



Corporation of the Township of Brock

Staff Report to the Members of Council

From: Ben Kester, C.E.T, CRS-s
Position: Interim Director of Public Works
Title / Subject: Road Rehabilitation Alternative
Date of Report: May 22, 2025
Date of Meeting: June 23, 2025
Report No: 2025-OP-013

1.0 Issue / Origin

Public Works staff have closely reviewed the current rural Road Rehabilitation Program and processes that have been followed in the Township over the last 2 years. After review of the project, staff feel there is a better way that will be financially sound and still result in a reasonable outcome.

2.0 Background

Brock Township's roads can be grouped into three classifications of roads, from the 2023 Roads Needs Study.

- 145 km of paved roads
- 74 km of double surface treated roads (DST)
- 149 kms of gravel/stone/loose top roads

The Road Rehabilitation Program was introduced in 2023 as a plan to repair deficiencies in the rural double surface treated roads. This project involves excavating sections of the road that are in poor condition, installing filter cloth, back filling, adding a layer of granular A and then allowing the road to settle for a year. After the road has settled, the road is double surface treated on the excavated sections. Finally, in the third year a slurry seal is applied to these sections.

This process is projected to continue for 2 more years of excavating (2025 and 2026), 3 more years of double surface treatment (2025, 2026 and 2027) and 4 more years of slurry seal (2025, 2026, 2027 and 2028).

3.0 Analysis

There is a relatively new product called flexible asphalt cold technology (FACT) which is a variation of open graded cold mix that would expedite the roads outlined in the current process from three years to two and would result in less of a disruption for residents. FACT can be applied to any surface and allows for same day return to traffic. Although a slurry seal is still applied, there is no need to excavate the road before application.

Open graded cold mix has been available for many years but there is a new emulsion that is used to make the FACT product. FACT is very adaptable and has an ability to “heal” itself of cracks as they appear. For example, in the winter months when heaving is common, which the FACT technology is still prone to, it has the ability to settle causing the heave to disappear. Further product details are provided in the literature attached to this report.

Staff recommend pivoting from the current Road Rehabilitation Plan and instead of excavation on Concession 1, 2, and 3 this year **install FACT on Concession 1 and Concession 3 in 2025 and Concession 2 and Concession 13 in 2026, subject to budget approval.**

It is also important to note that in addition to the roads outlined in the Road Rehabilitation Plan, there are another 10 roads that need to be repaired in some fashion. These roads were not identified in the original road rehabilitation plan and have broken up since starting the road rehabilitation project. These will need to be addressed in some way over the next couple of years. Staff will attempt to patch the areas temporarily until a more permanent solution can be funded.

4.0 Related Policies / Procedures

N/A

5.0 Financial / Budget Assessment

The current three-year process of excavating/gravel in year 1, DST in year 2 and slurry seal in year 3 costs approximately \$251,500/km. The cost of the FACT product is \$263,000/km, including the slurry seal in year 2.

The 2025 budget for the Road Rehabilitation Program is \$1,523,032. Staff recommend combining the Road Rehabilitation, DST and Slurry Seal budgets for 2026.

Budget Line	Budget Amount
Road Rehabilitation	\$828,000
Transfer from 2024 unspent DST budget	\$50,032
Approved DST budget for 2025	\$245,000
Additional DST funding from HL2 budget (Report 2025-OP-012)	\$100,000
Approved Slurry Seal budget for 2025	\$210,000
Additional Slurry Seal funding from HL2 budget (Report 2025-OP-012)	\$90,000
Total	\$1,523,032

The projected cost of the 2025 Road Rehabilitation Program is \$1,495,259. Any unspent funds will remain in the capital reserve to be used in future years.

Road	Product	Cost (including non-refundable HST)
Simcoe Street North (Brock's portion)	DST	\$165,997
Concession 11B	DST	\$86,679
Concession 14B	DST	\$161,582
Concession 11B	Slurry seal	\$85,930
Concession 2 Thorah	Slurry seal	\$87,310
Concession 13B	Slurry seal	\$83,505
Concession 1 Thorah	FACT	\$286,200
Concession 3 Thorah	FACT	\$538,056
Total		\$1,495,259

5.1 Asset Management

FACT is projected to last 12 years which is a longer time frame than what the Township is receiving from the double surface treatment currently being used. DST is still a good product, but it needs to be used where there is a good granular road base. DST is nothing more than a layer of dust control that lasts for 10 to 15 years. There is no structural strength to DST so it needs a good granular base prior to applying. Also, subsequent years of slurry seal are required to extend the life of the DST.

FACT builds a subbase on the road which is beneficial in preparing for the next surface on the road system. Over time, when the product reaches end of life, gravel can be added and pulverized with the FACT to be used as road base for the next surface that is placed on the road.

6.0 Climate Change Impacts

FACT is a variation of open graded cold mix which is made cold and laid cold so there are reduced green house gases. Please refer to literature attached.

7.0 Communications

If Council wishes to communicate the benefits at some point in time then staff can arrange to do so.

8.0 Conclusion

Staff recommend pivoting from the current DST process and piloting flexible asphalt cold technology in 2025 on the two roads mentioned in the report.

9.0 Recommendation

That Council receives report 2025-OP-013 and;

That Council direct staff to tender for the installation of Open Graded Cold Mix on Concession 1 and Concession 3