



# Board of County Commissioners Agenda Request



**Requested Meeting Date:** 8-25-20

**Title of Item:** 2021 Highway Budget Presentation

<input checked="" type="checkbox"/> REGULAR AGENDA	<b>Action Requested:</b>	<input type="checkbox"/> Direction Requested
<input type="checkbox"/> CONSENT AGENDA		<input checked="" type="checkbox"/> Discussion Item
<input type="checkbox"/> INFORMATION ONLY		<input type="checkbox"/> Hold Public Hearing* <i>*provide copy of hearing notice that was published</i>

<b>Submitted by:</b> John Welle	<b>Department:</b> Highway Department
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<b>Presenter (Name and Title):</b> John Welle, Aitkin County Engineer	<b>Estimated Time Needed:</b> 40 minutes
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**Summary of Issue:**  
Attached are the detailed budget sheets for the proposed Highway Department Budget including the Operations, Capital Equipment/Facilities, and Capital Infrastructure Budgets. Note that the five-year capital equipment and facilities program is included as part of the Capital Equipment/Facilities budget and the 5-year capital road construction program is included as part of the Capital Infrastructure Budget. The budget will be summarized by a brief presentation.

**Alternatives, Options, Effects on Others/Comments:**  
NA

**Recommended Action/Motion:**  
Discussion only, for future action.

**Financial Impact:**  
Is there a cost associated with this request?  Yes  No  
What is the total cost, with tax and shipping? \$  
Is this budgeted?  Yes  No *Please Explain:*

### 2021 Highway Department Budget Summary

**Revenue:**

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
Operating	\$ 4,441,372	\$ 4,678,462	\$ 4,724,979	\$ 2,165,195	\$ 4,760,131
Capital Equipment/Facilities	\$ 571,600	\$ 605,000	\$ 616,400	\$ 516,400	\$ 472,600
Capital Infrastructure	\$ 3,112,769	\$ 4,124,792	\$ 4,327,700	\$ 5,902,754	\$ 5,542,450
<b>Total:</b>	<b>\$ 8,125,741</b>	<b>\$ 9,408,254</b>	<b>\$ 9,669,079</b>	<b>\$ 8,584,350</b>	<b>\$ 10,775,181</b>

**Expenditures:**

Operating	\$ 4,013,396	\$ 4,891,474	\$ 4,724,979	\$ 2,587,842	\$ 4,760,131
Capital Equipment/Facilities	\$ 371,948	\$ 770,600	\$ 616,400	\$ 288,931	\$ 472,600
Capital Infrastructure	\$ 6,031,144	\$ 4,210,865	\$ 4,327,700	\$ 1,093,571	\$ 5,542,450
<b>Total:</b>	<b>\$ 10,416,488</b>	<b>\$ 9,872,940</b>	<b>\$ 9,669,079</b>	<b>\$ 3,970,343</b>	<b>\$ 10,775,181</b>

### 2021 Highway Department Budget Levy Revenue Summary

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
Operating	\$ 1,415,624	\$ 1,260,780	\$ 1,316,749	\$ 210,493	\$ 1,810,459
Capital Equipment/Facilities	\$ 571,600	\$ 605,000	\$ 516,400	\$ 516,400	\$ 372,600
Capital Infrastructure	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
<b>Total:</b>	<b>\$ 2,587,224</b>	<b>\$ 2,465,780</b>	<b>\$ 2,433,149</b>	<b>\$ 1,326,893</b>	<b>\$ 2,783,059</b>

**% Increase Over Previous Year's Budget:**

**14.38%**

## Highway Department Operations Budget Fund 003

**Revenue:**

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
5001 Taxes, Aids, etc.	1,415,624	1,260,780	1,316,749	213,766	1,810,459
5227 Twp Road Allotment Gas Tax	442,343	437,020	495,000	455,617	418,200
5330 State Grants - Disaster Funds	-	-	-	-	-
5425 Federal Grants - FEMA	-	114,348	-	-	-
5430 Federal FHWA - ER Funds	-	-	-	-	-
5840 Misc. Refunds and Reimbursements	71,442	54,079	40,000	6,007	50,000
5846 State-aid: Town Bridge Funds	-	16,371	20,000	-	-
5848 County Bridge Bonding	-	-	-	-	-
5850 State-aid: Regular Construction Funds	11,596	135,545	90,000	139,008	90,000
5851 State-aid: Municipal Construction Funds	-	-	10,000	46,798	10,000
5852 State-aid: Regular Maintenance Funds	1,972,469	1,990,841	2,079,800	1,114,537	1,893,692
5853 State-aid: Municipal Maintenance Funds	127,242	116,761	120,000	63,123	100,000
5854 Township/City/Public Drainage Ditch Receipts	340,354	449,984	335,000	83,485	358,450
5855 Individual Receipts	43,276	24,294	13,430	11,069	14,330
5857 Culverts (Individual) Receipts	1,729	13,368	2,000	1,559	2,000
5866 Auction Receipts	3,769	107	3,000	12,591	3,000
5881 Wetland Bank Credits	11,528	64,965	-	17,636	10,000
5949 Transfer from Fund Balance	-	-	200,000	-	-
<b>Total Revenue:</b>	<b>\$ 4,441,372</b>	<b>\$ 4,678,462</b>	<b>\$ 4,724,979</b>	<b>\$ 2,165,195</b>	<b>\$ 4,760,131</b>

## Highway Department Operations Budget Fund 003

**Department 301 (Administration) Expenditures:**

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
6101 Salaries, Full Time	349,453	345,927	364,913	173,828	370,201
6102 Salaries, Part Time	-	-	-	-	
6108 Meals Reimbursed	64	62	150	11	150
6109 Overtime	-	-	-	-	
6124 Medicare - Employer (1.45%)	4,791	4,693	5,292	2,356	5,367
6148 Employer Deductible Contribution- H.S.A.	12,379	12,040	12,040	6,020	12,040
6150 Health Insurance - Employer	47,570	47,819	50,629	25,315	59,070
6152 Life Insurance - Employer	215	318	317	159	372
6154 Long Term Disability - Employer	692	603	746	427	945
6159 PERA - Employer	24,554	24,270	26,443	12,575	25,853
6165 FICA - Employer (6.2%)	20,182	19,794	22,625	10,072	22,953
6205 Postage	1,796	1,296	1,200	148	1,200
6234 Background Checks	-	-	-	-	
6240 Dues	3,010	3,060	3,070	3,111	3,070
6241 Registration Fees/Prof. Serv./Printing	1,716	1,354	1,500	1,511	1,500
6296 Meeting Expenses	3,557	3,030	2,000	(344)	1,000
6300 Service Contracts	9,965	12,636	13,790	2,027	13,790
6352 Insurance	46,737	51,324	50,041	51,445	56,590
6353 Workers Compensation Insurance	4,722	5,114	5,096	3,981	4,180
6400 Supplies and Materials	5,481	6,787	5,000	3,130	6,000
<b>Total Administration Expenditures:</b>	<b>\$ 536,884</b>	<b>\$ 540,127</b>	<b>\$ 564,852</b>	<b>\$ 295,771</b>	<b>\$ 584,281</b>

## Highway Department Operations Budget Fund 003

**Department 302 (Engineering) Expenditures:**

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
6101 Salaries	272,451	316,029	363,438	156,123	372,892
6102 Salaries, Part Time	7,181	-	-	587	
6108 Meals Reimbursed	84	59	100	43	100
6109 Overtime	37,949	18,978	47,962	10,064	31,982
6124 Medicare - Employer (1.45%)	4,470	4,715	5,965	2,297	5,872
6148 Employer Deductible Contribution- H.S.A.	2,260	2,260	2,260	1,130	3,260
6150 Health Insurance - Employer	55,661	63,571	67,763	30,018	85,181
6152 Life Insurance - Employer	247	442	464	206	594
6154 Long Term Disability - Employer	155	823	1,000	432	1,027
6159 PERA - Employer	23,104	25,124	30,298	12,480	29,774
6165 FICA - Employer (6.2%)	19,112	20,162	25,506	9,804	25,103
6296 Meeting Expense/Physicals	4,951	8,340	5,000	6,182	6,000
6353 Workers Compensation Insurance	2,613	2,452	633	1,749	1,840
6411 Safety Footwear	278	347	725	35	725
6449 Engineering Supplies	8,497	4,276	6,000	4,510	6,000
6820 Health Insurance Fund	-	-	-	-	
<b>Total Engineering Expenditures:</b>	<b>\$ 439,013</b>	<b>\$ 467,578</b>	<b>\$ 557,114</b>	<b>\$ 235,658</b>	<b>\$ 570,350</b>

## Highway Department Operations Budget Fund 003

**Department 303 (Road Maintenance) Expenditures:**

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
6101 Salaries, Full Time	924,350	961,831	1,056,010	496,716	1,063,751
6102 Salaries, Part Time	18,763	20,885	-	-	
6108 Meals Reimbursed	-	15	-	14	
6109 Overtime	44,080	52,165	52,844	28,000	55,488
6124 Medicare - Employer (1.45%)	13,783	14,481	16,079	7,347	16,232
6148 Employer Deductible Contribution- H.S.A.	2,260	2,260	2,260	1,130	2,260
6150 Health Insurance - Employer	241,561	241,389	259,835	123,258	249,688
6152 Life Insurance - Employer	970	1,451	1,585	747	1,749
6154 Long Term Disability - Employer	261	2,448	2,852	1,374	2,842
6159 PERA - Employer	71,657	75,146	81,640	39,362	81,964
6165 FICA - Employer (6.2%)	58,935	61,921	68,753	31,254	69,391
6254 Utilities	51,260	57,481	55,000	29,958	55,000
6296 Meeting Expense/Physicals	2,936	2,762	2,000	552	2,000
6297 Shop Fuel	21,137	24,149	20,000	15,020	22,000
6298 Shop Maintenance and supplies	53,477	64,202	54,000	23,392	54,000
6352 Insurance	4,470	5,297	5,706	5,672	6,240
6353 Workers Compensation Insurance	56,469	48,441	34,504	34,504	36,230
6411 Safety Footwear	2,028	2,356	2,465	848	2,465
6513 Motor Fuel and Lubricants	207,268	225,541	226,480	101,472	210,000
6514 Pavement Striping	60,269	45,995	48,600	19,723	49,000
6515 Culverts	41,339	75,658	37,000	68,873	57,000
6516 Signs and Posts	9,021	24,424	15,000	9,954	15,000
6517 Asphalt, Crack Sealant, Etc	1,380	37,371	54,000	48,075	54,000
6518 De-icing Salt	69,914	126,725	144,400	69,271	148,000
6519 Gravel & Royalty	26,642	292,758	120,000	50,784	120,000
6520 Calcium Chloride	198,819	228,430	240,000	-	335,000
6521 Other Maintenance Supplies/Services(Road only)	57,313	415,774	225,000	250,100	185,000
6524 Sand for Salt Mixture	17,557	27,544	25,000	-	25,000
6590 Repair and Maintenance of Equipment	293,533	272,746	225,000	109,350	240,000
6820 Approach Deposit Refund	-	-	-	-	
6825 Municipal Maintenance Agreements	43,705	35,103	32,000	34,044	28,000
6830 Twp Road Allotment Gas Tax	442,343	437,020	495,000	455,617	418,200
<b>Total Road Maintenance Expenditures:</b>	<b>\$ 3,037,499</b>	<b>\$ 3,883,769</b>	<b>\$ 3,603,013</b>	<b>\$ 2,056,412</b>	<b>\$ 3,605,500</b>
<b>Grand Total Operations Expenditures:</b>	<b>\$ 4,013,396</b>	<b>\$ 4,891,474</b>	<b>\$ 4,724,979</b>	<b>\$ 2,587,842</b>	<b>\$ 4,760,131</b>

## Highway Department Capital Equipment and Facilities Budget Fund 308

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-20	Proposed 2021 Budget
<b>Revenue:</b>					
5001 Taxes, Aids, etc.	571,600	605,000	516,400	516,400	372,600
5840 Miscellaneous Receipts	-	-	-	-	
5949 Transfer from Fund Balance			\$ 100,000		\$ 100,000
<b>Total Revenue:</b>	<b>\$ 571,600</b>	<b>\$ 605,000</b>	<b>\$ 616,400</b>	<b>\$ 516,400</b>	<b>\$ 472,600</b>
<b>Expenditures:</b>					
6600 Capital Outlay - Facilities	-	8,216	100,000	6,600	100,000
6600 Capital Outlay - Equipment	371,948	762,384	516,400	282,331	372,600
<b>Total Expenditures:</b>	<b>\$ 371,948</b>	<b>\$ 770,600</b>	<b>\$ 616,400</b>	<b>\$ 288,931</b>	<b>\$ 472,600</b>

**Aitkin Area Maintenance Facility:**

- constructed 1975
- addition constructed in 2000

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Office Renovation/ Addition		100,000	135,000				235,000	Fund Balance	\$565k total budgeted in 2014-2020
Diesel Fuel Tank Replacement				45,000	25,000		70,000		Installed 1983
Gate Improvements				10,000			10,000		\$10k budgeted in 2016
<b>Total:</b>		<b>\$ 100,000</b>	<b>\$ 135,000</b>	<b>\$ 55,000</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ 305,000</b>		

**Jacobson Area Maintenance Facility**

- constructed 1992
- \$106,741 construction cost

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
							-		
							-		
<b>Total:</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		

**McGrath Area Maintenance Facility**

- constructed 1973
- \$59,556 construction cost

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Diesel Fuel Tank Replacement					45,000	15,000	60,000		Installed 1988
							0		
<b>Total:</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 45,000</b>	<b>\$ 15,000</b>	<b>\$ 60,000</b>		



**McGregor Area Maintenance Facility**

- constructed 1974
- \$60,716 construction cost

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Diesel Fuel Tank Replacement						60,000	60,000		Installed 1988
<b>Total:</b>		\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ 60,000		

**Palisade Area Maintenance Facility**

- constructed 2004
- \$390,865 construction cost

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Cold Storage Building			30,000	30,000			60,000		
Diesel Fuel Tank Replacement			40,000				40,000		
<b>Total:</b>		\$ -	\$ 70,000	\$ 30,000	\$ -	\$ -	\$ 100,000		

**Swatara Area Maintenance Facility**

- constructed 2006
- \$408,807 construction cost

DESCRIPTION	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
							-		
<b>Total:</b>		\$0	\$0	\$0	\$0	\$0	\$0		
<b>Grand Total Capital Facilities:</b>		\$100,000	\$205,000	\$85,000	\$70,000	\$75,000	\$525,000		

**ADMIN**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #621 Office Desks - Acct & Office Assistant		11/30/94 \$ 2,754.09	20							-	
Unit #631 Office Furniture - Engineer		03/06/00 \$ 3,031.74	10							-	
Unit #632 Office Furniture - Asst Engineer		03/06/00 \$ 2,323.78	10							-	
Unit #633 Office Furniture - ROW/Permit Agent		03/06/00 \$ 2,126.53	10							-	
Unit #635 Conference Room Furniture		02/02/01 \$ 2,642.74	10							-	
Unit #637 Office Furniture - Surveyor		1/31/2003 \$ 1,385.64	10							-	
Unit #644 Computer - Maintenance Foremen		1/22/2020 \$ 867.00	4							-	
Unit #646 NEC Projector		11/27/2007 \$ 1,261.73	0							-	
Unit #648 Engineer Tech Desks/Chairs		5/22/2008 \$ 2,896.81	5							-	
Unit #652 (John) Laptop Thinkpad W500- Engineer		12/28/17 \$ 2,089.07	4							-	
Unit #653 (Carl) Office Assistant Computer		1/22/2020 \$ 867.00	4				1,300		1,300		\$1.4k in 2018
Unit #657 (John) Engineer Computer		7/2/2018 \$ 1,376.00	4			1,300			1,300		
Unit #658 (Sarah) Accountant Computer		12/7/2016 \$ 910.00	4	1,200					1,200		
Unit #659 (Conrad) ROW/Permit Agent Computer		12/7/2016 \$ 1,288.00	4	1,200					1,200		
Unit #660 (Mike) Asst. Engineer Computer		12/07/16 \$ 1,288.00	4	1,200					1,200		
Unit #661 Mechanic Computer		1/22/2020 \$ 867.00	4							-	
Unit #662 Maintenance Employees Computer		1/22/2020 \$ 867.00	4							-	
Unit #785 NewRoads ACS Software		10/1/2013 \$ 9,084.38	30								
Assistant Maint Supervisor Computer			5								\$1.2K in 2020
<b>Total:</b>				\$ 3,600	\$ -	\$ 1,300	\$ 1,300	\$ -	\$ 6,200	R&B levy	

## ATV

## Aitkin County Highway Department

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #13 2011 Polaris 500 Ranger ATV	4XARH50A6BB070008 2,063 miles	4/15/2011 \$ 9,894.94	8								
Unit #720: 1998 Polaris ATV	4XAACH2A2WB052100 1,942 miles	05/13/98 \$ 4,897.94	8								1 hour in 2019 - sell?
Total:				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	R&B levy	

## BELLY DUMPS

## Aitkin County Highway Department

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #499 1995 Red River Belly Dump	1R9BD423XS1051056 151,883 miles	05/04/95 \$ 26,417.80	20		20,000	50,000			70,000		tractor & belly dump trailer
Unit #501 2001 Red River Belly Dump	4ZYBD42311000233 120,597 miles	05/22/01 \$ 28,462.32	20								
Unit #503 2015 CPS Belly Dump	5MC434214F3149962 120,597 miles	4/3/2020 \$ 21,400.00	20								
Total:				\$ -	\$ 20,000	\$ 50,000	\$ -	\$ -	\$ 70,000	R&B levy	

CONST  
Aitkin County Highway Department

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #435: (Drill Rig) 1986 Ford Pickup	1FTEF26N9GPB86481 135,702 miles	02/20/96 \$ 5,872.50	5								
Unit #709: Pin Finder Locator FT150	45B9086F	01/01/89 \$ 500.00	10								
Unit #711: Concrete Air Tester	P116	04/07/95 \$ 575.18	20								
Unit #718: Laser Level	14165	06/06/97 \$ 2,337.68	10								
Unit #726: Course Sieve Shaker		06/19/01 \$ 3,522.26	5								
Unit #727 Digital Scale		03/27/02 \$ 1,452.00	5								
Unit #731 One Office DataBase/Egram		9/2/2005 \$ 15,763.93	10								
Unit #738 HP Laserjet 5200 DTN Printer		11/27/2012 \$ 2,396.00	8								
Unit #739 Autocad Civil 3D 2017		1/12/2017 \$ 41,224.62	5								
Unit #740 Trimble Survey Equipment 2019	5834F00202	5/28/2019 \$ 67,863.01	8								
Unit #769 Toughbooks #1		9/21/2011 \$ 1,757.03	5								\$1,400 in 2017
Unit #772 IPAD - Sign Truck		9/2/2015 \$ 930.97	4								\$1,200 in 2020
Unit 776 Extra Engineer Station Computer		5/13/2009 \$ 1,039.44	4								
Unit #777 Nikon Auto Level		6/3/2009 \$ 1,050.94	1								
Unit #778 E-TimeCard		12/24/2009 \$ 9,570.00									
Unit #784 Engineer Tech Computer #5		4/14/2013 \$ 1,159.59	4								\$1.4K in 2018
Unit #786 Eng. Tech Desktop Computers - 4		1/1/2018 \$ 6,664.36	4			7,000			7,000		
Unit #787 Eng. Tech Laptop's - 4		1/1/2018 \$ 7,210.80	4				7,000		7,000		
<b>Total:</b>				\$ -	\$ -	\$ 7,000	\$ 7,000	\$ -	\$ 14,000	R&B levy	

## DUMP TRUCKS

## Aitkin County Highway Department

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #126: (Swatara - Florian) 2000 Ford Single Axle	2FZHDJBB0YAB12881 107,558 miles	10/22/99 \$ 89,105.34	8	195,000					195,000		acquire in 2021
Unit #127: (Spare) 2000 Ford Single Axle	2FZHOJBB2YAB12882 127,334 miles	10/22/99 \$ 93,834.69	8						-		Keep as spare.
Unit #128: (Palisade - Josh) 2001 Sterling LT9511	2FZHAZAS31AJ37253 296,171 miles	04/17/01 \$ 110,632.06	8	35,000	165,000				200,000		acquire in 2021
Unit #131: (McGregor - Kyle) 2001 Sterling LT9511	2FZHAZAS91AJ37256 210,283 miles	04/17/01 \$ 109,972.80	8		200,000				200,000		acquire in 2021
Unit #135 (Aitkin - Greg) 2012 International Tandem	1HTGRSJT1CJ634654 153,453 miles	2/13/2012 \$ 180,115.33	8					210,000	210,000		acquire in 2024
Unit #136 (Aitkin - Randy) 2012 International Tandem	1HTGRSJT1CJ634655 154,383 miles	2/13/2012 \$ 180,115.32	8			50,000	160,000		210,000		acquire in 2024
Unit 137 (Scott - McGregor) 2012 International Tandem	1HTGRSJT1CJ634656 109,759 miles	2/13/2012 \$ 181,528.21	8				195,000	15,000	210,000		acquire in 2024
Unit 138 (Aitkin - Al) 2012 International Tandem	1HTGRSJT1CJ634657 130,416 miles	2/13/2012 \$ 181,837.07	8					210,000	210,000		acquire in 2024
Unit 139 (McGrath - Ben) 2016 Mack GU 713	1M2AX09C5GM031563 62,549 miles	11/25/2015 \$ 182,454.37	8						-		
Unit 140 (Palisade - Gary) 2016 Mack GU 713	1M2AX09C7GM031564 49,373 miles	11/25/2015 \$ 182,454.37	8						-		
Unit 141 (McGrath - Randy) 2016 Mack GU 713	1M2AX09C9GM031565 50,544 miles	11/25/2015 \$ 182,454.37	8						-		
Unit 142 (Jacobson) 2010 Mack GU812 Single Axle	1M2AX11C0AM001296 99,455 miles	10/30/2018 \$ 93,234.00	8						-		
Unit 143 (Palisade - Don) 2019 Mack GR64F	1M2GR3C1KM011697 22,064 miles	5/2/2019 \$ 192,262.32	8						-		
Unit 144 (Aitkin - Rick) 2020 Mack GR64F	1M2GR3GC1LM011698 25,734 miles	5/2/2019 \$ 192,262.32	8						-		
Unit 145 (McGregor - Dave) 2019 Mack GR64F	1M2GR3GC5KM011699 23,862 miles	5/2/2019 \$ 192,262.32	8						-		
Unit 146 (Chassis Only) 2015 International ProStar	1HSDJAPR1FH528155 316,726 miles	3/27/2020 \$ 51,707.50	8						-		
<b>Total:</b>				<b>\$ 230,000</b>	<b>\$ 365,000</b>	<b>\$ 50,000</b>	<b>\$ 355,000</b>	<b>\$ 435,000</b>	<b>\$ 1,435,000</b>	<b>R&amp;B levy</b>	

## LOADERS

Aitkin County Highway Department

DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #010 1989 Case 1840 Skidsteer	JAF 0046781 1,863 hours	06/30/91 \$ 14,320.00	5								
Unit #020 Bobcat Skidsteer	519025062 1,780 hours	8/21/2009 \$12,500	6								
Unit #366: 1985 John Deere Tractor-Loader	4S6575 7,644 hours	06/01/85 \$ 27,895.00	7								
Unit #371 (Aitkin) 2008 John Deere 624J Loader	DW624J2620150 3,179 hours	5/15/2008 \$ 102,623.40	10								
Unit #386: (Swatara) 2003 JD 410E Wheel Loader Backhoe	T0410EX885689 318 hours (+4300 on old odometer)	11/21/2013 \$ 30,459.38	10								
Unit #389: (Jacobson) 1994 Ford Loader/Backhoe	A428046 3,381 hours	11/01/94 \$ 49,456.05	10								Planned \$50k 2022 Delayed to 2026
Unit #391: (Palisade) 1997 Cat 938F Loader	1KM02373 5,219 hours	06/09/97 \$ 121,976.00	10								Planned \$140k 2021 Delayed to 2026
Unit #397 (McGrath) John Deere Loader/Backhoe	T0310SG927807 2,672 hours	12/22/2003 \$ 45,382.85	12								
Unit #398 (McGregor) John Deere 624J Loader	DW624JZ591593 2,841 hours	4/8/2004 \$ 114,444.90	12								
<b>Total:</b>				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	R&B levy	

**MAINT**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit #016 Stow VPC80E Plate Compactor	9301000	10/01/93 \$ 1,618.80	8								
Unit #018 Graco Pavement Marker	3003	06/17/94 \$ 6,704.18	8								
Unit #019 Roscoe SweepPro	4820-44017 2,139 hours	3/21/2006 \$ 30,625.14	10								
Unit #041 2014 Cimline 230DH Gen IV Melter	892 hours	3/26/2015 \$ 36,495.00	5								
Unit #042 Ingersoll Rand Compressor	327328URM288 1,123 hours	02/26/02 \$ 11,762.93	5								
Unit #43 Pavement Compactor CATCB24	24001325 495 hours	10/15/2012 \$ 27,787.50	10								
Unit #048: Hydro Tek Steamer	201400566	3/13/2014 \$ 6,478.90	8								
Unit #50 STEPP Pothole Patch Trailer	4S9PH15Y1ES127059 820 hours	5/29/2014 \$ 15,572.00	8								
Unit #066 Honda Water Pump		8/15/2003 \$ 2,628.51	5	4,000					4,000		
Unit #067 Pull-type Pneumatic Roller	190604	11/15/2004 \$ 11,182.50	5								
Unit #096 All American Disk	105DH	12/11/95 \$ 4,473.00	7								
Unit #098 Ford Tandem Wheel Disc		07/25/88 \$ 1,600.00	4								
Unit #300 PT100G Terex Track Brush Machine	ASVPT100LDWF00338 1,701 hours	6/27/2011 \$ 71,832.83	10			80,000			80,000		
Unit #306 2013 LB Performance RW35 Road Wid	91161 556 hours	3/27/2020 \$ 38,500.00	10								
Unit #369 1999 Self-propelled Steel Drum Roller	3TM01311 2,073 hours	11/16/2004 \$ 43,665.00	5								
Unit #372 2020 Voivo Excavator	EC140EL 10 hours	5/28/2020 \$145,406	10								
Unit #399 Caterpillar D5NLGP Dozer	ADK01236 3,251 hours	12/29/2004 \$ 107,649.54	12								
Unit #498 Water Tanker Trailer	OMA102901	6/11/2003 \$ 2,500.00	2	5,000					5,000		Replace with dump box tank
HydroSeeder				10,000					10,000		
<b>Total:</b>				\$ 19,000	\$ -	\$ 80,000	\$ -	\$ -	\$ 99,000	R&B levy	

**MOTOR GRADERS**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	2021	2022	2023	2024	2025	5 YEAR TOTAL	FUNDING SOURCE	COMMENTS
Unit 200 (McGregor) Caterpillar 120M Motor Grader	CAT0120MJD9W00208 4,979 hours	2/28/2013 \$ 193,743.00	15	30,000					30,000		Add wing
Unit 201 (McGrath - Randy) Caterpillar 120M Motor Grader	CAT0120MPD9W00206 3,789 hours	2/28/2013 \$ 193,743.00	15						-		
Unit 205: (Swatara) 2016 John Deere 670GP	1DW670GPCGF678041 1,827 hours	11/17/2016 \$ 208,090.00	15						-		
Unit #206: (McGrath-Ben) 2016 John Deere 670GP	1DW670GPAGF678048 2,150 hours	11/17/2016 \$ 208,090.00	15						-		
Unit #211: (Jacobson) Caterpillar 140G Motor Grader	72V11844: Rebuilt '06 15,782 hours	04/19/89 \$ 118,166.00	7			230,000			230,000		
Unit #213: (Palisade) Caterpillar 120M2 Motor Grader	CAT0120MKM9C01011 1,074 hours	11/27/2018 \$ 207,780.00	7								
Unit #214: (Aitkin) 2020 John Deere 670GP Motor Grader	1DW670GPCLF707211 2020 John Deere 670GP Motor Grader	7/15/2020 \$ 296,120.00	7								
<b>Total:</b>				<b>\$ 30,000</b>	<b>\$ -</b>	<b>\$ 230,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 260,000</b>	<b>R&amp;B levy</b>	



**PICKUPS**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	5 YEAR					FUNDING SOURCE	COMMENTS	
				2021	2022	2023	2024	2025			TOTAL
Unit #440: (Mower) 1999 Ford Pickup	1FTSF30S7XEE77886 236,541 miles	06/24/99 \$ 27,307.66	5								
Unit #448 (former eng. maint) 2004 Ford F-150 4x4	2FTRF18W04CA57284 127,190 miles	9/9/2004 \$ 18,264.12	5								\$24K in 2020 keep as spare
Unit #453 (Maint.) (with lift) 2008 Ford F-250	1FTNF215X8ED 108,809 miles	1/2/2008 \$ 21,153.03	5		30,000				30,000		
Unit #454 (Randy) 2008 Ford F-150	1FTRX14W58FC 110,558 miles	5/13/2008 \$ 20,588.65	5					25,000	26,000		
Unit #456 (Maint.) 2008 Ford F-350 Flatbed	1FDWF36Y88EE41635 67,437 miles	8/21/2008 \$ 25,893.33	5			30,000			30,000		Replace w/Crew Cab
Unit #458 (McGregor) 2010 Ford F150 CrewCab	1FTW1E82AFC37178 102,205 miles	5/21/2010 \$ 26,065.86	5				26,000		26,000		
Unit #459 (Dave) 2010 Ford F150	1FTEX1E81AKE10754 52,344 miles	5/14/2010 \$ 23,704.75	5					26,000	26,000		
Unit #460 (Survey) 2011 Ford F350 SD	1FD8W3B66BEA79874 108,686 miles	8/4/2010 \$ 39,336.40	5				45,000		45,000		
Unit #462 (Swatara) 2012 Chevy 4DR Ext.	IGC2KXCG3CZ177243 200,555 miles	12/19/2011 \$ 24,912.00	5			22,000			22,000		was previously \$16k
Unit 464 (Conrad) 2008 Ford F150 Ext Cab	IDRPX12VX8FB81383 49,547 miles	6/4/2012 \$ 12,000.00	5				26,000		26,000		
Unit# 465 (Mechanic) 2012 Chevy Mechanic Truck	1GB3KZCG1CF120836 152,350 miles	10/15/2012 \$ 55,726.00	5	23,000					23,000		\$35K in 2020
Unit #466: (Paul K) 2014 Ford F-150	1FTEX1EM3EKE13609 39,104 miles	04/10/2014 \$ 25,382.88	8								
Unit #467 (Quale) 2007 Ford F-150 4x4 Styleside	1FTPW14V37KC86787 125,430 miles	7/6/2015 \$ 16,997.50	5	24,000					24,000		
Unit #468 (McGrath) 2007 Ford F-150	1FTPX14V37KD14368 120,750 miles	10/6/2015 \$ 17,895.95	5			22,000			22,000		was previously \$20k
Unit #469: (Jacobson Shop) 2005 Ford F150	1FTRF145X5NA52845 114,531 miles	3/23/2016 \$ 12,795.75	5			22,000			22,000		was previously \$20k
Unit #470 (Palisade Shop) 2006 GMC Sierra 150	1GTEK19B26Z186669 115,174 miles	5/26/2016 \$ 16,867.75	5				22,000		22,000		was previously \$20k
Unit #471 (Sign Truck) 2017 Ford F-450 Super Duty	1FOUF4GY5HED18824 68,158 miles	5/12/2017 \$ 47,292.13	5								
Unit #472 (Butch) 2018 Ford F-250 SuperDuty	1FT7X2B63JEC64325 61,931 miles	6/5/2018 \$ 26,631.91	5					30,000	30,000		
Unit #473 (Scott) 2018 Ford F-250 SuperDuty	1FT7X2B61JEC64324 63,803 miles	6/11/2018 \$ 33,554.41	5					30,000	30,000		
<b>Total:</b>				\$ 47,000	\$ 30,000	\$ 96,000	\$ 119,000	\$ 112,000	\$ 404,000	R&B levy	0.00

**SHOP**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	5 YEAR					FUNDING SOURCE	COMMENTS	
				2021	2022	2023	2024	2025			TOTAL
Unit #802: Airco Welder Outfit	DH911005	01/01/80 \$ 1,758.88	10								
Unit 803 Gray Wireless Portable Life System		1/30/2020 \$ 38,233.00	10								
Unit #804: (Aitkin) Pressure Washer	118215	01/01/80 \$ 750.49	10								
Unit #806: John Deere Snowblower	TY0522A003004	01/11/76 \$ 800.00	10								
Unit 807: Sears Portable Generator		03/17/95 \$ 1,124.24	10								
Unit #809 Plasma Cutter		1/12/2007 \$ 2,343.00	4								
Unit #810 Husqvarna Mower	643 hours	5/27/2009 \$ 4,260.00	4	5,000					5,000		
Unit #811 Husqvarna Chop Saw K760		9/11/2013 \$ 1,916.92	4								
Unit #812 AC/DC 225/115 Welder		6/12/2018 \$ 701.87	1								
Unit #813 Power Mig 256 Mig Welder		6/12/2018 \$ 2,483.40	1								
<b>Total:</b>				<b>5,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,000</b>		

**TRACTORS**  
**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	5 YEAR					FUNDING SOURCE	COMMENTS	
				2021	2022	2023	2024	2025			TOTAL
Unit #350 (Aitkin) John Deer Tractor/Mower	L06430H520378 6,415 hours	4/19/2007 \$ 75,268.00	10		75,000				75,000		
Unit #351 New Holland Tractor Mower	NT01172M 1,636 hours	10/6/2016 \$ 66,121.56	10								
Unit #352 New Holland - Guardrail Mower	333 hours	7/12/2019 \$ 103,838.50	10								
<b>Total:</b>				<b>\$ -</b>	<b>\$ 75,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 75,000.00</b>	<b>R&amp;B levy</b>	

**TRAILERS**

**Aitkin County Highway Department**

EQUIPMENT DESCRIPTION	SERIAL # MILEAGE	AQ. DATE AQ. COST	PROJ. LIFE	5 YEAR					FUNDING SOURCE	COMMENTS	
				2021	2022	2023	2024	2025			TOTAL
Unit #028 (Dozer) Felling Trailer	5FTDA292871027973	6/21/2006 \$ 15,819.88	8								
Unit #029 (Skid Loader) Felling Trailer	1F9FS1425M1072074	05/08/91 \$ 9,400.00	8	8,000						8,000	
Unit #031 Survey Trailer	4P5671213B2160170	4/1/2011 \$ 1,760.25	8								
Unit #032 (McGrath) Felling Trailer	5FTDA242321017075	06/07/01 \$ 11,988.86	8	30,000						30,000	
Unit #033 Homemade Culvert Trailer	DPWMN890722	01/01/90 \$ -	5								
Unit #034 (Jacobson) Towmaster Trailer	2471	06/21/88 \$ 10,705.35	8				32,000			32,000	
Unit #035 Homemade 6X8 Trailer	DPSMN890723	03/14/86 \$ 100.00	8								
Unit #051 (Trackhoe) Towmaster Trailer T-50	4KNFT2431EL162184	05/30/2014 \$ 26,005.96	10								
Unit #52 Continental Cargo 6x10 Trailer	5NHUVH019FN079008	4/14/2016 \$ 3,243.93	10								
Unit #97 (pipe trailer) Home Made Trailer	DSPMN890724	03/10/89 \$ 694.34	8								\$ 516,400
<b>Total:</b>				\$ 38,000.00	\$ -	\$ -	\$ 32,000.00	\$ -	\$ -	\$ 70,000.00	R&B levy
<b>Grand Total Capital Equipment:</b>				\$ 372,600	\$ 490,000	\$ 514,300	\$ 514,300	\$ 547,000	\$ 2,438,200		

## Highway Department Capital Infrastructure Budget Fund 307

	2018 Actual	2019 Actual	Adopted 2020 Budget	2020 As of 6-30-19	Proposed 2021 Budget
<b>Revenue:</b>					
5001 Taxes, Aids, etc.	600,000	600,000	600,000	600,000	600,000
5840 Misc. Receipts	102,750	-	-	4,994	-
5841 Federal Transportation Funds	810,071	133,042	-	100,984	91,000
5842 State Park Funds	378,181	19,018	-	-	284,000
5844 State-aid Disaster Funds	-	-	-	-	-
5846 Town Bridge Funds	91,470	163,770	245,000	-	75,000
5848 State Bonding Funds	-	-	-	-	691,785
5849 LRIP (Local Road Improvement Funds)	-	-	-	-	-
5850 State-aid Regular Construction Funds	952,806	3,169,344	2,779,700	5,065,580	3,800,665
5851 State-aid Municipal Construction Funds	177,491	39,618	160,000	131,196	-
5854 Township/City/Private/Other Funds	-	-	30,500	-	-
5864 Trunk Highway Turnback	-	-	-	-	-
5865 DEED Money	-	-	-	-	-
5947 Transfer from Fund Balance	-	-	512,500	-	-
<b>Total Revenue:</b>	<b>\$ 3,112,769</b>	<b>\$ 4,124,792</b>	<b>\$ 4,327,700</b>	<b>\$ 5,902,754</b>	<b>\$ 5,542,450</b>
<b>Expenditures:</b>					
6230 Printing and Publishing	528	1,692	1,700	872	2,300
6260 Professional Services	113,142	166,298	96,000	147,006	137,000
6262 Contract Payments	5,835,449	3,660,406	3,813,000	917,671	5,330,650
6295 Utility Moves	-	-	-	-	30,000
6362 Right of Way	82,025	382,469	417,000	28,021	-
6311 Transfer to Fund Balance	-	-	-	-	42,500
<b>Total Expenditures:</b>	<b>\$ 6,031,144</b>	<b>\$ 4,210,865</b>	<b>\$ 4,327,700</b>	<b>\$ 1,093,571</b>	<b>\$ 5,542,450</b>

Notes: Revenue line item 5001 based on proposed 2019-2023 Capital Road Improvement Program average per year.

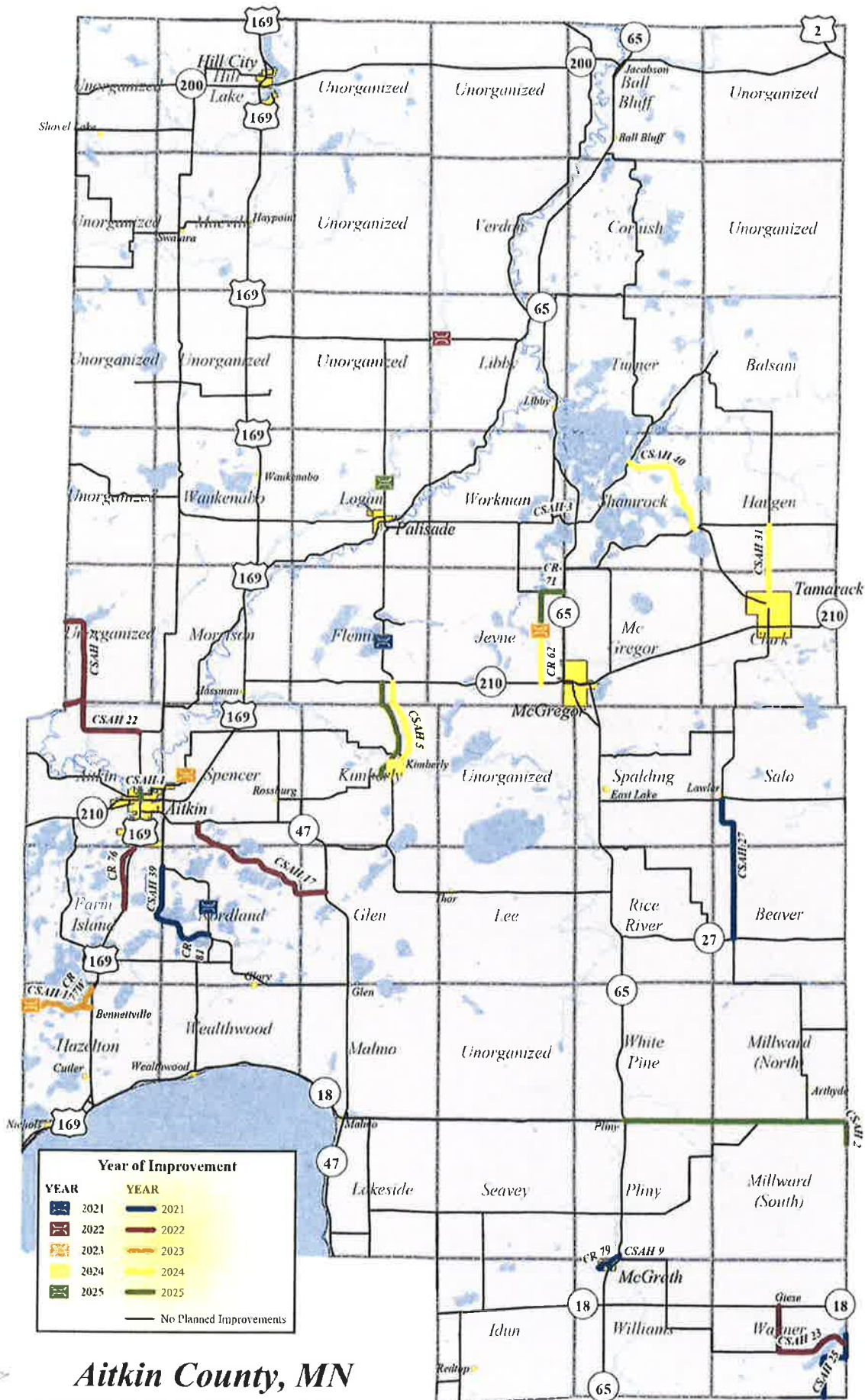
2021 Disbursements						2021 Receipts								Notes	
Project	Printing and Publishing	Professional Services	Contract Payments	Utility Moves	Right of Way	Property Tax Revenue	Federal Transportation Funds	State Park Funds	State-aid Disaster Funds	Town Bridge Funds	State Bond Funds	State-aid Regular Construction	State-aid Municipal Construction		Township/City/State/Other Funds
<b>2020 Projects</b>															
S.A.P. 001-601-021			\$ 10,000									\$ 10,000			\$420,300 budgeted in previous year
S.A.P. 001-603-018			\$ 500,000	\$ 30,000								\$ 530,000			\$3,605,200 budgeted previous years
S.A.P. 001-603-020	\$ 300		\$ 245,000									\$ 245,300			
S.A.P. 001-605-013															\$185,200 budgeted previous years
S.A.P. 001-614-014	\$ 200		\$ 284,000					\$ 284,000				\$ 200			\$5,000 budgeted previous years
S.A.P. 001-625-001			\$ 420,000									\$ 420,000			\$1,765,200 budgeted previous years
S.A.P. 001-636-004			\$ 121,650									\$ 121,650			\$64,200 budgeted previous year
C.P. 001-076-001	\$ 300	\$ 5,000	\$ 270,000			\$ 275,300									\$355,000 budgeted previous years
CR 81 Chipseal															\$40,150 budgeted previous year
S.A.P. 001-599-041															\$120,250 budgeted previous years
S.A.P. 001-599-042			\$ 75,000							\$ 75,000					\$160,250 budgeted previous years
<b>2021 Projects</b>															
S.A.P. 001-609-004	\$ 100	\$ 2,000	\$ 130,000			\$ 132,100									
S.A.P. 001-612-023	\$ 300	\$ 15,000	\$ 714,000							\$ 304,905	\$ 424,395				\$35,000 budgeted previous years
S.A.P. 001-625-002	\$ 100	\$ 10,000	\$ 1,100,000									\$ 1,110,100			
C.P. 001-027-001															\$600,200 budgeted previous years
Bluminous Patches			\$ 100,000			\$ 10,000						\$ 90,000			
CSAH 39 Chipseal	\$ 300		\$ 255,000									\$ 255,300			
S.P. 001-070-008	\$ 300		\$ 101,000				\$ 91,000					\$ 10,300			
C.P. 001-079-002	\$ 100		\$ 130,000			\$ 130,100									
<b>Future Projects</b>															
S.A.P. 001-605-014															\$50,000 budgeted previous years
S.A.P. 001-611-003															\$205,000 budgeted previous years
S.A.P. 001-618-005	\$ 300	\$ 15,000	\$ 875,000							\$ 386,880	\$ 503,420				\$40,000 budgeted previous years
S.A.P. 001-598-014		\$ 10,000				\$ 10,000									\$35,000 budgeted previous years
S.A.P. 001-598-016															\$35,000 budgeted previous years
CSAH 5 Bndge over Rice		\$ 40,000										\$ 40,000			
CSAH 5 Bndge over Willow		\$ 40,000										\$ 40,000			
<b>Totals:</b>	\$ 2,300	\$ 137,000	\$ 5,330,650	\$ 30,000	\$ -	\$ 557,500	\$ 91,000	\$ 284,000	\$ -	\$ 75,000	\$ 691,785	\$ 3,800,665	\$ -	\$ -	

Notes:

Total professional service expenditures/revenues for a given project are listed in first anticipated year of the expenditure  
Total right of way expenditures/revenues for a given project are listed in first anticipated year of the expenditure  
Total contract, utility move, and printing and publishing expenditures/revenue are all listed in anticipated year of contract letting

**Proposed 2021 through 2025 Capital Road Improvement Plan**

			Pavement Age/2019 RQI	Estimated Construction Cost
	Length	Location		
<b>2021</b>				
SAP 001-605-013 - CSAH 5 Bridge (Culvert) Replacement	0.1	CSAH 5 over Fleming Lake inlet		\$ 179,182
SAP 001-609-004 - CSAH 9 Resurfacing	0.82		2003/1.9-2.1	\$ 130,000
SAP 001-612-023 - CSAH 12 Bridge Replacement	0.2	CSAH 12 over Ripple River		\$ 713,688
SAP 001-625-002 - CSAH 25 Bituminous Paving	3.3			\$ 1,100,000
CP 001-027-001 CSAH 27 Gravel Road Improvement	6.6			\$ 800,000
Bituminous Patches CH 22, 23, 60				\$ 80,000
CSAH 39 Chipseal	5.1		1999/3.5	\$ 255,000
SP 001-070-008 HSIP Chevron signing				\$ 101,000
CP 001-079-002 - CR 79 Resurfacing	0.48		2003/1.8	\$ 130,000
			<b>Total:</b>	<b>\$ 3,488,870</b>
<b>2022</b>				
SAP 001-617-004 - CSAH 17 Resurfacing	7.1		1997/2.9-3.0	\$ 1,200,000
SAP 001-618-005 - CSAH 18 Bridge Replacement	0.2	CSAH 18 over Willow River		\$ 874,928
CSAH 22 Chipseal	4.6		2001/3.4-3.5	\$ 239,200
CSAH 24 Chipseal	4.2		2001/3.6	\$ 218,400
CSAH 23 Chipseal	5.3		2003/3.3-3.8	\$ 275,600
CP 001-076-002 - CR 76 Resurfacing	2.82		1999/2.4-2.5	\$ 680,000
SP 001-070-007 HSIP Pavement Markings				\$ 230,000
Bituminous Patches CH 8,10, 13, 29, 38				\$ 100,000
			<b>Total:</b>	<b>\$ 3,818,128</b>
<b>2023</b>				
SP 001-611-003 - CSAH 11 Widening/Resurfacing/Bridge Replacement	3.2		2003/2.8-3.0	\$ 3,400,000
SAP 001-598-016 - CR 54 Bridge Replacement	0.5	CR 54 over Sissabagamah Creek		\$ 455,000
SAP 001-598-014 - CR 62 Bridge Replacement	0.2	CR 62 over Sandy River		\$ 679,990
CR 77W Resurfacing	1.04		1999/2.5-2.6	\$ 150,000
			<b>Total:</b>	<b>\$ 4,684,990</b>
<b>2024</b>				
SAP 001-605-014 - CSAH 5 Reconstruction (Grading and Agg. Base)	4.7	CR 53 to TH 210		\$ 2,750,000
CSAH 5 Bridge Replacement over Rice River	0.1	CSAH 5 over Rice River		\$ 750,000
SAP 001-631-003 - CSAH 31 Resurfacing	3.53		2002/2.3	\$ 650,000
SAP 001-640-003 - CSAH 40 Resurfacing	4.9		2002/2.8-2.9	\$ 900,000
CP 001-062-004 - CR 62 Resurfacing	2.64	TH 210 to 435th Street	2002/2.5-2.7	\$ 480,000
			<b>Total:</b>	<b>\$ 5,530,000</b>
<b>2025</b>				
CSAH 1 Resurfacing	0.45	US Hwy 169 to Mississippi River	2005/2.2-2.4	\$ 180,000
CSAH 2 Chipseal	10.4	TH 65 to Pine County Line	2004/3.3	\$ 603,200
CSAH 5 Bituminous Paving	4.7	CR 53 to TH 210		\$ 1,800,000
CSAH 5 Bridge Replacement over Willow River				\$ 940,000
CR 62 Reconstruction (Grading and Agg. Base)	1.36	435th Street to CR 71		\$ 650,000
CR 71 Reconstruction (Grading and Agg. Base)	1			\$ 475,000
			<b>Total:</b>	<b>\$ 4,648,200</b>
<b>Five Year Total:</b>				<b>\$ 22,921,389</b>



# Aitkin County, MN 2021-2025 Capital Road Improvement Plan

0 1.5 3 4.5 6 7.5 9 12 Miles

Map prepared by Aitkin County GIS for graphic display purposes only

## **Project Selection Process**

Identified improvements fall into one of four construction categories. Those categories, listed in priority order are as follows.

1. Bridge Replacement
2. Pavement Resurfacing/Shoulder Widening
3. Gravel Road Reconstruction to Paved Road Standards
4. Gravel Road Improvement

### **1. Bridge Replacement**

Bridge replacement projects are selected based on calculated sufficiency ratings that are the result of bridge safety inspections conducted on each bridge under the County's jurisdiction. See attached listing of all local highway bridges in Aitkin County. Highlighted bridges on the attachment are included in the current 5-year capital improvement program.

### **2. Pavement Resurfacing/Shoulder Widening**

Pavement resurfacing projects are selected based on pavement condition data collected on a two-year frequency. In addition, observed pavement conditions and geographical grouping of projects for lower construction costs are considered when scheduling resurfacing projects. See attached listing of Ride Quality Index (RQI) information for all of Aitkin County's paved highway segments. Highlighted segments on the attachment are included in the current 5-year capital improvement program.

The specific type of pavement resurfacing project is determined during the design stage of the project based on the project's individual characteristics. Overlay, mill and overlay, reclaim and pave, cold in-place recycle and chipseal are included in this construction category.

For segments that have deficient shoulder width, slopes, or culverts, additional work to correct these deficiencies may be added to the resurfacing project.

### **3. Gravel Road Reconstruction to Paved Road Standards**

Projects in this category are programmed for existing gravel roads to reconstruct them as improved, paved highways. Projects are chosen based on a prioritization worksheet that ranks the various gravel road segments based on annual average daily traffic (AADT) count, residence density, functional classification, sight distance deficiencies, improved route system layout, and private land ownership. The resulting priority ratings are updated with each Capital Road Improvement Plan update. See attached priority rating worksheet. Highlighted segments on the attachment are included in the current 5-year capital improvement program.

### **4. Gravel Road Improvement**

Projects in this category involve drainage and roadbed improvements on roads that will remain as gravel surfaced roads. Projects constructed under this category are programmed based on observed deficiencies of gravel road segments.



## AITKIN COUNTY Bridge Roster

(Highlighted Bridges included in 2021-2025 Capital Road Improvement Program)

08/17/2020

BR NO	AGENCY		FEATURE CROSSED	REF POINT	MAIN SPAN TYPE	DEF	SUFF	FHWA STATUS
	BR NO	FACILITY CARRIED						
7367		PEDESTRIAN	RIPPLE RIVER		TIMB BEAM SPAN	S D	54.0	CLOSED
01502		CSAH 22	WAKEFIELD BROOK	000+00 200	TIMB SLAB SPAN	S D	60.8	OPEN
01503		CSAH 14	SAVANNA RIVER	009+00 220	TIMB SLAB SPAN	S D	65.7	LOAD POSTED
01513		CSAH 29	WILLOW RIVER	013+00 410	TIMB SLAB SPAN	S D	67.9	LOAD POSTED
01508		CSAH 5	RICE RIVER	007+00 230	TIMB SLAB SPAN	S D	68.3	LOAD POSTED
01505		CSAH 18	WILLOW RIVER	008+00 720	TIMB SLAB SPAN	S D	68.4	LOAD POSTED
01509		CSAH 5	WILLOW RIVER	021+00 150	TIMB SLAB SPAN	S D	69.9	LOAD POSTED
01507		CSAH 12	RIPPLE RIVER	006+00 201	TIMB SLAB SPAN	S D	70.5	LOAD POSTED
01510		CR 62	SANDY RIVER	002+00 280	TIMB SLAB SPAN	S D	71.6	LOAD POSTED
88100		CSAH 11	RIPPLE RIVER	000+00 380	STEEL PIPE ARCH	ADEQ	73.5	OPEN
7375		CR 54	SISSABAGAMAH CREEK	002+00 520	TIMB SLAB SPAN	ADEQ	73.9	LOAD POSTED
7216		CSAH 2	SNAKE RIVER	011+00 550	TIMB BEAM SPAN	ADEQ	77.4	OPEN
7215		CSAH 2	STREAM	010+00 700	TIMB BEAM SPAN	ADEQ	78.8	OPEN
94156		CSAH 16	SANDY RIVER TRIB	004+00 706	TIMB BOX CULV	ADEQ	79.1	OPEN
94157		CSAH 16	SANDY RIVER	005+00 900	TIMB BOX CULV	ADEQ	79.1	OPEN
94154		CSAH 16	SANDY RIVER TRIB	004+00 283	TIMB BOX CULV	ADEQ	79.2	OPEN
94155		CSAH 16	RICE LAKE OUTLET	004+00.165	TIMB BOX CULV	ADEQ	79.2	OPEN
88102		CSAH 19	MOOSE RIVER	004+00 470	STEEL PIPE CULV	ADEQ	82.6	OPEN
L9181		CR 67	WILLOW RIVER	000+00 130	TIMB SLAB SPAN	ADEQ	85.0	OPEN
92918		CR 61	CHESLEY BROOK	010+00 480	PRECST PIPE ARCH	ADEQ	89.0	OPEN
R0716		FIELD ENTRANCE	DRAINAGE DITCH	011+00 290	STEEL PIPE ARCH	ADEQ	89.8	OPEN
R0717		350TH PL	DRAINAGE DITCH	000+00 011	STEEL PIPE ARCH	ADEQ	89.8	OPEN
01516		CSAH 23	CHAN BETWEEN TWO LAKES	004+00 990	PRESTR QUAD TEE	ADEQ	90.1	OPEN
01512		CSAH 28	RIPPLE RIVER	004+00 440	PRESTR QUAD TEE	ADEQ	91.3	OPEN
92699		CSAH 21	DITCH	003+00 310	STEEL PIPE CULV	ADEQ	94.8	OPEN
01508		CSAH 1	MISSISSIPPI RIVER	000+00 490	PRESTR BM SPAN	ADEQ	94.9	OPEN
01011		CSAH 3	CHAN BETWEEN TWO LAKES	025+00 042	PRESTR BM SPAN	ADEQ	97.2	OPEN
01515		CR 54	RIPPLE RIVER	000+00 040	PRESTR QUAD TEE	ADEQ	97.9	OPEN
01518		CSAH 26	SNAKE RIVER	010+00 880	PRESTR DOUB TEE	ADEQ	97.9	OPEN
01517		CSAH 10	WILLOW RIVER	001+00 200	PRESTR DOUB TEE	ADEQ	98.0	OPEN
01521		CR 56	RICE RIVER	004+00 539	TIMB SLAB SPAN	ADEQ	98.0	OPEN
01012		CSAH 3	MISSISSIPPI RIVER	016+00 144	PRESTR BM SPAN	ADEQ	98.4	OPEN
01J36		CSAH 32	CO DITCH #13	003+00 025	PRECST BOX CULV	ADEQ	98.9	OPEN
01526		CSAH 22	MISS R DIVERSION CHANNEL	001+00 030	PRESTR BM SPAN	ADEQ	99.3	OPEN
01530		CSAH 3	BIG WILLOW RIVER	012+00 345	PRESTR BM SPAN	ADEQ	99.3	OPEN
93455		CSAH 4	DAM BROOK	003+00 090	PRECST PIPE ARCH	ADEQ	99.3	OPEN
01J35		CSAH 3	WHITE ELK BROOK	010+00 284	PRECST BOX CULV	ADEQ	99.4	OPEN
01J04		CSAH 39	RIPPLE RIVER	003+00 240	PRECST BOX CULV	ADEQ	99.5	OPEN
01J08		CSAH 3	Little Willow River	005+00 170	PRECST BOX CULV	ADEQ	99.5	OPEN
01J28		CSAH 28	CHAN BETWEEN TWO LAKES	006+00 955	PRECST BOX CULV	ADEQ	99.5	OPEN
01531		CSAH 14	PRAIRIE RIVER	004+00 180	PRESTR BM SPAN	ADEQ	99.6	OPEN
01532		CSAH 4	RICE RIVER	013+00 847	PRESTR BM SPAN	ADEQ	99.6	OPEN
01J33		CSAH 10	POKEGAMA CREEK	025+00 165	PRECST BOX CULV	ADEQ	99.6	OPEN
01J39		CSAH 15	CEDAR CREEK	001+00 613	PRECST BOX CULV	ADEQ	99.6	OPEN
96703		CSAH 4	CREEK	008+00 168	PRECST BOX CULV	ADEQ	99.6	OPEN
92844		CSAH 3	DITCH	008+00 190	PRECST PIPE ARCH	ADEQ	99.7	OPEN
93178		CSAH 38	SEVENTEEN CREEK	004+00 740	PRECST PIPE ARCH	ADEQ	99.8	OPEN
96811		CSAH 2	SNAKE RIVER	014+00 790	PRECST PIPE ARCH	ADEQ	99.8	OPEN
01527		CSAH 1	Miss R Diversion Chan	005+00 004	PRESTR BM SPAN	ADEQ	99.9	OPEN
01528		CSAH 32	TAMARACK RIVER	006+00 160	PRESTR BM SPAN	ADEQ	99.9	OPEN
01J07		CSAH 1	LITTLE WILLOW RIVER	012+00 993	PRECST BOX CULV	ADEQ	99.9	OPEN
01J26		CSAH 26	STREAM	010+00 260	PRECST BOX CULV	ADEQ	99.9	OPEN
01J27		CR 73	MINNEWAWA CREEK	004+00 030	PRECST BOX CULV	ADEQ	99.9	OPEN
01J31		CR 73	SANDY RIVER	000+00 287	PRECST BOX CULV	ADEQ	99.9	OPEN
91895		CR 64	PRAIRIE RIVER	006+00 260	PRECST PIPE ARCH	ADEQ	99.9	OPEN
91896		CR 64	TAMARACK RIVER	002+00 230	PRECST PIPE ARCH	ADEQ	99.9	OPEN
92917		CSAH 12	RIPPLE RIVER	009+00 691	PRECST PIPE ARCH	ADEQ	99.9	OPEN
93122		CSAH 26	DITCH	017+00 270	PRECST PIPE ARCH	ADEQ	99.9	OPEN
95330		CSAH 36	STREAM	010+00.980	PRECST PIPE ARCH	ADEQ	99.9	OPEN
95331		CSAH 1	LITTLE WILLOW RIVER	009+00 550	PRECST PIPE ARCH	ADEQ	99.9	OPEN
95332		CSAH 5	SISSABAGAMAH CREEK	000+00 110	PRECST PIPE ARCH	ADEQ	99.9	OPEN
95612		CR 51	RIPPLE RIVER	001+00 670	PRECST PIPE ARCH	ADEQ	99.9	OPEN
01524		CR 62	SANDY RIVER	004+00 420	CCONC SLAB SPAN	ADEQ	100.0	OPEN
01J01		CR 74	MORRISON BROOK	002+00 730	PRECST PIPE ARCH	ADEQ	100.0	OPEN
01J02		CSAH 10	WHITE ELK BROOK	000+00 480	PRECST PIPE ARCH	ADEQ	100.0	OPEN
01J11		CSAH 9	Bear Creek	000+00 170	PRECST BOX CULV	ADEQ	100.0	OPEN
01J14		CSAH 34	BIRCH CREEK	005+00 295	PRECST BOX CULV	ADEQ	100.0	OPEN
01J22		CSAH 29	MOOSE RIVER	010+00 680	PRECST BOX CULV	ADEQ	100.0	OPEN
01J29		CR 75	BIRCH CREEK	000+00 400	PRECST BOX CULV	ADEQ	100.0	OPEN
92924		CSAH 23	STREAM	004+00 670	PRECST PIPE ARCH	ADEQ	100.0	OPEN
93123		CR 75 (KESTERAL AV	SPLIT ROCK RIVER	003+00.860	PRECST PIPE ARCH	ADEQ	100.0	OPEN
93424		CR 67	LITTLE HILL RIVER	004+00 980	PRECST PIPE ARCH	ADEQ	100.0	OPEN
94221		CR 61	STREAM	011+00 220	PRECST PIPE ARCH	ADEQ	100.0	OPEN
96142		CSAH 29	LITTLE HILL RIVER	016+00 510	PRECST PIPE ARCH	ADEQ	100.0	OPEN

74 Total Bridges

## Bituminous Pavements - Age and RQI Data

(Highlighted Segments Included in 2021-2025 Capital Road Improvement Program)

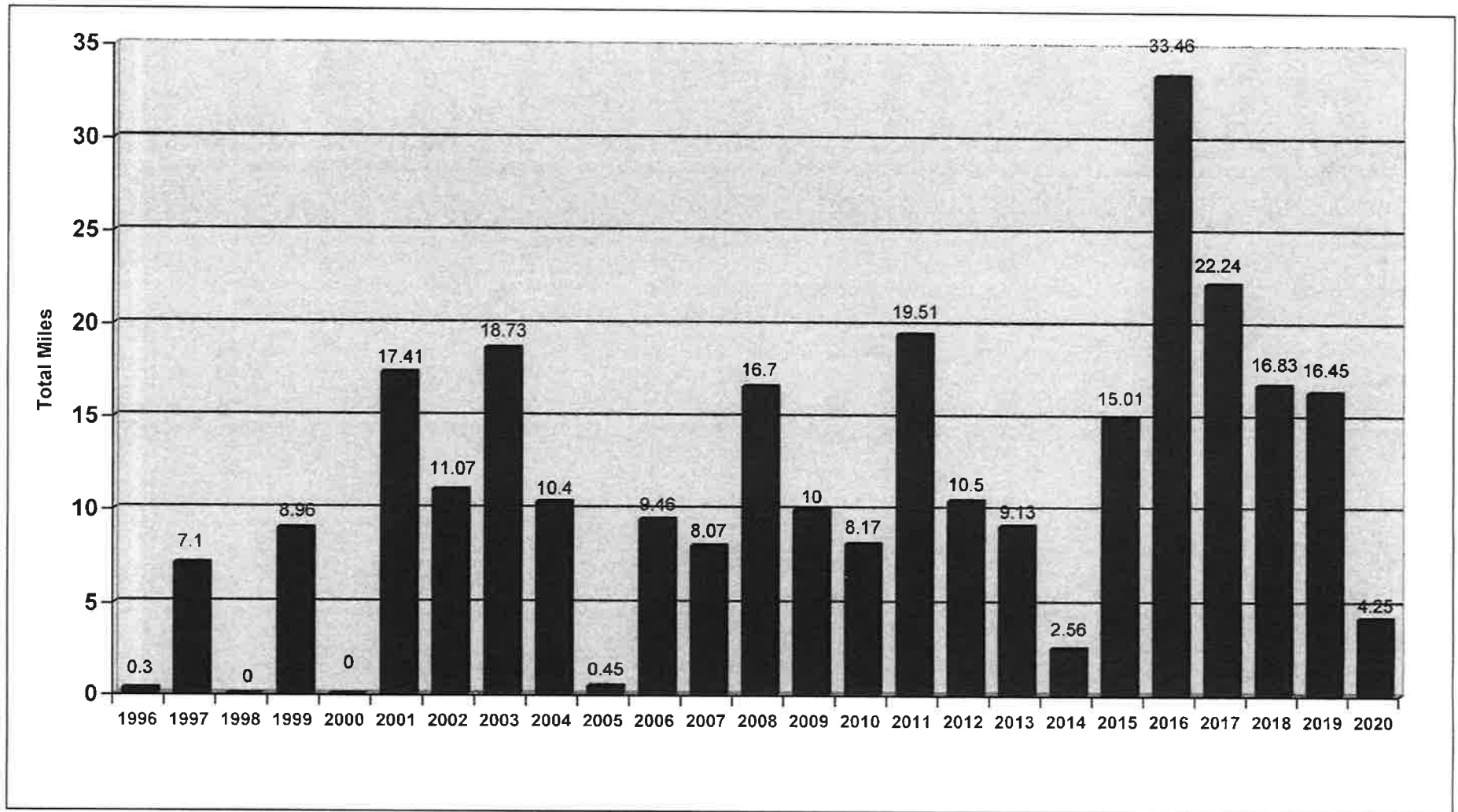
	Length	2019	RQI		Length	2019	RQI
<b>1996</b>				<b>2013</b>			
CR 69	0.3			CSAH 12 from 35 m. E. of N. jct. CSAH 39 to TH 47 (NW)	0.47	2.3/2.5	
<b>1997</b>				CR 54 from CSAH 1 to 47 miles east	0.56	2.4/2.8	
CSAH 17	7.1	2.9/3.0		CR 54 from CR 83 to end of pavement	3.98	3.6/3.7	
<b>1999</b>				CR 60	0.83	2.3/2.4	
CSAH 39	5.1	3.5		CR 66 from 0.26 miles east of US 169 to US 169	0.57	3.5/3.7	
CR 78	2.82	2.4/2.5		CR 77	1.03	2.1/2.4	
CR 77W	1.04	2.5/2.6		CR 82	0.49	3.3/3.4	
				CR 83	1.2	2.9	
				CR 85			
<b>2000</b>				<b>2014</b>			
<b>2001</b>				CSAH 12 from 35 m. E. of N. jct. CSAH 39 to TH 47 (Wear)	2.56	3.4	
CSAH 14 from 2.3 m. northeast of TH 65 to State Park	8.81	2.9/3.2		<b>2015</b>			
CSAH 22	4.6	3.4/3.5		CSAH 10 from US Hwy 169 to CSAH 3	7.01	3.7	
CSAH 24	4.2	3.6		CSAH 28 from TH 210 to TH 169	8	3.6	
<b>2002</b>				<b>2016</b>			
CSAH 31	3.53	2.3		CSAH 2 from TH 47 to TH 65	12.38	3.5/3.8	
CSAH 40	4.9	2.8/2.9		CSAH 3 from north jct. CSAH 5 to 6.36 miles east	6.2	3.7	
CR 62 from TH 210 to 435th Street	2.64	2.5/2.7		CSAH 12 from TH 47 to TH 210	0.58	3.0/3.2	
<b>2003</b>				CSAH 12 from TH 47 to 375th Avenue	6.88	3.7/3.8	
CSAH 9	0.82	1.9/2.1		CSAH 13 from TH 65 to CSAH 16	5.39	3.6/3.7	
CSAH 11	3.2	2.8/3.0		CSAH 41 from 1st Street to west jct. TH 210	1.01	3.2/3.3	
CSAH 23	5.3	3.3/3.8		CR 88	1.02	2.9/3.6	
CSAH 28 from TH 169 to CSAH 12	5.8	3.4		<b>2017</b>			
CSAH 37	2.3	2.6/2.9		CSAH 1 from CSAH 22 to 3.6 miles north	3.6	3.5/3.8	
CR 54 from .47 miles east of CSAH 1 to CR 83	0.83	2.4/2.5		CSAH 10 from TH 232 to CSAH 18	11.06	3.8/3.9	
CR 79	0.48	3		CSAH 15 from Crow Wing County Line to CSAH 1	6.08	2.9/3.8	
<b>2004</b>				CR 74	1.5	3.5/3.7	
CSAH 2 from TH 65 to Pine County Line	10.4	3.3		<b>2018</b>			
<b>2005</b>				CSAH 6 from TH 65 to 5.3 miles east	4.9	4.1	
CSAH 1 from TH 210 to beginning of Mississippi River Br	0.45	2.2/2.4		CSAH 8 from TH 210 to old Soo Line RR	0.87	3.0	
<b>2006</b>				CSAH 12 from 375th Avenue to Lanie's corner	2.74	3.9	
CSAH 3 from Crow Wing County Line to CSAH 29	5.74	3.3/3.4		CSAH 12 from Lanie's Corner to n. jct. CSAH 39	1.95	3.4	
CSAH 7	3.2	3.1		CSAH 32 from CSAH 6 to CSAH 31	3.29	4.1	
CR 86 from US 169 to 0.26 miles east	0.26	1.9		CR 53 from CSAH 4 to 0.78 mile north	3.08	3.7	
CSAH 29 from CSAH 19 to CSAH 7	0.26	3.4		<b>2019</b>			
<b>2007</b>				CSAH 3 from CSAH 29 to TH 169	4.15		
CSAH 8 from old Soo Line RR to TH 65	1.97	3.3		CSAH 10 from TH 200 to Itasca County Line	2.25		
CSAH 38	6.1	3.2/3.3		CSAH 16	8.9		
<b>2008</b>				CSAH 41 from east jct. TH 210 to 1st Street	0.07		
CSAH 4 from TH 47 to TH 65	14.4	3.2/3.3		CR 70	1.08		
CSAH 29 from CSAH 3 to 509th Lane	2.3	2.6/2.7		<b>2020</b>			
<b>2009</b>				CSAH 3 from 6.36 miles east of north jct. CSAH 5 to TH 65	3.2		
CSAH 1 from beginning of Mississippi River Bridge to CS	2.5	3.2		CR 81 (1999 Original Pavement, 2020 Chipseal)	1.05	2.9/3.1	
CSAH 5 from TH 210 to TH 232	7.5	2.6/2.7					
<b>2010</b>				Subtotal:	119.93		
CSAH 10 from CSAH 18 to 8.2 miles south of TH 200	6.88	3.5		Grand Total:	276.76		
CSAH 33	0.29	1.6/2.0					
CR 62 from TH 232 to 1.0 mile south	1.0	3.4					
<b>2011</b>							
CSAH 6 from 5.27 miles east of TH 65 to TH 210	8.08	2.8/3.0					
CSAH 10 from TH 200 to 8.12 miles south	8.12	3.2					
CSAH 32 from CSAH 31 to Carlton County Line	3.01	3.6/3.7					
CR 241	0.3						
<b>2012</b>							
CSAH 3 from US Hwy 169 to n. jct. CSAH 5	5.8	3.3/3.5					
CSAH 5 from TH 47 to CR 50	1	3.4/3.5					
CSAH 14 from TH 65 to 2.3 miles northeast	2.3	3.3/3.4					
CSAH 36 from CSAH 14 to 1.6 mile north	1.6	2.6/2.9					
Sub-total:	156.83						

Updated: 8-17-20

Updated: 11-21-16

2019 Pavement Quality Summary		
	Good (RQI >= 3)	Poor (RQI <= 2)
MnDOT District 1 (non-NHS)	53.4%	13.4%
MnDOT District 3 (non-NHS)	65.4%	2.6%
Aitkin County Roads and County State-Aid Highways	80%	0.7%

## Pavement Age of Aitkin County Roads and County State-Aid Highways



## Priority Rating Worksheet

(Highlighted Segments Included in 2021-2025 Capital Road Improvement Program)

8/17/2020

Road Number	Segment Description	Length	2016 ADT (20 points decile)	Residence Density (20 point decile)	Functional Classification (10 points)	Sight Distance Deficiency (10 point decile)	Improved Route System Layout (10 points)	Privately-Owned Land (10 point decile)	Priority Rating (80 points)
5.2	CR 53 to TH 210	4.7	12	20	10	6	10	7	58.7
71		1	20	12	4	1	10	10	48.0
30	TH 65 to CSAH 16	7	16	14	7	6	0	10	44.0
51	TH 18 to CSAH 28	4.77	12	14	4	3	10	8	43.8
62.1	2 miles N of TH 210 to CR 71	1.36	20	6	4	1	10	10	42.0
1	3.6 miles N of CSAH 22 to CSAH 3	7.4	16	6	7	2	10	6	41.6
64.2	CSAH 32 to 5 miles North	5	16	16	4	3	0	3	39.3
50	CSAH 5 to CR 56	2.95	18	2	4	3	10	10	38.0
13	CSAH 16 to Carlton County Line	5.6	12	2	7	4	10	5	35.5
62.2	CR 71 to 1 mile south of TH 232	3	10	8	4	1	10	10	34.0
19.2	CSAH 20 to CSAH 29	2	14	4	10	5	0	3	33.3
19.1	Cass County Line to CSAH 20	4.8	6	10	10	7	0	2	33.2
5.1	CR 50 to CR 53	5.9	8	10	10	4	0	10	33.0
57.1	TH 65 to 5 miles east	5	14	8	4	5	0	10	32.0
27	CSAH 13 to TH 27	6.6	4	6	7	4	10	9	31.9
74		2.07	4	6	4	4	10	10	29.0
36.2	CR 65 to 1.5 miles N of CSAH 14	5.2	8	6	7	7	0	5	28.5
59		4.28	16	4	4	3	0	10	28.0
63		2.69	6	8	4	9	0	10	28.0
54	End of Blacktop to TH 210	4.88	8	2	4	3	10	10	28.0
29.3	CSAH 7 to CR 67	4.54	10	6	7	4	0	6	27.6
36.1	TH 65 to CR 65	4.2	8	4	7	8	0	3	27.3
65		8.96	6	6	4	10	0	3	26.3
61.1	TH 65 to TH 18	4.23	6	10	4	5	0	10	26.0
72		1.2	8	8	4	5	0	10	26.0
64.1	5 miles N of CSAH 32 to CSAH 14	4.49	6	10	4	5	0	6	25.6
21	CSAH 1 to TH 169	6.9	6	4	10	4	0	10	25.0
75	TH 27 to CSAH 34	6.9	4	8	7	5	0	6	24.6
73		5.1	14	4	4	2	0	6	24.6
5.3	CSAH 3 to CSAH 18	7.81	10	6	7	1	0	5	24.5
26.3	TH 65 to CSAH 2	9.1	8	4	7	4	0	3	23.3
29.4	CR 67 to TH 200	2	10	4	7	2	0	2	23.2
26.1	CSAH 38 to CR 59	5	8	4	7	3	0	10	23.0
60W		1.08	10	6	4	2	0	10	23.0
35	TH 65 to Itasca County Line	0.4	8	4	7	1	0	10	21.0
20	Cass County Line to CSAH 19	5.9	6	4	7	3	0	6	20.6
61.2	TH 18 to CSAH 23	7	4	6	4	5	0	9	19.9
68.1	CSAH 29 to dead end west	2	4	6	4	5	0	8	19.8
26.2	CR 59 to TH 65	6	4	6	7	2	0	7	19.7
29.2	CR 68 to CSAH 7	6.3	6	4	7	2	0	1	19.1
34	CSAH 2 to CR 75	6.3	4	4	7	3	0	6	18.6
80		1.7	6	4	4	3	0	10	18.0
29.1	2.3 miles N of CSAH 3 to CR 68	3.3	6	2	7	2	0	3	17.3
57.2	TH 27 to 4 miles North	4.04	2	4	4	6	0	10	17.0
58		2.67	4	4	4	4	0	8	16.8
67		5.17	2	4	4	6	0	8	16.7
56.1	TH 210 to CR 50	2	8	2	4	1	0	6	15.6
68.2	CSAH 29 to TH 169	3.3	4	4	4	3	0	2	15.2
68.3	TH 169 to dead end east	1.2	4	4	4	2	0	8	14.8
18.2	CSAH 5 to CSAH 10	6.1	2	2	7	2	0	10	14.0
56.2	CR 50 to CSAH 5	6.4	2	2	4	5	0	8	13.7
18.1	TH 169 to CSAH 5	6.1	2	2	7	1	0	3	12.3

2016 ADT: Up to 20 points in ten decile ranges based on actual 2016 Average Annual Daily Traffic Count

Residence Density: Up to 20 points in ten decile ranges based on total number of residences on segment and adjacent road segments

Functional Classification: 10 points for major collector classification, 7 points for minor collector classification, 4 points for local road classification

Sight Distance Safety Rating: Up to 10 points in ten decile ranges based on horizontal and vertical curve sight distance deficiency

Improved Route System Layout: 10 points if either a) part of route is improved or b) does not have parallel improved route within 4 miles for 50% of segment length, and segment connects two improved routes within a distance of less than 8 miles

Privately Owned Land: Up to 10 points based on percentage of privately-owned land adjacent to segment