

AGING OUR WAY, PA: OVERVIEW OF TRANSPORTATION STRATEGIES

SHANE RICE, POLICY DIRECTOR - APRIL 10, 2024



**GOVERNOR
SHAPIRO**
PENNSYLVANIA.GOV

Aging **Our Way, PA**

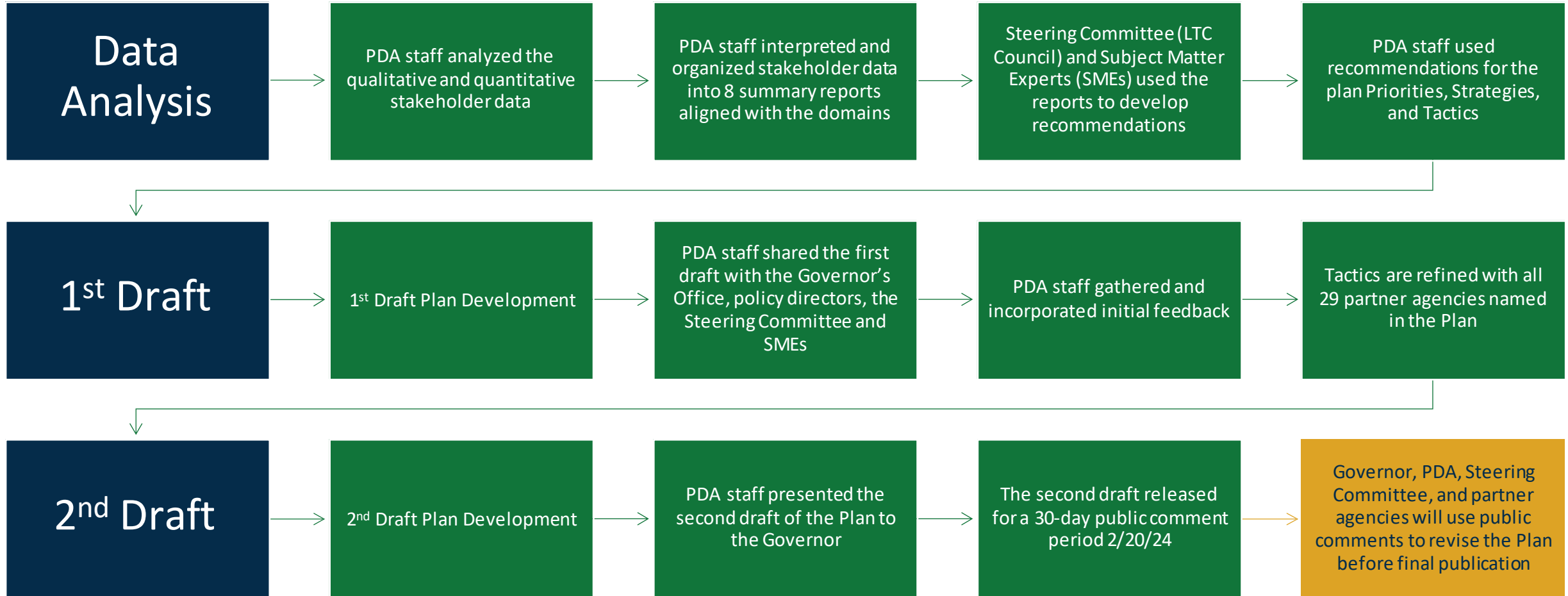
A Plan for Lifelong Independence

Aging Our Way, PA is:

A 10-year strategic plan designed to help transform the infrastructure and coordination of services for Pennsylvania's older adults.

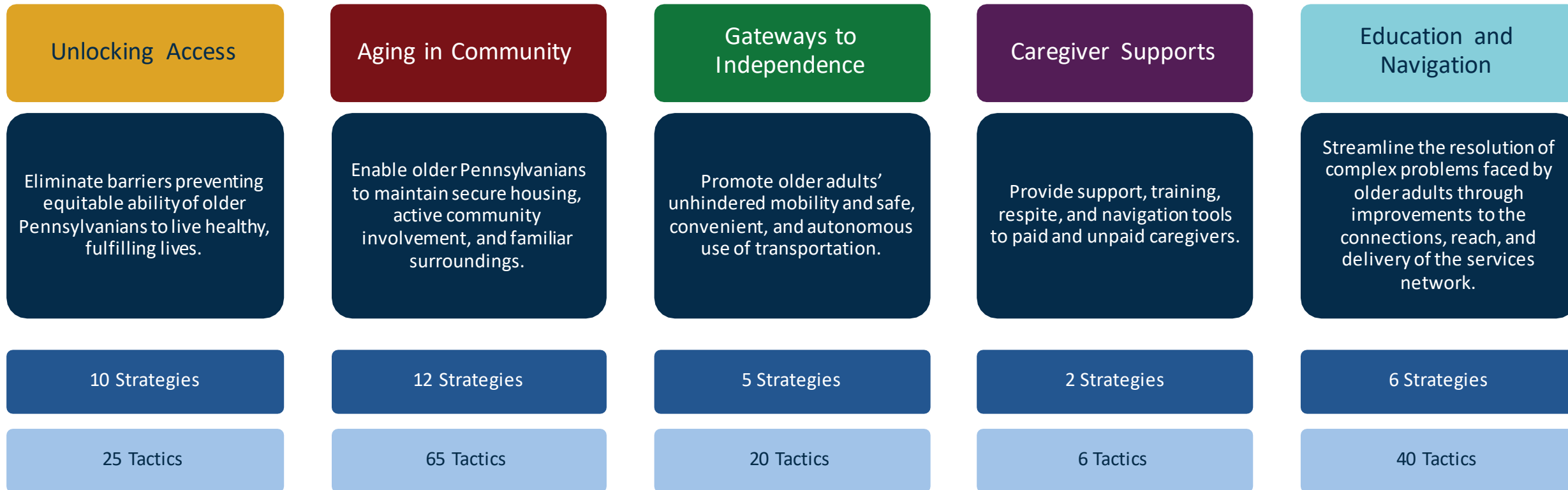
- **Stakeholder-Driven:** PDA received nearly 20,000 responses from community members across the state – including Pennsylvanians over 60, caregivers, families, subject-matter experts and community members - to recommend improvements to the services and infrastructure in their communities.
- **Collaborative:** Drawn from stakeholder input, and as directed by Governor Shapiro's Executive Order 2023-09, state agencies and community expert partners worked together to identify the priorities, strategies, and tactics included in the plan.
- **Achievable:** To guarantee achievability, each Tactic has been refined in active partnership with the agencies responsible for its implementation.
- **Responsive:** The Plan is designed to adapt alongside shifting needs and resources over its 10-year timeframe.
- **Necessary:** The investments and improvements outlined in the Plan are needed for Pennsylvania to grow alongside its aging population.
- **Effective:** The Plan presents an opportunity for Pennsylvania's government to work smarter.

Development Phase II: Crafting Policy Initiatives



Plan Structure: Priorities, Strategies, and Tactics

Aging Our Way, PA is structured around **Priorities** (high-level themes), **Strategies** (mid-level approaches), and **Tactics** (specific, measurable initiatives).



GATEWAYS TO INDEPENDENCE

Ensuring driver safety for older adults

- Encourage older adults and individuals with disabilities to seek vehicle modifications needed to maintain driving abilities, including those necessary for employment.
- Increase awareness of existing safe driving education programs.
- Invest in additional programming related to Older Driver Safety Awareness Week.

Improving transportation systems to better serve older adults and people with disabilities

- Develop a rider awareness advertising program that highlights ADA requirements and respectful behavior.
- Develop and disseminate a best practice guide for transit driver recruitment and retention.
- Develop and implement or improve ADA and accessibility trainings for transit authority employees.
- Improve coordination between transit providers and the Veterans' Administration to address gaps in access to services for veterans, including veterans in rural areas.
- Provide resources to modernize the Veterans' Van Program and develop a fleet replacement schedule.



GATEWAYS TO INDEPENDENCE

Increasing coordination between transportation stakeholders

- Advocate for increased coordination, through local development authorities, zoning, or other mechanisms, for the development of retirement and older adult living communities in exurban and rural areas that are closer to community hospitals and fixed route bus services.
- Conduct an evaluation and develop toolkits which may include innovative ideas for county and municipal governments to maintain and improve public transit services.
- Establish an Older Driver Task Force of transportation stakeholders, including but not limited to transit providers, state agencies, and advocates to improve older driver safety.
- Evaluate the inclusion and engagement of older adults and people with disabilities in Metropolitan Planning Organizations (MPOs) and Regional Planning Organizations (RPOs) to advance aging and disability equity.
- Increase awareness and utilization of the [PennDOT Local Technical Assistance Program \(LTAP\)](#).
- Support Pennsylvania House Resolution 174 for the Legislative Budget and Finance Committee to conduct a study and issue a report on the current status, management, and implementation of mass or public transit in Pennsylvania's rural communities.



GATEWAYS TO INDEPENDENCE

Using alternatives to public transportation to reduce gaps in access

- Advocate to increase the availability of paratransit and accessible rideshare vehicles.
- Educate non-profit organizations on PennDOT's Private Non-Profit Vehicle Grant to fund vehicles for transportation of older adults and persons with disabilities.
- Educate personal care attendants and recipients that the delivery of transportation is covered under Medicaid-funded personal care services.
- Inventory and raise awareness of existing technology solutions that assist people with specialized transportation, including Find my Ride, Fareless Payment, and Vehicle Locators.

Utilizing funding opportunities to maximize efficiency and efficacy of public transit

- Enhance awareness of competitive rural transportation grants available through the Infrastructure Investment and Jobs Act (IIJA) and related technical assistance available through PennDOT.
- Evaluate the funding and distribution of lottery funds for the Shared Ride program to maximize efficiency and impact.



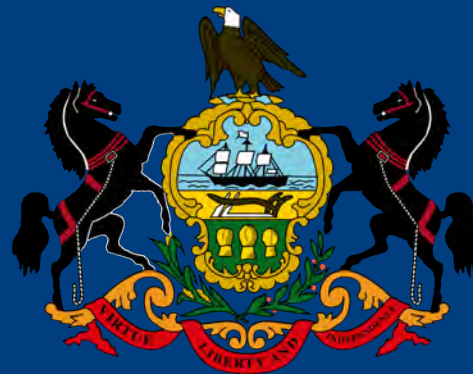
QUESTIONS?

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Transportation Advisory Committee

PENNSYLVANIA DEMOGRAPHICS



APRIL 10, 2024

GENERAL APPROACH

Part A: Demographics / Workforce



PROJECT INITIATION

Strategic Task Force Workshop #1



DEMOGRAPHICS (WORKFORCE) PROFILE

- Workforce Implications / Analysis
- Summarize national transportation workforce issues and trends



TARGETED STAKEHOLDER ENGAGEMENT

- PennDOT
- PMTA/Trucking
- Public Transportation
- Other Modes (Aviation, etc.)
- Workforce Organization / Agencies (e.g. L&I)
- Others TBD



IDENTIFY OPTIONS AND ALTERNATIVES

Options and Alternatives Tech Memo (also key findings)



OPTIONS EVALUATION WORKSHOP

Consider Options and Alternatives Developed in Task #4*



DRAFT AND FINALIZE REPORT

- Task Force Review
- Report Revisions
- Parts A and B
- Finalize Report
- Present to TAC / STC

Part B: Aging Our Way PA (Transportation)**



REVIEW / ASSESS AOWPA REPORT

- Document direct and indirect transportation implications
- Establish inventory of issues / opportunities for further evaluation



TARGETED STAKEHOLDER ENGAGEMENT

- Advocacy groups
- Transportation service providers



OTHER STATES RESEARCH

- Focus on transportation and aging population
- Based on issues / opportunities identified in Task #1



IDENTIFY OPTIONS AND ALTERNATIVES

Stakeholder Engagement / Other State Research Findings Tech Memo

* Part B will address the transportation component of Aging our Way PA, assuming TAC detailed recommendations

** Conceptual approach envisions bringing Aging our Way PA effort and overall Demographics / Workforce study effort together at one workshop. (TBD, as separate workshops could be preferable.)

QUESTIONS / DISCUSSION



Transportation Advisory Committee

E-COMMERCE STUDY

APRIL 10, 2024



STUDY OBJECTIVES

- Identify land use changes related to growth of e-commerce, transformation of retail establishments resulting from changes in landscape and demographics...
- Evaluate economic impact of these changes in terms of employment, real estate valuations, traffic and congestion, pedestrian and active transportation user safety, and other “last-mile” considerations...
- Identify how these trends impact PA’s transportation network and implications for future infrastructure needs...
- Evaluate the transportation funding implications related to e-commerce (e.g., package delivery fees, Goods Delivery Fee proposed by TROC).



SCOPE ELEMENTS

Project Kickoff &
Problem
Definition

Project Task
Force

Research &
Stakeholder
Engagement

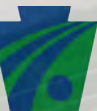
Moderated Panel
Discussion

Address Issues &
Opportunities

Draft Study
Report

Report Review
and Finalization

Project
Communications



PROJECT SCHEDULE

No.	Task Name	Start Date	End Date
1	Task Force Meeting – Kickoff and Problem Definition	04/24	04/24
2	Research & Stakeholder Engagement	04/24	06/24
3	Moderated Panel Session	07/24	07/24
4	Address Issues and Opportunities Identified	08/24	09/24
5	Draft Report	10/24	10/24
6	Report Review and Finalization	11/24	11/24
7	TAC and STC Presentations	12/24	12/24
8	Project Communications	04/24	02/25



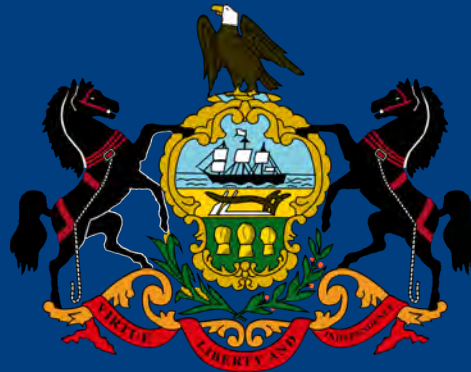
QUESTIONS / DISCUSSION



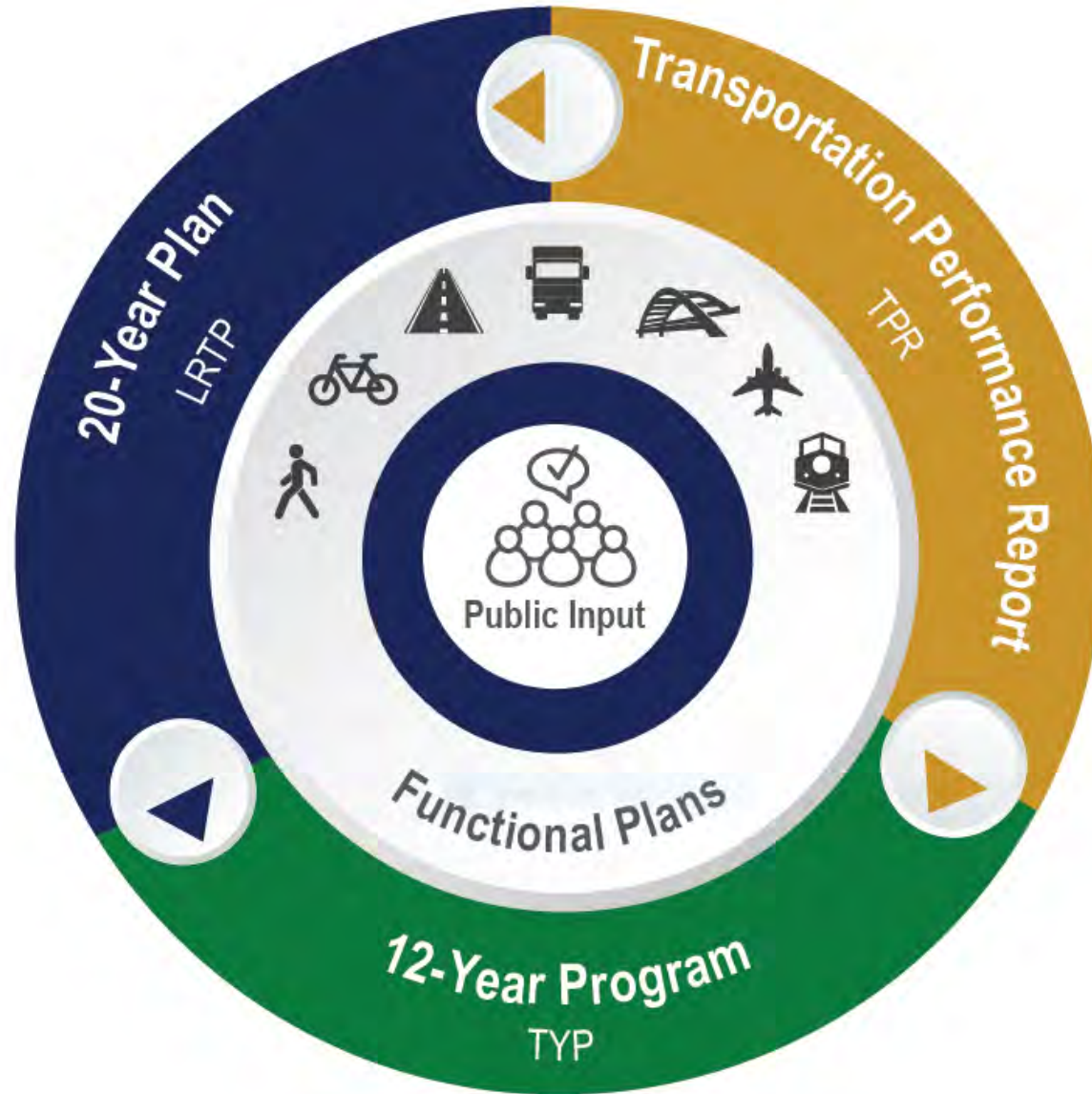
Transportation Advisory Committee

2025 TRANSPORTATION PERFORMANCE REPORT

APRIL 10, 2024



PLANNING, PROGRAMMING, PERFORMANCE MEASUREMENT



RECURRING THEMES

Safety

Mobility

Preservation

Accountability

Funding

Freight



SCOPE ELEMENTS

Project
Task Force

Coordination
with PennDOT
Executives &
Bureau Staffers



Update
Trend &
Performance
Data

Develop Draft
Report &
Update Digital
Report

Roll Out/Project
Communications



TIMELINE

#	Task Name	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN '25	FEB	MAR	APR	
1	Project Management/Administration	[Hatched pattern]													
2.1	Kickoff and Stakeholder Engagement	KICKOFF													
2.2	Evaluate and Update TPR Charts	[Green bar]													
2.3	TAC Briefings				July 17			Oct. 23		Dec. 11					
2.4	Report Production & TAC Final Presentation						[Green bar]					Feb. 3			
2.5	STC Presentation											[Blue bar]			
2.6	Roll-out												[Orange bar]		



QUESTIONS / DISCUSSION



NAVIGATING MICROMOBILITY FROM WHEELS TO LAWS

ROY GOTHIE .. APRIL 2024

TRANSPORTATION ADVISORY COMMITTEE



A TRANSPORTATION SOLUTION

For most people transportation starts with the idea of an automobile or light truck for every day personal use



It is also an aspirational purchase saying something about who you are and where you could go.



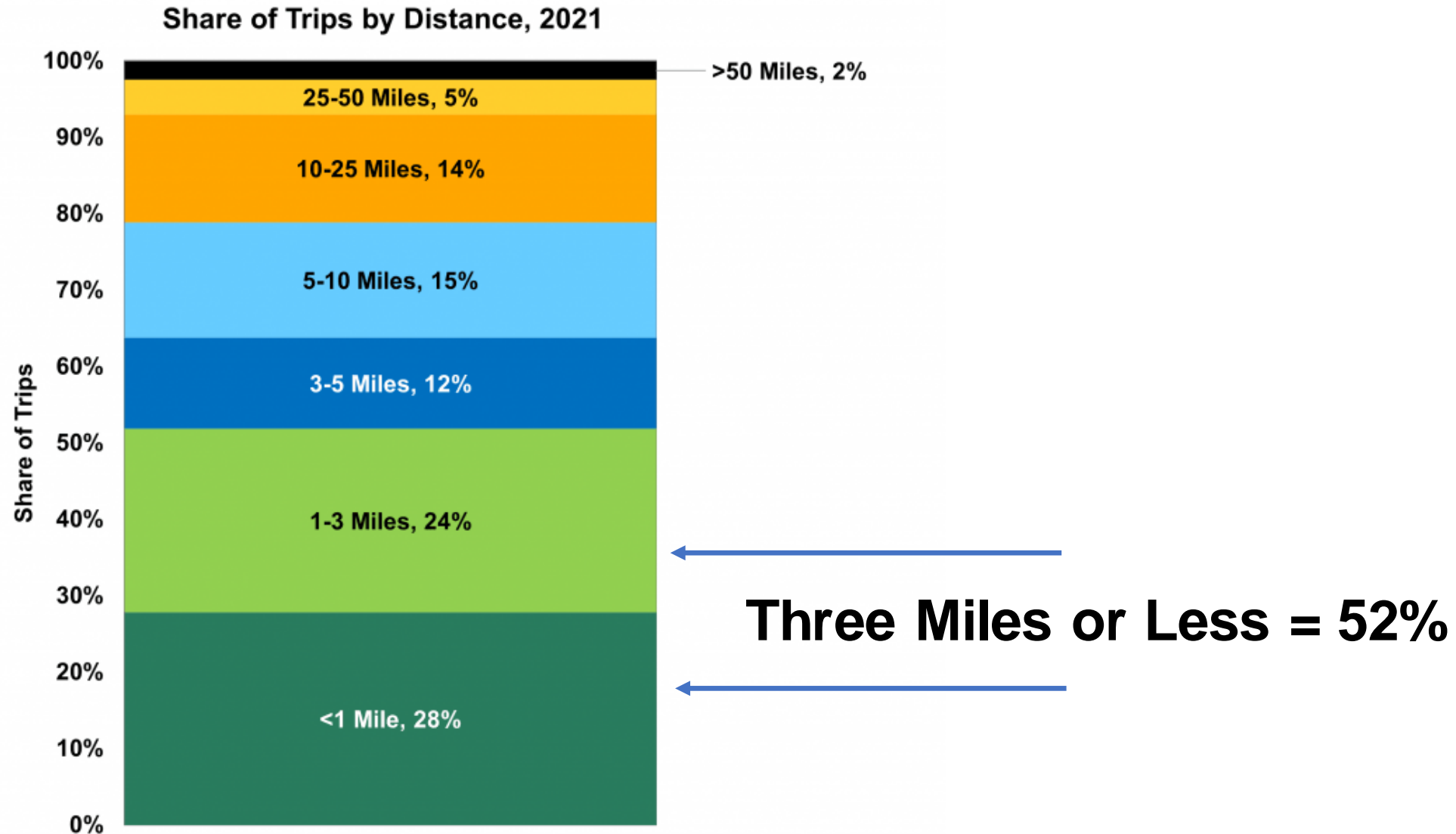
A TRANSPORTATION SOLUTION

Practically speaking a car or truck is something else

Each is a bundle of trips – mostly short trips



A TRANSPORTATION SOLUTION



What Other Options Are There?

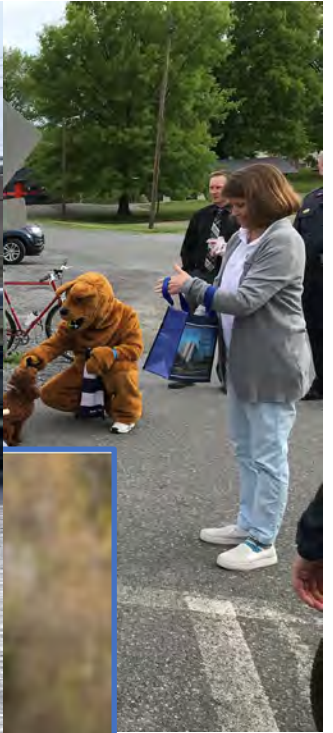


Micromobility

A broad landscape of small, lightweight vehicles with a variety of form factors weighing less than 1000kg

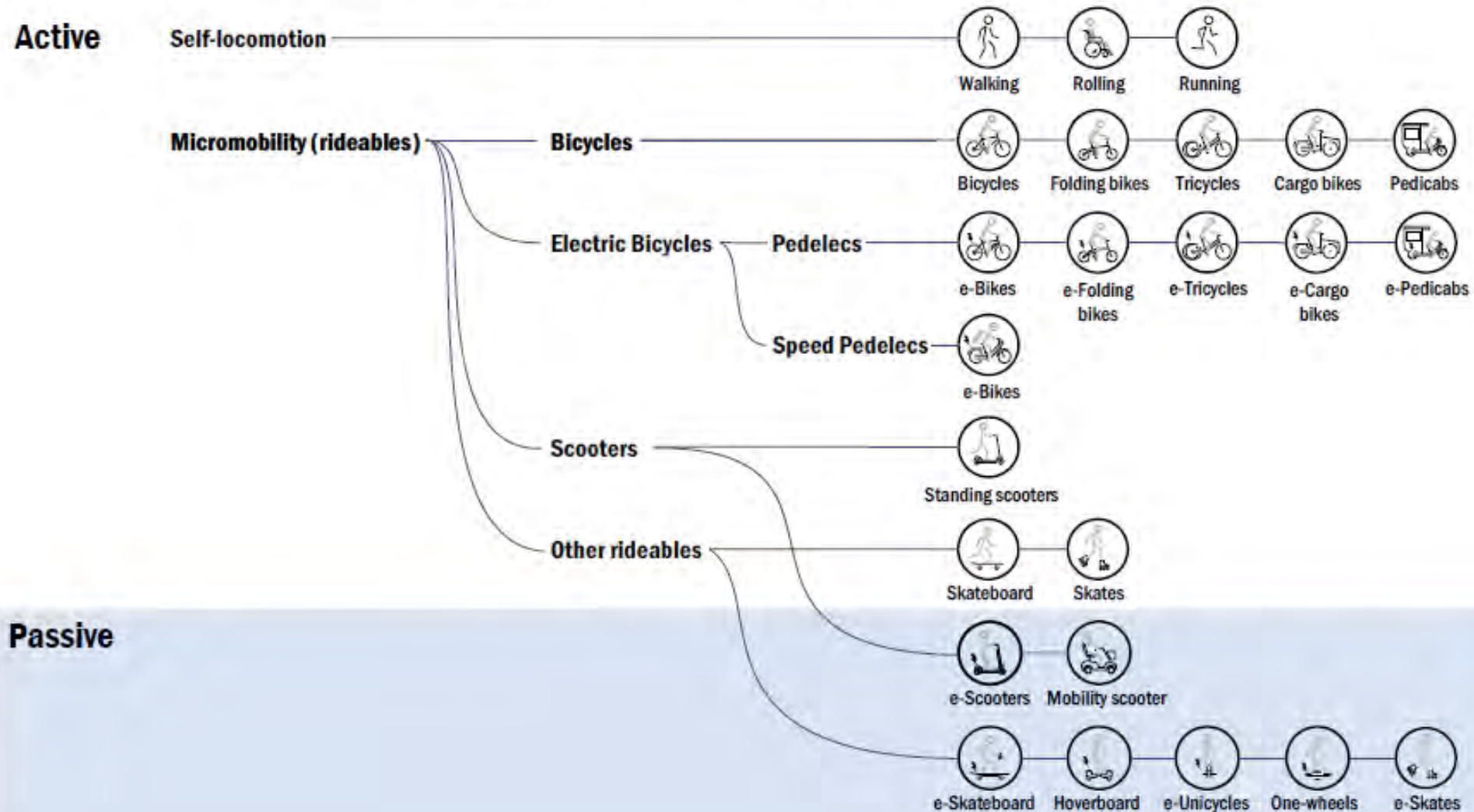


MICROMOBILITY: DEFINITIONS



MICROMOBILITY LANDSCAPE

Figure 3. The Light Mobility Landscape



MICROMOBILITY LANDSCAPE

Powered light mobility



Throttled e-bike



Mopeds



e-Mopeds



Motorcycles



e-Motorcycles



Rickshaws



e-Rickshaws



Micro vehicles



Micro electric vehicles

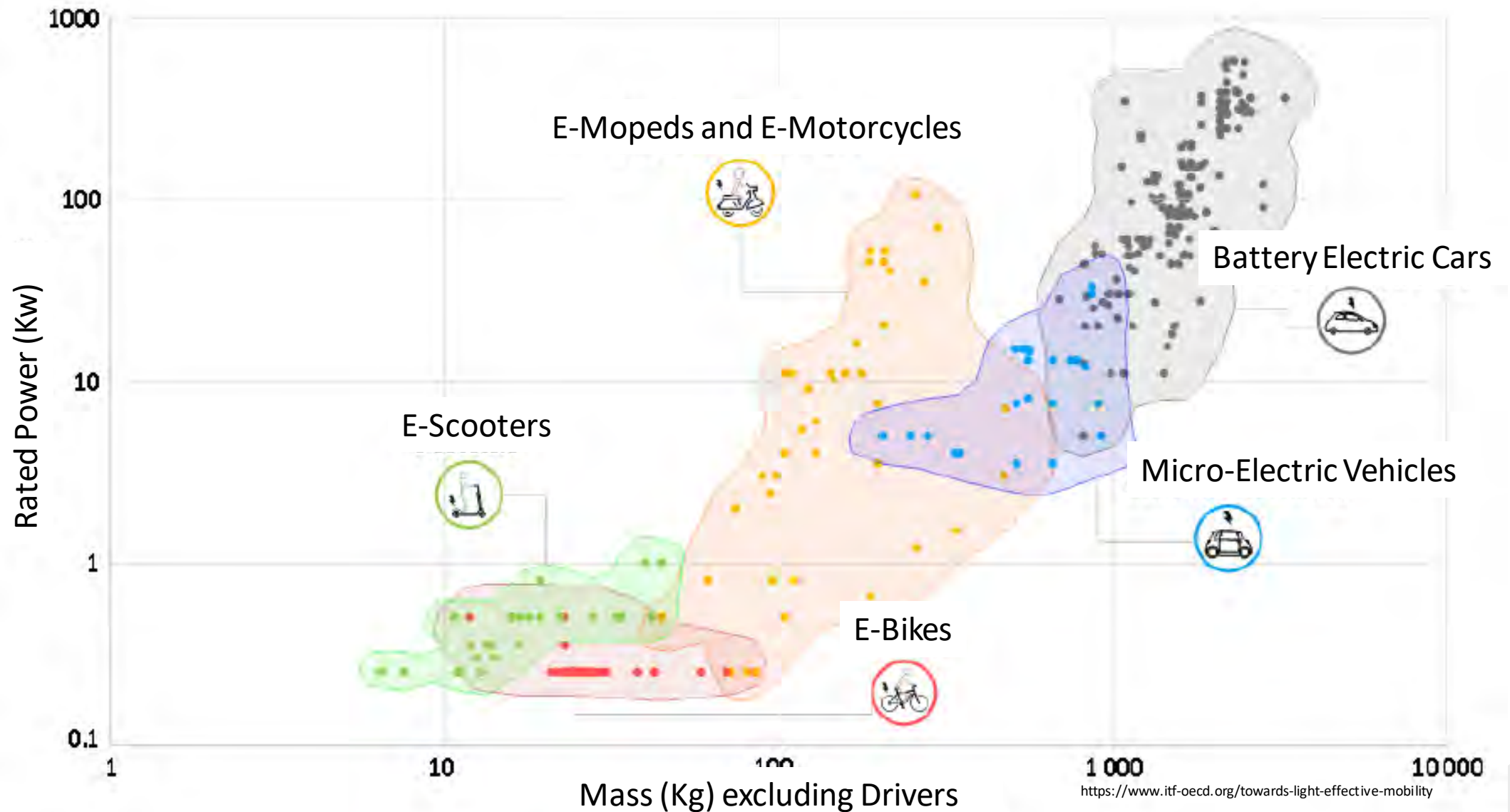
Car-like mobility



Microcars



MICROMOBILITY AND THE LAW



The Reality of Regulation and Legislation

- Not as clear as we might prefer
- Elected Officials, Law Enforcement, and the Public are confused
- Bike shops are trying to educate customers
- Researchers are producing some work on the laws and how these vehicles are being used.



MICROMOBILITY: DEFINITIONS

MOTOR-DRIVEN CYCLE:

Motorized Pedalcycle



Motor Scooter



Pedalcycle with Electric Assist



MICROMOBILITY: DEFINITIONS

Motor-Driven Cycle: A motorcycle, including a motor scooter, with a motor which does not to exceed 5 brake horsepower

Motorized Pedalcycle or Moped*

A motor-driven cycle **equipped with operable pedals** and a motor rated no more than 1.5 brake horsepower, a cylinder capacity not exceeding 50 cubic centimeters, an automatic transmission and a maximum design speed of no more than **25 miles per hour**

OR

An electric motor-driven cycle **equipped with operable pedals** and an automatic transmission powered by an electric battery or battery pack-powered electric motor And a maximum design speed of no more than **25 miles per hour**

Pedalcycle with Electric Assist:

A vehicle weighing not more than 100 pounds with two or three wheels more than 11 inches in diameter, manufactured or assembled with an electric motor system rated at not more than 750 watts and **equipped with operable pedals** and capable of a speed not more than **20 miles** per hour on a level surface when powered by the motor source only.

746 watts or 33 cubic centimeters equal about one horsepower



Three Tiers of E-Bikes

National Model Legislation

- **Class 1:** eBikes that are pedal-assist only, with no throttle, and have a maximum assisted speed of **20 mph**.
- **Class 2:** eBikes that also have a maximum speed of **20 mph**, but are throttle-assisted.
- **Class 3:** eBikes that are pedal-assist only, with no throttle, and a maximum assisted speed of **28 mph**.

Does not distinguish based upon:

Weight

Engine power

Power source

Manual vs. automatic transmission



MICROMOBILITY: DEFINITIONS?

The ELF Pedalcycle with Electric Assist
150 lbs. – up to 550 lbs. loaded



UPS – Motorized Cycle
400 lbs. unloaded and w/o driver



MICROMOBILITY: DEFINITIONS?

Challenging to operate for new riders
Higher than expected speeds



Why Micromobility?



A TRANSPORTATION SOLUTION

Provides low-cost flexible options for the traveling public

Federal poverty level for family of three is \$25,820****

Cost to own a new motor vehicle in 2023 was \$12,182 / year over 5 years**

- **16% of yearly household income**

Cost to own a \$1,500 e-bike is about \$530 / year over 5 years***

- **0.73% of yearly household income**

* <https://wisevoter.com/state-rankings/median-household-income-by-state/#pennsylvania>

** <https://newsroom.aaa.com/wp-content/uploads/2023/08/YDC-Fact-Sheet-FINAL-8.30.23-1.pdf>

*** \$1500 bike financed at 8% over 5 years – about \$32/month + 150 maintenance work. Not including new battery (\$300-\$900)

**** <https://www.healthcare.gov/glossary/federal-poverty-level-fpl/>



A TRANSPORTATION SOLUTION

Housing and Transportation Affordability Index

Roughly 30% of family income should go to housing and transportation

$$\begin{aligned} &(\$14,736 + \$12,182) / \$25,820 \\ &\mathbf{\$26,918 / \$25,820} \end{aligned}$$



A TRANSPORTATION STORY

Six More Reasons to Support Micromobility

Offers access to jobs, school, health care, and other community resources

Reduces ambient air pollution and GHG emissions








Improves public health outcomes in adults and young children

Supports multiple federal and state plans and policies

Infrastructure costs far less per lane mile to build and maintain



MICROMOBILITY: JUST THE FAQs

 PA MICROMOBILITY FACT SHEET												
DESCRIPTION	MIN AGE	LICENSE	REGISTRATION	INSURANCE	HELMET	PASSENGER	LIGHTS	MAX CAPABLE SPEED	RIDE ON SIDEWALK	RIDE ON BIKE LANE	POSSIBLE DUI	PA VEHICLE CODE
 ELECTRIC SCOOTER	-	-	-	-	-	-	-	-	-	-	Yes	§ 102
Can operate only on private property. Electric scooters, like electric skateboards and electric unicycles, cannot be legally operated on public roadways.												
 MOTORIZED PEDALCYCLE	16	C	Yes	Yes	Yes, under 21	Yes	Yes	25	No	No	Yes	§ 102, § 3523(e), § 1714
Has operable pedals. Design speed of no more than 25 mph. Gas - motor rated 1.5 brake horsepower or less, has an automatic transmission. Electric - powered by an electric battery.												
 MOTOR SCOOTER	16	Class M/Class if >50 cc, Class C if <50cc	Yes	Yes	Yes, under 21	Yes	Yes	Up to 5 brake horsepower	No	No	Yes	§ 102, § 3525
Is a motor-driven cycle. Motor shall not exceed five brake horsepower.												
 SEGWAY	-	No	No	No	Yes, under 12	No	Yes	-	Yes	No	Yes	§ 102, § 3581-3583, § 3703 (c)
Is an electric personal assistive mobility device. An electric, self-balancing, two-nontandem-wheeled device. Lighting must be used when operating between sunset and sunrise. A Segway is allowed on sidewalks unless a municipality prohibits it.												
 E-BIKE	16	No	No	No	No	Yes	Yes	20	Yes, not in business district	Yes	Yes	§ 102, § 3514
Is a pedalcycle with electric assist. Weighs less than 100 pounds. Motor not more than 750 watts. Has operable pedals. Not capable going faster than 20 mph on a level surface when powered by the motor source only. Lighting must be used when operating between sunset and sunrise.												
 BICYCLE	-	No	No	No	Yes, under 12	Yes	Yes	-	Yes, not in business district	Yes	Yes	§ 102, § 3501 et seq., § 3802, § 1547
Is a pedalcycle. Is moved solely by human-powered pedals. Lighting must be used when operating between sunset and sunrise.												



SUPPORTING RESOURCES

- PennDOT Fact Sheet: Mopeds, Motor-Driven Cycles, and Motorcycles
<https://www.dot.state.pa.us/public/dvspubsforms/bmv/bmv%20fact%20sheets/fs-momo.pdf>
- PennDOT Micromobility Fact Sheet https://www.penndot.pa.gov/TravelInPA/active-transportation/Documents/Low_Speed_FACT_Sheet_2021_Final.pdf
- DCNR E-Bikes in Pennsylvania State Parks and Forests -
<https://www.dcnr.pa.gov/Pages/EBikePolicy.aspx>
- Title 75 (PA Vehicle Code) [https://www.dmv.pa.gov/Information-Centers/Laws-Regulations/Pages/PA-Vehicle-Code-\(Title-75\).aspx](https://www.dmv.pa.gov/Information-Centers/Laws-Regulations/Pages/PA-Vehicle-Code-(Title-75).aspx)
- *How and Where Should I Ride This Thing? “Rules Of The Road” for Personal Transportation Devices – Fang, Agrawal, Hooper 2019.* <https://transweb.sjsu.edu/research/1713-Rules-Personal-Transportation-Devices>
- *Shifting the Focus: Smaller Electric Vehicles for Sustainable Cities* - <https://www.itf-oecd.org/shifting-focus-smaller-electric-vehicles>
- *Improving the Quality of Walking and Cycling in Cities* - <https://www.itf-oecd.org/improving-quality-walking-cycling-cities>



MICROMOBILITY NEWSLETTERS AND PODCASTS

- [Micromobility](#) – very good but technical, focusing on equity investments, product design, systems operations for e-bikes and scooters.
- [The War on Cars](#) – from NYC, very light and airy discussions of issues surrounding the current and past practice of designing public space for cars.
- [The Mobility Podcast](#) – wide range of topics including connected and autonomous vehicles, trains (rail and freight), electrification of buses (and school buses).
- [Talking Headways](#) – more in depth - some transit, some on health-transportation linkages, e-bikes, electrification of cities.
- [Streets Ahead](#) – dedicated to the world of active transportation, livable streets, and people-focused urban design.
- [Arrested Mobility](#) - minority and veteran-owned urban planning, public policy and research firm focused at the intersection of transportation, health and equity



A TRANSPORTATION SOLUTION?

Contact Information:

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[PennDOTSec](https://twitter.com/PennDOTSec)



[PennsylvaniaDOT](https://www.youtube.com/PennsylvaniaDOT)

PennDOT
Lane
Reservation
System
Update



AGENDA



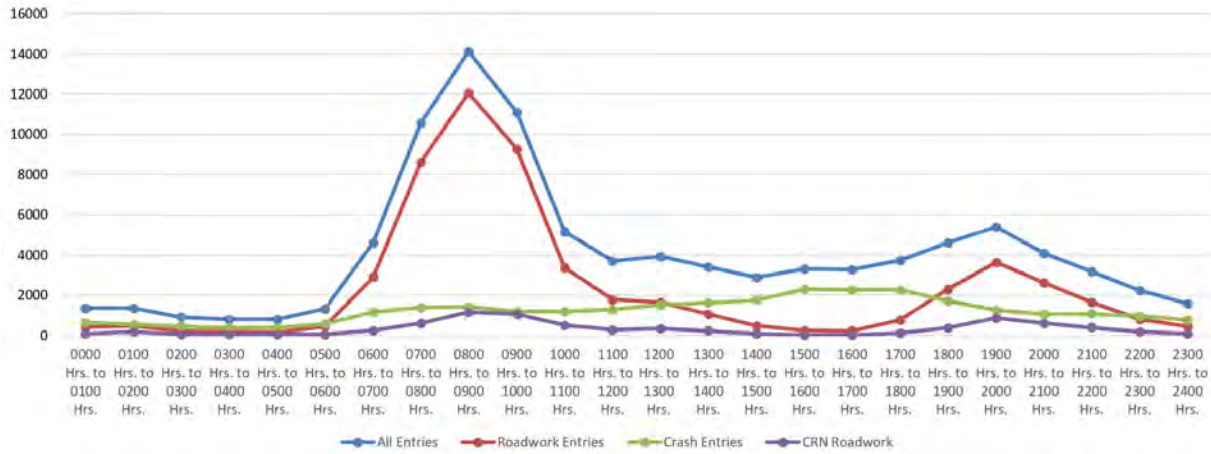
- Lane Reservation System Overview
- System Concept and Goals
- Work Completed To Date
- Deployment Timeline
- Peer Exchanges and Lessons Learned



OVERVIEW – PROJECT GOALS

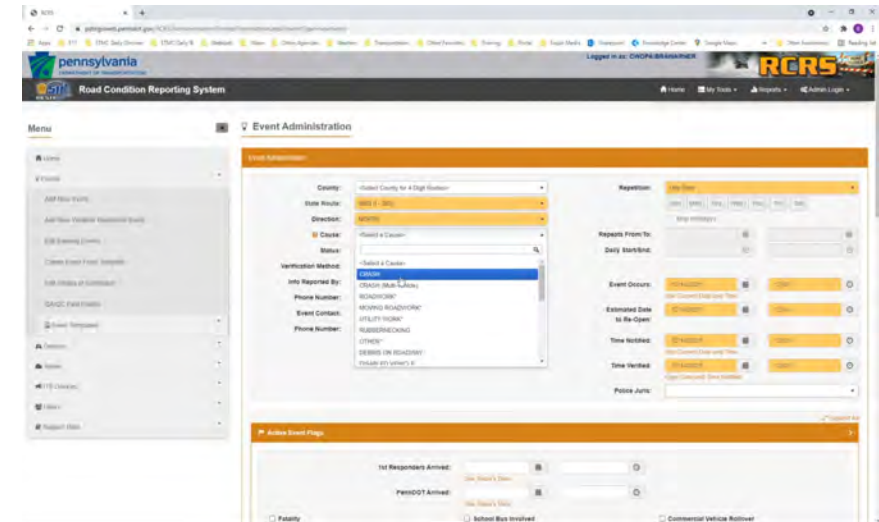
- Reduce work zone conflicts
- Reduce work zone congestion
- Improve work zone/general traffic safety
- Share work zone/incident data effectively
- Improve TMC Operations
- Standardize work zone scheduling and tracking on our roadways





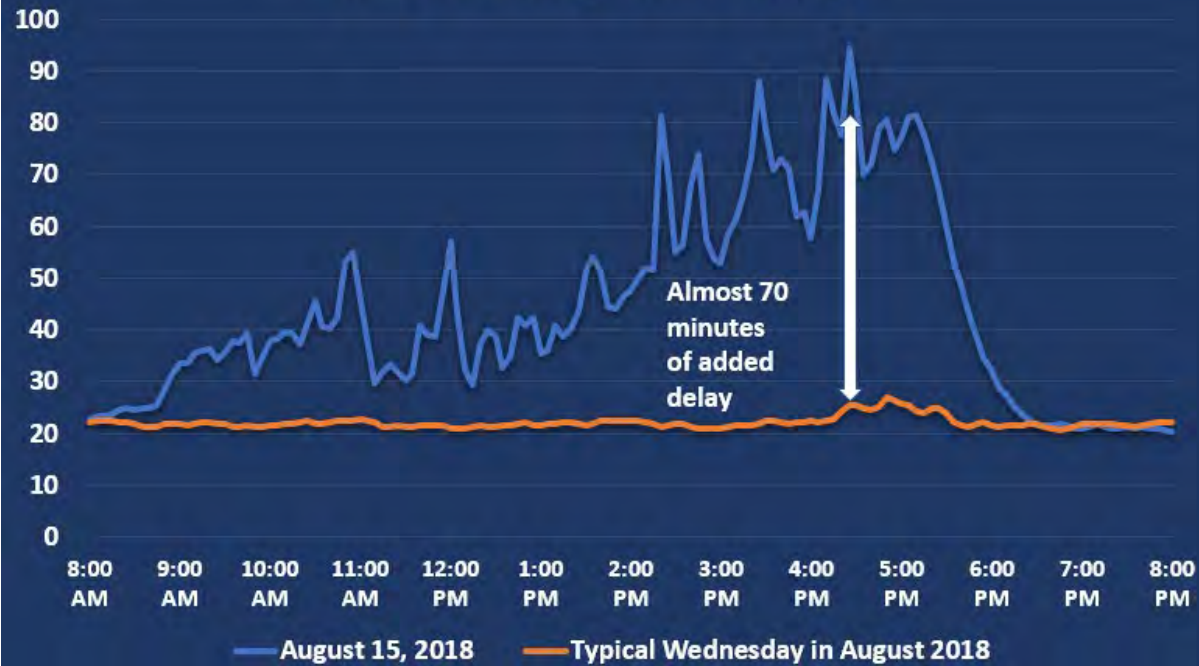
Yearly Work Zone Entries

CAUSE	ALL ROUTES	CORE NETWORK ONLY
ROADWORK	27,635	11,866
MOVING ROADWORK	6,239	4,325
UTILITY WORK	5,114	590
TOTAL	38,988	16,781



NEED FOR A SYSTEM

I-81 SB Travel Time (Minutes) I-78 to George Wade Bridge



I-81 NB Travel Time (Minutes) Shippensburg to Carlisle



CURRENT PROCESS FOR TRACKING WORK ZONES

PENNDOT ROAD RESTRICTION FORM

PLEASE SEND COMPLETED FORM TO THE PENNDOT PRESS OFFICE AT THE EMAIL BELOW. LANE CLOSURES AND OTHER LANE RESTRICTIONS REQUIRE 5 DAYS' NOTICE. FULL CLOSURES REQUIRE 2 WEEKS' NOTICE. ALL FORMS SHOULD BE SUBMITTED BY THURSDAY MORNING FOR WORK PLANNED THE FOLLOWING WEEK. FAILURE TO SUBMIT THIS FORM IN A TIMELY MANNER MAY RESULT IN POSTPONEMENT OF WORK.

E-MAIL: ra-odd@press@pa.gov

Today's Date: _____ ECMS# _____

SR# _____ Section _____ (if project related)

Municipalities: _____ County: _____
Indicate if Borough or Township

Name of Road: _____ Direction: _____

Between Where & Where: _____
(use nearest intersections or interchanges only)

Type of Work: *(provide details)* _____

Type of Restriction: _____
(lane closure, periodic lane closure, full closure, etc.)

If FULLY CLOSED will detour be in effect only during working hours or 24 hours? _____

Approved Detour Route: _____

Dates of Work: *(start & finish)* _____

Restriction Hours: _____
(may differ from work hours, e.g. 8AM to 3PM, 8PM to 5AM, etc.)

Saturday and/or Sunday Work? _____

Name of Permittee *(who you're working for)* _____

Permit or Application Number if no ECMS#: _____

Contact Name: _____ Phone # _____ Email _____

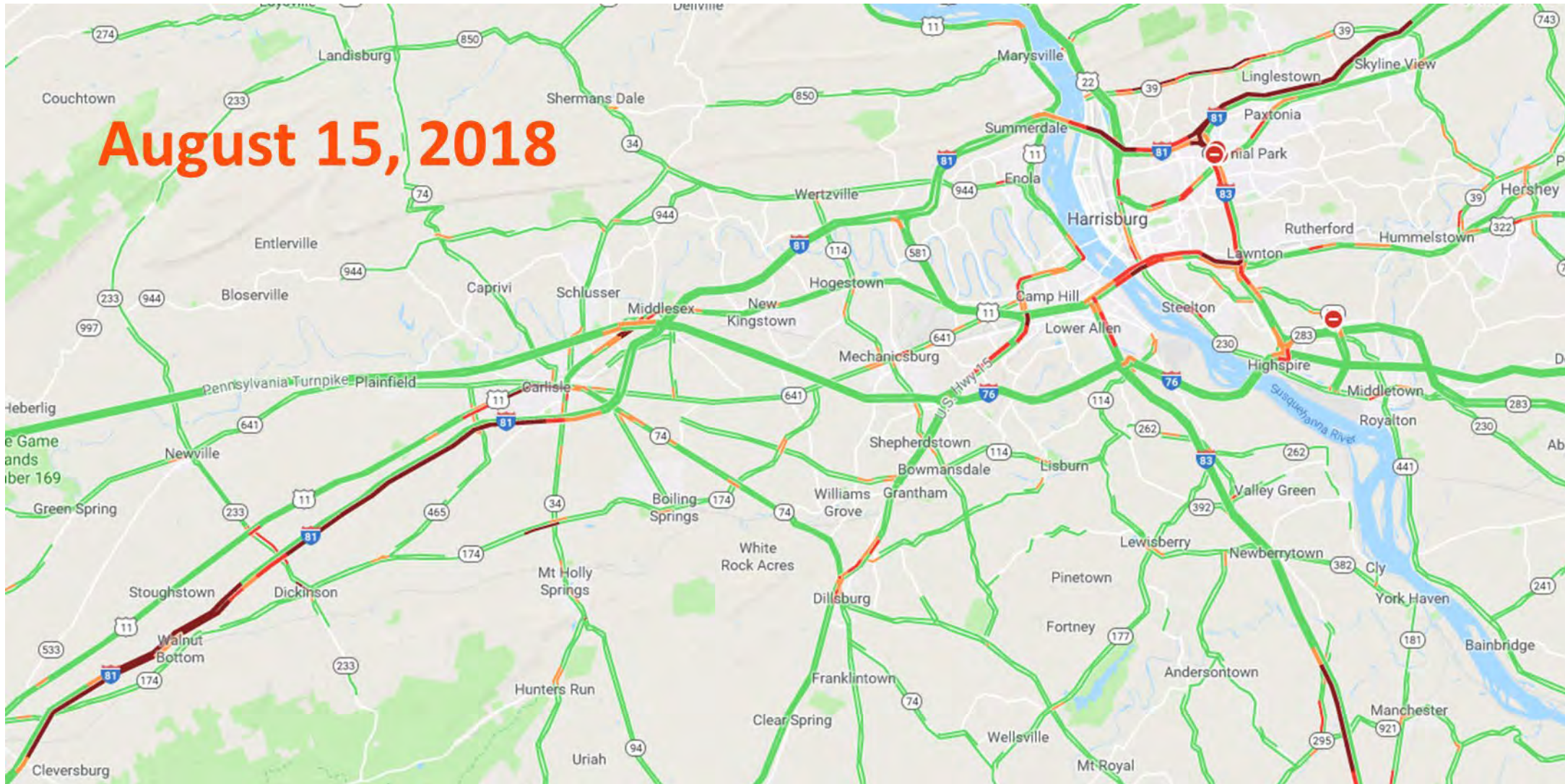
Construction, Maintenance, Bridge and Highway Occupancy Unit(s) must notify the District Permit Office 10 "WORKING" days* (excluding holidays) before prohibiting **oversize/overweight vehicles** from traveling through restricted area. Please contact Daniel Wehner at 610-205-6787, dwehner@pa.gov and copy Linda Coleman, lcoleman@pa.gov.

Gaps/justification for changes:

- Separate, non-standard processes
- Duplication of efforts
- No automated conflict identification
- Work zones not captured
- Communication issues
- Lack of timely and accurate traveler information



CONFLICT MONITORING NEED



LANE RESERVATION CONCEPT

Make a reservation

Party Size

4 people

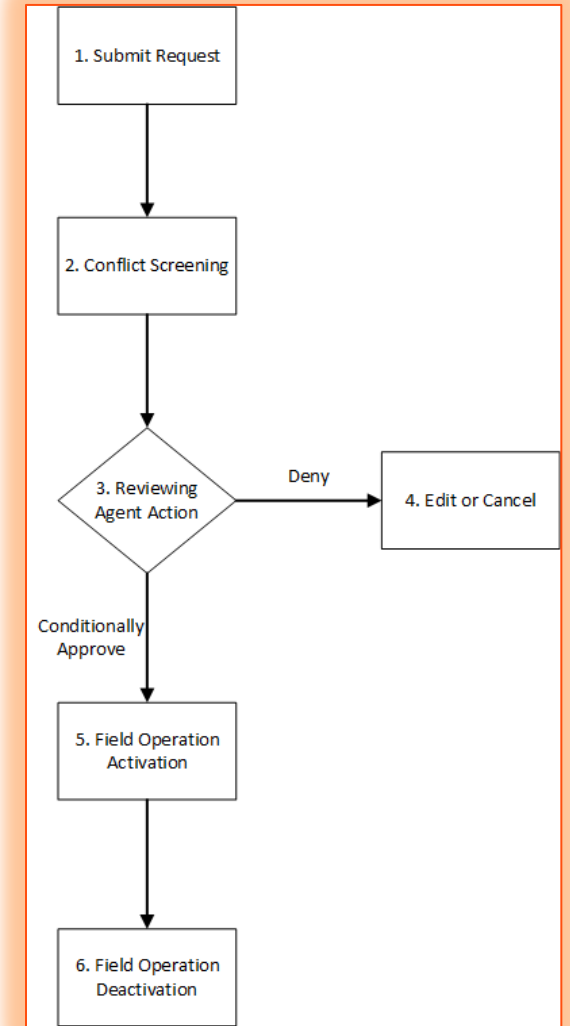
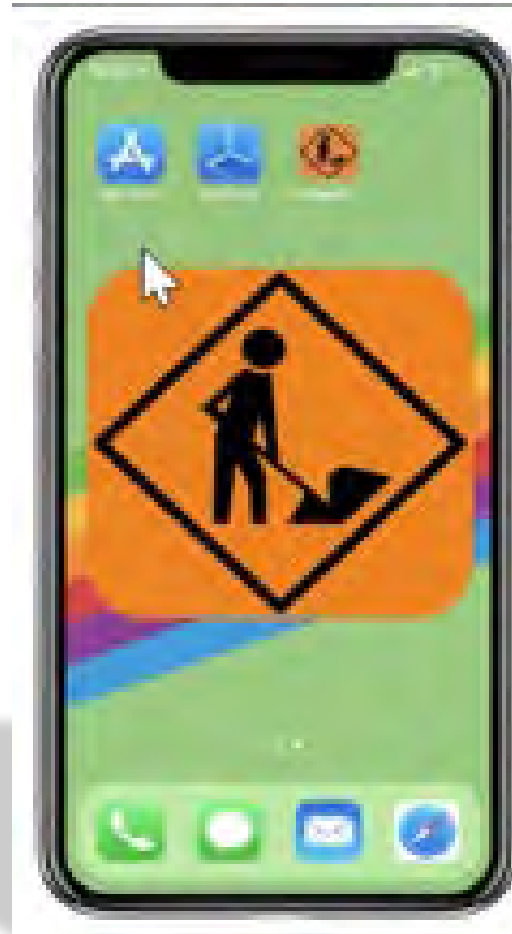
Date Time

Mar 4, 2022 5:00 PM

Find a time

Select a time

3:30 PM 3:45 PM



FREEVAL INTEGRATION



FREEVAL-PA

Freeval-PA > Sketch-Planning > Work Zone Segment Staging Alternatives

2. Work Zone Configuration > 3. Diversion Scenarios

Work Zone Configuration Inputs

	Name	Type	WZ Capacity Adj.	Computed Capacity
#1	Work Zone #1	Shoulder/None	0.00 0.20 0.40 0.60 0.80 1.00	3,200 veh/hr, 2 In open
#2	Work Zone #2	1-Lane	0.00 0.20 0.40 0.60 0.80 1.00	1,700 veh/hr, 1 In open

[Update Analysis](#)

24-Hour Demands vs Project Capacities

Legend:
— Base Demand
- - - Existing Capacity
- - - Diversion Scenario #1
- - - Work Zone #1
- - - Diversion Scenario #2
- - - Work Zone #2

Viable Active Hours Assessment

Existing Conditions

Existing Conditions

Work Zone #1

Work Zone #2

Hover over any slice of the chart for more details

Demand to Capacity (D/C) Thresholds

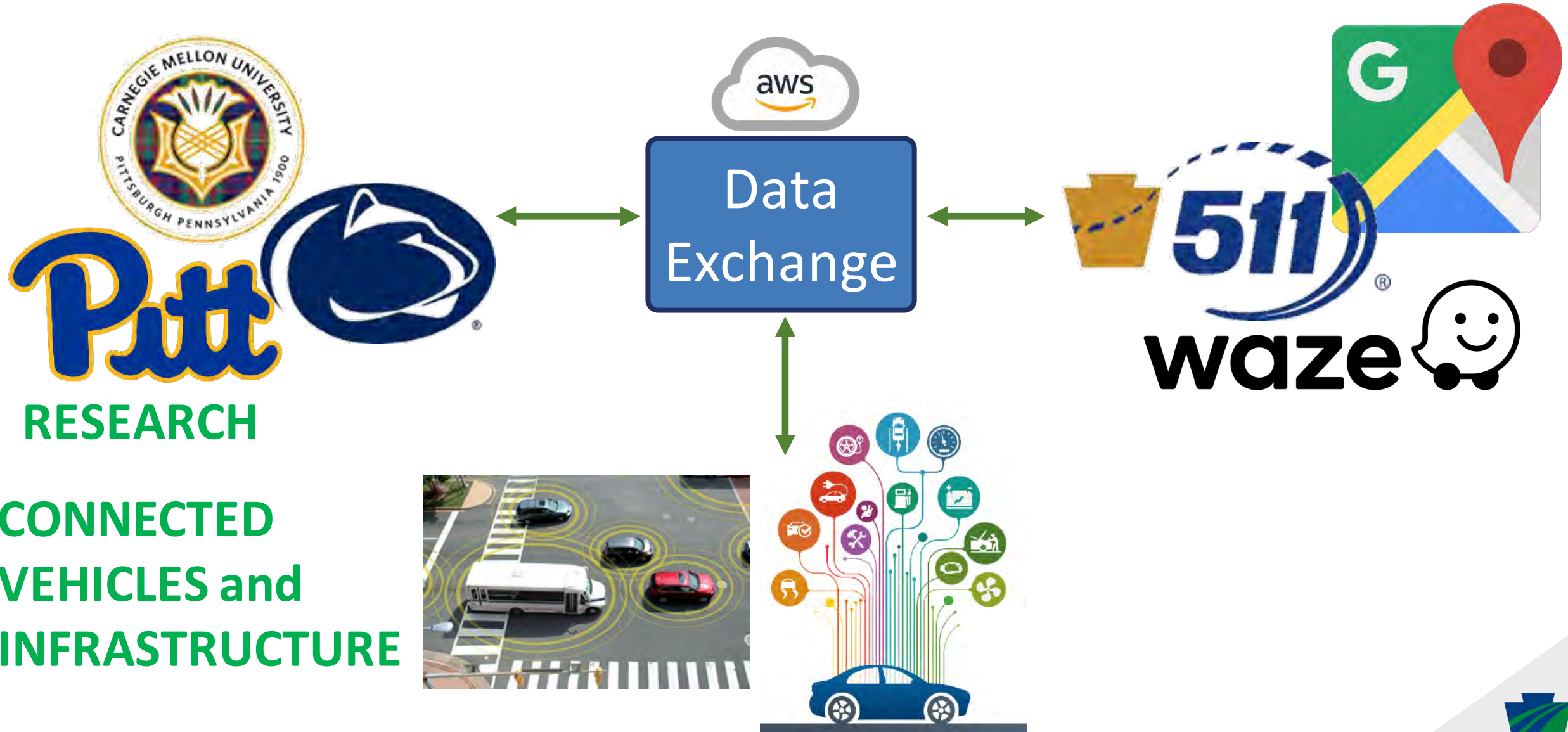
- Under (D/C < 0.85)
- Near (D/C < 0.95)
- Over (D/C >= 0.95)



FIRST STATEWIDE DATABASE



CONNECTED VEHICLE DATA EXCHANGE



DEPLOYMENT TIMELINE UPDATE



CONCEPT OF OPERATIONS

More than four (4) working group meetings held.

- Over 50 PennDOT personnel across the state
- Design/Construction
- Maintenance
- Traffic Engineering



PEER EXCHANGES



PennDOT Site Visit

August 24, 2023

Traffic Management Center



SUPPORTING A MORE EFFICIENT ROADWAY SYSTEM

- For this system to work appropriately, **ALL** parties, public or private have a responsibility to the economy and public safety to submit lane requests if they want to take capacity on critical roads
 - PennDOT, Contractor, Utility and other private traffic impacts (e.g. Stadiums)



Questions/Feedback

Ryan McNary
Chief, Operations and TSMO Performance
Pennsylvania Department of Transportation

