NC Transit Cares

Developing strategies and innovations to help NC Transit Systems effectively respond to COVID-19

Launch it Meeting

November 18, 2020











Meeting Orientation

Warren Miller

Principal, Fountainworks

- Meeting Orientation
- Welcome & Introductions
- Welcome & Thank You Sec. Boyette
- NC Transit Cares Initiative Overview
- Congressman David Price
- NC Transit Systems Innovative
 Responses to COVID-19
- BREAK
- Innovations
- Initiative Next Steps & Announcements
- Closing Remarks

Navigating Zoom





Meeting Rules

PRACTICE ONLINE PRESENCE



... AFTER THE MEETING

EMBRACE TECH CHALLENGES



EVENTUALLY IT WILL WORK

MOVE



DON'T FORGET TO STRETCH AND STAND

MUTE WHEN NOT SPEAKING



SO WE LIMIT UNNECESSARY NOISE

SPEAK UP



YOUR INPUT IS IMPORTANT

Welcome & Introductions

Julie White

Deputy Secretary for Multimodal Transportation, NCDOT

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Welcome & Thank You

Eric Boyette Secretary, NCDOT

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NC Transit Cares Initiative Overview

Jim Westmoreland

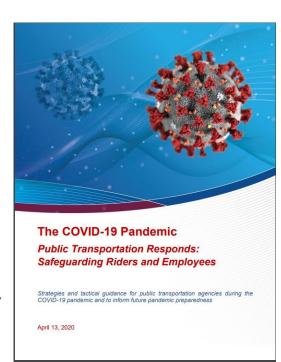
Managing Principal, Westmoreland Strategic Enterprises

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NC Transit Cares - Overview

Project purpose:

- COVID-19 has significantly impacted NC transit in 2020
- Long term and permanent impacts are currently being experienced by NCDOT and NC transit agencies in the areas of safety, ridership, funding and revenues, and services
- NC Transit Cares will help identify both existing and new innovations and strategies to help respond to these impacts and help with recovery efforts



NC Transit Cares - Overview

Project approach and key goals:

 Through surveys and interactive virtual meetings, NCDOT engaged all NC transit agencies and other key stakeholders (i.e., MPOs, RPOs, and NCPTA) in a focused process to help identify COVID-19 impacts and innovative responses

Key goals:

- ➤ Validate COVID-19 impacts and challenges on NC Transit
- ➤ Promote networking and information exchange between NCDOT and NC transit agencies on COVID-19 response ideas and best practices
- ➤ Develop a priority list of new or promising innovations and strategies that warrant further action and, which make NCDOT and NC transit systems more resilient and prepared to handle future disruptions
- ➤ Build upon the good work of the 2018 Public Transportation Strategic plan

NC Transit Cares 2020 Schedule

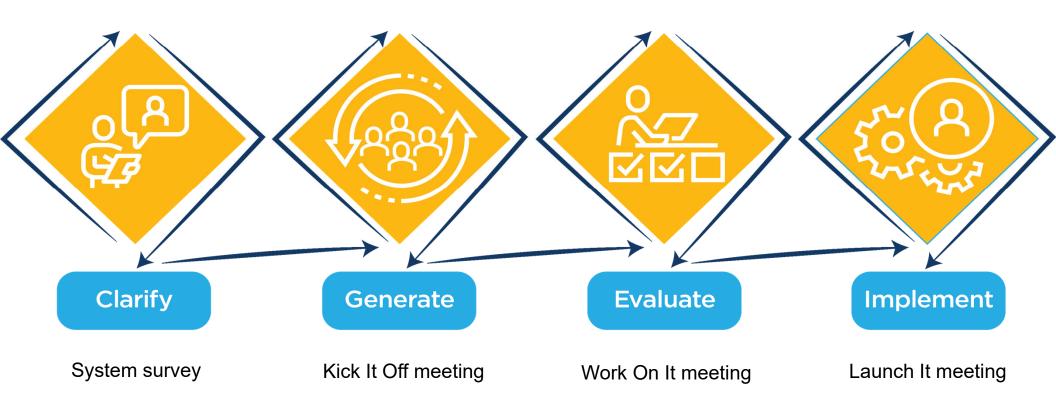


Initiative Development Committee Members

- Julie White NCDOT
- Heather Hildebrandt NCDOT
- David Howard NCDOT
- Bruce Adams City of Greensboro/GTA
- David Eatman City of Raleigh/ GoRaleigh
- LJ Weslowski Concord Kannapolis Area Transit
- Sheila Blalock Mitchell County Transportation
- Bob Davis Cleveland County
- Kerry Giles Rutherford County
- Shelley Blake Curran GoTriangle

- Irma Zimmerman Guilford County
- Brian Litchfield Orange County/ Chapel Hill Transit
- Todd Gardner Nash County/Tar River Transit
- Anthony Prinz City of Jacksonville
- Vanessa Lacer Cape Fear Public Transportation Authority (Wave Transit)
- David Rhew NCPTA
- Vicki Eastland Land of Sky RPO, NC Association of RPOs Representative
- Chris Lukasina CAMPO, NC Association of MPOs Representative
- Ryan Brumfield NCDOT Project Manager

NC Transit Cares



System survey results

Survey of all agencies to determine:

- Immediate impacts of COVID-19
 - Reduction in ridership
 - Reduced revenue
 - Destinations closed
- NC Transit adaptations to COVID-19
 - Health screenings before trips
 - Phone messages
 - New services (i.e. delivering senior meals)
- Challenges facing NC Transit
 - Fewer riders per vehicle due to social distancing
 - Reduced ridership
 - Increased cleaning costs / reduced revenue

- Innovations interested in learning more
 - Scheduling technology
 - New sanitizing procedures
 - Passenger information displays
- NCDOT's role in innovation
 - Provide guidance
 - Generate ideas
 - Fund new innovations



Kick It Off meeting process

What are the biggest challenges facing NC transit?

What are you doing that is innovative in the areas of operations, customer service and funding?

Which innovations would you like to learn more about?

Quicker dissipation Realtime Bus Cabin Air of consistent Location App Filtration quidance **Options** Transit Specific Survey Tool Sanitation of the air Accessible What innovations would Cashless Installation and Payment vou like to learn about? maintenance **Options** guidance on new technologies / components Short term solutions to Payment assistance / Express ameliorate current concerns. procurement/ for new components. State can have a master contract

Sent survey to all transit agencies asking about challenges facing agencies. Brainstormed innovations at Kick It Off meeting. Top challenges emerged.

Biggest Challenges Facing NC Transit

How can we keep passengers and employees safe?

How can we offset ridership declines due to COVID-19?

How can we restore revenues and funding lost as a result of COVID-19? How can we move to new service patterns as needs evolve?

Biggest Challenges Facing NC Transit

1

How can we keep passengers and employees safe?

2

How can we offset ridership declines due to COVID-19?

3

How can we restore revenues and funding lost as a result of COVID-19?

4

How can we move to new service patterns as needs evolve?

Development and Prioritization of Innovations

Sent survey to all transit agencies asking about challenges facing agencies. Brainstormed innovations at Kick It Off meeting. Top challenges emerged.



Created list of 18 innovations (4-5 innovations for each challenge); voted on top innovations at Work On It.

Created implementation plans for top 2 innovations per challenge.



Congressman David Price

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NC Transit Systems – Innovative Responses to COVID-19

David Rhew (Moderator)

Executive Director, NCPTA

Scott Rhine

Executive Director, PART

Craig Hughes

Director, AppalCART

Randall Conley

Director, McDowell County Transit

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Communication, Openness, and Transparency During COVID-19



Prioritize your Commitments

PART created a Business Continuity Plan

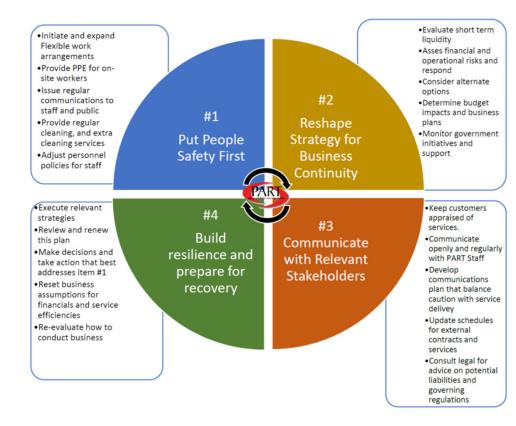
Next steps...

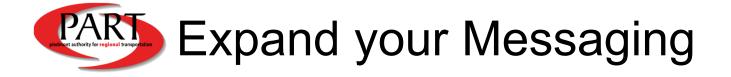
EXECUTIVE SUMMARY

Finding ways to reimagine a business-as-usual environment that minimizes disruptions for the organization

This document has been developed to be a resource for PART staff, a report of implemented and planned strategies; and a statement of the business conditions resulting from the COVID-19 pandemic: How is PART addressing the current conditions: What business activities internally and externally will reshape our processes of a new "normal" as an outcome of the COVID-19 pandemic.

The following is presented in order of priority:







Various Customers have varied needs

- PART Express bus customers
- PART Vanpool/Rideshare customers
- PART Employee's
- PART Member agencies and Regional Work program activities
 - Travel Demand Model (NCDOT, Triad MPO's)
 - Amtrak (Thruway Service), UNC Chapel Hill





Expand your Communication Portals



Social Media







REMEMBER TO SOCIAL DISTANCE WHEN BOARDING & RIDING











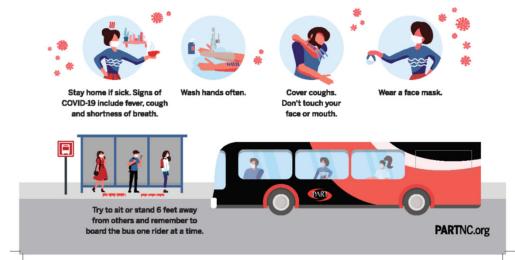
Expand your Communication Portals



In vehicles and Facilities



Help Keep Everyone Healthy







Expand your Communication Portals



Website



Direct Communications



Policies



Agenda:

PART Board Personnel Committee Special Called Meeting April 15, 2020 Agenda / Minutes

Chairperson Dan Besse Winston-Salem

BOARD OF TRUSTEES

Attendees: Fleming El-Amin (Chair), Kevin Austin, Darrell Frye, Lenny Williams Members unable to join: Dan Besse, Neil Grimes, Carolyn Coleman

Vice-Chairperson Leonard Williams Burlington-Graham TAC

Staff Attendees: Scott Rhine, Connie Conklin, Sabrina Glenn

Treasurer Carolyn Coleman Guilford County

Marikay Abuzuaiter

1) PART Personnel Employee Handbook Amendment

Identify Essential personnel

a) Initiate Temporary Furlough for Non-essential personnel

3) COVID-19 Work Function, and Transitions of staff

To: PART Vanpool Participants

From: Sabrina Glenn, Director of Commuter Operations

Cc: David Morris, Operations Manager, Alice Long, Vanpool Coordinator

Date: March 26, 2020

Re: Novel Coronavirus (COVID-19) Impacts on April Vanpool Groups





Communication Openness and Transparency during COVID19

- ✓ Utilize the resources from medical experts as a tool for your messaging
- ✓ Be continuous consistent caring (#1 Priority Put people safety first)
- ✓ Be flexible with your business processes
 - ✓ Adjust to meet your customer needs
 - ✓ Recognize your stability is based on their participation
- ✓ Earn the Trust





Scott W. Rhine
PART Executive Director
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scottr@partnc.org
www.partnc.org

















Social Distance: Skip A Seat

Because we are unable to accommodate the recommended 6 feet of space for social distancing, we ask that all passengers keep their masks on for the full duration of their ride.

• AppalCART



No Mask, No Ride

Exceptions will be made for those with health conditions that inhibit the use of a masl





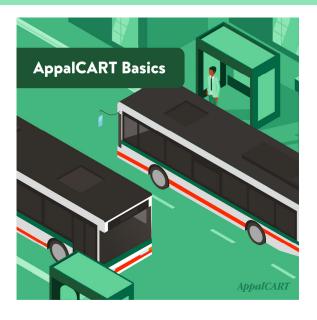


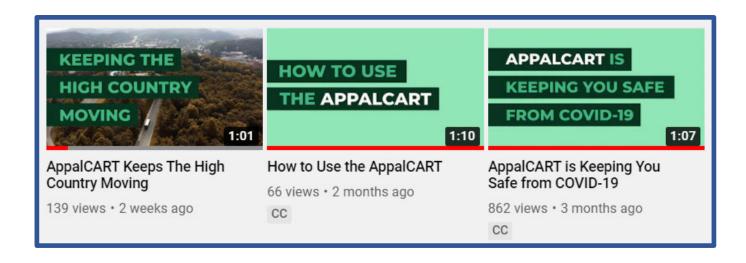
Select stops have been temporarily suspended from routes to reduce travel time for passengers.





Buses and vans are sanitized each Sunday night with a fogging agent.





- Part of our long range communications planning
- Another way to share our story other than print or graphics
- Able to share through different types media
- Serves multiple communication purposes
- "AppalCART Is Keeping You Safe From COVID-19"
 Video

APPALCART IS

KEEPING YOU SAFE

FROM COVID-19

Covid-19: Food Box Delivery Program

Presented by McDowell Transit
In Collaboration with Foothills Food Hub and
McDowell Access to Health and Care (MATCH)







Pre-Covid Background

 Before the Covid-19 pandemic, the MATCH program and Foothills Food Hub were offering drive-thru meal box pick-ups at various sites around McDowell County

McDowell Transit assisted
 McDowell County residents
 without access to vehicles by
 picking them up from their homes
 and taking them to the drive-thru
 sites

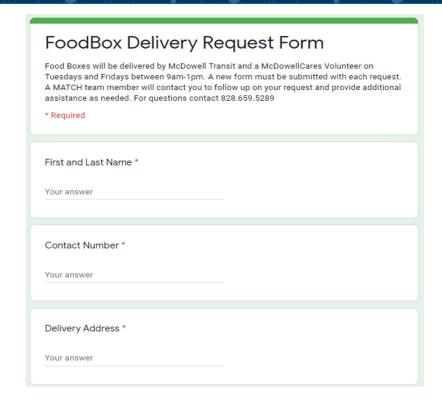


Beginnings

- During April 2020, representatives from McDowell Transit and MATCH met to discuss how we could better assist those impacted by Covid-19, either due to stay-at-home orders or loss of income
- Due to the social distancing requirements, it became clear that it would not be feasible to bring everyone in to the food distribution events already taking place
- After connecting with our NCDOT representative to make sure our plan was legal, McDowell Transit decided to implement a meal delivery service to anyone in need

Implementation

- Residents in need are able to request deliveries by contacting the MATCH Program directly or by filling out a form provided by Google Docs
- MATCH team members contact respondents to connect them with additional resources as needed
- McDowell Transit Dispatch routes deliveries for Tuesdays and Fridays each week



Form can be found at https://tinyurl.com/McDowellfoodbox

Insights

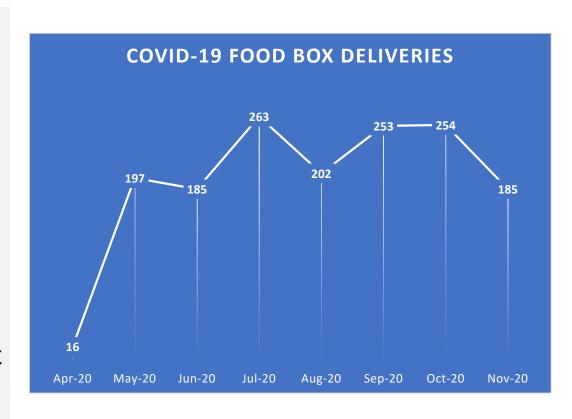


A delivery of food and cleaning supplies loaded into a transit van

- Due to insurance liability reasons,
 McDowell County drivers are not permitted to approach the home of clients on foot
- The Foothills Food Hub organizes volunteers to ride along with each delivery to exit the vehicle and make sure the food gets into the hands of those in need

Data

- Based on the numbers,
 McDowell Transit has
 determined that this is a
 necessary resource for our
 community during this time of
 great need
- With ridership numbers down due to virtual medical visits, this program has helped improve our numbers and kept our drivers at work





BREAK

We will resume in ten minutes.

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Overview of Innovations

Morven MacLean

Project Manager, WSP

Jim Westmoreland

Managing Principal, Westmoreland Strategic Enterprises

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Priority Innovations for Implementation Plans

1 Safety

- Air Filtration Systems
- Transit Cleaning Accreditation Program

STRATEGIC PLAN

COVID-19 new consideration since 2018 plan

- 2 Ridership
- New marketing techniques
- Technologies to enhance service delivery flexibility

Tactic 12: Use technology to foster transit system integration, innovation, and operating efficiency

- Funding and Revenues
- NCDOT improve data collection to demonstrate impacts of funding reductions
- Additional COVID-19 funding and funding flexibility strategies

Tactic 16: Support and enable greater flexibility in funding transit investments

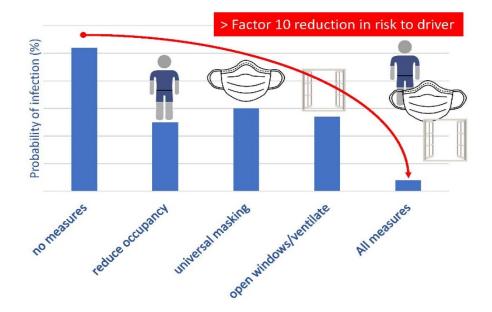
- New Service Patterns
- Statewide technology deployment and integration
- Expand micro-transit

Tactic 17: Embrace Smart, Connected, and Autonomous Technology



Goals

 Improve airflow patterns, filtration efficiency and outdoor air ventilation in transit vehicles and facilities to help reduce the risk of COVID-19 transmission







Actions

Applied for FTA
 Public
 Transportation
 COVID-19
 Research
 Demonstration
 Grant Program

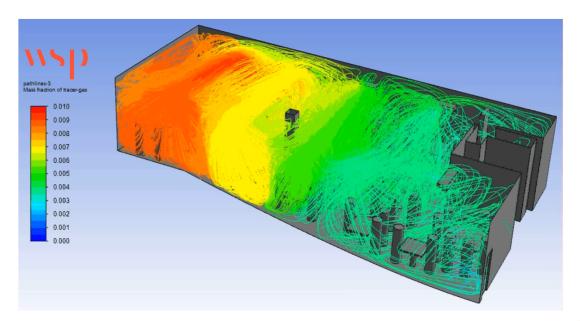






Actions

Computational Fluid
 Dynamic (CFD)
 modelling of typical
 transit vehicles and
 facility common areas







Actions

Develop 'How To' guides for configuring a typical vehicle or to optimize airflow patterns, filtration efficiency, and outdoor air ventilation



Air in buses recycles in the cabin and then flows to the front carrying bacteria and viruses with it.

EVERY OPERATOR should use these AIR CONTROL SETTINGS to create safer airflow in their vehicles. Also, where temporary barriers have been installed, these settings will INCREASE effectiveness.

- 1. Driver's window CLOSED
- 2. Driver's air and front vents set to FRESH
- 3. Blowers on FULL POWER in Front (wear earplugs)
- 4. Passenger windows CLOSED
- 6. Blowers OFF in back
- 7. Rear roof hatch OPEN at its back
- 8. REAR DOOR Boarding

When a bus is moving forward it creates reversed airflow in the cabin bringing viral particles into the driver's workstation and out through the driver's window and other air leaks. We can protect drivers who are currently at the wrong end of that flow with simple changes to air control settings



Status Quo Creates Dangerous flow with recycled

and very poorly filtered air. That is why the blowers

should be shut off in back with the rear roof hatch

open. Recycling also aerosolizes respiratory particles, creating small viral particles that stay in the air, putting

nassengers and operators at risk

Flow Quality. The suggested air control settings with properly designed barriers are even more effective and will bring fresh air through the front and expel it at the rear of the bus, eliminating the recirculation of viral particles and reduce infection risk for transit workers and ssengers. ATU International is working with engineers at the Virginia Tech Transportation Institute and the University of Washington Aerodynamics Department to design barrier prototypes for common bus designs. Temporary barriers can help tremendously and semi-permanent design plans will be distributed completion at the Toronto Transit Commission



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Challenge 1 - Safety

Health & Safety Accreditation Program



Goals

Establish an accreditation program that includes scientific information on:

- SARS-CoV-2 (the virus) and COVID-19 (the disease)
- Conditions for elevated risk of transmission.
- How various safety measures can play a role in reducing the risk of transmission
- The art of effective health-related communications.



Health & Safety Accreditation Program



Actions

 Coordinate with UNC Gillings School of Public Health to develop training for NC transit agencies

Control of transmission by aerosols

Source control, masks (also limit loud talking/singing)



Dilution, ventilation, filtration



Distance and density





Minimize contact time



Receptor control, masks





Health & Safety Accreditation Program



Actions

 Develop and launch public marketing campaign





New Marketing Techniques



Goals

- Develop NC Transit Cares strategic marketing efforts to rebuild public trust in public transportation services.
- Catalog current best ideas by agencies around NC
- Research national best practices.
- NCDOT to create a pilot program marketing transit to the general public.

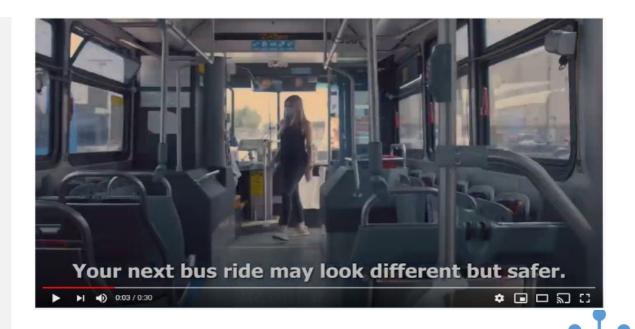


New Marketing Techniques



Actions

- Research to better understand:
 - Rider concerns
 - Best platforms for materials
 - How to reach underserved communities



Challenge 2 – Restore lost ridership

New Marketing Techniques



Actions

NCDOT to create
 marketing campaign
 with graphics and
 content for agencies to
 use

REMEMBER TO SOCIAL DISTANCE WHEN BOARDING & RIDING







Challenge 2 - Restore lost ridership

Technologies to enhance service delivery



Goals

 Create a mobile application (app) that could be used for trip planning, real time bus tracking, and the ability to see how full a vehicle is before boarding.

Challenge 2 – Restore lost ridership



Example from NJ Transit



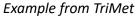
Technologies to enhance service delivery



Actions

- Establish working group to identify key needs/functions
- Develop recommendations for app functions





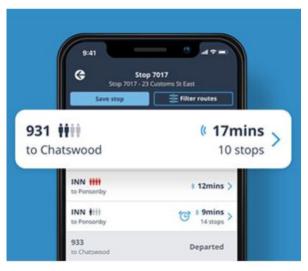


Technologies to enhance service delivery

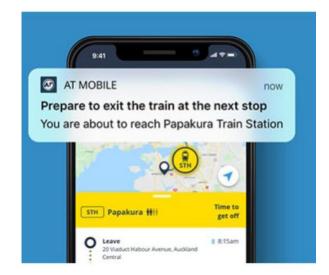


Actions

 Complete feasibility study that highlights implementation (costs, schedule, etc.) and conducts peer review of transit systems



Example from Auckland Transit





Additional funding & strategies for funding flexibility



Goals

- Develop inventory of <u>existing</u> COVID-19 funding programs/ resource opportuntities (at Federal, State, and Local levels)
- Explore options to use funding programs and resources in new and innovative ways to help with response and impacts
- Research and identify <u>new</u> funding options to help adress COVID-19 and other funding needs

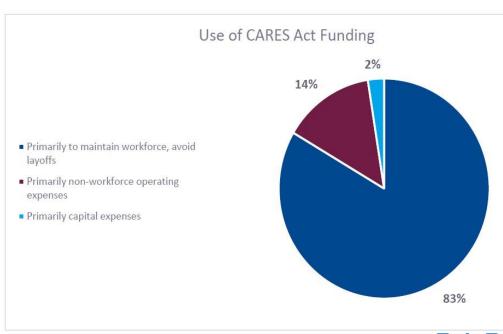


Additional funding & strategies for funding flexibility



Actions

- NCDOT convene an expanded work group to review items
- Subcommittees (existing and new options) develop action plans to address key issues
- Implement work group action plans





Improve statewide data collection



Goals

- Determine transit data collection needs to enhance overall understanding of COVID-19 transit ridership/operating trends, funding reduction impacts, and service benefits
- Develop a statewide governance strategy and framework for data collection standards
- Research, develop, and implement a common statewide data collection system and technology requirements

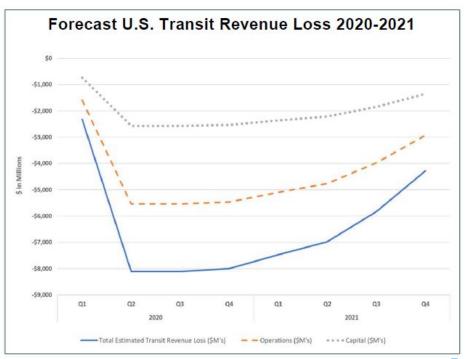


Improve statewide data collection



Actions

- NCDOT convene a work group to scan key stakeholders and determine data collection needs
- Work group to develop standards and action plan for statewide data collection system
- NCDOT to facilitate implementation of the action plan

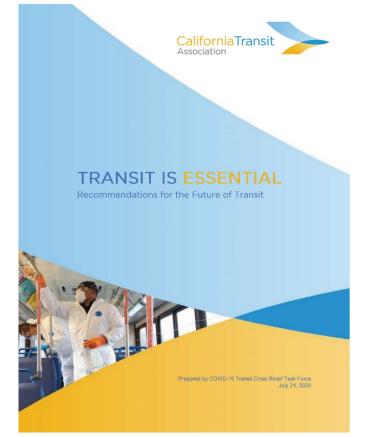






Goals

- Develop inventory of statewide transit technology deployment and needs
- Research and identify technologies that best help with COVID-19 response and service impacts
- Develop plan to advance most promising technologies





Challenge 4 - New service models



Actions

 Identify target areas of need and inventory existing technology systems



IndyGo Ticketing





Actions

Research industry
 best practices and
 share guidance with
 NC transit agencies

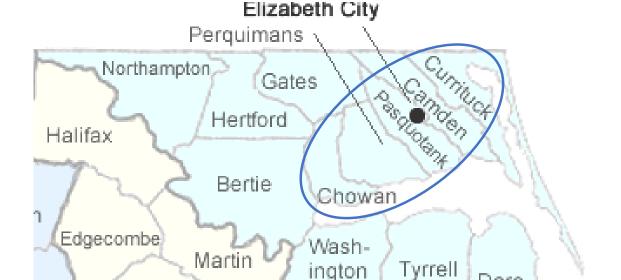


Challenge 4 – New service models



Actions

Develop pilot
 programs such as
 Mobility for All and
 evaluate results to
 implement statewide
 standards



Current pilot program with ICPTA within Pasquotank, Perquimans, Camden, Chowan and Currituck counties





Goals

- Determine statewide interest in micro-transit
- Build on Wilson pilot project to expand microtransit in NC
- Develop plan to help facilitate statewide deployment



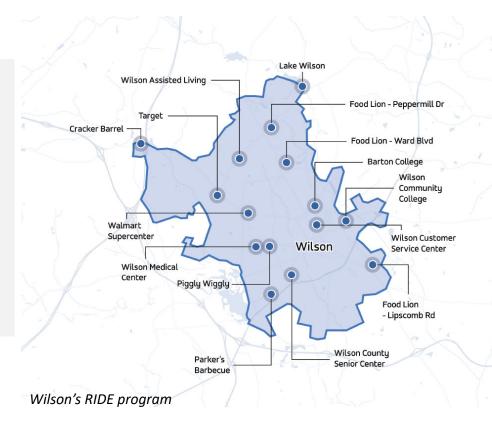






Actions

Survey NC transit
 agencies to determine
 interest; service needs;
 and uses, such as
 increased access for
 disabled populations, first
 and last mile access, etc.







Actions

- Create a repository for information, case studies, and evaluations of microtransit use cases
- Provide regular updates and lessons learned from Wilson

A Snapshot from California:



GET introduced its RYDE microtransit service in the southwest portion of its service area in April 2019. In response to the Governor's stay-at-home order, ridership dropped dramatically on all modes. RYDE, which is ADA accessible, has rebounded quicker than other modes. Riders indicate they feel safer riding with only one or two other people on the vehicles than

they do on the big bus and that they don't have to wait at bus stops or stations with other people. As a result, GET has plans to expand its microtransit service to other areas of town where requests for this service have increased dramatically and fixed route demand has not returned.





Actions

- Provide guidance and support for additional microtransit pilots
- Develop plan to help facilitate deployment



Challenge 4 – New service models



Wilson's RIDE program

Initiative Next Steps & Announcements

Julie White

Deputy Secretary for Multimodal Transportation, NCDOT

David Howard

Chief Deputy Secretary, NCDOT

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Michael S. Fox

Chairman, Board of Transportation

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