Information:

In June 2011, the Province of Ontario released *Building Together*, its long-term infrastructure plan with a strategic framework to guide future investments. This plan sets out the government’s commitment to making investments in public infrastructure which:

- support economic growth and competitiveness;
- align public services with demographic changes; and
- ensure good stewardship of public assets.
However, with the current economic climate and fiscal pressures which challenge the Province’s ability to support infrastructure investment, the Province has made clear that future funding commitments to municipalities will be based on focused investments which address needs rather than wants.

To aid municipalities in identifying and prioritizing infrastructure investment, the Ministry of Infrastructure has developed the Municipal Infrastructure Strategy (Strategy), which intends to aid municipalities in strengthening asset management practices across the Province. Within the Strategy is a requirement that municipalities seeking provincial capital funding will now be required to submit a detailed Asset Management Plan (AMP) for future consideration. This requirement will become effective as of December 31, 2013 and must be endorsed by council.

The initial AMP must include the following assets: Roads, bridges, water and waste water systems, and social housing.

**Elements of the Asset Management Plan**

As part of the Province’s Strategy, the Ministry of Infrastructure has released a document titled *Building Together: Guide for Municipal Asset Management Plans* to assist municipalities in preparing an AMP which will be effective in prioritizing infrastructure investment decisions and meet the Province’s requirement for future funding consideration. This document provides the necessary elements of the AMP, which are outlined below:

*Executive Summary*

The executive summary will provide a succinct overview of the AMP.

*Introduction*

The introduction of the AMP will explain how the municipality’s goals are dependant on its infrastructure. It will clarify how the municipality’s AMP is related to its planning and financial documents, including the strategic plan, as well as identify its purpose. It will outline which assets are included as part of the AMP; it is recommended that all assets under the municipality’s responsibility will be included ultimately, but at a minimum must cover roads, bridges, water and wastewater systems and social housing.

*State of the Local Infrastructure*

This section of the AMP will summarize, preferably in a table format, the following:
• Asset types (e.g. urban arterial road, rural arterial road, watermains) and quantity/extent (e.g. length in kilometres for linear assets);

• Financial accounting valuation and replacement cost valuation.

• Asset age distribution and asset age as a proportion of expected useful life, and;

• Asset condition (e.g. proportion of assets in “good,” “fair” and “poor” condition).

In addition, this section is to be supported by a an inventory database of the infrastructure assets covered by the AMP.

Finally, a data verification policy and a condition assessment policy must be set out within this section of when and how asset information will be verified and when and how assets will be assessed to determine their condition.

**Desired Levels of Service**

This section of the AMP will define the municipality’s targeted levels of service for the infrastructure assets included in the AMP. It is to include performance measures as well as targets and timelines for infrastructure which does not currently attain the desired levels. Any external trends or factors which may affect the municipality’s ability to meet service levels should be identified and indicated within this section. This section is supported by documentation that specifies which performance measures are associated with which assets, current asset performance and expected performance over the planning period, as well as all assumptions.

**Asset Management Strategy**

The asset management strategy is the set of planned actions that will enable the assets to provide the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost. Planned actions outlined with the AMP should include:

• Non-infrastructure solutions – actions or policies that can lower costs or extend asset life (e.g., better integrated infrastructure planning and land use planning, demand management, insurance, process optimization, managed failures, etc.);
• Maintenance activities;
• Renewal/rehabilitation activities;
• Replacement activities;
• Disposal activities, and;
• Expansion activities (if necessary) – planned activities required to extend services to previously non-serviced areas - or expand services to meet growth demands.
This section is to outline comparative options/actions to provide the needed levels of service. Options must be compared on:
- Lifecycle cost – total cost of the asset, including construction, maintenance, renewal and operational costs throughout its service life. Future costs must be discounted and inflation incorporated, and;
- Direct and indirect benefits and costs.

Risks associated with implementing the municipality’s strategy must be assessed, as well as identifying any planned actions in response to materialized risks. This includes a comparative analysis of risks associated with all potential options/actions undertaken to meet levels of service.

Upon its completion, the asset management strategy is to be a set of actions that, taken together, has the lowest cost overall for the infrastructure program.

**Financing Strategy**

This section of the AMP is intended to demonstrate that the municipality has made a concerted effort to integrate asset management planning with financial planning and budgeting and is willing to utilize all available infrastructure financing tools. This section will include:
- Annual expenditure forecasts categorized by:
  - Non-infrastructure solutions
  - Maintenance activities
  - Renewal/rehabilitation activities
  - Replacement activities
  - Disposal activities
  - Expansion activities (if necessary);
- Actual expenditures incurred for the above categories for the previous 3 years to facilitate comparison;
- Annual revenues to fund expenditures by confirmed sources;
- Key assumptions and alternative scenarios, and;
- Identified funding shortfalls relative to financial requirements that cannot be eliminated by revising service levels, asset management and/or financing strategies and an explanation of the impact of the funding shortfalls and how they are managed

This section will include documentation explaining how the expenditure and revenue forecasts were developed and must be consistent with the options analysis outlined within the Strategy section of the AMP. At a minimum, the financing strategy must incorporate a ten year timeframe; however, a best practice is identified as spanning the lifecycle of the assets included in the AMP.
Hamilton’s Current Asset “State of Affairs”

In its 2013 Tax-supported Capital report FCS12096 the City identified a significant funding gap regarding what the City should be spending annually on existing asset repair versus available funding. This is illustrated in the following table,

**TABLE 1**

<table>
<thead>
<tr>
<th>2012 Infrastructure Funding Deficit (Annual)($000's)</th>
<th>2012 Required</th>
<th>2012 Funding</th>
<th>Infrastructure Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads/Bridges</td>
<td>179,078</td>
<td>69,490</td>
<td>109,588</td>
</tr>
<tr>
<td>Waste Management</td>
<td>16,979</td>
<td>7,270</td>
<td>9,709</td>
</tr>
<tr>
<td>Corp Facilities (inc C.H.)</td>
<td>15,645</td>
<td>5,455</td>
<td>10,190</td>
</tr>
<tr>
<td>Rec Facilities</td>
<td>10,000</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Culture Facilities</td>
<td>7,000</td>
<td>4,166</td>
<td>2,834</td>
</tr>
<tr>
<td>Housing</td>
<td>37,500</td>
<td>16,000</td>
<td>21,500</td>
</tr>
<tr>
<td>Parks / Open Space</td>
<td>10,296</td>
<td>7,927</td>
<td>2,369</td>
</tr>
<tr>
<td>Forestry</td>
<td>10,000</td>
<td>1,500</td>
<td>8,500</td>
</tr>
<tr>
<td>Fleet</td>
<td>10,820</td>
<td>9,386</td>
<td>1,434</td>
</tr>
<tr>
<td>Fire, EMS, Police Fleet</td>
<td>6,171</td>
<td>4,459</td>
<td>1,712</td>
</tr>
<tr>
<td>Transit</td>
<td>11,593</td>
<td>11,593</td>
<td>-</td>
</tr>
<tr>
<td>Long-Term Care</td>
<td>2,226</td>
<td>1,670</td>
<td>556</td>
</tr>
<tr>
<td>Other</td>
<td>10,773</td>
<td>6,143</td>
<td>4,630</td>
</tr>
<tr>
<td>Financing Costs</td>
<td>16,404</td>
<td>-</td>
<td>16,404</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>344,485</strong></td>
<td><strong>149,059</strong></td>
<td><strong>195,426</strong></td>
</tr>
</tbody>
</table>

The $195 million represents the City’s annual infrastructure funding gap for 2012. The 2012 funding gap adds to the City’s cumulative infrastructure funding deficit which is currently approaching $2 billion. This means that the City needs to spend approximately $2 billion dollars today in order to have all of its tax-supported assets maintained and in good repair. The absence of this funding has resulted in poor conditioned roads, deferred asset maintenance and ultimately will lead to asset failure which in the long-term is more expensive. In addition, the City’s available capital capacity will in the future be increasingly used more for emergency repairs and less for new capital initiatives.

City of Hamilton Measures to Tackle the Infrastructure Funding Gap

The City has taken the following measures with regards to its infrastructure funding shortfall;

- Developed a 10-year Discretionary Capital Forecast to identify available funding.
- Developed a Capitalization Prioritization Process based on stakeholder input which allows for long-term asset repair planning to promote cost efficiencies.
- Council has adopted a long-term fiscal strategy which incorporates a 0.5% total levy increase dedicated exclusively to the Capital Levy. This ensures that the...
Capital Budget increases proportionately greater than the operating budget in spite of local fiscal constraints.

- Redirected area-rating fiscal capacity to deal with infrastructure deficiencies in the older areas of the City.
- Introduced purchasing/tendering policies which allow program staff to maximize cost efficiencies with existing funding (i.e., local neighborhood road repair).

All of the above measures have served to only slow asset decay. The only solution to solve the City’s infrastructure repair problem is if the senior levels of government truly partner with the City and re-direct more of the federal and provincial taxes generated in this community towards repairing the existing municipal assets. The municipal tax capacity in this community is not sufficient to effectively deal with this problem.

**Hamilton’s Current AMP Status**

The City currently maintains or has developed all of the Provincial AMP requirements; however, some of the information currently maintained, such as the levels of service, needs to be compiled into a consistent framework for the purpose of the AMP. Further, some integration of processes may be required. Below is a summary of the City’s current status of the various required elements:

**State of the Local Infrastructure**

The City currently produces the “State of the Infrastructure” report on a 5 year basis. This report has been identified as a best practice by the Ministry of Infrastructure and was referenced as an example in representing assets within the *Building Together: Guide for Municipal Asset Management Plans* document.

The City’s current State of the Infrastructure reporting covers all assets required by the province: Roads, bridges, water and waste water systems and social housing.

Also, all business areas related to the above asset categories have detailed inventory databases as required.

**Desired Levels of Service**

The City currently identifies and tracks performance measures in regards to infrastructure and levels of service through a variety of different documents and service areas. For instance, within the Strategic Plan, State of the Infrastructure Report, Development Charges (DC) Background Study, Ontario Municipal Benchmarking Initiative (OMBI), Municipal Performance Measurement Program (MPMP). There are
many other areas and documents within the City where performance metrics are tracked.

A selection of the above measures will be pooled together into a consistent framework for each infrastructure category. The framework will include strategic, tactical, operational and financial measures tied to a customer and service delivery focus.

**Asset Management Strategy**

The province defines this section as, “a set of planned actions that will enable the assets to provide the desired levels of service, while managing risk, at the lowest cost”. In short, these are the documents, actions and policies that should define the 10 year infrastructure plan.

The City has a number of processes, procedures and best practices in regards to the above and these will be compiled for each infrastructure category within the AMP. Generally these will be reported under the following categories:

- asset data management
- asset life cycle management
- asset risk management
- asset decision making

**Financing Strategy**

The City’s current capital budget methodology meets the minimum requirements of the AMP, outlining capital budgetary costs for a ten year period and partially categorizing spending according to classifications required. In certain circumstances, categorization may need to be refined; however, the current capital budget system has the functionality to support AMP requirements.

Stretching the capital budget to span the lifecycle of the infrastructure addressed is unfeasible as certain assets, such as sewer mains, can have a useful life of 100 years. Full lifecycle financing plans will have to be maintained outside of the capital budget incorporated into the asset management strategy. This should then derive capital budget funding requests based on best practice asset management.

**Next Steps/Action Plan**

Both Public Works (Hamilton Water and Engineering Services) and Community Services (Housing), working with Corporate Finance, have retained consultants to compile and develop AMP’s, using a consistent format, that will adhere to the provincial
requirements. These documents will be brought forward to Council for approval prior to year end.

**Conclusion**

With future funding contributions from the Province reliant on an effective AMP, Hamilton in large part meets the requirements set out in the *Building Together: Guide for Municipal Asset Management Plans* document. Some work and coordination will be required between affected departments to ensure the various elements are integrated and incorporate the outlined requirements in future document preparation. Work is underway and will be completed prior to year end.