

North Carolina Turnpike Authority

Operations Committee Meeting
May 22, 2025

Providing drivers more choices for their commute

Operations Committee



Montell W. Irvin
Operations
Committee Chair



**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 Chair



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



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



John Adcock
Board Member



Larry Hall
Board Member

Executive Director Opening Comments

J.J. Eden

Executive Director

Complete 540
Phase 1
Commemorative Plaque

**COMPLETE 540 PHASE 1
THE EXTENSION OF THE TRIANGLE EXPRESSWAY
SEPTEMBER 25, 2024**

THIS PLAQUE HONORS THE DEDICATION AND COLLABORATION OF ALL
THOSE WHO CONTRIBUTED TO THE SUCCESSFUL COMPLETION OF
PHASE 1 OF THE COMPLETE 540 PROJECT.

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STAFF
NORTH CAROLINA TURNPIKE AUTHORITY STAFF AND CONSULTANTS**

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION NORTH CAROLINA TURNPIKE AUTHORITY
SECRETARY OF TRANSPORTATION EXECUTIVE DIRECTOR
JOEY R. HOPKINS JAMES 'J.J.' EDEN

2024 BOARD OF DIRECTORS

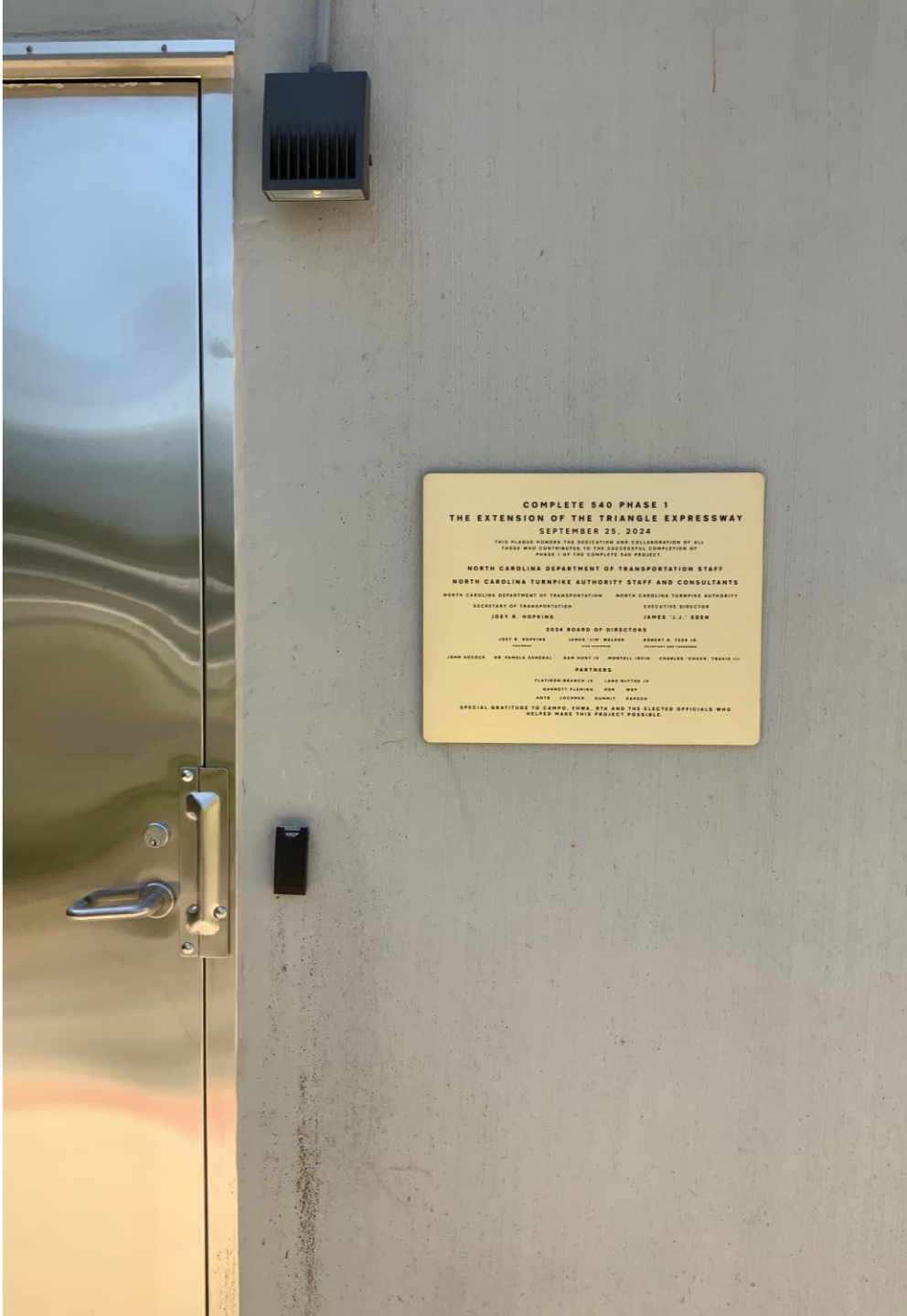
JOEY R. HOPKINS CHAIRMAN	JAMES 'JIM' WALKER VICE CHAIRMAN	ROBERT D. TEER JR. SECRETARY AND TREASURER
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JOHN ADCOCK DR. PAMELA SENEGAL SAM HUNT IV MONTELL IRVIN CHARLES 'CHUCK' TRAVIS III

PARTNERS

FLATIRON-BRANCH JV LANE-BLYTHE JV
GANNETT FLEMING HDR WSP
HNTB LOCHNER SUMMIT KAPSCO

SPECIAL GRATITUDE TO CAMPO, FHWA, RTA AND THE ELECTED OFFICIALS WHO
HELPED MAKE THIS PROJECT POSSIBLE.



Staff Recognition

Chief Engineer Update

Patrick Norman, P.E.

Chief Engineer

Welcome Kevin Bridges!



Western Director of Highway Operations





Complete 540 Phase 1



Final Phase 1 Construction

Anticipated Late Spring / Early Summer

- R-2721A
 - Y-line finishing work
 - Final punch list items
- R-2721B
 - Y-line finishing work
 - Final punch list items
- R-2828
 - Permanent striping
 - Mainline and Y-line finishing work

Toll Site T36 Milestones

	Temporary System Milestones	Date
✓	Vendors Contacted about Temporary System	July 31, 2024 – August 4, 2024
✓	Proposal for Temporary System Sent	August 16, 2024
✓	Letter of Intent Issued to Blissway	August 28, 2024
✓	Construction of Temporary System Began	September 10, 2024
✓	Contract with Blissway Signed	September 11, 2024
✓	Integration between Kapsch & Blissway Started	September 18, 2024
✓	Construction of Temporary System Completed	September 20, 2024
✓	Integration between Kapsch & Blissway Completed	October 10, 2024
	Replacement Milestones	Date
✓	Toll Gantry – Box Truss Installation	January 25, 2025
✓	Toll Gantry – Spanning Truss and Cable Tray Installation	January 25, 2025
✓	Completion of Equipment Installation	March 28, 2025
✓	Completion of System Tuning / Configuration	April 18, 2025
✓	Completion of System Testing	April 23, 2025
✓	Go-Live with New T-36 System	April 30, 2025

T-36 Completion





Complete 540 Phase 2

Complete 540 Phase 2 Turbine



Complete 540
Phase 2
Site 5



Complete 540

Phase 2

White Oak Road



Complete 540
Phase 2
U.S. 70



Complete 540

Phase 2

Rock Quarry Road



Complete 540

Phase 2

Poole Road

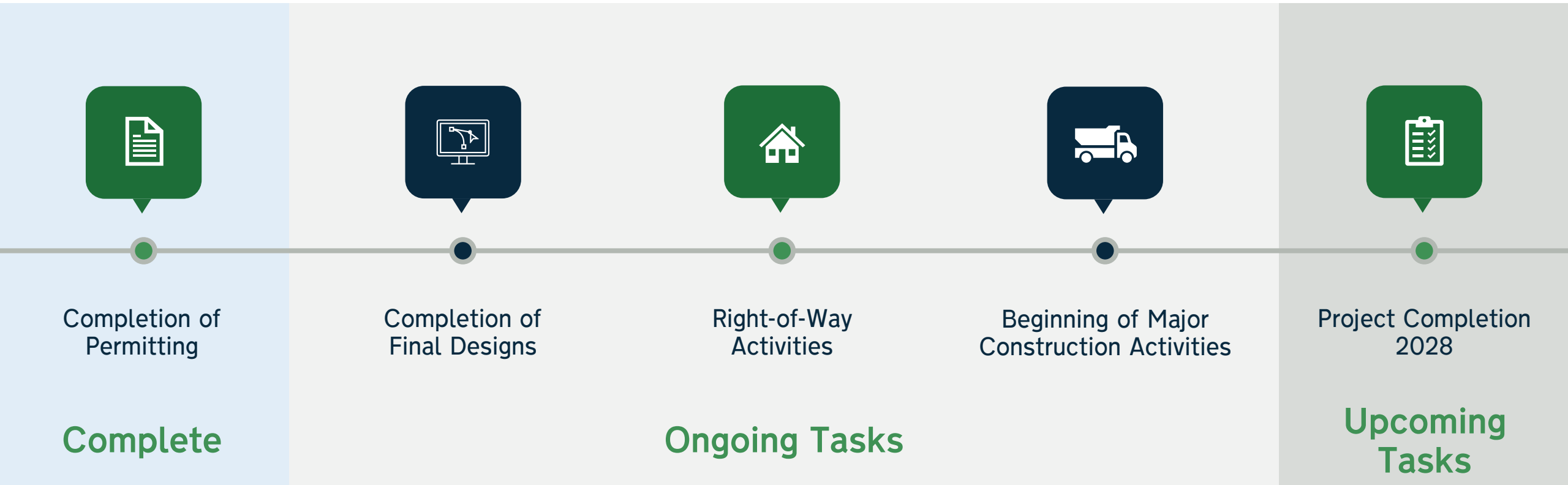


Complete 540
Phase 2
I-87



Complete 540 Phase 2

Anticipated Project Schedule





Phase 2 Public Presentations

Contract Administration Workshop

March 13

Durham Realtors

March 18

Raleigh Engineers Club

April 21

Highway Operations

Triangle Expressway

Maintenance Rating Program (MRP)

Element	Q2 2024 Rating	Q3 2024 Rating	Q4 2024 Rating	Q1 2025 Rating	Rolling Rating
Road Surface	98.9	100.0	98.0	100.0	99.0
Unpaved Shoulders and Ditches	98.8	100.0	100.0	100.0	98.8
Drainage	93.9	92.5	97.0	95.6	95.8
Roadside	94.4	96.7	96.9	99.1	95.5
Traffic Control Devices	93.3	87.8	92.2	89.5	92.6
Overall MRP Performance Rating	95.7	94.6	96.2	96.0	96.0

Monroe Expressway

Maintenance Rating Program (MRP)

Element	Q2 2024 Rating	Q3 2024 Rating	Q4 2024 Rating	Q1 2025 Rating	Rolling Rating
Road Surface	98.8	100.0	95.7	96.7	97.8
Unpaved Shoulders and Ditches	100.0	98.7	99.3	100.0	99.5
Drainage	95.3	95.6	95.8	100.0	96.7
Roadside	98.2	98.4	95.3	97.7	97.4
Traffic Control Devices	95.7	96.8	96.8	95.4	96.2
Overall MRP Performance Rating	97.4	97.9	96.4	97.4	97.3

I-485 Express Lanes Update

Brett Canipe, P.E.

Division Engineer, Highway Division 10

I-485 Express Lanes



General Construction Update

Division 10 Construction

Johnston Road Interchange – Direct Connect Flyover



Division 10 Construction

Ballantyne Commons Parkway Bridge



Division 10 Construction

Weddington Road Interchange



Division 10 Construction

E. John Street Interchange



Division 10 Construction

Toll Site 4.2 Near Weddington Road – 8 of the 10 Toll Sites are Available to Toll Integrator



Communications & Marketing Update

Kate Ford

Deputy Director of Marketing & Creative

Welcome Mauri Terry!



Public Relations Manager



Marketing & Outreach

Save 50% Paid Media Campaign

Tactics

- Display
- SEM
- Social

Results

- 22K new and converted accounts
- 1,672 transponders sold
- 3.5M web sessions

Future Campaigns

- Continuing SEM between campaigns



Smishing

Tactics

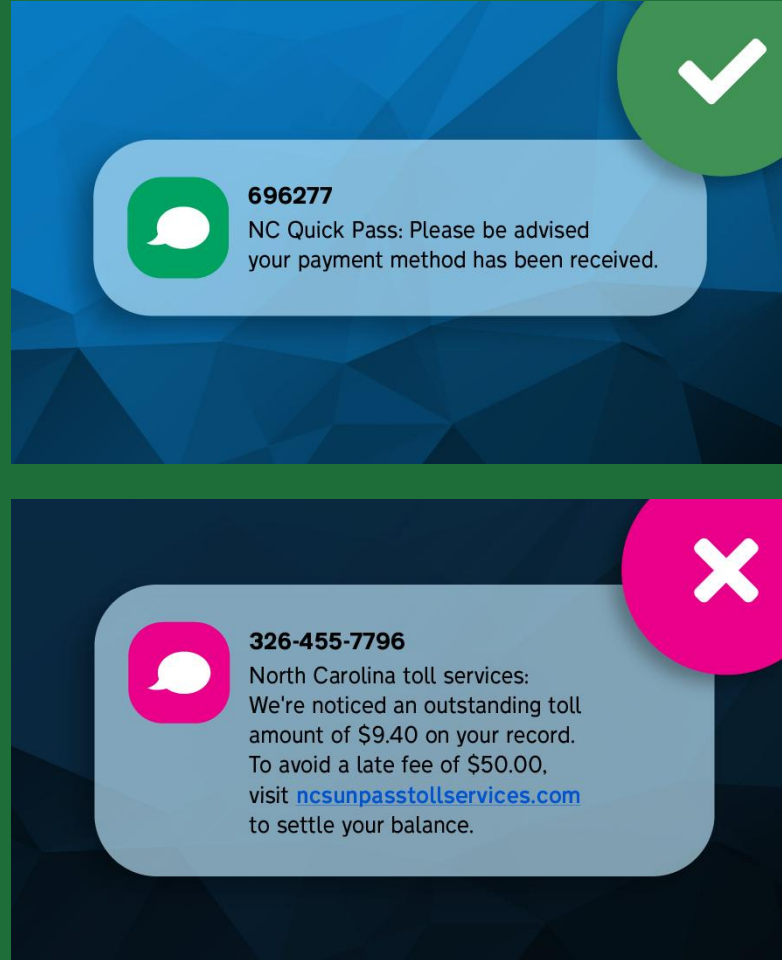
- Website alert
- Webpage
- Social posts
- Email
- Press releases

Partnerships

- NC Attorney General
- Federal Trade Commission
- Other agencies

Media Coverage

- 86 stories





Retail

Retail Program as of April 22, 2025

Locations

- 52 locations

New partnerships

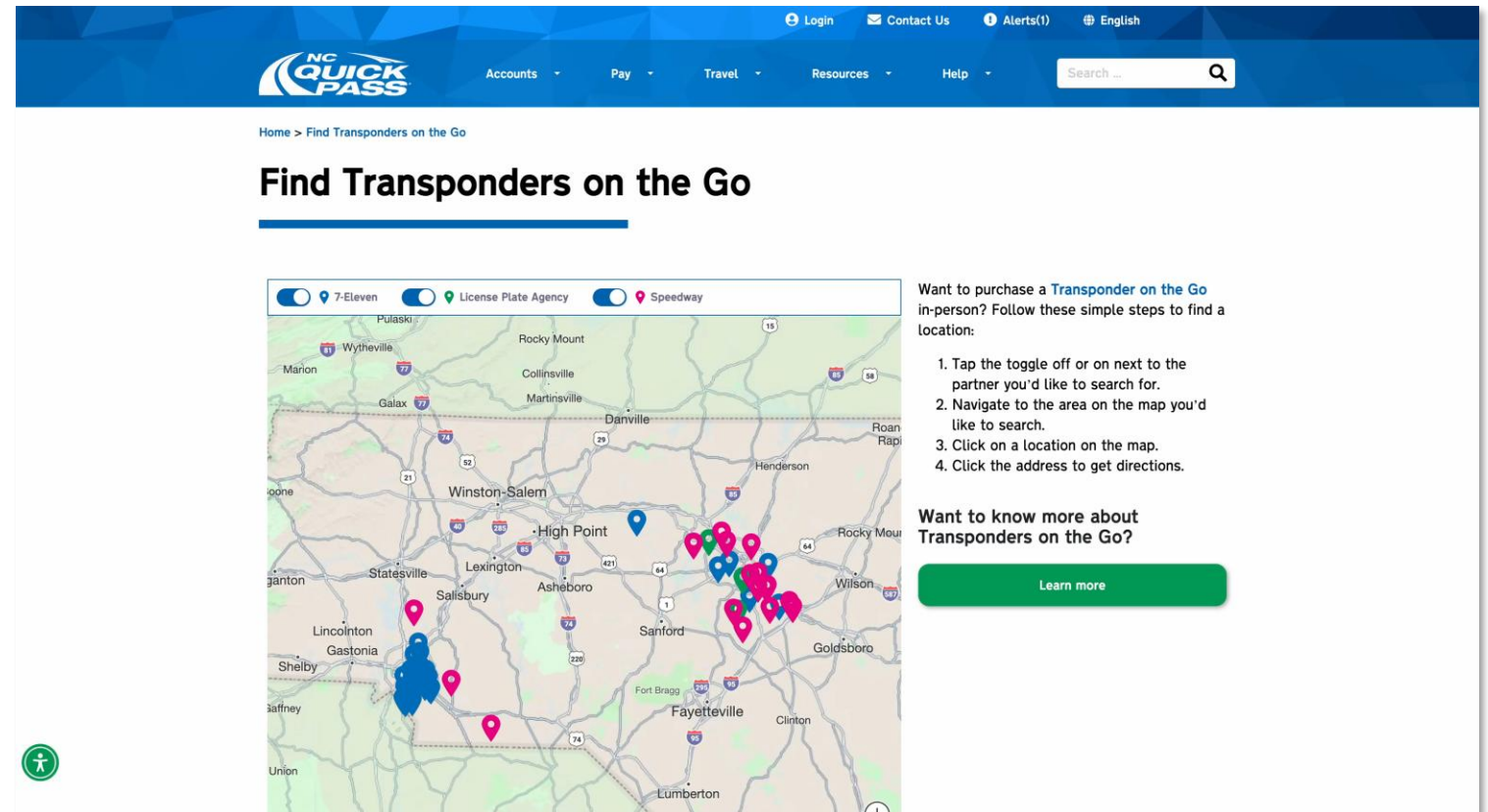
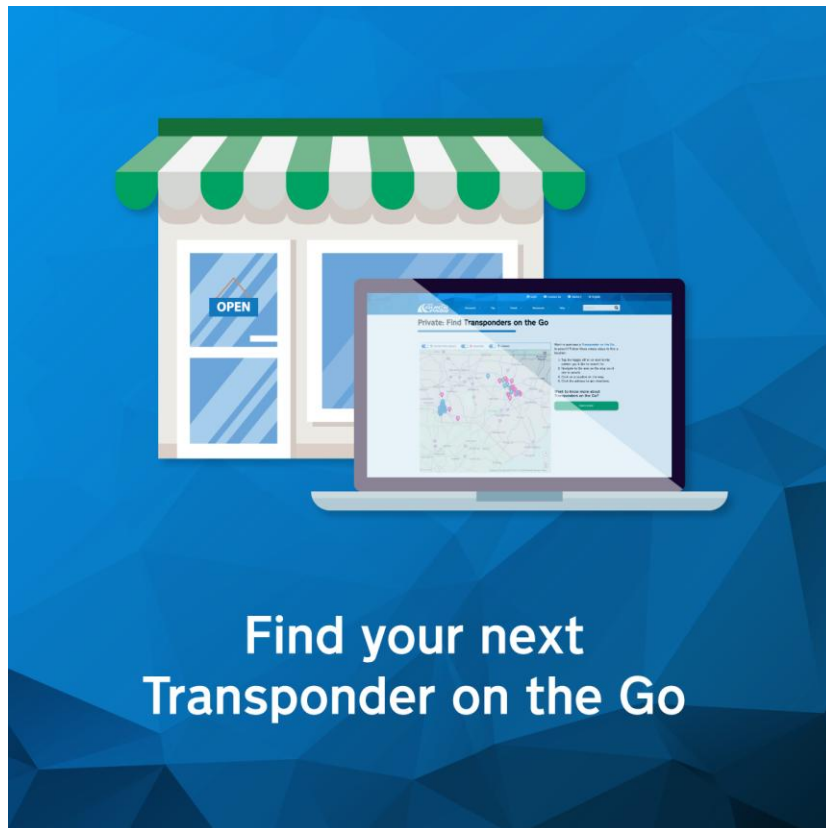
- Speedway
- License Plate Agencies

Purchased from retailers

- Over 25K transponders



Retail Interactive Map



ncquickpass.com/find-on-the-go

Public Outreach

New NCTA Materials



North Carolina Turnpike Authority

Keeping Pace With North Carolina's Future



NCTA Overview

Since 2002, the North Carolina Turnpike Authority (NCTA) has provided drivers with more transportation options, one project at a time. The North Carolina General Assembly enacted Session Law 2002-133, House Bill 644, authorizing public toll roads and bridges in North Carolina and the creation of NCTA.

Per state law, local planning organization must support tolling for a project to move forward. Currently, North Carolina's toll roads serve more than 2 million customers annually.

Open to Traffic

NCTA operates two toll facilities, the 36.8-mile **Triangle Expressway** in the Raleigh area and the 19.8-mile **Monroe Expressway** in the Charlotte area. Both projects provide reliable travel times for commuters, families and businesses throughout their regions.

NCTA also provides **NC Quick Pass** account management, billing and customer service for the 27-mile **I-77 North Express Lanes** in the Charlotte area.



Under Construction & Under Development

Two toll projects are currently under construction. NCTA's largest construction project, **Complete 540**, is being built in two phases. Phase 1 extends the Triangle Expressway approximately 18-miles from the existing corridor at U.S. 55 to I-40/U.S. 70 (future I-42). This portion of the roadway opened to traffic on Sept. 25, 2024. Phase 2 of Complete 540 will add approximately 10-miles, completing the 540 outer loop around the greater Raleigh area.

The **I-485 Express Lanes** will add one express lane in each direction for approximately 17-miles between I-77 and U.S. 74 in southern Charlotte. The project includes an additional general-purpose lane in each direction from Rea Road to Providence Road.





Three projects are currently under development, the **Mid-Currituck Bridge**, **U.S. 74 Express Lanes** and **I-77 Express Lanes South**.

April 2025

How a Toll Project is Built

The North Carolina Department of Transportation (NCDOT) is responsible for the **second-largest state-maintained road network** in the United States. Most of NCDOT's funding comes from the state gas tax, the state highway use tax and federal funds.


In 2002, the North Carolina General Assembly recognized that those traditional funding sources weren't enough to keep up with growth in the state. Therefore, they created the North Carolina Turnpike Authority (NCTA) to support the study, planning, development, construction, operation and maintenance of toll projects in the state-maintained road network.



Toll projects make up a small percentage of North Carolina's transportation network but have a tremendous impact.

Nearly 100,000 drivers use North Carolina's toll facilities each day

Tolling helps communities that request them to build projects faster and provide more reliable travel times for drivers.



ncdot.gov/turnpike

@NCTurnpike @NorthCarolinaTurnpikeAuthority



I-485 Express Lanes

Toll project including one express lane in each direction between I-77 and U.S. 74

Project Overview

The **I-485 Express Lanes** project will add one express lane in each direction along I-485 between I-77 and U.S. 74 (Independence Boulevard), providing travel time reliability and improving traffic flow in this critical transportation corridor. The project will also add one general-purpose lane in each direction along I-485 between Rea Road and Providence Road.

In coordination with other projects in southern Mecklenburg County, this project will serve as part of a larger network of express lanes offering drivers the option of more reliable travel times.

To minimize the duration of construction along the project corridor, three other projects will also be built at the same time as the I-485 Express Lanes:

- Ballantyne Commons Parkway bridge widening
- New interchange at Weddington Road
- John Street interchange improvements



Interchanges

- 67 - I-77
- 65 - South Blvd.
- 64 - Providence Matthews Rd.
- 61 - Johnston Rd.
- 59 - Rea Rd.
- 57 - Providence Rd.
- 54 - Weddington Rd.
- 52 - John St.
- 51 - E Independence Blvd. (U.S. 74)

Project Benefits

- Improved mobility through the I-485 corridor
- Improved design elements and additional general-purpose lane on I-485
- Option for more reliable travel times
- Toll funding to help with maintenance, operations and future improvements
- Direct connection to express lanes from Johnston Road and Westinghouse Boulevard
- Charlotte Area Transit System (CATS) vehicles travel on the express lanes toll-free

March 2025

Toll Technology Update

Manish Chourey

Chief Technology Officer



I-485 RTCS Project Status

Installation Activities

- Site turnover from Design Build to Indra
 - AET 4.1 turned over to Indra February 2025
 - AET 3.2 turned over to Indra March 2025
 - AET 4.2 turning over to Indra June 2025
- Installation progress by Indra
 - AET 4.1 (A07) installed March 2025
 - AET 3.2 (A06) installed April 2025
 - AET 4.2 (A08) installation started April 2025
- Testing Progress by Indra
 - A02 tested March 2025 (Onsite Installation Testing)
 - Site Installation Testing for the remaining 8 sites began in May 2025

Installed toll
equipment cabinet
at AET 2.1 (A03)



Lane testing at
AET 1.2 (A02)



Indra's user interface for detailed transaction review

Transactions Viewer

Tolling point
A02

Lane
EL

Transit ID
2504020000003603

Date and time
04/10/2025 2:08:12 AM

License Plate images

Video

Image Editor

Brightness

Contrast

Saturation

Sharpness

Gray Scale

Luminosity

Rotation

Zoom

Inversion

Reset

Screenshot

TRH sending details

TRH Id	Sending Date	Sending Status
57630	04/10/2025 2:10:53 AM	Ok

Vehicle

Redn. Rear
TKE1425

Redundant LP Rear reliability
70.00 %

LP Rear
TKE1425

LP rear reliability
77.00 %

Jurisdiction State
Virginia

Jurisdiction confidence
77.00 %

Class
Extended vehicle

Class reliability
63.89 %

Axles number
2

Speed
71.1 mph

TAGs

Serial No	Issuer	Type
00330004123518	North Carolina Turnpike Authority(NCTA)	TDM

Previous

Next

Return

Indra's user interface for express lane facility management

The interface is divided into three main sections:

- Left Sidebar:** Contains navigation icons for ITS, Global Equipment Status, Active Messages, CCTV, and Travel Times.
- Main Panel (Left):**
 - Header:** GANTRY A02_485_OUT_NC49_Wsthouse
 - Alarms (10):** A table with columns for Status, Description, and Date. It lists various alarms such as 'Wrong Way Detec...', 'AUX Shutdown I...', 'No connection', and 'Transits Without...'. Each alarm has a checkbox and a status indicator (green or red dot).
 - Element tree:** A hierarchical list of equipment elements including A02_485_OUT_NC49_Wsthouse, A02-ACSMS, A02-DEV-ACSMS-CAM, A02-AVDC, and A02-AVDC-IndraAVDC1/2.
- Main Panel (Right):** A map view showing the facility layout. Overlaid on the map are several green-bordered boxes containing toll information:
 - TRIS10-485-66.40 \$1.30
 - TRIS10-Westinghouse# 485 \$1.30
 - TRIS10-Westinghouse# 485 \$1.30
 - TRIS10-485-65.61 \$2.50



I-485 RTCS Project Status

Phase 1 Closeout Activities

- Interface Testing with NCTA BOS completed March 2025
- Execution of Onsite Installation Testing in progress
- Developing procedures for future test phases
 - System Installation Test
 - Operational Acceptance Test
 - System Acceptance Test
- Other documents in progress
 - Maintenance plan
 - Training plan and materials
 - User manuals
 - Disaster recovery plan

I-485 Toll Zone Construction Progress

	Toll Sites								
	A01	A02	A03	A04	A05	A06	A07	A08	A09/A10
	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1/5.2
	Westy WB	Westy EB	Park Rd	Rodney Rd	Ballantyne	Rea	Weddington	Wilson Rd	Pleasant Plains
Foundation	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Toll Upright	"Installed"	"Installed"	"Installed"	"Installed"	"Installed"	"Installed"	"Installed"	"Installed"	"Installed"
Toll Truss									
Hangers									
Pipes	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
LPS									
Maintenance Driveway	Complete	Complete	Incomplete / No asphalt around pad	Incomplete / No asphalt around pad	Incomplete / No asphalt around pad	Incomplete / No asphalt around pad	Incomplete / No asphalt around pad	Incomplete / No asphalt around pad	Paved with holes
Equipment Pad	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Power	#8 Complete	#8 Complete	#21 Complete	#14 Set	#29 Meter is active, Panel is not yet energized	#28 Complete	#39 Complete	#37 Power provided at the panel 4/21	#43 Complete
Bore to Median	Complete	Complete	Complete	Complete	All conduit crossing the highway between the cabinet pad and gantry must be replaced. This is expected to be complete within the next month.	Complete	Complete	Complete	Complete
Roadway Alignment and Paving	Final	Final	Final	Final	Final (there is a shift downstream of the toll zone)	Final	Final	Final	Traffic shift to final pattern completed in April
Paving	Pending OGFC	Pending OGFC	Pending OGFC	Pending OGFC	Pending OGFC	Pending OGFC	Pending OGFC	Pending OGFC	Pending final lift and OGFC
Turned over to Indra	7/3/2024	11/26/2024	1/2/2025	1/21/2025		3/31/2025	2/28/2025	4/21/2025	

Digital Transformation & Modernization Procurement Schedule

Category	Date	
RFP Issued	October 1, 2024	✓
Mandatory Pre-Proposal Scope of Services Meeting	October 16, 2024 (11:00 a.m. to 12:00 p.m. ET)	✓
Proposer Questions Due	October 24, 2024 (4:00 p.m. ET)	✓
NCTA Response to Questions	Week of November 4, 2024	✓
Technical Proposals Due	December 4, 2024 (4:00 p.m. ET)	✓
Oral Interviews & Presentations	Week of February 3, 2025	✓
Notification of Proposers Shortlisted	February 17, 2025	✓
Price Proposals Due (ONLY Shortlisted Proposers Will Submit a Price Proposal)	February 24, 2025 (4:00 p.m. ET)	✓
Ranking of Proposers for Negotiations	Week of March 17, 2025	✓
Notice of Award	Week of March 24, 2025	✓

Request for Information (RFI) Issuance

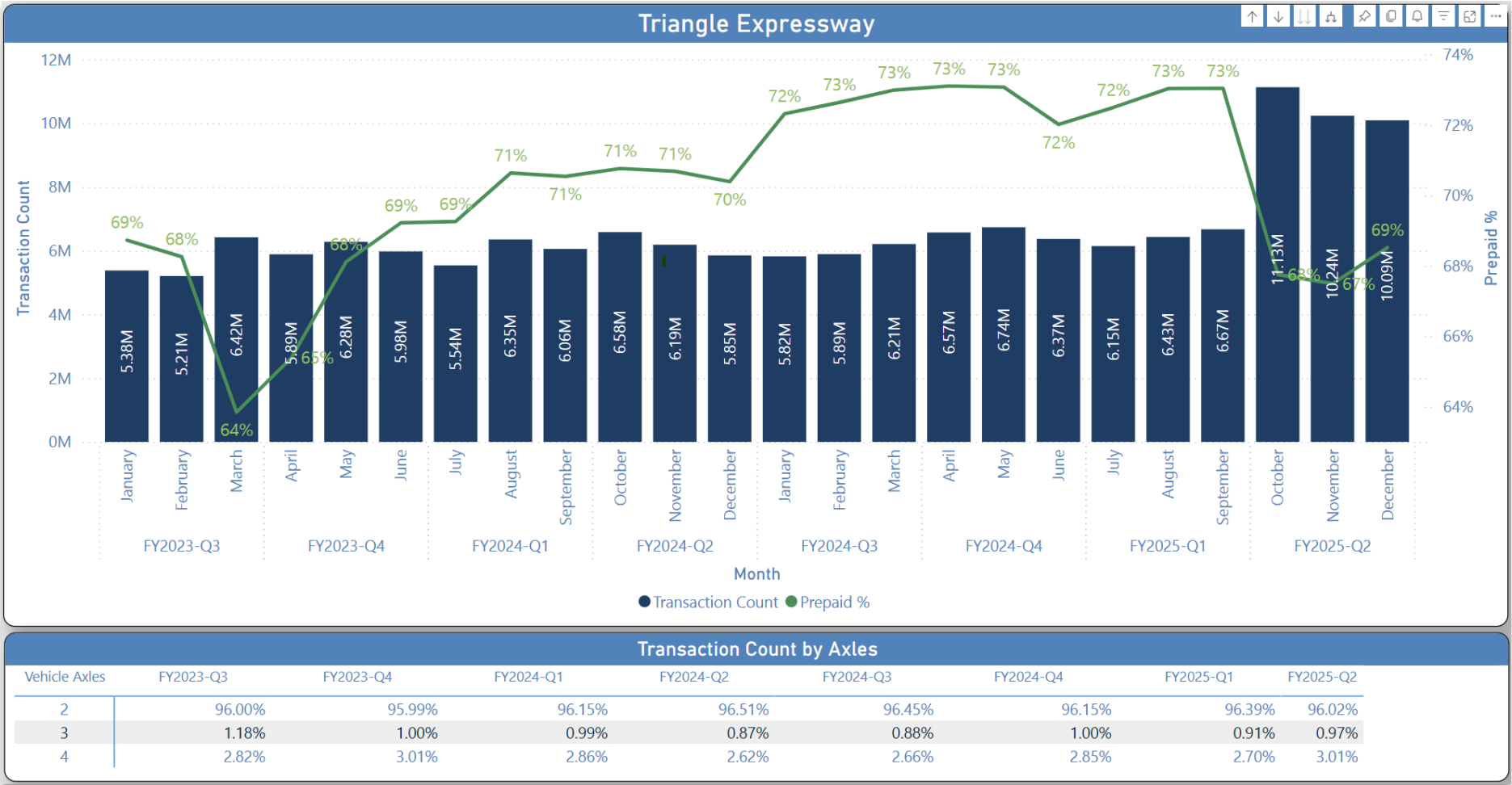
Customer Contact Technology RFI	
Category	Schedule
RFI Issuance	Monday, May 5, 2025
RFI Submittals Due	Wednesday, June 18, 2025
Invitation for Industry Feedback / Demo Meeting	Monday, July 14, 2025
Industry Meetings	Week of July 28 & Week of August 4
Next Generation Roadside Systems RFI	
Category	Schedule
RFI Issuance	Tuesday, June 3, 2025
RFI Submittals Due	Thursday, July 17, 2025
Invitation for Industry Feedback / Demo Meeting	Tuesday, August 19, 2025
Industry Meetings	Week of Sept 1 & Week of Sept 8

Traffic Statistics

Total Posted Transactions

Triangle Expressway

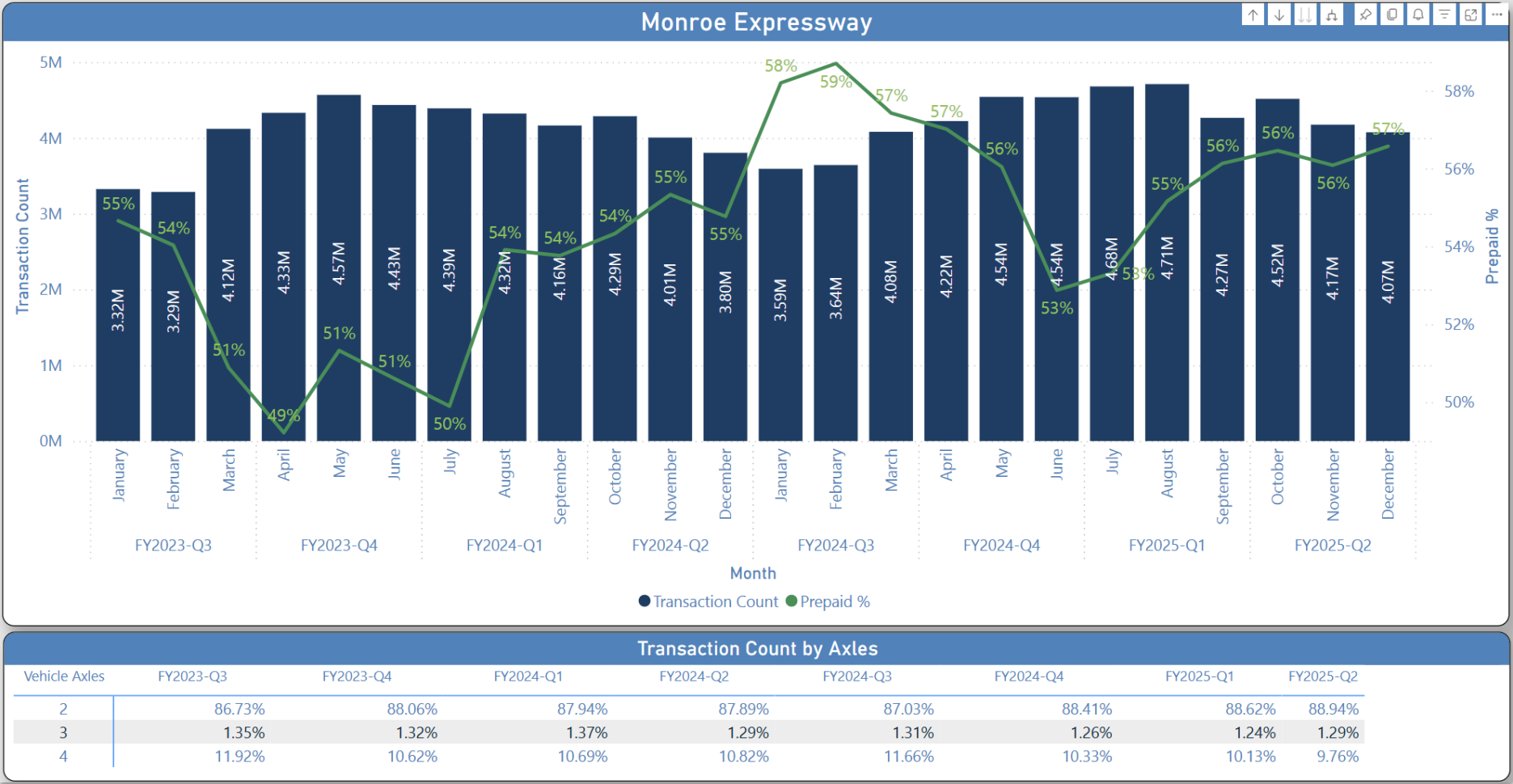
YOY Growth: 23.12%



Total Posted Transactions

Monroe Expressway

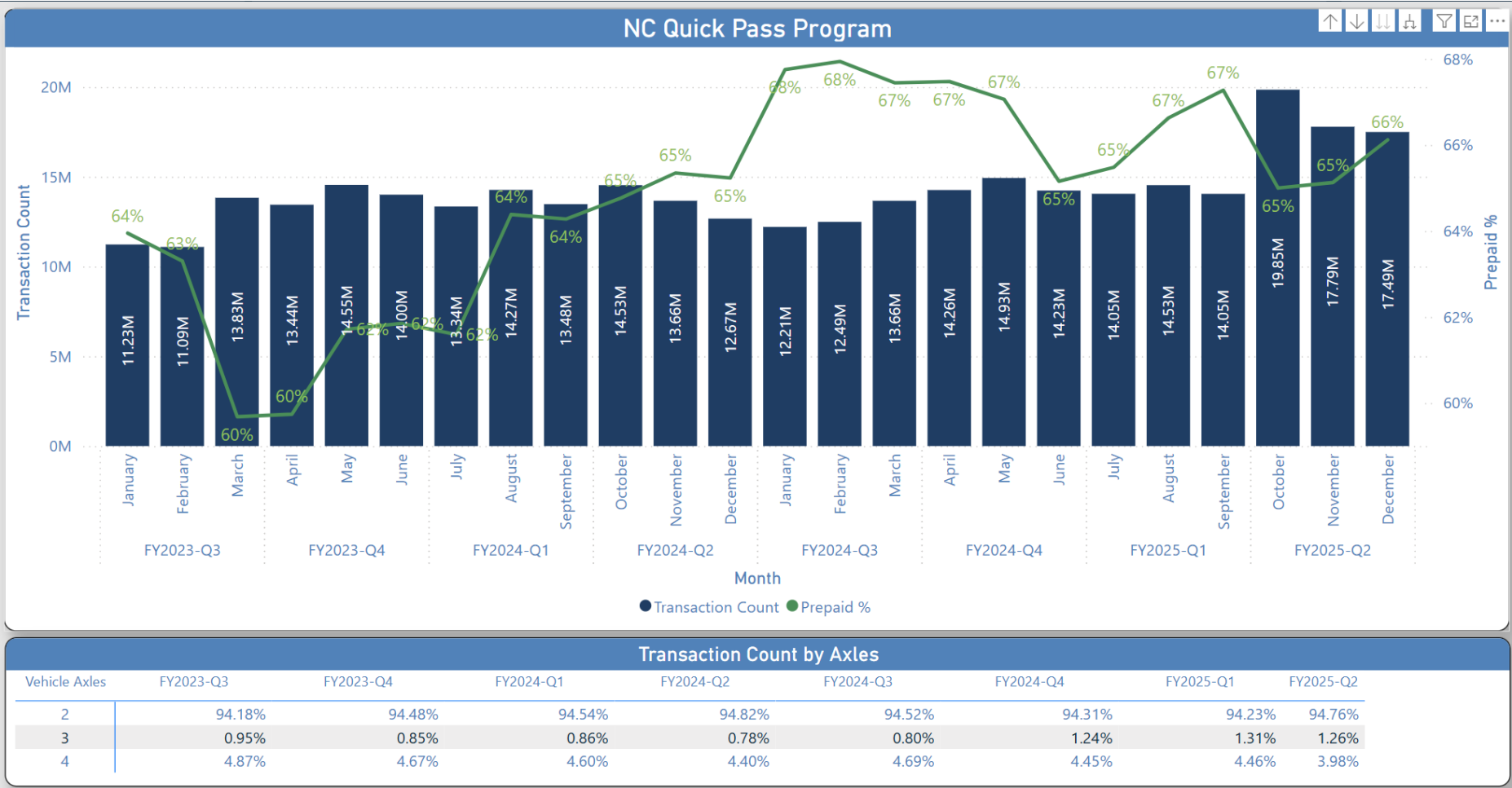
YOY Growth: 4.08%



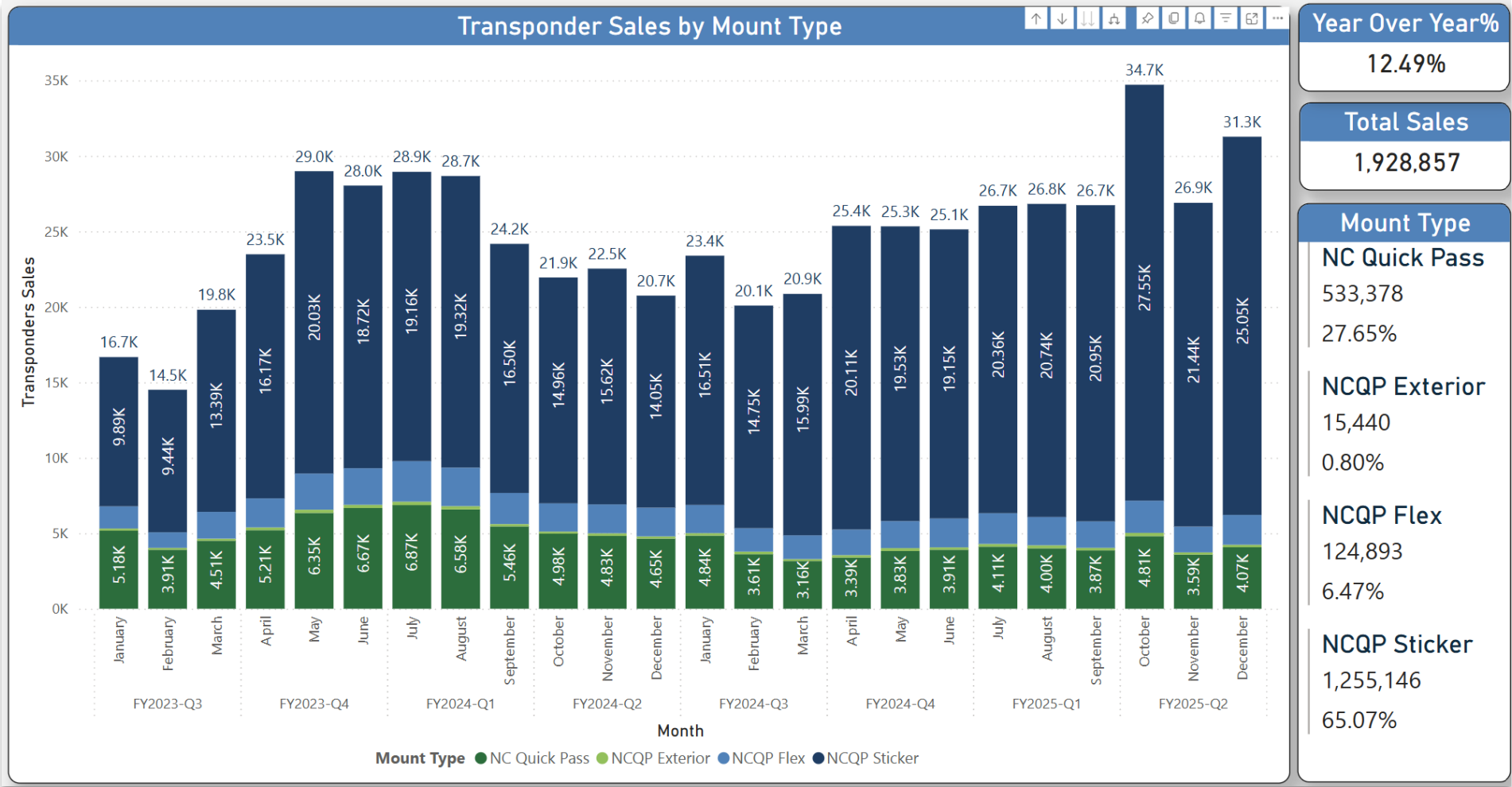
Total Posted Transactions

NC Quick Pass Program

YOY Growth: 12.15%



Monthly Transponders Distributed



Customer Service Center Update

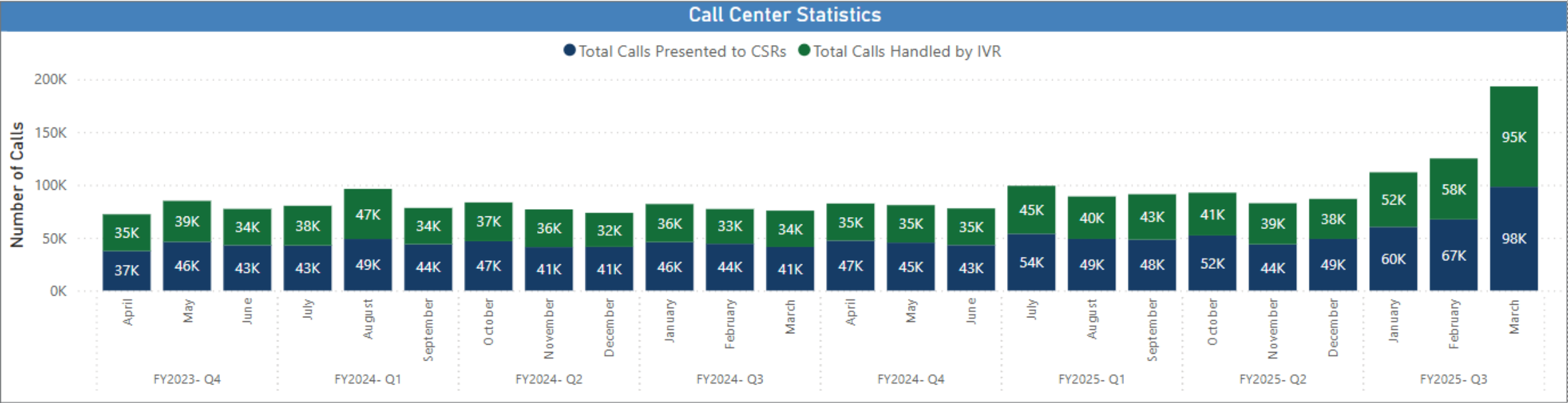
Angela Queensland

Deputy Program Director

Call Center Statistics

NC Quick Pass Program

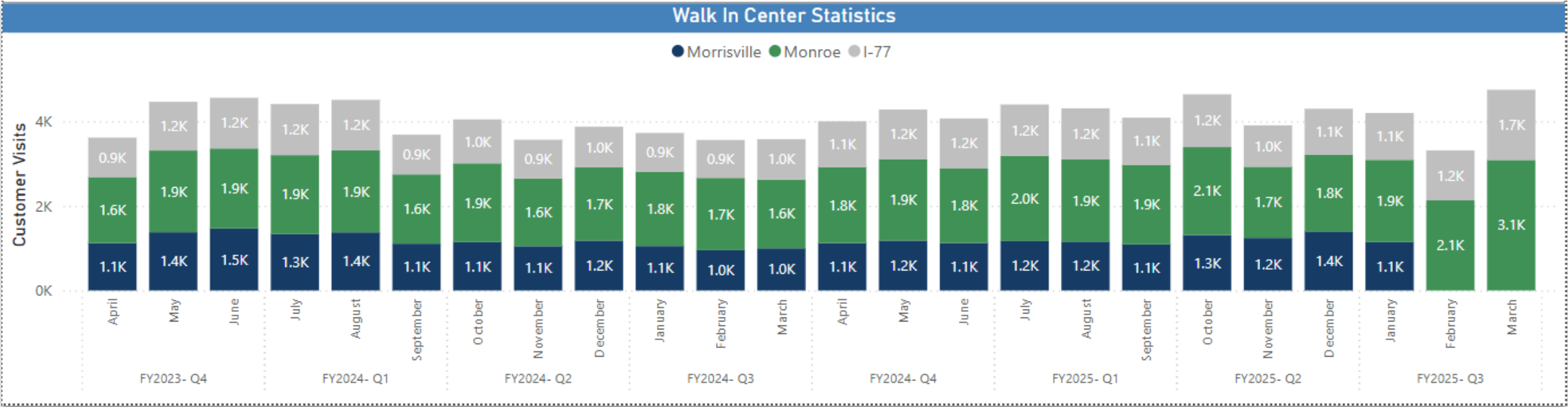
YOY Growth: 26.7%
IVR Containment Rate: 26.7%



Walk-In Center Statistics

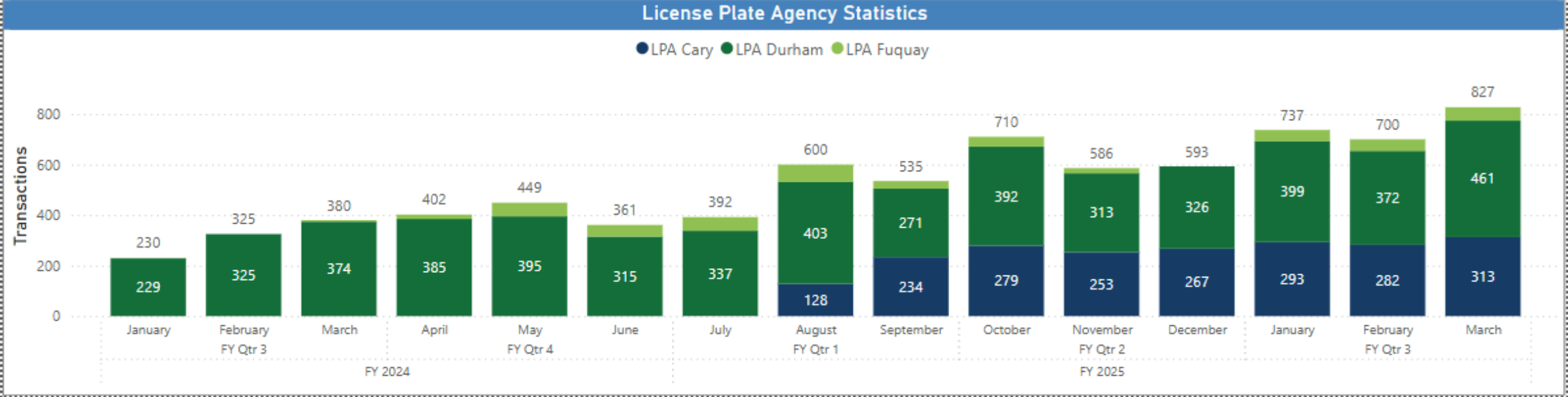
NC Quick Pass Program

YOY Growth: 5.6%



License Plate Agency Statistics

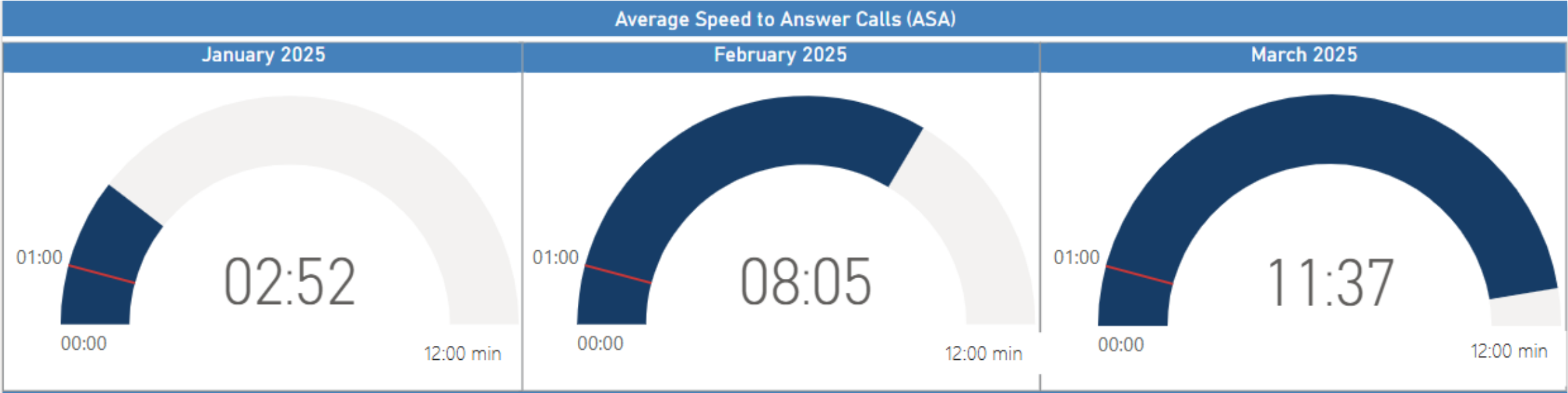
NC Quick Pass Program



Average Speed to Answer Calls

NC Quick Pass Program

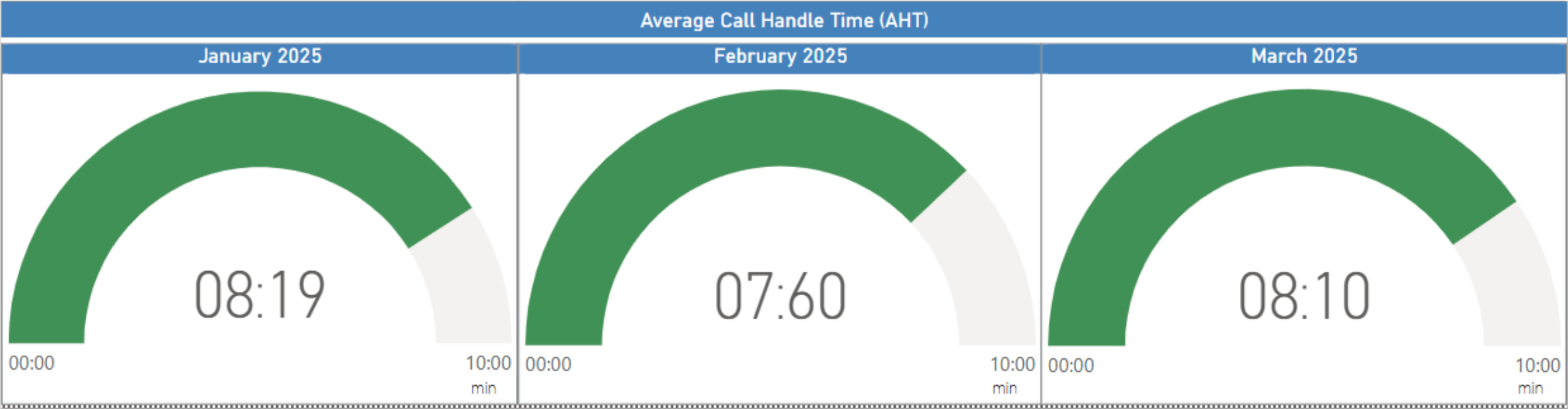
YOY Growth: 226.9%



Average Call Handle Time

NC Quick Pass Program

YOY Growth: -12.7%



Contact Us



ncdot.gov/turnpike



[@NCTurnpike](https://twitter.com/NCTurnpike)



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



ncquickpass.com

The background features a dark blue field with a subtle, repeating pattern of hexagons. Overlaid on this are several dynamic, glowing green particle trails. These trails consist of numerous small dots that form fluid, wavy lines, suggesting movement or data flow. One prominent trail curves from the top left towards the center, while another rises from the bottom left towards the right edge. A third, more diffuse trail is visible in the lower right quadrant.

Thank you!