbchchip	1,247	75	\$15,226	37
NORTH COMMON RD	TOWN FARM RD	EAST GARDNER RD	PrevMaint Prep/Dbchchip	2,486	75	\$37,942	37
<u>RoutineMaint CrSl and Patch</u>							
ANDREA LN	WORCESTER RD	WORCESTER RD	RoutineMaint CrSl and Patch	1,135	89	\$4,012	74
WHITMANVILLE RD	SOUTH ASHBURNHAM RD	100' N OF OLD GARDNER RD	RoutineMaint CrSl and Patch	631	87	\$1,825	19
<u>RoutineMaint CrSl or Patch</u>							
BETTY SPRING RD (SB)	415' S OF WEST MAIN ST	GARDNER TOWN LINE	RoutineMaint CrSl or Patch	500	86	\$814	706
BETTY SPRING RD (SB)	WEST MAIN ST	415' S OF WEST MAIN ST	RoutineMaint CrSl or Patch	415	86	\$444	706
BETTY SPRING RD (NB)	415' S OF WEST MAIN ST	WEST MAIN ST	RoutineMaint CrSl or Patch	421	86	\$451	706
SOUTH ASHBURNHAM RD	BEAN PORRIDGE HILL RD	WHITMANVILLE RD	RoutineMaint CrSl or Patch	6,360	87	\$7,084	698
SOUTH ASHBURNHAM RD	WOODLAND DR	BEAN PORRIDGE HILL RD	RoutineMaint CrSl or Patch	3,236	87	\$3,466	698
WEST MAIN ST	860' E OF WILSON DR	111' W OF FENNO DR	RoutineMaint CrSl or Patch	1,281	92	\$1,372	661
DEAN HILL RD	ASHBURNHAM RD	LAWS RD	RoutineMaint CrSl or Patch	1,442	93	\$1,112	654
OAKMONT AV	200' S OF MOSSMAN RD	542' N OF MOSSMAN RD	RoutineMaint CrSl or Patch	743	93	\$859	654
BARREL RD	SOUTH ASHBURNHAM RD	712' W OF BRAGG HILL RD	RoutineMaint CrSl or Patch	4,475	87	\$3,067	279
TURNPIKE RD	925' E OF WILLARD RD	DEPOT RD	RoutineMaint CrSl or Patch	3,164	87	\$2,711	279
TOMMY FRANCIS RD	SOUTH ASHBURNHAM RD	SOUTH ASHBURNHAM RD	RoutineMaint CrSl or Patch	3,143	87	\$3,501	279
SARGENT RD	COLONY RD	250' S OF WEST MAIN ST	RoutineMaint CrSl or Patch	975	92	\$1,253	265
VILLAGE INN RD	800' W OF RT 2 RAMPS	NARROWS RD	RoutineMaint CrSl or Patch	828	92	\$1,171	265
SARGENT RD	250' S OF WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	1,010	87	\$1,298	70
AMBER RD	WOODLAND DR	1ST CUL-DE-SAC	RoutineMaint CrSl or Patch	519	87	\$578	70
WHITMAN TRAIL	TOMMY FRANCIS RD	CUL DE SAC	RoutineMaint CrSl or Patch	549	87	\$612	70

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
TAYMAX RD	WOODLAND DR	CUL DE SAC	RoutineMaint CrSl or Patch	494	87	\$676	70
WILSON DR	WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	744	91	\$574	67
FENNO DR	WEST MAIN ST	CUL DE SAC	RoutineMaint CrSl or Patch	1,387	92	\$1,426	66
MARK NEWTON RD	NEWTON RD	CUL DE SAC	RoutineMaint CrSl or Patch	650	92	\$784	66
<u>Struct Imprmt A/C</u>							
WORCESTER RD	HAGER PARK RD	700' S OF PATRICIA RD	Struct Imprmt A/C	3,669	70	\$191,729	120
HAGER PARK RD	NARROWS RD	WORCESTER RD	Struct Imprmt A/C	3,317	71	\$173,334	118
EAST RD	49' N OF STONE HILL RD	LAUREL LA	Struct Imprmt A/C	2,270	61	\$75,224	69
NARROWS RD	1304' S OF RT 2	RT 2	Struct Imprmt A/C	1,304	61	\$59,832	69
BEAN PORRIDGE HILL R	100' N OF POTATOE HILL RD	3487' S OF ASHBURNHAM RD	Struct Imprmt A/C	3,122	67	\$67,645	63
BEAN PORRIDGE HILL R	3487' S OF ASHBURNHAM RD	ASHBURNHAM RD	Struct Imprmt A/C	3,487	67	\$75,554	63
FITCHBURG RD	PRINCETON TOWN LINE	NOTOWN RD	Struct Imprmt A/C	3,500	68	\$111,523	62
SOUTH ASHBURNHAM RD	WHITMANVILLE RD	ASHBURNHAM TOWN LINE	Struct Imprmt A/C	9,714	69	\$309,523	61
EAST RD	LAUREL LA	95' S OF GATEHOUSE RD	Struct Imprmt A/C	2,642	71	\$84,184	59
MILE HILL RD	PRINCETON TOWN LINE	BOLTON RD	Struct Imprmt A/C	2,665	72	\$101,900	58
OAKMONT AV	542' N OF MOSSMAN RD	SOUTH ASHBURNHAM RD	Struct Imprmt A/C	1,754	72	\$60,360	58
<u>Struct Imprmt A/C w/ mill</u>							
NORTH COMMON RD	228' N OF OVERLOOK RD	OAKMONT AV (S)	Struct Imprmt A/C w/ mill	2,538	63	\$105,186	61
BACON ST	100' N OF ELLIOTT ST	2006' N OF ELLIOTT ST	Struct Imprmt A/C w/ mill	796	72	\$43,992	54
<u>Struct Imprmt LO</u>							
VILLAGE INN RD	WYMAN RD	800' W OF RT 2 RAMPS	Struct Imprmt LO	3,905	61	\$155,963	35
DAVIS RD	HARRINGTON RD	1725' N OF LANES RD	Struct Imprmt LO	4,763	62	\$126,821	34
ELLIS RD	KNOWER RD	550' W OF CARTER RD	Struct Imprmt LO	2,502	63	\$69,647	34
MILES AV	RIDGE ST	NORWOOD ST	Struct Imprmt LO	1,256	63	\$36,483	34
NORWOOD ST	MILES AV	RIDGE ST	Struct Imprmt LO	340	64	\$9,053	33
WYMAN RD	NARROWS RD	RT 2	Struct Imprmt LO	1,610	65	\$50,662	33
SIMPLEX DR	525' N OF WEST MAIN ST	SIMPLEX PROPERTY	Struct Imprmt LO	1,075	65	\$74,160	33
LANES RD	DAVIS RD	HUBBARDSTON TOWN LINE	Struct Imprmt LO	1,833	65	\$39,932	33
CARTER RD	KNOWER RD	#64 or 1785' W KNOWER RD	Struct Imprmt LO	1,785	65	\$51,849	33
WILLARD RD	600' W OF DEPOT RD	DEPOT RD	Struct Imprmt LO	599	65	\$13,049	33
FROG HOLLOW RD	CARTER RD	625' S OF CARTER RD	Struct Imprmt LO	625	66	\$12,103	32
NEWCOMB RD	#33 or 2100' N STATE RD E	BATHERICK RD	Struct Imprmt LO	1,330	67	\$28,974	32
ROPER RD	SOUTH ASHBURNHAM RD	25' E OF WEST HILL DR	Struct Imprmt LO	387	68	\$11,709	31
POTATO HILL RD	ASHBURNHAM RD	376' W OF ASHBURNHAM RD	Struct Imprmt LO	376	72	\$12,742	29
WORCESTER RD	LEOMINSTER ST	HAGER PARK RD	Struct Imprmt LO	5,418	72	\$163,933	29

Scenario: 2014 PCI

<u>Street Name</u>	<u>From</u>	<u>To</u>	<u>Alternative</u>	<u>Length (ft)</u>	<u>PCI</u>	<u>Repair Cost</u>	<u>Benefit Value</u>
HY RD	EAST RD	VAL RD	Struct Imprmt LO	745	72	\$21,640	29
PARK ST	MILES AV	DEAD END	Struct Imprmt LO	458	68	\$13,303	8
LAURIE LN	PATRICIA RD	CUL DE SAC	Struct Imprmt LO	2,038	72	\$61,325	7
<u>Struct Imprmt LO w/ mill</u>							
DAVIS RD	SPRUCE ST	1143' S OF SPRUCE ST	Struct Imprmt LO w/ mill	1,143	70	\$29,136	29

2014 PCI

79.14 Miles

\$ 9,996,936