



Item 7b.

Sunfish Lake Engineer's Report for July 10, 2018

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

Date: **July 5, 2018**

1. Engineering Activities Undertaken in the Month of June.

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

- A. **Fire Number Review** –The City Council requested that the City Engineer work with the Police Chief to pursue potential grant opportunities. Additionally, the City Engineer was directed to determine the number of single sided and double sided signs that would be recommended. SEE ATTACHMENTS.
- B. **2019-2023 CIP Update** – Staff would like to receive any input and answer any questions on the draft 2019-2023 CIP at the July Council 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.
- C. **Traffic Study– Salem Church Road** – Per the direction of the City Council at their June meeting, WSB placed traffic counters on Salem Church Road to determine base-line traffic counts. Unfortunately, the counters were vandalized and the study was put on hold until a letter could be sent to residents explaining the benefits of the study and requesting their assistance in ensuring the counters were not vandalized again. Due to the holiday week, the counters will be placed on Tuesday July 10th. Chief Shaver graciously offered a vandal-proof traffic counting device from the West St. Paul Police to assist in this effort.
- D. **Grieve Glen Road Condition Analysis and Proposed Corrections** –Staff would like to discuss with the city council options and timing of improving Grieve Glen Road. SEE ATTACHMENTS.

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

A major building and site plan review was completed on June 14th for a proposed new home at 245 Salem Church Road and denied from an Engineering standpoint until some concerns are addressed. We are anticipating comments to be addressed in time for approval prior to the July Planning Commission meeting.

A minor building and site plan review was completed and approved from an Engineering standpoint on June 14th for a proposed home addition to the previously approved plan for 2570 Delaware Avenue.

Staff approved a permit for Xcel Energy to replace 7 deteriorating power poles and equipment around the city. All work will be performed in easement and right-of-way.

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

No public works activities were undertaken in the month of June.

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

At this time, there are no planned public works activities for the month of July.

The above constitutes the Engineering Report for the City of Sunfish Lake for July 10, 2018.

Respectfully submitted,

WSB & Associates, Inc.

A handwritten signature in black ink, appearing to read "Jeffry S. Sandberg". The signature is fluid and cursive, with the first name "Jeffry" being more prominent.

Jeffry S. Sandberg, PE
City Engineer



Building a legacy – your legacy.

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

July 5, 2018

Honorable Mayor and City Council
City of Sunfish Lake
Via Email

***RE: REVIEW AND RECOMMENDATIONS TO PROVIDE VISIBLE FIRE NUMBER MARKERS
TO PROPERTIES THROUGHOUT THE CITY***

Honorable Mayor and Members of the City Council;

In late 2017, the city's Police and Fire staff (first responders) expressed concern that many of the city's properties do not have visible Fire Marker signs to allow them to quickly respond to emergencies. At their meeting on November 7, 2017 the City Council requested that staff perform a field survey/ review of the fire number signs for properties throughout the city and provide a recommendation to the council.

In November 2017, WSB staff performed a drive-by survey of all 227 of the Sunfish Lake properties and classified the signage in one of five different categories; Good, Missing, Hidden/ Blocked, Tilted, and Two-Sided Sign Needed.

The following results were documented from our field survey:

Good – 119 properties (52%)
Missing – 29 properties (13%)
Hidden/ Blocked – 15 properties (7%)
Tilted – 11 properties (5%)
Two-Sided Sign Needed- 53 properties (23%)

In all, 108 of the 227 properties in the city, or 48% of the Fire Markers in the city, are not 100% visible to first responders.

WSB has consulted with several sign vendors to identify sign options and designs. Of the 108 properties requiring action, 82 need a new sign, and 53 of those reside on a through street. Per the City Council's request, properties located on a through street were recommended to have a two-sided sign installed perpendicular to the road to increase visibility to first responders coming from either direction. This request was considered and reflected in the figures below.

In an effort to ensure consistency and complete coverage for 100% visible Fire Markers throughout the city, staff requested proposals from 3 vendors. One vendor did not respond because they only supply the markers, they do not install or replace. Of all options Advantage Signs provided the best quotes, therefore options listed below are based on that vendor's pricing. Staff offers the following options for the City Council's consideration:

Option 1: Replace only those Fire Markers in the City that are Missing with Standard 1-sided Marker, and Correct Hidden/ Blocked, or Tilted Markers.

Markers that are missing (39) would be replaced with the **standard one-sided marker**, regardless of through street designation. It is assumed the existing markers for the Hidden, Blocked or Tilted markers are in serviceable condition, so those would be removed from the existing post and attached to a new post in a visible location (33 total). Generally, the markers that are hidden/ blocked are conflicting with trees or landscaping or some other permanent barrier. Trimming may be one option but would require permission from each property owner and it would not likely be a long-term solution. The tilted signs likely either have damaged posts or have been situated that way for a long-enough period of time that trying to push them upright may break or damage the post. We recommend re-using the existing markers that are hidden/ blocked or tilted and installing them on a new post.

Advantage Signs Quote: \$4,014.65 (Add \$385.92 for Galvanized posts)

This option is the most-cost effective and would result in all Fire Markers being visible and consistent throughout the city as quickly as possible.

Option 2: Replace all Missing Fire Markers in the City with New 1-sided Markers and Replace all Markers on through streets with 2-sided Markers. Correct Hidden/ Blocked, or Tilted Markers.

Markers that are missing, but not located on a through street (29) would be replaced with the **standard one-sided marker**. All markers located on through streets would be replaced with the **2-sided marker** and placed perpendicular to the street for better visibility from either direction. Again, it is assumed the existing markers for the Hidden, Blocked or Tilted markers not located on through streets are in serviceable condition, so those would be removed from the existing post and attached to a new post in a visible location (26 total).

Advantage Signs Quote: \$7,270.65 (Add \$578.88 for Galvanized posts)

This option would result in the city having the **new style 2-sided marker** placed on through streets and all remaining Fire Markers in the city to be as visible as possible.

Funding Options

As requested, I have been working with Police Chief Shaver on grant opportunities. Chief Shaver has submitted an application to Dakota County to help off-set or pay for the entire cost of this initiative. We received communication from Dakota County on July 3 outlining that the review is in process. (See Attachments).

If the grant is unsuccessful or does not cover the full costs, the initiative would be funded through the city's General Street Maintenance Fund.

Staff requests direction from the City Council on an option above. If you have any questions or require additional information, please contact me at 651-286-8474.

Sincerely,

WSB & Associates, Inc.



Jeffry S. Sandberg, PE
City Engineer

From: Bud Shaver [mailto:BSshaver@wspmn.gov]
Sent: Monday, June 25, 2018 2:20 PM
To: Jilff, James
Cc: Jeff Sandberg
Subject: SFL Fire Number Mitigation Project

June 25, 2018

Jim,

Attached is a brief description of the fire marker project for Sunfish Lake. Being a rural community with many homes hidden and far off the roadway, fire numbers are essential for first responders in identifying a location. Moreover, it would be the method used to identify damaged properties after a storm or emergency response planning during a disaster such as a forest fire. As you can read in the report, almost 30% of the fire numbers are missing or unreadable. Part of this project would be to place into our CAD system special hazards and/or response techniques for a particular property such as restricted access (i.e. no large trucks; one-way in/one-way out).

This proposal started at the beginning of the year and we would like to keep it moving forward. As you can read in the attached All Hazard Mitigation Plan I prepared for the City, quick emergency response to the right location is central to reducing damage. I contend a comprehensive, usable fire numbering system is part of our All Hazard plan. You were going to look into acquiring funds to either complete the project or help off-set some of these costs. I have a Council meeting coming up on July 10th and would like to up-date the Council as to where we are at.

Thanks,

Bud Shaver || Chief of Police
West St. Paul Police Department
We Serve with Honor and Integrity
1616 Humboldt Avenue
West St. Paul, Minnesota 55118
651-552-4201 || BSshaver@wspmn.gov

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Jeff Sandberg

From: Iliff, James <James.iliff@CO.DAKOTA.MN.US>
Sent: Tuesday, July 3, 2018 11:42 AM
To: 'Bud Shaver'
Cc: Jeff Sandberg
Subject: RE: SFL Fire Number Mitigation Project

Chief-

Just to update you, I've sent this information to Gary Peterson, the HSEM Regional Program Coordinator for the Metro area, and asked him who exactly we should talk to about this and if any further information is needed. I anticipate he'll tell me to touch base with the Hazard Mitigation folks at HSEM, but there are a number of them so I'm looking for a more specific point of contact.

In discussing this with BJ Battig, one thing we anticipate is that the state may ask you to update the All- Hazard Mitigation Plan for Sunfish Lake to include the need for fire numbers. I'll let you know if they do make such a request.

As soon as I hear from Gary I'll get back to you.



James Iliff

Dakota County Sheriff's Office | Sergeant | Emergency Preparedness & Professional Development

1580 Highway 55

Hastings, MN 55033

Office Phone: 651-438-4703

Cell Phone: 651-775-7354

James.iliff@co.dakota.mn.us

The mission of the Dakota County Sheriff's Office is to provide professional, progressive, and proactive service while maintaining public trust.



Memorandum

To: *Mayor, City Council
City of Sunfish Lake*

From: *Jeff Sandberg, PE
City Engineer*

Date: *July 5, 2018*

Re: *2019 Draft CIP*

I have generated a draft of the 2019 – 2023 Capital Improvements Plan (CIP) for the City of Sunfish Lake. A big part of the city's CIP is the maintenance of roads. In 2018 we completed a Pavement Condition Report that resulted in a Pavement Condition Index (PCI) rating for all of the city's public roadways. The results indicate several roads that are in need of more immediate attention, and several roads that need maintenance to extend their lifespan. Three roads that we recommend consideration to get a 2" overlay in 2019 are Zehnder Road, Angell Road, and Sunny Side Lane. Three roads that we recommend consideration for Full Depth Reclamation (FDR) in 2021 are Grieve Glen Lane, Upper 55th Street W, and 60th Street W. The improvements to these 6 roads are assessable per the city's adopted Assessment Policy. Staff has been working with Ehler's and Associates to determine financing options for these roadways and will present their recommendations at the city council meeting.

Additionally, staff has created a maintenance schedule for crack seal and seal coating for the city's roadways to optimize and extend each roadway's life to the extent practical.

The attached spreadsheet provides a snapshot of the public roadways within the city and their history of maintenance and proposed maintenance for the next 10 years, along with their 2018 Pavement Condition rating.

I look forward to discussion with the city council to determine timing of these projects to fit within the city Capital Improvement Plan.

Sincerely,

WSB & Associates, Inc.

A handwritten signature in black ink that reads "Jeffery S. Sandberg".

Jeffery S. Sandberg, PE
City Engineer

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	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, 2020, 2025	95
Roanoke Road	1989	925	2017			2020, 2025	92
Zehnder Road	1989	555		2019		2013, 2024	69
60th Street W *	1999	2,800			2021	2026	31
Angell Road (west)	1989	900	2014			2020, 2025	95
Angell Road (east)	1989	1,170		2019		2013, 2024	60
Sunny Side Lane	1989	1,360		2019		2013, 2024	58
Windy Hill Court	2014	945				2020, 2025	100
Windy Hill Road	2014	1,520				2020, 2025	100
Upper 55th St W **	1989	1,000			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)		14,045				6,600	14,045	3,108		
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	\$ -	\$ 140,450	\$ -	\$ -	\$ -	\$ 66,000	\$ 140,450	\$ 31,083	\$ -	\$ -
Cost of 2" Overlay ***	\$ 117,230	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 133,570
Cost of Full Depth Reconstruction ***	\$ -	\$ -	\$ 264,208	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Assessable Cost ***	\$ 117,230	\$ -	\$ 264,208	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 133,570
General Maintenance Fund	\$ -	\$ 140,450	\$ -	\$ -	\$ -	\$ 66,000	\$ 140,450	\$ 31,083	\$ -	\$ -

* Figures assume 50% cost participation from IGH

** Assumes only portion east of church driveway

*** Refer to Adopted City Assessment Policy

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		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										51,077	13,831	37,246	37,246	117,844	47,458	70,386	107,632	
2026	2027							679			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				
		Projected		Less Cash On-Hand	Debt Levy	Projected		Less Cash On-Hand	Debt Levy	Projected		Debt Levy	Projected		Debt Levy				
		105% P&I	Assessments			105% P&I	Assessments			Assessments	105% P&I		Assessments			105% P&I	Assessments		
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

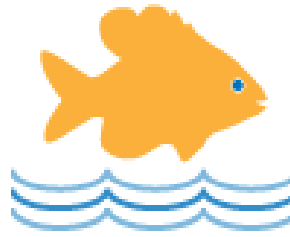
July 5, 2018

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.



2019 – 2023 CAPITAL IMPROVEMENTS PLAN

July 5, 2018

Prepared for:
City of Sunfish Lake
Dakota County, MN

WSB PROJECT NO. 011698



**2019 to 2023
CAPITAL IMPROVEMENT PLAN**

CITY OF SUNFISH LAKE, MN

July 5, 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: July 5, 2018

Lic. No. 25393

TABLE OF CONTENTS

TITLE SHEET
CERTIFICATION SHEET
TABLE OF CONTENTS

1.	INTRODUCTION.....	1
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2.1	Scheduled Maintenance	1
2.2	Recent/Current Capital Improvements	2
2.3	2019 to 2023 Capital Improvements.....	2
2.4	Capital Improvements Funding.....	3
3.	RECOMMENDATION	3

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 B 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

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.

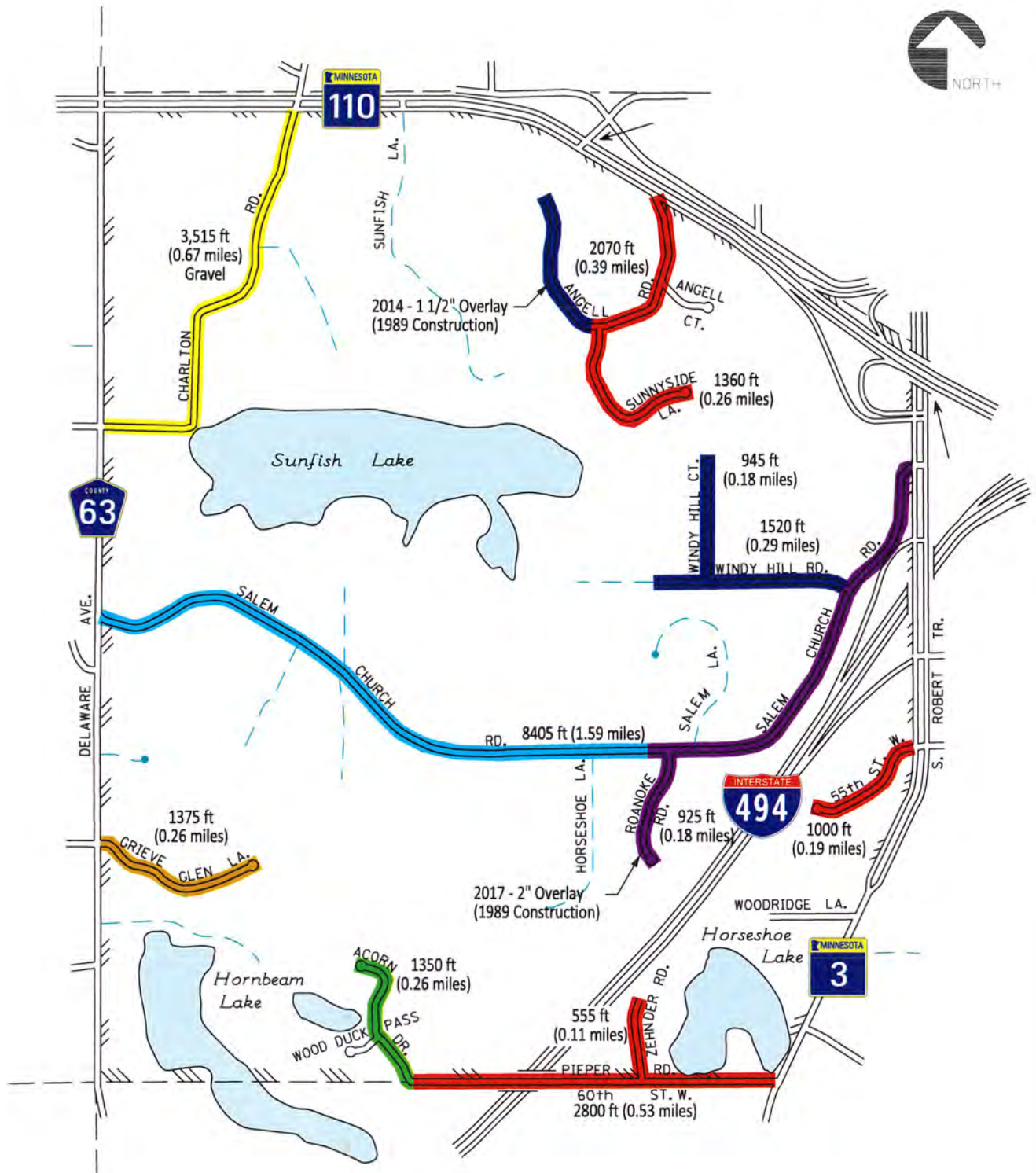
Appendix B includes the Capital Improvement Plan Project Summary of the currently identified capital improvements. It is important to note that the costs identified do not include legal, engineering, administration, and financing cost. The City's Special Assessment Policy is included in Appendix D for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

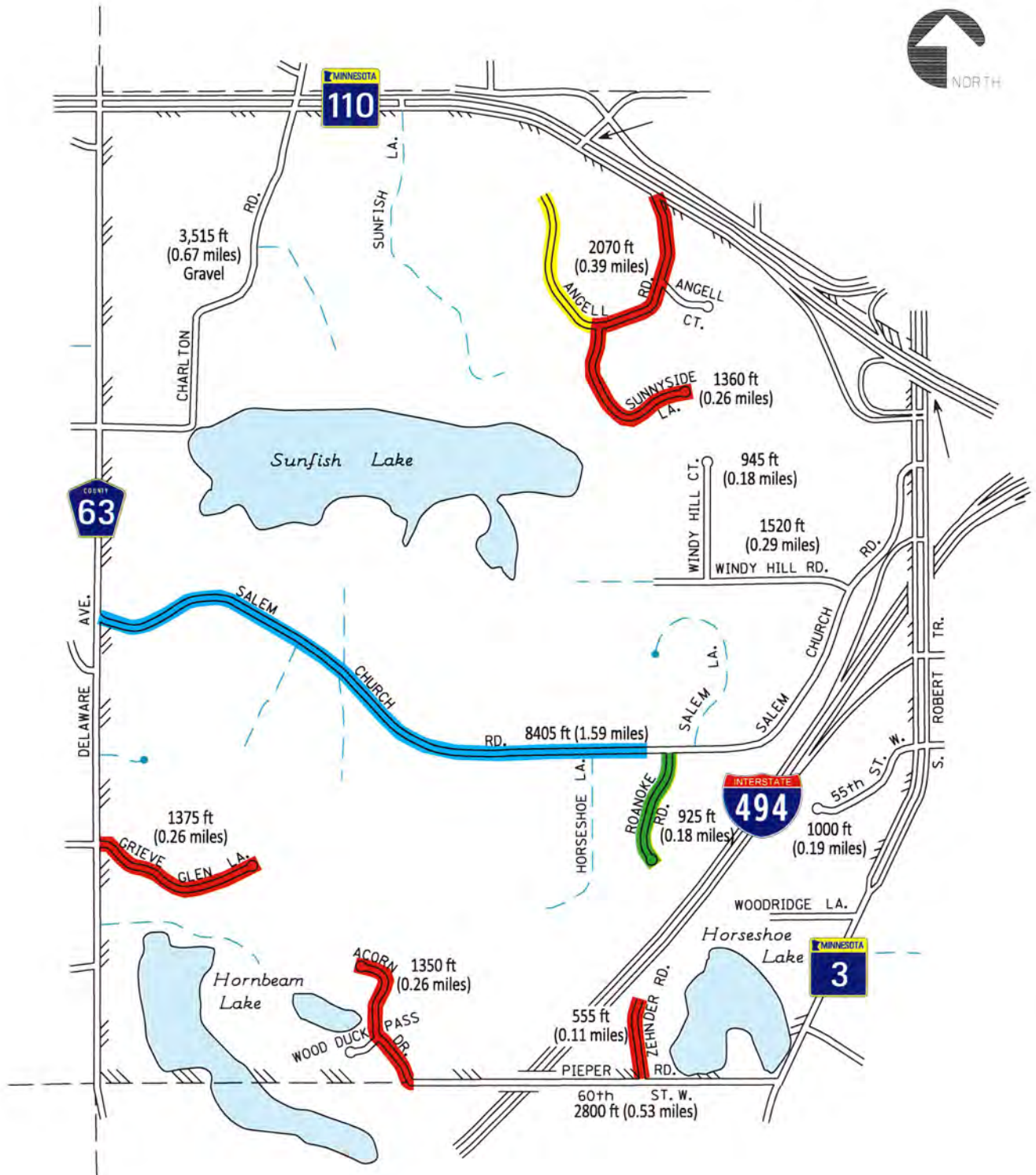
APPENDIX A

Exhibits



Year of Street Construction 1989 1994 1996 2006 2009 2014 2017

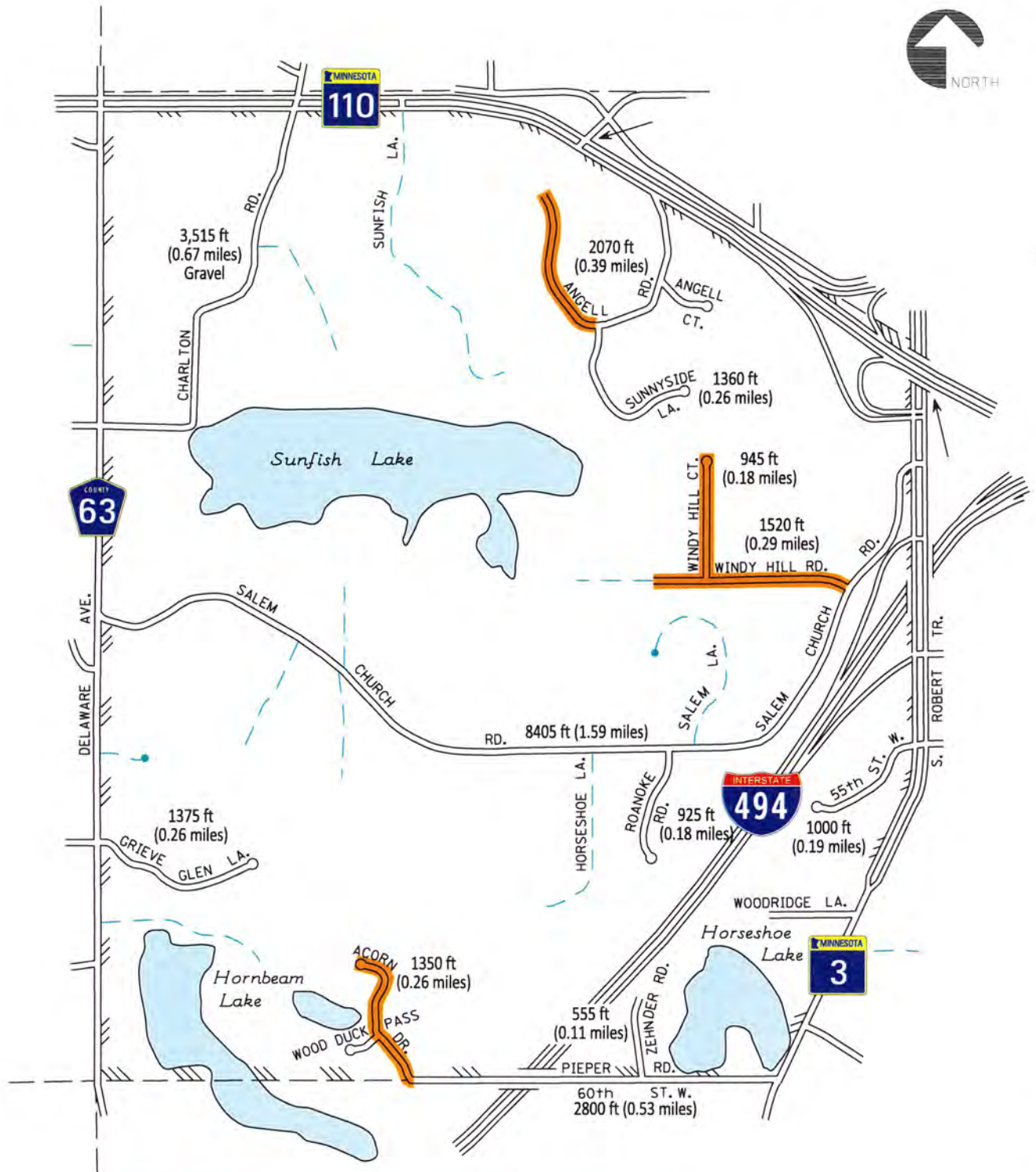
City Street Lengths: 4.24 miles of Paved Streets & 0.67 miles of Gravel Streets



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

Date: Printed: 5/30/2018
WSB Filename: K:\0101-990\Cad\2018 CIP MAP\Exhibit B - 2018 City Street Map - Maintenance History.dgn

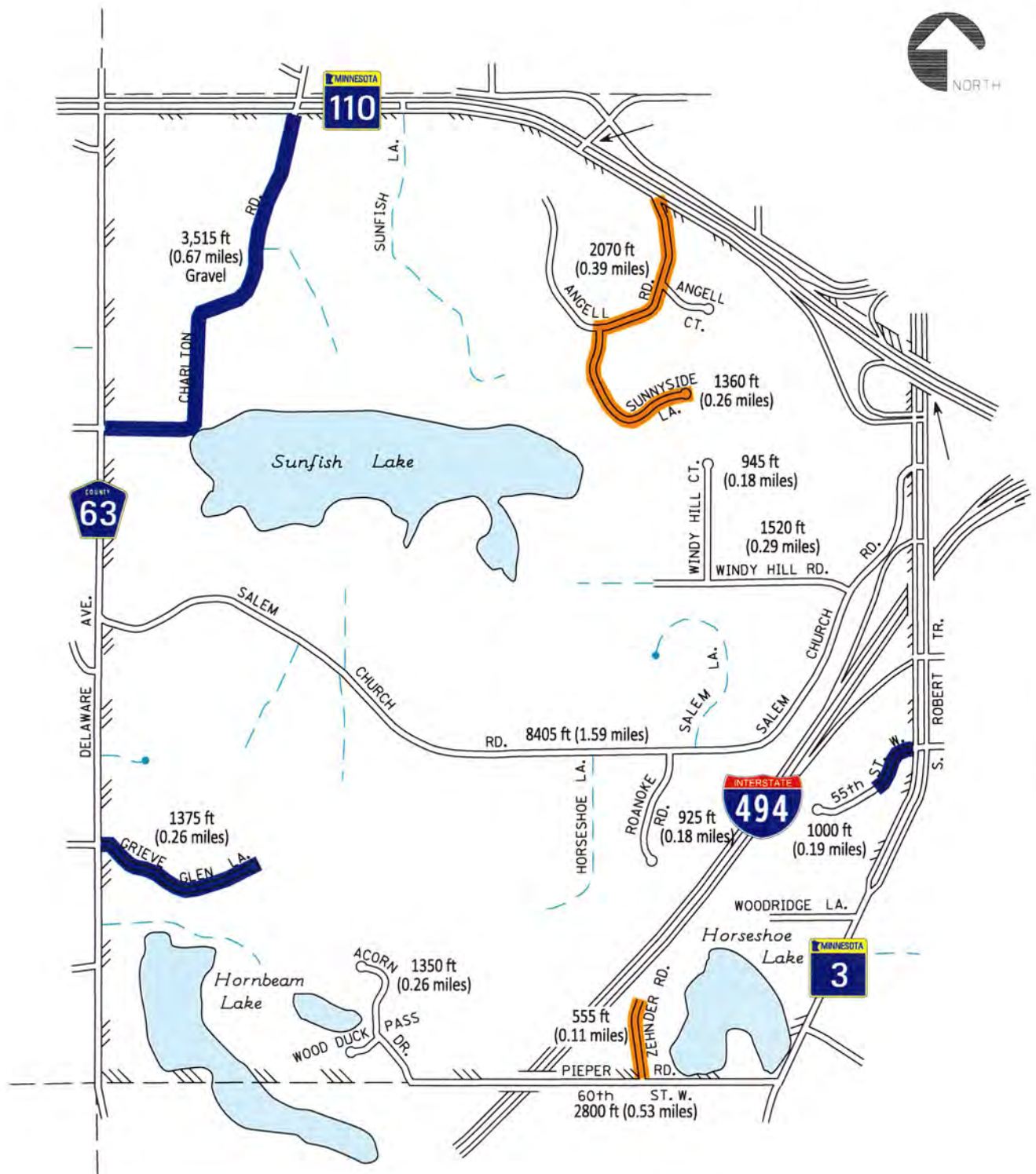


DRAFT - FOR REFERENCE ONLY

**2019 to 2023
Roadway Maintenance**

■ Yearly Gravel Surface Repairs

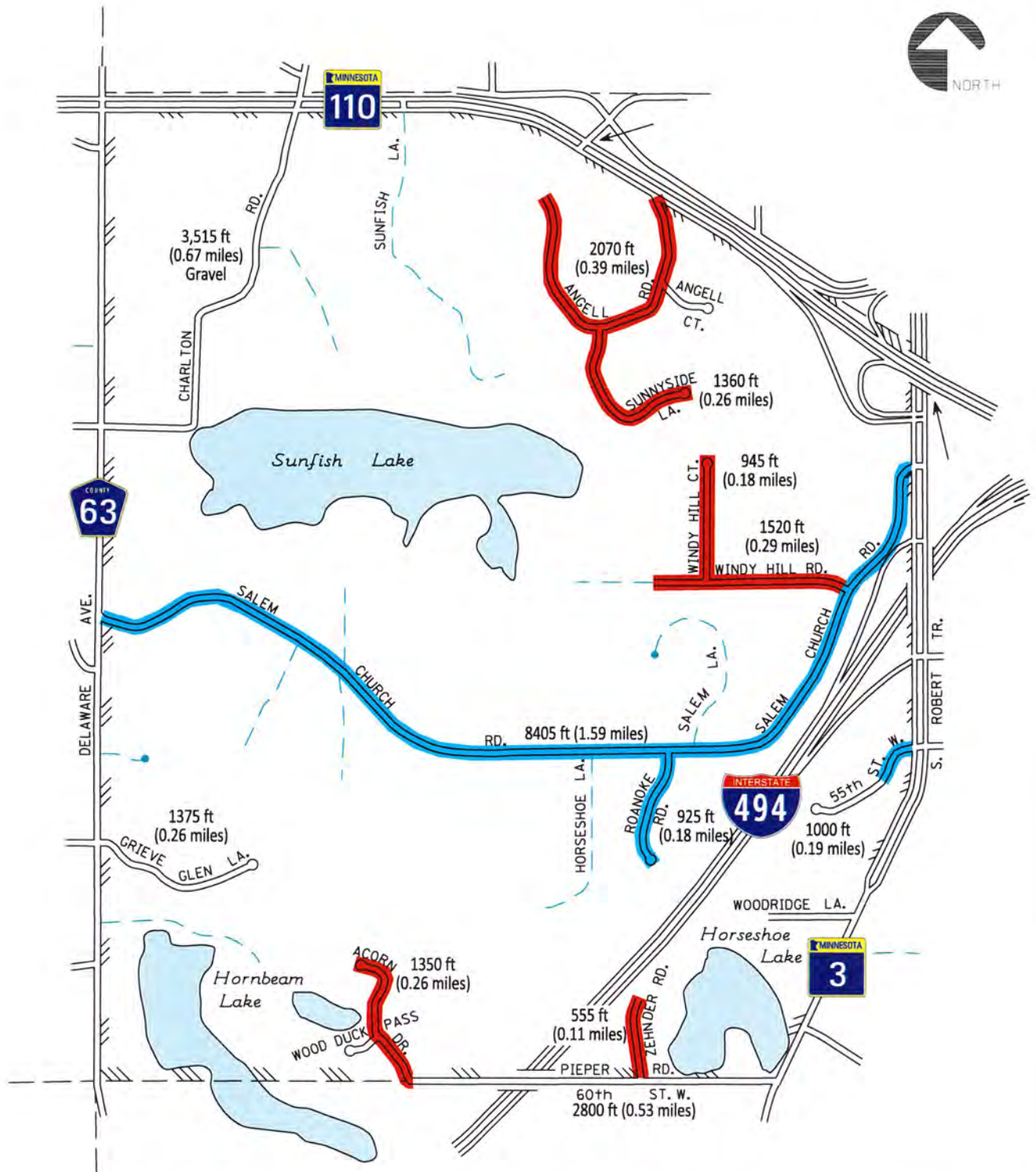
■ 2021 Crack Fill & Seal Coat



DRAFT - FOR REFERENCE ONLY

2019 to 2023 Improvements
(Pavement Rehabilitation)

2019 Reconstruction 2020 Overlay



DRAFT - FOR REFERENCE ONLY

2024 to 2028 Improvements

█ 2027 Crack Fill & Seal Coat

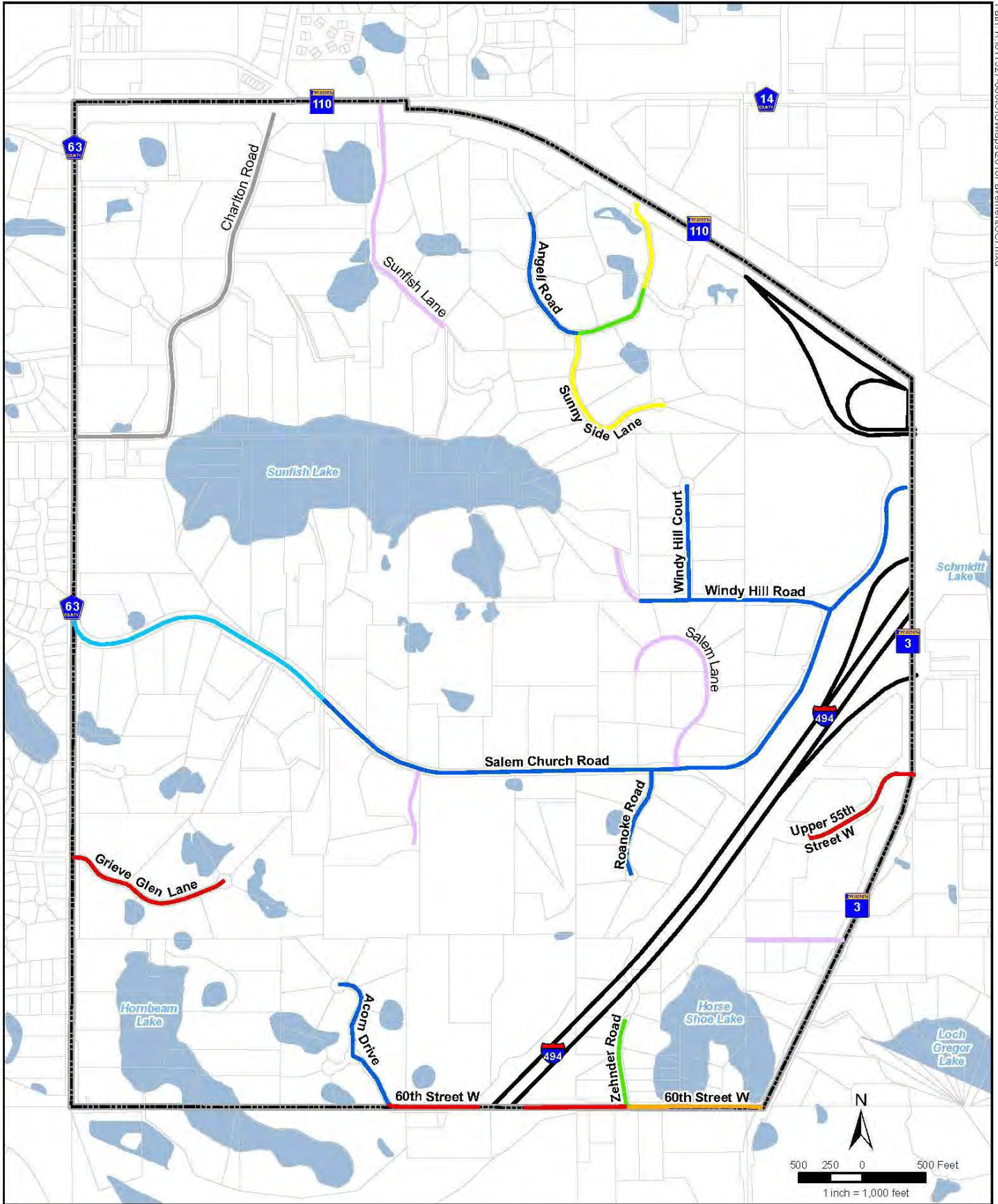
█ 2025 Crack Fill & Seal Coat

APPENDIX B

Capital Improvement Plan Summary

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

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.

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

RESOLUTION NO. 11- 12

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

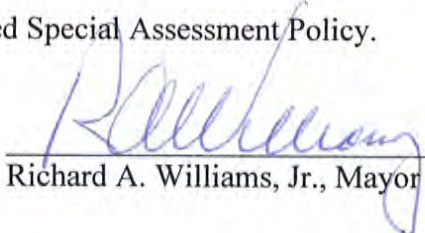
WHEREAS, Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements.

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



Building a legacy – your legacy.

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

Memorandum

To: *Honorable Mayor and City Council Members
City of Sunfish Lake*

From: *Jeff Sandberg, PE
City Engineer*

Date: *July 5, 2017*

Re: *Grieve Glen Road Repair/ Improvements
WSB Project No. 011698*

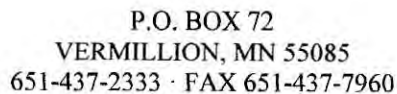
Staff presented the 2018 Pavement Condition Report (PCR) and the results of the Grieve Glen Coring Analysis at the last City Council meeting. The item was tabled and was requested to be brought back to the July meeting with detail on road repair estimates and financing options for the larger road improvement project.

Grieve Glen Road is visibly in need of repair after this past winter. The PCR and the coring analysis results indicate that the long-term solution for the roadway is a Full Depth Reclamation (FDR). An FDR for Grieve Glen Road is estimated to cost \$115,000, with 80% of that to be assessed to local residents per the city's adopted assessment policy. To be able to construct the long-term improvements and assess the project, timing would dictate that the project would be constructed in 2019. The city council and area residents have expressed a desire for a more immediate fix. The immediate fix would be spot milling and overlay, and would likely extend the life of the pavement a maximum of 2-3 years. The cost estimate for the spot milling and overlay is \$13,600 (See Pine Bend Paving Estimate, attached).

On June 21, 2018, Don Sterna and I met on site with Joe Jacoby of Pine Bend Paving, Inc. Mr. Jacoby has been a long-term, reliable contractor for various city maintenance needs. We walked Grieve Glen Road with Mr. Jacoby and developed a plan for fixing the roadway in the short term. The quote outlined above reflects the plan outlined at the on-site meeting.

If the City Council authorizes the improvements outlined in the Pine Bend Paving quote, it should be understood that the road will not look like a new road nor will it fix every blemish in the roadway. The improvements are intended to fix the major visible issues and make the driving surface much more uniform and smooth. The city council and residents should be informed that this is intended as a short-term fix and it will look like a "hodge-podge" of patching.

The spot milling and overlay cost would come out of the city's General Street Maintenance fund. The 2019 CIP will address the funding options for the long-term repair of Grieve Glen Road (Full-Depth Reclamation project). **See Attachment.**



WSB/City of Sunfish Lake	DATE OF PROPOSAL 6-27-2018	PROPOSED COMPLETION DATE Summer 2018
	JOB NAME Grieve Glen / Angell patching	
	JOB LOCATION SFL	

ITEM	DESCRIPTION OR SPECIFICATION	QUANTITY	PRICE	AMOUNT
1	Throw in patching @ Angell Rd	1 Ton		\$ 300.00
2	Throw in patching @ Grieve Glen	3 Ton		\$ 900.00
3	Overlay @Glen Grieve: Mill at edges and profile @ crown Fill low areas,Sweep and tack as needed Place 1.5" SPWEA240B asphalt wearing course overlay	1050 SY		\$ 12,700.00
	Diagram Enclosed			
	All work as per applicable MDOT specs.			
	PBP is a UNION company celebrating its 45 th year			
	PBP manufactures its own asphalt hot mix and aggregates			
PRICE QUOTATION BASIS		TOTAL AMOUNT		\$
UNIT PRICES	SQUARE YARD	TIME & MATERIAL	X LUMP SUM	

- | | | | |
|--|------------------------|--------------------|------|
| PINE BEND PAVING INC. | | ACCEPTED FOR OWNER | |
| BY  | TITLE | BY | DATE |
| | Joe Jacoby (President) | | |

Hand-drawn structural diagram of a vertical column. The column is divided into several sections with the following dimensions and details:

- Top Section:** A green-shaded rectangular section with a width of $80' \times 12'$. It has a height of $40'$ and is reinforced with $\#29$ bars.
- Second Section:** A section with a height of $24'$ and a width of $24' \times 175'$. It is reinforced with $\#29$ bars.
- Third Section:** A section with a height of $125'$ and a width of $24' \times 175'$. It is reinforced with $\#29$ bars.
- Fourth Section:** A section with a height of $15'$ and a width of $50'$. It is reinforced with $\#31$ bars.
- Fifth Section:** A section with a height of $12'$ and a width of $290'$. It is reinforced with $\#30$ bars.
- Bottom Section:** A section with a height of $12'$ and a width of $290'$. It is reinforced with $\#30$ bars.

The diagram also includes various reinforcement details and labels such as $\#29$, $\#31$, $\#30$, and $4I$.

Not to scale



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER/"ESTABLISHED 1973"