



NC Capital Area **Metropolitan Planning Organization**

WELCOME!

*Today's Executive Board meeting is being held online.
The meeting will begin shortly.*

Please be prepared to mute your audio following roll call.

Call In: 650-479-3208 Meeting Code: 474 734 329 Meeting Password: MEET

PUBLIC COMMENTS SPEAKER SIGN UP SHEET:

<https://docs.google.com/spreadsheets/d/1DIP5Ur6hnivFNADo4oqxVP-ItRBAQEb48rKhte6RIh8/edit?usp=sharing>

Download Presentation Slides: <https://campo.legistar.com/Calendar.aspx>



NC Capital Area **Metropolitan Planning Organization**

Executive Board Meeting

November 16, 2022

4:00 PM

1. Welcome and Introductions

Roll Call of Voting Members & Alternates

Town of Angier

Town of Apex

Town of Archer Lodge

Town of Bunn

Town of Cary

Town of Clayton

City of Creedmoor

Franklin County

Town of Franklinton

Town of Fuquay-Varina

Town of Garner

GoTriangle Bd. Trustees

Granville County

Harnett County

Town of Holly Springs

Johnston County

Town of Knightdale

Town of Morrisville

NCDOT - Div 4

NCDOT - Div 5

NCDOT - Div 6

City of Raleigh

Town of Rolesville

Wake County

Town of Wake Forest

Town of Wendell

Town of Youngsville

Town of Zebulon

Ex Officio Non-Voting Members:

Federal Highway Admin.

NC Turnpike Authority

2. Adjustments to the Agenda

Add Item: 7.6 – Safety Performance Measures and Targets 2023

3. Ethics Statement:

In accordance with the State Government Ethics Act, it is the duty of every Executive Board member to avoid conflicts of interest.

Does any Executive Board member have any known conflict of interest with respect to matters coming before the Executive Board today? If so, please identify the conflict and refrain from any participation in the particular matter involved.

4. Public Comments

This is an opportunity for comments by those in attendance. Please limit comments to three (3) minutes for each speaker.

Speaker Signup:

- 1) Ms. Joanie Bowden

5. Consent Agenda

- 5.1 *October 19, 2022 Executive Board Minutes*
- 5.2 *Wake Transit Community Engagement Policy*
- 5.3 *Wake Transit Work Plan Amendment Policy*
- 5.4 *Extension Agreement: Memo of Understanding in Support of the Continued Development of the Greater Triangle Commuter Rail Project*
- 5.5 *FY 2023, Q2 Wake Transit Work Plan Amendment Requests*

Requested Action:
Approve all Consent Agenda items.

6. Public Hearing

6.1 Amendment #10 to FY2020 – 2029 Transportation Improvement Program (TIP)

6.1 Amendment #10 to FY2020-2029 Transportation Improvement Program

- CAMPO has received notification from NCDOT of changes to regional projects that require amending the Transportation Improvement Program. This amendment also includes project updates for Economic Development projects, CAMPO LAPP projects, and NC 540 Bonus Allocation projects.
- Posted to CAMPO Website for Public Review/Comment
 - October 17th through November 15th
 - Public Hearing scheduled for November 16th

6.1 Amendment #10 to FY2020-2029 Transportation Improvement Program

Requested Action:

Conduct a Public Hearing. Approve Amendment #10 to the FY2020-2029 Transportation Improvement Program.

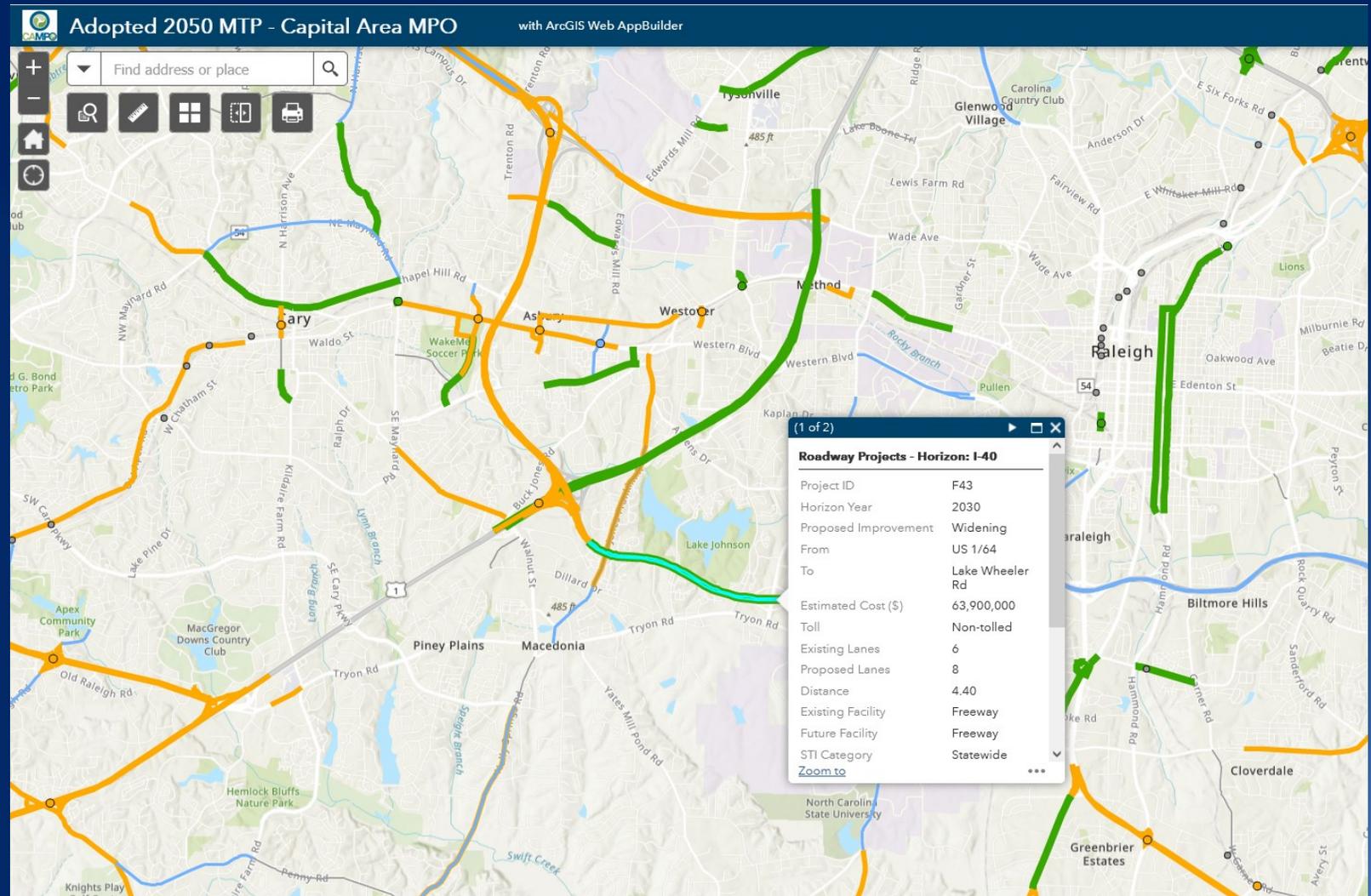
7. Regular Agenda

- 7.1 NCDOT Project I-5701 – Preferred Alternative
- 7.2 Preliminary DRAFT 2024 – 2033 TIP & U-5751 Status Update
- 7.3 Roadside Landscaping & Forestation Program
- 7.4 CAMPO Lead Planning Agency Agreement
- 7.5 Wake Bus Plan Project Prioritization Policy
- 7.6 Safety Performance Measures & Targets 2023

7.1 NCDOT Project I-5701 – Preferred Alternative

7.1 NCDOT Project I-5701 / 2050 MTP F43 Project

- F43 is a 6 to 8 Lane Widening in 2050
- Convert existing Aux Lanes to GP lanes
- Aux Lanes as Operational Improvements: Only < 1 mile





NORTH CAROLINA

Department of Transportation

I-5701: Auxiliary Lanes or Not?

I-40 from I-440/US1/US64 to Lake Wheeler

David Keilson, PE

NCDOT Division 5 Planning

November 3, 2022

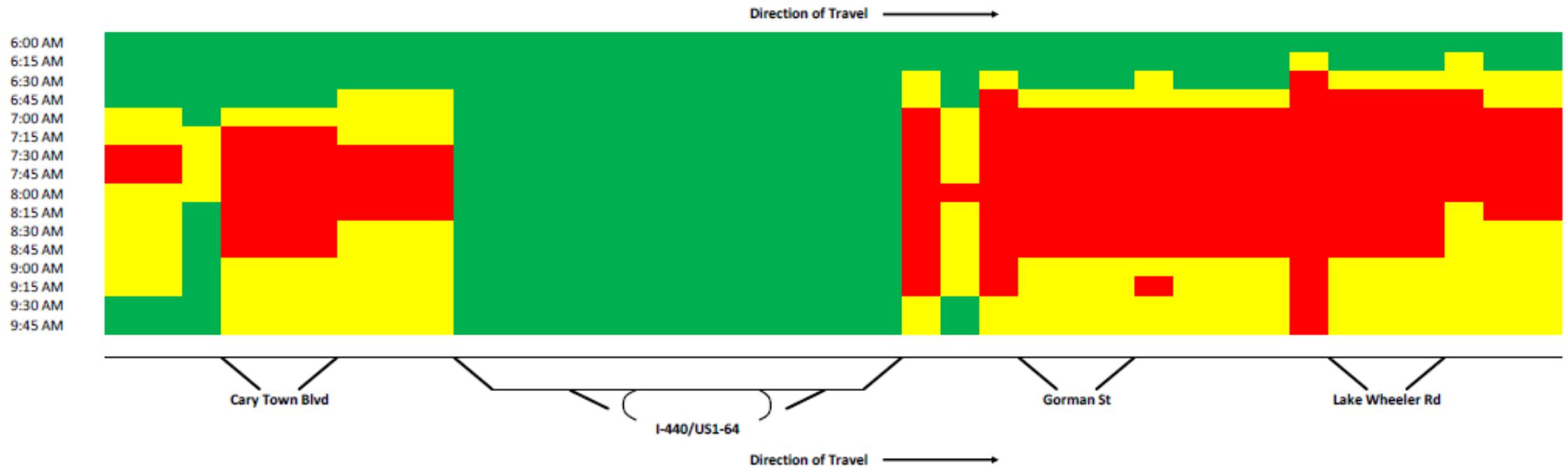
Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina

Agenda

- Traffic Operations
- Consistency
- History
- Future Capacity - Managed Freeway
- Safety and Other Considerations
- AQ effects

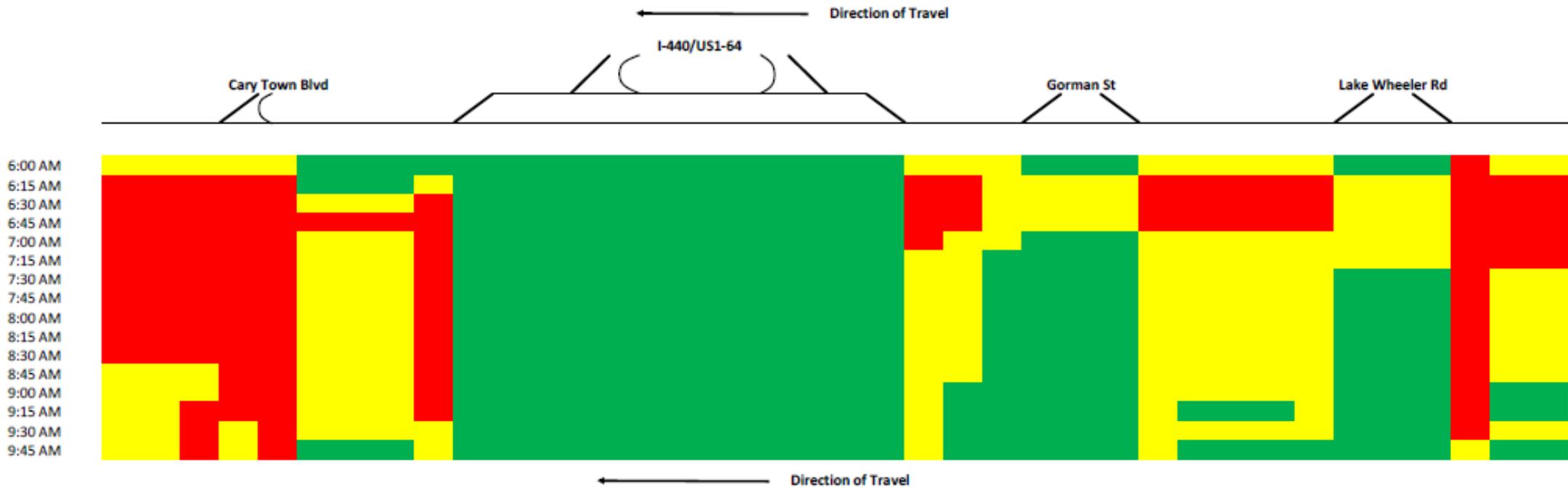
Traffic Operations

2035 Build Alternative 2 I-40 Eastbound AM Peak Period Density



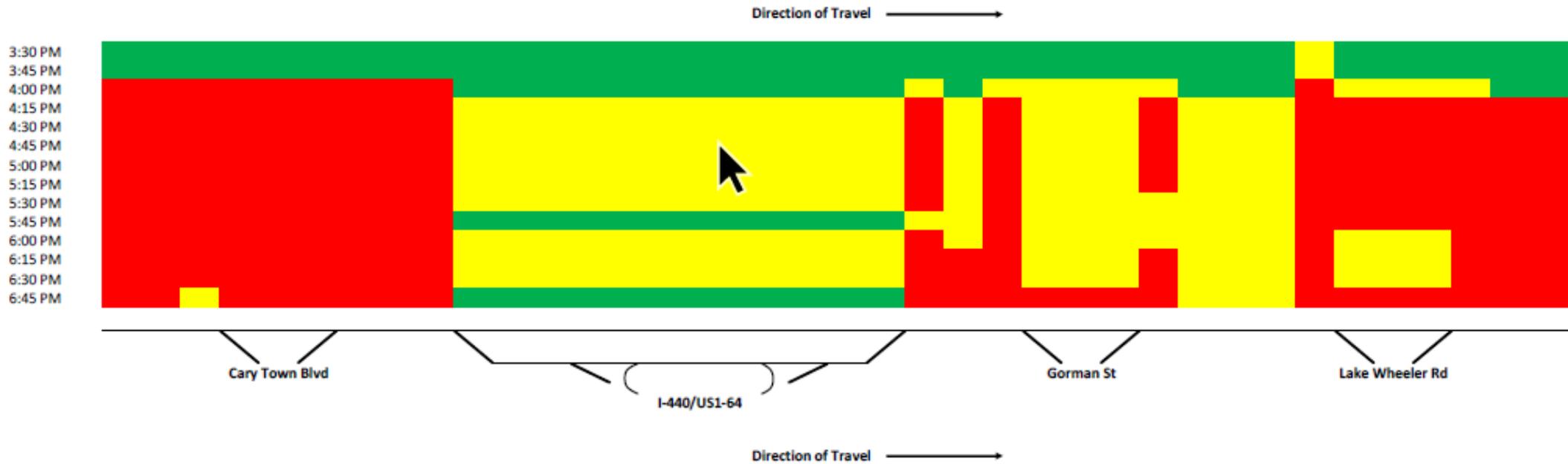
Traffic Operations

2035 Build Alternative 2 I-40 Westbound AM Peak Period Density



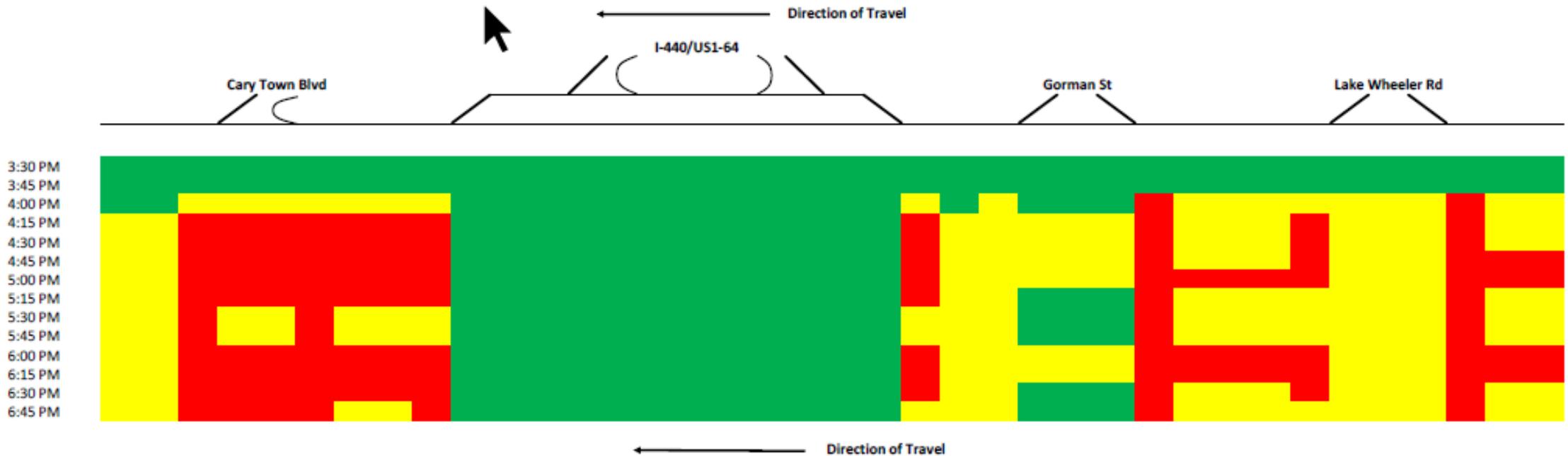
Traffic Operations

2035 Build Alternative 2 I-40 Eastbound PM Peak Period Density



Traffic Operations

2035 Build Alternative 2 I-40 Westbound PM Peak Period Density



Consistency - Aux Lanes in other Sections

(existing or coming in committed projects)

- I-540 to Airport Blvd: EB + WB (4+1)
- Airport Blvd to Aviation Pkwy: EB + WB (4+1)
- Aviation Pkwy to Harrison Ave: EB + WB (4+1)
- Harrison Ave to Wade Ave: EB + WB* (4+1)
- Wade to NC 54: EB (3+1)
- NC 54 to Cary Towne: EB + WB (3+1)
- Cary Towne to I-440: EB + WB (3+1)
- I-440 to Gorman: EB + WB (3+1)
- Gorman to Lake Wheeler: EB, WB* (3+1)
- Lake Wheeler to S. Saunders: EB + WB (4+1)
- S. Saunders to Hammond: EB + WB (4+1)
- Hammond to Rock Quarry: WB* (4+0, 4+1)
- Rock Quarry to I-440 split: WB* (4+0, 5+1)

* Could be considered a lane drop.

History

- MTP: Widen from 6 lane to 8 lane
- SPOT submittal/carryover in P3/4: Widen 6-Lane Freeway to 8 Lanes
 - Existing Cross Section: 6 Lane with Median - Full Control
 - Project Cross Section: 8B - 8 Lane Divided (27' Median with Jersey Barrier with Paved Shoulders)
- STIP description: I-440 to Lake Wheeler Road. Add Lanes.
- Public meeting map (May 2019): 4 + 1
- Public meeting handout (May 2019)
 - The project will convert the existing 6-lane facility to an 8-lane facility; new auxiliary lanes will also be constructed.
 - The CE will identify the selected alternative for each project.
- I-5703 capacity analysis (2021) assumed I-5701 was 4 + 1

Capacity as Managed Freeway

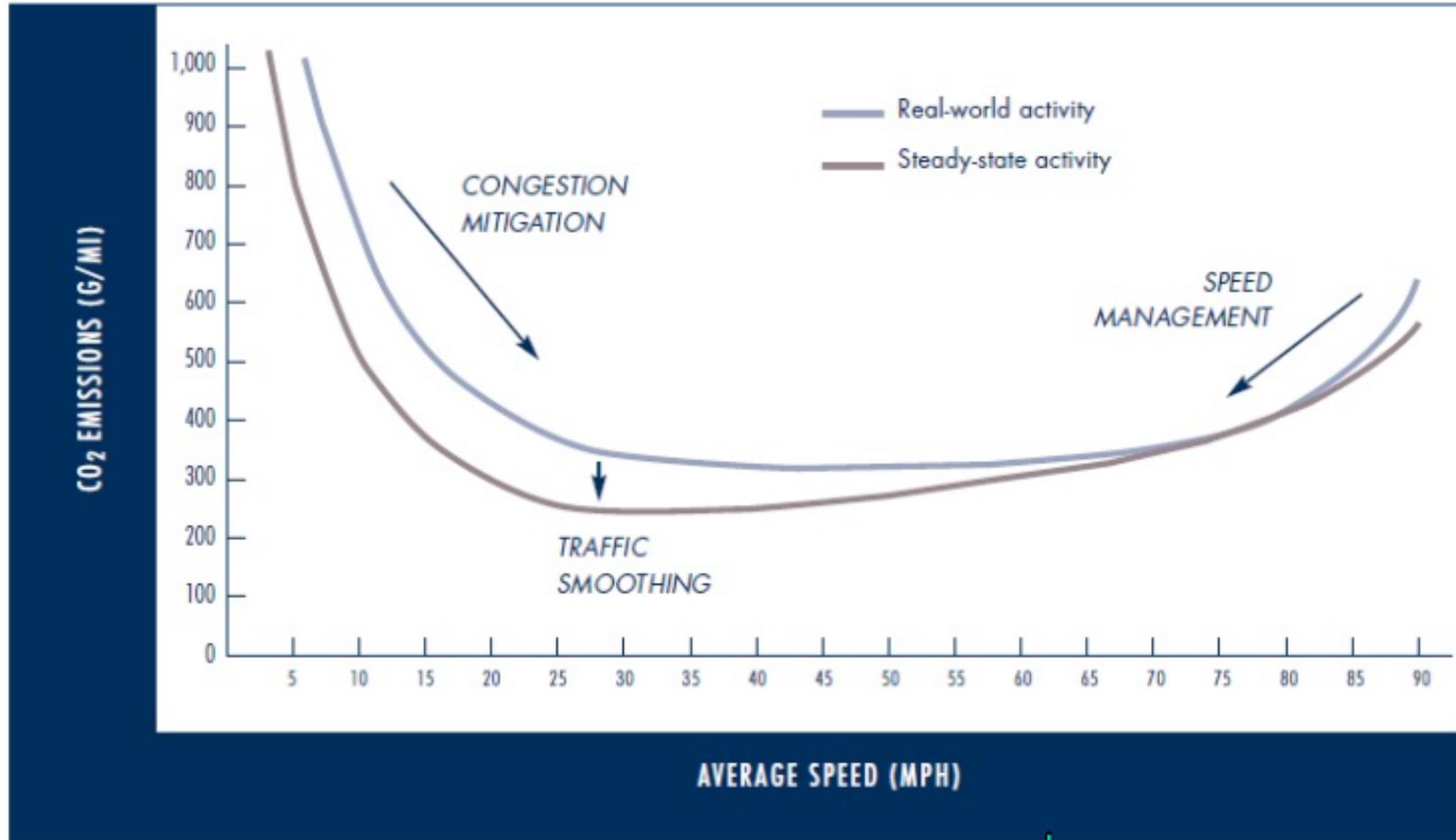
- Maximum Sustainable Flow Rates (Vicroads)
 - 4 lanes per direction, 5% trucks, grade $\leq 2\%$: 7,450 vph
 - 5* lanes per direction, 5% trucks, grade $\leq 2\%$: 8,875 vph
- 2045 forecast peak hour: ~9,000 – 11,000 vph

* Auxiliary lane isn't counted as a through lane in Vicroads capacities.

Safety & Other Considerations

- Congestion - crashes
- Secondary crashes
- Non-recurring congestion
- Recurring & non-recurring – all users
 - BOSS

Air Quality Considerations



Source: ACCESS, Fall 2009, Prof. Matthew Barth, College of Engineering - Center for Environmental Research and Technology, UC Riverside
Suggested further reading: <https://www.nrdc.org/onearth/speed-sweet-spot>

Contact Us

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7.1 NCDOT Project I-5701 – Preferred Alternative

- Option 1 – No Change (I-5701 Alternative 1)

Pros: No Change to F43 & 2050 MTP

Potential Delays to I-5701 & I-5703

- Option 2 – Request to Amend 2050 MTP (I-5701 Alternative 2)

Pros: Reduced congestion, reduced crashes, reduced emissions, no project delays (I-5701 or I-5703)

Adds more lanes to Interstate 40 than current and previous MTPs

*TCC Recommendation

Note: Amendment #1 is scheduled for this Spring for 2024-2033 TIP/STIP

7.1 NCDOT Project I-5701 – Preferred Alternative

- Option One – No Change
- Option Two – Request to Amend 2050 MTP

Requested Action:

Recommend Option Two and direct staff to include necessary changes to Project F43 in upcoming MTP Amendment.

7.2 Preliminary DRAFT 2024 – 2033 TIP & U-5751 Status Update

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

Questions

1. SPOT 3 was developed in 2013-2024 and U-5751 is the only SPOT 3 project that does not have committed funding – why?
2. SPOT 4 was developed in 2017 and SPOT 5 was approved by CAMPO Board in 2019. Why are there SPOT 4 and SPOT 5 projects that have committed funding ahead of U-5751, which is a SPOT 3 project and should be first in line?
3. What is the opportunity for doing STIP swaps to get this project into the committed funding list?
4. Requests a presentation on status of U-5751 as the only SPOT 3 project that is unfunded and what the MPO can do to move it forward.



NORTH CAROLINA
Department of Transportation

STIP Programming and U-5751 History

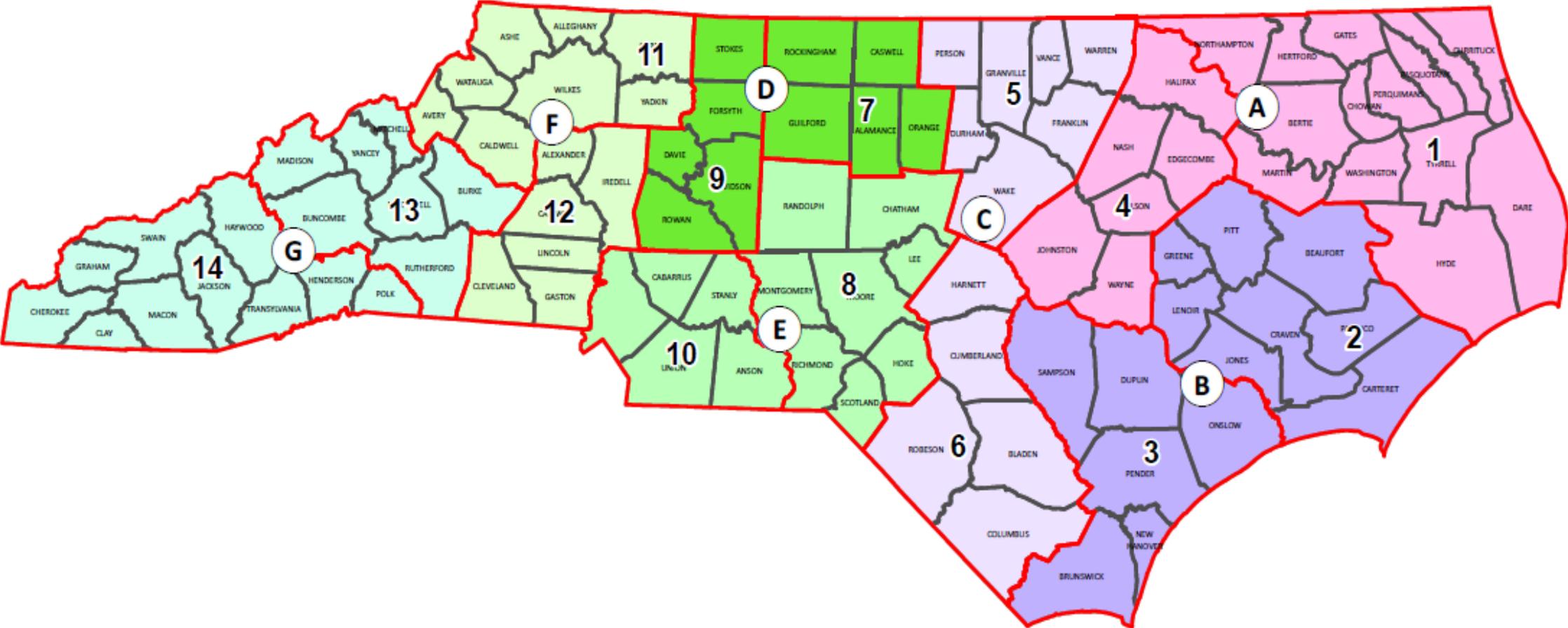
Jason Schronce, P.E.

NCDOT Central STIP Manager

11-3-2022

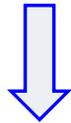
Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina

Regions and Divisions



STIP Funding Distribution

Statewide Mobility



Programmed First
Interstate Maintenance
Bridge Replacement
Bridge Rehabilitation
Highway Safety

Regional Impact



% of State Population



Programmed First
Bridge Replacement
Bridge Rehabilitation
Highway Safety

Division Needs

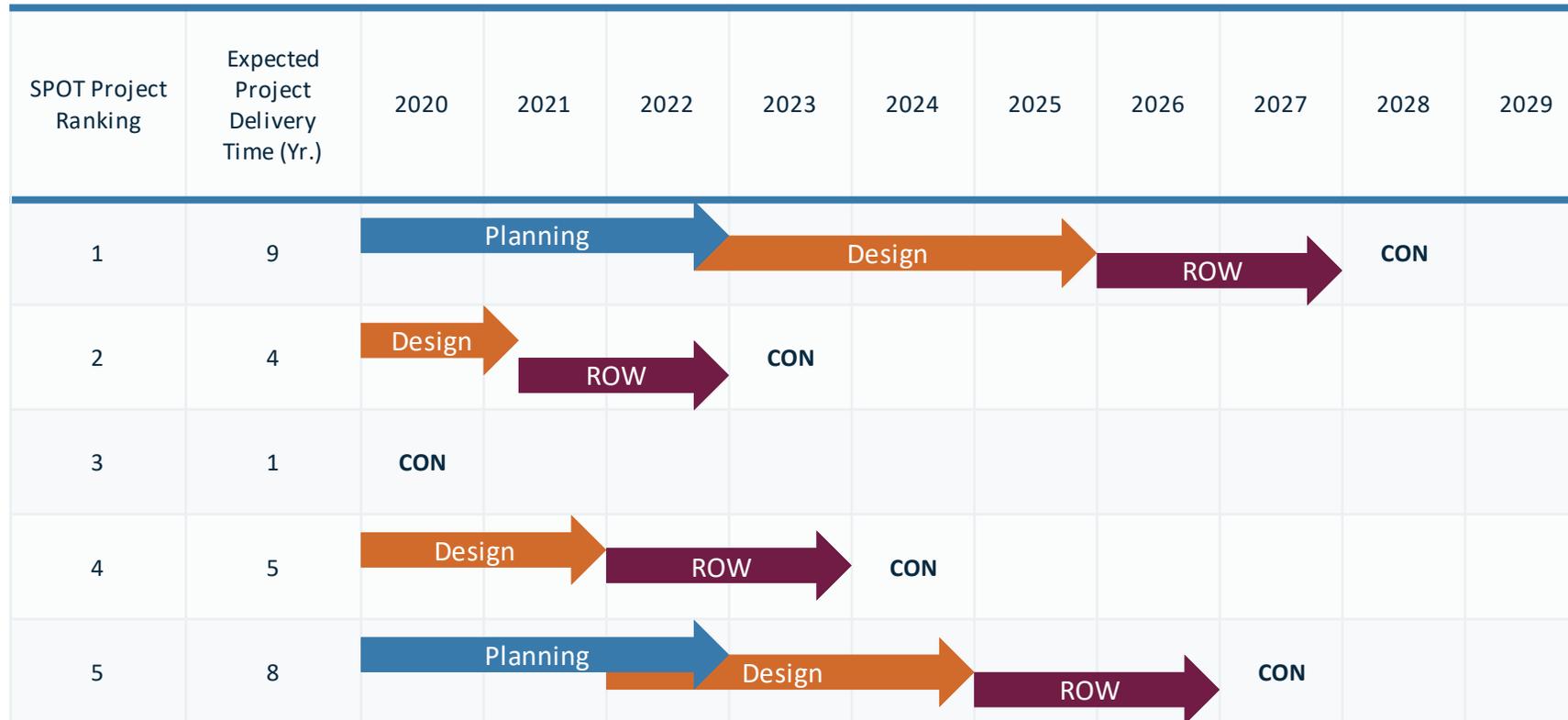


Equal Share



Programmed First
Bridge Replacement
Bridge Rehabilitation
Highway Safety
MPO Direct Attributable
Transportation Alternatives
Highway-Rail Crossing
Economic Development

Project Programming vs. Scheduling

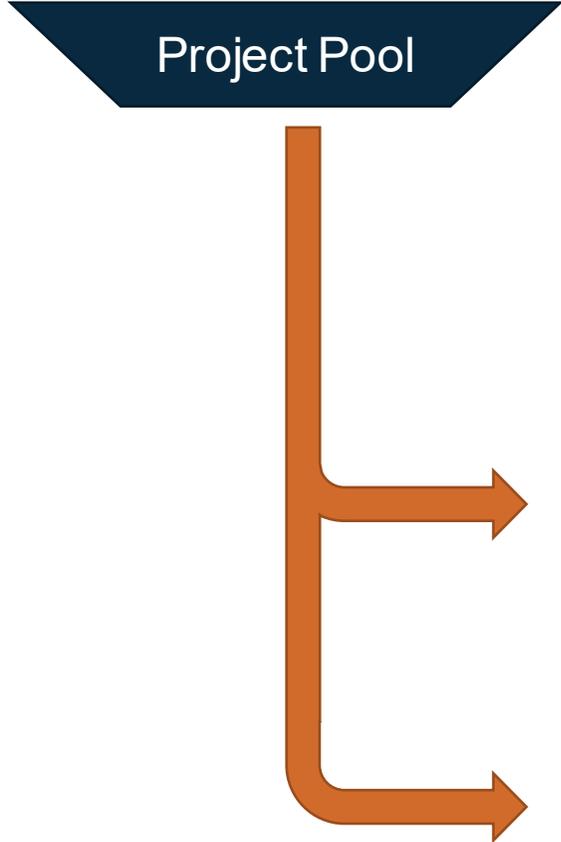


- Regardless of priority, projects cannot be programmed for Right of Way (ROW) or Construction (CON) prior to completion of planning/environmental and design work
- A lower-scoring project that can be delivered soon may get scheduled prior to a higher-ranking project that still needs extensive work

Draft 2024-2033 STIP Development Method

- Refreshed 1,000+ estimates in the 2020-2029 STIP, resulting in substantial cost increases
- A combined \$8B overprogrammed in the 10-year STIP
- Workgroup recommended & BOT approved to:
 - Stop P6.0, No Local Input Points
 - Develop 2024-2033 STIP using existing projects in 2020-2029 STIP

Existing 2020-2029
STIP Funded projects
No new P6.0 evaluated projects



Draft 2024-2033 STIP



Projects to be reprioritized in
P7.0

Process of programming the Draft 2024-2033 STIP

SPOT Workgroup recommended and NC BOT approved process

- Programmed First: Delivery Projects
 - ROW underway, Federal Grants, CON scheduled FY26 or sooner
- Programmed Second: P3-P4-P5 Seniority Approach

Initial April 2022 Draft Release

August 2022 Draft Release

- Additional revenue from new State Budget
- Projects returned to Reprogrammed 2020-2029 STIP schedule (if possible)

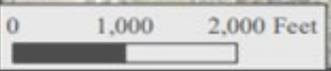
New swap process offered

U-5751 STIP History

 STIP U-5751 Study Area
 Alternative 1
 Alternative 2
 Alternative 3

US 401 at NC 55/42 in Fuquay-Varina, Wake County

- Improve US 401 Intersection with NC 55/NC 42
- Project Will Include Improvements to NC 55 Intersection with NC 42, and Construction of Connector from NC 55 to existing Judd Parkway
- Current Programmed Cost: \$110.7 Million



	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT MANAGEMENT UNIT
<p align="center"> STIP PROJECT U-5751 INTERSECTIONS OF US 401 WITH NC 55 AND NC 55 WITH NC 42 FUQUAY-VARINA, WAKE COUNTY </p>	
Project Alternatives	52 Figure 4

U-5751 STIP History

2016-2025 STIP (June 2015): Evaluated in P3.0, funded, and committed as Trumpet Interchange

- Eligible and funded in Region-C (Divisions 5 and 6) category
- Cost of \$7.8 Million
- ROW FY 20, CON FY 21

2018-2027 STIP (August 2017): Convert Intersection to Trumpet Interchange

- Cost of \$54.6 Million
- ROW FY 19, CON FY 22

2020-2029 STIP (September 2019): Improvements to NC 42/55 Intersection and Judd Parkway connector

- Cost of \$54.6 Million
- ROW FY 21, CON FY 24

Reprogrammed 2020-2029 STIP (October 2020): NC 42/55 Intersection and Judd Parkway connector

- Cost of \$54.6 Million
- ROW FY 29, CON Unfunded

U-5751 STIP History

Why have “Reprogrammed 2020-2029 STIP”?

- STIP was not fiscally constrained due to significant cost increases leading to being above overprogrammed legal limits
- FHWA had concerns: until NCDOT rebalanced, STIP amendments were being impacted
- NC Build Bond sale could not proceed
- Schedule impacts affected all STI categories during rebalancing exercise

Prior to the Summer 2020 reprogramming Region-C was approximately \$608 Million (80%) over programmed

- Most of the projects in Region-C had to be delayed significantly
- Some Region-C projects had to remain on schedule based on commitments from associated federal grants

Draft 2024-2023 STIP (April 2022): Improvements to NC 42/55 Intersection and Judd Parkway connector

- Funded for Preliminary Engineering Only, swap eligible

Revised Draft 2024-2033 STIP (August 2022): NC 42/55 Intersection and Judd Parkway connector

- Funded for Preliminary Engineering Only, swap eligible

Contact Us

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 NCDOTcommunications

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7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

Questions

1. SPOT 3 was developed in 2013-2024 and U-5751 is the only SPOT 3 project that does not have committed funding – why?
2. SPOT 4 was developed in 2017 and SPOT 5 was approved by CAMPO Board in 2019. Why are there SPOT 4 and SPOT 5 projects that have committed funding ahead of U-5751, which is a SPOT 3 project and should be first in line?
3. What is the opportunity for doing STIP swaps to get this project into the committed funding list?
4. Requests a presentation on status of U-5751 as the only SPOT 3 project that is unfunded and what the MPO can do to move it forward.

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

- Questions
 1. SPOT 3 was developed in 2013-2024 and U-5751 is the only SPOT 3 project that does not have committed funding – why?

Answer: Because the seniority approach did not look to accelerate projects. It simply programmed those SPOT 3 projects first but kept them on their original schedule.

Ex. U-5751 with ROW in year 2029

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

- Questions

2. SPOT 4 was developed in 2017 and SPOT 5 was approved by CAMPO Board in 2019. Why are there SPOT 4 and SPOT 5 projects that have committed funding ahead of U-5751, which is a SPOT 3 project and should be first in line?

Answer: Most of the SPOT 4 and SPOT 5 projects programmed prior to U-5751 are in different funding categories. The four projects in Region C funding are all programmed prior to U-5751 in the current 2020-2029 TIP/STIP

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

- Questions

3. What is the opportunity for doing STIP swaps to get this project into the committed funding list?

Answer: CAMPO Executive Board would have to select another Region C project of similar budget/cost (approx. \$100m) and target project schedule (ROW between 2025-2028). That project would be moved to 2029 and would recompete for funding in Prioritization 7.0 (SPOT 7).

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

- Questions
 4. Requests a presentation on status of U-5751 as the only SPOT 3 project that is unfunded and what the MPO can do to move it forward.

Answer: TCC MTP/TIP Subcommittee is reviewing possible swap scenarios with a target of a TCC recommendation for Executive Board in January 2023.

7.2 Preliminary DRAFT 2024-2033 TIP & U-5751 Status Update

- Schedule & Next Steps
 - MTP/TIP Subcommittee Meetings
 - November 16th 9-10:30 (*Virtual*)
 - December 1st 10AM (*Virtual – if needed*)
 - January TCC & Ex Board action (target)
 - Spring 2050 MTP Amendment
 - Summer 2024-2033 TIP/STIP Adoption

7.2 Preliminary DRAFT 2024 – 2033 TIP & U-5751 Status Update

Requested Action:
Receive as information.

7.3 Roadside Landscaping & Forestation Program

- The draft 2024-33 TIP has several major projects scheduled to be constructed over the next 10-12 years that will include landscaping improvements Roadside landscaping and forestation have garnered increasing interest in recent years.
- NCDOT as well as FHWA have guidelines for what vegetation and landscape measures are used for various situations (*June, 2022 presentation*).
- CAMPO research identified several examples of state DOT guidelines and policies for roadside revegetation.
- Research effort has not identified instances of MPO level or regional policies or guidelines.
- A summary of this research has been included in the agenda.

7.3 Roadside Landscaping & Forestation Program

This research effort also identified several positive benefits of strong roadside vegetation and reforestation efforts including:

- **Economic:** Increased property values and positive consumer
- **Safety:** Trees cut wind and cross-glare and provide relief from the sun for drivers
- **Health/Environmental:** Reduction in pollutants, improved mental health, reduction in the rate and magnitude of stormwater runoff, and reduction of urban heat island impacts.

Requested Action:

Receive as information.

7.4 CAMPO Lead Planning Agency Agreement & Transition

- In August 2022, the Capital Area MPO Executive Board unanimously voted to designate the Town of Cary as the host agency, known as the Lead Planning Agency (LPA) for CAMPO, effective January 1, 2023.
- The LPA provides administrative, clerical, financial, technology, and other support services as specified and allocated for in the annual UPWP/budget.
- A draft LPA master agreement has been developed and includes the various financial and administrative elements as identified during the CAMPO Executive Board strategic retreat in the fall of 2021. Final editorial comments and language remain but substantial elements are completed.
- Additional and/or supplementary agreements may be necessary to complete transition activities (e.g. insurance, licensing, employment, indirect costs methodology, etc.).

7.4 CAMPO Lead Planning Agency Agreement & Transition

- The agreement includes an initial three-year term with up to ten renewal options.
- LPA Agreement governs LPA/host agency role and the initial methodology for determining CAMPO direct and indirect costs due to the host agency each year
- Follow on steps would include approval of the LPA agreement by both CAMPO and the Town of Cary and continuation of transitional activities.

Requested Action:

Approve the CAMPO LPA master agreement and authorize the CAMPO Executive Board Chair to execute any necessary additional or supplementary agreements to implement the LPA transition.

Roll Call Vote for Action Items:

*5 Consent Agenda
6.1 FY2020-2029 TIP Amendment #10
7.1 MTP Amendment for F43 (I-5701)
7.4 LPA Agreement & Transition*

Town of Angier
Town of Apex
Town of Archer Lodge
Town of Bunn
Town of Cary
Town of Clayton
City of Creedmoor
Franklin County
Town of Franklinton
Town of Fuquay-Varina
Town of Garner

GoTriangle Bd. Trustees
Granville County
Harnett County
Town of Holly Springs
Johnston County
Town of Knightdale
Town of Morrisville
NCDOT - Div 4
NCDOT - Div 5
NCDOT - Div 6
City of Raleigh

Town of Rolesville
Wake County
Town of Wake Forest
Town of Wendell
Town of Youngsville
Town of Zebulon

Ex Officio Non-Voting Members:
Federal Highway Admin.
NC Turnpike Authority

7.5 Wake Bus Plan Project Prioritization Policy

Wake Bus Plan

Project Prioritization Policy

Process for 2022 Proposed Policy

- The development of the 2022 Proposed Project Prioritization Policy was led by CAMPO with continuous input from the Wake Bus Plan Core Technical Team throughout the Summer and Fall of 2022
- Member Organizations of the Wake Bus Plan Core Technical Team include:
 - Apex
 - CAMPO
 - Cary / GoCary
 - Fuquay-Varina
 - Garner
 - GoTriangle
 - Holly Springs
 - Knightdale
 - Morrisville
 - NCDOT
 - NCSU
 - Raleigh / GoRaleigh
 - Rolesville
 - RTP
 - Wake County / GoWake
 - Wake Forest
 - Wendell
 - Zebulon

Key Challenges with 2018 Adopted Policy

- Methodology is a complicated and not easily replicable
- Project typology definitions overlap, and some are too restrictive in scope
- Unable to evaluate microtransit or on demand projects
- Operating project evaluation metrics need tweaking, since travel patterns have changed, and the County's network is much more built out than in 2018
- Capital project evaluation covers projects that are now addressed in the overall Wake Transit Plan prioritization guidance
- Programming methodology is not well defined
- Parts of Governance Framework are outdated

Transit Plans, Bus Plans, and Prioritization

Wake Transit Plan (2016)

- Route level **planning**
- **No** prioritization or programming done
- Public engagement on **proposed bus network**

Wake Transit Plan Update (2020)

- **No** route level planning
- Re-prioritization and programming **done on Wake Bus Plan and SRTP projects, given changing financial and market conditions**
- Public engagement on **community priorities**

Wake Bus Plan and SRTPs (2018)

- Route level **implementation details**
- Prioritization and programming **policy created and implemented**
- Public engagement on **programmed projects**

Wake Bus Plan and SRTPs Update (present)

- Route level **planning and implementation details**
- Prioritization and programming **policy updated and implemented on new planned projects**
- Public engagement on **route concepts**

Overall Wake Transit Prioritization Context

The adopted Wake Transit Plan Update Final Project Prioritization and Reprogramming Guidance supersedes the Wake Bus Plan Project Prioritization Policy. **This Policy we are updating applies only to bus service expansion projects, which is the last of eight tiers in the adopted Transit Plan Guidance:**

1. Continued Funding for Community Funding Area Program as Currently Programmed and Funding Programmed for Rural Elderly/Disabled and General Public Demand-Response Trips (GoWake Access Allocations)
2. Capital Projects with Design or Land Acquisition Phases Already Initiated, for Which Later Phases Should Be Funded to Keep Their Momentum
3. Facilities/Infrastructure/Resources Needed to Support Future Expansion or General State of Good Repair and Operations
4. Projects That Involve Time-Sensitive External Grant Sources as Part of Their Overall Funding Mechanism (such as LAPP or other federal sources)
5. Wake Bus Rapid Transit Program of Projects
6. Commuter Rail Project Design, Right-of-Way/Land Acquisition, Construction, Vehicle Procurement, and Operations
7. Systemwide Bus Stop Improvements for Already Served Corridors/Stop Locations
- 8. Fixed-Route Bus Service Improvements and Corresponding Infrastructure that Ties to Bus Service Improvements/Expansion**

Purpose of Project Prioritization Policy

[Unchanged from 2018 Adopted Policy]

The Project Prioritization Policy is a decision-making framework. It is intended to provide:

- A transparent and easily understandable process for making choices between competing investment needs associated with implementation of the Wake Transit Plan
- Guidance on the development of the 10-year bus service and capital investment plan prepared through the Wake Bus Plan
- An optional process that may be used by the TPAC to adjust bus service and the capital investment program outlined by the MYBSIP to reflect changes in available funds, new or substantially modified project requests, or other needs in the region

Four Big Moves Drives the Prioritization Policy

[Unchanged from 2018 Adopted Policy]

- **Connect Regionally:** Create cross-county connections by developing a combination of regional rail and bus investments. The investment plan reflects a Durham-Wake commuter rail project as well as a series of **regional express routes**.
- **Connect All Wake County Communities:** Connect all 12 municipalities in Wake County plus the Research Triangle Park (RTP) and Raleigh-Durham International Airport (RDU). This investment will include a combination of **regional and express bus routes**.
- **Frequent, Reliable Urban Mobility:** Develop a frequent transit network in Wake County's urban core. The frequent transit network will include development of bus rapid transit services, plus **high frequency bus services** along major corridors in the County's most developed communities.
- **Enhanced Access to Transit:** Directs investment to existing fixed-route services to make service more convenient. The investments include expanding transit operating hours, such as providing more service on weekend days or increasing services on weeknights. Enhancing access to transit also increases the frequency of service on many routes and develops demand-response services in lower density areas.

Prioritization versus Programming



Prioritization

- Guided by Project Prioritization Policy
- Prioritization model outputs a ranked list of projects
- Routes are ranked individually rather than as packages
- Does not consider available funds or timing



Programming

- Guided by funding projections
- Programming exercise outputs a schedule of projects by fiscal year
- Routes are considered in packages when applicable
- Considers available funds and timing by year

What Projects go through Project Prioritization?

- **Includes:** proposals submitted by sponsors for new projects, major changes to existing projects, and related capital projects, including those that were previously programmed but have not been implemented or are not planned to be implemented in FY24 or earlier.
- **Excludes:** proposals for minor changes to existing routes/projects (e.g., slight route realignments that are cost neutral)

Major changes to existing projects will be guided by the definition of “Major Amendments” in the **Wake Transit Plan Amendment Policy**, defined in August 2022 as changes in scope that:

- Cause deviation from the original purpose of the project as intended when the project scope was included in the subject work plan;
- Cause deviation from the originally intended method of project achievement; and
- Cause a major deviation to the outcome of the project as intended when the project scope was included in the subject work plan.

Operating & Capital Project Prioritization

Adopted Methodology for Operating Projects

Step 1: Project Typologies

Assign projects to typologies:

- Frequent Network Routes
- Intra-County and Regional Express Routes
- All Day Transit Routes that Serve New Areas
- Improvements to Service Span and Frequency

Step 2: Project Scoring by Type

Analyze 8 prioritization metrics based on 4 plan objectives (Develop, Connect, Enhance, and Sustain) for each project

- Raw scores: calculate each prioritization metric for each project
- Ordinal scores: assign relative scores of 1 to 4 within each typology for each metric

Step 3: Overall Project Scoring

Weigh metrics by typology to get prioritized list of all projects

- Weigh relative metric scores for each project based on the objectives of each typology
- Sum the weighted scores for each project
- Rank projects from highest priority to lowest

Proposed Methodology for Operating Projects

Step 1: Project Typologies

Assign projects to typologies:

- Frequent Network Routes
- Intra-County and Regional Express Routes
- **Investments to Local Services**
- ~~▪ All Day Transit Routes that Serve New Areas~~
- ~~▪ Improvements to Service Span and Frequency~~

Step 2: Project Scoring by Type

Analyze ~~8~~ **6** prioritization metrics based on ~~4~~ plan objectives (Develop, Connect, Enhance, and Sustain) for each project

- Raw inputs: calculate each prioritization metric for each project
- Ordinal scores: assign relative scores of 1 to 4 within each typology for each metric

Step 3: Overall Project Scoring

Sum to get prioritized list of all projects ~~Weigh metrics by typology to get prioritized list of all projects~~

- ~~▪ Weigh relative metric scores for each project based on the objectives of each typology~~
- Sum the **ordinal** weighted scores for each project
- Rank projects from highest priority to lowest

Proposed Methodology for Operating Projects

Step 1: Project Typologies

Assign projects to typologies:

- Frequent Network Routes
- Intra-County and Regional Express Routes
- **Investments to Local Services**
- ~~All Day Transit Routes that Serve New Areas~~
- ~~Improvements to Service Span and Frequency~~

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- Raw inputs: calculate each prioritization metric for each project
- Ordinal scores: assign relative scores of 1 to 4 within each typology for each metric

Transit Demand:

- People + Job density
- Minority + Low Income Population Served
- Number of Key Destinations Served

Network Improvements:

- New People + Jobs with Access to Improved Transit

Service Productivity:

- Projected Passengers per Revenue Hour
- Project Operating Cost per Passenger Hour

Proposed Methodology for Operating Projects

Step 1: Project Typologies

Assign projects to typologies:

- Frequent Network Routes
- Intra-County and Regional Express Routes
- **Investments to Local Services**
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- Sum the **ordinal** weighted scores for each project
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Programming Guidance

2022 Programming Guidance

- **Step 1: Draft Programming of Operating Projects**
- **Step 2: Draft Programming of Capital Projects**
- **Step 3: Proposals for Changes**
- **Step 4: Iterate and Adjust**
- **Step 5: Wake Transit Plan Goals**
- **Step 6: Finalize**

Questions and Next Steps

Next Steps

- Wednesday, 11/23: Comments to be Submitted to Anna Stokes (anna.stokes@campo-nc.us)
- Wednesday, 11/9 – Wednesday, 11/23: 14-Day Public review and comment period
- The PPP is anticipated to come to the CAMPO and GoTriangle Boards for action in January 2023

7.5 Wake Bus Plan Project Prioritization Policy

Requested Action:
Receive as information.

7.6 Safety Performance Measures and Targets 2023



NORTH CAROLINA

Department of Transportation



Traffic Safety Data Trends / Performance Measures

Brian Mayhew

Brian Murphy

Presentation Overview

1

**Statewide Data
Trends**

2

**Capital Area
MPO Data
Trends**

3

**Safety
Performance
Measures**

4

**Safety Data
Resources**

5

**Questions/
Discussion**

Statewide Data Trends

- Population
- Vehicle Miles Traveled
- Fatalities
- Serious Injuries
- Pedestrian Fatal and Serious Injuries
- Bicycle Fatal and Serious Injuries
- Total Reported Crashes

1**Statewide Data
Trends****2****Capital Area
MPO Data
Trends****3****Safety
Performance
Measures****4****Safety Data
Resources****5****Questions /
Discussion**

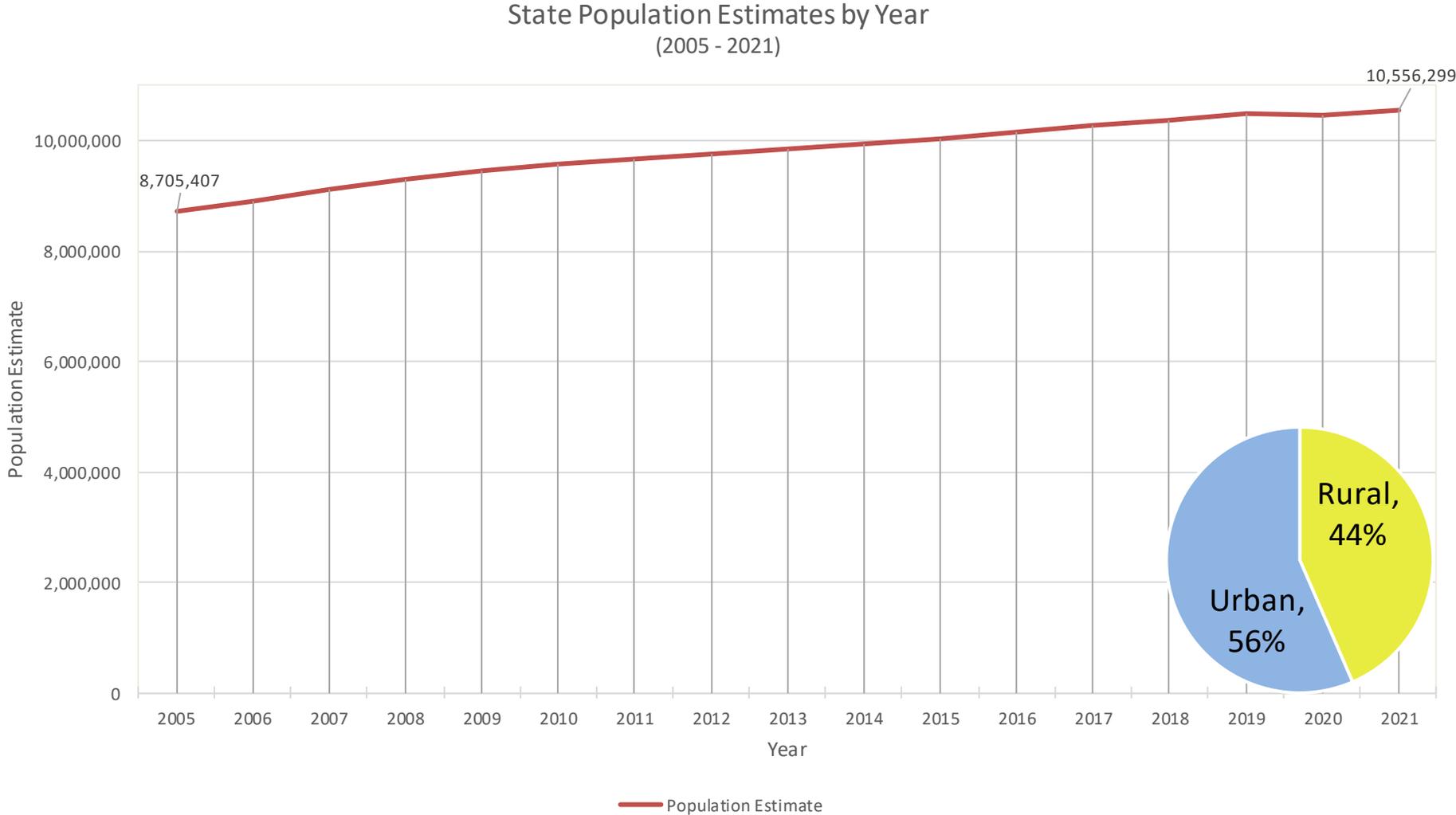


SHSP Goal

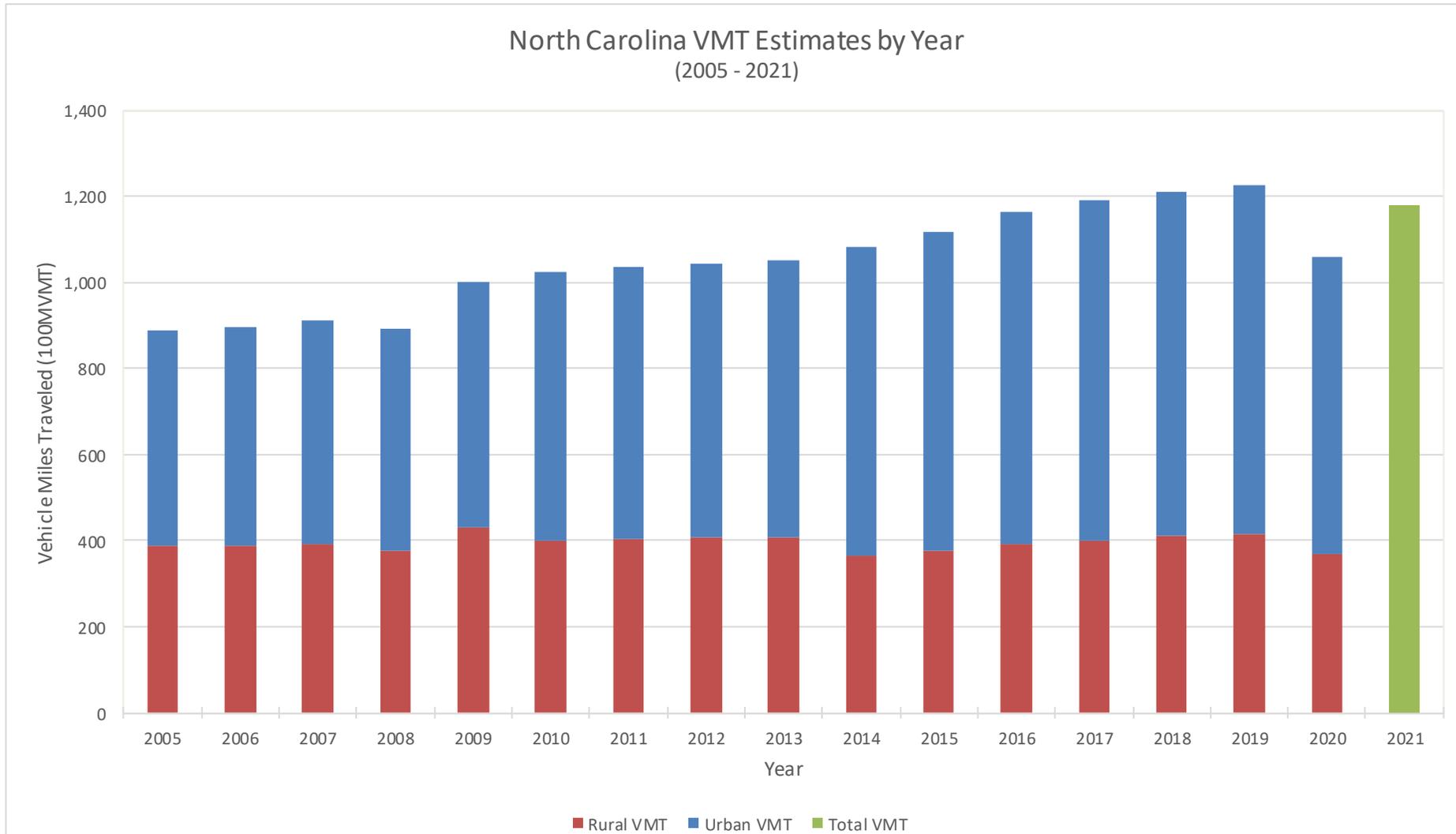
- Reduce all fatalities and serious injuries by half by 2035, moving towards zero by 2050.



State Population

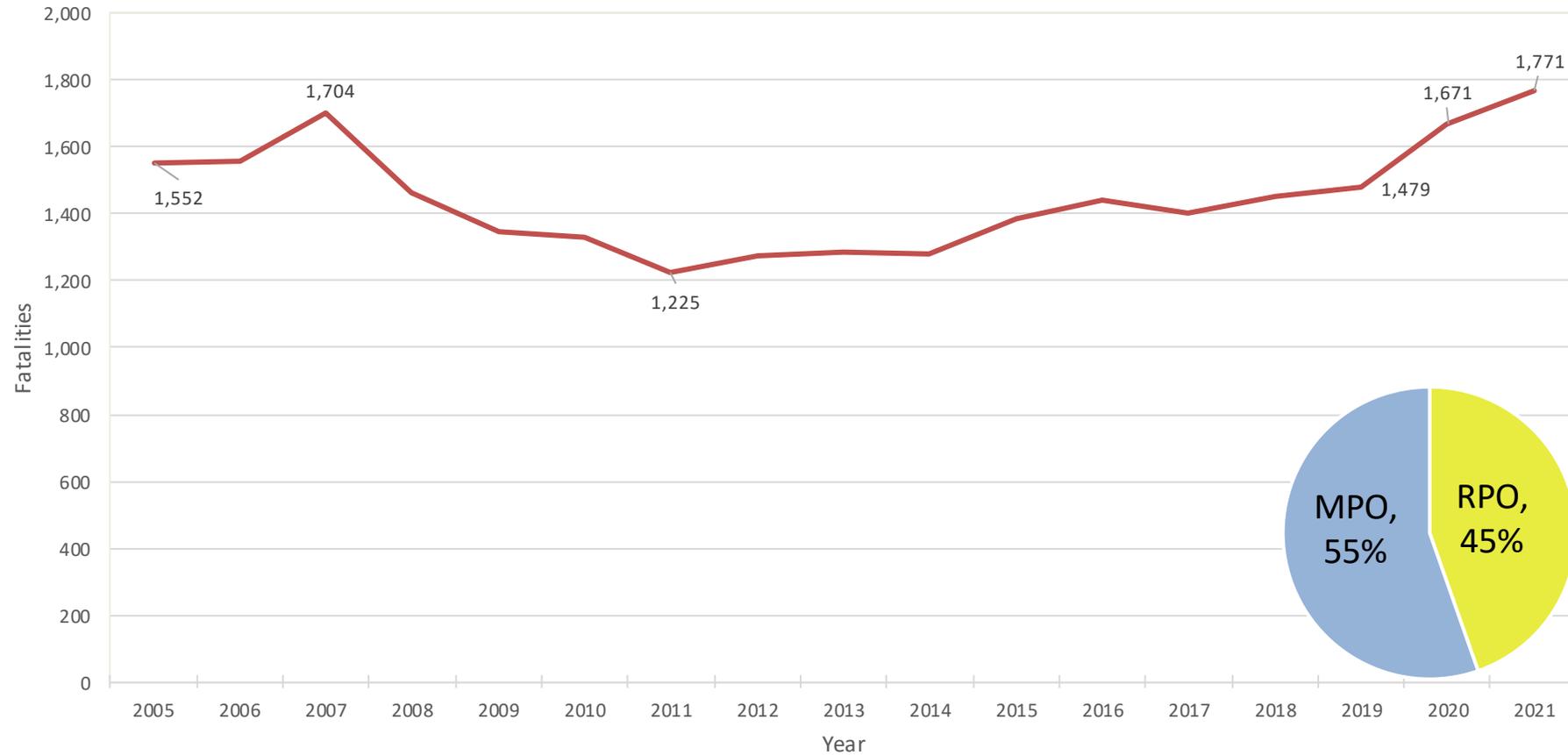


Vehicle Miles Traveled (VMT)



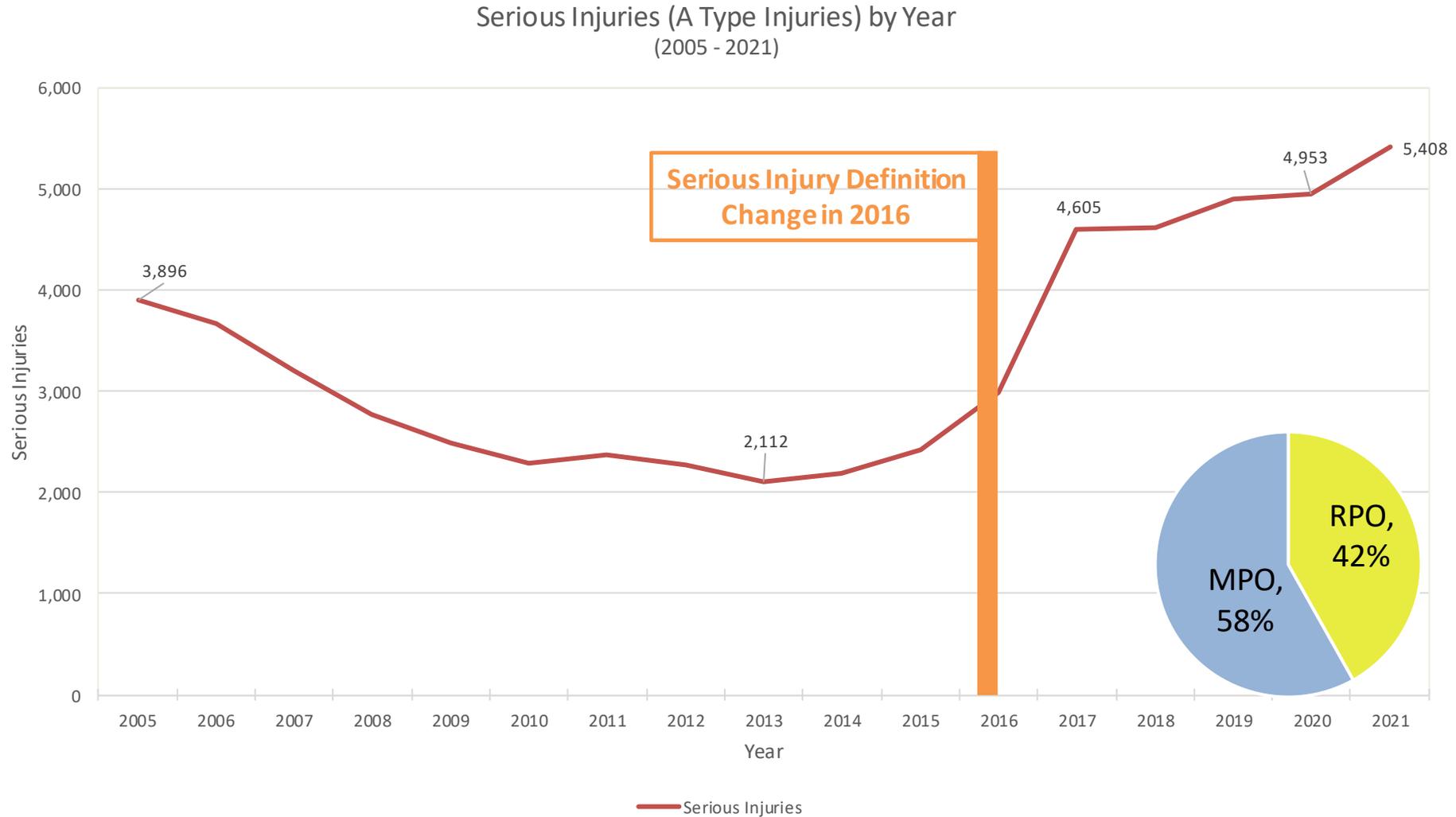
Fatalities

Fatalities by Year
(2005 - 2021)

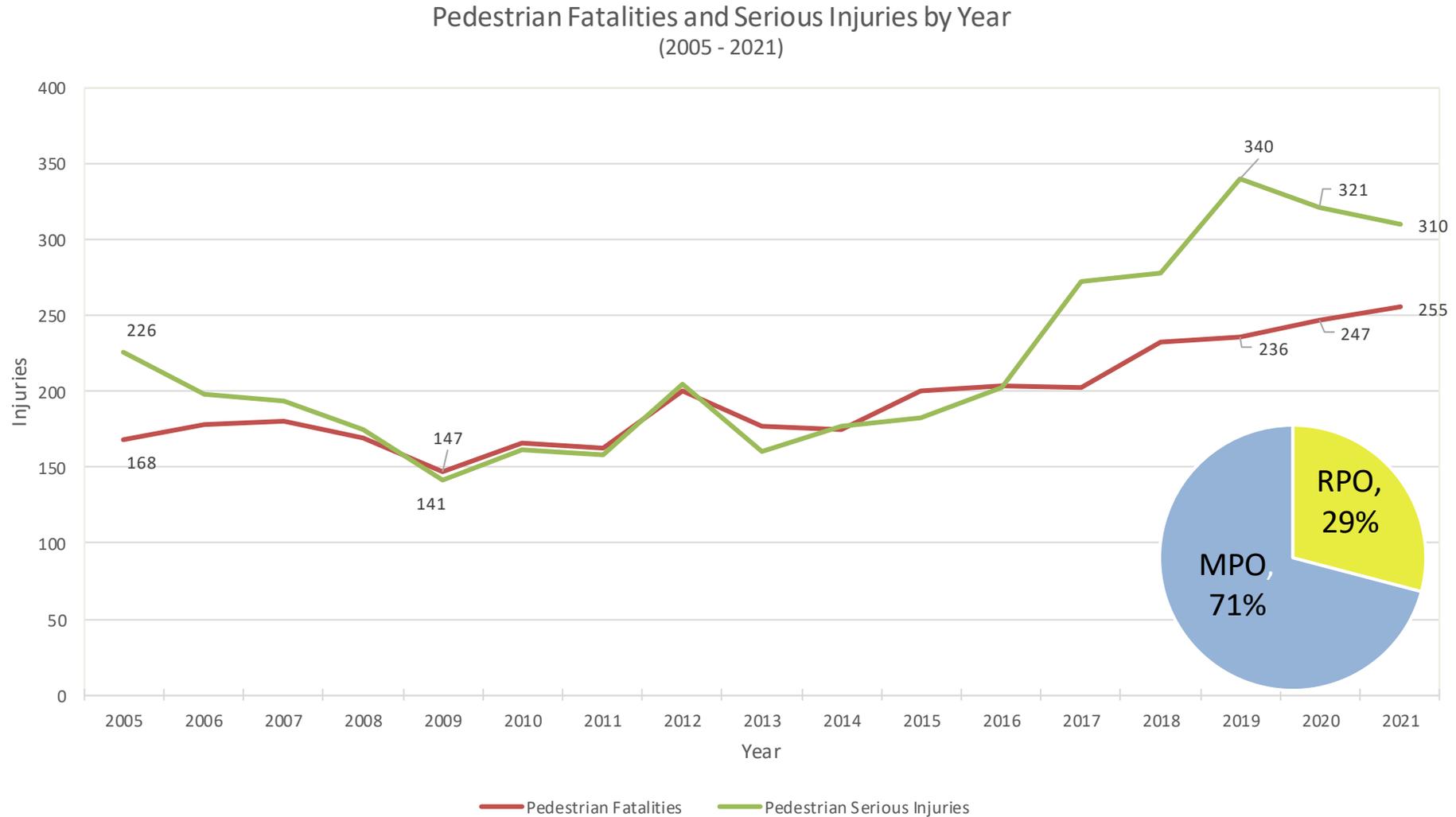


Fatalities

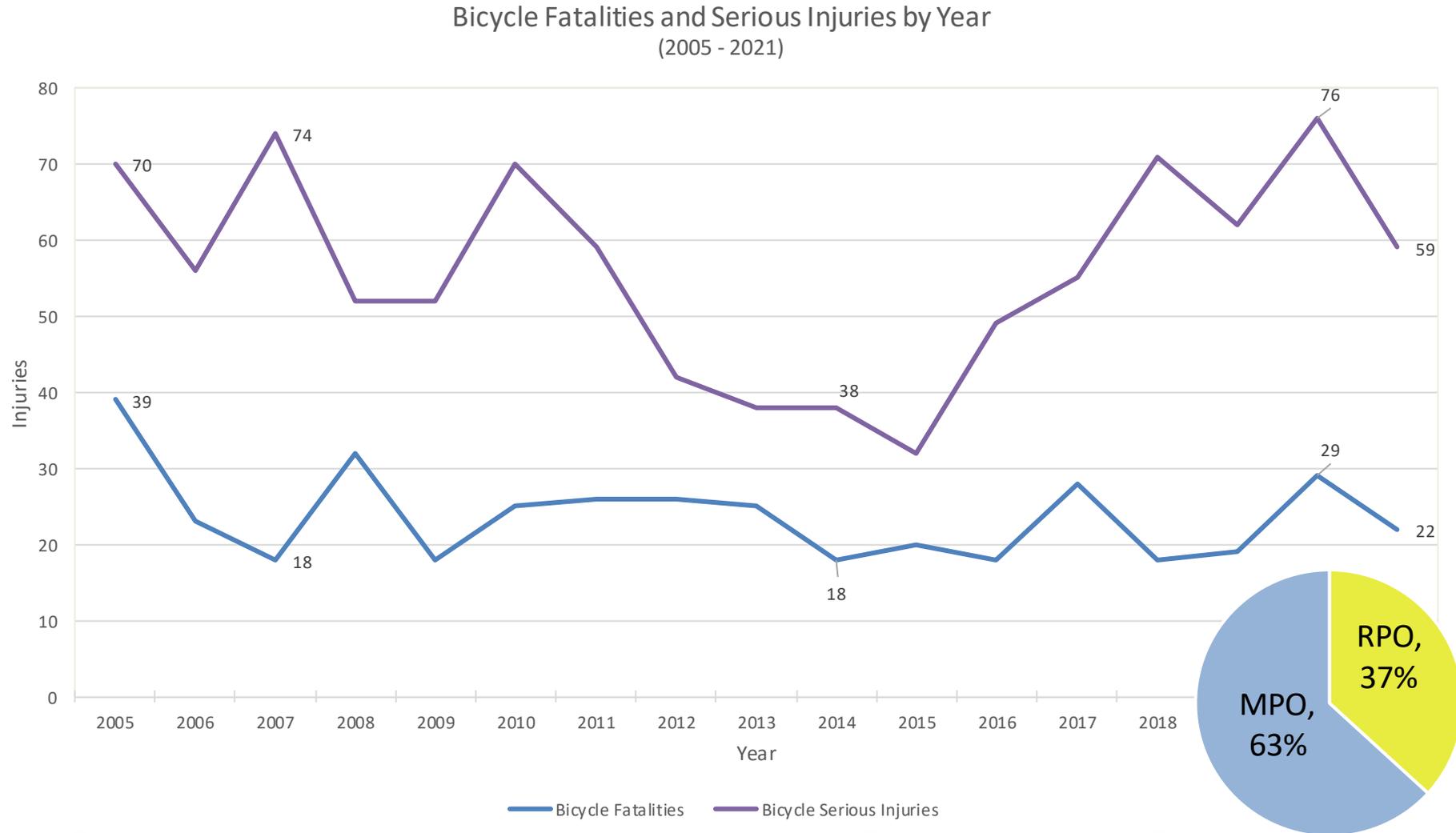
Serious Injuries (A Type – Disabling)



Pedestrian Fatalities and Serious Injuries

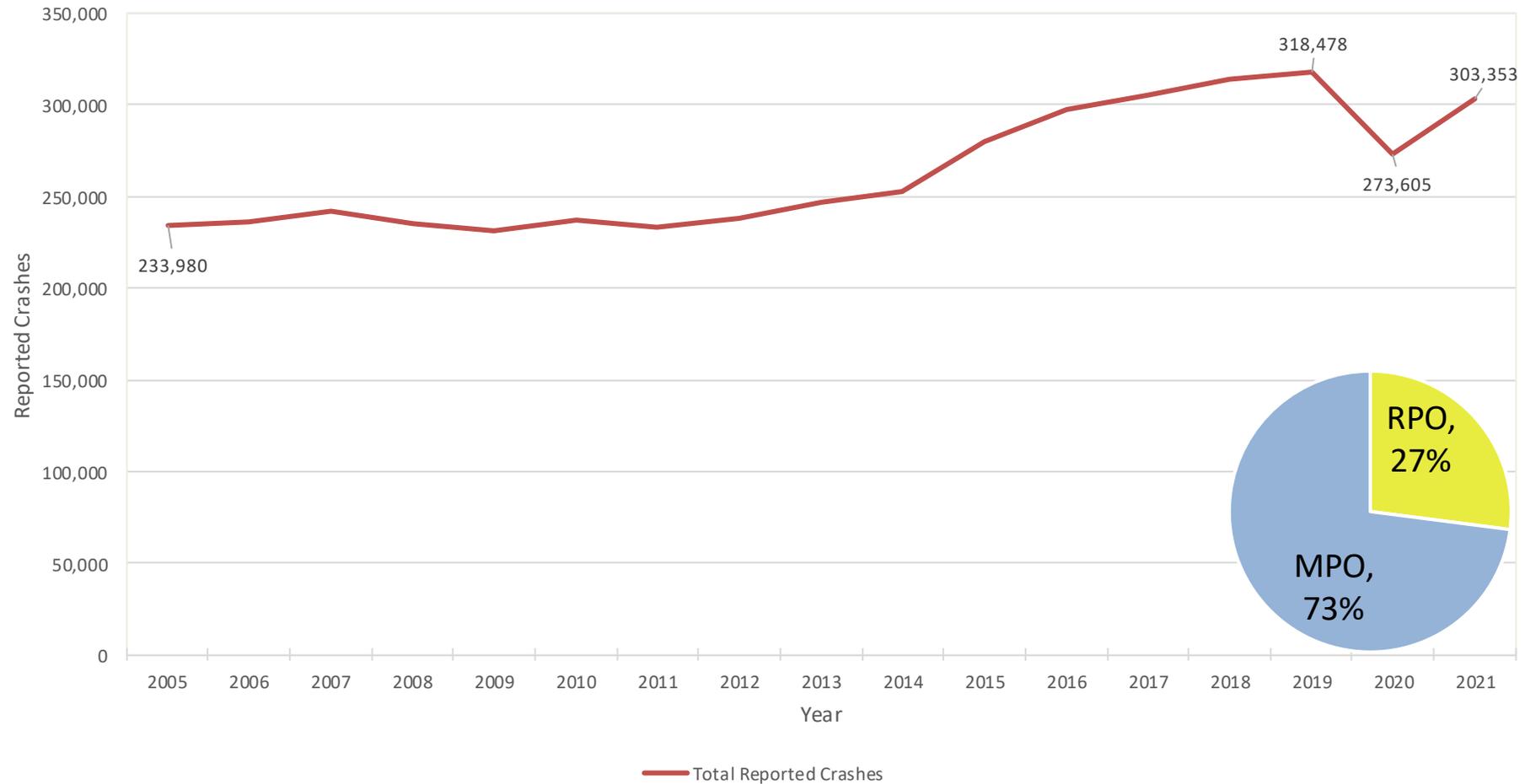


Bicycle Fatalities and Serious Injuries



Reported Crashes

Reported Crashes by Year
(2005 - 2021)



Capital Area MPO Data Trends

- Vehicle Miles Traveled
- Total Reported Crashes
- Fatalities
- Serious Injuries
- Bicycle and Pedestrian Fatal and Serious Injuries
- Pedestrian Crashes
- Breakdown by Municipality within the Capital Area MPO

1

Statewide Data
Trends

2

Capital Area
MPO Data
Trends

3

Safety
Performance
Measures

4

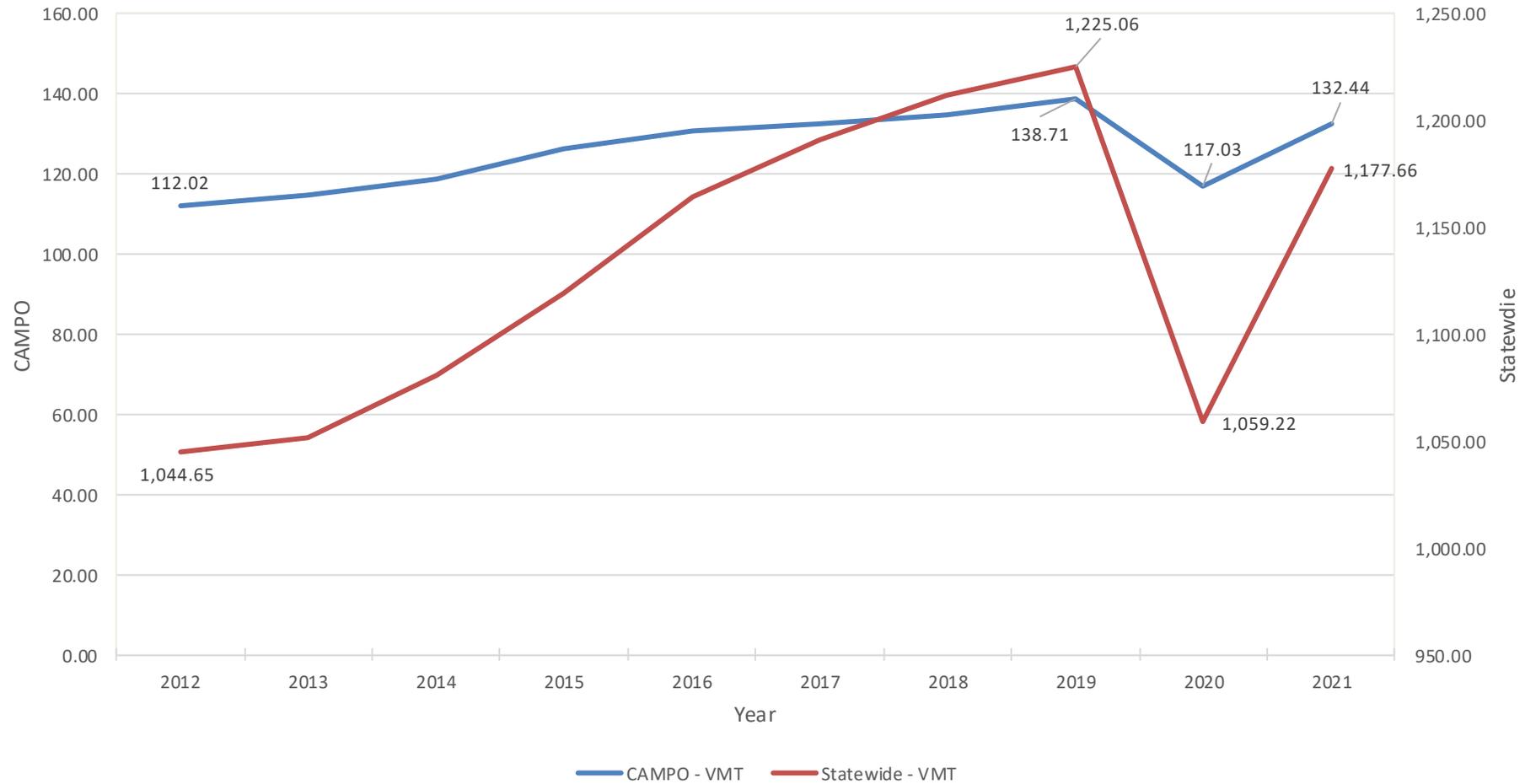
Safety Data
Resources

5

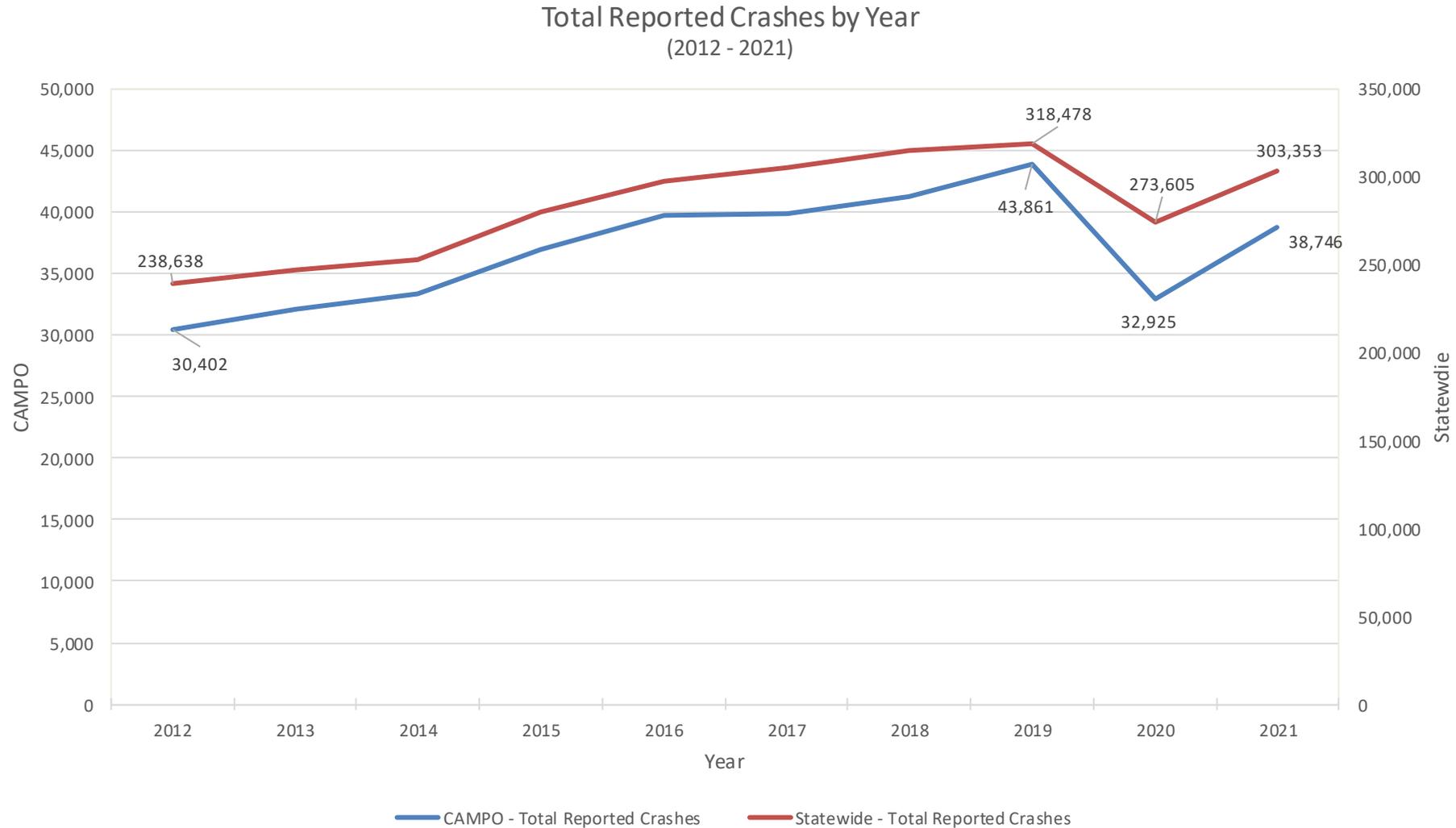
Questions /
Discussion

Vehicle Miles Traveled

Vehicle Miles Traveled (100 MVM) by Year
(2012 - 2021)

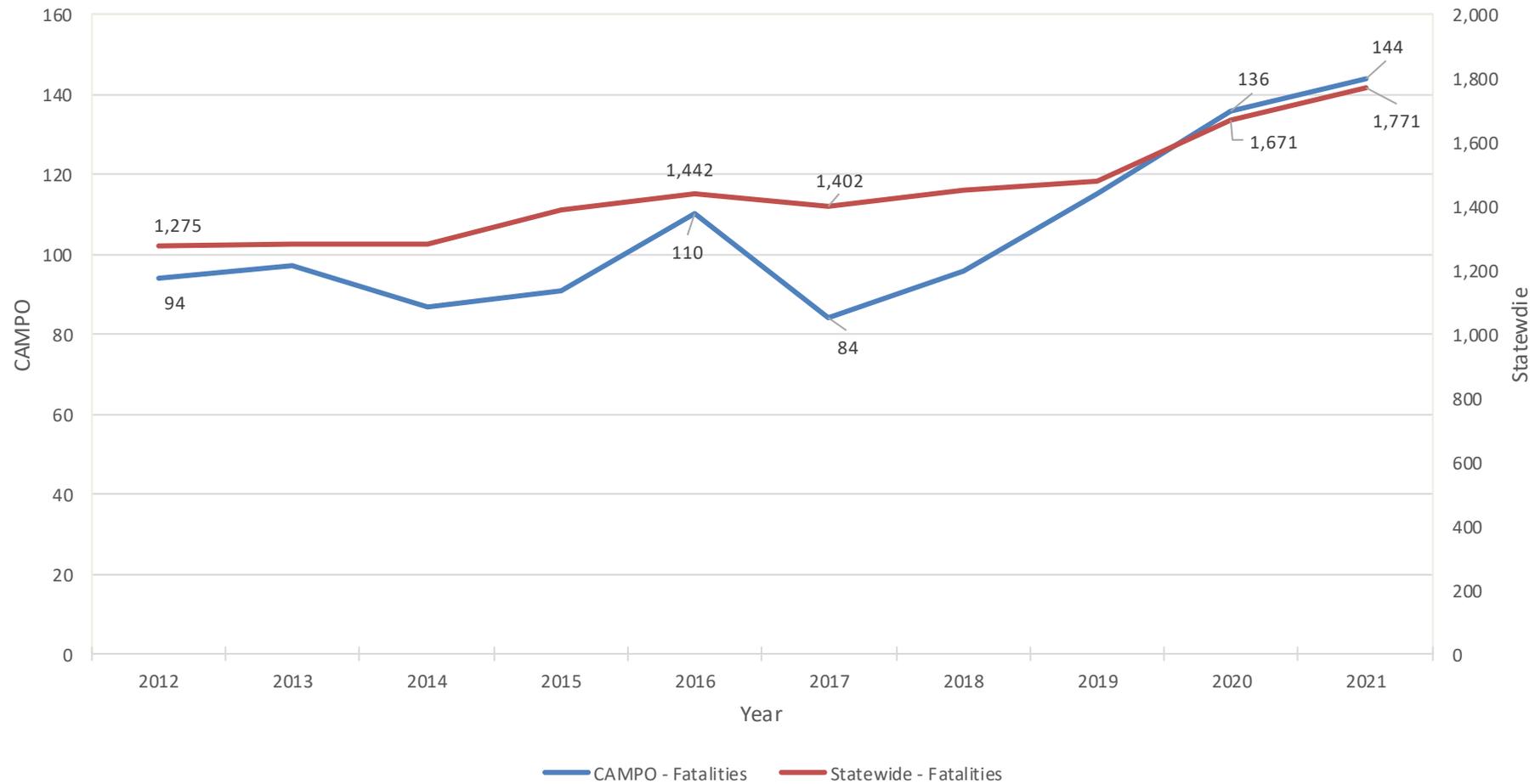


Total Reported Crashes

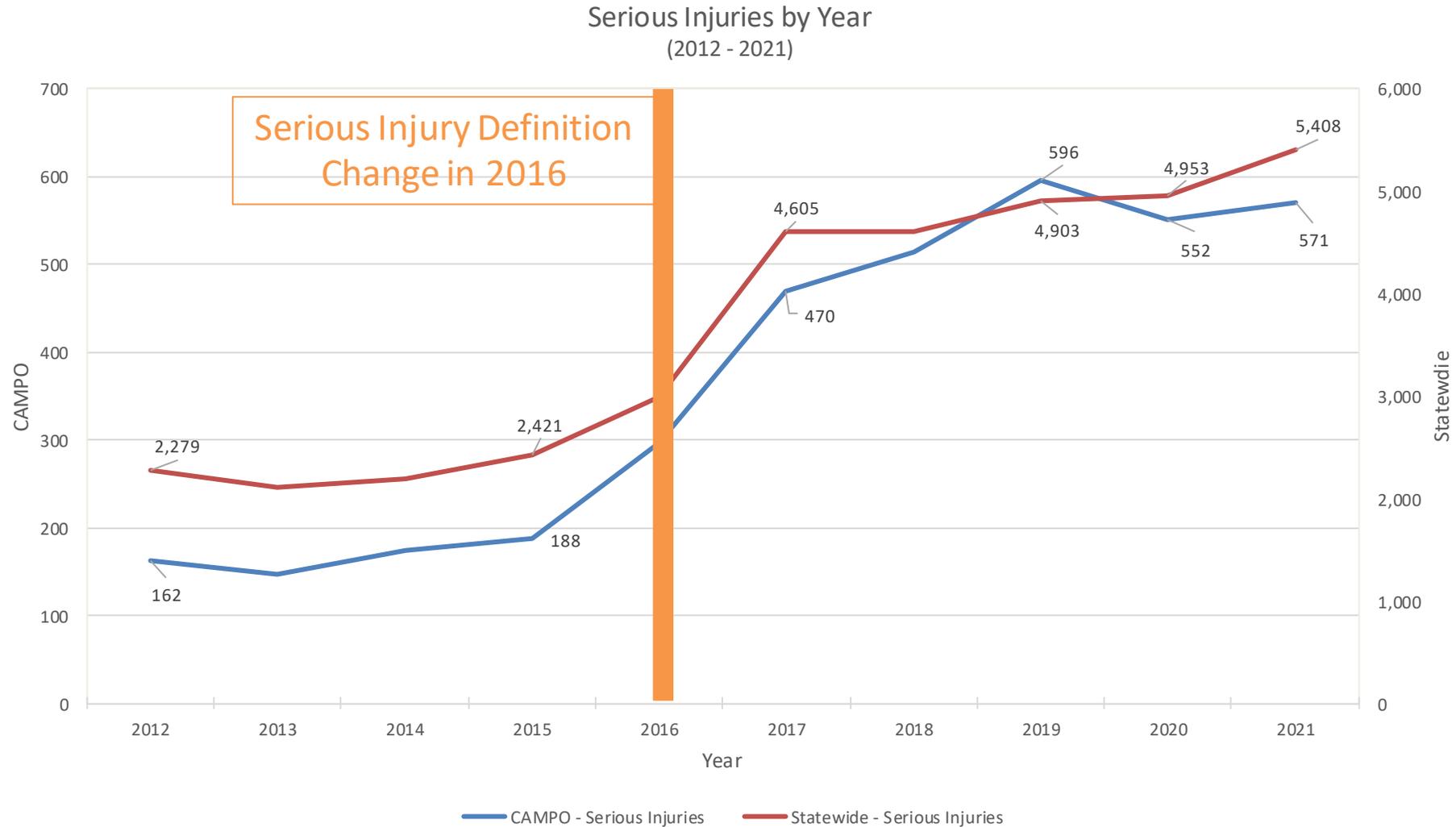


Fatalities

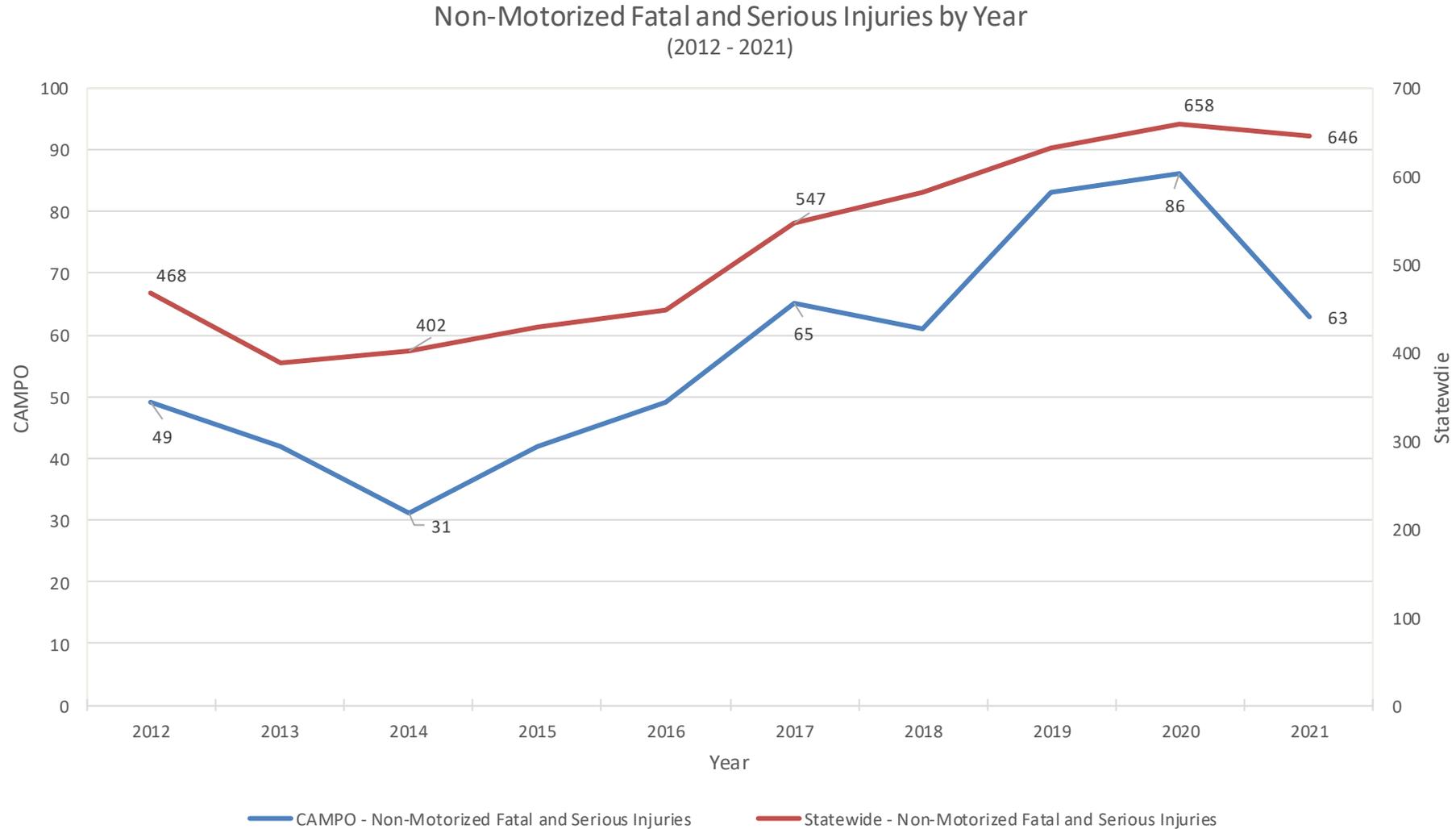
Fatalities by Year
(2012 - 2021)



Serious Injuries (A Type – Disabling)

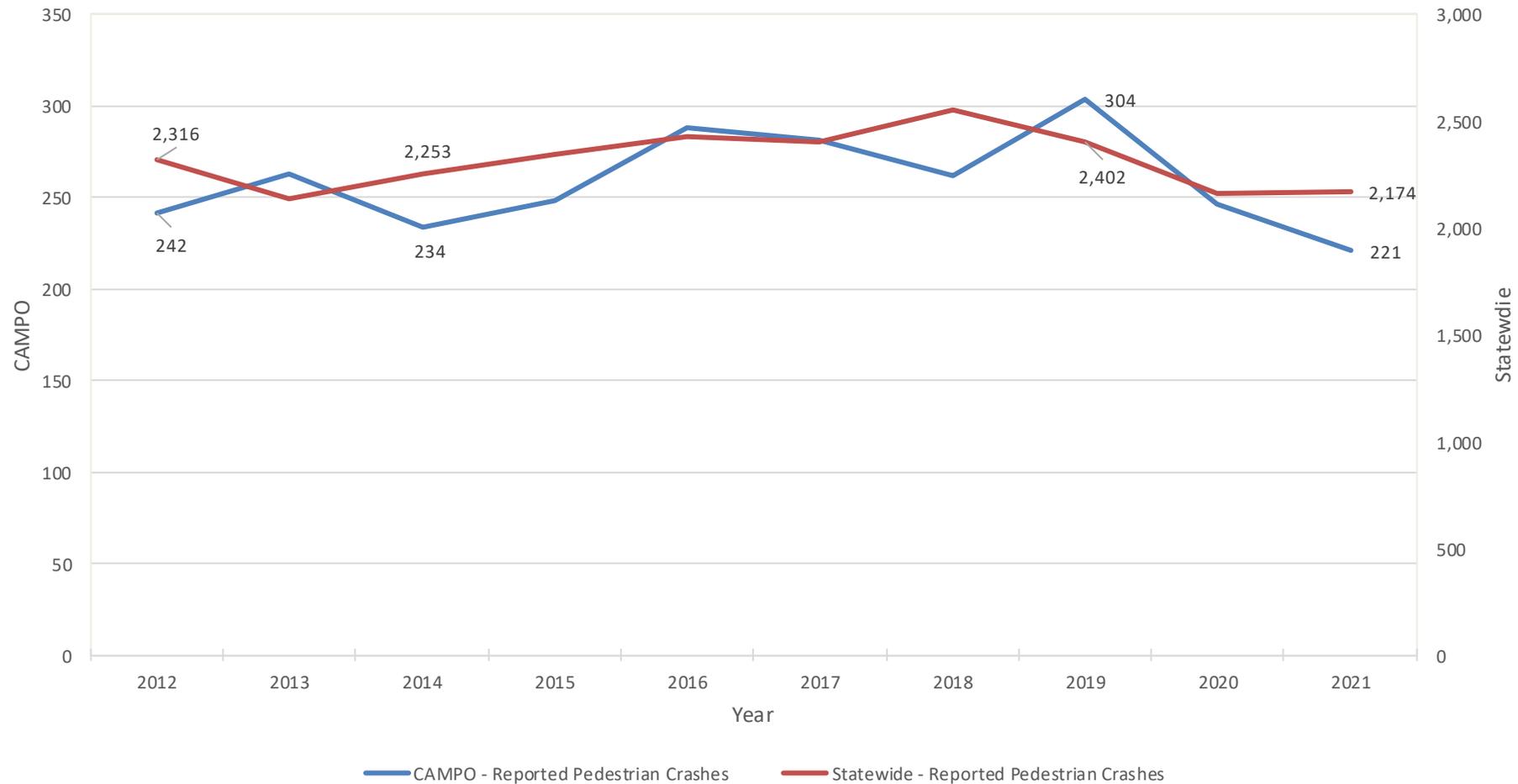


Non-Motorized Fatalities and Serious Injuries



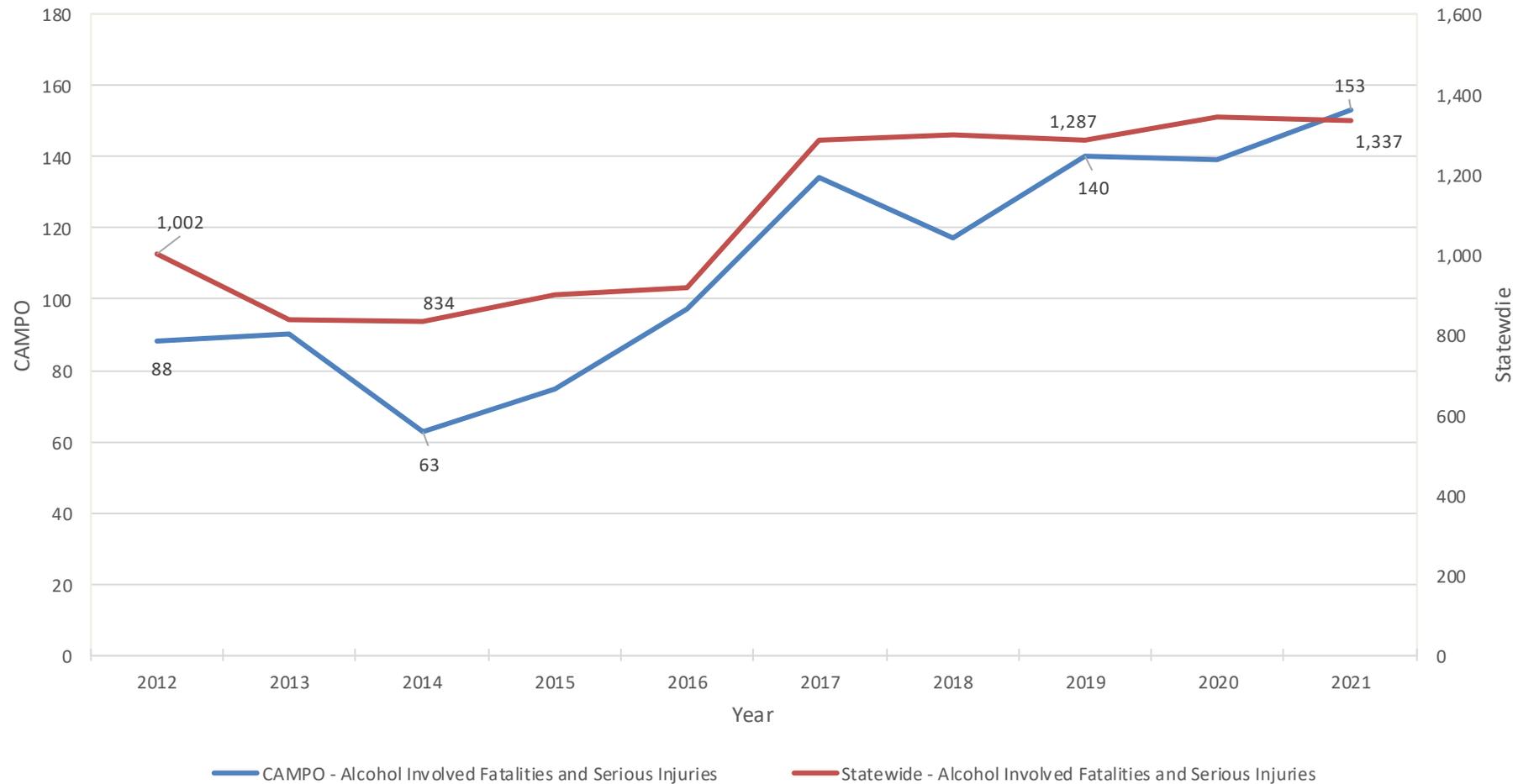
Pedestrian Crashes

Reported Pedestrian Crashes by Year
(2012 - 2021)



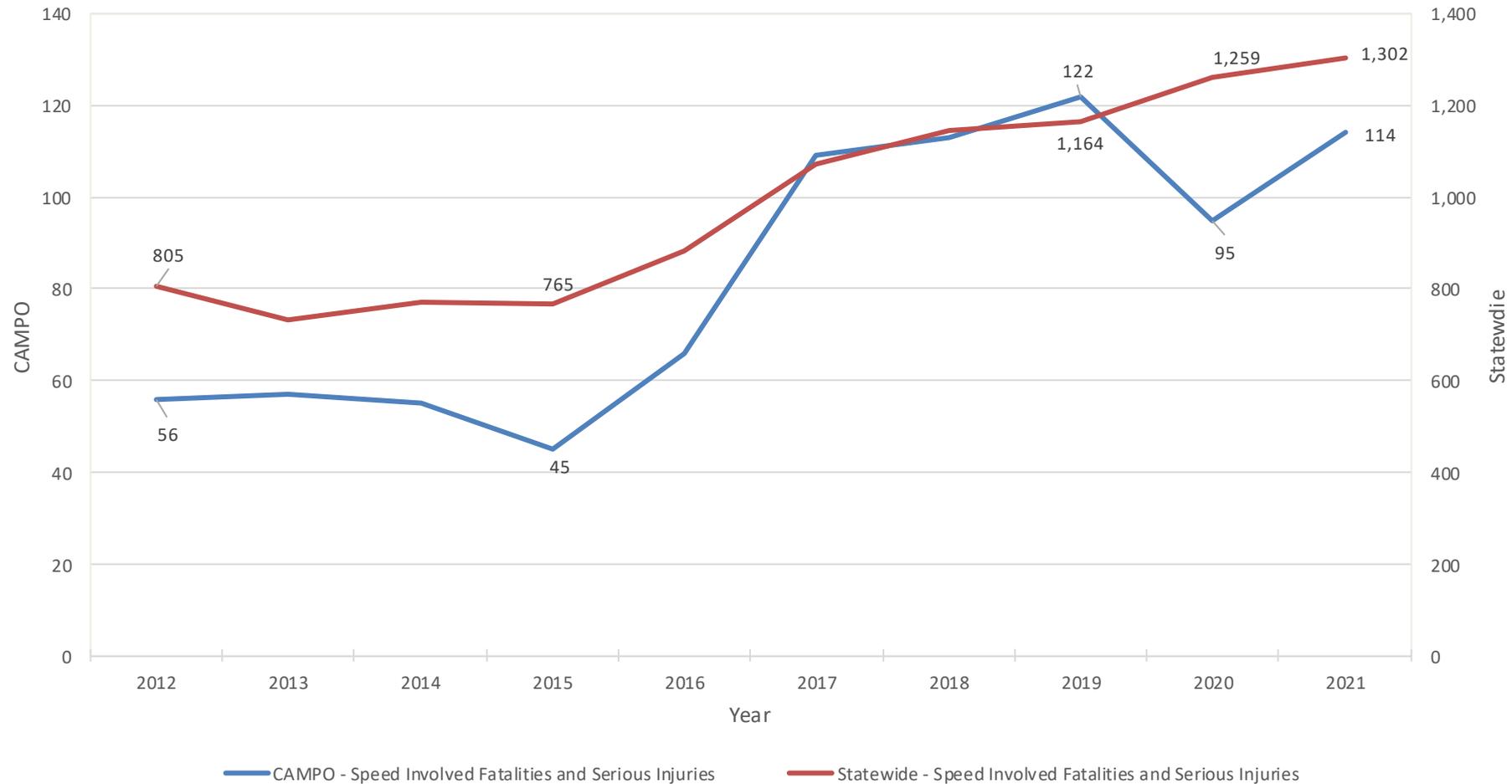
Alcohol Involved Fatalities and Serious Injuries

Alcohol Involved Fatalities and Serious Injuries by Year
(2012 - 2021)



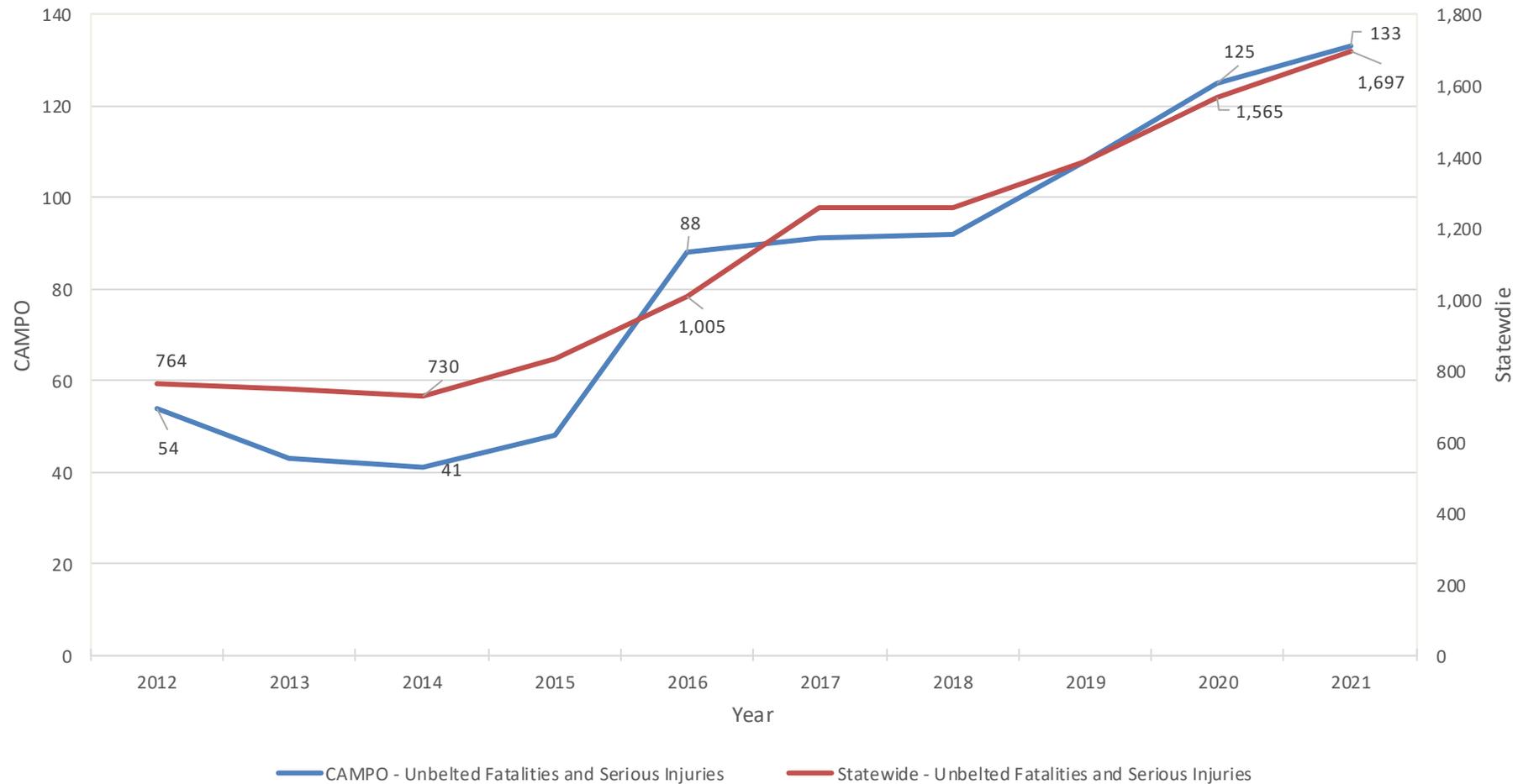
Speed Involved Fatalities and Serious Injuries

Speed Involved Fatalities and Serious Injuries by Year
(2012 - 2021)



Unbelted Fatalities and Serious Injuries

Unbelted Fatalities and Serious Injuries by Year
(2012 - 2021)

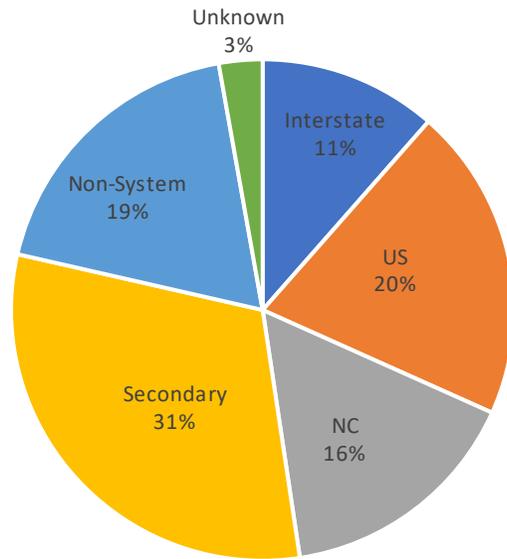


Breakdown by Municipality within the Capital Area MPO (2012 – 2021)

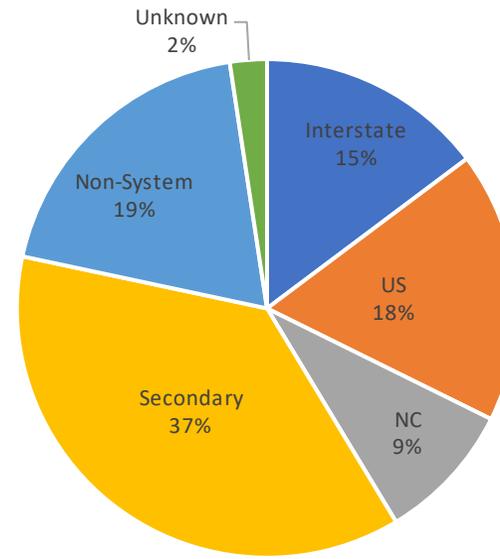
Municipality	Total Reported Crashes	Fatal Crashes	Serious Injury Crashes
Angier	1,100	2	5
Apex	9,717	4	28
Archer Lodge	183	2	7
Bunn	180	0	1
Butner	1,147	5	8
Cary	29,296	32	83
Clayton	5,793	9	24
Creedmoor	695	1	8
Franklinton	654	1	4
Fuquay-Varina	6,796	6	25
Garner	8,984	27	65
Holly Springs	4,996	12	11
Knightdale	4,476	5	11
Morrisville	5,024	10	11
Raleigh	187,444	311	1,366
Raleigh - Durham Airport	856	1	3
Rolesville	1,165	2	10
Wake Forest	6,846	10	24
Wendell	1,245	4	6
Youngsville	624	1	3
Zebulon	2,786	6	13
<i>Rural</i>	<i>88,976</i>	<i>517</i>	<i>1,232</i>
Total	368,983	968	2,948

Breakdown of Crash Frequency By Route Class

Statewide



CAMPO



Safety Performance Measures

- Background
- Assessment
- 2022 Safety Performance Measures

1

Statewide Data Trends

2

Capital Area MPO Data Trends

3

Safety Performance Measures

4

Safety Data Resources

5

Questions / Discussion

Safety Performance Measures - Background

- MAP-21 / FAST Act Rulemaking
 - Requires State DOTs and MPOs to set targets for 5 Highway Safety Improvement Program (HSIP) safety performance metrics
 - Final Rules published in the Federal Register March 2016; effective April 2016

HSIP Safety Targets	
1	Number of fatalities
2	Rate of fatalities
3	Number of serious injuries
4	Rate of serious injuries
5	Number of non-motorized fatalities and non-motorized serious injuries

- Targets:
 - Are based on 5 year rolling averages
 - Are for calendar years
 - Are established annually

Safety Performance Measures - Background

- Target reporting dates:
 - State: August 31st with annual HSIP report
 - MPO: February 27th



Safety Performance Measures - Background

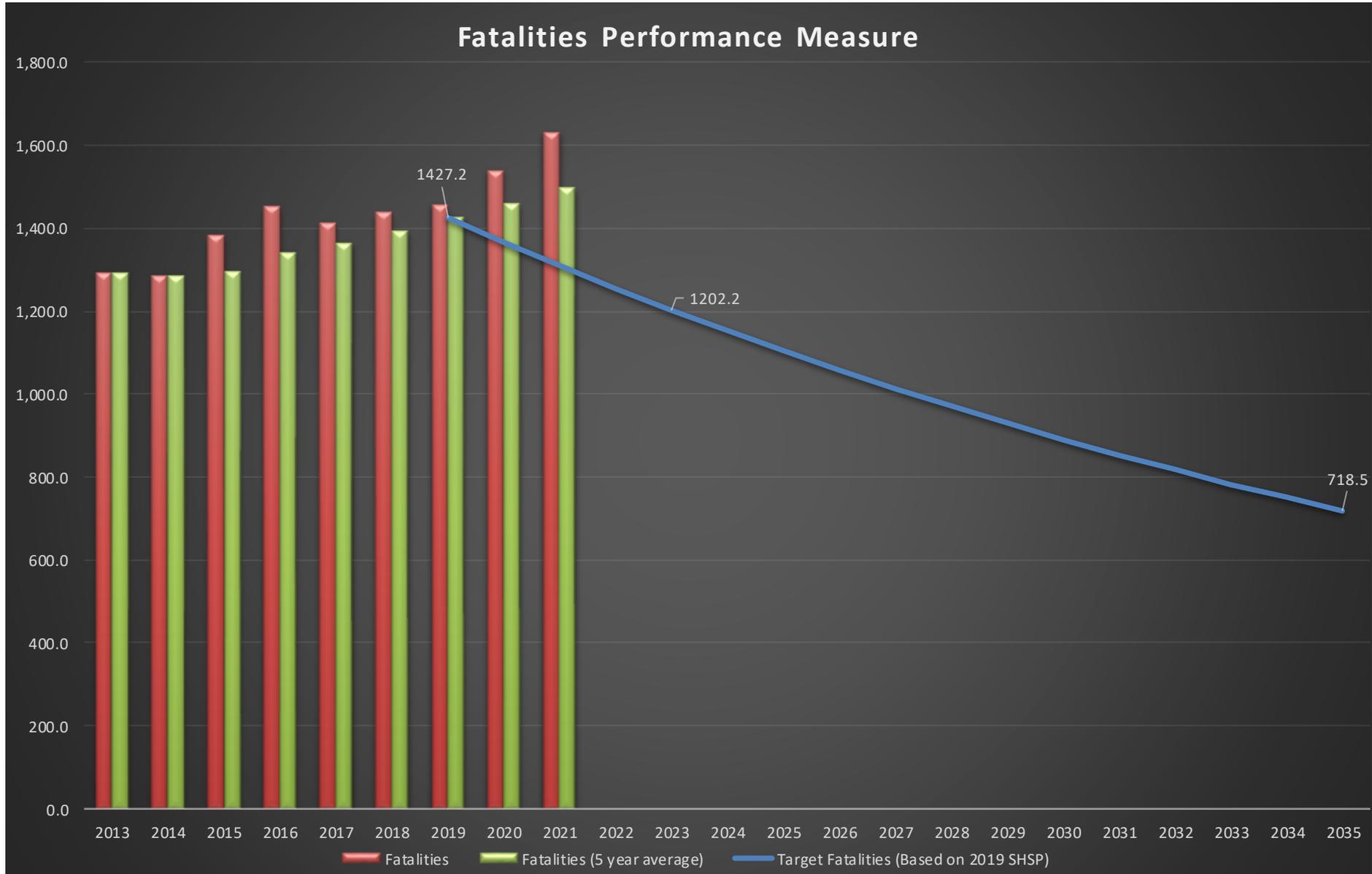
- How are targets set?
 - Up to each State and MPO
 - MPO can adopt State methodology, or come up with their own



State Safety Performance Measures

- Goal: Reduce fatalities and serious injuries by half by 2035
- Target: Where do we need to be in 2023 (current target setting year) to reach this goal by 2035?
 - Number of fatalities in 2018 = 1,437
 - To reduce fatalities by 50% in 2035 = 718
 - 5 year rolling average of fatalities in 2021 = 1,494.8
 - 2023 fatality target: 1,202.2

State Safety Performance Measures



Safety Performance Measures – Assessment

- Assessment of Significant Progress
 - FHWA will determine whether a State DOT has met or made significant progress toward meeting HSIP safety targets
 - CY 2020 targets were assessed in early 2022
 - FHWA will not directly assess MPO progress towards meeting HSIP safety targets



Safety Performance Measures - Assessment

- Assessment of Significant Progress (cntd)
 - FHWA assessed NCDOT's CY 2020 safety targets in early 2022
 - **Based on FHWA's review, North Carolina has not met or made significant progress toward achieving its safety performance targets.**

Assessment of Statewide Targets

Performance Measures	5-year Rolling Averages			Target Achieved?	(Actual) Better than Baseline?	Met or Made Significant Progress?
	Target	Actual	Baseline			
	2016 - 2020	2016 - 2020	2014 - 2018			
Fatalities (5 Year Average)	1,227.8	1,458.6	1,392.2	No	No	No
Fatality Rate (5 Year Average)	1.084	1.250	1.206	No	No	
Serious Injuries (5 Year Average)	2,812.8	4,410.2	3,362.4	No	No	
Serious Injury Rate (5 Year Average)	2.462	3.776	2.884	No	No	
Non-motorized Fatalities and Serious Injuries (5 Year Average)	426.6	583.0	491.0	No	No	

Safety Performance Measures - Assessment

- Assessment of Significant Progress (cntd)
 - FHWA assessed NCDOT’s CY 2020 safety targets in early 2022
 - **Based on FHWA’s review, North Carolina has not met or made significant progress toward achieving its safety performance targets.**

“Assessment” of CAMPO Urban Area MPO Targets

Performance Measures	5-year Rolling Averages			Target Achieved?	(Actual) Better than Baseline?	Met or Made Significant Progress?
	Target	Actual	Baseline			
	2016 - 2020	2016 - 2020	2014 - 2018			
Fatalities (5 Year Average)	83.1	108.2	93.6	No	No	No
Fatality Rate (5 Year Average)	0.664	0.836	0.729	No	No	
Serious Injuries (5 Year Average)	250.5	485.6	328.4	No	No	
Serious Injury Rate (5 Year Average)	1.976	3.730	2.519	No	No	
Non-motorized Fatalities and Serious Injuries (5 Year Average)	39.9	71.8	50.8	No	No	

2023 Safety Performance Measures

State Safety Performance Measures

- 2023 North Carolina HSIP Safety Targets

Performance Measure	CY 2023
Number of Fatalities	1,202.2
Rate of Fatalities	1.011
Number of Serious Injuries	3,423.0
Rate of Serious Injuries	2.863
Number of Non-motorized Fatalities and Serious Injuries	468.2

Capital Area MPO Safety Performance Measures

- 2023 Capital Area MPO HSIP Safety Measures

Year	Fatalities	Fatality Rate	Serious Injuries	Serious Injury Rate	Non-motorized Fatalities and Serious Injuries
2008	99	0.927	161	1.508	35
2009	101	0.936	134	1.241	20
2010	93	0.874	145	1.363	22
2011	91	0.823	147	1.330	36
2012	94	0.839	162	1.446	49
2013	97	0.847	147	1.284	43
2014	87	0.733	174	1.466	33
2015	91	0.722	188	1.491	43
2016	110	0.843	296	2.267	50
2017	84	0.635	470	3.551	66
2018	96	0.713	514	3.820	62
2019	115	0.829	596	4.297	91
2020	136	1.162	552	4.717	90
2021	143	1.080	571	4.311	68

- 2023 Capital Area MPO HSIP Safety Targets

- If adopting the State’s methodology of reducing fatalities and serious injuries by half by the year 2035

Year	Fatalities (5 Year Average)	Fatality Rate (5 Year Average)	Serious Injuries (5 Year Average)	Serious Injury Rate (5 Year Average)	Non-motorized Fatalities and Serious Injuries (5 Year Average)
2008 - 2012	95.6	0.880	149.8	1.378	32.4
2009 - 2013	95.2	0.864	147.0	1.333	34.0
2010 - 2014	92.4	0.823	155.0	1.378	36.6
2011 - 2015	92.0	0.793	163.6	1.403	40.8
2012 - 2016	95.8	0.797	193.4	1.591	43.6
2013 - 2017	93.8	0.756	255.0	2.012	47.0
2014 - 2018	93.6	0.729	328.4	2.519	50.8
2015 - 2019	99.2	0.748	412.8	3.085	62.4
2016 - 2020	108.2	0.836	485.6	3.730	71.8
2017 - 2021	114.8	0.884	540.6	4.139	75.4
2023 Target*	82.7	0.622	366.7	2.737	52.4

Safety Data Resources

1

Statewide Data Trends

2

Capital Area MPO Data Trends

3

Safety Performance Measures

4

Safety Data Resources

5

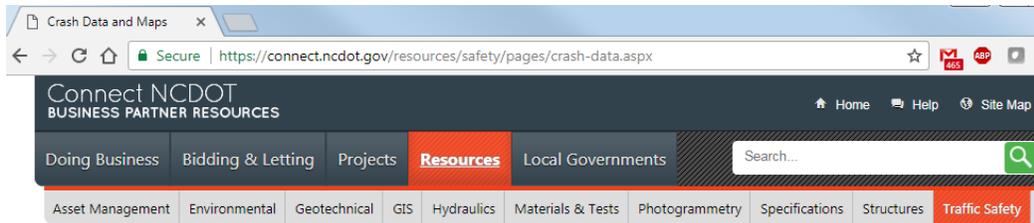
Questions / Discussion

Resources

- Metropolitan Planning Organization Safety Performance Measures Fact Sheet
 - https://safety.fhwa.dot.gov/hsip/spm/docs/mpo_factsheet.pdf
- FHWA Safety Target Setting Resources
 - https://safety.fhwa.dot.gov/hsip/spm/target-setting_resources.cfm
- North Carolina Strategic Highway Safety Plan
 - <https://spatial.vhb.com/ncdotshsp/>
- North Carolina Highway Safety Improvement Program (HSIP)
 - <https://connect.ncdot.gov/resources/safety/pages/nc-highway-safety-program-and-projects.aspx>

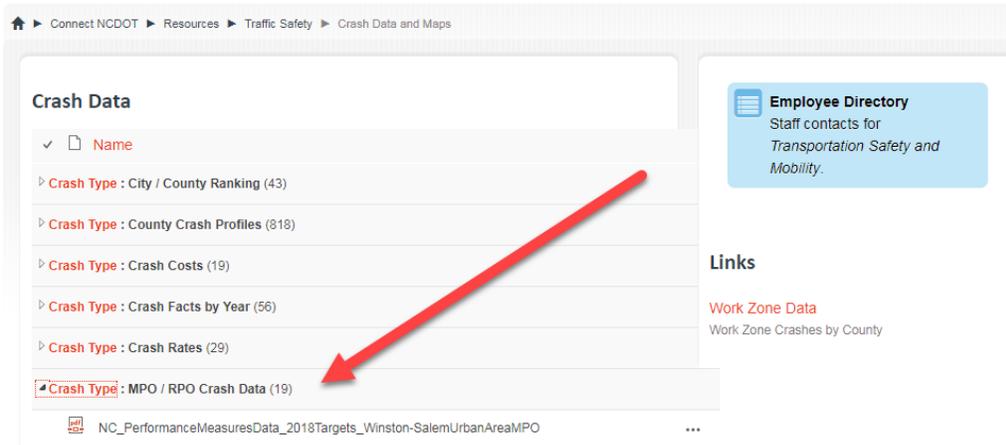
Resources

- MPO / RPO Crash Data
 - <https://connect.ncdot.gov/resources/safety/Pages/Crash-Data.aspx>



Crash Data and Maps

Crash data, organized by type, ranking, overall cost, and maps and other resources for analysis.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER GOVERNOR J. ERIC BOYETTE SECRETARY

DATE: September 11, 2020

TO: Elud De Jesus, AICP
Transportation Planner, Greenville Urban Area Metropolitan Planning Organization

FROM: Brian Mayhew, PE, CMA
State Traffic Safety Engineer
Transportation Mobility & Safety Division

SUBJECT: Safety Performance Measures – FHWA Assessment and 2021 Targets

Background

Effective April 14, 2016, the Federal Highway Administration (FHWA) established five highway safety performance measures in accord with regulations set forth in the Federal MAP-21 and FAST Act transportation funding bills. These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

These targets are established annually, are based on 5 year rolling averages, and are for calendar years. North Carolina state targets are set in agreement with our Strategic Highway Safety Plan (SHSP) (<https://spatial.vtb.com/ncdot/shsp/>) goals. The SHSP goals are developed through collaborative efforts of a diverse group of stakeholders including state, regional, and local partners (including MPOs). The goal of the most recent (2019) SHSP is to reduce fatalities and serious injuries by half by 2035, moving towards zero by 2050.

North Carolina Safety Performance Target Achievement Determination

In early 2020, FHWA completed an assessment of target achievement for NCDOT's calendar year (CY) 2018 safety targets, based on the 5-year averages for 2014-2018 for each measure. As per 23 CFR 450.211(c)(2), a State Department of Transportation (DOT) has met or made significant

Measure	2018					2014-2018 Average				
	Actual	Target	Met	Significant	Not Met	Actual	Target	Met	Significant	Not Met
Fatalities	1,120	1,120	100%	100%	0%	1,120	1,120	100%	100%	0%
Serious Injuries	12,500	12,500	100%	100%	0%	12,500	12,500	100%	100%	0%
Non-motorized Fatalities	10	10	100%	100%	0%	10	10	100%	100%	0%
Non-motorized Serious Injuries	150	150	100%	100%	0%	150	150	100%	100%	0%

Resources

- **Planning Organization Resources**

- <https://www.ncdot.gov/initiatives-policies/safety/traffic-safety/Pages/Planning-Organization-Resources.aspx>

- **North Carolina Strategic Highway Safety Plan**

- <https://spatial.vhb.com/ncdotshsp/>

- **Highway Safety Improvement Program (HSIP)**

- Our HSIP program is our primary method of identifying locations that are likely to produce a safety project. Locations are flagged if they exceed certain criteria and have patterns that we believe are correctable.
- Link to webpage with description of program and tabular reports: <https://connect.ncdot.gov/resources/safety/pages/nc-highway-safety-program-and-projects.aspx>
- Link to mapped HSIP locations for the last 5 years: <http://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=bb6dd277ce6247438fc096200141949a>

- **Total Crash Frequency Grouped By Intersection**

- This product contains planning level crash data grouped by intersection. This data should not be used for detailed design decisions.
 - Special consideration should be given to data at ramps or loop locations.
- Link to ArcGIS Online mapped data: <http://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=dc944f1c834f49a18479c17df1f783b9>

- **Planning Level Safety Scoring Data**

- This product contains planning level crash data for each half mile section of roadway. This data should not be used for detailed design decisions. This is the dataset that is used to score projects from a safety perspective as they go through the STI process.
- Link to ArcGIS Online mapped data: <http://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=7415a4df4df1468585225bc74a77369b>

- **Fatal and Severe Injury Crashes**

- This product contains fatal and severe injury crashes mapped for the last 10 years.
- Link to ArcGIS Online mapped data: <http://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=9a25021dbe91427a92f2eca57bd71ee2>

- **Bicycle and Pedestrian Crash Data**

- This product contains bicycle and pedestrians crashes mapped for years 2007 through 2020.
- Link to ArcGIS Online mapped data: <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=b4fcdc266d054a1ca075b60715f88aef>

- **Safety Project Mapping**

- This product displays completed, funded, and on-hold spot safety and hazard elimination projects since 2019, and is updated quarterly.
- Link to mapped safety project locations: <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=3f8b32844ad04673b391033a86496852>

- **Spot Mobility Project Mapping**

- This product displays completed, funded, and on-hold spot mobility projects since 2019, and is updated quarterly.
- Link to mapped safety project locations: <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=af5150835edb4502a26762e966cb5dfa>

Discussion

1

Statewide Data Trends

2

Capital Area MPO Data Trends

3

Safety Performance Measures

4

Safety Data Resources

5

Questions / Discussion

Discussion / Questions



Thank you!

Brian Mayhew, PE, CPM

State Traffic Engineer

Mobility and Safety Division

North Carolina Department of Transportation

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Brian Murphy, PE

Safety Planning Engineer

Traffic Safety Unit

North Carolina Department of Transportation

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bgmurphy@ncdot.gov

7.6 Safety Performance Measures and Targets 2023

Requested Action:
Receive as information.

8. Informational Items: Budget

8.1 Operating Budget – FY 2022

8.2 Member Shares - FY 2022

Requested Action:
Receive as information.

9.1 Informational Item: Project Updates

Studies:

- FY22 Hot Spots
- Cary-RTP and Garner-Clayton Rapid Bus/Bus Rapid Transit Extensions Major Investment Study
- Southeast Area Study Update
- U.S. 401 Corridor Study
- Western Wake Traffic Signal System Integration
- Mobility Management Program Implementation

Other Updates:

- Mobility Coordination Committee
- Safe Routes to School (SRTS)
- CAMPO/NCDOT Non-Motorized Volume Data Program
- Triangle Transportation Choices (Triangle TDM Program)
- NCDOT Highway Project U-2719 – Updates
- NC 540 Bonus Allocation Projects

9.2 Informational Item: Public Engagement Updates

Requested Action:
Receive as information.

10. Informational Item: Staff Reports

- MPO Executive Director
- TCC Chair
- NCDOT Transportation Planning Division
- NCDOT Division 4
- NCDOT Division 5
- NCDOT Division 6
- NCDOT Rail Division
- NC Turnpike Authority
- NCDOT Integrated Mobility Division
- Executive Board Members

Requested Action:
Receive as information.

ADJOURN

Upcoming Events

Date	Event
December 1, 2022 10:00 a.m.	TCC Regular Meeting Virtual
December 21, 2022 4:00 p.m.	Executive Board Virtual