

TO: Mayor J. Lehman and Members of General Committee

FROM: B. G. Parkin, P. Eng., Director of Corporate Asset Management

NOTED: R. J. Forward, MBA, M.Sc., P. Eng., General Manager of Infrastructure, Development & Culture
Carla Ladd, Chief Administrative Officer

RE: 2012 Road Renewal Program

DATE: May 17, 2012

As part of the 2012 Business Plan, the City made significant investment towards sustaining the City's road network. Part of this investment included approximately \$1.7 million towards a road renewal program.

The 2012 Business Plan also included the following amendment:

"1 e) That the contribution to the Tax Capital Reserve be decreased by \$1,000,000 and an additional \$1,000,000 be included in the Road Resurfacing Program (asphalt plane and overlay) for the resurfacing of roads that required reconstruction but cannot be scheduled for reconstruction within at least six years due to affordability issues and the resulting requirement to prioritize projects;"

Following the approval of the 2012 Business Plan, including the above noted amendment, there are now two streams of road renewal funding for 2012; \$1.7 million for the program described in this memo, and another \$1 million for an interim road revitalization project to improve service levels on roads that will not receive the full reconstruction that they require, for a minimum of 6 years.

For clarity, the work described in this memo is part of the 2012 Operations operating account – intended to be the application of asset management best practices to road segments that have been identified as being at a condition and time in their lifecycle where resurfacing will extend their useful lives, and optimize the City's investment. The work included in the 2012 Business Plan amendment, and referenced in CAM001-12, for \$1 million in interim road work, is not a part of this scope and is being reported on separately. A memo update will be provided in July.

Since 2009 the City has undertaken a road renewal program funded through the use of Federal Gas Tax (FGT) funds. The work typically consists of partial or full depth asphalt removal and replacement. The roads included in this program are identified as being at a condition and time in their lifecycles where resurfacing will assist the road to reach its expected useful life, thereby deferring the need for more costly and disruptive full reconstruction. The approach can also be summarized as "doing the right thing to the right asset at the right time".

We often equate this type of work on a road surface, to patching the roof of a building. If a roof has weak areas or loose shingles, there is a certain window of opportunity during which you can undertake minor repairs and prevent the issues from worsening. Leaving the repairs too late (or, missing the window of opportunity) will allow the issues to worsen to the point that a simple repair is no longer a viable option, and instead the entire roof may require replacement, or damage to other parts of the building that the roof is protecting may occur. Like a roof, the asphalt road surface protects infrastructure underneath it, such as the granular road base, which in turn offers protection to subsurface infrastructure such as sewers and water mains. By doing planned lifecycle activities, like partial or full depth replacement of surface asphalt, we can repair minor cracks and other defects, and extend the life of the asset and maximize the return on our initial capital investment by deferring more significant rehabilitation work.

Identification of roads for inclusion in the annual road resurfacing program begins with a review of the City wide road condition data in the fall of 2011. The performance of the subsurface infrastructure in these right-of-ways was considered, and where the sanitary or storm sewer or water main was considered a high risk, requiring significant repair or replacement within the life of a new asphalt surface, the location was removed from the resurfacing candidate list. Site visits by staff from the Corporate Asset Management, Engineering and Operations Departments refine the lists further, and geotechnical investigation is used to determine site specific conditions and requirements.

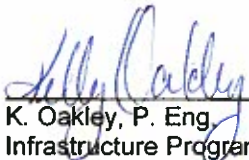
Geotechnical investigations undertaken in the fall of 2011 indicate that for many of the locations planned for a partial depth resurfacing, there is insufficient asphalt depth present to allow for this treatment. As such, full depth resurfacing will be undertaken for the majority of the work under this program this year. As full depth resurfacing is more expensive than partial depth, some of the locations that were originally identified will not be rehabilitated.

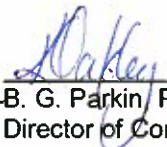
The tender for this work is anticipated to be issued in late May, with construction activities taking place in July to September. Standard processes for notifying affected residents and Councillors of these details will be followed.

The road sections to be resurfaced are:

Road Name	From	To
Birchwood Trail	Springdale Drive	Stanley Street
Brock Street	Dyment Road	Anne Street S
Grove Street	Toronto Street	Peel Street
Grove Street E	St. Vincent Street	Lay Street
Lay Street	Grove Street E	Wellington Street E
Rose Street	Davidson Street	St. Vincent Street
Springdale Drive	Maplehurst Crescent	Cundles Road E

The City is moving towards this approach, where lifecycle intervention activities are planned proactively. The approach we are taking now will ensure that the City optimizes the investment of limited capital dollars and directs them to where the City will derive the greatest benefit. The challenge is that while the City is implementing this approach which will ultimately improve the overall condition of the road network, while minimizing investment, we also need to address a tremendous backlog of roads that require complete reconstruction. The challenge is further complicated by also having to address a backlog of capacity issues as well. However, investing in lifecycle activities at the opportune time will allow for those assets to realize their maximum potential useful lives and will push off the need for complete reconstruction, and minimize the total cost of ownership of assets, while continuing to provide the desired level of service at an acceptable level of risk.


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for 
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