

NORTH CAROLINA Department of Transportation



Integrated Mobility Division Transit Systems Call

March 8, 2023

AGENDA

- Finance & Grant Admin. Updates
- Procurement & Vehicle Updates
- Compliance updates
- Multimodal Planning Updates
- Other reminders and updates
- NCSU Microtransit Research
- Questions



Q1

Q2

 Q_3

Finance Updates

Finance Updates

- Finance has begun working on the Supplemental Capital agreements. The period of performance for these projects will be extended for another year, ending June 30, 2025.
- FY24 Elderly & Disabled agreements are expected to go out next month
- We are working to catch claims up in the Mountain Region
- We are looking forward to seeing each of you at the NCPTA conference in Concord!

ROAP Update as of March 7, 2023



ROAP Update Continued

- January 2023 ROAP report is due March 15th.
- The end of year reconciliation of ROAP reports will begin in July, if past reports need to be corrected or submitted, please advise as soon as possible.

The link to the SmartSheet is:

https://app.smartsheet.com/b/form/ea46d9e0611c406d84b62a9b72b82c78

Procurement Updates

Procurement Updates

- Raised Roof Van/LTV Contract Status Update
 - As of 10/5/21, the previous NCDOT-specific contract for LTVs has expired
 - The IFB (Invitation for Bids) for an NCDOT-specific contract for LTVs and Raised Roof Vans was advertised as of 8/8/22; <u>Bids opened as of 12/13/22</u>
 - Mid-roof and high-top RR vans
 - 20ft, 22ft, 25ft and 28ft Light Transit Cutaway-type Vehicles (LTV)
 - Fully electric has been advertised as an eligible option for vendors to bid on
 - Currently projecting that contract awards will take place by end March of 2023
 - Order forms for FY23 vehicle projects will be released shortly after
 - <u>NCDOT will pay the federal and state share for the higher pricing on most outstanding FY22 and FY23</u> <u>vehicle projects</u>

Vehicle Inspection/Disposition Training

- New training video to be posted soon to NCDOT Connect website regarding new Smartsheet process for tracking vehicle inspections/disposition
 - Will include guidance on the following:
 - Process for returning proceeds in excess of \$5,000 (per new federal guidance through Bipartisan Infrastructure Law)
 - How to report vehicle dispositions
 - What documentation is necessary before NCDOT-IMD will close out a disposition file
 - EAM/Assetworks reporting requirements and best practices
 - Eligible methods of vehicle disposition
- Training will be conducted by
 - Chris Dodson, IMD Procurement Officer
 - Jonah Freedman, Research Associate and GIS Analyst, ITRE

Grant Administration & Procurement Updates



Vehicle Capital Supplemental Funding

For the transit systems with outstanding FY 22 and FY 23 vehicle orders, your transit system will have the opportunity to reorder the vehicles when the new state contract is executed. For most FY 22 and FY 23 contracts, vehicle overages will be funded with state funding with no additional local funding required.

- Your assigned RGS will reach out to you with detailed information concerning the change request needed for the FY22/23 vehicles.
- Supplemental agreements will be issued based on the change request and the funding split
- New order forms will be distributed to the transit systems following the award of the state contract
- Order forms to be sent to the vendor with cc to Chris Dodson, IMD Procurement Officer



FY 24 Unified Grant Application (UGA) Process

Key Updates

- The FY24 5303 planning grant DRAFT UPWP's are being reviewed by the FTA and any necessary feedback will be provided to the individual MPO.
- The Final UPWP and other required documents are due in EBS by March 31st, 2023.
- The Certs and Assurances are due in EBS Upload into FY 2024 Certs and Assurances DROP Box by Thursday April 27,2023 in order to meet the FTA guidelines of submitting them within 90 days of publication.

FY 25 Unified Grant Application (UGA) Process



- Interactive, single guidance document
- Organized into 3 distinct phases
- Efficiency by pre-completing some documents in pre-application phase
- State and Federal guidance
- Extended application period

Benefits to Applicants

- Simplified process by integrating applications into single process
- Streamlined process and material, and outlining eligibility clearly
- Modernized process by incorporating SmartSheet

Key Dates: April 3, 2023, Open Call for Projects – Friday, October 6, 2023, Grant Applications due in EBS

Unified Grant Application (UGA) Process

Key Updates

- FY25 training webinars have been scheduled for March 21st and March 22nd. Meeting information was sent on March 3rd. Notice of a conflict with the
 NCPTA monthly call on March 22nd has been made. That call will still be held in the event other participants call in.
- A 3rd training webinar will be planned for the week of April 3rd, meeting details will follow.
- IMD is looking into developing potential ConCPT Coordination projects focusing on regional collaboration and other feasible transit projects. A SmartSheet survey regarding potential coordination projects will be sent out shortly after the transit call.

Compliance Updates

Compliance Review Updates

Compliance Review (33 Reviews in Total)

- Compliance Review Visits Conducted: 33 (100%)
- Scheduled, but not conducted:
- Compliance Reviews in the Corrective Action Stage: 8 (24%)
- Closed:

25 (76%)

0 (0%)

Deficiency Trends

- 186 (133 closed) Total Deficiencies (Final)
- Top Five Findings Categories:
 - ADA (36)
 - Financial Management (34)
 - Maintenance, Procurement, Title VI & Legal (15)



ADA Deficiency Breakdown

- The most common ADA Deficiency was related to the question "How do you inform the public about your process for filing an ADA complaint?" (Most were website related)
- Followed up by "How does your agency make reasonable modifications to your policies, practices or procedures when necessary to avoid discrimination on the basis of disability? What process is used to consider such requests? Are drivers and staff trained on these requirements? How does the agency inform riders about how to request a reasonable modification?"

2023 Compliance Reviews

- In 2023, we will cover 51 Compliance Reviews
 - 30 5310 Non-Profit Reviews (will begin in April/May)
 - 21 5311 Transit System Reviews (Will begin in the Fall)

Other Updates & Reminders

Transit System/Mobility Hub Feasibility Studies

- Survey to transit systems to be posted later this month/March
- Focus on administrative and maintenance facilities addition/replacement, renovation, enhancement of facilities
- Feasibility studies support grant opportunities:
 - o 5339(a) Grants for Buses and Bus Facilities Formula Program
 - 5339(b) Bus and Bus Facilities Discretionary Program
- Mobility hub concepts to be explored
- IMD is exploring federal funding options

IMD SESSION TOPICS TO BE PRESENTED AT NCPTA CONFERENCE

- **IMD Best Practices & Resources** (2 Sessions with different topics)
- **Session 1** This session will be packed with best practices and information from peers and consultants! Topics covered will be:
 - Grants management and preparation focused on creating a local budget that incorporates grant funds requests;
 - Understanding DBE goals and how rural systems can meet them;
 - How grant applications and change requests, relate to federal funding, and why it's important to plan ahead when submitting to IMD.
- **Session 2** Session two will be more best practices along with resource information and meeting IMD staff. Topics of this session will include:
 - Capital assets budgeting and maintaining transit assets;
 - Local procurement processes the good, the bad, and the ugly;
 - Resources, Training & Technical Assistance offered by IMD including the new (and developing) NCRTAP;
 - Town Hall Question & Answers with IMD Staff.

- **Innovations in Shared Mobility** IMD staff will share updates on their innovative shared mobility projects and programs, including:
 - The Connected Autonomous Shuttle Innovation (CASSI) program;
 - Mobility-as-a-Service (MaaS) initiatives;
 - Transportation Disadvantage Index (TDI) and Environmental Justice (EJ) tools and dashboards.
- The Future of Regional Multimodal Planning with IMD - IMD will present on a variety of multimodal planning activities the Division is currently leading. The session will focus on:
 - Regional transit/multimodal plans;
 - NCDOT's locally-coordinated plan (5310);
 - Multimodal network plans;
 - Microtransit feasibility studies;
 - Transportation demand management (TDM) plans.

FY23 Carbon Reduction Program (CRP)

- The Infrastructure Investment and Jobs Act (IIJA) authorizes the CRP to reduce transportation emissions through the development of State carbon reduction strategies and by funding projects that reduce transportation emissions.
- FHWA allocated \$33.5M to North Carolina in FY23
- NCDOT is accepting **internal** applications from its units/divisions to fund projects statewide.
- IMD will be seeking approx. \$2.9 million in funding for an electric bus, charging station, feasibility studies, and tracking of key performance indicators (KPI).
- Due March 17, 2023

FY23 Low-No and Bus and Bus Facilities

- \$1.7 billion available in FY23 for FTA to buy or modernize buses, improve bus facilities, and support related workforce development.
 - Low or No Emissions provides funding for the purchase or lease of zero-emission and lowemission transit buses and improvements to supporting facilities.
 - 25% reserved for Low Emission vehicles
 - Bus and Bus Facilities provides funding to assist in the financing of buses and bus facilities capital projects.
- IMD is coordinating applications with transit systems that responded to a call for interest survey.
- Seeking funding for electric buses, charging stations, propane fueling, and facility expansion. Applications will also include a workforce development component.
- Due April 13, 2023

NCDOT IMD FY23 Partner Survey Overview

- IMD is launching a survey to determine stakeholder and partner satisfaction with IMD staff, programs, processes, activities, achievements and strategies.
- Open March 8 March 24, 2023
- Available online via PublicInput.com
- Takes 15-20 minutes to complete
- Results will be compiled and shared by IMD
- Results will help IMD make improvements to better meet stakeholder and partner needs <u>https://publicinput.com/imd-partner-survey-2023</u>



Challenges and Lessons Learned from Public Microtransit Pilots in North Carolina

Subid Ghimire¹, Dr. Eleni Bardaka¹, Dr. Kai Monast², Juan Wang¹, Waugh Wright², and Jeremy Scott²

- ¹ Department of Civil, Construction, and Environmental Engineering, North Carolina State University (NCSU)
- ² Institute for Transportation Research and Education (ITRE), NCSU

Research objectives

- Consolidate the experience of the six transit agencies in NC that have implemented microtransit
- Discuss the challenges they faced during planning and implementation and the lessons learned
- Examine the cost of microtransit systems through analysis of the operational expenditures and the contracts public agencies formed with service providers.



Service delivery models

- **Turnkey** model: technology, vehicles, drivers, and operations through a single contract with one private provider
- Separate contracts for technology, drivers, or vehicles with different entities
- **Technology acquisition** model: the public agency owns the vehicles and ensures that vehicle operators are available while contracting with a private service provider to obtain the technology



NC STATE UNIVERSITY



Wilson, RIDE (Sep 2020)

- Population: 40,351
- Service: Monday-Saturday
- Fleet: 26 vehicles (6 wheelchair accessible); 15 vehicles operating at peak
- Vehicle capacity: 6 passengers
- Fare: \$2.5
- Pre-scheduling: not available
- Stops: intersections and major destinations
- Turnkey contract with Via







NC STATE UNIVERSITY

Wilmington, RideMICRO (Oct 2021) June 2022

- 4 zones
- Population: 125,800
- Fleet: 5 (1 wheelchair accessible vehicle shared across all zones)

301 riders

- Vehicle capacity: 14 passengers
- Fare: \$2
- Booking at least 1 hour in advance
- Pre-scheduling: up to 1 week in advance
- Stops: 3000 fixed stops
- Turnkey contract with Bus.com





NC STATE UNIVERSITY

Morrisville, Smart Shuttle (Oct 2021)

- Population: 39,092
- Service: Monday-Sunday
- Fleet: 2 vehicles
- Vehicle capacity: 16 passengers
- Fare: free
- Pre-scheduling: not available
- Stops: 16 stops with shelters
- Technology provider: Via
- Vehicle/driver provider: GoCary (with MV Transportation)





June 2022 1,695 riders

Wake County, GoWake SmartRide NE (Mar 2022)

June 2022

556 riders

- Population: 36,984
- Service: Monday-Friday
- Fleet: 3 vehicles
- Vehicle capacity: 12 passengers
- Fare: free
- Pre-scheduling: up to 30 days in advance
- Stops: Curb-to-curb service
- Technology provider: Uber
- Vehicle/driver provider: MV Transportation





NC STATE UNIVERSITY

Orange County, Mobility On-Demand (Mar 2020)

June 2022

24 riders

- Population: 146,354
- Service: Friday-Saturday
- Fleet: 5 vehicles
- Vehicle capacity: 6 passengers
- Fare: \$5
- Pre-scheduling: not available
- Stops: Curb-to-curb service
- Technology provider: Transloc
- Vehicle/driver provider: Orange County





YVEDDI, Elkin and Mocksville microtransit (Jul 2022)

- Population: 5,484
- Service: Monday-Friday
- Fleet: 4 vehicles
- Vehicle capacity: 12-15 passengers
- Fare: \$1
- Pre-scheduling: up to 2 days in advance
- Stops: Curb-to-curb service
- Technology provider: CTS
- Vehicle/driver provider: YVEDDI





Primary purpose of microtransit implementation			
To complement the major To fixed-route transit bu	lace an inefficient fixed-route o replace a previously existing at inefficient fixed route transit	Transit service in low-density area To provide transit service in low-density areas where fixed-	Temporal service To provide transit service at times of day or on days
systems by providing se first/last mile access Morrisville, Morrisville SmartShuttle Wilmington, RideMICRO	rvice Wilson, RIDE Zone 3 in Wilmington, RideMICRO YVEDDI,	route is economically not viable Morrisville, Morrisville SmartShuttle Wake County, GoWake Smart Ride NE	of week when other transit service is not available Orange County, Mobility on-demand
Wake County, GoWake Smart Ride NE	Elkin and Mocksville microtra	ansit	
NC STATE UNIVERSITY

Microtransit contracts	Wilson, RIDE	Wilmington, RideMICRO	Morrisville, Morrisville SmartShuttle	Wake County, GoWake SmartRide NE	Orange County, MOD	YVEDDI, Elkin and Mocksville microtransit			
Total contract cost	<u>Turnkey contract</u> : not to exceed \$1,464,300 (in the 1 st year)	<u>Turnkey contract</u> : not to exceed \$700,000	<u>Technology</u> : not to exceed \$142,280	<u>Technology</u> : \$42,493 <u>Vehicles/drivers</u> : \$265,379	<u>Technology:</u> <u>\$34,000</u>	<u>Technology</u> : \$7,695			
Contracted fleet size	9	5	3	3	3	4			
One-time technology fees									
Installation and other technology fees	(\$50,000)	-	\$29,000	\$25,000	\$25,000	\$5,295			
Device hardware and installation per vehicle	-	-	\$380/vehicle	\$845/vehicle	-	-			
Annual technology lees									
Annual data plan	_	_	\$180/vehicle	\$336/vehicle	_	-			
Monthly or hourly technol	Monthly or hourly technology fees								
Fees/month	-	-	-	-		\$200/ month			
Fees/vehicle/month	-	-	\$384 -\$912/vehicle/ month	\$350/vehicle/ month	\$300-\$500/ vehicle/month	-			
Fees/service hour	\$15/service hour	-	-	-	-	-			
Call center operation									
Responsibility to operate call center	Via	Bus.com	GoTriangle	Wake County	Orange County	YVEDDI			
Vehicle and drivers' costs									
Rate/vehicle revenue hour	min rate: \$38.27; max rate: \$40.39	\$70.00	\$97.50	\$42.53	-	-			

Operational expenditures

Microtransit operational expenditures	Wilson, RIDE	Wilmington, RideMICRO	Morrisville, Morrisville SmartShuttle	Wake County, GoWake SmartRide NE
Average monthly ridership	13,074	176	1,236	364
Latest monthly ridership (June 2022)	16,243	301	1,695	556
Cost per operating day	\$5,141	\$2,106	\$1,572	\$806
Cost per vehicle revenue hour	\$72.92	\$70.75	\$95.43	\$42.12
Cost per revenue mile	\$5.10	\$22.47	\$7.80	\$3.61
Cost per passenger	\$10.26	\$246.08	\$38.30	\$41.05

- Funding availability and sustainability
 - Funding formulas have not been updated to include microtransit
 - Microtransit typically grouped with demand response service -> less funds compared to fixed route
 - Most systems were funded as pilots through one-year grants

Meeting the demand

- Funding governs the operation hours, the fleet size, and the number of drivers
- Surge pricing should not be used to manage demand
- Vehicles are usually underutilized
 - Low proportion of trips are shared with another booking



ADA compliance

- If microtransit replaced a fixed route, the requirement for ADA paratransit is removed
- Equivalent service to individuals with disabilities
- Different process for scheduling, limited ADA certified operators, limited numbers of ADA compliant vehicles



- Banking and technology related barriers
 - Call centers are important
 - Most trips requested by phone in Wilmington and Wake
 - Trip requests may require electronic form of payment



- <u>Virtual stops and access to vehicles</u>
 - Users walk a certain distance from their location to access the service
 - Algorithms can be ignorant to the local traffic and pedestrian infrastructure and ask users to walk across unsafe conditions
 - Drivers intervene to avoid unsafe circumstances



Service delivery model	(+)	(-)		
Turnkey	Convenience (no need to own vehicles, employ drivers, and coordinate daily operation)	Limited control		
	Single point of contact	Replacing the provider may have a big impact		
Separate contracts for software, drivers or vehicles	Convenience (no need to own vehicles, and employ drivers)	Coordination and communication between the different providers		
Technology acquisition	Control vehicle inspection and maintenance, alcohol and drug screening, etc.	Purchase vehicles Higher cost, short shifts may not apply if the drivers are public employees		

Lessons learned

- **Selection of service delivery** model
 - Previous experience with public transportation?
 - Vehicles and drivers already available?
 - Budget
 - Consider pros and cons

- **Selection of service provider**
 - Provider experience
 - Be meticulous with contracts, require adequate detail; data ownership
 - Marketing is essential
 - Transitioning to a new provider is challenging

Lessons learned

On-demand vs. pre-scheduled trips

 Strictly on-demand systems may not work well for time-sensitive trips and pattern-reliant individuals

<u>Transitioning beyond microtransit</u>

- Uncover transportation need
- Leverage data to plan future public systems



Funding Acknowledgment



Integrated Mobility Division

N.C. DEPARTMENT OF TRANSPORTATION



Contacts

- Dr. Eleni Bardaka <u>ebardak@ncsu.edu</u>
- Dr. Kai Monast kai monast@ncsu.edu

Mobility for Everyone Everywhere in NC Implementation Status

- All 11 communities have participated in followup meetings to further discuss service models and implementation.
- Budget development for each community based on chosen service model is ongoing thru April as needed. Could be finished sooner.
- Work with each community on public engagement and outreach methods including surveys is beginning and will be ongoing.
- Develop a Data Management Plan prior to procuring vendors
- Develop an Equity & Accessibility Plan prior to procuring vendors



FY 2022 USDOT Rural Surface Transportation Grant Summary Mobility for Everyone, Everywhere in NC (MEE NC) will accelerate the deployment of high-quality, on-demand transit services to rural, low-income communities throughout North Carolina, leading to more equitable mobility and improved access to opportunities, services, and resources for transportation disadvantaged populations. 811 k 45% 89 SERVED BY ON-DEMAND PEOPLE OF COLOR ON AVERAGE HISTORICALLY DISADVANTAGED MOBILITY IN MEE NC SERVICE AREAS COMMUNITIES SERVED

Milestones





NORTH CAROLINA Department of Transportation



Microtransit Feasibility Studies

Call for Applications

https://connect.ncdot.gov/business/Transit/Pages/Microtransit-Feasibility-Study-Grants.aspx

Application Details

- Planning funds for feasibility studies, no local match
- All transit agencies in NC eligible
- Applications Open March 9 Monday April 17, 2023
- Applications accepted via EBS
- Application consists of 7 questions, and some attachments
- You will *not* request a funding amount in EBS, NCDOT will assign the project cost after submission

What to Expect

- Analysis of microtransit service implementation:
 - Complete public and stakeholder engagement
 - Analysis of ridership demand, existing services, origins/destinations, commuting data, transit performance metrics, etc.
 - Consideration for MaaS vs SaaS service model options, including peer agency review
 - Operational and capital needs guidance (vehicles, drivers, technology, procurement)
 - Pilot project recommendations
 - Funding, grants guidance, and Benefit / Impact analysis

November 2022

Integrated Mobility Division CONTENT STANDARDS FOR MICROTRANSIT/ SHARED MOBILITY STUDY



Why Apply

- Agencies who are interested in exploring microtransit seriously
- Unmet transit needs existing in community

 See ITRE Report on Purposes of Microtransit Implementation
- Agencies interested in pilot projects, improved customer experience, engaging elected officials
- Feasibility study may lead to grant opportunities

Contact

Bryan Lopez IMD Regional Planning Manager

balopez@ncdot.gov

919-707-2606

Program webpage: https://connect.ncdot.gov/business/Transit/Pages/Microtransit-Feasibility-Study-Grants.aspx

IMD SmartSheet Links for Transit Systems

IMD SmartSheet Links for Transit Systems

This page will list commonly used SmartSheet Links will doing business with IMD. Please send any questions to Timothy Blair Chambers, Jr., Compliance & Procurement Branch Manager, Integrated Mobility Division, North Carolina Department of Transportation, 919-707-4693 (office) or tbchambers@ncdot.gov.

General/Surveys

III Provide feedback from Transit Calls and Ideas for training topics here.

I ConCPT Coordination Project Feasibility Survey (Coming Soon)

I Transit Facility Feasibility Survey (Coming Soon)

ROAP Reports

I ROAP Report Entry (Monthly)

Charter Reports

I Charter Report Quarterly Submission (new)

Vehicle Related Reporting
U Vehicle Disposition Tracking (Coming Soon)

Transit Communication Hub

IMD Calendar (We	ebsite) (View	Only) :	smart	sheet			Report Abuse	🛿 Help	
	🛐 Calendar Vi	iew 🔹 🖓 Filte	r 🗎					ත	View Detail 💌
	February - N	larch 2023	(▲ 1 Month ・	Þ			\Box	FY23 Low or No Emission Grant Program & the Grants f or Buses and Bus Facilities Competitive Program Survey of Interest Window
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	O	
February 2023	February 5	6	7	8	9	10	11	0	Date
SMTWTFS		Areas of Pers	istent Poverty Program				D		02/07/23
29 30 31 1 2 3 4						Buses and Bus Facil	ties Competitive Pro	B↓	
5 6 7 8 9 10 11			FY24 53	03 Planning Applicatio	on Window				End Date
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19 20 21 22 23 24 25								E P	02/15/25
26 27 28	12	13	14	15 DAMIS Report	16	17	18		Time
March 2023	FY23 Low or No	Emission Grant Prog	ram & the Grants for B						
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19 20 21 22 23 24 25								1	Point of Contact
26 27 28 29 30 31			FY24 53	03 Planning Applicatio	on Window		4		Blair Chambers
									Biall Chambers
April 2023									Contact Email
SMTWTFS	26	27	28	March 1	2	3	4		
1			Monthly Claim:						tbchambers@ncdot.gov
2 3 4 5 6 7 8									
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			EV24 E2	03 Planning Applicatio	an Window				
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Transit Communication Hub

Due in the Last 30 Days & the Next 45 Days (Vi : smartsheet

02/08/23
02/15/23
02/15/23
02/28/23
03/08/23

Со	Communications							
~	Date Sent	D Name	Subject					
	2/7/2023	野Y23 5339 Survey of Interest #	Announcements					
	2/6/2023	TLDP Registration - Spring 2023 #	Training					
	1/30/2023	FY2024 Application Certs and Assurances Package	Announcements					
	1/30/2023	Areas of Persistent Poverty Program FY2023 Notice of Funding Opportunity 🗱	Announcements					

QUESTIONS



Previous slides, recordings and FAQs:

https://connect.ncdot.gov/business/Tran sit/Pages/Transit-Meeting-Resources.aspx

Provide feedback and ideas for topics:

https://app.smartsheet.com/b/form/f626 a9fbbd7649e4ba4dd45b3bedbcfd