Virginia Association of Counties
ACHIEVEMENT AWARDS

VACo
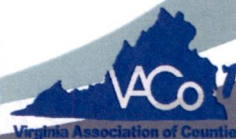Virginia Association of Counties

SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2022.** Please include this submission form with the electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact Gage Harter.

PROGRAM INFORMATION

County: **Loudoun County**

Program Title: Lasting Investments: Innovative Approaches to the Continuity of Public Service During the COVID-19 Pandemic Loudoun County Department of Building and Development

Program Category: **Community and Economic Development**

CONTACT INFORMATION

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Department: **Building and Development**
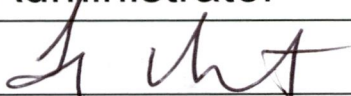
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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: **Tim Hemstreet**

Title: **County Administrator**

Signature:

Brief Overview

The COVID-19 pandemic required the Department of Building and Development to re-think how we provided essential services to our customers. The Department's obligation to ensure the public welfare and safety of the community through regulatory oversight could not be halted or delayed.

Through collaboration and teamwork, the Department implemented creative solutions to continue accepting, reviewing, and issuing permits and plan approvals and providing customer service. These solutions included new web-based forms to accept and process online applications, plan review software to facilitate electronic plan review, extensive webpage edits to outline new procedures, new contactless drop-off and pick-up procedures, online payment options, and a queueing software to manage lines at customer service front counters.

The key projects and programs implemented over the past two years are investments that will continue to serve our customers. The Building and Development staff rose to the challenge to develop innovative solutions to maintain operations during an unprecedented time. These solutions supported our mission of protecting the safety of our citizens, business owners, and guests and may be replicated by other jurisdictions with similar results.

Lasting Investments:
Innovative Approaches to the Continuity of Public Service
During the COVID-19 Pandemic
Loudoun County Department of Building and Development

Executive Summary:

The COVID-19 pandemic required the Department of Building and Development to re-think how we provided essential services to our customers. The Department's obligation to ensure the public welfare and safety of the community through regulatory oversight could not be halted or delayed. Through collaboration and teamwork, the Department implemented creative solutions to continue accepting, reviewing, and issuing permits and plan approvals and providing customer service. These solutions included new web-based forms to accept and process online applications, plan review software to facilitate electronic plan review, extensive webpage edits to outline new procedures, new contactless drop-off and pick-up procedures, online payment options, and a queueing software to manage lines at customer service front counters. While the pandemic was a trying time and required the implementation of new methods for conducting business, it resulted in unique solutions that improved customer service and efficiency that have grown in popularity, will remain in place, and can be replicated by other jurisdictions. Each departmental staff member contributed to keeping the land development review process running smoothly, which had a positive fiscal impact on the County, its businesses, and its citizens. The Department staying open for business allowed for the building industry to remain working, businesses to complete improvements and citizens moving into their new homes.

Department Overview: Loudoun County, Virginia is in northern Virginia, approximately 45 miles northwest of Washington, D.C. Loudoun is a growing community of 427,000 residents and has seen extensive residential and commercial development for more than two decades.

The Department of Building and Development is an agency of nearly 200 employees, with regulatory oversight of all phases of residential and commercial construction, from reviewing plans to verify that land is properly subdivided to conducting inspections to evaluate that infrastructure and structures meet various federal, state, and local codes. On an average annual basis, the department issues 55,000 permits, conducts 180,000 site inspections for building code compliance and completes thousands of commercial and residential plan reviews. The department also routinely meets with homeowners, business owners, engineers, builders, and developers to discuss the development process. Prior to the pandemic, the department held face-to-face meetings with customers and primarily accepted and reviewed paper permit and land development plan applications. The acceptance and processing of permits and land development applications and customer interactions primarily took place in person in the department's customer service lobby.
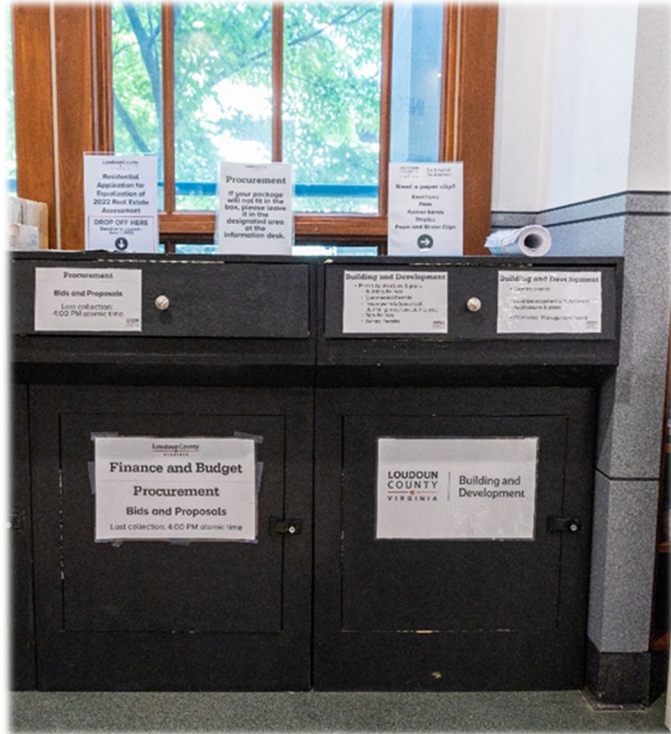
The Challenge: To continue providing essential services to customers and ensure the public welfare and safety of the community through regulatory oversight during the COVID-19 pandemic.

On March 23, 2020, as the COVID-19 pandemic began to sweep through the nation and Loudoun County, the County Administrator closed in person customer services to the public pursuant to the Virginia Governor's Executive Order. The lobby remained closed until June 14, 2021 (nearly 15 months). County leadership directed staff to identify alternative means to maintain essential services. This VACO Achievement Award submission outlines the processes and programs implemented by the Department of Building and Development staff to maintain service for our customers during this unprecedented time.

Service Continuity Solutions: The Department met the challenge of providing services during the COVID-19 pandemic through the implementation of the following projects and programs.

Submission Drop Box

With front counter services closing at a moment's notice, the department had to quickly devise a way for customers to drop off permit and land development applications for review and approval. After outlining customer requirements, the Department of General Services built containers in one week that were large enough to hold permits and plans and could only be accessed with employee key cards. After working with the Public Affairs Office to deploy signage and public messaging, the containers were deployed in the Government Center Lobby on April 1, 2020 to allow homeowners, business owners, engineers, builders, and developers to drop off their applications to be collected by staff multiple times throughout the day. The secure drop off container provided a contactless, socially distanced solution for accepting applications for processing. This solution allowed for the department to continue accepting and reviewing permits and plans for compliance with code and ordinance requirements. The drop boxes became so convenient and popular that the department has retained it as a submission option for customers, even after in-person services reopened.

Online Applications

Prior to March 23, 2020, Loudoun County Department of Building and Development provided customer service at a front counter operation utilizing only paper application and plan

submittals. With the onset of the COVID-19 pandemic resulting in the front counter closing and an increase in staff telework, the County had to develop an online submission process to accept applications and plans from homeowners, business owners, engineers, builders, and developers. The current land management system did not allow for electronic submissions.

An interdisciplinary staff team was formed to evaluate software that could be utilized to accept online submissions and allow for electronic plan reviews. Over a period of three months, the team explored the use of several software solutions. Ultimately, the team chose online forms through Laserfiche to accept permit and land development applications and Bluebeam for electronic plan review. The County was already using Laserfiche to store documents and was able to build on that platform to create forms and workflows to accept online land development and permit applications. The County had previously purchased Bluebeam to assist in the transition to a new electronic land management platform (LandMARC), scheduled to launch in 2023. The pandemic accelerated the timeline for implementation of an electronic process and provided an unforeseen opportunity to introduce staff and the public to the online application process, which will ultimately ease the transition to the new platform.

A team comprised of staff from Building and Development, Information Technology, and the Public Affairs Office created forms to facilitate online applications and a webpage to outline the process for applying online. The online application submission webpage launched on August 3, 2020. The webpage explains each application process and provides links to application forms and required documents. In total, the team created the ability for customers to apply online for over 20 different permit types and over 5 land development application types. The application types range from simple residential projects, such as decks and finished basements (Residential Permit Application Form), to large commercial projects. The land development applications include

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commercial site plans, grading plans, and residential subdivision plats. The key features of the submission process include the ability for the customer to submit applications online twenty-four hours a day, seven days a week; customized workflows and e-mail notifications to alert staff that a new application has been submitted, which supported staff telework; the ability for staff to respond to an application to request additional information or corrections; email notifications to referral agencies alerting them that they have a permit or plan to review; and automatic posting of documents to the land management system. All of these features have enhanced the submission process, promoted staff efficiency, and improved communication between the department and our customers. Notably, the County received its first online application within 30 minutes of launching the webpage, before the press release was issued, which was a testament to the success of the online applications project. The project has also resulted in more complete submissions, reducing the need for staff to ask for additional documentation and reducing the number of follow-up phone calls. The online applications project could easily be replicated by other jurisdictions that do not have online platforms to improve their business processes and customer service.

Electronic Plan Review with Bluebeam

Bluebeam REVU is a pdf mark-up and editing software that allows for digital plan reviews and real time collaboration. A Bluebeam implementation team, consisting of staff from Building and Development and Information Technology, successfully procured 279 Bluebeam software licenses, assisted with the installation and technical support for 32" monitors with docking stations, and delivered a training program to 267 county staff in the Bluebeam mark-up skills. The team developed a process to conduct completeness checks and set up Bluebeam projects to facilitate the electronic review of land development plans submitted online. The team created step-by-step Bluebeam File Upload Instructions posted to the County website to educate applicants in using the

software. This team also created a monthly Bluebeam newsletter for staff that provided technical support, information on ongoing training sessions and forums, and tips for efficiently using the software. The key features of the Bluebeam software include the ability for staff engineers, land planners, and building code plan reviewers to insert comments and approval stamps directly on digital plans and to conduct real time collaborative review sessions with applicants.

Success and Expansion of Online Applications

As online applications grew in popularity, the department continued to incorporate additional application and permit types. On January 22, 2021, the department added the option for customers to submit Virginia Stormwater Management Program (VSMP) permits online, on February 9, 2021, the County added the option for third-party inspectors to submit inspection reports for seven different permit types, and on May 26, 2021, the County added four additional commercial permit types.
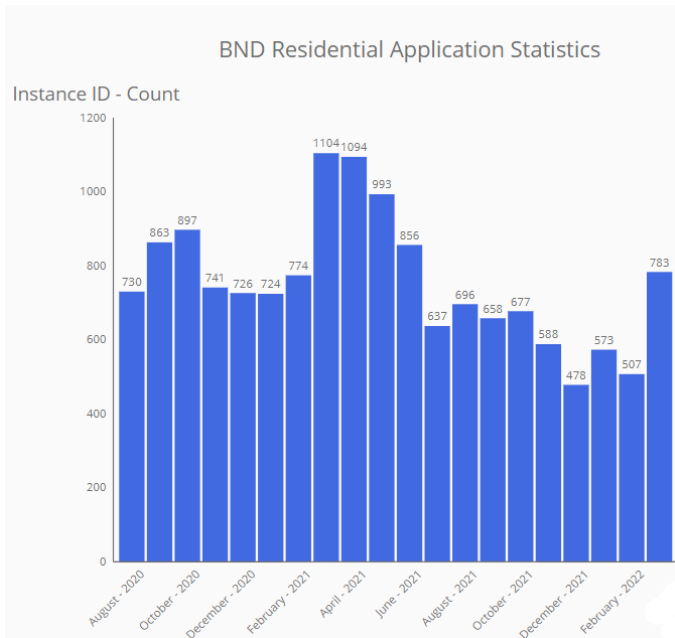
The online applications program has been a resounding success. As shown in the chart to the left, the County accepted 9,502 residential permits in FY 21and 5,597 permits to date in FY22 (the decline is likely attributed to the Customer Service Lobby opening back up for service on June 14, 2021).

BND Residential Application Statistics

Instance ID - Count

As illustrated in the chart to the right, the County received 2,957 online land development applications (construction plans and profiles, site plans, subdivision plans, commercial permits, grading permits, and residential new construction permits) in FY21. As of the 3rd quarter of FY 22, the County has received 3,014 online applications. The County
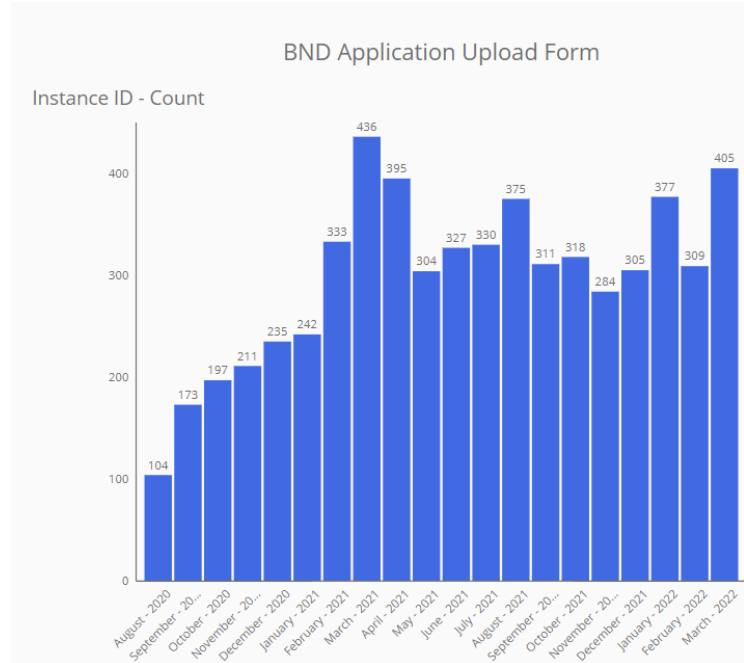
expects to receive approximately 4,000 online land development applications by the close of the fiscal year.

Online applications and Bluebeam electronic plan review have reduced review timelines, provided staff the ability to review plans while teleworking, allowed for greater collaboration between staff and applicants, eliminated customer trips to the Government Center, negated the need for staff to manually scan plans, saved applicants' money, and reduced the consumption of environmental resources associated with printing large architectural/engineering plan sets. Within eight months, 85% of all land development application transactions were being processed online. Today, nearly 95% of all land development applications are submitted and reviewed electronically. Online submission remains a desired option for customers and, combined with the electronic plan review software, has prepared department staff and customers for the implementation of the County's new land management system launching in 2023.

Online Credit Card Payments

Prior to the pandemic, the department issued nearly all permits in person. Customers could pay for their permits using cash, check, or a credit card. When in-person services closed, the department began accepting checks in the drop box and through the mail and credit card payments over the phone. Accepting credit card payments over the phone increased call volumes by 25%, which caused a strain on staff resources and delays in processing payments and delivering the permits to customers. It was clear that another payment solution was necessary.

Throughout the summer of 2020, the department's two-member financial team worked directly with the County's existing credit card vendor to develop an online portal that could accept credit card payments for permits and plans. In the fall of 2020, the department launched the online payment portal, issued a press release to announce the new payment option, and incorporated online payments information into notification e-mails. To prepare staff for the launch, the financial team created step-by-step payment instructions and held multiple virtual training sessions. The launch of the online payment portal had immediate positive outcomes. The portal allowed customers to pay for permits and plans at any time, negated the need for customers to drive to the Government Center to drop off a check, and reduced the number of phones calls back to pre-pandemic levels.

The online payment portal is Payment Card Industry Data Security Standard (PCI) compliant and widely used by customers. Today, nearly 45% of all payments are received through the online portal. Between the fall of 2020, and March 31, 2022, the 16,739 payments were processed online, compared to 5,816 by cash/check.

Permit and Plan Pick-Up

To complement the contactless drop-off procedure, the department also created a dedicated area on the first floor of the Government Center that allowed customers to pick up issued permits and approved plans. The pick-up area contains multiple shelving units that are labeled according to the permit or plan type, whether the project is commercial or residential, and sorted alphabetically. After a customer pays for the permit by check or by the online credit card portal, the staff member processes the payment, issues the permit, and emails the customer that the permit has been issued with a time certain when the permit and/or plan will be available for pick up in the dedicated pick-up area. The use of the pick-up area during the shutdown of in-person services allowed for staff to continue delivering permits and approved plans to customers. Even with the in-person services re-opening, customers still prefer the efficiency of the self-serve pick-up area.

Managing Customer Lines with QLess Virtual Line Software

Building and Development's customer service lobby re-opened on June 14, 2021, with the implementation of a new virtual line software, known as QLess, purchased by the County to manage customer service lines in several Community Development departments, promote social distancing, and reduce wait times. Customers use the system to check in for services through a kiosk or online and are notified when it is their turn to be served, as opposed to waiting in line in the lobby. This improves the customer service experience, as customers can get in line from anywhere and learn about wait times. QLess also
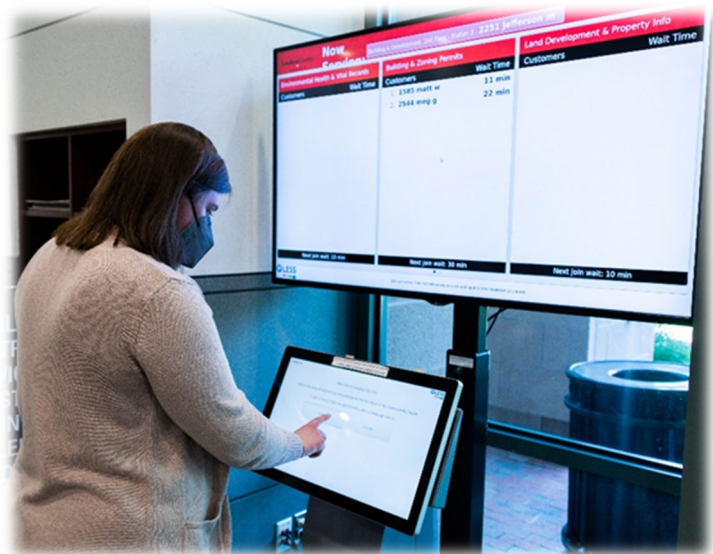
identifies the service that the customer is seeking and provides staff an opportunity to prepare to serve the customer. It also reports metrics that managers can use to better understand customer service interactions, such as number of services provided, wait times, and the length of interactions.

It took approximately four months to implement the system and required configuration of lines, ordering and installing a self-service kiosk, testing, and training. The system was launched in two phases - beginning with walk-in customers checked into the system by staff in the Government Center lobby, followed by a public launch that allowed the public to check themselves into the queue and make appointments online. Each employee was also provided with a training manual to use as a desk reference (Attachment 1).

To date, Loudoun County has served over 8,400 customers using the virtual line – with 77% of those customers visiting the Department of Building and Development. Service wait times for Building and Development have averaged 3-5 minutes and the average length of a service is 8.75 minutes.

Financing and Staffing

The software used to accept online applications and the credit card software used to accept online payments were already owned by the County. The County procured the Bluebeam software and the QLess system with a cost of $75,022.65, as outlined in the table below. The Bluebeam purchase was planned for a future fiscal year but was accelerated at the onset of the pandemic. The projects and programs were developed and implemented with existing staff resources and staff prepared all training materials and conducted all training in preparation of the various launch dates.

Program	Departmental Resourcing	Type	Program Cost	Implementation Date
Electronic Submissions (Laserfiche)	Building and Development, Information Technology and Public Affair Office	Staff	$0.00 County owned software license	August 3, 2020
Permit/Plan Application Drop Box	Building and Development, General Services and Public Affairs Office	Staff	$0.00	April 1, 2020
Permit Pick Up Area	Building and Development and Public Affairs Office	Staff	$0.00	April 1, 2020
Electronic Plan Review (Blue Beam)	Building and Development and Information Technology	Staff and license procurement	$28,883.40	August 3, 2020
Online Payments	Building and Development and Public Affairs Office	Staff	$0.00 Existing credit card vendor contract	November 9, 2020
QLess Customer Service Tool	Building and Development and Public Affairs Office	Staff and license procurement	$46,139.25	June 14, 2021

How the Program Fulfilled the VACO Awards Criteria

The COVID-19 pandemic presented unforeseen operational challenges, but with those challenges came staff ingenuity and foresight that resulted in the implementation of projects and programs that maintained essential services. Overall, the pandemic forced the department to re-think how to serve customers, and our data shows that the solutions developed during this time enhanced operational efficiencies and overall customer service. The Department was able to meet pre-pandemic plan review, permitting and inspection timelines. As we enter a post-pandemic state, the key projects and programs implemented over the past two years are investments that will continue to serve our customers. The Building and Development staff rose to the challenge to develop innovative solutions to maintain operations during an unprecedented time. These solutions supported our mission of protecting the safety of our citizens, business owners, and guests and may be replicated by other jurisdictions with similar results.

Attachment:

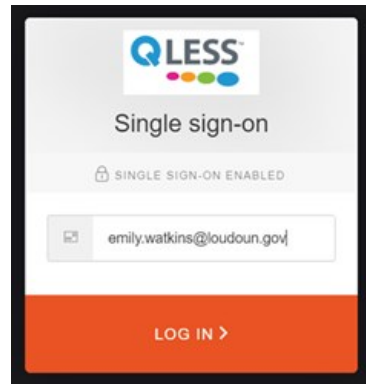1. Qless Reference Manual

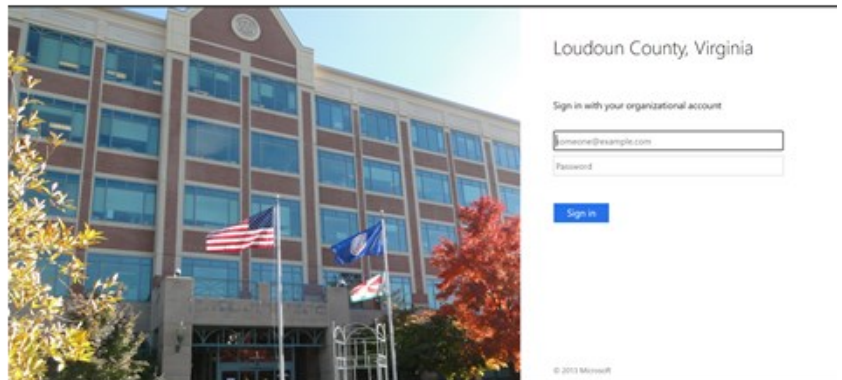# Using Qless

Reference Manual

June 10, 2021

Logging In

Go to: intranet.loudoun.gov/qless

> Enter your full email address
> Click LOG IN

You will be taken to the County's login page.

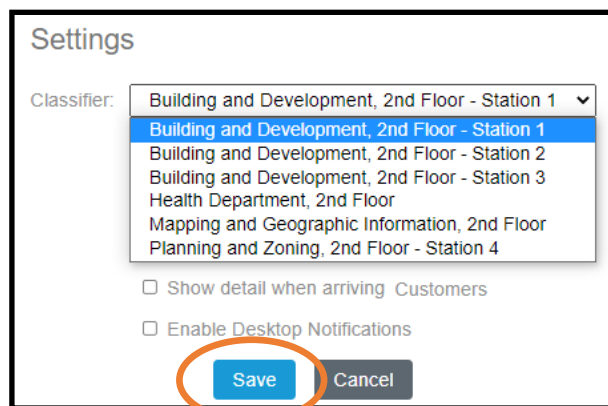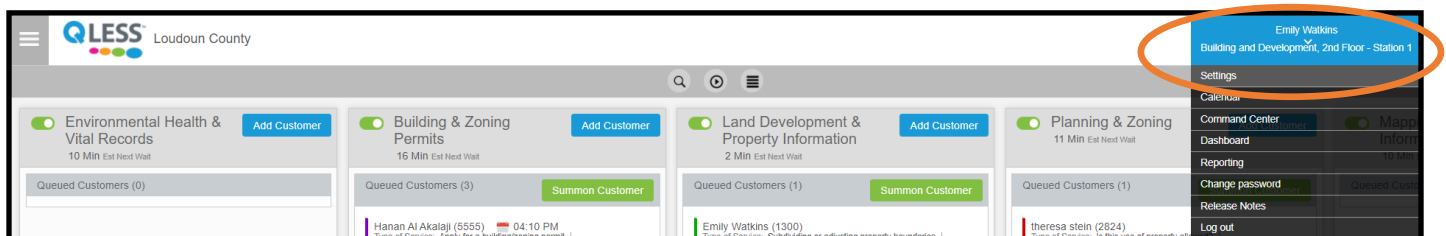> Enter your full email address and Windows/Outlook password

Set your location

Check your location in the top right. This is texted to customers as part of instructions on where to go.

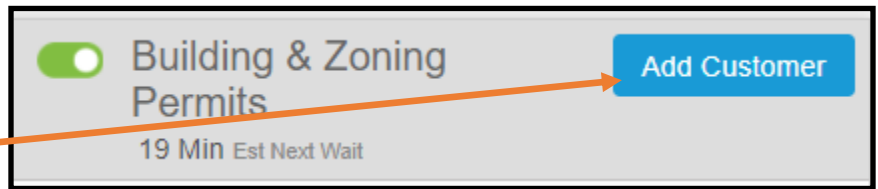To change, select your name in the upper right corner

> **Select Settings.**
Ensure your location is correct **> Select Save**.

Adding a Customer to a Queue

To add a customer to a queue:

> Select Add Customer in the appropriate queue.

Complete the required fields—including Name and Cell phone number.

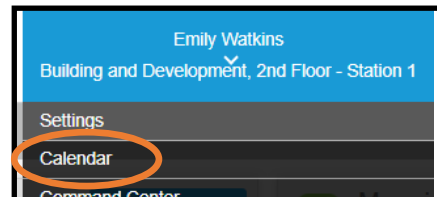If a customer needs texts in Spanish, choose Spanish under Language.

> Select Add.

*If a customer does not have a cell phone, enter 555-555-5555 and tell the customer to follow their status on the monitors in the Gov. Center Lobby
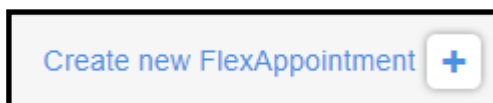

Creating an appointment

To create an appointment, select the menu in the upper right corner.

> Select CALENDAR.

> Select Create new FlexAppointment (in the upper right)

Complete the required fields—including Name and Cell phone number.

Customers can also give an email address for an email confirmation. Customer Language can be set to Spanish, if needed.

Appointment slots will appear on the calendar once the queue and contact information is filled out.

> Select a day/time to schedule the appointment.

3

Queue Basics

Queue Name

To text the customer and let them know it is their turn, click Summon Customer.

Purple = appointment

Queued customers and appointments

Environmental Health and Vital Records

52 Min Est Next Wait

Add Customer

Queued Customers (6)

Summon Customer

Emily Watkins (0-539-9156) 📅 02:30 PM
Type of Service: Well and Septic Information |
Original Forecast: 10 min | Time in Line: 3 min |
NumberOfPeople: 1

Spanish

Emily Elliott (1300)
Type of Service: Birth, Death, Marriage and Divorce Certificates |
Original Forecast: 19 min | Time in Line: 2 min

Avery Elliott (5555)
Type of Service: Birth, Death, Marriage and Divorce Certificates |
Original Forecast: 29 min | Time in Line: 2 min |
NumberOfPeople: 2

Test (3-777-0450)
Type of Service: Birth, Death, Marriage and Divorce Certificates |
Original Forecast: 38 min | Time in Line: 1 min

Emily Watkins (5-777-0450)
Type of Service: Birth, Death, Marriage and Divorce Certificates |
Original Forecast: 48 min | Time in Line: 1 min

Emily Watkins (5-539-9156)
Type of Service: Birth, Death, Marriage and Divorce Certificates |
Original Forecast: 57 min

Service the customer is coming in for

Serving a Customer

When it's time to notify the next customer in the queue:

> **Select Summon Customer at the top of the queue.**

Summon Customer

This sends a text message to the **next customer** that it's their turn.

The customer will move into the "Summoned Customers" area. ******

When the customer arrives at the desk:

> **Select Arrived.**

> **Ask for the customer's elevator pass.**

Summoned Customers (1)

Hanan Al Akalaji (5555) - Building and Development, 2nd Floor - Station 1
📅 04:10 PM Arrived
Type of Service: Apply for a building/zoning permit |
Original Forecast: 57 min |
Time in Line: 4151 hr, 57 min | NumberOfPeople: 1

The customer information will move into the green Currently Serving bar.

Currently serving   Hanan Al Akalaji (5555) - Building and Development, 2nd Floor - Station 1

When you are finished servicing the customer press the **End Service** button on the right of the Now Serving bar.

To move a customer to a different queue/department:
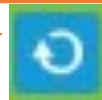
> Select the **Reenter Queue** button on the right of the Now Serving bar, select the applicable queue.

> **Select Add.**

Enter Hanan Al Akalaji into the Building & Zoning Permits queue?   ✕

Queue	Loudoun County Government Center - Environmental Health & Vital Records
	Loudoun County Government Center - Building & Zoning Permits
	Loudoun County Government Center - Land Development & Property Information

Type of Service   Apply for a building/zoning permit

Cell phone   555-555-5555

Name   Hanan Al Akalaji

Language   English

Reenter queue as expired ☐

Additional Information

How many people in attendance?*   1

Notes   hdflgjhadlfjghdaf

Please inform the customer that by joining the QLess line service they are agreeing to receive text messages from the company that may include information about QLess services, and give them an option to opt-out. By entering the customer number into the system, you are confirming that the customer agreed to receiving said text messages. Please make sure you are entering the correct number for the customer.

Add

** If a customer does not arrive in a reasonable amount of time, they will move into an "Expired" area. See page 6 for more information on managing expired customers.

Summoning a Customer out of Order

If you need to summon a customer who is not next in line, you can summon out of order.

> Select the customer.

> Select Summon. (Circled in orange)

If the customer is not at the top of the queue, you will receive a warning that the customer is being summoned out of order.

- Please note: taking customers out of order will show on the monitors in the Gov. Center Lobby.

Use the **Move** button to move a customer to another queue **before they are summoned.**

Putting a service transaction on hold

Qless has the ability to put a service transaction on hold and serve another customer.

When to use this feature:

- A customer is waiting for an over-the-counter permit.
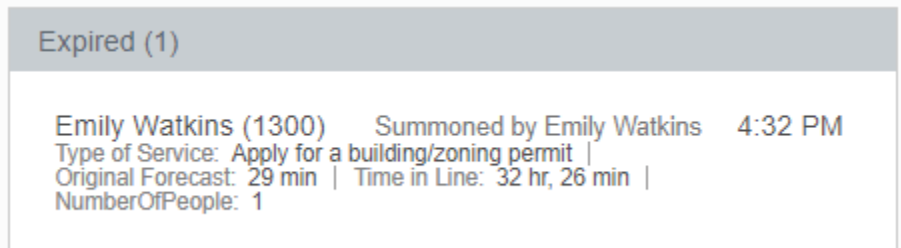- A customer needs to retrieve something to complete the transaction

Currently serving Hanan Al Akalaji (5555) - Building and Development, 2nd Floor - Station 1

When the customer is in the Currently Serving status **> Select Reenter Queue.** Double check the queue and service are correct.

> Select the check box for Reenter queue as expired.

Reenter queue as expired ✓
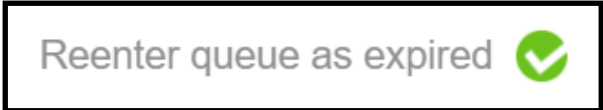
The Customer will appear in the queue as **expired**.

This is the same way a customer appears if they do not arrive within a reasonable amount of time.
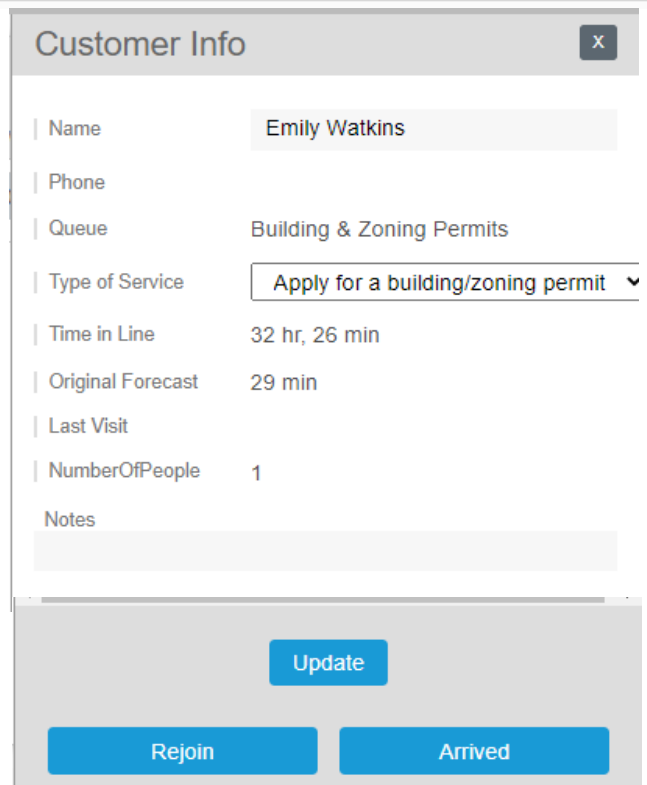
Expired (1)

Emily Watkins (1300)   Summoned by Emily Watkins   4:32 PM
Type of Service: Apply for a building/zoning permit |
Original Forecast: 29 min | Time in Line: 32 hr, 26 min |
NumberOfPeople: 1

To manage the expired customer:

> Select the Customer's Name

> Select Arrived to begin serving the customer again.

> Select Rejoin to put them back in a queue and summon them as normal.

Customer Info   x

Name	Emily Watkins
Phone	
Queue	Building & Zoning Permits
Type of Service	Apply for a building/zoning permit ⌄
Time in Line	32 hr, 26 min
Original Forecast	29 min
Last Visit	
NumberOfPeople	1
Notes	

Update

Rejoin   Arrived

Helping a customer who was not in line or did not have an appointment

Some occasions may arise where a customer walks-in without being in your queue after having been served by another department already.

If no customers are in your queue, it may be useful to serve them on the spot without putting them in a queue.

To record the service interaction, select the "Begin Service" button.