



**INFRASTRUCTURE ASSET MANAGEMENT ALBERTA
WORKING GROUP
JUNE 8, 2016
WORKSHOP MEETING
MEETING NOTES**

In Attendance: Russell Crook, Christine Della Costa, Lam Huynh, Sheila Kitz, Christina Parkins, Joel Sanchez and Mat Stephan

Notes: Candace Coams

Absent: James Friesen, Ed Kaemingh, Shaffin Kherani, Elena Loukin, Joline McFarlane, Ian Perry, Scott Sillers, Wyatt Skovron and Jason Tillsley

1. Welcome

Russell Crook welcomed everyone attending this workshop meeting and called the meeting to order at 9:11 am.

2. Workshop Overview

a. Introductions

Russell Crook provided an introduction about Infrastructure Asset Management Alberta (IAMA) and asked those forming the working group for a round of introductions with their name and municipality they are representing. Russell advised those in attendance to be sure to sign in or initial on the attendance sheet being passed around.

b. IAMA Activity Update

Municipalities need systems to manage their assets. Russell Crook advised that the Deputy Minister for Infrastructure Canada announced millions of dollars of infrastructure funding at the CNAM conference this year. The CNAM conference for 2017 will be in Calgary from May 15-17, 2017.

Russell Crook informed those in attendance that this working group meets monthly (the first Wednesday of the month from 11:00 am to Noon) via teleconference to plan these in-person workshops. There are three in-person workshops each year, typically in February, June and October.

Russell Crook advised that Sponsors for the 2017 workshop meetings are being sought. Russell also advised that there will be a change in process to register for these workshops in the future as IAMA will start to charge for attending at \$30/person/workshop to cover administration costs in the future once the grant funding runs out. IAMA is looking also to increase attendance up to 100 people from the current cap of 60 people per workshop.

c. Website – www.assetmanagementab.ca

Russell Crook advised that Joline McFarlane was not able to attend today's workshop so no website update was available.

3. Municipal Climate Change Action Centre

Christine Della Costa introduced Laura De Carolis from MCCAC, the opening speaker this morning.

Laura informed attendees that the Action Centre was established in 2009 and has received \$11 Million in funding to date to assist municipalities with actions to mitigate and adapt to climate change. Climate change may have both negative and positive impacts on infrastructure. Being more resilient to climate change in the following areas:

- Assess climate risks and vulnerabilities
- Climate projections
- Develop policies/bylaws to address climate risks
- Educate residents and incentivize climate resilient behaviours (ie. water conservation)
- Take advantage of climate-related opportunities

The Taking Action to Manage Energy program (TAME) is directed at improving energy efficiency of buildings on municipally owned lands. All Alberta municipalities are eligible for this program on a "first come-first serve" basis. Covered under this program will be 50% of energy audit costs and retrofit capital costs up to a maximum of \$100,000.

Upgrades/retrofits will include such areas as mechanical/electrical systems, insulation for the building "envelope" and alternative sources of energy from solar thermal and co-generation.

Alberta has a great solar resource. Investing in solar can help municipalities enhance their energy resilience, educate their citizens on renewable energy, and mitigate future increases in energy prices. The MCCAC offers the Alberta Municipal Solar Program that provides rebates up to \$300,000 for grid-connected solar photovoltaic installations on municipal buildings.

Resources available include:

- Engineers Canada – PIEVC Protocol
- Adaptation library
- FCM (Federation of Canadian Municipalities) and CSA E-Learning course called “Adapting to Severe Weather and a Changing Climate” (There is a fee associated with this but it is minor.)

MCCAC and All One Sky Foundation have put together a Climate Resilience Express Action Kit containing guidance tools to develop climate resilience action plans through facilitated workshops. More details from FCM regarding federal funding for climate change will be available this fall.

Laura’s contact details are:

e-mail: ldecarolis@mccac.ca

phone: 780-989-7429

website: www.mccac.ca

For complete details and more information, please refer to the .pdf of Laura De Carolis’s presentation.

Coffee break from 9:50 am to 10:15 am

4. Renewable Energy in Municipal Buildings

James (Jim) Sandercock, Chair of Alternative Energy Technologies School of Sustainable Building and Environmental Management at NAIT, provided an overview first on the NAIT program:

- Renewable energies,
- Drivers of the shift,
- Various technologies, and
- Economic questions

Jim Sandercock then talked about solar, hydro and wind technologies with no moving parts that are good for 40-60 years with their robust systems on storage design, assembly and commissioning of systems, energy/financial modeling and hybridization and feasibility. 2001 was the start of Renewables by Germany, with primarily wind/solar energy (oil/gas at \$321 billion). Mexico is on the verge of being an “energy super power” with their target of 32% by 2040. Since 2009, Ontario has had reductions in costs for Solar by 53-70% and Wind by 66%.

In 2014, 55% of Alberta’s electricity generation came from coal. Suncor has a “shovel-ready” design already in place. Alberta is targeting 30% Renewables by 2030.

To start, electric energy was collected by Solar PV modules that were ground-mounted. Today, the solar panels are flush-mounted at low angles on flat roofs and are building integrated (BIPV). Solar systems do not like shade.

A “net zero” building produces as much energy as it consumes on an annual basis. Edmonton is the “net zero capital” of Canada. The Mosaic Centre in Edmonton is the first “net zero” building with a totally flat installation.

The Energy Efficiency Agency has a total of \$645 millions in grants/loans available to be disbursed in the next five years as follows: 2017 @ \$45 million, 2018 @ \$90 million, 2019 @ \$165 million, 2020@ \$170 million and 2021 @ \$175 million. Today, there are not too many reputable companies in Alberta for retrofits and installations of these new technologies of “energy efficiency and conservation community energy systems.

Jim Sandercock’s contact details are:
e-mail: jsanderc@nait.ca
phone: 780-378-5928

For complete details and more information, please refer to the .pdf of Jim Sandercock’s presentation.

5. Asset Planner System and Energy & Sustainability Module

David Molinaro, VP of Business Development with Ameresco, provided an overview of Ameresco and their focus on asset sustainability and energy management. Case studies done for Lethbridge and Red Deer were also discussed.

Asset Management Decision Development Framework consists of:

1. Strategic (capital planning) to collect manage and prioritize with great Apps available
2. Tactical (maintenance management) for scheduled day-to-day maintenance also with great Apps available, and
3. Proactive (energy management)

Asset Planner is an integrated decision development of all three of these framework items.

Dave Molinaro’s contact details are:
e-mail: dmolinaro@amesesco.com
phone: 888-544-8023

For complete details and more information, please refer to the .pdf of Dave Molinaro’s presentation.

Lunch break from 12:00 pm to 1:00 pm

6. TCA Reporting for Building Assets and Disposal

This was presented by Lam Huynh and Duri Lee both of the City of Calgary.

Duri Lee started with a presentation on how the City of Calgary developed their reporting.

1. Before 2009, the start of TCA Reporting was with PS3150 and TCA. Calgary's process went as follows:
 - a. Process and develop a policy
 - b. People establish corporate understanding of PS3150
 - c. System implementation
2. Post TCA Implementation Observations:
 - a. Identify opportunities to improve
 - i. Understand TCA reporting requirements and internal processes used to support business units
 - Multiple F/S restatements
 - External GAP assessment
 - Business Unit feedback
3. Formation of Corporate TCA Project
 - a. Project Goals
 - i. Compliant with PS3150
 - ii. Consistently applied across the organization
 - iii. Simple to understand and use
 - b. Process Used
 - i. Identify minimum requirements for finance reporting purposes
 - ii. Engage critical stakeholders
 - iii. Communicate
 - iv. Update TCA policy documentation
 - v. Ongoing training
4. Buildings – TCA Reporting Policy – effective January 1, 2016:
 - a. Asset hierarchy
 - b. Single asset components
 - c. Capitalization thread
 - d. Disposal method
5. Buildings – Asset Hierarchy

6. Buildings – Disposal Strategy
 - a. Past Disposal Practices
 - i. No standard
 - ii. Reliance on *manual* method of calculations
 - b. Current Disposal Practices
 - i. Use *present value* disposal method
 - ii. Reliance on automated calculations
 - iii. Developed based on feedback received from Business Units

Duri Lee then displayed a disposal template used by Calgary.

Questions were sent through the distribution list prior to this workshop on Roles and Responsibilities around TCA and AM. Here are those results along side Calgary's for comparisons.

- 1. In your municipality, which group(s) is (are) responsible for performing the following functions: Procurement (acquisition/construction of an asset), Reporting (for TCA reporting purposes) and Asset Management?**

Calgary: by department

Survey: 60% centralized models

TCA

Calgary

AM

Survey: 20% centralized

80% decentralized

- 2. What reporting format (ie. components versus single asset) does your municipality use to report buildings?**
- 3. How detailed is your municipality's hierarchy? For instance, would your municipality report at a higher level (e.g. roof, structure, and etc.) or lower level (e.g. interior wall partitions, doors and windows)? If possible, please email a copy of the existing hierarchy.**

Calgary: construction standards

Survey: 10% externally developed

90% internally developed
- 4. Is your municipality's asset hierarchy based on an externally developed model, such as UniFormat or MasterFormat?**

Betterments versus Maintenance

5. What factors (e.g. ease of use, comparability with other municipalities, budgeting process, and etc.) were considered to finalize your asset hierarchy?

Calgary:

Betterment

- Meets capitalization threshold
- Meets definition of a *betterment*

Maintenance

- Lower than capitalization threshold
- Does not meet the definition of a *betterment*

Survey:

Similarities amongst multiple municipalities and their reliance on PS3150

- Some considered the nature of costs
 - recurring repairs,
 - wear & tear, and
 - *like-for-like* replacement

6. What is your municipality's definition of a: Betterment and Maintenance?

Both Calgary and Survey:

Capitalize if costs are considered TCA and meet capitalization threshold

7. How does your municipality treat asset replacements? For instance, are such costs capitalized or expensed?

8. How does your municipality perform disposals?

9. Do "partial disposals" (scenarios in which only a portion of a component is disposed) change your municipality's disposal process?

10. How does your municipality reconcile its cost information in the GL with the project managers' records?

Calgary:

- manual recognitions performed by multiple functions
- Process of automating certain activities and streamlining review process

Survey:

- No reconciliations to project Managers' records were performed

A round-table discussion followed around TCA Cost Determination based on the following questions:

1. How does your municipality determine the value of each component?

2. How does your municipality account for renovation costs?
 - For Calgary, if the project is under \$250,000, it is treated as an *expense* only
3. How does your municipality deal with pooled projects, which should be tied to a particular building but are not?
 - Square footage versus %
4. How does your municipality retain TCA records?
 - 7 years past disposal
 - regional partnerships in municipalities for joint AM Plans for water/wastewater

Final comments from round table discussion were that changes to the *MGA* will be a good thing!

7. Wrap-up and Next Meeting

Russell Crook advised that with this presentation the workshop meeting has concluded. Working group members met briefly prior to departing.

8. Adjournment

The meeting was adjourned at 2:30 pm.