

# North Carolina Turnpike Authority

Operations Committee Meeting

January 25, 2024



# Operations Committee



**Montell W. Irvin**  
Operations Committee  
Chairman



**Dr. Pamela  
Gibson Senegal**  
Operations Committee  
Member



**Sam Hunt IV**  
Operations Committee  
Member



**Charles 'Chuck'  
L. Travis III**  
Operations Committee  
Member

## Other Board Members



**Joey Hopkins**  
Board Member



**James 'Jim' Walker**  
Vice Chair of the Board



**Robert D. Teer Jr.**  
Secretary & Treasurer of  
the Board



**John Adcock**  
Board Member



**Julie Eiselt**  
Board Member

# Opening Comments

**JJ Eden**

Executive Director

# Chief Engineer Update

**Patrick Norman, P.E. & Dennis Jernigan, P.E.**  
Chief Engineer & Deputy Chief Engineer

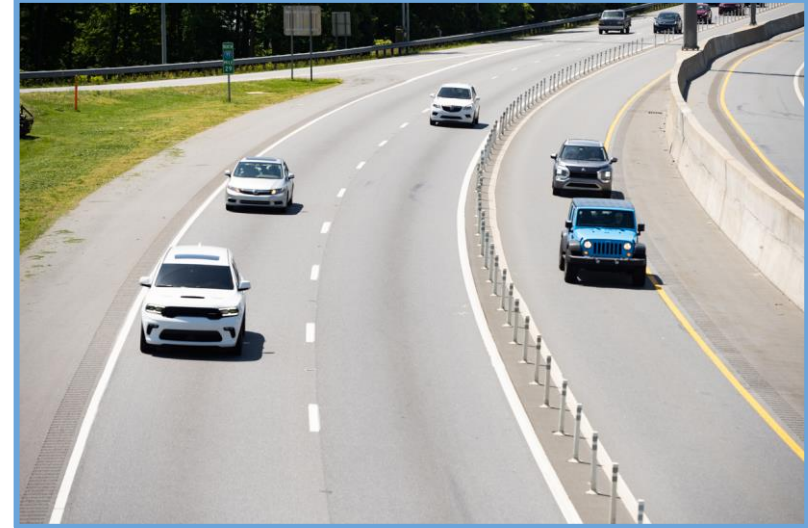


**77 South**

# 77 South Update

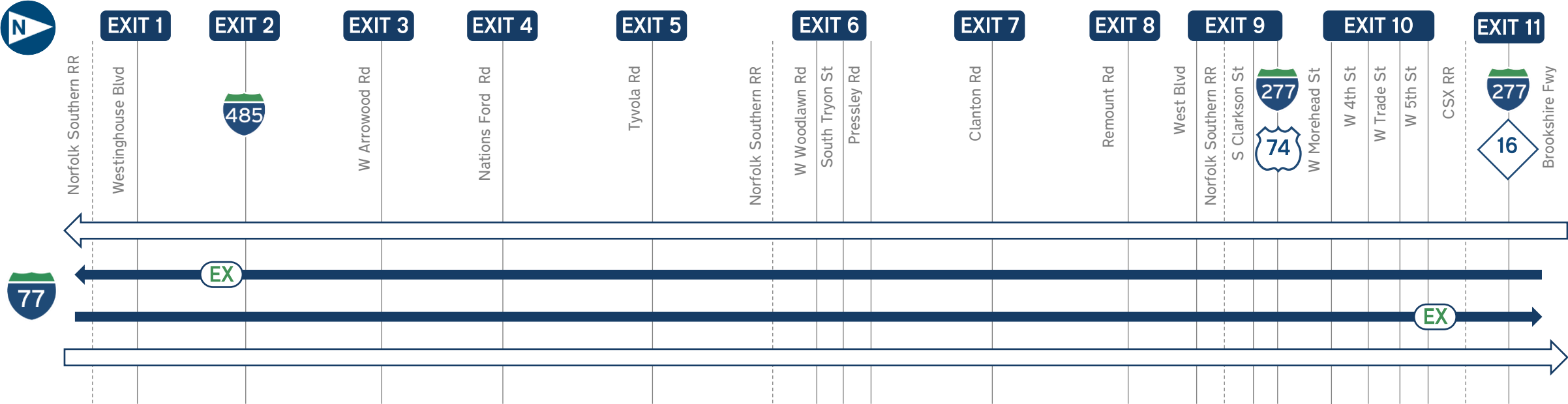


- Continuing facilitation of stakeholder meetings
- RS&H Preliminary Engineering



# Proposed Improvements

LEGEND  General Purpose Lanes  New Express Lanes



Rebuild Interchanges



Rebuild Non-Interchange Bridges



Add Express Lanes or General Purpose + Express Lanes



Add Access Points



Add Direct Connectors

Interchange	Discussed with Stakeholders
EXIT 1 (Westinghouse Blvd)	5/19/2023
EXIT 2 (I-485)	3/29/2023
EXIT 3 (W Arrowood Road)	3/29/2023
EXIT 4 (Nations Ford Road)	7/18/2023
EXIT 5 (Tyvola Road)	7/18/2023
EXIT 6A/6B (W Woodlawn Road/S Tryon Street)	9/22/2023
EXIT 7 (Clanton Road)	8/18/2023
EXIT 8/9A (Remount Road/West Blvd)	8/18/2023 *1/26/2024 (West Blvd)
EXIT 9B/9C (I-277/Belk Freeway)	2/9/2023 4/11/2023 11/20/2023
EXIT 10A (Morehead Street)	*1/26/2024
EXIT 10B/10C (Trade Street/5th Street)	9/22/2023
EXIT 11A/11B (I-277/Brookshire Freeway)	8/18/2023



**Complete 540 Phase 1**

# ACEC-NC/NCDOT Joint Transportation Conference

November 17, 2023

- Dennis presented alongside WSP about R-2828
- Presented for 75 minutes to 180 attendees
- Highlighted unique project features
  - Roller compacted concrete (RCC)
  - Cement stabilization
  - Inlaid pavement markings



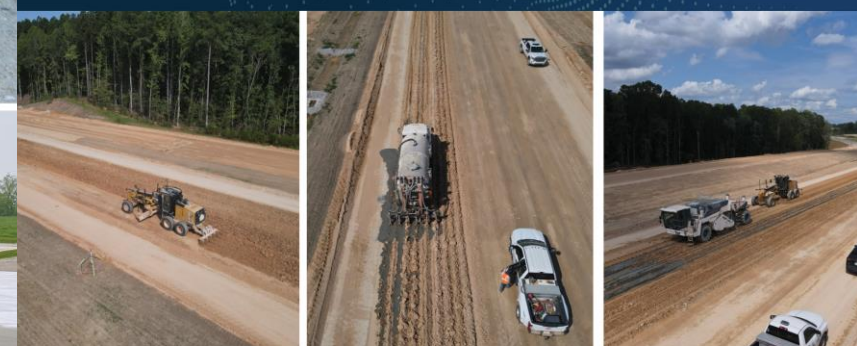
 **Inlaid Pavement Markings**



**Roller Compacted Concrete (RCC)**



 **Cement Stabilization**



# Complete 540

## Phase 1 Milestone



All existing roadway crossings (Y lines) open to traffic!



# N.C. 55 Ramp Connection Before



N.C. 55 Ramp  
Connection  
After



# Turbine-Style Interchange Bridge 13 - Before



# Turbine-Style Interchange Bridge 13 - After



R-2828  
Concrete Paving  
Before





R-2828  
Concrete Paving  
After



# Phase 1 Percent Complete

R-2721A	92.66%
R-2721B	94.37%
R-2828	84.23%
Overall	87.45%

**Complete 540 Phase 2**



# Complete 540 Phase 2

## Preconstruction Activities

### Completed Activities

- Environmental Document
- Section 404/401 Corridor Permits
- Biological Opinion
- Air Quality Conformity
- Final Surveys
- Traffic Forecasts and Analysis
- Service Road Study
- Confirmation of Environmental Mitigation Availability
- Roadway and Structure
- Geotechnical Investigations
- Update Project Cost Estimate
- Refining Preliminary Design
- Developing Pavement Design and Life Cycle Analyses
- Railroad Coordination
- Industry Coordination
- Design-Build Procurement

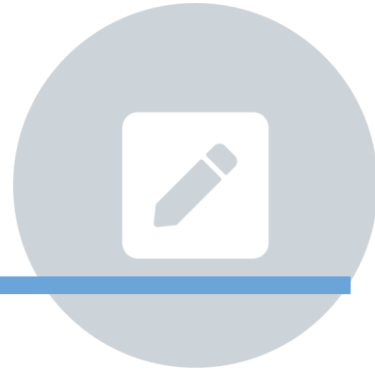
### Activities Underway

- Advanced Acquisition of Certain Right-of-Way Parcels
- Coordination with Owners of Towers Regarding Needed Relocations
- Planning for Community Water and Sewer Conflict Resolutions
- Planning for Other Long Lead-Time Items
- Utility Coordination
- Developer Coordination
- Refine Plans for Right-of-Way Acquisition

# Complete 540

## Phase 2 Meetings

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- Regular meetings scheduled with both project teams
  - Design meetings
  - Utility meetings
  - Right-of-way meetings

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**FLATIRON**

  
**FRED SMITH COMPANY**  
CONSTRUCTION

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 **BRANCH**  
CIVIL

 **S.T. WOOTEN**

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# Toll Technology Update

**Manish Chourey**  
Chief Technology Officer

# SRTCS (Task Order – 1) I-485 Express lanes

## Timeline

Category	Date
Issue Task Order (TO)	September 27, 2023
Task Order Questions Due	October 9, 2023 (4:00 p.m. EDT)
Task Order Technical Proposals Due	October 27, 2023 (4:00 p.m. EDT)
Oral Presentations and Interviews	November 13 – November 14, 2023
Task Order Price Proposals Due	November 21, 2023 (4:00 p.m. EDT)
Ranking of Proposers	November 22, 2023
Notice to Proceed / Award of Contract	November 27, 2023

Contract awarded to Indra Company



# I-485 Express Lanes Task Order – 1

## Updates

- Project kickoff meeting and team site visit conducted on December 6 and 7
- Deliverables
  - Project Management Plan and Schedule
  - Bill of Materials
  - System Detailed Design Document
- Project Team has started site turnover walkthrough and inspections
- Project Team is coordinating technical workshops (Business Rules, Requirements, and Network design)
- Turnover of the first toll site for toll system installation is March
- Factory Acceptance Testing of the toll system is scheduled for early Q3-2024

# Back Office System (BOS)

## Updates

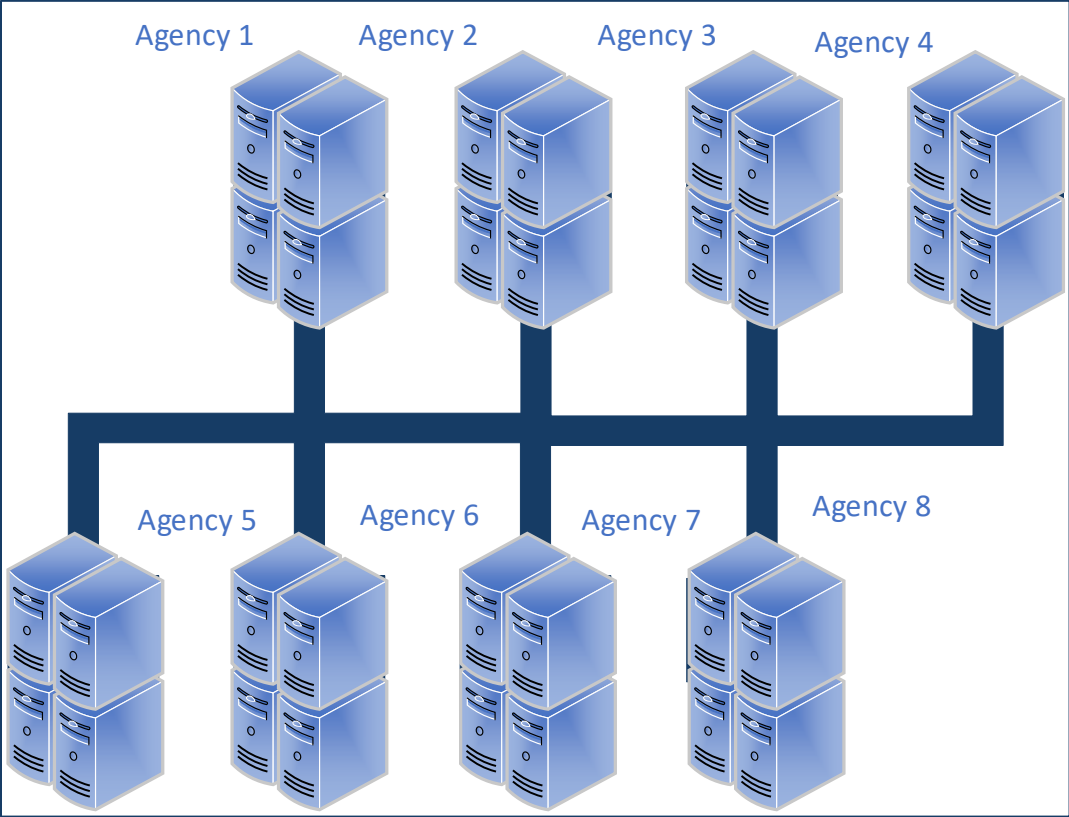
- The operations observation period (last implementation milestone) is complete
- Enters performance-based maintenance phase
- Deployed a complex account-matching algorithm to help Customer Service Agent

## Key Enhancements Underway

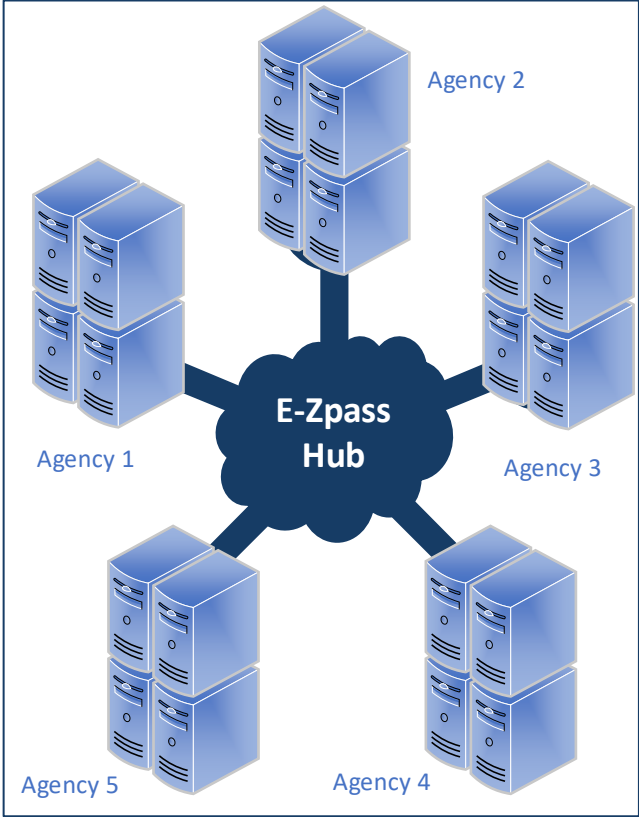
- Implement roadside toll collection system (API)
- Design and deploy direct DMV interfaces
- Add a few additional License Plate Agencies (LPA) pilot sites
- Develop standardized dashboards and reports using PowerBI

# E-ZPass Network Transition

## Peer-to-Peer



## Hub and Spoke



Transitioned Q4 - 2023

# Benefits of Hub Implementation

## Immediate Benefits

- Centralized drop box reduces network congestion
- Simplified security removes the need to implement firewall rules
- Avoids big-bang testing and implementation

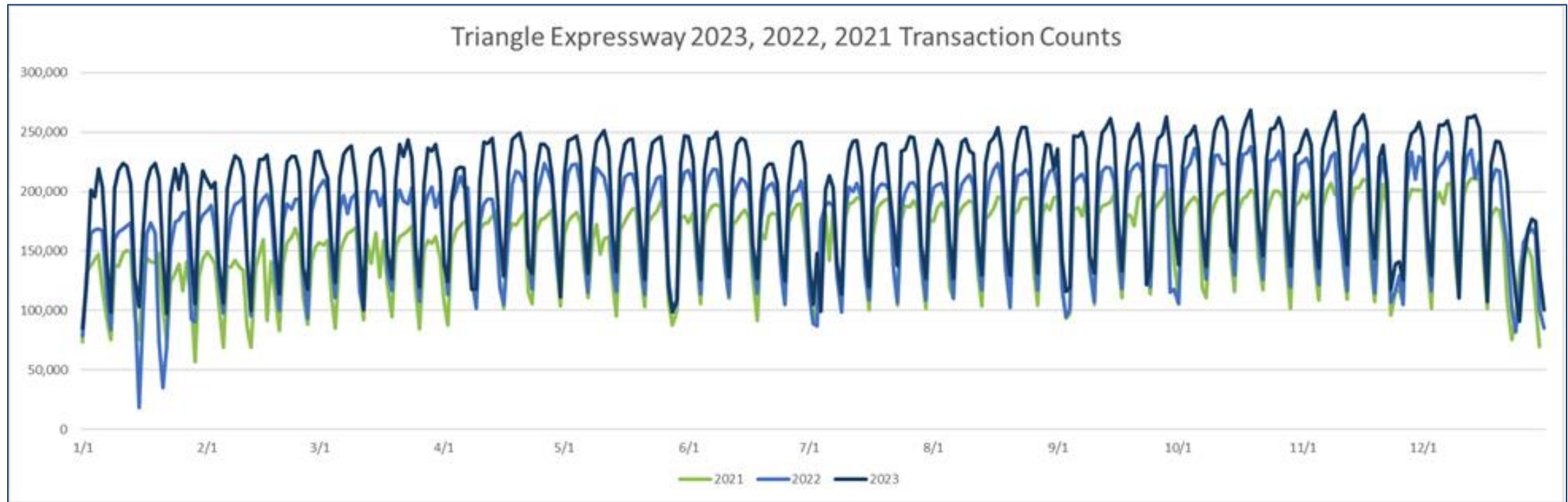
## Long-Term Benefits

- Creates a framework for agencies to adopt newer technology
  - Reduces operating expenses
- Enables the agency BackOffice system to adopt services model
- Verification of the new IOP specification in a controlled environment

# Triangle Expressway Traffic Updates

## Traffic Increase

2021 – 2022 Q4 – 11.4%  
2022 – 2023 Q4 – 10.5%

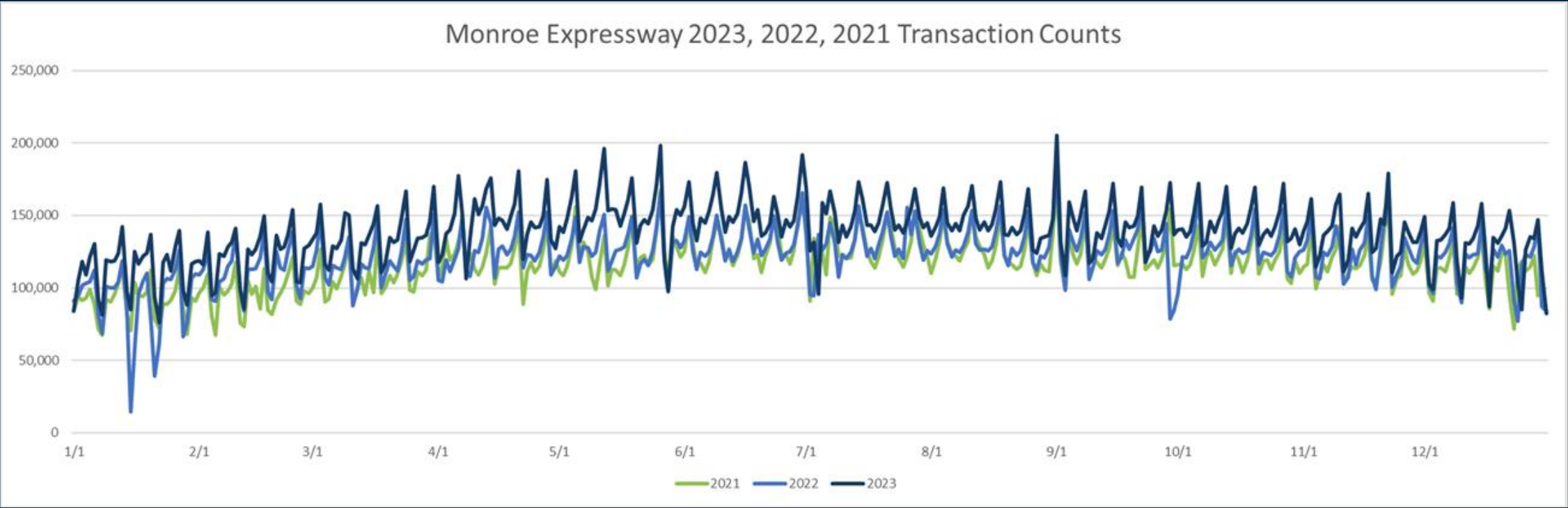


# Monroe Expressway Traffic

## Updates

## Traffic Increase

2021 - 2022 Q4 - 7.4%  
2022 - 2023 Q4 - 9.6%



# Customer Service Center Update

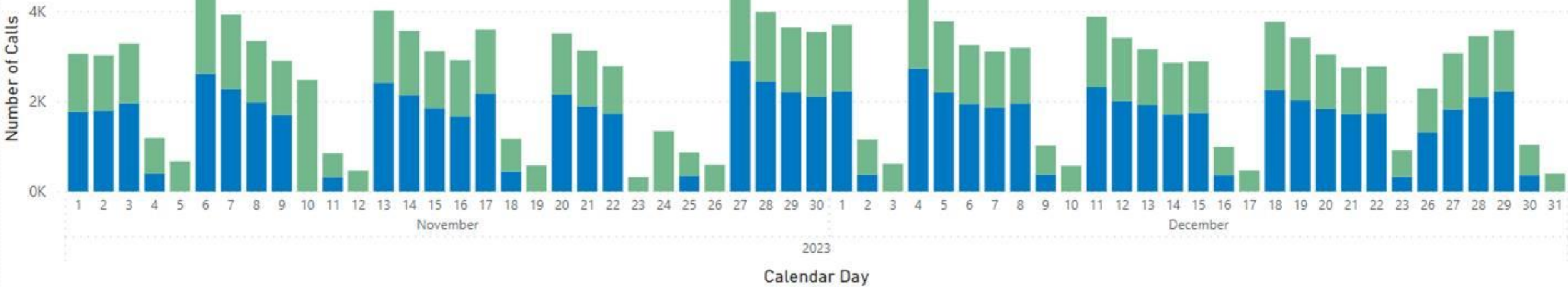
**Angela Queensland**  
Manager of Customer Service

# Call Center Statistics

## NC Quick Pass Program

Call Center Statistics

● Total Calls Presented to CSRs ● Total Calls Handled by IVR

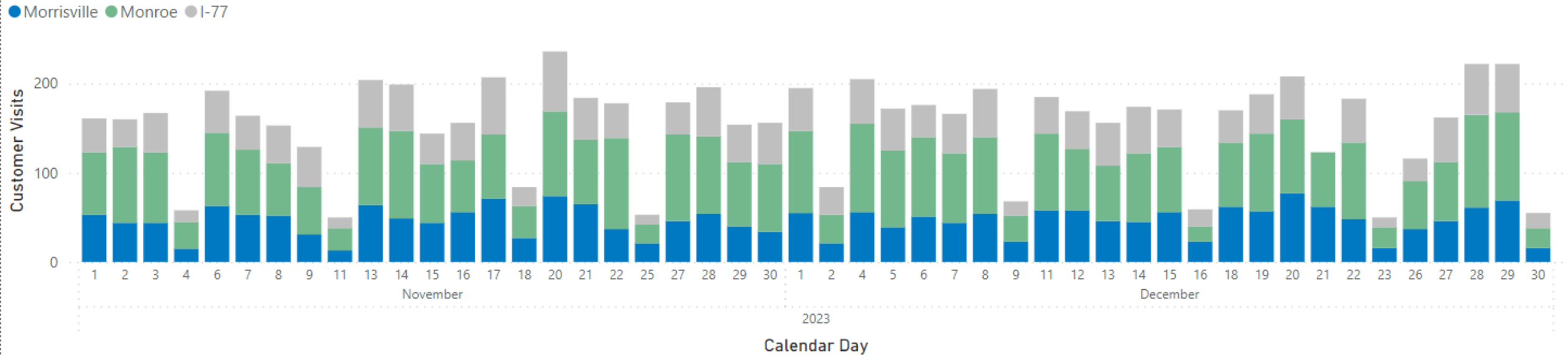




# Walk-In Center Statistics

## NC Quick Pass Program

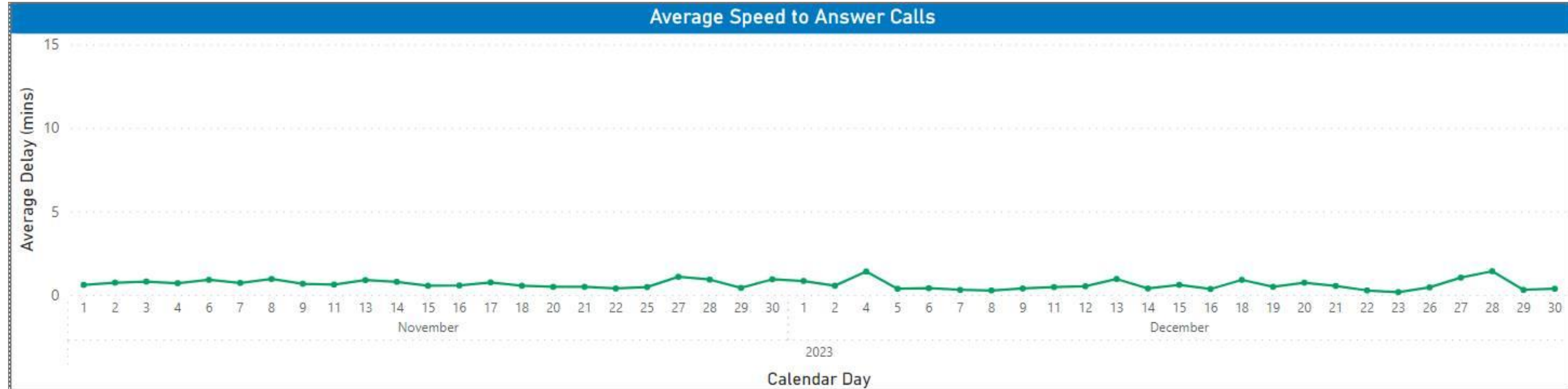
Walk In Center Statistics



# Average Speed to Answer Calls

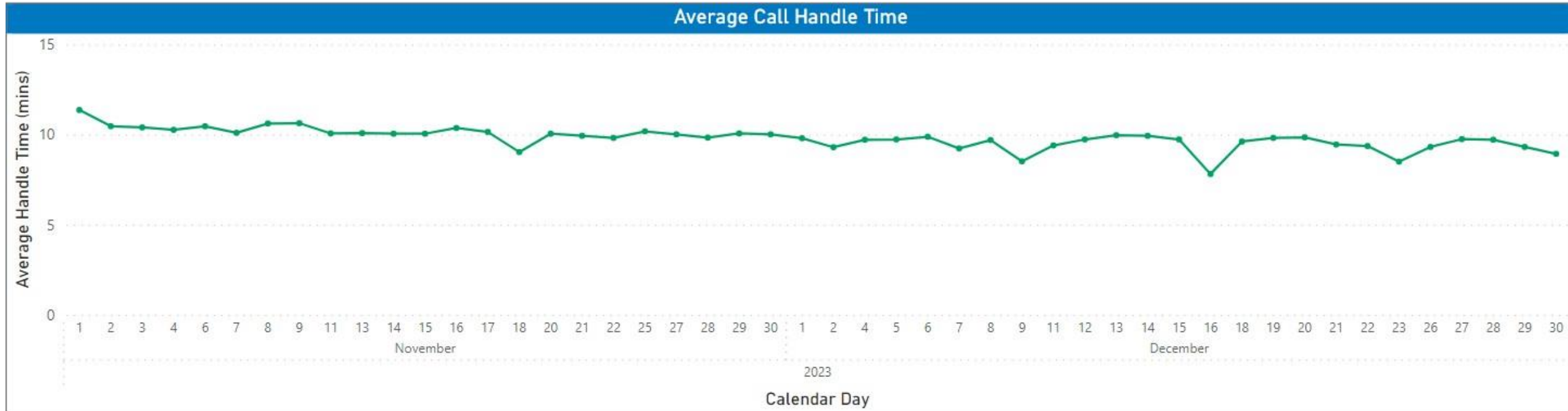
## NC Quick Pass Program

Average Speed to Answer Calls



# Average Call Handle Time

## NC Quick Pass Program



# BackOffice System Efficiency

# Operational Enhancements

## BackOffice System Enhancements

- Adding manual DMV hold and release
- Alphabetizing all drop down menus
- Launching mobile app
- Adding matching accounts tab
- Extending screen timeout
- Creating new customer correspondence
- Adding License Plate Agency role

# Matching Accounts Enhancement

## BackOffice System Enhancements

INTEGRITY

Search Advanced Search Angela

**JOHN SMITH, #129972124** ACTIVE

200 SORRELL GROVE CHURCH RD, MORRISVILLE, NC 27560-9543 919-555-1212 test@test.com	Account Type: <b>NC Quick Pass Personal</b> Billing Method: <b>Pre-paid</b> Billing Type: <b>Automatic – Credit Card</b> Active Transponders: <b>1</b> Active Vehicles: <b>1</b>	Replenishment: <b>Active</b> Replenishment Threshold: <b>\$10.00</b> Replenishment Amount: <b>\$20.00</b> Account Open Date: <b>09/07/2023</b>	Balance: <b>\$20.00</b>
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ACCOUNT ACTIONS

CASES CONTACT VEHICLES / TRANSPONDERS BILLING TRANSACTIONS INVOICE CORRESPONDENCE ACCOUNT HISTORY HOV DECLARATION ACCOUNT STATUS MATCHING ACCOUNTS

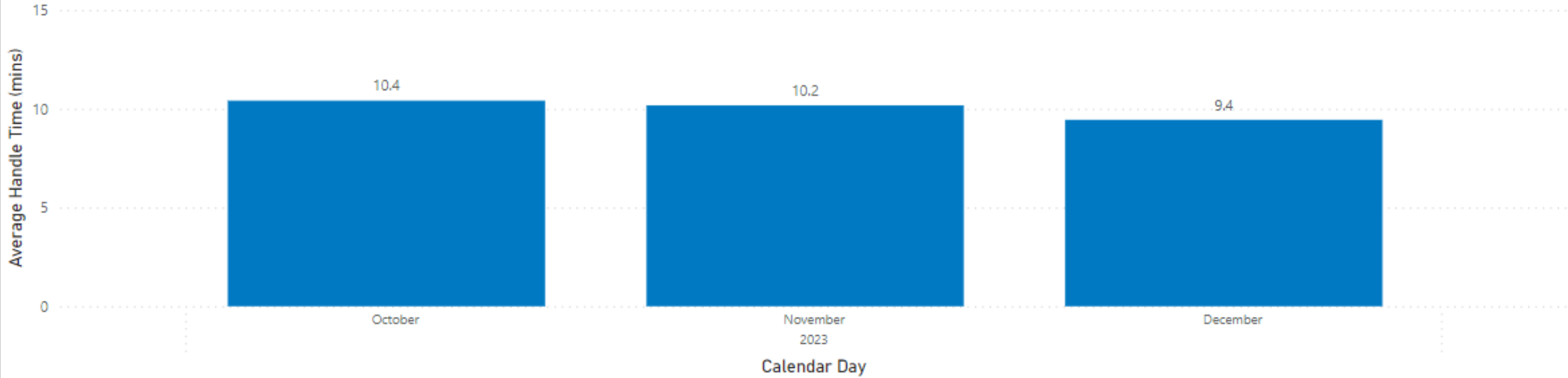
Drag a column header and drop it here to group by that column

Account Id	Account Status	Account Type	Account Name	Business Name	Account Balance	Address	Plate Number
<a href="#">129974688</a>	Active	Registered License Plate	OCTFOUR REGRESSION		\$25.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129974667</a>	Active	NC Quick Pass Personal	OCTTWO M REGRESSION		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129977096</a>	Active	NC Quick Pass Personal	NAME CHECK		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129972864</a>	Active	NC Quick Pass Personal	GOD JOHN		\$100.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">128857163</a>	Active	NC Quick Pass Personal	CS MS		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129972095</a>	Active	NC Quick Pass Personal	TAX CHECK		\$62.83	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129968471</a>	Active	NC Quick Pass Personal	RADIO BUTTON		\$30.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129976373</a>	Active	NC Quick Pass Personal	TEST T		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129980984</a>	Active	NC Quick Pass Personal	CHECKING CHECK		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129972866</a>	Active	NC Quick Pass Personal	REGRESSION TWO		\$25.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129972877</a>	Active	Registered License Plate	REGRESSON RLP		\$30.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	
<a href="#">129972096</a>	Active	NC Quick Pass Personal	PR CHECK		\$20.00	200 SORRELL GROVE CHURCH RD MORRISVILLE NC 27560-9543	

# Matching Accounts Enhancement

## BackOffice System Enhancements

Average Call Handle Time



# Marketing & Communications Update

**Logen Hodges**

Marketing & Communications Director



# Outreach Update

# Transportation Research Board (TRB)

- Jan 7 – 11
- 10K attendees

**The Journey to Engaged Customers and a Modern Customer Experience**

**NC Quick Pass Launches New Back-Office System**

In 2023, NC Quick Pass launched a new website, app and back-office system (BOS2) that substantially modernized the customer service experience. To support this transition, the North Carolina Turnpike Authority (NCTA) and NC Quick Pass created and executed a communications, marketing and public relations strategy to keep customers, stakeholders and travelers informed throughout the BOS2 implementation.

**Campaign Goals**

- Educate customer, the public and media about the new website, app and changes to the customer experience.
- Minimize confusion by setting clear expectations.
- Provide tools to customers that empower them to utilize the website and app and encourages self-service to minimize impacts to call center.
- Encourage customers to sign up for NC Quick Pass by using the improved website and app.

**Data-Driven Phased Approach**

In 2022, NCTA conducted a market research survey to learn more about driving behaviors, perceptions and communication preferences of residents. Utilizing this data, NCTA developed a five-phase approach:

- Announcement:** Set initial customer expectation that a new system is under way and establish project timeline (60 days before transition begins).
- Downtime:** Communicate customer impacts from the system transition and encourage customers to take action now to avoid any disruptions to their travel (20 days before transition begins).
- Transition Success:** Communicate the successful launch of the new website and provide vital information to prepare for the first bill and how to manage their account (24 hours after go-live).
- HOV App Transition:** Begin communication of old app retirement and launch of the new NC Quick Pass app (60 days before app retirement and 30 days after go-live).
- Marketing Campaign:** Launch state-wide earned, owned and paid media campaign highlighting the new customer experience and flow to get a NC Quick Pass transponder (30 months after BOS2 go-live).

**Tactics to Reach all Audiences**

Multiple tactics were used during each phase of the campaign including earned media and owned media. NCTA utilized public relations coverage organically generated through NC Quick Pass press releases and pitches focusing on the educational aspects of the downtime and the new website and app.

**New System, New Outreach Opportunities**

As part of this campaign, NCTA ran new self-standees on the go. We created and executed a new strategy that focused on customer engagement and sales. This included the following:

- Employee training:** NCTA trained a media and public engagement training for NCTA leadership to empower them to talk about the new features and customer experience. A new training course for customer service representatives was created to encourage sales.
- Streamlining the brand:** NCTA also added all outreach and education materials based on feedback from focus groups.
- Meeting customers where they shop:** Instead of just focusing on traditional outreach opportunities, the spring and other large events, NCTA focused on attending farmers markets and other opportunities that focused on shopping and leisure.

**Multicultural Communications**

During all phases of the BOS2 campaign, NCTA engaged multicultural communications experts to ensure all audiences were reached with messaging that resonated with them, utilizing their preferred tactics.

- Hispanic and Latino Communities:** NCTA translated press releases, submitted them to Spanish-speaking organizations and secured placements through meaningful translations, removing accents that do not resonate with Spanish-speaking communities.
- Black and African American Audiences:** To connect with Black/African American audiences, we used the information we collected in our market research survey and secured media coverage on the WBTV news and a social media campaign that informed through storytelling.

**Defining Success**

Measuring wait times, call volumes and email open rates. The success of NCTA's campaigns was data-driven:

- Measuring any increase in call volumes, wait times and the open rate of emails. After the first announcement, call volumes decreased by 15%.
- NCTA's detailed, strategic customer service, marketing and communications plan is the first major back-office system transition in the U.S. that garnered no negative headlines.

**Account conversions and on-time payments:** As invoices began to be distributed, the website saw an increase in web traffic compared to the previous year.

**Lessons Learned**

The importance of inter-office collaboration. NCTA integrated all departments throughout the planning phase to ensure messaging was easy to understand for customers. NCTA made sure all materials had clear and concise messaging consistency across platforms.

Invested in Market Research. NCTA had assumptions on who our audience was and where we could reach them. After conducting our market research survey, we were surprised. For example, Facebook was the most frequently used social media platform (not everyone on Twitter!). Respondents to the survey also indicated that they lean to...

**What's Next?**

NCTA has launched an earned, owned and paid marketing campaign that highlights the benefits of getting a transponder and the new customer experience. It includes direct press releases, digital ads and out of home marketing (billboards).

**Success Metrics:**

- Over 100,000 app downloads
- 15% website traffic increase
- 1.36 Million emails with a 75% open rate
- 6,500 press releases
- 500,000+ website visits

**For the Carolinians**

**For the Explorers**

**For the Pack Leaders**



## 2023 Complete 540 Outreach



### Public Meetings

Over 750 participants in  
18 public meetings



### Informing Residents

2,664 postcards &  
25 Nextdoor posts



### Resident Inquiries

276 calls & 331 emails to  
the Complete 540 Hotline

# Marketing Campaign

# Fall 2023 Marketing Campaign

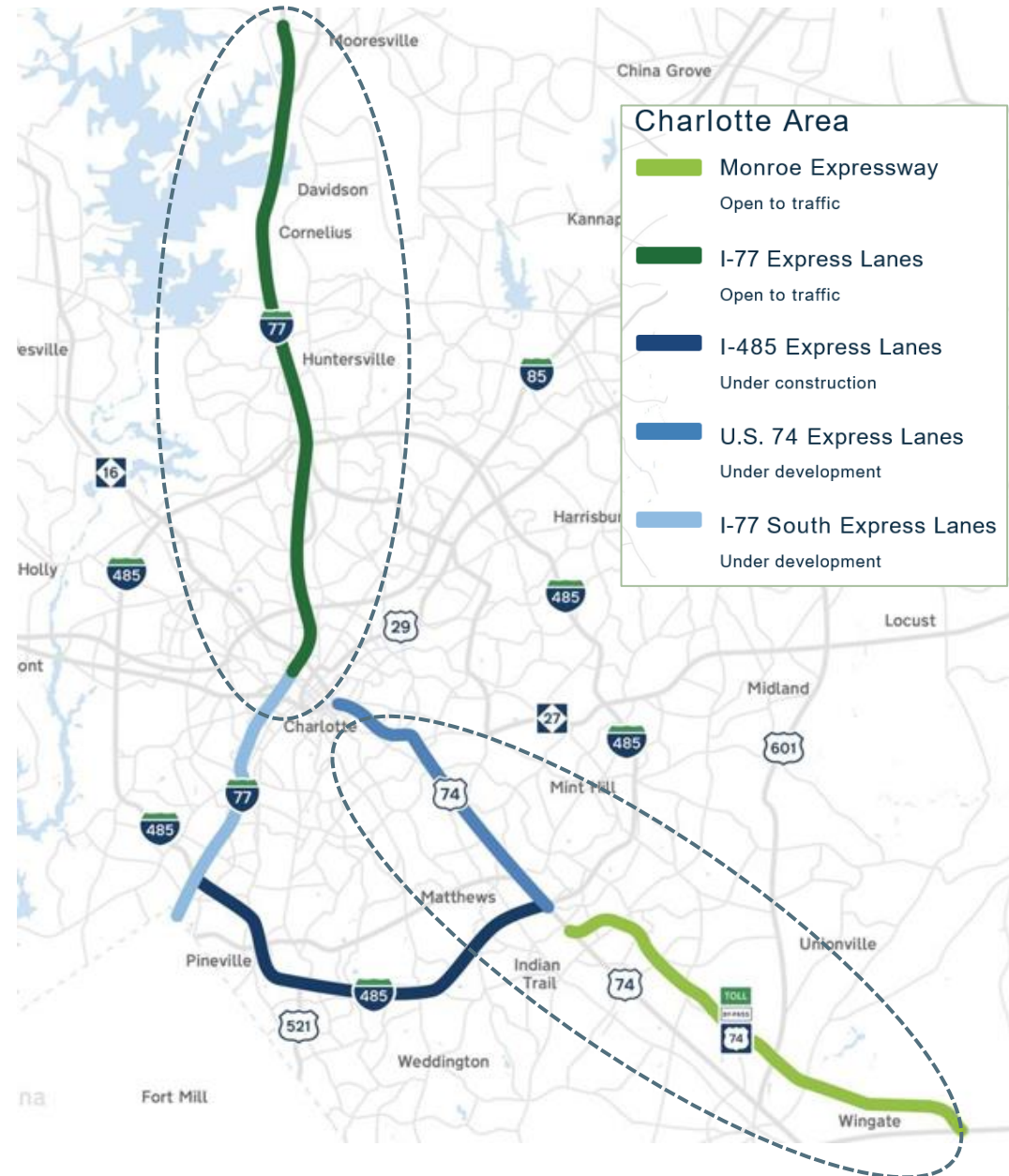
September 4 – November 15

## Goals

- Increase brand awareness
- Increase transponder sales
- Increase account conversions

## Tactics

- Out of home ads
- Digital ads
- BBM inserts
- Email



# Fall 2023 Marketing Campaign

## Data

- 5M OOH impressions - 7 billboards in Charlotte
- 3.5M digital impressions
- 768K emails
  
- Web Traffic – 40% increase
- Pre-Paid Transactions – 20% increase
- Transponder Sales – 39% increase
- New Accounts – 22% increase



# Contact Us



[ncdot.gov/turnpike](https://ncdot.gov/turnpike)

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[@NorthCarolinaTurnpikeAuthority](https://www.youtube.com/@NorthCarolinaTurnpikeAuthority)



[ncquickpass.com](https://ncquickpass.com)



**Thank you!**