

Memorandum



CITY OF DALLAS

DATE May 4, 2018

Honorable Members of the Government Performance & Financial Management
TO Committee: Jennifer S. Gates (Chair), Scott Griggs (Vice Chair), Sandy Greyson,
Lee M. Kleinman, Philip T. Kingston, Tennell Atkins, Kevin Felder

SUBJECT **Lean Six Sigma**

On Monday, May 7, 2018, the Center for Performance Excellence will brief the Government Performance & Financial Management Committee on Lean Six Sigma. I have attached the briefing for your review.

Please let me know if you need additional information.

A handwritten signature in blue ink that reads "M. Elizabeth Reich".

M. Elizabeth Reich
Chief Financial Officer

Attachment

c: Honorable Mayor and Members of City Council
T.C. Broadnax, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Billierae Johnson, City Secretary
Daniel F. Solis, Administrative Judge
Kimberly Bizer Tolbert, Chief of Staff to the City Manager
Majed A. Al-Ghafry, Assistant City Manager

Jo M. (Jody) Puckett, Assistant City Manager (Interim)
Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
Nadia Chandler Hardy, Chief of Community Services
Raquel Favela, Chief of Economic Development & Neighborhood Services
Theresa O'Donnell, Chief of Resilience
Directors and Assistant Directors

Lean Six Sigma

Government Performance and Financial Management

May 7, 2018

Joseph Kunnath, Lean Six Sigma Master Black Belt
Brandon Johnson, Lean Six Sigma Master Black Belt
Renee L. Hayden, Managing Director (Interim)

Center for Performance Excellence
City of Dallas



Presentation Overview

- Lean Six Sigma
 - Deployment Strategy
 - Training Opportunities
 - Project Identification
- Projects
 - Project Examples
 - Green Belts In Action (Video)
 - Fiscal Impact



Center for Performance Excellence (CPE) Background

- 2014 – CPE Created
 - Examined how we can provide services to citizens more efficiently and effectively through the disciplined application of proven management systems
- 2015 – Hired Black Belts
- 2015 – 50 Green Belts with Projects
- 2017 – 2 Master Black Belts, 2 Black Belts (Internal Promotions)

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City of Dallas' Lean Six Sigma

What we provide?

- Apply disciplined problem solving methodology to find solutions
- Train, coach and mentor city employees in lean six sigma and project management
- Providing tangible and intangible results through project management



Deployment Strategy

Lean Six Sigma (LSS)

- Identifying opportunities for improvement
- Motivating government employees
- Building knowledge
- Empowering employees (to make changes in work processes)

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LSS Courses – Training Opportunities

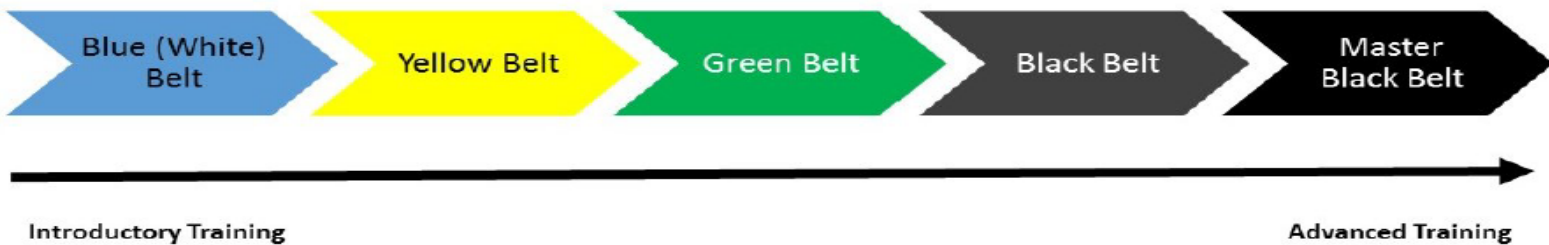
Training	Hours	How to Apply	What is covered	Deliverables
Blue Belt	3	All City Employees	Basic Lean Six Sigma	<ul style="list-style-type: none"> • Basic Lean Six Sigma • Identify and participate in projects
Yellow Belt	8	All City Employees	<ul style="list-style-type: none"> • Waste Identification • 5S • Visual Management • Process Mapping • Yellow Belt Projects 	<ul style="list-style-type: none"> • Complete Yellow Belt Project • Participate in Green Belt projects
Project Management	8	All City Employees	<ul style="list-style-type: none"> • Basic Project Management Principles (PMP) 	<ul style="list-style-type: none"> • Knowledge of PM • Participate in city projects
Green Belt	80	<ul style="list-style-type: none"> • Announcement by email • Submit Application 	<ul style="list-style-type: none"> • DMAIC Methodology • Lean Tools • Kaizen • Statistical Techniques 	Lead & complete Green Belt Projects



LSS Training/Project Goals

Personnel Trained

Belt Level	Currently (04/23/18)	Goal
Master Black Belt	2	2
Black Belt	2 (in training)	6
Green Belt	173	Add 40 each year
Yellow Belt	290	Add 100 each year
Blue Belt	388	Add 100 each year



LSS Project Identification

- City Management
 - High Priority
 - Typically Multi-Departmental processes
 - Examples:
 - 911 Hiring Process
 - Open Records Center
 - City Council Agenda Process
- Departments: Grassroot, employee-driven



Tools We Use

- Staff interviews and on-site observation
- Process mapping
- Baseline data and benchmarking
- Brainstorming tools
- Cause & effect diagram
- Advanced statistical tools
- Kaizen
- 5s
- Kanban
- Mistake proofing



LSS Project Examples

- Reduce 911 Call Center Hiring Time
- Reduce Leak Adjustment Process Time
- DWU Bachman Plant – 5S Event
- City Manager’s Employees Meet & Mingle



Reduce 911 Call Center Hiring Time

CPE Recommendations to improve hiring:

- Evaluate effectiveness of polygraph requirement (Implemented; requirement eliminated)
- Evaluate minimum experience requirement of 2 years
- Provide online Civil Service entrance exam

Tools Used: Process Mapping, Process Analysis, Bench marking and team working sessions to identify constraints and improvement actions

Master Black Belt: Joseph Kunnath

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Reduce Leak Adjustment Process Time

Evaluated DWU Leak Adjustment Process:

- Current process scrapped and standard SAP process for adjustments implemented
 - Takes less time
 - Eliminated manual steps
 - 2 FTE's reallocated
 - Wait time reduced from 53 to 2 days

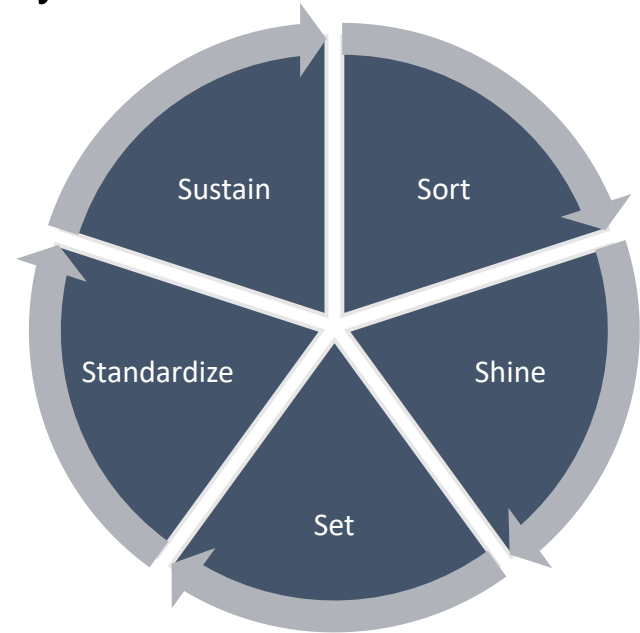
Annual Savings: \$146,622

DWU Green Belt: Amanda Webster

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DWU Bachman Plant - *Workplace Reorganization Event*

20 Employees trained in Lean Six Sigma Yellow Belt led a 5S event to systematically clean and organize the plant to ensure employee safety. Dallas Water Utilities Black Belt-Tony Rader 4/18



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CITY MANAGER'S EMPLOYEES' MEET & MINGLE

A communication effort that directly connected the employees to the City Manager, who shared the City's new Core Values, details on new employee outreach, and building Public Trust from inside City Hall out to the community. Green Belt-Michael Douglas



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Additional Projects

- DWU- Reduce Warehouse Inventory
- Improve DPD Training Material Document Control
- DWU- Improve Meter Refurbishing Process
- Streamline PKR 1 Warehouse Operations



Green Belts in Action

Green Belt Projects Video

<https://www.youtube.com/watch?v=j3E7LFaahKQ>

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Fiscal Impact

Improvement Projects All Time Savings

(Millions) (FY16-17 and FY17-18)

	Combined	Hard Savings	Soft Savings
Actual Savings	\$2.44	\$1.12	\$1.31

Hard Savings are reductions in dollars spent, such as reduction of prices paid, reallocated FTEs and increased revenue

Soft Savings are efficiency savings from less time spent or minimizing non-value added activities

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