



TOWNSHIP OF WAINFLEET

2023 ROAD NEEDS STUDY REPORT

GM BluePlan Engineering Limited
1266 South Service Road, Hamilton
905-643-6688

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DISCLAIMER

This document entitled “Township of Wainfleet 2023 Road Needs Study Report” dated October 30, 2023 was prepared by GM BluePlan Engineering Limited (GMBP) for the Township of Wainfleet. 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 Wainfleet retained GM BluePlan Engineering (GMBP) to provide a comprehensive Road Needs Study which will allow the Township to effectively allocate funds to manage its road network, and to meet the requirements of O.Reg. 588/17 Asset Management Planning for Municipal Infrastructure.

The report provides a snapshot of road conditions in 2023, improvement needs, as well as costing and funding estimates. The findings of this report should be used as a decision-making tool in developing the Township's annual road maintenance and rehabilitation program, as well as determining estimated funding requirements to maintain a desired level of service. In that regard, the findings of this report should feed back into and support the Township's overall asset management plan.

2 Project Scope

The scope of this assignment was to prepare a Road Needs Study Pavement Management Plan that includes:

- Review and analysis of provided data,
- Road condition assessments,
- Development of improvement recommendations based on the condition data,
- Improvement costs for each road asset, based on current unit costs and standardized approach,
- Development of replacement costing for each road asset based on current unit costs,
- Development of a 10-year Work Plan,
- Development of annualized budget recommendations,
- A report on the foregoing.

3 Background Data

To support the development of this report, various sources of information related to the Township's road network was supplied to GMBP. These sources of information included the following:

Township supplied information:

- 1) Road network inventory spreadsheets including roadway attribute data including:
 - Municipal ID
 - Street Name and From/To limits
 - Geometrics (length/width/number of lanes)
 - Surface type
 - Functional Class
 - Speed
 - Historical traffic volumes
- 2) *2017 Road Needs Study and Execution Plan* report (prepared by Associated Engineering)
- 3) Historical tender costs for various road treatment applications and materials

Other data sources:

- 1) 2023 traffic counts supplied by Pyramid Traffic Inc.
- 2) GIS centerline file of the Township from the Region of Niagara's Open Data portal

4 Road Network Inventory

Roadside Environment

The Township's 272 km road network is predominately rural in nature, except for the hamlet of Wainfleet, and areas along Lakeshore Road and the Lake Erie shoreline.

"Roadside Environments" are divided into three classifications, Rural, Semi-Urban, and Urban.

Rural means roads that generally abut agricultural lands or open spaces such as forests, have relatively high posted speed limits, infrequent driveways, and typically have open drainage conveyance.

Semi-Urban roads are those which are adjacent to or inside of built-up areas (residential or commercial development), but do not include curb & gutters.

Urban environment refers to roadways that are in an urban or built-up area, generally have low to moderate posted speeds and frequent entrances, may have features such as sidewalks and on-street parking, and generally include curb & gutter and storm sewers for conveying drainage.

Table 1 below summarizes the distribution of roadside environments within the Township's road network.

Table 1: Road Network Roadside Environment Distribution

Roadside Environment	Length (km)	Percentage of Network
Rural	255.6	94.0%
Semi-Urban	15.5	5.7%
Urban	0.7	0.3%

Road Structure

Provided below, in Figure 1, is a typical cross section of a road structure.

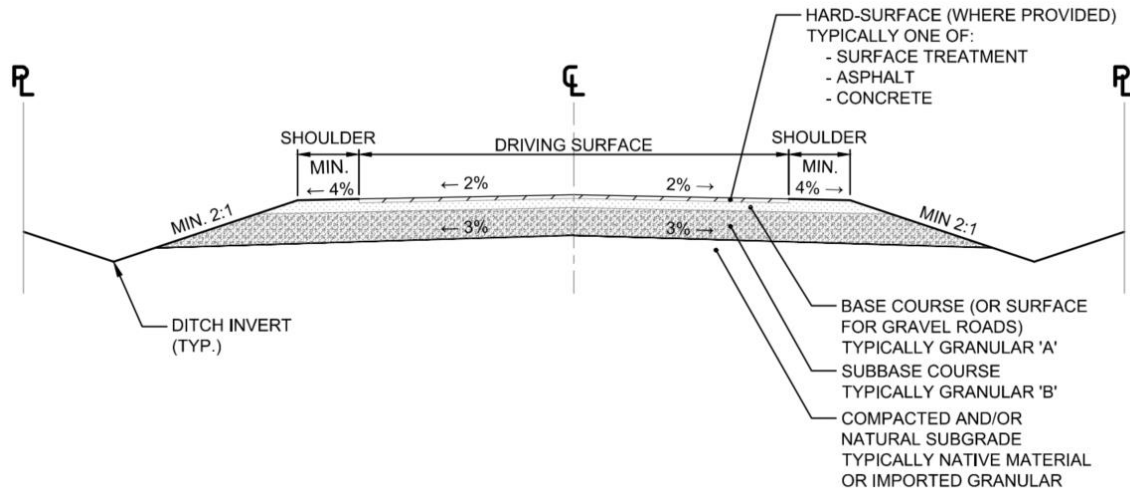


Figure 1: Typical Rural/Semi-urban Cross Section

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.

Subbase: 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.

When designing roads, the various layers and geometrics of a roadway will change based on anticipated traffic conditions.

The Ministry of Transportation Inventory Manual (1991) provides road design standards for Rural, Semi-Urban and Urban roadways based on traffic volumes or Functional Class. These standards are summarized in the following tables.

Table 2: Rural & Semi-Urban Road Standards

Geometrics/Layers	Average Annual Daily Traffic (AADT)						
	50 - 199	200 - 399	400 - 999	1000 - 1999	2000 - 2999	3000 - 3999	4000+
Surface Width (m)	6.0	6.0	6.5	6.5	7.0	7.0	7.5
Shoulder Width (m)	1.5	1.5	1.5	2.5	2.5	3.0	3.0
Hot Mix Asphalt Thickness (mm)		16 ¹	50	50	100	100	100
Granular "A" Base Thickness (mm)	150	150	150	150	150	150	150
Granular "B" Sub-base Thickness ² (mm)	300	300	450	450	450	450	450

1- Double Surface Treatment assumed to equal 16mm of Hot Mix

2- Southern Ontario

Table 3: Urban Road Standards

Geometrics/Layers	Urban		
	Local Residential	Collector Residential	Arterials
Lane Width (m)	3.0	3.25	3.75
Shoulder Width (m)	—	—	—
Parking Lane Width (m)	2.5	2.5	3.0
Curb offset (m)	0.5	0.5	0.5
Hot Mix Asphalt Thickness (mm)	100	100	150
Granular "A" Base Thickness (mm)	150	150	150
Granular "B" Sub-base Thickness ¹ (mm)	300	300	450

1 - Southern Ontario

Road Surfaces

The Township’s road network is comprised of High Class Bituminous (HCB), Low Class Bituminous (LCB) and Gravel surface roadways.

HCB and LCB roads are collectively referred to as “hard top” surfaces. HCB roads are roads with hot mix asphalt surfaces which are typical for higher traffic/commercial volume roads or urban streets, and will vary in overall pavement thickness, usually between 60mm-100mm.

LCB roads are roads with a hard top surface comprised of an emulsified asphalt and smaller aggregate stone or “chip”. These are often referred to as “Surface Treated” roads. Given their relatively lower cost to construct, surface treated roads are typical for lower volume, rural or semi-urban roadways.

Gravel roads are roads constructed with a finely graded granular surface. Gravel road surfaces are suitable for rural roads with traffic volumes typically less than 200 vehicles per day. Gravel roads however are very susceptible to the effects of weather and require regular seasonal maintenance such as grading and dust control, as well as the need to apply additional gravel on a cyclical or as needed basis.

It should be noted that the Township also has a few “clay roads” which were not included as part of this study. These are typically un-opened right of ways that are not maintained by the Township and thus are not suitable for normal passenger vehicles.

Table 4 summarizes the distribution of surface types across the Township’s road network.

Table 4: Road Network Surface Type Distribution

Surface Type	Length (km)	Percentage of Network
LCB (Surface Treated)	163.6	60.2%
HCB (Hot Mix Asphalt)	12.2	4.5%
Gravel	96	35.3%

Traffic Volumes

Being a predominantly rural network, traffic volumes on the Township roads are generally low volume, with more than half the network having fewer than 200 vehicles per day.

As noted earlier, existing traffic counts were supplied by the Township. These supplied traffic counts were based on known or assumed counts, or additional counts completed in conjunction with the previous 2017 road needs study. The supplied traffic counts were extrapolated to 2023 values assuming a 1% growth rate, which is considered appropriate for a road network of this type.

Given the changing road demands and the addition of roads to the Township’s road network since the previous study, an additional 40 traffic count locations across the network were identified in consultation with Township staff. Automatic Traffic Recorder (ATR) counts were undertaken at these locations in July and August of 2023, by Pyramid Traffic Inc.

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

Table 5: Average Daily Traffic (ADT) Distribution

Traffic Volume (ADT)	Centreline Kilometres	Percentage of Network
0 -49	62.0	22.8%
50 - 199	107.6	39.6%
200 - 499	54.2	19.9%
500 - 999	20.0	7.4%
1000 - 1999	28.0	10.3%

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 road, 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 Statutory 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 roads, the distribution of Maintenance Class is as follows.

Table 7: Maintenance Class Distribution

Maintenance Class	Centreline Kilometres	Percentage of Network
Class 3	17.9	6.6%
Class 4	171.1	62.9%
Class 5	20.9	7.7%
Class 6	61.9	22.8%

Given the regulations, the Township should consider updating traffic counts on a regular basis, and prioritizing traffic counts on roads where the current estimated traffic count is near the next Maintenance Class threshold.

Due the seasonal traffic conditions in the Township, traffic counts should be conducted in the summer and winter to get the appropriate MMS Classification for each season.

It should also be noted that current speed limits on the Township’s gravel roads is understood by GMBP to be 80km/hr. As a result, any gravel road with traffic volumes higher than 50 vehicles/day will fall into the MMS Class 4 designation. It may be prudent for the Township to review posted speeds on the gravel roads and potential impacts that may have with respect to Minimum Maintenance Standards and current operations.

Appendix A provides a listing of all road sections in the Township of Wainfleet.

5 Asset Condition

During the months of July and August of 2023, the condition of all Township roads was assessed by GM BluePlan. The condition assessments were conducted in accordance with the procedures outlined in the following guidelines for evaluating the condition of municipal roadways:

- SP 021 Manual for Condition Rating of Surface-Treated Pavements
- SP 022 Manual for Flexible Pavement Condition Rating – Guidelines for Municipalities
- SP 025 Manual for Condition Rating of Gravel Surface Roads

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.



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.

Refer to Table 8 for a summary of the distresses for surface-treated (LCB), asphalt (HCB) and Gravel road surface types. Weight factors used in calculating the DMI are provided in parentheses after each distress.

Table 8: Distress Types and Weight Factors

SP-021 Distresses (LCB)	SP-022 Distresses (HCB)	SP-025 Distresses (Gravel)
Streaking (1.0)	Potholes (3.0)	Potholes (1.0)
Potholes (0.5)	Pavement Edge Breaks (3.0)	Breakup (1.0)
Pavement Edge Breaks (3.0)	Rippling and Shoving (1.0)	Washboard (1.0)
Rippling and Shoving (1.0)	Wheel Track Rutting (3.0)	Rutting (1.0)
Wheel Track Rutting (3.0)	Distortion (3.0)	Flat/Reverse Crown (3.0)
Distortion (3.0)	Patching/U-Cuts (1.0)	Distortion (2.0)
Longitudinal Cracking (1.5)	Longitudinal Cracking (1.0)	
Transverse Cracking (1.0)	Transverse Cracking (1.0)	
Pavement Edge Cracking (0.5)	Pavement Edge Cracking (3.0)	
Alligator Cracking (2.5)	Map Cracking (1.0)	
	Alligator Cracking (2.5)	

For all roadway surfaces, the distress severity and extent limits used in calculating the DMI are summarized in Table 9.

Table 9: 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 formulas:

$$\text{SP 021 Surface Treated roads:} \quad = 10 \times \left[153 - \sum \frac{(w_i \times s_i \times d_i)}{153} \right]$$

$$\text{SP 022 Asphalt Roads:} \quad = 10 \times \left[196 - \sum \frac{(w_i \times s_i \times d_i)}{208} \right]$$

$$\text{SP 025 Gravel Roads:} \quad = 10 \times \left[96 - \sum \frac{(w_i \times s_i \times d_i)}{96} \right]$$

Where w_i is the weighting an individual distress, s_i is the severity the same distress, and d_i is the density of the same distress.

Ride Condition Rating

The Ride Condition Rating (RCR) was assigned to each road section based on the criteria summarized in Table 10, which are generally consistent across all guideline documents.

Table 10: Ride Condition Rating (RCR) Criteria

Ride Condition Rating (RCR)	Description	Criteria
8 – 10	Excellent	Very Smooth
6 – 8	Good	Smooth with a few bumps and depressions
4 – 6	Fair	Comfortable with intermittent bumps or depressions
2 – 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

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.

The following formulas were used based on the roadway surface type:

$$\text{Asphalt Roads:} \quad = 13.75 + (9 \times \quad) - \left(\frac{7.5 \times |8.5 - \quad|}{3.02} \right)$$

$$\text{Surface-Treated \& Gravel:} \quad = 12.75 + (9 \times \quad) - \left(\frac{5.5 \times |9.94 - \quad|}{3.46} \right)$$

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. The following are typical **Condition Categories**.

Table 11: PCI Condition Categories

Condition	PCI Range
Very Good	>85
Good	70 - 85
Fair	55 - 70
Poor	40 - 55
Very Poor	<40

6 Network Present Status

Using the above PCI rating criteria and calculation methods, the overall network average PCI for all Township’s roads was determined to be **PCI=68.1**, weighted by centerline length of road. The distribution of the road condition is presented in Table 12 below.

Table 12: Network Pavement Condition Index (PCI) Distribution

Condition	PCI Range	Centerline Kilometres	Percentage of Network
Very Good	>85	5.2	1.9%
Good	70 - 85	116.9	43.0%
Fair	55 - 70	131.6	48.4%
Poor	40 - 55	14.3	5.2%
Very Poor	<40	3.8	1.4%
Total		271.8	100%

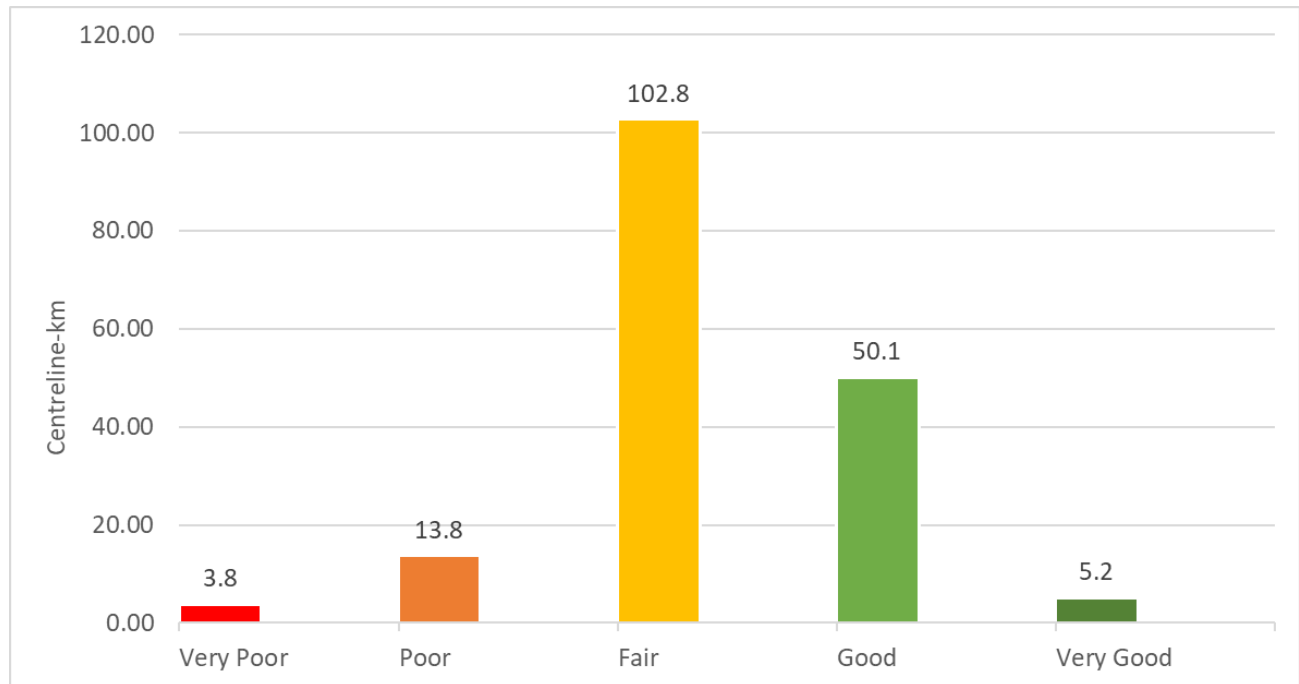
Hard Top Road Network

More specifically, for the Township’s “hard top” road network, the average PCI was determined to be **PCI=65.8**, weighted by centerline length of road. Table 13 and Figure 2 provide a breakdown of the Township’s hard top road network by condition ranges.

Table 13: Hard Top Road Network PCI Distribution

Condition	PCI Range	Centerline Kilometres	Percentage of Hard Top Network
Very Good	>85	5.2	2.9%
Good	70 - 85	49.8	28.3%
Fair	55 - 70	103.2	58.7%
Poor	40 - 55	13.8	7.9%
Very Poor	<40	3.8	2.2%
Total		175.8	100%

Figure 2: Hard Top Road Network PCI Distribution



The results show that 5.2 kms, or 2.9% of the City’s hard top rural road network, falls within the “Very Good” condition category with PCI scores greater than PCI=85, with an additional 50.1 kms, or 28.5% of the hard top road network considered in “Good” condition with PCI scores between 70 – 85. Approximately 58.5% of the hard top road, or 102.8 kms, is considered in “Fair” condition with PCI scores in the 55 – 70 range.

An additional 17.6 kms or 10.1% of the hard top road network is considered in “Poor” to “Very Poor” overall condition with PCI scores less than PCI=55. Table 14 below identifies the hard top roads in Very Poor condition.

Table 14: Very Poor Hard Top Roads (PCI<40)

Municipal ID	Street Name	From Street	To Street	Length (m)	PCI
203250	Napoleon Street	Lee Street	End of Road	68.6	22.6
203265	Lee Street	Napoleon Street	Mill Race Road	121.5	38.4
203245	Gents Road	Forks Road	Willford Road	2127.8	34.6
203240	Church Street	Mill Race Road	End of Road	149.6	37.8
203252	Graybiel Road	Highway 3	End of Road	764.3	31.5
203243	Ellsworth Road North	End of Road	Highway 3	318.5	36.6
203257	Metler Road	Regional Road 27	Old River Road East	281.0	38.8

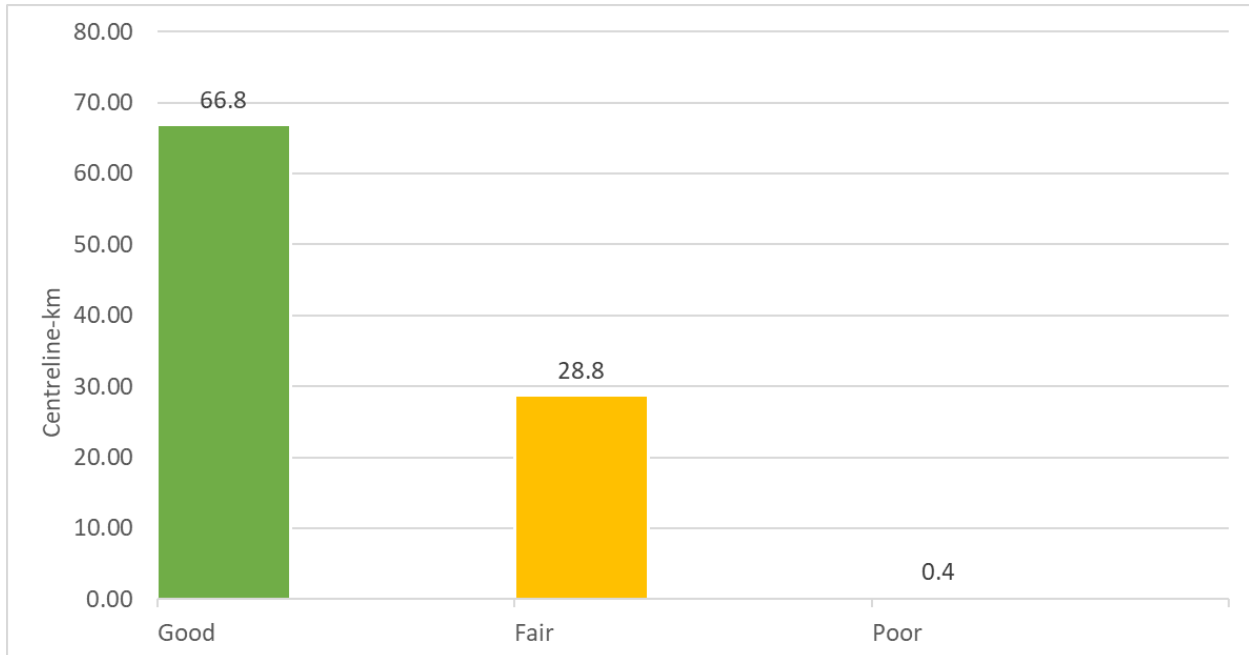
Gravel Road Network

The average PCI for the Township’s gravel road network was determined to be **PCI= 72.1**, weighted by centerline length of road. Table 15 provides a summary of the distribution of roadway condition across the Township’s gravel road network.

Table 15: Gravel Road Network PCI Distribution

Condition	PCI Range	Centerline Kilometres	Percentage of Gravel Road Network
Very Good	>85	0.0	0.0%
Good	70 - 85	66.8	69.6%
Fair	55 - 70	28.8	30.0%
Poor	40 - 55	0.4	0.4%
Very Poor	<40	0.0	0.0%
Total		96.0	100%

Figure 3: Gravel Road Network PCI Distribution



At the time of the inspection approximately 66.8 km or 69.5% of the gravel road network was considered in “Good” condition with approximately 28.8 km or 30.0% of the gravel road network was considered in “Fair” condition. Only 0.4 kms of gravel roads were found to be in “Poor” condition.

Table 16 below identifies the gravel road sections in “Poor” condition at the time of the inspection.

Table 16: Gravel Road Sections in Poor Condition

Municipal ID	Street Name	From Street	To Street	Length (m)	PCI
204488	Emerson Road	Bell Road	End of Road	412.5	44.1
204482	Barrick Road	End of Road	Barrick Road	27.0	50.7

Again, it must be noted that the gravel road condition assessments were completed during the summer months, after spring thaw and gravel road grading and dust control operations. Condition ratings completed at different times of the year can vary greatly. As a result, these findings may not be representative of the Township’s gravel roads throughout the year.

Appendix B provides a map of the PCI scores across the entire road network.

7 Road Needs Analysis

Road Improvement Types and Benchmark Costs

The improvement strategies that can be applied to a road section, for the purposes of this report, are as follows:

Table 17: Improvement Types

Improvement Code	Description
DST	Double lift of Surface Treatment
R1	Single overlay of Hot Mix asphalt, 60mm depth. Includes 20% padding, base repair and ditching
R2	Double overlay of Hot Mix asphalt, total 100mm depth. Includes 20% padding, base repair and ditching
PDST	Pulverize existing surface treatment , add 150mm Granular A, and double surface treatment. Includes base repair and ditching
PR1	Pulverize existing asphalt, pave 60mm of Hot Mix asphalt. Includes base repair and ditching
PR2	Pulverize existing asphalt, pave 100 mm of Hot Mix asphalt. Includes base repair and ditching
BSST	Replace/ re-build new granular base and double surface treatment. Includes ditching.
BSHM	Replace/ re-build new granular base and single lift (60mm) Hot Mix overlay. Includes ditching.
RECGS	Full depth excavation of rural roads. All new granulars and ditching. Gravel surface roadway.
RECST	Full depth excavation of rural roads. All new granulars and ditching. Surface treated surface.
RECHM	Full depth excavation of rural roads. All new granulars and ditching. New asphalt surface, single or double lift depending on AADT
RNS	Similar to RECHM, but for urban/semi-urban roads with storm sewer. 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 from recent Township tender results and industry averages.

Table 18: Material/Activity Costs

Item	Unit	Cost
Asphalt Removal	m ²	\$ 11.00
Excavation	m ³	\$ 43.75
Hot Mix (HL8)	tonne	\$ 125.00
Surface Asphalt (HL3)	tonne	\$ 128.00
Double Surface Treatment	m ²	\$ 9.15
Granular 'B'	tonne	\$ 19.50
Granular 'A'	tonne	\$ 20.50
Subdrains	Lm	\$ 19.10
Asphalt Milling	m ²	\$ 4.85
Asphalt Pulverizing	m ²	\$ 2.30
Ditching	Lm	\$ 28.25
Sidewalk (R&R)	m ²	\$ 117.70

In addition to the costs shown in the above table, a 30% markup factor was applied to account for possible ditching, base repairs and other cost contingencies.

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 square metre basis to account for varying widths of roadways. The following table lists the improvement type, and the benchmark unit rates used in this study.

Table 19: Benchmark Treatment Costs

Treatment Code	Description	Unit Rate (\$/m ²)
DST	Double Surface Treatment	\$ 12.00
R1	Single Lift Hot Mix Overlay (60mm)	\$ 33.00
R2	Double Lift Hot Mix Overlay (100mm)	\$ 45.00
PDST	Pulverize and Double Surface Treatment	\$ 43.00
PR1	Pulverize & Single Lift Hot Mix Overlay (60mm)	\$ 58.00
PR2	Pulverize & Double Lift Hot Mix Overlay (100mm)	\$ 73.00
BSST	Base and Surface Treated Surface	\$ 47.00
BSHM	Base and Hot Mix Surface	\$ 60.00
RECGS	Reconstruct (Gravel Surface)	\$ 110.00
RECST	Reconstruct (Surface Treated)	\$ 125.00
RECHM	Reconstruct (Hot Mix)	\$ 170.00
RNS	Reconstruct with Nominal Sewers	\$ 200.00

Replacement Cost

The replacement cost of all road sections was estimated based on full depth reconstruction of the roadway. The total replacement cost of all roads included in this study is estimated to be \$207,454,721. The table below provides a break down of Replacement Value by road surface type.

Table 20: Replacement Value by Surface Type

Surface Type	Centerline Kilometres	Replacement Cost
Asphalt (HCB)	12.2	\$15,452,538
Surface Treated (LCB)	163.6	\$125,357,189
Gravel	96	\$66,644,994
Total		\$207,454,721

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” 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 or reconstruction over the next 10 years are identified as “Adequate”. However, Adequate roads are still candidates for maintenance or possibly pavement preservation type activities such as surface treatments.

The table below shows the general relationship between the PCI score and Time of Need for Hard Top Roads.

Table 21: PCI and Time of Need (Hard Top)

PCI	Time of Need	Typical Treatment
>75	Adequate	Maintenance
60 – 75	6 – 10 Years	Minor Resurfacing
45 – 60	1 to 5 Years	Major Resurfacing
< 45	NOW	Reconstruction

Time of Need for gravel roads based on PCI is shown in the following table.

Table 22: PCI and Time of Need (Gravel Roads)

PCI	Time of Need	Typical Treatment
40 - 100	Adequate	Maintenance/Minor Gravel Replacement
<40	NOW	Major Gravel Replacement/Reconstruction

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 Kilometres	Percentage of Network
NOW	5.7	2.10%
1-5 Year	32	11.80%
6-10 Year	105.3	38.70%
Adequate	128.9	47.40%

Appendix C provides a map illustrating the Time of Need across the road network.

Improvement Needs- Hard Top Roads

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.

Typically, Hard Top roads with PCI values between 60 - 75 are good candidates for minor resurfacing improvements, including surface treatment or single lift hot mix overlays. Whereas roads with PCI scores between 45-60 will require major resurfacing. Roads with PCI scores <45, typically require some form of reconstructive treatment to address structural or drainage needs.

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 **\$28.9 Million** in current improvement needs across the Hard Top road network.

Table 24: Total Improvement Costs (Hard Top)

Treatment Code	Centerline Kilometres	Improvement Cost
DST	60.3	\$4,492,855.74
PDST	72.6	\$19,242,667.27
R1	4.4	\$950,625.91
PR1	2.1	\$726,902.04
PR2	0.5	\$265,178.03
BSST	1.8	\$499,920.91
RECST	3.3	\$2,361,222.50
BSST	0.3	\$351,214.25
Total	126.5	\$28,890,586.65

Work Plan Prioritization - Hard Top Roads

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:

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

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.

The top 20 highest Priority Rating ranking road sections are provided in the Table 25.

Given the fact that most of the hard surface roads in the Township have relatively low traffic volumes (AADT <400), adopting a prioritization approach based on the above Priority Rating methodology can be classified as a ‘Worst - First’ approach to addressing the Township’s road needs.

The impact of prioritizing roads mainly on their condition (PCI) will result in selecting roads that require major and more costly rehabilitation needs. As a result, a relatively low amount lane-kms of roads can be addressed in any given year with available budget dollars. Thus, the condition of the overall road network will likely deteriorate as other roads that were not selected or only required lighter rehabilitation needs due to their better condition, will ultimately require more costly major rehabilitation needs in the future.

Table 25: Top 20 Priority Rating Improvements

Municipal ID	Name	From Limit	To Limit	Road Surface	Length (km)	2023 Traffic (vpd)	Pavement Condition Index (PCI)	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating
203250	Napoleon Street	Lee Street	End of Road	Asphalt	0.07	170	22.6	RNS	\$ 68,640.00	NOW	59.0
204495	Golf Course Road	Lakeshore Road	Highway 3	Surface Treated	1.81	1644	57.8	PDST	\$ 506,409.28	1-5 Years	54.0
203179	Lakeshore Road	Cedar Crest Road	Cement Road	Asphalt	0.27	1806	58.8	PR2	\$ 130,240.49	1-5 Years	54.0
203121	Feeder Road West	Wainfleet Dunnville Townline Road	Conlon Road	Surface Treated	0.79	1761	58.6	PDST	\$ 219,837.93	1-5 Years	54.0
203199	Feeder Road West	Side Road 20	Highway 3	Surface Treated	0.23	1651	58.1	PDST	\$ 59,933.40	1-5 Years	53.8
203229	Lakeshore Road	Bessey Road	Crescent Heights	Asphalt	0.68	1806	60.1	R1	\$ 144,835.46	6-10 Years	52.3
203202	Feeder Road East	Malowany Road	Willson Road	Surface Treated	1.78	1081	56.5	PDST	\$ 650,286.64	1-5 Years	50.4
204492	Golf Course Road	Fletcher Avenue	Lakeshore Road	Surface Treated	0.18	1527	61.2	PDST	\$ 49,642.00	6-10 Years	48.9
202986	Lakeshore Road	Camelot Drive	Cedar Crest Road	Asphalt	0.23	1806	62.8	R1	\$ 49,402.98	6-10 Years	48.7
203203	Feeder Road East	Dixie Road	Malowany Road	Surface Treated	0.89	901	57.3	PDST	\$ 228,389.34	1-5 Years	47.3
203259	Beach Road East	Bellevue Beach Road	End of Road	Surface Treated	0.51	248	42.7	RECST	\$ 384,712.50	NOW	47.2
204493	Golf Course Road	Churchill Avenue	Fletcher Avenue	Surface Treated	0.09	1527	62.5	PDST	\$ 28,303.03	6-10 Years	47.2
203152	Lakeshore Road	Ellsworth Road South	Rathfon Road	Surface Treated	0.83	1311	61.2	PDST	\$ 214,307.70	6-10 Years	47.0
203265	Lee Street	Napoleon Street	Mill Race Road	Asphalt	0.12	170	38.4	RNS	\$ 145,799.44	NOW	46.9
204494	Golf Course Road	Lakeshore Road	Churchill Avenue	Surface Treated	0.02	1527	63.5	PDST	\$ 6,628.02	6-10 Years	45.9
203115	Feeder Road West	Daley Ditch Road	Side Road 22	Surface Treated	1.59	1314	62.6	PDST	\$ 444,458.11	6-10 Years	45.4
203139	Lakeshore Road	Maple Road	Ellsworth Road South	Surface Treated	0.48	1311	62.6	PDST	\$ 124,371.48	6-10 Years	45.4
203216	Concession 1 Road	Burkett Road	Minor Road	Surface Treated	0.89	1101	61.3	PDST	\$ 228,660.24	6-10 Years	45.0
204498	Lakeshore Road	Lakeshore Road	Golf Course Road	Surface Treated	0.13	1552	64.9	PDST	\$ 40,574.80	6-10 Years	44.3
203223	Hendershot Road	Wainfleet Dunnville Townline Road	Highway 3	Surface Treated	1.76	252	47.5	PDST	\$ 528,727.57	1-5 Years	43.4
Total 13.35 kms									\$ 4,254,160.40		

Priority Guide Number (PGN)

In contrast to the Priority Ranking or “Worst-First” approach described above, a more cost-benefit approach to prioritizing the road needs can be accomplished by means of the MTO Priority Guide Number (PGN).

The Priority Guide Number takes into consideration not only the condition (PCI) of the road but also the cost of the required treatment and the number of users that would benefit from the work being done (i.e. traffic volume).

The Priority Guide Number (PGN) formula is as follows:

$$\text{Priority Guide Number (PGN)} = (100 - \text{PCI}) / \text{Cost per vehicle-km}$$

Where:

For Resurfacing: Cost per Vehicle-km =
$$\frac{\text{Treatment Cost per km}}{\frac{(\text{Current Traffic} + \text{Future Traffic})}{2}} \times 365 \text{ days} \times 10 \text{ years}$$

For Construction: Cost per Vehicle-km =
$$\frac{\text{Treatment Cost per km}}{\text{Future Traffic} \times 365 \text{ days} \times 20 \text{ years}}$$

In general, the higher the Priority Guide Number the lower the cost per user to improve the condition of the road. Table 26 below lists the 20 highest ranking Priority Guide Number road sections across the hard top road network.

Table 26: Top 20 Priority Guide Number (PGN) Improvements

Municipal ID	Name	From Limit	To Limit	Road Surface	Length (km)	2023 Traffic (vpd)	Pavement Condition Index (PCI)	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Guide Number (PGN)
203041	Lakeshore Road (Spur)	Lakeshore Road	Harbourview Road	Surface Treated	0.08	1709	75.2	DST	\$ 6,006.96	Adequate	22.6
203093	Golf Course Road	Harbourview Road	Lakeshore Road	Surface Treated	0.10	1527	72.6	DST	\$ 6,935.04	6-10 Years	22.3
203220	Burkett Road	Concession 1 Road	Feeder Road West	Surface Treated	2.01	1180	66.6	DST	\$ 145,071.36	6-10 Years	21.1
203163	Feeder Road West	Pettit Road	Burkett Road	Surface Treated	0.87	1395	68.2	DST	\$ 73,111.92	6-10 Years	20.3
203056	Feeder Road West	Conlon Road	Clarendon Street West	Surface Treated	0.64	1361	67.7	DST	\$ 53,677.68	6-10 Years	20.1
203011	Concession 1 Road	Side Road 20	Station Road	Surface Treated	0.07	1246	70.6	DST	\$ 4,793.04	6-10 Years	19.5
203183	Concession 1 Road	Brawn Road	Side Road 20	Surface Treated	0.76	1389	73.6	DST	\$ 54,698.40	6-10 Years	19.5
203112	Feeder Road West	Clarendon Street West	Akins Road	Surface Treated	0.24	1339	70.9	DST	\$ 19,012.50	6-10 Years	19.2
204497	Lakeshore Road	Buckbee Road	Lakeshore Road	Surface Treated	0.54	1552	75.9	DST	\$ 42,293.94	Adequate	18.4
203169	Feeder Road West	Burkett Road	Clarendon Street West	Surface Treated	1.40	1107	70.9	DST	\$ 117,757.08	6-10 Years	14.7
203186	Concession 1 Road	Minor Road	Daley Ditch Road	Surface Treated	0.97	991	72.9	DST	\$ 70,089.84	6-10 Years	14.3
203129	Burnaby Road	Elizabeth Crescent	Highway 3	Surface Treated	0.20	949	73.9	DST	\$ 14,651.28	6-10 Years	13.2
203229	Lakeshore Road	Bessey Road	Crescent Heights	Asphalt	0.68	1806	60.1	R1	\$ 144,835.46	6-10 Years	12.9
204467	Willford Road	Farr Road	Regional Road 24	Surface Treated	0.89	736	67.8	DST	\$ 63,759.60	6-10 Years	12.6
202986	Lakeshore Road	Camelot Drive	Cedar Crest Road	Asphalt	0.23	1806	62.8	R1	\$ 49,402.98	6-10 Years	12.0
203007	Lakeshore Road	Crescent Heights	Camelot Drive	Asphalt	0.20	1806	67.1	R1	\$ 41,872.85	6-10 Years	10.6
203199	Feeder Road West	Side Road 20	Highway 3	Surface Treated	0.23	1651	58.1	PDST	\$ 59,933.40	1-5 Years	10.3
203121	Feeder Road West	Wainfleet Dunnville Townline Road	Conlon Road	Surface Treated	0.79	1761	58.6	PDST	\$ 219,837.93	1-5 Years	10.0
204495	Golf Course Road	Lakeshore Road	Highway 3	Surface Treated	1.81	1644	57.8	PDST	\$ 506,409.28	1-5 Years	9.5
203165	Morgans Point Road	Fowler Road	Lakeshore Road	Surface Treated	0.65	522	65.9	DST	\$ 46,870.56	6-10 Years	9.5
Total									13.36 kms	\$1,741,021.10	

As can be seen in the above table, those roads that have higher PGN scores are generally higher traffic volume roads that require relatively low-cost light rehabilitation needs, such as surface treatments. Thus, the impact of

prioritizing roads with a high PGN value is that more kilometers of roads can be addressed versus the previous approach with the same budget dollars. This typically results in the network average condition improving over a relatively short period of time.

However, the backlog of low traffic volume roads falling into the major rehabilitation or reconstruction needs will likely increase. This could impact the serviceability and potential safety of specific roads, increase complaints by the affected residents, as well as increase the backlog of high-cost rehabilitation work that may become difficult to address with annual funding limits.

There are obviously many factors to consider when determining which projects to include in a yearly capital program. As a result, both the Priority Ranking and Priority Guide Number should only be used as tools to assist in the prioritization and development of the annual maintenance and rehabilitation (M&R) program.

An overall Work Plan is presented in Appendix D. The Work Plan prioritizes the improvement needs based on the Priority Rating. The improvement needs have been categorized into “Now Needs”, “Resurfacing Needs” and “Pulverize & Resurfacing Needs”.

Funding Estimates for Hard Top Roads

To estimate the funding requirements to maintain the hard top road network at current levels, a lifecycle analysis will provide a good indication of the level of funding required over both a short-term and long-term basis.

It is generally accepted that a surface treatment application is required on a surface treated road every 7-10 years depending on traffic volumes. Using this as a guideline and the current makeup of the Township’s surface treated road network and unit rates, it is estimated that approximately **\$1.3 Million** of resurfacing funding would be required to address an average of **18.2 kms** of the Township’s surface treated roads on an annual basis.

Likewise, for Hot Mix asphalt roads, a single lift overlay is typically required every 15-20 years on lower traffic volume roads. Applying this guideline to the Township’s asphalt roads it is estimated that an average of approximately **\$154,000** in resurfacing funding would be required to address an average of **0.71 kms** of asphalt roads on an annual basis.

Combined, the above total of **\$1.45 Million** per year would be considered the **Short-Term Sustainability** funding level. Given this scenario assumes the treatment is carried out at the appropriate time, this funding level should be considered the minimum to maintain the road network over the next 5- 10 years at the current level of service.

A **Long-Term Sustainability** funding considers the annualized replacement cost of the roads over a 50-year or 75-year replacement cycle. As previously noted in Table 20, the current replacement cost of the Township’s hard top road network is estimated at \$140.8 Million. Using a 50-year replacement cycle the average annualized cost would equate to approximately **\$2.8 Million** per year.

If one were to consider a 75-year lifecycle for roads the annualized replacement cost would equate to approximately **\$1.9 Million** per year. Realistically though, to achieve a full 75-year lifespan, a road would require the resurfacing treatments at the appropriate timelines as noted above for the Short-Term Sustainability funding. As a result, the overall Long-Term Sustainability funding would need to include the Short -Term Sustainable funding level as well, for a total of **\$3.35 Million** per year.

As a result, to adequately address the hard top road network over the long-term, the funding set aside would ultimately need to reach the Long-Term Sustainable funding amount to account for the eventual reconstruction of each road asset. This **does not** mean that the full amount needs to be spent each year, but instead would be placed in reserve until such time as the demands on the system exist.

Note: The above funding scenarios do not consider inflation or growth of the hard top road network over time.

Gravel Road Improvement Needs

As previously noted, at the time of the inspections the gravel road network was in generally good condition with an average PCI=72.1, and all roads were determined to have an “Adequate” Time of Need based on condition or traffic volume. As a result, no major rehabilitation improvement needs were identified at the time of this study.

However, given that gravel road conditions can fluctuate throughout the year, especially in the spring when the impacts of winter and spring thaws will be most prevalent, gravel roads require an extensive annual maintenance program.

A typical gravel road maintenance program includes an annual approach to addressing the maintenance needs of the gravel road network. The key gravel road maintenance activities required throughout the year include:

Grading Loose Top: Grading is required to maintain the crown of the road to provide good drainage. Grading is also required to address areas of potholes, ruts, wash boarding and other surface defects that occur throughout the year. Grading typically occurs in the spring and fall.

Dust Control: To reduce the amount of dust kicked up by passing vehicles and farm equipment, calcium chloride or other dust suppressants are typically applied after spring grading operations. Additional dust control may be required throughout the summer depending on seasonal conditions.

Gravel Replacement: Generally accepted practices assume gravel road will require 75mm of additional gravel every 3 - 5 years. Replenishing the gravel surface is needed to replace gravel that has been pushed off the road as part of winter operations, contaminated with underlying earth due springs thaws or farm equipment, or washed-out during periods of excessive rains. In doing so this ensures a sufficient road structure is present.

The cost of replacing gravel on the gravel road network is an expensive maintenance need and thus a multi-year, cyclical approach may be required just from an overall budget perspective. To put the cost into perspective, assuming a 5 year cycle of applying 75mm of Granular “A”, over an average standard width of 6m, would equate to approximately 20,000 tonnes of gravel that would be required each year across the Township’s gravel roads. The material cost for Granular “A” is approximately \$20.00/tonne. As a result, this would equate to approximately \$400,000 in Granular “A” gravel replacement cost on annual basis.

The development of an overall gravel road maintenance program requires ongoing monitoring of gravel road conditions as well as the tracking of maintenance activities and costs to specific road sections or specific locations over time.

Gravel Road Conversion to Hard Top

Based on life-cycle analysis, studies have shown that converting gravel roads to hard top surfaces is typically a longer-term, cost-effective approach to management of the road network. However, there are many considerations and variables involved when determining if a gravel road should be converted to a hard top surface (LCB or HCB). Below are several decision criteria the Township should evaluate when considering hard surfacing an existing gravel road:

- Traffic volumes (typically roads with minimum 200 AADT) and type of traffic (% trucks/farm equipment)
- High maintenance costs of the existing gravel road.
- Condition of existing drainage, ditches and shoulders
- Existing platform/shoulder widths meets design standards
- An inspection of the gravel base has been completed by a qualified engineer to determine that the road base can support a hard-top surface

- Sightlines at intersections and driveways
- Horizontal/vertical alignment of the existing road and associated speed limits
- Review of existing infrastructure on the road section and its ability to accommodate a hard-surfaced road (e.g., bridges and culverts)
- Risk management (e.g., is the road section prone to accidents or heavy pedestrian/cyclist traffic?)
- Providing continuity to the existing hard-surfaced network
- Future development that would affect the current and future use of the road
- Number of residential properties along road section
- Public complaints
- Distance from Public Works Yard

Given the above consideration, one gravel road section that presented itself for possible conversion to a hard top surface is Side Road 20 between Abbey Road and the start of existing pavement. This section of road currently presents the only gap in a hard top surface along Side Road 20 and Abbey Road to Hwy 3. In addition, Side Road 20 provides a route to the sports complex and in-fill development near Park Street.

8 Summary

The key outcomes as determined by this study are summarized below.

- The Township of Wainfleet road network consists of approximately 272 kms of roads.
 - HCB = 12.2 km
 - LCB = 163.6 km
 - Gravel = 96.0 km
- Based on the results of the 2023 condition assessments, the overall network average Pavement Condition Index (PCI) was found to be PCI=68.1 which indicates the network is providing a “Fair” condition level of service.
 - Hard Top roads Average PCI = 65.8 (FAIR)
 - Gravel Roads Average PCI = 72.1 (GOOD)
- The estimated Replacement Cost for the road network is \$207.5 Million, where
 - Hard Top roads = \$140.8 Million
 - Gravel Roads = \$66.6 Million
- An estimated **\$28.9 Million** in improvement needs were identified across the Hard Top road network.
- An overall Work Plan based is presented in Appendix D. The Work Plan prioritizes the improvement needs based on the Priority Rating. The improvement needs have been categorized into “Now Needs”, “Resurfacing Needs” and “Pulverize & Resurfacing Needs”. The Work Plan should be used as a guide to develop the annual maintenance and capital program based on available funding.

- Annual capital funding estimates for the Hard Top road network were as follows;
 - Short term Sustainability (5-10 years) = \$1.45 Million annually
 - Long Term Sustainability (50 - 75 years) = \$2.8 Million – \$3.35 Million annually
- Gravel roads require an extensive annual maintenance program. Determinations of improvement needs should be done in the spring during spring thaw conditions.
- Estimated gravel replacement cost = \$400,000 annually assuming a 5-year cycle across the network.
- The gravel portion of Side Road 20 may be a possible candidate to convert to a hard surface.
- Due the seasonal traffic conditions in the Township, traffic counts should be conducted in the summer and winter to get the appropriate MMS Classification for each season.

Appendix A

Road Network Listing

Township of Wainfleet
Road Inventory and Assessment

ALLROADS

Traffic Count Legend		
241	Count from 2017 Traffic Count Program	
1389	Count from 2023 Traffic Count Program	
389	Interpolated Traffic Count	

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)
202903	Abbey Road	Brawn Road	Daley Ditch Road	Rural	Gravel	80	2	1.4805	6	200	200	4	50-199	50	53	59	7.0	8.3	75.4	Good					\$ 977,116.80	
202904	Abbey Road	Daley Ditch Road	End of Road	Rural	Gravel	80	2	0.2729	5	100	100	6	0-49	5	5	6	6.5	8.4	74.8	Good					\$ 150,073.00	
203234	Abbey Road	Side Road 20	Highway 3	Rural	Surface Treated	80	2	0.8073	6	200	200	4	50-199	121	128	142	7.1	8.1	73.3	Good	DST	\$ 58,122.72	6-10 Years	19.3	1.83	\$ 605,445.00
203274	Abbey Road	Side Road 22	Side Road 20	Rural	Surface Treated	80	2	0.8296	6	200	200	4	50-199	111	118	130	7.4	8.7	80.0	Good					\$ 622,177.50	
203277	Abbey Road	Side Road 20	Side Road 20	Rural	Surface Treated	80	2	0.0312	6	200	200	4	50-199	111	118	130	7.0	9.0	80.9	Good					\$ 23,400.00	
204481	Akins Road	End of Road	Feeder Road West	Rural	Gravel	80	1	0.1091	3.5	100	100	6	0-49		5	6	7.0	8.8	79.6	Good					\$ 41,984.25	
202929	Anderson Road	Concession 6 Road	Townline Road	Rural	Gravel	80	2	1.5448	7	200	200	4	50-199	45	48	53	6.5	8.2	72.9	Good					\$ 1,189,519.10	
203022	Augustine Road	Slater Boulevard	Hickey Road	Semi-Urban	Surface Treated	40	2	0.0691	5	L/R	300	5	200-499	225	239	264	6.0	9.0	76.6	Good					\$ 43,162.50	
203055	Augustine Road	Walnut Hill Road	Slater Boulevard	Semi-Urban	Surface Treated	40	2	0.3541	5	L/R	300	5	200-499	280	297	328	6.3	9.2	79.7	Good					\$ 221,300.00	
203092	Augustine Road	Augustine Road East	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.1732	5	L/R	300	5	200-499	334	354	391	6.0	8.0	67.9	Fair	DST	\$ 10,391.40	6-10 Years	28.6	7.27	\$ 108,243.75
203126	Augustine Road	Hickey Road	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.0900	5	L/R	300	5	200-499	225	239	264	6.0	9.6	81.6	Good					\$ 56,275.00	
203157	Augustine Road	Walnut Hill Road	Augustine Road East	Semi-Urban	Surface Treated	40	2	0.7897	5	L/R	300	5	200-499	280	297	328	6.6	8.4	73.6	Good	DST	\$ 47,383.80	6-10 Years	22.6	5.01	\$ 493,581.25
204482	Barrick Road	End of Road	Barrick Road	Rural	Gravel	80	2	0.0270	7	100	100	6	0-49		5	6	3.0	8.6	50.7	Poor					\$ 20,797.70	
203259	Beach Road East	Bellevue Beach Road	End of Road	Semi-Urban	Surface Treated	40	2	0.5130	6	L/R	300	5	200-499	234	248	274	4.3	6.4	42.7	Poor	RECST	\$ 384,712.50	NOW	47.2	1.53	\$ 384,712.50
203143	Bell Road	Case Road	Pettit Road	Rural	Surface Treated	80	2	0.8273	6	300	300	4	200-499	341	362	400	6.4	7.2	62.1	Fair	DST	\$ 59,564.16	6-10 Years	33.9	7.31	\$ 620,460.00
203158	Bell Road	Flanagan Road	Sider Road	Rural	Surface Treated	80	2	0.8324	6	300	300	4	200-499	231	245	271	6.4	8.2	71.4	Good	DST	\$ 59,933.52	6-10 Years	23.5	3.73	\$ 624,307.50
203167	Bell Road	Emerson Road	Highway 3	Rural	Surface Treated	80	2	0.8513	6	300	300	4	200-499	445	377	416	5.0	7.8	60.2	Fair	PDST	\$ 219,622.50	6-10 Years	36.0	2.24	\$ 638,437.50
203168	Bell Road	Sider Road	Case Road	Rural	Surface Treated	80	2	0.8340	6	300	300	4	200-499	241	256	283	6.7	7.1	62.7	Fair	PDST	\$ 215,159.10	6-10 Years	30.9	1.42	\$ 625,462.50
203173	Bell Road	Pettit Road	Wills Road	Rural	Surface Treated	80	2	0.8354	6	300	300	4	200-499	307	346	382	6.4	7.2	62.4	Fair	PDST	\$ 215,538.36	6-10 Years	33.3	1.93	\$ 626,565.00
203185	Bell Road	Wills Road	Gilmore Road	Rural	Surface Treated	80	2	0.8347	6	300	300	4	200-499	361	383	423	6.4	7.6	65.4	Fair	DST	\$ 60,094.80	6-10 Years	31.3	7.07	\$ 625,987.50
203187	Bell Road	Gilmore Road	Johnson Road	Rural	Surface Treated	80	2	0.8389	6	300	300	4	200-499	361	383	423	6.6	8.0	70.6	Good	DST	\$ 60,397.92	6-10 Years	26.6	6.00	\$ 629,145.00
203192	Bell Road	Wainfleet Dunnville Townline Road	Flanagan Road	Rural	Surface Treated	80	2	0.6637	6	200	200	4	50-199	91	96	106	6.9	9.5	84.8	Good					\$ 497,760.00	
204468	Bell Road	Johnson Road	Emerson Road	Rural	Surface Treated	80	2	1.6716	6	400	400	4	200-499	414	440	486	5.0	7.8	60.2	Fair	PDST	\$ 431,267.64	6-10 Years	37.3	2.61	\$ 1,253,685.00
203044	Bellevue Beach Road	Beach Road East	Hill Avenue	Semi-Urban	Asphalt	40	2	0.0910	6	L/R	400	5	200-499	437	463	512	5.1	7.2	55.3	Fair	PRI	\$ 31,654.18	1-5 Years	42.3	2.28	\$ 109,152.34
203224	Bellevue Beach Road	Hill Avenue	Lakeshore Road	Semi-Urban	Asphalt	40	2	0.5947	6	L/R	300	5	200-499	366	389	429	5.5	6.6	53.2	Poor	PRI	\$ 206,967.52	1-5 Years	42.6	2.01	\$ 713,681.09
203227	Bessey Road	Lakeshore Road	Highway 3	Rural	Asphalt	60	2	1.4031	6	300	300	5	200-499	357	379	419	5.5	7.0	56.4	Fair	PRI	\$ 488,280.35	1-5 Years	39.4	1.82	\$ 1,683,725.34
204483	Bessey Road	End of Road	Bessey Road	Semi-Urban	Asphalt	N/A	2	0.1212	5	L/R	100	6	0-49		5	5	8.0	10.0	94.9	Very Good					\$ 121,200.00	
202979	Biederman Road	Highway 3	End of Road	Rural	Gravel	80	2	1.0806	6.5	100	100	6	0-49	18	19	22	6.0	7.8	66.4	Fair					\$ 772,593.25	
203048	Boyle Road	Regional Road 27	Old River Road East	Rural	Surface Treated	80	2	0.0405	8	300	300	4	200-499	297	315	348	7.0	9.1	81.9	Good					\$ 40,470.00	
203148	Boyle Road	Old River Road East	Boyle Road/River	Rural	Surface Treated	80	2	0.3593	6	300	300	4	200-499	297	315	348	6.5	8.5	74.2	Good	DST	\$ 25,867.44	6-10 Years	22.4	4.34	\$ 269,452.50
203136	Bradshaw Road	Highway 3	End of Road	Rural	Surface Treated	80	2	0.1934	5.5	100	100	6	0-49	5	5	6	6.0	8.0	67.6	Fair	DST	\$ 12,763.74	6-10 Years	16.8	0.10	\$ 132,955.63
202960	Brawn Road	Concession 1 Road	Gallinger Street	Rural	Gravel	80	2	2.6653	7	200	200	4	50-199	77	81	90	6.5	8.1	72.0	Good					\$ 2,052,257.90	
203108	Brawn Road	Lakeshore Road	Gallinger Street	Rural	Surface Treated	60	2	0.0819	6	200	200	5	50-199	77	81	90	6.2	9.5	81.9	Good					\$ 61,417.50	
203109	Buckbee Road	End of Road	End of Road	Rural	Surface Treated	80	2	0.1745	6	100	100	6	0-49	12	13	14	5.5	8.8	71.9	Good	DST	\$ 12,562.56	6-10 Years	15.2	0.19	\$ 130,860.00
202967	Buckner Road	Wainfleet Dunnville Townline Road	Highway 3	Rural	Gravel	80	2	0.8308	6.5	100	100	6	0-49	30	32	35	5.5	8.4	69.8	Fair					\$ 594,022.00	
202969	Bulung Road	Forks Road	Mill Race Road	Rural	Gravel	80	2	1.1512	6	200	200	4	50-199	48	51	56	6.0	7.8	66.9	Fair					\$ 759,778.80	
202983	Burkett Road	Lakeshore Road	End of Road	Rural	Gravel	80	2	0.0740	5	100	100	6	0-49	5	5	6	7.0	8.5	76.6	Good					\$ 40,716.50	
203166	Burkett Road	Lakeshore Road	Concession 1 Road	Rural	Surface Treated	80	2	1.8133	6	400	400	4	500-999	567	636	703	7.0	8.6	77.2	Good					\$ 1,359,945.00	
203220	Burkett Road	Concession 1 Road	Feeder Road West	Rural	Surface Treated	80	2	2.0149	6	500	500	3	1000-1999	832	1180	1303	7.0	7.4	66.6	Fair	DST	\$ 145,071.36	6-10 Years	39.5	21.05	\$ 1,511,160.00
203027	Burnaby Road	Lakeshore Road	South Bus Loop	Rural	Surface Treated	60	2	1.2079	6	400	400	4	500-999	702	797	880	6.5	7.4	64.9	Fair	PDST	\$ 311,625.30	6-10 Years	37.8	4.17	\$ 905,887.50
203030	Burnaby Road	South Bus Loop	South Bus Loop	Rural	Surface Treated	60	2	0.1280	6	400	400	4	500-999	702	745	823	6.0	7.8	65.6	Fair	PDST	\$ 33,024.00	6-10 Years	36.4	3.82	\$ 96,000.00
203129	Burnaby Road	Elizabeth Crescent	Highway 3	Rural	Surface Treated	60	2	0.2035	6	400	400	4	500-999	702	949	1048	6.2	8.6	73.9	Good	DST	\$ 14,651.28	6-10 Years	29.3	13.23	\$ 152,617.50
203171	Burnaby Road	North Bus Loop	Elizabeth Crescent	Rural	Surface Treated	60	2	0.8918	6	400	400	4	500-999	702	745	823	6.6	7.4	65.0	Fair	PDST	\$ 230,074.08	6-10 Years	37.1	3.88	\$ 668,820.00
203190	Caistor Gainsborough Townline Road	Canborough Road	River	Rural	Surface Treated	80	2	1.0463	7	300	300	4	200-499	269	286	316	7.4	9.0	82.3	Good					\$ 915,486.25	
203099	Campbell Road	Lakeshore Road	End of Road	Semi-Urban	Surface Treated	80	2	0.2010	6	L/R	100	6	0-49	24	26	29	5.3	8.4	67.1	Fair	DST	\$ 14,474.88	6-10 Years	18.8	0.46	\$ 150,780.00
202914	Case Road	Concession 2 Road	Clarendon Street West	Rural	Gravel	80	2	0.5519	6.5	100	100	6	0-49	19	20	22	6.0	8.5	73.4	Good					\$ 394,579.90	
202954	Case Road	Bell Road	Concession 2 Road	Rural	Gravel	80	2	1.9102	7	100	100	6	0-49	32	34	37	6.0	8.5	73.4	Good					\$ 1,470,830.90	
203212	Case Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0671	6	200	200	4	50-199	92	97	108	6.0	5.9	48.2	Poor	PDST	\$ 533,301.48	1-5 Years	35.4	0.75	\$ 1,550,295.00
203069	Cement Road	Clarence Street	Highway 3	Rural	Asphalt	80	2	1.0379	7	500	500	3	1000-1999	863	1938	2141	6.5	8.4	74.5	Good	R1	\$ 239,761.83	6-10 Years	34.0	8.22	\$ 1,453,102.00
203111	Cement Road	Lakeshore Road	Clarence Street	Rural	Asphalt	50	2	1.0977	7	400	400	4	500-999	863	916	1012	6.5	7.8	69.2	Fair	R1	\$ 253,568.70	6-10 Years	34.2	4.69	\$ 1,536,780.00
203240	Church Street	Mill Race Road	End of Road	Semi-Urban	Surface Treated	50	2	0.1496	6	L/R	100	6	0-49	43	45	50	4.0	6.2	37.8	Very Poor	BSST	\$ 42,181.56	NOW	37.8	0.81	\$ 112,185.00
203264	Church Street	Highway 3	Mill Race Road	Semi-Urban	Surface Treated	50	2	0.2217	6	L/R	200	5	50-199	113	120	133	4.0	6.5	40.8	Poor	RECST	\$ 166,260.00	NOW	42.1	0.76	\$ 166,260.00
203042	Churchill Avenue	Collins Lane	Desiree Street	Semi-Urban	Surface Treated	40	2	0.0572	5	L/R	100	6	0-49	42	44	49	5.8	9.2	77.2	Good					\$ 35,743.75	
203094	Churchill Avenue	Golf Course Road																								

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Traffic Count Legend		
241	Count from 2017 Traffic Count Program	
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Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)
203096	Collins Lane	Churchill Avenue	Fletcher Avenue	Semi-Urban	Surface Treated	40	2	0.0583	5	L/R	100	6	0-49	24	26	29	6.0	9.5	80.9	Good			Adequate	10.9		\$ 36,412.50
203011	Concession 1 Road	Side Road 20	Station Road	Rural	Surface Treated	80	2	0.0666	6	500	500	3	1000-1999	1174	1246	1377	6.0	8.3	70.6	Good	DST	\$ 4,793.04	6-10 Years	35.2	19.55	\$ 49,927.50
203161	Concession 1 Road	Daley Ditch Road	Peterson Road	Rural	Surface Treated	80	2	0.6264	6	500	500	3	1000-1999	1035	1099	1214	6.3	7.4	64.0	Fair	PDST	\$ 161,598.30	6-10 Years	41.8	5.89	\$ 469,762.50
203183	Concession 1 Road	Brawn Road	Side Road 20	Rural	Surface Treated	80	2	0.7597	6	500	500	3	1000-1999	1174	1389	1534	7.3	8.1	73.6	Good	DST	\$ 54,698.40	6-10 Years	32.4	19.55	\$ 569,775.00
203186	Concession 1 Road	Minor Road	Daley Ditch Road	Rural	Surface Treated	80	2	0.9735	6	400	400	4	500-999	934	991	1095	7.1	8.1	72.9	Good	DST	\$ 70,089.84	6-10 Years	30.7	14.32	\$ 730,102.50
203188	Concession 1 Road	Peterson Road	Brawn Road	Rural	Surface Treated	80	2	0.9055	6	500	500	3	1000-1999	968	1028	1135	6.8	7.3	64.8	Fair	PDST	\$ 233,606.10	6-10 Years	40.3	5.39	\$ 679,087.50
203216	Concession 1 Road	Burkett Road	Minor Road	Rural	Surface Treated	80	2	0.8863	6	500	500	3	1000-1999	790	1101	1216	7.2	6.7	61.3	Fair	PDST	\$ 228,660.24	6-10 Years	45.0	6.35	\$ 664,710.00
204484	Concession 1 Road	End of Road	Burkett Road	Rural	Gravel	80	2	1.7255	5	100	100	6	0-49		5	6	5.0	8.4	66.8	Fair			Adequate			\$ 949,008.50
202930	Concession 2 Road	Sider Road	Case Road	Rural	Gravel	80	2	0.8110	6.5	100	100	6	0-49	19	20	22	7.0	8.1	74.0	Good						\$ 579,886.45
202944	Concession 2 Road	Wainfleet Dunnville Townline Road	Sider Road	Rural	Gravel	80	2	0.4199	6.5	100	100	6	0-49	33	35	38	6.0	8.8	75.3	Good						\$ 300,199.90
202934	Concession 3 Road	Dixie Road	End of Road	Rural	Gravel	80	2	0.4916	6	100	100	6	0-49	14	15	17	6.0	8.1	69.7	Fair						\$ 324,449.40
202955	Concession 4 Road	Forks Road	Port Colborne Wainfleet Townline Road	Rural	Gravel	80	2	0.2847	5	100	100	6	0-49	22	24	26	5.0	8.2	64.9	Fair						\$ 156,596.00
203057	Concession 6 Road	Anderson Road	Conservation Drain Road	Rural	Surface Treated	80	2	0.2299	6	300	300	4	200-499	302	321	354	7.4	9.2	84.3	Good						\$ 172,447.50
203088	Concession 6 Road	Marshagan Road	Anderson Road	Rural	Surface Treated	80	2	1.4397	6	300	300	4	200-499	269	286	316	7.0	8.6	76.9	Good	DST	\$ 103,655.52	Adequate	19.6	3.52	\$ 1,079,745.00
203106	Concession 6 Road	Metler Road	Traver Road	Rural	Surface Treated	80	2	0.8206	6	300	300	4	200-499	319	339	374	6.2	7.8	66.5	Fair	DST	\$ 59,086.08	6-10 Years	29.5	6.05	\$ 615,480.00
203107	Concession 6 Road	Putman Road	Metler Road	Rural	Surface Treated	80	2	0.2277	6	300	300	4	200-499	316	336	371	6.1	8.0	67.7	Fair	DST	\$ 16,393.68	6-10 Years	28.4	5.78	\$ 170,767.50
203110	Concession 6 Road	Kilts Road	Putman Road	Rural	Surface Treated	80	2	0.5882	6	300	300	4	200-499	316	336	371	6.3	7.7	66.0	Fair	DST	\$ 42,349.68	6-10 Years	29.9	6.09	\$ 441,142.50
203117	Concession 6 Road	Perry Road	Kilts Road	Rural	Surface Treated	80	2	0.2359	6	300	300	4	200-499	316	336	371	6.5	8.1	70.6	Good	DST	\$ 16,982.64	6-10 Years	25.9	5.27	\$ 176,902.50
203120	Concession 6 Road	Conservation Drain Road	Side Road 44	Rural	Surface Treated	80	2	0.6016	6	300	300	4	200-499	302	321	354	7.0	8.3	74.9	Good	DST	\$ 43,315.20	6-10 Years	21.9	4.29	\$ 451,200.00
203131	Concession 6 Road	Side Road 44	Shafley Road North	Rural	Surface Treated	80	2	0.8224	6	400	400	4	200-499	388	411	455	6.3	7.6	65.0	Fair	DST	\$ 59,210.64	6-10 Years	32.3	7.68	\$ 616,777.50
203132	Concession 6 Road	Shafley Road North	Side Road 42	Rural	Surface Treated	80	2	0.2288	6	400	400	4	200-499	388	411	455	6.7	8.8	78.1	Good						\$ 171,585.00
203145	Concession 6 Road	Service Road 1	Wellandport Road	Rural	Surface Treated	80	2	0.1481	6	300	300	4	200-499	237	251	278	4.6	8.8	66.0	Fair	DST	\$ 10,665.36	6-10 Years	28.1	4.56	\$ 111,097.50
203146	Concession 6 Road	Side Road 42	Service Road 1	Rural	Surface Treated	80	2	0.5978	6	400	400	4	200-499	472	418	462	6.9	9.2	82.2	Good						\$ 448,357.50
203149	Concession 6 Road	Smith Road	Gracey Road	Rural	Surface Treated	80	2	0.2455	6	300	300	4	200-499	368	391	432	6.3	7.6	65.3	Fair	DST	\$ 17,673.84	6-10 Years	31.6	7.23	\$ 184,102.50
203150	Concession 6 Road	Gracey Road	Marr Road	Rural	Surface Treated	80	2	0.5949	6	300	300	4	200-499	282	299	330	6.7	7.2	63.7	Fair	PDST	\$ 153,476.46	6-10 Years	31.1	1.61	\$ 446,152.50
203217	Concession 6 Road	Dochstader Road	Smith Road	Rural	Surface Treated	80	2	0.5899	6	400	400	4	200-499	454	482	532	7.0	6.6	59.6	Fair	PDST	\$ 152,199.36	1-5 Years	38.7	2.90	\$ 442,440.00
203218	Concession 6 Road	Wellandport Road	Service Road 2	Rural	Surface Treated	80	2	0.0841	6	300	300	4	200-499	227	241	267	5.0	7.4	56.5	Fair	PDST	\$ 21,708.12	1-5 Years	35.6	1.56	\$ 63,105.00
203219	Concession 6 Road	Service Road 2	Dochstader Road	Rural	Surface Treated	80	2	0.8350	6	300	300	4	200-499	454	372	411	6.0	7.0	58.2	Fair	PDST	\$ 215,427.42	1-5 Years	37.6	2.31	\$ 626,242.50
203226	Concession 6 Road	Robertson Road	Perry Road	Rural	Surface Treated	80	2	0.5806	6	300	300	4	200-499	313	332	367	7.1	7.0	63.3	Fair	PDST	\$ 149,805.12	6-10 Years	32.3	1.82	\$ 435,480.00
203255	Concession 6 Road	Henderson Road	Robertson Road	Rural	Surface Treated	80	2	0.8348	6	300	300	4	200-499	298	316	349	6.9	8.8	78.8	Good						\$ 626,077.50
203256	Concession 6 Road	Marr Road	Henderson Road	Rural	Surface Treated	80	2	0.2399	6	300	300	4	200-499	282	299	330	7.1	6.7	60.3	Fair	PDST	\$ 61,889.04	6-10 Years	34.1	1.77	\$ 179,910.00
202896	Conlon Road	Feeder Road West	End of Road	Rural	Gravel	80	2	0.1431	5	100	100	6	0-49	5	5	6	6.0	8.5	73.4	Good						\$ 78,710.50
204485	Conservation Drain Road	Concession 6 Road	End of Road	Rural	Gravel	80	1	0.3729	3.6	100	100	6	0-49		5	6	5.0	8.8	69.6	Fair						\$ 147,664.44
202961	Daley Ditch Road	Concession 1 Road	Lakeshore Road	Rural	Gravel	80	2	1.8955	6.5	200	200	4	50-199	81	86	94	7.0	8.1	74.0	Good						\$ 1,355,296.80
203032	Daley Ditch Road	Concession 1 Road	Gibson Road	Rural	Surface Treated	80	2	1.0242	6	300	300	4	200-499	221	235	260	6.5	7.0	61.2	Fair	PDST	\$ 264,230.70	6-10 Years	31.6	1.36	\$ 768,112.50
203175	Daley Ditch Road	Abbey Road	Feeder Road West	Rural	Surface Treated	80	2	0.6453	6	200	200	4	50-199	129	137	151	7.4	6.7	61.3	Fair	PDST	\$ 166,495.14	6-10 Years	28.2	0.79	\$ 483,997.50
203176	Daley Ditch Road	Gibson Road	Abbey Road	Rural	Surface Treated	80	2	0.9564	6	300	300	4	200-499	221	235	260	6.5	6.7	57.9	Fair	PDST	\$ 246,761.52	1-5 Years	34.3	1.47	\$ 717,330.00
204486	Daley Ditch Road	Abbey Road	Abbey Road	Rural	Surface Treated	80	2	0.0353	6	300	300	4	200-499	221	235	260	6.0	7.6	63.9	Fair	PDST	\$ 9,107.40	6-10 Years	29.4	1.26	\$ 26,475.00
202950	Deeks Road North	Regional Road 27	End of Road	Rural	Gravel	80	2	0.4399	7	100	100	6	0-49	8	9	10	5.0	8.3	65.8	Fair						\$ 338,746.10
203087	Deeks Road South	Forks Road	Memme Court	Rural	Surface Treated	80	2	1.4499	6	200	200	4	50-199	85	90	100	6.3	7.2	62.0	Fair	PDST	\$ 374,076.78	6-10 Years	25.7	0.51	\$ 1,087,432.50
203275	Deeks Road South	Memme Court	Lambert Road	Rural	Surface Treated	80	2	0.5929	6	200	200	4	50-199	95	182	201	6.5	8.4	73.9	Good	DST	\$ 42,685.92	6-10 Years	20.2	2.54	\$ 444,645.00
203122	Desiree Street	Churchill Avenue	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.1276	5	L/R	100	6	0-49	24	26	29	5.5	9.1	74.9	Good	DST	\$ 7,654.20	6-10 Years	14.3	0.42	\$ 79,731.25
202905	Dixie Road	Feeder Road East	End of Road	Rural	Gravel	80	2	0.1728	6.5	200	200	4	50-199	63	67	74	6.5	8.5	75.8	Good						\$ 123,523.40
202922	Dixie Road	Garringer Road	Highway 3	Rural	Gravel	80	2	2.0303	6.5	200	200	4	50-199	185	82	91	7.0	8.8	79.6	Good						\$ 1,451,643.05
202923	Dixie Road	Concession 3 Road	Garringer Road	Rural	Gravel	80	2	1.9442	6.5	200	200	4	50-199	63	67	74	7.0	8.4	76.8	Good						\$ 1,390,095.85
204487	Dochstader Road	Concession 6 Road	End of Road	Rural	Gravel	80	2	0.8308	5.5	100	100	6	0-49		10	11	5.0	8.2	64.9	Fair						\$ 502,603.75
203098	Dreamland Avenue	Lakeshore Road	End of Road	Rural	Surface Treated	50	2	0.0987	5	100	100	6	0-49	12	13	14	6.2	8.5	73.2	Good	DST	\$ 5,922.00	6-10 Years	14.5	0.22	\$ 61,687.50
203253	Elizabeth Crescent	End of Road	Burnaby Road	Semi-Urban	Surface Treated	50	2	0.2879	5.5	L/R	100	6	0-49	38	40	44	4.0	6.7	42.1	Poor	PDST	\$ 68,090.72	NOW	34.6	0.38	\$ 197,938.13
203243	Elsworth Road North	End of Road	Highway 3	Rural	Surface Treated	50	2	0.3185	5.5	100	100	6	0-49	36	38	42	3.9	6.1	36.6	Very Poor	BSST	\$ 82,329.67	NOW	37.7	0.75	\$ 218,961.88
202965	Elsworth Road South	Lakeshore Road	End of Road	Rural	Gravel	80	2	0.2424	5.5	100	100	6	0-49	8	9	10	6.0	8.8	75.3	Good						\$ 146,670.15
202978	Elsie Road	Regional Road 27	End of Road	Rural	Gravel	80	2	0.4999	7	100	100	6	0-49	5	5	6	6.5	8.2	72.9	Good						\$ 384,938.40
204488	Emerson Road	Bell Road	End of Road	Rural	Gravel	80	2	0.4125	4.5	100	100	6	0-49		5	6	4.0	6.8	44.1	Poor						\$ 204,197.40

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1389	Count from 2023 Traffic Count Program	
389	Interpolated Traffic Count	

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)	
203082	Feeder Road West	Akins Road	Pettit Road	Rural	Surface Treated	80	2	0.0330	7	500	500	3	1000-1999	1262	1339	1480	6.5	7.6	65.9	Fair	PDST	9,923.97	6-10 Years	41.6	5.83	28,848.75	
203112	Feeder Road West	Clarendon Street West	Akins Road	Rural	Surface Treated	80	2	0.2438	6.5	500	500	3	1000-1999	1262	1339	1480	6.5	8.1	70.9	Good	DST	19,012.50	6-10 Years	35.5	19.20	198,046.88	
203115	Feeder Road West	Daley Ditch Road	Side Road 22	Rural	Surface Treated	80	2	1.5902	6.5	500	500	3	1000-1999	917	1314	1451	6.0	7.4	62.6	Fair	PDST	444,458.11	6-10 Years	45.4	6.76	1,292,029.38	
203121	Feeder Road West	Wainfleet Dunnville Townline Road	Conlon Road	Rural	Surface Treated	80	2	0.7865	6.5	500	500	3	1000-1999	1282	1761	1945	6.0	7.0	58.6	Fair	PDST	219,837.93	1-5 Years	54.0	10.02	639,063.75	
203163	Feeder Road West	Pettit Road	Burkett Road	Rural	Surface Treated	80	2	0.8704	7	500	500	3	1000-1999	1314	1395	1541	6.5	7.8	68.2	Fair	DST	73,111.92	6-10 Years	39.1	20.27	761,582.50	
203164	Feeder Road West	Clarendon Street West	Daley Ditch Road	Rural	Surface Treated	80	2	0.5293	6.5	500	500	3	1000-1999	980	1041	1149	6.0	7.7	64.9	Fair	PDST	147,947.74	6-10 Years	40.2	5.02	430,080.63	
203169	Feeder Road West	Burkett Road	Clarendon Street West	Rural	Surface Treated	80	2	1.4019	7	500	500	3	1000-1999	1043	1107	1222	7.0	7.9	70.9	Good	DST	117,757.08	6-10 Years	33.9	14.73	1,226,636.25	
203199	Feeder Road West	Side Road 20	Highway 3	Semi-Urban	Surface Treated	50	2	0.2323	6	L/R	500	4	1000-1999	1244	1651	1824	5.3	7.4	58.1	Fair	PDST	59,933.40	1-5 Years	53.8	10.31	174,225.00	
203205	Feeder Road West	Side Road 22	Side Road 20	Rural	Surface Treated	80	2	0.8916	6	500	500	3	1000-1999	1080	1147	1267	6.6	8.8	77.3	Good			Adequate	26.6		668,722.50	
203095	First Street	Morgans Point Road	Neff Street	Semi-Urban	Surface Treated	40	2	0.0583	6.5	L/R	100	6	0-49	43	45	50	5.5	9.2	75.6	Good				Adequate	14.8		47,401.25
203140	Flanagan Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0802	6	200	200	4	50-199	153	162	179	6.5	7.5	65.6	Fair	DST	149,772.24	6-10 Years	26.0	2.98	1,560,127.50	
203215	Flanagan Road	Flanagan Road	Bell Road	Rural	Surface Treated	80	2	1.1701	6.5	200	200	4	50-199	161	171	189	6.3	6.5	55.3	Fair	PDST	327,045.75	1-5 Years	34.1	1.05	950,714.38	
203103	Fletcher Avenue	Golf Course Road	Collins Lane	Semi-Urban	Surface Treated	40	2	0.2327	5	L/R	100	6	0-49	41	43	48	6.0	8.9	75.6	Good				Adequate	14.7		145,418.75
203054	Fowler Road	Morgans Point Road	Lakefield Crescent	Rural	Surface Treated	40	2	0.1678	4.5	200	200	5	50-199	47	50	55	6.3	8.5	73.3	Good	DST	9,061.74	6-10 Years	16.4	0.94	94,393.13	
203125	Fowler Road	Second Street	Fowler Road	Semi-Urban	Surface Treated	40	2	0.5650	4.5	L/R	200	5	50-199	47	50	55	6.6	8.3	73.0	Good	DST	30,511.62	6-10 Years	16.6	0.96	317,829.38	
203159	Fowler Road	Lakefield Crescent	Fowler Road	Rural	Surface Treated	40	2	0.1138	4.5	200	200	5	50-199	47	50	55	6.5	8.2	71.6	Good	DST	6,145.20	6-10 Years	17.5	1.01	64,012.50	
202981	Freeman Road	Deeks Road South	End of Road	Rural	Gravel	80	1	0.1215	3.5	100	100	6	0-49	5	5	6	6.5	8.4	74.8	Good				Adequate			46,785.20
203233	Gallinger Street	Brawn Road	Erie Street	Rural	Surface Treated	60	2	0.2403	6	200	200	5	50-199	59	63	69	6.3	8.0	69.0	Fair	DST	17,301.60	6-10 Years	19.7	1.04	180,225.00	
203278	Gallinger Street	Erie Street	End of Road	Rural	Surface Treated	60	2	0.1204	6	100	100	6	0-49	5	5	6	5.6	8.0	65.8	Fair	DST	8,665.92	6-10 Years	17.8	0.10	90,270.00	
202918	Garringer Road	Rattler Road	Willson Road	Rural	Gravel	80	2	0.8176	7	200	200	4	50-199	112	119	132	6.0	8.2	70.6	Good				Adequate			629,544.30
202957	Garringer Road	Malowany Road	Rattler Road	Rural	Gravel	80	2	0.8617	7	200	200	4	50-199	83	88	97	7.0	8.8	79.6	Good				Adequate			663,493.60
203162	Garringer Road	Dixie Road	Malowany Road	Rural	Surface Treated	80	2	0.8141	6	200	200	4	50-199	152	161	178	7.3	7.8	71.0	Good	DST	58,613.76	6-10 Years	21.9	2.50	610,560.00	
203238	Garringer Road	Highway 3	Dixie Road	Rural	Surface Treated	80	2	0.8441	6	300	300	4	200-499	198	210	232	7.4	7.0	64.6	Fair	PDST	217,788.12	6-10 Years	28.1	1.11	633,105.00	
203245	Gents Road	Forks Road	Willford Road	Rural	Surface Treated	80	2	2.1278	6	100	100	6	0-49	84	36	40	4.5	5.4	34.6	Very Poor	RECST	1,595,850.00	NOW	38.6	0.25	1,595,850.00	
204491	Gibson Road	End of Road	Daley Ditch Road	Rural	Gravel	80	2	0.4842	5.5	100	100	6	0-49		10	11	5.5	7.9	65.2	Fair				Adequate			292,928.90
202958	Gilmore Road	Bell Road	Clarendon Street West	Rural	Gravel	80	2	1.5382	6.5	100	100	6	0-49	40	42	47	6.5	8.4	74.8	Good				Adequate			1,099,834.45
202977	Gilmore Road	Highway 3	Bell Road	Rural	Gravel	80	2	2.0736	6.5	100	100	6	0-49	38	40	44	7.0	8.3	75.9	Good				Adequate			1,482,624.00
203093	Golf Course Road	Harbourview Road	Lakeshore Road	Rural	Surface Treated	80	2	0.0963	6	500	500	3	1000-1999	1438	1527	1687	6.0	8.6	72.6	Good	DST	6,935.04	6-10 Years	34.5	22.34	72,240.00	
204492	Golf Course Road	Fletcher Avenue	Lakeshore Road	Rural	Surface Treated	80	2	0.1776	6.5	500	500	3	1000-1999	1438	1527	1687	5.0	7.9	61.2	Fair	PDST	49,642.00	6-10 Years	48.9	8.15	144,308.13	
204493	Golf Course Road	Churchill Avenue	Fletcher Avenue	Rural	Surface Treated	80	2	0.0940	7	500	500	3	1000-1999	1438	1527	1687	5.0	8.1	62.5	Fair	PDST	28,303.03	6-10 Years	47.2	7.31	82,276.25	
204494	Golf Course Road	Churchill Avenue	Churchill Avenue	Rural	Surface Treated	80	2	0.0220	7	500	500	3	1000-1999	1438	1527	1687	5.0	8.2	63.5	Fair	PDST	6,628.02	6-10 Years	45.9	7.11	19,267.50	
204495	Golf Course Road	Lakeshore Road	Highway 3	Rural	Surface Treated	60	2	1.8118	6.5	500	500	4	1000-1999	1438	1644	1816	5.0	7.6	57.8	Fair	PDST	506,409.28	1-5 Years	54.0	9.53	1,472,120.00	
202895	Gracey Road	Old River Road West	Regional Road 27	Rural	Gravel	80	2	0.2952	6	100	100	6	0-49	29	30	33	7.0	8.8	79.6	Good				Adequate			194,799.00
202956	Gracey Road	Old River Road West	End of Road	Rural	Gravel	80	2	0.1531	6	100	100	6	0-49	5	5	6	7.0	8.8	79.6	Good				Adequate			101,032.80
202959	Gracey Road	Regional Road 27	Concession 6 Road	Rural	Gravel	80	2	2.0810	6.5	200	200	4	50-199	68	73	80	7.0	7.4	67.4	Fair				Adequate			1,487,943.60
203252	Graybiel Road	Highway 3	End of Road	Rural	Surface Treated	80	2	0.7643	6	100	100	6	0-49	16	17	19	5.1	4.6	31.5	Very Poor	BSST	215,518.50	NOW	37.7	0.34	573,187.50	
202948	Green Road North	Regional Road 27	End of Road	Rural	Gravel	80	2	0.5460	7	100	100	6	0-49	12	13	14	5.0	8.2	64.9	Fair				Adequate			420,396.90
203144	Green Road South	Forks Road	Lambert Road	Rural	Surface Treated	80	2	1.9701	6	300	300	4	200-499	211	224	247	7.1	7.3	66.3	Fair	DST	141,849.36	6-10 Years	27.2	4.03	1,477,597.50	
203091	Harbourview Road	End of Road	Lakeshore Road	Semi-Urban	Asphalt	40	2	1.0835	5	L/R	300	5	200-499	270	287	317	7.0	8.9	81.4	Good				Adequate	15.8		1,083,494.30
203223	Hendershot Road	Wainfleet Dunnville Townline Road	Highway 3	Rural	Surface Treated	80	2	1.7566	7	300	300	4	200-499	238	252	279	5.0	6.4	47.5	Poor	PDST	528,727.57	1-5 Years	43.4	1.69	1,536,998.75	
202951	Henderson Road	Old River Road West	Concession 6 Road	Rural	Gravel	80	2	2.1418	6.5	100	100	6	0-49	16	17	19	6.5	8.2	72.9	Good				Adequate			1,531,351.25
203221	Hewitt Road	Regional Road 27	Lambert Road	Rural	Surface Treated	80	2	0.4900	6	400	400	4	500-999	592	722	798	5.5	7.9	64.2	Fair	PDST	126,409.68	6-10 Years	37.6	3.84	367,470.00	
203242	Hewitt Road	Forks Road	Lambert Road	Rural	Surface Treated	80	2	2.0070	6	400	400	4	500-999	520	510	563	6.9	6.7	60.2	Fair	PDST	517,811.16	6-10 Years	38.6	3.02	1,505,265.00	
203251	Hill Avenue	Bellevue Beach Road	End of Road	Semi-Urban	Surface Treated	40	2	0.4288	4	L/R	100	6	0-49	43	45	50	5.2	5.6	41.1	Poor	RECST	214,400.00	NOW	35.8	0.43	214,400.00	
203128	Hock Road	Sandel Road	Walnut Hill Road	Semi-Urban	Surface Treated	50	2	0.2026	4	L/R	100	6	0-49	39	41	45	5.5	8.0	65.2	Fair	DST	9,722.88	6-10 Years	20.9	1.14	101,280.00	
202933	Ingram Road	Feeder Road East	End of Road	Rural	Gravel	80	2	0.1939	5	100	100																

Township of Wainfleet
Road Inventory and Assessment

ALL ROADS

Traffic Count Legend		
241	Count from 2017 Traffic Count Program	
1389	Count from 2023 Traffic Count Program	
389	Interpolated Traffic Count	

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)
204501	Lakeshore Road	Dreamland Avenue	Summerland Avenue	Rural	Surface Treated	60	2	0.0895	6	400	400	4	500-999		981	1084	6.0	9.3	79.6	Good			Adequate	23.1		\$ 67,132.50
204502	Lakeshore Road	Summerland Avenue	Bellevue Beach Road	Rural	Surface Treated	60	2	0.7002	6	500	500	4	1000-1999		1999	2208	7.0	9.1	81.9	Good			Adequate	24.3		\$ 525,120.00
204503	Lakeshore Road	Bellevue Beach Road	Morgans Point Road	Rural	Surface Treated	60	2	0.7946	7	500	500	4	1000-1999		1673	1848	6.7	8.9	78.7	Good			Adequate	27.4		\$ 695,283.75
203041	Lakeshore Road (Spur)	Lakeshore Road	Harbourview Road	Rural	Surface Treated	80	2	0.0834	6	500	500	3	1000-1999	1610	1709	1888	6.0	8.9	75.2	Good	DST	\$ 6,006.96	Adequate	32.0	22.57	\$ 62,572.50
203147	Lambert Road	O'Reillys Road South	Green Road South	Rural	Surface Treated	80	2	0.8298	7	400	400	4	200-499	359	433	478	6.5	7.5	65.6	Fair	DST	\$ 69,704.88	6-10 Years	32.1	6.82	\$ 726,092.50
203197	Lambert Road	Green Road South	Phillips Road	Rural	Surface Treated	80	2	0.8618	7	400	400	4	500-999	572	607	671	6.5	7.8	68.2	Fair	DST	\$ 72,392.04	6-10 Years	32.1	8.82	\$ 754,083.75
203207	Lambert Road	Tunnaclyffe Road South	Deeks Road South	Rural	Surface Treated	80	2	0.8434	7	300	300	4	200-499	264	280	310	6.0	7.6	64.2	Fair	DST	\$ 70,846.44	6-10 Years	30.3	4.58	\$ 737,983.75
203208	Lambert Road	Hewitt Road	Tunnaclyffe Road South	Rural	Surface Treated	80	2	0.8361	7	300	300	4	200-499	206	219	242	6.0	7.7	64.6	Fair	DST	\$ 70,235.76	6-10 Years	28.4	3.54	\$ 731,622.50
203214	Lambert Road	Deeks Road South	O'Reillys Road South	Rural	Surface Treated	80	2	0.8439	7	300	300	4	200-499	258	306	338	6.5	7.3	63.6	Fair	PDST	\$ 254,001.86	6-10 Years	31.4	1.42	\$ 738,377.50
202984	Lattimore Road	Clarendon Street West	End of Road	Rural	Gravel	80	1	0.2134	3.5	100	100	6	0-49	5	5	6	5.5	8.4	69.8	Fair			Adequate			\$ 82,170.55
203116	Lee Street	Clarendon Street East	Napoleon Street	Semi-Urban	Asphalt	50	2	0.0715	9	L/R	200	5	50-199	160	170	188	6.0	8.9	76.6	Good			Adequate	17.8		\$ 128,702.85
203265	Lee Street	Mill Race Road	Mill Race Road	Semi-Urban	Asphalt	50	2	0.1215	6	L/R	200	5	50-199	160	170	188	4.0	6.4	38.4	Very Poor	RNS	\$ 145,799.44	NOW	46.9	0.70	\$ 145,799.44
203246	Malowany Road	Carringer Road	Feeder Road East	Rural	Surface Treated	80	2	2.4338	6	300	300	4	200-499	196	208	230	6.0	6.7	55.9	Fair	PDST	\$ 627,910.08	1-5 Years	35.0	1.36	\$ 1,825,320.00
203104	Maple Road	End of Road	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.1167	5	L/R	100	6	0-49	12	13	14	6.0	8.9	75.9	Good			Adequate	13.0		\$ 72,906.25
203266	Maplewood Drive	Quarry Road	End of Road	Semi-Urban	Asphalt	40	2	0.4121	6	L/R	200	5	50-199	57	61	67	6.2	9.5	83.0	Good			Adequate	10.8		\$ 494,502.11
202936	Marr Road	Concession 6 Road	Willford Road	Rural	Gravel	80	2	2.0669	6.5	200	200	4	50-199	42	44	49	6.5	8.3	73.9	Good			Adequate			\$ 1,477,819.20
203254	Marr Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0762	6	200	200	4	50-199	72	77	85	4.6	6.5	45.3	Poor	PDST	\$ 535,667.34	1-5 Years	35.9	0.63	\$ 1,557,172.50
204504	Marshagan Road	Regional Road 45	End of Road	Rural	Gravel	80	1	0.1785	3.6	100	100	6	0-49		5	6	4.5	8.8	66.0	Fair			Adequate			\$ 70,666.20
203248	Marshville Drive	Highway 3	End of Road	Rural	Asphalt	50	2	0.3634	5	100	100	6	0-49	17	18	20	8.0	10.0	94.9	Very Good			Adequate	2.8		\$ 363,420.00
204505	Memme Court	Deeks Road South	End of Road	Semi-Urban	Surface Treated	UNK	2	0.6464	8	L/R	100	6	0-49		25	28	6.6	8.8	77.3	Good			Adequate	12.9		\$ 646,390.00
202949	Metler Road	Old River Road East	End of Road	Rural	Gravel	80	2	0.4807	6.5	100	100	6	0-49	19	21	23	6.0	8.2	70.6	Good			Adequate			\$ 343,664.75
202974	Metler Road	Regional Road 27	Concession 6 Road	Rural	Gravel	80	2	1.3351	6.5	100	100	6	0-49	19	21	23	6.5	8.5	75.8	Good			Adequate			\$ 954,610.80
203257	Metler Road	Regional Road 27	Old River Road East	Rural	Surface Treated	80	2	0.2810	6	100	100	6	0-49	19	21	23	5.0	6.3	38.8	Very Poor	BSST	\$ 79,236.36	NOW	34.1	0.36	\$ 210,735.00
203071	Mill Race Road	Lee Street	Church Street	Semi-Urban	Surface Treated	50	2	0.0463	7	L/R	300	5	200-499	217	231	255	5.2	7.8	61.4	Fair	PDST	\$ 13,942.32	6-10 Years	31.3	1.13	\$ 40,530.00
203170	Mill Race Road	Church Street	Bulling Road	Rural	Surface Treated	50	2	1.1799	6	300	300	5	200-499	217	231	255	5.8	8.0	66.2	Fair	DST	\$ 84,951.36	6-10 Years	27.4	4.16	\$ 884,910.00
203210	Mill Race Road	Bulling Road	Forks Road	Rural	Surface Treated	50	2	1.3069	6	300	300	5	200-499	288	305	337	5.8	7.8	64.6	Fair	PDST	\$ 337,169.88	6-10 Years	30.6	1.61	\$ 980,145.00
203232	Mill Race Road	Lee Street	Highway 3	Semi-Urban	Surface Treated	50	2	0.1243	7	L/R	300	5	200-499	242	257	284	5.2	7.7	60.1	Fair	PDST	\$ 37,426.34	6-10 Years	33.1	1.31	\$ 108,797.50
202907	Minor Road	Concession 1 Road	Mittlestaedt Road	Rural	Gravel	80	2	0.8146	6.5	200	200	4	50-199	62	66	73	6.0	8.1	69.2	Fair			Adequate			\$ 582,410.40
203174	Minor Road	Lakeshore Road	Driveway	Rural	Surface Treated	80	2	0.2860	6	200	200	4	50-199	62	66	73	4.5	6.1	41.6	Poor	BSST	\$ 80,654.82	NOW	37.5	1.10	\$ 214,507.50
204471	Minor Road	Mittlestaedt Road	Driveway #12822	Rural	Gravel	80	2	0.6610	6.5	200	200	4	50-199	62	66	73	6.0	8.1	69.7	Fair			Adequate			\$ 472,600.70
203195	Misener Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0533	6	200	200	4	50-199	84	89	98	6.2	7.4	63.5	Fair	PDST	\$ 529,746.24	6-10 Years	24.6	0.48	\$ 1,539,960.00
202939	Mittlestaedt Road	Minor Road	End of Road	Rural	Gravel	80	2	0.4235	6.5	100	100	6	0-49	8	9	10	5.5	8.4	69.8	Fair			Adequate			\$ 302,795.35
203260	Moore Road North	End of Road	Highway 3	Rural	Surface Treated	50	2	0.5192	5	100	100	6	0-49	8	9	10	6.0	9.3	79.6	Good			Adequate	10.8		\$ 324,500.00
203123	Moore Road South	End of Road	Lakeshore Road	Rural	Surface Treated	80	2	0.5850	6	100	100	6	0-49	20	22	24	7.0	8.4	75.9	Good			Adequate	13.5		\$ 438,780.00
203038	Morgans Point Road	First Street	Second Street	Rural	Surface Treated	40	2	0.0781	5.5	300	300	5	200-499	306	325	359	6.0	9.0	76.2	Good			Adequate	20.8		\$ 53,714.38
203040	Morgans Point Road	End of Road	First Street	Rural	Surface Treated	40	2	0.4044	5.5	200	200	5	50-199	144	153	169	6.3	8.9	77.3	Good			Adequate	16.9		\$ 277,990.63
203043	Morgans Point Road	Second Street	Cook Lane	Rural	Surface Treated	40	2	0.1061	6	300	300	5	200-499	306	325	359	6.2	8.9	76.5	Good			Adequate	20.5		\$ 79,567.50
203137	Morgans Point Road	Cook Lane	Fowler Road	Rural	Surface Treated	40	2	0.3675	6	300	300	5	200-499	306	325	359	6.8	8.8	78.1	Good			Adequate	19.1		\$ 275,632.50
203165	Morgans Point Road	Fowler Road	Lakeshore Road	Rural	Surface Treated	40	2	0.6510	6	400	400	5	500-999	492	522	577	6.5	7.6	65.9	Fair	DST	\$ 46,870.56	6-10 Years	33.2	9.50	\$ 488,235.00
202898	Morog Road	Feeder Road East	Forks Road	Rural	Gravel	80	2	0.2722	5	100	100	6	0-49	24	26	29	6.0	8.4	72.5	Good			Adequate			\$ 149,688.00
202927	Morog Road	Forks Road	End of Road	Rural	Gravel	80	2	1.3178	5	100	100	6	0-49	5	5	6	6.0	7.6	65.0	Fair			Adequate			\$ 724,779.00
203247	Napoleon Street	Highway 3	Lee Street	Semi-Urban	Asphalt	50	2	0.1052	6.5	L/R	200	5	50-199	57	61	67	4.5	6.9	47.3	Poor	RNS	\$ 136,774.81	NOW	33.4	0.20	\$ 136,774.81
203250	Napoleon Street	Lee Street	End of Road	Semi-Urban	Asphalt	50	2	0.0686	5	L/R	200	5	50-199	160	170	188	2.7	6.7	22.6	Very Poor	RNS	\$ 68,640.00	NOW	59.0	1.06	\$ 68,640.00
203037	Neff Street	End of Road	First Street	Semi-Urban	Surface Treated	40	2	0.0796	5	L/R	100	6	0-49	6	6	7	6.0	9.4	80.6	Good			Adequate	10.1		\$ 49,743.75
203045	Neff Street	First Street	Second Street	Semi-Urban	Surface Treated	40	2	0.0429	5	L/R	100	6	0-49	35	37	41	5.5	9.4	77.6	Good			Adequate	13.3		\$ 26,812.50
203225	Neff Street	Second Street	End of Road	Semi-Urban	Surface Treated	40	2	0.3955	5	L/R	200	5	50-199	49	52	57	5.2	8.1	64.4	Fair	PDST	\$ 85,032.50	6-10 Years	22.0	0.33	\$ 247,187.50
203019	Old Lakeshore Road West	Old Lakeshore Road East	Lakeshore Road	Semi-Urban	Surface Treated	80	2	0.0418	6	L/R	100	6	0-49	24	26	29	5.5	8.0	64.6	Fair	DST	\$ 10,774.08	6-10 Years	20.2	0.14	\$ 31,320.00
203119	Old Lakeshore Road West	End of Road	Old Lakeshore Road East	Semi-Urban	Surface Treated	10	2	0.1423	6	L/R	100	6	0-49	24	26	29	6.4	8.9	77.4	Good			Adequate	12.9		\$ 106,732.50
202937	Old River Road East	Driveway #82841	Regional Road 27	Rural	Gravel	80	2	0.9217	6	100	100	6	0-49	31	32	36	6.0	8.2	70.6	Good			Adequate			\$ 608,302.20
202940	Old River Road East	Metler Road	Boyle Road	Rural	Gravel	80	2	0.8794	5	100	100	6	0-49	31	32	36	6.0	8.2	70.6	Good			Adequate			\$ 483,659.00
204473	Old River Road East	Driveway	Metler Road	Rural	Surface Treated	80	2	0.3884	6	100	100	6	0-49	42	45	49	6.9	7.9	70.5	Good	DST	\$ 27,964.80	6-10 Years	17.9	0.70	\$ 291,300.00
203124	Old River Road West	Gracey Road	Henderson Road	Rural	Surface Treated	80	2	0.9168	6	200	200	4	50-199	54	57	63	6.9	7.7	69.2	Fair	DST	\$ 66,008.16	6-10 Years	19.3	0.94	\$ 687,585.00
203156	Old River Road West	Regional Road 27	Gracey Road	Rural	Surface Treated	80	2	0.5533	6	200	200	4	50-199	54	57	63	6.6	7.6	66.3	Fair	DST	\$ 39,836.88	6-			

Township of Wainfleet
Road Inventory and Assessment

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Traffic Count Legend		
241	Count from 2017 Traffic Count Program	
1389	Count from 2023 Traffic Count Program	
389	Interpolated Traffic Count	

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)
203271	Phillips Road	Forks Road	Lambert Road	Rural	Surface Treated	80	2	2.0885	6.5	200	200	4	50-199	185	196	217	6.5	7.5	65.2	Fair	DST	\$ 162,902.22	6-10 Years	27.3	3.36	\$ 1,696,898.13
202911	Port Colborne Wainfleet Townline Road North	Concession 4 Road	End of Road	Rural	Gravel	80	2	1.3240	6	100	100	6	0-49	22	24	26	6.0	8.2	70.6	Good					\$ 873,826.80	
202912	Port Colborne Wainfleet Townline Road North	Forks Road	Concession 4 Road	Rural	Gravel	80	2	0.0588	6	100	100	6	0-49	7	8	8	6.0	8.2	70.6	Good					\$ 38,821.20	
203261	Port Colborne Wainfleet Townline Road South	Highway 3	End of Road	Rural	Surface Treated	80	2	0.4260	6	200	200	4	50-199	75	80	89	7.0	9.6	85.9	Very Good				9.3	\$ 319,477.50	
203141	Priestman Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0626	6	200	200	4	50-199	129	136	151	6.9	8.1	72.8	Good	DST	\$ 148,505.76	6-10 Years	19.8	1.98	\$ 1,546,935.00
202975	Putman Road	Willford Road	Highway 3	Rural	Gravel	80	2	2.0747	6	100	100	6	0-49	33	35	38	7.0	8.1	74.0	Good					\$ 1,369,288.80	
203198	Putman Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.0560	6	200	200	4	50-199	80	84	93	6.7	7.8	68.7	Fair	DST	\$ 148,029.84	6-10 Years	20.9	1.41	\$ 1,541,977.50
203026	Quarry Road	Lakeshore Road	Woodland Drive	Rural	Asphalt	60	2	0.0686	7	400	400	5	200-499	424	450	498	7.0	9.4	86.1	Very Good					\$ 96,096.54	
203039	Quarry Road	Woodland Drive	Maplewood Drive	Rural	Asphalt	60	2	0.1123	7	400	400	5	200-499	424	450	498	6.8	9.5	85.9	Very Good					\$ 157,257.40	
203097	Quarry Road	Maplewood Drive	Highway 3	Rural	Asphalt	60	2	1.2469	7	400	400	4	500-999	634	673	743	7.7	9.1	85.7	Very Good					\$ 1,745,644.05	
203222	Rathfon Road	Lakeshore Road	Highway 3	Rural	Surface Treated	60	2	1.7330	6	400	400	4	500-999	500	531	586	7.0	7.1	63.9	Fair	PDST	\$ 447,116.58	6-10 Years	35.3	2.85	\$ 1,299,757.50
203228	Rathfon Road	End of Road	Lakeshore Road	Rural	Asphalt	60	2	0.0613	5	400	400	4	500-999	500	531	586	6.0	9.5	82.5	Good					\$ 61,280.00	
204507	Rathfon Road	Lakeshore Road	Lakeshore Road	Rural	Surface Treated	40	2	0.0846	7	500	500	5	1000-1999	1235	1311	1449	5.0	8.4	65.2	Fair	PDST	\$ 25,461.59	6-10 Years	42.3	5.83	\$ 74,016.25
203239	Rattler Road	Highway 3	Driveway	Rural	Surface Treated	80	2	0.6467	6	200	200	4	50-199	108	115	127	6.4	6.7	57.8	Fair	PDST	\$ 166,851.18	1-5 Years	29.8	0.72	\$ 485,032.50
204472	Rattler Road	Driveway #21231	Garringer Road	Rural	Gravel	80	2	1.3894	6.5	200	200	4	50-199	108	115	127	7.0	9.1	82.4	Good					\$ 993,435.30	
202909	Reeb Road	Highway 3	End of Road	Rural	Gravel	80	1	0.2212	4	100	100	6	0-49	6	6	7	6.0	8.8	75.3	Good					\$ 97,319.20	
202970	Robertson Road	Regional Road 27	Concession 6 Road	Rural	Gravel	80	2	2.2049	6.5	100	100	6	0-49	40	42	47	6.0	8.5	73.4	Good					\$ 1,576,489.20	
203127	Sandel Road	Hock Road	Lakeshore Road	Semi-Urban	Surface Treated	50	2	0.0705	4	L/R	100	6	0-49	39	41	45	6.0	9.2	78.6	Good				12.9	\$ 35,260.00	
203100	Schooley Road	Lakeshore Road	End of Road	Semi-Urban	Surface Treated	80	2	0.1507	6	L/R	100	6	0-49	24	26	29	5.7	8.1	66.7	Fair	DST	\$ 10,848.24	6-10 Years	19.0	0.46	\$ 113,002.50
203046	Second Street	Morgans Point Road	Fowler Road	Semi-Urban	Surface Treated	40	2	0.0326	5	L/R	200	5	50-199	47	50	55	6.0	9.0	76.9	Good					\$ 20,387.50	
203113	Second Street	Fowler Road	Neff Street	Semi-Urban	Surface Treated	40	2	0.0587	5	L/R	200	5	50-199	47	50	55	6.0	9.0	76.9	Good					\$ 36,656.25	
203172	Service Road 1	Wellandport Road	Concession 6 Road	Rural	Surface Treated	80	2	0.2253	6.5	300	300	4	200-499	237	251	278	6.5	8.9	77.9	Good					\$ 183,015.63	
203182	Service Road 2	Wellandport Road	Wellandport Road	Rural	Surface Treated	80	2	0.1490	6	300	300	4	200-499	227	241	267	5.0	7.4	56.8	Fair	PDST	\$ 38,442.00	1-5 Years	35.4	1.55	\$ 111,750.00
202982	Shafley Road North	Concession 6 Road	End of Road	Rural	Gravel	80	1	0.1371	4.5	100	100	6	0-49	5	5	6	5.0	8.4	66.8	Fair					\$ 67,869.45	
202963	Shafley Road South	Willford Road	Highway 3	Rural	Gravel	80	2	1.7241	6.5	100	100	6	0-49	27	28	31	6.0	8.5	73.4	Good					\$ 1,232,710.05	
204508	Shields Road	Forks Road	End of Road	Rural	Gravel	80	2	0.1569	5.5	100	100	6	0-49	5	5	6	6.0	8.4	72.5	Good					\$ 94,936.60	
203213	Side Road 18	Lakeshore Road	End of Road	Rural	Surface Treated	80	2	0.4840	5	100	100	6	0-49	33	35	38	6.3	7.3	63.0	Fair	DST	\$ 104,051.40	6-10 Years	21.8	0.23	\$ 302,475.00
202908	Side Road 20	Driveway #32068	Abbey Road	Rural	Gravel	80	2	0.9044	7	200	200	4	50-199	134	142	157	6.0	9.2	79.1	Good					\$ 696,403.40	
202921	Side Road 20	Abbey Road	Concession 1 Road	Rural	Gravel	80	2	2.0186	7	200	200	4	50-199	75	80	89	6.5	7.9	70.1	Good					\$ 1,554,298.90	
203236	Side Road 20	Park Street	Feeder Road West	Rural	Surface Treated	40	2	0.0778	6	200	200	5	50-199	96	102	112	5.0	6.2	45.5	Poor	PDST	\$ 20,059.50	1-5 Years	37.6	0.83	\$ 58,312.50
204474	Side Road 20	Driveway #32068	Park Street	Rural	Surface Treated	80	2	0.5267	6	200	200	4	50-199	134	156	172	5.5	7.4	59.9	Fair	PDST	\$ 135,888.60	1-5 Years	30.0	0.93	\$ 395,025.00
202920	Side Road 22	Feeder Road West	Abbey Road	Rural	Gravel	80	2	1.1969	7	100	100	6	0-49	19	20	22	5.5	7.6	62.3	Fair					\$ 921,574.50	
202980	Side Road 42	Regional Road 45	Concession 6 Road	Rural	Gravel	80	2	1.9404	5.5	200	200	4	50-199	44	47	51	6.0	7.6	65.0	Fair					\$ 1,173,948.05	
202943	Side Road 44	Concession 6 Road	Willford Road	Rural	Gravel	80	2	2.0610	6.5	100	100	6	0-49	37	39	43	6.0	8.0	68.8	Fair					\$ 1,473,600.70	
202962	Side Road 44	Willford Road	End of Road	Rural	Gravel	80	2	0.3103	6.5	100	100	6	0-49	37	39	43	5.5	8.5	70.8	Good					\$ 221,893.10	
202952	Sider Road	Bell Road	Concession 2 Road	Rural	Gravel	80	2	1.8980	6.5	100	100	6	0-49	20	22	24	6.0	8.8	75.3	Good					\$ 1,357,077.15	
203151	Sider Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0771	6	200	200	4	50-199	72	77	85	6.3	8.1	70.0	Good	DST	\$ 149,551.20	6-10 Years	19.7	1.23	\$ 1,557,825.00
203105	Slater Boulevard	Augustine Road	Walnut Hill Road	Semi-Urban	Surface Treated	40	2	0.1904	4	L/R	100	6	0-49	46	49	54	6.0	8.9	75.9	Good					\$ 95,175.00	
203230	Smith Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.0548	6	200	200	4	50-199	95	101	111	6.8	7.5	66.8	Fair	DST	\$ 147,942.72	6-10 Years	22.9	1.78	\$ 1,541,070.00
204477	Smith Road	Willford Road	Driveway #53658	Rural	Gravel	80	2	1.0052	6.5	200	200	4	50-199	68	73	80	6.0	8.2	70.6	Good					\$ 718,696.55	
204478	Smith Road	Highway 3	Driveway #53658	Rural	Surface Treated	80	2	1.0609	6	200	200	4	50-199	95	101	111	5.5	6.8	53.9	Poor	PDST	\$ 273,699.30	1-5 Years	31.8	0.69	\$ 795,637.50
204509	Stevenet Road	Clarendon Street West	End of Road	Rural	Gravel	80	1	0.0682	4	100	100	6	0-49	5	6	6	5.5	8.4	69.8	Fair					\$ 29,999.20	
203263	Sugarloaf Street	End of Road	Park Street	Semi-Urban	Asphalt	50	2	0.1606	12	L/R	200	5	50-199	111	118	130	6.0	8.8	76.0	Good					\$ 385,512.00	
203130	Summerland Avenue	Lakeshore Road	End of Road	Rural	Surface Treated	80	2	0.1334	5	100	100	6	0-49	12	13	14	5.7	7.8	64.0	Fair	DST	\$ 28,676.70	6-10 Years	19.4	0.08	\$ 83,362.50
203201	Traver Road	Concession 6 Road	Regional Road 27	Rural	Surface Treated	80	2	0.8106	6	400	400	4	200-499	442	469	518	6.8	6.3	56.1	Fair	PDST	\$ 209,124.48	1-5 Years	41.7	3.06	\$ 607,920.00
203209	Traver Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.1313	6	200	200	4	50-199	153	162	179	7.2	7.3	65.9	Fair	DST	\$ 153,455.76	6-10 Years	25.7	2.95	\$ 1,598,497.50
203244	Tunnacliffe Road North	End of Road	Regional Road 27	Rural	Surface Treated	80	2	0.5919	5	100	100	6	0-49	11	12	13	6.0	9.1	77.6	Good					\$ 369,912.50	
202973	Tunnacliffe Road South	Lambert Road	Forks Road	Rural	Gravel	80	2	1.0805	7	200	200	4	50-199	43	119	131	5.5	8.1	67.0	Fair					\$ 832,008.10	
202878	Wainfleet Dunnville Townline Road	J																								

Township of Wainfleet
Road Inventory and Assessment

ALLROADS

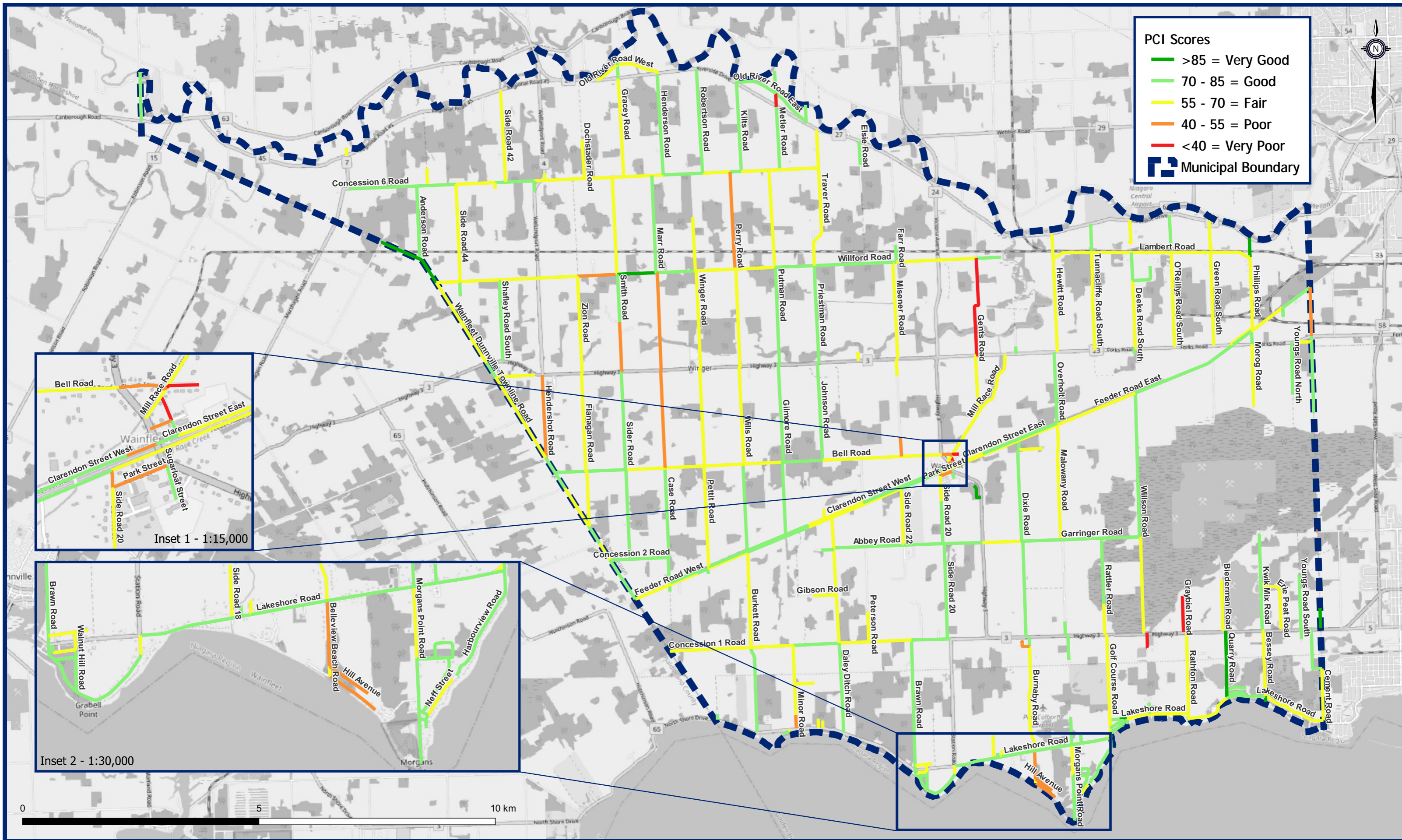
Traffic Count Legend		
241	Count from 2017 Traffic Count Program	
1389	Count from 2023 Traffic Count Program	
389	Interpolated Traffic Count	

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2017 Traffic Data (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Replacement Cost (\$)
203102	Willford Road	Winger Road	Perry Road	Rural	Surface Treated	80	2	0.8428	6	400	400	4	200-499	397	421	465	6.0	7.7	65.2	Fair	DST	\$ 60,683.04	6-10 Years	32.2	7.81	\$ 632,115.00
203114	Willford Road	Putman Road	Priestman Road	Rural	Surface Treated	80	2	0.8354	6	400	400	4	500-999	485	514	568	6.6	8.2	72.0	Good	DST	\$ 60,148.80	6-10 Years	27.2	7.69	\$ 626,550.00
203133	Willford Road	Marr Road	Winger Road	Rural	Surface Treated	80	2	0.8290	6	300	300	4	200-499	334	354	391	6.8	9.4	84.1	Good			Adequate	14.2	\$ 621,772.50	
203134	Willford Road	Wainfleet Dunnville Townline Road	Side Road 44	Rural	Surface Treated	80	2	0.5012	6	200	200	4	50-199	124	132	146	6.5	7.8	68.2	Fair	DST	\$ 36,085.68	6-10 Years	23.0	2.24	\$ 375,892.50
203142	Willford Road	Priestman Road	Misener Road	Rural	Surface Treated	80	2	1.6602	6	400	400	4	500-999	534	566	626	6.5	8.1	70.9	Good	DST	\$ 119,532.96	6-10 Years	28.9	8.80	\$ 1,245,135.00
203160	Willford Road	Smith Road	Marr Road	Rural	Surface Treated	80	2	0.8305	6	300	300	4	200-499	327	348	384	6.6	9.7	85.6	Very Good			Adequate	12.7	\$ 622,905.00	
203180	Willford Road	Wellandport Road	Zion Road	Rural	Surface Treated	80	2	0.8302	6	300	300	4	200-499	382	311	344	5.8	7.5	62.2	Fair	PDST	\$ 214,183.86	6-10 Years	32.7	1.75	\$ 622,627.50
203181	Willford Road	Zion Road	Smith Road	Rural	Surface Treated	80	2	0.8439	6	300	300	4	200-499	340	361	398	5.0	7.0	52.5	Poor	PDST	\$ 217,733.94	1-5 Years	42.5	2.55	\$ 632,947.50
203194	Willford Road	Misener Road	Farr Road	Rural	Surface Treated	80	2	0.0746	6	400	400	4	500-999	540	573	633	6.5	8.3	72.6	Good	DST	\$ 5,372.64	6-10 Years	27.3	8.39	\$ 55,965.00
203196	Willford Road	Side Road 44	Shafley Road South	Rural	Surface Treated	80	2	0.8316	6	200	200	4	50-199	182	193	213	6.5	7.3	63.6	Fair	PDST	\$ 214,552.80	6-10 Years	28.5	1.05	\$ 623,700.00
203200	Willford Road	Shafley Road South	Wellandport Road	Rural	Surface Treated	80	2	0.8266	6	200	200	4	50-199	239	173	191	6.4	7.1	61.1	Fair	PDST	\$ 213,267.96	6-10 Years	29.7	1.00	\$ 619,965.00
203270	Willford Road	Regional Road 24	Gents Road	Rural	Surface Treated	80	2	0.8065	6	200	200	4	50-199	133	141	156	7.0	7.7	69.6	Fair	DST	\$ 58,068.72	6-10 Years	22.3	2.29	\$ 604,882.50
204467	Willford Road	Farr Road	Regional Road 24	Rural	Surface Treated	80	2	0.8856	6	400	400	4	500-999	693	736	813	6.4	7.8	67.8	Fair	DST	\$ 63,759.60	6-10 Years	34.0	12.64	\$ 664,162.50
202897	Wills Road	Bell Road	Clarendon Street West	Rural	Gravel	80	2	1.8374	6.5	200	200	4	50-199	121	175	193	6.0	8.2	70.6	Good			Adequate		\$ 1,313,741.00	
202925	Wills Road	Highway 3	Bell Road	Rural	Gravel	80	2	2.0686	7	200	200	4	50-199	24	59	65	6.0	8.1	69.7	Fair			Adequate		\$ 1,592,852.80	
202945	Willson Road	Garringer Road	Highway 3	Rural	Gravel	80	2	2.0385	6.5	200	200	4	50-199	57	61	67	6.5	7.8	69.2	Fair			Adequate		\$ 1,457,556.10	
202966	Willson Road	Feeder Road East	Garringer Road	Rural	Gravel	80	2	3.0457	6.5	200	200	4	50-199	57	56	62	6.5	7.9	70.1	Good			Adequate		\$ 2,177,646.90	
203177	Winger Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0749	6	200	200	4	50-199	166	177	195	5.5	7.2	57.9	Fair	PDST	\$ 535,334.52	1-5 Years	32.3	1.11	\$ 1,556,205.00
204512	Winger Road	Willford Road	End of Road	Rural	Gravel	80	2	1.1398	4.5	100	100	6	0-49	5	5	6	5.5	8.2	68.0	Fair			Adequate		\$ 564,186.15	
203262	Woodland Drive	Quarry Road	End of Road	Semi-Urban	Asphalt	40	2	0.4029	6	L/R	200	5	50-199	57	61	67	6.7	9.2	83.1	Good			Adequate	10.7	\$ 483,480.00	
203241	Youngs Road North	End of Road	Forks Road	Rural	Surface Treated	80	2	1.1042	5	100	100	6	0-49	8	9	10	6.6	8.7	76.3	Good			Adequate	12.5	\$ 690,131.25	
202947	Youngs Road South	Highway 3	End of Road	Rural	Gravel	80	2	1.1466	6.5	100	100	6	0-49	31	32	36	6.0	8.5	73.4	Good			Adequate		\$ 819,797.55	
203235	Zion Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0607	6	200	200	4	50-199	84	89	98	6.4	6.9	59.4	Fair	PDST	\$ 531,655.44	1-5 Years	27.3	0.54	\$ 1,545,510.00

Total 271.8 kms Network Average PCI 68.1 Total Improvement Cost \$ 28,890,586.65 Total Replacement Cost \$ 207,454,721.68

Appendix B

Maps: PCI Condition Categories



PCI Scores

- >85 = Very Good
- 70 - 85 = Good
- 55 - 70 = Fair
- 40 - 55 = Poor
- <40 = Very Poor
- - - Municipal Boundary

Inset 1 - 1:15,000

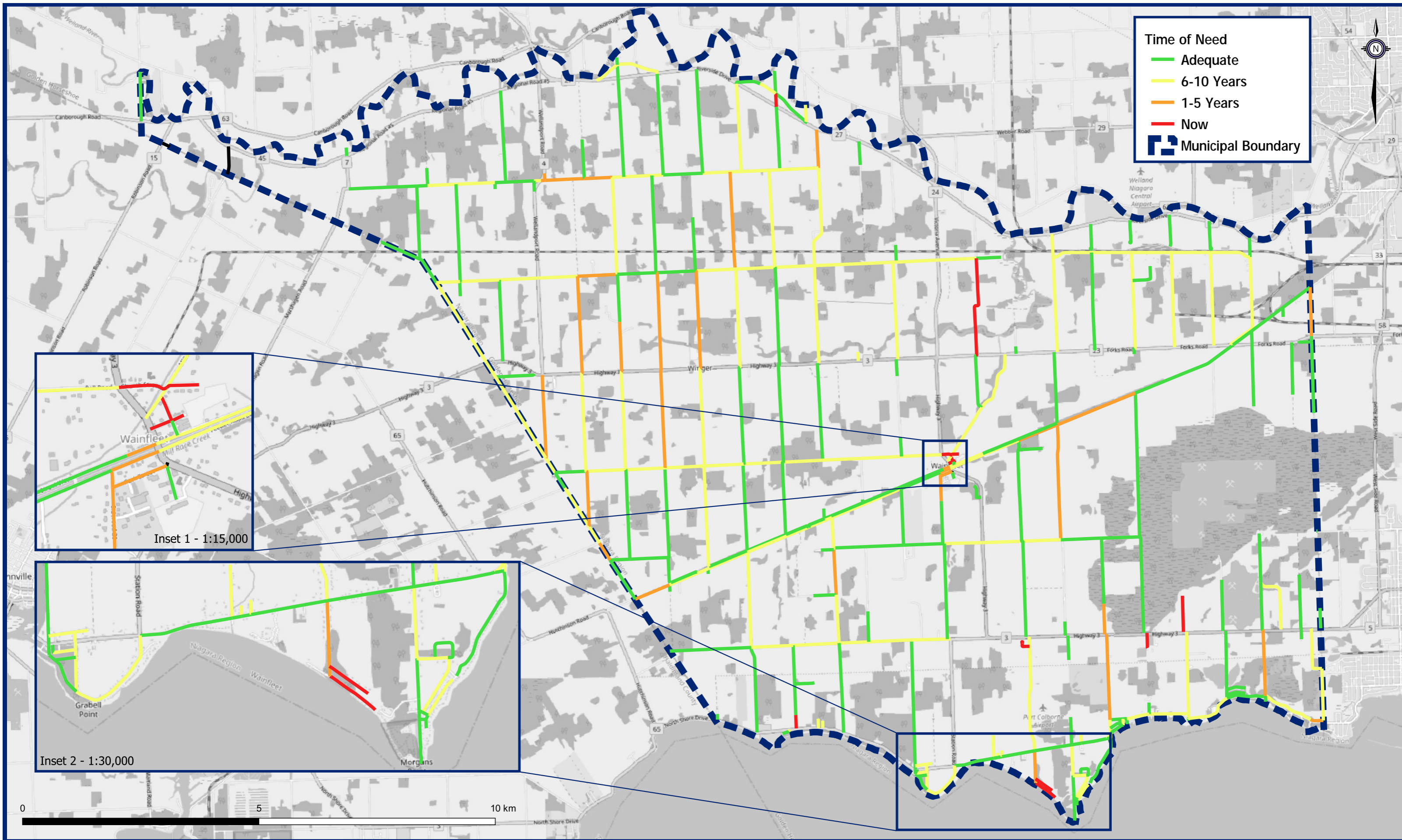
Bell Road
Mill Race Road
Clarendon Street East
Clarendon Street West
Park Street
Side Road 20

Inset 2 - 1:30,000

Brawn Road
Station Road
Side Road 18
Lakeshore Road
Belleview Beach Road
Hill Avenue
Morgans Point Road
Nelf Street
Harbourview Road

Appendix C

Maps: Time of Need



Time of Need

- Adequate
- 6-10 Years
- 1-5 Years
- Now
- Municipal Boundary

Inset 1 - 1:15,000

Wainfleet

Hill Race Creek

Inset 2 - 1:30,000

Gravel Point

Niagara Region

Wainfleet

Morgans



ROADS NEEDS STUDY

Wainfleet Roads - Time of Need



October, 2023
623062
Projection EPSG:26917

Document Path: W:\Hamilton\23000\623062 Wainfleet Roads Needs Study\GIS and Databases\Wainfleet_Roads.qgz

Appendix D

Work Plan

WORK PLAN

NOW NEEDS

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Unit Rate (\$/m2)	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Comments
203250	Napoleon Street	Lee Street	End of Road	Semi-Urban	Asphalt	50	2	0.0686	5	L/R	200	5	50-199	170	188	2.7	6.7	22.6	Very Poor	RNS	\$ 200.00	\$ 68,640.00	NOW	59.0	1.06	
203259	Beach Road East	Belleview Beach Road	End of Road	Semi-Urban	Surface Treated	40	2	0.5130	6	L/R	300	5	200-499	248	274	4.3	6.4	42.7	Poor	RECST	\$ 125.00	\$ 384,712.50	NOW	47.2	1.53	Completed Fall 2023
203265	Lee Street	Napoleon Street	Mill Race Road	Semi-Urban	Asphalt	50	2	0.1215	6	L/R	200	5	50-199	170	188	4.0	6.4	38.4	Very Poor	RNS	\$ 200.00	\$ 145,799.44	NOW	46.9	0.70	
203264	Church Street	Highway 3	Mill Race Road	Semi-Urban	Surface Treated	50	2	0.2217	6	L/R	200	5	50-199	120	133	4.0	6.5	40.8	Poor	RECST	\$ 125.00	\$ 166,260.00	NOW	42.1	0.76	
203245	Gents Road	Forks Road	Willford Road	Rural	Surface Treated	80	2	2.1278	6	100	100	6	0-49	36	40	4.5	5.4	34.6	Very Poor	RECST	\$ 125.00	\$ 1,595,850.00	NOW	38.6	0.25	
203240	Church Street	Mill Race Road	End of Road	Semi-Urban	Surface Treated	50	2	0.1496	6	L/R	100	6	0-49	45	50	4.0	6.2	37.8	Very Poor	BSST	\$ 47.00	\$ 42,181.56	NOW	37.8	0.81	
203252	Graybiel Road	Highway 3	End of Road	Rural	Surface Treated	80	2	0.7643	6	100	100	6	0-49	17	19	5.1	4.6	31.5	Very Poor	BSST	\$ 47.00	\$ 215,518.50	NOW	37.7	0.34	
203243	Elsworth Road North	End of Road	Highway 3	Rural	Surface Treated	50	2	0.3185	5.5	100	100	6	0-49	38	42	3.9	6.1	36.6	Very Poor	BSST	\$ 47.00	\$ 82,329.67	NOW	37.7	0.75	
203174	Minor Road	Lakeshore Road	Driveway	Rural	Surface Treated	80	2	0.2860	6	200	200	4	50-199	66	73	4.5	6.1	41.6	Poor	BSST	\$ 47.00	\$ 80,654.82	NOW	37.5	1.10	
203251	Hill Avenue	Belleview Beach Road	End of Road	Semi-Urban	Surface Treated	40	2	0.4288	4	L/R	100	6	0-49	45	50	5.2	5.6	41.1	Poor	RECST	\$ 125.00	\$ 214,400.00	NOW	35.8	0.43	Completed Fall 2023
203253	Elizabeth Crescent	End of Road	Burnaby Road	Semi-Urban	Surface Treated	50	2	0.2879	5.5	L/R	100	6	0-49	40	44	4.0	6.7	42.1	Poor	PDST	\$ 43.00	\$ 68,090.72	NOW	34.6	0.38	
203257	Metler Road	Regional Road 27	Old River Road East	Rural	Surface Treated	80	2	0.2810	6	100	100	6	0-49	21	23	5.0	6.3	38.8	Very Poor	BSST	\$ 47.00	\$ 79,236.36	NOW	34.1	0.36	
203247	Napoleon Street	Highway 3	Lee Street	Semi-Urban	Asphalt	50	2	0.1052	6.5	L/R	200	5	50-199	61	67	4.5	6.9	47.3	Poor	RNS	\$ 200.00	\$ 136,774.81	NOW	33.4	0.20	

WORK PLAN

PULVERIZE & RESURFACING NEEDS

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Unit Rate (\$/m2)	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Comments
204495	Golf Course Road	Lakeshore Road	Highway 3	Rural	Surface Treated	60	2	1.8118	6.5	500	500	4	1000-1999	1644	1816	5.0	7.6	57.8	Fair	PDST	\$ 43.00	\$ 506,409.28	1-5 Years	54.0	9.53	
203179	Lakeshore Road	Cedar Crest Road	Cement Road	Rural	Asphalt	40	2	0.2745	6.5	500	500	5	1000-1999	1806	1995	5.5	7.3	58.8	Fair	PR2	\$ 73.00	\$ 130,240.49	1-5 Years	54.0	6.02	
203121	Feeder Road West	Wainfleet Dunnville Townline Road	Conlon Road	Rural	Surface Treated	80	2	0.7865	6.5	500	500	3	1000-1999	1761	1945	6.0	7.0	58.6	Fair	PDST	\$ 43.00	\$ 219,837.93	1-5 Years	54.0	10.02	
203199	Feeder Road West	Side Road 20	Highway 3	Semi-Urban	Surface Treated	50	2	0.2323	6	L/R	500	4	1000-1999	1651	1824	5.3	7.4	58.1	Fair	PDST	\$ 43.00	\$ 59,933.40	1-5 Years	53.8	10.31	
203202	Feeder Road East	Malowany Road	Wilson Road	Rural	Surface Treated	80	2	1.7792	8.5	500	500	3	1000-1999	1081	1194	6.8	6.4	56.5	Fair	PDST	\$ 43.00	\$ 650,286.64	1-5 Years	50.4	4.95	
204492	Golf Course Road	Fletcher Avenue	Lakeshore Road	Rural	Surface Treated	80	2	0.1776	6.5	500	500	3	1000-1999	1527	1687	5.0	7.9	61.2	Fair	PDST	\$ 43.00	\$ 49,642.00	6-10 Years	48.9	8.15	
203203	Feeder Road East	Dixie Road	Malowany Road	Rural	Surface Treated	80	2	0.8852	6	400	400	4	500-999	901	995	6.3	6.7	57.3	Fair	PDST	\$ 43.00	\$ 228,389.34	1-5 Years	47.3	5.72	
204493	Golf Course Road	Churchill Avenue	Fletcher Avenue	Rural	Surface Treated	80	2	0.0940	7	500	500	3	1000-1999	1527	1687	5.0	8.1	62.5	Fair	PDST	\$ 43.00	\$ 28,303.03	6-10 Years	47.2	7.31	
203152	Lakeshore Road	Elsworth Road South	Rathfon Road	Semi-Urban	Surface Treated	40	2	0.8307	6	L/R	500	5	1000-1999	1311	1449	6.0	7.3	61.2	Fair	PDST	\$ 43.00	\$ 214,307.70	6-10 Years	47.0	7.57	
204494	Golf Course Road	Lakeshore Road	Churchill Avenue	Rural	Surface Treated	80	2	0.0220	7	500	500	3	1000-1999	1527	1687	5.0	8.2	63.5	Fair	PDST	\$ 43.00	\$ 6,628.02	6-10 Years	45.9	7.11	
203115	Feeder Road West	Daley Ditch Road	Side Road 22	Rural	Surface Treated	80	2	1.5902	6.5	500	500	3	1000-1999	1314	1451	6.0	7.4	62.6	Fair	PDST	\$ 43.00	\$ 444,458.11	6-10 Years	45.4	6.76	
203139	Lakeshore Road	Maple Road	Elsworth Road South	Semi-Urban	Surface Treated	40	2	0.4821	6	L/R	500	5	1000-1999	1311	1449	6.0	7.4	62.6	Fair	PDST	\$ 43.00	\$ 124,371.48	6-10 Years	45.4	7.31	
203216	Concession 1 Road	Burkett Road	Minor Road	Rural	Surface Treated	80	2	0.8863	6	500	500	3	1000-1999	1101	1216	7.2	6.7	61.3	Fair	PDST	\$ 43.00	\$ 228,660.24	6-10 Years	45.0	6.35	
204498	Lakeshore Road	Golf Course Road	Golf Course Road	Rural	Surface Treated	60	2	0.1348	7	500	500	4	1000-1999	1552	1714	5.5	8.0	64.9	Fair	PDST	\$ 43.00	\$ 40,574.80	6-10 Years	44.3	6.95	
203223	Hendershot Road	Wainfleet Dunnville Townline Road	Highway 3	Rural	Surface Treated	80	2	1.7566	7	300	300	4	200-499	252	279	5.0	6.4	47.5	Poor	PDST	\$ 43.00	\$ 528,727.57	1-5 Years	43.4	1.69	
203224	Bellevue Beach Road	Hill Avenue	Lakeshore Road	Semi-Urban	Asphalt	40	2	0.5947	6	L/R	300	5	200-499	389	429	5.5	6.6	53.2	Poor	PR1	\$ 58.00	\$ 206,967.52	1-5 Years	42.6	2.01	Completed Fall 2023
203181	Willford Road	Zion Road	Smith Road	Rural	Surface Treated	80	2	0.8439	6	300	300	4	200-499	361	398	5.0	7.0	52.5	Poor	PDST	\$ 43.00	\$ 217,733.94	1-5 Years	42.5	2.55	
203044	Bellevue Beach Road	Beach Road East	Hill Avenue	Semi-Urban	Asphalt	40	2	0.0910	6	L/R	400	5	200-499	463	512	5.1	7.2	55.3	Fair	PR1	\$ 58.00	\$ 31,654.18	1-5 Years	42.3	2.28	Completed Fall 2023
204507	Rathfon Road	Lakeshore Road	Lakeshore Road	Rural	Surface Treated	40	2	0.0846	7	500	500	5	1000-1999	1311	1449	5.0	8.4	65.2	Fair	PDST	\$ 43.00	\$ 25,461.59	6-10 Years	42.3	5.83	
203204	Feeder Road East	Highway 3	Dixie Road	Rural	Surface Treated	50	2	1.5564	6.5	500	500	4	1000-1999	1002	1107	6.7	7.1	63.1	Fair	PDST	\$ 43.00	\$ 435,022.19	6-10 Years	42.0	5.09	
203161	Concession 1 Road	Daley Ditch Road	Peterson Road	Rural	Surface Treated	80	2	0.6264	6	500	500	3	1000-1999	1099	1214	6.3	7.4	64.0	Fair	PDST	\$ 43.00	\$ 161,598.30	6-10 Years	41.8	5.89	
203201	Traver Road	Concession 6 Road	Regional Road 27	Rural	Surface Treated	80	2	0.8106	6	400	400	4	200-499	469	518	6.8	6.3	56.1	Fair	PDST	\$ 43.00	\$ 209,124.48	1-5 Years	41.7	3.06	
203082	Feeder Road West	Akins Road	Pettit Road	Rural	Surface Treated	80	2	0.0330	7	500	500	3	1000-1999	1339	1480	6.5	7.6	65.9	Fair	PDST	\$ 43.00	\$ 9,923.97	6-10 Years	41.6	5.83	
203188	Concession 1 Road	Peterson Road	Brawn Road	Rural	Surface Treated	80	2	0.9055	6	500	500	3	1000-1999	1028	1135	6.8	7.3	64.8	Fair	PDST	\$ 43.00	\$ 233,606.10	6-10 Years	40.3	5.39	
203164	Feeder Road West	Clarendon Street West	Daley Ditch Road	Rural	Surface Treated	80	2	0.5293	6.5	500	500	3	1000-1999	1041	1149	6.0	7.7	64.9	Fair	PDST	\$ 43.00	\$ 147,947.74	6-10 Years	40.2	5.02	
203227	Bessey Road	Lakeshore Road	Highway 3	Rural	Asphalt	60	2	1.4031	6	300	300	5	200-499	379	419	5.5	7.0	56.4	Fair	PR1	\$ 58.00	\$ 488,280.35	1-5 Years	39.4	1.82	
203258	Park Street	Side Road 20	Sugarloaf Street	Semi-Urban	Asphalt	50	2	0.2641	7	L/R	300	5	200-499	303	334	5.5	6.8	54.4	Poor	PR2	\$ 73.00	\$ 134,937.53	1-5 Years	39.3	1.04	
203231	Perry Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.0599	6	200	200	4	50-199	185	205	5.8	6.1	49.9	Poor	PDST	\$ 43.00	\$ 531,464.52	1-5 Years	38.8	1.38	
203217	Concession 6 Road	Dochstader Road	Smith Road	Rural	Surface Treated	80	2	0.5899	6	400	400	4	200-499	482	532	7.0	6.6	59.6	Fair	PDST	\$ 43.00	\$ 152,199.36	1-5 Years	38.7	2.90	
203242	Hewitt Road	Forks Road	Lambert Road	Rural	Surface Treated	80	2	2.0070	6	400	400	4	500-999	510	563	6.9	6.7	60.2	Fair	PDST	\$ 43.00	\$ 517,811.16	6-10 Years	38.6	3.02	
203027	Burnaby Road	Lakeshore Road	South Bus Loop	Rural	Surface Treated	60	2	1.2079	6	400	400	4	500-999	797	880	6.5	7.4	64.9	Fair	PDST	\$ 43.00	\$ 311,625.30	6-10 Years	37.8	4.17	
203219	Concession 6 Road	Service Road 2	Dochstader Road	Rural	Surface Treated	80	2	0.8350	6	300	300	4	200-499	372	411	6.0	7.0	58.2	Fair	PDST	\$ 43.00	\$ 215,427.42	1-5 Years	37.6	2.31	
203236	Side Road 20	Park Street	Feeder Road West	Rural	Surface Treated	40	2	0.0778	6	200	200	5	50-199	102	112	5.0	6.2	45.5	Poor	PDST	\$ 43.00	\$ 20,059.50	1-5 Years	37.6	0.83	
203221	Hewitt Road	Lambert Road	Regional Road 27	Rural	Surface Treated	80	2	0.4900	6	400	400	4	500-999	722	798	5.5	7.9	64.2	Fair	PDST	\$ 43.00	\$ 126,409.68	6-10 Years	37.6	3.84	
204468	Bell Road	Johnson Road	Emerson Road	Rural	Surface Treated	80	2	1.6716	6	400	400	4	200-499	440	486	5.0	7.8	60.2	Fair	PDST	\$ 43.00	\$ 431,267.64	6-10 Years	37.3	2.61	
203171	Burnaby Road	North Bus Loop	Elizabeth Crescent	Rural	Surface Treated	60	2	0.8918	6	400	400	4	500-999	745	823	6.6	7.4	65.0	Fair	PDST	\$ 43.00	\$ 230,074.08	6-10 Years	37.1	3.88	
203030	Burnaby Road	South Bus Loop	North Bus Loop	Rural	Surface Treated	60	2	0.1280	6	400	400	4	500-999	745	823	6.0	7.8	65.6	Fair	PDST	\$ 43.00	\$ 33,024.00	6-10 Years	36.4	3.82	
203167	Bell Road	Emerson Road	Highway 3	Rural	Surface Treated	80	2	0.8513	6	300	300	4	200-499	377	416	5.0	7.8	60.2	Fair	PDST	\$ 43.00	\$ 219,622.50	6-10 Years	36.0	2.24	
203254	Marr Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0762	6	200	200	4	50-199	77	85	4.6	6.5	45.3	Poor	PDST	\$ 43.00	\$ 535,667.34	1-5 Years	35.9	0.63	
203218	Concession 6 Road	Wellandport Road	Service Road 2	Rural	Surface Treated	80	2	0.0841	6	300	300	4	200-499	241	267	5.0	7.4	56.5	Fair	PDST	\$ 43.00	\$ 21,708.12	1-5 Years	35.6	1.56	
203212	Case Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0671	6	200	200	4	50-199	97	108	6.0	5.9	48.2	Poor	PDST	\$ 43.00	\$ 533,301.48	1-5 Years	35.4	0.75	
203182	Service Road 2	Concession 6 Road	Wellandport Road	Rural	Surface Treated	80	2	0.1490	6	300	300	4	200-499	241	267	5.0	7.4	56.8	Fair	PDST	\$ 43.00	\$ 38,442.00	1-5 Years	35.4	1.55	
203222	Rathfon Road	Lakeshore Road	Highway 3	Rural	Surface Treated	60	2	1.7330	6	400	400	4	500-999	531	586	7.0	7.1	63.9	Fair	PDST	\$ 43.00	\$ 447,116.58	6-10 Years	35.3	2.85	
203246	Malowany Road	Garringer Road	Feeder Road East	Rural	Surface Treated	80	2	2.4338	6	300	300	4	200-499	208	230	6.0	6.7	55.9	Fair	PDST	\$ 43.00	\$ 627,910.08	1-5 Years	35.0	1.36	
203253	Elizabeth Crescent	End of Road	Burnaby Road	Semi-Urban	Surface Treated	50	2	0.2879	5.5	L/R	100	6	0-49	40	44	4.0	6.7	42.1	Poor	PDST	\$ 43.00	\$ 68,090.72	NOW	34.6	0.38	
203176	Daley Ditch Road	Gibson Road	Abbey Road	Rural	Surface Treated	80	2	0.9564	6	300	300	4	200-499	235	260	6.5	6.7	57.9	Fair	PDST	\$ 43.00	\$ 246,761.52	1-5 Years	34.3	1.47	
204511	Welland Wainfleet Townline Road	Forks Road	Feeder Road East	Rural	Surface Treated	80	2	1.0320	5	200	200	4	50-199	125	138	5.8	6.4	52.2	Poor	PDST	\$ 43.00	\$ 221,873.55	1-5 Years	34.2	1.07	
203256	Concession 6 Road	Marr Road	Henderson Road	Rural	Surface Treated	80	2	0.2399	6	300	300	4	200-499	299	330	7.1	6.7	60.3	Fair	PDST	\$ 43.00	\$ 61,889.04	6-10 Years	34.1	1.77	
203215	Flanagan Road	Flanagan Road	Bell Road	Rural	Surface Treated	80	2	1.1701	6.5	200	200	4	50-199	171	189	6.3	6.5	55.3	Fair	PDST	\$ 43.00	\$ 327,045.75	1-5 Years	34.1	1.05	
203173	Bell Road	Pettit Road	Wills Road	Rural	Surface Treated	80	2	0.8354	6	300	300	4	200-499	346	382	6.4	7.2	62.4	Fair	PDST	\$ 43.00	\$ 215,538.36	6-10 Years	33.3	1.93	
203232	Mill Race Road	Highway 3	Lee Street	Semi-Urban	Surface Treated	50	2	0.1243	7	L/R	300	5	200-499	257	284	5.2	7.7	60.1	Fair	PDST	\$ 43.00	\$ 37,426.34	6-10 Years	33.1	1.31	
203180																										

WORK PLAN

PULVERIZE & RESURFACING NEEDS

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Unit Rate (\$/m2)	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Comments
203214	Lambert Road	Deeks Road South	O'Reillys Road South	Rural	Surface Treated	80	2	0.8439	7	300	300	4	200-499	306	338	6.5	7.3	63.6	Fair	PDST	\$ 43.00	\$ 254,001.86	6-10 Years	31.4	1.42	
203276	Clarendon Street West	Driveway	Highway 3	Semi-Urban	Surface Treated	80	2	0.1427	7	L/R	200	4	50-199	90	100	4.4	7.6	53.5	Poor	PDST	\$ 43.00	\$ 42,958.72	1-5 Years	31.4	0.54	
203071	Mill Race Road	Lee Street	Church Street	Semi-Urban	Surface Treated	50	2	0.0463	7	L/R	300	5	200-499	231	255	5.2	7.8	61.4	Fair	PDST	\$ 43.00	\$ 13,942.32	6-10 Years	31.3	1.13	
203150	Concession 6 Road	Gracey Road	Marr Road	Rural	Surface Treated	80	2	0.5949	6	300	300	4	200-499	299	330	6.7	7.2	63.7	Fair	PDST	\$ 43.00	\$ 153,476.46	6-10 Years	31.1	1.61	
203168	Bell Road	Sider Road	Case Road	Rural	Surface Treated	80	2	0.8340	6	300	300	4	200-499	256	283	6.7	7.1	62.7	Fair	PDST	\$ 43.00	\$ 215,159.10	6-10 Years	30.9	1.42	
203210	Mill Race Road	Buliung Road	Forks Road	Rural	Surface Treated	50	2	1.3069	6	300	300	5	200-499	305	337	5.8	7.8	64.6	Fair	PDST	\$ 43.00	\$ 337,169.88	6-10 Years	30.6	1.61	
203153	Pettit Road	Clarendon Street West	Bell Road	Rural	Surface Treated	80	2	2.1300	6	200	200	4	50-199	183	202	6.5	7.0	60.9	Fair	PDST	\$ 43.00	\$ 549,529.68	6-10 Years	30.2	1.07	
204474	Side Road 20	Driveway #32068	Park Street	Rural	Surface Treated	80	2	0.5267	6	200	200	4	50-199	156	172	5.5	7.4	59.9	Fair	PDST	\$ 43.00	\$ 135,888.60	1-5 Years	30.0	0.93	
203239	Rattler Road	Highway 3	Driveway	Rural	Surface Treated	80	2	0.6467	6	200	200	4	50-199	115	127	6.4	6.7	57.8	Fair	PDST	\$ 43.00	\$ 166,851.18	1-5 Years	29.8	0.72	
203200	Willford Road	Shafley Road South	Wellandport Road	Rural	Surface Treated	80	2	0.8266	6	200	200	4	50-199	173	191	6.4	7.1	61.1	Fair	PDST	\$ 43.00	\$ 213,267.96	6-10 Years	29.7	1.00	
203135	Erie Peat Road	Highway 3	Kvik Mix Road	Rural	Surface Treated	80	2	1.2964	7.5	300	300	4	200-499	276	305	6.0	7.7	64.9	Fair	PDST	\$ 43.00	\$ 418,098.68	6-10 Years	29.6	1.15	
203211	Perry Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0772	6	300	300	4	200-499	273	301	6.0	7.7	64.9	Fair	PDST	\$ 43.00	\$ 535,907.28	6-10 Years	29.5	1.43	
204486	Daley Ditch Road	Abbey Road	Abbey Road	Rural	Surface Treated	80	2	0.0353	6	300	300	4	200-499	235	260	6.0	7.6	63.9	Fair	PDST	\$ 43.00	\$ 9,107.40	6-10 Years	29.4	1.26	
203196	Willford Road	Side Road 44	Shafley Road South	Rural	Surface Treated	80	2	0.8316	6	200	200	4	50-199	193	213	6.5	7.3	63.6	Fair	PDST	\$ 43.00	\$ 214,552.80	6-10 Years	28.5	1.05	
203175	Daley Ditch Road	Abbey Road	Feeder Road West	Rural	Surface Treated	80	2	0.6453	6	200	200	4	50-199	137	151	7.4	6.7	61.3	Fair	PDST	\$ 43.00	\$ 166,495.14	6-10 Years	28.2	0.79	
203238	Garringer Road	Highway 3	Dixie Road	Rural	Surface Treated	80	2	0.8441	6	300	300	4	200-499	210	232	7.4	7.0	64.6	Fair	PDST	\$ 43.00	\$ 217,788.12	6-10 Years	28.1	1.11	
203235	Zion Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0607	6	200	200	4	50-199	89	98	6.4	6.9	59.4	Fair	PDST	\$ 43.00	\$ 531,655.44	1-5 Years	27.3	0.54	
203272	O'Reillys Road South	Forks Road	Lambert Road	Rural	Surface Treated	80	2	2.0037	6	200	200	4	50-199	163	181	6.0	7.7	65.2	Fair	PDST	\$ 43.00	\$ 516,957.18	6-10 Years	26.3	0.85	
202906	Wainfleet Dunnville Townline Road	Concession 2 Road	Poth Road	Rural	Surface Treated	80	2	0.4228	6	200	200	4	50-199	63	69	6.0	7.0	58.9	Fair	PDST	\$ 43.00	\$ 109,072.08	1-5 Years	26.2	0.38	
203087	Deeks Road South	Forks Road	Memme Court	Rural	Surface Treated	80	2	1.4499	6	200	200	4	50-199	90	100	6.3	7.2	62.0	Fair	PDST	\$ 43.00	\$ 374,076.78	6-10 Years	25.7	0.51	
203195	Misener Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0533	6	200	200	4	50-199	89	98	6.2	7.4	63.5	Fair	PDST	\$ 43.00	\$ 529,746.24	6-10 Years	24.6	0.48	
202928	Wainfleet Dunnville Townline Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0104	6	100	100	6	0-49	43	48	7.0	6.8	60.9	Fair	PDST	\$ 43.00	\$ 518,693.52	6-10 Years	23.6	0.25	
203051	Walnut Hill Road	Hock Road	Erie Street	Semi-Urban	Surface Treated	40	2	0.0735	6	L/R	200	5	50-199	65	72	5.5	8.0	64.6	Fair	PDST	\$ 43.00	\$ 18,963.00	6-10 Years	22.7	0.34	
203225	Neff Street	Second Street	End of Road	Semi-Urban	Surface Treated	40	2	0.3955	5	L/R	200	5	50-199	52	57	5.2	8.1	64.4	Fair	PDST	\$ 43.00	\$ 85,032.50	6-10 Years	22.0	0.33	

WORK PLAN

RESURFACING NEEDS

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Unit Rate (\$/m2)	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Comments
203229	Lakeshore Road	Bessey Road	Crescent Heights	Urban	Asphalt	40	2	0.6752	6.5	500	500	5	1000-1999	1806	1995	5.8	7.2	60.1	Fair	RI	\$ 33.00	\$ 144,835.46	6-10 Years	52.3	12.90	
202986	Lakeshore Road	Camelot Drive	Cedar Crest Road	Rural	Asphalt	40	2	0.2303	6.5	500	500	5	1000-1999	1806	1995	5.4	7.8	62.8	Fair	RI	\$ 33.00	\$ 49,402.98	6-10 Years	48.7	12.03	
203007	Lakeshore Road	Crescent Heights	Camelot Drive	Semi-Urban	Asphalt	40	2	0.1952	6.5	L/R	500	5	1000-1999	1806	1995	6.1	7.8	67.1	Fair	RI	\$ 33.00	\$ 41,872.85	6-10 Years	43.1	10.63	
203056	Feeder Road West	Conlon Road	Clarendon Street West	Rural	Surface Treated	80	2	0.6390	7	500	500	3	1000-1999	1361	1503	6.3	7.9	67.7	Fair	DST	\$ 12.00	\$ 53,677.68	6-10 Years	39.6	20.11	
203220	Burkett Road	Concession 1 Road	Feeder Road West	Rural	Surface Treated	80	2	2.0149	6	500	500	3	1000-1999	1180	1303	7.0	7.4	66.6	Fair	DST	\$ 12.00	\$ 145,071.36	6-10 Years	39.5	21.05	
203163	Feeder Road West	Pettit Road	Burkett Road	Rural	Surface Treated	80	2	0.8704	7	500	500	3	1000-1999	1395	1541	6.5	7.8	68.2	Fair	DST	\$ 12.00	\$ 73,111.92	6-10 Years	39.1	20.27	
203155	Lakeshore Road	Rathfon Road	Quarry Road	Semi-Urban	Asphalt	40	2	1.0121	6	L/R	500	5	1000-1999	1128	1246	6.4	7.6	67.5	Fair	RI	\$ 33.00	\$ 200,386.17	6-10 Years	38.0	7.10	
203112	Feeder Road West	Clarendon Street West	Akins Road	Rural	Surface Treated	80	2	0.2438	6.5	500	500	3	1000-1999	1339	1480	6.5	8.1	70.9	Good	DST	\$ 12.00	\$ 19,012.50	6-10 Years	35.5	19.20	
203011	Concession 1 Road	Side Road 20	Station Road	Rural	Surface Treated	80	2	0.0666	6	500	500	3	1000-1999	1246	1377	6.0	8.3	70.6	Good	DST	\$ 12.00	\$ 4,793.04	6-10 Years	35.2	19.55	
203093	Golf Course Road	Harbourview Road	Lakeshore Road	Rural	Surface Treated	80	2	0.0963	6	500	500	3	1000-1999	1527	1687	6.0	8.6	72.6	Good	DST	\$ 12.00	\$ 6,935.04	6-10 Years	34.5	22.34	
203111	Cement Road	Lakeshore Road	Clarence Street	Rural	Asphalt	50	2	1.0977	7	400	400	4	500-999	916	1012	6.5	7.8	69.2	Fair	RI	\$ 33.00	\$ 253,568.70	6-10 Years	34.2	4.69	
203069	Cement Road	Clarence Street	Highway 3	Rural	Asphalt	80	2	1.0379	7	500	500	3	1000-1999	1938	2141	6.5	8.4	74.5	Good	RI	\$ 33.00	\$ 239,761.83	6-10 Years	34.0	8.22	
204467	Willford Road	Farr Road	Regional Road 24	Rural	Surface Treated	80	2	0.8856	6	400	400	4	500-999	736	813	6.4	7.8	67.8	Fair	DST	\$ 12.00	\$ 63,759.60	6-10 Years	34.0	12.64	
203143	Bell Road	Case Road	Pettit Road	Rural	Surface Treated	80	2	0.8273	6	300	300	4	200-499	362	400	6.4	7.2	62.1	Fair	DST	\$ 12.00	\$ 59,564.16	6-10 Years	33.9	7.31	
203169	Feeder Road West	Burkett Road	Clarendon Street West	Rural	Surface Treated	80	2	1.4019	7	500	500	3	1000-1999	1107	1222	7.0	7.9	70.9	Good	DST	\$ 12.00	\$ 117,757.08	6-10 Years	33.9	14.73	
203165	Morgans Point Road	Fowler Road	Lakeshore Road	Rural	Surface Treated	40	2	0.6510	6	400	400	5	500-999	522	577	6.5	7.6	65.9	Fair	DST	\$ 12.00	\$ 46,870.56	6-10 Years	33.2	9.50	
203183	Concession 1 Road	Brawn Road	Side Road 20	Rural	Surface Treated	80	2	0.7597	6	500	500	3	1000-1999	1389	1534	7.3	8.1	73.6	Good	DST	\$ 12.00	\$ 54,698.40	6-10 Years	32.4	19.55	
203131	Concession 6 Road	Side Road 44	Shafley Road North	Rural	Surface Treated	80	2	0.8224	6	400	400	4	200-499	411	455	6.3	7.6	65.0	Fair	DST	\$ 12.00	\$ 59,210.64	6-10 Years	32.3	7.68	
203102	Willford Road	Winger Road	Perry Road	Rural	Surface Treated	80	2	0.8428	6	400	400	4	200-499	421	465	6.0	7.7	65.2	Fair	DST	\$ 12.00	\$ 60,683.04	6-10 Years	32.2	7.81	
203147	Lambert Road	O'Reillys Road South	Green Road South	Rural	Surface Treated	80	2	0.8298	7	400	400	4	200-499	433	478	6.5	7.5	65.6	Fair	DST	\$ 12.00	\$ 69,704.88	6-10 Years	32.1	6.82	
203197	Lambert Road	Green Road South	Phillips Road	Rural	Surface Treated	80	2	0.8618	7	400	400	4	500-999	607	671	6.5	7.8	68.2	Fair	DST	\$ 12.00	\$ 72,392.04	6-10 Years	32.1	8.82	
203041	Lakeshore Road (Spur)	Lakeshore Road	Harbourview Road	Rural	Surface Treated	80	2	0.0834	6	500	500	3	1000-1999	1709	1888	6.0	8.9	75.2	Good	DST	\$ 12.00	\$ 6,006.96	Adequate	32.0	22.57	
203149	Concession 6 Road	Smith Road	Gracey Road	Rural	Surface Treated	80	2	0.2455	6	300	300	4	200-499	391	432	6.3	7.6	65.3	Fair	DST	\$ 12.00	\$ 17,673.84	6-10 Years	31.6	7.23	
203185	Bell Road	Wills Road	Gilmore Road	Rural	Surface Treated	80	2	0.8347	6	300	300	4	200-499	383	423	6.4	7.6	65.4	Fair	DST	\$ 12.00	\$ 60,094.80	6-10 Years	31.3	7.07	
203101	Willford Road	Perry Road	Putman Road	Rural	Surface Treated	80	2	0.8334	6	400	400	4	200-499	458	506	6.9	7.6	67.5	Fair	DST	\$ 12.00	\$ 60,005.52	6-10 Years	30.7	7.94	
203186	Concession 1 Road	Minor Road	Daley Ditch Road	Rural	Surface Treated	80	2	0.9735	6	400	400	4	500-999	991	1095	7.1	8.1	72.9	Good	DST	\$ 12.00	\$ 70,089.84	6-10 Years	30.7	14.32	
204497	Lakeshore Road	Buckbee Road	Lakeshore Road	Rural	Surface Treated	60	2	0.5422	6.5	500	500	4	1000-1999	1552	1714	6.5	8.7	75.9	Good	DST	\$ 12.00	\$ 42,293.94	Adequate	30.4	18.42	
203207	Lambert Road	Tunnacliffe Road South	Deeks Road South	Rural	Surface Treated	80	2	0.8434	7	300	300	4	200-499	280	310	6.0	7.6	64.2	Fair	DST	\$ 12.00	\$ 70,846.44	6-10 Years	30.3	4.58	
203110	Concession 6 Road	Kilts Road	Putman Road	Rural	Surface Treated	80	2	0.5882	6	300	300	4	200-499	336	371	6.3	7.7	66.0	Fair	DST	\$ 12.00	\$ 42,349.68	6-10 Years	29.9	6.09	
203106	Concession 6 Road	Metler Road	Traver Road	Rural	Surface Treated	80	2	0.8206	6	300	300	4	200-499	339	374	6.2	7.8	66.5	Fair	DST	\$ 12.00	\$ 59,086.08	6-10 Years	29.5	6.05	
203074	Pettit Road	Feeder Road West	Clarendon Street West	Rural	Surface Treated	80	2	0.0363	7	300	300	4	200-499	382	422	5.5	8.3	67.6	Fair	DST	\$ 12.00	\$ 3,050.88	6-10 Years	29.4	5.67	
203129	Burnaby Road	Elizabeth Crescent	Highway 3	Rural	Surface Treated	60	2	0.2035	6	400	400	4	500-999	949	1048	6.2	8.6	73.9	Good	DST	\$ 12.00	\$ 14,651.28	6-10 Years	29.3	13.23	
203142	Willford Road	Priestman Road	Misener Road	Rural	Surface Treated	80	2	1.6602	6	400	400	4	500-999	566	626	6.5	8.1	70.9	Good	DST	\$ 12.00	\$ 119,532.96	6-10 Years	28.9	8.80	
203092	Augustine Road	Augustine Road East	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.1732	5	L/R	300	5	200-499	354	391	6.0	8.0	67.9	Fair	DST	\$ 12.00	\$ 10,391.40	6-10 Years	28.6	7.27	
203208	Lambert Road	Hewitt Road	Tunnacliffe Road South	Rural	Surface Treated	80	2	0.8361	7	300	300	4	200-499	219	242	6.0	7.7	64.6	Fair	DST	\$ 12.00	\$ 70,235.76	6-10 Years	28.4	3.54	
203107	Concession 6 Road	Putman Road	Metler Road	Rural	Surface Treated	80	2	0.2277	6	300	300	4	200-499	336	371	6.1	8.0	67.7	Fair	DST	\$ 12.00	\$ 16,393.68	6-10 Years	28.4	5.78	
203145	Concession 6 Road	Service Road 1	Wellandport Road	Rural	Surface Treated	80	2	0.1481	6	300	300	4	200-499	251	278	4.6	8.8	66.0	Fair	DST	\$ 12.00	\$ 10,665.36	6-10 Years	28.1	4.56	
203170	Mill Race Road	Church Street	Bulung Road	Rural	Surface Treated	50	2	1.1799	6	300	300	5	200-499	231	255	5.8	8.0	66.2	Fair	DST	\$ 12.00	\$ 84,951.36	6-10 Years	27.4	4.16	
203194	Willford Road	Misener Road	Farr Road	Rural	Surface Treated	80	2	0.0746	6	400	400	4	500-999	573	633	6.5	8.3	72.6	Good	DST	\$ 12.00	\$ 5,372.64	6-10 Years	27.3	8.39	
203271	Phillips Road	Forks Road	Lambert Road	Rural	Surface Treated	80	2	2.0885	6.5	200	200	4	50-199	196	217	6.5	7.5	65.2	Fair	DST	\$ 12.00	\$ 162,902.22	6-10 Years	27.3	3.36	
203144	Green Road South	Forks Road	Lambert Road	Rural	Surface Treated	80	2	1.9701	6	300	300	4	200-499	224	247	7.1	7.3	66.3	Fair	DST	\$ 12.00	\$ 141,849.36	6-10 Years	27.2	4.03	
203114	Willford Road	Putman Road	Priestman Road	Rural	Surface Treated	80	2	0.8354	6	400	400	4	500-999	514	568	6.6	8.2	72.0	Good	DST	\$ 12.00	\$ 60,148.80	6-10 Years	27.2	7.69	
203187	Bell Road	Gilmore Road	Johnson Road	Rural	Surface Treated	80	2	0.8389	6	300	300	4	200-499	383	423	6.6	8.0	70.6	Good	DST	\$ 12.00	\$ 60,397.92	6-10 Years	26.6	6.00	
203140	Flanagan Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0802	6	200	200	4	50-199	162	179	6.5	7.5	65.6	Fair	DST	\$ 12.00	\$ 149,772.24	6-10 Years	26.0	2.98	
203117	Concession 6 Road	Perry Road	Kilts Road	Rural	Surface Treated	80	2	0.2359	6	300	300	4	200-499	336	371	6.5	8.1	70.6	Good	DST	\$ 12.00	\$ 16,982.64	6-10 Years	25.9	5.27	
203209	Traver Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.1313	6	200	200	4	50-199	162	179	7.2	7.3	65.9	Fair	DST	\$ 12.00	\$ 153,455.76	6-10 Years	25.7	2.95	
203273	Clarendon Street East	Lee Street	Driveway	Semi-Urban	Surface Treated	80	2	0.6516	6	L/R	200	4	50-199	120	133	5.9	7.9	65.7	Fair	DST	\$ 12.00	\$ 46,915.20	6-10 Years	24.4	2.19	
204480	Wainfleet Dunnville Townline Road	Hendershot Road	Jenny Jump Road	Rural	Surface Treated	80	2	0.9654	6	200	200	4	50-199	106	117	6.5	7.5	65.6	Fair	DST	\$ 12.00	\$ 69,510.24	6-10 Years	24.0	1.95	
203158	Bell Road	Flanagan Road	Sider Road	Rural	Surface Treated	80	2	0.8324	6	300	300	4	200-499	245	271	6.4	8.2	71.4	Good	DST	\$ 12.00	\$ 59,933.52	6-10 Years	23.5	3.73	
203134	Willford Road	Wainfleet Dunnville Townline Road	Side Road 44	Rural	Surface Treated	80	2	0.5012	6	200	200	4	50-199	132	146	6.5	7.8	68.2	Fair	DST	\$ 12.00	\$ 36,085.68	6-10 Years	23.0	2.24	
203230	Smith Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.0548	6	200	200	4	50-199	101	111	6.8	7.5	66.8	Fair	DST	\$ 12.00	\$ 147,942.72	6-10 Years	22.9	1.78	
203157	Augustine Road	Walnut Hill Road	Augustine Road East	Semi-Urban	Surface Treated	40	2	0.7897	5	L/R	30															

WORK PLAN

RESURFACING NEEDS

Municipal ID	Name	From Limit	To Limit	Roadside Environment	Road Surface	Speed (km/hr)	Number of Lanes	Length (km)	Surface Width (m)	Function Class	Design Class	MMS Class	AADT Range (vpd)	2023 Traffic (vpd)	Assumed 2033 Traffic (vpd)	Ride Condition Rating (RCR)	Distress Manifestation Index (DMI)	Pavement Condition Index (PCI)	Condition	Improvement Need	Unit Rate (\$/m2)	Estimated Cost (\$)	Time of Need	Priority Rating	Priority Guide Number (PGN)	Comments
203213	Side Road 18	Lakeshore Road	End of Road	Rural	Surface Treated	80	2	0.4840	5	100	100	6	0-49	35	38	6.3	7.3	63.0	Fair	DST	\$ 43.00	\$ 104,051.40	6-10 Years	21.8	0.23	
202878	Wainfleet Dunnville Townline Road	Jenny Jump Road	Buckner Road	Rural	Surface Treated	80	2	1.0442	6	200	200	4	50-199	58	65	6.5	7.6	66.2	Fair	DST	\$ 12.00	\$ 75,182.40	6-10 Years	21.3	1.05	
203156	Old River Road West	Regional Road 27	Gracey Road	Rural	Surface Treated	80	2	0.5533	6	200	200	4	50-199	57	63	6.6	7.6	66.3	Fair	DST	\$ 12.00	\$ 39,836.88	6-10 Years	21.2	1.03	
203198	Putman Road	Willford Road	Concession 6 Road	Rural	Surface Treated	80	2	2.0560	6	200	200	4	50-199	84	93	6.7	7.8	68.7	Fair	DST	\$ 12.00	\$ 148,029.84	6-10 Years	20.9	1.41	
203128	Hock Road	Sandel Road	Walnut Hill Road	Semi-Urban	Surface Treated	50	2	0.2026	4	L/R	100	6	0-49	41	45	5.5	8.0	65.2	Fair	DST	\$ 12.00	\$ 9,722.88	6-10 Years	20.9	1.14	
203184	Erie Street	Lakeshore Road	Gallinger Street	Rural	Surface Treated	60	2	0.0861	6	100	100	6	0-49	38	42	5.5	8.0	65.2	Fair	DST	\$ 12.00	\$ 6,195.60	6-10 Years	20.7	0.70	
203193	Clarendon Street East	Highway 3	Lee Street	Semi-Urban	Asphalt	80	2	0.1050	6	L/R	200	4	50-199	139	154	6.4	8.2	72.2	Good	RI	\$ 33.00	\$ 20,797.92	6-10 Years	20.3	0.75	
203019	Old Lakeshore Road West	Old Lakeshore Road East	Lakeshore Road	Semi-Urban	Surface Treated	80	2	0.0418	6	L/R	100	6	0-49	26	29	5.5	8.0	64.6	Fair	DST	\$ 43.00	\$ 10,774.08	6-10 Years	20.2	0.14	
203275	Deeks Road South	Memme Court	Lambert Road	Rural	Surface Treated	80	2	0.5929	6	200	200	4	50-199	182	201	6.5	8.4	73.9	Good	DST	\$ 12.00	\$ 42,685.92	6-10 Years	20.2	2.54	
203141	Priestman Road	Highway 3	Willford Road	Rural	Surface Treated	80	2	2.0626	6	200	200	4	50-199	136	151	6.9	8.1	72.8	Good	DST	\$ 12.00	\$ 148,505.76	6-10 Years	19.8	1.98	
203233	Gallinger Street	Brawn Road	Erie Street	Rural	Surface Treated	60	2	0.2403	6	200	200	5	50-199	63	69	6.3	8.0	69.0	Fair	DST	\$ 12.00	\$ 17,301.60	6-10 Years	19.7	1.04	
203151	Sider Road	Bell Road	Highway 3	Rural	Surface Treated	80	2	2.0771	6	200	200	4	50-199	77	85	6.3	8.1	70.0	Good	DST	\$ 12.00	\$ 149,551.20	6-10 Years	19.7	1.23	
203088	Concession 6 Road	Marshagan Road	Anderson Road	Rural	Surface Treated	80	2	1.4397	6	300	300	4	200-499	286	316	7.0	8.6	76.9	Good	DST	\$ 12.00	\$ 103,655.52	Adequate	19.6	3.52	
202917	Kilts Road	Concession 6 Road	Regional Road 27	Rural	Surface Treated	80	2	1.8622	6	200	200	4	50-199	148	163	7.0	8.2	73.6	Good	DST	\$ 12.00	\$ 134,074.80	6-10 Years	19.6	2.09	
203130	Summerland Avenue	Lakeshore Road	End of Road	Rural	Surface Treated	80	2	0.1334	5	100	100	6	0-49	13	14	5.7	7.8	64.0	Fair	DST	\$ 43.00	\$ 28,676.70	6-10 Years	19.4	0.08	
203124	Old River Road West	Gracey Road	Henderson Road	Rural	Surface Treated	80	2	0.9168	6	200	200	4	50-199	57	63	6.9	7.7	69.2	Fair	DST	\$ 12.00	\$ 66,008.16	6-10 Years	19.3	0.94	
203234	Abbey Road	Side Road 20	Highway 3	Rural	Surface Treated	80	2	0.8073	6	200	200	4	50-199	128	142	7.1	8.1	73.3	Good	DST	\$ 12.00	\$ 58,122.72	6-10 Years	19.3	1.83	
203100	Schooley Road	Lakeshore Road	End of Road	Semi-Urban	Surface Treated	80	2	0.1507	6	L/R	100	6	0-49	26	29	5.7	8.1	66.7	Fair	DST	\$ 12.00	\$ 10,848.24	6-10 Years	19.0	0.46	
203099	Campbell Road	Lakeshore Road	End of Road	Semi-Urban	Surface Treated	80	2	0.2010	6	L/R	100	6	0-49	26	29	5.3	8.4	67.1	Fair	DST	\$ 12.00	\$ 14,474.88	6-10 Years	18.8	0.46	
204479	Wainfleet Dunnville Townline Road	Buckner Road	Highway 3	Rural	Surface Treated	80	2	0.3505	6	200	200	4	50-199	63	69	6.5	8.1	71.2	Good	DST	\$ 12.00	\$ 25,232.40	6-10 Years	18.3	0.96	
203138	Walnut Hill Road	Augustine Road	Slater Boulevard	Semi-Urban	Surface Treated	40	2	0.3099	6	L/R	200	5	50-199	65	72	6.0	8.4	71.6	Good	DST	\$ 12.00	\$ 22,314.96	6-10 Years	18.2	0.99	
204473	Old River Road East	Driveway	Metler Road	Rural	Surface Treated	80	2	0.3884	6	100	100	6	0-49	45	49	6.9	7.9	70.5	Good	DST	\$ 12.00	\$ 27,964.80	6-10 Years	17.9	0.70	
203269	Wainfleet Dunnville Townline Road	Hanagan Road	Booker Road	Rural	Surface Treated	80	2	0.9544	6	100	100	6	0-49	25	28	6.0	8.1	68.6	Fair	DST	\$ 12.00	\$ 68,714.64	6-10 Years	17.9	0.43	
203278	Gallinger Street	Erie Street	End of Road	Rural	Surface Treated	60	2	0.1204	6	100	100	6	0-49	5	6	5.6	8.0	65.8	Fair	DST	\$ 12.00	\$ 8,665.92	6-10 Years	17.8	0.10	
203159	Fowler Road	Lakefield Crescent	Fowler Road	Rural	Surface Treated	40	2	0.1138	4.5	200	200	5	50-199	50	55	6.5	8.2	71.6	Good	DST	\$ 12.00	\$ 6,145.20	6-10 Years	17.5	1.01	
203136	Bradshaw Road	Highway 3	End of Road	Rural	Surface Treated	80	2	0.1934	5.5	100	100	6	0-49	5	6	6.0	8.0	67.6	Fair	DST	\$ 12.00	\$ 12,763.74	6-10 Years	16.8	0.10	
203125	Fowler Road	Second Street	Fowler Road	Semi-Urban	Surface Treated	40	2	0.5650	4.5	L/R	200	5	50-199	50	55	6.6	8.3	73.0	Good	DST	\$ 12.00	\$ 30,511.62	6-10 Years	16.6	0.96	
203010	Walnut Hill Road	Slater Boulevard	Hock Road	Semi-Urban	Surface Treated	40	2	0.0690	6	L/R	200	5	50-199	65	72	6.0	8.7	74.2	Good	DST	\$ 12.00	\$ 4,967.28	6-10 Years	16.5	0.89	
203268	Wainfleet Dunnville Townline Road	Bell Road	Hendershot Road	Rural	Surface Treated	80	2	0.3691	6	200	200	4	50-199	63	69	6.5	8.5	74.2	Good	DST	\$ 12.00	\$ 26,576.64	6-10 Years	16.4	0.86	
203054	Fowler Road	Morgans Point Road	Lakefield Crescent	Rural	Surface Treated	40	2	0.1678	4.5	200	200	5	50-199	50	55	6.3	8.5	73.3	Good	DST	\$ 12.00	\$ 9,061.74	6-10 Years	16.4	0.94	
203094	Churchill Avenue	Golf Course Road	Collins Lane	Semi-Urban	Surface Treated	40	2	0.2585	5	L/R	200	5	50-199	64	70	5.8	9.0	75.9	Good	DST	\$ 12.00	\$ 15,510.60	Adequate	15.4	0.98	
203109	Buckbee Road	Lakeshore Road	End of Road	Rural	Surface Treated	80	2	0.1745	6	100	100	6	0-49	13	14	5.5	8.8	71.9	Good	DST	\$ 12.00	\$ 12,562.56	6-10 Years	15.2	0.19	
203098	Dreamland Avenue	Lakeshore Road	End of Road	Rural	Surface Treated	50	2	0.0987	5	100	100	6	0-49	13	14	6.2	8.5	73.2	Good	DST	\$ 12.00	\$ 5,922.00	6-10 Years	14.5	0.22	
203122	Desiree Street	Churchill Avenue	Lakeshore Road	Semi-Urban	Surface Treated	40	2	0.1276	5	L/R	100	6	0-49	26	29	5.5	9.1	74.9	Good	DST	\$ 12.00	\$ 7,654.20	6-10 Years	14.3	0.42	