

# **Lean Process Improvement**



**Certificate of Occupancy Process  
Continuous Improvement Initiatives  
May 2022**

**Contents**

- 1.0 PROJECT SUMMARY ..... 1
- 2.0 INTRODUCTION ..... 1
- 3.0 PROJECT CHARTER..... 3
- 4.0 DEFINE PHASE ..... 5
  - 4.1 The Development and CO Process ..... 5
- 5.0 PERFORMANCE MEASURE PHASE .....10
  - 5.1 Reduction of Incomplete Submittals .....10
  - 5.2 Reduction of PO Permits Voided due to application type .....11
  - 5.3 Reduction of Zoning Holds for Bike Racks.....12
  - 5.4 Summary of the Measures of Success .....13
- 6.0 RECOMMENDATIONS: IMPROVEMENT PHASE.....15
  - 6.1 Standardization .....17
  - 6.2 Training.....18
  - 6.3 People .....19
  - 6.4 Process.....20
  - 6.5 Technology .....21
  - 6.6 Accountability.....22
- 7.0 THE CONTROL PHASE .....23
- 8.0 CONCLUSION.....24

APPENDIX A: VOC & VOB MEETING MINUTES, VOC & VOB CONCERNS, PRESENTATIONS, AND EXHIBITS

APPENDIX B: KAIZEN EVENT MINUTES AND PHOTOS



## 1.0 PROJECT SUMMARY

This Lean Six Sigma process improvement analysis and implementation plan builds on existing efforts to improve the development process within the City of Fort Worth. It represents a major step forward by bringing together all alliance partners associated with the building permit process to a culture of continuous process improvement with a standardized, disciplined approach. Lean process improvement meetings and events occurred at a measured, organic pace by personnel at many levels and focus group support where needed to reduce lead times, redundancy, and variation; eliminate bottlenecks; improve communication, and expedite processing activities related to the issuance of Certificates of Occupancy in the City of Fort Worth. Furthermore, the process improvement exercise promotes a climate of transparency and accountability.

## 2.0 INTRODUCTION

The City of Fort Worth has chosen to think strategically about how to improve processes rather than remaining with the status quo practice. To effectively improve organizational processes and leverage technology, City management would like to take a critical and in-depth look at a variety of processes and design improved methods of services delivery in order to further improve efficiencies.

The scope of this project included a comprehensive review and analysis of the Certificate of Occupancy (CO) process, as well as, related support functions associated therewith. The objectives of this project were to identify waste, increase departmental cooperation, evaluate and decrease process time, and increase corporate accountability of processes. This report is a culmination of that study which included City of Fort Worth Development Service staff along with various members of the development community “Project Team”. The goal was to complete the project by making substantive recommendations based on Voice of Customer (VOC), Voice of Business (VOB), Root Cause Analysis (RCA), and Cumulative Analytics (CA).

This project identified problems and possible solutions using the DMAIC method of Lean Six Sigma. DMAIC is an acronym for “Define, Measure, Analyze, Improve, and Control” and refers to a systematic five-step approach to process improvement initiatives. This approach served as a data-driven qualitative strategy for this project. As such, this report is divided into sections based on the DMAIC approach. The process began in March 2021 and meetings were typically held on a monthly basis. Generally, team members identified the current process, reviewed options for improvement, and proposed potential solutions. The Project Team reached a consensus on the improvements identified, which are addressed throughout this document.

Although this report focuses mainly on the application of permits until the issuance of the Certificate of Occupancy (CO), even those aspects can potentially serve as models for improvement within all divisions, ultimately to better integrate all functions within the interdepartmental team. This report was not intended to identify all process improvement opportunities or to set out a finite plan of limited duration. Instead, this report lays a foundation for ongoing and continuous improvement initiatives for the development review process in the department. In sum, *this report is the start of the City’s improvement of the Certificate of Occupancy process, not the end of it.*

The Project Team included:

Table 1.0: Project Team Members

City of Fort Worth Staff - Development Services Department	
Jennifer Roberts (Project Lead)	Jackson Jones
Allison Gray (Process Owner)	Juan Salas
D. J. Harrell	Leo Mantey
Ash Ibrahim	Lynn Goforth
April Karr	Miranda Meza Sanchez
Arty Wheaton-Rodriguez	Rebecca Hernandez
Carl Spangler	Richard Garcia
Darron Buchanan	Rochell Thompson
Emilio Sanchez	Rochelle Joseph
Evan Roberts	Stephen Murray
Inkah Reviere	Tammy Lewis
Kevin Yarbrough	Ty Thompson

Development Partners Focus Group	
Bill Tinsley	Ellis& Tinsley, Inc
Bowie Holland	Empire Texas Equities
Brandon Paul Johnson	Kaizen Event Facilitator
Carl Brown	Svn Trinity Advisors
Carl Harkins	Construction & Fire Prevention Board of Appeals
Caroline Claire	CHC Development
CB Team	Ellis & Tinsley, Inc
Drew Martin	DM2, LLC
Elizabeth Mears	Mission Street Design Build
Kari Seher	Melt Ice Creams
Jonathan Killebrew	Metro Code Analysis
Maribel Gallardo	Greater Fort Worth Association of Realtors
Mark Presswood	Panther Real Estate Solutions
Netty Matthews	Fort Worth Chamber of Commerce
Robert Gleeson	Greater Fort Worth Association of Realtors
Stephen Mears	Mission Street Design Build
Travis Clegg	Development Advisory Committee, Chairman

### 3.0 PROJECT CHARTER

The Project Team met and developed a Project Charter. Several items of the charter were discussed and vetted to begin the Business Process Improvement (BPI) exercise; the items are the Problem Statement, Scope of Problem, and SMART statement. To provide clarity and guidance to these items, they were defined:

**Problem Statement:** The City of Fort Worth has received customer concerns/complaints regarding the Certificate of Occupancy process from application to issuance.

**Scope of Problem:** Several areas of concern have been identified as contributing factors to overall process complaints, the concerns are as categorized into the following:

- Communication gap between city and customers
- Inconsistency in the development process.
- Time sensitivity, time to review
- Policy/Ordinance – not user friendly
- Procedure/Approach – the process is generalized and not ideal for all scenarios
- Technology – Accela and City website pose some challenges
- Transparency – The development process is not transparent

**SMART Statement:** Reduce staff related permit expirations and voids by 50% and reduce zoning holds by 25% through staff and customer training by the end of April 2023.

- **Specific** – Review and identify, and graphically document the CO processes from application to issuance. Identify process gaps contributing to (internal/external) customer complaints (E.g. time between plans submittal, and when plans are claimed by plans examiners), and provide viable solutions using lean methodologies and process improvement tools.
- **Measurable** – Track the number of PO permits that are voided in the system as well as identify the reason for the expirations and voids. By quantifying the number of expirations and voids, the communications office can tailor customer and staff training to include common errors and omissions that lead to permit voids.
- **Achievable** – Yes. Teams (internal/external customers) have been formed, and possess the tacit knowledge and skills to conduct the commercial building permit process improvement.
- **Relevant** – The commercial building permit process improvement from application to issuance is in concert with executive management’s vision of continuous quality improvement.
- **Time-bound** – Improve the CO process by end of December 2022.

During the BPI exercise, the Scope of Problem was expanded and delved into further to uncover root causes, and better understand the causalities and effects caused by the inefficiencies and concerns of the current state of the permitting processes.

The BPI process encountered several challenges that were addressed as the exercise progressed; one challenge was the scheduling of meetings with the various team members. Creating an internal

and external team with dynamic work schedules was challenging, yet accomplished during the BPI. However, the scheduling challenge affected the overall exercise length, resulting in extending the exercise timeframe.

## 4.0 DEFINE PHASE

Definition and Terminology:

**Application Submittal Date** – The date a building permit application has been deemed to have all plan set components and is accepted by the City of Fort Worth

**Approval date** – The date all required departments have reviewed and approved a customer's submitted building plan sets and all associated fees have been paid

**BPI** – Business Process Improvement

**CoU** – Occupancy Change of Use Permit

**DMAIC** – Define Measure Analyze Improve Control

**Incomplete Submittals** - Applications that do not have all the required documents for review

**Open Date** – The date a building permit is initially applied for, and its information is entered into Accela by the applicant or customer service representative

**Routing** – The process of officially sending the building permit application and plan-sets to City of Fort Worth staff reviewing the permit for approval

**Issue Date** – The date all building permit requirements have been met, and the customer receives their approved building permit and inspection cards

**Finalized** – The date building construction is complete, and has passed final City inspection

**SMART** – Specific Measurable Attainable Relevant Time-bound

**VOB** – Voice of Business

**VOC** – Voice of Customer

**Voided Permits** - permits that are removed or cancelled by the applicant or customer after application

### 4.1 The Development and CO Process

The Project Team's goal was to better understand the current overall process and steps required from the customer initiation of the process to the issuance of permits so that the City can help customers choose the right permit type and submit the right information for that permit.

The team held several meetings with City staff (VOB) and development stakeholders (VOC) involved in this process. From those meetings, an existing process flow diagram was developed to clearly define and understand the steps required, for submittals, to obtain a Certificate of Occupancy. Meeting minutes, presentations, lists of VOC and VOB Concerns, meeting exercises, and process maps can all be found in Appendix A. Two Kaizen events were also held with the VOC and VOB led by a Lean Six Sigma Master Black Belt to brainstorm recommendations and implementation opportunities. Meeting minutes and photos from the Kaizen events can be found in Appendix B.

As with any process, there are peripheral and/or sub-processes that may occur simultaneously or during the different phases of a process that is undergoing improvement. These challenges, must be addressed throughout the BPI exercise. The Project Team conducting the BPI exercise may or may not have influence over or cooperation from other departments within the organization, adding additional challenges in achieving the future state. However, with executive management support, leadership, resources, and motivated team members this BPI exercise will achieve success.



Figure 4.1: CO Customer Decision Tree Page 1

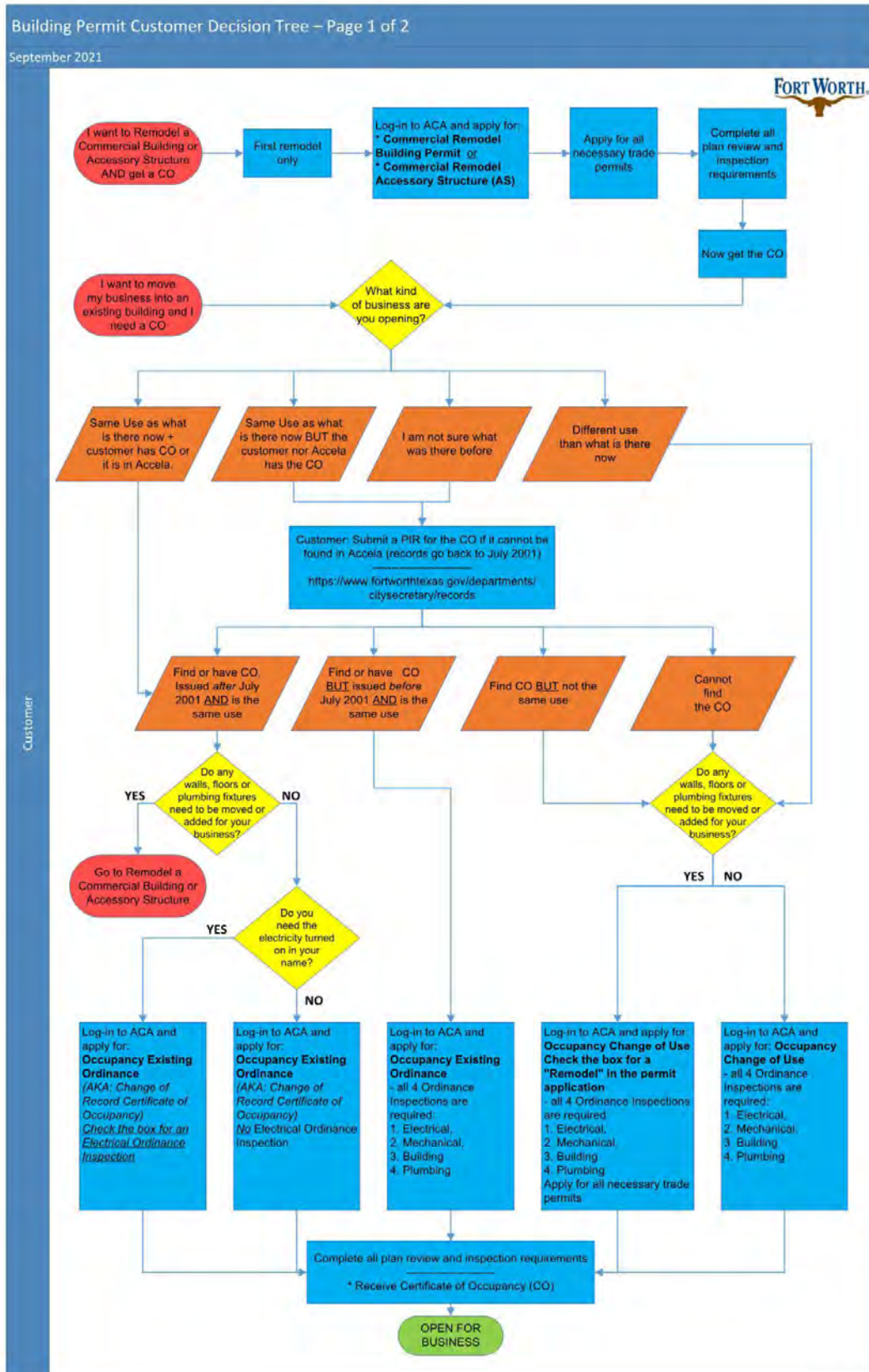




Figure 4.2: CO Customer Decision Tree Page 2

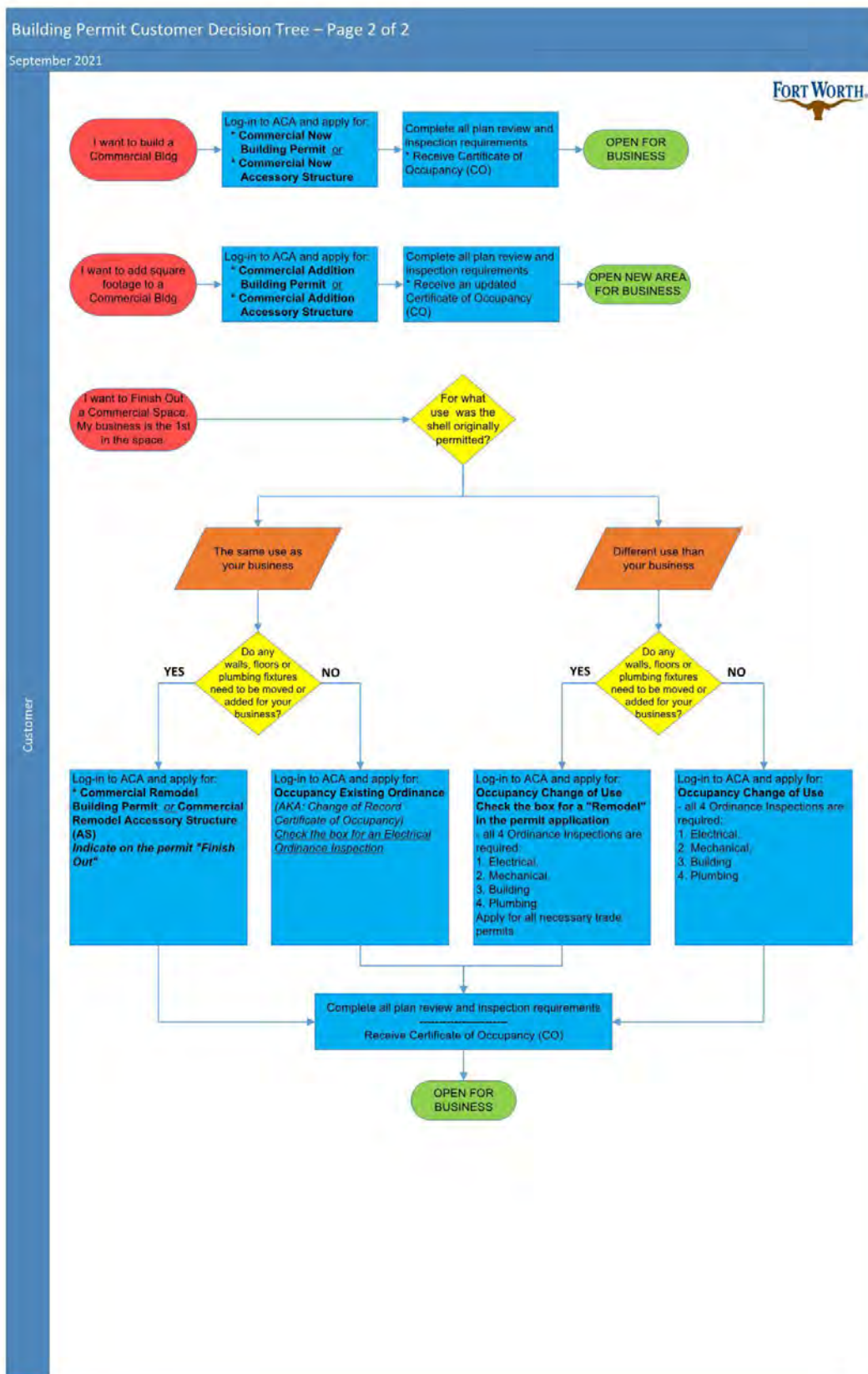


Figure 4.3: CO Process Simplified

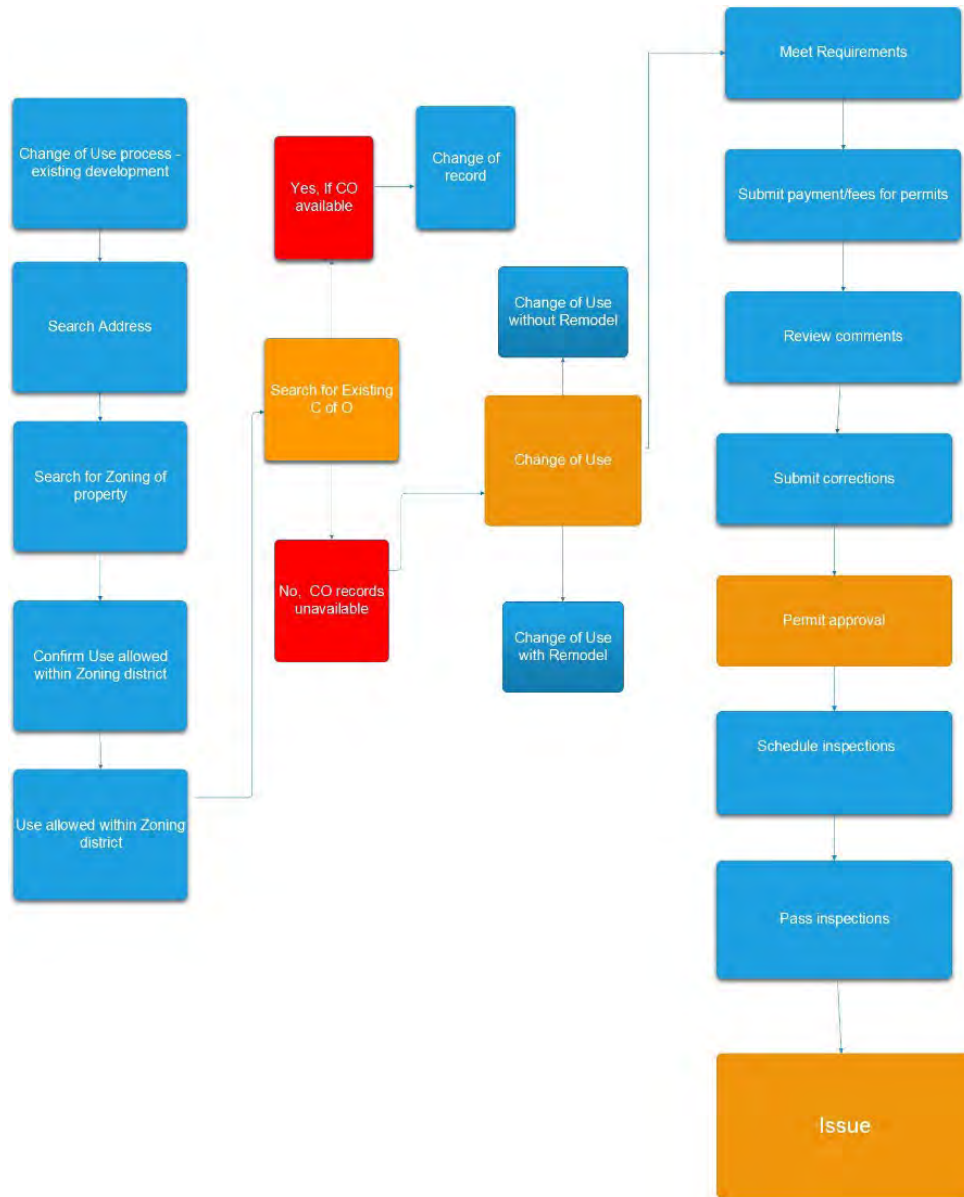
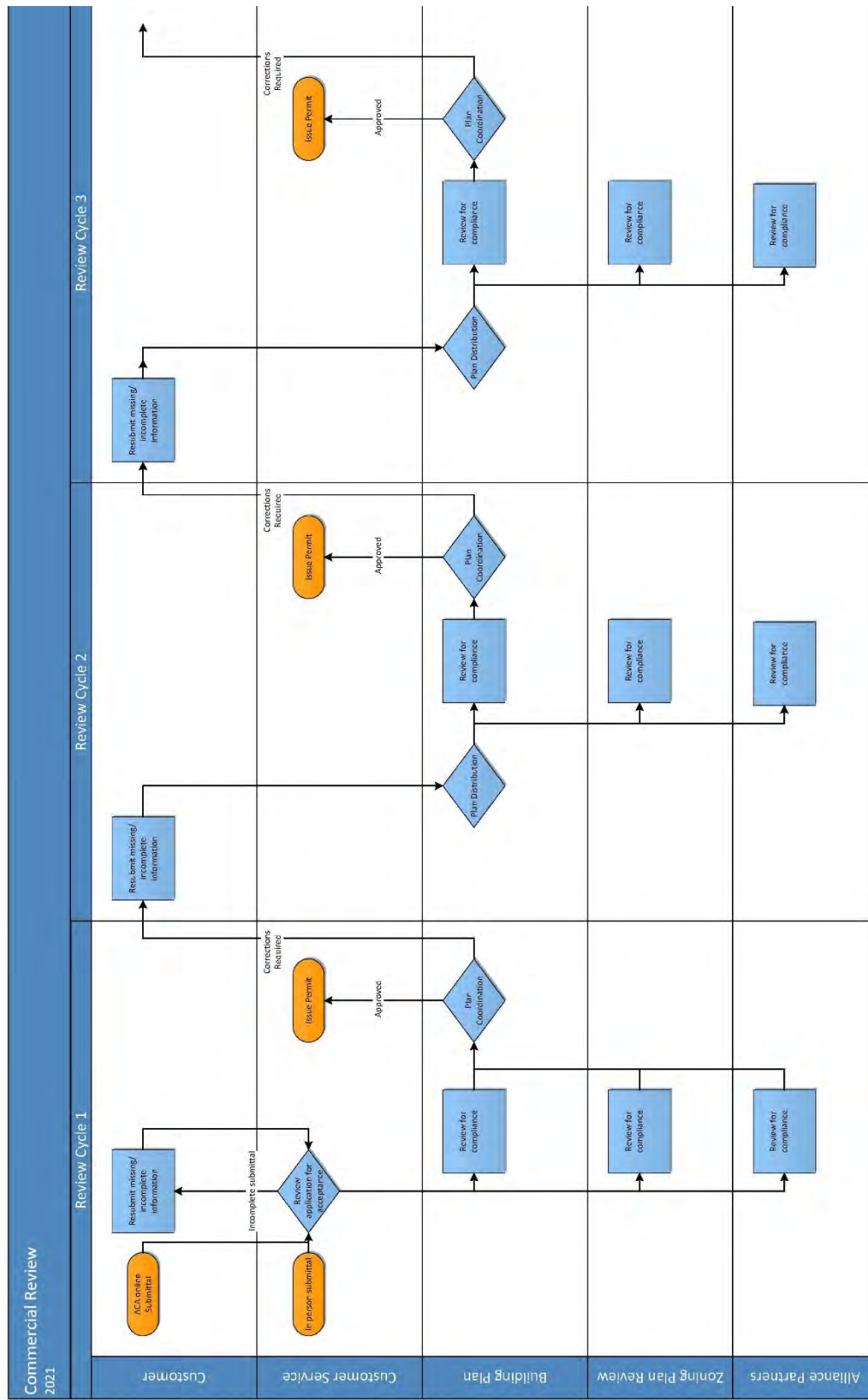


Figure 4.4: In House Review Flowchart



**5.0 PERFORMANCE MEASURE PHASE**

A team comprised of City of Fort Worth development staff and external development stakeholders analyzed process performance. There were two Kaizen events organized to thoroughly discuss the situation at hand and recommend ways mitigate identified challenges. Performance measures track and follow the progress of the departmental activities, collect relevant information and helps stakeholders to study trends to make informed decisions. It brings efficiency and efficacy to the processes and thereby creates positive results for the organization.

The project team identified three areas to measure success. It is expected that these identified parameters will be a measure to assess the department’s progress on issuing Certificate of Occupancies. The identified measurement parameters are:

- Reduction of incomplete submittals for PO permits related to CO requests
- Reduction of PO permits voided related to incorrect application type for CO requests
- Reduction of Zoning Holds for Bike Racks related to CO requests

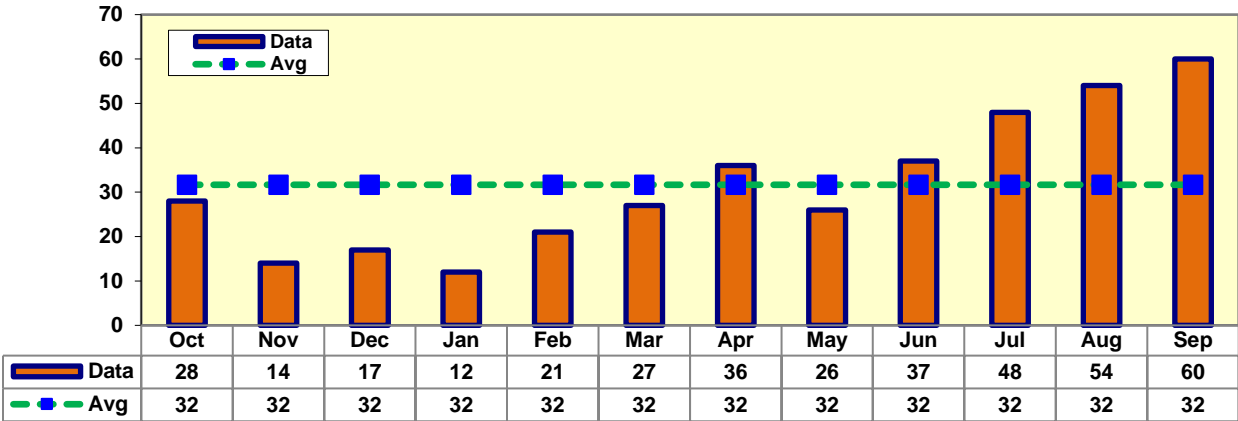
**5.1 Reduction of Incomplete Submittals**

This involves measuring the number of applications that were flagged as Incomplete Submittals during the CO application process. The source of the data was derived from the department’s permitting software, Accela Application system. The data review period was for the Fiscal Year 2021 (October 2020 to September 2021). The measurement took into consideration the total incomplete submittals per month throughout the fiscal year versus the total PO submittals

Table 5.1 Table showing Incomplete Submittals for Fiscal Year 2021

Type	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Total
Total PO	362	315	326	359	269	282	351	339	255	360	392	361	3,971
# of PO Incomplete Submittal	28	14	17	12	21	27	36	26	37	48	54	60	380
% Incomplete / Total PO	8%	4%	5%	3%	8%	10%	10%	8%	15%	13%	14%	17%	10%

Figure 5.1 Chart showing Incomplete Submittals for Fiscal Year 2021



The measurement above took into consideration 3971 permits in the Fiscal Year 2021. Out of the submitted PO number, 380 (10%) of the applications were flagged as incomplete submittals in the initial stages. Incomplete submittals are those applications missing some or all of the required documentations to be routed for first review. Hence, those applications were sent back to the customers for them to resubmit. A review of the permitting system to not allow permit submittals without all of the required documents would decrease applications missing the appropriate documents. This modification will require coordination with Strategic Operations and the Development Support for implementation. The goal of the department is to see a 50% reduction in the average number of Incomplete Submittals from 10% to 5% by the end of fiscal year 2022. Once the application process is amended, there should no longer be the ability to submit an incomplete application. Additionally, the Communication Specialist will need to put together an information packet to notify customers of the permit changes and the documents required to be included with the submittal. Decreases in incomplete submittals will show the Department has improved communications with the customers and staff to ensure the specific documents are provided for the permit and customers are able to utilize the Accela permitting software properly.

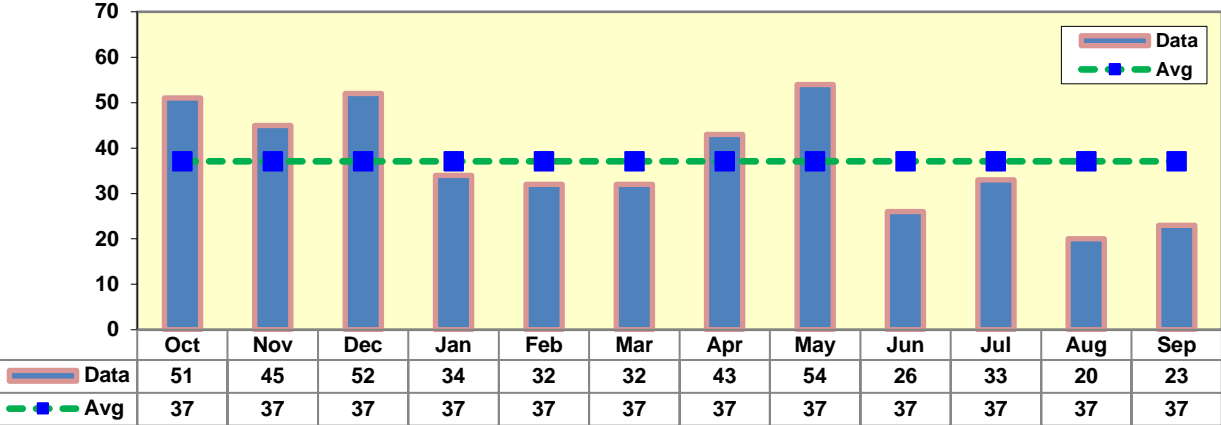
**5.2 Reduction of PO Permits Voided due to application type**

This involves measuring the number of applications that were flagged as Voided during the CO application process. The source of the data was derived from the department’s permitting software, Accela Application system. The data review period was for the Fiscal Year 2021 (October 2020 to September 2021). The measurement took into consideration the total permits voided per month throughout the fiscal year.

Table 5.2 Table Showing PO Permits that were Voided in Plan Review for Fiscal Year 2021

Type	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Total
Total PO	362	315	326	359	269	282	351	339	255	360	392	361	3,971
# of PO Voided Permits	51	45	52	34	32	32	43	54	26	33	20	23	445
% of Voided/ Total PO	14%	14%	16%	9%	12%	11%	12%	16%	10%	9%	5%	6%	11%

Figure 5.2 Chart Showing PO Permits that were Voided in Plan Review for Fiscal Year 2021



The measurement above took into consideration 3971 permits in the Fiscal Year 2021, out of the submitted PO number, 445 (11%) of the permits were voided in the permitting process. Permits that are voided are those permits that are removed or cancelled by the applicant or customer after application. Customers/applicants sometimes decide to void or cancel their applications. A review of the voided permit is necessary to determine if the voided permits are due to customers not applying for the right permit type vs. Customers that decide not to proceed with the permit for other reasons.

The goal of the department is to see a 50% reduction in the average number of Voided applications from 11% to 5.5% by the end of fiscal year 2022. A reduction in voided applications will be an indication that the City provides all the necessary information to our customers to help them make informed decisions before applying for permits.

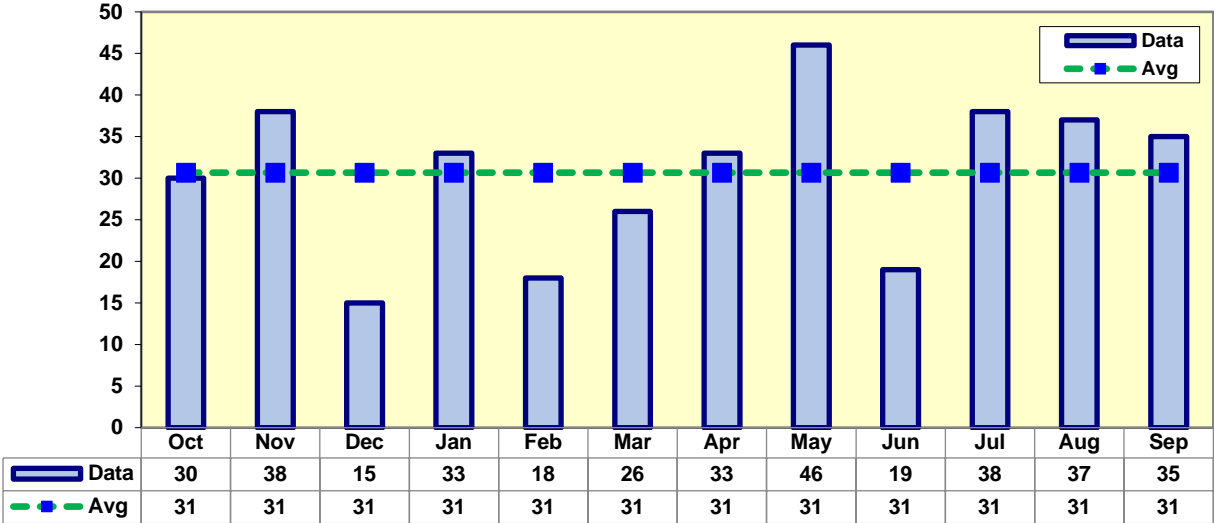
**5.3 Reduction of Zoning Holds for Bike Racks**

This involves measuring the number of applications that were flagged as having zoning holds during the application process. Some permits go through zoning requirements before they move to the next step in the permitting process. The source of the data was derived from the department’s permitting software, Accela Application system. The data review period was for the Fiscal Year 2021 (October 2020 to September 2021). The measurement took into consideration the total zoning holds per month throughout the fiscal year.

Table 5.3 Table Showing PO Permits that had zoning holds in Fiscal Year 2021

Type	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Total
Total PO	362	315	326	359	269	282	351	339	255	360	392	361	3,971
# of PO on Holds Permits	28	27	15	30	12	24	21	42	19	34	35	31	318
% of Holds / Total PO	8%	9%	5%	8%	4%	9%	6%	12%	7%	9%	9%	9%	8%

Figure 5.3 Chart Showing PO Permits that had zoning holds for Fiscal Year 2021





The measurement above took into consideration 3971 permits in the Fiscal Year 2021, Out of the submitted PO number, 318 (8%) of the permits had zoning holds. Zoning holds refer to the permit applications that are held as a result of not meeting all the zoning requirements before they can be issued. From discussions with VOC and VOB, most of the zoning holds are as a result of not meeting the bike rack requirement. Further evaluation of the CO permits that were held for zoning is necessary to determine what percentage of the zoning holds are due to the bike rack requirement. A further analysis of the zoning requirements related to the CO permits should be pursued to ensure that there are consistent reviews within the zoning section. Furthermore, an evaluation of the zoning requirements related to the CO should be done.

A customer education program regarding the zoning requirements related to Change of Use permits is critical to the reduction of permits being held for zoning requirements. As a component of the customer outreach to improve consistency, inclusion of the zoning requirements, will be necessary.

The goal of the department is to see a 25% reduction in the average number of zoning application holds from 8% to 6% by the end of fiscal year 2022. During the Kaizen events, one of the recommendations was for the city to review the bike rack requirements. Currently, a Change of Use application for a tenant space over 1000 square feet requires a bike rack. VOC believes this is a challenge to the zoning review process and recommends staff take a critical look at it again to make it more development friendly.

#### 5.4 Summary of the Measures of Success

The table and chart below summarize the three measures of success and compares the numbers for the fiscal year. From the data below, Voided Permits occurred most frequently. This could be due to a variety of reasons; however, once modifications and education are implemented, the number of voids should decrease. Staff will investigate all four measures and find effective ways to reduce these measures.



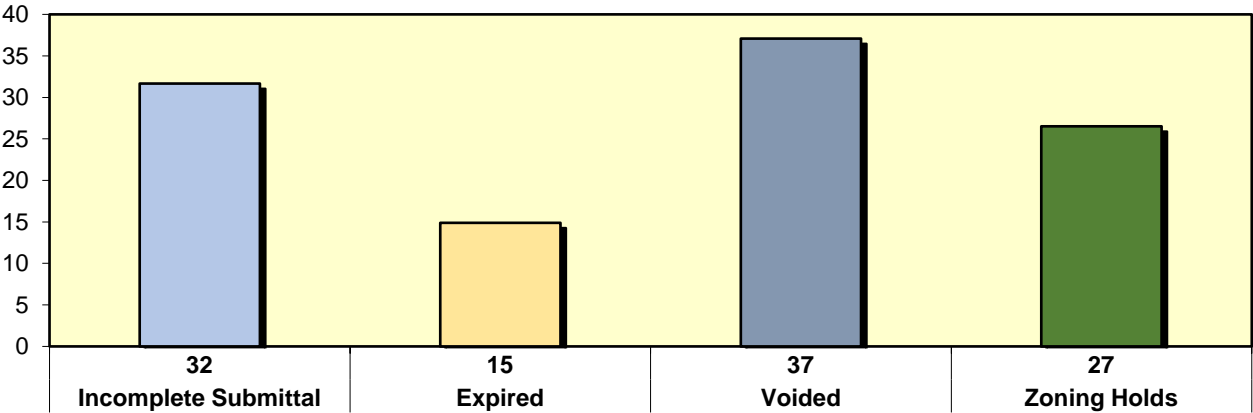
Table 5.4 Table Showing all Measures of Success for Fiscal Year 2021

FY' 2021	Total PO Applications	Incomplete Submittals	Voided	Zoning Holds
Oct	362	28	51	28
Nov	315	14	45	27
Dec	326	17	52	15
Jan	359	12	34	30
Feb	269	21	32	12
Mar	282	27	32	24
Apr	351	36	43	21
May	339	26	54	42
Jun	255	37	26	19
Jul	360	48	33	34
Aug	392	54	20	35
Sep	60	60	23	31
Total	3971	326	445	318

Table 5.5 Table Showing Monthly Average Measures of Success for Fiscal Year 2021

	Incomplete Submittal	Expired	Voided	Zoning Holds
Average	32	15	37	27
Maximum	60	30	54	42
Minimum	12	1	20	12

Figure 5.4 Chart Showing all Monthly Average Data for Measures of Success for Fiscal Year 2021



## **6.0 RECOMMENDATIONS: IMPROVEMENT PHASE**

The recommendations and solutions listed were derived from a brainstorming exercise conducted during the two Kaizen events. Recommendations and solutions for process improvements were developed to address concerns from City staff and the development community.

The Project Team went through an initial evaluation of ideas and a “PICK Chart” was created to prioritize a number of action items or problem-solving ideas. PICK is an acronym for **Possible – Implement – Challenge - Kill**. This chart was utilized for a visual comparison of action items relative to their impact to the problem being addressed as well as the ease and cost of implementation.

Figure 6.0: PICK Chart

	Implement	Challenge
<b>HIGH Payoff</b>	<ul style="list-style-type: none"> <li>• Identify and train additional DSD website liaisons to update City website and work on public outreach programs</li> <li>• All DSD website liaisons review the Department's webpages, identify broken links, and work to restore them.</li> <li>• Website Updates:                             <ul style="list-style-type: none"> <li>○ Define "Certificate of Occupancy" for citizens to fully understand what it is for or outline what triggers it.</li> <li>○ Explain what triggers an Occupancy Change of Use permit to eliminate confusion and redundancy.</li> <li>○ Describe what is needed for a permit application.</li> <li>○ Upload Floor Plan and Site Plan examples</li> <li>○ Upload the updated Use Verification Form</li> <li>○ City/Departmental webpage should be simplified for easy information search.</li> <li>○ Add a Decision Tree/flowchart for customer</li> <li>○ Create a Dedicated webpage to give information on the review process</li> </ul> </li> <li>• Use other record types to establish use in addition to previous Certificate of Occupancy</li> <li>• Use ACA (Accela Customer Access to give more information to the public)</li> <li>• Require the Zoning check vis CFW Permit Assist BEFORE submitting a Change of Use application</li> </ul>	<ul style="list-style-type: none"> <li>• The development process/ Accela tutorial videos on the website needs to be cleaned up to suit current needs of customers.</li> <li>• Simplify the CO process for projects of smaller sizes.</li> <li>• DSD needs a communications and customer education team for web updates and customer education programming.</li> <li>• Create New Permits Types in Accela by breaking up of existing permit types to cater for all diverse permit types.</li> <li>• Create a Separate record in Accela for CO</li> <li>• Automate the CO issuance process and tie it to Final Building permit in Accela</li> <li>• Zoning Team to evaluate the bike rack requirement for Change of Use permits. Then amend the Zoning Ordinance to revise the bike rack requirements for change of use permits, accordingly.                             <ul style="list-style-type: none"> <li>○ Currently, a Change of Use application over 1000 sq. ft. requires a bike rack</li> </ul> </li> <li>• Scan and index all old permits/documents on microfilm and save it on a shared drive for internal use and easy access to public when requested.</li> <li>• Move all CO's into Accela and make them searchable</li> <li>• Scan, catalogue, map, put in Accela in new CO record type</li> </ul>
<b>LOW Payoff</b>	<ul style="list-style-type: none"> <li>• Promote Educational/ PR campaign on the development review process.                             <ul style="list-style-type: none"> <li>○ Use mediums such as Facebook, Twitter, Instagram</li> </ul> </li> <li>• Add question to Customer Service Survey on the Application to Issuance process to collect customer views on the process and to help city staff measure their success (Example: How do you like our new process?)</li> <li>• Separate and rename permits so they are more descriptive</li> </ul>	<ul style="list-style-type: none"> <li>• Link CFW Permit Assist to Accela to transfer information entered data which will help save time and reduce redundancy.</li> <li>• Program CFW Permit Assist to do more for the CO process.</li> <li>• Link GIS to Accela and integrate parcel data</li> </ul>
	<b>Possible EASY To implement</b>	<b>Kill HARD To implement</b>

6.1 Standardization

After analyzing the available data and causal relationships described in the preceding sections, the Group recommendations included an improved and increased level of process standardization. The list of standardization recommendations are as follows:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	<p>Create a more thorough and up-to-date application checklist for customers. The checklist must include the documents necessary for CO application submittal, zoning requirements, and necessary plan set requirements. The updated commercial checklists shall have input from City staff and Developers.</p> <ul style="list-style-type: none"> <li>o The checklist should be drafted to have a separate system for Remodels and Non-Remodels application.</li> </ul>	DSS	Plan Review	X		
2	Create a simpler CO process for projects of smaller sizes.	Plan Review/ DSS	ALL	X		
3	Separate and rename permits so they are more descriptive	Strategic Ops Tech	Plan Review	X		
4	Clearly define "Certificate of Occupancy" for citizens to fully understand what it is for or outline what triggers it.	Plan Review/ DSS	ALL		X	



## 6.2 Training

After analyzing the available data and causal relationships described in the preceding sections, the Project Team recommends consistent periodic targeted training for external/internal customers. Specific training recommendations are as follows:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	Train DSD website liaisons to check webpages, identify broken links, and work to restore them	Strategic Ops Tech	ALL	X		X
2	The department needs a communications and customer education team for web updates and customer education programming.	Executive Team	ALL		X	
3	Provide more training on Accela Citizen Access; customers still have challenges with utilizing the full capabilities of the permitting software.	Strategic Ops Tech	ALL	X		X

**6.3 People**

A key component to customer service is managing customer expectations. Issues such as staff attitudes, staffing levels, management and coordination, also contribute to process delays.

The project team recommends improved personnel time management, interdepartmental task coordination, and management of customer expectations. Specific improvement recommendations are:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	Hire more staff members if needed to make the process faster. Provide staffing analysis to justify workload vs number of staff needed.	Executive Team	Strategic Ops Tech		X	
2	Provide bi-annual update on the measurements of success (incomplete submittals, voided permits and zoning holds).	Strategic Ops Tech	DSS	X		
3	Coordinate with Alliance partners and provide periodic updates on progress	ALL		X		
4	Identify and train additional DSD website liaisons to update City website and work on public outreach programs	Strategic Ops Tech	ALL	X		X

6.4 Process

Based on feedback from the meetings, it was concluded that the CO application process current state lacks standardization in certain areas and “checks and balances” in others. Furthermore, existing items which provide a level of oversight, are either under-utilized or not at all.

The current state process map is complex, and requires the various departments that comprise development review to focus on their individual roles in the permitting process. By doing so, the process does not promote inter-departmental cooperation at times, while continuing to foster silos and redundant activity. Specific improvement recommendations are:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	Review and Define “Certificate of Occupancy” for citizens to fully understand what it is for	DSS	Plans Review	X		
2	Upload the updated Use Verification Form	DSS	Plans Review	X		
3	Require the Zoning check BEFORE submitting a Building Permit application	DSS	Zoning			
4	Link CFW Permit Assist to Accela to transfer information entered data	Strategic Ops Tech	DSS		X	
5	Scan all old permits/documents on microfilm and save it on a shared drive for internal use.	Strategic Ops Tech	ALL		X	X
6	Review and improve building/site plan set submittal standards.	Plan Review	DSS	X		
7	Move all CO's into Accela and make them searchable	Strategic Ops Tech	DSS			
8	Scan, catalogue, map, and put old CO records on Accela in a new CO record type	Strategic Ops Tech	IT		X	X
9	Zoning Team to evaluate the bike rack requirement for Change of Use permits. Then amend the Zoning Ordinance to revise the bike rack requirements for change of use permits, accordingly. Currently, a Change of Use application over 1,000sqft requires a bike rack	Zoning	ALL		X	

The Project Team is optimistic and believes that improvement recommendations across the entire process should yield the desired results.





### 6.5 Technology

Some of the issues causing delays in the CO process can be attributed to a break-down in communication, a lack of awareness in where to locate development information, and not making better use of available technology. Specific improvement recommendations are:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	Update CFW website with additional information – permit type for each construction category (standardization of permits by type i.e. remodel versus change of use)	DSS/Plan Review	Strategic Ops	X		X
2	Create a separate record in Accela for CO	Strategic Ops Tech	DSS/ Plan Review	X		
3	Create New Permits Types in Accela by breaking up of existing permit types to cater for all diverse permit types.	Strategic Ops Tech	DSS/ Plan Review	X		
4	CFW Permit Assist is intuitive. It should be programmed or improved to do more for the CO process.	Strategic Ops Tech	ALL		X	
5	Link GIS to Accela and integrate parcel data	Strategic Ops Tech	IT		X	
6	Staff should automate the CO process and tie to Final Building permit in Accela	Plan Review	ALL		X	
7	The development process/Accela tutorial videos on the website needs to be cleaned up to suit current needs of customers.	Strategic Ops Tech	ALL	X		
8	Website Updates: City/Departmental webpage should be simplified for easy information search. <ul style="list-style-type: none"> <li>o There should be a Decision Tree/flowchart for customer</li> <li>o Dedicated webpage to give information on the review process</li> <li>o See San Antonio (best) and Dallas pages for layout</li> </ul>	Plan Review/ DSS	Strategic Ops	X		
9	Promote Educational/ PR campaign on the development review process. <ul style="list-style-type: none"> <li>o Use mediums such as Facebook, Twitter, Instagram</li> </ul>	Strategic Ops Tech	ALL		X	

**6.6 Accountability**

Throughout the CO BPI the issue of accountability was raised; whether it was City staff, developers or management, a lack of personal and process accountability directly contributed to delays in the building permit application process.

Although we lack the knowledge of the workings of the external customers’ organizations, the BPI did uncover deficiencies within the day-to-day operational procedures of the building permitting processes. Several specific recommendations regarding Standard Operating Procedures are listed in this report.

However, a number of concerns were voiced frequently during the BPI exercise and are listed as requiring standardization for accountability. Specific improvement recommendations are:

#	Action	Lead	Partner(s)	Timeframe		
				Sept 30 2022	Apr 30 2023	Ongoing
1	Communicate the progress of the report and implementations to VOC and VOB	Executive Team	ALL	X		X
2	Add question to Customer Service Survey on the Application to Issuance process.	DSS	ALL		X	

## **7.0 THE CONTROL PHASE**

The Project Team recommends that the process improvements outlined herein be implemented. All process improvements approved by the Project Sponsors, Champions and Owner should be adopted and begin implementation by June 1, 2022 and fully integrate into the Future state process by April 2023. The control period began April 1, 2022, and will continue through April 1, 2023. The Project Team now becomes the Control Group and should remain active and meet quarterly for a period of one year after implementation to ensure the recommended process improvements provide the intended value, and becomes a part of the organizational culture.

Additionally, the Control Group will work with staff to obtain more specific, informed and reliable data.

In order to accomplish this, the Control Group will set and agree upon specific parameters as well as methods to capture this data. This information will be collected during the control phase progress check. It will be measured and reviewed, during and against the recommended timeframes.

Throughout the Business Process Improvement exercise, the Project Team agreed to implement recommended process improvements that were described as “low-hanging fruit” and “quick-wins”, which were anticipated to have a high-level of success, and approval. Moreover, some improvements were recommended outside of the scope of the exercise, and were implemented as well

The Project Sponsor will send periodic updates via the City’s monthly Development Advisory Committee (DAC) report and Informal Report (IR) presented to the City Council.

**8.0 CONCLUSION**

The purpose of this project was to identify and eliminate waste, increase departmental cooperation, evaluate and decrease process time, and increase transparency associated with the CO application to issue process. Several methods were used to collect data. Results showed that the current process lacks individual accountability, time sensitivity, and transparency.

The DMAIC approach was applied in a team environment to determine possible solutions.

The Project Team recommends that the implementation plan of the identified solutions be as described herein. In order for the process improvements to be implemented, a great deal of support will be necessary, including approval from executive management of the City who would need to pass along their encouragement and support of the process changes from the top-down. Central to the timeline is the adoption of the process improvements and all internal and external participants understanding the critical roles and expectations.

Moreover, during this phase it should be noted that lean process improvements are created and/or coordinated to work together; not implementing a recommended improvement in one area of the process may not yield a desired result elsewhere in the overall process. The proposed changes will contribute to a higher level of customer service and synergy among processing groups and external partners.

Figure 8.0 Timeline for CO BPI Report Completion

