

Item 7b.**Sunfish Lake Engineer's Report for July 7, 2020**

By: Jeff Sandberg, PE
City Engineer

Date: July 1, 2020

1. Engineering Activities Undertaken in the Month of June.

The following Engineer's Report reflects the Engineering activities undertaken this past month.

- A. Water Pumping Ordinance. Staff has had a number of questions regarding the city ordinance that requires a permit for pumping from lakes and wetlands in the city. Staff prepared an educational narrative to include in the upcoming city newsletter, and will also ask that it be posted on the city website. Additionally, staff is preparing a letter to send to lakeshore residents to provide information about the permitting process. Enforcement of the ordinance will follow the education initiative.
- B. 2021 5-Year Capital Improvement Program. Staff has updated the proposed CIP for 2021. SEE ATTACHMENT 1B.
- C. 2021 Annual City Engineer Budget. Staff has updated the proposed annual City Engineer Budget for 2020. SEE ATTACHMENT 1C.

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

- A. Staff conducted reviews for seven properties in June:
 - 270 Salem Church Road: Staff conducted a final walk-through to ensure the project was built in substantial accordance with the approved plans.
 - 39 Windy Hill Road: This is for a new home on an undeveloped parcel.
 - 2130 Charlton Road: Staff reviewed a submittal for the addition of a porch.
 - 1 Sunfish Lane: Staff has been working with the homeowner on plans to change the grading and stormwater management on the site from what has been previously approved. Staff met with the applicant on-site to review proposed changes. A formal application has not yet been submitted.
 - 357 Salem Church Road: Staff reviewed and approved minor changes to the stormwater management for the project.

- 2400 Delaware: Staff reviewed a submittal for several additions/improvements to this property.
- 8 Sunfish Lane: Staff reviewed a submittal for CUP for an accessory building.

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

- A. Misc Street Signage: A "No Outlet" street sign was ordered for Roanoke Road at the request of residents.

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

- A. Staff will prepare final drafts of the Engineering budget and 2021 5-YR Capital Improvements Plan (CIP).

No other Engineering/Public Works activities are anticipated for the month of July.

The above constitutes the Engineering Report for the City of Sunfish Lake for July 7, 2020.

Respectfully submitted,

WSB



Jeffry S. Sandberg, PE
City Engineer

ITEM 7b. ATTACHMENT 1B.



Memorandum

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

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

Date: **July 1, 2020**

Re: **2021 - 2025 Proposed Capital Improvements Plan**

Staff has prepared a final draft of the 2021 – 2025 Capital Improvements Plan (CIP) for the City of Sunfish Lake.

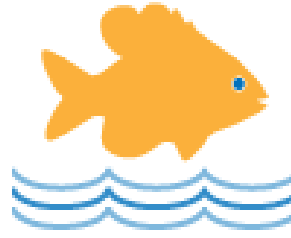
A big part of the city's CIP is the maintenance of roads. In 2018, WSB completed a Pavement Condition Report that produced a Pavement Condition Index (PCI) rating for all of the city's public roadways. The results show some roads that are in need of more immediate attention, and several roads that need maintenance to extend their lifespan. Staff has included 3 roads in a 2021 Crack Seal and Seal Coat Project. These roads include Acorn Dr., Roanoke, and Angel Rd. (west). Three roads that we recommend consideration to get a 2" overlay in 2021 are Zehnder Road, Angell Road (east), and Sunny Side Lane. One road that we recommend consideration for Full Depth Reclamation (FDR) in 2021 is Grieve Glen Lane, a road that the city has spent considerable money on for maintenance over the last couple of years.

Two city roads not being considered for annual maintenance are Upper 55th Street W, and 60th Street W. Only two properties serve Upper 55th Street, and one of those properties has been vacant for several years. It is likely not economically feasible to do a full reconstruction of this cul de sac road.

Staff has had discussions with Inver Grove Heights regarding their future plans for 60th Street. IGH does not have funds programmed for any improvements to 60th Street for the foreseeable future. MnDOT is considering a future interchange at Argenta and 494, and concepts show 60th street potentially being connected and serving as a frontage road. Our understanding is that the timeline for all of this is at least 7 to 10 years out. In the meantime, staff recommends working with IGH on patching 60th Street as necessary.

The improvements for the 3 roads identified for 2" overlay in 2021 noted in the CIP are assessable per the city's adopted Assessment Policy. Staff will revisit the feasibility studies for these improvements and outline available funding options. The reconstruction of Grieve Glen Lane will also require a feasibility study and is an assessable project.

Finally, 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. This maintenance schedule outlines timing for crack seal and seal coating for the city's roadways to optimize and extend each roadway's life to the extent practical. It is recommended that a Pavement Condition Report be completed in 2021 (every 3 years). The cost of this has been included in the Engineering annual budget.



2021 – 2025 CAPITAL IMPROVEMENTS PLAN

DRAFT

JULY 7, 2020

Prepared for:
City of Sunfish Lake
Dakota County, MN

WSB PROJECT NO. R-01011-99



**2021 to 2025
CAPITAL IMPROVEMENT PLAN**

CITY OF SUNFISH LAKE, MN

**July 7, 2020
DRAFT**

Prepared By:



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:

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 2021 to 2025 CIP Map (Pavement Rehabilitation)
- Exhibit D – Proposed 2021 to 2025 CIP Map (Roadway Maintenance)
- Exhibit E – Anticipated 2026 to 2030 CIP Map

APPENDIX B

2018 Pavement Condition Index Map

APPENDIX C

Capital Improvement Plan Summary

APPENDIX D

Assessment Policy

2021 to 2025 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 productive longevity. 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 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 on a 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 2018. 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
- 2019 Charlton Road and Sunfish Lake Outlet Improvement Project, funded under bonds through 2030

2.3 2021 to 2025 Capital Improvements

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

- ***Appendix A, Exhibits C and D*** - Proposed 2021 to 2025 Capital Improvements
- ***Appendix A, Exhibit E*** - Proposed 2026 to 2030 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 C 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

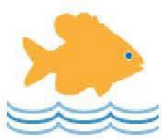
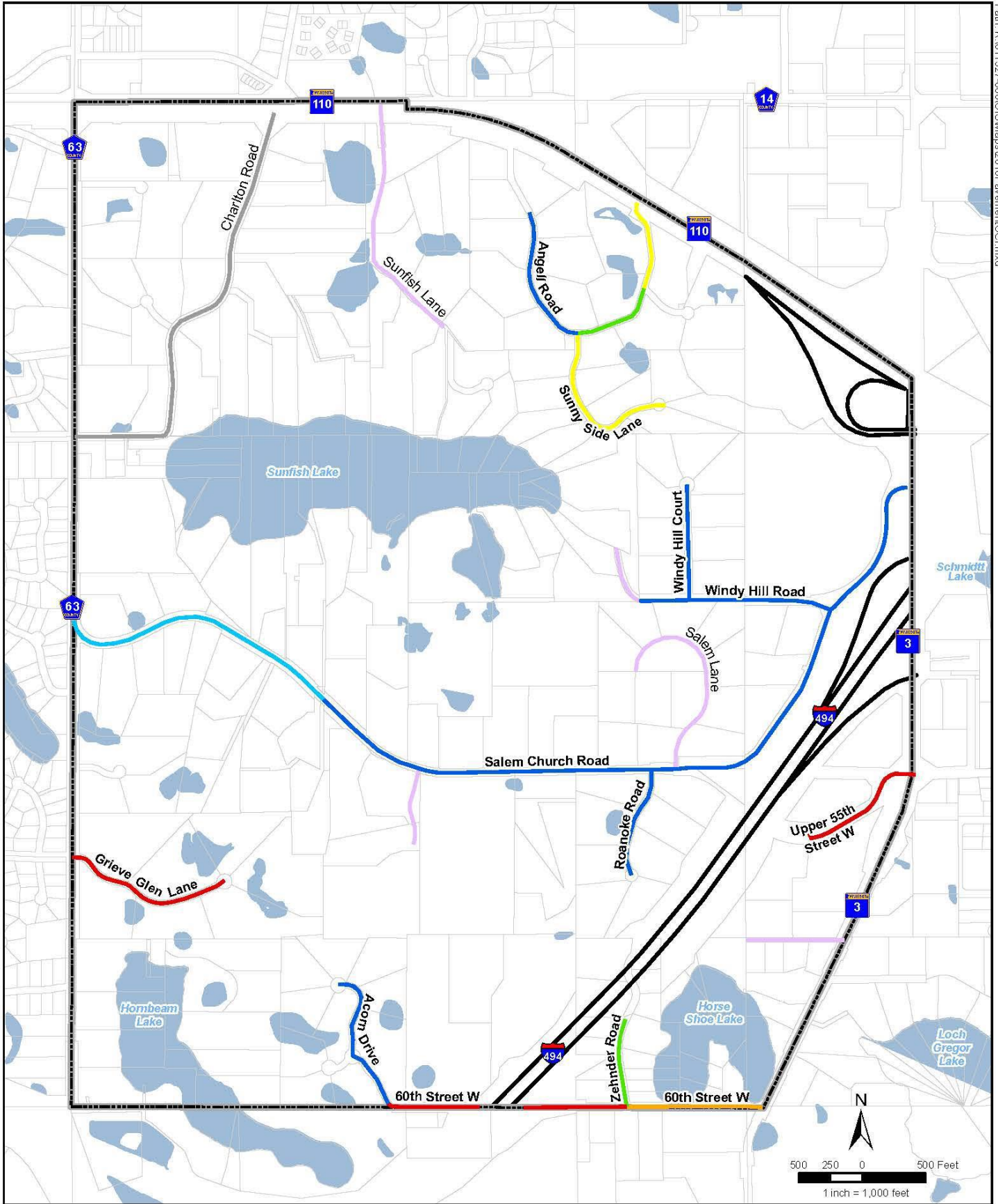
It is recommended the City updates its CIP every year in the spring to evaluate City infrastructure needs and assist in establishing the City budgets for road maintenance and capital improvements. It is recommended the CIP budget be separated from the routine road maintenance activities such as street 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

APPENDIX B

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		



2021 CIP - Sunfish Lake Road Reconstruction / Maintenance Schedule

Updated July 1, 2020

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
Charlton Road	2019	3,515		2029		2024, 2029	N/A
Salem Church Road (west)	2009	5,405				2016, 2022, 2026	87
Salem Church Road (east)	1989	3,000	2017			2022, 2026	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		2021		2013, 2026	69
60th Street W	1999	2,800					31
Angell Road (west)	1989	900	2014			2021, 2026	95
Angell Road (east)	1989	1,170		2021		2013, 2026	60
Sunny Side Lane	1989	1,360		2021		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	1,000					36

Estimated Construction Costs plus 10% contingency and 35% admin (2020 Dollars)

	Cost/ Lin Ft.
Crack Seal and Seal Coat	\$ 14.58
2" Mill and Overlay	\$ 72.00
Full Depth Reclamation	\$ 160.00

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Length of Crack Seal and Seal Coat (ft)		3,175	10,870		3,515		16,040	2,465		3,515
Length of 2" Mill and Overlay (ft)		3,085								
Length of Full Depth Reconstruction (ft)		1,375								

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Cost of Crack Seal and Seal Coat	\$ -	\$ 46,292	\$ 158,485	\$ -	\$ 51,249	\$ -	\$ 233,863	\$ 35,940	\$ -	\$ 51,249
Cost of 2" Mill and Overlay	\$ -	\$ 222,120	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Cost of Full Depth Reconstruction	\$ -	\$ 220,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Assessable Cost *	\$ -	\$ 442,120	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
General Maintenance Fund	\$ -	\$ 46,292	\$ 158,485	\$ -	\$ 51,249	\$ -	\$ 233,863	\$ 35,940	\$ -	\$ 51,249
City Cost-Share of Assessable Projects	\$ -	\$ 106,074		\$ -		\$ -			\$ -	

* Refer to Adopted City Assessment Policy

APPENDIX C

Capital Improvement Plan Summary

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**

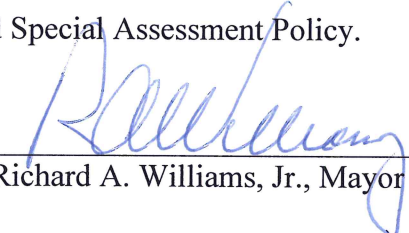
WHEREAS, Chapter 429 of the Minnesota Statutes authorizes the City to levy special assessments for certain public improvements.

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:

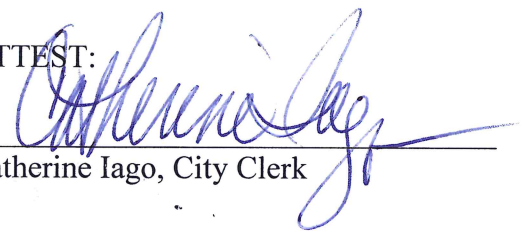
1. The Council hereby approves the attached Special Assessment Policy.

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; and
- Angell Road (west of 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.

ITEM 7b. ATTACHMENT 1C.



Memorandum

To: Ann Lanoue, City Treasurer
City of Sunfish Lake

From: Jeff Sandberg, PE, City Engineer

Date: DRAFT

Re: 2021 Budget Items
WSB Project No. R-013383-000

The proposed engineering budget for 2021 is identified herein. The budget has been based on past costs and anticipated work.

City Engineer

Monthly Engineering Items – Miscellaneous	\$	40,700
Total	\$	40,700

Water Quality Monitoring / Lake Maintenance

NPDES – MS4 Annual Report and Hearing	\$	4,700
LGU Role for Wetland Conservation Act.....	\$	2,280
CAMP Program	\$	1,140
Total	\$	8,120

General Street Maintenance

Street Sweeping	\$	1,700
Sign Replacement (CIP)	\$	1,200
Striping Maintenance (CIP)	\$	3,600
Culvert Maintenance (CIP)	\$	3,000
Pavement Management Inventory (CIP)	\$	7,900
Bituminous Maintenance	\$	4,500
Shoulder Maintenance.....	\$	1,100
Total	\$	23,000

<u>Funding from CIP</u>	\$	447,115
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Zehnder Road Improvement Project.....	\$47,450
Angell Rd (East) Improvement Project.....	\$89,530
Sunnyside Lane Improvement Project.....	\$90,135
Grieve Glen Improvement Project.....	\$220,000

<u>Snow Removal – Inver Grove Heights</u>	\$	3,000
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<u>Snow Removal – City Streets</u>	\$	38,000
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Please call me at 651-286-8474 upon review of the proposed budget.