Commercial Alterations Permit Turnaround Project

Project ID: 20202

Lean Six Sigma Project

Bill Soller/Hugo Trux

Anthony Jones

Updated: 1/6/15

CITY OF GAHANNA

Project Summary: (20202) Commercial Alterations Permit Process

| Define | Measure | Analyze | Improve | Control |

Summary

Mission: Reduce the Turnaround Time for approving Commercial Alterations Permits from tbd to tbd calendar days.
Project Type: Lean 6 Sigma Project
% Complete: 58%
Previous Completion: 17%
Start Date: 10/27/14
Original Completion Date: 3/9/15
Current Completion Date: 3/9/15

Progress over last period:

1. Initial team meeting to review the project and the scope
2. Created the SIPOC and charter
3. Interviewed the associates in the process
4. Validated the current state process map
5. Performed lean training
6. Created the fishbone- issues/causes of long turn around time
7. Created a future state map/action items

Concerns and Other Issues:

1. None

Next Steps:

1. Identify the baseline metrics- determine average turn around time- Action: Bill, ECD: 12/13/14
2. Implement action items, review effects of improvements. Action: Team, Update on 1/8/15

Project Schedule

Week Ending Friday

Phase	Estimated Completion Date	Completion Date	Oct-14					Nov-14				Dec-14				Jan-15					Feb-15				Mar-15			
			10/3/14	10/10/14	10/17/14	10/24/14	10/31/14	11/7/14	11/14/14	11/21/14	11/28/14	12/5/14	12/12/14	12/19/14	12/26/14	1/2/15	1/9/15	1/16/15	1/23/15	1/30/15	2/6/15	2/13/15	2/20/15	2/27/15	3/6/15	3/13/15	3/20/15	3/27/15
Define	11/13/2014	11/12/2014				🟩	🟩	🟩	🟩																			
Measure	12/8/2014								🟩	🟩	🟩	🟩																
Analyze	1/12/2015												🟩	🟩	⬜	⬜	⬜	⬜										
Improve	2/23/2014																	⬜	⬜	⬜	⬜	⬜	⬜	⬜				
Control	3/9/2015																					⬜	⬜	⬜	⬜			

Detailed Schedule

DMAIC		Details	Count	Target Completion	Completion Date
Define	**Step 1**	Create charter, business case, problem statement, team- define the scope (type of permit)	1	10/27/2014	10/27/2014
	Step 2	Create SIPOC and Current State Process Map	1	11/13/2014	11/12/2014
Measure	**Step 3**	Create Baseline metrics on Turnaround time and error rates with permits		11/24/2014	
	Step 4	Brainstorm Non-Value Add and Non-Value Add Necessary (i.e. regulatory) in the current state process- Review 8 Wastes- Walk the process	1	12/8/2014	12/4/2014
Analyze	**Step 5**	Brainstorm future state map- short term (Process and current tools) and long term improvement (Technology- i.e. new tools/software)	1	12/22/2014	12/4/2014
	Step 6	Perform pilot studies	1	1/12/2015	12/4/2014
Improve	**Step 7**	Create future state map- review lean principles, Poke Yoke Mistake proofing,	1	1/26/2015	12/4/2014
	Step 8	Create action plan for improvement	1	1/26/2015	12/4/2014
	Step 9	Implement Improvements		1/16/2015	
	Step 10	Determine new average turn around time and error rates		2/23/2014	
Control	**Step 11**	Determine benefits, cost savings, customer satisfaction		2/23/2015	
	Step 12	Document new process in Standard Work, implement process control plan to sustain the improvement- verify improvement after 30/60/90 days		3/9/2015	
		% Complete (out of 12 steps):	58%		

Define → Measure → Analyze → Improve → Control

Team:

Role	Name
Master Black Belt- Supplier Six Sigma, LLC	Bill Soller
Project Black Belt- Supplier Six Sigma, LLC	Hugo Trux
Champion- City of Gahanna, Development Department Director	Anthony Jones
Team Leader- Development Department Deputy Director	Michael Blackford
Finance Director	Jennifer Teal
Parks and Recreation Director	Tony Collins
Chief Building Inspector	Ken Fultz
Building Inspector	Mike Frey
Specialist	Fredena Williams
Senior Project Manager- Strathmore Development Company	Ron Calhoun

Problem Statement:

The turnaround time for approving the Commercial Alterations Permits for the contractors is too long which may cause loss of revenue by their tenants.

Who are the customers?

General Contractors, Tenants for the contractors

Business Case:

Long turnaround times create cash flow difficulties and undue delay for the tenants to earn revenue.

Mission:

Reduce the turnaround time for issuing permits from tbd to tbd.

| Define | Measure | Analyze | Improve | Control |

Project Scope:

Commercial Alteration Permits- only those permits which require plan reviews.

Operational Definition for commercial Alteration Permits:

Any "building" alteration to a commercial building – which may include alterations to businesses, warehouses, manufacturing buildings, schools, restaurants, etc. as the master permit.

Excluded would be multi-family – such as apartments, hotels, and condos which we classify under residential. Also excluded would be any permits for other trades such as HVAC, electrical, plumbing, fire alarm and sprinkler systems.

Operational Definitions:

Permit turn around time- measured from the day that the application is submitted to the day that the permit is approved and the contractor notified.

Phase approvals- conditional approval of a permit which allows the project to go forward while waiting on further information.
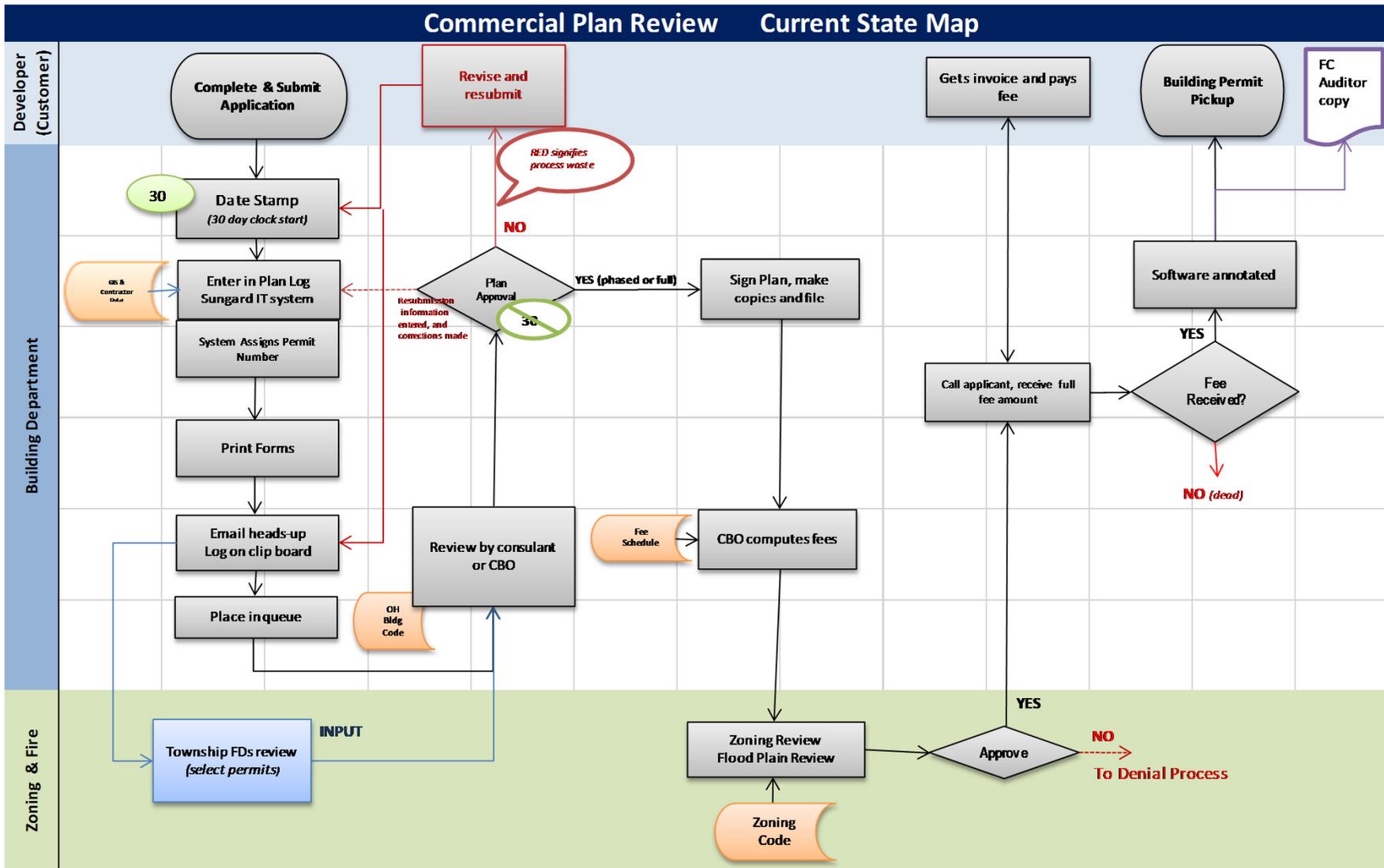
Define ▶ Measure ▶ Analyze ▶ Improve ▶ Control

SIPOC

Commercial Plan Review   SIPOC

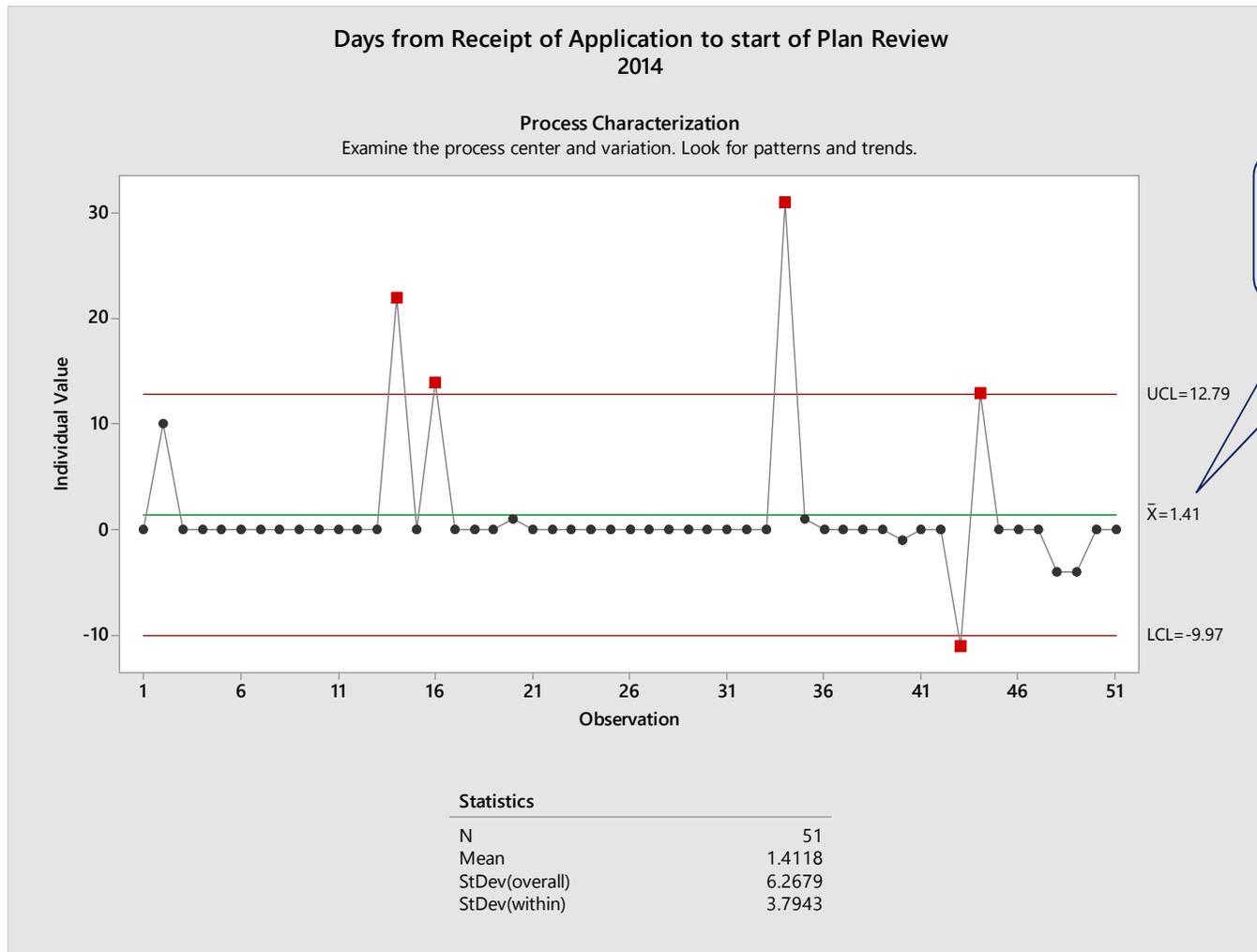| Supplier	Input	Process	Output	Customer
Developer (customer)	Application Form with Plans	**Complete application**	Completed Application with Plans	Building Dept Secty
Building Dept Secty	Completed Application with Plans	**Stamp, log, assign #**	Accepted Application in 1st queue	Chief Building Official
Chief Building Official	Ohio Building Code & Application	**Review in-house or assign to contractor**	Approved Plan (total, phased); or revision requested	Planning and Zoning Division staff
Planning and Zoning Division staff	Zoning Code, Copies of Stamped and Approved Plan	**Review and approve**	Approved Plan	Building Dept Secty
Building Dept Secty	Approved Plan	**Document, file, compute fee**	Copies of Stamped and Approved Plan	Planning and Zoning Division staff
Building Dept Secty	Approved Plan and Fee Invoice	**Call applicant to PU permit, and pay fee**	Invoice	Developer (customer)
Developer (customer)	Fee	**Pay fee**	Receive Permit	Developer (customer)

Process Flow

Commercial Plan Review   Current State Map

Developer (Customer)

- Complete & Submit Application
- Revise and resubmit
- Gets invoice and pays fee
- Building Permit Pickup
- FC Auditor copy

RED signifies process waste

Building Department

- 30 — Date Stamp *(30 day clock start)*
- GIS & Contractor Data
- Enter in Plan Log Sungard IT system
- System Assigns Permit Number
- Print Forms
- Email heads-up Log on clip board
- Place in queue
- Plan Approval — 30
  - NO
  - YES (phased or full) — Sign Plan, make copies and file
- *Resubmission information entered, and corrections made*
- Review by consultant or CBO
- OH Bldg Code
- Fee Schedule — CBO computes fees
- Call applicant, receive full fee amount
- Fee Received? — YES — Software annotated
  - NO *(dead)*

Zoning & Fire

- Township FDs review *(select permits)* — INPUT
- Zoning Review Flood Plain Review
- Zoning Code
- Approve — YES
  - NO — To Denial Process

Days from Receipt of App to Start of Plan Review

Days from Receipt of Application to start of Plan Review
2014

Process Characterization
Examine the process center and variation. Look for patterns and trends.

UCL=12.79

X̄=1.41

LCL=-9.97

Avg is 1.4 days

Statistics

N	51
Mean	1.4118
StDev(overall)	6.2679
StDev(within)	3.7943

Baseline Measurement for Plan Review
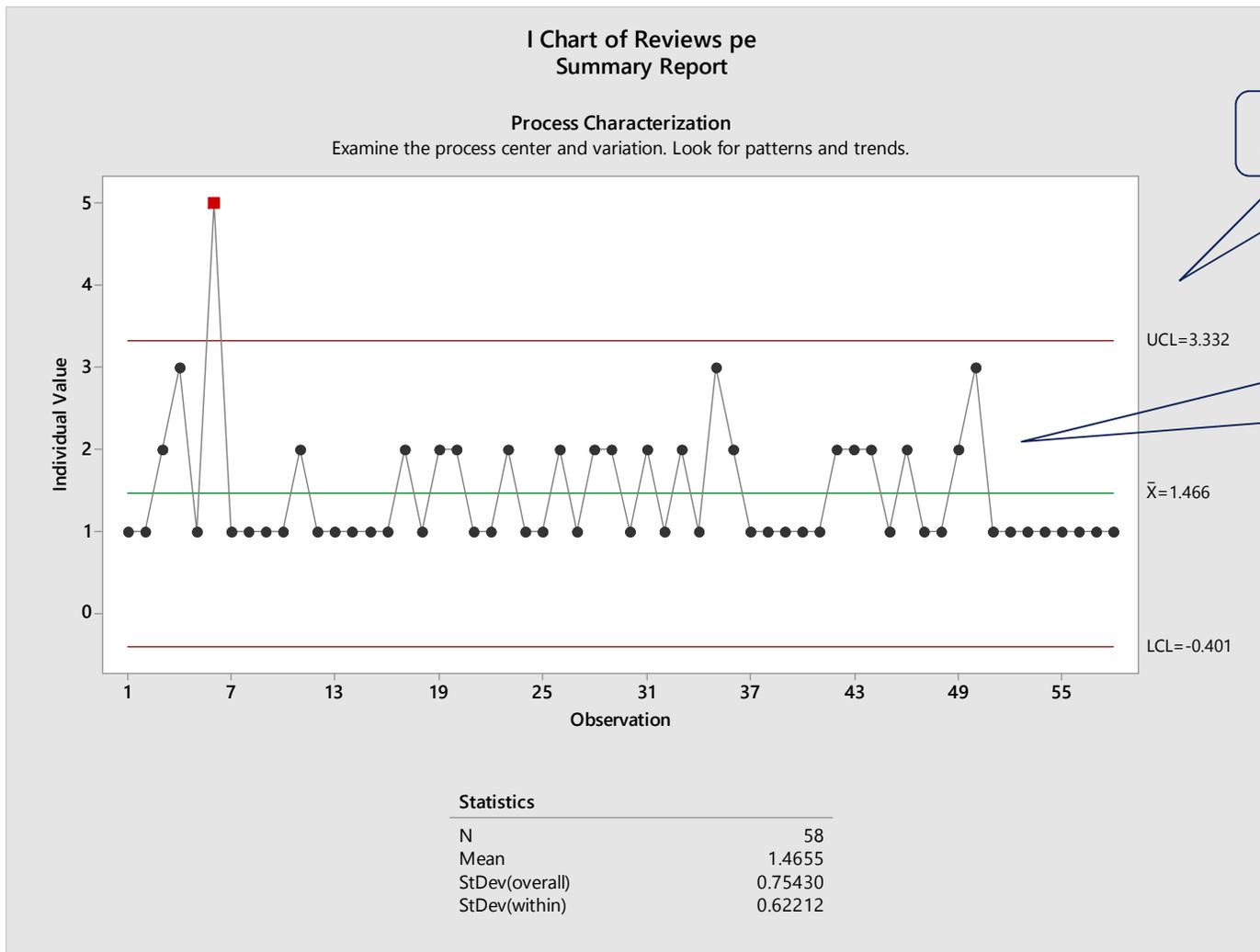## Time from Receipt of Plan by CBO to Plan Disposition (Approved, Partial, Denied, etc)

Turnaround Time for Plan Review
Summary Report

Process Characterization
Examine the process center and variation. Look for patterns and trends.

UCL=12.41
X̄=2.20
LCL= -8.02

Individual Value

Observation

Avg is 20.2 days

Month of 2014

Statistics	
N	51
Mean	2.1961
StDev(overall)	6.0333
StDev(within)	3.4043

Define | Measure | Analyze | Improve | Control
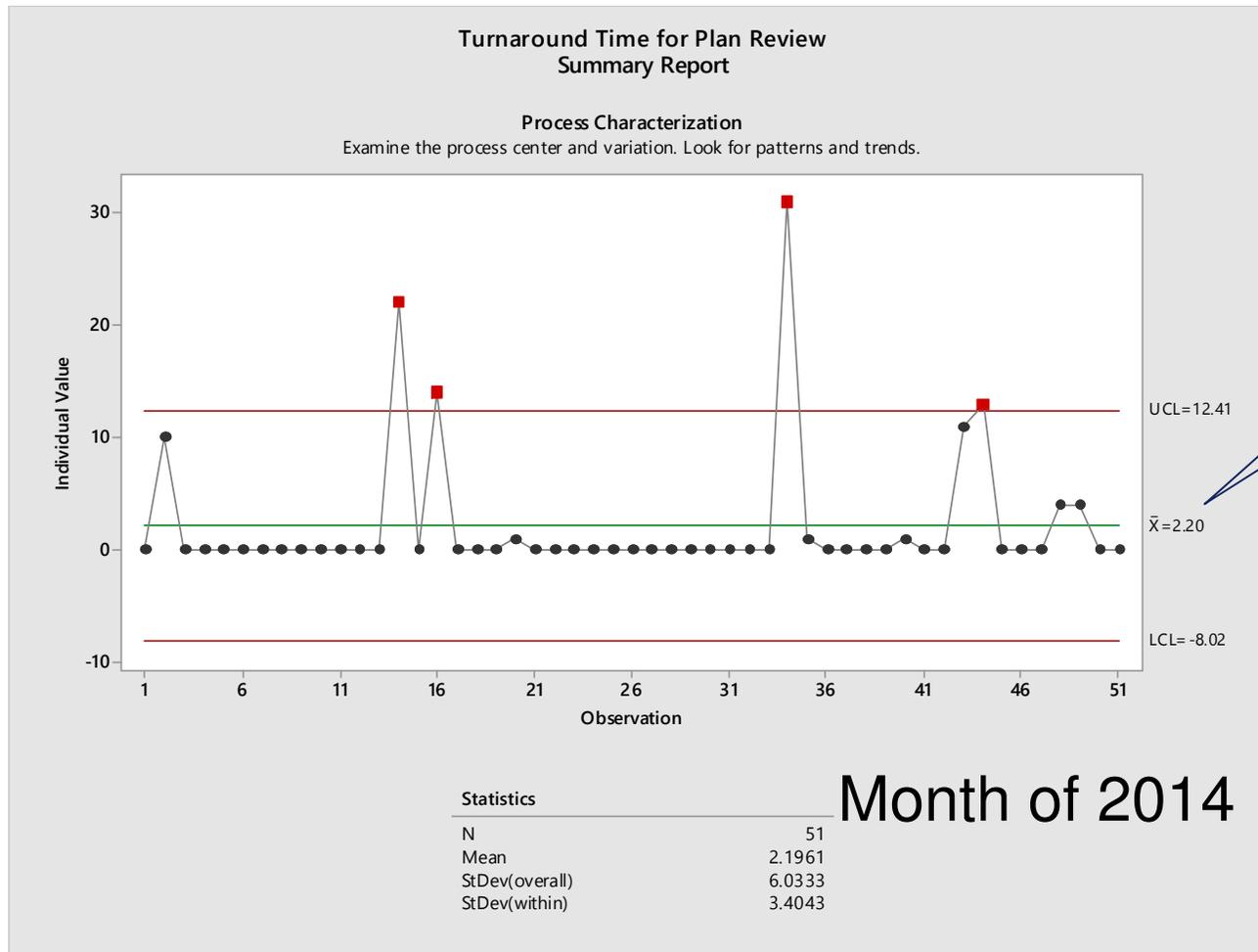
Completed Permit Reviews

Permits per Month Reviewed

Avg is 7.7/Month
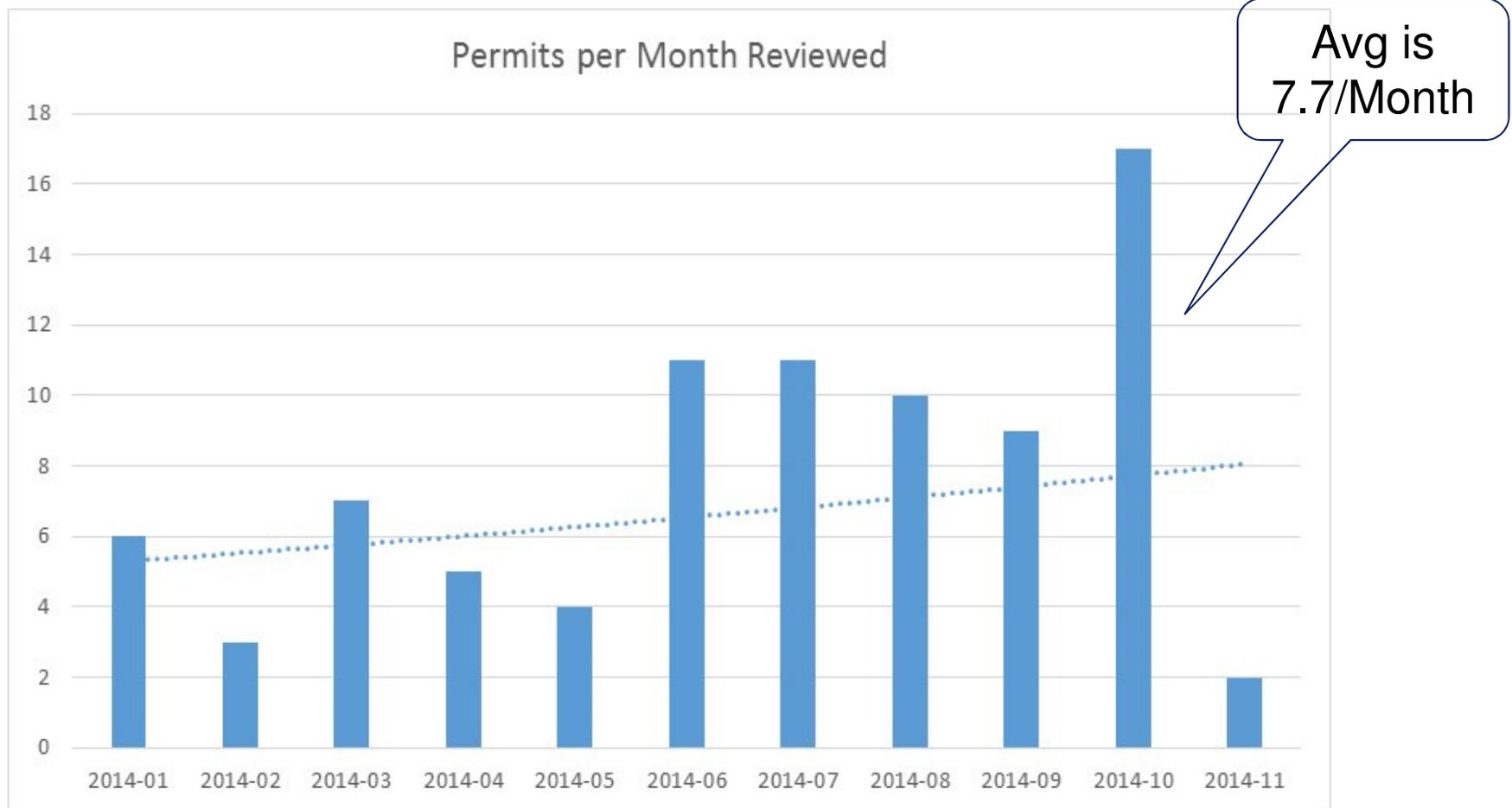
Number of Reviews per Permit

Days from Receipt of Application to Application Pickup by Contractor

I Chart of Total TAT
Summary Report

Process Characterization
Examine the process center and variation. Look for patterns and trends.

Avg is 39.5 days

UCL=105.0
X̄=39.5
LCL=-25.9

Statistics

N	51
Mean	39.549
StDev(overall)	26.702
StDev(within)	21.826

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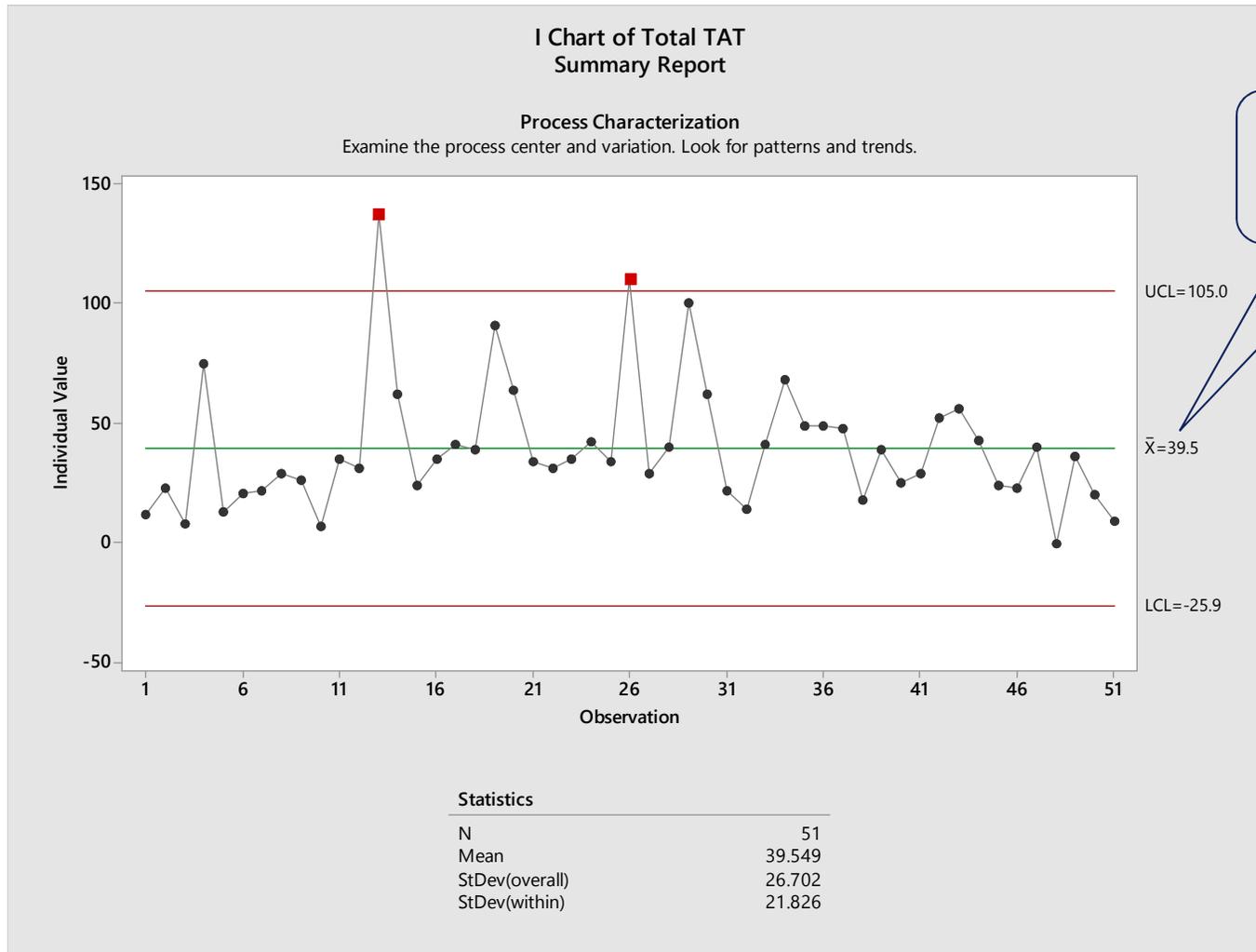
Fishbone: Factors that affect Permit Cycle Time
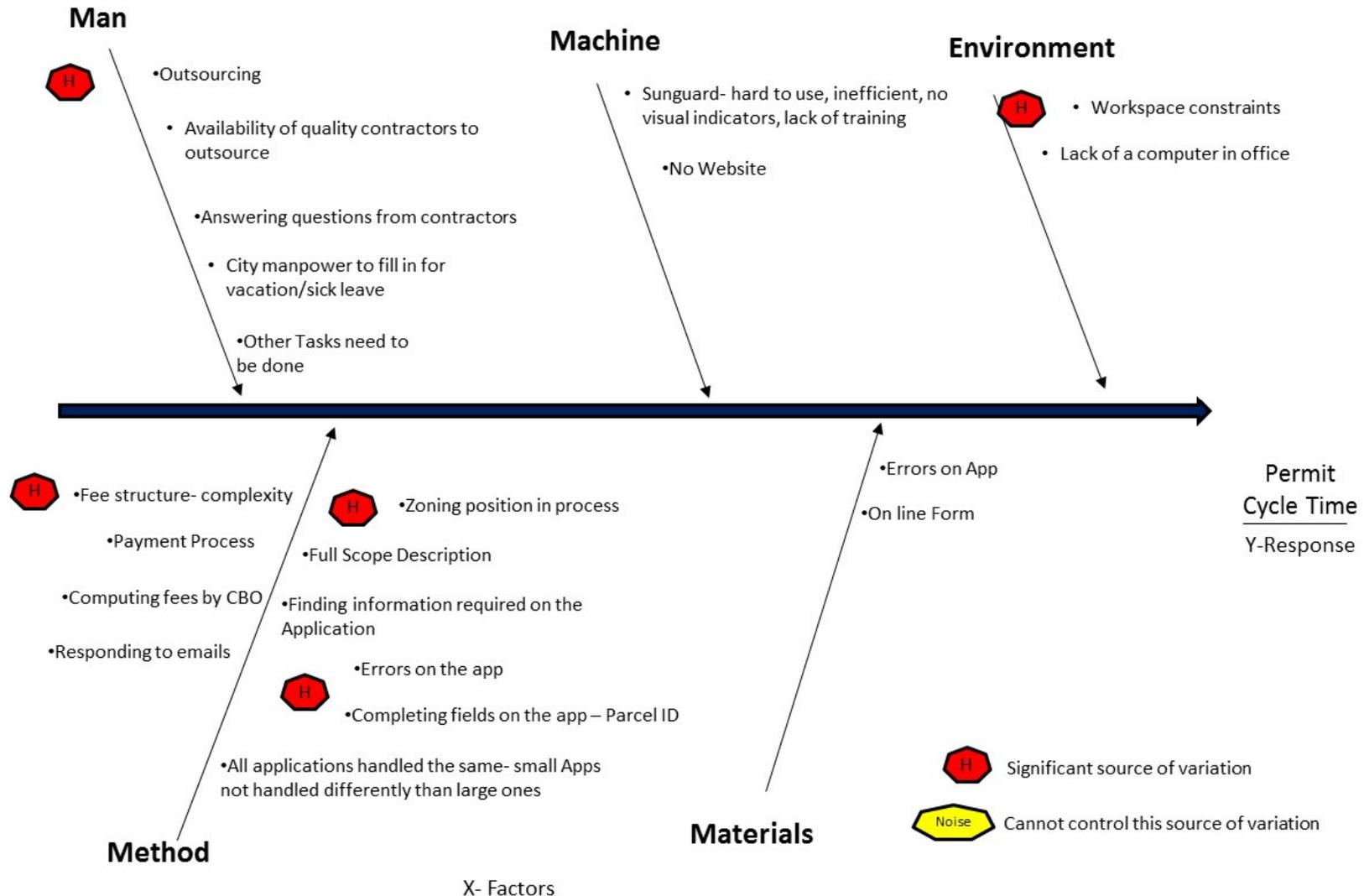
Improvement Actions:

Priority	Cause	Responsible	Due Date	Action Plan
1	Outsourcing of plan review- When, How, Who	Ken	1/8/2015	Create criteria for outsourcing, collect data- metric, incentives- contract, review performance
1	Answering questions from contractors	Fredena	1/8/2015	Review feedback process
1	Workspace constraints- Lack of a computer in office	Michael	1/8/2015	Drafting desk, look at resources for the work room
1	Zoning position in process	Fredena/Ken	1/8/2015	Review what they review and timing of review
1	Errors/Ommisions on the application, Completing fields on the app – Parcel ID	Fredena/Ken	1/8/2015	Review mistake proofing, required fields, who fills out each field
1	Fee structure- complexity	Michael/Ken	4/1/2015	Update structure, council approval
1	Look at the front desk process- time to enter and process permits.	Fredena	1/8/2015	
2	Sunguard- hard to use, inefficient, no visual indicators, lack of training	Michael	4/1/2015	Create requirements document- train people short term on Sunguard
3	Availability of quality contractors to outsource- need to inspect/verify application			
3	All applications handled the same- small Apps not handled differently than large ones			
3	Other Tasks need to be done- review job description			
3	Responding to emails/requests, interruptions			
4	City manpower to fill in for vacation/sick leave			
4	No Website, on line form, permit status, fees, etc.			
4	Payment Process			

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Control Plan:

Define	Measure	Analyze	Improve	Control

Project Results: