# 2016
# CORNELL LOCAL ROADS PROGRAM

# ROAD CONDITION REPORT
# FOR THE
# TOWN OF WILTON, NY

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## EXECUTIVE SUMMARY

Over the past nine weeks, the Town of Wilton, New York, has evaluated all roadways which it maintains. After creating an inventory of all its roads, the town surveyed the condition, traffic level, and importance of each road and input the data into a software program known as CAMP-RS (Cornell Asset Management Program – Roads & Streets). Based on the software's repair recommendations and the municipality's previous repair methods, the town then assigned an appropriate repair type for each surveyed road. Once each road was assigned a repair, an annual material repair budget[1] was assigned for the program to take into consideration. After assessing the importance, traffic level, and pavement condition of each road, as well as the municipality's highway budget and repair options, CAMP-RS designed a timeline for future road maintenance and repair.[2] Based on the recommendations of CAMP-RS and an annual material repair budget of $900,000, it will take ten years to repair all roads within the Town of Wilton. The first five years of this plan are the most important, as nearly 77% of roadways within the municipality can be maintained or repaired, with the goal of extending the life of roads that have little to moderate damage. This will allow the municipality to "catch up" on road repairs so that the time and money saved can be used toward larger, more costly projects. Roads in the Town of Wilton are noticeably in better condition than most of the roads in surrounding municipalities, and this new effort to create a more organized system of pavement management will only further ensure that Wilton roadways remain as such.

## TOWN OF WILTON COMMUNITY

Currently, the Town of Wilton, New York, maintains 234 roads, all of which are asphalt and total 108.9 centerline miles. Home to 16,173 people (based on the 2010 Census), Wilton's population is expanding much like its roadways. With a population increase of more than 3,600 residents from 2000 to 2010, the correlating number of residential developments built in the last decade has added to the increase in total road miles.[3]

[1] Information regarding how an annual material repair budget was determined can be found on page 8.
[2] This timeline can be found in the designated CAMP-RS Budget Report attached to the end of this document.
[3] See figure 5 on page 12.

## INTRODUCTION

The Cornell Local Roads Program (CLRP) was created by civil engineers from Cornell University in order to provide a more organized and systematic approach for local municipalities to develop a pavement management system. From the CLRP came CAMP-RS Software, which allows local roadways to be categorized and, eventually, prioritized for repair. In essence, the program is a cost analysis tool that uses extensive data relating to current road conditions, repair methods, and budgets to develop an objective report as well as plan for future road maintenance and construction. This report is based strictly on data gathered from road surveys, entirely free of partiality and politics, which sometimes affect local pavement management systems. CAMP-RS is founded on the principle of "keeping good roads good," while repairing already failing roads within time and budget constraints. This course of action is a logical and cost-effective way to ensure that all roads remain in a condition where they allow for safe travel for years to come. The graphs below illustrate the exponential relationship between road deterioration and time.

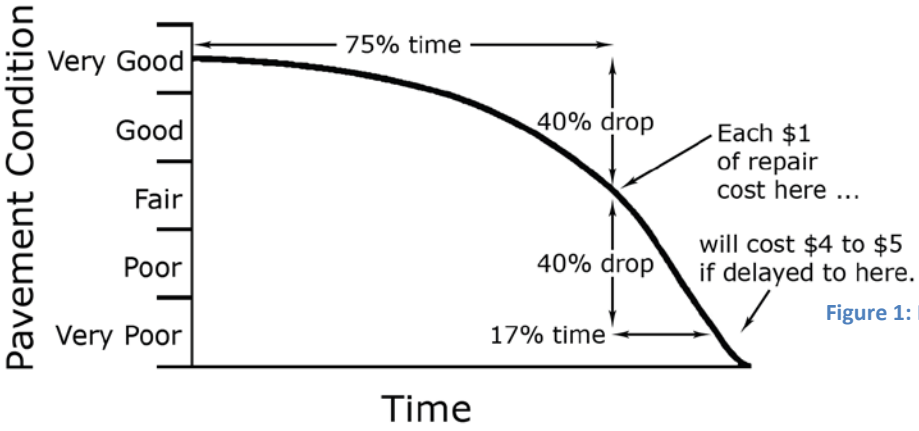


Figure 1: Pavement Condition v. Time

Rapid pavement deterioration begins to occur at about 75% of a road's life. Clearly, it is more cost-effective to perform inexpensive, routine maintenance to extend the life of a road as opposed to waiting until the road needs large, expensive repairs. The time saved by putting off cheaper repairs is minimal when compared to the cost of the rehabilitation or total reconstruction of a road.

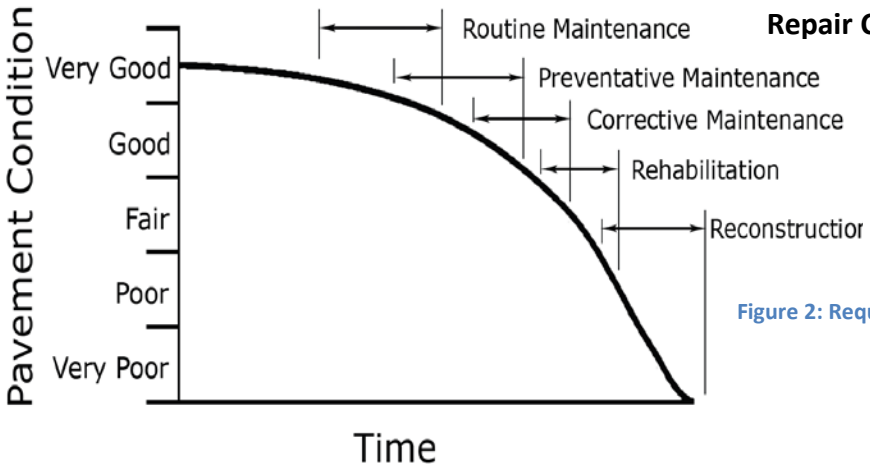


Figure 2: Required Repair Category v. Time

# Why Roads Fail Prematurely

Roads may deteriorate more quickly than expected due to a handful of different reasons. A poor sub-base, resulting from the use of cheap materials or the improper construction of a road, wreaks havoc on all aspects of a pavement structure. Traffic levels and traffic loads that exceed the load posting and design of a road will also result in premature road failure. The greatest detriment to a road, however, is poor drainage, because water that cannot drain properly above or below a pavement results in sub-base weakening, soil erosion, cracking, and potholes, among other distresses. Climatic conditions, such as springtime freezing-and-thawing, further exacerbate road deterioration, so it is necessary that road crowns, ditches, shoulders, and culverts direct water away from a pavement structure. With proper knowledge, construction, and maintenance techniques, the life of a road can be dramatically extended.

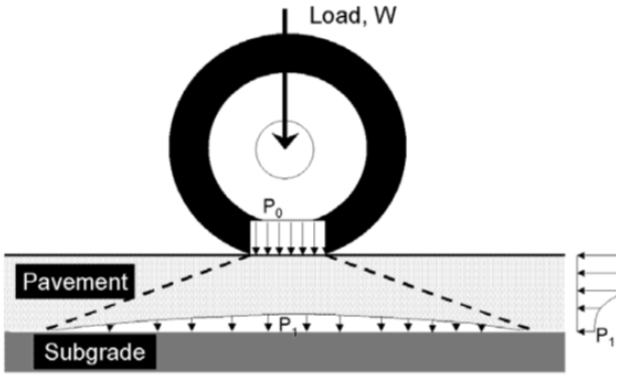


Figure 3: Wheel-Load Distribution

Figure 3 shows how a wheel load is distributed within a pavement. A thicker pavement results in a smaller force directly applied to the subgrade. Figure 4 shows the deflection of a pavement under a wheel load. Tension and compression forces in the material may result in cracking.

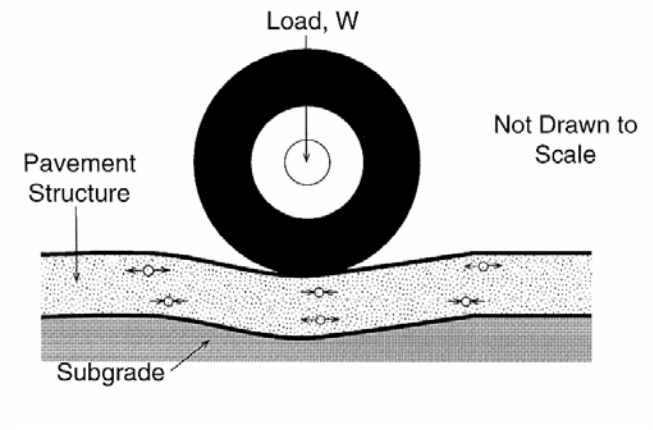


Figure 4: Deflection of Pavement Beneath a Wheel Load

## TRAINING FOR CORNELL LOCAL ROADS PROGRAM

In order to acquire the necessary skills to use the CAMP-RS Software, it was required by the Cornell Program that involved persons attend a three-day training program at Cornell University in Ithaca, New York. The Town of Wilton sent one employee and a summer intern to learn about the essentials of a good road, various pavement distresses, methods of maintaining and repairing roads, and how to integrate the CAMP-RS Program into the municipality. Discussions were led by heads of the Cornell Local Roads Program David Orr, P.E. and Geoffrey Scott, P.E. Additionally, Orr and Scott uploaded the CAMP-RS Software onto a town laptop and facilitated (practice) road inspections on Cornell's campus.

## PROJECT PROCESS

1. INVENTORY

The first step in designing an effective pavement management system for the municipality was creating an inventory for all roads within the town. Fortunately, readily made available to the town was an Excel file from the New York State Department of Transportation, containing a catalog of roads within the Town of Wilton. Included in this record was each road name, DOT ID Number, road length, beginning/ending points, and pavement width. It was necessary, however, to segment some long roads within the inventory for construction and budget considerations. After adjusting the Excel file to match the CAMP-RS Software format, the road inventory was able to be uploaded onto the program.

2. ROAD SURVEYS

The majority of the project emphasis was directed toward surveying all town-maintained highways in the municipality. This entailed walking the length of each road, filling out a Pavement Condition Survey Form,[4] and taking additional notes on anything the inspector felt was important to have on record (and that might not otherwise be highlighted by the software). The Pavement Condition Survey Form focuses on eight different distresses[5] that cause pavements to fail, evaluating each with a numerical rating based on the extent and severity of the distress for the road being surveyed. While most pavement distresses were recorded during every road survey, the drainage rating of each road was determined by observing roadways during rain events. It is important to note that the inspector's evaluations were based on the relative condition of all roads within the municipality. To ensure objectivity and reliability among surveys, roads rated at the beginning of the project were re-evaluated at the end of the project.

[4] A sample Pavement Condition Survey Form can be found on page 15.

[5] Pavement Distresses are explained in greater detail in Appendix A.

Additionally, on every Pavement Condition Survey Form, the inspector recorded the name of each road, where the road began and ended, the date, the weather/temperature, road importance,[5] traffic levels,[6] and name. On roads broken up into different sections, the inspector took a road condition survey of each section and carefully noted which section was being surveyed at the top of the form. Furthermore, the inspector used a measuring wheel to confirm the width of each road, as some discrepancies were found within the Department of Transportation's catalog. Any additional notes were written in the margins of the page. At the end of each day, data was transferred from the survey information from the condition forms to each corresponding road within the CAMP-RS Software Program[7].

3. REPAIRS

A repair category is automatically assigned to a road once it has been surveyed in the CAMP-RS Program. These eight categories range from deferring maintenance, to performing crack repairs, to completely reconstructing a road, and are determined by the distresses recorded during the road condition survey and by the related decision trees.[8]

While these repair categories are consistent for all asphalt roads, varying budgets, equipment, availability of materials, and different opinions across municipalities result in the employment of different repair methods. While a repair category is automatically given to each road by the software, the user of the CAMP-RS Program must manually select a specific road repair to be used within that assigned repair category. On the following page is a list of repair methods used on roads by the Town of Wilton, along with its associated repair category, a brief description, and a price for each repair.[9]

[6] Information regarding how road importance and traffic levels were determined can be found in Appendix D.
[7] Information regarding how to use the CAMP-RS Software can be found in Appendix C.
[8] Decision trees are explained in greater detail in Appendix B.
[9] Information regarding how road repair costs were calculated can be found in Appendix D.

## ASPHALT REPAIR CATEGORIES AND METHODS

The cost and life of road repairs were determined by observing previous project costs, road repair requests, local pricing, and professional advice. All prices given are the material cost of each repair, unless otherwise noted. Calculations for the costs of specific road repairs can be found in Appendix D.

Defer Maintenance

- **Do Nothing**: Pavement has little to no distresses. No maintenance necessary at present.
    - **Cost**: $0

Crack Repairs

- **Crack Seal**: Routine maintenance used to keep low- to medium-severity cracking from becoming an exponentially more expensive repair. Roads paved in last 2-5 years are good candidates.
- **Cost**: $1.10/ linear foot of cracking - **Outside contract.**
    - Difficult to estimate due to varying extent and severity of cracking for each road. Typically, a day's cost ranges from $8,000-$10,000.
    - **Repair Life**: 2-3 years

Patching

- **Peckham Winter Mix Cold Patch**: Routine maintenance technique targeting isolated areas of damaged pavement. Throw-and-Roll patch used to repair potholes, wide cracking, and other loss of pavement. Typically used as a temporary measure until permanent repairs are performed.
    - **Cost**: $0.12/ $ft^2$ of patching – **Material cost only.**
        - Difficult to estimate due to varying extent and severity of pavement distresses for each road. Calculated cost is based on previous patching jobs and the expertise of workers in the Highway Department.
    - **Repair Life**: 1-2 years
- **Brunell Bag Patch:** Routine maintenance technique targeting isolated areas of damaged pavement. More durable patch used on roads with higher traffic levels.
    - **Cost**: $0.44/ $ft^2$ of patching – **Material cost only.**
        - Difficult to estimate due to varying extent and severity of pavement distresses for each road. Calculated cost is based on previous

patching jobs and the expertise of workers in the Highway Department.

- **Repair Life**: 2-3 years

Surface Treatment

- **1.5" 6-Top Asphalt**: Thin application of material applied to current road surface to prevent further pavement deterioration. Additionally, consider that road elevation will change as a result of its application.
  - **Cost**: \$0.55/ $ft^2$ – **Material cost only.**
  - **Repair Life**: 5-8 years
- **2.5" 6-Top Asphalt**: Thin application of material recommended on current road surface to prevent further pavement deterioration. Thicker application generally used on larger collector roads with more traffic and heavier truck loads. Again, if applied to existing road surface, pavement elevation will change.
  - **Cost**: \$0.81/ $ft^2$ – **Material cost only.**
  - **Repair Life**: 8-10 years
- **Chip Seal**: Combines a layer of asphalt with a layer of fine aggregate, which is then rolled over into a smooth pavement surface. When applied correctly, it is an inexpensive yet effective method of pavement repair. May be used in conjunction with Fibermat® or an overlay to extend repair life.
  - **Cost**: \$0.17/ $ft^2$ (without Fibermat® or overlay); \$0.33 / $ft^2$ (with Fibermat®); \$0.72 / $ft^2$ (with 1.5" overlay) - **Town purchases and delivers stone. Outside contract installs. Outside contract for Fibermat®.**
  - **Repair Life**: 3-5 years (without Fibermat® or overlay); 6-9 years (with Fibermat®); 10 years (with 1.5" overlay)

Overlay

- **Fibermat® and 1.5" Overlay**: Flexible, strong, fibrous mat that is covered with stone and an asphalt overlay. Fibermat® has strength and flexibility, which helps reduce loads by dispersing forces over a greater area. **Outside contract for Fibermat®.**
  - **Cost**: \$0.92/ $ft^2$ (for both contract and overlay)
  - **Repair Life**: 7-10 years
- **Fibermat® and 2.5" Overlay**: Thicker overlay on top of the Fibermat® used on larger collector roads with more traffic and heavier truck loads. **Outside contract for Fibermat®.**
  - **Cost**: \$1.18/ $ft^2$ (for both contract and overlay)
  - **Repair Life**: 7-10 years

- **1.5”** and **2.5” 6-Top Asphalt** are included in this category as well as the “Surface Treatment” category.

Rehabilitation

- **Cold In-Place Recycling and 1.5” Overlay**: The top 2-4 inches of existing asphalt surface are milled, removed, mixed with a recycling agent, and compacted back down. An overlay is then added on top of the newly-recycled material. Roads must be at least one mile in length and have a good sub-base in order for this method to be effective.
    - **Cost**: \$1.16/ $ft^2$ – **Material and recycling cost.**
    - **Repair Life**: 7-9 years

Reconstruction

- **Hammermill (with 2.5” binder course and 1.5” overlay)**: Large-scale project where the entire pavement surface is milled and removed, and a binder course and asphalt overlay are applied. **Outside contract for Hammermill. Town installs binder course and overlay.**
    - **Cost**: \$1.93/ $ft^2$ (for contract, binder course, and overlay)
    - **Repair Life**: 15 years

Drainage Work

- **7-Top Asphalt Shim**: A thin layer of asphalt is used to fill depressions, ruts, and other areas of uneven surface to redirect water away from pavement.
    - **Cost**: \$0.72/ $ft^2$ – **Material cost only.**
    - **Repair Life**: 3-5 years

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4. BUDGET

After assigning an appropriate repair method to each surveyed road, an annual material repair budget of \$900,000.00 was assigned within the CAMP-RS Program. This budget allows the software to create a timeline for future road repairs by calculating how many roads can be repaired within fiscal limits and, subsequently, prioritizes roads. The annual material repair budget amount was calculated based on previous repair budgets and expectations for next year’s material repair budget.

RESULTS

The cost of appropriately and immediately repairing all roads in the Town of Wilton, based on current road conditions, is $8,196,737. Based on this cost, with an annual material repair budget of $900,000, it would take nine years to completely repair all roadways within the municipality. However, the Budget Report attached to the end of this document takes contingencies into consideration and presents a timeline for road repairs to be completed over the next ten years.

According to the timeline of the Budget Report, 83.3 out of 108.9 (76%) total centerline miles can be repaired in the next five years. This is because emphasis is placed on cost-effective routine and preventative maintenance in order to keep good roads from deteriorating to the point where they need much more expensive repairs. The latter half of this “Ten Year Plan” focuses on repairing roads that are too damaged to be corrected by less expensive repairs.

Many roads in the municipality are currently in good condition and could benefit from low-cost maintenance, like crack sealing, area patching, and thin surface treatments, over the next few years. Roughly 20% of all town roads do not even require maintenance at this time.

Based on the recommendations of CAMP-RS, the only large-scale projects that should be undertaken within the next five years are roads which have high traffic levels and importance, and whose current road conditions inhibit easy travel. For example, Louden Road has severe cracking, rutting, and potholes. During heavy rain, the road’s wheel paths fill with water because it is unable to run off the pavement properly. The potential for hydroplaning, mixed with sharp turns, could create a temporary loss of control.

Aside from a few roads, like Louden Road, low-cost maintenance over the next five years will ensure that roadways remain in good condition for years to come. By focusing on smaller projects over the next few years, the municipality will save time and money and will allow itself to repair many more roads than it would by utilizing money on larger projects.

## CONCLUSION

When utilized properly, the CAMP-RS Software Program is a valuable asset that helps municipalities save time and money by creating an organized, effective pavement management system. With the program, the Town of Wilton now has a structured inventory of roads, as well as their respective pavement conditions and repair assignments. It has put forth a strategy for maintaining and repairing roads within the municipality based on the town's budget and repair methods. With emphasis on "keeping good roads good," the program has recommended that the next five years focus on lower-cost repairs on the many low- to moderately-damaged roads within the municipality. With an annual material repair budget of $900,000, the Town of Wilton should be able to repair 76% of its roads within the next five years. Based on current road conditions, the remaining roads should able to be repaired within the following five years. Although CAMP-RS estimates that it will take ten years to completely fix all 108.2 centerline miles of roadways within the municipality, it is important to note that road conditions will change over the next ten years, requiring maintenance to be performed on roads that may be in excellent condition today. This is why it is crucial for members of the Town of Wilton to be able to use CAMP-RS, keeping the condition of roads up-to-date each year and selecting appropriate repairs. Furthermore, material costs, weather, and the construction of new roads may impact the time it will take to repair all roads within the municipality. It must be understood that CAMP-RS is simply a tool that can help the Town of Wilton save time and money on its road repairs; the program's recommendations do not have to be followed verbatim. The experience, knowledge, and foresight of the town's Highway Superintendent will allow the town to make the best decisions regarding the allocation of its resources on its roadways. However, if the strategy proposed by CAMP-RS is used as a guide, the Town of Wilton can expect to have an organized, efficient, and economical pavement management system within the next 11-13 years.

References

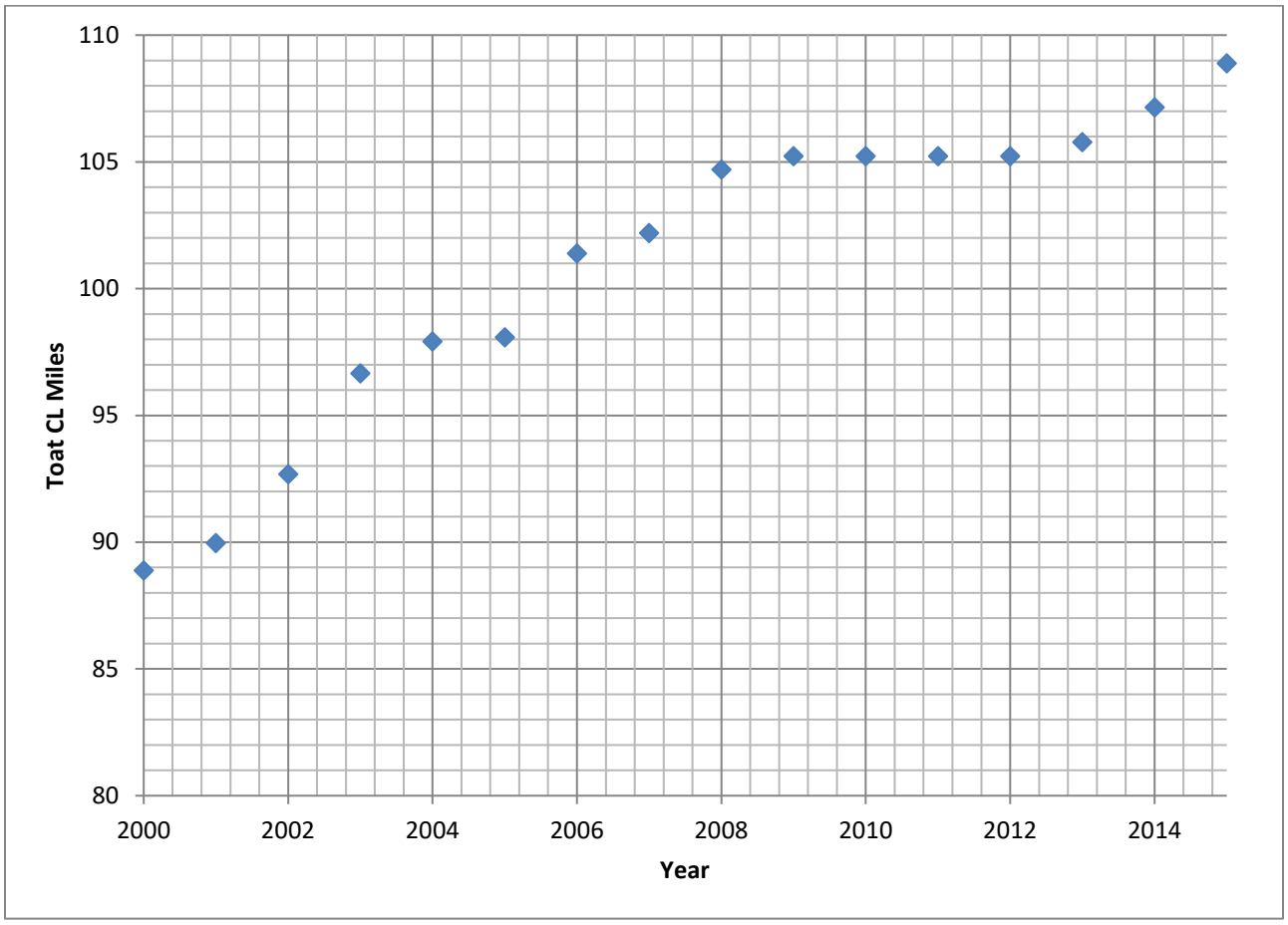
"Asphalt Paving Principles."
http://www.clrp.cornell.edu/workshops/manuals/asphalt_paving_principles.pdf (accessed July 24, 2014).

Cornell Local Roads Program. (2014). Cornell Asset Management Program - Roads & Streets (CAMP-RS).

The National Economic Council, & The President's Council of Economic Advisers. (2014, July). *AN ECONOMIC ANALYSIS OF TRANSPORTATION INFRASTRUCTURE INVESTMENT* (Rep.). Retrieved August, 2016, from The White House, Washington D.C. website: https://www.whitehouse.gov/sites/default/files/docs/economic_analysis_of_transportation investments.pdf

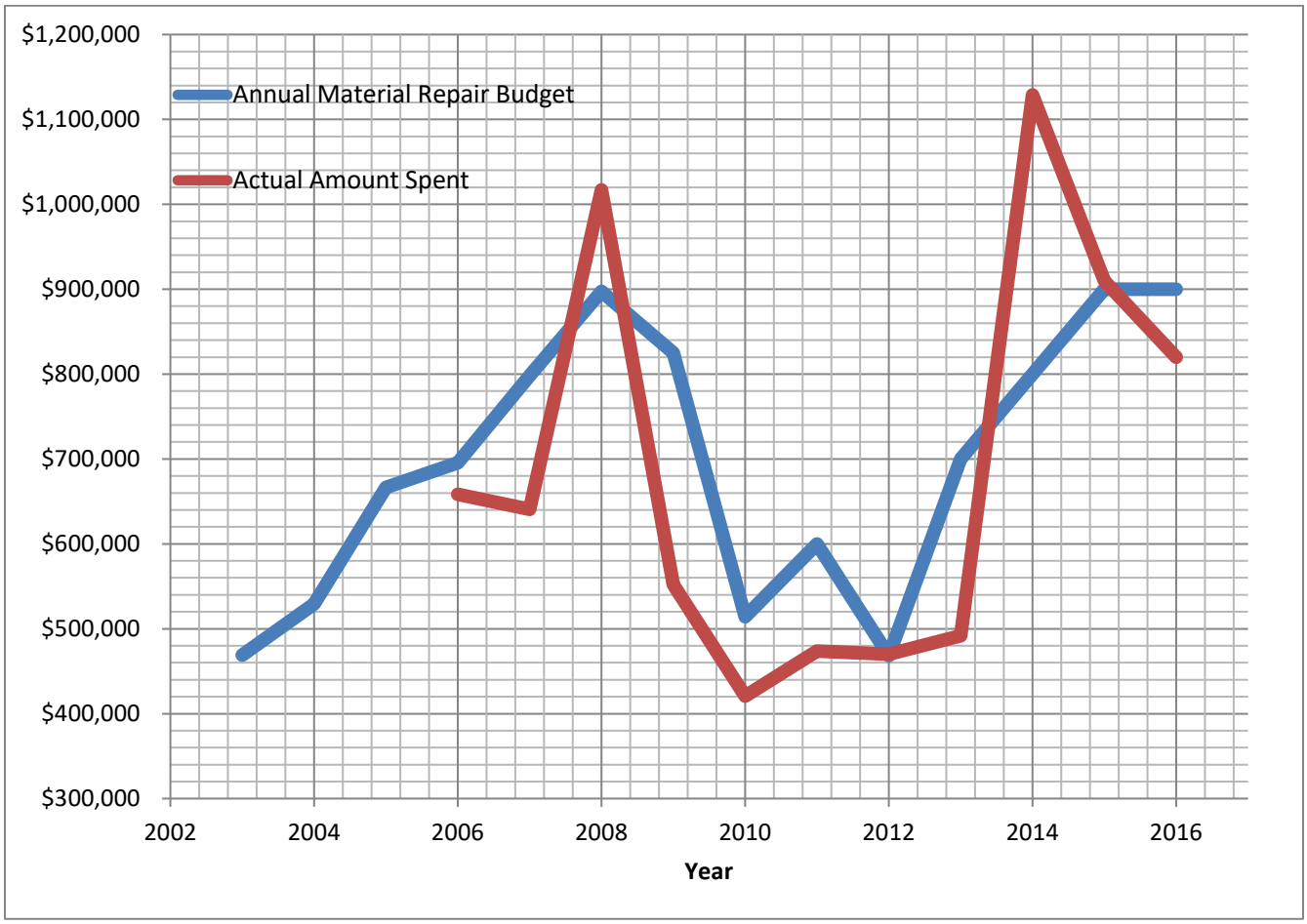
"Pavement Maintenance."
http://www.clrp.cornell.edu/workshops/manuals/pavement_maintenance.pdf (accessed July 24, 2014).

Figure 5: Town-Maintained Centerline Miles v. Year




| Year | CL Miles |
|---|---|
| 2000 | 88.88 |
| 2001 | 89.96 |
| 2002 | 92.68 |
| 2003 | 96.65 |
| 2004 | 97.91 |
| 2005 | 98.08 |
| 2006 | 101.38 |
| 2007 | 102.19 |
| 2008 | 104.7 |
| 2009 | 105.22 |
| 2010 | 105.22 |
| 2011 | 105.22 |
| 2012 | 105.22 |
| 2013 | 105.77 |
| 2014 | 107.15 |
| 2015 | 108.88 |

Figure 6: Annual Material Repair Budget & Actual Amount Spent v. Year




| Year | Material Repair Budget | Actual Money Spent on Material |
|---|---|---|
| 2003 | $468,969 | |
| 2004 | $529,400 | |
| 2005 | $666,420 | |
| 2006 | $695,420 | $658,565 |
| 2007 | $798,280 | $640,891 |
| 2008 | $897,540 | $1,016,811 |
| 2009 | $825,035 | $552,012 |
| 2010 | $514,262 | $420,698 |
| 2011 | $600,000 | $473,633 |
| 2012 | $468,270 | $470,153 |
| 2013 | $700,000 | $491,681 |
| 2014 | $800,000 | $1,128,838 |
| 2015 | $900,000 | $909,778 |
| 2016 | $900,000 | $820,000 |

Figure 7: Town of Wilton Map

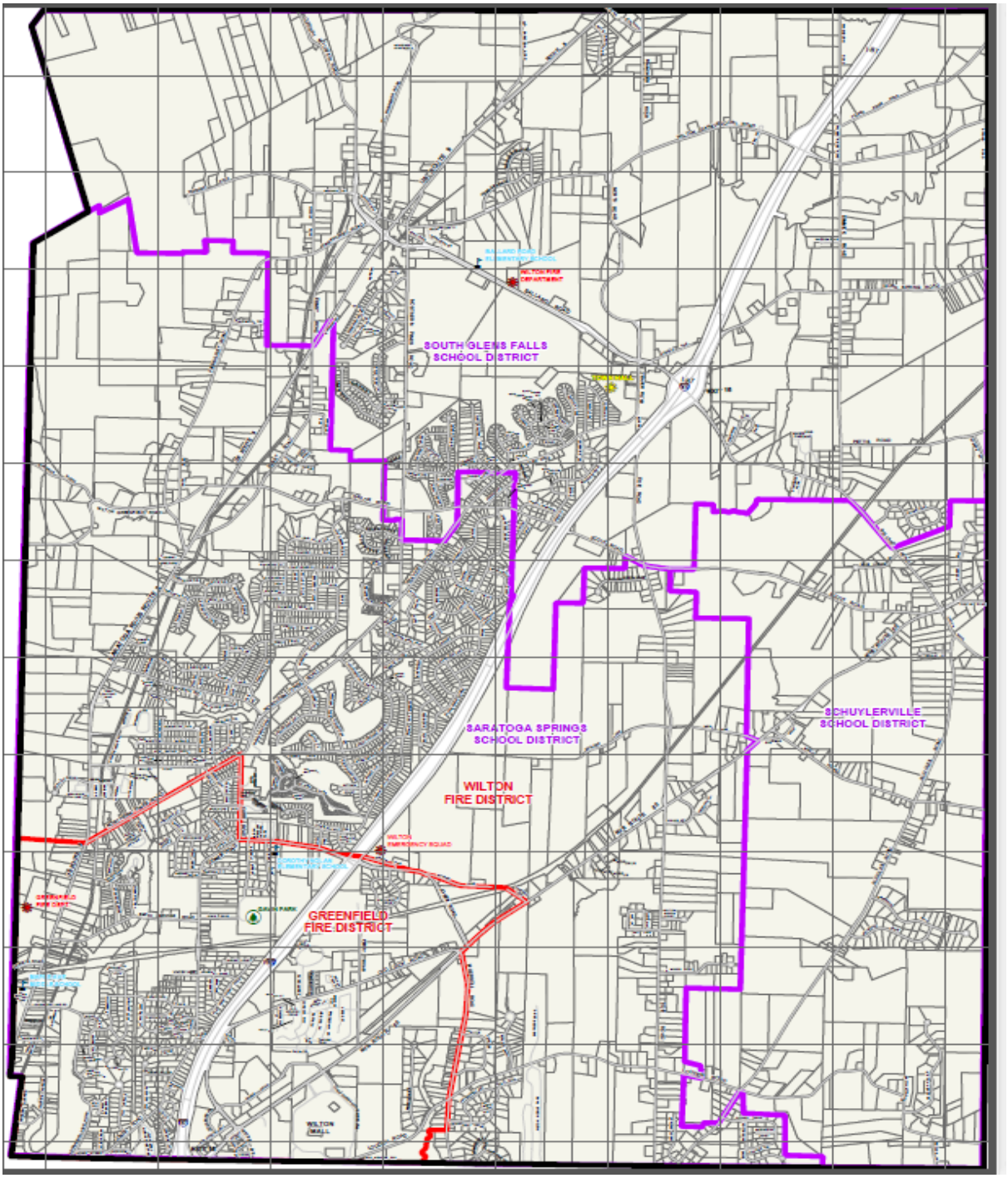
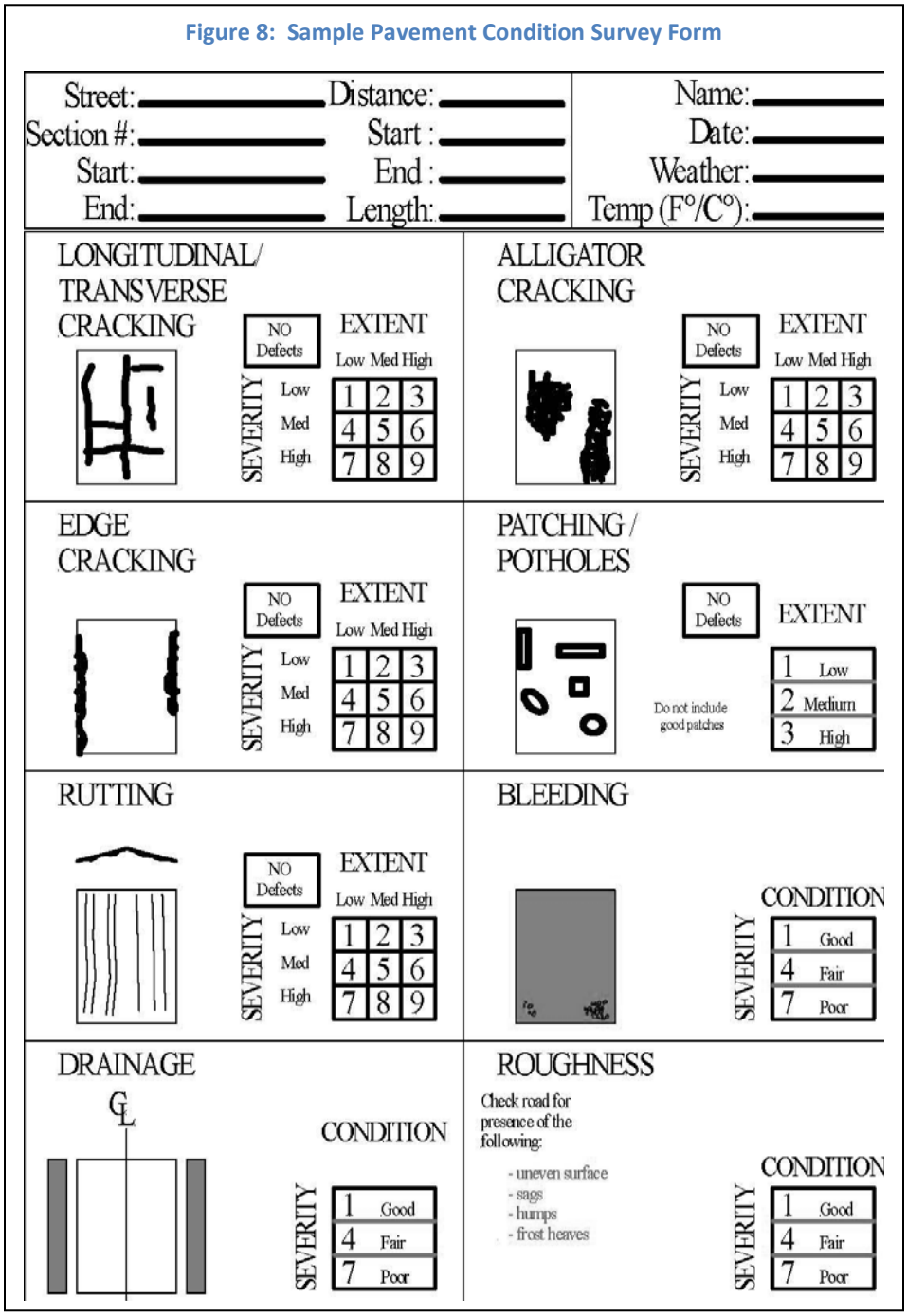


**Figure 8: Sample Pavement Condition Survey Form**



# Appendix A

Types of Pavement Distresses

## Longitudinal/Transverse Cracking

The semi-flexible nature of asphalt allows for greater force dispersion as well as protection against climatic contractions of the pavement. However, heavy traffic loads and seasonal conditions often result in pavement cracking.

Figure 9: Longitudinal Cracking

Longitudinal cracks run parallel to the road length and are often found in wheel paths, resulting from traffic loads, or near the centerline, where there was a joint as the road was being paved.

Figure 10: Transverse Cracking

Transverse cracks run perpendicular to the road length and are often spaced out at regular intervals along a road. This type of cracking is usually caused by the contracting and expanding of the pavement due to changing temperatures and moisture levels. Transverse cracks may form in an overlay directly above cracks in the underlying pavement. These “reflective” cracks may appear quickly in a new overlay, so it is important to consider the best methods of preventing future cracking before paving a road.

## Alligator Cracking

Figure 11: Alligator Cracking

Alligator cracking refers to a series of interconnected cracks that resemble alligator skin or chicken wire. Also referred to as fatigue cracking, this pavement distress is caused by the bending and unbending of asphalt under heavy traffic loads. Alligator cracking is indicative of a poor sub-base, drainage issues, inappropriate thickness of pavement material, or traffic loads that exceed the design of the pavement structure. Moisture and traffic can quickly turn alligator cracking into dangerous raveling asphalt and potholes.

## Edge Cracking

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Figure 12: Edge Cracking

Edge cracking refers to the longitudinal and, sometimes, transverse cracks that occur along the edge of a pavement surface. The main cause for this distress is a lack of shoulder support, so it is extremely common on roads with an unpaved shoulder, where the wheel path is close to the edge of the pavement. Winter sand deposits may prevent proper drainage off the shoulder, making existing edge cracking much worse. Vegetation sometimes finds its way into edge cracks, further breaking apart the pavement.

## Patching/Potholes

Figure 13: Deteriorating Patch Around Structure

A patch is an area of pavement that has been removed and replaced with new material or has had additional material added to it. Patching is commonly used to replace pavement around man-made structures, deteriorating patches, and isolated areas of damaged pavement such as severe cracks and potholes, which are often associated with a rough and uncomfortable ride.

Figure 14: Pothole Resulting from Alligator Cracking

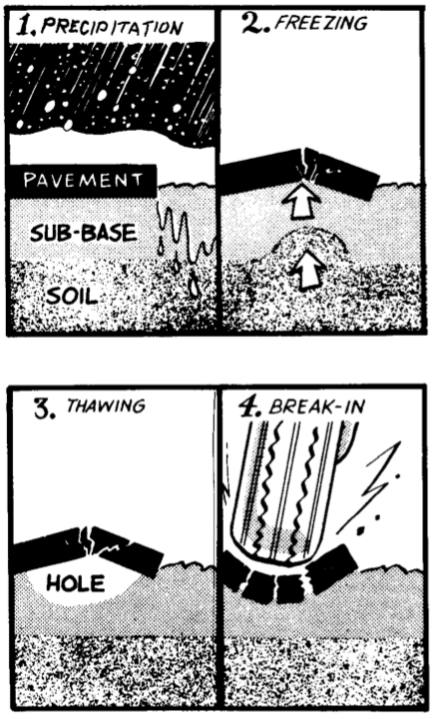


Figure 15: Formation of a Pothole

Potholes are bowl-shaped depressions in a pavement surface and can result from a weak sub-base, poor drainage, and severe cracking and are exacerbated by weather and traffic loads. These distresses create a hazard to drivers, as temporary loss of control, automobile damage, and propelling of airborne pavement can occur.

## Rutting

Figure 16: Water Gathered in Wheel Ruts

Ruts are longitudinal depressions that occur in the wheel paths of roads and can result from improper paving techniques, a weak sub-base, or heavy truck traffic. Consequently, ruts are often an early sign of future issues for a road. Rutting is an important pavement distress to address, because water that gathers in a road's wheel paths causes cars to hydroplane, as well as further rapid pavement deterioration.

## Bleeding/Raveling

Figure 17: Bleeding of Asphalt Surface

Figure 18: Raveling of Asphalt Surface

Bleeding (above, left) is the upward movement of excess asphalt to the pavement surface. Poor application of surface material or an improper concentration of the asphalt material used when paving a road may result in bleeding. Surfaces with bleeding are molten on a hot day and are extremely slippery when wet. This pavement distress poses a friction loss to drivers, especially motorcyclists.

Raveling (above, right) is the loss of aggregate from a road surface, resulting from high air voids in an asphalt material, weathering, and traffic loads. This process begins with the loss of fine aggregates and, eventually, results in the loss of larger aggregate particles. Loose material can result in a poor ride, especially for motorcyclists, and it usually takes a surface treatment or overlay to correct a raveling road surface.

## Drainage Problems


Figure 19: Water Unable to Drain off Pavement Surface

Drainage issues form an extensive category that may comprise elements of many different pavement distresses. It is crucial to direct and keep water away from a pavement structure, as water is the cause of a most pavement deterioration. Proper subbase grading, road crowns, ditches, shoulders, and drainage structures help ensure that water is kept from all layers of a road. Ruts, cracks, depressions, potholes, and ineffective structures are among the highest priority to repair in order to keep roads in good condition.

## Roughness

Figure 20: Structure Uneven with Pavement Surface

Roughness can be best described as an assessment of the “drivability” of a road. Uneven surfaces, such as humps, sags, potholes, uneven structures, etc., make for an uncomfortable ride and therefore should be repaired.

# Appendix B

Decision Trees

For each of the eight pavement distresses, there is a decision tree that links the recorded extent and severity of the distress to a specific repair category. CAMP-RS uses these decision trees to automatically assign a repair category to a road that has been surveyed in the program. Severity refers to the degree of deterioration while extent refers to the amount of pavement affected by the distress.

**Table 1: Alligator Cracking Distress Survey**

| Severity | Extent | | |
|---|---|---|---|
| | Low | Moderate | High |
| Low | **1** | **2** | **3** |
| Moderate | **4** | **5** | **6** |
| High | **7** | **8** | **9** |

| No Distress |
|---|
| **0** |

Every pavement distress is related to a specific repair category based its recorded severity and extent through a decision tree. Table 1 shows the possible ratings (0-9) of alligator cracking on a road survey. Table 2 shows the corresponding repair category for each possible rating.

**Table 2: Decision Tree - Alligator Cracking**

| Severity | Extent | | | No Distress |
|---|---|---|---|---|
| | Low | Moderate | High | **Defer Work** |
| Low | **Defer Work** | **Surface Treatment** | **Surface Treatment** | |
| Moderate | **Patching** | **Patching** | **Overlay** | |
| High | **Patching** | **Rehabilitation** | **Reconstruction** | |

# Appendix C

## How to Use CAMP-RS Software

1. Open CAMP-RS Shortcut.
2. Once in the program, open a file. The file used for this report was named "WILTON CAMP-RS FILE 2016."
3. To input data for a new road, click "Add New" in the top left of the screen. This will open a new tab where you will enter information such as the RIN, road name, length, width, surface type, traffic, and importance, among other things. Once the road has been entered into the program, it can be surveyed.
4. Unless a new road or road section needs to be added to the program, DO NOT SELECT "Add New." As of now, all roads within the municipality have been recorded in the program. The roads just need to be re-surveyed every couple of years.
5. After recording data on a Pavement Condition Survey Form during a road inspection, the information can be transferred into the software. Simply select the road you wish to survey on the program (the road selected is highlighted blue) and click "Survey" at the top of the page. This will open a new tab where you will enter the condition data from the road inspection. Then hit "Save." Still select "Survey" for roads that are being re-surveyed as opposed to editing the already existing surveys, because taking a new road survey will not delete the previous survey(s) for that road. Rather, there will be a record of that road's condition history, which can aid in understanding why a specific road might be failing. Only edit/delete surveys when deciding to change the rating of a road within the same year it has been surveyed. For example, you rated the road's roughness too harshly when compared to other roads that were surveyed. You can view, edit, and delete specific surveys by clicking the "Surveys" tab at the top of the page, and selecting "View/Edit Surveys."
6. AFTER SURVEYING A ROAD, GO TO THE TOP OF THE PAGE AND CLICK ON THE TAB LABELED "SURVEYS." Select "Apply Surveys to Section." Select "All" sections to be included and "Most recent" surveys to be included. Hit

"Continue." The road(s) you just surveyed should now be given a PCI value, Priority Value, and Repair Category. This will allow you to select appropriate repairs for those roads.

7. Select a road you wish to repair (it will be highlighted blue) and select "Apply Repair" at the top of the page. You will be given a list of repair options based on the repair category of that road. Repair categories are automatically determined through the software's decision trees for recorded road distresses. Select one of the provided repair options and hit "Apply."
8. Go to the top of the page and select "Budgeting." Then click "Assign Budget Year." Type in a number (in American Dollars) to represent an annual material repair budget. For 2016, an annual material repair budget of ($)900,000 was assigned. The program will automatically assign a budget year (when the road will be repaired) for each road that has been surveyed and assigned a repair option.
9. Once all roads have been assigned a budget year, a Budget Report can be created. Select the "Reports" tab on the top of the page, click on "Budget Report," and then hit "Continue." Give the Budget Report a specific, appropriate name (preferably with the date included in the name for easy reference) and hit "Save." It will be saved as a CSV file and can be viewed/edited in Microsoft Excel. A Section Report can also be created in the "Reports" tab as a CSV file; it is similar to a Budget Report, but it lacks the selected repair type, the repair cost, and the budget year for each road.

More information can be found in the CAMP-RS Manuel provided to the Town of Wilton by the CLRP. Any additional questions can be emailed to Geoffrey R. Scott, Technical Assistant Engineer of the Cornell Local Roads Program. grs78@cornell.edu

# Appendix D

Ratings/Calculations

**Traffic Levels**: Each road/road section within CAMP-RS was manually assigned a traffic level rating ranging from 1-5. The rating for each road was relative to all other town-maintained roads in Wilton, meaning that traffic levels were not compared to those of major arterial roads and freeways run by the county or the state. The highest rated roads (with a score of 5) were those which led from high-volume areas, such as freeways, shopping centers, and parks, to other high-traffic roads or smaller collector roads. Some of the roads given a traffic rating of 5 were Jones Road, Weibel Avenue, Traver Road, and most sections of Louden Road. Slightly less-traveled roads, such as Carr Road, Gailor Road, Edie Road, and Ingersol Road, received a rating of 4. Dead-end streets and cul-de-sacs received a traffic rating of 1, while roads that provided entrances to (and exits from) larger developments were given a score of 2. All other roads in question were compared to the traffic levels of the already scored roads.

**Importance Levels**: While very similar to traffic levels, a road's importance rating was not necessarily dependent on its traffic level rating. Roads leading to schools, hospitals, and commercial centers received the highest importance rating (5), as did roads providing access to freeways and emergency sheltering locations. Major arterial roads, such as Traver Road, Weibel Avenue, and Jones Road, were given a score of 5. Jones Road, aside from having high traffic levels, provides access to Gavin Park, which is a place of refuge in the case of a town emergency. Nearly every other road was given an importance rating equivalent to its traffic level rating.

**Crack Seal**: Cost and repair life estimates were provided by a member of the Gorman Group. Costs range from $8000-10,000/day, assuming about 300 gallons/day are used. A state contract can crack seal about 3 miles/day. Repairs last approximately 2-3 years. Crack seal has generally not been used by the Town of Wilton, but it is a viable repair method and was placed in the report for consideration.

**Peckham Winter Mix Cold Patch**: Costs based on receipts from previous town purchases, estimates for average patching areas from highway workers, and professional advice on the density of an asphalt patch.

$86 / ton for material = roughly $0.12 / $ft^2$ of patch.

**Brunell Bag Patch**: Costs based on receipts from previous town purchases and estimates for average patching areas from highway workers.

$10.44 / 67lb bag = $312 / ton = roughly $0.44 / $ft^2$ of patch.

**1.5" 6-Top Asphalt**: Costs based on 2016 Road Reconstruction/Repair Request.

Fairmount Drive: 72,000 $ft^2$ ; 720 tons of 6-Top requested at $55.00 / ton.

($55.00 / ton)*(720ton / 72,000$ft^2$) = $0.55 / $ft^2$ for material.

**2.5" 6-Top Asphalt**: Costs based on 2016 Road Reconstruction/Repair Request.

Ernst Road: 187,200 $ft^2$ ; 3042 tons of 6-Top requested at $50.00 / ton.

($50.00 / ton)*(3042 ton / 187,200 $ft^2$) = $0.81 / $ft^2$

**Chip Seal (with Fibermat®)**: Cost estimates were provided by a member of the Gorman Group. $3.00 / $yd^2$ for material and outside contract. Repair life: 6-9 years.

($3.00 / $yd^2$)*( 1 $yd^2$ / 9 $ft^2$) = $0.33 / $ft^2$

**Chip Seal (without Fibermat®)**: Cost estimates were provided by a member of the Gorman Group. $1.50 / $yd^2$ for material and outside contract. Repair life: 3-5 years without 1.5" overlay; 10 years with 1.5" overlay.

($1.50 / $yd^2$)*( 1 $yd^2$ / 9 $ft^2$) = $0.17 / $ft^2$

With 1.5" overlay: $0.17 / $ft^2$ + $0.55 / $ft^2$ = $0.72 / $ft^2$

**Fibermat® and 1.5" overlay**: Costs based on 2016 Road Reconstruction/Repair Request.

Fairmount Drive: 72,000 $ft^2$ ; $39,600 requested for 6-Top asphalt material, and $26,480 requested for outside contract for Fibermat®.

($39,000 / 72,000 $ft^2$) + ($26,480 / 72,000 $ft^2$) = $0.92 / $ft^2$

**Fibermat® and 2.5" overlay**: Costs calculated based on 2016 Road Reconstruction/Repair Request.

Fibermat® outside contract cost: ($26,480 / 72,000 $ft^2$) = $0.37 / $ft^2$

2.5" 6-Top Cost: $0.81 / $ft^2$

($0.37 / $ft^2$) + ($0.81 / $ft^2$) = $1.18 / $ft^2$

**Cold- In-Place Recycling with 1.5" overlay**: Cost estimates were provided by a member of the Gorman Group and derived costs from 2016 Road Reconstruction/Repair Request. Cost: $5.50 / $yd^2$ for recycling; $0.55 / $ft^2$ for overlay.

($5.50 / $yd^2$)*(1 $yd^2$ / 9 $ft^2$) + ($0.55 / $ft^2$) = $1.16 / $ft^2$

**Hammermill (with 2.5" binder course and 1.5" overlay)**: Costs based on 2016 Road Reconstruction/Repair Request.

Ernst Road: 187,200 $ft^2$ ; $152,100 for binder material; $102,960 for overlay material; $106,080 for outside Hammermill contract.

($152,100 + $102,960 + $106,080) / (187,200 $ft^2$) = $1.93 / $ft^2$

**7-Top Asphalt Shim**: Costs based on 2016 Road Reconstruction/Repair Request and receipt from 7-Top shim purchase.

Washburn Road: 105,800 $ft^2$ ; Shim used on 25% of road surface; $18,785 for 7-Top material

($18,785) / (105,800 $ft^2$) = $0.18 / $ft^2$ x 4 = $0.72 / $ft^2$ of 7-top shim

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112454 | **LOUDEN RD** | WEIBEL AVE | PAVEMENT CHANGE | 0.23 | 42 | 5 | 5 | **7-TOP SHIM (ON 30% OF ROAD SURFACE)** | **8671** | **1** |
| 132454 | **LOUDEN RD** | INGERSOL RD | RUGGLES RD | 1.66 | 28 | 5 | 5 | **FIBERMAT AND 2.5" 6-TOP** | **290325** | **1** |
| 122502 | **RUGGLES RD** | KING RD | LOUDEN RD | 1.98 | 24 | 4 | 4 | **7-TOP SHIM (5% OF ROAD SURFACE)** | **7026** | **1** |
| 257751 | **LOUGHBERRY LK RD** | TOWN LINE | PAVEMENT CHANGE | 0.91 | 25 | 3 | 3 | **7-TOP SHIM (5% OF ROAD SURFACE)** | **3364** | **1** |
| 112418 | **GREYLOCK DRIVE** | CHALLEDON DR | GLENBURNIE DR | 0.47 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **63927** | **1** |
| 112427 | **HIGHGATE RD** | KINGS MILLS RD | END LOOP | 0.38 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **51685** | **1** |
| 112382 | **CHATHAM CT** | HIGHGATE RD | END LOOP | 0.1 | 27 | 1 | 1 | **7-TOP SHIM (5% OF ROAD SURFACE)** | **400** | **1** |
| 112481 | **OVERLOOK DR** | CHALLEDON DR | END LOOP | 0.13 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **17682** | **1** |
| 112423 | **HARRAN LA** | JONES RD | DEAD END | 0.19 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **19382** | **1** |
| 132487 | **PARKHURST RD** | BIRCHWOOD RD | CORINTH MOUNTAIN RD | 1.05 | 22 | 2 | 2 | **7-TOP SHIM (ON 30% OF ROAD SURFACE)** | **20735** | **1** |
| 112515 | **SUNSHINE DR** | TRAVER RD | MOONGLOW RD | 0.24 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **32644** | **1** |
| 112405 | **FAIRMOUNT DR** | TRAVER RD | DAMASCUS DR | 0.56 | 24 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **65286** | **1** |
| 112444 | **KELSO BLVD** | END | DAMASCUS DR | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **14962** | **1** |
| 112376 | **CARPENTER LA** | SR 9 | DEAD END | 0.11 | 24 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **12824** | **1** |
| 112354 | **AMANDA CT** | BROOKSIDE DR | END LOOP | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **14962** | **1** |
| 112412 | **FOWLER LA** | NY 9 | WORTH RD | 0.29 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **30992** | **1** |
| 112501 | **ROLLING HILLS DR** | CASTLEBERRY DR | CASTLEBERRY DR | 0.82 | 28 | 1 | 1 | **7-TOP SHIM (5% OF ROAD SURFACE)** | **3395** | **1** |
| 112479 | **OLD GICK RD** | NY 50 | NY 50 | 2.03 | 28 | 5 | 5 | **CRACKSEAL (VERY LOW[5%])** | **590** | **1** |
| 112514 | **SUFFOLK LA** | KINGS MILLS RD | END LOOP | 0.36 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **48965** | **1** |
| 112527 | **WEIBEL AVE** | NY 50 | LOUDEN RD | 0.2 | 52 | 5 | 5 | **CRACKSEAL (HIGH[50%])** | **581** | **1** |
| 268581 | **FENIMORE PL** | SHEFFIELD RD | END LOOP | 0.35 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **47605** | **1** |
| 262799 | **MOONGLOW RD** | SUNSHINE DR | PAVEMENT CHANGE | 0.32 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **43525** | **1** |
| 112504 | **SANTEE DR** | TIMBIRA DR | TIMBIRA DR | 0.36 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **48965** | **1** |
| 282799 | **MOONGLOW RD** | PAVEMENT CHANGE | DAKOTA DR | 0.25 | 28 | 1 | 1 | **7-TOP SHIM (5% OF ROAD SURFACE)** | **1035** | **1** |
| 112502 | **RUGGLES RD** | TAYLOR RD | KING RD | 1.03 | 30 | 4 | 4 | **CRACKSEAL (LOW[10%])** | **599** | **1** |
| 122437 | **INGERSOL RD** | LOUDEN RD | NY 50 | 0.89 | 28 | 4 | 4 | **CRACKSEAL (LOW[10%])** | **517** | **1** |
| 112518 | **TAYLOR RD** | NY 50 | TOWN LINE | 0.41 | 28 | 4 | 4 | **BRUNELL BAG PATCH (2%)** | **527** | **1** |
| 112475 | **NORTHERN PINES RD** | CR 32 | US 9 | 0.24 | 24 | 4 | 4 | **CRACKSEAL (LOW[10%])** | **140** | **1** |
| 132502 | **RUGGLES RD** | LOUDEN RD | TOWN LINE | 0.58 | 24 | 4 | 4 | **AA - PATCH (2%)** | **177** | **1** |
| 112377 | **CARR RD** | JONES RD | NORTHERN PINES RD | 0.52 | 28 | 4 | 4 | **A - PATCH (1%)** | **93** | **1** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112525 | **WALLER RD** | NY 9 | NORTHERN PINES RD | 0.66 | 27 | 3 | 3 | **CRACKSEAL (LOW[10%])** | **384** | **1** |
| 112491 | **PERRY RD** | NY 50 | OLD GICK RD | 0.38 | 31 | 3 | 3 | **CRACKSEAL (LOW[10%])** | **221** | **1** |
| 112540 | **WORTH RD** | NY 9 | NORTHERN PINES RD | 0.88 | 26 | 3 | 3 | **CRACKSEAL (VERY LOW[5%])** | **256** | **1** |
| 112513 | **STRAKOS RD** | WILTON GREENFIELD RD | TOWN LINE | 0.46 | 21 | 3 | 3 | **AA - PATCH (2%)** | **123** | **1** |
| 112400 | **EDIE RD** | TOWN LINE | LOUDEN RD | 0.68 | 21 | 3 | 3 | **BRUNELL BAG PATCH (2%)** | **656** | **1** |
| 112397 | **DUNCAN RD** | NY 50 | TOWN LINE | 0.16 | 22 | 3 | 3 | **AAA - PATCH (5%)** | **112** | **1** |
| 122491 | **PERRY RD** | OLD GICK RD | DEAD END | 0.34 | 25 | 3 | 3 | **AA - PATCH (2%)** | **108** | **1** |
| 112512 | **SMITH BRIDGE RD** | JONES RD | NY 9 | 0.84 | 22 | 3 | 3 | **CRACKSEAL (LOW[10%])** | **488** | **1** |
| 112536 | **WOODARD RD PT** | CORINTH MOUNTAIN RD | DEAD END | 0.95 | 21 | 2 | 2 | **CRACKSEAL (MED[30%])** | **1656** | **1** |
| 122386 | **COBBLE HILL DR** | PAVEMENT CHANGE | END LOOP | 0.06 | 28 | 2 | 2 | **CRACKSEAL (MED[30%])** | **105** | **1** |
| 112374 | **CAREFREE LA** | NORTHERN PINES RD | FIELD STONE DR | 0.19 | 22 | 2 | 2 | **CRACKSEAL (MED[30%])** | **331** | **1** |
| 112359 | **APPLEBY LA** | TRAVER RD | HIGHGATE RD | 0.09 | 28 | 2 | 2 | **CRACKSEAL (MED[30%])** | **157** | **1** |
| 112379 | **CEDARCREST DR** | INGERSOLL RD | CEDARCREST DR | 0.74 | 22 | 2 | 2 | **AA - PATCH (2%)** | **207** | **1** |
| 122487 | **PARKHURST RD** | KINGS RD | BIRCHWOOD RD | 0.81 | 22 | 2 | 2 | **AA - PATCH (2%)** | **226** | **1** |
| 112487 | **PARKHURST RD** | NY 9 | KINGS RD | 0.35 | 22 | 2 | 2 | **AA - PATCH (2%)** | **98** | **1** |
| 142287 | **PARKHURST RD** | CORINTH MOUNTAIN RD | US 9 | 0.13 | 23 | 2 | 2 | **AAAA - PATCH (10%)** | **190** | **1** |
| 268621 | **NEW COUNTRY WAY** | NY 50 | OLD GICK RD | 0.32 | 28 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **41396** | **1** |
| 112533 | **WHISPERING PINES RD** | NORTHERN PINES RD | DEAD END | 0.25 | 20 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **146** | **1** |
| 112522 | **TOM SAWYER DR** | TRAVER RD | DEAD END | 0.5 | 25 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **291** | **1** |
| 112422 | **HANOVER RD** | WALLER RD | NEW BRITAIN DR | 0.07 | 22 | 1 | 1 | **CRACKSEAL (MED[30%])** | **123** | **1** |
| 300685 | **PRIMROSE CIRCLE** | DAFFODIL DR | DAFFODIL DR | 0.24 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 300684 | **USHU CT** | TRAVER RD | END LOOP | 0.13 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 301896 | **WATERWHEEL DR** | DAVIDSON DR | SAW MILL COURT | 0.02 | 27 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 132403 | **ERNST RD** | NY 9 | PARKHURST RD | 0.78 | 22 | 2 | 2 | **AA - PATCH (2%)** | **218** | **1** |
| 999998 | **ROSE TERRACE** | LOUDEN RD | END LOOP | 0.46 | 25 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 262685 | **TAWNY TERR** | GAILOR RD | DAKOTA DR | 0.23 | 24 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **134** | **1** |
| 112361 | **ARNOLDS LANE** | LOUDEN RD | DEAD END | 0.17 | 18 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **99** | **1** |
| 300686 | **DAFFODIL DR** | TOWN LINE | PRIMROSE CIRCLE | 0.13 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 112433 | **HOWE ST** | JONES RD | LOUGHBERRY LAKE RD | 0.19 | 22 | 2 | 2 | **AAA - PATCH (5%)** | **133** | **1** |
| 112429 | **HILLCREST LA** | DEAD END | BRADFORD DR | 0.44 | 22 | 1 | 1 | **CRACKSEAL (VERY LOW[5%])** | **128** | **1** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112434 | **HUCKLEBERRY FIN DR** | TOM SAWYER DR | DEAD END | 0.06 | 25 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **35** | **1** |
| 112366 | **BLACKFRIARS RD** | KINGS MILLS RD | NEW KENT RD | 0.1 | 28 | 1 | 1 | **AA - PATCH (2%)** | **36** | **1** |
| 112473 | **NORLAND CT** | RUGGLES RD | DEAD END | 0.3 | 22 | 1 | 1 | **CRACKSEAL (LOW[10%])** | **175** | **1** |
| 112469 | **NEWPORT RD** | WALLER RD | NEW BRITAIN DR | 0.07 | 23 | 1 | 1 | **AA - PATCH (2%)** | **21** | **1** |
| 112450 | **LAURIE LA** | JONES RD | CHRISTINA CT | 0.09 | 21 | 1 | 1 | **AAA - PATCH (5%)** | **60** | **1** |
| 112452 | **LINKS RD** | WORTH RD | HOPEFUL LA | 0.11 | 22 | 1 | 1 | **AA - PATCH (2%)** | **31** | **1** |
| 112373 | **CANFIELD CT** | RUGGLES RD | END LOOP | 0.2 | 28 | 1 | 1 | **AA - PATCH (2%)** | **71** | **1** |
| 301902 | **ROLLING GREEEN DR** | EDIE RD | END LOOP | 0.37 | 27 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 301895 | **SAW MILL CT** | WATERWHEEL DR | CIDER MILL WAY | 0.1 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 301894 | **CIDER MILL WAY** | SMITH BRIDGE RD | END | 0.26 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 301901 | **CARDIFF CIRCLE** | OLDHAM PLACE | WAVERLY PLACE | 0.11 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 268683 | **CHESTNUT HILL DR** | JONES RD | FOXHOUND RUN | 0.16 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 271033 | **KENDRICK HILL RD** | LOUDEN RD | END LOOP | 0.74 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 268685 | **RIDGE VIEW RD** | WILTON GANSEVOORT RD | STONE RIDGE RD | 0.39 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 268702 | **STONE RIDGE RD** | WILTON GANSEVOORT RD | RIDGE VIEW RD | 0.08 | 15 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 301898 | **OLDHAM PLACE** | WAVERLY PLACE | CARDIFF CIRCLE | 0.17 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 112409 | **FOXHOUND RUN** | JONES RD | END LOOP | 0.38 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 268681 | **BLUE LUPINE LANE** | BALLARD RD | END LOOP | 0.32 | 29 | 2 | 2 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 122454 | **LOUDEN RD** | PAVEMENT CHANGE | INGERSOL RD | 0.98 | 28 | 5 | 5 | **Do Nothing** | **0** | **1** |
| 132400 | **EDIE RD** | SCOUT RD | BALLARD RD | 1.12 | 30 | 4 | 4 | **Do Nothing** | **0** | **1** |
| 112526 | **WASHBURN RD** | CR 32 | TOWN LINE | 0.87 | 24 | 3 | 3 | **Do Nothing** | **0** | **1** |
| 112471 | **NICHOLS RD** | PARKHURST RD | WOODARD RD | 0.36 | 21 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112492 | **PETTIS RD** | DIMMICK RD | TOWN LINE | 0.81 | 25 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 122403 | **ERNST RD** | GAILOR RD | NY 9 | 0.91 | 26 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112509 | **SHEFFIELD RD** | GLENBURNIE DR | CHALLEDON DR | 0.7 | 28 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112403 | **ERNST RD** | NY 9 | GAILOR RD | 0.48 | 22 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112380 | **CERULEAN BLVD** | NY 9 | PLUM CT | 0.15 | 28 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112453 | **LONESOME PINE TR** | NORTHERN PINES RD | SHEFFIELD RD | 0.44 | 24 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 112500 | **ROBBINS RD** | PETTIS RD | NY 50 | 0.88 | 25 | 2 | 2 | **Do Nothing** | **0** | **1** |
| 271029 | **BURNHAM RD** | NORTHERN PINES RD | END LOOP | 0.61 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112538 | **WOODLAND DR** | LOUGHBERRY RD | HILL CREST DR | 0.11 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112537 | **WOODCREST DR** | LOUGHBERRY RD | HILLCREST DR | 0.07 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 122369 | **BRADFORD DR** | PAVEMENT CHANGE | HILLCREST LA | 0.08 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 271031 | **BUCHANAN DR** | NORTHERN PINES RD | END LOOP | 0.21 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 112439 | **JESSICA TRACE** | LONESOME PINE TRAIL | JESSICA TRACE | 0.39 | 24 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112390 | **DAMASCUS DR** | GAILOR RD | WHIRLAWAY BLVD | 1.11 | 24 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112448 | **KYER FARM RD** | TRAVER RD | END LOOP | 0.27 | 20 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112462 | **MELANIE DR** | JONES RD | DEAD END | 0.26 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 271027 | **KERR DR** | BURNHAM DR | END LOOP | 0.11 | 27 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 271025 | **CAMPBELL DR** | BUCHANAN DR | BURNHAM DR | 0.18 | 28 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 112415 | **GLENBURNIE DR** | FENIMORE PL | GREYLOCK DR | 0.57 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112456 | **MAHOGANY RIDGE** | THISTLE RD | END LOOP | 0.23 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112391 | **DANDELION DR** | NY 9 | END LOOP | 0.48 | 29 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112532 | **WHIRLAWAY BLVD** | FAIRMONT DR | DAMASCUS DR | 0.59 | 24 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 999999 | **CRAW LA** | TRAVER RD | DEAD END | 0.29 | 24 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |
| 112530 | **WELLINGTON DR** | HILLCREST LN | WELLINGTON DR | 0.09 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112394 | **DEER RUN** | HEARTHSTONE DR | DEAD END | 0.32 | 21 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112511 | **SHUVEE LA** | WHIRLAWAY BLVD | END LOOP | 0.15 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112510 | **SHERMAN RD** | NY 50 | NY 50 | 0.27 | 22 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112507 | **SEPIA LA** | DANDELION DR | MAHOGANY RIDGE | 0.17 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112495 | **PLUM CT** | DANDELION DR | END LOOP | 0.29 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 112519 | **THISTLE RD** | DANDELION DR | END LOOP | 0.21 | 28 | 1 | 1 | **Do Nothing** | **0** | **1** |
| 278134 | **HILLTOP DR** | US 9 | END LOOP | 0.29 | 29 | 1 | 1 | **DO NOTHING (LETTER OF CREDIT)** | **0** | **1** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$54,869** | **$845,127** | **$899,996** |
| **Number of Roads** | **97** | **14** | **113** |
| **Length (Miles)** | **41.63** | **5.96** | **47.59** |
| **Area (Square Feet)** | **5,601,394** | **850,766** | **6,452,160** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 122413 | **GAILOR RD** | US 9 | TRAVER RD | 1.33 | 28 | 4 | 4 | **FIBERMAT AND 2.5" 6-TOP** | **232610** | **2** |
| 112455 | **LOWES DRIVE** | OLD GICK RD | NY 50 | 0.69 | 40 | 5 | 5 | **FIBERMAT AND 1.5" OVERLAY** | **134070** | **2** |
| 122524 | **TRAVER RD** | GAILOR RD | BALLARD RD | 1.42 | 30 | 5 | 5 | **FIBERMAT AND 1.5" OVERLAY** | **206934** | **2** |
| 112524 | **TRAVER RD** | NORTHERN PINES RD | GAILOR RD | 0.66 | 28 | 5 | 5 | **FIBERMAT AND 1.5" OVERLAY** | **89769** | **2** |
| 122441 | **JONES RD** | CARR RD | NY 50 | 1.53 | 27 | 5 | 5 | **FIBERMAT AND 1.5" OVERLAY** | **200668** | **2** |
| 112362 | **AUTO PARK RD** | NEW COUNTRY WAY | OLD GICK RD | 0.19 | 28 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **24579** | **2** |
| 268641 | **SNOWBERRY DR** | STONEHEDGE DR | ROLLING HILLS DR | 0.12 | 28 | 1 | 1 | **AA - PATCH (2%)** | **43** | **2** |
| 112353 | **ABERDEEN WAY** | SUFFOLK LN | END LOOP | 0.21 | 28 | 1 | 1 | **A - PATCH (1%)** | **38** | **2** |
| 112520 | **THUNDER RUN** | CASTLEBERRY DR | ROLLING HILLS DR | 0.28 | 28 | 1 | 1 | **A - PATCH (1%)** | **50** | **2** |
| 112485 | **PALMER TERRACE** | NICKLAUS DR | FAIRWAY BLVD | 0.54 | 30 | 1 | 1 | **AA - PATCH (2%)** | **206** | **2** |
| 263612 | **LENCA COURT** | GAILOR RD | END LOOP | 0.16 | 24 | 1 | 1 | **A - PATCH (1%)** | **25** | **2** |
| 112517 | **SYDNEY HILL RD** | JONES RD | END LOOP | 0.42 | 25 | 1 | 1 | **AA - PATCH (2%)** | **134** | **2** |
| 112457 | **MARGARET DR** | DONNA DR | GAILOR RD | 0.13 | 25 | 1 | 1 | **AAAA - PATCH (10%)** | **206** | **2** |
| 112503 | **SADDLEWOOD DR** | CEDAR CREST DR | DEAD END | 0.07 | 22 | 1 | 1 | **CRACKSEAL (MED[30%])** | **123** | **2** |
| 112407 | **FARMINGTON AVE** | AMHERST AVE | NEW BRITAIN DR | 0.09 | 22 | 1 | 1 | **AAA - PATCH (5%)** | **63** | **2** |
| 112468 | **NEW KENT RD** | KINGS MILLS RD | ABERDEEN WAY | 0.16 | 28 | 1 | 1 | **AAA - PATCH (5%)** | **142** | **2** |
| 112488 | **PARNIL DR** | EVERGREEN DR | FAIRWAY BLVD | 0.11 | 23 | 1 | 1 | **AAA - PATCH (5%)** | **81** | **2** |
| 112497 | **PULVER BLVD** | WORTH RD | EVERGREEN DR | 0.11 | 23 | 1 | 1 | **AAA - PATCH (5%)** | **81** | **2** |
| 112417 | **GREGS CT** | OLD DEER CAMP RD | END LOOP | 0.17 | 23 | 1 | 1 | **AAA - PATCH (5%)** | **124** | **2** |
| 112478 | **OLD DEER CAMP RD** | JONES RD | DEAD END | 0.47 | 23 | 1 | 1 | **AA - PATCH (2%)** | **137** | **2** |
| 112375 | **CARLYLE TERRACE** | INGERSOL RD | INGERSOL RD | 0.47 | 28 | 1 | 1 | **AA - PATCH (2%)** | **167** | **2** |
| 112528 | **WELLINGTON CT** | WELLINGTON DR | END LOOP | 0.11 | 28 | 1 | 1 | **AAA - PATCH (5%)** | **98** | **2** |
| 112414 | **GICKAWAY RD** | JONES RD | END LOOP | 0.12 | 25 | 1 | 1 | **A - 6 TOP 1.5"** | **8712** | **2** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$1,718** | **$897,342** | **$899,060** |
| **Number of Roads** | **16** | **7** | **23** |
| **Length (Miles)** | **3.62** | **5.94** | **9.56** |
| **Area (Square Feet)** | **501,019** | **926,904** | **1,427,923** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112441 | **JONES RD** | TOWN LINE | CARR RD | 2.21 | 27 | 5 | 5 | **FIBERMAT AND 2.5" 6-TOP** | **372714** | **3** |
| 112445 | **KINGS MILLS RD** | TRAVER RD | END LOOP | 0.4 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **54406** | **3** |
| 142400 | **EDIE RD** | NY 50 | SCOUT RD | 1.46 | 31 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **209102** | **3** |
| 112392 | **DANIELS RD** | TOWN LINE | NY 9 | 0.17 | 26 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **21471** | **3** |
| 112484 | **PALMER RIDGE RD** | CR 32 | TOWN LINE | 1.21 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **129310** | **3** |
| 277751 | **LOUGHBERRY LK RD** | PAVEMENT CHANGE | NY 9 | 0.32 | 22 | 3 | 3 | **Thin Overlay (1")** | **11412** | **3** |
| 112388 | **CORINTH MTN RD** | CR 101 | CORINTH T/L | 0.96 | 24 | 4 | 4 | **A - 6 TOP 1.5"** | **66909** | **3** |
| 112480 | **OLD SARATOGA RD** | NY 9 | TOWN LINE | 0.64 | 22 | 3 | 3 | **Thin Overlay (1")** | **22823** | **3** |
| 112459 | **MAPLE CT** | DEER RUN | DEAD END | 0.12 | 21 | 1 | 1 | **A - 6 TOP 1.5"** | **7319** | **3** |
| 301891 | **JONES COURT** | JONES ROAD | DEAD END | 0.03 | 18 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **2623** | **3** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$898,089** | **$898,089** |
| **Number of Roads** | **0** | **10** | **10** |
| **Length (Miles)** | **0** | **7.52** | **7.52** |
| **Area (Square Feet)** | **0** | **1,026,379** | **1,026,379** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112413 | **GAILOR RD** | PARKHURST RD | US 9 | 0.37 | 22 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **39541** | **4** |
| 112529 | **WELLINGTON DR** | BRADFORD DR | END LOOP | 0.47 | 28 | 1 | 1 | **A - 6 TOP 1.5"** | **38217** | **4** |
| 122400 | **EDIE RD** | LOUDEN RD | NY 50 | 1.57 | 27 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **205914** | **4** |
| 112395 | **DIMMICK RD** | BALLARD RD | CR 32 | 1.96 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **209461** | **4** |
| 112463 | **MIDDLEBOROUGH CT** | BLACKFRIARS RD | END LOOP | 0.12 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **16322** | **4** |
| 112419 | **GURNSPRING RD** | BALLARD RD | DIMMICK RD | 1.15 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **116886** | **4** |
| 112399 | **EAST LANE** | NORTHERN PINES RD | DEAD END | 0.12 | 22 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **12824** | **4** |
| 112437 | **INGERSOL RD** | TOWN LINE | LOUDEN | 0.39 | 28 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **53046** | **4** |
| 142454 | **LOUDEN RD** | RUGGLES RD | TOWN LINE | 1.65 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | **167706** | **4** |
| 112416 | **GORDON LANE** | BALLARD RD | DEAD END | 0.17 | 21 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **16494** | **4** |
| 112426 | **HEATHER DR** | HEARTHSTONE DR | HEARTHSTONE DR | 0.27 | 28 | 1 | 1 | **A - 6 TOP 1.5"** | **21955** | **4** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | | | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Repair | Rehab | Total | |
| | | | | **Cost (Dollars)** | | | | | **$0** | **$898,366** | **$898,366** | |
| | | | | **Number of Roads** | | | | | **0** | **11** | **11** | |
| | | | | **Length (Miles)** | | | | | **0** | **8.24** | **8.24** | |
| | | | | **Area (Square Feet)** | | | | | **0** | **1,037,309** | **1,037,309** | |
| 112496 | **PRESERVE WAY** | RUGGLES RD | END LOOP | 0.65 | 25 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | | | **75075** | **5** |
| 132413 | **GAILOR RD** | TRAVER RD | DEAD END | 0.52 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | | | **55571** | **5** |
| 122506 | **SCOUT RD** | NY 50 | EDIE RD | 1.57 | 29 | 2 | 2 | **Thin Overlay (1")** | | | **73803** | **5** |
| 112410 | **FOREST WAY** | NY 50 | ROBBINS RD | 0.47 | 28 | 2 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **63927** | **5** |
| 122419 | **GURNSPRING RD** | DIMMICK RD | TOWN LINE | 0.83 | 22 | 3 | 3 | **FIBERMAT AND 1.5" OVERLAY** | | | **88700** | **5** |
| 112442 | **JOSEPH LA** | NICKLAUS DR | PALMER TERR | 0.3 | 24 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **34975** | **5** |
| 112365 | **BENNINGTON LOOP** | BRADFORD DR | BENNINGTON LOOP | 0.35 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **47605** | **5** |
| 112393 | **DAVIDSON DR** | NORTHERN PINES RD | SMITH BRIDGE RD | 0.59 | 25 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | | | **71650** | **5** |
| 112458 | **MARY LA** | BROOKSIDE DR | JENNIFER CT | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **14962** | **5** |
| 112406 | **FAIRWAY BLVD** | WORTH RD | NICKLAUS DR | 0.67 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **71601** | **5** |
| 112396 | **DONNA DR** | GAILOR RD | DEAD END | 0.21 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **24255** | **5** |
| 112490 | **PEPPER PL** | WORTH RD | PEABODY PL | 0.08 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **10881** | **5** |
| 112356 | **AMHERST AVE** | FARMINGTON AVE | DEAD END | 0.16 | 22 | 1 | 1 | **Thin Overlay (1")** | | | **5706** | **5** |
| 112531 | **WEST LANE** | NY 50 | DEAD END | 0.37 | 21 | 1 | 1 | **Thin Overlay (1")** | | | **12595** | **5** |
| 271034 | **WAVERLY PL** | NORTHERN PINES RD | END LOOP | 0.31 | 24 | 1 | 1 | **A - 6 TOP 1.5"** | | | **21606** | **5** |
| 278140 | **ANDOVER AVE** | NEW BRITAIN | NEWINGTON AVE | 0.15 | 22 | 1 | 1 | **Thin Overlay (1")** | | | **5350** | **5** |
| 268642 | **STONEHEDGE DR** | ROLLINGHILLS DR | END LOOP | 0.29 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **39445** | **5** |
| 112505 | **SARAZEN WAY** | KELSO BLVD | END LOOP | 0.11 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **13359** | **5** |
| 268622 | **RYANWOOD CT** | ROLLINGHILLS DR | END LOOP | 0.15 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **20402** | **5** |
| 271032 | **RYAN RD** | BLANCHARD RD | END LOOP | 0.18 | 25 | 1 | 1 | **Thin Overlay (1")** | | | **7295** | **5** |
| 112364 | **BEAR CUB CROSSING** | OLD DEER CAMP RD | CHIPMUNK CHASE | 0.17 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | | | **21992** | **5** |
| 112494 | **PINEKNOLL DR** | JONES RD | DEAD END | 0.06 | 25 | 1 | 1 | **Thin Overlay (1")** | | | **2432** | **5** |
| 122431 | **HOPEFUL LA** | EVERGREEN DR | FAIRWAY BLVD | 0.52 | 23 | 1 | 1 | **Thin Overlay (1")** | | | **19387** | **5** |
| 112384 | **CHIPMUNK CHASE** | JONES RD | OLD DEER CAMP RD | 0.21 | 28 | 1 | 1 | **Thin Overlay (1")** | | | **9532** | **5** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112466 | **NEW BRITAIN DR** | ANDOVER AVE | FARMINGTON AVE | 0.34 | 23 | 1 | 1 | **Thin Overlay (1")** | **12677** | **5** |
| 112372 | **BULLARD LANE** | EDIE RD | DEAD END | 0.44 | 21 | 1 | 1 | **Thin Overlay (1")** | **14978** | **5** |
| 112467 | **NEWINGTON AVE** | AMHERST AVE | ANDOVER AVE | 0.19 | 23 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **20190** | **5** |
| 122482 | **OXFORD DR** | PAVEMENT CHANGE | NOTTINGHAM DR | 0.22 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **23511** | **5** |
| 112421 | **HAMMOND LA** | ERNST RD | DEAD END | 0.19 | 22 | 1 | 1 | **A - 6 TOP 1.5"** | **12139** | **5** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$895,601** | **$895,601** |
| **Number of Roads** | **0** | **29** | **29** |
| **Length (Miles)** | **0** | **10.41** | **10.41** |
| **Area (Square Feet)** | **0** | **1,361,448** | **1,361,448** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112474 | **NORTH RD** | BALLARD RD | WILTON GANSEVOORT R | 1.3 | 25 | 4 | 4 | **SHIM AND 2.5" ASPHALT** | **192192** | **6** |
| 258343 | **SEYMOUR DR** | RUGGLES RD | PRESERVE WAY | 0.54 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **62370** | **6** |
| 112363 | **AUTUMN CT** | FIELDSTONE DR | END LOOP | 0.15 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **20402** | **6** |
| 112446 | **KINGS RD** | GAILOR RD | PARKHURST RD | 0.34 | 19 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **31381** | **6** |
| 112398 | **DUSTY TRAIL** | CEDARCREST DR | DEAD END | 0.14 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **18111** | **6** |
| 112447 | **KNOLLWOOD DR** | JONES RD | DEAD END LOOP | 0.5 | 29 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **66990** | **6** |
| 268502 | **BIRCHWOOD DR** | PARKHURST RD | DEAD END | 0.19 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **18434** | **6** |
| 112432 | **HOSFORD LANE** | NY 50 | DEAD END | 0.13 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **13893** | **6** |
| 268684 | **PRESTON CT** | NORTHERN PINES | DEAD END | 0.07 | 24 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **7762** | **6** |
| 112443 | **JUDYS WAY** | AMY LANE | AMY LANE | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **14962** | **6** |
| 112381 | **CHALLEDON DR** | GLENBURNIE DR | DAMASCUS DR | 0.49 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **66647** | **6** |
| 112357 | **AMY LA** | EDIE RD | JUDYS WAY | 0.37 | 20 | 1 | 1 | **A - 6 TOP 1.5"** | **21490** | **6** |
| 112489 | **PEABODY PL** | WEST DEAD END | EAST DEAD END | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **14230** | **6** |
| 112483 | **PADDINGTON DR** | BRADFORD DR | HUNTINGTON CT | 0.19 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **24579** | **6** |
| 112477 | **NOTTINGHAM DR** | OXFORD DR | PAVEMENT CHANGE | 0.16 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **19431** | **6** |
| 122477 | **NOTTINGHAM DR** | PAVEMENT CHANGE | END LOOP | 0.31 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **35805** | **6** |
| 268682 | **CONNORS WAY** | CARR RD | END LOOP | 0.1 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **10201** | **6** |
| 268481 | **BEVERLY ST** | JONES RD | PARK ENTRANCE | 0.35 | 30 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **51005** | **6** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112401 | **ELIZABETH LA** | WOODLAKE DR | LAKE VIEW DR | 0.21 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **21423** | **6** |
| 277748 | **EVERGREEN DR** | BEG W LOOP | END N LOOP | 0.38 | 23 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **42456** | **6** |
| 112368 | **BRACKETT LA** | PALMER TERRACE | CASTLEBERRY DR | 0.24 | 30 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **34975** | **6** |
| 112369 | **BRADFORD DR** | JONES RD | PAVEMENT CHANGE | 0.41 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **55765** | **6** |
| 268521 | **BRIAR LA** | BROOKSIDE DR | BROOKSIDE DR | 0.22 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **29923** | **6** |
| 112464 | **MOUNTAIN LANE** | PARKHURST RD | DEAD END | 0.15 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **16031** | **6** |
| 112370 | **BRITTANY TERR** | LONESOME PINE TRAIL | DEAD END | 0.07 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **9522** | **6** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$899,980** | **$899,980** |
| **Number of Roads** | **0** | **25** | **25** |
| **Length (Miles)** | **0** | **7.23** | **7.23** |
| **Area (Square Feet)** | **0** | **970,517** | **970,517** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112428 | **HILLSIDE AVE** | GREENFIELD TOWN LINE | DEAD END | 0.35 | 20 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **34004** | **7** |
| 112506 | **SCOUT RD** | EDIE RD | DEAD END | 0.45 | 20 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **43719** | **7** |
| 112408 | **FIELDSTONE DR** | DEAD END | COBBLE HILL DR | 0.98 | 28 | 1 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **133293** | **7** |
| 112451 | **LICARDO LA** | AMELIA CT | END LOOP | 0.18 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **24483** | **7** |
| 258341 | **PEACH TREE LA** | CHERRY TREE LA | END LOOP | 0.33 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **44885** | **7** |
| 301890 | **ROBERTS COURT** | COBBLE HILL DR | END LOOP | 0.13 | 28 | 1 | 1 | **A - 6 TOP 1.5"** | **10571** | **7** |
| 112425 | **HEARTHSTONE DR** | NORTHERN PINES RD | DEER RUN | 0.85 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **115611** | **7** |
| 112438 | **JENNIFER CT** | BEG SW LOOP | END NE LOOP | 0.23 | 27 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **30166** | **7** |
| 268601 | **LEWIS RD** | JONES RD | PARK ENTRANCE | 0.22 | 22 | 4 | 4 | **FIBERMAT AND 1.5" OVERLAY** | **23511** | **7** |
| 112465 | **MOUNTAIN LEDGE DR** | WALLER RD | ADK CIRCLE | 0.2 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **27203** | **7** |
| 112435 | **HUDSON AVE** | HILLSIDE AVE | GREENFIELD TOWN LINE | 0.21 | 20 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **20402** | **7** |
| 112387 | **COMMERCE PARK DRIVE** | BALLARD RD | COMMERCE PARK | 0.39 | 28 | 3 | 3 | **SHIM AND 2.5" ASPHALT** | **64577** | **7** |
| 268602 | **LORIANN DR** | JONES RD | BEVERLY ST | 0.4 | 30 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **58292** | **7** |
| 112389 | **DAKOTA DR** | GAILOR RD | MOONGLOW RD | 0.29 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **39445** | **7** |
| 112460 | **MAYA DR** | GAILOR RD | TIMBIRA DR | 0.23 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **31283** | **7** |
| 258342 | **CHERRY TREE LA** | BEG S LOOP | END N LOOP | 0.49 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **66647** | **7** |

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| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112420 | **HAMMOND DR** | ERNST RD | DEAD END | 0.18 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **18362** | **7** |
| 112476 | **NORTHWOODS RD** | NORTHERN PINES RD | CHERRY TREE LA | 0.24 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **32644** | **7** |
| 112402 | **ERINN CT** | HEARTHSTONE DR | END LOOP | 0.13 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **17682** | **7** |
| 112534 | **WHITE BIRCH LANE** | US 9 | END LOOP | 0.3 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **36432** | **7** |
| 112383 | **CHEYENNE CT** | SANTEE DR | END LOOP | 0.11 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **14962** | **7** |
| 301893 | **WHITE PINE LANE** | HOWE STREET | DEAD END | 0.1 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **10687** | **7** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$898,861** | **$898,861** |
| **Number of Roads** | **0** | **22** | **22** |
| **Length (Miles)** | **0** | **6.99** | **6.99** |
| **Area (Square Feet)** | **0** | **972,206** | **972,206** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112371 | **BROOKSIDE DR** | JONES RD | CARR RD | 0.69 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **93850** | **8** |
| 112378 | **CASTLEBERRY DR** | GAILOR RD | ROLLING HILLS DR | 0.73 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **99290** | **8** |
| 112436 | **HUNTINGTON CT** | BRADFORD DR | END LOOP | 0.29 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **39445** | **8** |
| 112385 | **CHRISTINA CT** | JONES RD | DEAD END | 0.38 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **51685** | **8** |
| 112440 | **JODI LANE** | JONES RD | COBBLE HILL DR | 0.11 | 28 | 2 | 2 | **FIBERMAT AND 1.5" OVERLAY** | **14962** | **8** |
| 112521 | **TIMBERLANE DR** | WORTH RD | WORTH RD | 0.31 | 22 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **33130** | **8** |
| 112358 | **ANYHOW LA** | FIELD STONE DR | END LOOP | 0.17 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **17342** | **8** |
| 112486 | **PARK CIR** | JONES RD | DEAD END | 0.19 | 25 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **23074** | **8** |
| 112499 | **RACEVIEW DR** | DIMMICK RD | DEAD END | 0.11 | 20 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **10687** | **8** |
| 112539 | **WOODLAKE DR** | NORTHERN PINES RD | LAKEVIEW DR | 0.25 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **25503** | **8** |
| 112472 | **NONCHALANT DR** | NORTHERN PINES RD | HO-HUM LANE | 0.17 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **17342** | **8** |
| 112461 | **MEDITATION WAY** | CARR RD | CARR RD | 0.43 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **43864** | **8** |
| 268603 | **MEGHAN CT** | JONES RD | END LOOP | 0.2 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **27203** | **8** |
| 257750 | **MANCHESTER CT** | OXFORD DR | DEAD END | 0.11 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **11222** | **8** |
| 112449 | **LAKEVIEW DR** | NORTHERN PIENS RD | WOODLAKE DR | 0.27 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **27543** | **8** |
| 112430 | **HO-HUM LANE** | MEDITATION WAY | MEDITATION WAY | 0.15 | 21 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **15302** | **8** |
| 112516 | **SWEETBRIAR DR** | COBBLE HILL DR | FIELDSTONE DR | 0.36 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **48965** | **8** |

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| RIN | Name | From | To | Length | Width | Traffic | Importance | Repair Type | Cost ($) | Budget Year |
|---|---|---|---|---|---|---|---|---|---|---|
| 112355 | **AMELIA CT** | BEG LOOP | END LOOP | 0.2 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **27203** | **8** |
| 112482 | **OXFORD DR** | RUGGLES RD | PAVEMENT CHANGE | 0.34 | 24 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **39639** | **8** |
| 112424 | **HARVEST LA** | FIELDSTONE DR | SWEENBRIAR DR | 0.3 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **40804** | **8** |
| 268543 | **CAMBRIDGE CT** | LOUGHBERRY LAKE | DEAD END | 0.05 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **6801** | **8** |
| 278138 | **TIMBIRA DR** | NORTHERN PINES RD | END LOOP | 0.59 | 28 | 1 | 1 | **A - (72K-135K SF)HAMMERMILL+2.5"BINDER+1.5"** | **172708** | **8** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$887,564** | **$887,564** |
| **Number of Roads** | **0** | **22** | **22** |
| **Length (Miles)** | **0** | **6.4** | **6.4** |
| **Area (Square Feet)** | **0** | **864,230** | **864,230** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112367 | **BLANCHARD RD** | WILTON GANSEVOO | MOREAU T/L | 0.86 | 23 | 2 | 2 | **A - (72K-135K SF)HAMMERMILL+2.5"BINDER+1.5"** | **206788** | **9** |
| 112386 | **COBBLE HILL DR** | HEARTHSTONE DR | PAVEMENT CHANGE | 1.45 | 28 | 2 | 2 | **A - (135k - 225k SF)HAMMERMILL+BINDER+OVER** | **413731** | **9** |
| 112498 | **PUTNAM LA** | JONES RD | DEAD END | 0.37 | 22 | 1 | 1 | **A - (0-72000 SF) HAMMERMILL+2.5"BINDER+1.5"6-** | **85958** | **9** |
| 112360 | **APPLE TREE LANE** | NORTHERN PINES RD | NORTHWOODS RD | 0.44 | 28 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **59846** | **9** |
| 112493 | **PINE LEDGE TERRACE** | WORTH RD | WORTH RD | 0.24 | 20 | 1 | 1 | **FIBERMAT AND 1.5" OVERLAY** | **23317** | **9** |
| 112508 | **SHAWNEE CT** | MAYA DR | END LOOP | 0.11 | 27 | 1 | 1 | **A - (0-72000 SF) HAMMERMILL+2.5"BINDER+1.5"6-** | **31364** | **9** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$821,004** | **$821,004** |
| **Number of Roads** | **0** | **6** | **6** |
| **Length (Miles)** | **0** | **3.47** | **3.47** |
| **Area (Square Feet)** | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 112470 | **NICKLAUS DR** | NORTHERN PINES RD | BRACKETT LA | 0.79 | 24 | 1 | 1 | **A - (72K-135K SF)HAMMERMILL+2.5"BINDER+1.5"** | **198216** | **10** |

| | Repair | Rehab | Total |
|---|---|---|---|
| **Cost (Dollars)** | **$0** | **$198,216** | **$198,216** |
| **Number of Roads** | **0** | **1** | **1** |

CAMP-RS Budget Report
**Report generated on 09/13/2016**

| RIN | **Name** | From | To | Length | Width | Traffic | Importance | **Repair Type** | | | **Cost ($)** | **Budget Year** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Length (Miles)** | | | | | **0** | **0.79** | **0.79** | |
| | | | | **Area (Square Feet)** | | | | | **0** | **100,109** | **100,109** | |