

Issue 244
30 June 2008
Guest Editorial Issue

A CANADA SPECIAL



Waterfront, Halifax

In May, Local Government Asset Managers in Canada got together in Halifax, Nova Scotia, for their second annual conference. To celebrate, we look at the state of asset management in Canada - at both local and provincial levels - and ask the question "Where to now"?

This issue has been co-ordinated by Gordon Sparks, Professor of Civil Engineering at the University of Saskatchewan and Partner, VEMAX Management Inc.

We start with a round-up of the three day Halifax Event by Pam Morrison, Halifax Regional Municipality. (pp. 2-3) Then Konrad Sui, Director, Office of Infrastructure and Funding Strategy, City of Edmonton, with Romana Kabilin, looks at the next steps to be taken. (pp 3-4).

Gordon Sparks addresses the key issue of why asset management is critical in "Getting A Better Bang for the Buck" on pp 4- 6

And Ian Greenwood and colleagues, Opus International, looks at what it will take to drive asset management at local, provincial and national levels.

Do enjoy!
Penny

Editor: Dr Penny Burns, AMQ International
PO Box 75 Salisbury South Australia 5108
Telephone 61 (0) 8 8281 5795
Email: amqi@amqi.com Website www.amqi.com

I had the pleasure of addressing the first CNAM in Hamilton last year and it is clear from Pam's round-up below that the energy and enthusiasm is growing. I hope that even more of you will take part in Calgary next year!

Penny



Pam Morrison, Halifax Regional Municipality

CNAM 2008 Conference Summary

A three day Conference held in Halifax this year, focused on three interconnected components of Asset Management: Service, Sustainability and Strategy. There were attendees, speakers and moderators from municipalities from across Canada. The event keynotes included Jeff Roorda from Australia. A true down east kitchen party. Lobster, music, ghost tour, Peggy's Cove, plenty of historic sites with lots and lots of IIHF hockey.

On the technical side there were tours of Harbour Solutions Project and Waste Management. A virtual tour brought an exhibition of Halifax departments to the conference to allow for exchanges of ideas and great networking opportunities.

Service Levels

To deliver services within a municipality or any other large organization, to meet the changing demands of the public while balancing financial sustainability becomes more complex as new factors are introduced. Priorities are constantly being realigned based on rapidly changing needs, the challenge of managing assets that are not part of the core business and the resources and processes required to deliver the services. Whether based on internal policy, regulation, or public demand on services; defining levels of service is a foundation of good asset management. The creation of the service levels are complex and require input and continued communication with the public and all levels of government.

Data, Information, Governance

To develop service levels requires lots of data to measure and report on service and performance. All data must have a purpose in order to be informative and valuable. Adding judgement to the information delivers knowledge on how well we deliver the service and the amount of tolerance the public will accept. In order to deliver services that are acceptable to the public with the limited resources facing municipalities, we must collaborate. This is the progressive advancement of knowledge.

We need reliable information, good governance, well defined service levels, and performance measures to achieve sustainability. Asset Management is complex and meeting the needs of

the public ever changing. It is a balancing act of delivering the services to the public within a funding framework that the public will and can support and endorse.

Next stop, Calgary

This journey to sustainable asset management has many stops along the way. Some municipalities may have shorter journeys and fewer stops than others. As we go we will benefit from learning from others successes as well as from lessons learned. See you at the next stop on Calgary, Alberta in May 2009! All aboard!!

Konrad Siu, Director, Office of Infrastructure and Funding Strategy, City of Edmonton
(with Romana Kabalin, Policy Advisor)

From Defining Needs - to Developing Solutions - to Strategic Partner: The Next Frontier for Asset Management Practitioners



In attending last month's CNAM Workshop in Halifax, I couldn't help but reflect on the tremendous leaps and bounds the infrastructure asset management field has made over the past decade.

"Infrastructure" has entered common daily language

Only a few years ago the word "infrastructure" wasn't even part of the vernacular, now I would challenge anyone to pick up a newspaper and not see the word in print on a daily basis, or used regularly in conversation by politicians, the media and citizens at large. That is huge progress, for asset managers, who not so long ago, could only garner interest in what they were doing from colleagues, academics and other practitioners.

Tremendous progress is also evident in the majority of the presentations we heard at CNAM this year, and for that matter, at industry conferences many of us frequently attend. The fastest emerging theme or trend is without a doubt strategic asset management – the next evolution or frontier for asset management practitioners.

Where we are now

Today most Canadian municipalities are well on their way in terms of tracking asset inventory, age and replacement value. Some municipalities have even embarked on the next milestone of developing infrastructure management tools to optimize renewal investment based on an assets life cycle, condition and risk.

Other municipalities have taken it yet a step further and are beginning to determine investment needs based on the perspective of the user. In essence, this is the process of linking levels of service to an infrastructure's technical level of performance to better match the service needs and expectations of the community, as well as meet various economic and quality of life indicators.

Next Steps

For some municipalities the impetus for new levels of reporting and analysis is the new PSAB 3150 regulatory requirements that will require all public sector organizations to report capital tangible assets for accounting and auditing purposes starting in January 2009.

For others the catalyst for more comprehensive tools and practices is the recognition that infrastructure management has begun to move beyond the engineering, financial and technical arena of defining needs and developing solutions, and is now playing a more pivotal role in the strategic planning and policy development arena.

We already see evidence of this as municipalities look to the infrastructure management function to help guide the tough decisions elected officials are facing in terms of how best to invest limited infrastructure dollars to optimize investment. And, perhaps, even more importantly, to provide the decision-support tools to defend and garner public support for those funding and investment decisions.

To integrate asset management with corporate business goals and objectives and long-term direction setting is really the next critical step, as municipalities strive to deliver on the benchmarks set by their communities. It sets the stage for truly institutionalizing asset management in an organization from the top down, elevating the infrastructure management function to the role of full strategic partner.



Gordon Sparks, Professor of
Civil Engineering, University of
Saskatchewan and Partner, VEMAX
Management, Inc.

Getting a Better Bang for the Buck

As demonstrated by the scope and diversity of the presentations made at the recent Canadian National Asset Management Workshop held in Halifax in May 2008, the discussion related to asset management in Canada is broadening and becoming more “all encompassing” as the discipline develops and matures. This is good and in fact required, if acceptable solutions to the complex multi-dimensional asset management issues of the day are to be found and implemented. That said, it also appears as though we may well be losing sight of one of the, if not the, most important issue – namely, ensuring that taxpayers are getting the “best bang for the buck” or as the accountants put it, getting “maximum value for money”.

Significant Economic Benefits from Optimal Allocation of Resources

This business of maximizing the “bang for the buck” is no small issue in the scheme of things. As illustrated in a 1994 workshop presentation¹ using a pavements example, Dr. Robert Lytton illustrated that there are very significant economic benefits associated with the optimal allocation of resources when it comes to managing public sector assets. Dr. Lytton noted:

Ranking Projects can result in 20-40% cost savings

‘The bottom-line reason for using optimization is to make the best use of taxpayer’s money while assuring that pavements are serving their intended functions. It has been demonstrated that ranking candidate projects in an orderly, consistent manner can result in increased benefits between 20 and 40 per cent above what can be realized with an unplanned program.

Optimisation can yield another 10-20% saving

The same example showed that optimization can increase benefits by another 10 to 20 percent above what can be achieved with ranking. These increases are additive: by combining planning and optimization in the management of pavements, a highway agency can present taxpayers with 30 to 60 percent greater benefits from the use of their funds. Benefits may be (and are) defined in a number of ways but any definition includes longer service life, better satisfaction of its intended function, and a greater number of users served. Although ranking is distinctively different from optimization, they both have the same overall goal and the one; ranking can evolve into the other. The goal is to arrive at an ordered set of choices of projects with time so as to make efficient use of the funds that are available to the highway agency or to reduce the costs to the user to an acceptable minimum, or both.

I would submit that we as asset managers would be able to move much closer to meeting all the needs if we were first and foremost able to deliver credible (auditable), optimized, needs based infrastructure programs and budgets.

Put another way, what could be accomplished if available budgets were increased over night by 30 to 60 per cent?

Having the capability to develop and effectively implement optimized, needs based programs and budgets would in effect deliver this order of benefits. That said, I have as yet not seen any evidence that indicates that there is a single agency in Canada that has the capability to develop an optimized needs based budget that could pass a comprehensive value for money audit. In fact there have been “value for money audits” that indicate leading agencies in Canada are far from having such a capability².

Within the context of the above, if we as asset managers are to move forward in a meaningful and credible way we must first and foremost be in a position to deliver optimized needs based programs and budgets that provide:

¹ Dr. Robert Lytton, Texas A&M, Optimization Techniques, Tutorial Session, Third International Conference on Managing Pavements, May 22, 1994, Hyatt Regency Hotel, San Antonio, Texas

² 2004 Annual Report of the Office of the Provincial Auditor, Ministry of Transportation, 3.14 Maintenance of the Provincial Highway System www.auditor.on.ca/en/reports_en/en04/314en04.pdf

- an objective (auditable) statement of the present condition of all infrastructure asset;
- a prediction of the future condition of all infrastructure assets as a function of time;
- a schedule of future maintenance, repair and rehabilitation activities (and costs) that would be **optimal** with respect to providing satisfactory service, often in the face of changing demands, while minimizing life cycle costs, and
- an estimate of the expected life of all infrastructure assets before requiring replacement.



If we as asset managers could provide the above, we could:

- objectively develop optimal annual, 5 year and long term programs, budgets and schedules that would minimize total life cycle costs while delivering a defined level of service
- demonstrate to senior decision makers and the public in quantifiable terms, the appropriate level of funding required to maintain societies infrastructure assets
- demonstrate, in quantifiable terms, the impact of various levels of available funding, in particular, the impact of under-funding.

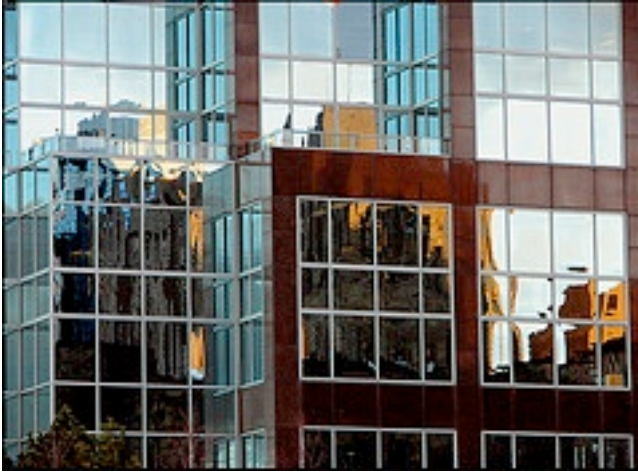
In short, the above is all about getting a “better bang for the buck” by having better information and better management systems in place to support infrastructure maintenance and renewal decisions. While the methods required to accomplish the above are available they have as yet not been effectively applied within the context of the asset management challenge in Canada. This may however change in the near future if “teeth” are put in place to enforce existing legislation. For example,

The Municipalities Act requires for capital assets under their stewardship, that departments manage them to provide effective, efficient and economical program delivery.

Saskatchewan Municipalities Act

In summary

Current challenges faced by asset managers are clearly interdisciplinary, multi – attribute problems but let us not forget the economics involved. If we as asset managers position ourselves to be able to deliver auditable, optimized needs based programs and budgets in my view our communities will be a lot closer to being able to deliver the quality of life that we all want for our kids and grandkids.



Where to Now for Asset Management in Canada

I Greenwood and S Landers – Opus International Consultants Ltd

T Martins – Urban and Environmental Management Consultants Ltd

To understand where asset management (AM) may head in Canada, it is first necessary to consider some of the fundamental questions that AM can answer, and assess how current practices and legislation is impacting these. While no two agencies (municipalities, provinces or countries) need to have the same AM approach, success can be identified when managers can readily answer questions such as:

- What does the customer want?
- What service levels are we aiming for, and how do we compare to those targets?
- What assets do you have and what condition are they in?
- What is the current and future demand for the assets?
- How will your assets perform in the future and how will they fail?
- What would be the impact of a different funding level on the performance of the assets?

Recently in Canada, PSAB 3150 legislation was released to force municipalities to think about the last 4 bullets. This is consistent with international trends, wherein it has required legislation, a desire to increase funding levels (or gain a greater share of available funds) or to better manage risk, to gain real momentum with AM –few organizations have undertaken AM solely because they thought it was the right thing to do. The most significant impact of PSAB from an AM perspective is that when you are in a position to meet the accounting requirements, you also have the building blocks for successful AM. For this reason asset managers must actively involve themselves in the PSAB process.

Lack of people with necessary skills

So why isn't AM occurring across Canada now if the legislative driver is in place? Mostly because there is both domestically (and internationally) a recognised lack of people with the necessary skills and practices to ensure the adequacy and consistency of AM. For many smaller municipalities, they may either not have the staff on board, nor able to readily engage external help. Within New Zealand the industry responded to this challenge with a major training initiative that is ongoing many years later, a similar step change in training is likely to be required to underpin the Canadian industry.

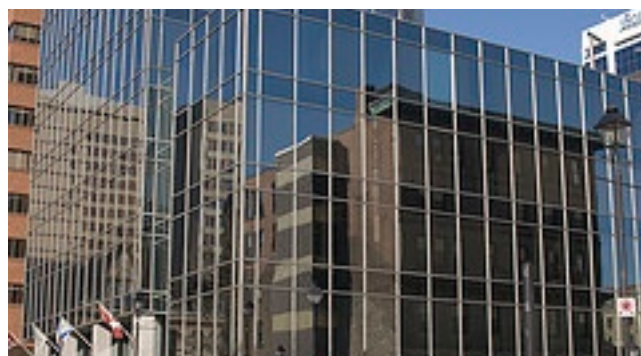
Lack of asset knowledge

The second hurdle is the lack of asset knowledge. In many cases this information is missing, infrequently updated or of a level of detail that is of little (if any) real use in AM. What municipalities are starting to realize is the costs and efforts required to collect this data. For many municipalities PSAB compliance is being treated as a stand alone financial exercise, a practice that is not taking advantage of the potential foundation for AM that can be developed if the base data collection is better defined and managed.

So what of the future?

Firstly the PSAB requirements need to be enforced with some rigour to ensure that as a minimum, the question of just what assets each agency owns is understood. Consider the level of detail required for AM and for PSAB. If your organization is going to put forward the funds to support data collection, it should not be a one-time exercise, rather a starting foundation for AM practices.

Once these organizations fully understand the costs of owning and maintaining assets a rationalization of assets, levels of service and funds can finally occur with a full understanding of the long term implications of not properly managing assets.



Our future is a reflection of the actions we take today