



**BOLTON
& MENK**

Real People. Real Solutions.

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MEMORANDUM

Date: February 19, 2024
To: Long Lake Township Town Board
From: Bryan Drown, PE
Subject: Township Paved Roads Evaluation
Long Lake Township, Crow Wing County, MN
BMI Project No.: 0B1.132449

Honorable Town Board,

We have reviewed the surface condition of the paved Township Roads and assigned a numerical value between 1 and 10 utilizing the PASER Manual developed by the Wisconsin Transportation Information Center. A rating of 1 represents a failed street section needing reconstruction and a rating of 10 represents a newly constructed and paved street. The surface of the town roads were reviewed looking at surface defects (loss of aggregate/bituminous material), surface deformation (rutting/settlement), and extent of cracking. Overall, the majority of Township roads had PASER ratings between 5 and 7, with the recent overlays completed on Paradise Beach Road and Paradise Beach Trail in 2023 have ratings of 10. The ratings between 5 and 7 show the age of pavements and look to be structurally sound except for isolated areas requiring reconstruction. Based on the field review the recommended improvement is for a 1.5-inch bituminous overlay, with aggregate shouldering and matching driveway connections.

Attached please find the following:

- Summary table of Township Road segment lengths, widths, current PASER rating, and estimated cost to improve with a 1.5-inch overlay.
- GIS maps showing each segment location with corresponding PASER rating.
- Detailed cost estimate overlay for road segments.

In reviewing the roads, the recommendation for the immediate improvement is the reconstruction of an approximately 200-foot section on the north end of Lakeview Drive in the area of the creek crossing. This area has structural deficiencies, and this small section should not be overlaid. The existing bituminous and aggregate base should be removed, the subgrade compacted, and a minimum of 4-inches of aggregate base and 2.5-inches of bituminous placed. The estimated cost of this is \$12,500.

Cost estimates for overlaying road sections are provided. Based on pavement ages and current PASER ratings I would recommend the Township consider prioritizing Lakeview Drive from South Long Lake Bay Road and Wiedel Point Road as they were paved in 1997 and have a rating of 5 and 6. Mogenson Shores Road was paved in 1990 and has a rating of 5. It is estimated to have been chip sealed in 2017 and the chip seal appears to be holding with minimal surface wearing such that I would prioritize Lakeview Drive and Wiedel Point Road. The north 200 feet of Gilbert Lane also was rated a 5 due to extensive block

Name: Long Lake Township

Date: February 19, 2024

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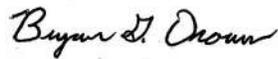
cracking. The Township could prioritize the reconstruction of this section. It is my understanding this road was paved in 2010 and due to its relative age compared to other streets, this was not prioritized.

Remaining road segments had a rating of 7 and should be prioritized and improved as funding is available. I have not provided a timetable for improvements as input from the Township is needed on annual budgeting available for improvements. Cost estimates for each segment are provided as a tool to assist in budgeting for future improvements. Overlaying all township road pavements not overlayed in 2023 is estimated to cost \$716,955 in 2024 dollars.

If you have questions about the information provided please contact me by email at bryan.drown@bolton-menk.com or cell phone at 218-821-5242.

Sincerely,

Bolton & Menk, Inc.



Bryan G. Drown, PE
Project Manager

Enclosures: As Listed

LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA

BMI PROJECT NO. OB1.132449

IDENTIFIER	Street Name Full	Begin Segment	End Segment	2023 Rating	Initial Paving	Improvement Since Initial Paving	Surface	Pavement Width	Length (Miles)	Length (Feet)	Estimated Bituminous Overlay Cost (2024 Dollars)
70-010	Gilbert Lane	Lakeview Drive	1000' N. of Lakeview Drive	7	2010		Paved	21	0.189	1000	
70-011	Gilbert Lane	1000' N. of Lakeview Drive	CR 144	5	2010		Paved	21	0.396	2089	\$101,000.00
130-010	Lakeview Drive	TH 25	S. Long Lake Bay Road	7	1997		Paved	22	0.216	1140	\$33,090.00
140-010	Lakeview Drive	S. Long Lake Bay Road	CR 144	6	1997		Paved	18	0.650	3432	\$102,630.00
150-010	Mogenson Shores Road	CR 144	Address #8856	5	1990	2017 Chip Seal	Paved	18	0.515	2720	\$77,980.00
150-011	Mogenson Shores Road	Address #8856	Dead End (#8866)	5	1990	2017 Chip Seal	Paved	12	0.057	300	\$22,380.00
210-010	Paradise Beach Road	CR 22	Paradise Beach Trail	7	1990	2012 Chip Seal	Paved	19	0.179	944	
210-020	Paradise Beach Road	Paradise Beach Trail	Hiawatha Avenue	7	1990		Paved	18	0.212	1120	
210-030	Paradise Beach Road	Hiawatha Avenue	Lake Avenue	7	1990		Paved	18	0.570	3010	
210-040	Paradise Beach Road	Lake Avenue	Dead End (#8866)	7	1990		Paved	18	0.635	3353	\$187,615.00
220-010	Paradise Beach Trail	CR 22	Address #8033	10	1990	2023 Overlay	Paved	18	0.053	280	
220-011	Paradise Beach Trail	Address #8033	Paradise Beach Road	6	1990		Paved	18	0.173	913	\$30,910.00
250-010	S. Long Lake Bay Road	Dead End	Lakeview Drive	7	2010		Paved	21	0.155	818	\$27,740.00
260-010	S. Long Lake Bay Road	Lakeview Drive	CR 144	7	2010		Paved	22	0.492	2598	\$73,920.00
310-010	Wiedel Point Road	Dead End	Corner to North	5	1997		Paved	17	0.138	730	
310-020	Wiedel Point Road	Corner	Lakeview Drive	6	1997		Paved	18	0.087	458	\$59,690.00
Total:									4.72	24906	\$716,955.00

Rating system

Surface rating	Visible distress*	General condition/ treatment measures
10 Excellent	None.	New construction.
9 Excellent	None.	Recent overlay. Like new.
8 Very Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater). All cracks sealed or tight (open less than 1/4").	Recent sealcoat or new cold mix. Little or no maintenance required.
7 Good	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10' or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6 Good	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open 1/4" - 1/2"), some spaced less than 10'. First sign of block cracking. Slight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
5 Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open 1/2") show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
4 Fair	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).
3 Poor	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (1" or 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
2 Very Poor	Alligator cracking (over 25% of surface). Severe distortions (over 2" deep) Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.
1 Failed	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

* Individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types.



7KHVH GDWD DUH SURYLGHG RQ DQ \$6 .6
 EDVLV ZLWKRXW ZDUUDQW\ RI DQ\ W\SH
 H[SUHVYHG RU LPSOLHG LQFOXGLQJ EXW
 QRW OLPLWHG WR DQ\ ZDUUDQW\ DV WR WKHLU
 SHUIRUPDQFH PHUFKDQWDELQW\ RU ILWQHVV
 IRU DQ\ SDUWLFXODU SXUSRVH

/RQJ /DNH 7RZQVKLS

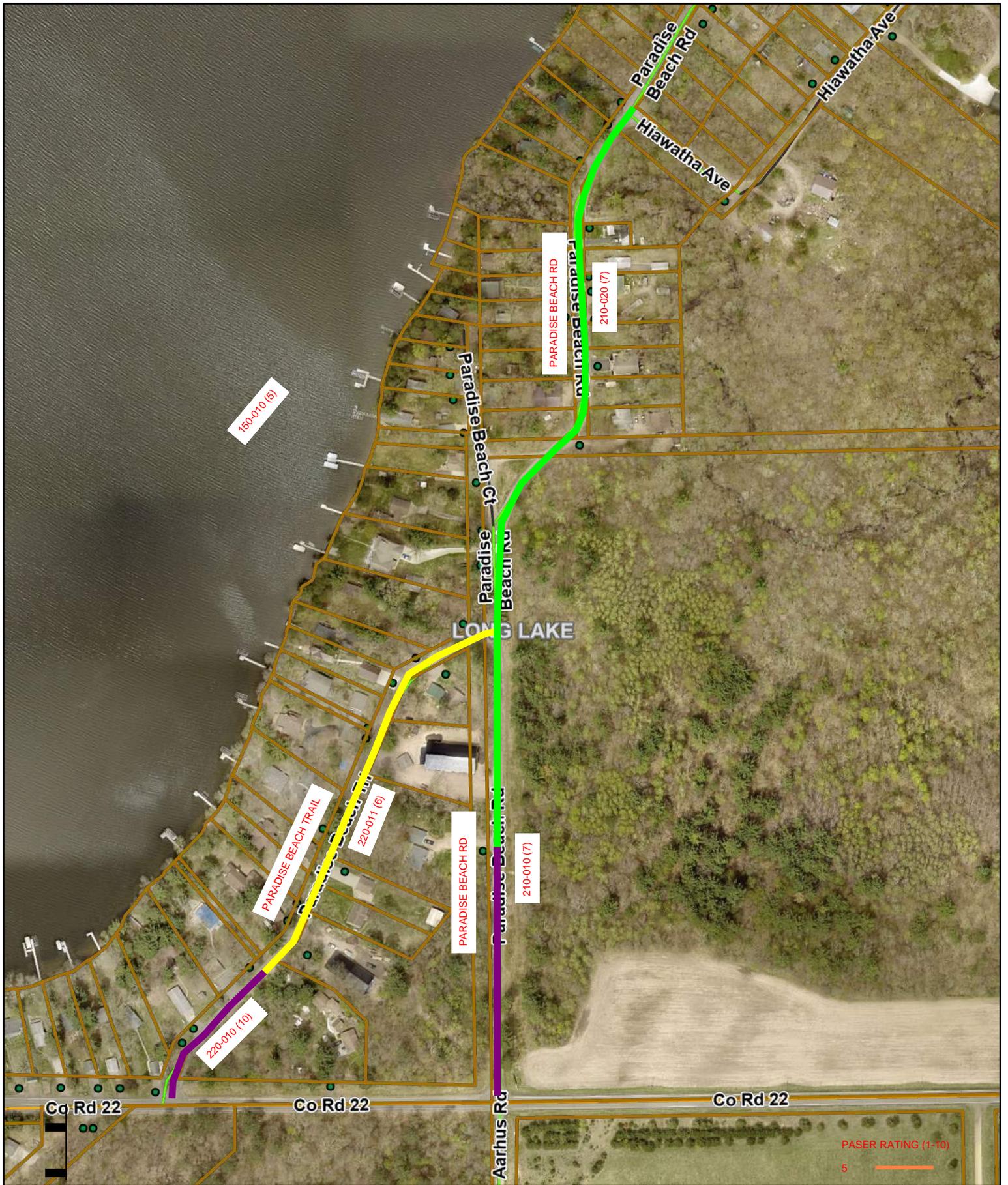




7KHVH GDWD DUH SURYLGHG RQ DQ \$6 .6
 EDVLV ZLWKRXW ZDUUDQW\ RI DQ\ W\SH
 H[SUHVHVG RU LPSOLHG LQFOXGLQJ EXW
 QRW OLPLWHG WR DQ\ ZDUUDQW\ DV WR WKHLU
 SHUIRUPDQFH PHUFKDQWDELQW\ RU ILWQHVV
 IRU DQ\ SDUWLFXODU SXUSRVH

0RJHQVRQ 6KRUHV 5RDG





PASER RATING (1-10)

5	Orange line
6	Yellow line
7	Green line
8	Cyan line
9	Blue line
10	Purple line

7KHVH GDWD DUH SURYLGHG RQ DQ \$6.6
 EDVLV ZLWKRXW ZDUUDQW\ RI DQ\ W\SH
 H[SUHVVHG RU LPSOLHG LQFOXGLQJ EXW
 QRW OLPLWHG WR DQ\ ZDUUDQW\ DV WR WKHLU
 SHUIRUPDQFH PHUFKDQWDELQW\ RU ILWQHVV
 IRU DQ\ SDUWLFXODU SXUSR\H



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 EDVLV ZLWKRXW ZDUUDQW\ RI DQ\ W\SH
 H[SUHVHVG RU LPSOLHG LQFOXGLQJ EXW
 QRW OLPLWHG WR DQ\ ZDUUDQW\ DV WR WKHLU
 SHUIRUPDQFH PHUFKDQWDELOLW\ RU ILWQHVV
 IRU DQ\ SDUWLFXODU SXUSRVH





7KHVH GDWD DUH SURYLGHG RQ DQ \$6.6
 EDVLV ZLWKRXW ZDUUDQW\ RI DQ\ W\SH
 H[SUHVHVG RU LPSOLHG LQFOXGLQJ EXW
 QRW OLPLWHG WR DQ\ ZDUUDQW\ DV WR WKHLU
 SHUIRUPDQFH PHUFKDQWDELQW\ RU ILWQHVV
 IRU DQ\ SDUWLFXODU SXUSR VH



PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Gilbert Lane - 1.5" Bituminous Overlay
 Segments: 70-010 & 70-011
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$4,000.00	\$4,000.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		12	LIN FT	\$5.00	\$60.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		60	SQ FT	\$3.00	\$180.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		30	CU YD	\$50.00	\$1,500.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		60	CU YD	\$50.00	\$3,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		610	GALLON	\$3.00	\$1,830.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		660	TON	\$85.00	\$56,100.00
8	-	BITUMINOUS PATCH		500	SQ YD	\$25.00	\$12,500.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		7	SQ YD	\$90.00	\$630.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$80,800.00
						10% CONTINGENCY:	\$8,080.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$88,880.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$12,120.00
						TOTAL ESTIMATED PROJECT COST:	\$101,000.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Lakeview Drive - 1.5" Bituminous Overlay
 Segments: 130-010
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)			LIN FT	\$5.00	
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT			SQ FT	\$3.00	
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)			CU YD	\$50.00	
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		20	CU YD	\$50.00	\$1,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		240	GALLON	\$3.00	\$720.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		250	TON	\$85.00	\$21,250.00
8	-	BITUMINOUS PATCH			SQ YD	\$25.00	
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT			SQ YD	\$90.00	
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$26,470.00
						10% CONTINGENCY:	\$2,650.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$29,120.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$3,970.00
						TOTAL ESTIMATED PROJECT COST:	\$33,090.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Lakeview Drive - 1.5" Bituminous Overlay
 Segments: 140-010
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$4,000.00	\$4,000.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		48	LIN FT	\$5.00	\$240.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		240	SQ FT	\$3.00	\$720.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		60	CU YD	\$50.00	\$3,000.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		70	CU YD	\$50.00	\$3,500.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		580	GALLON	\$3.00	\$1,740.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		620	TON	\$85.00	\$52,700.00
8	-	BITUMINOUS PATCH		500	SQ YD	\$25.00	\$12,500.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		30	SQ YD	\$90.00	\$2,700.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$82,100.00
						10% CONTINGENCY:	\$8,210.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$90,310.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$12,320.00
						TOTAL ESTIMATED PROJECT COST:	\$102,630.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Mogenson Shores Road - 1.5" Bituminous Overlay
 Segments: 150-010
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)			LIN FT	\$5.00	
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT			SQ FT	\$3.00	
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)			CU YD	\$50.00	
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		50	CU YD	\$50.00	\$2,500.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		460	GALLON	\$3.00	\$1,380.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		500	TON	\$85.00	\$42,500.00
8	-	BITUMINOUS PATCH		500	SQ YD	\$25.00	\$12,500.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT			SQ YD	\$90.00	
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$62,380.00
						10% CONTINGENCY:	\$6,240.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$68,620.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$9,360.00
						TOTAL ESTIMATED PROJECT COST:	\$77,980.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Mogenson Shores Road - 1.5" Bituminous Overlay
 Segments: 150-011
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		105	LIN FT	\$5.00	\$525.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		525	SQ FT	\$3.00	\$1,575.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)			CU YD	\$50.00	
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		50	CU YD	\$50.00	\$2,500.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		50	GALLON	\$3.00	\$150.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		50	TON	\$85.00	\$4,250.00
8	-	BITUMINOUS PATCH			SQ YD	\$25.00	
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		60	SQ YD	\$90.00	\$5,400.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$17,900.00
						10% CONTINGENCY:	\$1,790.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$19,690.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$2,690.00
						TOTAL ESTIMATED PROJECT COST:	\$22,380.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS

Paradise Beach Road - 1.5" Bituminous Overlay

Segments: 210-010, 210-020, 210-030, 210-040

LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA

BMI PROJECT NO. OB1.132449



Real People. Real Solutions.

Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$7,500.00	\$7,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		295	LIN FT	\$5.00	\$1,475.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		1500	SQ FT	\$3.00	\$4,500.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		200	CU YD	\$50.00	\$10,000.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		60	CU YD	\$50.00	\$3,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		1040	GALLON	\$3.00	\$3,120.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		1120	TON	\$85.00	\$95,200.00
8	-	BITUMINOUS PATCH		200	SQ YD	\$25.00	\$5,000.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		170	SQ YD	\$90.00	\$15,300.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$5,000.00	\$5,000.00
CONSTRUCTION SUBTOTAL:							<u>\$150,095.00</u>
10% CONTINGENCY:							<u>\$15,010.00</u>
TOTAL ESTIMATED CONSTRUCTION COST:							<u>\$165,105.00</u>
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):							<u>\$22,510.00</u>
TOTAL ESTIMATED PROJECT COST:							<u>\$187,615.00</u>

Note: Estimate does not include areas overlaid in 2023

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Paradise Beach Trail - 1.5" Bituminous Overlay
 Segments: 220-011
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		55	LIN FT	\$5.00	\$275.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		275	SQ FT	\$3.00	\$825.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		30	CU YD	\$50.00	\$1,500.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		20	CU YD	\$50.00	\$1,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		160	GALLON	\$3.00	\$480.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		170	TON	\$85.00	\$14,450.00
8	-	BITUMINOUS PATCH			SQ YD	\$25.00	
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		30	SQ YD	\$90.00	\$2,700.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$24,730.00
						10% CONTINGENCY:	\$2,470.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$27,200.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$3,710.00
						TOTAL ESTIMATED PROJECT COST:	\$30,910.00

Note: Estimate does not include areas overlaid in 2023

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 South Long Lake Bay Road - 1.5" Bituminous Overlay
 Segments: 250-010
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		24	LIN FT	\$5.00	\$120.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		120	SQ FT	\$3.00	\$360.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		10	CU YD	\$50.00	\$500.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		20	CU YD	\$50.00	\$1,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		170	GALLON	\$3.00	\$510.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		180	TON	\$85.00	\$15,300.00
8	-	BITUMINOUS PATCH			SQ YD	\$25.00	
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		10	SQ YD	\$90.00	\$900.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$22,190.00
						10% CONTINGENCY:	\$2,220.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$24,410.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$3,330.00
						TOTAL ESTIMATED PROJECT COST:	\$27,740.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 South Long Lake Bay Road - 1.5" Bituminous Overlay
 Segments: 260-010
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$3,000.00	\$3,000.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)			LIN FT	\$5.00	
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT			SQ FT	\$3.00	
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		35	CU YD	\$50.00	\$1,750.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		50	CU YD	\$50.00	\$2,500.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		530	GALLON	\$3.00	\$1,590.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		580	TON	\$85.00	\$49,300.00
8	-	BITUMINOUS PATCH			SQ YD	\$25.00	
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT			SQ YD	\$90.00	
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
CONSTRUCTION SUBTOTAL:							\$59,140.00
10% CONTINGENCY:							\$5,910.00
TOTAL ESTIMATED CONSTRUCTION COST:							\$65,050.00
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):							\$8,870.00
TOTAL ESTIMATED PROJECT COST:							\$73,920.00

PRELIMINARY COST ESTIMATE

TOWNSHIP PAVING IMPROVEMENTS
 Wiedel Point Road - 1.5" Bituminous Overlay
 Segments: 310-010 & 310-020
 LONG LAKE TOWNSHIP, CROW WING COUNTY, MINNESOTA
 BMI PROJECT NO. OB1.132449



Date: 2/12/2024

Item No.	MnDOT Spec No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID							
1	2021.501	MOBILIZATION		1	LUMP SUM	\$2,500.00	\$2,500.00
2	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)		50	LIN FT	\$5.00	\$250.00
3	2104.518	REMOVE CONCRETE DRIVEWAY PAVEMENT		250	SQ FT	\$3.00	\$750.00
4	2118.501	AGGREGATE SURFACING CLASS 5 (CV)		5	CU YD	\$50.00	\$250.00
5	2221.507	AGGREGATE SHOULDERING CLASS 1 (CV)		20	CU YD	\$50.00	\$1,000.00
6	2357.506	BITUMINOUS MATERIAL FOR TACK COAT		200	GALLON	\$3.00	\$600.00
7	2360.509	TYPE SP9.5 WEARING COURSE MIXTURE (2,B)		220	TON	\$85.00	\$18,700.00
8	-	BITUMINOUS PATCH		800	SQ YD	\$25.00	\$20,000.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT		30	SQ YD	\$90.00	\$2,700.00
10	2563.601	TRAFFIC CONTROL		1	LUMP SUM	\$1,000.00	\$1,000.00
						CONSTRUCTION SUBTOTAL:	\$47,750.00
						10% CONTINGENCY:	\$4,780.00
						TOTAL ESTIMATED CONSTRUCTION COST:	\$52,530.00
						DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING (15%):	\$7,160.00
						TOTAL ESTIMATED PROJECT COST:	\$59,690.00