THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH AGENDA OF SPECIAL COUNCIL MEETING – OCTOBER 20, 2021 AT 2:00 P.M. VIA WEB CONFERENCING

HOW TO JOIN

Join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to join. <u>https://us02web.zoom.us/j/86369785186</u>

Or join by phone: 855 703 8985 (Toll Free) or 1 647 374 4685 (long distance charges may apply) Webinar ID: 863 6978 5186

CALLING TO ORDER

ADOPTION OF THE AGENDA

Recommendation:

THAT the Agenda for the October 20, 2021 Special Meeting of Council be accepted and passed.

DISCLOSURE OF PECUNIARY INTEREST

ITEMS FOR CONSIDERATION

- 1. FINANCE
 - a. Roop Lutchman and Elaine Chang, SLBC Advisory Group
 - Asset Management Overview Training

Recommendation:

THAT the Council of the Corporation of the Township of Wellington North receive for information the training session materials regarding asset management.

CONFIRMING BY-LAW

Recommendation:

THAT By-law Number 100-21 being a By-law to Confirm the Proceedings of the Council of the Corporation of the Township of Wellington North at its Special Meeting held on October 20, 2021 be read a First, Second and Third time and enacted.

ADJOURNMENT

Recommendation: THAT the Special Council meeting of October 20, 2021 be adjourned at

<u>:</u> p.m.

The following accessibility services can be made available to residents upon request with two weeks' notice:

Sign Language Services – Canadian Hearing Society – 1-877-347-3427 - Kitchener location – 1-855-656-3748

TTY: 1-877-843-0368 Documents in alternate forms CNIB – 1-800-563-2642

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Asset Management Overview Training

Asset Management Plan Update Project Township of Wellington North

CLOSED UNTIL AUGUST 6TH

October 2021

Photo: Mount Forest, 1975 Credit: <u>Toronto Public Library</u>



Objectives



Agenda

- 1. Provide an update on the Project
- 2. Deliver overview education on best in class AM Practices and concepts

- . Introductions, project context and status update
- 2. Introduction to Asset Management (AM)
- 3. AM Line of Sight
- 4. Asset Condition and Performance Monitoring
- 5. The Asset Management System
- 6. Asset Management Enablers
- 7. Review of the Township's AMP Outputs



Introductions, Project Context and Status Update

Project Objectives

- Advance AM capabilities at the Township
- Be able to make information-based decisions on OPEX and CAPEX for budgeting and long-term planning
- Update AM Plan in compliance with O.Reg. 588/17
- Be better positioned to communicate AM needs to Council



Project Overview







Introduction to Asset Management

Some Definitions

ASSETS

Assets are things that have potential or actual value to the township. this includes everything from roads and pipes to stormwater ponds and water wells. all of these things help us provide services to residents, and it is our responsibility to make sure that we are able to provide those services in a cost-efficient and sustainable manner, by maintaining our assets.

ASSET MANAGEMENT

Asset management planning is the process of making the best possible decisions regarding the building, operation, maintenance, renewal, replacement, and disposition of assets.

COMPREHENSIVE AM ACHIEVES AN OPTIMAL BALANCE OF:





Why do Asset Management?

Risk Based Planning and Delivery Creates Sustained Value

LOS Risk Based-continuity Plan

Growth & Rationalisation Plan

Renewal & Replacement Plan

0&M Strategic Plan

No Surprises to Service Delivery

3 – 5% Savings on CAPEX

3 – 5% Savings on CAPEX

10 – 40 % Savings on OPEX

AM Program Benefits are Already Accruing from our Foundational Work



O.REG 588/17 Compliance



ISO 55000 Standard for Asset Management





Asset Management Line of Sight



Setting Direction



Monitoring & Measurement



Vision, mission, values strategic priorities

AM principles, requirements, roles & responsibilities aligned with the Strategic Plan

AM objectives, actions for AM improvement, AM review processes

Asset & service descriptions, state of the infrastructure, level of service targets & performance, risks to service, lifecycle activities, financial forecasts Drives budgeting



Planning and Risk-based Decision Making



CONSEQUENCES





Maintenance Strategy







Developing and Implementing AMPs





LINE OF SIGHT

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PROGRAMMING

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IMPLEMENTATION

REVIEW

PEOPLE AND

DATA AND

TECHNOLOGY

NFORMATION



Implementation – Project Lifecycle







Implementation – O&M Work management









Asset Monitoring & Performance Management



Asset Monitoring



Customer LOS: Transportation (Example)

Average Performance Grade (Current & Future)	GOOD				FAIR	 [GOOD			
	Current	10 yrs >		Future	Current	10 yrs >	F	uture	Current	10 <u>yrs</u> >		Future
Customer LOS Category		Capacity & Use				Functionality				Quality		
Service Attributes	Services of and acce	sufficient capacity are essible to the entire con	conve nmun	enient ity	Services are minimize h	Services are suitable for intended function & minimize health, safety, security, natural & heritage impacts			Services are predictable and continuous, and responsive to stakeholders			
Customer LOS Measures G M	Convenient a routes or tran	ccess to alternative sport modes	G	VH	Complies with I	egislation	VG	VH	Roadway paver good repair	ment in a state of	F	м
↑ ↑	Consistent an	nd predictable travel	G	н	Road network s modes of trans	safe for all users and port	^{all} F	н	Roadway bridge state of good re	es and culverts in a pair	F	н
Current Performance Grade (Very Good, Good, Fair, Poor, Very Poor)	Road network enable journe completed eff	available at all times to eys to destinations to be iciently	G	νн	Roads smooth users based on	enough for different r I their comfort needs	oad G	н	Other transporta of good repair	ation assets in a sta	^{ate} G	н
Confidence in Assessment (Very High, High, Moderate, Low, Very Low)					Bridges and cu for intended fur	lverts that are suitable actional needs	e G	νн	Maintenance we when required	ork done as and	G	н
					Sidewalks are of free from tripping	of adequate width and ng hazards	^d F	н	Operations work required	k done as and whe	ר G	VH
					Pedestrians sa roadway	fe when crossing the	F	νн	Transportation of informed and sa	customers kept atisfied	F	н
					Adequate lighti lighting is requi	ng in places where red	F	м				
					Secure traffic moperation and i	nanagement system nfrastructure	VG	VH				



Condition Scoring Standards

Standard 5-point scale to be used organization-wide (based on IIMM, CIRC):



Condition Score	Description based on Physical Soundness
1- Very Good	Asset is <u>physically sound</u> and is performing its function as originally intended. Asset is <u>new or at the beginning</u> of its service life
2- Good	Asset is <u>physically sound</u> and is performing its function as originally intended. Typically, asset has been used for some time but is within <u>mid-stage of its expected life</u>
3- Fair	Asset is showing <u>signs of deterioration</u> and is performing at a lower level than originally intended
4- Poor	Asset is showing <u>significant signs of deterioration</u> and is performing to a much lower level than originally intended
5- Very Poor	Asset is <u>physically unsound</u> and/or <u>not performing</u> as originally intended. Asset has reached <u>end of life</u> and <u>failure is imminent</u>

Level of Service and Performance Management



advisor

Management System



Enterprise Risk Management





ENABLERS

PEOPLE AND

DATA AND

REVIEW

LINE OF SIGHT

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Asset Management Enablers



Right Sourcing Strategy







Building an Enterprise AM Culture at the Township



Doing the right projects, At the right cost, At the right time, For the right reason





Stakeholder Engagement

- Strategic Objectives & Success Measures
- Governance
- Identification
- Assessment
- Engagement
- Actions

Stakeholder Engagement and Leading Change

Step 1: Engage Stakeholders

Engage Stakeholders to • understand their unique communication needs throughout the project





Analyze Stakeholder needs and interests to meet the project goals & objectives



Step 3: Create Engagement Plan

Create a strategy to communicate with project stakeholders to achieve their support for the project



SUCCESSFUL CHANGE

M **Current Situation Understanding** Vision of the Desired State **Solution that is Believable** M **Plan for Implementation** M **Senior Leadership Commitment Coalition of Change Champions** M Urgency to Move from Status Quo 🗹



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Data & Information

•Unique IDs •Location Categorization (hierarchy) •Attributes (make, model, colour, length, width, power rating, etc.) • Purchase Date • Purchase Cost

• Target & Actual: Service - Condition - Capacity, of Levels Forecasting





Lifecycle Management •Operation, maintenance & repair history (and costs) Renewal and upgrade history (and costs) •Life cycle intervention

triggers, costs, impacts

 Costs reflect current market conditions and construction/ design standards



Data & Information





- Asset management activities are conducted at different levels of asset detail
- An asset hierarchy illustrates parent-child relationships between asset systems, individual assets and asset components
- An organization-wide asset hierarchy enables consistent aggregation of costs, risks and other attributes, which are essential for reporting, analysis and planning activities



AM Dashboards







Technology Landscape





AMP Outputs



What does the Township own?

Service	Replacement Value (2021 \$, millions)
Transportation	\$ 326.8
Stormwater	\$ 76.4
Water	\$ 80.0
Wastewater	\$ 115.0
TOTAL	\$ 597.1

Including:

237 km gravel roads15 km surface treated roads137 km paved roads

27 bridges, 75 culverts

54 km of stormwater mains56 km of water mains53 km of wastewater mains



What condition is it in?



Assets in Very Poor condition:

- 1,590 m gravel road
- 200 m paved road
- 2 bridges, 7 culverts
- Signals & sidewalks
- 890m cast iron pipes (Arthur)
- 4,164m cast iron pipes (MF)
- Spheroid water tower
- 1.8 km of asbestos cement pipe in Arthur
- Components of vertical assets (wells, treatment plants)



How old is it?

Example – Arthur Water Mains



Example – MF Wastewater Mains





O.Reg. 588/17 mandated LOS indicators - Transportation:

Community LOS

- Description of road network
- Description of traffic that is supported by municipal bridges

Additional LOS (non-O.Reg.)

- % assets in state of Good Repair 93%
- % sidewalks meeting accessibility standard width of 1.5m 65.3%
- % sidewalk length as percentage of urban roadside



59.4%

Technical LOS

• Number of lane-km of arterial, collector and local roads as a proportion of km² of are of the municipality

Gravel0.90 lane-km/km²Surface Treated0.06 lane-km/km²Paved – Local0.38 lane-km/km²Paved – Collector0.11 lane-km/km²Paved – Arterial0.03 lane-km/km²

Average pavement condition index value

Paved	8.22 – Good
Surface Treated	7.86 – Fair
Gravel	7.51 – Fair

- Bridges with loading restrictions 3% (3 of 102)
- Average bridge condition index value

Bridges	71.8 – Gooc
Culverts	70.3 – Good

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O.Reg. 588/17 mandated LOS indicators - Water:

Community LOS

- Description of user groups served by water systems
- Description of areas that have fire flow
- Description of boil water advisories
- Description of unplanned service outages due to watermain breaks

Technical LOS

- % of properties connected to the municipal water systems 66.3 % (3,410 of 5,140)
 - % of properties with fire flow 66.2 % (6 properties in MF affected)
- Number of connection-days / year where boil water advisory is in place

NONE (2018 – 2020)

 Number of connection-days / year where water is no available due to watermain break NONE (2018 – 2021)

Additional LOS (non-O.Reg.)

• % assets in state of Good Repair 63%



O.Reg. 588/17 mandated LOS indicators - Wastewater:

Community LOS

- Description of user groups served by wastewater systems
- Description of effluent discharged from sewage treatment plants

Technical LOS

- % of properties connected to the municipal wastewater systems
 64 % (3,290 of 5,140)
- Number of connection-days / year affected by wastewater backups compared to number of properties connected to the municipal wastewater systems

2018:	
2019:	
2020.	

• Number of effluent violations / year

2018:	none
2019:	7 TAN exceedances,
	1 E.Coli exceedance
2020:	4 TAN exceedances,
	2 E.Coli exceedances

Additional LOS (non-O.Reg.)

• % assets in state of Good Repair 53%



O.Reg. 588/17 mandated LOS indicators - Stormwater:

Community LOS

• Description of areas of the municipality protected by flooding

Technical LOS

- % of properties resilient to a 100-year storm *No data*
- % of the municipal stormwater system resilient to a 5-year storm
 No data

Additional LOS (non-O.Reg.)

• % assets in state of Good Repair 90%



What improvements are needed over the next 10 years?

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	Expansion &	
	Upgrade Needs	
	(2021 \$, millions)	
Transportation	6	
Stormwater	0.2	
Water	15	
Wastewater	17	
TOTAL	38	

- Additional road, water, storm and wastewater links for new development
- Stormwater studies
- Widening of water and wastewater pipes
- Replacement of the water towers in Arthur with one new tower
- Development of a new water source in Arthur
- Construction of a new water tower in MF
- Expansion of Arthur WWTP



What improvements are needed over the next 10 years?

	Renewal Needs	
	(2021 \$, millions)	
Transportation	108	
Stormwater	3	
Water	15	
Wastewater	35	
TOTAL	160	

Including renewal of...

•	Gravel roads	\$ 87 M

- Surface treated roads \$ 11 M
- Paved roads \$0.5 M
- Bridge & culvert \$ 6 M
- Stormwater mains \$ 2 M

•	Water mains (cast ir	ron)
	Arthur	\$2M
	Mount Forest	\$3M
•	Renewal of Wells	
	Arthur	\$2M
	Mount Forest	\$6M
•	Recoat standpipe	\$0.8 M

 Wastewater mains (AC) and maintenance holes Arthur \$ 11 M

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• Sewage Pump Stations \$ 2M

•	Arthur Lagoons	\$5M
•		\$ 16 M



Operations & Maintenance Costs

Operational Expenditures 2018-20 and Op Budget 2021 Transportation, Stormwater, Water & Wastewater



Future Op Budget Needs are assumed to be the same as 2021 budget, with allowances to operate and maintain newly added assets:

> 1 km of roads 0.5 km of stormwater mains 0.5 km of sidewalks

Additional water & wastewater assets to be absorbed into existing operating budget.

A Work Order Management System will enable more accurate estimates of future Operating budget needs due to addition of assets, as well as changes to service levels.



Financial Impact



Township may consider:

- Reducing costs by
 - Adjusting life cycle strategies
 - Adjusting service level standards
 - Prioritizing work on high/very high risk assets
- Raising revenues through
 - Taxes
 - User rates
 - Development Charges
 - Stormwater levy
 - Grants

Regulatory Compliance

O.Reg. 588/17 requirements:

- a) AM Plan for non-core assets by July 1, 2024
- b) AM Plan incorporating proposed Levels of Service (all assets) by July 1, 2025
- c) AM Plan to be updated at least every 5 years
- d) AM Plan to be reviewed annually by July 1
 - the municipality's progress in implementing its asset management plan;
 - any factors impeding the municipality's ability to implement its asset management plan; and
 - a strategy to address those factors



Continuous Improvement

AM Plan should evolve and improve with each iteration. Opportunities include:

- 1. Data improvements
 - Establish authoritative asset database to support AM planning and operations activities
 - Establish data management processes to keep asset data up-to-date
- 2. Maintenance Management System / Work Order Management System
 - System needed to track asset life cycle costs to make better AM decisions
 - System will also streamline maintenance processes (improve efficiency)
- 3. AM Decision Support System
 - System will improve efficiency of AM planning, enable live decision-making, support budgeting scenarios, improve AM communications (graphics, maps)
- 4. Stormwater analysis / model
 - Needed for O.Reg. 588/17 LOS reporting (% properties resilient to 100-year storm, % stormwater infrastructure resilient to 5-year storm)
- 5. Work toward establishing Level of Service targets for 2025 AM Plan
 - Monitor current performance and associated costs
 - Estimate costs of changes to LOS targets
 - Consider obtaining public input on LOS targets



Questions

AVITA NUMBER OF



THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH

BY-LAW NUMBER 100-21

BEING A BY-LAW TO CONFIRM THE PROCEEDINGS OF THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH AT ITS SPECIAL MEETING HELD ON OCTOBER 20, 2021

WHEREAS Section 5 of the Municipal Act, S.O. 2001 c.25 (hereinafter called "the Act") provides that the powers of a Municipal Corporation shall be exercised by its Council;

AND WHEREAS Section 5(3) of the Act states, a municipal power, including a municipality's capacity, rights, powers and privileges under Section 9, shall be exercised by by-law, unless the municipality is specifically authorized to do otherwise;

NOW THEREFORE the Council of The Corporation of the Township of Wellington North hereby **ENACTS AS FOLLOWS**:

- 1. The action of the Council of the Corporation of the Township of Wellington North taken at its meeting held on October 20, 2021 in respect of each motion and resolution passed and other action taken by the Council of the Corporation of the Township of Wellington North at its meeting, is hereby adopted and confirmed as if all such proceedings were expressly embodied in this By-law.
- 2. That the Mayor and the proper officials of the Corporation of the Township of Wellington North are hereby authorized and directed to do all things necessary to give effect to the action of the Council of the Corporation of the Township of Wellington North referred to in the proceeding section hereof.
- 3. The Mayor and the Clerk are authorized and directed to execute all documents necessary in that behalf and to affix thereto the Seal of the Corporation of the Township of Wellington North.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 20TH DAY OF OCTOBER, 2021.

ANDREW LENNOX, MAYOR

KARREN WALLACE, CLERK