The Township of Mapleton

2023/2024 Road Needs Assessment

GMBP File: 2401659 - 323018

Updated October 2024

GUELPH | OWEN SOUND | LISTOWEL | KITCHENER | EXETER | HAMILTON | GTA

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DISCLAIMER

This document entitled "The Township of Mapleton 2023/2024 Road Needs Assessment ", dated October, 2024 was prepared by GM BluePlan Engineering Limited (GMBP) for the Township of Mapleton. The material in it reflects GM BluePlan's best judgment, in the light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. GM BluePlan Engineering Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

1. INTRODUCTION

The Township of Mapleton retained GM BluePlan Engineering (GMBP) to provide engineering services related to the provision of a road condition and needs assessment for all "hard top" (Asphalt and Surface Treated) roadways within the Township.

Currently the Township maintains approximately 210 km of hot mix asphalt or surface treated roadways. This assignment excludes gravel roads, bridges and culverts as per the terms of reference.

2. METHODOLOGY

Field data was collected and analyzed based on the procedures outlined in "SP-022 Flexible Pavement Rating – Guidelines for Municipalities" (Ministry of Transportation, 1989) and "PAV-86-02 Pavement Condition Index (PCI) for Flexible Pavements" (Ministry of Transportation, 1992). The hard top roadways were evaluated by identifying specific pavement defects on the surface and recording their severity as a proportion of the overall road area in order to establish the Distress Manifestation Index (DMI).

In conjunction with the DMI, a Riding Comfort Rating (RCR) was established for each section of paved roadway evaluated. As per Ministry document SP-022, the RCR was evaluated subjectively by a driver travelling at the posted speed and scoring the ride comfort on a scale from 0 to 10. A rating of 10 would indicate a smooth, stable road with no discomfort to the rider while a rating of 0 would indicate a very rough riding road with serious safety concerns.

The DMI and RCR parameters were used to establish the Pavement Condition Index (PCI) using a mathematical formula outlined in Ministry document "Formulations to Calculate Pavement Condition Indices" (2009). The PCI ranges between 0 and 100, and is a common single measure of the performance of a pavement. The greater the PCI value, the greater the current pavement performance.

3. PREVIOUS STUDIES

The following previous studies were consulted as part of this study:

- 2016 Road Condition Assessment (Updated 2018), GM BluePlan, 2018
- Township of Mapleton Asset Management Plan 2022 Core Assets, Township of Mapleton, 2022

4. MAPLETON ROAD INVENTORY

This study inventoried and rated a total of 210.1 kilometres of hard top roads within the Township of Mapleton. The following charts outline the Mapleton hard top road network based on a number of parameters. All physical inventory data was provided by the Township from their asset database.

4.1 Surface Type

The hard top roads in the Township are comprised of High Class Bituminous Asphalt (Hot Mix) or Low Class Bituminous (Surface Treated) surfaces. The vast majority of Township roads are HCB (Hot Mix). It is our understanding that the Township will eventually convert the remaining LCB (Surface Treated) roads to HCB (Hot Mix) when improvement needs are required.

Table 1: Surface Types

Surface Type	Length (km)	Percentage of Network
HCB (Hot Mix)	206.2	98.1%
LCB (Surface Treated)	3.9	1.9%
Total:	**210.1**	

4.2 Roadside Environment

Roadside Environment is divided into three classes, Rural, Semi-Urban, and Urban. Rural Environment means rural roads that generally abut agricultural lands or open spaces such as forests. Semi-Urban roads are those which are adjacent to or inside of built-up areas (eg. Glen Allen), but do not include curb & gutter or storm sewers. Urban Environment refers to roadways that are in an urban or built-up area, and generally include curb & gutter and storm sewers. The distribution of roadside environment across the Township's hard type road network is presented in the following table:

Table 2: Roadside Environments

Roadside Environment	Length (km)	Percentage of Network
Rural	181.3	86.3%
Semi-Urban	18.8	8.9%
Urban	10.0	4.8%
Total:	**210.1**	

4.3 Road Structure

The typical road structure is made up of various layer materials including:

Subgrade: Native material or naturally occurring material on which the road is constructed. In the cases of unsuitable native material, or in the cases where the grade of the road must be raised well above the native grade, imported gravel fill can be used to form the subbase. The top layer of subgrade is graded and proof-rolled prior to placing road base material. The strength of subgrade is considered as part of the design of the road structure.

Sub-base: Usually a layer of imported gravel (typically Granular 'B') that is graded and compacted on top of the subgrade. This layer is intended to be free-draining (i.e., a well graded granular material) and prevents subgrade material and water from migrating upwards into higher levels of the road base. This is the first layer of the road section that is intended to be frost-resistant, meaning that it conducts water away from the road surface into ditches and alleviates frost heave.

Base: A top layer of finely graded granular material (typically Granular 'A') that is graded and compacted to form the working platform for hard-surfacing, or in the case of a gravel road, the final road surface. While some drainage does occur through the base course, it also functions to direct water towards the edges of the road surface. This layer is subject to severe loading and serves to spread loading from the wearing surface over a larger area in combination with the subbase course, thus reducing pressure on the subgrade.

Surface: Where present, this is the top layer of the road cross section that is in direct contact with surface loading. It can either be flexible (e.g., asphalt or surface treatment) or rigid (e.g., concrete). Design of base and subbase courses will differ for flexible and rigid wearing surfaces. This surface provides various functions such as providing additional structural strength, direct the majority of surface water to the shoulders and ditches (or curbs and gutter) of the road, and provide a smooth and consistent riding surface.

The Township of Mapleton's current design standards are illustrated in the following figures.

Figure 1: Typical Urban Cross Section

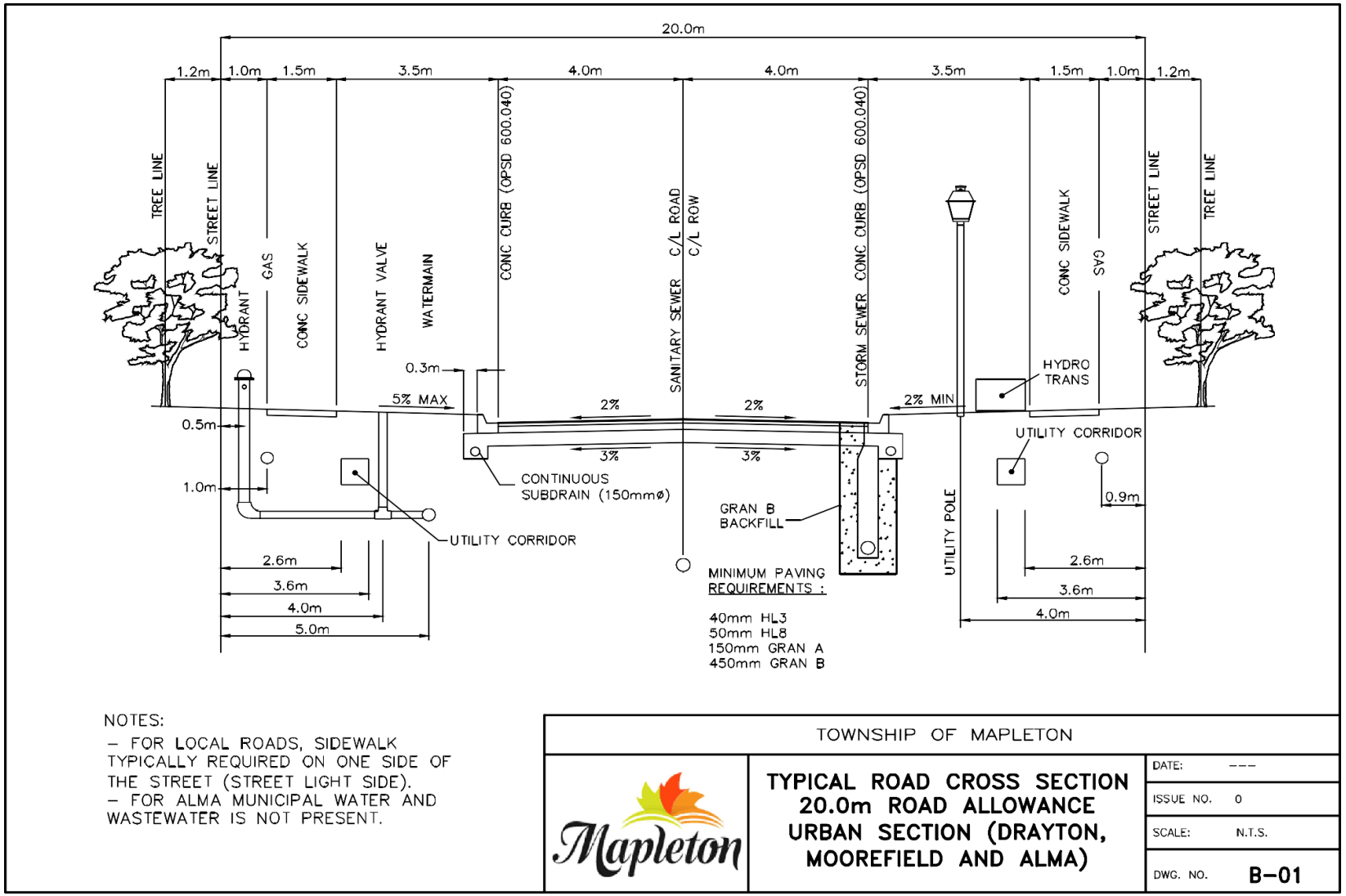
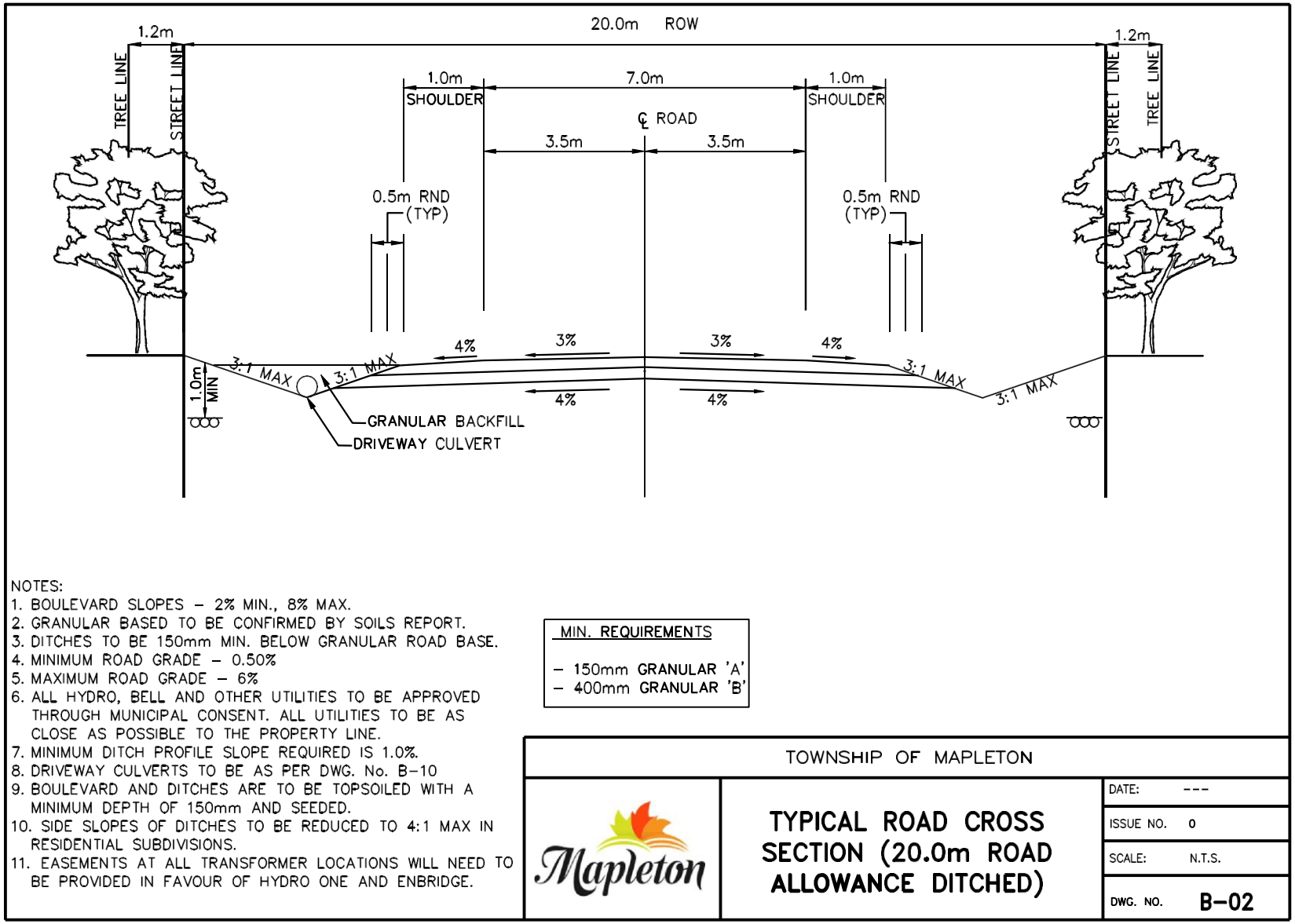


Figure 2: Typical Rural/Semi-Urban Cross Section



NOTES:
1. BOULEVARD SLOPES – 2% MIN., 8% MAX.
2. GRANULAR BASED TO BE CONFIRMED BY SOILS REPORT.
3. DITCHES TO BE 150mm MIN. BELOW GRANULAR ROAD BASE.
4. MINIMUM ROAD GRADE – 0.50%
5. MAXIMUM ROAD GRADE – 6%
6. ALL HYDRO, BELL AND OTHER UTILITIES TO BE APPROVED THROUGH MUNICIPAL CONSENT. ALL UTILITIES TO BE AS CLOSE AS POSSIBLE TO THE PROPERTY LINE.
7. MINIMUM DITCH PROFILE SLOPE REQUIRED IS 1.0%.
8. DRIVEWAY CULVERTS TO BE AS PER DWG. No. B–10
9. BOULEVARD AND DITCHES ARE TO BE TOPSOILED WITH A MINIMUM DEPTH OF 150mm AND SEEDED.
10. SIDE SLOPES OF DITCHES TO BE REDUCED TO 4:1 MAX IN RESIDENTIAL SUBDIVISIONS.
11. EASEMENTS AT ALL TRANSFORMER LOCATIONS WILL NEED TO BE PROVIDED IN FAVOUR OF HYDRO ONE AND ENBRIDGE.

MIN. REQUIREMENTS
– 150mm GRANULAR 'A'
– 400mm GRANULAR 'B'

TOWNSHIP OF MAPLETON

TYPICAL ROAD CROSS SECTION (20.0m ROAD ALLOWANCE DITCHED)

DATE: ---
ISSUE NO. 0
SCALE: N.T.S.
DWG. NO. B–02

4.4 Traffic Volumes

Traffic counts were supplied by the Township where available, and the tables include the most up to date traffic volume data. Where traffic counts were not available, traffic volumes from the most recent previous report were used. Forecasts of ten year traffic volumes were made for all road sections by using an annual growth factor of 1%, which is considered appropriate for a road network of this type.

The table below provides the distribution of the traffic volumes across the Township's hard top road network.

Table 5: Average Daily Traffic (ADT) Distribution

Traffic Volume (AADT)	Centreline Kilometres	Percentage of Network
0 -49	4.6	2.2%
50 - 199	22.3	10.6%
200 - 499	102.4	48.8%
500 - 999	59.6	28.3%
1000 - 1999	14.5	6.9%
2000-2999	6.7	3.2%
Total:	**210.1**	

4.5 Maintenance Class

The Maintenance Class of a roadway is set as per Section 1(4) of O.Reg 239/02, *Minimum Maintenance Standards for Municipal Highways*. Maintenance Class is determined by using a combination of the posted speed of a highway, and the Annual Average Daily Traffic (AADT). The Maintenance Class helps to set the level of service offered by the Township, in accordance with the Regulations. The classification chart is illustrated in the following table.

Table 6: Maintenance Class

Average Annual Traffic (AADT)	Posted or Statuatory Speed Limit (km/hr)						
	100	90	80	70	60	50	40
4000 - 4999	1	2	3	3	3	4	4
3000 - 3999	1	2	3	3	3	4	4
2000 - 2999	1	2	3	3	4	5	5
1000 - 1999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
50 -199	1	3	4	5	5	6	6
0 - 49	1	3	6	6	6	6	6

When the above classifications are applied to the traffic volumes and speed limits of the Township's hard top roads, the distribution of Maintenance Class is as follows.

Table 7: Maintenance Class Distribution

MMS Class	Centreline Kilometres	Percentage of Network
3	20.4	2.2%
4	166.2	10.6%
5	7.5	48.8%
6	16.0	28.3%
Total:	**210.1**	

There is currently 20.4 kilometres of Class 3 roadway in the Township, and with traffic volume growth an additional 3.4 kilometres of Class 3 roads will be added to the network by 2033. The following tables list class 3 roads in 2023, and roads that are estimated to be class 3 in 2033.

Table 8: 2023 MMS Class 3 Roads

Munid	Citywide ID	Street	From	To	Length (km)	AADT Range	Speed	Confirm MMS
M248	2085	Concession 8	Wellington Rd. 11	Sideroad 15	1.94	1000-1999	80	3
P241	2256	Eighth Line	Sideroad 16	Wellington Rd. 11	1.84	1000-1999	80	3
P242	2257	Eighth Line	Sideroad 17	Sideroad 16	1.84	1000-1999	80	3
P243	2258	Eighth Line	Wellington Rd. 12	Sideroad 17	1.84	1000-1999	80	3
P244	2259	Eighth Line	Sideroad 18	Wellington Rd. 12	1.84	2000-2999	80	3
P245	2260	Eighth Line	Sideroad 19	Sideroad 18	1.84	2000-2999	80	3
P246	2261	Eighth Line	Floradale Rd.	Sideroad 19	2.12	2000-2999	80	3
P177	2232	Floradale Rd.	Eighth Line	Wellington Rd. 17	0.88	2000-2999	80	3
P227A	2249	Fourth Line	0.256 km. E. of Yatton Sideroad	Ruggle's Road	0.44	1000-1999	80	3
P167A	2218	Reid Woods Dr.	Blind Line	Third Line	1.44	1000-1999	80	3
P213	2240	Third Line	1.54 km E. of Sideroad 19	Sideroad 19	1.54	1000-1999	80	3
P214	2241	Third Line	Reid Woods Dr.	0.302 km E. of Yatton Sdr.	1.05	1000-1999	80	3
P267	2269	Twelfth Line	Wellington Rd. 17	Sideroad 20	1.79	1000-1999	80	3
				Total:	**20.4**			

Table 7: Additional 2033 Projected MMS Class 3 Roads

Munid	Citywide ID	Street	From	To	Length (km)	10 year AADT	Speed	MMS Class
M246	2083	Concession 8	Sideroad 12	John St.	1.31	1065	80	3
M247	2084	Concession 8	Sideroad 15	Sideroad 12	1.85	1075	80	3
P227	2248	Fourth Line	Yatton Sideroad	0.256 km E. of Yatton Sdr	0.26	1028	80	3
				Total:	**3.4**			

A full listing of road section inventory data is included as **Appendix A.**

5. ROAD NETWORK CONDITION

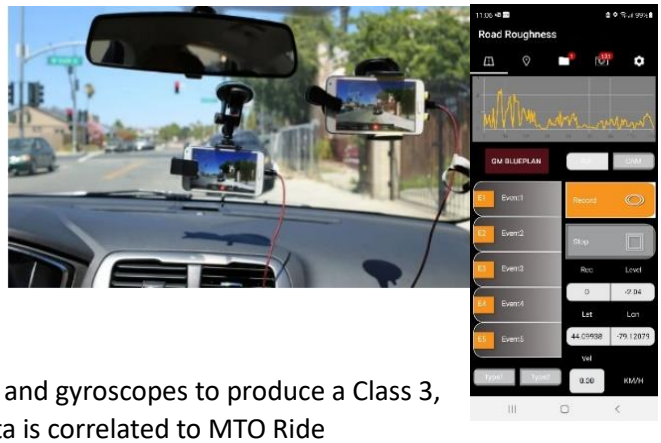
5.1 Visual Inspection and Assessment

During the month of October 2023, the condition of all Township hard top roads was assessed by GM BluePlan. The condition assessments were conducted in accordance with the procedures outlined in the "SP-022 Flexible Pavement Rating – Guidelines for Municipalities" (Ministry of Transportation, 1989)

GMBP collects road asset condition data using a variety of techniques and technologies. For this study, the hard top and gravel road condition evaluations were conducted using a process of manual windshield-style surveys in conjunction with digital image data collection. The GMBP approach utilized a cellular and GPS enabled iPad tablet and smart phone for data acquisition in the field.

The iPad device was set up with customized data entry 'forms', to accurately record the severity and extent of pavement and gravel road defects as per the appropriate guideline documents.

The visual inspections were supplemented with automated imagery and roughness data that was collected using the RUBIX rRUF™ application.



The rRUF™ application was installed on a smart phone mounted within the survey vehicle. The rRUF™ application was used to capture high resolution imagery of the roadways at 10m intervals.

In addition, rRUF™ uses the phone's accelerometers and gyroscopes to produce a Class 3, response-based roughness index. The roughness data is correlated to MTO Ride Condition Rating (RCR) scores.

5.1.1 Distress Manifestation Index

The condition evaluations are based on identifying and categorizing the type, severity, and density of specific pavement or gravel distresses. The distress severity represents how bad the defect is (i.e. the width of a crack) and the density is a measure of how much that defect affects the roadway.

A Distress Manifestation Index (DMI) is computed based on these two parameters and represents the overall effect that each observed distress has on the condition of the roadway. The DMI is a 0-10 scale index whereby the higher the DMI number, the better the surface condition of the road.

To compute the DMI, each distress is assigned a weighting factor based on the relative importance of the distress type and its impact on the potential deterioration of the roadway.

The table below provides a summary of the MTO SP-022 distresses that were evaluated on the roads and their associated weighting factors used in calculating the DMI.

Table 9: Distress Types and Weight Factors

SP-022 Distresses	Weight Factor
Potholes	3
Pavement Edge Breaks	3
Rippling and Shoving	1
Wheel Track Rutting	3
Distortion	3
Patching/U-Cuts	1
Longitudinal Cracking	1
Transverse Cracking	1
Pavement Edge Cracking	3
Map Cracking	1
Alligator Cracking	2.5

The distress severity and extent limits used in calculating the DMI are summarized in Table 10.

Table 10: Distress Severity and Extent Limits

Rating	Severity	Density (% area affected)	Density Description
1	Slight	0 to 20	Intermittent
2	Moderate	20 to 50	Frequent
3	Severe	50 to 100	Extensive

Using the above tables, the DMI is calculated based on the following formula:

$$DMI = 10 \times \left[196 - \sum \frac{W_i \times (S_i + D_i)}{208}\right]$$

Where Wi is the weighting an individual distress, Si is the severity the same distress, and Di is the density of the same distress.

5.1.2 Ride Condition Rating

The Ride Condition Rating (RCR) was assigned to each road section based on the criteria summarized in Table 11, which are generally consistent across all guideline documents.

Table 11: Ride Condition Rating (RCR) Criteria

Ride Condition Rating (RCR)	Description	Criteria
9 – 10	Excellent	Very Smooth
7 – 8	Good	Smooth with a few bumps and depressions
5 – 6	Fair	Comfortable with intermittent bumps or depressions
3 – 4	Poor	Uncomfortable with frequent bumps or depressions. Unable to maintain speed at lower end of the scale
0 – 2	Very Poor	Very uncomfortable with constant jarring bumps or depressions. Unable to maintain posted speed and need to steer constantly to avoid bumps and depressions

5.1.3 Pavement Condition Index

An overall Pavement Condition Index (PCI) was established for each road section by combining the DMI scores and RCR scores. The PCI formula is derived from MTO's "Formulations to Calculate Pavement Condition Indices" (2009). The PCI ranges from 0-100, where the lower the PCI score the worse overall condition of the roadway.

PCI formula:

$$PCI = 13.75 + (9 \times DMI) - \left(\frac{7.5 \times e^{[8.5 - RCR]}}{3.02}\right)$$

Where DMI is the Distress Manifestation index and RCR is the Ride Condition Rating.

The condition of a road can also be categorized into descriptive condition ranges based on the PCI score. For consistency, the following Condition Categories were used in the previous 2016 road needs study.

Table 12: PCI Condition Categories

Condition	PCI Range
Very Good	>80
Good	70 - 80
Fair	50 - 70
Poor	25 - 50
Very Poor	<25

5.2 Network Present Status

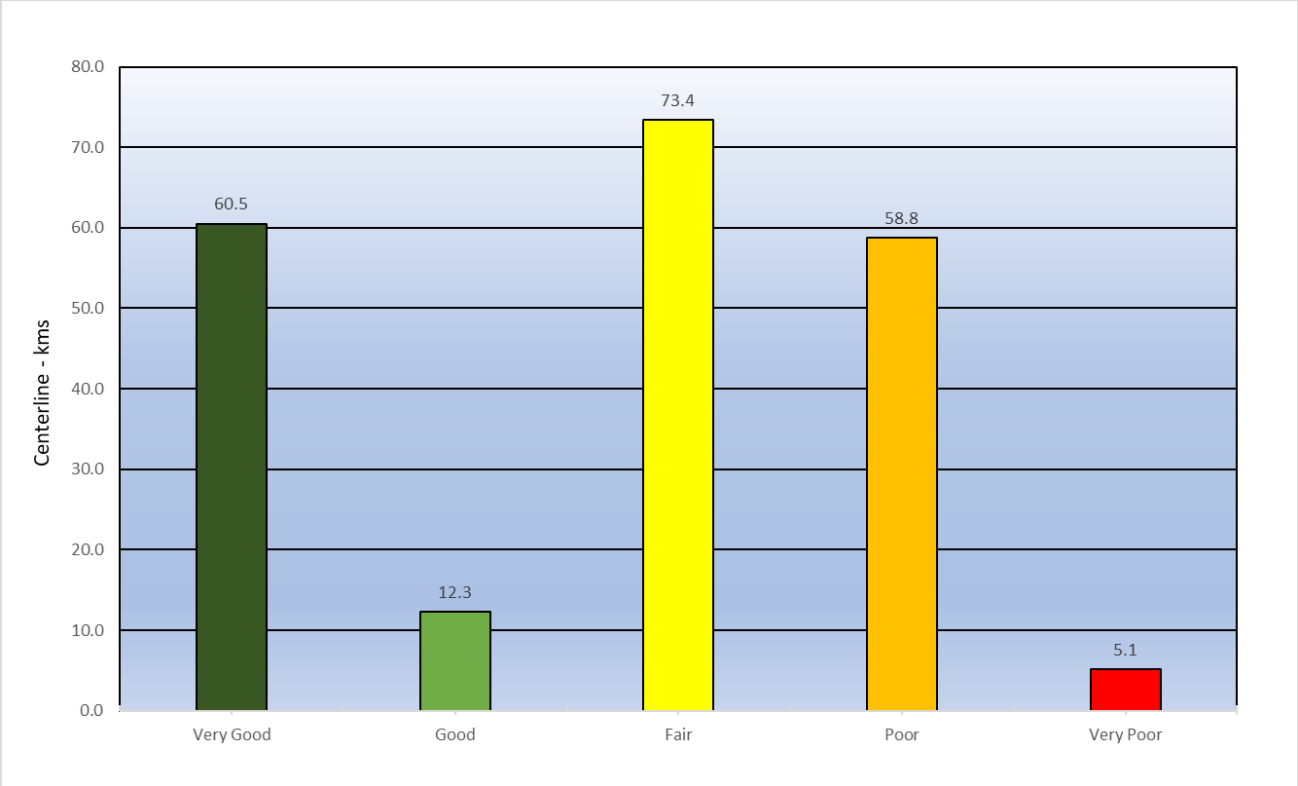
Using the above PCI rating criteria and calculation methods, the overall network average PCI for the Township's hard top road network was determined to be **PCI=63.0** weighted by centerline length of road. Table 13 and Figure 2 provide a breakdown of the Township's hard top road network by PCI condition categories.

Table 13: Hard Top Road Network PCI Distribution

Condition	PCI Range	Centerline Kilometres	Percentage of Hard Top Network
Very Good	>80	60.5	28.8%
Good	70 - 80	12.3	5.9%
Fair	50 - 70	73.4	34.9%
Poor	25 - 50	58.8	28.0%
Very Poor	<25	5.1	2.4%
	Total	**210.1**	**100%**

The results show that 60.5 kms, or 28.8% of the Township's hard top road network, falls within the "Very Good" condition category with PCI scores greater than PCI=80, with an additional 12.3 kms, or 5.9% of the hard top road network considered in "Good" condition with PCI scores between 70 – 80. Approximately 34.9% of the hard top road, or 73.4 kms, is considered in "Fair" condition with PCI scores in the 50 – 70 range.

Figure 3: Hard Top Road Network PCI Distribution



An additional 63.9 kms or 30.4% of the hard top road network is considered in "Poor" to "Very Poor" overall condition with PCI scores less than PCI=50. Table 14 below identifies the hard top roads in Very Poor condition.

Table 14: Very Poor Roads (PCI<25)

Munid	Citywide ID	Street	From	To	Length KM	PCI
M147	2037	Sideroad 15	Wellington Rd. 8	Concession 12	2.707	14.5
M236	2073	Concession 6	1.094 km E. of Sideroad 15	Sideroad 15	1.094	22.1
M143	2033	Sideroad 15	Concession 5	Hollen Road	1.338	23.3

A map showing the PCI condition across the hard top road network is provided in **Appendix B**.

6. ROAD NEEDS ANALYSIS

6.1 Road Improvement Type and Benchmark Costs

Based on the type of roadway (urban or rural), condition index, observed defects, and the amount of traffic, road sections with improvement needs were assigned an improvement type. It is important to note that roadway improvements are generally considered on a "like for like" basis. In other words, roads which currently have Surface Treatment that require improvement will be designated for re-application of surface treatment, unless traffic volumes dictate otherwise. The decision to upgrade roads from gravel or surface treatment to asphalt, or similarly downgrade roads, is a level-of-service decision beyond the scope of this report.

In consultation with Township staff the following improvement strategies were considered the most viable options for the Township based on past performance, contractor and in- house capabilities, and the characteristics of the of the Township's' hard top road network.

Table 18: Improvement Strategies

Improvement Code	Description
R1	Single overlay of HL3 asphalt, 60mm depth. Includes 20% padding and shoulder gravel, or milling in urban sections
R2	Double overlay of HL4 base and HL3 surface asphalt, 100mm depth. Includes 20% padding and shoulder gravel, or milling in urban sections
PR1	Pulverize existing asphalt, add 150mm Granular "A", Overlay 60 mm of HL3. Includes shoulder gravel
PR2	Pulverize existing asphalt, add 150mm Granular "A", Double overlay of HL4 base and HL3 surface asphalt, 100mm depth. Includes shoulder gravel
BS	Rural roads only. New granular 'A', plus single or double Hot Mix overlay depending on AADT
REC	Full depth excavation of rural roads. All new granulars and culverts. New asphalt surface, single or double lift depending on AADT
RNS	Similar to REC, but for urban. May include curbs and storm drains

In order to determine approximate costs for each road section with a needed improvement, improvement types are associated with a benchmark cost. Benchmark costs for improvement types were developed using costing for various types of construction materials/activities. These costs were determined based on recent Township tender results and industry averages. Services provided by Township resources on road improvement projects were also factored in.

Table 19: Material/Activity Costs

Item	Unit	Cost
Asphalt Removal (Urban)	m2	$7.80
Excavation	m3	$25.00
50mm HM Asphalt Base (HL8)	tonne	$101.00
40mm HM Asphalt Surface Asphalt (HL3)	tonne	$110.00
60mm HM Asphalt Rural (HL4)	tonne	$110.00
Granular 'B'	tonne	$19.00
Granular 'A'	tonne	$27.00
Mapleton Labour/Equipment Shouldering	tonne	$26.00
Curb & Gutter (R&R)	Lm	$102.00
Subdrains	Lm	$35.00
Nominal Storm Sewer (300mm)	Lm	$260.00
Manhole (R&R)	ea.	$7,200.00
Catchbasin (R&R)	ea.	$4,000.00
Asphalt Milling	m2	$3.50
Asphalt Pulverizing (Rural)	m2	$0.40
Mapleton Labour/Equipment Ditching	Lm	$30.00
Sidewalk (R&R)	m2	$100.00
Topsoil & Seed (Rural)	m2	$15.00
Topsoil & Sod (Urban)	m2	$28.00
General Mapleton Labour/Equipment	Lm	$27.00

Taking the above costs and contingency factors into account, benchmark improvement type unit rates were developed. These benchmark unit rates were developed on a per metre basis using the assumption that most Rural and Semi-Urban roads had 7.0m wide paved surface and Urban roads had an 8.0m wide paved surface.

The following table lists the improvement type, and the benchmark unit rates used in this study.

Table 20: Benchmark Treatment Costs

Improvement	Rural ($/m)	Semi-urban ($/m)	Urban ($/m)
R1	$196.73	$196.73	$186.76
R2	$269.14	$269.14	$297.06
PR1	$270.54	$270.54	
PR2	$342.94	$342.94	
BS	$379.99	$379.99	
REC (0 - 400 AADT)	$1,088.87	$1,180.11	
REC (400 - 1000 AADT)	$1,116.67	$1,210.24	
REC (> 1000 AADT)	$1,218.02	$1,320.08	
RNS (Urban)			$2,299.78

6.2 Replacement Value

The replacement value of all hard top road sections was estimated on the basis of full depth reconstruction of the entire roadway. Replacement values do not include the cost of storm sewers, sanitary sewers or municipal water services, and also do not include the cost of sidewalks as these items are understood to be accounted for as a separate asset class.

As a result, the total replacement value of the hard top roads is estimated to be **$247,836,889**. Individual road section replacement values are included as part of the electronic spreadsheet attached to this report.

Table 21: Replacement Value by Roadside Environment

Roadside Environment	Replacement Cost
Urban	$202,408,675
Semi-Urban	$22,389,025
Rural	$23,039,190
Total	**$247,836,889**

6.3 Time of Need

The PCI scores were used as a guide to determine the Time of Need. The Time of Need represents the timeline in which major road rehabilitation or reconstruction may be required. Any immediate needs are identified as "NOW REHAB" needs. Roads sections have also been assigned "1-5 Year" and "6 – 10 Year" Time of Need based on their PCI score. What this means is that these roads should be addressed before the next 5 or 10 years respectively, as they will likely require major rehabilitation or reconstruction within these timeframes. Roads that are not expected to have need major rehabilitation of reconstruction over the next 10 years are identified as "Adequate". However, Adequate roads are still candidates for maintenance activities such as crack sealing or spot repairs.

The table below shows the general relationship between the PCI score and Time of Need.

Table 22: Time of Need vs PCI

Time of Need	PCI Range
Adequate	>80
6-10 Year	65 – 80
1- 5 Year	50 - 65
"NOW REHAB"	0 - 50

The distribution of Time of Need across the entire network presented in Table 23 below.

Table 23: Network Time of Need Distribution

Time of Need	Centerline Kilometers	Percentage of Network
Adequate	60.5	28.8%
6-10 Year	22.9	10.9%
1- 5 Year	62.8	29.9%
"NOW REHAB	63.9	30.4%

A map showing the Time of Need across the hard top road network is provided in **Appendix C.**

6.4 Improvement Needs

For the purposes of this study, the main determination of a road's improvement needs was based on the observed conditions of the roadway surface.

In general, hard top roads with PCI values between 60 - 75 are good candidates for minor resurfacing improvements, such as single lift hot mix overlays (R1). Whereas roads with PCI scores between 40-60 will require major resurfacing (R2 or PR1). Roads with PCI scores <40, typically require additional base and drainage repair. Roads with very low PCI scores (PCI<35) as a minimum should receive a Pulverize and Overlay treatment in order to improve the condition and depth of the base material. Full reconstruction may be

warranted based on other factors such as meeting current design standards, anticipated traffic growth, geotechnical evaluations, adequate drainage, or other circumstances.

Table 24 below provides the distribution of improvement type needs and estimated costs across the Townships hard top road network. The results indicate that there is approximately $38.4 Million in current improvement needs across the Township's hard top road network.

Table 24: Improvement Needs (Asphalt/Surface Treated Roads)

Treatment Code	Centerline kms	Improvement Costs ($)
PR1	92.3	$24,963,266.88
PR2	13.6	$4,661,953.55
R1	36.6	$7,202,875.49
R1 (Urban)	4.3	$809,231.08
R2	2.1	$554,427.58
R2 (Urban)	0.7	$211,806.26
Total	**149.6**	**$38,403,560.84**

6.5 Prioritization

The previous sections outlined the determination of road improvement needs across the Township's hard top road network. In order to develop a multi-year program, the improvement needs must be prioritized to select which projects to complete in any given year based on and available budget dollars.

The Ministry of Transportation Inventory Manual (1991) identifies an empirical approach to ranking road improvement needs.

By means of a Priority Rating (PR) calculation, not only is the condition of the road taken into account but also the number of users (i.e. traffic AADT) the roadway serves and would benefit from the improvement being completed. The higher the Priority Rating the higher the road improvement need will rank in relation to all other road improvement needs.

The Priority Rating formula is as follows:

$$\textbf{Priority Rating (PR)} = 0.2\ (100\text{-PCI})\ X\ (AADT + 40)^{0.25}$$

Where:

PCI=Pavement Condition Index

AADT= average annual daily traffic

The effect of applying this Priority Rating is that roads with higher traffic volumes will be prioritized over lower traffic volume roads of similar condition. Likewise, traffic being equal, roads with a lower condition rating will rank higher for prioritizing rehabilitation needs.

It should be noted that the Priority Rating is a guide only. There may be additional factors which affect the prioritization of capital road needs, including improvement cost, truck traffic, road continuity, roads with especially poor condition, safety considerations, other planned or necessary construction activities (eg. land development, sewer replacement), or site specific conditions such as geometric deficiencies. These additional prioritization factors are beyond the scope of this study.

Road sections with high Priority Rating numbers (PR>40) are listed in the following table, along with their estimated improvement cost and type of work proposed.

A full listing of all roads, along with their Priority Rating, Improvement Type, and Estimated Improvement Cost is provided in **Appendix A.**

Table 25: Priority Rating (PR) > 40

Munid	Street	From	To	Length (KM)	AADT Range	PCI	Priority Rating (PR)	Improvement	Cost ($)
M147	Sideroad 15	Wellington Rd. 8	Concession 12	2.71	200-499	14.5	76.4	PR1	$ 732,352
P241	Eighth Line	Sideroad 16	Wellington Rd. 11	1.84	1000-1999	36.4	75.9	PR2	$ 631,356
P244	Eighth Line	Sideroad 18	Wellington Rd. 12	1.84	2000-2999	46.9	74.9	PR2	$ 632,385
P245	Eighth Line	Sideroad 19	Sideroad 18	1.84	2000-2999	47.5	74.2	PR2	$ 630,327
P246	Eighth Line	Floradale Rd.	Sideroad 19	2.12	2000-2999	48.2	73.3	PR2	$ 725,322
P226	Fourth Line	Yatton Sdrd.	Sideroad 19	1.83	500-999	35.0	72.1	PR1	$ 495,629
M211	Concession 3	Wellington Rd. 9	1.823 km E. of Wellington Rd. 9	1.82	500-999	34.6	71.8	PR1	$ 493,194
M212	Concession 3	Sideroad 6	1.84 Km. W.	1.84	500-999	36.9	68.7	PR1	$ 498,064
P224	Fourth Line	Sideroad 18	Wellington Rd. 12	1.85	500-999	38.1	68.6	PR1	$ 499,687
M213	Concession 3	Sideroad 6	Wellington Rd. 10	1.84	500-999	36.7	68.5	PR1	$ 497,794
P164	Yatton Sdrd.	Blind Line	1.150 km N. of Blind Line	1.15	500-999	35.1	67.5	PR1	$ 311,121
P225	Fourth Line	Sideroad 19	Sideroad 18	1.84	500-999	39.7	66.9	PR1	$ 496,711
M236	Concession 6	1.094 km E. of Sideroad 15	Sideroad 15	1.09	200-499	22.1	66.5	PR1	$ 295,971
P212A	Third Line	Sideroad 19	0.576 km E. of Sideroad 18	1.32	500-999	41.0	64.8	PR1	$ 355,760
M144	Sideroad 15	Hollen Road	Concession 6	1.36	200-499	27.5	64.3	PR1	$ 368,475
P163	Yatton Sdrd.	0.362 km N. of Wellington Rd. 86	Blind Line	0.76	500-999	38.7	63.7	PR1	$ 205,881
M143	Sideroad 15	Concession 5	Hollen Road	1.34	200-499	23.3	63.6	PR1	$ 361,983
P213	Third Line	1.54 km E. of Sideroad 19	Sideroad 19	1.54	1000-1999	46.9	60.4	PR2	$ 528,131
P503	Yatton Sdrd.	1.150 km N. of Blind Line	Third Line	0.22	500-999	42.2	59.9	PR1	$ 59,519
P502	Third Line	Yatton Sdrd.	1.54 km E. of Sideroad 19	0.51	1000-1999	49.9	57.1	PR2	$ 174,557
P231	Sixth Line	Sideroad 16	Wellington Rd. 11	1.84	200-499	37.3	56.9	PR1	$ 497,794
M225	Concession 5	Sideroad 15	Wellington Rd. 10	4.02	200-499	29.3	56.5	PR1	$ 1,087,841
P214	Third Line	Reid Woods Dr.	0.302 km E. of Yatton Sdr.	1.05	1000-1999	51.1	56.0	PR2	$ 360,089
P223	Fourth Line	Wellington Rd. 12	Sideroad 17	1.84	500-999	50.0	55.5	PR1	$ 498,335
M247	Concession 8	Sideroad 15	Sideroad 12	1.85	500-999	51.0	55.3	PR1	$ 500,228
P211	Third Line	Sideroad 18	Wellington Rd. 12	1.85	500-999	49.3	54.8	PR1	$ 500,228
M263	Fourth Line	Yatton Sdrd.	Sideroad 19	2.05	200-499	35.0	54.7	PR1	$ 555,419
M145	Sideroad 15	Concession 6	Concession 8	2.76	500-999	44.6	54.2	PR1	$ 747,773
M221	Concession 4	Sideroad 3	Wellington Rd. 9	1.85	200-499	36.1	53.8	PR1	$ 501,581
M231	Concession 6	Sideroad 3	Wellington Rd. 9	1.82	200-499	40.8	53.7	PR2	$ 624,840
P117	Sideroad 16	Wellington Rd. 8	1.097 km N. of Wellington Rd. 8	1.14	200-499	37.9	53.2	PR1	$ 309,498
M222	Concession 4	1.051 km W. of Sideroad 3	Sideroad 3	1.04	200-499	37.9	52.9	PR2	$ 354,945
M242	Concession 8	Sideroad 6	Sideroad 3	1.84	500-999	51.0	52.9	PR1	$ 498,335
M232	Concession 6	Sideroad 6	Sideroad 3	1.84	200-499	41.4	49.9	PR1	$ 496,441
P233	Sixth Line	Wellington Rd. 12	Sideroad 17	1.84	500-999	49.3	49.4	PR1	$ 498,335
P232	Sixth Line	Sideroad 17	Sideroad 16	1.84	200-499	47.5	49.0	PR1	$ 497,253
M235	Concession 6	Sideroad 15	Sideroad 12	1.82	200-499	44.4	47.5	PR1	$ 493,194
M265	Third Line	Sideroad 18	Wellington Rd. 12	1.81	200-499	48.7	46.8	PR1	$ 488,866
M274	Concession 14	Sideroad 12	Wellington Rd. 10	1.84	200-499	50.4	46.7	PR1	$ 497,523
M146	Sideroad 15	Concession 8	Wellington Rd. 8	2.66	200-499	52.3	45.0	PR1	$ 720,448
P212	Third Line	0.576 km E. of Sideroad 18	Sideroad 18	0.77	500-999	59.4	44.6	PR1	$ 207,775
M262	Concession 12	Sideroad 3	Wellington Rd. 9	1.81	200-499	46.3	44.6	PR1	$ 489,948
P222	Fourth Line	Sideroad 17	Sideroad 16	1.83	500-999	58.4	44.4	PR1	$ 493,736
M261	Eighth Line	Sideroad 18	Wellington Rd. 12	1.84	200-499	46.3	44.0	PR1	$ 498,876
P504	Third Line	0.302 km E. of Yatton Sdrd.	Yatton Sdrd.	0.30	1000-1999	61.6	43.8	R2	$ 81,280
M243	Concession 8	Robb St.	Sideroad 6	1.60	500-999	60.4	43.5	PR1	$ 432,864
P234	Sixth Line	Sideroad 18	Wellington Rd. 12	1.84	200-499	53.4	43.5	PR1	$ 498,335
P501	Yatton Sdrd.	Third Line	0.725 km N. of Third Line	0.87	200-499	52.3	42.4	PR1	$ 234,288
M264	Concession 8	Sideroad 15	Sideroad 12	1.59	200-499	51.0	42.0	PR1	$ 428,806
P271	Fourteenth Line	Sideroad 16	Wellington Rd. 11	1.91	50-199	46.1	41.3	PR1	$ 517,543
P221	Fourth Line	Sideroad 16	Wellington Rd. 11	1.08	500-999	60.1	40.7	PR1	$ 291,372
M241	Concession 8	Sideroad 3	Wellington Rd. 9	1.81	500-999	61.7	40.6	PR1	$ 490,489
P263	Twelfth Line	Wellington Rd. 12	Sideroad 17	1.82	200-499	58.1	40.4	PR1	$ 492,924
M246	Concession 8	Sideroad 12	John St.	1.31	500-999	64.2	40.3	PR1	$ 355,490
								Total:	**$25,236,909**

7. SUMMARY

Currently the Township maintains approximately 210 km of "hard top" (hot mix asphalt or surface treated) roadways.

The overall network average PCI for the Township's hard top road network was determined to be **PCI=63.0** weighted by the centerline line length of roads. This equates to an overall "Fair" condition.

Overall, Mapleton's road network remains in reasonable condition given the traffic levels experienced. However, 63.9 kms or 30.4% of the hard top road network is considered in "Poor" to "Very Poor" overall condition with PCI scores less than PCI=50.

The total replacement value of the Township's hard top roads is estimated to be **$247,836,889**.

The results indicate that there is approximately **$38.4 Million** in current improvement needs across the Township's hard top road network.

Total improvement costs in 2023 dollars, for roads with a Priority Rating (PR) of greater than 40, are estimated as follows:

Table 26: High Priority (PR>40) Cost Summary

Priority Rating	Length (KM)	Estimated Cost
PR >60	29.9	$ 8,760,145
PR 40-60	59.7	$ 16,476,765
Total	**89.6**	**$ 25,236,910**

This study has been provided to aid the Township of Mapleton in setting their capital plan. It is intended to be a guide only and should be updated on a regular schedule in order to reflect changing conditions.

Appendix A - Road Inventory

Township of Mapleton

Road Listing (Asphalt/Surface Treated Only)

Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
M325A	2120	Adam Brown St.	Booth St. W.	Moore St.	Moorefield	145	0.145	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9739	5	61.6	Fair	1 -5 years	27.5	R1	$ 28,525.85	$ 171,115.95
M325B	2121	Adam Brown St.	Moore St.	Hendrie St	Moorefield	149	0.149	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9085	5	61.0	Fair	1 -5 years	28.0	R1	$ 29,312.77	$ 175,836.39
M325C	2122	Adam Brown St.	Hendrie St	Maudsley St.	Moorefield	67	0.067	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	8.8889	5.5	73.5	Good	6 - 10 Years	19.0	R1	$ 13,180.91	$ 79,067.37
M325D	2123	Adam Brown St.	Maudsley St.	Parkview Dr.	Moorefield	88	0.088	7.2	Semi-Urban	Asphalt	50-199	50-199	50	6	8.5621	5.5	70.6	Good	6 - 10 Years	21.1	R1	$ 17,312.24	$ 103,849.68
P312B	2324	Alexander St. W.	Elora St. S.	Alma Queen St. S.	Alma	103	0.103	6.4	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9085	4.5	56.7	Fair	1 -5 years	31.0	PR1	$ 27,865.62	$ 121,551.33
D032	1962	Andrews Dr.	Wellington St. S.	Dales Dr.	Drayton	116	0.116	8	Urban	Asphalt	500-999	500-999	50	5	10	9	97.4	Very Good	ADEQ	2.8		$ -	$ 266,774.41
D032A	1963	Andrews Dr.	Dales Dr.	Maple St.	Drayton	203	0.203	8	Urban	Asphalt	200-499	200-499	50	5	9.3464	9	91.5	Very Good	ADEQ	7.6		$ -	$ 466,855.21
D035	1965	Andrews Dr.	Dales Dr.	Parkside St.	Drayton	89	0.089	8	Urban	Asphalt	200-499	200-499	50	5	9.4771	6	81.9	Very Good	ADEQ	16.1		$ -	$ 204,680.36
D043	1972	Andrews Dr.	Parkside St	End	Drayton	180	0.18	8	Urban	Asphalt	50-199	50-199	50	6	8.5621	5.5	70.6	Good	6 - 10 Years	21.1	R1 (Urban)	$ 33,616.80	$ 413,960.28
D045	1974	Andrews Dr. W.	Wellington St. S.	River Run Road	Drayton	82	0.082	8	Urban	Asphalt	500-999	500-999	50	5	9.2157	6.5	82.1	Very Good	ADEQ	19.0		$ -	$ 188,581.91
D046	1975	Andrews Dr. W.	River Run Road	Faith Dr.	Drayton	41	0.041	8	Urban	Asphalt	500-999	500-999	50	5	9.6078	7	87.9	Very Good	ADEQ	12.8		$ -	$ 94,290.95
D047	1976	Andrews Dr. W.	Faith Dr.	River Run Road	Drayton	182	0.182	8	Urban	Asphalt	200-499	200-499	50	5	9.7386	7	89.1	Very Good	ADEQ	9.7		$ -	$ 418,559.84
M311	2100	Ball Ave.	McGivern St.	End	Moorefield	133	0.133	6.2	Semi-Urban	Asphalt	0-49	0-49	50	6	8.7582	6	75.4	Good	6 - 10 Years	14.0	R1	$ 26,165.09	$ 156,954.63
D054	1983	Bedell Dr.	Main St. W.	Ridgeview Dr.	Drayton	76	0.076	8.2	Urban	Asphalt	50-199	50-199	50	6	9.7386	6.5	86.9	Very Good	ADEQ	9.4		$ -	$ 174,783.23
D055	1984	Bedell Dr.	Ridgeview Dr.	End	Drayton	96	0.096	8.2	Urban	Asphalt	0-49	0-49	50	6	9.6078	7	87.9	Very Good	ADEQ	6.9		$ -	$ 220,778.82
D057	1987	Bedell Dr.	Ridgeview Dr.	Ridgeview Dr.	Drayton	261	0.261	8.2	Urban	Asphalt	0-49	0-49	50	6	9.4118	6.5	83.9	Very Good	ADEQ	9.1		$ -	$ 600,242.41
P201A	2236	Blind Line	Reid Woods Dr.	385m W ofReid Woods Dr.		385	0.385	6	Semi-Urban	Surface Treated	50-199	50-199	80	4	8.2353	6	70.7	Good	6 - 10 Years	21.0	R1	$ 75,741.05	$ 454,342.35
D027A	1957	Bonniewood Dr	Smith Dr.	Hillview Dr.	Drayton	56	0.056	8	Urban	Asphalt	200-499	200-499	50	5	8.0392	5	62.2	Fair	1 -5 years	33.6	R1 (Urban)	$ 10,458.56	$ 128,787.64
D027	1956	Bonniewood Dr.	Hillview Dr.	End	Drayton	226	0.226	8	Urban	Asphalt	50-199	50-199	50	6	7.9739	5	61.6	Fair	1 -5 years	27.5	R1 (Urban)	$ 42,207.76	$ 519,750.14
M245	2082	Booth St. E.	John St.	McGivern St.	Moorefield	492	0.492	6.9	Semi-Urban	Asphalt	965	500-999	50	5	8.8235	6	76.0	Good	6 - 10 Years	27.0	R1	$ 96,791.16	$ 595,438.08
M244A	2079	Booth St. W.	Carson St.	Robb St.	Moorefield	76	0.076	7	Semi-Urban	Asphalt	874	500-999	50	5	8.0392	5.5	65.9	Fair	6 - 10 Years	37.5	R1	$ 14,951.48	$ 91,978.24
M244B	2080	Booth St. W.	Adam Brown St.	Carson St.	Moorefield	78	0.078	7	Semi-Urban	Asphalt	874	500-999	50	5	8.3007	5.5	68.2	Fair	6 - 10 Years	35.0	R1	$ 15,344.94	$ 94,398.72
M244C	2081	Booth St. W.	Wellington Rd. 10	Adam Brown St.	Moorefield	76	0.076	7	Semi-Urban	Asphalt	874	500-999	50	5	8.9542	6	77.2	Good	6 - 10 Years	25.1	R1	$ 14,951.48	$ 91,978.24
P405	2337	Bridge St.	Snyder Ave.	Wellington Rd. 45	Glen Allan	61	0.061	6.4	Semi-Urban	Asphalt	0-49	0-49	50	6	8.366	5	65.1	Fair	6 - 10 Years	19.8	R1	$ 12,000.53	$ 71,986.71
M315	2106	Caroline St.	McGivern St	End	Moorefield	144	0.144	6.1	Urban	Asphalt	50-199	50-199	50	6	8.366	5	65.1	Fair	6 - 10 Years	25.0	R1 (Urban)	$ 26,893.44	$ 331,168.23
M324A	2117	Carson St.	Booth St. W.	Moore St.	Moorefield	140	0.14	6.1	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9085	4.5	56.7	Fair	1 -5 years	31.0	PR1	$ 37,875.60	$ 165,215.40
M324B	2118	Carson St.	Moore St.	Hendrie St	Moorefield	151	0.151	6.1	Semi-Urban	Asphalt	50-199	50-199	50	6	8.0392	5	62.2	Fair	1 -5 years	27.1	R1	$ 29,706.23	$ 178,196.61
M324C	2119	Carson St.	Hendrie St	Maudsley St.	Moorefield	71	0.071	5.8	Semi-Urban	Asphalt	50-199	50-199	50	6	8.366	5.5	68.8	Fair	6 - 10 Years	22.4	R1	$ 13,967.83	$ 83,787.81
M262	2087	Concession 12	Sideroad 3	Wellington Rd. 9		1811	1.811	6.5	Rural	Asphalt	257	200-499	80	4	6.3	5	46.3	Poor	NOW REHAB	44.6	PR1	$ 489,947.94	$ 1,971,943.57
M271	2092	Concession 14	Sideroad 3	Wellington Rd. 109		1178	1.178	6.7	Rural	Asphalt	173	50-199	80	4	7.7124	5.5	62.9	Fair	1 -5 years	28.3	R1	$ 231,747.94	$ 1,282,688.86
M272	2093	Concession 14	Sideroad 6	Sideroad 3		1877	1.877	6.7	Rural	Asphalt	239	200-499	80	4	7.3856	5.5	60.0	Fair	1 -5 years	32.7	R1	$ 369,262.21	$ 2,043,808.99
M273	2094	Concession 14	Wellington Rd. 10	Sideroad 6		1829	1.829	6.7	Rural	Asphalt	304	200-499	80	4	7.9085	6	67.8	Fair	6 - 10 Years	27.7	R1	$ 359,819.17	$ 1,991,543.23
M274	2095	Concession 14	Sideroad 12	Wellington Rd. 10		1839	1.839	6.7	Rural	Asphalt	451	200-499	80	4	6.7	5	50.4	Fair	1 -5 years	46.7	PR1	$ 497,523.06	$ 2,053,556.13
M275	2096	Concession 14	Sideroad 15	Sideroad 12		1853	1.853	6.7	Rural	Asphalt	351	200-499	80	4	7.9085	5.5	64.7	Fair	1 -5 years	31.4	R1	$ 364,540.69	$ 2,017,676.11
M276	2097	Concession 14	Wellington Rd. 11	Sideroad 15		1920	1.92	6.7	Rural	Asphalt	265	200-499	80	4	6.5	5.5	52.3	Fair	1 -5 years	39.9	PR1	$ 519,436.80	$ 2,090,630.40
M281	2098	Concession 16	Sideroad 15	Sideroad 12		1838	1.838	6	Rural	Asphalt	394	200-499	80	4	9.5425	6.5	85.1	Very Good	ADEQ	13.6		$ -	$ 2,001,343.06
M282	2099	Concession 16	Wellington Rd. 11	Sideroad 15		1958	1.958	6.5	Rural	Asphalt	442	200-499	80	4	9.5425	7	87.3	Very Good	ADEQ	11.9		$ -	$ 2,186,439.86
M211	2050	Concession 3	Wellington Rd. 9	1.823 km E. of Wellington Rd. 9		1823	1.823	6.5	Rural	Asphalt	866	500-999	80	4	6.0	4	34.6	Poor	NOW REHAB	71.8	PR1	$ 493,194.42	$ 2,035,689.41
M212	2051	Concession 3	Sideroad 6	1.84 Km. W.		1841	1.841	6.5	Rural	Asphalt	841	500-999	80	4	6.3	4	36.9	Poor	NOW REHAB	68.8	PR1	$ 498,064.14	$ 2,055,789.47
M213	2052	Concession 3	Sideroad 6	Wellington Rd. 10		1840	1.84	6.4	Rural	Asphalt	816	500-999	80	4	5.7	4.5	36.7	Poor	NOW REHAB	68.5	PR1	$ 497,793.60	$ 2,054,672.80
M214	2053	Concession 3	Wellington Rd. 10	1.344 km E. of Wellington Rd. 10		1344	1.344	6.9	Rural	Asphalt	811	500-999	80	4	9.8693	8	93.7	Very Good	ADEQ	6.8		$ -	$ 1,500,804.48
M214A	2054	Concession 3	Diamond Sideroad	0.499 km W. of Diamond Sideroad		499	0.499	6.7	Rural	Asphalt	811	500-999	80	4	9.8693	8	93.7	Very Good	ADEQ	6.8		$ -	$ 557,218.33
M215	2055	Concession 3	Sideroad 15	Diamond Sideroad		1833	1.833	6.7	Rural	Asphalt	811	500-999	80	4	9.6732	8	92.0	Very Good	ADEQ	8.6		$ -	$ 2,046,856.11
M216	2056	Concession 3	Wellington Rd. 11	Sideroad 15		1924	1.924	6.6	Rural	Asphalt	821	500-999	80	4	9.7386	7	89.1	Very Good	ADEQ	11.8		$ -	$ 2,148,473.08
M221	2057	Concession 4	Sideroad 3	Wellington Rd. 9		1854	1.854	6.5	Rural	Asphalt	275	200-499	80	4	5.6	4.5	36.1	Poor	NOW REHAB	53.8	PR1	$ 501,581.16	$ 2,018,764.98
M222	2058	Concession 4	1.051 km W. of Sideroad 3	Sideroad 3		1035	1.035	6.3	Rural	Asphalt	290	200-499	80	4	5.8	4.5	37.9	Poor	NOW REHAB	52.9	PR2	$ 354,944.97	$ 1,126,980.45
M222A	2059	Concession 4	Sideroad 6	0.763 km W. of Sideroad 6		763	0.763	6.4	Rural	Asphalt	290	200-499	80	4	8.3007	5	64.6	Fair	1 -5 years	30.2	R2	$ 205,353.51	$ 830,807.81
M223	2060	Concession 4	Wellington Rd. 10	Sideroad 6		1854	1.854	5.7	Rural	Asphalt	304	200-499	80	4	7.8431	6	67.2	Fair	6 - 10 Years	28.3	R1	$ 364,737.42	$ 2,018,764.98
M225	2062	Concession 5	Sideroad 15	Wellington Rd. 10		4021	4.021	6.9	Rural	Asphalt	214	200-499	80	4	5.4	4	29.3	Poor	NOW REHAB	56.4	PR1	$ 1,087,841.34	$ 4,378,346.27
M226	2064	Concession 5	Sideroad 15	Lower 4th Rd.		995	0.995	5.8	Rural	Asphalt	251	200-499	80	4	7.9739	5.5	65.3	Fair	6 - 10 Years	28.7	R2	$ 267,793.90	$ 1,083,425.65
M231	2068	Concession 6	Sideroad 3	Wellington Rd. 9		1822	1.822	6.8	Rural	Asphalt	384	200-499	80	4	6.1	4.5	40.8	Poor	NOW REHAB	53.7	PR2	$ 624,840.32	$ 1,983,921.14

Township of Mapleton

Road Listing (Asphalt/Surface Treated Only)

Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
M232	2069	Concession 6	Sideroad 6	Sideroad 3		1835	1.835	6.8	Rural	Asphalt	288	200-499	80	4	6.2	4.5	41.4	Poor	NOW REHAB	49.9	PR1	$ 496,440.90	$ 1,998,076.45
M233	2070	Concession 6	Wellington Rd. 10	Sideroad 6		1824	1.824	6.8	Rural	Asphalt	425	200-499	80	4	9.8693	8.5	95.1	Very Good	ADEQ	4.6		$ -	$ 2,036,806.08
M234	2071	Concession 6	Sideroad 12	Wellington Rd. 10		1825	1.825	6.4	Rural	Asphalt	388	200-499	80	4	9.8693	8.5	95.1	Very Good	ADEQ	4.5		$ -	$ 1,987,187.75
M235	2072	Concession 6	Sideroad 15	Sideroad 12		1823	1.823	6.4	Rural	Asphalt	293	200-499	80	4	6.5	4.5	44.4	Poor	NOW REHAB	47.5	PR1	$ 493,194.42	$ 1,985,010.01
M236	2073	Concession 6	1.094 km E. of Sideroad 15	Sideroad 15		1094	1.094	6.6	Rural	Surface Treated	293	200-499	80	4	5.3	3.5	22.1	Very Poor	NOW REHAB	66.6	PR1	$ 295,970.76	$ 1,191,223.78
M241	2076	Concession 8	Sideroad 3	Wellington Rd. 9		1813	1.813	6.1	Rural	Asphalt	750	500-999	80	4	7.6	5.5	61.7	Fair	1 -5 years	40.6	PR1	$ 490,489.02	$ 2,024,522.71
M242	2077	Concession 8	Sideroad 6	Sideroad 3		1842	1.842	6.1	Rural	Asphalt	812	500-999	80	4	6.8	5	51.0	Fair	1 -5 years	52.9	PR1	$ 498,334.68	$ 2,056,906.14
M243	2078	Concession 8	Robb St.	Sideroad 6		1600	1.6	6.7	Rural	Asphalt	874	500-999	80	4	7.8	5	60.4	Fair	1 -5 years	43.5	PR1	$ 432,864.00	$ 1,786,672.00
M246	2083	Concession 8	Sideroad 12	John St.		1314	1.314	6.7	Rural	Asphalt	965	500-999	80	4	7.5	6	64.2	Fair	1 -5 years	40.3	PR1	$ 355,489.56	$ 1,467,304.38
M247	2084	Concession 8	Sideroad 15	Sideroad 12		1849	1.849	6.8	Rural	Asphalt	974	500-999	80	4	6.8	5	51.0	Fair	1 -5 years	55.3	PR1	$ 500,228.46	$ 2,064,722.83
M248	2085	Concession 8	Wellington Rd. 11	Sideroad 15		1940	1.94	7	Rural	Asphalt	1346	1000-1999	80	3	10	8.5	96.3	Very Good	ADEQ	4.5		$ -	$ 2,362,958.80
M264	2089	Concession 8	Sideroad 15	Sideroad 12		1585	1.585	6.8	Rural	Asphalt	299	200-499	80	4	6.8	5	51.0	Fair	1 -5 years	42.1	PR1	$ 428,805.90	$ 1,725,858.95
D029	1959	Conestoga Dr	Hillview Dr.	End	Drayton	48	0.048	8	Urban	Asphalt	0-49	0-49	50	6	8.2353	5	64.0	Fair	1 -5 years	20.4	R1 (Urban)	$ 8,964.48	$ 110,389.41
D029A	1960	Conestoga Dr	Hillview Dr.	End	Drayton	31	0.031	8	Urban	Asphalt	0-49	0-49	50	6	8.2353	5	64.0	Fair	1 -5 years	20.4	R1 (Urban)	$ 5,789.56	$ 71,293.16
D033	1964	Dales Dr.	Andrews Dr.	Andrews Dr.	Drayton	312	0.312	8	Urban	Asphalt	50-199	50-199	50	6	8.1699	5	63.4	Fair	1 -5 years	26.2	R1 (Urban)	$ 58,269.12	$ 717,531.16
D003A	1931	Drayton Queen St	0.135 km south of Main St.	End	Drayton	144	0.144	8	Urban	Asphalt	50-199	50-199	50	6	9.8693	8	93.7	Very Good	ADEQ	4.5		$ -	$ 331,168.23
D022	1950	Edward St.	Spring St.	High St.	Drayton	95	0.095	7.5	Urban	Asphalt	500-999	500-999	50	5	10	9	97.4	Very Good	ADEQ	2.8		$ -	$ 218,479.04
D023	1951	Edward St.	Main St. E.	Spring St.	Drayton	119	0.119	7.5	Urban	Asphalt	500-999	500-999	50	5	10	9	97.4	Very Good	ADEQ	2.8		$ -	$ 273,673.74
D031	1961	Edward St.	High St.	Pine Street	Drayton	319	0.319	8	Urban	Asphalt	500-999	500-999	50	5	10	9	97.4	Very Good	ADEQ	2.8		$ -	$ 733,629.62
D044	1973	Edward St.	Pine St.	Wellington St. S	Drayton	303	0.303	8	Urban	Asphalt	500-999	500-999	50	5	10	9	97.4	Very Good	ADEQ	2.8		$ -	$ 696,833.15
M261	2086	Eighth Line	Sideroad 18	Wellington Rd. 12		1844	1.844	6.5	Rural	Asphalt	242	200-499	80	4	6.3	5	46.3	Poor	NOW REHAB	44.0	PR1	$ 498,875.76	$ 2,007,876.28
P241	2256	Eighth Line	Sideroad 16	Wellington Rd. 11		1841	1.841	6.6	Rural	Asphalt	1221	1000-1999	80	3	6.2	4	36.4	Poor	NOW REHAB	75.8	PR2	$ 631,356.22	$ 2,242,374.82
P242	2257	Eighth Line	Sideroad 17	Sideroad 16		1844	1.844	6.6	Rural	Asphalt	1210	1000-1999	80	3	9.7386	7	89.1	Very Good	ADEQ	13.0		$ -	$ 2,246,028.88
P243	2258	Eighth Line	Wellington Rd. 12	Sideroad 17		1837	1.837	6.6	Rural	Asphalt	1200	1000-1999	80	3	10.0	9	97.4	Very Good	ADEQ	3.1		$ -	$ 2,237,502.74
P244	2259	Eighth Line	Sideroad 18	Wellington Rd. 12		1844	1.844	6.7	Rural	Asphalt	2439	2000-2999	80	3	6.3	5	46.9	Poor	NOW REHAB	74.9	PR2	$ 632,385.05	$ 2,246,028.88
P245	2260	Eighth Line	Sideroad 19	Sideroad 18		1838	1.838	6.7	Rural	Asphalt	2454	2000-2999	80	3	6.4	5	47.5	Poor	NOW REHAB	74.2	PR2	$ 630,327.40	$ 2,238,720.76
P246	2261	Eighth Line	Floradale Rd.	Sideroad 19		2115	2.115	6.8	Rural	Asphalt	2469	2000-2999	80	3	6.1	5.5	48.2	Poor	NOW REHAB	73.3	PR2	$ 725,322.33	$ 2,576,112.30
D011	1939	Elm St.	Main St. E.	Wood St.	Drayton	122	0.122	6	Urban	Asphalt	200-499	200-499	50	5	8.366	5	65.1	Fair	6 - 10 Years	31.0	R1 (Urban)	$ 22,784.72	$ 280,573.08
D012	1940	Elm St.	Wood St.	End	Drayton	161	0.161	5	Urban	Asphalt	50-199	50-199	50	6	9.8693	7	90.2	Very Good	ADEQ	7.0		$ -	$ 370,264.48
D051	1980	Faith Dr.	River Run Rd	Andrews Dr. W.	Drayton	398	0.398	8	Urban	Asphalt	50-199	50-199	50	6	8.1046	5	62.8	Fair	1 -5 years	26.7	R1 (Urban)	$ 74,330.48	$ 915,312.19
P176A	2231	Floradale Rd.	2.0 km. N. of Sixth Line	Eighth Line		842	0.842	6.7	Rural	Asphalt	250	200-499	80	4	8.7582	6	75.4	Good	6 - 10 Years	20.3	R1	$ 165,646.66	$ 916,828.54
P177	2232	Floradale Rd.	Eighth Line	Wellington Rd. 17		879	0.879	6.8	Rural	Asphalt	2007	2000-2999	80	3	9.085	6.5	81.0	Very Good	ADEQ	25.6		$ -	$ 1,070,639.58
P271	2270	Fourteenth Line	Sideroad 16	Wellington Rd. 11		1913	1.913	6.7	Rural	Asphalt	176	50-199	80	4	6.7	4.5	46.1	Poor	NOW REHAB	41.3	PR1	$ 517,543.02	$ 2,083,008.31
P272	2271	Fourteenth Line	Sideroad 17	Sideroad 16		1828	1.828	6.7	Rural	Asphalt	195	50-199	80	4	6.9	5	52.2	Fair	1 -5 years	37.4	PR1	$ 494,547.12	$ 1,990,454.36
P272A	2272	Fourteenth Line	Wellington Rd. 12	Sideroad 17		1828	1.828	6.7	Rural	Asphalt	213	200-499	80	4	6.9	5	51.6	Fair	1 -5 years	38.6	PR1	$ 494,547.12	$ 1,990,454.36
P273	2273	Fourteenth Line	Sideroad 18	Wellington Rd. 12		1826	1.826	6	Rural	Asphalt	240	200-499	80	4	8.1046	6	69.5	Fair	6 - 10 Years	25.0	R1	$ 359,228.98	$ 1,988,276.62
P274	2274	Fourteenth Line	Sideroad 19	Sideroad 18		1828	1.828	6	Rural	Asphalt	223	200-499	80	4	7.3203	5	55.7	Fair	1 -5 years	35.7	PR1	$ 494,547.12	$ 1,990,454.36
P275	2275	Fourteenth Line	Sideroad 20	Sideroad 19		1826	1.826	6	Rural	Asphalt	223	200-499	80	4	8.3007	6	71.3	Good	6 - 10 Years	23.1	R1	$ 359,228.98	$ 1,988,276.62
P276	2276	Fourteenth Line	Sideroad 21	Sideroad 20		1834	1.834	6	Rural	Asphalt	223	200-499	80	4	8.3007	6	71.3	Good	6 - 10 Years	23.1	R1	$ 360,802.82	$ 1,996,987.58
P277	2277	Fourteenth Line	Wellington Rd. 17	Sideroad 21		707	0.707	6.6	Rural	Asphalt	212	200-499	80	4	6.7	5	50.4	Fair	1 -5 years	39.5	PR1	$ 191,271.78	$ 769,831.09
M263	2088	Fourth Line	Yatton Sdrd.	Sideroad 19		2053	2.053	6.5	Rural	Asphalt	273	200-499	80	4	5.5	4.5	35.0	Poor	NOW REHAB	54.7	PR1	$ 555,418.62	$ 2,235,450.11
P221	2242	Fourth Line	Sideroad 16	Wellington Rd. 11		1077	1.077	6.5	Rural	Asphalt	636	500-999	80	4	7.1	6	60.1	Fair	1 -5 years	40.7	PR1	$ 291,371.58	$ 1,202,653.59
P222	2243	Fourth Line	Sideroad 17	Sideroad 16		1825	1.825	6.7	Rural	Asphalt	770	500-999	80	4	6.9	6	58.4	Fair	1 -5 years	44.4	PR1	$ 493,735.50	$ 2,037,922.75
P223	2244	Fourth Line	Wellington Rd. 12	Sideroad 17		1842	1.842	6.7	Rural	Asphalt	904	500-999	80	4	6.3	5.5	50.0	Fair	1 -5 years	55.4	PR1	$ 498,334.68	$ 2,056,906.14
P224	2245	Fourth Line	Sideroad 18	Wellington Rd. 12		1847	1.847	6.7	Rural	Asphalt	902	500-999	80	4	6.4	4	38.1	Poor	NOW REHAB	68.6	PR1	$ 499,687.38	$ 2,062,489.49
P225	2246	Fourth Line	Sideroad 19	Sideroad 18		1836	1.836	6.7	Rural	Asphalt	904	500-999	80	4	6.0	4.5	39.7	Poor	NOW REHAB	66.8	PR1	$ 496,711.44	$ 2,050,206.12
P226	2247	Fourth Line	Yatton Sdrd.	Sideroad 19		1832	1.832	6.7	Rural	Asphalt	905	500-999	80	4	5.5	4.5	35.0	Poor	NOW REHAB	72.1	PR1	$ 495,629.28	$ 2,045,739.44
P227	2248	Fourth Line	Yatton Sideroad	0.256 km E. of Yatton Sdr		256	0.256	6.8	Semi-Urban	Asphalt	931	500-999	80	4	10	8.5	96.3	Very Good	ADEQ	4.1		$ -	$ 309,821.44
P227A	2249	Fourth Line	0.256 km. E. of Yatton Sideroad	Ruggle's Road		435	0.435	6.8	Rural	Asphalt	1032	1000-1999	80	3	9.7386	8	92.5	Very Good	ADEQ	8.6		$ -	$ 529,838.70
P305A	2307	Graham St. E.	Elora St. N.	King St. N.	Alma	104	0.104	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	8.9542	6	77.2	Good	6 - 10 Years	16.3	R1	$ 20,459.92	$ 122,731.44
P305B	2308	Graham St. E.	King St. N.	Raglan St. N.	Alma	99	0.099	6.7	Semi-Urban	Asphalt	0-49	0-49	50	6	9.3464	6	80.7	Very Good	ADEQ	11.0		$ -	$ 116,830.89

Township of Mapleton

Road Listing (Asphalt/Surface Treated Only)

Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
P308A	2315	Graham St. W.	Simpson St. W.	End	Alma	334	0.334	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	7.1895	5	54.6	Fair	1 -5 years	32.5	PR1	$ 90,360.36	$ 394,156.74
P308B	2316	Graham St. W.	Queen St. N.	Queen St.N.	Alma	367	0.367	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	7.0	5	52.8	Fair	1 -5 years	33.8	PR1	$ 99,288.18	$ 433,100.37
P308D	2317	Graham St. W.	Elora St. N.	Queen St. N.	Alma	97	0.097	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9739	5	61.6	Fair	1 -5 years	27.5	R1	$ 19,082.81	$ 114,470.67
D060	1990	Green St.	Maple St.	Maple St.	Drayton	120	0.12	6.7	Urban	Asphalt	0-49	0-49	50	6	9.2157	6	79.5	Good	6 - 10 Years	11.6	R1 (Urban)	$ 22,411.20	$ 275,973.52
D061	1991	Green St.	Maple St.	End	Drayton	230	0.23	6.7	Urban	Asphalt	0-49	0-49	50	6	9.281	6	80.1	Very Good	ADEQ	11.3		$ -	$ 528,949.25
P314	2328	Hanna St.	Elora St. S.	Queen St. S.	Alma	99	0.099	6.5	Semi-Urban	Asphalt	50-199	50-199	50	6	8.3007	5	64.6	Fair	1 -5 years	25.4	R1	$ 19,476.27	$ 116,830.89
M316C	2109	Hendrie St	McGivern St.	Adam Brown St.	Moorefield	76	0.076	7	Semi-Urban	Asphalt	50-199	50-199	50	6	8.3007	5.5	68.2	Fair	6 - 10 Years	22.8	R1	$ 14,951.48	$ 89,688.36
M316A	2107	Hendrie St.	Carson St.	Robb St.	Moorefield	77	0.077	4.5	Semi-Urban	Asphalt	50-199	50-199	50	6	8.4314	5.5	69.4	Fair	6 - 10 Years	21.9	R1	$ 15,148.21	$ 90,868.47
M316B	2108	Hendrie St.	Adam Brown St.	Carson St.	Moorefield	76	0.076	5.8	Semi-Urban	Asphalt	50-199	50-199	50	6	8.366	5.5	68.8	Fair	6 - 10 Years	22.4	R1	$ 14,951.48	$ 89,688.36
D020	1948	High St.	Wellington St. S.	Edward St.	Drayton	154	0.154	7.5	Urban	Asphalt	500-999	500-999	50	5	8.3007	5.5	68.2	Fair	6 - 10 Years	33.7	R1 (Urban)	$ 28,761.04	$ 354,166.02
D021	1949	High St.	Edward St.	Union St.	Drayton	158	0.158	8	Urban	Asphalt	500-999	500-999	50	5	9.281	6	80.1	Very Good	ADEQ	21.1		$ -	$ 363,365.14
M702	2138	Highview St.	Wellington Rd. 11	Scenic Dr.		92	0.092	8.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.7778	5	59.9	Fair	1 -5 years	28.7	PR1	$ 24,889.68	$ 108,570.12
M702A	2139	Highview St.	Scenic Dr.	End		50	0.05	8.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.2549	5	55.1	Fair	1 -5 years	32.2	PR1	$ 13,527.00	$ 59,005.50
D028	1958	Hillview Dr.	Bonniewood Dr	Conestoga Dr.	Drayton	201	0.201	8	Urban	Asphalt	50-199	50-199	50	6	8.1046	5	62.8	Fair	1 -5 years	26.7	R1 (Urban)	$ 37,538.76	$ 462,255.65
M326	2124	Hilwood Dr.	McGivern St.	End	Moorefield	155	0.155	7.4	Semi-Urban	Asphalt	50-199	50-199	50	6	7.1	5	54.0	Fair	1 -5 years	33.0	PR1	$ 41,933.70	$ 182,917.05
M164	2045	Hollen Diversion	Concession 5	Leslie Ln.		598	0.598	6.5	Rural	Asphalt	199	50-199	80	4	9.2157	6.5	82.1	Very Good	ADEQ	14.1		$ -	$ 651,144.26
M228	2067	Hollen Rd.	Sideroad 15	116m W of Leslie Ln.		1084	1.084	6.7	Rural	Asphalt	256	200-499	80	4	9.7386	7	89.1	Very Good	ADEQ	9.0		$ -	$ 1,180,335.08
M502	2134	Hollen Rd.	Leslie Ln.	0.116 km W. of Leslie Ln.	Hollen	116	0.116	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	9.6078	6.5	85.7	Very Good	ADEQ	10.3		$ -	$ 136,892.76
M504	2136	Hollen Rd.	Leslie Ln.	0.14 km. East	Hollen	138	0.138	4.4	Semi-Urban	Asphalt	0-49	0-49	50	6	9.2157	6	79.5	Good	6 - 10 Years	11.6	R1	$ 27,148.74	$ 162,855.18
D056	1985	Industrial Rd.	Wellington Rd. 8	End	Drayton	689	0.689	7.5	Rural	Asphalt	0-49	0-49	50	6	7.5817	5	58.1	Fair	1 -5 years	23.8	PR1	$ 186,402.06	$ 750,231.43
M405	2132	James St. S.	Wellington Rd. 10	Cathrine St. S.	Rothsay	432	0.432	6.5	Semi-Urban	Surface Treated	0-49	0-49	50	6	9.6078	8.5	92.7	Very Good	ADEQ	4.1		$ -	$ 509,807.52
D013	1941	John St.	Main St. E.	Wood St.	Drayton	121	0.121	6.2	Urban	Asphalt	200-499	200-499	50	5	9.8693	8	93.7	Very Good	ADEQ	5.6		$ -	$ 278,273.30
D014	1942	John St.	Wood St.	Robin Dr.	Drayton	103	0.103	6.2	Urban	Asphalt	50-199	50-199	50	6	9.6078	8	91.4	Very Good	ADEQ	6.2		$ -	$ 236,877.27
D015	1943	John St.	Robin Street	0.103 km north	Drayton	103	0.103	6.2	Semi-Urban	Asphalt	50-199	50-199	50	6	9.6078	8	91.4	Very Good	ADEQ	6.2		$ -	$ 121,551.33
D016	1944	John St.	0.103 km north of Robin Dr.	End	Drayton	198	0.198	4.2	Semi-Urban	Asphalt	0-49	0-49	50	6	9.4771	8	90.2	Very Good	ADEQ	5.6		$ -	$ 233,661.78
D004	1932	King St.	Main St. W.	End	Drayton	168	0.168	6	Urban	Asphalt	0-49	0-49	50	6	9.7386	7	89.1	Very Good	ADEQ	6.2		$ -	$ 386,362.93
P303A	2302	King St. N.	Rebecca St. E.	Simpson St. E.	Alma	177	0.177	6.8	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9739	5.5	65.3	Fair	6 - 10 Years	24.9	R1	$ 34,821.21	$ 208,879.47
P303B	2303	King St. N.	Graham St. E.	Rebecca St. E.	Alma	121	0.121	6.8	Semi-Urban	Asphalt	50-199	50-199	50	6	8.4314	5.5	69.4	Fair	6 - 10 Years	21.9	R1	$ 23,804.33	$ 142,793.31
P303C	2304	King St. N.	Peel St. E.	Graham St. E.	Alma	117	0.117	6.8	Semi-Urban	Asphalt	50-199	50-199	50	6	8.366	5.5	68.8	Fair	6 - 10 Years	22.4	R1	$ 23,017.41	$ 138,072.87
P601A	2344	Lakeview Dr.	Wellington Rd. 11	Road One B		82	0.082	5.7	Rural	Surface Treated	0-49	0-49	50	6	9.7386	8	92.5	Very Good	ADEQ	4.3		$ -	$ 89,287.34
P601B	2345	Lakeview Dr.	Road One B	Road One B		114	0.114	5.7	Rural	Surface Treated	0-49	0-49	50	6	10	8.5	96.3	Very Good	ADEQ	2.1		$ -	$ 124,131.18
P601C	2346	Lakeview Dr.	Road One B	Road Eleven N.		108	0.108	5.7	Rural	Surface Treated	0-49	0-49	50	6	10	8.5	96.3	Very Good	ADEQ	2.1		$ -	$ 117,597.96
M163A	2044	Leslie Ln.	Hollen Diversion	0.14 km. south		141	0.141	5.5	Rural	Asphalt	199	50-199	80	6	9.4118	6	81.3	Very Good	ADEQ	14.7		$ -	$ 153,530.67
M164A	2046	Leslie Ln.	Hollen Diversion	0.111 km S. of Hollen Rd.		770	0.77	6.1	Rural	Asphalt	199	50-199	80	4	9.1503	6.5	81.6	Very Good	ADEQ	14.5		$ -	$ 838,429.90
M501	2133	Leslie Ln.	Hollen Rd.	0.235 km N. of Hollen Rd.	Hollen	235	0.235	5.5	Semi-Urban	Asphalt	0-49	0-49	50	6	9.6732	6.5	86.3	Very Good	ADEQ	7.8		$ -	$ 277,325.85
M503	2135	Leslie Ln.	Hollen Rd.	0.111 km S. of Hollen Rd.	Hollen	111	0.111	6.1	Semi-Urban	Asphalt	50-199	50-199	50	6	9.5425	6.5	85.1	Very Good	ADEQ	10.7		$ -	$ 130,992.21
D036	1966	Maple St.	Andrews Dr.	Pine Street	Drayton	207	0.207	8	Urban	Asphalt	50-199	50-199	50	6	9.281	6	80.1	Very Good	ADEQ	14.3		$ -	$ 476,054.33
D039	1968	Maple St.	Pine St.	0.040 km north	Drayton	40	0.04	8	Urban	Asphalt	50-199	50-199	50	6	8.8235	5.5	72.9	Good	6 - 10 Years	19.4	R1 (Urban)	$ 7,470.40	$ 91,991.17
D040	1969	Maple St.	Maple St.	Parkside St.	Drayton	86	0.086	8	Urban	Asphalt	50-199	50-199	50	6	9.3464	6	80.7	Very Good	ADEQ	13.8		$ -	$ 197,781.03
D041	1970	Maple St.	Parkside St	End	Drayton	43	0.043	8	Urban	Asphalt	0-49	0-49	50	6	9.2157	6	79.5	Good	6 - 10 Years	11.6	R1 (Urban)	$ 8,030.68	$ 98,890.51
D059	1989	Maple St.	Andrews Dr.	South End	Drayton	38	0.038	6.7	Urban	Asphalt	0-49	0-49	50	6	9.3464	6	80.7	Very Good	ADEQ	11.0		$ -	$ 87,391.62
D062	1992	Maple St.	Andrews Dr.	Green St.	Drayton	87	0.087	6.7	Urban	Asphalt	0-49	0-49	50	6	9.3464	6	80.7	Very Good	ADEQ	11.0		$ -	$ 200,080.80
D002	1929	Market St.	Main St. W.	End	Drayton	84	0.084	5	Semi-Urban	Asphalt	0-49	0-49	50	6	9.8693	7.5	92.1	Very Good	ADEQ	4.5		$ -	$ 99,129.24
M313A	2104	Maudsley St.	Carson St.	Robb St.	Moorefield	75	0.075	6.6	Semi-Urban	Asphalt	50-199	50-199	50	6	7.6	4.5	53.8	Fair	1 -5 years	33.1	PR1	$ 20,290.50	$ 88,508.25
M313B	2105	Maudsley St.	Adam Brown St.	Carson St.	Moorefield	77	0.077	6.6	Semi-Urban	Asphalt	50-199	50-199	50	6	8.1699	5.5	67.0	Fair	6 - 10 Years	23.7	R1	$ 15,148.21	$ 90,868.47
D006	1934	Mill St.	Wellington St. S	River Run Road	Drayton	95	0.095	6	Urban	Asphalt	200-499	200-499	50	5	9.8693	8	93.7	Very Good	ADEQ	5.6		$ -	$ 218,479.04
P407	2339	Mill St. N.	Wellington Rd. 45	Snyder Ave.	Glen Allan	57	0.057	6.4	Semi-Urban	Asphalt	0-49	0-49	50	6	8.9542	6	77.2	Good	6 - 10 Years	12.9	R1	$ 11,213.61	$ 67,266.27
M319A	2110	Moore St.	Carson St.	Robb St.	Moorefield	75	0.075	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9085	5	61.0	Fair	1 -5 years	28.0	R1	$ 14,754.75	$ 88,508.25
M319B	2111	Moore St.	Adam Brown St.	Carson St.	Moorefield	77	0.077	6.2	Semi-Urban	Asphalt	50-199	50-199	50	6	8.6928	5.5	71.7	Good	6 - 10 Years	20.3	R1	$ 15,148.21	$ 90,868.47
M319C	2112	Moore St.	McGivern St	Adam Brown St.	Moorefield	79	0.079	6.6	Semi-Urban	Asphalt	50-199	50-199	50	6	8.6928	6	74.8	Good	6 - 10 Years	18.1	R1	$ 15,541.67	$ 93,228.69
P315	2329	Muir Cres.	Nesbitt St.	End	Alma	170	0.17	8	Urban	Asphalt	0-49	0-49	50	6	7.9085	5	61.0	Fair	1 -5 years	22.1	R1 (Urban)	$ 31,749.20	$ 390,962.49

Township of Mapleton

Road Listing (Asphalt/Surface Treated Only)

Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
P317	2332	Napier St.	Elora St. S.	Alma Queen St. S.	Alma	100	0.1	6.4	Semi-Urban	Asphalt	50-199	50-199	50	6	7.7778	4.5	55.5	Fair	1 -5 years	31.9	PR1	$ 27,054.00	$ 118,011.00
P316	2330	Nesbitt St.	Elora St. S.	Muir Cres.	Alma	113	0.113	8	Urban	Asphalt	200-499	200-499	50	5	8.6928	5.5	71.7	Good	6 - 10 Years	25.2	R1 (Urban)	$ 21,103.88	$ 259,875.07
P316A	2331	Nesbitt St.	Muir Cres.	Wellington Road 17	Alma	539	0.539	8	Urban	Asphalt	200-499	200-499	50	5	8.2353	5	64.0	Fair	1 -5 years	32.0	R1 (Urban)	$ 100,663.64	$ 1,239,581.08
P180	2233	Nichol-Peel Townline	Highway 6	Jones Baseline		1229	1.229	7.8	Rural	Asphalt	250	200-499	80	4	8.4967	6	73.1	Good	6 - 10 Years	22.2	R1	$ 241,781.17	$ 1,338,221.23
D042	1971	Parkside St.	Andrews Dr.	Maple St.	Drayton	243	0.243	8	Urban	Asphalt	50-199	50-199	50	6	9.281	6	80.1	Very Good	ADEQ	14.3		$ -	$ 558,846.38
M312	2102	Parkview Dr.	Adam Brown St.	End	Moorefield	58	0.058	7.3	Semi-Urban	Asphalt	0-49	0-49	50	6	7.8431	5	60.4	Fair	1 -5 years	22.5	R1	$ 11,410.34	$ 68,446.38
M312A	2103	Parkview Dr.	McGivern St.	Adam Brown St.	Moorefield	77	0.077	7.3	Semi-Urban	Asphalt	50-199	50-199	50	6	7.3203	5	55.7	Fair	1 -5 years	31.8	PR1	$ 20,831.58	$ 90,868.47
D037	1967	Pine St.	Edward St.	Maple St.	Drayton	94	0.094	8	Urban	Asphalt	200-499	200-499	50	5	9.281	6	80.1	Very Good	ADEQ	17.7		$ -	$ 216,179.26
D052	1981	Pioneer Dr.	Main St. W.	Ridgeview Dr.	Drayton	74	0.074	8.2	Urban	Asphalt	50-199	50-199	50	6	9.8039	7	89.7	Very Good	ADEQ	7.4		$ -	$ 170,183.67
D003	1930	Queen St.	Main St. W.	0.135 km south	Drayton	135	0.135	6	Urban	Asphalt	50-199	50-199	50	6	10	8	94.9	Very Good	ADEQ	3.7		$ -	$ 310,470.21
M401	2126	Queen St.	Elora St. W.	Head St.	Rothsay	102	0.102	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	7.451	5.5	60.6	Fair	1 -5 years	35.0	R1	$ 20,066.46	$ 120,371.22
P310A	2319	Queen St. N.	Rebecca St. W.	Simpson St. W.	Alma	123	0.123	6.3	Semi-Urban	Asphalt	50-199	50-199	50	6	8.8235	6	76.0	Good	6 - 10 Years	17.2	R1	$ 24,197.79	$ 145,153.53
P310B	2320	Queen St. N.	Graham St. W.	Rebeccas St. W.	Alma	120	0.12	6.9	Semi-Urban	Asphalt	50-199	50-199	50	6	8.3007	6	71.3	Good	6 - 10 Years	20.6	R1	$ 23,607.60	$ 141,613.20
P310C	2321	Queen St. N.	Peel St. W.	Graham St. W.	Alma	121	0.121	6.5	Semi-Urban	Asphalt	50-199	50-199	50	6	7.1	5	54.0	Fair	1 -5 years	33.0	PR1	$ 32,735.34	$ 142,793.31
P313A	2325	Queen St. S.	Peel St. W.	Alexander St. W.	Alma	141	0.141	6.5	Semi-Urban	Asphalt	50-199	50-199	50	6	8.2353	5.5	67.6	Fair	6 - 10 Years	23.2	R1	$ 27,738.93	$ 166,395.51
P313B	2326	Queen St. S.	Alexander St. W.	Napier St. W.	Alma	139	0.139	6.5	Semi-Urban	Asphalt	50-199	50-199	50	6	8.1046	5	62.8	Fair	1 -5 years	26.7	R1	$ 27,345.47	$ 164,035.29
P313C	2327	Queen St. S.	Hanna St.	Napier St. W.	Alma	128	0.128	6.5	Semi-Urban	Asphalt	50-199	50-199	50	6	8.1046	5	62.8	Fair	1 -5 years	26.7	R1	$ 25,181.44	$ 151,054.08
P302A	2299	Raglan St. N.	Rebecca St. E.	Simpson St. E.	Alma	205	0.205	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	9.3464	6	80.7	Very Good	ADEQ	13.8		$ -	$ 241,922.55
P302B	2300	Raglan St. N.	Graham St. E.	Rebeccas St. E.	Alma	119	0.119	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	9.2157	6	79.5	Good	6 - 10 Years	14.7	R1	$ 23,410.87	$ 140,433.09
P302C	2301	Raglan St. N.	Peel St. E.	Graham St. E.	Alma	117	0.117	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	9.3464	6	80.7	Very Good	ADEQ	13.8		$ -	$ 138,072.87
P304A	2305	Rebecca St. E.	Elora St. .N.	King St. N.	Alma	100	0.1	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	9.3464	6	80.7	Very Good	ADEQ	13.8		$ -	$ 118,011.00
P304B	2306	Rebecca St. E.	King St. N.	Raglan St. N.	Alma	101	0.101	6.7	Semi-Urban	Asphalt	50-199	50-199	50	6	9.2157	6	79.5	Good	6 - 10 Years	14.7	R1	$ 19,869.73	$ 119,191.11
P307B	2314	Rebecca St. W.	Elora St. .N.	Alma Queen St. N.	Alma	100	0.1	7	Semi-Urban	Asphalt	50-199	50-199	50	6	8.366	5.5	68.8	Fair	6 - 10 Years	22.4	R1	$ 19,673.00	$ 118,011.00
P167A	2218	Reid Woods Dr.	Blind Line	Third Line		1442	1.442	6.7	Rural	Asphalt	1039	1000-1999	80	3	10	8.5	96.3	Very Good	ADEQ	4.3		$ -	$ 1,756,384.84
D053	1982	Ridgeview Dr.	Bedell Dr.	Pioneer Dr.	Drayton	263	0.263	8.2	Urban	Asphalt	50-199	50-199	50	6	9.281	6	80.1	Very Good	ADEQ	14.3		$ -	$ 604,841.97
D058	1988	Ridgeview Dr.	Bedell Dr.	Pioneer Dr.	Drayton	258	0.258	6.7	Urban	Asphalt	0-49	0-49	50	6	9.281	6	80.1	Very Good	ADEQ	11.3		$ -	$ 593,343.08
D049	1978	River Run Rd	Andrews Dr. W.	Faith Dr.	Drayton	316	0.316	8	Urban	Asphalt	50-199	50-199	50	6	9.2157	6	79.5	Good	6 - 10 Years	14.7	R1 (Urban)	$ 59,016.16	$ 726,730.28
D048	1977	River Run Rd.	Andrews Dr. W.	Andrews Dr. W.	Drayton	438	0.438	8	Urban	Asphalt	50-199	50-199	50	6	9.085	6	78.4	Good	6 - 10 Years	15.5	R1 (Urban)	$ 81,800.88	$ 1,007,303.36
D050	1979	River Run Rd.	Faith Dr.	Mill St.	Drayton	171	0.171	8	Urban	Asphalt	200-499	200-499	50	5	9.3464	6	80.7	Very Good	ADEQ	17.1		$ -	$ 393,262.27
M323A	2114	Robb St.	Booth St. W.	Moore St.	Moorefield	135	0.135	5.6	Semi-Urban	Asphalt	50-199	50-199	50	6	7.5	4.5	53.2	Fair	1 -5 years	33.6	PR1	$ 36,522.90	$ 159,314.85
M323B	2115	Robb St.	Moore St.	Hendrie St	Moorefield	154	0.154	5.6	Semi-Urban	Asphalt	50-199	50-199	50	6	6.9	4.5	47.9	Poor	NOW REHAB	37.3	PR1	$ 41,663.16	$ 181,736.94
M323C	2116	Robb St.	Hendrie St	Maudsley St.	Moorefield	72	0.072	5.6	Semi-Urban	Asphalt	50-199	50-199	50	6	8.2353	5	64.0	Fair	1 -5 years	25.8	R1	$ 14,164.56	$ 84,967.92
D017	1945	Robin Dr.	John St.	End	Drayton	117	0.117	5.1	Semi-Urban	Asphalt	0-49	0-49	50	6	9.4771	7	86.7	Very Good	ADEQ	7.5		$ -	$ 138,072.87
M401A	2127	Rothsay Queen St	Head St.	Elgin St.	Rothsay	102	0.102	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	7.8431	5.5	64.1	Fair	1 -5 years	31.9	R1	$ 20,066.46	$ 120,371.22
M703	7636	Ruth Anne Place	Wellington Road 10	End		380	0.38	7	Semi-Urban	Asphalt	50	50-199	50	6	9.4771	8.5	91.5	Very Good	ADEQ	5.2		$ -	$ 448,441.80
M162	2042	Sailing Club Rd.	Wellington Rd. 11	0.813 km N. of Wellington Rd. 11		813	0.813	5.3	Rural	Surface Treated	50-199	50-199	80	4	10	8.5	96.3	Very Good	ADEQ	2.7		$ -	$ 885,251.31
M701	2137	Scenic Dr.	Highview St	Wellington Rd. 11		520	0.52	6.8	Semi-Urban	Asphalt	50-199	50-199	50	6	7.9085	5.5	64.7	Fair	1 -5 years	25.3	R1	$ 102,299.60	$ 613,657.20
M704	7637	Sharron Court	Wellington Road 10	End		230	0.23	7	Semi-Urban	Asphalt	50	50-199	50	6	9.6078	8.5	92.7	Very Good	ADEQ	4.5		$ -	$ 271,425.30
M133A	2017	Sideroad 12	2.432 km. N of Concession 6	Concession 8		320	0.32	7	Rural	Asphalt	50-199	50-199	80	4	8.8889	6	76.6	Good	6 - 10 Years	16.8	R1	$ 62,953.60	$ 348,438.40
M136A	2021	Sideroad 12	2.041 km N. of Wellington Rd. 8	Concession 12		690	0.69	6.5	Semi-Urban	Surface Treated	129	50-199	80	4	7.5163	5	57.5	Fair	1 -5 years	30.6	PR1	$ 186,672.60	$ 814,275.90
M139A	2025	Sideroad 12	Concession 14	0.17 km N. of Concession 14		170	0.17	5.6	Rural	Surface Treated	50-199	50-199	80	4	7.0588	5.5	57.0	Fair	1 -5 years	30.8	PR1	$ 45,991.80	$ 185,107.90
M139B	2026	Sideroad 12	Concession 16	Wellington Rd. 109		273	0.273	6	Rural	Asphalt	200-499	200-499	80	4	10	8.5	96.3	Very Good	ADEQ	3.3		$ -	$ 297,261.51
M140	2027	Sideroad 15	Wellington Rd. 86	1.3 km N. of Wellington Rd. 86		1353	1.353	6.7	Rural	Asphalt	359	200-499	80	4	9.6078	7	87.9	Very Good	ADEQ	10.8		$ -	$ 1,473,241.11
M140A	2028	Sideroad 15	1.3 km N. of Wellington Rd. 86	Concession 3		1365	1.365	6.7	Semi-Urban	Asphalt	359	200-499	80	4	10	8.5	96.3	Very Good	ADEQ	3.4		$ -	$ 1,610,850.15
M141	2029	Sideroad 15	Concession 3	Kumpville Dr. W.		970	0.97	5	Rural	Asphalt	216	200-499	80	4	9.4771	7	86.7	Very Good	ADEQ	10.6		$ -	$ 1,056,203.90
M141A	2030	Sideroad 15	Kumpville Dr. W.	0.04 km. N.		43	0.043	5	Rural	Asphalt	216	200-499	80	4	10	8	94.9	Very Good	ADEQ	4.1		$ -	$ 46,821.41
M143	2033	Sideroad 15	Concession 5	Hollen Road		1338	1.338	6.3	Rural	Asphalt	255	200-499	80	4	5.4	3.5	23.3	Very Poor	NOW REHAB	63.6	PR1	$ 361,982.52	$ 1,456,908.06
M144	2034	Sideroad 15	Hollen Road	Concession 6		1362	1.362	6.3	Rural	Asphalt	348	200-499	80	4	5.2	4	27.5	Poor	NOW REHAB	64.3	PR1	$ 368,475.48	$ 1,483,040.94
M145	2035	Sideroad 15	Concession 6	Concession 8		2764	2.764	6.8	Rural	Asphalt	531	500-999	80	4	6.1	5	44.6	Poor	NOW REHAB	54.2	PR1	$ 747,772.56	$ 3,086,475.88
M146	2036	Sideroad 15	Concession 8	Wellington Rd. 8		2663	2.663	7.1	Rural	Asphalt	455	200-499	80	4	6.5	5.5	52.3	Fair	1 -5 years	45.0	PR1	$ 720,448.02	$ 2,973,692.21
M147	2037	Sideroad 15	Wellington Rd. 8	Concession 12		2707	2.707	6.6	Rural	Asphalt	358	200-499	80	4	4.4	3.5	14.5	Very Poor	NOW REHAB	76.4	PR1	$ 732,351.78	$ 2,947,571.09

Township of Mapleton

Road Listing (Asphalt/Surface Treated Only)

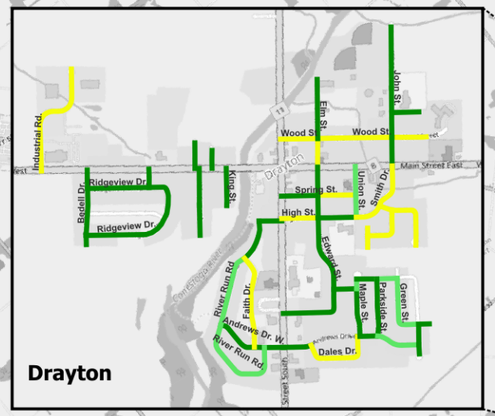
Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
M149	2038	Sideroad 15	Concession 12	Wellington Rd. 7		1343	1.343	6.6	Rural	Asphalt	358	200-499	80	4	7.0588	5.5	57.0	Fair	1 -5 years	38.4	PR1	$ 363,335.22	$ 1,462,352.41
P117	2147	Sideroad 16	Wellington Rd. 8	1.097 km N. of Wellington Rd. 8		1144	1.144	6.5	Rural	Asphalt	296	200-499	80	4	5.8	4.5	37.9	Poor	NOW REHAB	53.2	PR1	$ 309,497.76	$ 1,245,667.28
P121	2152	Sideroad 17	Wellington Rd. 86	Wellington Rd. 45		2964	2.964	6	Rural	Asphalt	475	200-499	80	4	9.1503	7	83.8	Very Good	ADEQ	15.5		$ -	$ 3,309,809.88
P122	2154	Sideroad 17	Wellington Rd. 45	0.165 km N. of Wellington Rd. 45		127	0.127	6	Rural	Asphalt	222	200-499	80	4	9.2157	6.5	82.1	Very Good	ADEQ	14.4		$ -	$ 138,286.49
P169	2222	Sideroad 20	0.706 km N. of Twelfth Line	Wellington Rd. 7		657	0.657	6.5	Semi-Urban	Asphalt	188	50-199	80	4	9.6078	8	91.4	Very Good	ADEQ	6.7		$ -	$ 775,332.27
P171	2225	Sideroad 21	0.203 km N. of Raglan St. N.	Fourteenth Line		686	0.686	6.7	Rural	Asphalt	457	200-499	80	4	7.3856	5.5	60.0	Fair	1 -5 years	37.8	R1	$ 134,956.78	$ 766,035.62
P172	2226	Sideroad 21	Fourteenth Line	Sixteenth Line		2721	2.721	6.7	Rural	Asphalt	493	200-499	80	4	9.7386	8	92.5	Very Good	ADEQ	7.2		$ -	$ 3,038,459.07
P173	2227	Sideroad 21	Sixteenth Line	Highway 6	Alma	1043	1.043	6.7	Semi-Urban	Asphalt	510	500-999	80	4	8.1046	6.5	72.1	Good	6 - 10 Years	27.0	R1	$ 205,189.39	$ 1,262,280.32
P174	2228	Sideroad 21	Highway 6	Jones Baseline		1409	1.409	6.5	Semi-Urban	Asphalt	199	50-199	80	4	7.3856	5	56.3	Fair	1 -5 years	34.3	PR1	$ 381,190.86	$ 1,662,774.99
P301B	2298	Sideroad 21	Raglan St. N.	0.203 km N. of Raglan St. N.		203	0.203	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	7.1242	5.5	57.6	Fair	1 -5 years	37.7	PR1	$ 54,919.62	$ 239,562.33
M129A	2014	Sideroad 6	1.207 km. N. of Concession 14	Wellington Rd. 109		175	0.175	6.7	Rural	Asphalt	50-199	50-199	80	4	7.2549	5	55.1	Fair	1 -5 years	32.2	PR1	$ 47,344.50	$ 190,552.25
P301	2296	Simpson St. E.	Elora St. N.	King St. N.	Alma	109	0.109	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	8.366	5.5	68.8	Fair	6 - 10 Years	27.7	R1	$ 21,443.57	$ 128,631.99
P301A	2297	Simpson St. E.	King St. N.	Raglan St. N.	Alma	99	0.099	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	7.9085	6	67.8	Fair	6 - 10 Years	28.7	R1	$ 19,476.27	$ 116,830.89
P306	2309	Simpson St. W.	Pellisier St. N.	Graham St. W.	Alma	138	0.138	6.6	Semi-Urban	Asphalt	200-499	200-499	50	5	8.1699	5	63.4	Fair	1 -5 years	32.5	R1	$ 27,148.74	$ 162,855.18
P306A	2310	Simpson St. W.	Alma Queen St. N.	Pellisier St. N.	Alma	100	0.1	6.6	Semi-Urban	Asphalt	200-499	200-499	50	5	8.3007	6	71.3	Good	6 - 10 Years	25.5	R1	$ 19,673.00	$ 118,011.00
P306B	2311	Simpson St. W.	Elora St. N.	Alma Queen St. N.	Alma	98	0.098	6.6	Semi-Urban	Asphalt	200-499	200-499	50	5	7.5817	6	64.8	Fair	1 -5 years	31.3	R1	$ 19,279.54	$ 115,650.78
P281	2278	Sixteenth Line	Sideroad 16	Wellington Rd. 11		1828	1.828	6.7	Rural	Asphalt	414	200-499	80	4	7.0588	5.5	57.0	Fair	1 -5 years	39.7	PR1	$ 494,547.12	$ 2,041,272.76
P282	2279	Sixteenth Line	Sideroad 17	Sideroad 16		1829	1.829	6.7	Rural	Asphalt	459	200-499	80	4	7.9085	5.5	64.7	Fair	1 -5 years	33.4	R1	$ 359,819.17	$ 2,042,389.43
P283	2280	Sixteenth Line	0.331 km E. of Sideroad 17	Sideroad 17		331	0.331	6.7	Rural	Asphalt	503	500-999	80	4	7.9085	5.5	64.7	Fair	1 -5 years	34.1	R1	$ 65,117.63	$ 369,617.77
P283A	2281	Sixteenth Line	Wellington Rd. 12	0.331 km E. of Sideroad 17		1493	1.493	6.7	Rural	Asphalt	503	500-999	80	4	8.8235	6.5	78.6	Good	6 - 10 Years	20.6	R1	$ 293,717.89	$ 1,667,188.31
P284	2282	Sixteenth Line	Sideroad 18	Wellington Rd. 12		1833	1.833	6.6	Rural	Asphalt	568	500-999	80	4	9.6732	7	88.5	Very Good	ADEQ	11.4		$ -	$ 2,046,856.11
P285	2283	Sixteenth Line	Sideroad 19	Sideroad 18		1821	1.821	6.6	Rural	Asphalt	543	500-999	80	4	9.7386	7	89.1	Very Good	ADEQ	10.7		$ -	$ 2,033,456.07
P286	2284	Sixteenth Line	Sideroad 21	Sideroad 19		3418	3.418	6.6	Rural	Asphalt	543	500-999	80	4	9.7386	7	89.1	Very Good	ADEQ	10.7		$ -	$ 3,816,778.06
P286A	2285	Sixteenth Line	Sideroad 21	Sideroad 21		233	0.233	6.7	Rural	Asphalt	543	500-999	80	4	9.6732	7	88.5	Very Good	ADEQ	11.3		$ -	$ 260,184.11
P287	2286	Sixteenth Line	Wellington Rd. 17	Sideroad 21		1450	1.45	6.6	Rural	Asphalt	517	500-999	80	4	9.7386	7.5	91.0	Very Good	ADEQ	8.8		$ -	$ 1,619,171.50
P231	2250	Sixth Line	Sideroad 16	Wellington Rd. 11		1840	1.84	6.7	Rural	Asphalt	385	200-499	80	4	5.8	4.5	37.3	Poor	NOW REHAB	56.9	PR1	$ 497,793.60	$ 2,003,520.80
P232	2251	Sixth Line	Sideroad 17	Sideroad 16		1838	1.838	6.7	Rural	Asphalt	434	200-499	80	4	6.4	5	47.5	Poor	NOW REHAB	49.0	PR1	$ 497,252.52	$ 2,052,439.46
P233	2252	Sixth Line	Wellington Rd. 12	Sideroad 17		1842	1.842	6.7	Rural	Asphalt	522	500-999	80	4	6.6	5	49.3	Poor	NOW REHAB	49.4	PR1	$ 498,334.68	$ 2,056,906.14
P234	2253	Sixth Line	Sideroad 18	Wellington Rd. 12		1842	1.842	6.7	Rural	Asphalt	432	200-499	80	4	7.1	5	53.4	Fair	1 -5 years	43.5	PR1	$ 498,334.68	$ 2,056,906.14
P235	2254	Sixth Line	Sideroad 19	Sideroad 18		1836	1.836	6.8	Rural	Asphalt	377	200-499	80	4	7.8431	5.5	64.1	Fair	1 -5 years	32.5	R1	$ 361,196.28	$ 1,999,165.32
P236	2255	Sixth Line	Yatton Sdrd.	Sideroad 19		1368	1.368	6.8	Rural	Asphalt	321	200-499	80	4	7.9085	5.5	64.7	Fair	1 -5 years	30.8	R1	$ 269,126.64	$ 1,489,574.16
D026	1954	Smith Dr.	Bonniewood Dr	Union St	Drayton	117	0.117	7.5	Urban	Asphalt	500-999	500-999	50	5	8.4314	5	65.7	Fair	6 - 10 Years	36.3	R1 (Urban)	$ 21,850.92	$ 269,074.19
D026A	1955	Smith Dr.	Main St. E.	Bonniewood Dr.	Drayton	193	0.193	8	Urban	Asphalt	500-999	500-999	50	5	8.1046	5	62.8	Fair	1 -5 years	39.5	R1 (Urban)	$ 36,044.68	$ 443,857.42
P406	2338	Snyder Ave.	Mill St. N.	Bridge St.	Glen Allan	115	0.115	6.4	Semi-Urban	Asphalt	0-49	0-49	50	6	8.4967	5	66.3	Fair	6 - 10 Years	19.1	R1	$ 22,623.95	$ 135,712.65
P402	2334	South Mill St.	Hill St.	End	Glen Allan	114	0.114	5.5	Semi-Urban	Asphalt	0-49	0-49	50	6	9.085	6.5	81.0	Very Good	ADEQ	10.8		$ -	$ 134,532.54
P402A	2335	South Mill St.	Wellington Rd. 45	Hill St.	Glen Allan	120	0.12	5.3	Semi-Urban	Asphalt	0-49	0-49	50	6	9.085	6.5	81.0	Very Good	ADEQ	10.8		$ -	$ 141,613.20
D018	1946	Spring St.	Wellington St. S	Edward. St.	Drayton	154	0.154	8	Urban	Asphalt	50-199	50-199	50	6	10	9	97.4	Very Good	ADEQ	1.9		$ -	$ 354,166.02
D019	1947	Spring St.	Edward. St.	Union St.	Drayton	158	0.158	8	Urban	Asphalt	50-199	50-199	50	6	7.9085	5	61.0	Fair	1 -5 years	27.9	R1 (Urban)	$ 29,508.08	$ 363,365.14
M265	2090	Third Line	Sideroad 18	Wellington Rd. 12		1807	1.807	6.8	Rural	Asphalt	391	200-499	80	4	6.5	5	48.7	Poor	NOW REHAB	46.8	PR1	$ 488,865.78	$ 1,967,588.09
P211	2237	Third Line	Sideroad 18	Wellington Rd. 12		1849	1.849	6.8	Rural	Asphalt	812	500-999	80	4	6.6	5	49.3	Poor	NOW REHAB	54.8	PR1	$ 500,228.46	$ 2,064,722.83
P212	2238	Third Line	0.576 km E. of Sideroad 18	Sideroad 18		768	0.768	6.8	Rural	Asphalt	872	500-999	80	4	7.3	5.5	59.4	Fair	1 -5 years	44.6	PR1	$ 207,774.72	$ 857,602.56
P212A	2239	Third Line	Sideroad 19	0.576 km E. of Sideroad 18		1315	1.315	6.8	Rural	Asphalt	872	500-999	80	4	5.7	5	41.0	Poor	NOW REHAB	64.8	PR1	$ 355,760.10	$ 1,468,421.05
P213	2240	Third Line	1.54 km E. of Sideroad 19	Sideroad 19		1540	1.54	6.7	Rural	Asphalt	1007	1000-1999	80	3	6.3	5	46.9	Poor	NOW REHAB	60.4	PR2	$ 528,130.68	$ 1,875,750.80
P214	2241	Third Line	Reid Woods Dr.	0.302 km E. of Yatton Sdr.		1050	1.05	6.7	Rural	Asphalt	1039	1000-1999	80	3	6.4	5.5	51.1	Fair	1 -5 years	56.0	PR2	$ 360,089.10	$ 1,278,921.00
P502	2341	Third Line	Yatton Sdrd.	1.54 km E. of Sideroad 19	Yatton	509	0.509	6.7	Semi-Urban	Asphalt	1007	1000-1999	50	5	6.7	5	49.9	Poor	NOW REHAB	57.1	PR2	$ 174,557.48	$ 671,920.72
P504	2343	Third Line	0.302 km E. of Yatton Sdrd.	Yatton Sdrd.	Yatton	302	0.302	6.7	Semi-Urban	Asphalt	1023	1000-1999	50	5	7.9739	5	61.6	Fair	1 -5 years	43.8	R2	$ 81,280.16	$ 398,664.16
P261	2262	Twelfth Line	Sideroad 16	Wellington Rd. 11		1851	1.851	6.8	Rural	Asphalt	468	200-499	80	4	7.5817	6	64.8	Fair	1 -5 years	33.4	R1	$ 364,147.23	$ 2,066,956.17
P262	2263	Twelfth Line	Sideroad 17	Sideroad 16		1849	1.849	6.8	Rural	Asphalt	483	200-499	80	4	7.7124	5.5	62.9	Fair	1 -5 years	35.5	R1	$ 363,753.77	$ 2,064,722.83
P263	2264	Twelfth Line	Wellington Rd. 12	Sideroad 17		1822	1.822	6.8	Rural	Asphalt	497	200-499	80	4	7.5817	5	58.1	Fair	1 -5 years	40.4	PR1	$ 492,923.88	$ 2,034,572.74
P264	2265	Twelfth Line	1.277 km E. of Wellington Rd. 12	Wellington Rd. 12		1386	1.386	6.8	Rural	Asphalt	452	200-499	80	4	10.0	9	97.4	Very Good	ADEQ	2.5		$ -	$ 1,547,704.62
P264A	2266	Twelfth Line	Sideroad 18	1.277 km E. of Wellington Rd. 12		544	0.544	6.8	Rural	Asphalt	822	500-999	80	4	10.0	9	97.4	Very Good	ADEQ	2.8		$ -	$ 607,468.48

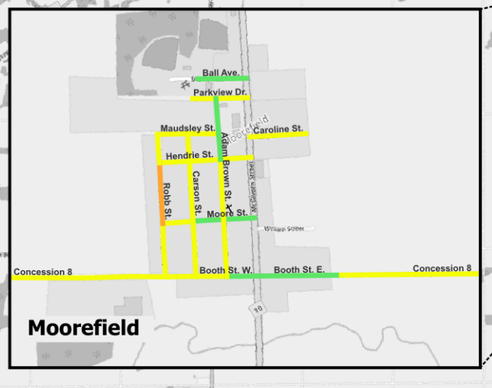
Township of Mapleton

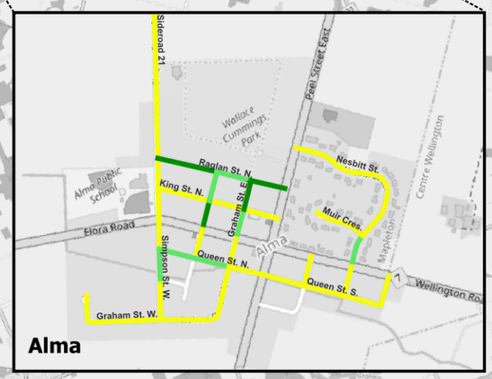
Road Listing (Asphalt/Surface Treated Only)

Munid	Citywide ID	Street	From	To	Town	Length (m)	Length (km)	Width (m)	Environment	Surface	2023 AADT	Final AADT Ranges	Speed	MMS Class	DMI	RCR	PCI	PCI Condition	Time of Need	MTO Priority Rating (PR)	Improvement	Cost ($)	Replacement Value ($)
P265	2267	Twelfth Line	Sideroad 19	Sideroad 18		1827	1.827	6.8	Rural	Asphalt	822	500-999	80	4	10.0	9	97.4	Very Good	ADEQ	2.8		$ -	$ 2,040,156.09
P266	2268	Twelfth Line	Sideroad 20	Sideroad 19		1832	1.832	6.8	Rural	Asphalt	822	500-999	80	4	10.0	9	97.4	Very Good	ADEQ	2.8		$ -	$ 2,045,739.44
P267	2269	Twelfth Line	Wellington Rd. 17	Sideroad 20		1785	1.785	6.8	Rural	Asphalt	1195	1000-1999	80	3	10.0	9	97.4	Very Good	ADEQ	3.1		$ -	$ 2,174,165.70
D024	1952	Union St.	Spring St.	High St.	Drayton	95	0.095	7	Urban	Asphalt	50-199	50-199	50	6	8.8235	5.5	72.9	Good	6 - 10 Years	19.4	R1 (Urban)	$ 17,742.20	$ 218,479.04
D025	1953	Union St.	Main St. E.	Spring St.	Drayton	119	0.119	7.5	Urban	Asphalt	50-199	50-199	50	6	8.4967	5.5	70.0	Good	6 - 10 Years	21.5	R1 (Urban)	$ 22,224.44	$ 273,673.74
M266	2091	Union St.	Main St. E.	Spring St.		1956	1.956	6.8	Rural	Asphalt	483	200-499	80	4	8.1046	6	69.5	Fair	6 - 10 Years	29.1	R1	$ 384,803.88	$ 2,184,206.52
D008	1936	Wood St	Wellington St. N.	Elm St.	Drayton	157	0.157	7	Urban	Asphalt	200-499	200-499	50	5	7.7124	5	59.3	Fair	1 -5 years	36.2	R2 (Urban)	$ 46,638.97	$ 361,065.36
D009	1937	Wood St.	Elm St.	John St.	Drayton	313	0.313	7	Urban	Asphalt	200-499	200-499	50	5	7.3203	5	55.7	Fair	1 -5 years	39.3	R2 (Urban)	$ 92,980.87	$ 719,830.94
D010	1938	Wood St.	John St.	End	Drayton	243	0.243	8.5	Urban	Asphalt	50-199	50-199	50	6	7.5817	5	58.1	Fair	1 -5 years	30.0	R2 (Urban)	$ 72,186.43	$ 558,846.38
D001	1928	Wortley St.	Main St. W.	End	Drayton	106	0.106	5.4	Semi-Urban	Asphalt	0-49	0-49	50	6	9.7386	7	89.1	Very Good	ADEQ	6.2		$ -	$ 125,091.66
P163	2209	Yatton Sdrd.	0.610 km N. of Wellington Rd. 86	Blind Line		761	0.761	6.7	Rural	Asphalt	690	500-999	80	4	6.4706	4	38.7	Poor	NOW REHAB	63.7	PR1	$ 205,880.94	$ 849,785.87
P163A	2210	Yatton Sdrd.	Wellington Rd. 86	0.610 km N. of Wellington Rd. 86	Wallenstein	610	0.61	6.7	Semi-Urban	Asphalt	690	500-999	80	4	9.085	6.5	81.0	Very Good	ADEQ	19.8		$ -	$ 738,246.40
P164	2211	Yatton Sdrd.	Blind Line	1.150 km N. of Blind Line		1150	1.15	6.7	Rural	Asphalt	690	500-999	80	4	6.732	3.5	35.1	Poor	NOW REHAB	67.5	PR1	$ 311,121.00	$ 1,284,170.50
P166B	2216	Yatton Sdrd.	Fourth Line	0.075 km. N. of Fourth Line		75	0.075	6.7	Rural	Asphalt	251	200-499	80	4	9.6078	7	87.9	Very Good	ADEQ	10.0		$ -	$ 81,665.25
P501	2340	Yatton Sdrd.	Third Line	0.725 km N. of Third Line	Yatton	866	0.866	6.7	Semi-Urban	Asphalt	200-499	200-499	50	5	6.5359	5.5	52.3	Fair	1 -5 years	42.4	PR1	$ 234,287.64	$ 1,021,975.26
P503	2342	Yatton Sdrd.	1.150 km N. of Blind Line	Third Line	Yatton	220	0.22	6.7	Semi-Urban	Asphalt	684	500-999	50	5	6.8627	4	42.2	Poor	NOW REHAB	59.9	PR1	$ 59,518.80	$ 266,252.80

Appendix B - PCI Condition (Map)







Pavement Condition Index (PCI)

- Very Good
- Good
- Fair
- Poor
- Very Poor

Reference(s)
1. Projection EPSG:26917
2. Base Data: © OpenStreetMap contributors

0 3,000 6,000 9,000 12,000 m

Township of Mapleton - 2023 Pavement Condition Index (PCI)

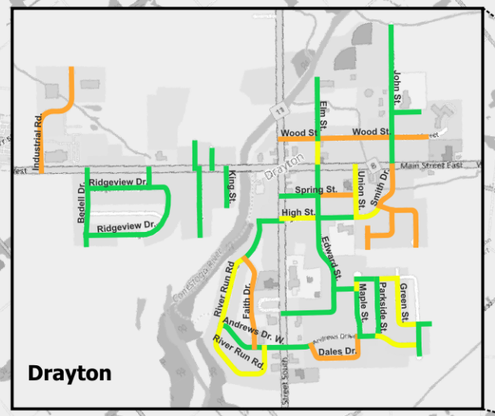
Mapleton Road Needs Study

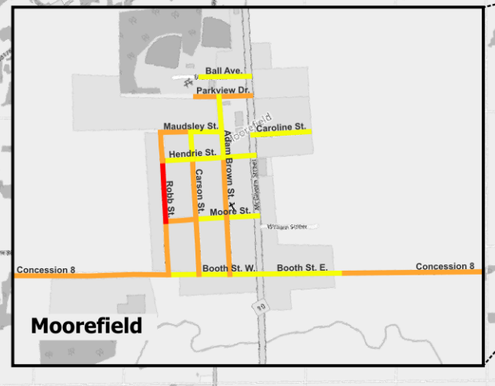
Client Name:
Township of Mapleton, Ontario

GEI Consultants

Last Updated: October 2024
2401659

Appendix C - Time of Need (Map)





Time of Need - Roads

- Adequate
- 6 - 10 Years
- 1 - 5 years
- Rehab Now

Reference(s)
1. Projection EPSG:26917
2. Base Data: © OpenStreetMap contributors

0 3,000 6,000 9,000 12,000 m

Township of Mapleton: Time of Need

Mapleton Road Needs Study

Client Name:
Township of Mapleton, Ontario

GEI Consultants

Last Updated: October 2024
2401659