

# Municipality of Lakeshore – Report to Council

## Operations

## Capital Projects



**To:** Mayor & Members of Council  
**From:** Wayne Ormshaw, P.Eng. Division Leader – Capital Projects  
**Date:** January 11, 2024  
**Subject:** Patillo Road Reconstruction Options

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### Recommendation

Defer the widening of Patillo Road and proceed with Option 5) 2 lane road rehabilitation within the approved budget amount allocated in 2023, as presented at the February 13, 2024 Council meeting.

### Background

At the December 12, 2023, Council Meeting, a report entitled “2024 Reconstruction, Rehabilitation and Gravel Road Conversion Program Direction” was provided to Council to obtain direction related to the 2024 projects and associated budgets.

Although two recommendations of the report were supported (for Road Rehabilitation and Gravel Conversion), the following (third) recommendation was deferred:

Proceed with Option 4) Rehabilitate Patillo Road with no enclosure or widening (cost to be determined), allocating the remaining reserves to complete asphalt road rehabilitation and the required reconstruction projects in 2024, as presented at the December 12, 2023, Council meeting.

And the following resolution was passed:

357-12-2023

Direct Administration to bring back a report regarding reconstruction options and cost estimates for Patillo Road.

The following outlines the background and associated options and costs for Patillo Road.

An Environmental Assessment (EA) for the Patillo Road Corridor (from County Road 22 to the CP railway tracks) was completed in 2008.

The EA recommended Patillo Road be widened to a 5-lane cross section (with curb and gutter) with pedestrian facilities. This widening would require drain enclosures to be undertaken to accommodate the cross section. The proposed estimated costs in the EA to undertake this work at the time was \$9,050,000.00 (in 2007 dollars).

As some time had passed before commencement of design and to confirm the findings as identified in the EA, the Municipality of Lakeshore commissioned IBI Group in 2016 to provide an update to the traffic study of Patillo Road Corridor.

Using anticipated population growth and ongoing commercial/industrial/residential development adjacent to Patillo Road (including Wallace Woods), the report produced by IBI Group identified the need to widen Patillo Road from County Road 22 to Richard Ruston Drive to 5 lanes, projected for around (or shortly after) 2021. This aligned with anticipated traffic demands and the desired level of service. The study also indicated an anticipated justification for further widening of Patillo Road south of Richard Ruston to the CP tracks by 2031.

This recommendation remained in line with the EA from 2008.

To meet the 2021 timelines, Council allocated \$480,000 for engineering design in the 2019 budget. Stantec Consulting Ltd. was engaged in 2019 for engineering design.

As detailed design progressed and property requirements were finalized, Council approved an additional \$308,000 in 2022 for land acquisition required for widening the municipal right of way.

Further, Council approved a budget of \$5,147,500 in 2023 for the initial phase of the project. Additionally, an Infrastructure Canada Investment Program (ICIP) grant of \$4,166,500 (due to expire in October 2026) was secured from the Ministry of Agriculture, Food and Rural Affairs, acknowledging Lakeshore's planned infrastructure improvement initiative related to roadway widening only (the grant could not be attributed to the drainage works).

At the end of 2023, Patillo Road widening project reached the final design stages, and a construction cost estimate was provided. A revised construction cost estimate was realized at \$30,336,575.00. Further, considering the concentration of traffic north of Richard Ruston Drive, it was identified that a phased approach would be required. The following Phases were identified:

- Phase 1 includes the intersection of Richard Ruston Drive northerly to the existing widening between Advance Boulevard and Country Road 22; and

- Phase 2 encompasses Richard Ruston Drive to the CP tracks.

The cost increases from the 2008 EA to the updated 2023 construction estimate can be attributed to the following:

- Inflation from 2007 to 2023 (including additional global supply cost index increases in more recent years);
- Requirements mandated under the Excess Soil Act;
- Inclusion of a watermain replacement;
- Inclusion of a sanitary sewer extension;
- New signalized intersections at Silver Creek Industrial Road & Little Baseline Road;
- Utility relocations not realized or in place when the EA was undertaken;
- An extended drain enclosure across the CP tracks and southerly to accommodate the 3.0 meter wide trail; and
- Previous costs assumed it could all be done in one phase of construction.

The below table shows the projected timelines and expected populations that were included in the 2008 and the subsequent 2016 traffic report:

<b>Year</b>	<b>Projected Population</b>
<b>2005</b>	34,110
<b>2010</b>	39,500
<b>2015</b>	45,240**
<b>2025</b>	56,260

\*\*population values weren't realized in 2015.

Based on the ongoing sanitary conveyance constraints within the Denis St. Pierre Sanitary Watershed (and other factors), the expected growth was not realized by 2021 and will likely not be realized by 2025 as expected. At the time of the 2016 report, the population projections did not consider these constraints and the population was realized much later (2015 in 2023), however not in this area.

## **Comments**

Options for Patillo Road (reconstruction and/or rehabilitation) and associated lane configurations have been summarized as follows:

Option #	Phase 1 North (County Road 22 to Richard Ruston)	Phase 2 South (Richard Ruston to CP tracks)	Description
<b>Option 1) (Current Design)</b>	5 Lanes	5 Lanes	5 lane road reconstruction, including 2 lanes northbound, 2 lanes southbound, and a central turning lane with a new curb and gutter system. This option requires the enclosure of Leffler Drain with a concrete box culvert, two new signalized intersections at Little Baseline Road and Silver Creek Road, with dedicated left turn signals. Other non-signalized intersections will feature dedicated left turn lanes with a segregated median curb at northbound and southbound intersection left turn lanes. This option also includes pedestrian facilities on both sides (a multi-use trail and sidewalk on opposing sides). Street lighting is included for the full length to the CP tracks.
<b>Option 2)</b>	5 Lanes	3 Lanes	5 lanes from County Road 22 to Richard Ruston, down to 3 lanes from Richard Ruston to the CP tracks. This option will include two new signalized intersections at Little Baseline Road and Silver Creek Road, with dedicated left turn signals. Other intersections will feature dedicated left turn lanes for all directions, with a center turning lane between intersections (within the 5 lane portion). A multi-use trail and sidewalk on opposing sides will be included and a new curb and gutter system on both sides. Street lighting is included. This option is the same as the 5-lane cross section but tapers to 3 lanes south of Richard Ruston intersection.

<b>Option #</b>	<b>Phase 1 North (County Road 22 to Richard Ruston)</b>	<b>Phase 2 South (Richard Ruston to CP tracks)</b>	<b>Description</b>
<b>Option 3)</b>	3 Lanes	3 Lanes	3 lanes full width road reconstruction, comprising of a single lane northbound, a single lane southbound, and a central turning lane. This option requires significantly less land acquisition on the east side of Patillo Road to accommodate for the widened municipal right of way. Two new signalized intersections are included at Little Baseline Road and Silver Creek Road, with dedicated left turn signals. Other intersections will feature dedicated left turn lanes for all directions, with a center turning lane between intersections. a sidewalk for the full length (both sides) with a new curb and gutter system on both sides.
<b>Option 4)</b>	3 Lanes	2 Lanes	This option will include only one new signalized intersection at Silver Creek Road, with dedicated left turn signals. Other intersections will recognize minimal improvements. A sidewalk for the full length of each phase of the work (both sides), along with a new curb and gutter system on both sides.
<b>Option 5)</b>	2 Lanes	2 Lanes	2 lane road rehabilitation provides minimal improvement to the level of service at intersections, mainly focusing on addressing the deteriorated road surface conditions (which will include base repairs, as required). The 2-lane road reconstruction excludes the extension of the curb and gutter, pedestrian facilities and lighting. This option does not require drainage enclosure.

It is crucial to emphasize that constructing 5 lanes mandates the drain enclosure of the Leffler Drain to meet the necessary width, a requirement absent in the 3 and 2 lane alternatives (except for minimal enclosures at intersections noted for signalization and improvement).

At this time, it is not possible to determine the level of service that will be recognized for each Option as population growth was not recognized and current/updated traffic counts have not been undertaken.

It is also expected that costs for other options (to varying degrees) will be redundant when the 5-lane cross section is constructed.

Based on the above, Administration recommends that the widening be deferred until such time when sanitary conveyance capacity becomes available for this area, and the growth projections start to be recognized. Once this occurs, an updated traffic report (and associated EA update – now outdated) to establish new timelines for the widening of Patillo Road should be undertaken.

### Others Consulted

Stantec Consulting Ltd. assisted in the options and associated costing.

### Financial Impacts

The following table provides a financial breakdown of the estimated costs for the above options:

	<b>Estimated Construction Stage Costs</b>	<b>Additional Funding Needs</b>
<b>Option 1) (5 Lane per Current Design)</b>	\$31,950,370	\$22,636,370*
<b>Option 2) (5 Lane/3Lane)</b>	\$21,888,332.	\$16,740,832
<b>Option 3) (3 Lane/3 Lane)</b>	\$14,232,814	\$9,085,314
<b>Option 4) (3 Lane/2 Lane)</b>	\$8,635,322	\$3,487,822
<b>Option 5) (2 Lane/2 Lane)</b>	\$3,396,411	-\$1,751,088

\*Option 1 considers the grant funding in the additional funding needs.

The values in the column Additional Funding Needs (beyond Option 1)) have been assessed without factoring the ICIP grant funding into the calculations for Option 2) through Option 5), further Options 2) to 5) include for engineering costs to accommodate the changes to the design.

The estimated construction costs for Option 5) anticipate that surplus funds will be returned to reserves, however, this amount cannot be determined until the tender process and construction has been completed.

## Report Approval Details

Document Title:	Patillo Road Options.docx
Attachments:	
Final Approval Date:	Feb 9, 2024

This report and all of its attachments were approved and signed as outlined below:

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Submitted by Krystal Kalbol

Approved by Justin Rousseau and Truper McBride