



Corporation of the Township of Brock

Staff Report to the Members of Council

From: Ben Kester, CET, CRS-s
Position: Interim Director of Public Works
Title / Subject: Hard Surfacing Gravel Roads
Date of Meeting: September 8, 2025
Report No: 2025-OP-024

1.0 Issue / Origin

The Township of Brock currently maintains approximately 150 kilometers of gravel roads. These roads can be costly to upkeep, with an annual gravel maintenance budget of \$500,000 as well as an annual expense of calcium chloride, which averages around \$255,000. In response to these ongoing costs, Council has requested the development of a plan to hard surface the gravel roads as a long-term solution.

2.0 Background

Each spring, Public Works staff receive a significant volume of complaints regarding dust on gravel roads. Since all 150 kilometers tend to become dusty simultaneously, these complaints are concentrated over a short period until liquid calcium chloride can be applied. Hard surfacing these roads would provide a higher level of service to residents and prove more cost-effective over time.

3.0 Analysis

The cost of liquid calcium chloride and maintenance gravel continues to rise annually. It is well established that hard surfaced roads are significantly less expensive to maintain over the long term compared to gravel roads.

The following proposal outlines a phased approach to hard surfacing gravel roads. While this plan serves as a general guideline, it can be accelerated if desired; however, doing so would require increased expenditures and additional funding to support the expanded scope of the program.

In 2025, Council budgeted \$500,000 for gravel maintenance that covered 13.1 km at 100 mm (4 inches) thick.

Staff propose initiating a phased hard surfacing program utilizing a portion of the budgeted \$500,000, beginning with the two highest-traffic gravel roads:

- **Concession 7** (Highway 12 to Sideroad 17A) – 4.2 km
- **Concession 6 (Thorah)** (Simcoe to Thorah Sideroad) – 3.1 km

The plan involves constructing a sufficient granular base in 7.5 km segments. Estimated costs are:

Option 1

- **100 mm (4 inches)** of gravel: \$280,000 to the hard surfacing program
 - This would leave \$220,000 to allocate to the regular gravel program completing just under 6 kilometers
 - After three years of base preparation, the roads would be hard surfaced in year four

Option 2

- **150 mm (6 inches)** of gravel: \$425,000 to the hard surfacing program
 - This would leave \$75,000 to allocate to the regular gravel program completing just under 2 kilometers
 - After two years of base preparation, the roads would be hard surfaced in year three

The roads would be hard surfaced using either:

- **Double surface treatment:** \$500,000
- **Asphalt:** \$800,000

The choice between surface treatment and asphalt would depend on traffic volume.

4.0 Related Policies / Procedures

N/A

5.0 Financial / Budget Assessment

The primary financial impact would occur when the road is hard surfaced if asphalt is selected over double surface treatment.

Annual increases to the \$500,000 gravel maintenance budget will be necessary to account for rising material costs. While some savings in calcium chloride may be realized, these are likely to be offset by cost increases.

Currently, the Township operates three graders, based on the standard of one grader per 50 km of gravel road. Reducing the gravel road network to 100 km could allow for the reduction of one grader.

If a hard surfacing plan is approved, a corresponding increase in the Public Works budget for pavement preservation will be required. Ideally, this budget should grow annually to ensure proper maintenance and extend the lifespan of paved surfaces.

5.1 Asset Management

All the Township's roads are included in our asset management plan. This approach will reduce our long-term annual maintenance costs.

6.0 Climate Change Impacts

None

7.0 Communications

A communication strategy could be developed.

8.0 Conclusion

This is a significant decision for Council. If Council is in favour of this approach staff will prepare a long-term plan to convert the majority of gravel roads to a hard surface.

9.0 Recommendation

That report number 2025-OP-023 be received for information and referred to 2025 budget discussions.