

From: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>

To: "Direct to Mayor and Council - DL"

CC: "City Manager's Correspondence Group - DL"
"Dobrovolny, Jerry" <jerry.dobrovolny@vancouver.ca>

Date: 6/10/2019 7:05:02 PM

Subject: Memo - Residential Laneway Treatments and Local Improvements

Attachments: ENG - Streets - Memo - Residential Laneway Treatments and Local Improvem....pdf

Greetings Mayor and Council,

Please see attached above a memo from Jerry Dobrovolny regarding residential laneway treatments and the local improvement process. A summary of the memo is as follows:

- A brief history of laneway paving in the City and the role and purpose of local improvements for laneway paving.
- Discussion regarding past work to develop alternatives to traditional paving and improving neighborhood drainage.
- An update on current work to explore modern permeable pavements as part of the Rain City Strategy implementation.

Should you have any questions or concerns, please contact Jerry Dobrovolny at 604.873.7331 or jerry.dobrovolny@vancouver.ca.

Best,
Sadhu

Sadhu Aufochs Johnston | City Manager
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Pronouns: he, him, his



The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the Musqueam, Squamish, and Tsleil-Waututh peoples.

MEMORANDUM

June 10, 2019

TO: Mayor and Council

CC: Sadhu Johnston, City Manager
Paul Mochrie, Deputy City Manager
Lynda Graves, Administration Services Manager, City Manager's Office
Rena Kendall-Craden, Civic Engagement and Communications Director
Katrina Leckovic, City Clerk
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Anita Zaenker, Chief of Staff, Mayor's Office
Taryn Scollard, Director, Streets

FROM: Jerry Dobrovolny, General Manager, Engineering Services

SUBJECT: Residential Laneway Treatments and Local Improvements

In response to recent correspondence related to the use of asphalt paving for laneways as part of the local improvement process, staff are providing the following information to Mayor and Council:

Residential Laneway Treatments and Local Improvements

The City has an extensive network of residential laneways (about 650 km). Over the course of a number of decades these laneways have been converted from gravel to asphalt surfacing, primarily through the local improvement process, where residents and the City share in the cost of this work. Resident requests for lane paving are frequently driven by ongoing maintenance issues that are challenging to address with gravel lanes (eg. rutting, erosion, grading and drainage, etc.); as gravel (or otherwise unimproved) lanes can be dirty and muddy in wetter weather and dusty in dry conditions, a variety of issues including access challenges for residents can arise.

Furthermore, the perceived drainage/infiltration benefit of older gravel laneways is frequently overstated, as the gravels and soil have typically been highly compacted over time by vehicles and garbage trucks – and are effectively impervious. Unimproved lanes also contribute to storm water pollution as sediments are carried into City catch basins.

Staff acknowledge that residential lanes present an opportunity to improve the drainage performance of our neighbourhoods and have trialed different lane treatments in an effort to reduce the overall impervious areas. These have included a "country lane" standard that consists of two strips of paving for vehicle wheel paths (leaving the balance of the lane

otherwise unimproved). Additionally, we have also experimented with permeable asphalt paving.

The "country lane standard" was discontinued because residents were generally unhappy with the aesthetics of the laneway as it aged (as significant upkeep is required), construction costs were high, and the overall maintenance requirements (repair and reinstatement) were higher than originally anticipated. Past applications of permeable asphalt have yielded inconsistent results from a performance perspective.

Engineering Services is currently focusing on further exploration of permeable asphalt treatments that may be suitable for local streets and laneways. While we have experimented in the past with similar applications, technology and local expertise has advanced considerably in recent years and staff expect to develop new permeable asphalt paving pilot projects (complete with performance monitoring and business case development) in 2020. Effective permeable pavement projects involve considerably more planning, design and cost than conventional asphalt paving. This includes subsurface infiltration testing, design of a suitable pavement structure, and considerably more excavation and replacement of materials to ensure the underlying road structure is sufficiently porous over time.

The objective of this work is to develop a meaningful tool to help address the City's Green Infrastructure objectives and inform a broad range of capital road works in the future – including projects initiated through the Local Improvement process.

If you have any questions or concerns, please contact me directly at 604.873.7331 or jerry.dobrovolny@vancouver.ca.

Sincerely,



Jerry W. Dobrovolny, P.Eng., MBA
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