

# Item 5

## West Knoxville Corridor (I-40/75) Study Presentation

**PRESENTER: DEXTER JUSTIS, DIRECTOR, TDOT REGION 1 PROJECT MANAGEMENT AND  
BRAD THOMPSON, VICE PRESIDENT, STV, INC.**

**NO ACTION REQUIRED**



# Knoxville Interstate 40 (I-40) Corridor Priority Investment Project

Knoxville Regional TPO Update

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February 11, 2025



# Study: Challenges/Keys to Success

- ▶ Develop concepts for congestion relief and safety improvements
- ▶ Analyze influence of truck volumes and weigh station traffic
- ▶ Enhance partnerships with stakeholders
  - Knoxville TPO
  - Cities and Counties
  - Railroads (NS)
  - Utilities (KUB, FUD, LCUB, WKUD, AT&T, TVA, etc.)
- ▶ Assess potential environmental impacts for concepts
- ▶ Understand public perception & priorities





## I-40 at Campbell Station Road

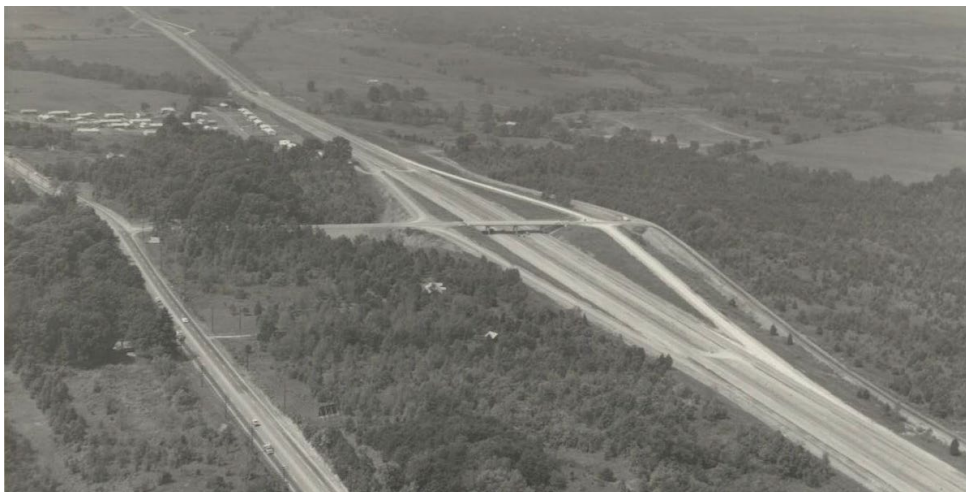


## I-40 at Cedar Bluff Road





## I-40 at Walker Springs Road



## I-40 at Papermill Road



# Knoxville I-40 Priority Investment (PD&E) Project Timeline through January

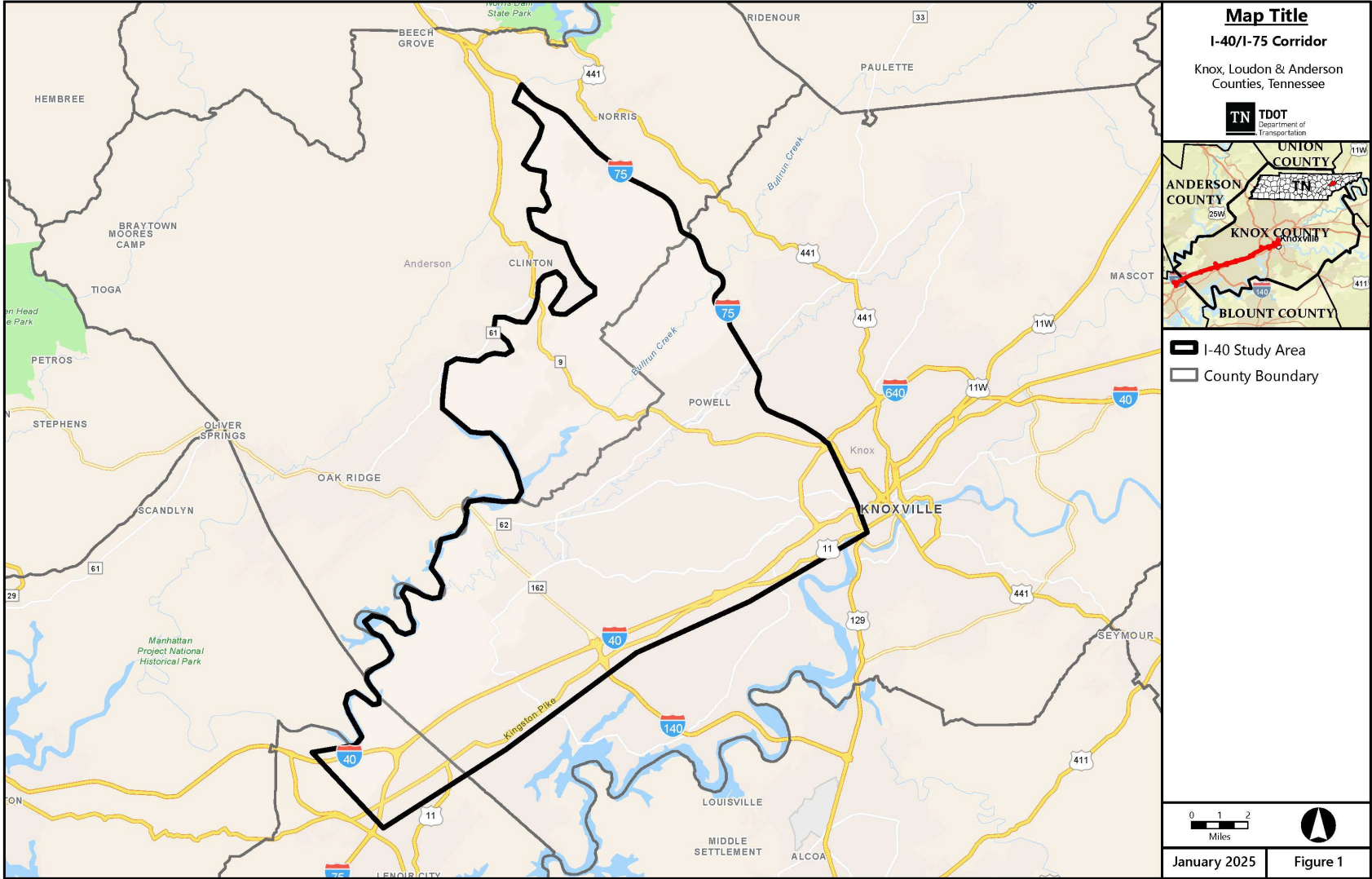
- ▶ April 2024
  - 3-year plan released identifying the project
  - 4/5 media event held at I-40 west bound weigh station announcing the project
- ▶ June 2024
  - 6/3 Advertise for consultant
  - 6/17 Pre-Proposal Meeting with potential firms
- ▶ July 2024
  - 7/9 Proposals received
  - 7/15 Team Interviews
  - 7/31 Consultant Selection Committee
- ▶ August 2024
  - 8/12 Selected Consultant Notification
- ▶ September 2024
  - 9/13 Kickoff/Alignment Meeting
  - Week of 9/23 STV team held internal field visit to develop corridor understanding
- ▶ October 2024
  - 10/21 Draft Scoping Document
- ▶ November 2024
  - 11/7 Final Scoping Document and Start of Fee negotiations
- ▶ January 2025
  - 1/7 Agreement on Fee for early work package

# Project Team

- ▶ HNTB – Project Management Support for TDOT
- ▶ STV – Project Lead Consultant and Design
- ▶ Stantec – Traffic and Environmental
- ▶ CDM Smith – Traffic and Design for I-75 Relocated
- ▶ Cannon & Cannon – Utility Coordination
- ▶ Robert G. Campbell & Associates – Survey
- ▶ Parsons – Cost Estimating



# Initial Study Area





# Knoxville I-40

## Priority Investment Project

### Phase 1 Objectives

- ▶ Review of existing and previous plans for the corridor
- ▶ Survey inventory of assets and conditions
- ▶ Identification of right-of-way and utilities along the corridor
- ▶ Assessment of existing and future corridor traffic and regional traffic patterns
- ▶ Evaluate safety issues along the corridor
- ▶ Identification and evaluation of needs and solutions
- ▶ Development of design options
- ▶ Environmental screening of design options (PEL)
- ▶ Constructability assessment
- ▶ Estimated project costs for each design recommendation
- ▶ Recommendations on funding, financing, and construction delivery options
- ▶ Public involvement and stakeholder coordination

# Environmental Data Collection

## ► GIS Mapping

- Central data and mapping
- Includes data from multiple sources and agencies:
  - Socioeconomic
  - Natural environment
  - Public lands
  - Transportation Infrastructure
  - Utilities (in progress)
  - KGIS

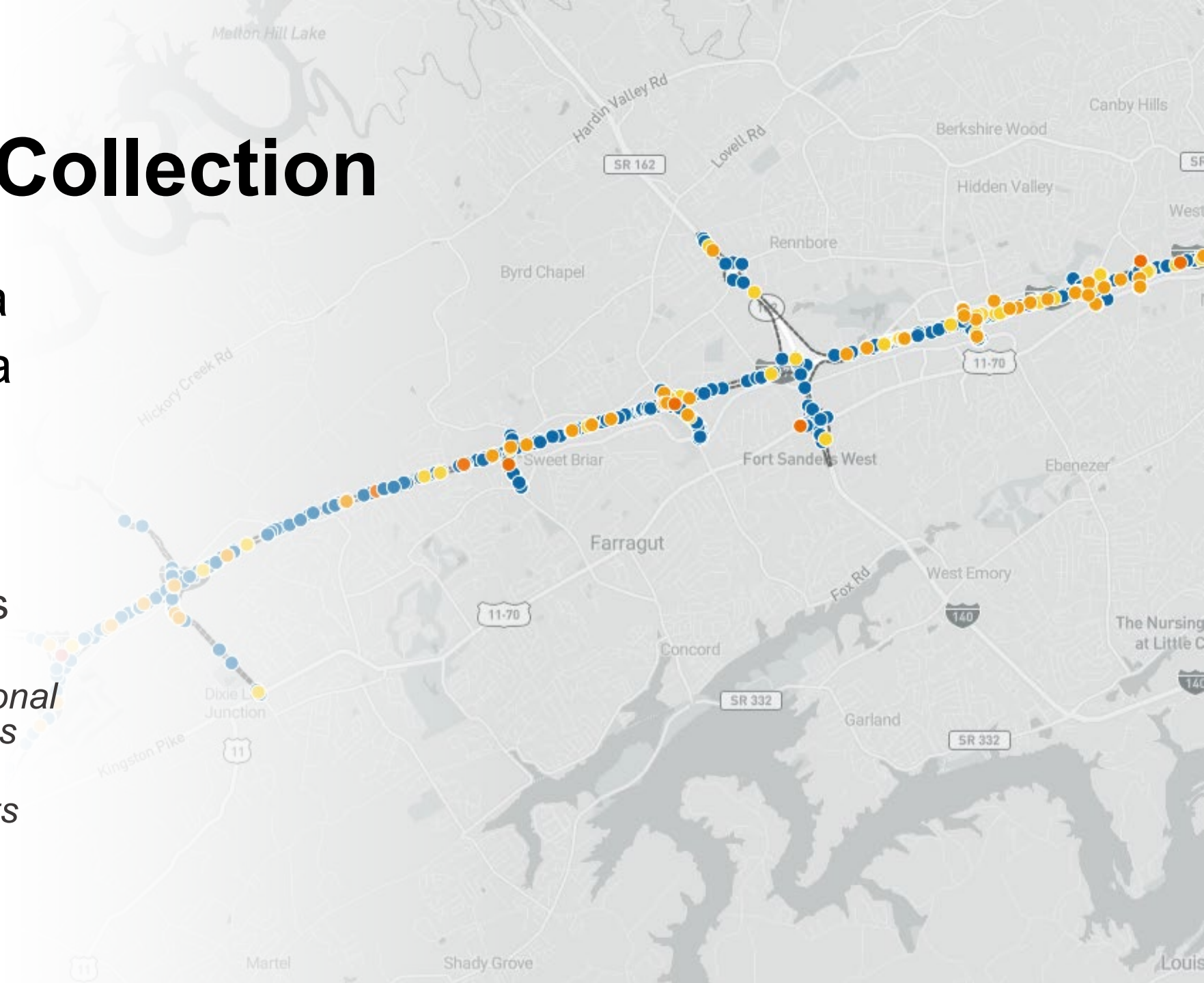
## ► Desktop survey of environmental features

## ► Purpose and Need Statement



# Traffic Data Collection

- ▶ Safety/Crash Data
- ▶ Freight/Truck Data
- ▶ Origin and Destination
- ▶ Traffic Counts
  - 181 total locations
    - 8-day Counts
    - 48-hour Bidirectional and Ramp Counts
    - 48-hour Turning Movement Counts





# Bottleneck Areas of Concern

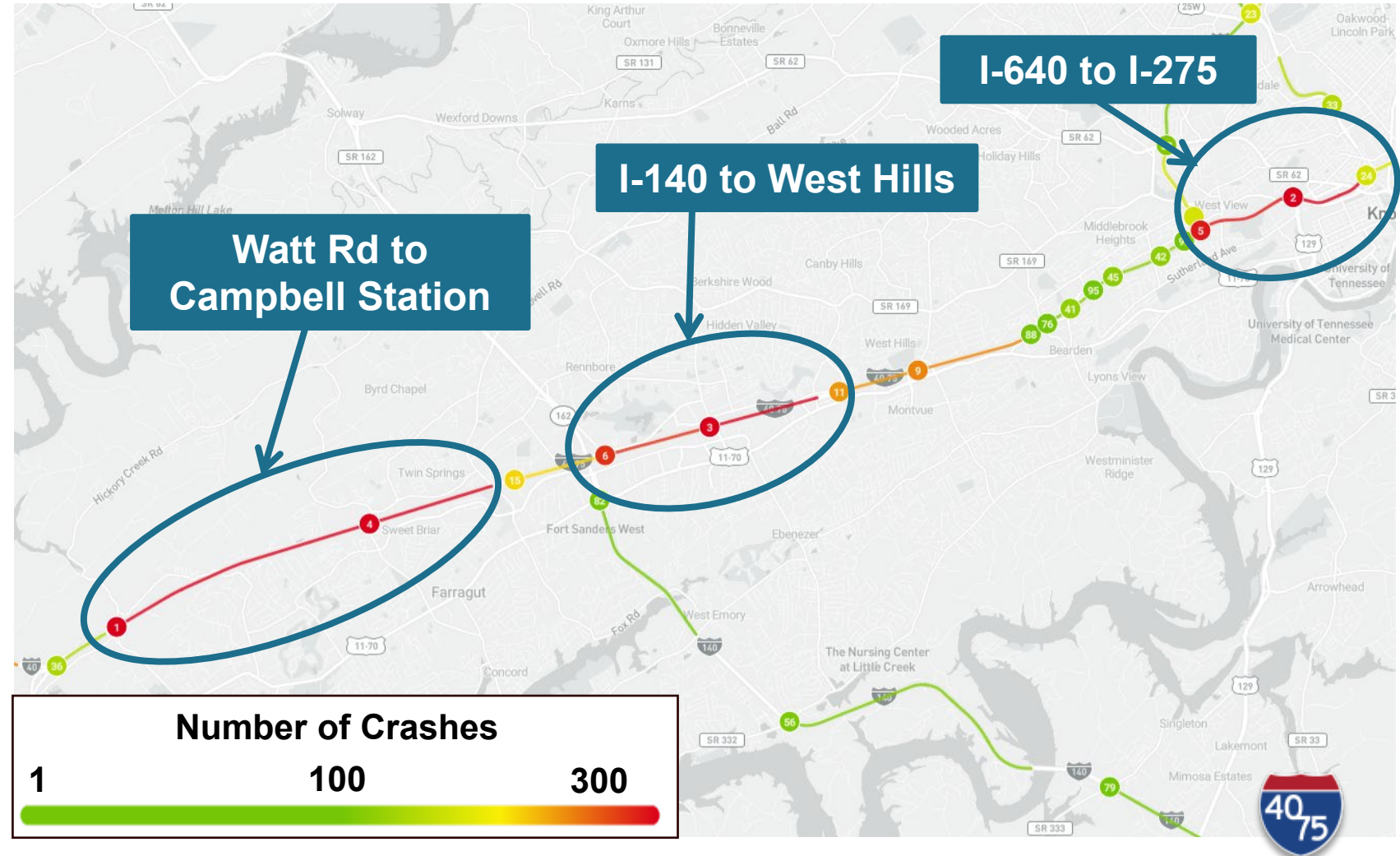
- ▶ Top 20 Rankings Region 1
  - Top 11 within project
  - 14 total within project
  - Top 3 traveling WB
- ▶ Top 20 Rankings Statewide
  - 3 within project



# Safety Areas of Concern

## ► Crash Hotspots

- Region 1
  - 9 of Top 20 within project limits
  - Top 6 within project limits
- Statewide
  - Ranked 5<sup>th</sup>: Watt Rd (Exit 369) to Campbell Station Rd (Exit 374)
- Incidents in corridor contribute to 41% of congestion



# Solutions for Consideration

- ▶ Capacity Additions to Existing Corridor
- ▶ Interchange Optimization/Redesign
- ▶ ITS
- ▶ Truck Only Lanes
- ▶ Weigh Station Solutions
- ▶ I-75 Alternative





# Initial Design Concepts Include:

- ▶ I-40/I-75 Mainline
  - General purpose lane addition
  - C/D road
  - Choice Lanes
- ▶ I-75 Alternative Alignment
  - Separation of I-40 and I-75
- ▶ Weigh Stations
  - Potential relocation

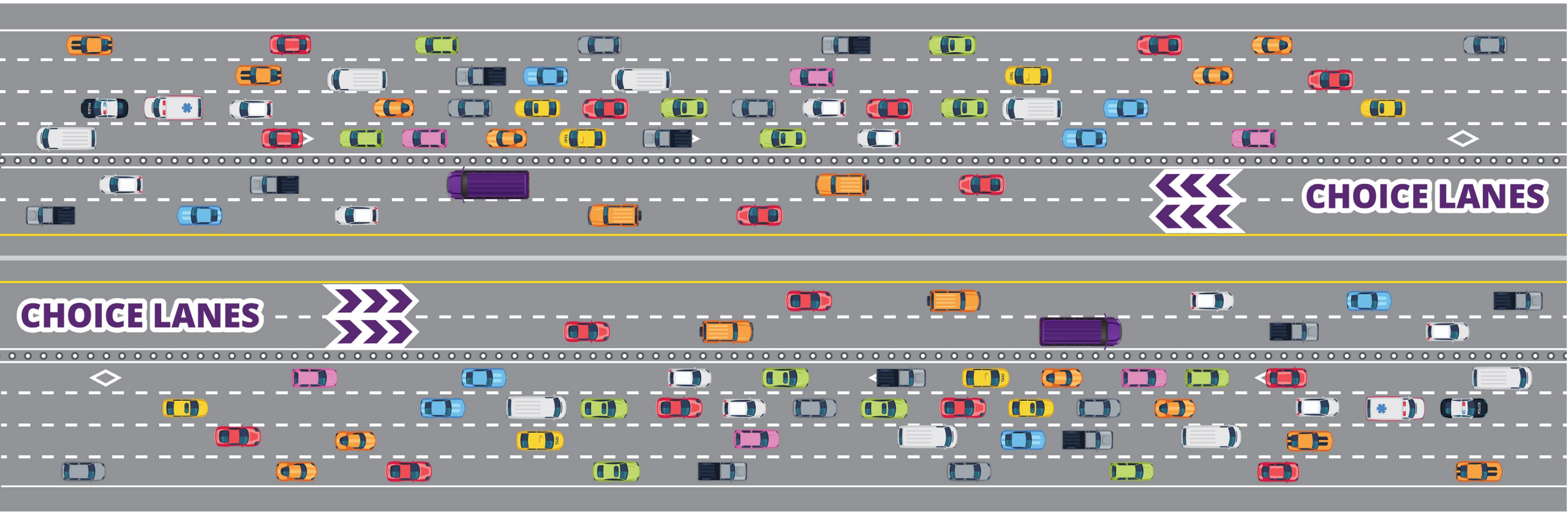


# What Are Choice Lanes?

New, additional lanes

Priced managed lanes that provide users with more reliable trip times in exchange for a user fee.

Designed, built, financed, operated and maintained by a private sector partner





# Choice Lanes in Other States

## Future Choice Lanes in Georgia



## Choice Lanes in Florida



## Choice Lanes in Virginia





# 2025 Key Milestones for Phase I: Planning and Environmental Linkages (PEL) Study

2024		Q1 2025			Q2 2025			Q3 2025			Q4 2025		
Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
› Data Collection	› Data Collection › Visioning Workshop	› Public Involvement Plan Development	› Traffic Data Collection Report › 10-Year Plan Input	› PEL Baseline Conditions › Online Survey	› Initial Mainline and I-75 Alternatives Development	› PEL Alternatives Screening Methodology	› Weigh Station Alternatives	› Interchange Alternatives	› Submit Survey for TDOT Review	› Finalize Alternatives and Develop Cost Estimates	› Alternatives Development Tech Memo › Public Meeting 2	› Project Prioritization and Phasing Plan	› Draft PEL Report for TDOT Review
			› Purpose and Need Statement			› Public Meeting 1		› Evaluate Design Alternatives					