



**Palatine Township Road District**

Tom Kaider - Highway Commissioner

530 N. Smith Street  
Palatine, IL 60067  
p.: 847.358.6336  
f.: 847.358.4056  
email: palhwy@aol.com

## **Strategic Plan**

### **Palatine Township Road District**

**Preliminary Draft Published: March 2015**

**Project Plan Finalized on August 4<sup>th</sup>, 2015**

**Plan Development lead by:**

- **Tom Kaider, Township Road Commissioner**
- **Art Goes, Township Trustee**
- **Roland Sachs, Road District Director**

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## Introduction

Township Road Districts were created by state governments and charged with maintaining local roads and bridges within unincorporated areas of the township. As a general rule, roads and bridges within the boundaries of municipalities are maintained by those municipalities. State and county roads running through unincorporated areas of a township are maintained by the county or state, respectively. When in the interest of both governments, intergovernmental agreements can be put into place for township to maintain a portion of road in the municipality, or the reverse.

Palatine Township Road District is vested in creating a vision and plan that guides its objectives. This goal can be achieved through deliberate planning and periodic updating, reflecting changes in circumstances.

The draft strategic plan created by the Palatine Township Road District was made available to Palatine Township residents, who were invited to submit comments and/or suggestions. While we invite this feedback, the Palatine Township Road District is unable to reply individually to these communications, but has taken them into account as the strategic plan is finalized. Feedback was sought until July 31, 2015.

## Factors Affecting the Future

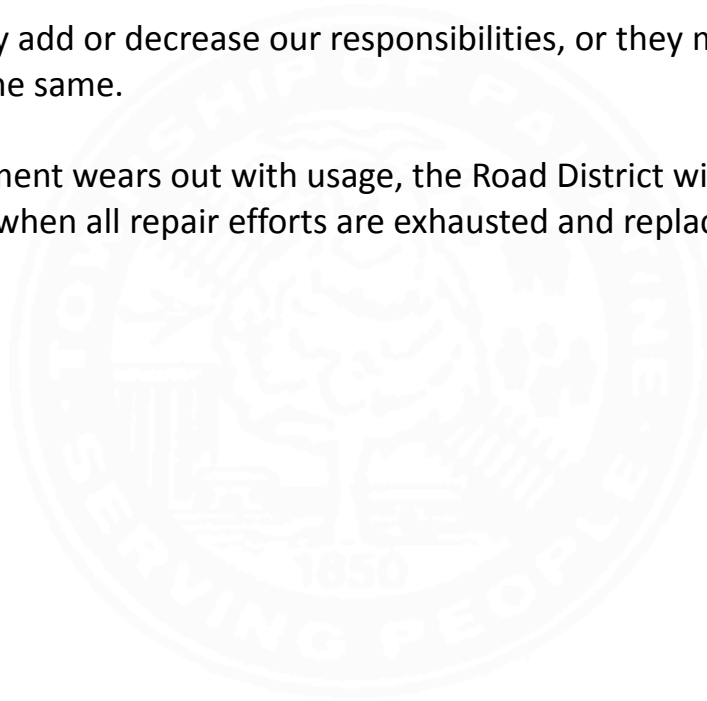
The Briarwood Bridge is currently under study for repair or replacement. Repair in 2015 will defer replacement for a number of years, but replacement may need to be considered at a later date.

Some of our roads may likely be absorbed into municipalities. Virtually no roads inside municipalities will likely be “ejected” and fall into Road District jurisdiction.

Intergovernmental agreements may increase or decrease the work that we do for other jurisdictions as time goes on.

State legislators may add or decrease our responsibilities, or they may encourage referendum to do the same.

As operating equipment wears out with usage, the Road District will have a plan to replace equipment when all repair efforts are exhausted and replacement is necessary.



## Vision

The goal of the Palatine Township Road District is to be the most efficient and effective unit of government that serves the people of Palatine Township.

## Palatine Township Mission Statement

The Palatine Township Mission statement includes reference to our road district functions.

**Palatine Township supports citizens within the Township with services authorized by Illinois law including assistance to those in need, support for accurate property assessments, senior services including transportation, and maintenance for roadways in the unincorporated areas. We provide programs and services in a timely, efficient and courteous manner always mindful that the taxpayers of Palatine Township are paying for the services.**

## Palatine Road District Mission Statement

The Road District endorses the Township Mission Statement, and maintains an individual mission statement:

**The Palatine Township Road District provides for maintenance of roadways, including bridges and right-of-ways, in the unincorporated areas of Palatine Township. The Road District strives to meet the safety and design specifications put in place by the original jurisdictional agency. The overall goal is to provide services in a timely, efficient and courteous manner, always mindful that the taxpayers of Palatine Township are paying for the services provided.**

## Creation of a Strategic Plan

The Palatine Township Road District Strategic Plan was initiated in December of 2014 and the preliminary draft published on the Palatine Township Road District website in March of 2015. Feedback from Palatine Township residents was invited until July 31, 2015.

### Process:

The plan development committee created a draft preliminary plan prior to seeking public input. The preliminary plan was posted on the Road District Website ([www.roaddistrict.com](http://www.roaddistrict.com)) in March of 2015, and efforts were made to reach the largest number of Palatine Township residents through an Electronic Phone Call and email to distribution lists in June of 2015. In early July, information about the preliminary plan was posted to local media publications including Daily Herald, Trib Local and Patch.com.

Input in the form of comments and suggestions was invited from Palatine Township residents until July 31, 2015. The name and address of the person providing the input was required so the Road District could verify input is received from a Palatine Township resident.

### *See Appendix:*

- *Text of Electronic Phone Call to Township Residents*
- *Instructions for public input regarding the Strategic Plan*

## Broad Organizational Goals

The Palatine Township Road District has at least three major responsibilities for service to the roads and bridges in the unincorporated areas of Palatine Township and it supports other governmental units, per approved intergovernmental agreements.

**Road Paving:** Design and follow a paving schedule that meets or exceeds the efficiency of other local governmental agencies.

**Right-of-Way:** Maintain the public right-of-way in a cost-effective manner that meets or exceeds local standards in the areas of:

- Drainage (in order of priority)
- Traffic Control Signage
- Landscaping (which includes mowing & tree-trimming)
- Road Shoulder Repair
- Ditches

...in support of the paving schedule, above.

**Snow & Ice Removal:** The Road District's primary winter responsibility is snow removal from unincorporated Palatine Township roadways. There are three goals for roads within our responsibility, in order of priority:

- For all snow events, ensure all roads are passable for the morning and evening rush hours between 7am-9am, and 5pm-7pm so residents can drive in to and out of their neighborhoods.
- For all snow events, ensure all roads are clear within 24 hours after the conclusion.

**Intergovernmental Agreements:** Cooperate with other local entities to provide services with mutually beneficial results.

- Provide services to other governmental units, charging fees that cover costs. These service agreements help to defer costs otherwise paid by Township taxpayers.
- Provide the same priority snow plowing and other services for the contacted areas within the Township jurisdiction, treating each the same operationally.

**Miscellaneous Services:** Maintain readiness to provide additional miscellaneous services to respond to local needs including:

- Leaf pickup
- Tire Recycling
- Storm Preparedness
- Disaster/Storm Response
- Resident Inquiries
- Intergovernmental Agreements to provide/receive equipment during emergencies





## Infrastructure and Capital Assets

Over time, the Palatine Township Road District has changed its service areas, acquired updated equipment and purchased assets that have depreciated. The Road District maintains ownership of infrastructure including roadway and right-of-way, in addition to capital assets such as land, buildings, vehicles, equipment and road signs.

A majority of the roadways are decades old. The Road District provides stewardship for existing right-of-way, rather than building new roads. *There are currently 18.5 miles of roadway in Palatine Township, each road being two lanes, totaling 37.0 "lane miles".*

A right-of-way is a part of each road. Generally, but not always, the road has been built in the center of the right-of-way. In these cases, the boundary of the right-of-way is 33-feet on either side of the centerline of the road. It is the Road District's responsibility to maintain the right-of-way, especially related to drainage. The viability of the roadway can be adversely affected by water damage. Drainage is a key requirement to extend the life of Township roadways.

Relating to proper drainage areas, ditches and culverts are present within the right-of-way. Culverts usually run under the driveways of homes that boarder Township roads. The culverts are owned by the Road District and must be replaced when they fail, otherwise drainage problems will impact the longevity of the roadway. Similarly, storm sewers run through the right-of-way and are part of the Road District's responsibility.

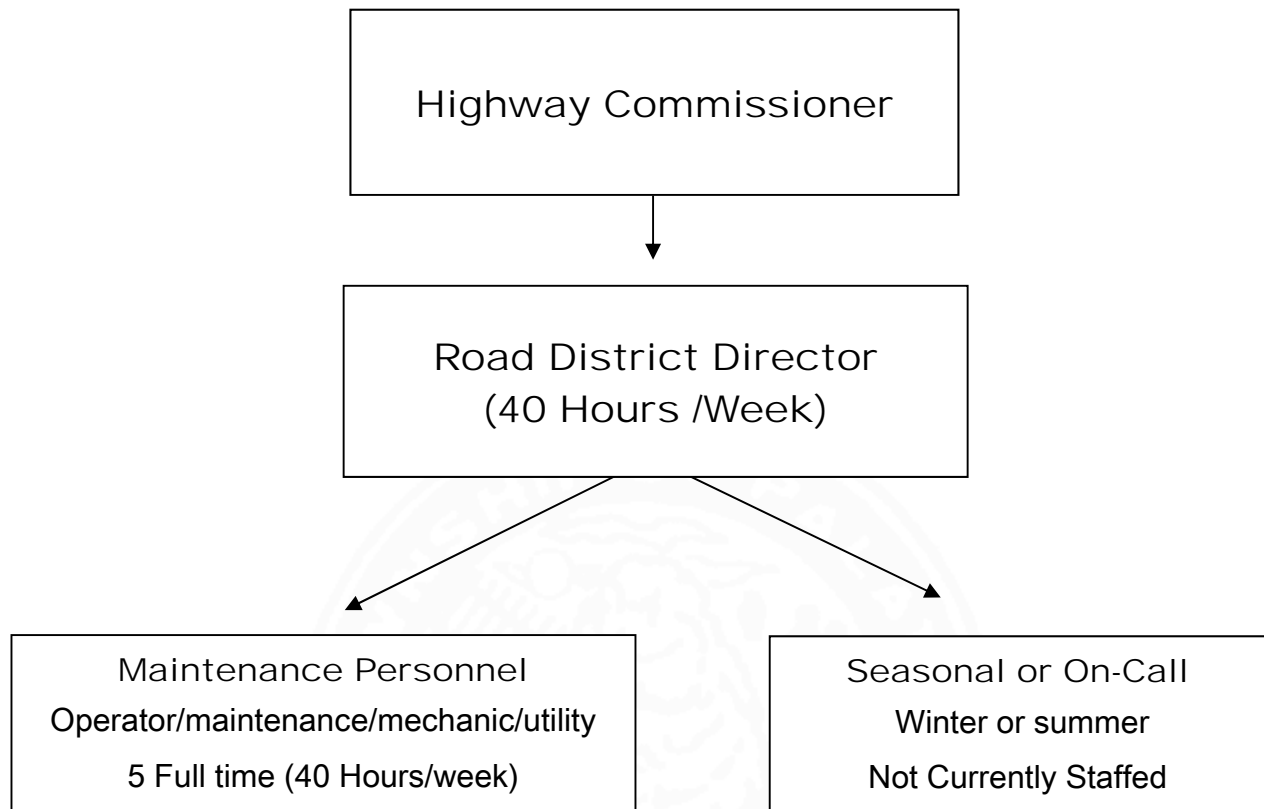
The last two assets within the right-of-way are traffic signs and trees/landscaping.

The Road District owns the property it is headquartered, located at 530 N. Smith Street, Palatine, Illinois, 60067, including both the land and the buildings. Vehicles and equipment also are capital assets. Please see the chart on the next page for a summary.

	How much How many	Years of Life
Roadways: includes Urban (curb & gutter) and Rural (shoulders & ditches)	18.5 miles	10 years
Ditches	37 miles	Regrade-5 yrs
Culverts	1000	15 years
Storm Sewers	10 miles	30 years
Signs	500	10 years
Trees in right-of-way	2000	unpredictable
Land at HDQ	87000 Sq. Ft.	---
Buildings	Office 1000 sq ft. Garage 6000 sq ft. 2 Outbuildings Salt storage facility	30 Years
Heavy Equipment	6 5-Ton Dump trucks w/ plow equipment	8 years
Heavy Equipment	Excavator Skid steer Tree/Brush chipper	8-12 years
Other Equipment	Refuse Truck Tub Grinder Water pumps for flooding	5-8 years

Note: The Road District often retains equipment in use longer than its typical IRS/Accounting Principles Board guidelines.

## Current Staffing Plan

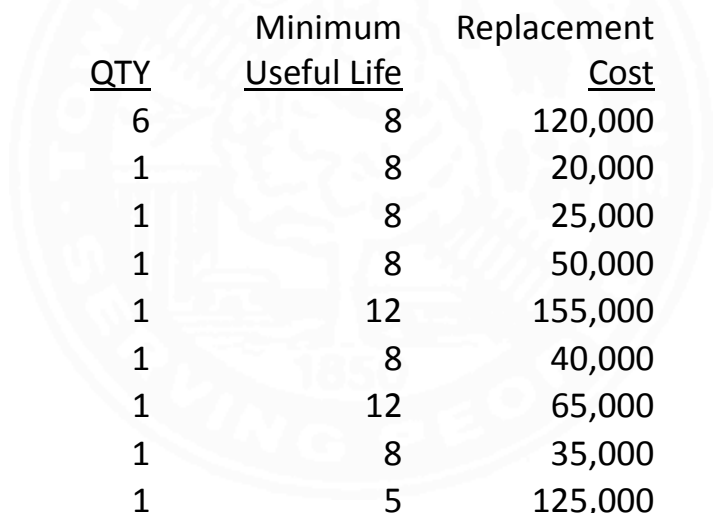


## Long Range Capital Planning

Long range capital budgeting and planning starts with an inventory of capital items that depreciate over time. Though land does not, buildings and equipment do. Useful life is a challenge to estimate; the IRS and the accounting profession assign standard depreciation to chart useful life. The Road District makes every effort to extend the useful life of capital assets, beyond the standard depreciation. The table below can be considered “conservative” whenever actual useful life can be achieved, that is longer than accounting useful life.

The following tables illustrates the useful life of various capital assets belonging to the Road District.

### Equipment:



<u>Item</u>	<u>QTY</u>	<u>Minimum Useful Life</u>	<u>Replacement Cost</u>	<u>Annual Depreciation</u>
Dump Truck	6	8	120,000	90,000
Pick Up	1	8	20,000	2,500
Utility	1	8	25,000	3,125
1-Ton	1	8	50,000	6,250
Loader	1	12	155,000	12,917
Skid Steer	1	8	40,000	5,000
Excavator	1	12	65,000	5,417
Chipper	1	8	35,000	4,375
Tub Grinder	1	5	125,000	25,000
Garbage Truck	1	8	150,000	18,750
Plows	6	8	10,000	7,500
Spreaders	2	8	15,000	3,750
Road Signs	500	10	75	3,750
<b>Total</b>				<b>188,333</b>

The Road District building is very likely to last longer than the standard accounting life of 30 years, but some components will need updating from time to time.

<u>Item</u>	<u>QTY</u>	<u>Minimum Useful Life</u>	<u>Replacement Cost</u>	<u>Annual Depreciation</u>
Roof	1	5	5,000	1,000
Overhead Doors	7	15	35,000	16,333
Furnace/AC	1	10	5,000	500
Carpet	1	5	1,500	300
Gutters	1	15	7,500	500
Brick	1	20	35,000	1,750
Total				20,383

As long as preventative maintenance and drainage are addressed, the useful life of Township roadways is likely to exceed the accounting depreciation standards. For purposes of capital planning, the reconstruction of the roadways (replacing everything at least 12-18 inches below the road surface) is not likely within our planning horizon over the next five years (until 2020). Resurfacing of Township roadways is planned every 8-10 years.

<u>Item</u>	<u>QTY</u>	<u>Minimum Useful Life</u>	<u>Replacement Cost</u>	<u>Annual Depreciation</u>
Bridge	1	35	500,000	14,286
Ditches	37	10	50,000	185,000
Culverts	1000	15	500	33,333
Storm Sewers	10	30	525,000	175,000
Trees	2000	20	1,000	100,000
Total				507,619

Replacement of trees is not planned on a cycled basis; many existing trees are over 75 years old, and some are over 100. Similarly, other items shown in this chart are likely to need replacement on an “as needed” basis rather than on a cycle-based approach based on the accounting depreciation target.

## Long Range Paving Plan

The Road District goal for paving roads within the Township jurisdiction is to meet or exceed the efficiency of other governmental agencies in the area. Studies by independent parties show multiple ways to handle the natural deterioration of a roadway once it is put in place. A reference list of these studies, which are from other jurisdictions, is included in the Appendix.

Roadways deteriorate over time based on a number of factors including weather (extreme temperatures in winter and summer), traffic (number of vehicles travelling the roadways, weight of vehicles), and moisture entering the roadbed through surface openings. Moisture can be somewhat controlled through attention to drainage, flooding and snow removal techniques.

Depending on the condition of a roadway, there are four levels of attention for handling the natural aging: 1) preventative maintenance, i.e., crack-filling & seal-coating, 2) repairs, i.e. asphalt patching of potholes, 3) resurfacing the top two inches of asphalt, and 4) reconstruction. Reconstruction is not a preference, due to the high cost, disruption to traffic flow and reduced access to homeowners' driveways.

Preventative measures paired with regular resurfacing is the most cost-effective method for maintaining Township roadways. An average resurfacing schedule is every 8-10 years, but a series of harsh winters/summers might disrupt the average, while consecutive mild weather in the winter/summer may extend the cycle.

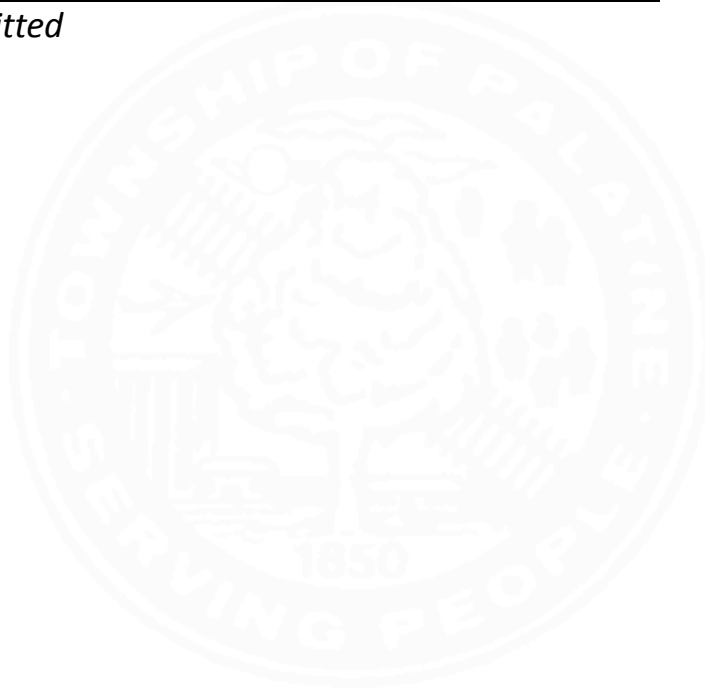
From a budgeting and operational standpoint, the Road District will stagger resurfacing of roads so not all require the project during the same year.

Whole streets and/or whole subdivisions will be completed to avoid ending the new pavement at an irregular point. A rating system of current conditions also assists in ordering the process. Although the roads generally experience the same weather, they may not carry the same traffic or experience the same level of flooding. Certain roadways deteriorate faster and need attention sooner, and others age more gracefully.

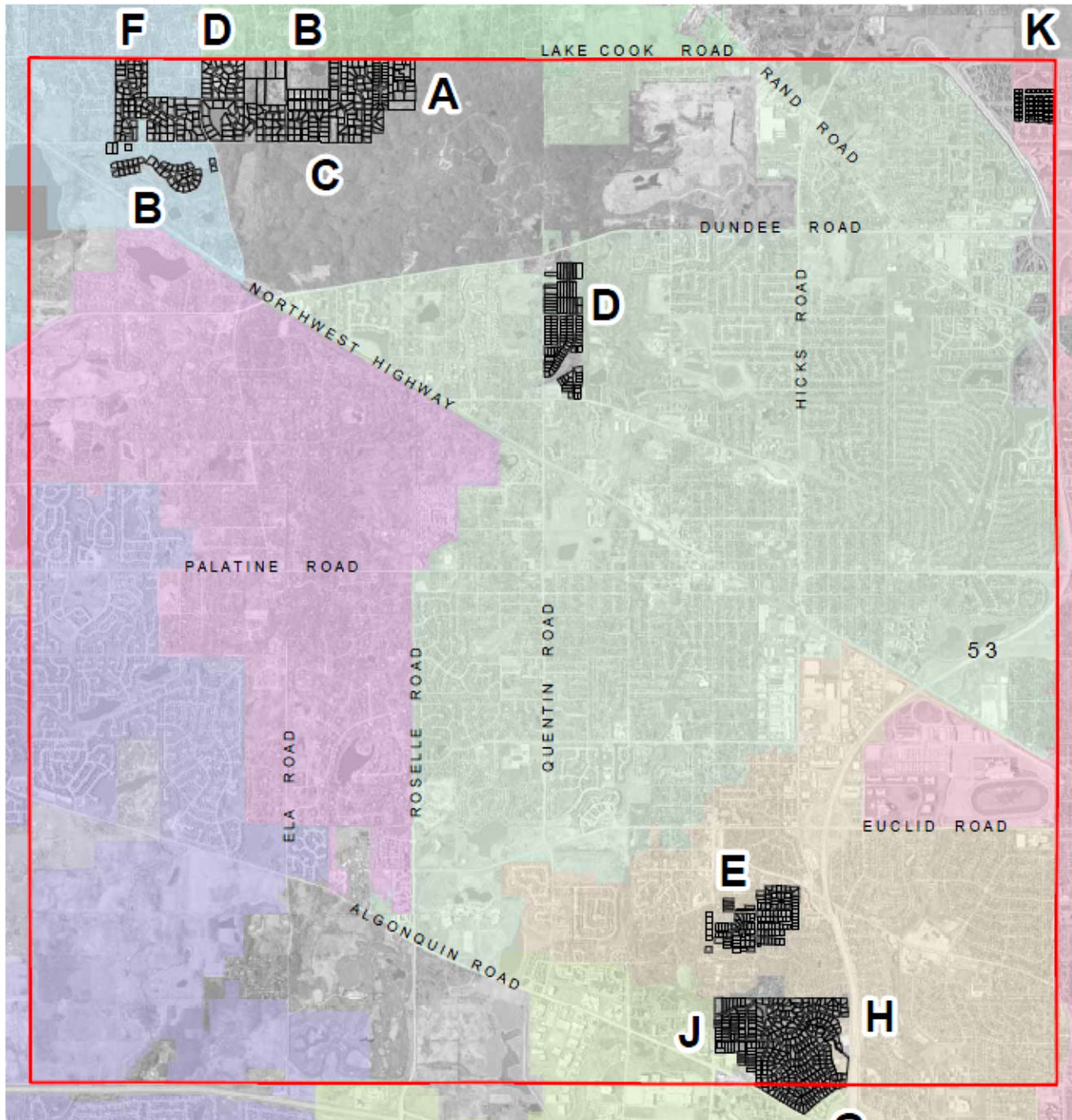
The following groupings allow a reasonable number of lane miles to be reconstructed each year, avoiding peaks and valleys. It is meant to outline a process that provides a starting point for later revisions based on weather, traffic and moisture conditions, and the resulting condition of the roads each year.

Group Letter	Roadways
A	Barrington Trails (E)
B	Barrington Trails (Courts) & Thunderbird Estates
C	Barrington Trails (Centered)
D	Fielding Place and Lake Park Estates
E	Forest Estates
F	Howe Terrace
G	Plum Grove Estates (S)
H	Plum Grove Estates (N)
J	Plum Grove Woodlands
K	Tiburon

*I is intentionally omitted*



## PALATINE TOWNSHIP ROAD DISTRICT RESURFACING PROJECTS



0 2,250 4,500 9,000  
Feet

Palatine Township Road District  
Tom Kaider - Highway Commissioner  
53C North Smith Street Palatine, IL 60067 p.: 847.358.6336

PALATINE  
TWSP

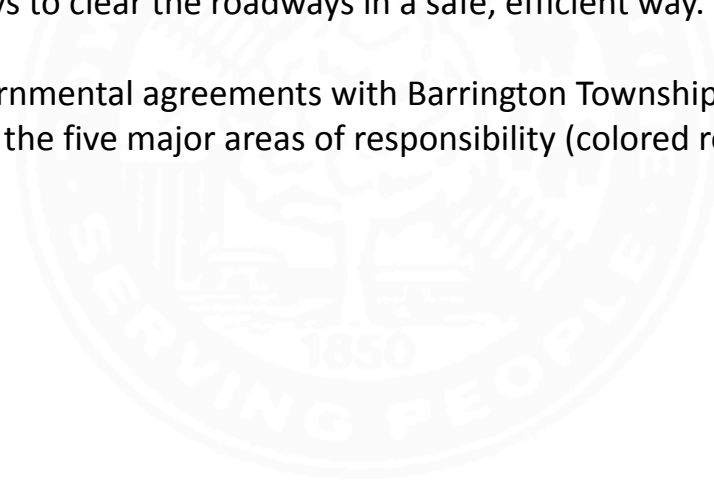


## Snow Removal Plan

Snow removal goals are: passable roads for morning (7-9am) and evening (5-7pm) rush hours, clear roads within 24 hours after the end of a snowstorm; and priority to higher traffic roads. Weather conditions vary every year, and technology changes occur relating to melting agents and application techniques. The current snow removal plan is the strategic plan, with the caveat that changes will be made as conditions warrant, to continue meeting strategic goals.

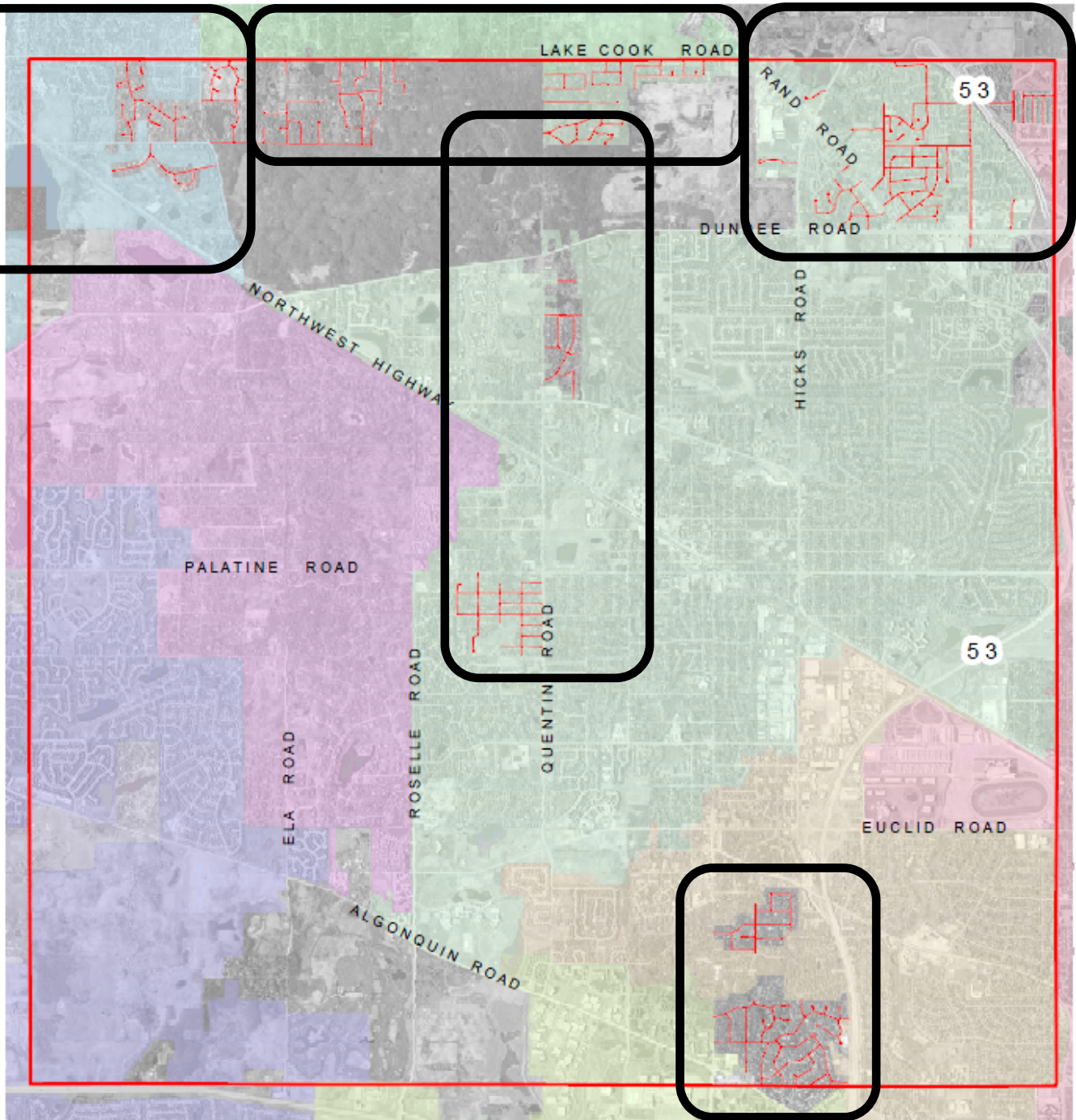
The current snow removal plan is to divide the areas of responsibility into five routes of approximate equal size, and service them with the trucks and staff available. The Road District Director makes the determination of when to begin road clearing efforts, whether applying melting agents ahead of a forecasted ice storm, or waiting until 3am to start plowing a slow-accumulating storm that begins at midnight. The Road District keeps a back-up snowplow truck available. If needed due to a major blizzard, truck break-down, or ill employee, the backup truck and driver will provide support. The overall goal is always to clear the roadways in a safe, efficient way.

Including intergovernmental agreements with Barrington Township and the Village of Palatine, below are the five major areas of responsibility (colored red).



## PALATINE TOWNSHIP ROAD DISTRICT SNOW AND ICE CONTROL INDEX

\*See  
add'l  
map  
below.



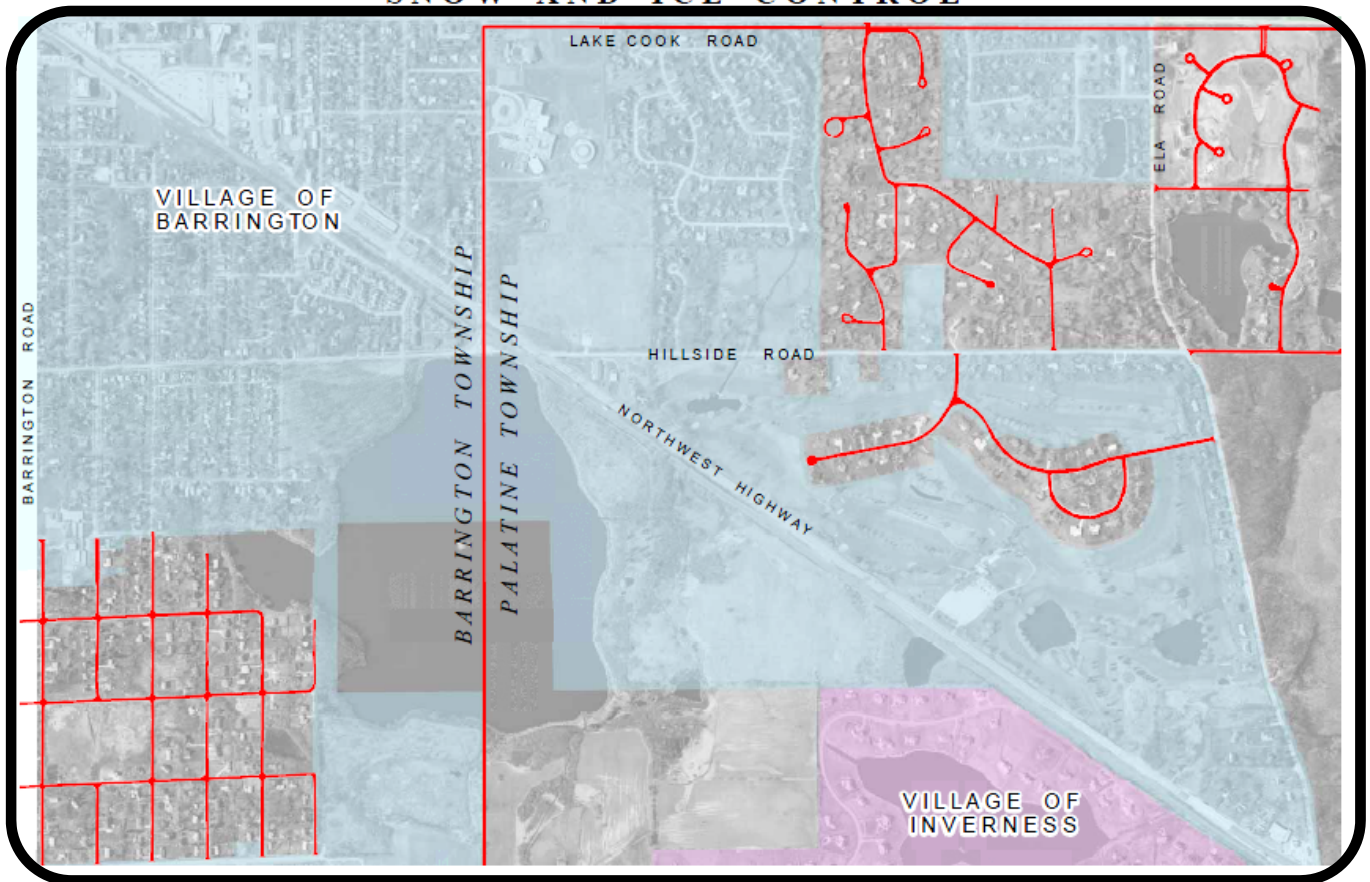
0 2,200 4,400 8,800  
Feet



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530 North Smith Street Palatine, IL 60067 p.:847.358.6336

**PALATINE**  
**TWSP**

## PALATINE TOWNSHIP ROAD DISTRICT SNOW AND ICE CONTROL



0 500 1,000 2,000 Feet

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**PALATINE**  
**TWSP**

## Appendix

### Text of Robotic Phone Call to Residents

*"Hi this is Tom Kaider, Highway Commissioner of Palatine Township. To establish an intermediate and long-range direction for the township road district, we are writing a strategic plan. We don't want to do this in a vacuum; instead we are aggressively seeking input from the citizens of Palatine township. This call, which is going out to all the households for which we can obtain phone numbers, is to alert you that a rough draft of our plan is now displayed on the Road District website, [roaddistrict.com](http://roaddistrict.com). We are seeking input from residents who wish to comment or make suggestions regarding possible improvements in our strategic plan. Instructions for submitting your comments are included on the website.*

*Thank you for taking time to listen to this message and for suggestions you may wish to offer to help us complete our strategic plan."*

Instructions on website to offer input to the plan;

The first step is to read the rough draft of the plan which is offered as a starting point, **CLICK HERE**, when you are ready.

Next, we'd appreciate your feedback on the plan. It would help us properly reflect everyone's input if you would do the following:

- 1) Send your comments by email or letter.
- 2) Include your name, street address and phone number in the email.
- 3) Include the subject of your comment/suggestion in the subject line of the email, for example "**Capital Plan**".
- 4) Comment will be accepted until July 31, 2015.

Please include your name, address and phone number in your email. We may wish to discuss your suggestion with you by phone.

Emails should be sent to: **[roaddistrict@palatinetownship.com](mailto:roaddistrict@palatinetownship.com)**

Letters to: **Palatine Township Road District:  
Attn: Strategic Plan  
530 N. Smith Road  
Palatine, IL 60067**

## **Paving Studies by Outside Experts**

<https://ohioauditor.gov/trainings/lgoc/2012/Are%20Your%20Road%20Dollars%20Struggling%20to%20Keep%20Up%20with%20Deterioration.pdf>

<http://pjkeating.com/umd-asphalt-studies-paving-the-way-to-better-roads/>

<https://www.dot.ga.gov/doingbusiness/research/Documents/092011.pdf>

[http://www.meredithbrothersinc.com/uploads/Westlake\\_CS\\_Final.pdf](http://www.meredithbrothersinc.com/uploads/Westlake_CS_Final.pdf)

[http://www.pavementmanagement.org/icmpfiles/2011/T4\\_ICMPA037-BAOSHAN.pdf](http://www.pavementmanagement.org/icmpfiles/2011/T4_ICMPA037-BAOSHAN.pdf)

[http://geosyntheticsmagazine.com/repository/2/2384/wp2\\_study.pdf](http://geosyntheticsmagazine.com/repository/2/2384/wp2_study.pdf)

<http://portal.cityofsacramento.org/Public-Works/Maintenance-Services/Street-Maintenance/Pavement-Techniques>

<http://roadwaystandards.dot.wi.gov/standards/fdm/11-40.pdf>

