



Staff Report

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Report To:	Council	
Date of Meeting:	June 20, 2022	Report Number: PWD-016-22
Submitted By:	Stephen Brake, Director of Public Works	
Reviewed By:	Mary-Anne Dempster, CAO	Resolution#:
File Number:		By-law Number:
Report Subject:	Paving and Possible Improvements to West Beach Road	

Recommendations:

1. That Report PWD-016-22 and any related delegations or communication items, be received; and
2. That Council provide direction to staff respecting which road improvement option outlined within this report should be referred to the 2023 budget.

Report Overview

This report addresses resolution GG-244-22 that was carried at the June 6, 2022, General Government Committee meeting. The resolution directed staff to report back on including paving or possible improvements to West Beach Road in the 2023 budget.

Outlined within this report are three proposed road surface improvement options and their estimated costs. Direction from Council is requested on which option should be included in the Public Works 2023 draft budget for future consideration and approval.

1. Background

- 1.1 At the June 6, 2022, General Government Committee Meeting, under other business, Councillor Traill raised concern over the condition of West Beach Road. It was reported that the surface of the roadway that extends across the lakefront south of Cove Road to the eastern terminus for approximately 375 meters is in unacceptable condition for residents, pedestrians and also the large number of visitors to the area.
- 1.2 The surface of West Beach Road is currently comprised of a larger stone aggregate. This material was added during the lakefront flooding events in 2017 and 2019 to improve road stability and also raise the elevation of the road to ensure continued access to homes. The use of the heavier gravel was utilized to reduce road deterioration caused by the washing effects from the changing lake levels.
- 1.3 The current surface of West Beach Road is relatively rough when compared to other similar roadways. However, the heavier stone has performed well during periods of high water and it has also assisted with the management of vehicle speeds. Recent studies completed in May 2022, have confirmed average vehicle speeds of 19km/h and an 85th percentile speed (the speed at or below which 85% of vehicles travel) at 25km/h. It should be noted that improvements to provide a smoother road surface on West Beach Road will almost certainly result in an increase in vehicle operating conditions and additional resident complaints.

2. Road Improvement Options

- 2.1 The homes on West Beach Road east of Cove Road are serviced by a narrow roadway width. The homes are also connected to overhead cable, telephone and power lines that have relatively low clearances.
- 2.2 The completion of any of the road improvement options as outlined in this report will require the removal of a quantity of the existing surface aggregate. Increasing the existing road surface elevation by placing additional quantities of granular or asphalt will ultimately result in the risk of contact with the wires for larger trucks.

- 2.3 The cost of preparing the existing road base to the proper elevation has been factored into each of the estimated upgrade costs presented below.

3. Gravel Removal and Replacement

- 3.1 An upgrade on West Beach Road can be accommodated by topping the roadway with Granular A material. This type of treatment is typical of rural road infrastructure and represents the lowest cost option.
- 3.2 The estimated total cost for a Granular A improvement would be approximately \$12,000 (2022 rates). All work would be completed in-house by Clarington Public Works staff. The gravel road surface would also require additional maintenance to periodically grade the road and remove potholes.

4. Gravel Removal and Double High Float

- 4.1 Improving the roadway surface using a double high float treatment includes the application of granular A, asphalt emulsions and different grades of stone. The double high float treatment is widely used on Clarington infrastructure in the rural area that has lower traffic volumes where a more expensive hot mix pavement structure is not justified. The double high float treatment when complete will resemble hot mix paving and provide a minimum of 10-15 years of service.
- 4.2 The estimated total cost for a Double High Float Treatment will be approximately \$55,000 (2022 rates). Removal of the existing gravel would be done in-house by Public Works staff while the high float application would be completed by a contractor.

5. Gravel Removal and Hot Mix Paving

- 5.1 Paving the roadway with hot mix asphalt would be consistent with urban roadways or other facilities that carry higher volumes of traffic with heavy loadings. The pavement structure for West Beach Road would include the application of granular A material and a single 60mm lift of HL3 hot mix asphalt. Hot mix paving would have an estimated lifecycle of more than 20 years providing that the granular base conditions remain favourable.
- 5.2 The estimated total cost for Hot Mix Paving would be approximately \$101,000 (2022 rates). Removal of the gravel would be performed in-house by Public Works staff while the hot mix paving application would be completed by a contractor.

6. Concurrence

Not Applicable.

7. Conclusion

The road improvement options presented in this report are estimated based on current market pricing and will most likely be subject to current inflationary pressures. It can be expected that the base costs for the necessary materials and contracted services may result in increases by as much as 30 percent in 2023.

It is respectfully recommended that Council consider the options that have been presented for the paving and possible improvements on West Beach Road. Council direction on the preferred improvement option is requested for inclusion in the Public Works 2023 draft budget.

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Attachments:

Not Applicable

Interested Parties:

There are no interested parties to be notified of Council's decision.