



Kenneth Leung Lean Program Manager City of Mississauga







Agenda

1 About the City of Mississauga and the Lean Program

2 The Money Belt Program and its Journey

3 Examples of Benefit Verification

4 Lessons Learned and Q&A







About City of Mississauga





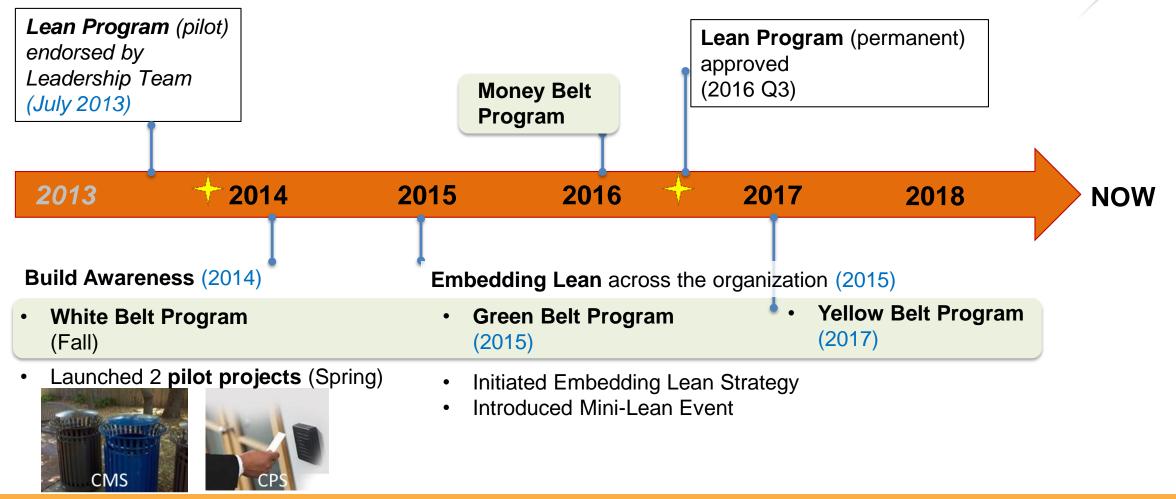




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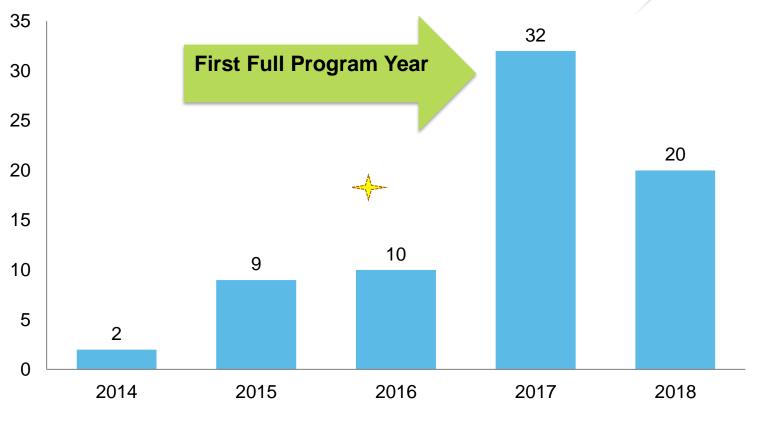


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Lean Projects 2019

- Stormwater Erosion Control
- Fire Prevention Complaints
- Transit Garage Bus Allocations
- Capital Works In Progress
- Parks Seasonal Staff Hiring
- Small Business Support Intake
- Court Interpreter Scheduling
- Development Pre-Applications
- Custodial Inventory Storage
- Vote Anywhere IT Deployment
- Web Content Approval
- Fleet Part Supplies
- Traffic Signals Troubleshooting
- Tax Correspondence Handling
- Graffiti Removal
- News Releases

And More.....



Completed Projects



Small Improvements

Click Icon to Submit a Small Improvement









✓ Increase Volume of Improvement

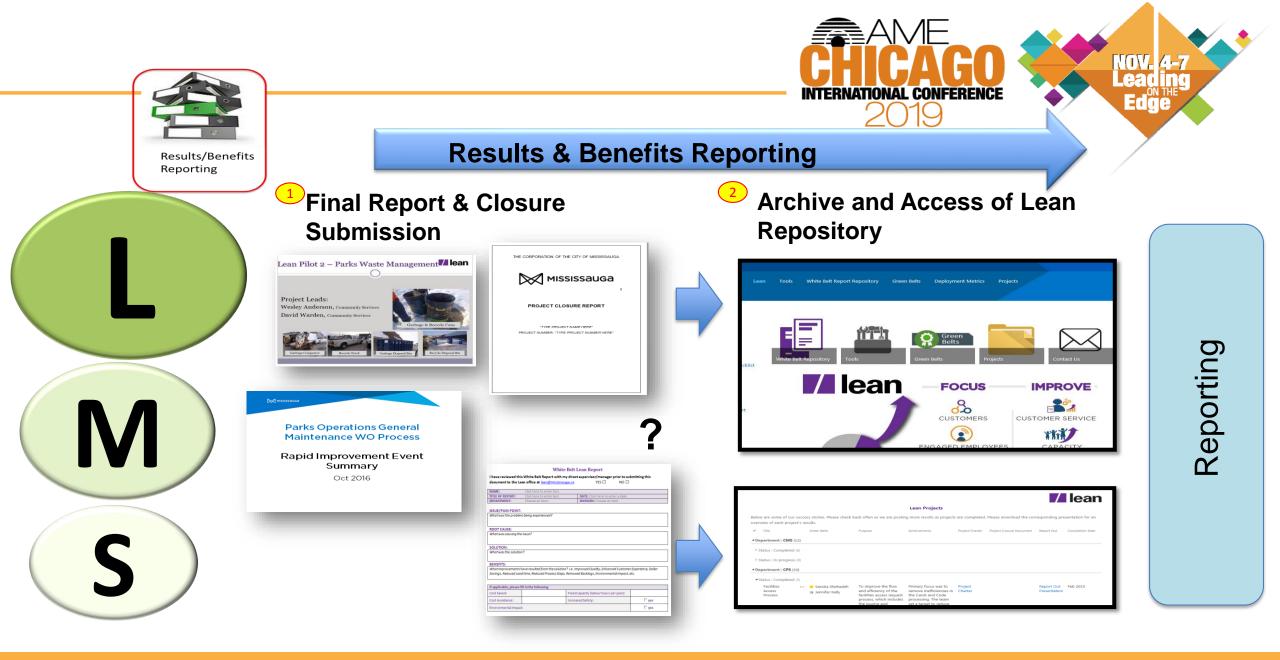




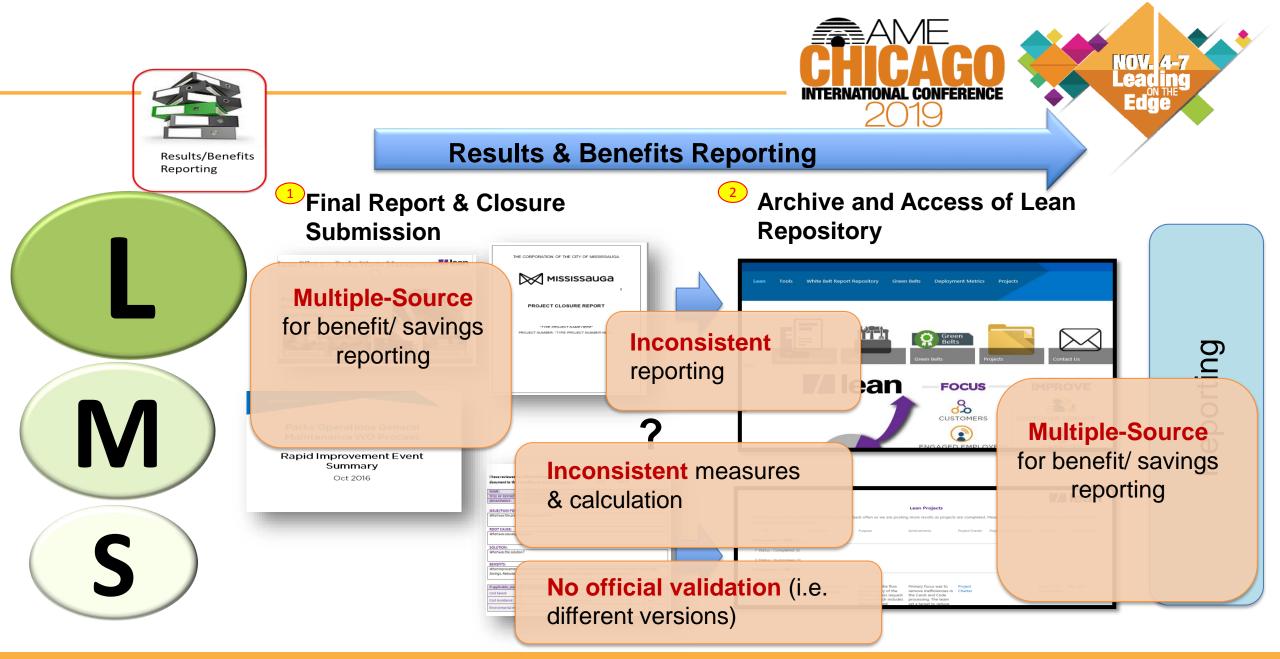
✓ Better Decision-Support

e.g. budgeting, resourcing, project selection, etc.





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Goals of a Money Belt Program²⁰¹

- A Standard Approach consistency in calculating benefits and savings:
 - Standard Documents and Guidelines
- 2) "Single Source of Truth" for reporting Lean Benefits and Savings
 - Process to validate and update to a "single source" for reporting
- 3) Trusted & Validated Record Validate ALL reported Lean initiatives
 - Implementation (verify old & new improvements)



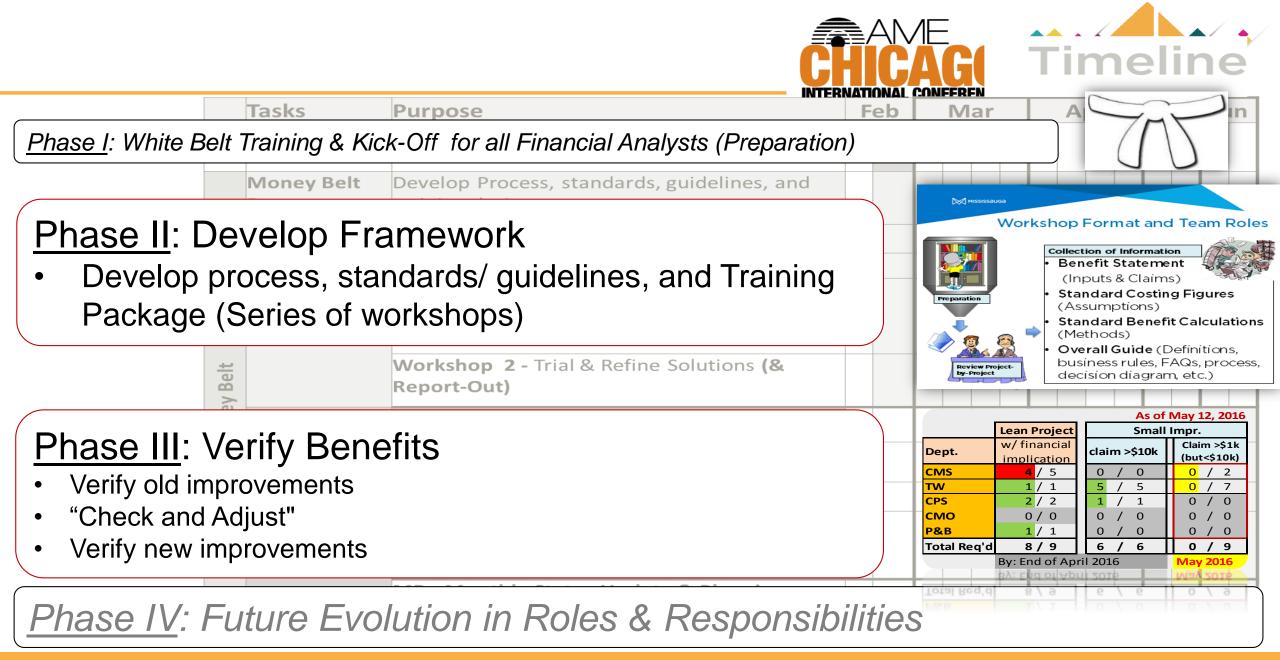


The Journey of Money Belt Program









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Phase I: WB Training & Kick-Off for all Financial Analysts (**Preparation**)

Lean Awareness - White Belt Training to all Finance Staff

Gain Commitment

- Create Money Belt Charter with sponsor's approval
- Identify core team
- Kick-Off session with core team

Prepare Collaborative work environment

- Create project site
- Schedule workshops



Shared Documents

Presentations

WIP Documents

Samples

Etc.

Core Team Members

N/F

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Money Belt Developn

•

•







Dept.	Bus. Service Rep. (6)	Financial & Treasury (3)	Bus. Planning & Reporting (2)
CMS	Luigi, Julia		
T&W	Steven, Eleonore	Gina,	
CPS		Harish,	Ida, Muhammad
СМО	Nelson, Chris	Barbara CG	Manannad
P&B			

Cross-functional Team

 Financial Analyst reps from different departments





Learn from the Existing Cases

Select examples for each group by department:

- i. 1 project, 1 small improvement
- ii. Apply "80-20 rule" on common scenarios



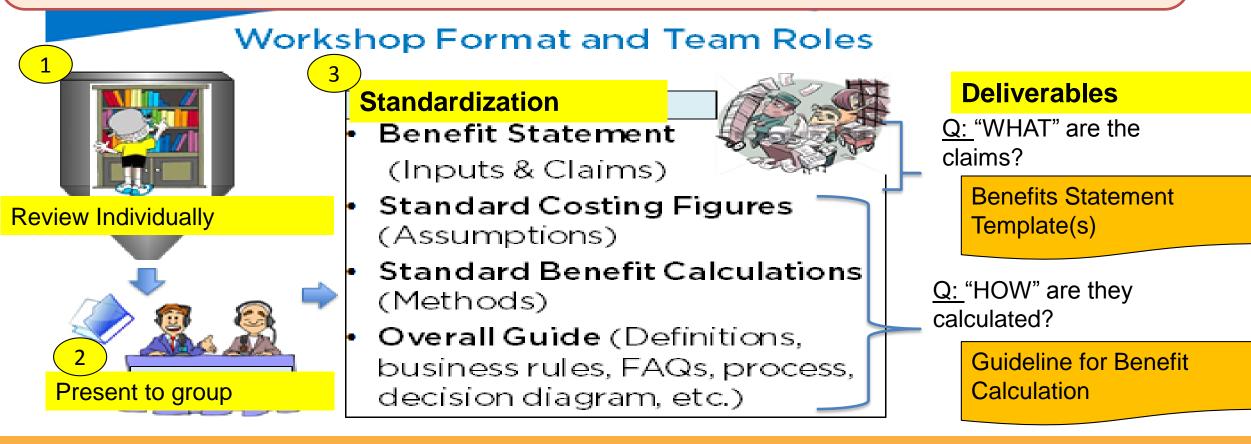
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Phase II: Develop Framework

Develop process, standards/ guidelines, and Training Package (Series of workshops)



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Benefit Asses	sment	Project Title:	Transit Return to Work		- <u>Ner. benefit</u>	Verification Gui	
Pro	ject/Process		Absence Request Form_				
			syment for the Period the	Result			
Benefit			ee is absent_)				
		Current	Future	distance of a d	Actual	2 and Developed	
		(Baseline)	(Target)	1st period	2nd Period	3rd Period	
	KPI1:_Staff Time_						
Process	PI2:_Error Reduction # of Steps or	70	20	18	23		
Process	# of Transactions	70	20	10	25		
	Backlog						
	Re-Work	70 (searches)	20 (searches)	18	23		
	("Is it done right	20 (corrections)	20 (corrections)				
	the first time?")						
Time	Lead time						
	Touch time -	28 min/correction	5 min/correction	5 min/correction	5 min/correction		
	(person A)						
	Touch time -						
	(Person B)						
Financial	Labour Cost						
	(reduction)						
	Labour Cost	667.3 h/year	138.7 h/year	145.6 h/year	143 h/year		
	(reallocation)	\$30,964/year	\$6,434/year	\$5,791/year	\$7,399/year		
	Materials cost						
	(Excess/ Redeploy),						
	incl. mileage/gas						
	Floor Space						
	Production /						
	operation						
Other Benefits	- culture	- Quality of the data	has been increased by				
Sther Benefits	- safety, morale	72%	has been increased by				
	- Quality	- Reduction in the er	rors increased the Transit				
	- Customer Sat.	Operators satisfaction	on				
	- Environment	- Efficiency increase	- 80% reduction in cycle				
		time					
Benefit Statem	ent						
Quality	72% reduct	ion of re-work (from	70 to 20 searches)	Safety			
Delivery	80% reduction in	n cycle time (from 28	minutes to 5 minutes)	Morale	Increased Transit Ope	rators satisfaction	
		ancial Impact		Environment			
				Linvironment			
	Sav	ings	Re-dimecting Capacity				
	Re-curring (/yr)	One-Time	Process Saving (/yr)				
Savings			\$24,530				
Expense							
NetSavings			w/ Budget Impact?		ected capacity equates to 52		
(Cost)				year (667.3-138.7) & \$24,53	0 in labour costs avoided pe	r year (\$30,964-\$6,43	
			YES / NO				
Prepared by:			Monica Socol	Date:	21-Jul-16		
		(Project Lead / Ma					
inancial Calc	ulation Verified	Marcello Gaudio &	Steven Freitas	Date:	2016/0	7/26	
<u>y:</u>		(Financial Analyst)					
Reviewed & Ap	proved by:						
		members/Project					
Na	ame:		Title:	Date:	Signat	ure:	
				1			

Benefits Statement Template(s)

1) Lean performance measures

2) Capacity

3) Financial Results

Using Standard Calculations

- Calculating Standard Costs (formulas)
- Standard Conversion Factors (constant figures)





Table of Content

- 1.0 Introduction
 - 1.1 Document Purpose
 - 1.2 Scope
- 2.0 Defining Lean Benefits
 - 2.1 Outputs, Outcomes & Benefits
 - 2.2 Benefits Classification
 - 2.3 Types of Lean Benefit Reporting
- 3.0 Roles, Responsibilities and Processes
 - 3.1 Roles and Responsibilities
 - 3.2 Service Levels
 - 3.3 Reviews
 - 3.3 Small Improvement Benefits Verification Process
 - 3.4 Rapid Improvement Events & Process Improvement Project Benefits Verification Process
- 4.0 Standard Calculations
 - 4.1 Calculating Standard Costs
 - 4.2 Standard Conversion Factors



Benefit		
2. Definition		
4. <u>Table</u> : Sta 5. <u>Table</u> : Sta 6.Appendia 7.Appendia 0 Bene	andard Calculation by andard Costing Figure x A – FAQs x B – Reference Docu fit Statement	/ Benefit Type es ments
Version #: Date: 1 April 1, 20	Description of Change(s): Creation of Document	Change(s) made by: n/a
	3. Verificati 4. <u>Table</u> : Sta 5. <u>Table</u> : Sta 6. Appendia 7. Appendia 0 Bene 0 Smal	2. Definitions & Business Rules 3. Verification Process and Roles 4. <u>Table</u> : Standard Calculation by 5. <u>Table</u> : Standard Costing Figur 6. Appendix A – FAQs 7. Appendix B – Reference Docu o Benefit Statement o Small Improvement Repor

Calculating Standard Costs (Formulas)

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Benefit Type	Calculation
Labour Time– Full Time	[Hr] x [<u>Mid-Grade</u>] x [<u>Fringe</u>]
Labour Time– Part Time	[Hr] x [Mid-Rate] x [Fringe]
Overtime	[Hr] x [Over-Time Rate]
Floor Space	[Sq.ft.] x <u>[\$/Sq.ft.]</u>
Paper Printing and Photo Copying	[# of paper] x [<u>paper cost]</u> + [# of page] x [\$ per print]
Mail	[# of mail] x [std mailing cost]
(separate from labour time savings)	
Mileage	[Mileage] x [car allowance rate]





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Standard Conversion Factors

4.2 Standard Conversion Factors

Standards conversion factors will be reviewed on an annual basis (unless links are provided for accessing the latest information from the source). The source references are outlined below:

- HR Salary, Rate, Fringe Schedule, car allowance
- F&PM Land Management (Supervisor/Manager of Realty Services) Floor Space / Leasing cost
- Environment benefit of paper-saving in terms of tree, water, landfill, oil, energy; benefit of
 reduction in vehicle-travel in terms of carbon footprint (CO2per km)
- SAP US Currency Exchange Rate (update based on investments purchases)
- Print shop Printing, mailing
- Other Department specific conversations

4.2.1 Salary and Hourly Rate Sources

Salary (Full Time) Permanent Temporary (non-union) • Salary Schedule – Temp Equivalent • Source: HR Website - Salary Schedule 2016-201X • Fire Wage Table • Salary Schedule – Temp Equivalent • Temp Equivalent 2016+ - 35 hr, 37.5 hr, 40 hr • Union CMS Unions T&W Unions • Fire Wage Table • Eire Wage Table • Library Union Salary Schedule • Transit Call Centre Representatives (Full Time) • Eire Wage Table (2011-2014) • UFCW - Transit Call Centre Representatives (Full Time) • UFCW - Transit Call Centre Representatives • 1) Customer Service/ Information • 2) Customer • Temp Equivalent + OPC	Standard Cost	Sub- Category	Conversation Factor	References*
CMS Unions T&W Unions - Library Union Salary Schedule - Transit Call Centre Representatives (Full Time) - UFCW - Transit Call Centre Representatives - 1) Customer Service/ Information - 2) Customer	-	Temporary	 Salary Schedule – Temp 	 <u>Schedule 2016-201X</u> Temp Equivalent 2016+ - 35 hr, 37.5 hr, 40 hr <u>2016 Weighted Average Wage for</u>
Service/Reception at CPY		CMS Unions	 Library Union Salary Schedule Transit Call Centre 	 Fire Wage Table (2011-2014) Library CUPE 966 Collective Agreement (2011-2015) UECW - Transit Call Centre Representatives 1) Customer Service/ Information
Hourly-Rate Non-Union • E Grades Part-Time / Temp • E Grades Part-Time / Temp Rate	Hourly-Rate	Non-Union	 E Grades Part-Time / Temp 	 <u>E Grades Part-Time / Temp Rate</u>

- Salary and Hourly Rate
- Printing & Mail
- Miscellaneous Costs (floor space, mileage, etc.)
- Environmental Conversion Factors (paper, mileage, utility consumption conversations, etc.)





Initiative Summary (Project)

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Problem Statement	Initiative Name: Cl Department: Corporate Serv	tive summary ick here to enter text. vices Division: Enter Division Here oject Team Members Here Objectives	MISSISSAUG	5a	
Background Inform	nation	ROI/Benefits			
Issues/Root Caus	es	Steps Removed: Cost Savings: Performance Mea	Ca	of Hours Saved: ost Avoidance:	
Actions Taken		Next Steps	LEAN	Report v financial	verified benefits



Small Improvement Report (2016)

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		left Lean Report lirect supervisor/manager prior to submitting this	
ROOT CAUSE: What was causing th SOLUTION: What was the solutio BENEFITS: What improvements	m being experienced? e issue? n? have resulted from the solution? i	DATE: Click here to enter a date. DIVISION: Choose an item.	Report verified financial benefits
	able, please fill i red:	The following Freed capacity (labour hours per year): Increased Safety:	□ yes
Environ	mental Impact:		□ yes





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NOV. 4-7 Leading Edge

Phase III: Benefit Verifications

- Verify old records
- Verify new records
- Check and Adjust

1) Verification of Old Records

(Prior to April, 2016) Housekeeping & Transitioning

2) Verification of Existing & On-Going Records Adopt to the new process

3) Check and Adjust...

Sustain and improvement the process



As of May 12, 2016

	Lean Project			Small	Impr.
Dont	w/ financial		claim	\\$10k	Claim >\$1k
Dept.	implication		Claim	~\$10K	(but<\$10k)
CMS	4 / 5		0 /	0	0 / 2
тw	1/1		5 /	5	0 / 7
CPS	2 / 2		1 /	1	0 / 0
СМО	0/0		0 /	0	0 / 0
P&B	1 / 1		0 /	0	0 / 0
Total Req'd	8/9		6 /	6	0/9
	By: End of Ap	ri	2016		May 2016





Follow-Up Structure ²⁰¹ (Continuous Improvement)

Monthly Core Team Update Meeting (1 hr/ month)

- 1. Update status (verified vs. to-be-verified; on-going action items)
- 2. Identify unique scenario that require team consensus on approach
- 3. Update standards as required

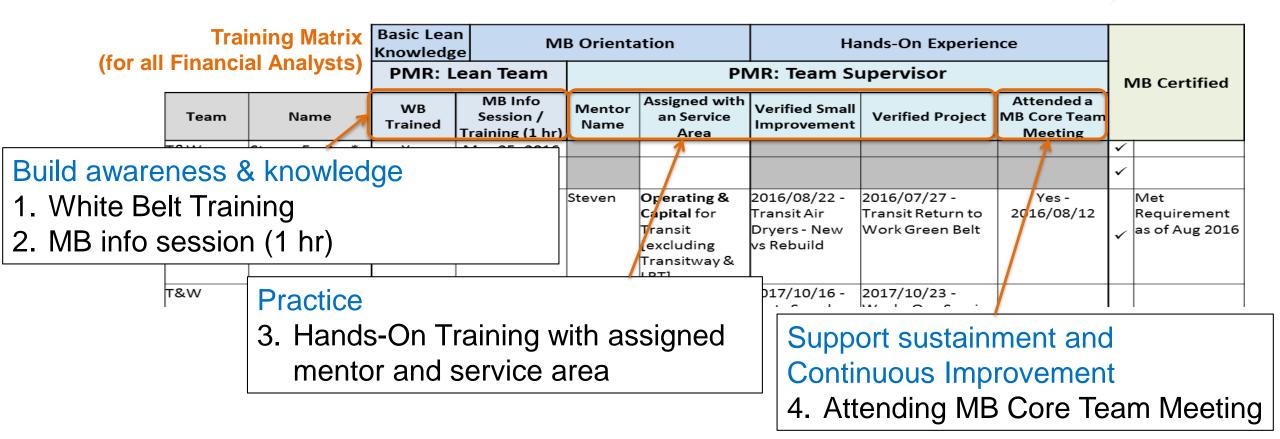




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Standardize and Share



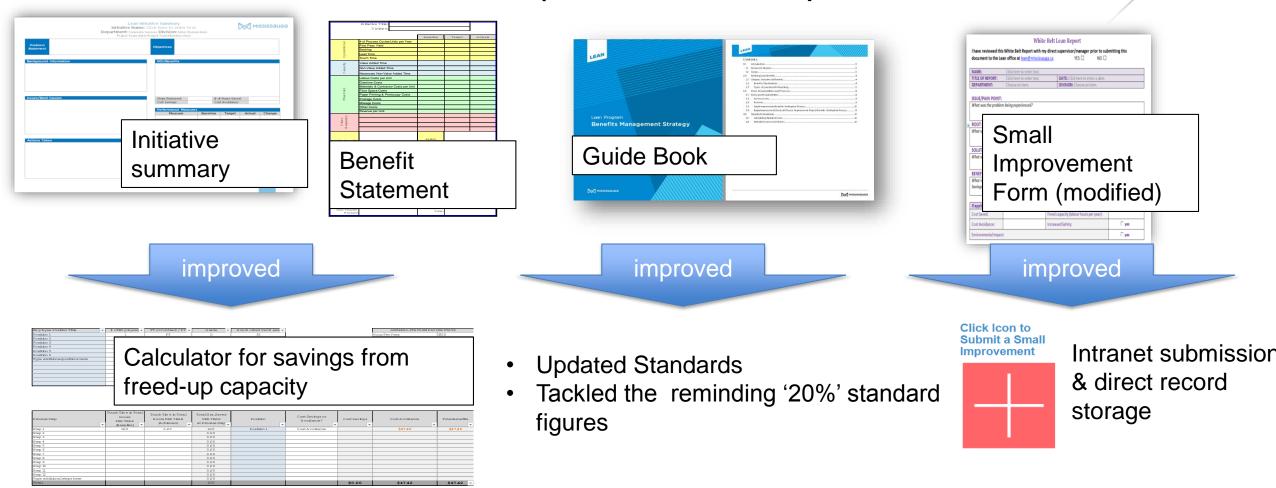






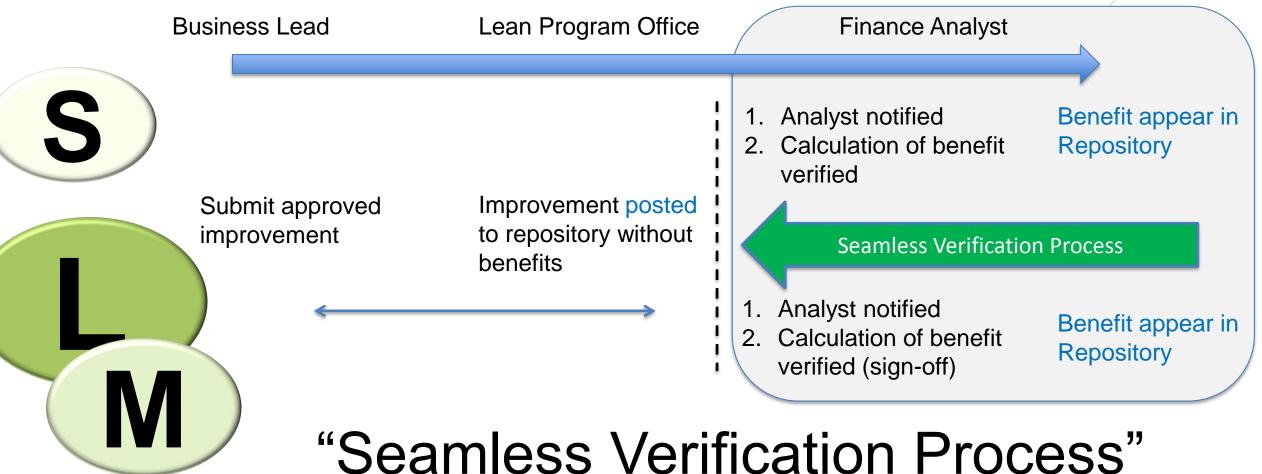
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Other Enhancement (since 2016)





Other Enhancement (since 2016) 2019





<u>Phase IV</u>: Future Evolution in Roles & Responsibilities

Other Enhancement (since 2016) 2019

<section-header>

• Provide at-a-glance status and service level

 help managing the verification process

Money Belt Scorecard

Manage performance of the benefit verification



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Edge







Staff...

Enable Self-Service

- Guideline accessible as a SharePoint pages
- Formalize training (self-learning) through SharePoint
- Online 'calculator' for labour-hour-to-dollar calculation
- Auto-request for verification upon posting

Continue to

- Refine service level
- Refine standard work







Enabling Self-Service Data Analytics

- To support decision-making & reporting
- To increase transparency & accountability

Program Outcomes and Benefits

Click on the boxes to view outcomes and benefits measures by Department and Division







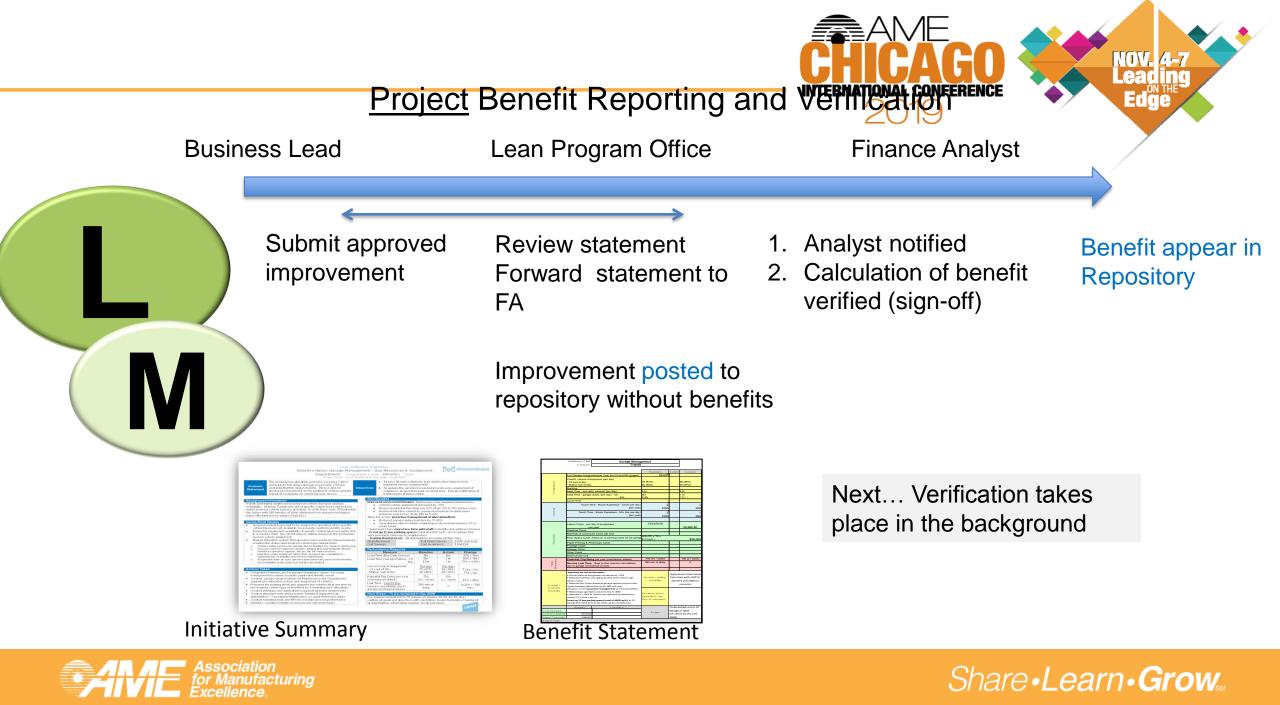


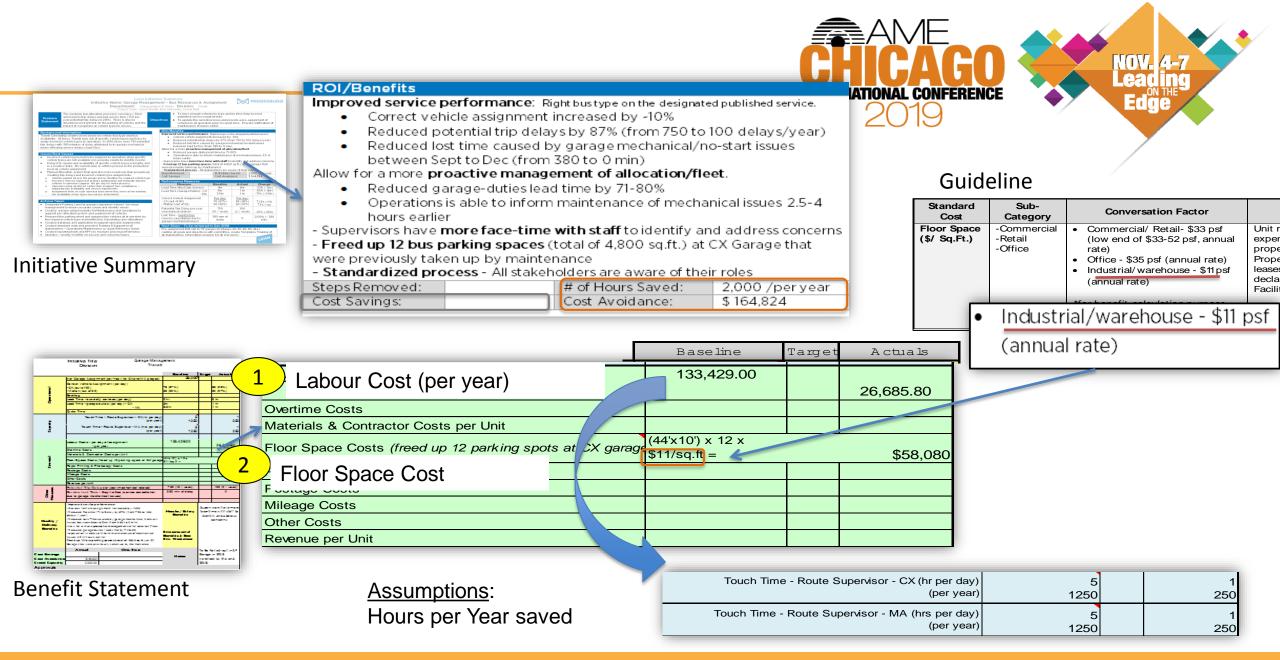




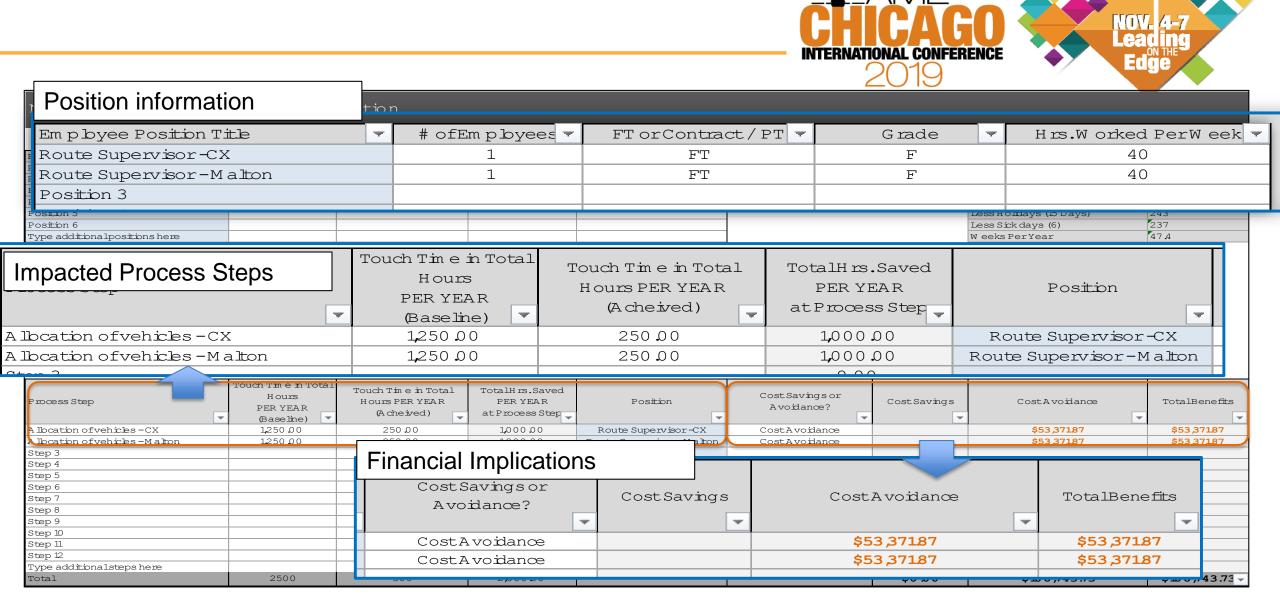








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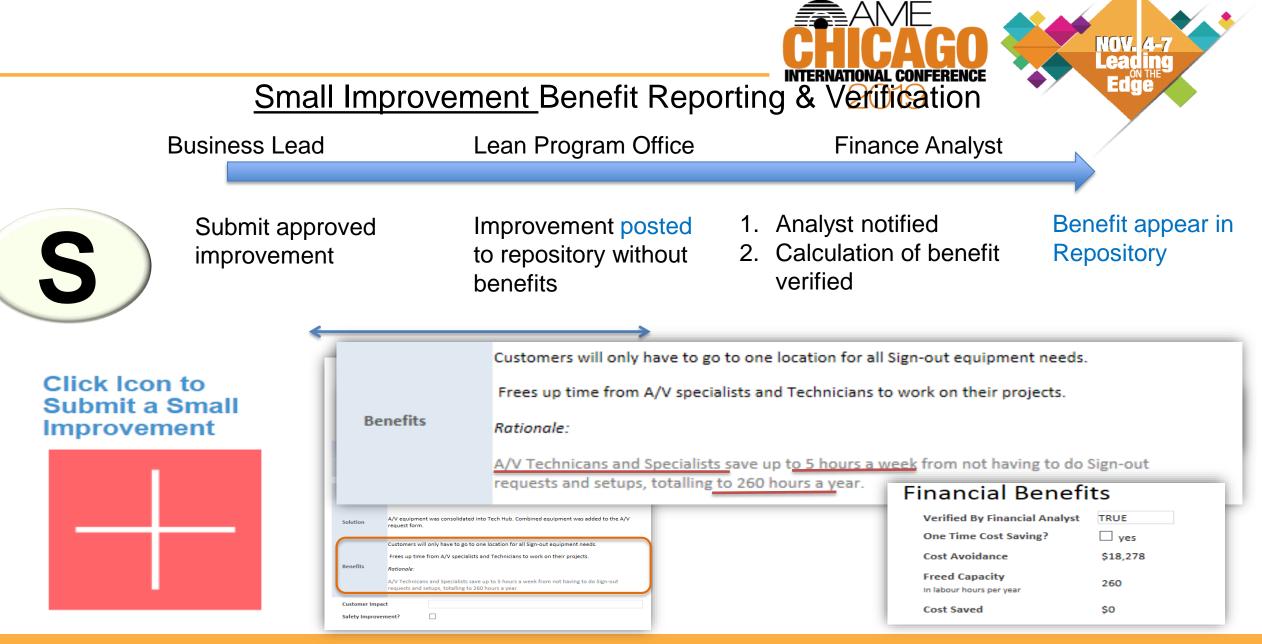






		Title	Parking Enforcement Part-Time Staff Scheduling
		Practitioner	Kevin Kealy
		Safety Improvement?	
PAGE PUBLISH			
Lean Comp	leted Projects	Verified By Financial Analyst?	Yes
Title Practition	ser Safety Imp	Cost Saved	\$37,943.60
Department : CMO	(1)	Cost Avoidance	\$1,451.71
Department : CMS	15)	Freed Capacity	24
age	,15)	StartDate	10/19/2015
Department : CPS ()	13)		Parking Enforcement PT Staff is operating under extended hours, which has created issues with complyin
Department : P&B (5)	ProblemStatement	to Corporate Policy. There are also precieved fairness issues related to how part-time staff are scheduled
∃ Department : T&W	(14)		Compliance
Title	Parking Enforcement Pa		Compliance
Practitioner Safety Improvement?	Kevin Kealy		 Reduced "4+ shifts/week" incidents by 50% (from 256 to 129)
Verified By Financial	Yes		Extreme circumstance (5+shift/week cases) eliminated
Analyst? Cost Saved	\$37,943.60		
Cost Avoidance	\$1,451.71		 Increased standard work for scheduling (process and criteria)
Freed Capacity StartDate	24 10/19/2015		
	Parking Enforcement PT		Fairness and Transparency
ProblemStatement	to Corporate Policy. The		
	Compliance	ROI	 Reduced by Shift-Fill-Rate Varioation among Part-Time Staff by 37-53%
	 Reduced "4+ shit 		 Increased transparency of scheduling critria and schedling information
	 Extreme circumst 		- Reduced the amount of rework as a result of rescheduling issues.
	 Increased standa 		- Reduced the amount of rework as a result of rescreduling issues.
	Fairness and Transparen		- Partime Staff Overtime: PT OT will be eliminated with the increased pool of part-time officers (reduced
ROI	 Reduced by Shift Increased transp 		from 184 OT Shifts in 2015)
	- Reduced the amount o		- Supervisor Scheduling Time: Reduced supervisor's effort in scheduling from 2 hours per month to 30
	- Partime Staff Overtime from 184 OT Shifts in 20		seconds
	- Supervisor Scheduling		
	seconds		





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Department : CMS (429)			
Department : CPS (541)			
Division : Commissioner's Office CPS (40)			
Division : Communications (36)			
			🗘 share 🏠 follow 💉 edit
Division (59 DM (104)			
Division : F&PM (194) Small Job Day Labour Invoices Cost Saved Cost Avoidance Freed Capacity	Invironmental I	Benefit?	Safety Improvement
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Small Job Day Labour Invoices Service request filing Advertising Signage Schedule Revision - Iceland Change to Cleaning Schedule for 950 Burnhamthorpe Streamlined Transit Enforcement Communications			
Small Job Day Labour Invoices Cost Saved Cost Avoidance Freed Capacity I Service request filing Advertising Signage Schedule Revision - Iceland Image to Cleaning Schedule for 950 Burnhamthorpe Image to Cleaning S	\$1,294.95 \$3,669.04	Benefit? 24 No 68 No	Safety Improvement
Small Job Day Labour Invoices Cost Saved Cost Avoidance Freed Capacity I Service request filing Advertising Signage Schedule Revision - Iceland Change to Cleaning Schedule for 950 Burnhamthorpe Streamlined Transit Enforcement Communications Baseload Tool Improvement Cold Water Resurfacing Pilot	\$1,294.95 \$3,669.04	24 No 68 No 0 No	No No No
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mall Job Day Labour Invoices Cost Saved Cost Avoidance Freed Capacity I ervice request filing advertising Signage Schedule Revision - Iceland change to Cleaning Schedule for 950 Burnhamthorpe treamlined Transit Enforcement Communications aseload Tool Improvement cold Water Resurfacing Pilot arking Lot lighting timing revised – Carmen Corbasson CC, Erin N	\$1,294.95 \$3,669.04 0 \$0.00 0 \$414.92 0 \$0.00	24 No 68 No 0 No No 10 No	No No No Yes
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Small Job Day Labour Invoices Cost Saved Cost Avoidance Freed Capacity I Service request filing Advertising Signage Schedule Revision - Iceland Change to Cleaning Schedule for 950 Burnhamthorpe I <td< td=""><td>\$1,294.95 \$3,669.04 0 \$0.00 0 \$414.92 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00</td><td>24 No 68 No 0 No 10 No 10 No 0 No 0 No 0 No</td><td>No No No Yes No No No No</td></td<>	\$1,294.95 \$3,669.04 0 \$0.00 0 \$414.92 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00 0 \$0.00	24 No 68 No 0 No 10 No 10 No 0 No 0 No 0 No	No No No Yes No No No No





"What's Next" & Lessens Learned







Verification Process (Now)

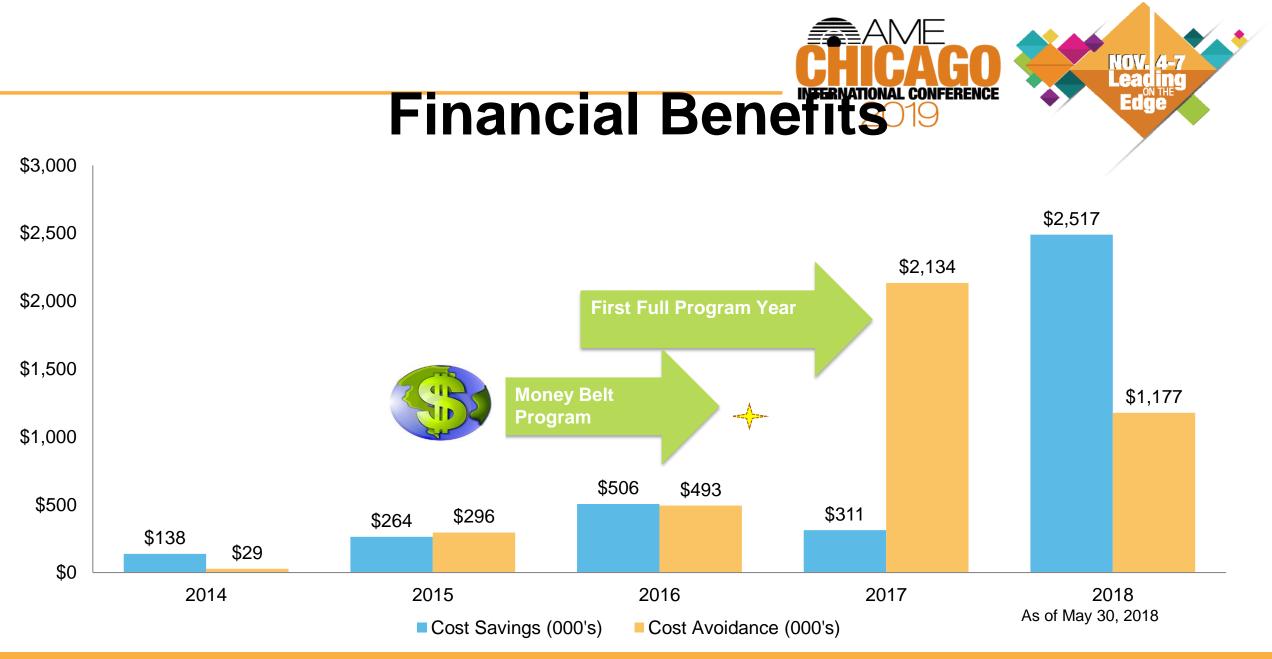
- Financial Analysts are trained as Money Belts
- Consistent calculation of monetary and environmental benefits
- Verified results to be used for
 - ✓Corporate Reports
 - ✓ Council Presentations
 - ✓1% Budget Reductions



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Next...



Further Support Budget planning and business planning decision



 Manage performance of the benefit verification

 Making summary of improvements by business area available decision-maker







Lesson Learned

Support

- Commitment from Finance Staff and Leadership is key
- Clarify and confirm roles (Finance vs. Business Lead)

Approach

- Focus on maturity-building
- Self-identification with coaching; short iterative cycles of "check & adjust"

Culture

- It's about shifting the mindset "this is not our job"...well, is it ?
- Build the transition from "project" to "operation"











Thank You! Your opinion is important to us!

Please take a moment to complete the survey using the conference mobile app.

Session No: ThS/49 Money Belt – Benefit Verification Program Kenneth Leung City of Mississauga kenneth.leung@mississauga.ca

