



Item 7b.

Sunfish Lake Engineer's Report for August 7, 2018

By: **Jeff Sandberg, PE**
 City Engineer

Date: **August 2, 2018**

1. Engineering Activities Undertaken in the Month of July.

The following Engineer's Report reflects the activities undertaken this past month, along with the anticipated engineering activities for the month of August.

- A. **2019-2023 CIP Update** – Staff would like to receive any input and answer any questions on the draft 2019-2023 CIP at the August Budget meeting. As discussed in previous years, this document will outline what infrastructure and maintenance projects we are looking to do in 2019 and plan for the next 5 to 10 years for the Council to consider. The goal is to approve the CIP update at the August Council meeting, which will help establish infrastructure priorities to manage the City's infrastructure investments long term. SEE ATTACHMENTS.
- B. **Traffic Study Update– Salem Church Road** – Unfortunately, the counters were vandalized a third time. We are close to having the data needed so counters will need to be set again. The vandalism is adding to the costs of the traffic study effort, and that ultimately gets passed along to all residents of the city. We are hopeful that residents will keep an eye out and will contact the police if they see suspicious activity. If people have any information on the vandalism that has occurred we ask that they contact Chief Shaver.

2. Building and Site Reviews in the Month of July.

No Building or Site Reviews were conducted in the month of July.

3. Public Works Activities Undertaken in the Month of July.

We were alerted by Chief Shaver's staff that a semi (moving truck) tried to turn around at the intersection of Salem Church Road and Delaware and bottomed out and got stuck. In the process of freeing the semi, an area of pavement on Salem Church Road received damage (gouges and scarring of the pavement). There was a police report filed and pictures that accompanied the report. I visited the site and noted that the affected area is about 8' long by 3-4' wide. Although the damage does not look good, the gouges are (at worst) about a half-inch deep and I don't believe will affect the life of the pavement. There is an option to pursue repair/ patching of the pavement with the insurance of the moving company. I would need direction from the city council to pursue that but again, I am not sure there is a lot of value in that. I will bring pictures to the City Council meeting.

No other public works activities were undertaken in the month of July.

4. Anticipated Public Works Activities for the Month of August.

We expect the repair/ patching of Grieve Glen Lane to start in late August. No other Public Works activities are anticipated for August.

The above constitutes the Engineering Report for the City of Sunfish Lake for August 7, 2018.

Respectfully submitted,

WSB & Associates, Inc.

A handwritten signature in black ink, appearing to read "Jeffrey S. Sandberg". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jeffrey S. Sandberg, PE
City Engineer



Memorandum

To: *Ann Lanoue, City Treasurer
City of Sunfish Lake*

From: *Jeff Sandberg, PE, City Engineer
WSB & Associates, Inc.*

Date: *July 26, 2018*

Re: *2019 Budget Items*

The proposed engineering budget for 2019 is identified herein. The budget has been based on past costs and anticipated work.

City Engineer

Monthly Engineering Items – Miscellaneous.....	\$	<u>24,000</u>
Total	\$	24,000

Water Quality Monitoring / Lake Maintenance

NPDES – MS4 Annual Report and Hearing.....	\$	3,500
LGU Role for Wetland Conservation Act	\$	1,650
Camp Program.....	\$	<u>900</u>
Total	\$	6,050

Charlton Road Maintenance

Gravel and Grading	\$	1,500
Sunfish Lake Outlet Cleaning	\$	1,500
Dust Control	\$	<u>0.00</u>
Total	\$	3,000

General Street Maintenance

Street Sweeping.....	\$	1,600
Sign Replacement (CIP).....	\$	0.00
Striping Maintenance (CIP)	\$	0.00
Culvert Maintenance (CIP)	\$	3,000
Bituminous Maintenance	\$	3,500
Shoulder Maintenance	\$	<u>1,000</u>
Total	\$	9,100

Funding from CIP.....\$ 117,230

Zehnder Road Improvement Project.....\$21,090
Angell Rd (East) Improvement Project.....\$44,460
Sunnyside Lane Improvement Project.....\$51,680

Snow Removal – Inver Grove Heights.....\$ 3,000

Snow Removal – City Streets.....\$ 35,000

Please call me at 651-286-8474 upon review of the proposed budget.

Sincerely,

WSB & Associates, Inc.



Jeffry S. Sandberg, PE
City Engineer

**2019 to 2023
CAPITAL IMPROVEMENT PLAN**

CITY OF SUNFISH LAKE, MN

August 7, 2018

Prepared By:

WSB & Associates, Inc.



CERTIFICATION

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Jeffry S. Sandberg, PE

Date: August 7, 2018

Lic. No. 25393

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CERTIFICATION SHEET
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APPENDIX A

Exhibits:

- Exhibit A – Pavement History
- Exhibit B – City Map – Maintenance History
- Exhibit C – Proposed 2019 to 2023 CIP Map (Pavement Rehabilitation)
- Exhibit D – Proposed 2019 to 2023 CIP Map (Roadway Maintenance)
- Exhibit E – Anticipated 2024 to 2028 CIP Map

APPENDIX B

Capital Improvement Plan Summary

APPENDIX C

2018 Pavement Condition Index Map

APPENDIX D

Assessment Policy

2019 to 2023 CAPITAL IMPROVEMENT PLAN

1. INTRODUCTION

The Capital Improvement Plan (CIP) is a multi-year planning tool utilized by City officials to plan, finance, and maintain City infrastructure, usually based on a five to ten-year period. The City's Capital Improvement Plan identifies street and drainage improvements and major street maintenance items to sustain and maintain the City's infrastructure to obtain the most useful life. The CIP process allows for a systematic evaluation of all potential projects at the same time.

As with all plans, the Capital Improvement Plan is not a legally binding document and is subject to change due to unforeseen pavement deterioration or failures, available funding, and scheduling. The plan is intended to be updated on an annual basis as part of the City's budgeting process.

2. CAPITAL IMPROVEMENT PLAN

The Capital Improvement Plan is based on the condition of the City's existing infrastructure and anticipated Capital Improvements and the typical maintenance requirements for the stated condition. What is defined as a capital project is a tangible improvement that has a life expectancy greater than one year. Improvements are then identified to maintain or reconstruct streets, drainage systems, and other infrastructure facilities. The CIP identifies an estimated project cost and determines a schedule utilizing anticipated budget availability and maintenance priority. The CIP should be reviewed annually every spring to reassess the City's infrastructure needs prior to establishing the next year's City budget. The identified costs are our early assessment of anticipated costs that will be refined along with funding options prior to authorization by the City Council.

2.1 Scheduled Maintenance

A majority of the City's current infrastructure, with the exception of Charlton Road, was constructed between 1989 to present. **Appendix A, Exhibit A** shows a map of the City streets and what year they were constructed. Bituminous roadway maintenance should include crack sealing and sealcoat every seven to ten-year cycle with an overlay around 10 to 20 years followed by a seal coating cycle to extend the life cycle of the City's paved roadways. The methodology of the City's pavement management is outlined in the 2018 Pavement Management Report which discusses pavement life cycle, maintenance strategies, and how pavements are evaluated. Copies of this 2018 report are available upon request.

Appendix C is the 2018 Pavement Condition Index Map that indicates the currently evaluated pavement conditions. This Capital Improvement Plan identifies pavement and infrastructure management strategies and the City's street condition evaluated in April of this year. The City should re-evaluate its infrastructure on a three-year cycle to track pavement, culvert, and street-sign conditions to better manage our infrastructure maintenance. The next pavement evaluation year is recommended in 2021.

The maintenance items indicated in the Capital Improvement Plan are:

Crack Sealing – The repair of longitudinal and transverse cracks to impede moisture from penetrating the streets aggregate base and subgrade.

Seal Coat – The surface application of bituminous oil and aggregate to provide a new traveling surface and impede the rate of oxidation of the existing bituminous pavement.

Overlay – Crack sealing the existing bituminous pavement and placing additional bituminous surfacing over the entire roadway surface.

Mill and Overlay – The milling (removal) of the existing deteriorated bituminous surface and placement of a bituminous surfacing across the entire roadway surface.

Reconstruction – The reconstruction of an existing roadway due to bituminous surface, aggregate base, or subgrade failure resulting in severe bituminous cracking and fracture. The process constructs a new street section including subgrade corrections, aggregate base construction, and bituminous surfacing.

Drainage System – The cleaning, inspection, repair and/or replacement of drainage ways and culverts.

2.2 Recent/Current Capital Improvements

Recent Capital Improvements in which City financing included bonding are:

- Salem Church Road Reconstruction, Roanoke Road to Delaware Avenue Constructed in 2009, bond payment through 2020
- 2012 Crack Seal Project, funded through City general funds
- 2013 Seal Coat Project, funded through City general funds
- 2014 Street Improvements Project, funded under bonds through 2025
- 2016 Seal Coat Project, funded through City general funds
- 2017 Street Improvement Project, funded under bonds through 2028

2.3 2019 to 2023 Capital Improvements

The proposed CIP identifies the major improvements scheduled shown in the following exhibits:

- ***Appendix A, Exhibits C and D*** - Proposed 2019 to 2023 Capital Improvements
- ***Appendix A, Exhibit E*** - Proposed 2024 to 2028 Capital Improvements

It is anticipated that after 2021, the roadway system in the City will be in good to very good condition with the anticipated reconstruction of Charlton Road in early 2019.

2.4 Capital Improvements Funding

The Capital Improvements identified in the plan are improvements that are funded by the City general funds (collected from the City general tax levy), bonding and financing through assessment to benefiting properties.

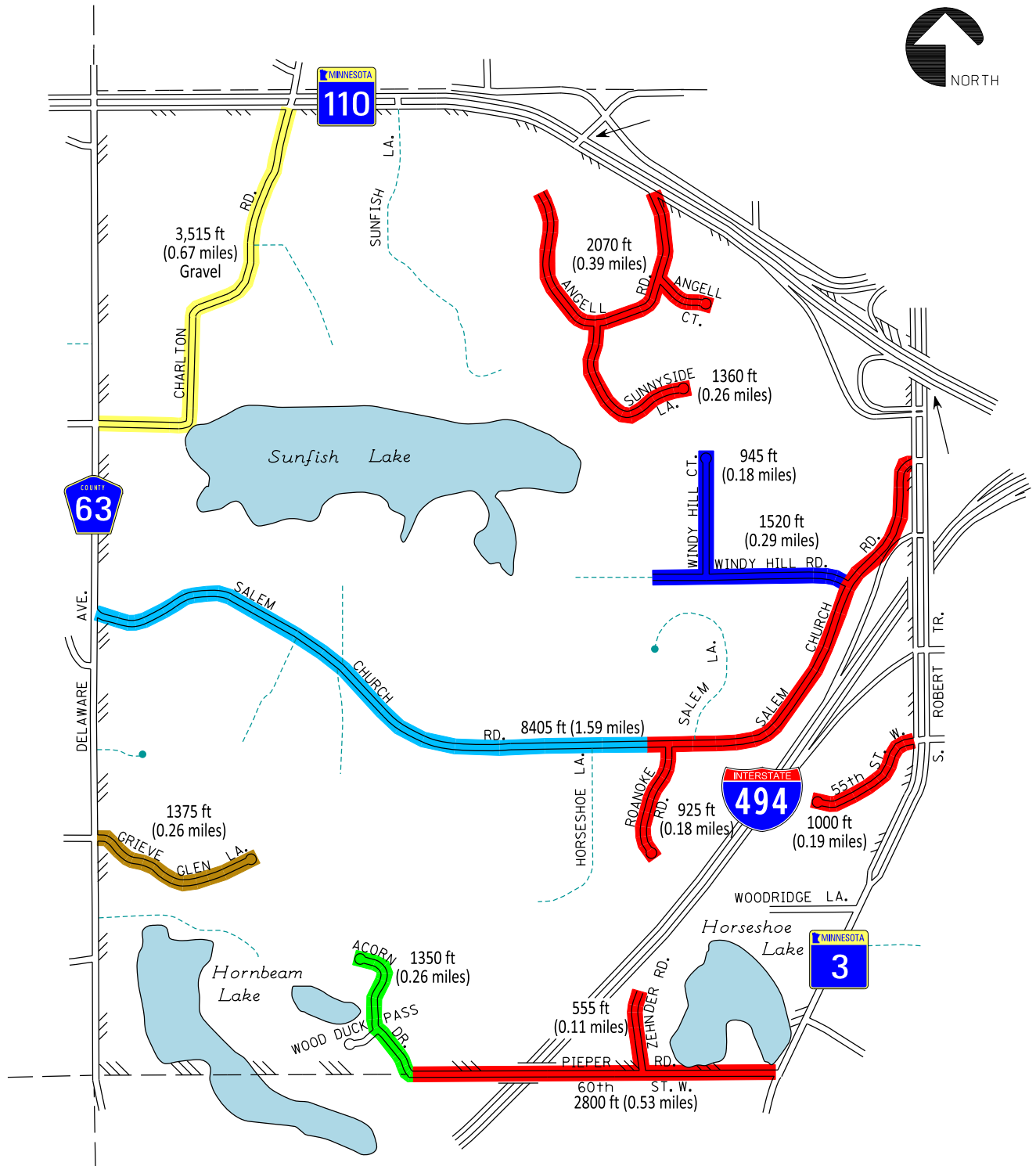
Appendix B includes the Capital Improvement Plan Project Summary of the currently identified capital improvements. It is important to note that the costs identified do not include legal, engineering, administration, and financing cost. The City's Special Assessment Policy is included in Appendix D for reference.

3. RECOMMENDATION

It is recommended the City updates its CIP every year in the spring to evaluate City infrastructure needs and assist in establishing the City budgets for road maintenance and capital improvements. It is recommended the CIP budget be separated from the routine road maintenance activities such as street sweeping, pavement patching, and sign maintenance from the capital improvement projects. We recommend that a Capital Improvement Fund be established to fund Capital Improvements accumulating funds, as needed, to complete Capital Improvement projects.

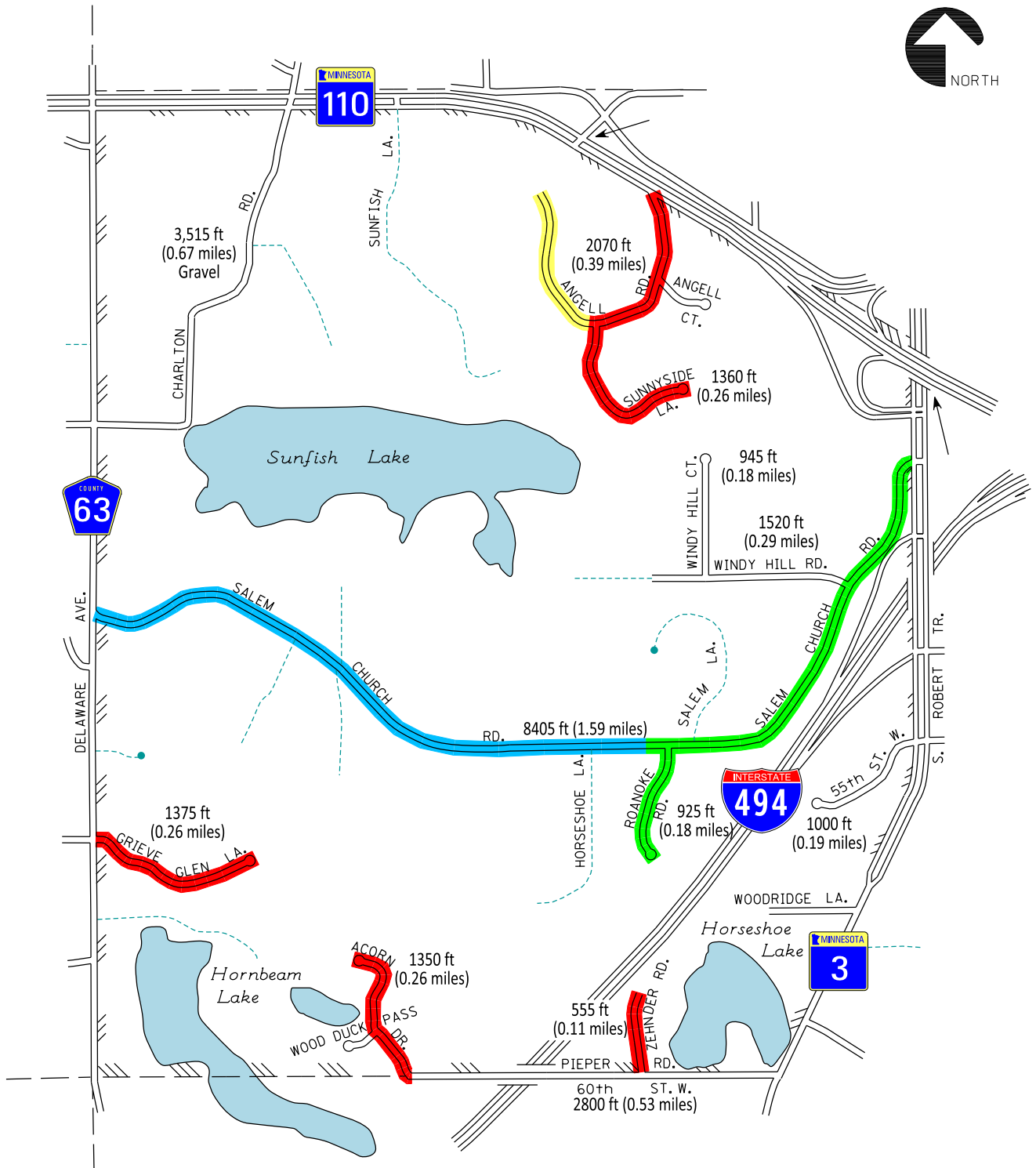
APPENDIX A

Exhibits



Year of Street Construction 1989 1994 1996 2006 2009 2014

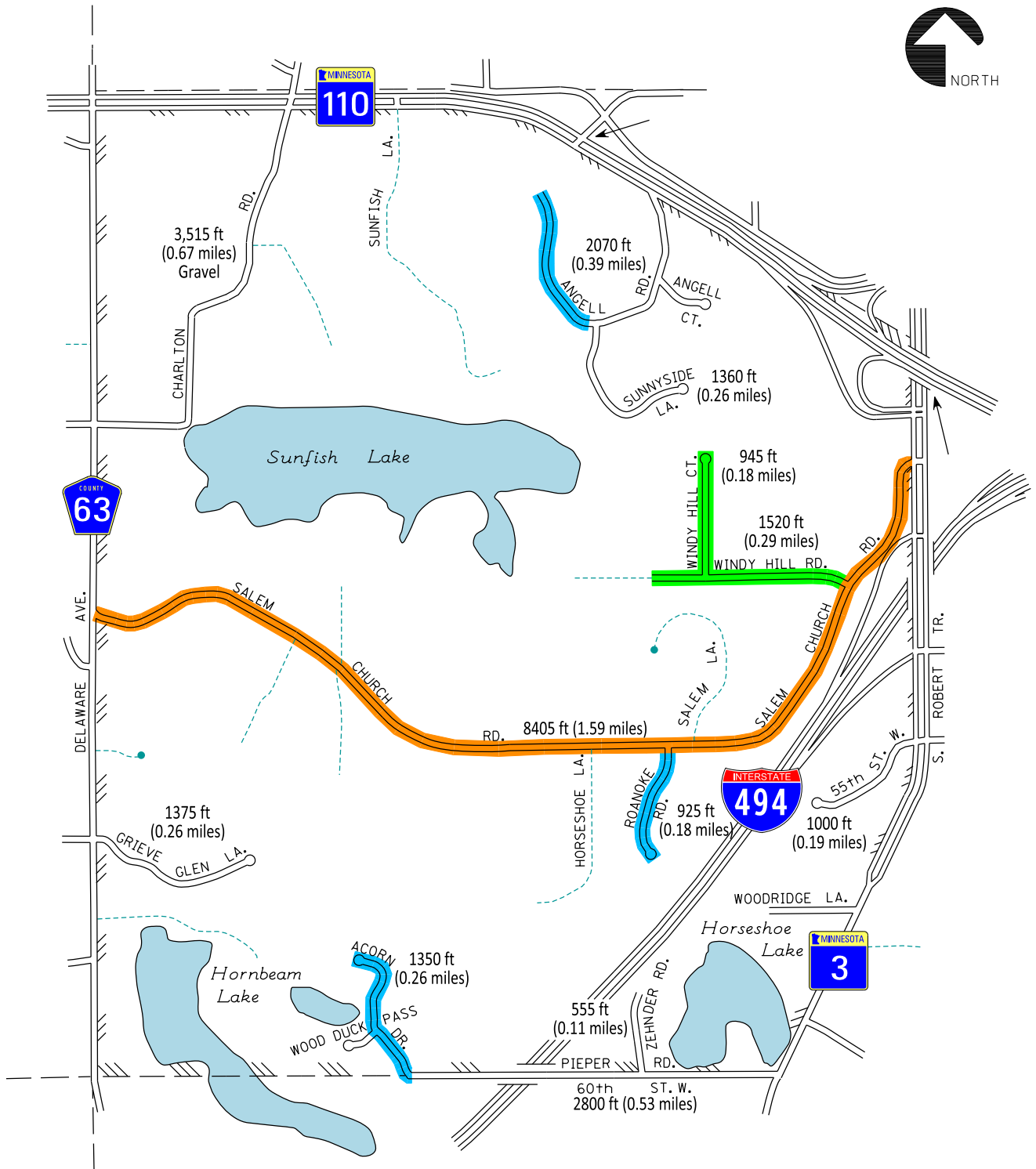
City Street Lengths: 4.24 miles of Paved Streets & 0.67 miles of Gravel Streets



Year of Street Maintenance

2013 Seal Coat 2014 Overlay 2016 Seal Coat 2017 Overlay

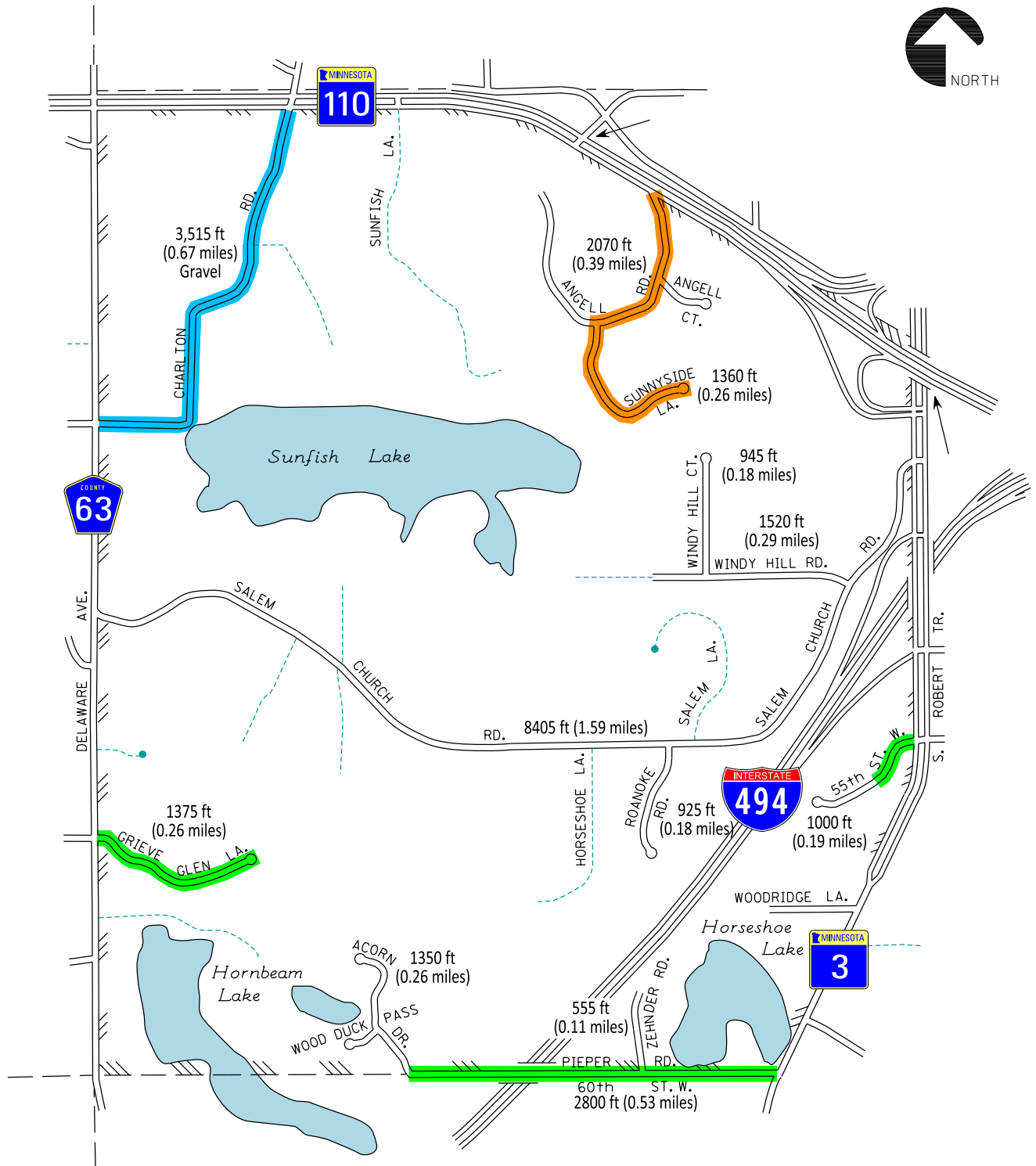
City Street Lengths: 4.24 miles of Paved Streets & 0.67 miles of Gravel Streets



2019 to 2023
Roadway Maintenance

2020 Crack Fill & Seal Coat
2021 Crack Fill & Seal Coat

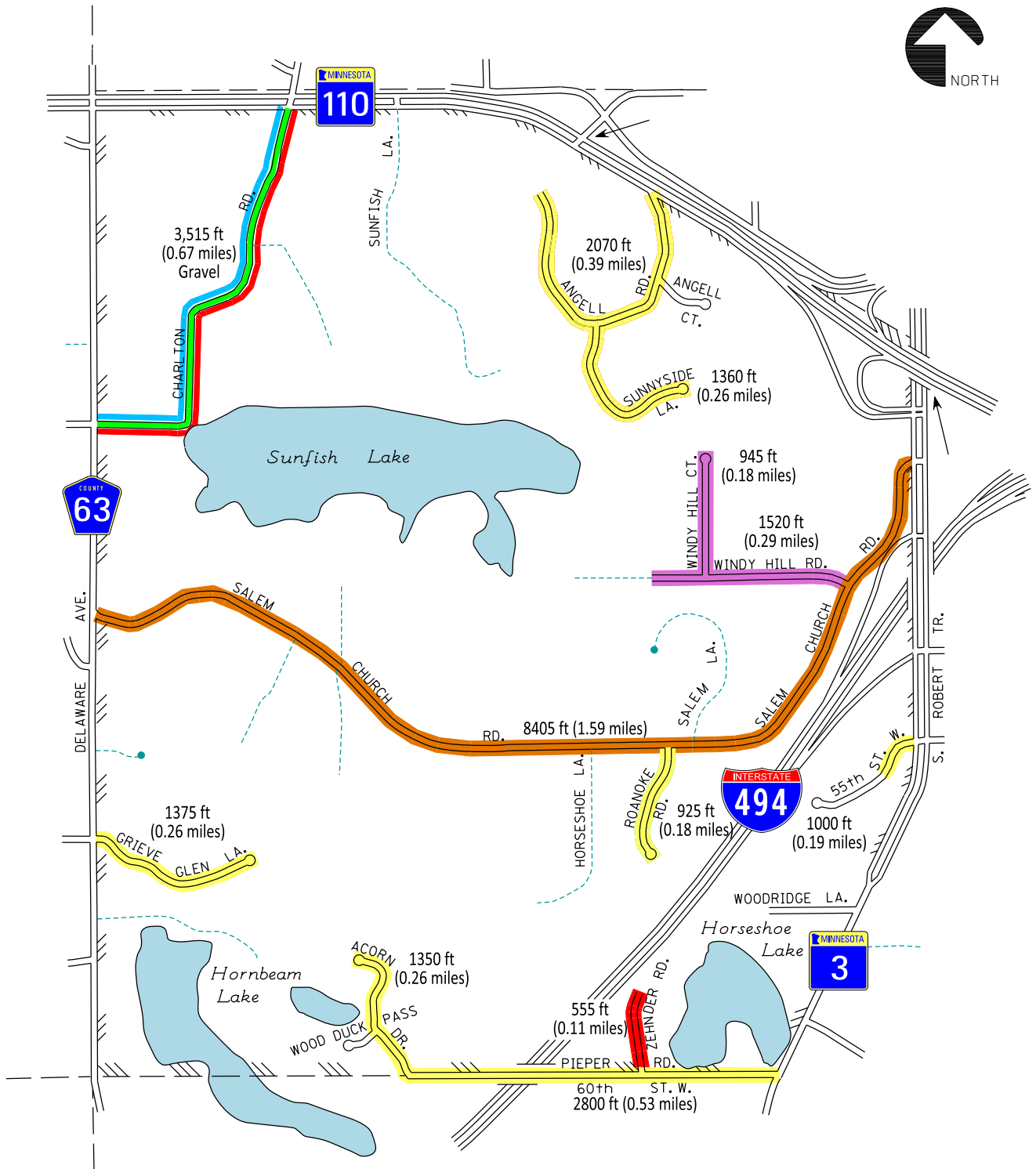
2022 Crack Fill & Seal Coat



**2019 to 2023 Improvements
(Pavement Rehabilitation)**

■ 2019 Reconstruction
■ 2021 Reconstruction

■ 2019 Overlay



2024 to 2028 Improvements

- | | |
|---|--|
| █ 2024 Crack Fill & Seal Coat | █ 2027 Crack Fill & Seal Coat |
| █ 2025 Crack Fill & Seal Coat | █ 2028 Overlay |
| █ 2026 Crack Fill & Seal Coat | █ 2030 Crack Fill & Seal Coat |

APPENDIX B

Capital Improvement Plan Summary

2019 - 2023 CAPITAL IMPROVEMENT PLAN

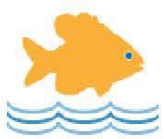
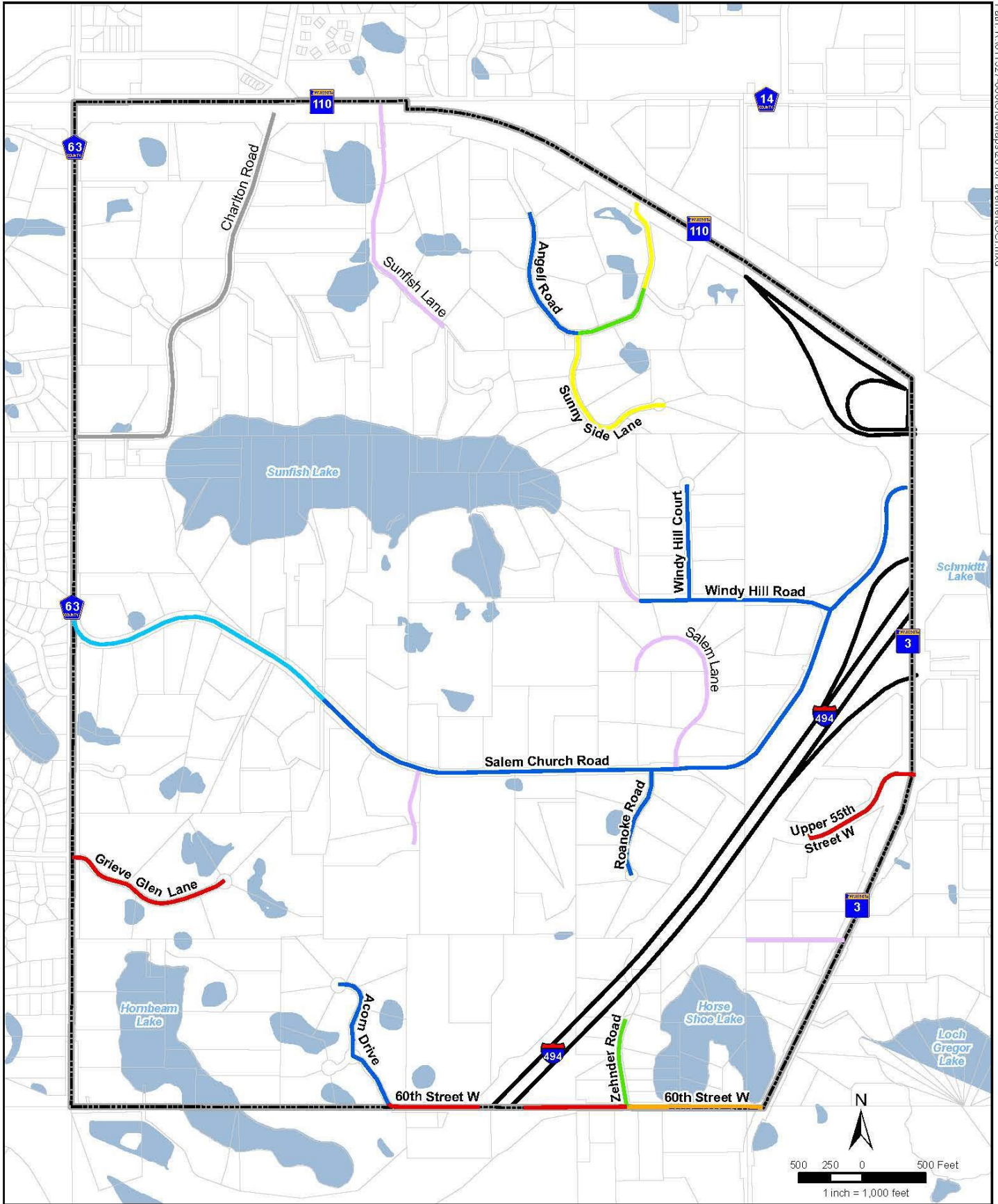
SUMMARY
APPENDIX B

	Notes	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTALS
Improvement Project Costs												
A.) Charlton Road Maintenance (100% City Tax Levy)												
1.) Street Grading		\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2.) Dust Control		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3.) Repair and Ditch Cleaning		\$1,500	\$0		\$0			\$0			\$0	
Subtotal Annual Road Maintenance		\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
B.) General Street Maintenance/ Water Quality (100% City Tax Levy)												
1.) Street Sweeping		\$1,600	\$1,700	\$1,700	\$1,700	\$1,750	\$1,750	\$1,800	\$1,800	\$1,800	\$1,800	
2.) Sign Replacement and maintenance	1	\$0	\$1,200	\$0	\$1,500	\$0	\$0	\$0	\$1,500	\$0	\$0	
3.) Striping maintenance	1	\$0	\$4,600				\$4,700			\$4,700		
4.) Bituminous Maintenance		\$3,500	\$3,500	\$4,500	\$4,500	\$4,500	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
5.) Shoulder Maintenance		\$1,100	\$1,100	\$1,100	\$1,200	\$1,200	\$1,200	\$1,300	\$1,300	\$1,300	\$1,400	
6.) Annual Lake Water Quality Monitoring	6	\$1,140	\$1,140	\$1,140	\$1,300	\$1,300	\$1,300	\$1,400	\$1,400	\$1,400	\$1,400	
Subtotal General Street Maintenance		\$7,340	\$13,240	\$8,440	\$10,200	\$8,750	\$13,950	\$9,500	\$11,000	\$14,200	\$9,600	
Capital Improvement Plan												
C.) 100% City Levy Improvements												
1.) Infrastructure Management Update				\$8,000			\$8,000		\$0	\$8,500		
2.) Crack Seal		\$0		\$0	\$0	\$0		\$0	\$0	\$0	\$0	
3.) Crack Fill & Seal Coat		\$0	\$84,050	\$31,750	\$24,650		\$40,700	\$84,050	\$88,133	\$24,650	\$0	
4.) Culvert Cleaning & End Section Repair	2	\$3,000	\$5,000			\$3,000	\$2,000	\$0		\$5,000		
5.) Sunfish Lake TMDL Improvements	4				\$0	\$0						
6.) Miscellaneous Storm Water Improvements	4											
7.) SWPPP Program and Implementation	5	\$3,500	\$3,500	\$3,500	\$8,000	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	
Sub Total CIP Projects		\$6,500	\$92,550	\$43,250	\$32,650	\$6,500	\$54,200	\$87,550	\$91,633	\$41,650	\$3,500	
D.) Assessed City Improvements (Bonding Requirements)												
1.) 2009 Salem Church Road Project (Final Payment 2/1/2020)		\$43,740	\$42,896									\$86,636
2.) 2014 Street Improvement Project		\$43,218	\$42,375	\$41,528	\$40,682	\$39,837	\$38,808	\$37,779				\$284,227
3.) 2017 Street Improvement Project	3	\$51,119	\$50,321	\$49,523	\$48,725	\$47,759	\$46,794	\$51,077	\$49,802	\$48,526	\$48,526	\$492,172
4.) 2019 Charlton Road Improvements	3	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$98,000	\$980,000
5.) 2021 Grieve Glen Road Improvements	3			\$11,700	\$11,700	\$11,700	\$11,700	\$11,700	\$11,700	\$11,700	\$11,700	\$93,600
6.) 2021 60th St. W Improvements	3			\$11,900	\$11,900	\$11,900	\$11,900	\$11,900	\$11,900	\$11,900	\$11,900	\$95,200
7.) 2021 55th Street W. Improvements	3			\$2,830	\$2,830	\$2,830	\$2,830	\$2,830	\$2,830	\$2,830	\$2,830	\$22,640
8.) 2019 Street Improvement Project, 2" Overlays	3	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$11,723	\$117,230
Sub Total Assessed City Projects		\$247,800	\$245,315	\$227,204	\$225,560	\$223,749	\$221,755	\$225,009	\$185,955	\$184,679	\$184,679	\$2,171,705
E.) Assessed City Improvements (Collected from Special Assessments)												
1.) Salem Church Road Levy		\$15,680	\$14,840									\$30,520
2.) 2014 Street Improvement Levy		\$23,874	\$23,113	\$22,353	\$21,592	\$20,832	\$20,071	\$19,311				\$151,146
3.) 2017 Street Improvement Levy		\$16,894	\$16,384	\$15,873	\$15,363	\$14,852	\$14,342	\$13,831	\$13,321	\$12,810	\$12,810	\$146,480
4.) 2019 Charlton Road Improvements Levy	3	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$377,400
5.) 2021 Grieve Glen Road Improvements Levy	3			\$9,350	\$9,350	\$9,350	\$9,350	\$9,350	\$9,350	\$9,350	\$9,350	\$74,800
6.) 2021 60th St. W Improvements Levy	3			\$9,520	\$9,520	\$9,520	\$9,520	\$9,520	\$9,520	\$9,520	\$9,520	\$76,160
7.) 2021 55th Street W Improvement Levy	3			\$2,264	\$2,264	\$2,264	\$2,264	\$2,264	\$2,264	\$2,264	\$2,264	\$18,112
8.) 2019 Street Improvement Levy				\$9,378	\$9,378	\$9,378	\$9,378	\$9,378	\$9,378	\$9,378	\$9,378	\$75,027
Subtotal Special Assessment Funding		\$94,188	\$92,077	\$106,478	\$105,207	\$103,936	\$102,665	\$101,394	\$81,573	\$81,062	\$81,062	\$949,645
General Fund Expenditures												
City Tax Levy (Collected from General Tax Levy)												
GENERAL TAX LEVY (A+B+C)		\$16,840	\$105,790	\$51,690	\$42,850	\$15,250	\$68,150	\$97,050	\$102,633	\$55,850	\$13,100	
ASSESSED PROJECTS LEVY (D-E)		\$153,612	\$153,238	\$120,726	\$120,353	\$119,813	\$119,090	\$123,615	\$104,382	\$103,617	\$103,617	
Subtotal City Tax Levy Funding Requirements		\$170,452	\$259,028	\$172,416	\$163,203	\$135,063	\$187,240	\$220,665	\$207,015	\$159,467	\$116,717	

- Notes
- 1.) Replace Regulatory Signs
 - 2.) Grieve Glen Lane, Sunny Side Lane and Windy Hill Court Culverts
 - 3.) Overlay, Mill and Overlay and / or Reconstruct; assumes project to be assessed
 - 4.) Storm Water Improvements Required by MS4 Permit
 - 5.) Water Quality Improvements per MPCA requirements
 - 6.) Watershed typically reimburses City \$400 per lake for CAMP monitoring

APPENDIX C

2018 Pavement Condition Index



2018 Pavement Condition Index

City of Sunfish Lake, Minnesota

Pavement Condition Index

0 - 39	70 - 79	Gravel Roads
40 - 49	80 - 89	Private Roads
50 - 59	90 - 100	
60 - 69		



APPENDIX D
Assessment Policy

**CITY OF SUNFISH LAKE
DAKOTA COUNTY, MINNESOTA**

RESOLUTION NO. 11- 12

**RESOLUTION APPROVING ASSESSMENT POLICY FOR
THE CITY OF SUNFISH LAKE**

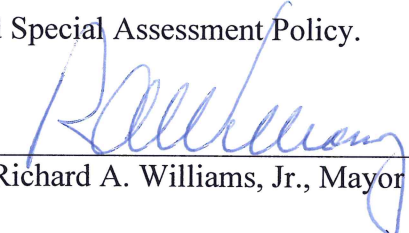
WHEREAS, Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements.

WHEREAS, the City desires to adopt a formal written policy with respect to the methodology of allocating project costs between the City and special assessments and a methodology for dividing the special assessment amount among the specially benefitted properties.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNFISH LAKE:

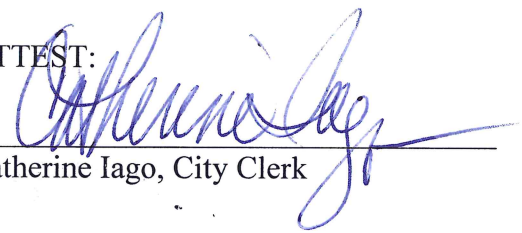
1. The Council hereby approves the attached Special Assessment Policy.

Passed this 5th day of July, 2011.



Richard A. Williams, Jr., Mayor

ATTEST:



Catherine Iago, City Clerk

CITY OF SUNFISH LAKE
DAKOTA COUNTY, MINNESOTA

SPECIAL ASSESSMENT POLICY

Section 1. Background. Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements. The two most common types of public improvements within the City are street improvements and storm water improvements.

The City acknowledges that the validity of any special assessment to a particular lot depends on whether the amount of the assessment is equal to or less than the benefit conferred upon the lot by reason of the public improvement. Under state law, the benefit is determined by the increase in fair market value of the lot caused by reason of the improvement. The benefit rule controls all special assessments and supersedes any City formulas and calculations relating to how project costs are allocated. The City also acknowledges that assessments have to be uniformly imposed on similarly situated properties within a class of properties.

The first step in determining an assessment is to determine which portion of project costs will be paid by the City and which portion will be specially assessed. The second step is to spread or divide the total assessment amount among the various lots that have received a special benefit. This policy addresses both steps. The policy is a guideline and the Council has the authority to alter the policy from time to time based on facts and circumstances that the Council believes justify such changes.

Section 2. Street Improvements. The typical types of street improvements in the City are:

- a. Sealcoating;
- b. Mill and overlay; and
- c. Street reconstruction, including new pavement where none existed before.

If only sealcoating is being performed, the policy is not to assess the cost of the sealcoating. Rather, the City will pay the cost of sealcoating out of the general fund as a maintenance item.

Projects involving mill and overlay and street reconstruction will be specially assessed. The percentage of costs that will be specially assessed depends on the type of street.

Within the City, there are three (3) types of streets. They are:

- a. Collector Street. – A collector street is a City street that provides access to local streets, private streets, direct driveway access and is utilized by the surrounding area for trips originating outside of the City and terminating outside of the City limits. The number of through trips exceed the number of local trips. The City streets that meet this criteria are:

- Salem Church Road; and
- Charlton Road.

The assessment policy for a Collector Street is to assess 40% of street improvement cost to the specially benefitted properties.

- b. Neighborhood Collector Street - a neighborhood collector street is a City street that provides direct access to local streets, private streets, direct driveway access and has fewer trips that originate outside of the area and terminate outside the area than local trips. A local trip is considered a trip that remains within the City limits. The City streets that meet this criteria are:

- 60th Street North;
- Windy Hill Road; and
- Angell Road (east of Sunnyside Lane).

The assessment policy for a Neighborhood Collector Street is to assess 60% of street improvement cost to the specially benefitted properties.

- c. Local Street - a local street is a City Street that only provides direct access to private driveways which has trips that originate on the street and or terminate on the street. A local street includes a public street that provides access to shared driveways. The City Streets that meet this criteria are:

- Acorn Drive;
- Zehnder Road;
- 55th Street West;
- Roanoke Road;
- Grieve Glen Lane;
- Windy Hill Court;
- Angell Road (west of Sunnyside Lane); and
- Sunnyside Lane.

The assessment policy for a Local Street is to assess 80% of street improvement cost to the specially benefitted properties.

The special assessments for mill and overlay and for street reconstruction will be spread or divided on a per buildable lot basis with each such lot receiving an equal amount of assessment.

A special assessment for mill and overlay and for street reconstruction will be amortized over a period of time not less than five years and not more than ten years. The interest rate payable by the landowners on the remaining balance of the special assessments will not be more than 2% above the bond interest rate charged the City. If the City has not issued bonds, the interest rate charged the landowners will not be more than 2% above the estimated interest rate that the City would have incurred if bonds were issued to finance the project. Interest will begin to accrue from the date the assessments are levied.

To the extent storm water improvements are constructed with the street improvements and are incident and ancillary to the street improvement and do not otherwise confer significant benefit to properties outside of the lots that would typically be assessed for the street improvements and do not constitute more than 50% of the project costs, the storm water improvements will be considered as part of the street assessments and will be levied on the same basis as the street assessments.

In general, in determining the specially benefitted properties for a street assessment, the following lots will be included:

- a. The lots that adjoin a public street or have indirect driveway access to the public street.
- b. The lots that adjoin or have indirect driveway access to a private street where the private street has access to the public street that is being improved.

Section 3. Storm Water Improvements. Storm water improvements include such items as culvert repair or reconstruction, holding ponds, erosion control, drainage ditch reconstruction, surface drainage improvements, trunk lines, and lateral lines.

Storm water improvements can generally be placed into two (2) categories:

- a. Lateral Storm Water Management Improvements. Lateral storm water management improvements benefit the immediate adjacent area. Lateral storm water management improvements are storm water infrastructure facilities that receive runoff from adjacent public right of way or from some or all adjacent parcels but do not include significant runoff from locations that are off site of the improvements.
- b. Trunk Storm Water Management Improvements. Trunk storm water management improvements benefit an area that extends beyond the immediate property (i.e. beyond the lateral benefit). Trunk storm water management improvements manage runoff from areas of the City that are not immediately adjacent to the improvement. The trunk portion of an improvement is the size or cost of the improvement that exceeds the lateral storm water needs. Trunk storm water management improvements usually have a design and capacity to receive storm water runoff from lots that adjoin the improvement as well as non-adjoining lots.

Lateral storm water management improvements will be assessed to the adjacent specially benefitted properties on the same basis as a street assessment, taking into account the different classes of streets and allocating the assessable portion of the project on a per buildable lot basis.

With respect to trunk storm water management improvements, 50% of the project costs will be assessed and the assessable amount will be spread or divided among the specially benefitted properties on a per buildable lot basis with each such lot receiving an equal amount of assessment.

Special assessments for lateral storm water management improvements and trunk storm water management improvements will be amortized over a period of time not less than five years and not more than ten years. The interest rate payable by the landowners on the remaining balance of the special assessments will not be more than 2% above the bond interest rate charged the City. If the City has not issued bonds, the interest rate charged the landowners will not be more than 2% above the estimated interest rate that the City would have incurred if bonds were issued to finance the project. Interest will begin to accrue from the date the assessments are levied.

Memo

To: Mayor and City Council of Sunfish Lake, MN
From: Steve Apfelbacher and Jessica Cook
Cc: Tim Kuntz and Ann Lanoue
Date: July 5, 2018
Subject: Financial Analysis of Road Reconstruction Projects

We understand that the City is considering whether to proceed in the near future with road reconstruction projects in addition to Charlton Road. The City has requested Ehlers to complete an analysis of the financial impact these additional projects would have on the City's debt levy and property taxes.

Project Background

In June, the City Council decided to proceed with the Charlton Road project and determined that the City would commence the project in the spring of 2019 and finance it with ten-year bonds. Since that time, WSB Engineering has refined the City's street capital improvement plan and identified a number of additional streets that require reconstruction over the next three years. Specifically, these roads are:

- Angell Road (east) in 2019
- Sunny Side Lane in 2019
- Zehnder Road in 2019
- Grieve Glen Road in 2021
- 60th Street West in 2021
- Upper 55th Street West in 2021

For purposes of this analysis, we assumed all of these projects would be financed with one bond issue in the spring of 2019. Preliminary analysis indicates that there is no cost saving in financing the projects together in 2019 as compared to waiting and financing the 2021 projects with a small issue in 2021. The decision about when to finance the projects can be made after the City has determined which streets it will complete and when.

Existing Debt Levies

The Charlton Road and potential future debt levies will be added to debt levies already in place from three prior bond issuances: the Series 2009A, Series 2014A, and Series 2017A. In modeling the proposed bond issue for Charlton Road and the additional

projects, we mapped out the prior debt levies to ensure that the proposed new debt will be evaluated in the larger context of all outstanding debt, as shown in Appendices A and C.

Estimated Tax Impacts for Charlton Road

The proposed 2019A bond issue to finance the Charlton Road project is expected to be approximately \$950,000. We have updated the levy and tax impacts for this project as shown in Appendices A and B. The estimated tax impact decreased slightly from the June projection because we are delaying the issuance of bonds until the spring of 2019 and will have less capitalized interest. We estimated the average interest rate on the bonds at current rates plus .5%.

Estimated Tax Impacts of Additional Street Projects

Appendices B and C show the estimated levy and tax impacts of financing all of the proposed street 2019-2021 street reconstruction projects (including Charlton Road) in 2019. It is assumed that the City will assess a portion of each project in accordance with its assessment policy. It is also assumed, consistent with past practice, that the City will pay for Sealcoating and Crack Sealing with cash on hand and those costs are not included in the estimated tax impacts below.

The “Difference” column in the chart below shows the incremental tax increase in Pay 2020 that would result from adding the additional street projects to the 2019 financing for Charlton Road.

Pay 2020 TAX IMPACT ANALYSIS*				
Type of Property	Estimated Market Value	Charlton Road	All Projects	
		Annual Tax Increase	Annual Tax Increase	Difference
Residential Homestead	250,000	\$ 45.37	\$ 62.93	\$ 17.56
	500,000	\$ 96.43	\$ 133.75	\$ 37.32
	750,000	\$ 156.70	\$ 217.35	\$ 60.64
	1,000,000	\$ 216.97	\$ 300.94	\$ 83.97

The purpose of providing this levy and tax impact analysis is to give the Council financial information that can inform the decision of whether to proceed with the additional street reconstruction projects at this time.

Sunfish Lake, Minnesota
Outstanding & Projected Debt Levies
Option 1: Ten-year Bonds (Level) - Issued for Charlton Road and Drainage Project

Collect Year	Bond Year	2009 Bonds				2014 Bonds					2017A Bonds			Total Current Debt Levy	Charlton Road			Total Projected Debt Levy	
		Less				Less		Less			Less		2019A Bonds - Estimated						
		Projected	Less Cash	Debt		Projected	Less Cash	Debt		Projected	Debt		Less		Projected	Debt			
		105% P&I	Assessments	On-Hand	Levy	105% P&I	Assessments	Assessments	On-Hand	Levy	105% P&I	Assessments	Levy		105% P&I	Assessments	Levy		
2015	2016	45,977	4,423	13,754	27,800	38,363	13,920		12,236	12,207	-	-	-	40,007	-	-	-	40,007	
2016	2017	45,281	4,217	13,064	28,000	38,755	13,488	1,039	10,868	13,361	-	-	-	41,361	-	-	-	41,361	
2017	2018	44,536	4,012	12,424	28,100	38,362	13,056	913	10,665	13,727	-	-	-	41,827	-	-	-	41,827	
2018	2019	43,740	3,806	11,834	28,100	43,218	12,624	884	10,366	19,344	51,917	17,405	34,513	81,957				81,957	
2019	2020	42,895	3,601	11,194	28,100	42,373	12,192	855	10,067	19,259	51,119	16,894	34,225	81,585	-	-	-	81,585	
2020	2021					41,527	11,760	826	9,767	19,175	50,321	16,384	33,938	53,112	127,152	57,176	69,976	123,089	
2021	2022					40,682	11,328	796	9,468	19,090	49,523	15,873	33,650	52,740	124,554	55,233	69,321	122,061	
2022	2023					39,837	10,896	767	9,169	19,005	48,725	15,363	33,363	52,368	121,813	53,289	68,524	120,892	
2023	2024					38,808	10,464	738	8,869	18,737	47,759	14,852	32,907	51,644	124,228	51,345	72,883	124,527	
2024	2025					37,779	10,032	709	8,570	18,468	46,793	14,342	32,451	50,920	121,086	49,402	71,684	122,604	
2025	2026							679			51,077	13,831	37,246	37,246	117,844	47,458	70,386	107,632	
2026	2027										49,802	13,321	36,481	36,481	114,503	45,514	68,988	105,469	
2027	2028										48,526	12,810	35,715	35,715	111,061	43,571	67,490	103,206	
2028	2029										-	-	-	-	112,770	41,627	71,143	71,143	
2029	2030										-	-	-	-	108,938	39,684	69,254	69,254	
2030	2031										-	-	-	-	-	-	-	-	
2031	2032										-	-	-	-	-	-	-	-	
2032	2033										-	-	-	-	-	-	-	-	
2033	2034										-	-	-	-	-	-	-	-	
2034	2035										-	-	-	-	-	-	-	-	
2035	2036										-	-	-	-	-	-	-	-	
2036	2037										-	-	-	-	-	-	-	-	
2037	2038										-	-	-	-	-	-	-	-	
2038	2039										-	-	-	-	-	-	-	-	
2039	2040										-	-	-	-	-	-	-	-	
Total	Total	222,429	20,060	62,270	140,100	399,704	119,760	8,205	100,045	172,374	495,563	151,075	344,488	656,963	1,183,949	484,299	699,650	1,356,613	
		Bonds callable 2/1/2015				Bonds callable 2/1/2022					Bonds callable 2/1/2022								

Appendix B

City of Sunfish Lake, Minnesota

Estimated Tax Impact

July 5, 2018

Charlton Road Project

BOND ISSUANCE INFORMATION	
Bond Issue Amount	\$950,000
Number of Years	10
Average Interest Rate	3.43%
Estimated Bond Rating	
PROPERTY TAX INFORMATION	
Actual Net Tax Capacity - Payable 2018	\$2,151,967
Net Increase in Debt Levy @ 105% - Max	41,504
Estimated Tax Capacity Rate:	
Payable - 2018 Without Proposed Bonds	26.168%
Payable - 2020 With Proposed Bonds	28.097%
Estimated Tax Rate Increase	1.929%

PAY 2020 TAX IMPACT ANALYSIS*								Tax Increase is for Debt Service Only*		
Type of Property	Estimated Market Value	Market Value Exclusion	Taxable Market Value	Net Tax Capacity	Current City Tax	Proposed Tax Increase*	Proposed City Tax	Annual	Monthly	Daily
	\$ 250,000	\$ 14,740	\$ 235,260	\$ 2,353	\$ 615.63	\$ 45.37	\$ 661.00	\$45.37	\$3.78	\$0.12
Residential	500,000	-	500,000	5,000	1,308.40	96.43	1,404.83	96.43	8.04	0.26
Homestead	750,000	-	750,000	8,125	2,126.15	156.70	2,282.85	156.70	13.06	0.43
	1,000,000	-	1,000,000	11,250	2,943.90	216.97	3,160.87	216.97	18.08	0.59

* The figures in the table are based on net increase in the Pay 2020 debt levy for road improvement bonds, and do not include tax levies for other purposes. Tax increases shown above are gross increases, not including the impact of the state Property Tax Refund ("Circuit Breaker") program. Many owners of homestead property will qualify for a refund, based on their income and total property taxes. This will decrease the net tax effect of the bond issue for many property owners.



Sunfish Lake, Minnesota

Outstanding & Projected Debt Levies

Option 2: Ten-year Bonds (Level) - Issued in 2019 for all 2019-2021 Street Reconstruction Projects

Collect Year	Bond Year	2009 Bonds				2014 Bonds					2017A Bonds			Total Current Debt Levy	Charlton Road 2019A Bonds - Estimated			Total Projected Debt Levy
		Less				Less		Less		Less		Less			Less			
		Projected	Less Cash	Debt		Projected	Less Cash	Debt		Projected	Debt		Projected		Debt			
		105% P&I	Assessments	On-Hand	Levy	105% P&I	Assessments	Assessments	On-Hand	Levy	105% P&I	Assessments	Levy		105% P&I	Assessments	Levy	
2015	2016	45,977	4,423	13,754	27,800	38,363	13,920		12,236	12,207	-	-	-	40,007	-	-	-	40,007
2016	2017	45,281	4,217	13,064	28,000	38,755	13,488	1,039	10,868	13,361	-	-	-	41,361	-	-	-	41,361
2017	2018	44,536	4,012	12,424	28,100	38,362	13,056	913	10,665	13,727	-	-	-	41,827	-	-	-	41,827
2018	2019	43,740	3,806	11,834	28,100	43,218	12,624	884	10,366	19,344	51,917	17,405	34,513	81,957				81,957
2019	2020	42,895	3,601	11,194	28,100	42,373	12,192	855	10,067	19,259	51,119	16,894	34,225	81,585	-	-	-	81,585
2020	2021					41,527	11,760	826	9,767	19,175	50,321	16,384	33,938	53,112	157,348	71,310	86,038	139,150
2021	2022					40,682	11,328	796	9,468	19,090	49,523	15,873	33,650	52,740	154,316	68,889	85,427	138,167
2022	2023					39,837	10,896	767	9,169	19,005	48,725	15,363	33,363	52,368	182,619	93,305	89,314	141,682
2023	2024					38,808	10,464	738	8,869	18,737	47,759	14,852	32,907	51,644	183,616	89,962	93,654	145,298
2024	2025					37,779	10,032	709	8,570	18,468	46,793	14,342	32,451	50,920	178,986	86,619	92,366	143,286
2025	2026							679			51,077	13,831	37,246	37,246	168,958	83,277	85,681	122,927
2026	2027										49,802	13,321	36,481	36,481	164,210	79,934	84,275	120,756
2027	2028										48,526	12,810	35,715	35,715	159,319	76,591	82,728	118,443
2028	2029											-	-	-	154,287	73,249	81,038	81,038
2029	2030											-	-	-	149,113	69,906	79,207	79,207
2030	2031											-	-	-	28,298	19,463	8,834	8,834
2031	2032											-	-	-	27,287	18,542	8,745	8,745
2032	2033											-	-	-		-	-	-
2033	2034											-	-	-		-	-	-
2034	2035											-	-	-		-	-	-
2035	2036											-	-	-		-	-	-
2036	2037											-	-	-		-	-	-
2037	2038											-	-	-		-	-	-
2038	2039											-	-	-		-	-	-
2039	2040											-	-	-		-	-	-
Total	Total	222,429	20,060	62,270	140,100	399,704	119,760	8,205	100,045	172,374	495,563	151,075	344,488	656,963	1,708,355	831,047	877,308	1,534,271
		Bonds callable 2/1/2015				Bonds callable 2/1/2022					Bonds callable 2/1/2022							

Appendix D

City of Sunfish Lake, Minnesota

Option 2: Estimated Tax Impact

July 5, 2018

All 2109-2021 Road Reconstruction Projects

BOND ISSUANCE INFORMATION	
Bond Issue Amount	\$1,350,000
Number of Years	10
Average Interest Rate	3.46%
Estimated Bond Rating	
PROPERTY TAX INFORMATION	
Actual Net Tax Capacity - Payable 2018	\$2,151,967
Net Increase in Debt Levy @ 105% - Max	57,566
Estimated Tax Capacity Rate:	
Payable - 2018 Without Proposed Bonds	26.168%
Payable - 2020 With Proposed Bonds	28.843%
Estimated Tax Rate Increase	2.675%

Pay 2020 TAX IMPACT ANALYSIS*										
Type of Property	Estimated Market Value	Market Value	Taxable	Net Tax	Current	Proposed	Proposed	Tax Increase is for Debt Service Only*		
		Exclusion	Market Value	Capacity	City Tax	Tax Increase*	City Tax	Annual	Monthly	Daily
	\$ 250,000	\$ 14,740	\$ 235,260	\$ 2,353	\$ 615.63	\$ 62.93	\$ 678.56	\$62.93	\$5.24	\$0.17
Residential	500,000	-	500,000	5,000	1,308.40	133.75	1,442.15	133.75	11.15	0.37
Homestead	750,000	-	750,000	8,125	2,126.15	217.35	2,343.50	217.35	18.11	0.60
	1,000,000	-	1,000,000	11,250	2,943.90	300.94	3,244.84	300.94	25.08	0.82

* The figures in the table are based on net increase in the Pay 2020 debt levy for road improvement bonds, and do not include tax levies for other purposes. Tax increases shown above are gross increases, not including the impact of the state Property Tax Refund ("Circuit Breaker") program. Many owners of homestead property will qualify for a refund, based on their income and total property taxes. This will decrease the net tax effect of the bond issue for many property owners.

PLAN B

Sunfish Lake Road Reconstruction / Maintenance Schedule

Roadway	Year Constructed	Segment Length (ft)	Year of Past Overlay	Year of Future 2" Overlay	Year of Future Reconstruction	5 - YR Maintenance (Crack seal and seal coat)	2018 PCI (current)
Charlton Road	1994	3,515		2028	2019	2024, 2030	N/A
Salem Church Road (west)	2009	5,405				2016, 2020, 2025	87
Salem Church Road (east)	1989	3,000	2017			2020, 2025	100
Grieve Glen Road	1996	1,375			2021	2013, 2026	36
Acorn Drive	2006	1,350				2013, 2021, 2026	95
Roanoke Road	1989	925	2017			2021, 2026	92
Zehnder Road	1989	555		2019		2013, 2024	69
60th Street W *	1989	2,800			2021	2026	31
Angell Road (west)	1989	900	2014			2021, 2026	95
Angell Road (east)	1989	1,170		2019		2013, 2026	60
Sunny Side Lane	1989	1,360		2019		2013, 2026	58
Windy Hill Court	2014	945				2022, 2027	100
Windy Hill Road	2014	1,520				2022, 2027	100
Upper 55th St W **	1989	333			2021	2026	36

Estimated Construction Costs (2018 Dollars)

	Cost/ Lin Ft.
Crack Seal and Seal Coat	\$ 10.00
2" Overlay	\$ 38.00
Full Depth Reclamation	\$ 85.00

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Length of Crack Seal and Seal Coat (ft)		8,405	3,175	2,465		4,070	8,405	8,591.00	2,465	
Length of 2" Overlay (ft)	3,085									3,515
Length of Full Depth Reclamation (ft)			3,108							

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Cost of Crack Seal and Seal Coat	\$ -	\$ 84,050	\$ 31,750	\$ 24,650	\$ -	\$ 40,700	\$ 84,050	\$ 85,910	\$ 24,650	\$ -
Cost of 2" Overlay ***	\$ 117,230	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 133,570
Cost of Full Depth Reconstruction ***	\$ -	\$ -	\$ 264,180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Assessable Cost ***	\$ 117,230	\$ -	\$ 264,180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 133,570
General Maintenance Fund	\$ -	\$ 84,050	\$ 31,750	\$ 24,650	\$ -	\$ 40,700	\$ 84,050	\$ 85,910	\$ 24,650	\$ -

* Figures assume 50% cost participation from IGH
** Assumes only portion east of church driveway
*** Refer to Adopted City Assessment Policy