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2009 BUDGET BRIEFING NOTE Transportation Services - Backlog

Issue/Background:

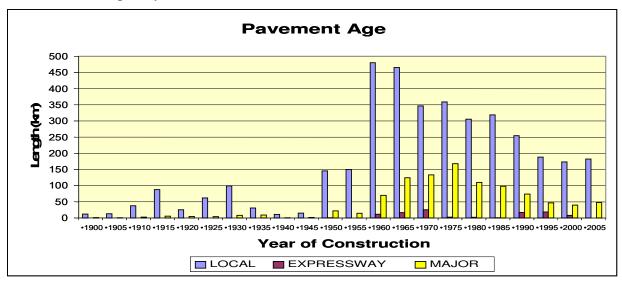
 The following two graphs depict the age of some of the Transportation infrastructure. The data is based on the year various assets were either first constructed or in the case of the (former) City of Toronto, completely rehabilitated.

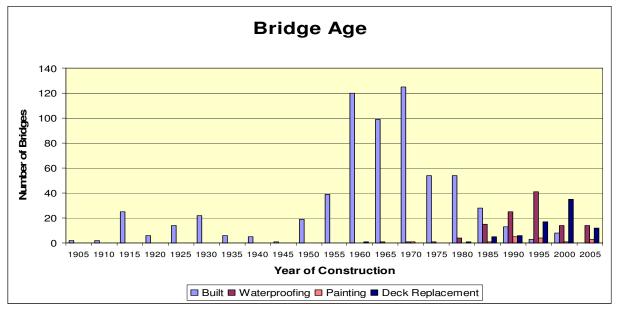
Transportation Services

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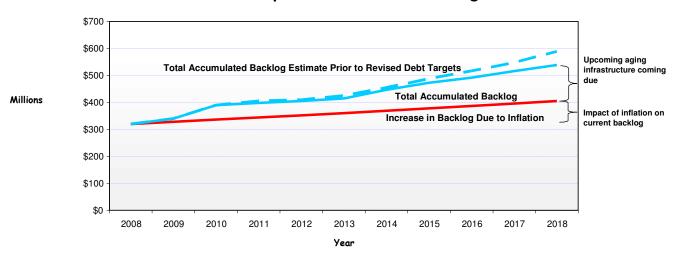
City Hall, 23rd Floor, East Tower





- The following graph depicts the various components that make up the backlog:
 - The current level of the backlog of \$320 million at the end of 2008 and the expected growth to \$415 million by the end of 2013 and \$539 million by the end of 2018;
 - The expected impact of inflation on the backlog;
 - The funding that would be required to rehabilitate upcoming infrastructure that has reached its useful lifespan;
 - The total expected future cost of the backlog of addressing the two components noted above; and
 - The total future cost of the backlog had there not been recent increased levels of funding for state-of-good-repair (the dashed line).

Transportation Services Backlog



Key Points:

- The current backlog estimate of \$320 million is 3% of the total asset value of Transportation infrastructure of \$11 billion.
- The backlog estimate (currently at \$320 million) is based on field observations and an engineering assessment of the condition of the pavement or bridge structure and the estimated cost of rehabilitating this infrastructure. It is not simply a "best guess."
- The individual locations that actually makeup the backlog are continually changing as infrastructure that has been rehabilitated are replaced on the backlog list by infrastructure that, in the meantime, has reached their useful life span.
- Various pavement quality indicators are reviewed and used to rank the unfunded needs. Locations
 are assigned ratings based on the type of work required, say for reconstruction versus resurfacing.
- Debt funding was increased \$10 million per year from 2011-2018 this year to reduce the backlog from close to \$600 million to \$539 million.

Bench Marking Initiatives:

Currently at the City, there are two benchmarking initiatives related to transportation infrastructure that are coordinated through both Corporate Finance and the City Manager's Office. The first benchmarking initiative is the **Municipal Performance Measurement Program (MPMP)**.

The MPMP is an initiative mandated by the Provincial government and is required with all Financial Information Return (FIR) submissions. The initiative is designed to provide taxpayers with useful information on service delivery and municipalities with a tool to improve those services over time. The program requires municipalities to collect data to measure their performance in 12 core municipal service areas, including roads.

The second benchmarking initiative is undertaken by a collection of member municipalities that form part of the **Ontario Municipal CAO's Benchmarking Initiative (OMBI).** OMBI is a partnership project to push for service excellence in municipal government. Participating municipalities work together to identify and share performance statistics, operational best practices and to network in a spirit of innovation and entrepreneurship to push for even greater successes. Through OMBI, municipalities provide comparable data to allow municipalities to make informed decisions on service quality, quantity and cost. Current measures reported as part of the MPMP initiative are only a subset of the overall measures collected as part of the OMBI reporting.

Through these two benchmarking initiatives, the condition of Toronto's road infrastructure has been compared and rated against the condition of road infrastructure in other jurisdictions. Based on the submission of information by the Municipalities and using a consistent rating system, OMBI has determined that Toronto's roads, based on the percentage of paved lane-kilometres rated as "good to very good", ranks highest among the OMBI municipalities as summarized in the table below:

| Percentage of Paved Lane Kms where the Condition is Rated as Good to Very Good (MPMP) | | | | | |
|---|-----------|-------------|-------------|-------------|-------------|
| Municipality | Numerator | Denominator | 2007 Result | 2006 Result | 2005 Result |
| Toronto | 11,943 | 13,335 | 89.6% | 89.2% | 89.2% |
| Peel | 1,252 | 1,512 | 82.8% | 85.2% | 89.2% |
| York | 1,267 | 1,555 | 81.5% | | 81.2% |
| Ottawa | 7,806 | 10,125 | 77.1% | 79.0% | 79.1% |
| Halton | 629 | 877 | 71.7% | 74.0% | 71.1% |
| Niagara | 1,014 | 1,642 | 61.8% | 68.0% | 64.0% |
| London | 1,987 | 3,367 | 59.0% | 58.0% | 56.9% |
| Waterloo | 917 | 1,685 | 54.4% | 52.4% | 50.6% |
| Brant | 901 | 1,686 | 53.4% | 49.5% | 55.2% |
| Sudbury (Greater) | 1,522 | 2,972 | 51.2% | 52.7% | 52.7% |
| Hamilton | 2,713 | 6,310 | 43.0% | 56.0% | 58.3% |
| Windsor | 945 | 2,230 | 42.4% | 43.0% | 40.7% |
| Durham | 844 | 2,144 | 39.4% | 38.7% | 36.2% |
| Muskoka | 514 | 1,493 | 34.4% | 35.6% | 33.0% |
| Thunder Bay | 260 | 1,943 | 13.4% | 13.5% | 13.5% |
| Median of Municipal Results | | | 54.4% | 54.4% | 56.9% |
| Average of Municipal Results | | | 57.0% | 56.8% | 58.1% |
| Standard Deviation of Municipal Results | | | 21.0% | 21.0% | 21.7% |

Questions & Answers:

1. What is State of Good Repair backlog?

State of Good Repair backlog broadly defined refers to the amount of capital rehabilitation work required to ensure assets are maintained in a state of good repair, that was not completed as planned. It is the cost differential between what work needs to be addressed annually to ensure assets are maintained in a state of good repair and the amount of actual state of good repair capital work completed annually based on available funding and capacity.

2. What does the concept of a sustained level of backlog imply?

Even if the given quantity of unfunded works is stabilized to remain constant year over year, the cost to rehabilitate those assets will increase by the cost of inflation. Therefore, one needs to distinguish between the number of backlog assets and the cost of the backlog.

3. Despite the current level of the backlog, is the age of the City's infrastructure such that the backlog is expected to increase?

Yes. Based on age alone, it is expected that a band of infrastructure built in the mid-1950s will come due for rehabilitation in about ten years. An additional band is expected to require rehabilitation in about twenty years representing that infrastructure built in the mid-1960s as the former suburbs expanded.

4. Consequently, is the backlog derived from two distinct components?

Yes. The total backlog is derived firstly from the current level of the backlog which is about \$320 million (representing about 3% of the total inventory value of \$11 billion) and an additional component which is upcoming in a few years as a result of infrastructure reaching its full useful life and accordingly, requiring rehabilitation.

5. What level of funding infusion is required to stabilize the State of Good Repair backlog at \$320 million.

One scenario would require an infusion of \$13 million per year (in 2009 \$) to keep backlog at \$400 million in 10 years. This level of additional funding will address the component attributable to aging infrastructure. A second scenario would require an infusion of \$20 million per year (in 2009\$) to keep the backlog at the \$320 million level in 10 years. This level of funding will address both the aging component as well as addressing the inflation component of the current backlog.

6. How difficult is it to project the backlog into the future?

It is extremely difficult to project costs into the future the farther out one goes. Although the quantum of backlog is determinable with a relatively high degree of accuracy, its associated cost is somewhat more variable depending on a number of factors such as the economic climate, the price of commodities such as oil and the degree of available labour. The rate of deterioration of the

infrastructure is also difficult to predict because it depends on numerous factors including volume and composition (e.g. % trucks) of traffic, number and extent of utility cuts, climatic conditions, etc.

7. Is it possible to totally eliminate the backlog?

There is extensive coordination required to plan and program the rehabilitation of our infrastructure. Therefore, it is sometimes necessary to defer some work in order to better coordinate (e.g. with Toronto Water, TTC and Utility Companies) and more effectively fund, from a life cycle costing perspective, the rehabilitation. As a result, it is not feasible, nor is it desirable, to totally eliminate the backlog in order to facilitate this coordination.

8. Are we neglecting our infrastructure?

Despite the \$320 million backlog, we are not neglecting our infrastructure. While we might defer some major work (e.g. reconstruction or resurfacing) we are undertaking the necessary rehabilitation and maintenance to ensure the infrastructure is in safe operating condition for the traveling public.

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