Lean Six Sigma Project Management in the Public Sector Resource Handbook

WHAT IS LEAN SIX SIGMA?

Lean Six Sigma (LSS) is a process improvement methodology used in private and public industries around the world to streamline business process through waste elimination and analyze solutions for improvement using numbers.

OUR MISSION

Develop a culture in the workplace that cultivates the cycle of continuous improvement by using Lean Six Sigma tools.

OUR VISION

Inspire and empower all staff to continuously improve operations by challenging the status quo.

WHY DOES RR/CC USE LSS?

- Identify and control root causes of variance and defects
- Increase speed
- Understand customer requirements
- Empower employees to improve efficiency and effectiveness of processes
- Eliminate Errors and Variability
- Develop solutions to institutional problems based on data, not just assumptions
- Improve process understanding
- Reduce operational cost

WHAT IS THE PROGRAM ABOUT?

- As a Lean Department, projects can range from business process improvement in a section to root cause analysis of a public service problem.

- Unique to RR/CC – Our process improvement program is a model for the County. We are the first to institutionalize LSS, under the oversight of the Executive Office; we have a dedicated team of experts throughout the entire department, affecting meaningful change every day.

- We have the opportunity to innovate in every project, bringing a unique skill set from the Lean Six Sigma training we receive (i.e. process mapping, waste analysis, data driven decision making, facilitation, brainstorming.

- Pioneering program – trained over **2,200** Yellow Belt, **700** Green Belts and **23** Black Belts Countywide.

- Idea Boards facilitate discussion of problems/solution and assist operations in implementing process improvements.

STRUCTURE AND ROLES

DEPARTMENT HEAD

Receives progress reports on completed/ in process projects, and program development from Chief Deputy.

CHIEF DEPUTY

Meets with each Champion to get updates on completed and in process projects for each section.

CHAMPION

- Meets with the Consultant monthly to receive Summary Sheets, give approvals as needed and get project updates of all the boards in the bureau.
- Ensure that all process improvement opportunities are given a chance to be completed and they remove any obstacles or give any approvals needed at the Division level.
- Take action on lean goals set on transferred road map.

CONSULTANT

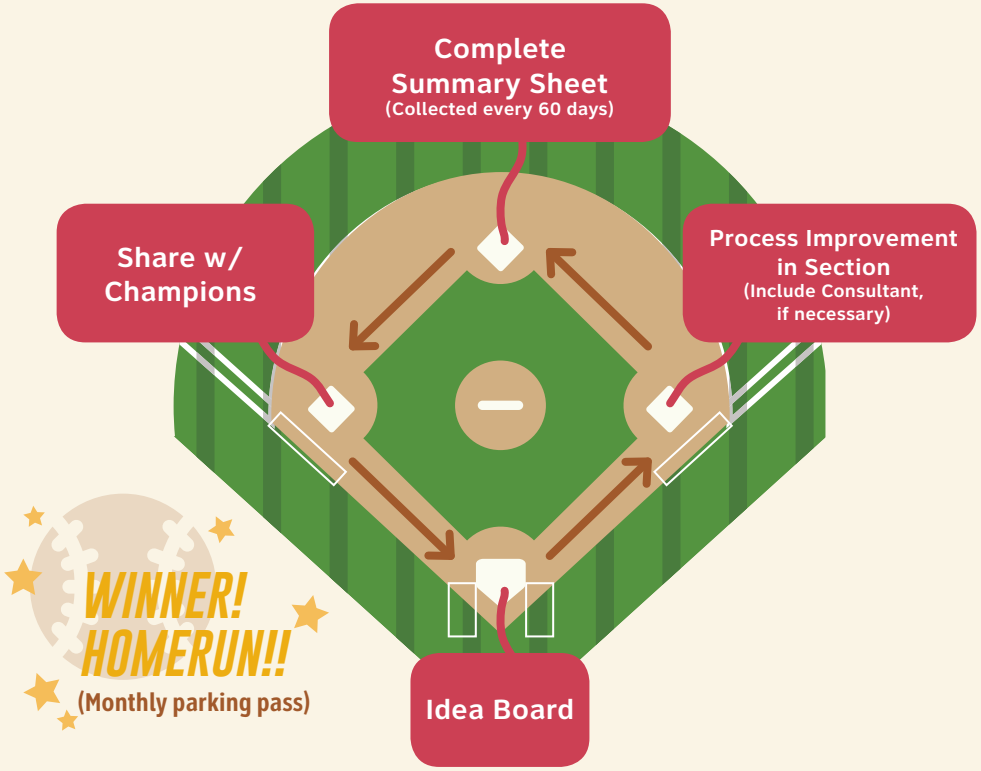
- Monitors the performance of all the Idea Boards;
- Ensures that process improvement methodologies; (e.g. DMAIC, core process mapping, are being implemented)
- Provide project support as needed for all Idea Boards.
- Schedule meetings with other bureau Consultants and Idea Board teams to discuss emergent issues in which a process extends outside of the bureau or section.
- Attend Idea Board meetings frequently to ensure LSS tools are being used to achieve completion.
- Meet with Champions and Quality Assurance to provide updates.

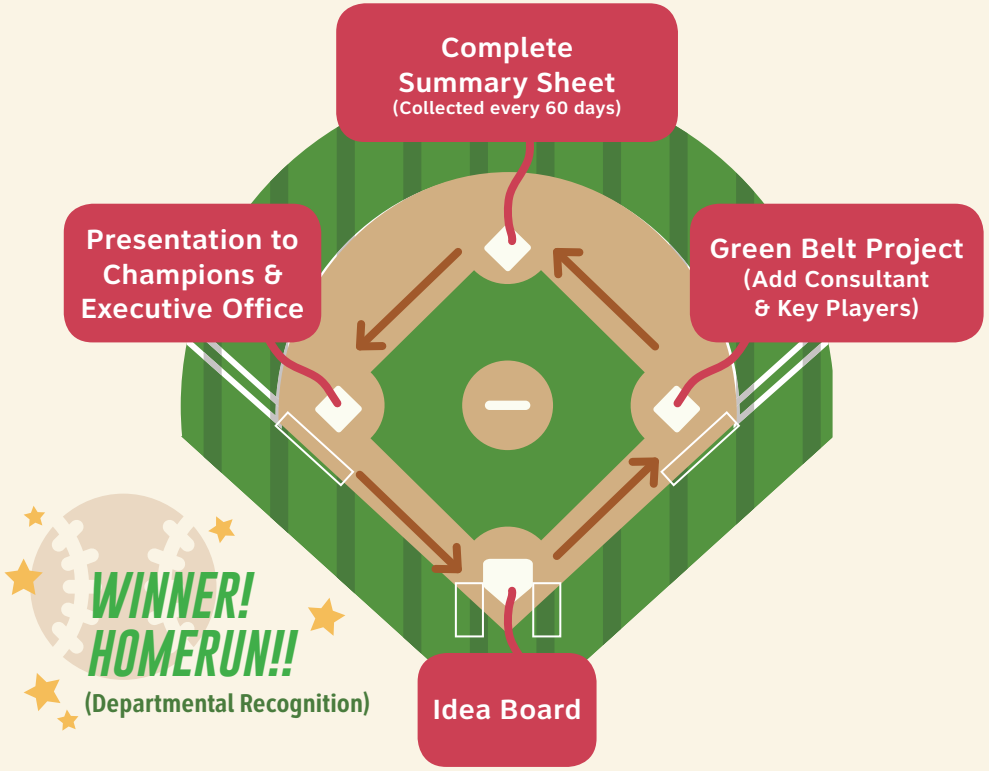
FACILITATOR

The Facilitator is the leader of process improvement in a specific operation.

- Ensure that meetings are scheduled twice a month and are rescheduled in the event of a cancellation.
- Facilitate idea board meetings, fill out Summary Sheets, use Trello to track project progress and listen to the ideas of staff.
- Attend meetings with other sections/bureaus as it relates to their projects
- Use LSS tools to complete projects that emerge from the boards.
- Transmit Summary Sheets to the Consultant as they are updated.

TWO WAYS TO HIT LSS HOMERUNS





Yellow Belt Homerun:

What is a Yellow Belt Level Project?

- Quick hits
- "Low-hanging fruit"
- Improvement is made solely within section
- May not require high level approval

Green Belt Homerun:

What is a Green Belt Level Project?

- Requires coordination and collaboration outside of section
- High impact & high effort
- Requires high level assistance

IDEA BOARD LANDSCAPE

1. IDENTIFY PROBLEM
2. SIPOC THE PROCESS
3. GEMBA WALK
   (Observe the process)
4. PROCESS MAP
5. IDENTIFY ROOT CAUSE(S)
   (Analyze the process)
6. IMPLEMENT SOLUTION
   (Map new process)

IDEA BOARD RULES

- Idea Board attendance and participation is strongly encouraged
- All ideas are discussed
- Identify root causes/problems from every idea
- Meetings should be held at least twice a month
- Facilitators are empowered to improve a process within their sections
- Each Board should have a designated note taker
- Each Board should work on at least one project at a time
- All projects should be documented on a Summary Sheet
- Use Trello to manage project progress

LSS SUMMARY SHEET

☐ Idea Board
☐ Non-Idea Board

Define | Measure | Analyze | Improve | Control

Project Team Members:

Date:

Section:

Date Approved by Quality Assurance:

Consultant:

Define the Problem or Defect

Measure the Problem or Defect (Data)

Analyze the Root Cause of the Problem or Defect

Improvement(s) + Benefit(s) (New Data)

Control/Plan for Sustainability

LSS SUMMARY SHEET REFERENCE GUIDE

Define | Measure | Analyze | Improve | Control

Key Terms

Cycle Time - Work Time + Wait Time
Defect - Inaccurate and/or incomplete information, services or products.
Errors that occur in the process over and over.

Define the Problem or Defect

- Explain the current process
- Describe the problem or defect in the process
- Explain who is impacted by this problem or defect (i.e. customers, department, section, etc.)

Measure the Problem or Defect (Data)

Provide data to measure the problem or defect in the current process

- Cycle Time (i.e. Daily, Monthly, Annually, etc.)
- Defect Rate
- Cost Inefficiency (i.e. excessive overtime, expendable supplies, etc.)

Analyze the Root Cause of the Problem or Defect

- Describe the main source of the problem or defect
- Apply the "5 Whys" methodology to the analysis
  - Asking "Why?" until the root cause is identified by each question

Improvement(s) + Benefit(s) (New Data)

- Describe in detail the solution implemented
- Provide the improvement results
- Provide the data comparison from pre-improvement + post-improvement
  - Savings (i.e. time savings, cost savings, etc.)
- Defect Rate (% reduction)

Control/Plan for Sustainability

- Develop a plan for sustaining the improvement(s) implemented
- Explain what methods were applied to ensure sustainability
  - (i.e) Training, Policies + Procedures, Process Maps, Etc.

Los Angeles County Registrar-Recorder/County Clerk

The 8 Wastes

Lean Process: Remove waste or any activity not required to complete a process.

What are the 8 Wastes?

D efects – Something that does not meet customer requirements.

O verproduction – Making or producing something that no one will buy or use.

W aiting – Work is not completed due to waiting for a previous step to finish their work.

N on-Utilized Talent – Employee creativity is not encouraged and an organization misses out on valuable input.

T ransportation (Touches) – When a product is being transported, no value is being added to it.

I nventory - Inventory is product that is there due to some inefficiency or uncertainty; it takes up space.

M otion – Motion of the people in a process means more time and energy required for the job to get done.

E xtra-Processing – Unnecessary steps that bog down a process, increase lead time, and impede efficiency

What to do with the waste?

- Eliminate the cause of the waste where possible
- Simplify the process or step that is creating the waste
- Streamline—especially with complex processes
- Minimize the amount of waste in the process

QUALITY ASSURANCE

Q: Why do we need to complete a Project Charter?

A: A Project Charter is the 1st step to starting a project at Green Belt level or higher, and it allows us to define the scope of the project, define the issue(s), set a clear goal/outcome, and project the anticipated subsequent benefits to the Organization/Customers.

PROBLEM STATEMENT:

- Describe the current issue(s) the team is trying to resolve.
- Explain why you think the issue is occurring and the current process.
- Be specific on who is impacted by this issue and how they are impacted.

Provide preliminary data (e.g. how often this occurs, how many people are impacted, etc.)

GOAL STATEMENT:

- Define the goal of this project. What is the team trying to resolve?
- Explain if the goal is to reduce cycle time, decrease error rate (defect), etc. Describe the exact area/step in the process where the improvement is targeted.

Provide preliminary data [e.g. reduce the number of occurrence by(x), increase accuracy by (x),etc.]

BUSINESS CASE AND BENEFITS:

- Explain why the issue(s) should be resolved.
- Describe the potential outcome if no action were taken to remedy the problem.
- List the potential benefits for the organization that could result from the project (I.E. Compliance, Customer Service, etc.)

SCOPE IN: (In Scope)

- List the things that are within your scope/control to change. (I.E. Internal processes, Training Development, etc.)

SCOPE OUT: (Out of Scope)

- List the things not that are not within your scope/control to change. (I.E. Dept. Policy, System Design, State/Federal mandates)

QUALITY ASSURANCE

Project Charter:

Department:

Project Team Leads:
Subject Matter Expert (SME):

Date Submitted:

Date Approved:
(Quality Assurance)

PROBLEM STATEMENT:

GOAL STATEMENT:

BUSINESS CASE AND BENEFITS:

SCOPE IN: (In Scope)

SCOPE OUT: (Out of Scope)

GEMBA WALK RULES

Gemba is a Japanese term meaning: the 'real place'

TEAMS SHOULD ABIDE BY THE FOLLOWING:

Introduction.

Your subject matter expert (SME) may never have participated in a gemba walk. It is important to mention the purpose of a gemba walk, namely, to observe and learn about the process from a SME. It is not a test!

DOCUMENTATION

Detailed note taking of each process step is key to producing a detailed process map.

With the exception of the lead interviewer, all team members should take detailed notes of process steps and commentary from the SME. Following the gemba walk, all notes should be used to create a detailed process map.

DATA

Obtain metrics from SME.

Prior to gemba walk, metrics should have been identified for the project. During gemba walk, inquire where or how data could be obtained. Additionally, collect anecedotal evidence from SME (i.e. cycle time).

BE A GOOD LISTENER

Refrain from educating, informing or correcting the SME.

If a team member has additional knowledge or information regarding the process, discuss during a separate project meeting. Be accepting of any ideas, suggestions and/or recommendations, even if they may not be feasible.

Gemba Process Walk

Date:

Interviewer:

Interviewee:

Step:	**Process Step Name:**

Questions	Notes
1. How Many Staff work in this step of the process?	
a. Do these employees have other tasks in addition to this process?	
b. Of these, how many are assigned to other sections?	
2. How long does it take for work to be made available to you?	
a. Are there delays in receiving work?	
3. How long does it take for you to complete this step?	
a. Do you experience interruptions while working on this step in the process?	
b. How long would it take to complete this activity if you could work on it uninterrupted?	
4. Once this step is complete, how long does it take before it can be handed off to the next step in the process?	
a. Are there delays in the hand-off of the work?	
b. Is it batch or single piece flow?	
c. How often is work moved to the next process?	
d. Are there barriers to processing at a single piece flow?	
5. What percentage of the work is complete when received?	
a. How much of the work is in process (WIP)?	
b. What is the Oldest date of the work in process (WIP)/queue (backlog)?	

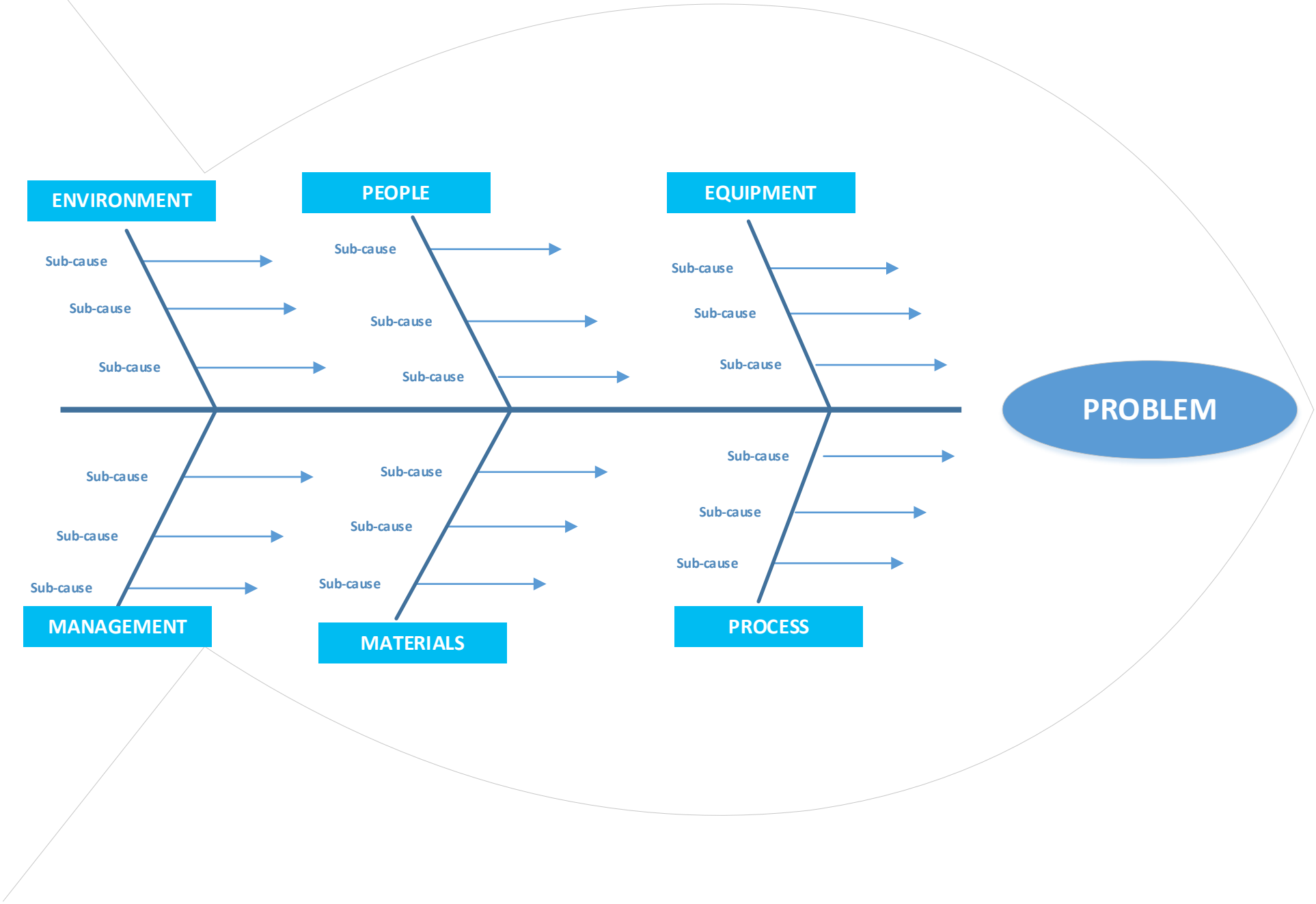
6. Do you need time to set-up for your process?	
a. If yes, how much time is needed?	
7. How do you obtain the required information to complete this step of the process?	
8. How do you track the progress?	
a. What technology and equipment are being used?	
9. Are there steps in the process that you believe may be unnecessary?	

QUALITY ASSURANCE

Project Management Data Collection

What are you measuring?	What is the Operational Definition?	What is the source of the data?	What are stratification factors to consider?	Sampling Notes	Who & How?
EX: Defects	SNAG	DIMS Database	Sort data by City & type of snag	-25% of data -Gather data from the last 3 years	-Data Analytics, provide reports via email

Fishbone Diagram



Hypothesis Statement(s) Examples

Possible Root Cause (x)	Hypothesis
Sales Cancellations	Most of the cancellations are sales cancellations
Production Withdrawals	Production withdrawals and “sold-outs” contribute a significant amount to the fall-off%
Pre-Book Deadline	A significant amount of the cancelled orders is because the pre-book deadline was missed
Majors	A high percentage of cancellations come from the large accounts (Majors)
Customer Tier	Customer tier is a contributing factor to the sales cancellation percentage
Cancellation Codes	There is inconsistency in the use of the cancellation codes by people entering orders

Hypothesis Statement(s)

Possible Root Cause (x)	Hypothesis