

NORTH CAROLINA

Department of Transportation



Multimodal Innovations Webinar Series

October 21, 2020

The Landscape of Mobility is Changing





Integrated Mobility Division

N.C. DEPARTMENT OF TRANSPORTATION

Mission

Provide leadership for safe, affordable, and innovative multimodal transportation throughout North Carolina



Three Modes...One Division

New Division Vision and Focus



**Personal
Mobility**



Integration



**Land Use
Connection**



**Community
Vibrancy**



**Innovation
and Pilots**



**Rural and
Urban Needs**

Division Synthesis Strategic Plan



**Mobility
Planning and
Policy**



**High
Performing
Division**



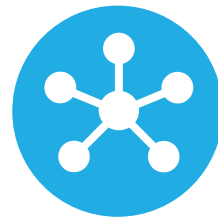
**Integrated
Multimodal
Services**



**Effective
Grants and
Compliance**

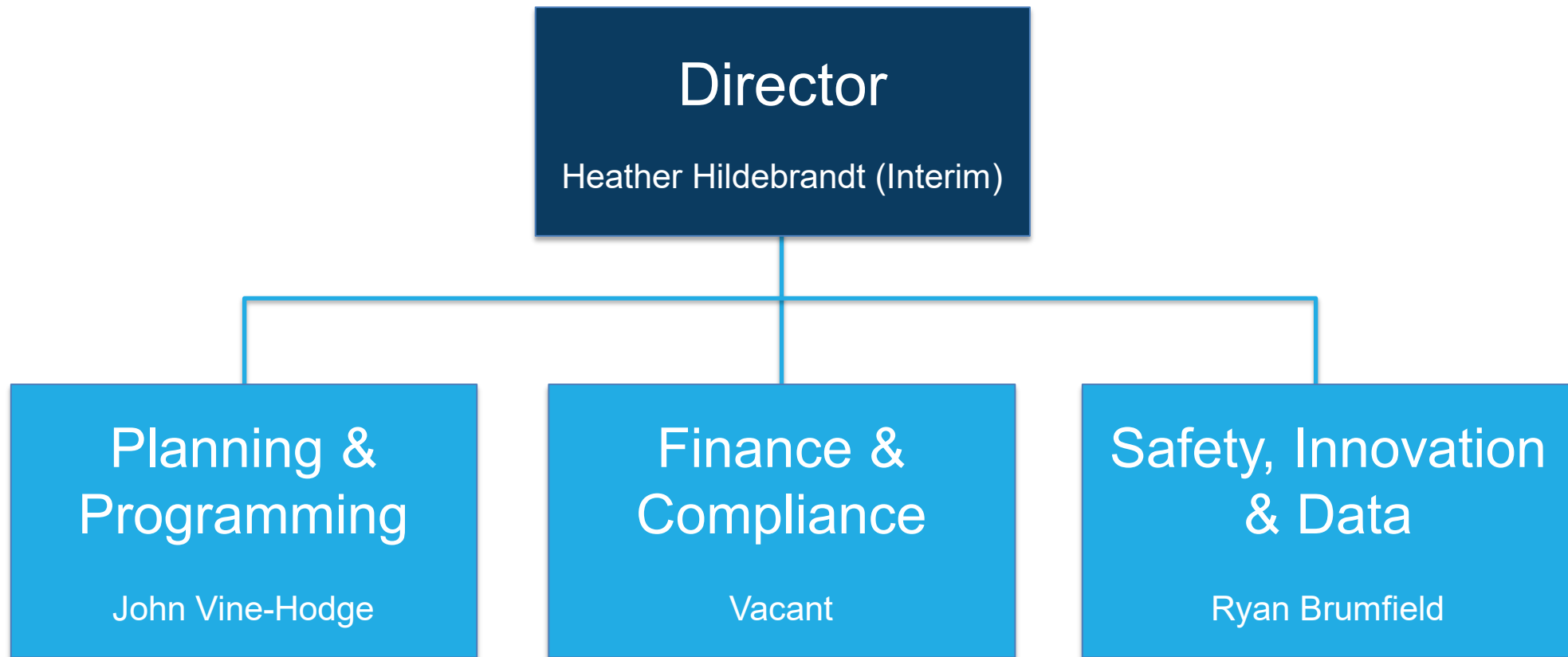


**Deliver
Complete
Streets**

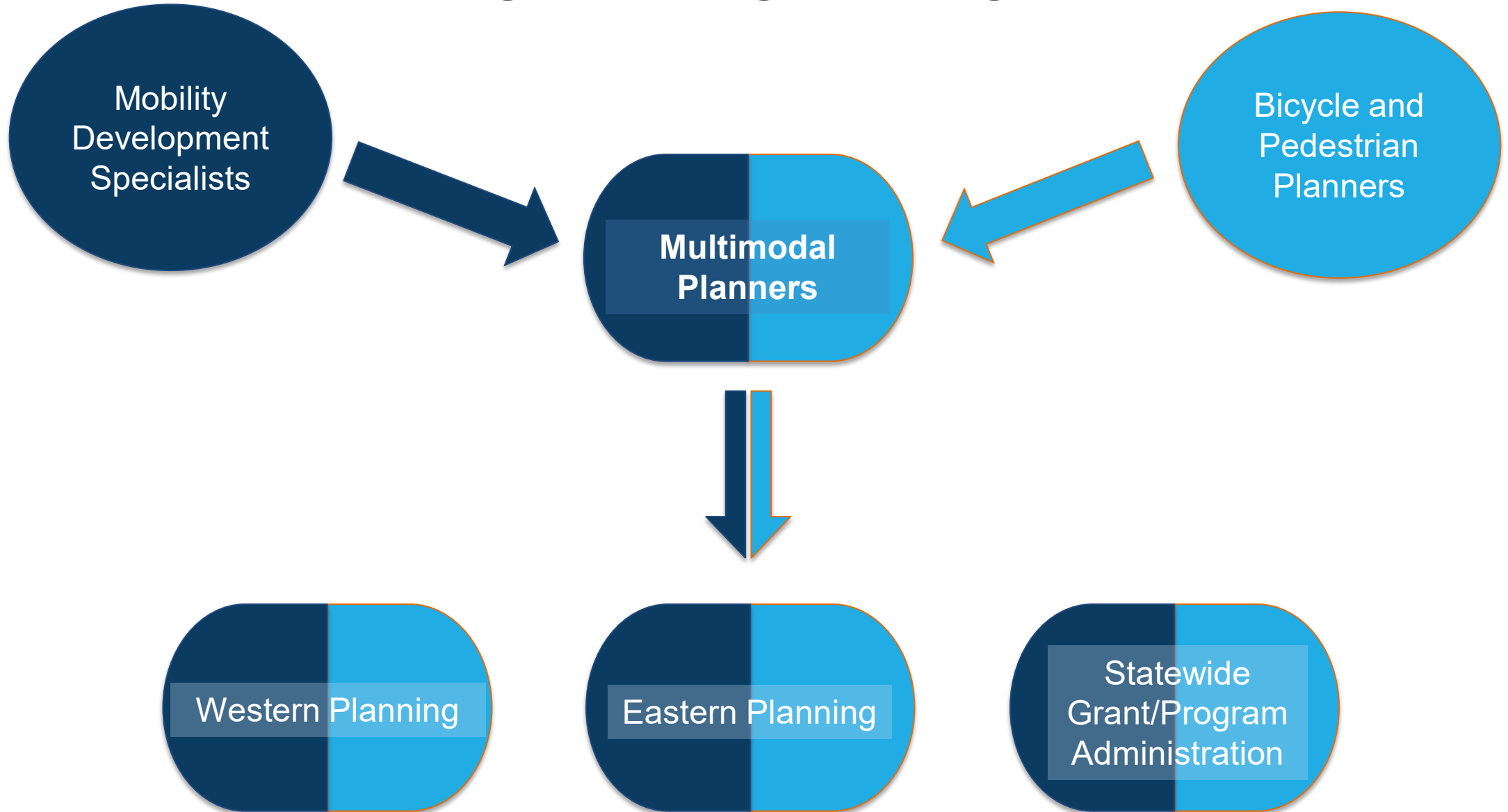


**Smart Mobility
and Innovation**

Integrated Mobility Division Organization



Planning and Programming Vision





Safety, Innovation and Data

- Transit, bike and ped safety, education and training
- Innovative pilots
 - CASSI, Wilson microtransit, new technology deployment
- Data collection and analysis
- Research studies

NCDOT Project CASSI

Connected Autonomous Shuttle Supporting Innovation



ncdot.gov/cassi

Mobility for All Pilot in Northeast NC

- \$280,000 FTA grant award to NCDOT and ICPTA
- Project purpose is to link transit trip scheduling with NCCARE360 platform to improve healthcare access
- Will include testing of other technologies like contactless fare payment and real-time bus tracking



ICPTA



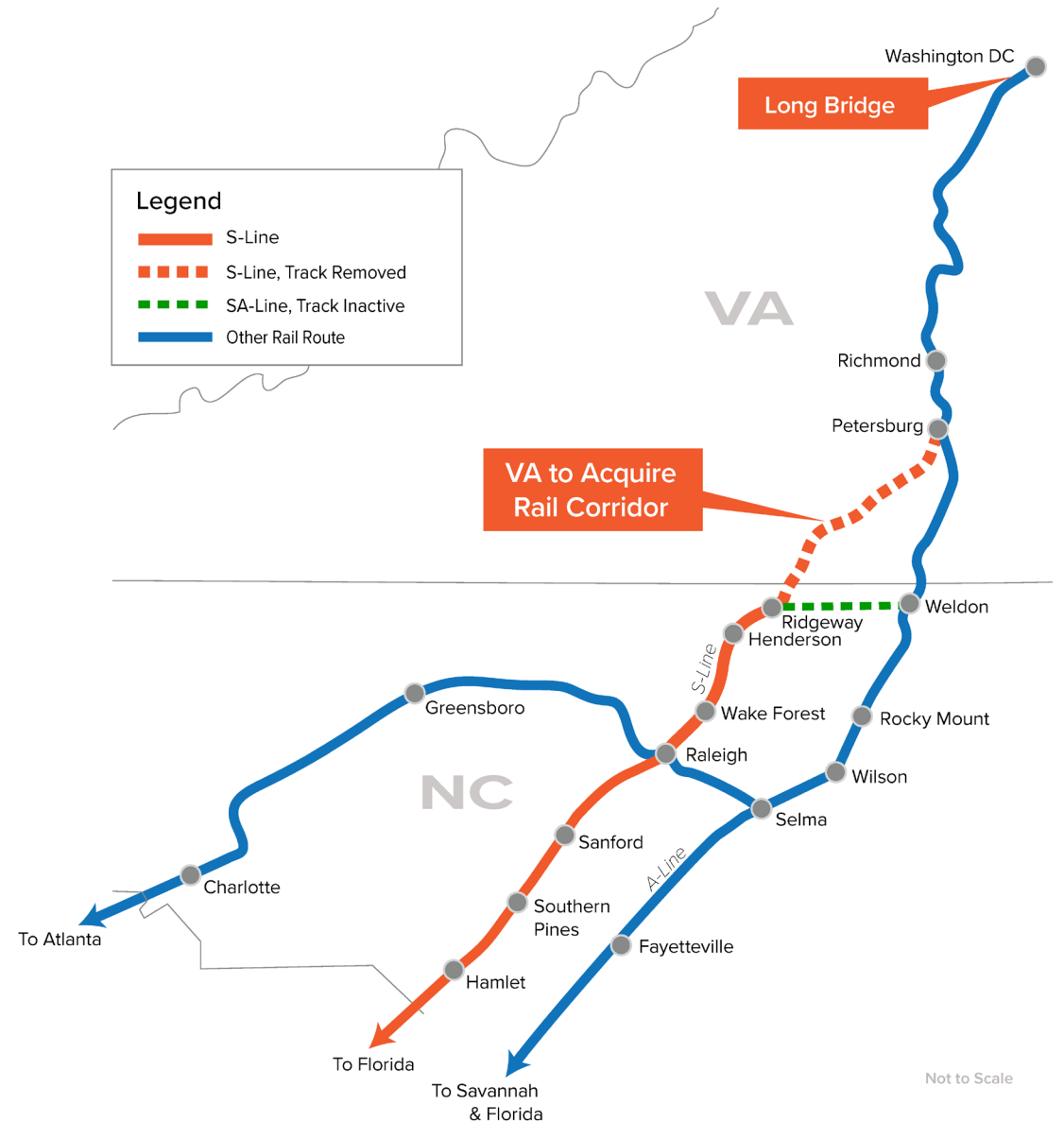
NCCARE360



**NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES**

Pursuit of FTA TOD Planning Grant Funding for S-Line Rail

- IMD is applying for grant funding to provide TOD planning along the S-Line rail corridor
- Community partners are providing local match and strong support
- If awarded, IMD will administer the grant, manage the consultant contract, facilitate stakeholder engagement, and ensure a consistent vision along the corridor



Case Study: City of Wilson

Paving the way for economic mobility in a rural community



“We believe RIDE will not only provide a better service for current transit riders, it creates a new, convenient, and modern transportation option anyone can access.”

—Grant Goings, City Manager

Problem:

As Wilson’s economic center shifts and takes new jobs with it, the city’s decades-old fixed route system no longer service transit riders.

Solution:

- Replaced fixed routes with RIDE on-demand service, Sept. 2020.
- Provides reliable transportation to job sites and health care by both expanding coverage and reducing wait times.
- Serves riders who are unbanked and/or without access to smartphones by accepting payment through prepaid vouchers and offering both online and phone booking.
- Investing in TransitTech through FTA 5311 funds, a competitive FTA AIM grant and City and State funding.

NC Transit Cares

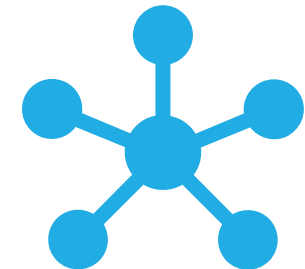


Approach:

Through surveys and virtual meetings, gather input from transit systems about impacts of COVID-19, unique ideas to respond and recover, and innovative solutions to long-term challenges

Goals:

- Develop strategies and innovations which help NC transit systems become more resilient and prepared to handle future disruptions
- Identify products, projects, and policy changes which will help NC transit systems respond to COVID-19 and prepare for long-term challenges





N.C. Transit Cares: Challenge/Solution Areas Identified

1

Keeping passengers and employees safe and healthy

2

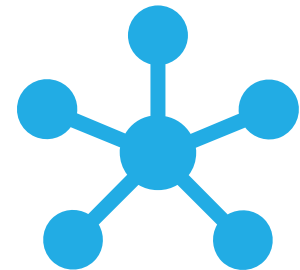
Increasing and maintaining ridership levels

3

Restoring revenue and funding lost due to COVID-19

4

Moving to new service models as needs evolve



Multimodal Innovations Webinar Series



2020

Nov. 12

The Bicycle and Pedestrian Explosion in COVID: What is the data showing and how can we maintain it?

Dec. 15

Non-Motorized Policies and Programs – How are we doing and how do we compare with other states?

2021

Jan. 5

Charlotte Gateway Station: Learn how to develop an iconic multimodal station at any scale

• Today's Speakers



- Sahar Sharazi, WSP
- Rodger Lentz and Gronna Jones, City of Wilson
- Olivia Blahut, Via





Building public transit for the future

On-demand mobility in North Carolina

October 21st, 2020

Agenda.

- 1. Introductions.**
2. Wilson's Vision.
3. Partnership with Via.
4. But what about...?
5. Q+A.

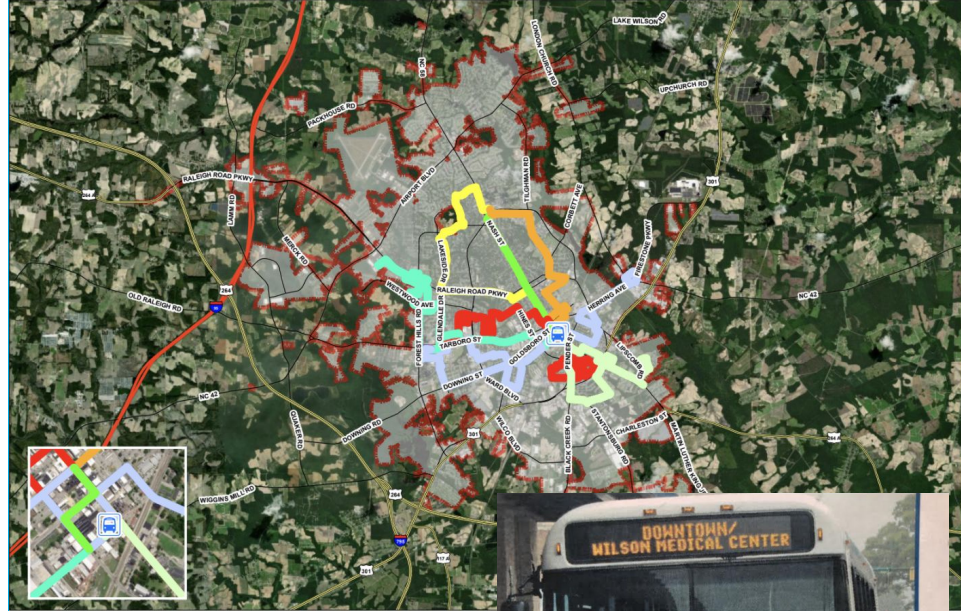
Agenda.

1. Introductions.
- 2. Wilson's Vision.**
3. Partnership with Via.
4. But what about...?
5. Q+A.

Where We Started

- 6 routes (+3 Saturday only routes)
- 60 minute headways
- ~40% of city limits accessible by bus
- No tracking or visibility

Our problem. How could we efficiently increase coverage and quality of service for our riders?



What We Wanted

Drive economic growth by connecting Wilsonians with more jobs

Improve access to critical resources - healthcare, food, government, fixed route transit, etc.

Grow ridership with convenient and tech-enabled experience

Deliver a higher quality of service for comparable cost to today's fixed route

Ability to experiment with minimal long term capital investment or risk



Where We Ended



6 DAYS A WEEK

mon - sat
7am - 6pm

SEPT 1 launch

FLAT FARES

\$1.50 base price
+1s - \$1
children under 8 free
select seniors free
disabled id card holders ½ fare

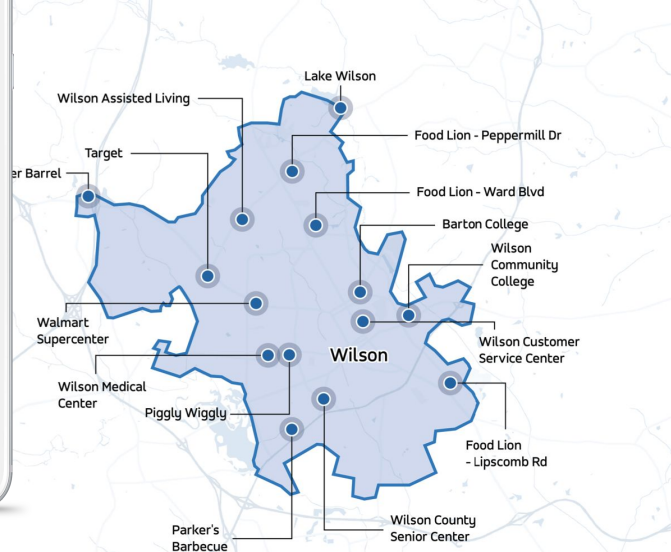
No more waiting for the bus.

Book rides on your phone on the app or by calling in.
Get a ride within minutes.

First 10 rides in September are free!

What looks different:

- Service throughout the entire city
- 15 minute wait times
- Customized rider accounts
- Booking through an app
- On-demand - no more bus stops
- Smaller, branded vans
- Credit card & voucher payment

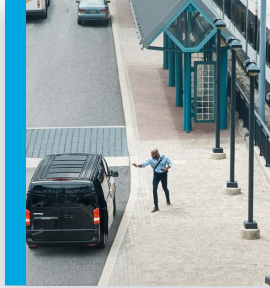


How did we get there?

Agenda.

1. Introductions.
2. Wilson's Vision.
3. **Partnership with Via.**
4. But what about...?
5. Our progress, by the numbers.
6. Q+A.

Via provides a fully-integrated solution for every aspect of public mobility.



On-demand public transit

- First-and-last-mile
- Transit deserts
- Replace underperforming bus routes



Fixed-route public transit

- Scheduling
- Capacity management



Paratransit / NEMT

- Accessible transport
- Health care



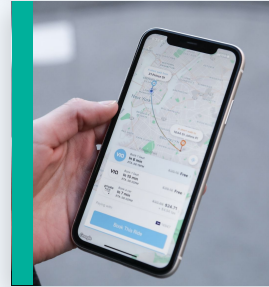
School buses

- K-12
- Routing
- Bus & student tracking
- General and special Ed



Corporate & campus shuttles

- Campus
- Employee
- Airport



Integrated mobility

- Multi-modal & multi-leg trip planning
- Payments/ticketing



Transit planning services

- Consulting services
- Network optimization
- Advanced simulations



Advanced technologies

- EV/AV fleet management



Demand management

- Dynamic tolling
- Road use charges

Communities of all sizes are implementing dynamic transit.

100+
partnerships

20+
countries

2m+
rides/month

350+
engineers

NORTH AMERICA 

- | | | | |
|-------------------------|------------------------|-----------------------------|-----------------------|
| Austin, TX | Green Bay, WI | New York, NY | Seattle, WA |
| Arlington, TX | Hampton Roads, VA | Northeastern University, MA | Shasta, CA* |
| Baldwin County, AL | Harvard University, MA | Norwalk, CT | St. Clair County, IL* |
| Birmingham, AL | Jersey City, NJ | Northwestern University, IL | St. Louis, MO |
| Chicago, IL | Kennewick, WA | Orange County, CA | Washington, DC |
| Columbia University, NY | Lone Tree, CO | Pacifica, CA | West Sacramento, CA |
| Columbus, OH | Los Angeles, CA | Pasco, WA | Wilson, NC |
| Contra Costa, CA* | Miami, FL* | Richland, WA | Worcester, MA* |
| Cupertino, CA | Montreal, QC | Sacramento, CA | |
| Detroit, MI | Mountain View, CA* | Salt Lake City, UT | |
| Edmonton, AB* | Newton, MA | Sault Ste. Marie, ON | |
| Forth Worth, TX | Niagara, ON | | |

SOUTH AMERICA 

- Brasília*
- Fortaleza
- Goiania
- Santiago*

EUROPE 

- | | | | |
|-----------------|--------------|------------|--------------|
| Aix-en-Provence | Leicester | Malta | Switzerland* |
| Anglet | Liverpool | Milan* | Tees Valley |
| Berlin | London | Nancy | Tours |
| Bielefeld | Lübeck | Neuchatel* | Wales |
| Bordeaux | Ludwigshafen | Neumünster | |
| Brandenburg | Lyon | Oberhausen | |
| Bremen | Madrid | Oslo | |
| East Midland | Mainz | Sevenoaks | |

MIDDLE EAST 

- | | |
|-----------|-----------|
| Abu Dhabi | Jeddah |
| Buraydah* | Jerusalem |
| Doha | Tel Aviv |
| Dubai | |

ASIA 

- Singapore
- Tokyo

AUSTRALIA & NEW ZEALAND 

- | | |
|-----------|-----------|
| Adelaide | Newcastle |
| Auckland | Sydney |
| Canberra | Timaru |
| Hamilton* | |

*Launching soon
Via or ViaVan cities



Via partners with innovative public and private organizations.



Municipalities



Public transit agencies



Public transit operators



Corporations, universities, schools



Northeastern University



DAIMLER



Northwestern University

How the technology works: smart rides with virtual stops.



**Pairs riders
traveling along the
same path**



**Matches riders with
the best vehicle for
that shared journey**

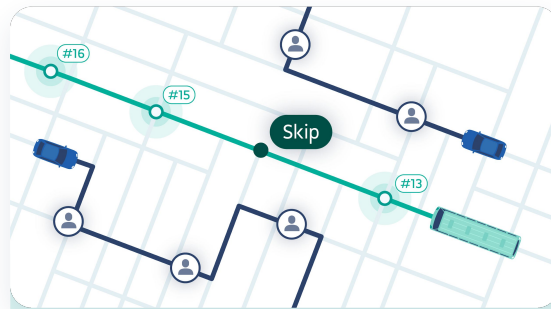


**Directs riders and
drivers dynamically to
the best virtual stop**

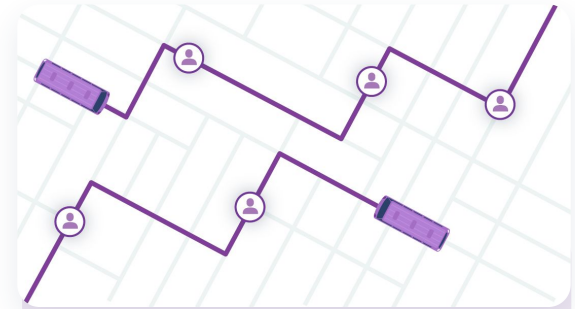
3 ways to incorporate dynamic transit into your network.



Incorporating technology into your fixed routes



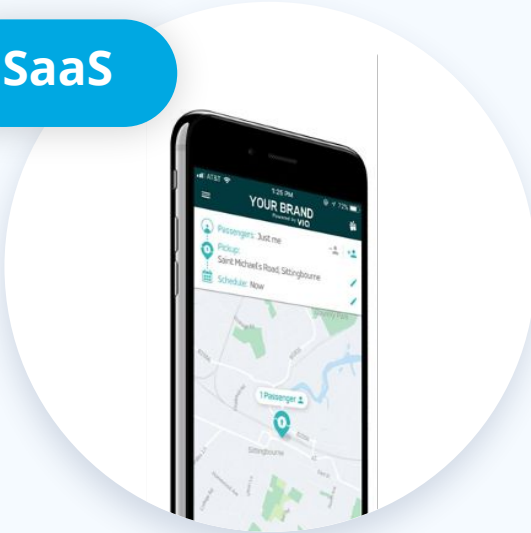
Complementing your fixed routes with a dynamically routed service



Making your service fully dynamic

Two partnership models — your choice.

SaaS



Software-as-a-Service

Licensing Via's on demand shuttle system to transit agencies and operators who prefer to use their own vehicles and drivers.

TaaS



Transportation-as-a-Service

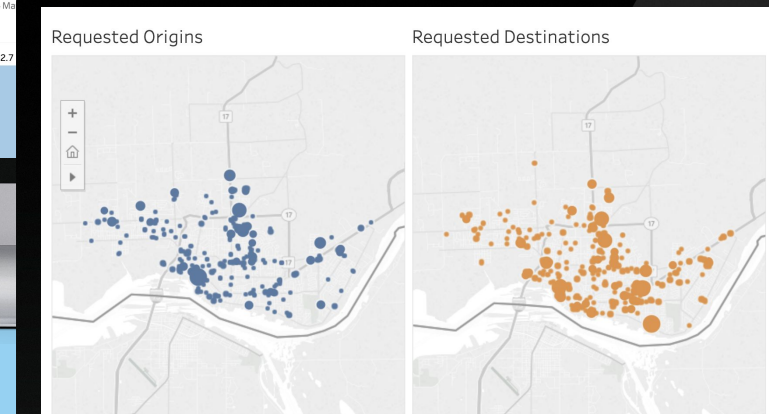
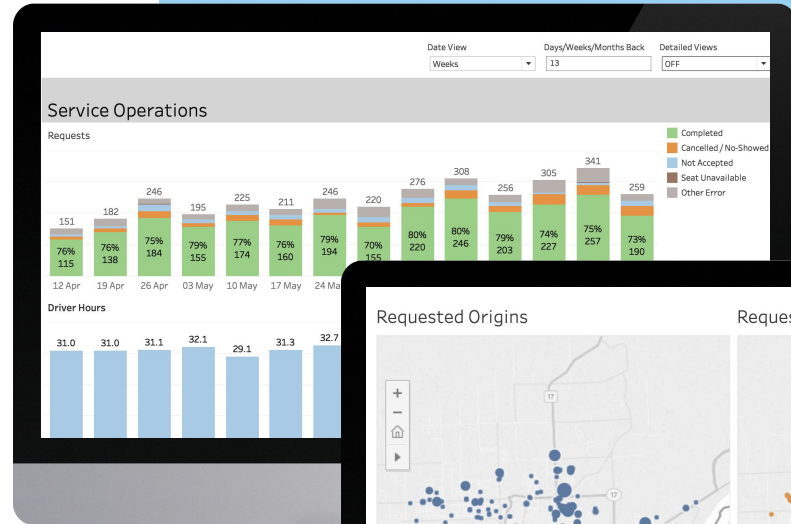
Turnkey solution operated by Via on behalf of our partners that includes technology, drivers, vehicles, and operations management.

Your service, your data: Unmatched access to data, analytics, and reports.

**Easily access, track and analyze
key metrics, and be empowered
to make smart decisions.**

Measure, track, and optimize:

- Ridership
- Efficiency
- Quality of service



The City of Sault Ste. Marie, Ontario.



11%

decrease in
number of buses needed

11 - 13

average utilization
(rides / veh. / hour)

12

minute wait time (avg.)
down from 60-minute
headway

Problem:

Poor fixed-route efficiency on Sunday evenings

Solution:

- Transitioned underperforming fixed route network to on-demand on Sunday evenings; the entire town of Sault Ste Marie goes on-demand
- Reduced operating costs by decreasing the number of in-service buses while serving a greater number of riders
- Launched in September 2019, the result has been an improvement to the quality, reliability, and efficiency of the bus service
- Booking available via app or by calling a dispatcher
- Extended in June 2020 for two years with plans to expand service



“

We're doing quite well, especially taking into consideration that the pilot project is only operating right now on Sunday evenings and that's our slower time.”

— Brent Lamming, Sault Ste. Marie Dir. of Community Services



Geography:
Suburban



Use case:
Night bus



Fleet:
8 wheelchair-accessible buses

CASE STUDY

King County Metro and the City of Seattle: Seattle, WA.



14

passengers per vehicle hour during peaks

6k

rides per week

100%

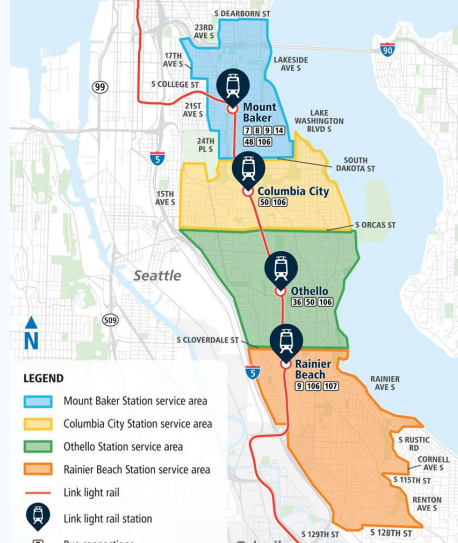
of trips connect to or from fixed-route transit

Problem:

Limited connections to long-distance commuter rail for six lower-income communities

Solution:

- Launched "Via to Transit," a first-and-last-mile service to three light rail stations, in April 2019
- Funded, in part, by an FTA MOD grant
- Booking available through the app or by calling a dispatcher
- Enabled payment with ORCA regional transit cards
- Scaled rapidly from a few hundred rides in the first week to more than 3,000 rides by week four
- Extended in June 2020 with support from the voter-approved Seattle Transportation Benefit District



“

We are redeploying Via to Transit for a second year to maximize our transportation network in areas where those needs are greatest.”

— Dow Constantine, King County Executive



Geography:
Urban



Use case:
First-and-last-mile



Fleet:
22 vehicles, including WAVs

Using technology and creative service models to improve performance and rider experience

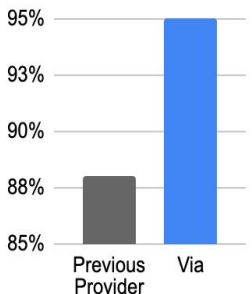


Hampton Roads Transit

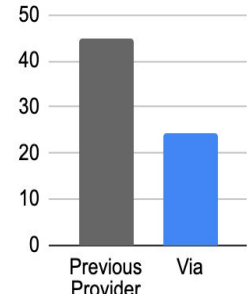
350 Square mile zone
90+ Vehicle fleet
1,500 Trips per day

- Replaced legacy vendors (Trapeze, MV Transit)
- Manage a fully-integrated service: technology, operations, dispatch, and call center

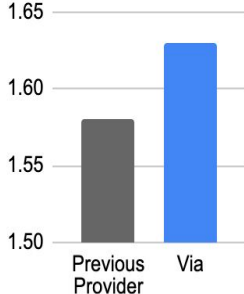
On-Time Performance



Avg Trip Duration



Avg Productivity



Green Bay Metro Paratransit

70 Square mile zone
12 Vehicle fleet
~100 Trips per day

- Legacy service oversubscribed due to budget constraints
- Via's system seen as key to gain efficiencies and best serve existing ridership
- Integrated paratransit + microtransit system

97%

On-time performance

2.05

Avg productivity

Agenda.

1. Introductions.
2. Wilson's Vision.
3. Partnership with Via.
- 4. But what about...?**
5. Our progress, by the numbers.
6. Q+A.

How do we ensure the service is accessible?

Specialized software features

- **App accessibility features** for hearing/visually impaired riders
- App refined with feedback from 8 years of trips for paratransit and general population trips

Customizable Technology

- **Rider specific** vehicle assignments (e.g., WAV on demand)
- **Door to door** service for those who need it

Tailored operations

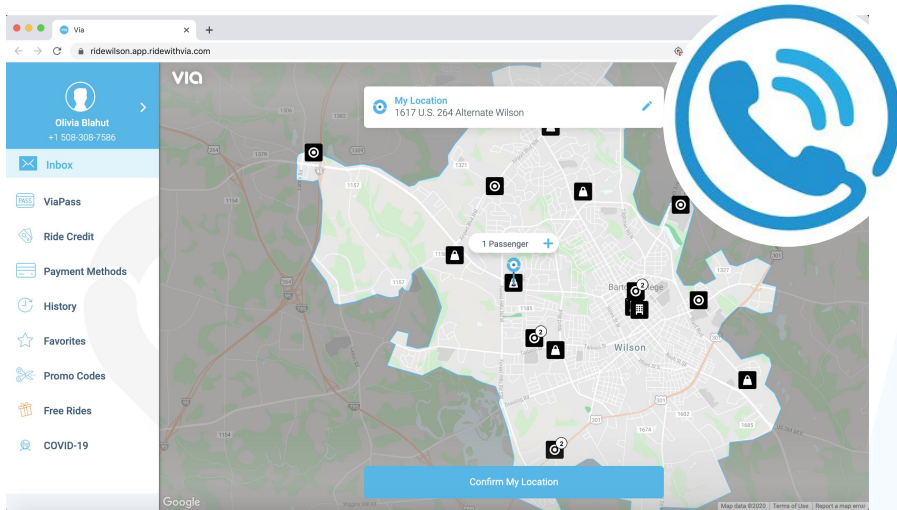
- **Vehicle add-ons** (e.g., extra handles, stepping stools) to support mobility-limited riders
- **Specialized training** for drivers and customer service agents (e.g., PASS training)



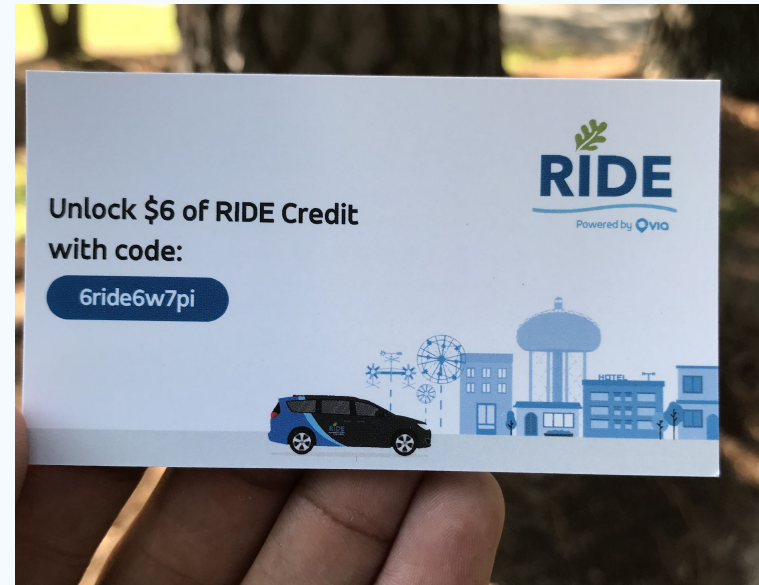
Via's BerlKönig service was awarded the 2019 German **National Inclusion Award**.

What about riders who don't have smart phones or bank accounts?

We offer phone booking and web booking for riders without smart phones.



Riders without bank accounts can use prepaid vouchers or prepaid debit cards.



How do we prepare riders for the transition to a new service model?

Our motto: “no rider left behind.”



Wilson Wellness Collaborative Partners,

We appreciated the great attendance and participation in yesterday's meeting of the Wilson Wellness Collaborative, and we were incredibly grateful for all of the updates provided by our presenters. We are fortunate to have such a strong base of connected and supportive partners.

While we are still in the process of gathering information from yesterday's presentations, ***we wanted to make sure that the information and materials provided by the City of Wilson and Via Transportation were available to partners before the launch of the RIDE system next Tuesday, September 1st.***

OVERVIEW OF RIDE PROGRAM

RIDE, Wilson's new transit system, will debut on September 1st, bringing an innovative, enhanced solution for Wilson's public transit needs, and giving Wilsonians a whole new way to get to work, school and just about anywhere else in Wilson.

RIDE dramatically improves the flexibility and convenience of using public transportation in Wilson. Pre-launch estimates say riders' time could be cut in half or more with a vastly expanded service territory.

RIDE is a partnership between Via, a global transportation company, and the City of Wilson, and allows residents to request a ride from a smart phone app or by phone, walk to a nearby "virtual bus stop", and be driven to their destination in a standard vehicle, rather than a city bus. The service will include wheelchair-accessible vehicles, with curb-to-curb rides for those with limited mobility.

The on-demand service will be available citywide from 7 a.m. to 6 p.m. Monday to Saturday. Each ride will have a \$1.50 flat fare with discounts for multi-ride bundles and multiple riders on the same trip. To encourage residents to try RIDE, all passengers will receive 10 free rides on the service at launch, and can pre-register for accounts **online**, or by downloading the app in advance for iOS and Android devices. Full details on the system are available on the City's website, www.wilsonnc.org.

Links: Digital Marketing Materials

Digital Asset Pack
Wilson Times Article

Links: Printable Marketing Materials

Marketing Flyer(2-Sided, Color)
How to Ride Postcard(2-Sided, Color)
Posters(1-Sided, Color)
Business Cards(2-Sided, Color)

Contact Dante Pittman (dpittman@wilsonnc.org) at the City of Wilson if you would like to request any printed marketing materials for your organization.



Can this service be FTA-compliant?

Yes, Via has extensive **experience** operating services receiving federal and/or state funding.

They provide **specialized reporting to make compliance as seamless as possible.**

FTA
Grants /
Formula
Funding



State
Grants



Push-button dashboards for NTD reporting

NTD Annual Report (2019) (S-10)

Select Year
2019

| Category | Metric | Total | Average Weekday | Average Saturday | Average Sunday | Total Weekday | Total Saturday | Total Sunday | |
|-------------------------|---|-------------------------------------|-----------------|------------------|----------------|---------------|----------------|--------------|---|
| Service Operated (Days) | Days Operated | 312 | - | - | - | 264 | 48 | 0 | |
| | Services Consumed | Unlinked Passenger Trips (UPT) | 14,496 | 53 | 10 | 0 | 14,016 | 480 | 0 |
| | | ADA Unlinked Passenger Trips (IAPT) | 14,496 | 53 | 10 | 0 | 14,016 | 480 | 0 |
| Services Supplied | Passenger Miles Traveled (PMT) | 94,680 | 347 | 65 | 0 | 91,572 | 3,108 | 0 | |
| | Vehicles Operated in Maximum Service (VOMS) | 10 | 10 | 10 | 0 | 10 | 10 | 0 | |
| | Total Actual Vehicle Miles | 155,076 | 565 | 124 | 0 | 149,124 | 5,952 | 0 | |
| | Total Actual Vehicle Revenue Miles (VRM) | 123,936 | 451 | 104 | 0 | 118,956 | 4,992 | 0 | |
| | Total Actual Vehicle Hours (VRH) | 11,006.4 | 40 | 10 | 0 | 10,540 | 467 | 0 | |
| | Total Actual Vehicle Revenue Hours (VRH) | 8,451.6 | 31 | 8 | 0 | 8,074 | 378 | 0 | |

NTD Monthly Report (September 2019) (MR-20)

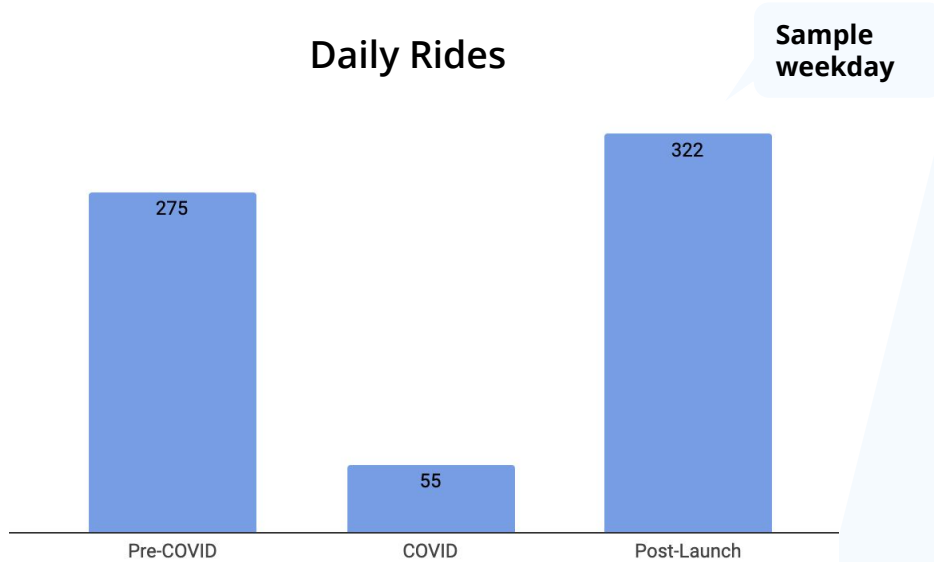
Select Month
September 2019

| Metric | Total |
|---|--------|
| Total Actual Vehicle Revenue Hours (VRH) | 704.3 |
| Total Actual Vehicle Revenue Miles (VRM) | 10,328 |
| Unlinked Passenger Trips (UPT) | 1,208 |
| Vehicles operated in maximum service (VOMS) | 10 |

What will happen when ridership return to pre-covid levels? Is this model sustainable?

It already has!

Daily Rides



This service was scoped pre-COVID to be comparable in budget to our previous fixed route.

As ridership continues to grow, we can **add additional rides more quickly than we need to add additional vehicles**, which will further increase efficiency.

What's next for RIDE?

Continued growth & marketing

- Ridership growth expected as COVID recovery continues
- Targeted rider engagement campaigns to grow ridership throughout the day/week
- Data analysis and subsequent service optimization

Continued innovation through FTA AIM grant award

- Additional funding will allow for experimentation surrounding:
 - Sunday service
 - Late evening service
 - More frequent daytime service



Agenda.

1. Introductions.
2. Wilson's Vision.
3. Partnership with Via.
4. But what about...?
- 5. Q+A.**

**What questions can
we answer?**



Thank you.

Rodger Lentz

[rlentz@wilsonnc.org]

Gronna Jones

[gajones@wilsonnc.org]

Olivia Blahut

[olivia.blahut@ridewithvia.com]

