



**ROADS SUB-COMMITTEE MEETING AGENDA
WEDNESDAY, JUNE 19, 2019 - 1:30 P.M.
MEETING HELD IN THE COUNCIL CHAMBERS**

1. Call to Order
2. Additions/Deletions/Approval of Agenda
3. Declaration of Pecuniary Interest or Conflict of Interest
4. Approval of Draft Minutes - May 15, 2019
5. Business Arising from Minutes
6. Correspondence Items
 1. Article from the MILESTONES Magazine and information from Burnside and Associates
7. General Business
 1. Monthly Update from Director of Public Works
 2. Other/Additions
 3. Unfinished Business
 1. 5 Sideroad Structure
 2. Concern regarding a car parked on Main Street in Horning's Mills (deal with at next meeting)
 3. Speeding in Corbetton - Request for Signage (Shelly Alexander)
 4. Parking By-law - Further Discussion and Review
8. Delegations
9. Recommendations to Council
10. Public Question Period
11. Confirmation Motion
12. Adjournment and Date of Next Meeting

Roads Sub-Committee

Mayor Darren White, Ex-Officio
Deputy Mayor David Besley, Chair
Councillor Wayne Hannon
Councillor David Thwaites
Denise Holmes, Committee Secretary,
Wendy Atkinson, Treasurer,
Craig Micks, Director of Public Works

From: [Arunas Kalinauskas](#)
To: [Denise Holmes \(dholmes@melancthontownship.ca\)](mailto:dholmes@melancthontownship.ca)
Cc: [Chris Knechtel](#); [Henry Centen](#); [Cody Raposo](#); [Glenn Clarke](#)
Subject: RE: Article from MILESTONES Magazine
Date: Thursday, May 30, 2019 5:21:59 PM

Denise,

Thanks for passing along Councillor Thwaites question. I got our team thinking about this and will try and summarize our thoughts.

- Glenn Clark believes that most road surfaces being constructed today have incorporated Reclaimed Asphalt Pavement (RAP) material for quite some time. Glenn Clark has indicated that most projects use 15% RAP material mixed with new asphalt for HL#3 and up to 20% RAP material mixed with new asphalt for HL#8 type surfaces.
- Some municipalities have been demanding that 100% asphalt be used since the cost of oil has been so low the cost difference has not been that great. If the stock piles of RAP are in over abundance maybe this will lower some of the costs of using it?
- Environmental perspective, a study by the University of Minnesota found that using 15% RAP in an asphalt pavement (compared to 100% new asphalt) resulted in a **less environmentally sustainable pavement**, due to 28% more energy and 39% more carbon dioxide emissions (<http://www.cts.umn.edu/sites/default/files/files/sessions/2dedene.pdf>).
- The performance of recycled versus conventional asphalt pavements, a report published by the U.S. DOT stated that “**The experience of the different states indicates that in most cases the performance of the recycled asphalt pavements has been superior to or comparable to conventional asphalt pavements.**” (<https://www.fhwa.dot.gov/pavement/recycling/98042/02.cfm>). It is important to note that local environment is very important to getting a realistic measure of lifecycle. For example if the location is wet and not well drained this will affect the lifecycle of the asphalt road surface.

I hope this helps answer some questions. But I am quite sure it raises a few more questions that there may not be accurate answers.

Best Regards,

Arunas

Arunas Kalinauskas,
B.Sc.
Business Manager -
Asset Management &
GIS

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From: Denise Holmes <dholmes@melancthontownship.ca>

Sent: Tuesday, May 28, 2019 2:55 PM

To: Arunas Kalinauskas <Arunas.Kalinauskas@rjburnside.com>; Chris Knechtel <Chris.Knechtel@rjburnside.com>

Subject: Article from MILESTONES Magazine

Hi Arunas and Chris,

Councillor Thwaites asked me to send the attached article to both of you, to address the issue and whether this is a viable option for Melancthon and wondered the life expectancy and cost of it?

Thanks.

Regards,
Denise Holmes



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Figure 1 Top view showing RAP stockpile in an asphalt plant



Figure 2 Side view of the stockpile

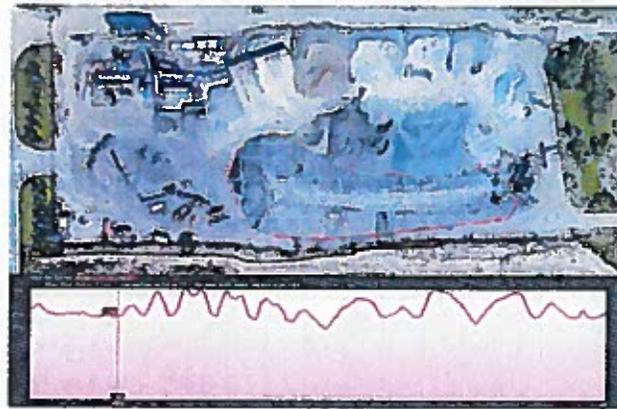


Figure 3 Measurements of RAP stockpile's elevation and area

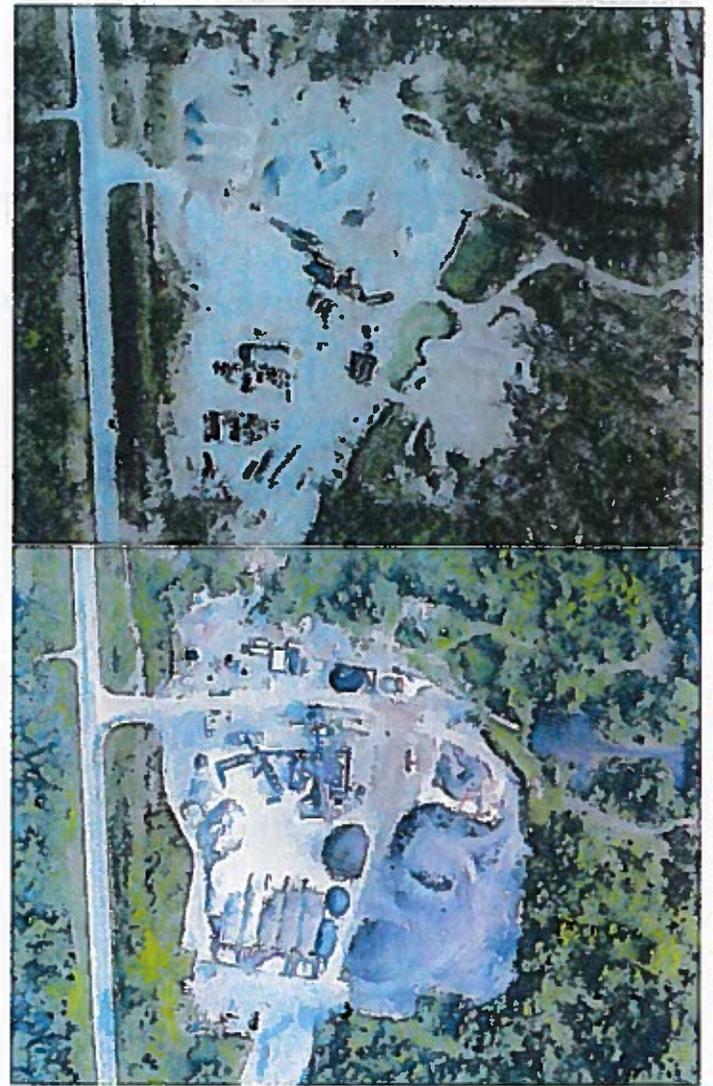
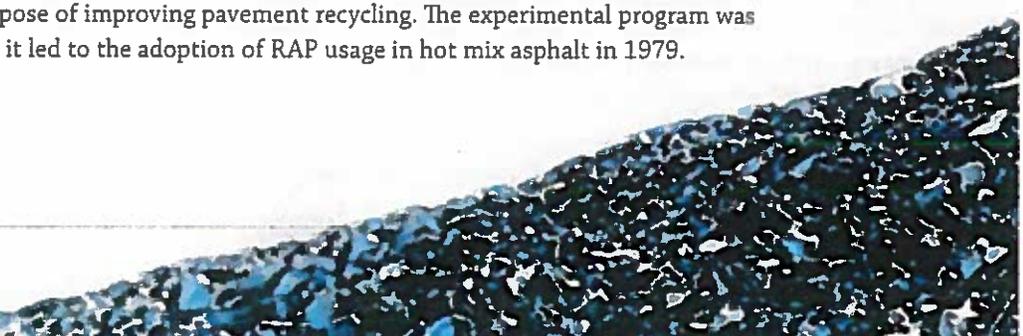


Figure 4 Historical progression of RAP stockpile in one location in Ontario

The Member Services department at OGRA is promoting sustainability in infrastructure by exploring new tools to quantify the amount of available Reclaimed Asphalt Pavement (RAP) in the province. Quantification of current amounts and historical trends in RAP was achieved through employing an innovative cost-effective method by analyzing satellite images using Google Earth Pro software.

Recycling asphalt pavement into new road construction was first introduced in the 1960s and Ministry of Transportation Ontario (MTO) was one of the leading transportation agencies in pavement recycling at the time. The earlier attempts to pavement recycling consisted of milling and crushing asphalt pavement and re-using it into road foundation layers (subbase). In 1971, MTO implemented an experimental project to recycle asphalt pavement in the construction of a new surface layer, for the purpose of improving pavement recycling. The experimental program was considered a success and it led to the adoption of RAP usage in hot mix asphalt in 1979.



The construction and maintenance of pavements consume more than 6.5 million tonnes of asphalt and 75 million tonnes of aggregates each year in Ontario. Both asphalt and virgin aggregates are considered non-renewable resources that should be consumed strategically to allow future generations to continue to benefit from such resources. The use of RAP in pavements is considered a sustainable approach to infrastructure that would lead to cost-effective spending on infrastructure, sustaining resources of virgin materials, diverting large amounts of solid waste from landfills, and would also result in limiting greenhouse gas emissions through reducing asphalt consumption and through utilizing locally available recycled materials.

The research conducted by OGRA Member Services to quantify RAP in Ontario will be published as a research paper in the 2019 Transportation Association of Canada conference. Part of the research will be presented at the Ontario Asphalt Pavement Council's Partners In Quality seminar series around the province. The research focused on identifying RAP stockpile locations in the province. 114 potential locations across the province were successfully identified. Improved features of Google Earth Pro allowed for measurements and estimations of RAP tonnage in each location. The results showed that a total of 4.3 million tonnes of RAP is currently available in Ontario. Historical trends were also investigated as part of this research and

indicated an increased trend in RAP quantities in the past ten years. Further investigations of the results showed that the total estimated quantity of RAP would help conserve 4 million tonnes of aggregates (crushed rocks and gravel) and 1.3 million barrels of asphalt. This would result in 1385 lane kilometers of extra pavement.

This research will help promote sustainability in infrastructure by adding to the information used by decision makers to best shape the strategies around pavement recycling. 🌱

Promoting **Sustainability** *in* **Road Construction**

By AMIN MNEINA
Member Services Coordinator, OGRA

