# FEASIBILITY REPORT FOR PROPOSED ROAD IMPROVEMENT PROJECT OF

CRESS VIEW DRIVE, CRESS VIEW LANE, MEADOW VIEW BOULEVARD, CALLANDER CIRCLE, CANTER LANE, CARRBRIDGE COURT, DUNDEE DRIVE, MONTEREY AVENUE, BOULDER CREEK DRIVE, PRAIRIE HILLS LANE, BROOKWOOD ROAD, EAGLEVIEW LANE, LEGENDS CLUB CIRCLE, LEGENDS CLUB DRIVE, NORMANDALE CIRCLE, NORMANDALE ROAD, VERNON AVENUE AND 195TH STREET E

CREDIT RIVER TOWNSHIP, MINNESOTA
OCTOBER 5, 2020

Prepared by:



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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 State of Minnesota Statutes 326.02 to 326.16.

Shane Nelson, PE License No. October 5, 2020

Date

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# **1.0 INTRODUCTION**

The purpose of this feasibility report is to present Credit River Township with a preliminary examination of road improvements for Cress View Drive, Cress View Lane, Meadow View Boulevard (Cress View Estates), Callander Circle, Canter Lane, Carrbridge Court, Dundee Drive (Stonebridge), Monterey Avenue, Boulder Creek Drive, Prairie Hills Lane, Brookwood Road, Eagleview Lane, Legends Club Circle, Legends Club Drive (Legends Club), Normandale Circle, Normandale Road, Vernon Avenue and 195th Street E (Smith Berens Addition).

The report discusses the scope of the proposed improvements to Cress View Drive from Meadow View Boulevard to the terminus, Cress View Lane from the beginning to the terminus, and Meadow View Boulevard from Credit River Boulevard (C.R. 68) to the terminus; Callander Circle from Canter Lane to the terminus, Canter Lane from Monterey Avenue to the Stonebridge Estates east plat line, Carrbridge Court from Dundee Drive to the terminus, Dundee Drive from Canter Lane to the terminus, and Monterey Avenue from Lucerne Boulevard (C.R. 8) to the terminus; Boulder Creek Drive from Wagon Wheel Trail to the terminus; Prairie Hills Lane from Flag Trail to the terminus; Brookwood Road from Credit River Boulevard (C.R. 68) to the terminus, Eagleview Lane from Credit River Boulevard (C.R. 68) to the terminus, Legends Club Circle from Eagle Creek Avenue (C.R. 21) to the terminus, and Legends Club Drive from Natchez Avenue to the terminus; Normandale Circle from Normandale Road to the terminus, Normandale Road from Credit River Boulevard (C.R. 68) to 195th Street E, Vernon Avenue from 195th Street E to C.R. 91, and 195th Street E from Vernon Avenue to the terminus.

The report was initiated by the Credit River Town Board at a Township meeting, and has been prepared in compliance with Minnesota State Statutes 429 for projects resulting in special assessments.

# 2.0 PROJECT LOCATIONS AND EXISTING CONDITIONS

#### **Cress View Estates**

Cress View Drive, Cress View Lane and Meadow View Boulevard are located in Sections 16, 17 & 20, Township 114 North, Range 21 West in Credit River Township, Scott County, Minnesota. There are currently 45 existing properties located in the area. The residential properties are large rural type lots with an average lot size ranging from 2.0 acres to 13.1 acres. The project area and roadway locations are depicted in Figure 1.

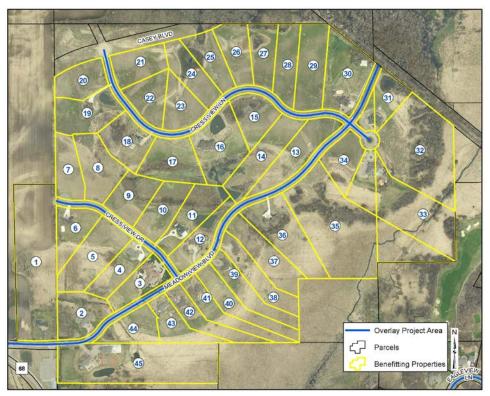


Figure 1 - Cress View Estates 2021 Overlay Project Project Location and Benefitting Properties Exhibit

Cress View Drive, Cress View Lane and Meadow View Boulevard were initially constructed in 2005. The roads have been degrading as anticipated, but are starting to exhibit exposed aggregate, patches of alligator cracking and heaved catch basins. Normal transverse and longitudinal cracking are observed in the pavement surface. The roads in general appear to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadways are predominately urban in nature. The width of the roadways vary slightly, but generally are 26 feet consisting of two 13-foot wide drive lanes with surmountable curb and gutter. The total length of the project is approximately 1.52 miles (8,028 feet).

# **Stonebridge Estates and Monterey Ponds**

Callander Circle, Canter Lane, Carrbridge Court, Dundee Drive and Monterey Avenue are located in Sections 33 & 34, Township 114 North, Range 21 West in Credit River Township, Scott County, Minnesota. There are currently 38 existing properties located in the area. The residential properties are small and large rural type lots with an average lot size ranging from 0.6 acres to 6.0 acres. The project area and roadway locations are depicted in Figure 2.

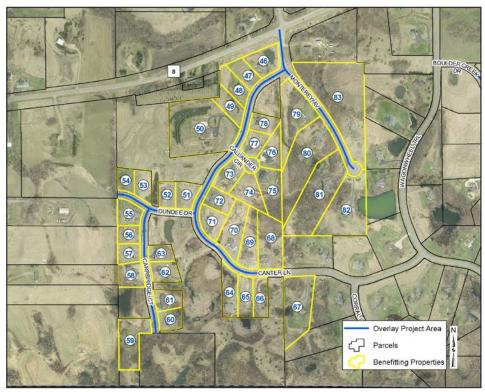


Figure 2 - Stonebridge Estates and Monterey Ponds 2021 Overlay Project
Project Location and Benefitting Properties Exhibit

Callander Circle, Canter Lane, Carrbridge Court, Dundee Drive and Monterey Avenue were initially constructed from 2002 to 2004. The roads have been degrading as anticipated, normal transverse and longitudinal cracking are observed in the pavement surface. The roads in general appear to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadways are predominately urban in nature, except Monterey Avenue which is mostly rural. The width of the roadways vary slightly, but generally are 26 feet consisting of two 13-foot wide drive lanes with surmountable curb and gutter. The width of Monterey Avenue is approximately 22 feet with 2-foot shoulders. The total length of the project is approximately 1.0 miles (5,292 feet).

# **Boulder Creek Drive**

Boulder Creek Drive is located in Section 34, Township 114 North, Range 21 West in Credit River Township, Scott County, Minnesota. There are currently 10 existing properties located in the area. The residential properties are large rural type lots with an average lot size ranging from 2.5 acres to 6.7 acres. The project area and roadway locations are depicted in Figure 3.



Figure 3 - Boulder Creek Drive 2021 Overlay Project Project Location and Benefitting Properties Exhibit

Boulder Creek Drive was initially constructed in 2004. The road has been degrading as anticipated, normal transverse and longitudinal cracking are observed in the pavement surface. The road in general appears to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadway is predominately urban in nature. The width of the roadway varies slightly, but generally is 22 feet consisting of two 11-foot wide drive lanes with surmountable curb and gutter. The total length of the project is approximately 0.3 miles (1,445 feet).

# **Prairie Hills Lane**

Prairie Hills Lane is located in Sections 25, 30 & 31, Township 114 North, Range 21 West and serves properties within Credit River Township and Spring Lake Township, Scott County, Minnesota. There are currently 17 existing properties located in the project area, 11 of which are within Credit River Township. The residential properties within Credit River are large rural type lots with an average lot size ranging from 2.5 acres to 9.5 acres. The project area and roadway locations are depicted in Figure 4.

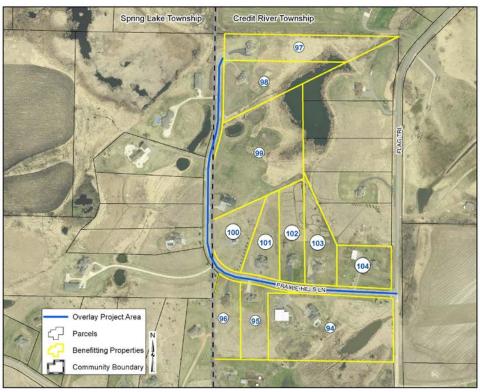


Figure 4 - Prairie Hills Lane 2021 Overlay Project Project Location and Benefitting Properties Exhibit

Prairie Hills Lane was initially constructed in 2001. The road has been degrading as anticipated. Normal transverse and longitudinal cracking are observed in the pavement surface. The road in general appears to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadway is predominately urban in nature. The width of the roadway varies slightly, but generally is 26 feet consisting of two 13-foot wide drive lanes with surmountable curb and gutter. The total length of the project is approximately 0.5 miles (2,818 feet).

# **Legends Club Area**

Brookwood Road, Eagleview Lane, Legends Club Circle and Legends Club Drive are located in Sections 16 & 21, Township 114 North, Range 21 West in Credit River Township, Scott County, Minnesota. There are currently 54 existing properties located in the area. The residential properties are large rural type lots with an average lot size ranging from 1.2 acres to 10.1 acres. The project area and roadway locations are depicted in Figures 5 & 6.



Figure 5 - Legends Club Area 2021 Overlay Project Project Location and Benefitting Properties Exhibit



Figure 6 - Legends Club 2021 Overlay Project Project Location and Benefitting Properties Exhibit

Brookwood Road, Eagleview Lane, Legends Club Circle and Legends Club Drive were initially constructed from 2000 to 2002. The roads have been degrading as anticipated, but are starting to exhibit patches of alligator cracking. Normal transverse and longitudinal cracking are observed in the pavement surface. The roads in general appear to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadways are predominately urban in nature. The width of the roadways vary slightly, but generally are 22-26 feet consisting of two 11 to 13-foot-wide drive lanes with surmountable curb and gutter, except Brookwood Road which includes the first 871 feet of road with a 2-foot aggregate shoulder on either side as opposed to curb and gutter. The total length of the project is approximately 1.8 miles (9,380 feet).

#### **Smith Berens Addn**

Normandale Circle, Normandale Road, Vernon Avenue and 195th Street E are located in Section 21, Township 114 North, Range 21 West in Credit River Township, Scott County, Minnesota. There are currently 25 existing properties located in the area. The residential properties are large rural type lots with an average lot size ranging from 1.7 acres to 63.9 acres. The project area and roadway locations are depicted in Figure 7.

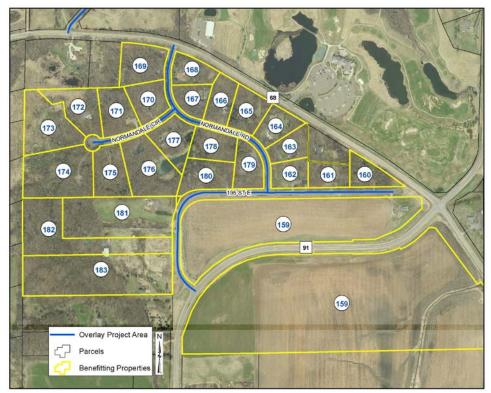


Figure 7 - Smith Berens 2021 Overlay Project Project Location and Benefitting Properties Exhibit

Normandale Circle, Normandale Road, Vernon Avenue and 195th Street E were initially constructed in 1993. The roads have been degrading as anticipated, but are starting to exhibit patches of alligator cracking. Normal transverse and longitudinal cracking are also observed in the pavement surface. The roads in general appear to be structurally sound and would benefit from a bituminous overlay to add strength and extend the life.

The existing roadways are predominately rural in nature. The width of the roadways vary slightly, but generally are 23-28 feet consisting of two 11.5 to 14-foot-wide drive lanes with bituminous curb and gutter. The total length of the project is approximately 1.1 miles (5,553 feet).

#### 3.0 ROADWAY IMPROVEMENT PROJECT

# **3.1 Proposed Improvements**

This project consists of improving the roads by constructing a bituminous overlay to a constructed thickness of 1.5". We propose that the existing bituminous surfaces be thoroughly cleaned, an 8-foot-wide taper mill performed along the curb and gutter (where curb and gutter is present), and tack coat applied prior to the construction of the 1.5" bituminous overlay. Monterey Avenue, Brookwood Road, Normandale Circle, Normandale Road, Vernon Avenue and 195th Street E do not have curb and gutter so milling will only be completed at bituminous and concrete driveways, the roadways will then be cleaned, and tack coat applied prior to the construction of the 1.5" overlay.

The finished grade of the new streets will be approximately the same elevation, or slightly higher (1.5"), as the current roads. The proposed typical sections are shown below in Figures 8 & 9. Driveways will be matched into the new bituminous surface.

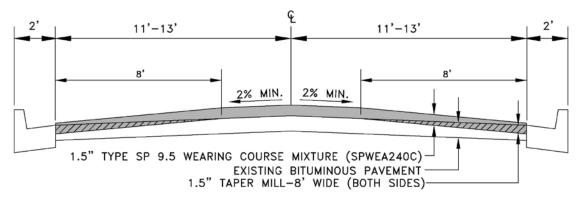


Figure 8 – Residential Overlay with Curb – Bituminous Overlay Typical Section

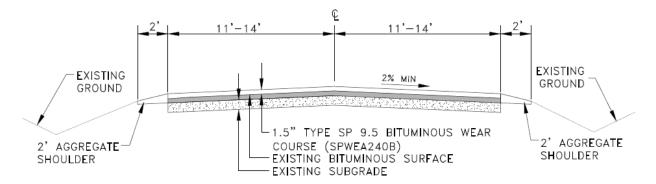


Figure 9 – Residential Overlay – Bituminous Overlay Typical Section

#### 3.2 Easements

This project proposes to confine the improvements to the existing roadway widths. No easements or right of way are proposed to be acquired.

# 3.3 Drainage System

The concrete curb and gutter will be inspected prior to the project and damaged sections are proposed to be replaced. A more in-depth field review of the catch basins drainage structures and conveyance systems will be performed and repairs will be included as determined necessary. All catch basins are proposed to be sealed with a flexible coating to prevent water intrusion.

# **4.0 ESTIMATED COSTS**

The 2021 construction costs have been estimated for the proposed 2021 Overlay project. The estimated costs are estimates only and are not guaranteed prices. The costs shown are estimates based on actual bid prices from projects of similar scope and adjusted for inflation. Final contracts will be awarded on a unit price basis and the contractor will only be paid for work completed.

The total estimated cost for this project is \$1,273,640. It is proposed that the Town will assess fifty percent of the total project costs to the benefitting properties.

An estimate of the cost of the improvements is shown below in Figure 10.

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE EXTENSION		
1	MOBILIZATION	1	LS	\$ 30,000.00	\$	30,000.00
2	REMOVE CONCRETE CURB AND GUTTER	1,410	LF	\$ 15.00	\$	21,150.00
3	REMOVE BITUMINOUS PAVEMENT	6,900	SY	\$ 6.00	\$	41,400.00
4	SAWCUT BITUMINOUS PAVEMENT	2,200	LF	\$ 1.00	\$	2,200.00
5	SAWCUT CONCRETE CURB & GUTTER	350	LF	\$ 3.00	\$	1,050.00
6	SHOULDER BASE AGGREGATE CLASS 2 (LIMESTONE	260	TON	\$ 35.00	\$	9,100.00
7	AGGREGATE BASE CLASS 5 (LIMESTONE)	100	TON	\$ 25.00	\$	2,500.00
8	MILL BITUMINOUS SURFACE (1.5")	430	SY	\$ 2.00	\$	860.00
9	TAPER MILL BITUMINOUS SURFACE (1.5")	47,550	SY	\$ 1.00	\$	47,550.00
10	BITUMINOUS MATERIAL FOR TACK COAT	4,820	GAL	\$ 2.50	\$	12,050.00
11	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)	9,140	TON	\$ 64.00	\$	584,960.00
12	TYPE SP 12.5 NON WEARING PATCHING MIX	2,300	TON	\$ 60.00	\$	138,000.00
13	ADJUST FRAME AND RING CASTING	15	EACH	\$ 550.00	\$	8,250.00
14	GROUT OR SEAL CATCHBASIN	94	EACH	\$ 700.00	\$	65,800.00
15	CONCRETE CURB AND GUTTER - SURMOUNTABLE	1,410	LF	\$ 30.00	\$	42,300.00
16	RELOCATE MAILBOX SUPPORT	8	EACH	\$ 125.00	\$	1,000.00
17	TRAFFIC CONTROL	1	LS	\$ 8,320.00	\$	8,320.00
18	SELECT TOPSOIL BORROW	600	CY	\$ 40.00	\$	24,000.00
18	TURF ESTABLISHMENT	1	LS	\$ 15,300.00	\$	15,300.00
19	WEED SPRAYING	76	RD STA	\$ 85.00	\$	6,460.00
ESTIMATED CONSTRUCTION COST SCHEDULE "A"						1,062,250.00
CONSTRUCTION CONTINGENCY						
ENGINEERING, LEGAL, AND ADMINISTRATIVE						
FINANCING COSTS						
TOTAL ESTIMATED PROJECT COST						

Figure 10 –2021 Overlay Project - Preliminary Cost Estimate

# **5.0 FINANCING AND ASSESSMENTS**

The cost for the 2021 Overlay Project is proposed to be partially assessed to the benefitting properties. For this project, the recommended assessment method is to assess the benefitting properties on a per unit basis. We have identified 183 units that receive direct access and will receive benefit from the proposed improvements.

A portion Prairie Hills Lane is shared with Spring Lake Township. It is proposed that Spring Lake Township will contribute \$21,000 toward the project as its pro-rata share.

It is proposed that the Town will pay the estimated costs for patching. The patching costs are estimated to be \$156,000.

The remaining cost, estimated to be \$1,096,640, is proposed to be divided equally with 50% paid by the Township and 50% assessed to the benefitting properties. The total estimated cost to be assessed to the benefitting properties is \$548,320.

Fifty percent assessment of the estimated project cost to the benefitting properties of this project on a per unit basis would yield an assessment of approximately \$2,996 per unit. The per unit assessment for this project is proportionate to the large lot size.

The assessments may be paid in full up front or amortized over a period of time, typically 10 years, with an interest rate as determined by the Town Board. We understand that the Town proposes to partially finance this project by obtaining a bond. The Town will work with its financial advisor to determine the bond amount and terms. Generally, interest rates on assessments are on the order of 6 percent.

#### **6.0 PROJECT SCHEDULE**

The schedule of the project will be determined by the Town Board with consideration of resident input. A tentative schedule is as follows:

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July 2020	Town Board orders preparation of Feasibility Rep	∩rt
July ZUZU	TOWN DOGING OF ACTS DICEON ACTOUT OF I CASIDINA INC.	OI L

October 2020 Town Board Approval of Feasibility Report and Calls for a Public

Improvement Hearing

Mail and Publish Notice of Public Improvement Hearing

November 2020 Town Board conducts Public Improvement Hearing

Town Board Orders Plans and Specifications

February 2021 Town Board Approves Plans and Specifications and Authorizes

Advertisement for Bids

Town Board Calls for the Assessment Hearing Mail and Publish Notice of Assessment Hearing

March 2021 Bid Opening

April 2021 Town Board Conducts Assessment Hearing

Town Board Approves Bids and Awards Contract

# 7.0 CONCLUSIONS AND RECOMMENDATIONS

We find that this project is necessary, cost effective and feasible from a technical and engineering standpoint, and benefits the properties proposed to be assessed. This project should be made as proposed and is not necessary to combine it with any other improvement. We would recommend that the Town Board accept this report.