

The Corporation of the Township of Tay Special Public Works Committee Meeting

> April 9, 2019 3:00 p.m.

### Municipal Office Council Chambers Agenda

### 1. Call to Order

### 2. Disclosure of Interest

#### 3. Adoption of the Agenda

### 4. Staff Reports / Other Business

- 4.1 Report from the Director of Public Works Report No.: PW-2019-38 Re: 2019 Road Program Discussion
- 4.2 Report from the Director of Public Works Report No.: PW-2019-17 Re: Double Surface Treatment & Gravel Rehabilitation (deferred Municipal Report 2019-03-01, Recommendation #11)
- 4.3 Report from the Director of Public Works Report No.: PW-2019-27 Re: 2019 Gravel Program and Contract (deferred March 27<sup>th</sup>, 2019 Council)

### 5. Items for Information

- 5.1 Presentation from the Director of Public Works Re: 2018 Road Program Issues
- 5.2 Report from the Director of Public Works Report No.: PW-2018-49 Re: Contract 2018-30, Gervais Road Surface Options
- 5.3 Report from the Director of Public Works Report No.: PW-2019-07 Re: Roads Long Term Plan Update
- 5.4 Report from the Director of Public Works Report No.: PW-2019-09 Re: 2019 Road Program Options

### 6. Adjournment



### **STAFF REPORT**

Department/Function:	Public Works
<u>Chair:</u>	Councillor Barry Norris
Meeting Date:	April 9, 2019
Report No.:	PW-2019-38
Report Title:	2019 Road Program Discussion

#### **RECOMMENDATION:**

That Staff Report No. PW-2019-38 regarding discussion of the 2019 road program be received for information.

### INTRODUCTION/BACKGROUND:

This report provides a summary of the current approved 2019 road and related works. Related reports are included in the Items for Information section of the agenda. In addition, the agenda has two deferred reports related to tenders received; one for gravel, and, one for surface treatment and slurry seal.

At the budget meeting held on January 24, 2019, Committee received report PW-2019-07. That report presented an update to the 2019 to 2028 Roads Long Term Plan. The program followed the Road Needs Study (RNS) as closely as possible. Deviations from the RNS were noted. Committee recommended that Gratrix Road be removed from the 2019 program and requested that staff provide a recommendation for alternative road work.

At the meeting on February 6, 2019, Council received report PW-2019-09. That report presented options for the 2019 road program. Option 3 of that report was selected with the exclusion of Hogg Valley Road and the inclusion of 1,500 metres of Gervais Road.

Based on those approvals, tenders were issued for both; the supply of gravel, and, the placement of double surface treatment and slurry seal. Reports on those

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tenders have been deferred to this meeting. Committee did indicate that the 2019 Gravel Program should be deleted.

The current approved roads and sidewalk program is set out below:

Surface Treatment and Slurry Seal	
Ron Jones Rd - 200m N of Hogg Valley Rd to McMann Sideroad	\$145,000
Duck Bay Rd - Meadows Ave to North Limit	\$70,000
Gervais Rd - 1500m section b/t Vasey Rd and Hogg Valley	\$193,322
Rumney Rd - Elliott Sideroad to 1850m South	\$260,000
Pulverize Only	
Triple Bay Rd - North Limit to Comber Place	\$40,000
Ebenezer Side Rd - Old Penetanguishene Rd to Wood Rd	\$65,000
Asphalt	
First Ave - Woodlands Ave to Arpin St	\$450,000
Sidewalks	
Seventh Ave - McNicoll to Alberta St	\$127,000
Talbot St - Fifth to Seventh Ave	\$120,000

In addition, it was inferred from the March 13, 2019 meeting that surface treatment and slurry seal of Ebenezer was intended. The Long Term Plan had included \$204,000 for this.

### ANALYSIS:

Committee requested an opportunity to discuss the 2019 road program prior to the award of the tenders that have been received and the preparation of tenders for other works. Discussion at the April 9, 2019 meeting should result in decisions on the program for 2019. To the degree possible direction from the April 9, 2019 meeting should be ratified on April 10, 2019.

It is unlikely that Committee will be unanimous on the road sections, scope and timing of any proposed program. It is hoped that the bulk of the program can be confirmed and other road sections, in priority order, can be identified.

### FINANCIAL/BUDGET IMPACT:

The 2019 capital budget plus the recently announced gas tax funding are summarized below:

Surface Treatment and Slurry Seal	\$668,322	\$773,322	
Pulverize Only	\$105,000	\$773,322	
Asphalt		\$450,000	
Gravel Program		\$164,407	
Sidewalks		\$247,000	
Gas Tax Addition		\$310,000	
	Total	\$1,944,729	

The current best estimate of cost for the committed program is summarized below:

Surface Treatment and Slurry Seal and Pulverize Only	\$686,129
Asphalt	\$450,000
Gravel Program	\$0
Sidewalks	\$247,000
Surface Treatment of Ebenezer	\$204,000
Total	\$1,587,129

#### CONCLUSION:

Direction is needed to confirm the works that may be completed within the gravel supply and surface treatment tenders that the Township has received. In addition, direction is needed on what other works should be completed this year.

Prepared By: Peter Dance, Director of Public Works

Recommended by:

Date: April 3, 2019

Peter Dance, P. Eng. Director of Public Works

Reviewed By;

Date: April 3, 2019

Robert J. Lamb, CECD, EC.D. Chief Administrative Officer



### STAFF REPORT

Department/Function:	Public Works
<u>Chair:</u>	Councillor Barry Norris
Meeting Date:	March 13, 2019
Report No:	PW-2019-17
Report Title:	Double Surface Treatment and Gravel Rehabilitation

#### **RECOMMENDATION:**

That Staff Report No. PW-2019-17 regarding Double Surface Treatment and Slurry Seal contract 2019-04, and Gravel Rehabilitation contract 2019-06, be received;

And that the Council of the Township of Tay accepts the Double Surface Treatment and Slurry Seal tender low bid from Duncor Enterprises Inc. in the amount of \$291,388.50 plus HST;

And that the Council of the Township of Tay accepts the Gravel Rehabilitation tender low bid from Dufferin Aggregates in the amount of \$168,913.00 plus HST;

And that staff be directed to prepare the by-law authorizing the execution of the contract between the Township of Tay and Duncor Enterprises Inc. for the Double Surface Treatment and Slurry Seal;

And that staff be directed to prepare the by-law authorizing the execution of the contract between the Township of Tay and Dufferin Aggregates for the Gravel Rehabilitation.

### **INTRODUCTION/BACKGROUND:**

Included in the 2019 Capital Budget are funds for Road Resurfacing and the Gravel Program. The Public Works Department has invited bids from suppliers through a competitive tender process for the supply and placement of double surface treatment and slurry seal as well as the supply of gravel for the Township's gravel program.

The tenders were advertised on Biddingo and the Township website. The tender closed on March 1, 2019 at 2:00 pm. At that time there were two bids received for Double Surface Treatment and Slurry Seal and four bids received for Gravel Rehabilitation. The bids were opened by the Director of Finance, the Director of Public Works, the Administrative Assistant for the Roads/Parks Operations and the Manager of Roads and Fleet.

Road Name	From To		Gravel	Surface Treatment
Connors Crt	Rosemount Rd	South Limit	х	
Granny White SR	Reeves Rd	Newton St.	Х	
Granny White SR	Newton St.	1260m E of Newton St	х	
Rosemount Rd	Trail (C.N.R)	Vasey Road	Х	
Wood Rd	McMann SR	800m N of McMann SR	х	
Wood Rd	Ebenezer SR.	800m N	х	
Wood Rd	2092 Wood Rd	Forgets Rd.	х	
Ron Jones Road	200m North of Hogg Valley Road	McMann Side Road	х	x
Duck Bay Road	Meadows Avenue	Forest Harbour Pkwy	x	×
Ebenezer Side Road	Old Penetanguishene Road	Wood Road	x	
Rumney Road	Elliott Side Road	1850 metres South	x	x
Gervais Road	Vasey Road	1500 metres North	x	х

The roads to receive Gravel and Surface Treatments are:

### ANALYSIS:

The Double Surface Treatment and Slurry Seal bidders and their prices excluding HST are as follows:

Company Name	Bid Price	Meets Tender
		Requirements
Duncor Enterprises Inc.	\$291,388.50	Yes
Miller Paving Ltd.	\$336,307.50	Yes

Staff examined the bids in detail for proper documentation and pricing for arithmetical errors. All bids conform to the tender requirements.

Duncor Enterprises Inc., the low bidder, has the equipment, knowledge and experience to do this type of work. Township staff has spoken with Duncor Enterprises staff and they are aware of the scope of work and have no concerns. Township staff feels they are competent to complete this type of work.

The Gravel Rehabilitation bidders and their prices excluding HST are as follows:

Company Name	Bid Price	Meets Tender Requirements
Dufferin Aggregates	\$168,085.50	Yes
Robinson Haulage Inc.	\$175,431.00	Yes
Duivenvoorden Haulage Ltd.	\$178,613.00	Yes
Lafarge Canada Inc.	\$208,399.50	Yes

Staff examined the bids in detail for proper documentation and pricing for arithmetical errors. All bids conform to the tender requirements.

Dufferin Aggregates, the low bidder, has the equipment, knowledge and experience to do this type of work. Township staff has spoken with Dufferin Aggregates staff and they are aware of the scope of work and have no concerns. Township staff feels they are competent to complete this type of work.

### FINANCIAL/BUDGET IMPACT:

Due to the capital road resurfacing projects requiring the addition of gravel we included the gravel portion of the resurfacing project in the Gravel Rehabilitation tender.

### Road Resurfacing

The table below provides the estimated project costs for 2019 capital resurface projects (Excluding First Avenue) using bid prices, where known (bold). The project cost will be well within the allocated budget. This is inpart due to lower than anticipated gravel costs. The 2019 Capital Budget for Road Resurfacing (Excluding First Avenue) is a total of \$773,322.

It is noted that a separate tender was issued for the pulverization of various road sections. That tender is within the allocated budget.

Item	Estimated Project Costs
Surface Treat	\$194,922.00
Slurry Seal	\$96,466.50
Pulverize	\$30,702.00
Gravel	\$75,795.80
Fine Grade/Compact	\$32,000.00
Shouldering	\$52,000.00
Ditching and Drainage	\$80,000.00
Misc. & Testing (5%)	\$28,094.25
Contingency (15%)	\$84,282.75
Sub Total	\$674,262.00
HST (1.76%)	\$11,867.01
Total	\$686,129.01

From the above, the surface treat item and the slurry seal item represent the Duncor bid (\$194,922.00 + \$96,466.50 = \$291,388.50).

### <u>Gravel Program</u>

The table below provides the estimated project costs for 2019 capital gravel program using bid prices, where known (bold). The project cost will be will within the allocated budget. The 2019 Capital Budget includes the gravel program for a total of \$164,407. The budget allocation anticipated a greater distance of road than is required.

Items	Estimated Project Cost
Gravel	\$92,289.70
Fine Grade/Compact	\$32,000.00
Sub Total	\$124,289.70
HST (1.76%)	\$2,187.50
Total	\$126,477.20

From the above two tables, the two gravel items equal the Dufferin bid (\$75,795.80 + \$92,289.70 = \$168,085.50).

### CONCLUSION:

It is recommended that Council accepts the low bid from Duncor Enterprises Inc. for Double Surface Treatment and Slurry Seal and that Council accepts the low bid from Dufferin Aggregates for the Gravel Rehabilitation. Staff will prepare the by-laws to authorize execution of these contract documents.

Prepared by: Lyell Bergstrome, Manager of Roads and Fleet

Recommended by:

Date:

Peter Dance Director of Public Works

Reviewed by:

Date:

Robert Lamb Chief Administrative Officer



### **STAFF REPORT**

<b>Department/Function:</b>	Public Works
<u>Chair:</u>	Mayor Ted Walker
Meeting Date:	March 27, 2019
Report No:	PW-2019-27
Report Title:	2019 Gravel Program and Contract

#### **RECOMMENDATION:**

That Staff Report No. PW-2019-27 regarding Gravel Rehabilitation Contract 2019-04 and Double Surface Treatment and Slurry Seal Contract 2019-06 be received;

And that the Council of the Township of Tay accepts the Gravel Rehabilitation tender as amended to reduce the gravel quantity and increase the price from \$12.00 - \$12.80 per tonne to \$13.00-\$13.80 per tonne, from Duivenvoorden Haulage Ltd. in the amount of \$72,204.00 plus HST;

And that staff be directed to prepare the by-law authorizing the execution of the contract between the Township of Tay and Duivenvoorden for the Gravel Rehabilitation Contract with the amended scope and unit price;

And that Ebenezer Side Road (Wood Road to Old Penetanguishene Road) be added to the 2019 Double Surface Treatment and Slurry Seal Program with funding from the surplus in that approval and the Gravel Program budget.

### **INTRODUCTION/BACKGROUND:**

Further to report PW-2019-17 with regards to the Gravel Rehabilitation tender 2019-06; please note the correction that the low bid is Duivenvoorden Haulage Ltd. with a bid price of \$148,613.00 excluding HST, not Dufferin Aggregates (\$168,913.00) as noted in report PW-2019-17.

As per the motion approved at Committee of All Council on March 13<sup>th</sup>, staff was directed to remove the gravel road program items from the Gravel Rehabilitation tender 2019-06 and reach out to the low bidder to inquire whether this would affect the unit pricing received in their bid submission. Unfortunately due to the reduced scope of work the bidder cannot hold their pricing and has responded with a \$1.00 per tonne price increase. With this increase the bidder's rate is still lower than the other bidders. The proposed gravel tender amount will be \$72,204.00, with a total budget impact of \$78,474.79.

Due to the reduced scope of the gravel tender staff proposes that the surplus budget goes towards the rehabilitation of Ebenezer Side Road from Old Penetanguishene Road to Wood Road. This will include additional granulars, drainage and double surface treatment with slurry seal. This will affect the items in the corresponding tenders.

In discussions with Duncor with regard to the potential increase in scope they were happy to hold their unit rate of \$5.88 per square metre for double surface treatment and \$2.91 per square metre for the application of slurry seal.

### **FINANCIAL/BUDGET IMPACT:**

The completion of the surface treatment rehabilitation project on Ebenezer is estimated at \$204,000 this can be accommodated with the \$164,407.00 allocation for the Gravel Program and the approximate \$90,000 surplus in the 2019 Surface Treatment and Slurry Seal Program.

### **CONCLUSION:**

It is recommended that Council accepts the low bid from Duivenvoorden Haulage Ltd. for the Gravel Rehabilitation Contract with the reduced scope and increased rates and that Ebenezer Side Road be added to the surface treatment program. Staff will prepare the by-law to authorize execution of these contract documents.

Prepared by: Lyell Bergstrome, Manager of Roads and Fleet

Recommended by:

Date:

Peter Dance Director of Public Works

Reviewed by:

Date:

Robert Lamb Chief Administrative Officer



## Road Program Issues 2018

### Presented By: Peter Dance, Director of Public Works

April 25, 2018

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### Scheduled Road Work 2018

- Grandview Beach and Paradise Point Project
  - Gloucester Grove
  - Silver Birch Crescent
  - Evergreen Avenue
  - Paradise Avenue
  - Grove Street
  - Poplar Avenue
  - Waterside Drive
  - Oriole Street
  - Yeoger Drive
  - Dignard Avenue



- Kingfisher Avenue
- Beach Drive
- Woodland Avenue
- Earldom Boulevard
- Patterson Boulevard
- First Avenue (North of Woodlands Ave.)
- Alberta Street
- Gervais Road

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### John Dillingno Street & Albert Street

- Engineering Design 50% Complete
- Was to be 2018 but was deferred
- Need to consider how to proceed
- Road Needs Study suggests that John Dillingno Street resurfacing be scheduled for 2028, and Albert Street be scheduled for 2024.



### Duck Bay Road

- Meadows Avenue to Forest Harbour Parkway
- May 10<sup>th</sup> 2017, Committee received petition with regards to this road section
- Road Needs Study suggests Duck Bay Road be resurfaced in 2020

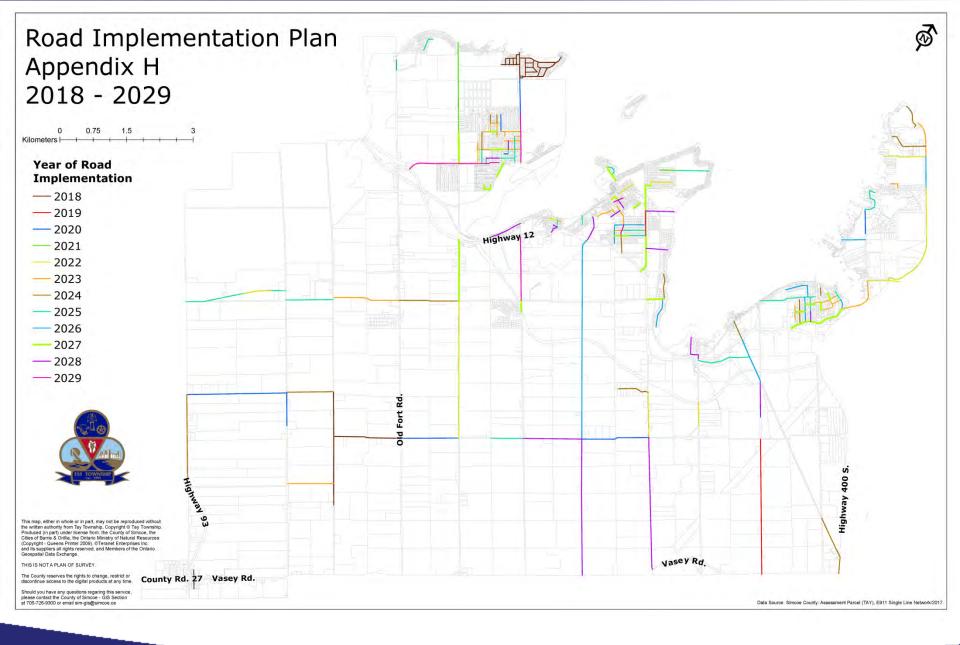


### **Bridges**

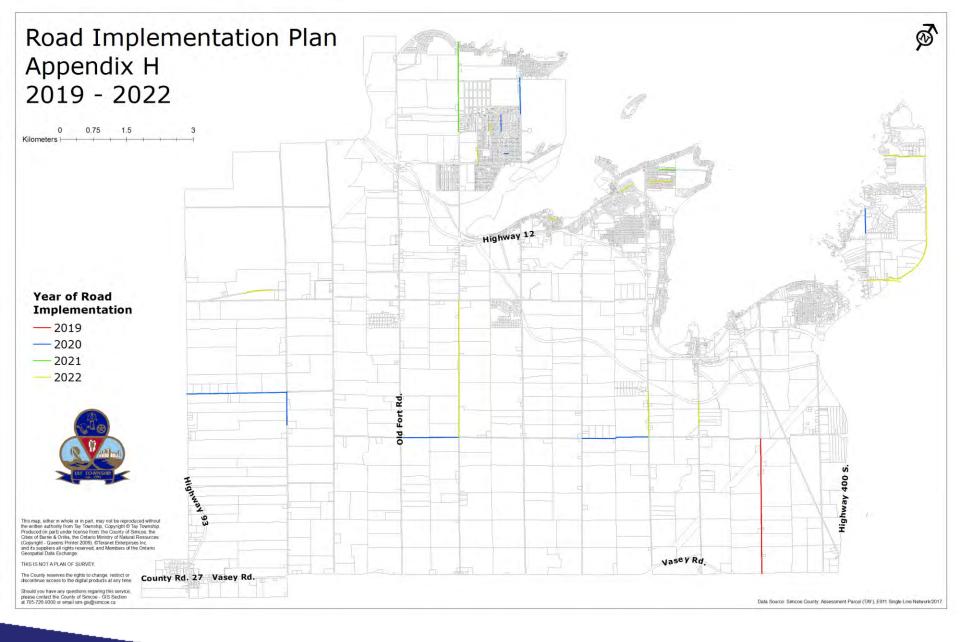
Annually some capital work is scheduled further to the required inspection reports.

### Rosemount Road

- Rosemount South Bridge, approximately 1.75km south of Highway 12 on Rosemount Road.
- Scheduled for replacement in 2021 at a cost of approximately \$1,360,000



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## Road Surface Type / Life Cycle Cost

Life Cycle Cost for 1km of road 7m wide for 60 years. As per Road Needs Study 2017

Surface Type		Poor Base	Moderate Base	Good Base
Gravel	<b>Cost</b>	<b>\$709,200</b>	<b>\$548,400</b>	<b>\$465,400</b>
	Grading per year	48 Times	24 Times	12 Times
Surface	<b>Cost</b>	<b>\$846,840</b>	<b>\$537,420</b>	<b>\$357,520</b>
Treatment	Life	5 Years	10 Years	15 Years
Asphalt	<b>Cost</b>	<b>\$732,000</b>	<b>\$564,000</b>	<b>\$376,000</b>
	Life	10 Years	20 Years	30 Years



### Surface Management Program for Existing Gravel Roads

Kilometers of Gravel Road	Existing Drainage	Cost of Asphalt	Cost of Surface Treatment (with Slurry)
5	Good	\$ 1,266,293	\$ 642,960
9	Fair	\$ 2,156,889	\$ 1,095,160
15	Poor	\$ 3,365,368	\$1,708,765
29		\$ 6,788,550	\$ 3,446,885

Costs/Unit include an adjustment factor for basic construction, engineering, contingency, terrain and soil type

### ASSUMPTIONS

Improvement Type	Depth	Cost/Unit
Scarify & grade road		\$2/sq. m
Granular A	50 mm	\$20/tonne
Hot mix asphalt	65 mm	\$90/tonne
Double Surface Treatment		<b>\$8</b> /sq. m
Single lift (Slurry)		\$4/sq. m

Current Rates on a 10-year Infrastructure Loan are in the 3% range. **Cost of borrowing is approximately \$170K for each \$1M borrowed.** 

### **Decision Points**

- I. \$1.6 Million per year, or borrowing options
- 2. Gravel to Hard Surface Program
- 3. Direction on John Dillingno Street (RNS indicates 2028) and Albert Street (RNS indicates 2024)
- 4. Direction on Duck Bay Road (RNS indicates year 2020)
- 5. How to integrate Road Needs Study and other items into future planning

Staff will prepare a ten year plan to reflect Council's direction for presentation with the Long Term Plan at the start of the 2019 budget process.



### **STAFF REPORT**

Department/Function:	Public Works
<u>Chair:</u>	Mayor Warnock
Meeting Date:	June 27, 2018
Report No.:	PW-2018-49
<u>Report Title:</u>	Contract 2018-30, Gervais Road Surface Options

#### **RECOMMENDATION:**

That Staff Report No. PW-2018-49 regarding Contract 2018-30, Gervais Road Surface Options be received;

Whereas the Roads Need Study recommends a double surface treatment with slurry seal for all rural local roads with an AADT of 400 vehicles or fewer;

And whereas Gervais Road from Nielsen Road to Hogg Valley Road is a local rural road with a AADT of 350 vehicles;

Therefore Contract 2018-30, Gervais Road Surface Options be awarded to Duncor Enterprises for the price of \$71,700 plus HST;

And that this project be funded from the Future Capital Reserve;

And that staff be directed to prepare the by-law authorizing the execution of the contract between the Township of Tay and Duncor Enterprises.

### INTRODUCTION/BACKGROUND:

At the January 24, 2018 Council meeting, Council directed staff to issue an RFP for the different surface types and other work mentioned in Option 3 of staff report PW-2018-03. The surface type options were, 60mm of asphalt and surface treatment with a slurry seal applied the following year. Council

also directed to have the results of the RFP brought back to Council for final direction on surface type.

At the January 24, 2018 Council meeting, Council approved the funding of this project through the Future Capital Reserve and/or the Contingency Reserve. In review with treasury staff the Future Capital Reserve is the recommended funding source.

Staff issued an RFP with two surface options. Option 1, double surface treatment with a slurry seal applied the following year and Option 2, 60mm layer of hot mix asphalt.

Gervais Road is a local rural road with an average annual daily traffic count of about 350 cars a day.

The RFP was advertised on Biddingo and the Township website. The RFP closed on June 15, 2018 at 2:00 p.m. At that time three bids were received. The RFP was opened by the Clerk, Director of Public Works and Public Works Administrative Assistant.

### ANALYSIS:

The bidders, their prices (excluding HST), and the surface type proposed is as follows:

Bidder	Price	Surface Type
Duncor Enterprises	\$71,700.00	Double Surface Treatment
Coco Paving Inc.	\$107,466.50	Hot Mix Asphalt
Georgian Paving LTD	\$113,275.00	Hot Mix Asphalt

Staff examined all the bids for proper documentation and pricing for arithmetical errors. No issues were found with the any of the bids.

All of these prospective bidders have done work for the Township on past contracts without issues or concern.

It is assumed for the purpose of this report that the road base within this section of Gervais Road (Nielsen Road to Hogg Valley) is in moderate condition given no geotechnical investigation has been completed to suggest otherwise and there are no adverse performance issues during the spring that could suggest a poor base. However, the Roads Need Study (RNS) in Appendix H (and E) shows this section having poor drainage with the need for repair being now.

There is also three culverts that are in poor condition, whether it's due to deterioration of the barrel, misalignment of the pipe, improper grade of the inlet, scouring of the drainage course on the outlet side or lack of proper frost tapers, it should be expected that some work will be required within the next ten years to correct these deficiencies.

On page 24 of the RNS, Table 16 recommends surface treatment as the surface type for local, rural roads with an AADT of 201-400. Appendix E of the RNS does not recommend making any changes to the current surface type, surface width or shoulder and does not predict an increase in capacity for future growth.

### FINANCIAL/BUDGET IMPACT:

Only the low bidder for asphalt (Coco Paving) and Duncor Enterprises the lone bidder for surface treatment is being considered for this comparison.

60mm of asphalt, (	Coco Paving	Double Surface	treatment with a					
		slurry seal, Duncor Enterprises						
Bid Price	\$107,466.50	Bid Price	\$71,700.00					
Net HST	\$1,891.41	Net HST	\$1,261.92					
Total Price	\$109,357.91	Total Price	\$72,961.92					

The project cost by surface type is as follows:

On page 38 of the RNS Table 26 suggests a ten year service life for surface treatment on a moderate base and Table 27 suggests a twenty year surface life for a single 65mm lift of asphalt on a moderate base. The following page, Table 29 concludes that surface treatment is the most feasible option for a moderate base, although the life-cycle cost for asphalt and surface treatment is similar for good and moderate bases. Since it's expected that some repairs to the road crossing culverts will be required within the next ten years, if asphalt is chosen as the surface type it will need to be cut, removed and replaced at these areas.

The Road Needs Study, Appendix H (and E) estimates \$106,000 for the resurfacing of Gervais Road at this section.

For reference, Report 2018-03 included costs of \$113,630 and \$171,050 for the surface treatment and asphalt options, respectively. These were based on 65 mm (rather than 60 mm) of asphalt and included a ten percent contingency. Using the Road Needs Study unit costs results in prices of \$101,500 and \$140,000 (65 mm), without a contingency.

### CONCLUSION:

The Township undertook a competitive bid process for the Gervais Road surface type options by issuing an RFP. The results of that RFP are listed in this report. As recommended in the Roads Need Study, surface treatment with a slurry seal is the preferred and most feasible option for local rural roads.

Prepared By: Bryan Ritchie, Manager of Roads and Fleet

Recommended By:

Date:

Peter Dance Director of Public Works

Reviewed By:

Date:

Robert J. Lamb, CECD, EC.D. Chief Administrative Officer



### STAFF REPORT

Department/Function:	General Government and Finance
<u>Chair:</u>	Councillor Paul Raymond
Meeting Date:	January 24, 2019
Report No.:	PW-2019-07
Report Title:	Roads Long Term Plan Update

#### **RECOMMENDATION:**

That Staff Report No. PW-2019-07 regarding the update of the Long Term Plan for roads received;

And that the 2019 road program be approved [with the following amendments:];

And that the 2019 design for the 2020 and 2022 watermain/road project be approved.

### INTRODUCTION/BACKGROUND:

#### <u>Overview</u>

This report provides an update to the roads section of the Long Term Plan that was adopted by Council on September 26, 2018. The purpose of this is to provide some updated costing for certain road sections and comment on roads that are of particular interest for one reason or another. It is hoped that this will assist Council in defining a road program for inclusion in the 2019 budget. In addition, approval is requested for the watermain design to be completed in 2019.

### **Attachments**

The main attachment to this report is a spreadsheet that provides a ten year road program. This is organized by the order of the roads as presented in the Road Needs Study. To assist in locating road sections an alphabetical listing is also provided. In addition, budget sheets are provided for the highlighted roads organized by year of construction. Budget sheets for the road portion of costs for the watermain programs for 2020 & 2022 and 2023 & 2024.

### <u>Background</u>

C.C. Tatham and Associates Ltd. were retained by Tay Township to complete the 2017 Road Needs Study (RNS) for the Township's road network. The attached ten year plan includes the RNS recommendations as closely as possible regarding hard surface roads including asphalt and surface treated roads (RNS Appendix H). This program will be revised annually and presented as part of the Long Term Plan (LTP). In the future, costs for the immediate years will be evaluated on a case by case basis. At present, the RNS costs have generally been included, particularly for the longer term projects.

Roads in the Now category of the RNS include 2019 to the fourth road in 2023. From 2023 to half of the 2028 the roads are in the 1 to 5 Years category. The remainder of the 2028 roads are in the 6 to 10 Years category. There are additional roads in the 6 to 10 Years category that fall beyond 2028 in the RNS.

Roads highlighted in the LTP are provided with individual budget sheets. In addition, two budget sheets are provided for the upcoming watermain program. The following roads have been removed or amended as noted:

- 1. Bannister and Truax were included in the RNS for 2018. To provide room in the budget they have been moved to 2020.
- 2. Sections of Hogg Valley and Ron Jones (RNS for 2018) have short segments that are now in gravel. These sections have been deferred to 2019. It is noted that the RNS included Ron Jones from McMann to the south limit. That will remain as gravel and the LTP includes an amended distance (1000m rather than 1500m) and price from what the RNS had.
- 3. A large portion of Gratrix Road had been included in the RNS 2019 program as an asphalt reconstruction. Since it is actually a surface treated road and it is recommended as a rehabilitation project the cost is cut by about 50 percent.
- 4. The old sections of O'Leary were shown in 2022 and 2023 in the RNS. They both appear in 2022 in the LTP, the description and lengths have been corrected from 100m each but the costing has not been adjusted
- 5. In 2022 the RNS program had included Gerhardt (in gravel program and upgraded after data collection) and a section of Rosemount (will remain in gravel and is included in the gravel program). These are not included the hard surface LTP.

- 6. The gravel section of Forgets is included in 2022. It is intended that this be returned to surface treatment.
- 7. Sections of Alberta, Assiniboia and Simcoe appeared in the RNS in 2023, 2025 and 2027. Since these were resurfaced in 2017 and 2018 they have not been included in the LTP.
- 8. The two sections of Vents Beach Road had been shown in 2025 and 2028. They both appear in 2025 in the LTP.
- 9. There are many sections of road that have been adjusted from one year to another to coordinate with the proposed watermain replacement program.

### Scope of Work

The terms resurface, rehabilitate and reconstruct are used to indicate a range of project types:

- Resurface very limited scope of replacing the driving surface only
- Rehabilitate includes some drainage, base replacement, cross-fall, grade improvement, etc. in addition to providing a new surface
- Reconstruct generally involves full base replacement and may include alignment changes or creation of wider road platform.

### Lifecycle Costs

Earlier staff reports and the Road Needs Study reviewed lifecycle cost for rural roads. The lifecycle cost for various road surfaces are, from least expensive to most expensive: surface treatment, asphalt and gravel. For all surface types base repairs are generally worthwhile to extend the life of road surface. This has both user and lifecycle cost benefits.

Generally, in urban settings with lots of turning movements and particularly if curbs are in place asphalt is the preferred surface material.

### ANALYSIS:

The program has been developed with consideration of the Road Needs Study, public input, project needs (reconstruct vs. rehabilitate, drainage, etc.), grouping of road sections for constructability/contract constraints; and, co-ordination with the need for watermain replacements. Several of these factors may need to be considered with any proposed changes to the program.

The projected program addresses approximately 8.8 km per year (5.3 percent) of hard surface roads. Based on 165 km of hard surface roads this equates to an 18.7 year cycle. This is in excess of long term needs and will allow for introduction of more preventative work which will improve ride and reduce life cycle costs. For example, some sections of asphalt roads that do not have potholes or ruts but the surface has excessive cracks (is alligatored) should be resurfaced now to protect the base.

### FINANCIAL/BUDGET IMPACT:

The 2019 budget document included \$1,223,322 for this program. That has dictated the selection of roads as presented with a total of \$1,193,000.

### CONCLUSION:

The roads portion of the Long Term Plan has been updated to provide Council with a recommended program for 2019.

Prepared By: Peter Dance, Director of Public Works

Recommended by:

Date: January 15, 2019

Peter Dance, P. Eng. Director of Public Works

Reviewed By;

Date: January 16, 2019

Robert J. Lamb, CECD, EC.D. Chief Administrative Officer

Name	# From	To	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Bannister Street	1 Vasey Road	South Limit	200		ST to Asphalt	Reconstruct	2018	2017	\$67.000	LULI	LULL	LOLD	2024	LOLD	1010	2027	2020
Ron Jones Road	2 Ebenezer Sideroad	400m South	400	5.2	ST to Asphalt	Rehabilitate	2018		\$67,000								
Traux Lane	3 Vasey Road	North Limit	200	5.2	ST to Asphalt	Reconstruct	2018		\$67,000								
Hogg Valley Road	4 Ron Jones Road	Old Fort Road	1500		Surface Treated	Resurface	2018	\$176,000	\$07,000								
Ron Jones Road		McMann	1250		Surface Treated	Resurface	2018	\$147.000									
Gratrix Road	6 500m N of Fesserton SR ROW	Vasey Road	3500		Surface Treated	Rehabilitate	2019	\$600.000									
Hogg Valley Road	7 Rumney Road	Old Fort Road	1300		Surface Treated	Resurface	2020		\$128.000								
First Avenue	8 Woodlands Avenue	Arpin Street	900		Asphalt	Reconstruct	2020		\$473.000								
Davidson Street	9 Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020		\$20.000								
Duck Bay Road	10 Meadows Avenue	North Limit	500	6.2	Surface Treated	Resurface	2020		\$59,000								
Wood Road	11 1350 m N of McMann SR	Ebenezer Sideroad	700		Surface Treated	Resurface	2020		\$62.000								
Hayes	12 Fourth	Fifth	100	6.5	Asphalt	Resurface W	N/A		\$69.500								
Fifth Avenue	13 Arpin Street	Hayes	500	5.5	Asphalt	Rehabilitate V	2020		\$347,500								
Triple Bay Road	14 North Limit	Comber Place	2000	6.5	Asphalt	Reconstruct	2021			\$670,000							
Hogg Valley Road	15 Gervais Road	Newton Street	1500		Surface Treated	Resurface	2020			\$146,000							
Ebenezer Side Road	16 Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020			\$234,000							
Osborne Street	17 94 Osborne Street	HCB/GS Transition	300	6.6	Asphalt	Adequate	2021				\$51,000						
Quarry Road	18 Duck Bay Road	East Limit	800	6.5	Asphalt	Reconstruct	2022			\$445,000							
O'Leary Lane	19 140m west of Vents Beach Road	Vents Beach Road	140	5.5	Asphalt	Rehabilitate	2022				\$8,000						
McDermitt Trail	20 Anderson Crescent	Anderson Crescent	500	6.8	Asphalt	Resurface	2022				\$84,000						
Ninth Avenue	21 Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate W	2022					\$208,500					
Lumber Road	22 Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022				\$30,000						
Forgets Road	23 1400m E of Old Penetanguishene I	300m W of Wood Road	600	5.2	Gravel to ST	Rehabilitate	2022				\$105,000						
Wood Road	24 Forgets	1050m South	1050	6.5	Gravel to ST	Resurface	N/A				\$117,000						
Rumney Road	25 Elliott Sideroad	1850m South	1850	6.6	Surface Treated	Rehabilitate	2022	\$270,000									
Rumney Road	26 Hogg Valley Road	850m North	850	6.6	Surface Treated	Rehabilitate	2022				\$125,000						
Seventh Avenue	27 Athabaska Street	Alberta Street	200	6.2	Asphalt	Rehabilitate W	2022						\$139,000				
West Service Road	28 Forest Harbour Parkway	Quarry Road	2600	6.6	Asphalt	Rehabilitate	2022				\$286,000						
Albert Street	29 Richard Street	George Street	500	6.4	Asphalt	Reconstruct	2023					\$251,000					
West Service Road	30 North Limit	Gerhardt Road	700	6.6	Asphalt	Rehabilitate	2023					\$73,000					
Elliott Side Road	31 Ron Jones Road	Old Fort Road	1500	6.4	Surface Treated	Rehabilitate	2023					\$131,000					
Duck Bay Road	32 Coldwater Road	Quarry Road	1100	7	Asphalt	Rehabilitate	2023					\$111,000					
Willow Street	33 Mountain Avenue	Coldwater Road	200	8	Asphalt	Resurface	2023					\$37,000					
Alberta Street	34 Fifth Avenue	Second Avenue	300	7	Asphalt	Resurface W	2023				\$208,500						
Alberta Street	35 Second Avenue	First Avenue	200	7	Asphalt	Resurface W	2023				\$139,000						
Elm Street	36 Mountain Avenue	Coldwater Road	200	6.6	Asphalt	Resurface	2023					\$30,000					
McMann Sideroad	37 Wood Road	Ron Jones Road	1000	6.4	Surface Treated	Resurface	2023					\$100,000					
Wardell Street	38 Fourth Avenue	First Avenue	400	6	Asphalt	Resurface	2023					\$50,000					
Elm Street	39 Pine Street	Mountain Avenue	400	6.3	Asphalt	Resurface	2023					\$52,000					
Ninth Avenue	40 North Limit	Assiniboia Street	200		Asphalt	Resurface W	2023					\$139,000					
O'Leary Lane	41 Vents Beach Road	East Limit	130		Asphalt	Resurface	2023				\$14,000						
Bell Street	42 First Avenue	West Limit	200		Asphalt	Resurface W	2023				\$139,000						
St. Mary's Crescent	43 Florence Street	West Limit	200	6.2	Asphalt	Resurface	2023					\$21,000					
Barnes Avenue	44 Athabaska Street	Alberta Street	200	6	Asphalt	Resurface W	2023						\$139,000				
Barnes Avenue	45 Alberta Street	Hayes Street	100	6	Asphalt	Resurface W	2023						\$69,500				
Mountain Avenue	46 Elm Street	Cherry Street	500		Asphalt	Resurface	2023					\$60,000					
Gouett Street	47 Forest Harbour Parkway	West Limit	300		Surface Treated	Resurface	2023					\$28,000					
Assiniboia Street	48 Ninth Avenue ROW	Seventh Avenue	300		Asphalt	Resurface	2023					\$43,000					
Florence Street	49 St. Mary Crescent	Jephson Street	100	6.2	Asphalt	Resurface	2023					\$15,000					

				Width													
Name	# From	То	Length (m)	(m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Athabaska Street	50 Seventh Avenue	Barnes	200		Asphalt	Resurface W	2023						\$139,000				
Bay Street	51 West Street	Albert Street	200		Asphalt	Resurface	2023					\$22,000					
Browns Line	52 North Limit	South Limit	300	5.3	Asphalt	Resurface	2023					\$30,000					
Fourth Avenue	53 Alberta Street	Hayes Street	100		Asphalt	Resurface	2023					\$16,000					
Franklin	54 Seventh	Barnes	200		Asphalt	Resurface W	N/A						\$139,000				
McPhee	55 Seventh	Barnes	200		Asphalt	Resurface W	N/A						\$139,000				
Percy Street	56 North Limit	Dodge Drive	300	5.8	Asphalt	Resurface	2024						\$34,000				
Barnes Avenue	57 Arpin Street	Athabaska Street	200	6	Asphalt	Resurface W	2024						\$139,000				
Tanners Road	58 Lawson Lane	Highway 12	400		Surface Treated	Resurface	2024						\$39,000				
Sallows Drive	59 Lumsden Street	Bernard Avenue	400		Surface Treated	Resurface	2024						\$34,000				
Sallows Drive	60 Bernard Avenue	Caswell Drive	300		Surface Treated	Resurface	2024						\$25,000				
Elliott Side Road	61 Old Fort Road	Rumney Road	1400		Surface Treated	Resurface	2024						\$131,000				
Albert Street	62 John Dillingno Street	South Limit	200		Asphalt	Resurface	2024						\$30,000				
Ash Street	63 Hazel Street	West Limit	200	5.5	Asphalt	Resurface	2024						\$25,000				
Alcove Drive	64 Port Severn Road	Limit	500	6.8	Asphalt	Resurface	2024						\$77,000				
Sandhill Road	65 Old Coach Road	Vasey Road	500		Asphalt	Resurface	2024						\$75,000				
Rope Boulevard	66 West Service Road	Booth Road	300	6.4	Asphalt	Resurface	2024						\$44,000				
Rope Boulevard	67 Booth Road	Oak Road	500	6.4	Asphalt	Resurface	2024						\$64,000				
Seventh Avenue	68 Arpin Street	Athabaska Street	200	6.2	Asphalt	Resurface W	2024						\$139,000				
Percy Street	69 Dodge Drive	Sturgeon Bay Road	300	5.8	Asphalt	Resurface	2024						\$34,000				
Neilson Road	70 Gervais Road	West Limit	400	6.4	Surface Treated	Resurface	2024						\$40,000				
Old Penetanguishene Roa	71 Ebenezer Sideroad	Highway 93	400	6.3	Surface Treated	Resurface	2024						\$41,000				
Ebenezer Side Road	72 Wood Road	Ron Jones Road	1000	6.7	Surface Treated	Resurface	2024						\$99,000				
Elliott Side Road	73 Wood Road	Ron Jones Road	1100	6.5	Surface Treated	Resurface	2025				\$67,000			\$90,000			
Forest Harbour Parkway	74 West 91 FHP	Duck Bay Road	900	6.2	Surface Treated	Resurface	2025							\$87,000			
Winfield Drive	75 William Street	North Limit	200	6.2	Asphalt	Resurface	2025							\$30,000			
Glacier Trail	76 Hilltop Crescent	North Limit	400	6.5	Asphalt	Resurface	2025							\$58,000			
Midland Avenue	77 North Limit	Talbot Street	100	6.4	Asphalt	Resurface	2025							\$15,000			
Forgets Road	78 300m W of Wood Road	Wood Road	300	6.4	Surface Treated	Rehabilitate	2025							\$37,000			
Forgets Road	79 Old Penetanguishene Road	1400m E of Old Penetar	1400	6.4	Surface Treated	Rehabilitate	2025							\$173,000			
Third Avenue	80 Assiniboia Street	Davidson Street	100	6.3	Asphalt	Resurface	2025							\$14,000			
Port Severn Road	81 West Service Road	West Limit	100	6.6	Asphalt	Resurface	2025							\$16,000			
Vents Beach Road	82 O'Leary Lane	Bourgeois Beach Road	100	6	Asphalt	Resurface	2025							\$19,000			
Coldwater Road	83 Balsam Avenue	Willow Street	300	6.4	Asphalt	Resurface	2025							\$36,000			
Palmer Street	84 Albin Street	Dodge Drive	300	5.5	Asphalt	Resurface	2025							\$39,000			
Hogg Valley Road	85 Reeves Road	Hill at 4763 Hogg Valley R	900	6.6	Surface Treated	Resurface	2025							\$86,000			
Bay Street	86 Albert Street	Park Street	500	6.4	Asphalt	Resurface	2025							\$80,000			
Second Avenue	87 Alberta Street	Wardell	200	6.3	Asphalt	Resurface W	2025				\$139,000						
Second Avenue	88 Wardell	Talbot Street	475	6.3	Asphalt	Resurface	2025							\$80,000			
Beckett's Sideroad	89 Rosemount Road	Gratrix Road	1200	6.3	Surface Treated	Resurface	2025							\$116,000			
Bergie Crescent	90 Lighthouse Road	Juneau Road	300	5.8	Asphalt	Resurface	2025							\$39,000			
John Dillingno Street	91 Trillium Street	Park Street	400	6.6	Asphalt	Resurface	2025							\$60,000			
Osborne Street	92 HCB/GS Transition	Robins Point Road	700	7	Surface Treated	Resurface	2025							\$114,000			
Armstrong Street	93 Fifth Avenue	Third Avenue	200	6.6	Asphalt	Resurface	2025							\$32,000			
Newton Street	94 Hogg Valley Road	CPR Abandoned	2300	6.5	Surface Treated	Resurface	2026								\$230,000		
Albin Road	95 GS/HCB Transition	Pine Street	600	5.8	Asphalt	Resurface	2025							\$78,000			
Albin Road	96 West Limit	GS/HCB Transition	800	5.8	Surface Treated	Resurface	2025							\$80,000			
Ouida Street	97 Dodge Drive	Sturgeon Bay Road	300	5.6	Asphalt	Resurface	2026					-		-	\$33,000	-	
Coldwater Road	98 Willow Street	Duck Bay Road	200	6.4	Asphalt	Resurface	2026								\$29,000		
George Street	99 West Street	Park Street	700	6.4	Asphalt	Resurface	2026								\$103,000		

					Width													
Name	#	From	То	Length (m)	(m)	Surface Type	Need	RNS Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Ouida Street		Albin Road	Dodge Drive	300		Asphalt	Resurface	2026								\$39,000		<b></b>
Newton Street		Granny White Sideroad	Highway 12	1500		Surface Treated	Resurface	2026								\$248,000		
Bayway Road		Duck Bay Road	West Limit	500	6.	2 Surface Treated	Resurface	2026								\$69,000		
Gratrix Road		Highway 12	Old Coach Road	1000		7 Asphalt	Resurface	2026								\$166,000		
West Service Road		Gerhardt Road	Forest Harbour Parkway	700		5 Asphalt	Resurface	2026								\$110,000		
West Street		George Street	South Limit	400		Asphalt	Resurface	2026								\$57,000		
King Road		Albin Street	Limit	700		Asphalt	Resurface	2026								\$87,000		
Maskinonge Road		Caswell Road	South Limit	700		Surface Treated	Resurface	2026								\$97,000		
Ogdens Beach Road		North Limit	Bayview Avenue	300		5 Asphalt	Resurface	2026								\$38,000		
Newton Street		CPR Abandoned	Granny White Sideroad	900		Surface Treated	Resurface	2026								\$85,000		
Juneau Road		Hoyt Avenue	Lighthouse Crescent	500		4 Asphalt	Resurface	2027									\$64,000	
Triple Bay Road		Comber Place	Talbot Street	700		i Asphalt	Rehabilitate	2027									\$175,000	
Veterans Lane		Albert Street	William Street	200		Asphalt	Resurface	2027									\$30,000	
Caswell Road		Highway 12	Maskinonge Street	400		Surface Treated	Resurface	2027									\$60,000	
John Dillingno Street		West Street	Trillium Street	300		Asphalt	Resurface	2027									\$45,000	
Rumney Road		Elliott Sideroad	Highway 12	1400		Asphalt	Resurface	2027									\$205,000	
Reeves Road		Granny White Sideroad	CPR Abandoned	300		Asphalt	Resurface	2027									\$35,000	
Ney Avenue		Talbot Street	Nottingham Street	400		5 Asphalt	Resurface	2027									\$55,000	I
Sturgeon Bay Road		Highway 12	Ouida Street	400		5 Asphalt	Resurface	2027									\$56,000	
Anderson Crescent		Park Street	McDermitt Trail	700		2 Asphalt	Resurface	2027									\$97,000	
Coldwater Road	120	Duck Bay Road	Pine Street	700	6.6	Asphalt	Resurface	2027									\$105,000	I
Sturgeon Bay Road	121	Ouida Street	Pine Street	300	6.5	5 Asphalt	Resurface	2027									\$40,000	
Park Street	122	Anderson Court	Richard Street	300		7 Asphalt	Resurface	2027									\$54,000	-
Park Street	123	Richard Street	Industrial Road	300	6.8	8 Asphalt	Resurface	2027									\$50,000	
Park Street	124	Industrial Road	John Dillingno Street	300	6.8	B Asphalt	Resurface	2027									\$46,000	-
Park Street	125	John Dillingno Street	Todd Lane	400	6.8	B Asphalt	Resurface	2027									\$66,000	
Park Street	126	Todd Lane	Highway 12	300	6.1	B Asphalt	Resurface	2027									\$42,000	
Mountain Avenue	127	Hazel Street	Elm Street	200	5.8	B Asphalt	Resurface	2027									\$20,000	1
Eighth Avenue	128	Margaret Street	Camillia Street	100	6.5	5 Asphalt	Resurface	2027									\$16,000	
Assinibola Street	129	Seventh Avenue	Fourth Avenue	300	6.1	8 Asphalt	Resurface	2027									\$47,000	1
Cherry Street	130	Elm Street	Mountain Avenue	200	5.6	Asphalt	Resurface	2027									\$22,000	1
Alberta Street	131	Seventh Ave.	Barnes Avenue	200	6.5	5 Asphalt	Resurface	2027									\$23,000	
Elizabeth Street	132	Queen Street	South Limit	100	6.3	Asphalt	Resurface	2027									\$14,000	.
Dodge Drive	133	Browns Line	Ouida Street	300	5.4	Asphalt	Resurface	2027									\$33,000	
Camilla Street	134	Eighth Avenue	Maraget Street	200	6.	Asphalt	Resurface	2027									\$30,000	1
Amanda Street	135	Ouida Street	Pine Street	200	5.5	5 Asphalt	Resurface	2027									\$30,000	1
Third Avenue	136	Wardell Street	Assiniboia Street	200	5.4	5 Asphalt	Resurface	2028										\$26,000
Jephson Street	137	West Limit	Alberta Street	200	6.4	Asphalt	Resurface	2028										\$32,000
Davis Drive	138	Park Street	Bayside Avenue	500	6.3	Asphalt	Resurface	2028										\$48,000
Palmer Street	139	Dodge Drive	Sturgeon Bay Road	300	5.6	Asphalt	Resurface	2028										\$33,000
Hearthstone Drive	140	Duffy Drive	West Limit	200	5.3	7 Asphalt	Resurface	2028										\$26,000
Newton street	141	Vasey Road	Hogg Valley Road	3100	6.5	Surface Treated	Resurface	2028										\$310,000
Hogg Valley Road	142	Newton Street	Reeves Road	1300	6.6	Surface Treated	Resurface	2028										\$128,000
Newton Street	143	Highway 12	William Street	600	6.	7 Asphalt	Resurface	2028										\$84,000
Gratrix Road	144	Old Coach Road	500m N of Fesserton Side	800		/ Asphalt	Resurface	2028										\$125,000
Gervais Road	145	Hogg Valley Road	Vasey Road	3000	7.3	2 Surface Treated	Resurface	2028										\$317,000
Bourgeois Beach Road	146	100 m West of Vents Beach Road	Vents Beach Road	100	6.	5 Surface Treated	Resurface	2028										\$11,000
Duffy Drive		Hearthstone Drive	Highway 12	100		Asphalt	Resurface	2028										\$14,000
Industrial Avenue		Park Street	East Limit	400	1	/ Asphalt	Resurface	2028										\$55,000
Mitchell's Beach Road		South Limit	Reeves Road	800		Surface Treated	Resurface	2028										\$116,000
Vents Beach Road	150	Bourgeois Beach Road	Highway 12	200		Asphalt	Resurface	2028							\$27,000			
Armstrong Street		Midland Avenue	Fifth Avenue	300		Asphalt	Resurface	2028										\$45,000
Martha Street		William Street	Jephson Street	200		Asphalt	Resurface	2028										\$39,000
Total Expenditure	1			88045					\$1,193,000	\$1,360,000	\$1,495,000	\$1.512.500	\$1,417,500	\$1.834.500	\$1,406,000	\$1.391.000	\$1,460,000	

Name	#	From	То	Length (m)	Width (m)	Surface Type	Need	RNS Year
Albert Street	29	Richard Street	George Street	500	6.4	Asphalt	Reconstruct	2023
Albert Street	62	John Dillingno Street	South Limit	200	6.6	Asphalt	Resurface	2024
Alberta Street	34	Fifth Avenue	Second Avenue	300	7	Asphalt	Resurface W	2023
Alberta Street	35	Second Avenue	First Avenue	200	7	Asphalt	Resurface W	2023
Alberta Street	131	Seventh Ave.	Barnes Avenue	200	6.5	Asphalt	Resurface	2027
Albin Road	95	GS/HCB Transition	Pine Street	600	5.8	Asphalt	Resurface	2025
Albin Road	96	West Limit	GS/HCB Transition	800	5.8	Surface Treated	Resurface	2025
Alcove Drive	64	Port Severn Road	Limit	500	6.8	Asphalt	Resurface	2024
Amanda Street	135	Ouida Street	Pine Street	200	5.5	Asphalt	Resurface	2027
Anderson Crescent	119	Park Street	McDermitt Trail	700	6.2	Asphalt	Resurface	2027
Armstrong Street	93	Fifth Avenue	Third Avenue	200	6.6	Asphalt	Resurface	2025
Armstrong Street	151	Midland Avenue	Fifth Avenue	300	6.6	Asphalt	Resurface	2028
Ash Street	63	Hazel Street	West Limit	200	5.5	Asphalt	Resurface	2024
Assiniboia Street	48	Ninth Avenue ROW	Seventh Avenue	300	6.4	Asphalt	Resurface	2023
Assiniboia Street	129	Seventh Avenue	Fourth Avenue	300	6.8	Asphalt	Resurface	2027
Athabaska Street	50	Seventh Avenue	Barnes	200	6.2	Asphalt	Resurface W	2023
Bannister Street	1	Vasey Road	South Limit	200	5.2	ST to Asphalt	Reconstruct	2018
Barnes Avenue	44	Athabaska Street	Alberta Street	200	6	Asphalt	Resurface W	2023
Barnes Avenue	45	Alberta Street	Hayes Street	100	6	Asphalt	Resurface W	2023
Barnes Avenue	57	Arpin Street	Athabaska Street	200	6	Asphalt	Resurface W	2024
Bay Street	51	West Street	Albert Street	200	6	Asphalt	Resurface	2023
Bay Street	86	Albert Street	Park Street	500	6.4	Asphalt	Resurface	2025
Bayway Road	102	Duck Bay Road	West Limit	500	6.2	Surface Treated	Resurface	2026
Beckett's Sideroad	89	Rosemount Road	Gratrix Road	1200	6.3	Surface Treated	Resurface	2025
Bell Street	42	First Avenue	West Limit	200	6.2	Asphalt	Resurface W	2023
Bergie Crescent	90	Lighthouse Road	Juneau Road	300	5.8	Asphalt	Resurface	2025
Bourgeois Beach Road	146	100 m West of Vents Beach Road	Vents Beach Road	100	6.5	Surface Treated	Resurface	2028
Browns Line	52	North Limit	South Limit	300	5.3	Asphalt	Resurface	2023
Camilla Street	134	Eighth Avenue	Maraget Street	200	6.1	Asphalt	Resurface	2027
Caswell Road	113	Highway 12	Maskinonge Street	400	6.4	Surface Treated	Resurface	2027
Cherry Street	130	Elm Street	Mountain Avenue	200	5.6	Asphalt	Resurface	2027
Coldwater Road	83	Balsam Avenue	Willow Street	300	6.4	Asphalt	Resurface	2025
Coldwater Road	98	Willow Street	Duck Bay Road	200	6.4	Asphalt	Resurface	2026
Coldwater Road	120	Duck Bay Road	Pine Street	700	6.6	Asphalt	Resurface	2027
Davidson Street	9	Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020
Davis Drive	138	Park Street	Bayside Avenue	500	6.2	Asphalt	Resurface	2028
Dodge Drive	133	Browns Line	Ouida Street	300	5.6	Asphalt	Resurface	2027
Duck Bay Road	10	Meadows Avenue	North Limit	500	6.2	Surface Treated	Resurface	2020
Duck Bay Road	32	Coldwater Road	Quarry Road	1100	7	Asphalt	Rehabilitate	2023
Duffy Drive	147	Hearthstone Drive	Highway 12	100	6	Asphalt	Resurface	2028
Ebenezer Side Road	16	Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020
Ebenezer Side Road	72	Wood Road	Ron Jones Road	1000	6.7	Surface Treated	Resurface	2024
Eighth Avenue	128	Margaret Street	Camillia Street	100	6.5	Asphalt	Resurface	2027
Elizabeth Street	132	Queen Street	South Limit	100	6.2	Asphalt	Resurface	2027
Elliott Side Road	31	Ron Jones Road	Old Fort Road	1500	6.4	Surface Treated	Rehabilitate	2023
Elliott Side Road	61	Old Fort Road	Rumney Road	1400	6.6	Surface Treated	Resurface	2024
Elliott Side Road	73	Wood Road	Ron Jones Road	1100	6.5	Surface Treated	Resurface	2025
Elm Street	36	Mountain Avenue	Coldwater Road	200	6.6	Asphalt	Resurface	2023
Elm Street	39	Pine Street	Mountain Avenue	400	6.3	Asphalt	Resurface	2023

					Width			
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Fifth Avenue	13	Arpin Street	Hayes	500	5.5	Asphalt	Rehabilitate W	2020
First Avenue	8	Woodlands Avenue	Arpin Street	900	7	Asphalt	Reconstruct	2020
Florence Street	49	St. Mary Crescent	Jephson Street	100	6.2	Asphalt	Resurface	2023
Forest Harbour Parkway	74	West 91 FHP	Duck Bay Road	900	6.2	Surface Treated	Resurface	2025
Forgets Road	23	1400m E of Old Penetanguishene R	300m W of Wood Road	600	5.2	Gravel to ST	Rehabilitate	2022
Forgets Road	78	300m W of Wood Road	Wood Road	300	6.4	Surface Treated	Rehabilitate	2025
Forgets Road	79	Old Penetanguishene Road	1400m E of Old Penetan	1400	6.4	Surface Treated	Rehabilitate	2025
Fourth Avenue	53	Alberta Street	Hayes Street	100	6.2	Asphalt	Resurface	2023
Franklin	54	Seventh	Barnes	200	7.5	Asphalt	Resurface W	N/A
George Street	99	West Street	Park Street	700	6.4	Asphalt	Resurface	2026
Gervais Road	145	Hogg Valley Road	Vasey Road	3000	7.2	Surface Treated	Resurface	2028
Glacier Trail	76	Hilltop Crescent	North Limit	400	6.5	Asphalt	Resurface	2025
Gouett Street	47	Forest Harbour Parkway	West Limit	300	5.6	Surface Treated	Resurface	2023
Gratrix Road	6	500m N of Fesserton SR ROW	Vasey Road	3500	6.6	Surface Treated	Rehabilitate	2019
Gratrix Road	103	Highway 12	Old Coach Road	1000	7	Asphalt	Resurface	2026
Gratrix Road	144	Old Coach Road	500m N of Fesserton Sider	800	7	Asphalt	Resurface	2028
Hayes	12	Fourth	Fifth	100	6.5	Asphalt	Resurface W	N/A
Hearthstone Drive	140	Duffy Drive	West Limit	200	5.7	Asphalt	Resurface	2028
Hogg Valley Road	4	Ron Jones Road	Old Fort Road	1500	6.6	Surface Treated	Resurface	2018
Hogg Valley Road	7	Rumney Road	Old Fort Road	1300	6.7	Surface Treated	Resurface	2020
Hogg Valley Road	15	Gervais Road	Newton Street	1500	6.4	Surface Treated	Resurface	2020
Hogg Valley Road	85	Reeves Road	Hill at 4763 Hogg Valley Ro	900	6.6	Surface Treated	Resurface	2025
Hogg Valley Road	142	Newton Street	Reeves Road	1300	6.6	Surface Treated	Resurface	2028
Industrial Avenue	148	Park Street	East Limit	400	7	Asphalt	Resurface	2028
Jephson Street	137	West Limit	Alberta Street	200	6.4	Asphalt	Resurface	2028
John Dillingno Street	91	Trillium Street	Park Street	400	6.6	Asphalt	Resurface	2025
John Dillingno Street	114	West Street	Trillium Street	300	6.6	Asphalt	Resurface	2027
Juneau Road	110	Hoyt Avenue	Lighthouse Crescent	500	6.4	Asphalt	Resurface	2027
King Road	106	Albin Street	Limit	700	5.4	Asphalt	Resurface	2026
Lumber Road	22	Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022
Martha Street	152	William Street	Jephson Street	200	8.3	Asphalt	Resurface	2028
Maskinonge Road	107	Caswell Road	South Limit	700	6.2	Surface Treated	Resurface	2026
McDermitt Trail	20	Anderson Crescent	Anderson Crescent	500	6.8	Asphalt	Resurface	2022
McMann Sideroad	37	Wood Road	Ron Jones Road	1000	6.4	Surface Treated	Resurface	2023
McPhee	55	Seventh	Barnes	200	7.5	Asphalt	Resurface W	N/A
Midland Avenue	77	North Limit	Talbot Street	100	6.4	Asphalt	Resurface	2025
Mitchell's Beach Road	149	South Limit	Reeves Road	800	7	Surface Treated	Resurface	2028
Mountain Avenue	46	Elm Street	Cherry Street	500	5.8	Asphalt	Resurface	2023
Mountain Avenue	127	Hazel Street	Elm Street	200	5.8	Asphalt	Resurface	2027
Neilson Road	70	Gervais Road	West Limit	400	6.4	Surface Treated	Resurface	2024
Newton Street	94	Hogg Valley Road	CPR Abandoned	2300	6.5	Surface Treated	Resurface	2026
Newton Street	101	Granny White Sideroad	Highway 12	1500	7.4	Surface Treated	Resurface	2026
Newton Street	109	CPR Abandoned	Granny White Sideroad	900	6.4	Surface Treated	Resurface	2026
Newton street	141	Vasey Road	Hogg Valley Road	3100	6.5	Surface Treated	Resurface	2028
Newton Street	143	Highway 12	William Street	600	6.7	Asphalt	Resurface	2028
Ney Avenue	117	Talbot Street	Nottingham Street	400	6.5	Asphalt	Resurface	2027
Ninth Avenue	21	Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate W	2022
Ninth Avenue	40	North Limit	Assiniboia Street	200	6.5	Asphalt	Resurface W	2023
Ogdens Beach Road	108	North Limit	Bayview Avenue	300		Asphalt	Resurface	2026
Ogueris Beach Road								

Name	#	From	То	Length (m)	Width (m)	Surface Type	Need	RNS Year
O'Leary Lane	# 10	140m west of Vents Beach Road	Vents Beach Road	140		Asphalt	Rehabilitate	2022
O'Leary Lane		Vents Beach Road	East Limit	140		Asphalt	Resurface	2022
Osborne Street		94 Osborne Street	HCB/GS Transition	300		Asphalt	Adequate	2023
Osborne Street		HCB/GS Transition	Robins Point Road	700		Surface Treated	Resurface	2021
Ouida Street		Dodge Drive	Sturgeon Bay Road	300		Asphalt	Resurface	2025
Ouida Street		Albin Road	Dodge Drive	300		Asphalt	Resurface	2026
Palmer Street		Albin Street	Dodge Drive	300		Asphalt	Resurface	2025
Palmer Street		Dodge Drive	Sturgeon Bay Road	300		Asphalt	Resurface	2023
Park Street		Anderson Court	Richard Street	300		Asphalt	Resurface	2028
Park Street		Richard Street	Industrial Road	300		Asphalt	Resurface	2027
Park Street		Industrial Road	John Dillingno Street	300		Asphalt	Resurface	2027
Park Street	124	John Dillingno Street	Todd Lane	400		Asphalt	Resurface	2027
Park Street		Todd Lane	Highway 12	300		Asphalt	Resurface	2027
Percy Street		North Limit	Dodge Drive	300		Asphalt	Resurface	2027
Percy Street		Dodge Drive	Sturgeon Bay Road	300		Asphalt	Resurface	2024
Port Severn Road		West Service Road	West Limit	100		Asphalt	Resurface	2024
Quarry Road		Duck Bay Road	East Limit	800		Asphalt	Reconstruct	2023
Reeves Road		Granny White Sideroad	CPR Abandoned	300		Asphalt	Resurface	2022
Ron Jones Road		Ebenezer Sideroad	400m South	400	0.1	ST to Asphalt	Rehabilitate	2018
Ron Jones Road			McMann	1250	6.6	Surface Treated	Resurface	2018
Rope Boulevard		West Service Road	Booth Road	300		Asphalt	Resurface	2024
Rope Boulevard		Booth Road	Oak Road	500		Asphalt	Resurface	2024
Rumney Road		Elliott Sideroad	1850m South	1850		Surface Treated	Rehabilitate	2022
Rumney Road		Hogg Valley Road	850m North	850		Surface Treated	Rehabilitate	2022
Rumney Road		Elliott Sideroad	Highway 12	1400		Asphalt	Resurface	2027
Sallows Drive		Lumsden Street	Bernard Avenue	400		Surface Treated	Resurface	2024
Sallows Drive		Bernard Avenue	Caswell Drive	300		Surface Treated	Resurface	2024
Sandhill Road		Old Coach Road	Vasey Road	500	6.5	Asphalt	Resurface	2024
Second Avenue		Alberta Street	Wardell	200		Asphalt	Resurface W	2025
Second Avenue		Wardell	Talbot Street	475		Asphalt	Resurface	2025
Seventh Avenue		Athabaska Street	Alberta Street	200		Asphalt	Rehabilitate W	2022
Seventh Avenue		Arpin Street	Athabaska Street	200		Asphalt	Resurface W	2024
St. Mary's Crescent		Florence Street	West Limit	200		Asphalt	Resurface	2023
Sturgeon Bay Road		Highway 12	Ouida Street	400		Asphalt	Resurface	2027
Sturgeon Bay Road		Ouida Street	Pine Street	300		Asphalt	Resurface	2027
Tanners Road		Lawson Lane	Highway 12	400		Surface Treated	Resurface	2024
Third Avenue	80	Assinibola Street	Davidson Street	100	6.3	Asphalt	Resurface	2025
Third Avenue	136	Wardell Street	Assiniboia Street	200	5.6	Asphalt	Resurface	2028
Traux Lane	3	Vasey Road	North Limit	200	5.2	ST to Asphalt	Reconstruct	2018
Triple Bay Road	14	North Limit	Comber Place	2000	6.5	Asphalt	Reconstruct	2021
Triple Bay Road	111	Comber Place	Talbot Street	700	6.5	Asphalt	Rehabilitate	2027
Vents Beach Road	82	O'Leary Lane	Bourgeois Beach Road	100		Asphalt	Resurface	2025
Vents Beach Road		Bourgeois Beach Road	Highway 12	200		Asphalt	Resurface	2028
Veterans Lane		Albert Street	William Street	200		Asphalt	Resurface	2027
Wardell Street	38	Fourth Avenue	First Avenue	400	6	Asphalt	Resurface	2023
West Service Road	28	Forest Harbour Parkway	Quarry Road	2600	6.6	Asphalt	Rehabilitate	2022
West Service Road		North Limit	Gerhardt Road	700		Asphalt	Rehabilitate	2023
West Service Road	104	Gerhardt Road	Forest Harbour Parkway	700		Asphalt	Resurface	2026
West Street		George Street	South Limit	400		Asphalt	Resurface	2026
Willow Street		Mountain Avenue	Coldwater Road	200		Asphalt	Resurface	2023
Winfield Drive		William Street	North Limit	200		Asphalt	Resurface	2025
Wood Road	11	1350 m N of McMann SR	Ebenezer Sideroad	700	5.6	Surface Treated	Resurface	2020
Wood Road		Forgets	1050m South	1050		Gravel to ST	Resurface	N/A
Total Expenditure				88045				
	-							



### Tay Township 2019 Budget Request

Hogg Valle	y - Ron Jones	to Old Fort	
Budget Type	Capital	ne mooth a kuna in tooloon to tha a sugar a concession and a sugar a sugar a sugar a sugar a sugar a sugar a s	
Department	Public Works		
Division	Roads	wieden een weeren een werten de weeren weeren een weeren de	
Prepared by	Peter Dance	an na an a	
Approved by	Peter Dance	<u></u>	
Department Priority	A	dente de la construcción de la cons I	an an ann an an an an an ann an ann an a
Request Summary	The RNS include	d this section for 2018.	
· · · · · · · · · · · · · · · · · · ·			
Service Level Impact	Maintain		
Expected Useful Life			
Current Year Budget	Expenses	Revenue	
	Materials	Grants	
	Consultants	Reserve	
	Equipment	Development	
·	Legal	Utility	
	Other	176,000 Other	
	Total	176,000 Total	0
	Tax Levy / Rat	e Impact	\$176,000
Future Year Budget	······································		· · · · · · · · · · · · · · · · · · ·
	- <u>1967 - 1967 - 1967 - 1967 - 19</u>		
Cost-Benefit Analysis and Other			
Financial Considerations			
Administrative Recommendation			



#### Tay Township

#### **2019 Budget Request**

Ron Jones	Road - 200m I	N of Hoʻgg	Valley to McN	Mann	
Budget Type	Capital				
Department	Public Works				
Division	Roads				
Prepared by	Peter Dance				
Approved by	Peter Dance	<u></u>		· · · · · · · · · · · · · · · · · · ·	
Department Priority	A		and the second		
Request Summary	The RNS had inc	cluded this s	section as a 201	.8 project.	
Service Level Impact	Maintain				
Expected Useful Life					
Current Year Budget	Expenses		Revenue		
	Materials		Grants		
	Consultants		Reserve		
	Equipment		Development		
	Legal		Utility		
	Other	147,000			
	Total	147,000	Total		(
	Tax Levy / Rat	e Impact		\$147,	000
Future Year Budget					
Cost-Benefit Analysis and Other			<u> </u>		
Financial Considerations					
Administrative Recommendation	······································				



Gratrix - Va	sey to 0.5km N	of the Fesserton SR ROW
Budget Type	Capital	
Department	Public Works	
Division	Roads	
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	A	WWWW
Request Summary	The LTP has added amended the limits asphalt description recommendation of \$1,849,000. Aspha road section is to se if the pit traffic is to needed. In addition The RNS notes that could be resurfaced include spot base re rehabilitation proje- instead of surface t	ed 500m of Gratrix that is surface treatment. this to the other surface treatment section and description and the distance (now 3500m). The from the RNS is incorrect. The RNS Asphalt Reconstruction of 3000m had a cost of it reconstruction would be appropriate if this ervice the pits without load restriction. However o go to Highway 12, full reconstruction is not n, surface treatment would be a suitable surface. a gravel surface would be tolerable. Some parts while others would need rehabilitation (to epair and drainage). The noted costing is for a ct with surface treatment. If asphalt is used reatment the budget should be increased by restriction would not be lifted).
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	600,000 Other
	Total	600,000 Total 0
	Tax Levy / Rate	[mpact \$600,000
Future Year Budget		
Cost-Benefit Analysis and Other Financial Considerations		
Administrative Recommendation		
amended. Amendments to the F from a reconstruct to a rehabilit	lan included reducir ate. The resulting 2	il accepted the 2019-2028 Long Term Plan, as ng the scope of work required on Gratrix Road 019 & 2020 remaining budget funds (TBD) is n Plan. The balance of 2019 Road Program is

TBD.



# Tay Township 2019 and 2022 Budget Request

Budget Type	Capital			
Department	Public Works			
Division	Roads		and a second	
Prepared by	Peter Dance		<u></u>	
Approved by	Peter Dance		······································	
Department Priority	A	9986.	,	
Request Summary	resurface proje is noted that the The proposed section from E	ect for the exist ne hill is curren work does not i lliott to the hill	a 2022 project as a ing surface treatme tly paved with asph include the hill. The is in worse conditio of a presentation to	ent. I nait. e n and
· · ·		to Hill \$270,00 to Hill \$125,00	0; 400 m paved hil 00	l; 850
				•
Service Level Impact	Maintain			
Service Level Impact Expected Useful Life	Maintain			-
	Maintain Expenses	Reve	enue	-
Expected Useful Life	<b>Expenses</b> Materials	<b>Reve</b> Gran		
Expected Useful Life	<b>Expenses</b> Materials Consultants		ts	
Expected Useful Life	<b>Expenses</b> Materials Consultants Equipment	Grani Rese	ts	
Expected Useful Life	<b>Expenses</b> Materials Consultants Equipment Legal	Grani Rese	ts rve lopment	
Expected Useful Life	<b>Expenses</b> Materials Consultants Equipment	Grani Resei Deve	ts rve Iopment Y	
Expected Useful Life	<b>Expenses</b> Materials Consultants Equipment Legal	Gran Rese Deve Utility	ts rve lopment Y	
Expected Useful Life Current Year Budget	<b>Expenses</b> Materials Consultants Equipment Legal Other	Grani Reser Deve Utility 270,000 Other 270,000 Total	ts rve Iopment Y r	70,000
Expected Useful Life Current Year Budget Future Year Budget	<b>Expenses</b> Materials Consultants Equipment Legal Other Total	Grani Reser Deve Utility 270,000 Other 270,000 Total e Impact	ts rve Iopment Y r	70,000
Expected Useful Life Current Year Budget	Expenses Materials Consultants Equipment Legal Other Total Tax Levy / Rat	Grani Reser Deve Utility 270,000 Other 270,000 Total e Impact	ts rve Iopment Y r	70,000



Bannister -	Vasey to Sout	h Limit	
Budget Type	Capital		
Department	Public Works		
Division	Roads	۵۳۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰۰ - ۲۰	
Prepared by	Peter Dance	анна та та били ба селини и та та та та сели на селини селини селини селини селини селини селини селини селини На селини сели	
Approved by	Peter Dance		
Department Priority	A		
Request Summary	2018 group. Rel may be appropri proximity, this p time as Truax T	d this as a 'reconstruct, now' road in the habilitation rather than full reconstruction ate pending base investigation. Due to roject should be completed at the same he high frequency of turning movements on hat an asphalt surface is preferred.	
Service Level Impact	Maintain		
Expected Useful Life			
Current Year Budget	Expenses	Revenue	
	Materials	Grants	
	Consultants	Reserve	
	Equipment	Development	
	Legal	Utility	
·	Other	67,000 Other	
	Total	67,000 Total (	
	Tax Levy / Rat	te Impact \$67,000	
Future Year Budget			
Cost-Benefit Analysis and Other			
Financial Considerations			
Administrative Recommendation			



		er to 400 m South
Budget Type	Capital	
Department	Public Works	
Division	Roads	
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	A	······
Request Summary	from Ebenezer to resurfaced at a c south it is surfac and surface treat to be in good con require work. W with an earlier as complete the wo upgraded to asp and spillways, so	luded the full 1000m length of this section b Hogg Valley as surface treatment, to be cost of \$99,000 in 2018. From north to e treatment hill (400m), asphalt hill (400m) tment (200m). The asphalt section appears ndition. The two surface treatment sections e had tendered the northern 400m section sphalt tender but did not have the funds to rk. It is recommended that this section be halt. The work will include gutter swales ome drainage work. The remaining 200m at section will be included with the surface n from Hogg Valley to McMann.
Service Level Impact	Maintain	·····
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	67,000 Other
	Total	67,000 Total 0
	Tax Levy / Rat	e Impact \$67,000
Future Year Budget		
Cost-Benefit Analysis and Other	Tendered price	in 2016 was \$60,000.
Financial Considerations		
Financial Considerations Administrative Recommendation		



Truax - Va	sey to North Limit
Budget Type	Capital
Department	Public Works
Division	Roads
Prepared by	Peter Dance
Approved by	Peter Dance
Department Priority	Α
Request Summary	The RNS included this as a 'reconstruct, now' road for the 2018 group. Rehabilitation rather than full reconstruction may be appropriate pending base investigation. Due to proximity, this project should be completed at the same time as Bannister. The high frequency of turning movements on Truax indicate that an asphalt surface is preferred.
Service Level Impact	Maintain
Expected Useful Life	
Current Year Budget	Expenses Revenue
	Materials Grants
	Consultants Reserve
	Equipment Development
	Legal Utility
	Other 67,000 Other
	Total 67,000 Total 0
	Tax Levy / Rate Impact \$67,000
Future Year Budget	
Cost-Benefit Analysis and Other Financial Considerations Administrative Recommendation	



Duck Bay R	load - Meadow	s to North	ı Limit	
Budget Type	Capital		···· • ···	
Department	Public Works			
Division	Roads	Roads		
Prepared by	Peter Dance			
Approved by	Peter Dance			
Department Priority	А			
Request Summary	The RNS had included this section as a resurface project in 2020 for \$95,000. Council received a deputation on this road section.			
Service Level Impact	Maintain		· · · · · · · · · · · · · · · · · · ·	
Expected Useful Life	Plaincain			
Current Year Budget	Expenses		Revenue	
	Materials		Grants	
	Consultants		Reserve	
	Equipment		Development	
	Legal		Utility	
	Other	59,000	Other	
	Total	59,000	Total	
	Tax Levy / Rai	te Impact	\$59,000	
Future Year Budget				
Cost-Benefit Analysis and Other Financial Considerations				
Administrative Recommendation				



#### Tay Township 2020 and 2022 Budget Request

Budget Type	Capital		
	Public Works		
Department			
Division	Roads		
Prepared by	Peter Dance		
Approved by	Peter Dance		
Department Priority	A		
Request Summary		nd budget included a \$50,000 allowanc	
		e watermain project for construction in	
		). The program follows the 2019 LTP	
		ion of substituting a section of Fifth	
		. The current program addresses our	
		failures and water quality complaints b	
		st of the cast iron pipe from the lower	
		ort McNicoll distribution system.	
		be added from Keewatin to First to	
		tribution system network. This sheet	
	provides road c	ost only, based on the 2017 Alberta	
	project.		
	2020 Fifth - Hayes to Arpin		
	2020 Hayes - Fifth to Fourth		
	2022 Alberta - Fifth to First		
	2022 Bell - Firs		
		Alberta to Wardell	
Service Level Impact	Maintain		
Expected Useful Life			
Current Year Budget	Expenses	Revenue	
	Materials	Grants	
	Consultants	Reserve	
	Equipment	Development	
	Legal	Utility	
	Other	417,000 Other	
	Total	417,000 Total	
	Tax Levy / Rat		
Future Year Budget	2022 - \$625,0		
Cost-Benefit Analysis and Other			
Financial Considerations			
Administrative Recommendation			



Fifth - Arpi	n to Hayes	
Budget Type	Capital	
Department	Public Works	
Division	Roads	· · · · · · · · · · · · · · · · · · ·
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	A	
Request Summary	has been extended from to the watermain replace for the road portion of a It is noted that sewer fro	ction in 2020. The south limit Alberta to Hayes to correspond ment program. The costing is combined water/road project. m Hayes to Alberta could be he cost of the property owners
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other 347,500	Other
	Total 347,500	Total 0
	Tax Levy / Rate Impact	\$347,500
Future Year Budget		
Cost-Benefit Analysis and Other		
Financial Considerations		
Administrative Recommendation	1 ,	



## Tay Township 2021 and 2027 Budget Request

Triple Bay I	Road - Talbot t	o North Limit
Budget Type	Capital	
Department	Public Works	
Division	Roads	
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	А	
Request Summary	section north o reconstruction The section from as an asphalt r	TP have this road in two sections. The f Comber Place is proposed as a asphalt project in 2021 at a cost of \$1,233,000. m Talbot to Comber Place is scheduled esurface in 2027. This road has been
	brought to the members of the	attention of Council by concerned e public.
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	670,000 Other
	Total	670,000 Total 0
	Tax Levy / Rat	
Future Year Budget	2027 - \$175,0	00
Cost-Benefit Analysis and Other Financial Considerations		
Administrative Recommendation		



# Tay Township 2022 and 2025 Budget Request

Forgets - C	ld Penetangui	shene to Wood
Budget Type	Capital	
Department	Public Works	
Division	Roads	
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	А	
Request Summary	project in 2022 2025. The 600	ed the 600 m gravel section as a resurface the remaining 1700 m was recommended for m gravel section should be returned to nt as long as the drainage issues are e same time.
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	105,000 Other
	Total	105,000 Total 0
	Tax Levy / Rat	
Future Year Budget	2025 - \$210,0	000
Cost-Benefit Analysis and Other Financial Considerations		
Administrative Recommendation		



Wood - For	gets to 1050 m South	
Budget Type	Capital	
Department	Public Works	
Division	Roads	ىرى <sub>ئىرى</sub> بى <sub>ئى</sub> يېرى بى بى ئىلىدىكى بى بى بى ئىكى تىكى تەكەر بىكى تەكەر تەكەر تەكەر تەكەر تەكەر تەكەر تەكەر تەكە
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	Α	
Request Summary	It has functioned well. It i surface treatment. In add This will reduce the life-cyd	ne time of the solar farm project. s proposed to convert this to ition to the improvement in ride. cle cost. Consideration will be m on Elliott and the 300 m
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other 117,00	0 Other
	Total 117,00	0 Total 0
	Tax Levy / Rate Impact	\$117,000
Future Year Budget		
Cost-Benefit Analysis and Other Financial Considerations Administrative Recommendatior		



## Tay Township 2022 and 2025 Budget Request

Elliott - Wo	ood to Ron Jone	es								
Budget Type	Capital	· · · · · · · · · · · · · · · · · · ·								
Department	Public Works									
Division	Roads									
Prepared by	Peter Dance									
Approved by	Peter Dance									
Department Priority	Α									
Request Summary	been returned to Generally, these problems. This r winter control) as change in the roa included with oth two. On Elliott th that was surface The 2020 project	sections of surface treated roads that have o gravel due to extremely poor condition. sections are the result of drainage or base results in operational concerns (grading and s well as having an unexpected surface ad for drivers. Most of these sections are ner projects scheduled for the next year or here is a 300 m section from Wood easterly treatment but was returned to gravel road addresses this section and related drainag emaining 800 m can be resurfaced in 2025								
Service Level Impact	Maintain									
Expected Useful Life										
Current Year Budget	Expenses	Revenue								
_	Materials	Grants								
	Consultants	Reserve								
	Equipment	Development								
	Legal	Utility								
	Other	67,000 Other								
	Total	67,000 Total								
	Tax Levy / Rate	e Impact \$67,000								
Future Year Budget	2025 - \$90,000									
Cost-Benefit Analysis and Other										
Financial Considerations										
Administrative Recommendation										



Albert Stree	et - Richard to	George
Budget Type	Capital	
Department	Public Works	
Division	Roads	
Prepared by	Peter Dance	
Approved by	Peter Dance	
Department Priority	A	
Request Summary	The RNS and LT	P have this included as an asphalt
	require reconstr resurface some completed for th Drainage and w this project in a needs. This but	project. There are sections that will ruction, as well as the potential to just parts. There is design work almost he section from Jephson to Maple. rater upgrades are required as part of iddition to consideration of sidewalk dget may be understated if a reconstruction is completed.
Service Level Impact	Maintain	
Expected Useful Life	- Humeum	
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	251,000 Other
	Total	251,000 Total
	Tax Levy / Rate	e Impact \$251,000
Future Year Budget		
Cost-Benefit Analysis and Other Financial Considerations		
Administrative Recommendation		



#### Tay Township 2023 and 2024 Budget Request

Water and	Road Project						
Budget Type	Capital						
Department	Public Works						
Division	Roads						
Prepared by	Peter Dance						
Approved by	Peter Dance						
Department Priority	A						
Request Summary	The 2019 LTP i	ncluded a 2021 allowance for design of					
	the watermain (realistically 20	project for construction in 2022 23 and 2024). The program follows the					
	section of Fifth.	the exception of substituting Ninth for a This program addresses our second					
	removing the la	failures and water quality complaints by ast of the cast and ductile iron pipe from					
		on of the Port McNicoll distribution sheet provides road cost only, based on ta project.					
2023	Ninth -Talbot to Manitoba - decommission local main						
2024	Barnes - Arpin to Hayes						
2024	Franklin - Seventh to Barnes						
2024	McPhee - Seventh to Barnes						
2024	Seventh - Alberta to Arpin - water project is Alberta to						
	McPhee - consider re-lining						
2024	Athabasca - Se	venth to Barnes - consider re-lining					
Service Level Impact	Maintain						
Expected Useful Life							
Current Year Budget	Expenses	Revenue					
	Materials	Grants					
	Consultants	Reserve					
	Equipment	Development					
	Legal	Utility					
	Other	347,500 Other					
	Total	347,500 Total 0					
	Tax Levy / Rate	e Impact \$347,500					
Future Year Budget	2024 - \$1,042,	,500					
Cost-Benefit Analysis and Other							
Financial Considerations							
Administrative Recommendation	I						



#### Tay Township 2025 and 2027 Budget Request

John Dilling	gno - West To P	ark <b>of the second second second</b>
Budget Type	Capital	
Department	Public Works	₩₩₩₽₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩
Division	Roads	
Prepared by	Peter Dance	₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩
Approved by	Peter Dance	
Department Priority	A	
Request Summary	The RNS and LT	P show the section from Park to Trillium
	in 2025 and the	section from Trillium to West in 2027.
	Both are listed a	is asphalt resurface. There has been
	1	npleted on these sections. That work
	-	n conversion to an urban cross section
		age issues. A simple resurface as per
	L	ecommended. There should at least be
	some rehabilitat	ion work.
· ·		
Service Level Impact	Maintain	
Expected Useful Life		
Current Year Budget	Expenses	Revenue
	Materials	Grants
	Consultants	Reserve
	Equipment	Development
	Legal	Utility
	Other	60,000 Other
	Total	60,000 Total 0
	Tax Levy / Rate	Impact \$60,000
Future Year Budget	2027 \$45,000	
Cost-Benefit Analysis and Other		
Financial Considerations		
Administrative Recommendation		



#### **STAFF REPORT**

Department/Function:	Public Works
<u>Chair:</u>	Mayor Walker
Meeting Date:	February 6, 2019
Report No.:	PW-2019-09
Report Title:	2019 Road Program Options

#### **RECOMMENDATION:**

That Staff Report No. PW-2019-09 regarding options for the 2019 road program be received;

And that the 2019 road program be approved as presented in Option 3 of this report.

#### INTRODUCTION/BACKGROUND:

At the budget meeting held on January 24, 2019, Committee received report PW-2019-07. That report presented an update to the 2019 to 2028 Roads Long Term Plan. Committee recommended that Gratrix Road be removed from the 2019 program and requested that staff provide a recommendation for alternative road work.

This report provides options (attached) for the 2019 road program and makes a recommendation.

#### ANALYSIS:

Sections of Hogg Valley Road, Ron Jones Road and Rumney Road were included in the 2019 program and remain constant in the options presented below.

#### Option 1 – No Change

This option presents the first 25 road sections as presented on January 24.

Option 2 – Adjust in RNS Priority

This option moves Gratrix Road from 2019 to 2021 and advances other roads following the Road Needs Study (RNS) priority order within the constraints of budget and coordination with the 2020 watermain work.

#### Option 3 – Adjust for Safety and Ride

This option moves Gratrix Road from 2019 to 2021 and advances other roads based on safety and ride considerations.

The major deflections on First Avenue and Triple Bay Road present an increased safety risk. These deflections are beyond simple bumps or potholes. In the case of Triple Bay Road, an 80 km/h speed limit is also in place. It is proposed to advance First Avenue from 2020 to the 2019 program. It is noted that future sanitary sewer works could affect this road before the end of its useful life. However, this work is not scheduled and could be many years in the future and it may be possible to select a shoulder or boulevard location for the pipe. It is noted that there is also a budget of \$60,000 to continue work on the First Avenue trail from Arpin north.

It is proposed to advance the pulverizing of the worst section of Triple Bay Road to 2019. This section would remain in gravel until completion of the scheduled rehabilitation project in 2020.

Two other projects are advanced to address surface condition issues. The Duck Bay Road project is advanced from 2020 to 2019. In addition, the pulverizing component of the Ebenezer Side Road (Old Penetanguishene to Wood) is advance from 2021 to 2019. This section would remain in gravel until 2021.

#### FINANCIAL/BUDGET IMPACT:

The 2019 budget document included \$1,223,322 for this program. That has dictated the selection of roads as presented. The total for Option 3 (recommended) is \$1,222,000.

The 2019, 2020 and 2021 three year total in report PW-2019-07 was \$4,048,000. The revised program presented in PW-2019-09 is \$4,075,000 for Options 1 and 2 and \$3,981,000 for Option 3. Probable construction costs have been reviewed and, for Option 3 Banister and Truax are now proposed as resurfacing projects rather than reconstruction projects.

While gravel surfaces are the highest life-cycle cost option, the additional length added to our system is manageable in the short term. In addition to the safety and ride improvements of temporarily moving to gravel, the cost of cold patching those road sections is eliminated.

#### CONCLUSION:

Options for the 2019 road program are presented and with the preferred option addressing immediate safety and surface condition issues.

Prepared By: Peter Dance, Director of Public Works

Recommended by:

Date: January 28, 2019

Peter Dance, P. Eng. Director of Public Works

Reviewed By;

Date: January 29, 2019

Robert J. Lamb, CECD, Ec.D. Chief Administrative Officer

Option	Α-	No	Change
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Name	#	From	То	Length (m)	Width (m)	Surface Type	Need	RNS Year	2019	2020	2021
			South Limit						2017		2021
Bannister Street		Vasey Road		200	5.2	ST to Asphalt	Reconstruct	2018		\$67,000	
Ron Jones Road		Ebenezer Sideroad	400m South	400		ST to Asphalt	Rehabilitate	2018		\$67,000	
Truax Lane		Vasey Road	North Limit	200		ST to Asphalt	Reconstruct	2018		\$67,000	
Hogg Valley Road			Old Fort Road	1500		Surface Treated	Resurface	2018	\$192,000		
Ron Jones Road	5	200m N of Hogg Valley Road	McMann	1250	6.6	Surface Treated	Resurface	2018	\$145,000		
Gratrix Road	6	500m N of Fesserton SR ROW	Vasey Road	3500	6.6	Surface Treated	Rehabilitate	2019	\$600,000		
Hogg Valley Road	7	Rumney Road	Old Fort Road	1300	6.7	Surface Treated	Resurface	2020		\$128,000	
First Avenue	8	Woodlands Avenue	Arpin Street	900	7	Asphalt	Reconstruct	2020		\$450,000	
Davidson Street	9	Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020		\$20,000	
Duck Bay Road	10	Meadows Avenue	North Limit	500	6.2	Surface Treated	Resurface	2020		\$70,000	
Wood Road	11	1350 m N of McMann SR	Ebenezer Sideroad	700	5.6	Surface Treated	Resurface	2020		\$62,000	
Hayes	12	Fourth	Fifth	100	6.5	Asphalt	Resurface W	N/A		\$69,500	
Fifth Avenue	13	Arpin Street	Hayes	500	5.5	Asphalt	Rehabilitate W	2020		\$347,500	
Triple Bay Road	14	North Limit	Comber Place	2000	6.5	Asphalt	Reconstruct	2021			\$670,000
Hogg Valley Road	15	Gervais Road	Newton Street	1500	6.4	Surface Treated	Resurface	2020			\$146,000
Ebenezer Side Road	16	Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020			\$269,000
Osborne Street	17	94 Osborne Street	HCB/GS Transition	300	6.6	Asphalt	Adequate	2021			
Quarry Road	18	Duck Bay Road	East Limit	800	6.5	Asphalt	Reconstruct	2022			\$445,000
O'Leary Lane	19	140m west of Vents Beach Road	Vents Beach Road	140	5.5	Asphalt	Rehabilitate	2022			
McDermitt Trail	20	Anderson Crescent	Anderson Crescent	500	6.8	Asphalt	Resurface	2022			
Ninth Avenue	21	Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate W	2022			
Lumber Road	22	Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022			
Forgets Road	23	1400m E of Old Penetanguishene Road	300m W of Wood Road	600		Gravel to ST	Rehabilitate	2022			
Wood Road	24	Forgets	1050m South	1050	6.5	Gravel to ST	Resurface	N/A			
Rumney Road	25	Elliott Sideroad	1850m South	1850	6.6	Surface Treated	Rehabilitate	2022	\$260,000		
									\$1,197,000	\$1,348,000	\$1,530,000

Option B - Adjust in RNS Priority

				Length	Width						
Name	#	From	То	(m)	(m)	Surface Type	Need	RNS Year	2019	2020	2021
Bannister Street	1	Vasey Road	South Limit	200	5.2	ST to Asphalt	Reconstruct	2018	\$67,000		
Ron Jones Road	2	Ebenezer Sideroad	400m South	400		ST to Asphalt	Rehabilitate	2018	\$67,000		
Truax Lane	3	Vasey Road	North Limit	200	5.2	ST to Asphalt	Reconstruct	2018	\$67,000		
Hogg Valley Road	4	Ron Jones Road	Old Fort Road	1500	6.6	Surface Treated	Resurface	2018	\$192,000		
Ron Jones Road	5	200m N of Hogg Valley Road	McMann	1250	6.6	Surface Treated	Resurface	2018	\$145,000		
Gratrix Road	6	500m N of Fesserton SR ROW	Vasey Road	3500	6.6	Surface Treated	Rehabilitate	2019			\$600,000
Hogg Valley Road	7	Rumney Road	Old Fort Road	1300	6.7	Surface Treated	Resurface	2020	\$128,000		
First Avenue	8	Woodlands Avenue	Arpin Street	900	7	Asphalt	Reconstruct	2020		\$450,000	
Davidson Street	9	Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020	\$20,000		
Duck Bay Road	10	Meadows Avenue	North Limit	500	6.2	Surface Treated	Resurface	2020	\$70,000		
Wood Road	11	1350 m N of McMann SR	Ebenezer Sideroad	700	5.6	Surface Treated	Resurface	2020	\$62,000		
Hayes	12	Fourth	Fifth	100	6.5	Asphalt	Resurface W	N/A		\$69,500	
Fifth Avenue	13	Arpin Street	Hayes	500	5.5	Asphalt	Rehabilitate W	2020		\$347,500	
Triple Bay Road	14	North Limit	Comber Place	2000	6.5	Asphalt	Reconstruct	2021		\$670,000	
Hogg Valley Road	15	Gervais Road	Newton Street	1500	6.4	Surface Treated	Resurface	2020			\$146,000
Ebenezer Side Road	16	Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020			\$269,000
Osborne Street	17	94 Osborne Street	HCB/GS Transition	300	6.6	Asphalt	Adequate	2021			
Quarry Road	18	Duck Bay Road	East Limit	800	6.5	Asphalt	Reconstruct	2022			\$445,000
O'Leary Lane	19	140m west of Vents Beach Road	Vents Beach Road	140	5.5	Asphalt	Rehabilitate	2022			
McDermitt Trail	20	Anderson Crescent	Anderson Crescent	500	6.8	Asphalt	Resurface	2022			
Ninth Avenue	21	Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate W	2022			
Lumber Road	22	Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022			
Forgets Road	23	1400m E of Old Penetanguishene Ro	ad 300m W of Wood Road	600	5.2	Gravel to ST	Rehabilitate	2022			
Wood Road	24	Forgets	1050m South	1050	6.5	Gravel to ST	Resurface	N/A			
Rumney Road	25	Elliott Sideroad	1850m South	1850	6.6	Surface Treated	Rehabilitate	2022	\$260,000		
									\$1,078,000	\$1,537,000	\$1,460,000

				Length	Width						
Name	#	From	То	(m)	(m)	Surface Type	Need	RNS Year	2019	2020	2021
Bannister Street	1	Vasey Road	South Limit	200	5.2	ST to Asphalt	Resurface	2018		\$20,000	
Ron Jones Road	2	Ebenezer Sideroad	400m South	400		ST to Asphalt	Rehabilitate	2018		\$67,000	
Truax Lane	3	Vasey Road	North Limit	200	5.2	ST to Asphalt	Resurface	2018		\$20,000	
Hogg Valley Road	4	Ron Jones Road	Old Fort Road	1500	6.6	Surface Treated	Resurface	2018	\$192,000		
Ron Jones Road	5	200m N of Hogg Valley Road	McMann	1250	6.6	Surface Treated	Resurface	2018	\$145,000		
Gratrix Road	6	500m N of Fesserton SR ROW	Vasey Road	3500	6.6	Surface Treated	Rehabilitate	2019			\$600,000
Hogg Valley Road	7	Rumney Road	Old Fort Road	1300	6.7	Surface Treated	Resurface	2020		\$128,000	
First Avenue	8	Woodlands Avenue	Arpin Street	900	7	Asphalt	Reconstruct	2020	\$450,000		
Davidson Street	9	Fourth Avenue	Third Avenue	100	5.6	Asphalt	Resurface	2020		\$20,000	
Duck Bay Road	10	Meadows Avenue	North Limit	500	6.2	Surface Treated	Resurface	2020	\$70,000		
Wood Road	11	1350 m N of McMann SR	Ebenezer Sideroad	700	5.6	Surface Treated	Resurface	2020		\$62,000	
Hayes	12	Fourth	Fifth	100	6.5	Asphalt	Resurface W	N/A		\$69,500	
Fifth Avenue	13	Arpin Street	Hayes	500	5.5	Asphalt	Rehabilitate W	2020		\$347,500	
Triple Bay Road	14	North Limit	Comber Place	2000	6.5	Asphalt	Reconstruct	2021	\$40,000	\$630,000	
Hogg Valley Road	15	Gervais Road	Newton Street	1500	6.4	Surface Treated	Resurface	2020			\$146,000
Ebenezer Side Road	16	Old Penetanguishene Road	Wood Road	2300	6.8	Surface Treated	Resurface	2020	\$65,000		\$204,000
Osborne Street	17	94 Osborne Street	HCB/GS Transition	300	6.6	Asphalt	Adequate	2021			
Quarry Road	18	Duck Bay Road	East Limit	800	6.5	Asphalt	Reconstruct	2022			\$445,000
O'Leary Lane	19	140m west of Vents Beach Road	Vents Beach Road	140	5.5	Asphalt	Rehabilitate	2022			
McDermitt Trail	20	Anderson Crescent	Anderson Crescent	500	6.8	Asphalt	Resurface	2022			
Ninth Avenue	21	Assiniboia Street	Talbot Street	300	6.5	Asphalt	Rehabilitate W	2022			
Lumber Road	22	Ellen Street	Victoria Street	400	6.2	Asphalt	Rehabilitate	2022			
Forgets Road	23	1400m E of Old Penetanguishene Road	300m W of Wood Road	600	5.2	Gravel to ST	Rehabilitate	2022			
Wood Road	24	Forgets	1050m South	1050	6.5	Gravel to ST	Resurface	N/A			
Rumney Road	25	Elliott Sideroad	1850m South	1850	6.6	Surface Treated	Rehabilitate	2022	\$260,000		
									\$1,222,000	\$1,364,000	\$1,395,000