Memorandum

DATE August 7, 2015

TO Honorable Mayor and Members of the City Council

SUBJECT **Center for Performance Excellence Update**

On Tuesday, August 11, 2015, the City Council will be briefed on the Center for Performance Excellence. The briefing materials are attached for your review.

Please let me know if you have any questions or need additional information.

Mark McDaniel
Assistant City Manager

c: A.C. Gonzalez, City Manager
     Warren M.S. Ernst, City Attorney
     Craig D. Kinton, City Auditor
     Rosa A. Rios, City Secretary
     Daniel F. Solis, Administrative Judge
     Ryan S. Evans, First Assistant City Manager
     Eric D. Campbell, Assistant City Manager
     Jill A. Jordan, P.E., Assistant City Manager
     Joey Zapata, Assistant City Manager
     Jeanne Chipperfield, Chief Financial Officer
     Sana Syed, Public Information Officer
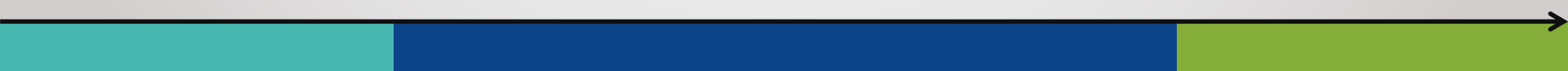   Elsa Cantu, Assistant to the City Manager – Mayor & Council

DALLAS

Center for Performance Excellence

Setting New Standards for Local Government

August 11, 2015

Why the Center?

► **Bottom Line:** to benefit citizens by examining how we can operate more efficiently and effectively through the disciplined application of proven management systems.

► **Goals:**

- ► **Reduction in Costs** (Current and Future)
- ► **Enhanced Responsiveness** for Citizens/Customers
- ► **Increased Capacity** of Existing Workforce (Saving Time)
- ► **Motivated Workforce**: Employee Empowerment + Job Enrichment = Productive Team Members
- ► **Improved Organizational Communications** Leading to the "Cross Pollination" of Ideas for Improvement
- ► **Leveraged Partnerships** for Applying Best Practices from Elsewhere

Pulling it All Together

Lean Six Sigma
Long Term Training and Certification Goals

Year 1 Staffing/Certifications:
Master Black Belt – 1
Black Belts – 2 (just hired)
Green Belts – 50 (25 in training; 25 more in Fall)
Blue Belts – 93 to date
_____

Yellow Belts (New) – curriculum in formation

50% of Workforce

20% of Workforce

1% of Workforce

	Blue Belts	Green Belts	Black Belts
■ Goal	6,500	2,600	130
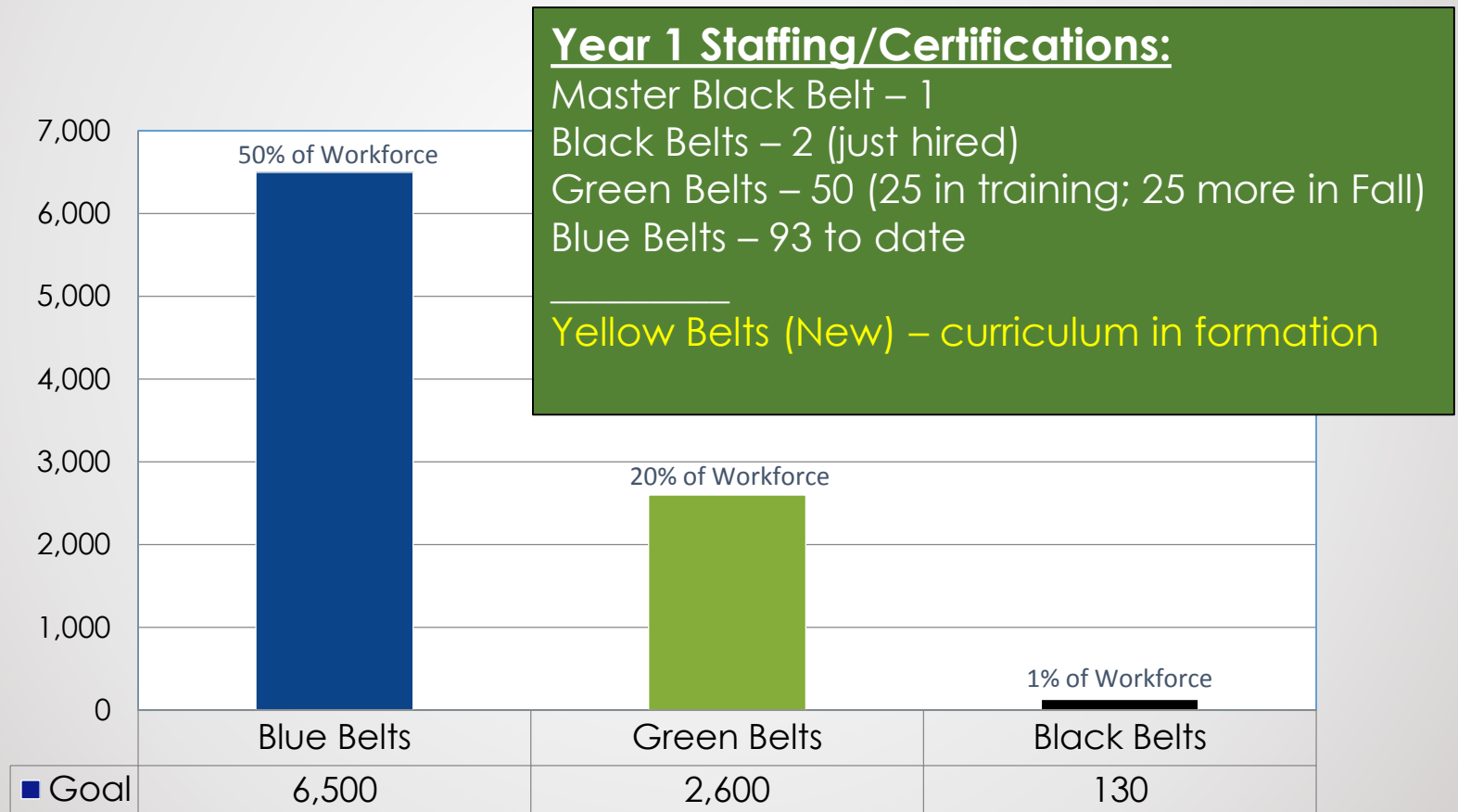
Lean Six Sigma
Sampling of Projects Identified So Far

▶**Code Compliance** – Improve inspection cycle time and compliance

▶**Aviation** – Reduce mowing cost at Executive Airport

▶**311** – Improve timeliness and accuracy of dispatch process

▶**Municipal Court** – Improve court assignment/scheduling process

▶**Police** – Improve Property Inventory Processing

▶**Fire** – Improve inventory control for EMS equipment

▶**Parks** – Reduce equipment shop task times

▶**Streets** – Improve street patching/restoration process

Lean Six Sigma
Projected Potential Savings, So Far
(as identified in only seven out of an estimated 25 project charters this calendar year)

► **Estimated Hard Savings** – $627,954*

► **Estimated Soft Savings** – $133,070*

FY2016 Goals:

Initial ROI – 75% (will likely exceed)

Projects Completed – 80

Training – 200 Employees

Estimates are in the process of third party verification, then again confirmed upon project completion.

Department Level Business Planning
(Using the Baldrige Framework)

- ▶ **Criteria 1** | Leadership (120 points)
- ▶ **Criteria 2** | Strategy (85 points)
- ▶ **Criteria 3** | Customer (85 points)
- ▶ **Criteria 4** | Measurement, Analysis, & Knowledge Management (90 points)
- ▶ **Criteria 5** | Workforce (85 points)
- ▶ **Criteria 6** | Operations (85 points)
- ▶ **Criteria 7** | Results (450 points)

Total possible points = 1,000
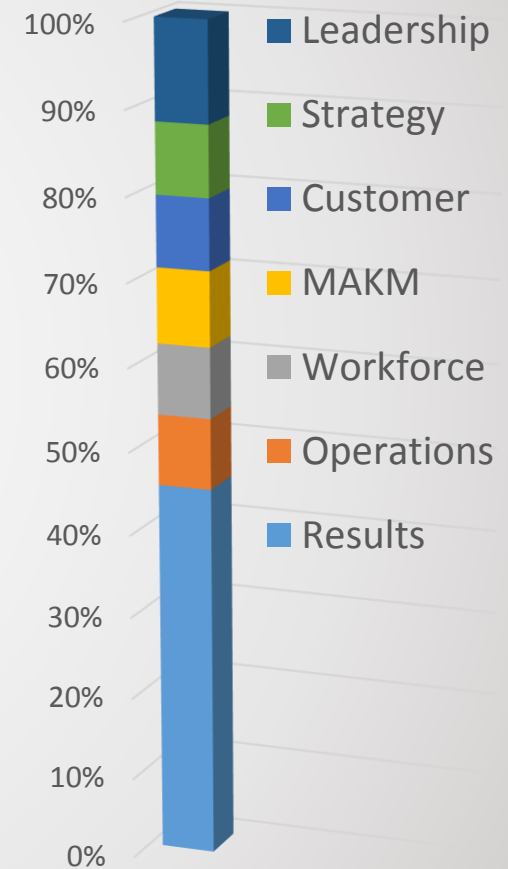
FY15 Business Planning Schedule

Task	When	Status
• Distribute New Business Plan Templates to Departments	March	Complete
• Provide Training to Departments	April - May	Complete
• Departments Submit First Draft Business Plans	June	Complete
• Review Draft Business Plan Submissions (CPE) • Identify Recurring Themes for Improvement • Update Training to Address Recurring Themes for Improvement	June - August	In Progress
• Provide Updated Training to Departments	August - September	In Development
• Departments Submit End of Year (EOY) Updated Business Plans • Combine EOY Report and Annual Report	October	Planned

Performance Measurement & Benchmarking

► Long standing member of ICMA Center for Performance Measurement – now migrating to new **ICMA Insights** platform

► Currently use Performancesoft to regularly track performance by department – purchased a new budget module that includes this integration

► Enhancing visualization of metrics through use of **Socrata** to create **Dallas Data Points** – **"go live" Fall, 2015**

ISO9001 Quality Management Systems Re-engineering for the Next Evolution

Upon the 10 year anniversary of ISO9001 in FY16, we will "re-engineer" how we deploy.

Independent Auditing – existing contract renegotiated for single, rather than three separate certifications. Services also include bringing on additional departments and transitioning to updated ISO standards. Impact = $29,873 savings in FY16 and $240,000 over remaining four year term.

Decentralization – Reduction of ISO auditors headquartered in CPE, with the intent to push out more training and coaching rather than focusing only on compliance.

More Robust Reporting – Enhance performance reporting on findings and direct benefits.

Monitoring Progress

► Lean Six Sigma **dashboard**

► Quarterly/annual **report outs**

► Strategic planning – tracking organization-wide priority **metrics**

► **Business planning** reviews and scoring - using Quality Texas/Baldrige criteria

► Citizen **surveys**

Implementation Milestones

Complete organizational shifts to establish new CPE	**October, 2014**
Convene Working Group to develop and finalize CPE program of work and calendar	**December, 2014**
Full launch new Lean Six Sigma programming	**May, 2015**
Implement organization-wide business planning at the department level, to include key performance metrics and objectives/tactics for achieving Baldrige criteria	**May, 2015**
Certify three additional departments in ISO 9001 in FY15	**Underway**
Appoint CPE Advisory Board	**Underway**
Convene first Advisory Board meeting & regional summit	**Fall, 2015**
Launch Dallas Data Points dashboard	**Fall, 2015**
Formalize BIG Academy	**Winter, 2015**
Re-engineer deployment of ISO 9001	**Spring, 2015**

Questions?

Appendix

Who We Are

Purpose of the CPE

- Facilitate best-in-class levels of performance across the City of Dallas organization through an **integrated systems approach that achieves results**

- Identify and **share best local government management research and improvement practices** across the region, state and nation

A Fresh Approach

Building on past and current successes by:

▶ Fostering **synergy through collaboration**, rather than segmented or siloes of internal efforts

▶ Infusing **new thoughts and ideas** borrowed from private business and industry

▶ "Daylighting" and sharing of **innovations and best practices** via use of a public-private advisory board

Expectations

- A consulting resource for **empowerment**, rather than separate teams of compliance specialists

- An **R&D lab** for taking calculated "risks" to innovate

- A tool for **connecting employees** to the organization's vision, mission and purpose

- An understanding that **growth and comfort do not co-exist**

- A **marathon**, not a sprint!

Advisory Board

- ▸ Comprised of national leaders in business, industry, academia, and civic **organizational development**

- ▸ Meets twice annually (first meeting October 23rd)

- ▸ Hosts **annual symposium** featuring innovations in local government in conjunction with Fall business meeting

- ▸ May serve individually as a **Strategic Partner** through loaned executive program, provision of services, coaching, etc.

Working Group

Role:

> To provide **recommendations to the City's executive team** regarding current and ongoing continuous improvement efforts, as well as launch or implement new improvement initiatives

Members:

> All **assistant city managers** and **department directors**

Meetings:

> Monthly

What We Do

Lean Six Sigma

What is it?

A combination of **two disciplined, data-driven approaches and methodologies** for improving performance:

Lean Enterprise:
- ▶ Developed by Toyota Motor Company as the Toyota Production System in the 1950's

Six Sigma:
- ▶ Developed by Motorola in the 1980's

Focus Comparison

Lean – focuses on dramatically improving flow in the value stream and eliminating waste

Specify Value	Understand Demand	Flow	Level	Perfection

Improved efficiency and speed
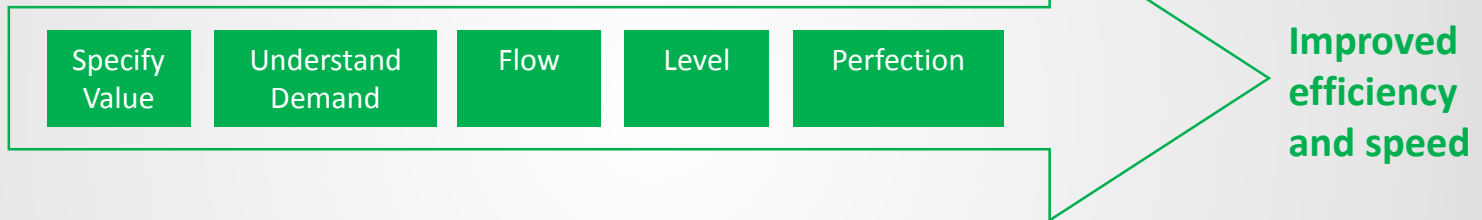
Six Sigma – focuses on eliminating undesired results and reducing variation in processes

Define	Measure	Analyze	Improve	Control

Improved effectiveness
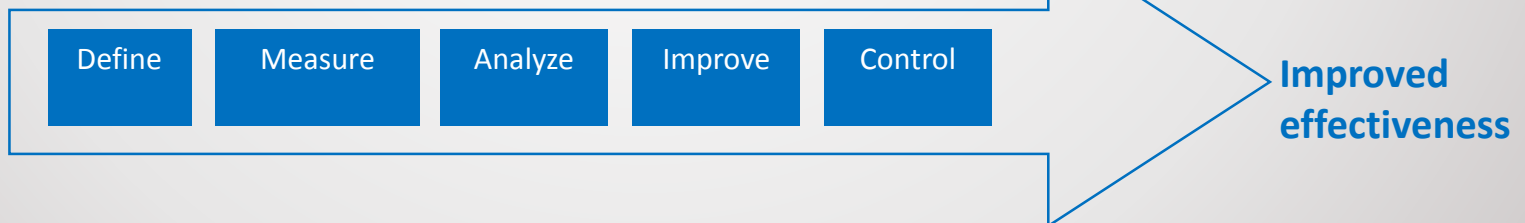
Process Comparison

Steps	Lean Process	Six Sigma Process
Step 1	Current State Assessment (Value Stream Map)	Define Opportunities – identify, quantify, and prioritize improve opportunities
Step 2	Future State Map (Value Stream projections after Waste Reduction Kaizens)	Measure approved opportunities – current state measurements
Step 3	Identify, quantify, and prioritize process improvement opportunities	Analyze – scenarios, what-ifs, design of experiments leading to an outcome result
Step 4	Kaizen – implement the change and re-measure	Improve – implement the solution and re-measure
Step 5	Audits to sustain the gains	Control – develop control system to sustain the change

Eight Areas of Waste

Defects
Efforts caused by rework, scrap, and incorrect information.

Overproduction
Production that is more than needed or before it is needed.

Waiting
Wasted time waiting for the next step in a process.

Non-Utilized Talent
Underutilizing people's talents, skills, & knowledge.

Transportation
Unnecessary movements of products & materials.

Inventory
Excess products and materials not being processed.

Motion
Unnecessary movements by people (e.g., walking).

Extra-Processing
More work or higher quality than is required by the customer.

Six Sigma: Statistically Visualized
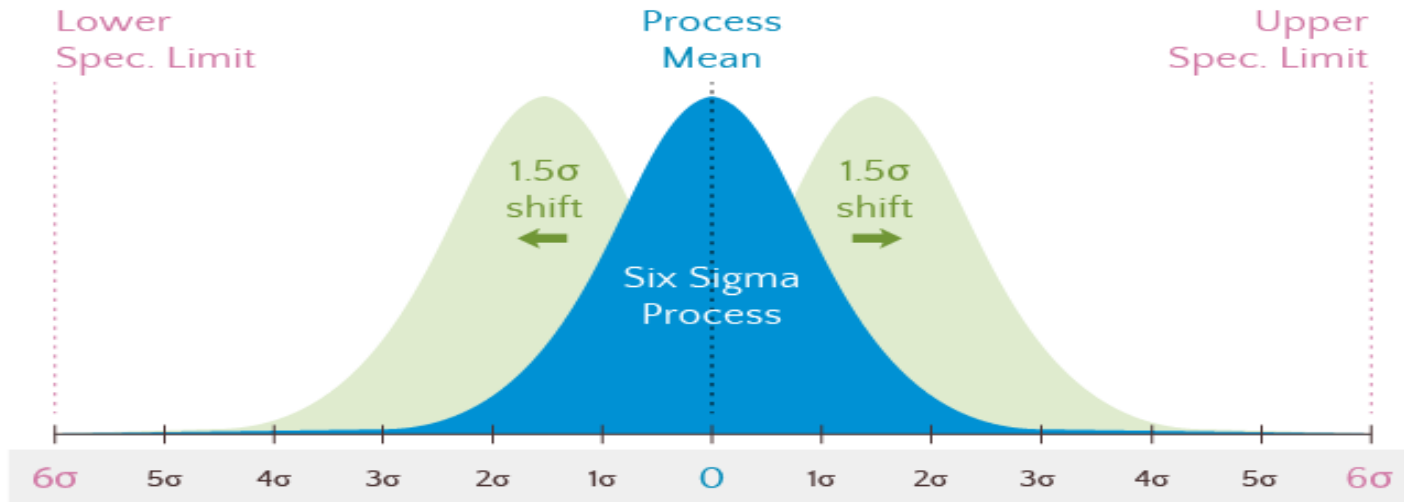
Source:

Achieving Six Sigma

A statistical representation

Sigma Level	DPMO*	% Defective	% Yield
1	691,462	69%	31%
2	308,538	31%	69%
3	66,807	6.7%	93.3%
4	6,210	.62%	99.38%
5	233	.023%	99.977%
6	3.4	.00034%	99.99966%

In other words, a measure of quality that strives for near zero defects.

*Defects per million opportunities

Examples of Analysis Methods

- **Descriptive Statistics**
- **Pareto Charts**
- **Graphing**
- **Regression Analysis**
- **Capability Analysis**
- **Process Mapping**
- **Value Stream Mapping**
- **Fish Bone Diagram**
- **Spaghetti Diagram**
- **XY Summary**
- **TAKT Time and Cycle Time**
- **Visual Management**
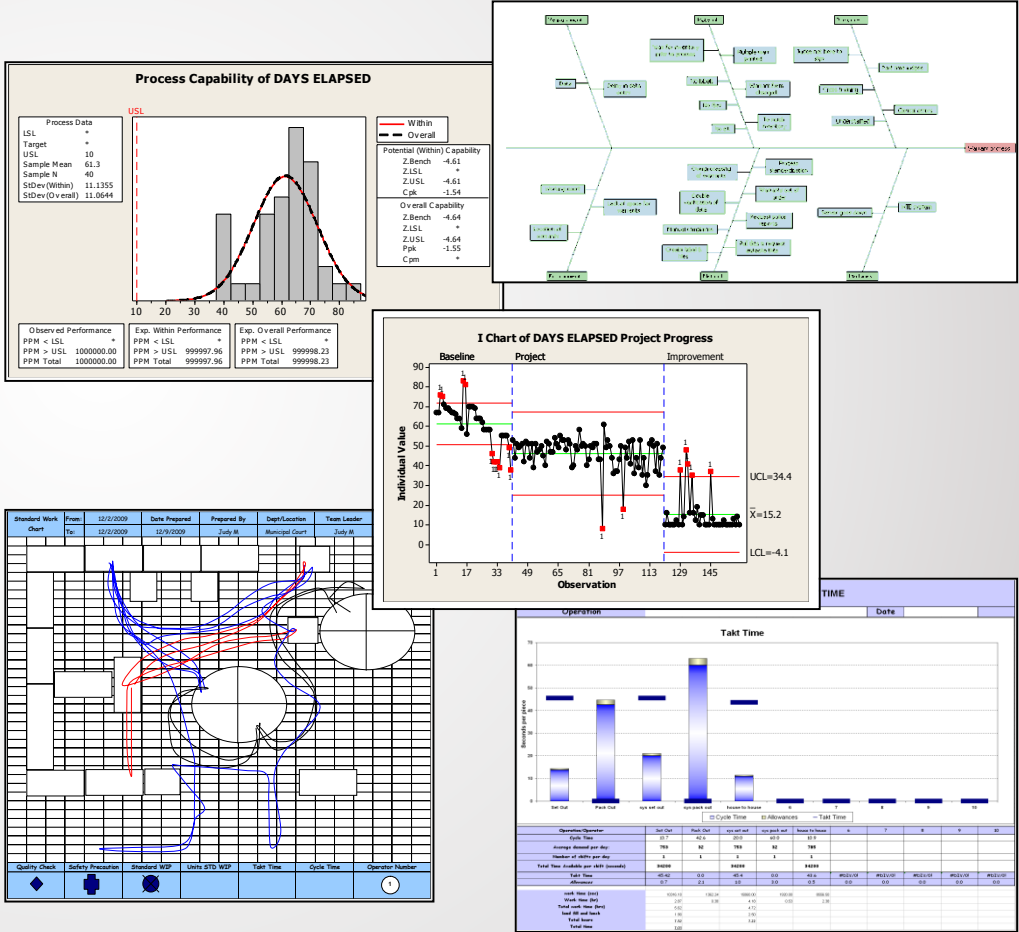
Important Program Considerations

► Participants need to **work in their own areas** so projects are considered part of their current job

► Senior **managers must actively steer**, while **participants push for progress** from organizational layers

► The **optimum ratio of Green Belts to Black Belts** is critical to mentoring and successful project completion

► The **indirect benefits are even greater** than the direct benefits

Business Planning

Department Business Plans

Business Plan Cycle

City Level
- ▶ Mission, Vision and Key Focus Areas
- ▶ Strategic Plan

Department Level
- ▶ Strategic Direction
- ▶ Environmental Scan and SWOT Analysis
- ▶ Strategic Objectives
- ▶ Performance Assessment

Business Planning

The **Key Focus Areas** reflect the City's established priorities: *Public Safety; Economic Vibrancy; Clean, Healthy Environment; Culture, Arts, Recreation and Education; E-Gov*

The **Goals** are to *Build – Innovate – Give and make BIG things happen! Each goal also incorporates the City's Core Values:*
B – Accountability, Commitment, Leadership, Teamwork
I – Innovation
G – Customer Service, Environmental Stewardship, Integrity, Sensitivity

Key Focus Areas

Goals

Mission

Resource Engine

Strategic Plan

CPE Tools

Baldrige Framework

The **Mission** is the overarching statement of City of Dallas*: To enhance the vitality and quality of life for all in the Dallas Community.*

The **Strategic Plan** provides a blueprint for accomplishing citywide goals.

The **Baldrige Framework** represents seven critical areas in *Leadership, Strategy, Customers Measurement, Analysis and Knowledge Management, Workforce, Operations,* and *Results*

The **Center for Performance Excellence (CPE) Tools** are Culture, Systems and People (CuSP).

The **resource engine** is an actively engaged workforce.

Part I:
Departmental Strategic Objectives

- ▶ Strategic Plan Alignment
- ▶ Department SWOT Analysis
- ▶ Action Plan | Build
- ▶ Action Plan | Innovate
- ▶ Action Plan | Give

[Department Name Here]

"We Make BIG Things Happen"

B: Build

Set the foundation/framework and build upon the success of the City for all in the Dallas community

- •**Accountability**: connecting performance with desired outcomes and ensuring safe working conditions and continuous improvement
- •**Commitment**: following through to completion and taking initiative
- •**Leadership**: moving the organization forward by anticipating and empowering all employees to lead, rather than reacting to changing times
- •**Teamwork**: accomplishing more together than could be achieved alone; fostering employee engagement and collaboration

I: Innovate

Adopt new or adapted ideas, where relevant and applicable, to improve outcomes or processes for all in the Dallas community

- •**Innovation**: welcoming, encouraging and enabling new ideas and opportunities for improvement; gaining efficiencies and enhancements through exploitation of new approaches, technology and tools

G: Give

Make a difference by being responsive, ethical, and service-oriented for the betterment of our Community

- •**Customer Service**: striving to deliver greater value responsiveness and quality service to the customer
- •**Environmental Stewardship**: ensuring a vibrant healthy and safe legacy for current and future generations
- •**Integrity**: taking actions, not based on expediency, but because they are the right thing to do; exercising ethical judgment and behavior
- •**Sensitivity**: valuing diversity in experiences, backgrounds and points of view

Core Values

Part II
Department Performance Assessment

- ► **Criteria 1** | Leadership (120 points)
- ► **Criteria 2** | Strategy (85 points)
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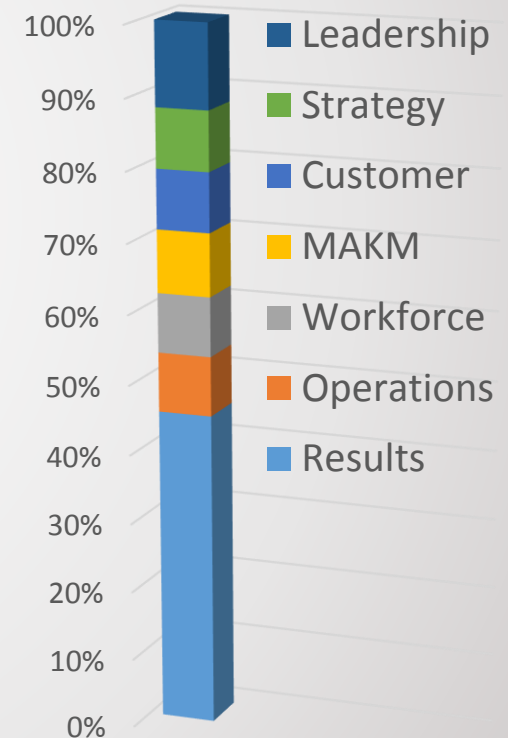
The Baldrige Framework

► The **Baldrige** framework was created by the US Congress in 1987 as Public Law 100-107

► Managed by the **National Institute of Standards and Technology**, an agency of the U.S. Department of Commerce

► Promoted at the state level through **Quality Texas** (state affiliate)

► Strategic partnership with the **American Society for Quality** (ASQ)

The Baldrige Criteria

Communication – Engagement
Leadership Process
Governance Ethics

Organizational Sustainability
Organizational Performance Review
Succession - Development

Leadership System

Process Improvement – Innovation
Process Control – Sustainability
Acceptance – Implementation
Process and System Design
Work Processes Determination

Operations Focus

Strategy Development Process
Action Plan Development
Action Deployment
Risk Assessment
Strategic Assessment
Strategic Resource Commitment

Strategic Planning System

Total Integrated Baldrige Excellence System

Workforce Engagement Management
Workforce Engagement Assessment
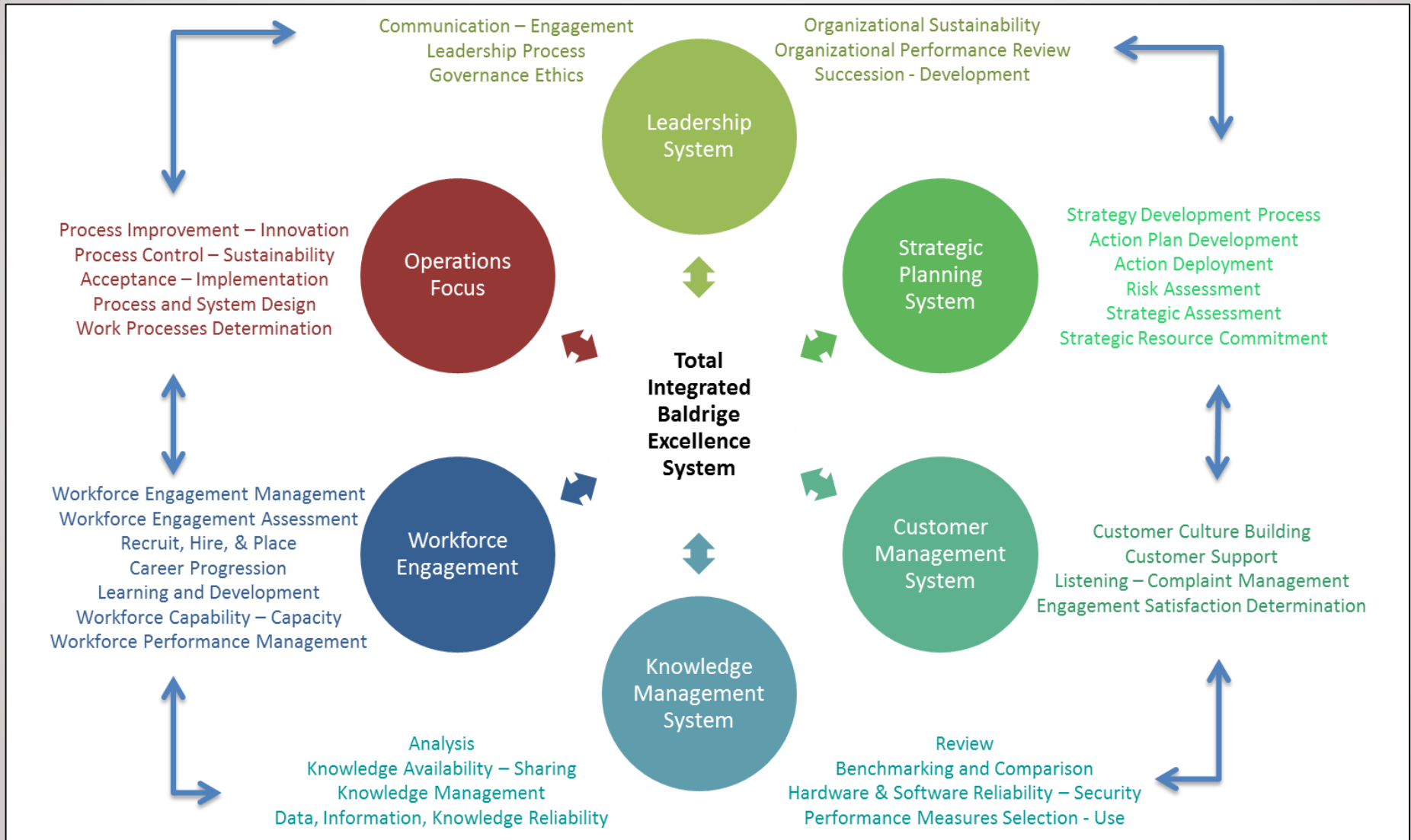Recruit, Hire, & Place
Career Progression
Learning and Development
Workforce Capability – Capacity
Workforce Performance Management

Workforce Engagement

Customer Management System

Customer Culture Building
Customer Support
Listening – Complaint Management
Engagement Satisfaction Determination

Knowledge Management System

Analysis
Knowledge Availability – Sharing
Knowledge Management
Data, Information, Knowledge Reliability

Review
Benchmarking and Comparison
Hardware & Software Reliability – Security
Performance Measures Selection - Use

FY16 Business Planning Schedule

Task	When	Status
• Review & Score EOY Business Plans (CPE)	December – January	Planned
• Provide Coaching to Departments for Areas of Improvement	January - March	Planned
• Submit Mid-year Updated Business Plans (Departments)	April	Planned
• Review & Score Mid-year Business Plans (CPE)	May - June	Planned
• Provide Coaching to Departments for Areas of Improvement	June - July	Planned
• Submit EOY Updated to Business Plans (Departments)	September - October	Planned

Strategic Initiatives

► Strategic Planning
► Performance Measurement & Benchmarking
► Training & Internal Communications
► Surveys

Annual Strategic Planning Process

October

- CPE shares preliminary end of year information with PIO
- Departments submit Departmental Business Plans with end of year updates for completed fiscal year

November

- Departments provide and confirm objectives, strategies and work plan items for current fiscal year

December

- CPE presents end of year updates for completed fiscal year to Council
- Council confirms activities objectives, strategies and work plan items for current fiscal year

January

- CPE provides coaching/ mentorship to departments based on Departmental Business Plan reviews

Annual Strategic Planning Process
(Continued)

April
- Departments submit mid-year Departmental Business Plans with year to date updates

July
- Departments review year to date performance data
- Departments review and select additional measures and targets based on budget
- CPE reviews and edits proposed budget pages

August
- CPE provides coaching/mentorship to departments based on Departmental Business Plan reviews

September
- Departments prepare Departmental Business Plans for end of year submission
- Council adopts proposed budget

Training & Internal Communications

► **Current**

- ► "Critical thinking" training
- ► Customer service training around the "three R's"
- ► Business planning
- ► Lean Six Sigma training

► **Next**

- ► Add:
  - ► Project management
  - ► Business writing
  - ► Time management
  - ► Open enrollment in general ISO training
  - ► Use of Alliance for Innovation Knowledge Network
  - ► Emerging Leader program
- ► Brand & Market as BIG Academy

Citizen & Business Surveys

▶ **Citizen Survey**

   ▶ Typically conducted every other year

   ▶ Next survey FY16

▶ **New Business Survey**

   ▶ Last survey conducted 2008

   ▶ Next survey October, 2015

   ▶ Results to be presented to City Council Fall, 2015

Quality Management Systems (ISO9001)

What is ISO?

International Organization for Standardization (ISO) establishes rigorous standards for management in various types of business operations using three management systems:

Environmental (ISO 14001) – Began in **2005**. Focuses on reducing environmental impacts of operations and regulatory compliance - 11 full departments certified

Quality (ISO 9001) – Began in **2006**. Focuses on operating more efficiently and meeting the needs and expectations of our customers - 9 full departments & 3 partial departments certified

Occupational Health and Safety (OHSAS 18001) – Began in **2007**. Focuses on improving our health and safety performance – 7 full departments certified

Implementation Status

Department	9001	Registration Date (9001)	14001	Registration Date (14001)	18001	Registration Date (18001)
AVI	✓	May-13	✓	Jun-08	P	
CVS Test Development & Validation	I					
CCS	✓	Dec-09	✓	Jun-08	✓	Nov-12
CIS Radio Shop	P		✓	Jun-08	P	
CES	✓	Nov-14	✓	Jun-08	✓	Dec-08
CTS	✓	Dec-08	✓	Jun-08	✓	Dec-08
BDPS	✓	May-10	NP		NP	
DFD	NP		✓	Jun-08	NP	
DPD	NP		✓	Jun-08	NP	
DWU	✓	Apr-12	✓	Jun-08	✓	Apr-12

Implementation Status

Department	9001	Registration Date (9001)	14001	Registration Date (14001)	18001	Registration Date (18001)
EBS	✓	Apr-08	✓	Jun-08	✓	Apr-09
HR/PER	✓	Apr-12	NP		NP	
HR Employee Relations	I					
LIB	✓	Dec-09	NP		✓	Jan-13
ORM	I		NP		NP	
PBW	I		✓	Jun-08	P	
PRK	P		✓	Jun-08	P	
SAN-Landfill	✓	Oct-10	✓	Jun-08	P	
STS	✓	Apr-07	✓	Jun-08	✓	Mar-14
SDC	P		NP		NP	
TWM	I		I		P	
TWM-Flood Control	✓	Jan-13	✓	Jun-08	P	

Complimenting ISO w/Lean Six Sigma

Attribute	ISO	Lean Six Sigma
Scope	System approach.	Focused process improvement.
Goal	Continual improvement of the entire operational system.	Provide the tool set and structured framework for continuous improvement (CI).
Engagement of Executive Management	Formal, periodic management review is required.	Necessary for long-term success.
Verification	The adequacy and effectiveness of the system is verified via formal internal and external audits.	Verification and sustainment of improvements occurs in the Control phase.
Process Improvement Method	The method of process improvement is left to the user to develop; a flawed process could be captured and recorded into the system.	Well-defined toolbox for process improvement structured to follow DMAIC phases: Define, Measure, Analyze, Improve, & Control.
Staff Training & Development	Implementers are trained initially. Then, ISO requires system-wide training needs analysis and formal training program.	Implementers are trained as Green Belts and Black Belts. These individuals will provide the CI expertise to facilitate and support teams during process improvement projects. Blue Belt training is taught to the general employee population to raise awareness across the organization.

Sampling of QMS cost savings – FY14

Objective	Goal	Results
Rebuild/Replace 40-Ton Dump Truck (SAN)	Purchase or have rebuilt 40-Ton Dump truck at low bid.	Rebuilt 40-Ton Articulating Dump Truck. Cost of new ADT is $700K. **Cost savings $350K**
Increase usage of Heavy Tire Recap Pilot program (EBS)	Increase usage of Heavy Tire Recap Pilot program by 80%	Purchased 2188 recapped tires at cost of $363K. New tires cost $930K. **Cost savings $567K**
Eliminate usage of Vendor provided engine diagnostics for down vehicles (EBS)	Increase usage of In-house engine diagnostics by 90%	Purchased IDS Diagnostic Software System. Staff diagnosed 2,337 units with electronic issues at cost of $59,264. Vendor costs $355K if sent out. **Cost savings of $300K**
Redesign the late collection process for Food Protection and Education Division (CCS)	Increase the amount of delinquent revenue collected annually by 17%	Improved collections by eliminating hand carrying of delinquent bills. Bills sent via certified mail/return receipt. **Collected $380K** of outstanding fees during FY14
Implement Right-size Court Operations (CTS)	Reduce FTE count by 1%	Reduced 11 vacant positions in FY14. **Costs saving of $473K**
Increase Material Spoils (cy) recycling from Asphalt & Concrete construction projects (STS)	Increase the amount of recycling materials (cy) from asphalt & construction projects by 5% from FY13	Increased the amount of recycling material (cy) received by 8% from asphalt & construction projects in FY14. **Cost savings of $426K**