

Memorandum

Date: January 6, 2020 **Project No.:** 300043927.0000

Project Name: Addenda to Road Management Plan

Client Name: Township of Melancthon

To: Denise Holmes, AMCT – CAO/Clerk, Township of Melancthon

From: Henry Centen, P. Eng.

Burnside prepared a Road Management Plan (RMP) for the Township of Melancthon, dated October 2019. At the meeting of Township Council held on December 12, 2019, the Council requested that Burnside provide the following, relative to the RMP:

- That the Road Management Plan add the costing of the geo-grid and engineering costs for the 5th Line OS.
- That routine maintenance costs, that were not included in the RMP, be identified, including those that would be part of the second ten-year plan.

This memo provides our response to the Council's requests.

The October RMP proposed a ten-year plan that would result in an improvement to the condition of the **overall** hard-top road network. However, it was acknowledged that the Township's backlog of poorer condition roads was a consideration in not moving towards a more cost-effective lifecycle model (i.e., routine maintenance, preventive maintenance, resurfacing and ultimately rehabilitation improvements), at least in the short term. However, this approach also has the potential to result in increased maintenance costs to implement a "holding strategy" pending future budgets being available for some of the roads. In addition, it is considered desirable to implement the lifecycle improvement model as soon as possible for any of the roads that are rehabilitated within the plan, in order to protect the investment that has been made.

Considering the above factors, the ten-year improvement model in the RMP has been updated to provide a sensitivity analysis that reflects the increased maintenance requirements to achieve the most desirable cost-effective improvements for all hard-top road sections, considered on a section-by-section basis. The resulting budget requirements will vary from year-to-year, considering that the model is triggered by the theoretical "condition" needs (i.e., both maintenance and capital needs).

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The revised ten-year improvement plan is attached to this memo, which reflects both of the items requested by Council.

The following is noted relative to the revised plan:

 An additional \$711,354 of costs have been identified for the ten-year plan (i.e. increase of about \$71,200 per year, on average), bringing the proposed budget for maintenance and capital improvements to about 600,000 per year, on average. The cost increase includes both the increased maintenance costs (i.e., routine maintenance and preventive maintenance) and the increased design standard (i.e., geogrid/engineering) for select road sections.

The sensitivity analysis has also been completed for the second ten-year plan (i.e., 2030 to 2039), with the following results:

 A total budget of about \$3,700,000 (i.e., about \$3,000,000 capital improvements and \$700,000 maintenance) is forecasted to be required for this subsequent ten-year plan, or about \$370,000 per year, on average).

We trust that this additional information will inform the Township's requirements as they consider their road improvement requirements and associated budgets going forward.

HBC:

Enclosure(s) Revised Ten-Year Plan

cc: Arunas Kalinauskas, B.Sc

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2019 Township of Melancthon Road Management Plan Ten-Year Improvement Plan (2020 to 2029) Revised January 2020

Line No.	Asset ID	Road Name	From	То	Road Length (m)	Road Width (m)	Road Material	Road Environment	Existing AADT Volume (vpd)	Existing AADT Range (vpd)	Count Year	Year 10 (2029) AADT Estimate (vpd)	Road Surface Remaining Useful Life	Pavement Condition Index (PCI)	Priority Guide Number (PGN)	Existing (2019) SCR	Existing (2019) BCR	Improvement Type	Improvement Benchmark Cost (\$/m2) *	Total Improvement Cost	Proposed Improvement Year	Notes	Annual Cost Subtotal
1	147	2nd Line SW	Hwy. 89	300	1,799	6.8	Asphalt	Rural	820	400-999	2019	1,000	2	61.3	51.4	3	3	Rehabilitation (Apply Base Asphalt Only)	\$25.25	\$308,902	2020	Includes geogrid, additional gravel and engineering for 500 metres	
2	82	2nd Line SW	250	North Limit	2,350	6.5	Asphalt	Rural	1,127	1000-1999	2019	1,374	2	57.5	91.9	6	2	Rehabilitation (Apply Base Asphalt Only)	\$20.08	\$306,756	2020		
3	194	15th Sideroad	County Rd. 124	Main St.	227	6.5	Asphalt	Rural	125	50-199	Estimate	138	24	98.5	2.2	9	10	Routine Maintenance	\$0.75	\$1,107	2020		
5	176	15th Sideroad 15th Sideroad	3rd Line Main St.	County Rd. 124	1,142	6.5	Asphalt	Rural	125	50-199	Estimate	128	3	80.3	10.2	5	5 2	Patching	\$0.75	\$5,567	2020		4
- 5	1491			East	691	6.5	Cold Recycled	Rural	125	50-199	Estimate	138	3	56.8	8.1	10		Patching	\$0.75	\$3,369	2020		1
6	205	Hunter Pkwy.	County Rd. 124	Apartment Building	291	6.5	Cold Recycled	Semi-Urban	100	50-199	Estimate	110	7	76.0	4.1	10	5	Patching	\$0.75	\$1,419	2020		
7 8	200 188	Church St. George St.	Main St. Addeson St.	North Limit Main St.	242 114	4 5.5	Cold Recycled Cold Recycled	Semi-Urban Semi-Urban	60 50	50-199 50-199	Estimate Estimate	66 55	4	54.3 76.3	6.3 2.4	10 10	5	Patching Patching	\$0.75 \$0.75	\$726 \$470	2020 2020		4
9	187	Lloyd St.	Addeson St.	Main St.	110	4.5	Cold Recycled	Semi-Urban	50	50-199	Estimate	55	4	76.3	2.9	10	5	Patching	\$0.75	\$371	2020		1
10	195	Mill Ln.	Main St.	End of Road	655	5	Cold Recycled	Semi-Urban	150	50-199	Estimate	166	4	66.3	9.5	10	4	Patching	\$0.75	\$2,456	2020		\$751,204
11	207	5th Sideroad	3rd Line	County Rd. 124	1,371	6.5	Asphalt	Rural	653	400-999	2019	796	8	86.8	17.1	8	8	Patching	\$0.75	\$6,684	2020		
12	93	3rd Line OS	5th Sideroad	2 km N of 5th Sideroad	2,011	6.5	Asphalt	Rural	493	400-999	2019	601	12	89.3	9.7	8	9	Patching	\$0.75	\$9,804	2020		
13	544	3rd Line OS	County Rd. 17	2 km N of 5th Sideroad	1,048	6.5	Asphalt	Rural	493	400-999	2019	601	8	89.3	9.7	8	9	Patching	\$0.75	\$5,109	2020		
14 15	1351 1278	2nd Line SW 2nd Line SW	300 County Rd. 17	County Rd. 17 280	1,981 2,051	6.7 6.5	Asphalt Asphalt	Rural Rural	812 812	400-999 400-999	Estimate Estimate	990 990	12 15	98.3 87.8	10.2 22.8	7 5	9	Routine Maintenance Preventive Maintenance	\$0.75 \$4.00	\$9,955 \$53,326	2020 2020		-
16	117	2nd Line SW	280	270	2,028	6.5	Asphalt	Rural	812	400-999	2018	990	15	96.9	15.4	9	10	Routine Maintenance	\$0.75	\$9,887	2020		1
17	29	260 (Main St.)	Geirson	2nd Line SW	1,526	6.5	Asphalt	Rural	450	400-999	Estimate	497	5	63.0	24.8	5	2	Patching	\$0.75	\$7,439	2020		
18 19	31 1507	260 (Main St.) 3rd Line OS	4th Line SW Hwy. 10	7th Line SW 5th Sideroad	2,013 1650	6.5 6.5	Asphalt Asphalt	Rural Rural	250 910	200-399 1000-1999	Estimate 2019	276 1109	6 15	63.0 96.5	20	5 8	10	Patching Routine Maintenance	\$0.75 \$0.75	\$9,813 \$8,044	2020 2020		4
													15		45.6	0	10					Includes geogrid, additional gravel and	
20	94	5th Line OS	County Rd. 17	Sideroad 280	2,293	6.5	Asphalt	Rural	284	200-399	2019	346	1	41.0	15.6	2	1	Rehabilitation	\$29.70	\$442,610	2021	engineering for 750 metres]
21	101	5th Line OS	Sideroad 280	4th Line NE	205	6.5	Asphalt	Rural	284	200-399	Estimate	346	1	41.0	15.6	2	1	Rehabilitation	\$20.00	\$26,650	2021		4
22	95A	5th Line OS 4th Line OS	4th Line NE County Road 17	15th Sideroad Strada Pit North Entrance	1,651	6.5 6.5	Asphalt Asphalt	Rural Rural	250 125	200-399 50-199	Estimate Estimate	305	3	41.0 80.5	7.8	8	5	Rehabilitation Rehabilitation	\$20.00	\$74,100 \$214,630	2021	Since the Strada Pit owner is responsible for paying for improvements to this section, the cost has been excluded from the "Annual	-
24	050	Art Une OC	Strada Pit North	45th Cidence d	4.400	6.5	A It It	D	70	50.400	2040	0.5	2	54.3	4.6			Barretta Grand	ćr 76	ÅF2 446	2024	Cost Subtotal".	\$704,974
24	95B	4th Line OS	Entrance	15th Sideroad	1,400	6.5	Asphalt	Rural	79	50-199	2019	96	3	54.3	4.6	1	1	Revert to Gravel	\$5.76	\$52,416	2021		1
25 26	1490 1509	3rd Line OS 2nd Line SW	20th Sideroad 270	County Rd. 21 260	3,055 2,045	6.5 6.6	Asphalt Asphalt	Rural Rural	107 835	50-199 400-999	2019 2017	130 1,018	23 15	97.0 95.0	1.9 15.6	8 9	10	Routine Maintenance Routine Maintenance	\$0.75 \$0.75	\$14,893 \$10,123	2021 2021		4
27	81	2nd Line SW	260	250	2,043	6.6	Asphalt	Rural	980	400-999	2017	1,195	15	95.0	18.3	9	10	Routine Maintenance	\$0.75	\$10,123	2021		1
28	24	260 (Main St.)	Manitoba	Geirson	159	8	Asphalt	Urban	450	400-999	Estimate	497	11	90.8		9	8	Preventive Maintenance	\$4.00	\$5,088	2021		
29	25	260 (Main St.)	Poulton	Manitoba	74	8	Asphalt	Urban	450	400-999	Estimate	497	11	90.8		9	8	Preventive Maintenance	\$4.00	\$2,368	2021		
30 31	26 107	260 (Main St.) 260 (Main St.)	Shook Hwy. 10	Poulton Shook	153 418	8	Asphalt Asphalt	Urban Semi-Urban	450 447	400-999 400-999	Estimate 2019	497 494	11 11	90.8		9	8	Preventive Maintenance Preventive Maintenance	\$4.00 \$4.00	\$4,896 \$13,376	2021 2021		
32	147	2nd Line SW	Hwy. 10	300	1,799	6.8	Asphalt	Rural	820	400-999	2019	1,000	2	61.3	51.4	3	3	Resurface (Top Asphalt Only)	\$9.15	\$110,975	2022		
33	82	2nd Line SW	250	North Limit	2,350	6.5	Asphalt	Rural	256	200-399	2019	312	2	57.5	20.9	6	2	Resurface (Top Asphalt Only)	\$9.15	\$139,744	2022		-
34	159	5th Line OS	15th Sideroad	Sideroad 270	1,930	6.5	Asphalt	Rural	237	200-399	2018	289	1	41.0	13	2	1	Rehabilitation	\$20.00	\$250,900	2022		¢696.043
35	1493	5th Line OS	Sideroad 270	6th Line NE	654	6.5	Asphalt	Rural	230	200-399	Estimate	280	1	41.0	12.6	2	1	Rehabilitation	\$38.63	\$164,221	2022	Includes geogrid, additional gravel and engineering for 500 metres	\$686,042
36	1494A	4th Line OS	5th Sideroad	Lot 9/10	2,438	6.5	Asphalt	Rural	300	200-399	Estimate	366	24	98.3	5.7	9	10	Routine Maintenance	\$0.75	\$11,885	2022		
37 38	1494B 1274	4th Line OS 4th Line OS	Lot 9/10 Abandon Rail	County Rd. 17 Hwy. 10	750 956	6.5 6.5	Asphalt Asphalt	Rural Rural	300 330	200-399 400-999	Estimate 2017	366 402	3 17	69.5 88.3	30.6	3 5	9	Patching Patching	\$0.75 \$0.75	\$3,656 \$4,661	2022 2022		4
39	1345	20th Sideroad	3rd Line	County Rd. 124	1,378	6.5	Asphalt	Rural	164	50-199	2019	181	24	99.0	2.9	9	10	Routine Maintenance	\$0.75	\$6,718	2023		
40	143	7th Line SW	Hwy. 89	County Rd. 17	853	6.5	Asphalt	Rural	218	200-399	2019	241	5	63.5	16.1	5	3	Revert to Gravel	\$5.76	\$31,936	2023		
41	142 111	7th Line SW 7th Line SW	County Rd. 17 Sideroad 280	Sideroad 280 Sideroad 270	2,040 2,033	6.5 6.5	Asphalt Asphalt	Rural Rural	200 200	200-399 200-399	Estimate Estimate	221 221	5	63.5 63.5	14.8 14.8	5 3	3	Revert to Gravel Revert to Gravel	\$5.76 \$5.76	\$76,378 \$76,116	2023 2023		4
43	1489A	7th Line SW	Sideroad 270	200 m S Sideroad 260	1,848	6.5	Asphalt	Rural	177	50-199	2019	196	5	63.5	17.3	5	3	Revert to Gravel	\$5.76	\$76,677	2023		
44	161	5th Line OS	20th Sideroad	County Rd. 21	1,577	6.5	Asphalt	Rural	226	200-399	2019	275	3	41.0	12.4	2	1	Rehabilitation	\$29.34	\$300,743	2023	Includes geogrid, additional gravel and engineering for 400 metres	\$704,153
45	160	5th Line OS	6th Line NE	20th Sideroad	466	6.5	Asphalt	Rural	230	200-399	Estimate	280	1	41.0	12.6	2	1	Rehabilitation	\$39.56	\$119,831	2023	Includes geogrid, additional gravel and engineering for entire section	-
46	1495	4th Line OS	Hwy. 10	5th Sideroad	713	6.5	Asphalt	Rural	300	200-399	Estimate	366	24	98.3	5.7	9	10	Routine Maintenance	\$0.75	\$3,476	2023		j
47	185	High St.	William St.	Main St.	170	5.3	Asphalt	Semi-Urban	70	50-199	Estimate	77	24	98.8	1.5	9	10	Routine Maintenance	\$0.75	\$676	2023]
48 49	201 32	Charles St. W 260 (Main St.)	Main St. 2nd Line SW	End of Road 4th Line SW	141 2,228	7 6.5	Asphalt Asphalt	Semi-Urban Rural	30 263	0-49 200-399	Estimate 2019	33 291	21 6	96.5 63.0	0.5 21.1	10 5	9	Routine Maintenance	\$0.75 \$0.75	\$740 \$10,862	2023 2023		
50	32 1494B	4th Line OS	Lot 9/10	County Rd. 17	750	6.5	Asphalt Asphalt	Rural	300	200-399	2019 Estimate	291 366	3	63.0	30.6	3	2	Patching Rehabilitation	\$0.75	\$10,862	2023		+
51	176	15th Sideroad	3rd Line	County Rd. 124	1,142	6.5	Asphalt	Rural	125	50-199	Estimate	128	3	80.3	10.2	5	5	Rehabilitation	\$15.38	\$114,200	2024]
52	1491	15th Sideroad	Main St.	East	691	6.5	Cold Recycled	Rural	125	50-199	Estimate	138	3	56.8	8.1	10	2	Rehabilitation	\$20.00	\$89,830	2024		4
53	205	Hunter Pkwy.	County Rd. 124	Apartment Building	291	6.5	Cold Recycled	Semi-Urban	100	50-199	Estimate	110	7	76.0	4.1	10	5	Rehabilitation	\$15.38	\$29,100	2024		
54 55	184 182	Old Field Ct. Fieldway Ct.	Main St. Main St.	End of Road End of Road	643 800	6.5 6.5	Asphalt Asphalt	Semi-Urban Semi-Urban	150 120	50-199 50-199	Estimate Estimate	166 133	17 19	75.6 92.8	8.6 1.5	5 8	10	Patching Preventive Maintenance	\$0.75 \$4.00	\$3,135 \$20,800	2024 2024		1 1
56	182	Fieldway Ct.	Main St.	End of Road	800	6.5	Asphalt	Semi-Urban	120	50-199	Estimate	133	19	92.8	1.5	8	10	Preventive Maintenance	\$4.00	\$20,800	2024		\$524,770
57	189	River Rd.	William St.	Townline	1,401	7.5	Asphalt	Semi-Urban	284	200-399	2019	314	24	98.3	4.4	9	10	Routine Maintenance	\$0.75	\$7,881	2024]
58	200 188	Church St.	Main St. Addeson St.	North Limit Main St.	242 114	4 5.5	Cold Recycled	Semi-Urban Semi-Urban	60 50	50-199 50-199	Estimate Estimate	66	4	54.3 76.3	6.3 2.4	10	5	Rehabilitation Rehabilitation	\$32.50	\$31,460 \$11,400	2024 2024		-
59 60	188	George St. Addeson St.	George St.	Lloyd St.	114	4.5	Cold Recycled Cold Recycled	Semi-Urban Semi-Urban	50	50-199 50-199	Estimate	55 55	4	76.3	2.4	10 10	5	Rehabilitation	\$18.18 \$22.22	\$11,400 \$15,500	2024		1
61	187	Lloyd St.	Addeson St.	Main St.	110	4.5	Cold Recycled	Semi-Urban	50	50-199	Estimate	55	4	76.3	2.9	10	5	Rehabilitation	\$22.22	\$11,000	2024]
62	195	Mill Ln.	Main St.	End of Road	655	5	Cold Recycled	Semi-Urban	150	50-199	Estimate	166	4	66.3	9.5	10 E	4	Rehabilitation	\$20.00	\$65,500	2024		4
63	206	5th Sideroad	County Rd. 124	Townline	1367	6.5	Asphalt	Rural	269	200-399	2019	328	7	64.8	1	5	5	Patching	\$0.75	\$6,664	2024		

2019 Township of Melancthon Road Management Plan Ten-Year Improvement Plan (2020 to 2029) Revised January 2020

													Road Surface	Pavement		Existing	Existing		Improvement	Total	Proposed		
Line No.	Asset ID	Road Name	From	То	Road Length (m)	Road Width (m)	Road Material	Road Environment	Existing AADT Volume (vpd)	Existing AADT Range (vpd)	Count Year	Year 10 (2029) AADT Estimate (vpd)	Remaining	Condition	Priority Guide Number (PGN)	(2019)	(2019)	Improvement Type	Benchmark Cost	Improvement	Improvement	Notes	Annual Cost Subtotal
									(- /	8= (-p=/			Useful Life	Index (PCI)		SCR	BCR	Rehabilitation (Apply Base	(\$/m2) *	Cost	Year		000000
64	207	5th Sideroad	3rd Line	County Rd. 124	1,371	6.5	Asphalt	Rural	653	400-999	2019	796	8	86.8	17.1	8	8	Asphalt Only)	\$20.08	\$178,943	2025		
65	93	3rd Line OS	5th Sideroad	2 km N of 5th	2,011	6.5	Asphalt	Rural	493	400-999	2019	601	12	89.3	9.7	8	9	Resurface	\$14.44	\$188,752	2025		
				Sideroad 2 km N of 5th	· ·										<u> </u>	-	-					Includes vertical deficiency correction	
66	544	3rd Line OS	County Rd. 17	Sideroad	1,048	6.5	Asphalt	Rural	493	400-999	2019	601	8	89.3	9.7	8	9	Rehabilitation	\$31.54	\$214,840	2025	of \$30,000.	
67	1347	Main St.	County Rd. 124	Oldfield Ct.	692	6.5	Asphalt	Rural	890	400-999	2019	983	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$3,374	2025		
68	1346	Main St.	Oldfield Ct.	Fieldway Ct.	277	6.5	Asphalt	Semi-Urban	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$1,350	2025		1
69	1315	Main St.	Fieldway Ct.	High St.	323	6.5	Asphalt	Semi-Urban	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$1,575	2025		4505.000
70 71	1311 1310	Main St. Main St.	High St. Mill St.	Mill St. Church St.	120 214	6.5 6.5	Asphalt	Urban Urban	900	400-999 400-999	Estimate Estimate	994 994	24 24	98.8 98.8	16.2	9	10 10	Routine Maintenance Routine Maintenance	\$0.75 \$0.75	\$585 \$1,043	2025 2025		\$626,093
72	1312	Main St.	Church St.	Charles St.	153	6.5	Asphalt Asphalt	Urban	900 900	400-999	Estimate	994	24	98.8	16.2 16.2	9	10	Routine Maintenance	\$0.75	\$1,043	2025		1
73	1313	Main St.	Charles St.	George St.	126	6.5	Asphalt	Urban	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$614	2025		1
74	1314	Main St.	George St.	Mill Ln.	212	6.5	Asphalt	Urban	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$1,034	2025		1
75	193	Main St.	Mill Ln.	15th Sideroad	355	6.5	Asphalt	Semi-Urban	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$1,731	2025		1
76	183	Main St.	15th Sideroad	County Rd. 124	366	6.5	Asphalt	Rural	900	400-999	Estimate	994	24	98.8	16.2	9	10	Routine Maintenance	\$0.75	\$1,784	2025		1
77	102	3rd Line OS	.5 km S of 20th Sidero	ac 20th Sideroad	1522	6.5	Asphalt	Rural	200	200-399	Estimate	244	7	79.3		5	8	Patching	\$0.75	\$7,420	2025		1
78	1467	3rd Line OS	15th Sideroad	5 km S of 20th Sidero	1523	6.5	Asphalt	Rural	200	200-399	Estimate	244	7	79.3		5	8	Patching	\$0.75	\$7,425	2025]
79	96	3rd Line OS	County Rd. 17	15th Sideroad	3052	6.5	Asphalt	Rural	229	200-399	2019	279	8	79.3		5	8	Patching	\$0.75	\$14,878	2025		
80	94	5th Line OS	County Rd. 17	Sideroad 280	2,293	6.5	Asphalt	Rural	284	200-399	2019	346	1	41.0	15.6	2	1	Routine Maintenance	\$0.75	\$11,178	2026		
81	101	5th Line OS	Sideroad 280	4th Line NE	205	6.5	Asphalt	Rural	284	200-399	Estimate	346	1	41.0	15.6	2	1	Routine Maintenance	\$0.75	\$999	2026		
82	1492	5th Line OS	4th Line NE	15th Sideroad	570	6.5	Asphalt	Rural	250	200-399	Estimate	305	1	41.0	13.8	2	1	Routine Maintenance	\$0.75	\$2,779	2026		
																						Since the Strada Pit owner is	
				Strada Pit North																		responsible for paying for	
83	95A	4th Line OS	County Road 17	Entrance	1,651	6.5	Asphalt	Rural	125	50-199	Estimate	152	3	80.5	7.8	8	5	Routine Maintenance	\$0.75	\$8,049	2026	improvements to this section, the cost	\$597,518
				Literation																		has been excluded from the "Annual	
																						Cost Subtotal".	
84	1351	2nd Line SW	300	County Rd. 17	1,981	6.7	Asphalt	Rural	812	400-999	Estimate	990	12	98.3	10.2	7	10	Resurface	\$14.44	\$191,658	2026		
85	1278	2nd Line SW	County Rd. 17	280	2,051	6.5 6.5	Asphalt	Rural	812	400-999 400-999	Estimate 2018	990	15 15	87.8 96.9	22.8	5 9	9	Resurface Resurface	\$14.44 \$14.44	\$192,507	2026		
86	117	Erid Eiric 311	200	270	-,	0.5	Asphalt	Rural	812	100 333	2010	990	2.0	30.3	15.4	-	10	riesur ruce	Ţ	\$190,348	2026		
87	147	2nd Line SW	Hwy. 89	300	1,799	6.8	Asphalt	Rural	820	400-999	2019	1,000	2	61.3	51.4	3	3	Routine Maintenance	\$0.75	\$9,175	2027		
88 89	82	2nd Line SW 15th Sideroad	250	North Limit	2,350 227	6.5	Asphalt	Rural	1,127	1000-1999	2019	1,374	2	57.5	91.9	6		Routine Maintenance	\$0.75	\$11,456	2027		
90	194 159	5th Line OS	County Rd. 124 15th Sideroad	Main St. Sideroad 270	1.930	6.5 6.5	Asphalt Asphalt	Rural	125 237	50-199 200-399	Estimate 2018	138 289	24 1	98.5 41.0	2.2	2	10 1	Preventive Maintenance Routine Maintenance	\$3.00 \$0.75	\$4,427 \$9.409	2027 2027		-
91	1493	5th Line OS	Sideroad 270	6th Line NE	654	6.5	Asphalt	Rural	230	200-399	Estimate	280	1	41.0	12.6	2	1	Routine Maintenance	\$0.75	\$3,409	2027		
92	1509	2nd Line SW	270	260	2.045	6.6	Asphalt	Rural	835	400-999	2017	1,018	15	95.0	15.6	9	10	Resurface	\$14.44	\$194,897	2027		\$552,746
93	81	2nd Line SW	260	250	2,054	6.6	Asphalt	Rural	980	400-999	2016	1,195	15	95.0	18.3	9	10	Resurface	\$14.44	\$195,754	2027		1
					,		,											Resurface (Top Asphalt					1
94	207	5th Sideroad	3rd Line	County Rd. 124	1,371	6.5	Asphalt	Rural	653	400-999	2019	796	8	86.8	17.1	8	8	Only)	\$9.15	\$81,540	2027		
95	1507	3rd Line OS	Hwy. 10	5th Sideroad	1650	6.5	Asphalt	Rural	910	1000-1999	2019	1109	15	96.5		8	10	Preventive Maintenance	\$4.00	\$42,900	2027		1
96	1490	3rd Line OS	20th Sideroad	County Rd. 21	3,055	6.5	Asphalt	Rural	107	50-199	2019	130	23	97.0	1.9	8	10	Preventive Maintenance	\$4.00	\$79,430	2028		
97	161	5th Line OS	20th Sideroad	County Rd. 21	1,577	6.5	Asphalt	Rural	226	200-399	2019	275	3	41.0	12.4	2	1	Routine Maintenance	\$0.75	\$7,688	2028		1
98	160	5th Line OS	6th Line NE	20th Sideroad	466	6.5	Asphalt	Rural	230	200-399	Estimate	280	1	41.0	12.6	2	1	Routine Maintenance	\$0.75	\$2,272	2028		\$839,100
99	32	260 (Main St.)	2nd Line SW	4th Line SW	2,228	6.5	Asphalt	Rural	263	200-399	2019	291	6	63.0	21.1	5	2	Rehabilitation	\$20.00	\$289,640	2028		\$029,100
100	29	260 (Main St.)	Geirson	2nd Line SW	1,526	6.5	Asphalt	Rural	450	400-999	Estimate	497	5	63.0	24.8	5	2	Rehabilitation	\$20.00	\$198,380	2028]
101	31	260 (Main St.)	4th Line SW	7th Line SW	2,013	6.5	Asphalt	Rural	250	200-399	Estimate	276	6	63.0	20	5	2	Rehabilitation	\$20.00	\$261,690	2028		
102	1494A	4th Line OS	5th Sideroad	Lot 9/10	2,438	6.5	Asphalt	Rural	300	200-399	Estimate	366	24	98.3	5.7	9	10	Preventive Maintenance	\$4.00	\$63,388	2029		1
103	1494B	4th Line OS	Lot 9/10	County Rd. 17	750	6.5	Asphalt	Rural	300	200-399	Estimate	366	3	69.5	30.6	3	2	Routine Maintenance	\$0.75	\$3,656	2029		1
104	176	15th Sideroad	3rd Line	County Rd. 124	1,142	6.5	Asphalt	Rural	125	50-199	Estimate	128	3	80.3	10.2	5	5	Routine Maintenance	\$0.75	\$5,567	2029		4
105	1491	15th Sideroad	Main St.	East	691	6.5	Cold Recycled	Rural	125	50-199	Estimate	138	3	56.8	8.1	10	2	Routine Maintenance	\$0.75	\$3,369	2029		4
106	205	Hunter Pkwy.	County Rd. 124	Apartment Building	291	6.5	Cold Recycled	Semi-Urban	100	50-199	Estimate	110	7	76.0	4.1	10	5	Routine Maintenance	\$0.75	\$1,419	2029		1
107			Main St.	North Limit	242		· ·	Semi-Urban					1					Routine Maintenance	\$0.75		2029		4220.422
107	200 188	Church St. George St.	Main St. Addeson St.	Main St.	114	5.5	Cold Recycled Cold Recycled	Semi-Urban Semi-Urban	60 50	50-199 50-199	Estimate Estimate	66 55	4	54.3 76.3	6.3 2.4	10 10	5	Routine Maintenance Routine Maintenance	\$0.75	\$726 \$740	2029		\$230,139
108	186	Addeson St.	George St.	Lloyd St.	155	4.5	Cold Recycled Cold Recycled	Semi-Urban Semi-Urban	50	50-199	Estimate	55	4	76.3	2.4	10	5	Patching	\$0.75	\$740	2029		1
110	186	Addeson St.	George St.	Lloyd St.	155	4.5	Cold Recycled	Semi-Urban	50	50-199	Estimate	55	4	76.3	2.9	10	5	Routine Maintenance	\$0.75	\$523	2029		1
111	187	Llovd St.	Addeson St.	Main St.	110	4.5	Cold Recycled	Semi-Urban	50	50-199	Estimate	55	4	76.3	2.9	10	5	Routine Maintenance	\$0.75	\$371	2029		1
111	195	Mill Ln.	Main St.	Fnd of Road	655	4.5	Cold Recycled	Semi-Urban	150	50-199	Estimate	166	4	66.3	9.5	10	4	Routine Maintenance	\$0.75	\$2,456	2029		1
113	65	4th Line NE	5th Line OS	County Rd. 21	3,937	6.5	Asphalt	Rural	257	200-399	2019	284	15	68.8	14.2	6	5	Revert to Gravel	\$5.75	\$147.401	2029		1
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^{*} Benchmark costs in this Table may differ from the benchmark costs shown in the Treatment Matrix. This is to reflect road-section-specific unit cost estimates in the detailed ten-year plan. See the "Notes" field for any specific adjustments.

** Section #72 (4th Line NE between County Road 9 and 1 km north of Sideroad 240) is not recommended for reversion to gravel in the next ten-year period, however is anticipated to warrant reversion to gravel in the 2040-2045 time horizon.