May 6, 2013

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MAY - 8 2013
TOWN OF FORT FRANCES

Report To: Mayor & Council

From: Doug Brown, Manager Operations & Facilities

SUBJECT: Preparing Asset Management Plan- Utilizing Public Sector Digest Inc.

As you are fully aware the Town has received $ 25,731.89 to complete an Asset Management Plan (AMP) in accordance with provincially established documents. The AMP must be prepared in accordance with the Ministry of Infrastructure – Building Together: Guide for Municipal Asset Management Plans.

What is Asset Management Planning? In a nutshell, it is the process of making the best possible decisions regarding the building, operating, maintaining, renewing, replacing and disposing of infrastructure assets. The main objective is to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable manner.

In accordance with the guide the Town's AMP must include the following five (5) main assets;

1. Roads
2. Bridges
3. Water
4. Wastewater
5. Social Housing

At a minimum the AMP must cover a period of 10 years of forecasting/planning, however industry best practice is recommending to cover the entire life cycle of assets. The AMP must include the following six (6) sections;

1. Executive Summary
2. Introduction
3. State of local infrastructure

4. Expected levels of service
5. Asset Management Strategy
6. Financing Strategy

Travis Rob and Trish Law in the first quarter of 2013 have been reviewing how other Municipalities of similar size in Northwestern Ontario are going to complete this task. It was discovered that both Kenora and Red Lake are utilizing a company called Public Sector Digest Inc. (PSD) to write their asset management plan. Also both Municipalities are utilizing PSD computer software called; City Wide that consists of the following suites;

- tangible assets
- Capital Planning & Analysis
- Works
- GIS viewer

As a result the A& F Division, The Operations & Facilities Division and Fort Frances Power Corporation (FFPC) have been through a couple of demos of the city wide software suites and are of the opinion that this software meets both the short and long term objectives of the corporation in regards to developing an asset management plan and preventative maintenance program for all assets in the future.

The City wide software package will address such items as; complete the AMP by December 31, 2013, develop the necessary work order system, tracking & reports, preventative maintenance scheduling and a road patrol package.

On another issue the Town uses Direct-IT computer software for the building permit process and tracking this data. However the Direct-IT software package has an annual cost of approximately $13,000. By going with the PSD city wide suites the Direct IT software package can be eliminated in the future. See attached proposal and company information from Public Sector Digest Inc.

From a financial point of view the City Wide software will cost $ 48,000 where there is a cost of $ 9,480 for annual support & web hosting. In discussion with

Joerg Ruppenstien of FFPC it was agreed that these costs would be split evenly between the Town and FFPC going forward. The cost to complete the AMP is $15,500. The funding from MIII to complete the AMP can be utilized to purchase the city wide software. The City Wide Capital Planning & Analysis suite will be required to complete the Financing Strategy section of the Town's AMP. See attached spreadsheet No. 1 outlining the funding shortfall of $13,760.11. It is recommended that this shortfall be funded at year end during the 2013 audit process from ~~either~~ ~~the water and sewer~~ ~~revenue or~~ reserves.

DB water reserves.

The Operations & Facilities Executive Committee recommends the following;

1) That the Town & FFPC purchase the computer software program called City Wide Suites from Public Sector Digest Inc. at a cost $ 48,000 plus HST.
2) That the cost of the computer software program called City Wide suties from Public Sector Digest Inc. be split evenly between the Town and FFPC.
3) The annual cost of $ 9480.00 for support and web hosting will be split evenly between the Town and FFPC.
4) That Public Sector Digest Inc. be retained to complete the Town's Asset Management Plan in accordance with the Ministry of Infrastructure – Building Together: Guide for Municipal Asset Management Plans at a shortfall of $15,500.
5) The budget shortfall of $13,760.11 be funded at year end during the 2013 audit process from ~~either the~~ water ~~and sewer~~ ~~revenue or~~ reserves.

DB Rw.

Respectfully submitted,
Operations & Facilities Division

Doug Brown

Doug Brown, P. Eng.

Manager Operations & Facilities

Council approval of this report will ensure the following:

1) That the Town & FFPC purchase the computer software program called City Wide Suites from Public Sector Digest Inc. at a cost of $48,000 plus HST.

2) That the cost of the computer software program called City Wide Suites from Public Sector Digest Inc. be split evenly between the Town and FFPC.

3) The annual cost of $9,480.00 for support and web hosting will be split evenly between the Town and FFPC.

4) That Public Sector Digest Inc. be retained to complete the Town's Asset Management Plan in accordance with the Ministry of Infrastructure – Building Together: Guide for Municipal Asset Management Plans at a shortfall of $15,500.00.

5) The budget shortfall of $13,760.11 be funded at year end during the 2013 audit process ~~from/either~~ the water ~~and sewer revenue~~ ~~or~~ reserves.
FROM DR Res

2013MayAssetManagementPlan

RECOMMENDED

MAY 08 2013

DIV. MNG. Doug Br

EXECUTIVE COMM. R. Widenhoft

PUBLIC SECTOR DIGEST

INTELLIGENCE FOR THE PUBLIC SECTOR.

About the Digest

The Public Sector Digest is a monthly research publication written to advance the knowledge and managerial capacity of the public sector. Our readership comprises senior decision- makers in governments, at the local, provincial/state, and federal levels. We focus primarily on economics & finance, infrastructure & asset management, leadership, and corporate strategy in the public sector.

Organizations that contribute to the publication and collaborate with us on research include global, Fortune 500 consulting and advisory firms, think tanks, leading academic institutions, and of course, practitioners in the public sector. We vet ideas, debate policy, and examine theory.

» Become a Member

Our Research Network

Many of the issues that governments and their agencies face across the world are comparable; others come with distinct political, social, and economic characteristics. Our global network of contributing authors delivers methodologies that are uniquely based on their respective geopolitics, but are readily applicable at home.

Applied Research

CityWide Software Solutions is a division of Public Sector Digest Inc. It offers a sophisticated suite of software applications designed for asset management, financial planning, and performance measurement primarily for public sector organizations.

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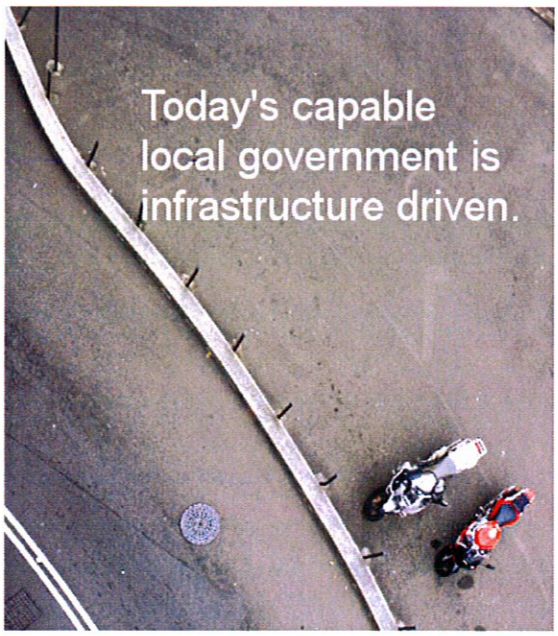
PUBLIC SECTOR DIGEST

INTELLIGENCE FOR THE PUBLIC SECTOR.

A SPECIAL SECTION ON ASSET MANAGEMENT



Nothing is as inescapably important to a community's livability as its infrastructure. In the past, administrators, asset managers, engineers, financial analysts, and public works professionals worked in silos, competing with other priorities, and politics. The infrastructure deficit and its pervasive financial implications for city decision-makers and citizens, however, means that local governments will have to fundamentally reconsider their strategic objectives.

The new reality places infrastructure and asset management at the centre of a city's strategic plan. Proper asset management is no longer an independent priority, but one that must be integrated with all major aspects of a city's operations and strategy.

CONTACT OUR ASSET MANAGEMENT PRACTICE
519.690.2565 infrastructure@publicsectordigest.com

Our asset management and advisory practice delivers the three critical components of successful, strategic asset management:

» **The Intelligence** Research and commentary on infrastructure & asset management [+]
» **The Technology** Our asset management software portfolio [+]
» **The Plan** Building a strategic Asset Management Plan (AMP) [+]

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CITYWIDE SOFTWARE SOLUTIONS

LATEST NEWS AND EVENTS

News

Launch of Our New Site
April 25, 2013

We updated our web site and added new sections. Your feedback and suggestions helps us improve our products. Please feel free to contact us if you have any questions.

Events

Government Finance Officers Association AB
Jasper, AB
May 5 - 8, 2013

Canadian Network of Asset Managers
Edmonton, AB
May 5 - 8, 2013

Ontario Municipal Administrators' Association Spring Workshop
Grand Bend, Ontario
May 15 - 17, 2013

Canadian Association of Municipal Administrators
Victoria, BC
May 27 - 29, 2013

OUR PRODUCTS

CITYWIDE TANGIBLE ASSETS

CITYWIDE CAPITAL PLANNING & ANALYSIS CPA

CITYWIDE WORKS

CITYWIDE GEOGRAPHIC INFORMATION SYSTEM GIS

Book a Demo

CityWide Software Solutions routinely hosts open web-conferences for those interested in our software. Click above on any of our products to request a demonstration in the form provided. Or contact us if you have any questions.

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THE PUBLIC SECTOR DIGEST INC.

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Town of Fort Frances

Proposal for

Asset Management Software

Asset Management Plan Development

Dated: March 01, 2013

LETTER OF INTENT

March 1, 2013

Mr Travis Rob,
Town of Fort Frances
320 Portage Avenue
Fort Frances, Ontario P9A 3P9

Reference: Asset Management Plan Development with Asset Management Software

On behalf of The Public Sector Digest Inc., it is our pleasure to submit the attached Proposal for the deliverable of a comprehensive Asset Management Plan that includes all of the information and analysis described in and required by the Province of Ontario's Building Together: Guide for Municipal Asset Management Plans.

Included in our Proposal are the following documents;

- Cover Page
- Letter of Intent (This Page)
- Introduction
- Company Background
- Project Methodology
- Proposed Fees with Discount Included.

INTRODUCTION

The Town of Fort Frances is looking for comprehensive Asset Management Plan that can be utilized to make the best possible decisions regarding the building, operating, maintaining, renewing, replacing and disposing with the funding that is available to the Municipality.

The desired phased approach for the project is as follows;

Phase 1 – Develop the State of Infrastructure Report (SOTI)

- Determine Sustainable Projections
- High Level Assessment of Current Service Level
- Determine Infrastructure Deficit
- Produce an Asset Report Card

Phase 2 – Desired Level of Service

- Determine Realistic Targets to Improve or Balance Service Levels
- Develop Related Performance Measures

Phase 3 – Asset Management Strategy

- Ensure sustainability of existing infrastructure
- Focus on options for each asset class to obtain the total lowest cost
- Focus on growth and demand projections
- Prioritize projects based on risk and benefit analysis.

Phase 4 – Financial Strategy

- A breakdown of yearly revenues by confirmed source
- Key assumptions and alternate scenarios where appropriate
- Identifies any funding shortfall relative to financial requirements that cannot be eliminated by revising service levels, asset management and/or financial strategies.
- Discusses the impact of shortfalls and how the impact will be managed.

The province has detailed within the Building Together Guide, the following approach and content as such the final report should be structured this way;

- Executed Summary
- Introduction
- State of Local Infrastructure
- Expected Levels of Service
- Asset Management Strategy
- Financing Strategy

The performance of a community's infrastructure provides the foundation of economic development, competiveness, prosperity, image, and overall quality of life for that community. The reliability and availability of infrastructure assets are essential for the delivery of necessary services that bring our municipalities to life. The development of a sound asset management plan will ensure the correct investments are made to ensure delivery of infrastructure services for today and for future generations.

This asset management plan will serve both as a strategic document and a tactical document, ensuring the management of the municipalities' infrastructure follows sound asset management practices and principles. It will identify at a strategic level trends and issues the community will face when dealing with infrastructure and services on a sustainable basis. At a tactical level it will produce a 10 year implementation plan to ensure the best overall health and performance of the municipalities' infrastructure.

This plan will identify needs for all asset types examples: municipal roads, bridge and large culverts, water, waste water, and social housing assets, as required within the "Building Together" provincial guide. Desired levels of service for each asset category will be defined and will be tracked through performance measures across strategic, financial, tactical and operation and maintenance activities. A financial strategy and plan will be developed that fully integrates to the asset management plan, to ensure delivery of the 10 year infrastructure budget.

COMPANY BACKGROUND, EXPERIENCE AND QUALIFICATIONS

Company History

The Public Sector Digest Inc. (PSD) is an Ontario incorporated company established in 2003. We provide consulting services, analytical tools, methodologies and thought leadership designed exclusively with governmental mandates, constraints and requirements in mind. Our client base consists of more than 200 Municipal Governments across Canada.

As of the date of this submission more than 35 Ontario communities have selected PSD to deliver their Asset Management Plans (AMP). The PSD approach and deliverables are consistent with the requirements identified within the Province of Ontario's **Building Together: *Guide for Municipal Asset Management Plans*.**

Background

On August 16th, 2012 the Government of Ontario launched the Municipal Infrastructure Investment Initiative (MI3) and announced funding of $60 million (subsequently increased to $90 million) over the next three years to municipalities. Furthermore the Minister of Infrastructure stated within the Building Together *Guide for Municipal Asset Management Plans,* "any municipality seeking provincial capital funding is required to prepare a detailed asset management plan and show how its proposed project fits within it." More recently it was announced by the Ministry of Infrastructure that communities must also be committed to "developing a comprehensive asset management plan that includes all of the information and analysis described in the Building Together Guide, by December 31st, 2013".

Subsequent to the above announcements and prerequisite of an AMP in order to be considered for potential provincial funding, municipalities within Ontario have now approached the development of their Asset Management Plans with a heightened sense of urgency.

Early Stages of Asset Management

In 2007 the Public Sector Accounting Board (PSAB) approved revisions to Section PS 3150 of the Public Sector Accounting Handbook, *Tangible Capital Assets*, which required local governments in Canada to include tangible capital assets in their annual financial statements effective January 1st, 2009. For local governments this represented a monumental move from "cash" based accounting to "accrual" accounting for capital assets. PSAB 3150 meant that communities would need to Inventory, Value and Depreciate their capital assets. More importantly it provided the base data that every community could now utilize in developing improved approaches towards long term asset management planning.

Throughout 2007/2008 PSD rapidly became the leading consulting services provider across Canada, with both its proprietary analytical tools and methodologies and assisted more than 100 communities to satisfy their PSAB requirements. Our research team developed leading edge practice manuals, our project managers guided clients throughout this demanding and new process, our regional directors, data analysts and training staff ensured that each project was delivered on time and on budget. Our organization is not new to the municipal sector, it is our only business. It is the market we research and develop solutions for. We continuously meet with municipal sector subject matter experts, including local, provincial and federally elected political representatives and their appointed policy officials. During the period 2009 – 2011 many of our

clients sought to expand their asset management approaches and PSD became one of the leading organizations in developing the research, processes and project management skills to support them. In recognition of our efforts we are regularly invited to share our knowledge and expertise as keynotes and workshop leaders. This has included;

- The Canadian Network of Asset Management
- Government Finance Officers Association International (GFOA)
- Government Finance Offericers Association, Alberta (GFOA)
- Municipal Finance Officers Association of Ontario (MFOA)
- The Institute of Asset Management, London, UK (IAM/IET)

Our team provides monthly webinars detailing the approaches leading communities have adopted in developing their asset management processes. We share approaches that we have developed and all clients are invited to our annual user group conferences which we organize across Canada.

This coming June 2013, PSD staff have been invited to deliver the inaugural asset management workshop in San Francisco at the Government Finance Officers Association International Conference. A second PSD workshop will also be delivered at a combined Institute of Asset Management and Rutgers University (New Jersey) conference in October of 2013.

With the August 2012 Ontario Ministry of Infrastructure announcement more than 450 Ontario communities must now develop AMP's consistent with the provincial Building Together Guide. We are very proud of our team's early success in having been selected by more than 35 communities as their vendor of choice for an AMP. Yet we realize that developing the AMP is simply the start of a longer term business relationship with each client. It is a responsibility that we have considered seriously as the reputation of our staff and our company will be directly impacted by our results.

During this AMP selection process, municipalities will be required to identify which vendor they believe can best respond to their unique requirements. There will be those vendors with excellent experience in delivering specific aspects of an Asset Management Plan. For example Engineering firms have expertise with pavement management planning. Financial firms can address the financial aspects of long term capital expenditures including financial and tax rate implications. There will also be those vendors somewhat new to the arena of asset management yet they may have municipal consulting expertise.

However, PSD is unique in that we have an experienced team that can address asset management from an organization wide or holistic approach. We know the issues surrounding Desired levels of Service, we have developed State of the Infrastructure Reports and we are aware that the final AMP must be presented in a manner such that staff can communicate it, council can support it and citizens can understand it.

We have developed both the asset management strategies and the financial strategies utilizing our client's existing information. We know how to compile an Asset Management Plan and develop the meaningful performance metrics that will assist with the measuring and tracking of AMP implementation. We view our mandate as one that will involve knowledge transfer and the opportunity to continue to work with our clients over the long-term. We view the area of asset management planning, as a journey not a project.

Our Team

From the early days of our organization our strategic plan viewed four perspectives, Financial, Customers, Internal Processes and Learning and Growth. We believed that if we could assemble a group of knowledgeable staff, provide them with on-going training, the right technologies, processes, products and tools, then success would follow. Every PSD client starts with a Regional Director and/or Account Manager as their client advocate. When projects are identified

we name the Project Manager, the owner of the Project's success. They are supported by data analysts, research staff and administrative personnel. We have in place numerous technology based tools to automate and manage projects, resources, and more importantly minimize the time our clients human resources must contribute to the project. We identify when significant issues arise and track project timelines

PSD has developed Working Groups in both Eastern and Western Canada. Our Working Groups consist of industry experts, academics, subject matter experts and practitioners. In many cases these individuals are employed by public sector organizations and as such written approval in every case by working group members has been secured from their employers. Working Group members participate in an advisory capacity to PSD, have signed confidentiality and non-disclosure agreements and afford PSD a level of knowledge unequaled in the Asset Management field in North America.

While the above Team Member list represents the senior and most involved resources that PSD will allocate for this project, other staff resources will be engaged as required. This will include but not be limited to PSD data analysts, research analysts, and sales support staff. In addition PSD, subject to the prior agreement of the City, may seek additional input from strategic alliance partners as well as respected subject matter experts should we consider this an option that would generate significant additional value to the overall final results of the project.

PROJECT METHODOLOGY

Importance of Infrastructure
Cities and Towns throughout Ontario, large and small, own a diverse portfolio of infrastructure assets that in turn provide a diverse number of services to their citizens. The infrastructure, in essence, is a conduit for the various public services the Town provides:

- The roads supply a transportation network service
- The water pipes supply a clean drinking water service
- The buses supply a public transit service
- The parks provide a recreation service

A community's prosperity, economic development, competiveness, image, and overall quality of life are inherently tied to the performance of its infrastructure.

Municipal Goals – Strategic Plan
The major benefit of strategic planning is the promotion of strategic thought and action. It provides for improved decision making, as it focuses attention on the crucial issues and it helps key decision makers (Council and Senior Management) figure out what to do about them.

A strategic plan spells out where an organization wants to go, how it's going to get there, and helps decide how and where to allocate resources, ensuring alignment to the strategic priorities and objectives. It will help identify priorities and guide how Town tax dollars are spent into the future.

Basically, strategic planning helps a municipality to:

- Identify clear goals
- Guide and streamline decision making
- Approach planning in a holistic manner
- Establish team work
- Promote an organizational culture of continuous improvement

The strategic plan usually includes a vision and mission statement, and key Town priorities with alignment to objectives and action plans.

AM Plan – Relationship to other Plans
An asset management plan (AM Plan) is a key component of a Town's planning process linking with multiple other corporate plans and documents. For example:

- The Strategic Plan – The AM plan should link to key objectives outlined within the strategic plan.
- The Official Plan – The AM plan should utilize and influence the land use policy directions for long-term growth and development as provided through the Official Plan.
- Long Term Financial Plan – The AM plan should utilize and conversely influence the financial forecasts within the long term financial plan
- Capital Budget – The decision framework and works identified in the asset management plan form the basis on which future capital budgets are prepared.
- Infrastructure Master Plans – The AM plan will utilize goals and projections from infrastructure master plans and in turn will influence future master plan recommendations.
- By-Laws, standards and policies – The AM plan will influence and utilize policies and by-laws related to infrastructure management practices and standards.
- Regulations – The AM plan must recognize and abide by industry regulations.
- Business Plans – The service levels, policies, processes and budgets defined in asset management plans are incorporated into business plans as activity budgets, management strategies and performance measures.

Purpose of the Asset Management Plan
This Asset Management Plan will serve as both a strategic document and a tactical document, ensuring the management of the Towns infrastructure follows sound asset management practices and principles.

It will identify at a strategic level, within the State of the Infrastructure section, trends and issues the community will face when dealing with infrastructure and services on a sustainable basis, for today and for future generations.

At a tactical level, within the Asset Management Strategy / Tactical Framework section, it will develop an implementation process to be applied to the needs identification and prioritization of renewal, rehabilitation and maintenance activities, producing a 10 year plan, including growth projections, to ensure the best overall health and performance of the Town's infrastructure.

This tactical process will in turn influence and direct the short term, 1 – 3 year, infrastructure program of the Town.

The implementation of the above components will be realized through a sound financial planning process, as described within the Financial Strategy and Plan section of this report.

Scope
This Asset Management plan will cover at a minimum, the Towns road network, bridge and culverts with a span greater than 3m, water distribution system, waste water collection system, and social housing facilities, as required within the "Building Together" provincial guide. The plan will be structured in such a fashion to enable inclusion of all infrastructure assets that the Town is responsible for.

Development of Individual Asset Management Plans
It is recognized that municipalities throughout Ontario will be at different stages of data and information availability for their infrastructure. As such, a gap analysis will be completed to determine what is available, and to what level of detail an asset management plan, as described above, can be developed. From this analysis, an approach will be customized and tailored for each municipality, and in certain cases will produce a multi-year timeline to develop their asset management plan.

Annual Assessment of Performance
The plan will be built and developed hand in hand with a data load of Towns infrastructure information into the CityWide software suite of products. The software will ultimately contain the Towns asset base, valuation information, life cycle activity predictions, costs for activities, sustainability analysis, project prioritization parameters, key performance indicators and targets, 10 year asset management strategy, and the financial plan to deliver the infrastructure budget.

The software and plan will be synchronized, will evolve together, and therefore will allow for ease of updates, modeling and scenario building, and annual reporting of performance measures and results. This will allow for continuous improvement of the plan and its projections.

Phase 1 – Develop The State of the Infrastructure Report (SOTI)

Objective
To identify, through an infrastructure life cycle analysis, the current state of the Towns infrastructure and the projected state if current funding levels and management practices remain status quo.

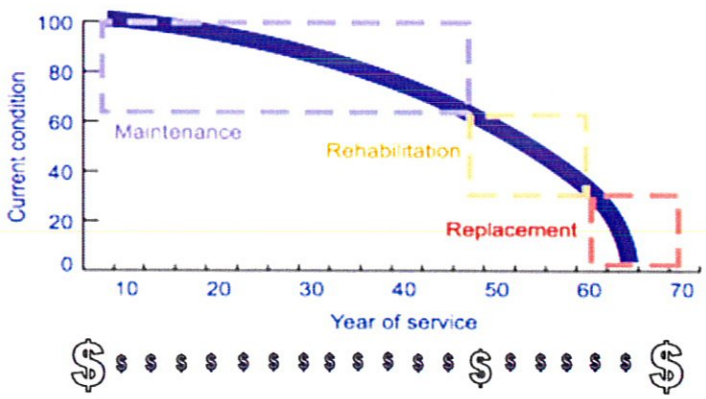
The approach was based on key industry "State of the Infrastructure documents":
- Canadian Infrastructure Report Card
- City of Hamilton's Sate of the Infrastructure reports.

The above reports and many others were based on principles within key industry best practices such as:
- The National Guide for Sustainable Municipal Infrastructure (Canada)
- The International Infrastructure Management Manual (Australia / New Zealand)
- American Society of Civil Engineering Manuals (U.S.A)

The report will be based on the seven key questions of asset management as outlined within the National Guide for Sustainable Municipal Infrastructure:
- What do you own and where is it? (Inventory)
- What is it worth? (valuation / replacement cost)
- What is its condition / remaining service life? (function & performance)
- What needs to be done? (maintenance, rehab, replace / capital & operating Plans)
- When do you need to do it? (risk analysis / capital and operating Plans)
- How much will it cost? (short/long-term financial plan)
- How do you ensure sustainability? (short- and long-term financial plan)

Inventory Data
Infrastructure inventory data sources will be obtained from the Town to the highest level of detail available. Sources could include: PSAB asset registry, asset management systems / databases, GIS, access or excel files, schematics, engineering drawings and plans. Key inventory data such as asset type, install date, class, physical description, location, replacement cost, and expected useful life will be loaded into the CityWide suite of software products.

Deterioration Models
Research will determine current trends in deterioration analysis and appropriate models will be selected. Information will be compiled from industry publications and manuals and designated best practice applications. Ultimately high level deterioration models will be produced for each asset group.



Financial Data
Financial information will be obtained from the Town. Key information will include current spending on capital and maintenance for each asset program, capital and operations budgets, and also the cost of high level field activities and works (maintenance, rehabilitation, replacement). All information will be loaded into the CityWide software whereby a gap analysis will be produced showing actual investment requirements versus current spending levels for each asset group.

Asset Rating and Criteria
To rate the overall health of each asset category a combination of available information and staff expertise will be used. Key information will include asset condition data and indexes, growth projections, transportation master plans, water / waste water master plans, and staff surveys and interviews. Each asset category will be rated using 3 primary categories:

- Condition and Performance
- Capacity versus Need
- Funding versus Need

Condition and Performance. What is the condition of the asset today and how well does it perform its function. Below is a suggested guideline – this can be tailored to suit individual needs as required.

A = Excellent: No noticeable defects. Some wear may be visible.
B = Good: Only minor deterioration is evident.
C = Fair: Some deterioration evident, function not significantly affected.
D = Poor: Serious deterioration. Function is inadequate.
F = Failed: No longer functional. General or complete failure.

Capacity versus Need. What was the design capacity of the asset versus the needed capacity today to meet current demand? Below is a suggested guideline – this can be tailored to suit individual needs as required.

A = Systems that can support ≥ 100% of demand
B = Systems that can support 90 - 99% of demand
C = Systems that can support 80 - 89% of demand
D = Systems that can support 70 - 79% of demand
F = Systems that can support less than 70% of demand

Funding versus Need. To be based on the actual investment requirements to properly maintain, rehabilitate and replace the asset at the right time versus current spending levels for each asset group. Below is a suggested guideline – this can be tailored to suit individual needs as required.

A = 90 to 100% of need
B = 80 to 89% of need
C = 70 to 79% of need
D = 41 to 69% of need
F = under 40% of need

Infrastructure Report Card
The categories above will be based on a simple A – F scale and an average of the three ratings will be applied to one overall blended rating for each asset category. The outputs for all Town assets will be consolidated within the CityWide software to produce one overall Infrastructure Report card showing current condition and future projections for all Town Infrastructure. See example below.

Hamilton Public Works Report Card 2009

ASSET GROUP	2009 RATING	TREND
Water	B+	→
Wastewater	B-	→
Storm Water	C-	↓
Roads and Traffic	D-	↓
Central Fleet	C	↓
Corporate Facilities	C-	↓
Parks & Open Spaces	C-	↑
Public Transit	B+	↑
Waste Management	B-	↓
Forestry	C-	↓
Cemetery	C	→

A = Excellent B = Good C = Fair D = Poor F = Fail

Phase 2 – Desired Levels of Service

Objective

Desired Levels of Service provide the basis for the life cycle management strategies and tactical implementation processes identified within the asset management plan. They support the Organisation's strategic goals and are based on customer expectations, statutory requirements, standards and the financial capacity of the Town to deliver those levels of service.

A defined level of service is tracked through performance measures which supply targets and timeframes to establish progress. For instance, the sustainable financial target set within the State of the Infrastructure section for Roads, might be based on the fact that all Town roads should be replaced on a 33 year life cycle. In order to accomplish this, 3% of the road network must be replaced annually, and therefore this would be a good performance measure to set. If the 3% replacement rate cannot be achieved, either the level of service must be reduced or the budget for road replacement must be increased.

Levels of Service are used:

- to inform customers of the proposed type and level of service to be offered;
- to identify the costs and benefits of the services offered;
- to asses suitability, affordability and equity of the services offered;
- as a measure of the effectiveness of the asset management plan
- as a focus for the AM strategies developed to deliver the required level of service

Levels of service are often based on:

- Community Expectations
- Strategic and Corporate Goals
- Legislative Requirements
- Design Standards and Codes of Practice

Key Performance Indicators
Performance measures or key performance indicators (KPIs) that track levels of service should be specific, measurable, achievable, relevant, and time-bound (SMART). Many good performance measures can be established and tracked through the CityWide suite of software products. In this way, through automation, results can be reviewed on an annual basis and adjustments can be made to the overall asset management plan, including the desired level of service targets.

In establishing measures a good rule of thumb to remember is that maintenance activities ensure the performance of an asset and prevent premature aging, whereas rehab activities extend the life of an asset and replacement activities, by definition, renew the life of an asset. In addition, these activities are constrained by resource availability (finances, labour, etc) and strategic plan objectives. Therefore performance measures should not just be established for operating and maintenance activities, but also for the strategic, financial, tactical (overall asset health) levels of the asset management program as shown in the examples below.

As a note, a caution should be raised over developing too many performance indicators that may result in data overload and lack of clarity. It is better to develop a select few that focus in on the targets of the asset management plan.

Examples of Performance Measures
For each individual municipality these measures have to be explored in more detail and tailored to suit their individual needs.

Strategic Indicators:
- Percentage of reinvestment vs. value of asset category
- Completion of strategic plan objectives (related to infrastructure)

Financial Indicators:
- Annual revenues vs. annual expenditures
- Total cost of borrowing vs. Total cost of service
- Annualized depreciation (replacement value) vs. annualized expenditures
- Lost revenue from system outages

Asset Health Indicators:
- % of network rehabbed / reconstructed annually
- Annual overall condition index vs. desired condition index
- Annual adjustment in condition index (up or down)
- Annual number of large system outages
- % of asset value spent on ops and maintenance annually

Operational Indicators:
- number of water main breaks per Km of pipe network
- % of network inspected
- % of pipes flushed and cleaned annually
- % of hydrants flow tested annually
- Cost of material for pot hole patching annually
- Water main breaks will be repaired within x number of hours
- Customer requests will have a 24 hr. response time.
- Legislated requirements will be met.

Benchmarking Initiatives
There are a number of industry benchmarking initiatives underway within Ontario and Canada. For instance, OMBI (Ontario Municipal Benchmarking Initiative) and MPMP (Municipal Performance Measurement Program). Performance measures within these programs can serve as a resource in developing internal measures for the Town. It should be noted, however, that these programs provide comparison information and targets between service providers and may not be ideal for an internal asset management plan.

Public Engagement and Levels of Service
It is a growing trend and best practice within the asset management industry to include public engagement processes to assist in setting levels of service. As infrastructure costs increase dramatically in the future, it is essential that the public not only be consulted but also be educated and ultimately make choices with respect to the service levels that they wish to pay for. It all comes down to public expectations, which should be realistic and ultimately be tied to a level of service and a cost. (See diagram below).

Phase 3 – Asset Management Strategy

Objective
The asset management strategy is a developed process of planned actions that will enable the Towns infrastructure assets to provide the desired level of service in a sustainable way, while managing risk and benefit, at the lowest life cycle cost. At a tactical level, it will develop an implementation plan to be applied to the needs identification and prioritization of renewal, rehabilitation and maintenance activities, including growth projections, to produce a 10 year plan, to ensure the best overall health and performance of the Town infrastructure.

This tactical process will in turn influence and direct the short term, 1 – 3 year, infrastructure program and budget of the Town.

The details within the asset management strategy are tied to the sustainable life cycle projections from the State of the Infrastructure and established service levels from the Desired Levels of Service sections of this plan.

Priorities for the Asset Management Strategy
- Ensure sustainability of existing infrastructure
- Focus on options for each asset class to obtain the total lowest cost
- Focus on growth and demand projections
- Prioritize projects based on risk and benefit analysis.

Non Infrastructure Solutions and Requirements
Information will be obtained from Town staff regarding the state of their current asset management practices. A high level gap analysis will be conducted to establish if key actions, studies, or policies are missing that could potentially extend the life of assets or lower total asset program costs in the future. Items such as linking the asset management plan to the strategic plan, growth and demand management studies, master plans, better integrated infrastructure planning and land use planning , public consultation on levels of service, etc. In addition a review of infrastructure condition assessment programs should take place with options to gather key data moving forward. Such items can then be recommended to be programmed, with associated funding, into the short and long term budgets as required.

Life Cycle Management Review
For each asset category a best practice industry review will be undertaken to determine the optimal life cycle activities and options available, to ensure the long term viability of the Towns infrastructure while achieving the lowest total cost.

The following will be reviewed:

- Ongoing Maintenance activities and costs
- Renewal / Replacement activities, service thresholds and costs
- Rehabilitation activities, service thresholds and costs
- Disposal activities and costs

This information will be entered into the CityWide software to enable a life cycle projection analysis. For each asset category the system will determine which components will require work in which timeframe, the type of activity that should be undertaken, and the cost for the work. This analysis will also have the options to discount costs and/or add inflation and will provide an overall asset need projection for each category.

Growth and Demand
Typically a Town will have specific plans associated with population growth. It is essential that the asset management strategy should address not only the existing infrastructure, but must include the impact of projected growth on defined project schedules and funding requirements. Projects would include the funding of the construction of new infrastructure, and/or the expansion of existing infrastructure to meet new demands. These will be included in the short and long term budgets as required.

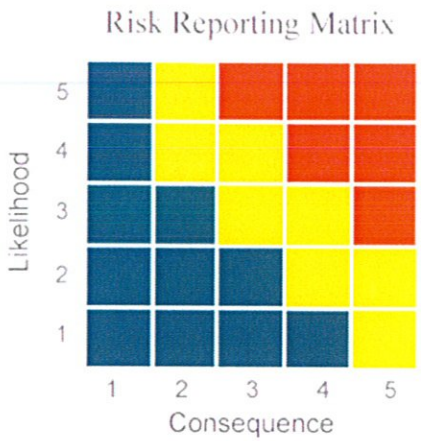
Other Future Trends
For any single asset category there may be specific items that negatively or positively affect the future asset grade projection within the State of the Infrastructure report card. Such items could be lack of maintenance resources, extent of back log, effects of climate change, significant funding from grants no longer available, etc. These items must also be accounted for and brought forward as recommended adjustments to the short and long term budget.

Project Prioritization
The above techniques and processes will supply a significant listing of potential projects. Typically infrastructure needs exceed available resources and therefore project prioritization parameters must be developed to ensure the right projects come forward into the budget through a combination of risk and benefit analysis.

Risk / Criticality Assessment
Risk within the Infrastructure industry is often defined as the probability (likelihood) of failure multiplied by the consequence of that failure. Risk can never be eliminated but can be managed. The probability of failure can be analysed through a combination of current condition and life cycle projection information, however, the consequence of failure still needs to be determined. A

good method to use is a triple bottom line approach, whereby, the social, environmental, and economic impacts of an asset's failure are quantified.

As part of the asset management strategy a risk matrix will be developed and a risk score will be applied to infrastructure components within the CityWide software system to aid in project prioritization.



Benefit Factors
Another important factor in project prioritization is the project's overall benefit to the corporation. Typically the Town, within the strategic plan, will allocate resources, ensuring alignment to strategic priorities and objectives. For instance, downtown revitalization, waterfront development, or addressing storm flooding issues may be strategic priorities. These projects should therefore be prioritized within the asset management strategy and plan. Other types of project benefits may be simple. For instance, with all else being equal, the road with a higher traffic volume will be reconstructed before the road with a lower traffic volume. A benefit matrix will be developed and benefit scores will also be applied to infrastructure components within the CityWide software system to aid in project prioritization.

Phase 4 – Financial Strategy

Objective
To develop a financial strategy and plan that fully integrates to the asset management strategy and asset management plan, including expenditures and revenue forecasts for the delivery of the 10 year infrastructure budget.

Yearly expenditures forecasts will be broken down as per the asset management strategy:

- Non infrastructure projects
- Maintenance activities
- Renewal / Rehab projects
- Replacement projects
- Disposal projects
- Growth related projects

The financial strategy and plan will include:

- A breakdown of yearly revenues by confirmed source
- Key assumptions and alternate scenarios where appropriate
- Identifies any funding shortfall relative to financial requirements that cannot be eliminated by revising service levels, asset management and/or financial strategies.
- Discusses the impact of shortfalls and how the impact will be managed.

Proposal Pricing

Description	List Price (Includes Annual Fees)	Annual Support & Web Hosting (Ongoing)
CityWide Software		
*CityWide TA (Enterprise License Fee)	$15,000.00	$2,995.00
*CityWide CPA (Enterprise License Fee)	$13,000.00	$2,490.00
CityWide GIS Viewer (Enterprise Licence Fee)	$2,000.00	$1,000.00
CityWide Works (Enterprise Licence Fee)	$18,000.00	$2,995.00
Professional		
***ASSET MANAGEMENT PLAN**	$15,500.00	
• State of the Infrastructure		
• Levels of Service		
• Asset Management Strategy		
• Financial Strategy		
TOTAL	**$63,500.00**	***$9,480.00***

****Mandatory modules to complete Asset Management Plan***

The following is included with each Enterprise License purchased:

Enterprise License allows all employees of the "client" under this agreement to utilize the software application without additional seat or per user charges.
Version Protection means that during the course of adding enhancements to the "Software", clients will have access to any new features without additional cost over the annual version protection fee. Software support means the correction of defects to the Software.
Web Hosting includes vendor provided redundant Internet connections, Daily Tape/Drive backup both on and off-site of client data, 24 Hour video, on-site security and fire suppression.
Project Management services include client assistance with the development of the asset registry framework, strategic planning and progress reports. Data to be provided to PSD by client pre-populated onto PSD standard Excel data collection templates.
Data Migration and Implementation includes the review of the CityWide templates and entering of client data within the application by PSD.
Training includes scheduled web delivered sessions introducing and preparing 2–3 power users to effectively and thoroughly use CityWide Tangible Assets

May 6, 2013 - Developing Asset Management Plan

	Description	Total	Town Costs	FFPC Costs
1	City Wide software package			
a	City Wide- Tangible Asset (Enterprise License Fee)	$15,000.00	$7,500.00	$7,500.00
			$0.00	$0.00
b	City Wide- Capital Planning & Analysis (Enterprise License Fee)	$13,000.00	$6,500.00	$6,500.00
			$0.00	$0.00
c	City Wide- GIS Viewer (Enterprise License Fee)	$2,000.00	$1,000.00	$1,000.00
			$0.00	$0.00
d	City Wide- Works (Enterprise License Fee)	$18,000.00	$9,000.00	$9,000.00
e	Subtotal	$48,000.00	$24,000.00	$24,000.00
2	Completion of Asset Management Plan	$15,500.00	$15,500.00	$0.00
3	Total Costs	$63,500.00	$39,500.00	$24,000.00
4	HST	$8,255.00		
5	Total Costs plus Town's portion of HST	$64,617.60	$40,195.20	
6	MIII Funding		-$25,739.89	

7 Shortfall **-$13,760.11**