# REGIONAL HUMAN SERVICES TRANSPORTATION COORDINATION PLAN

Vol. III

BCDCOG

BERKELEY-CHARLESTON-DORCHESTER
COUNCIL OF GOVERNMENTS
PLANNING, PARTNERSHIP & PROSPERITY
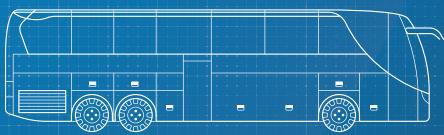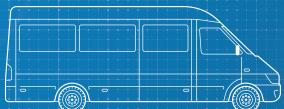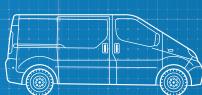
Title

Regional Human Services Transportation Coordination Plan

Author

Berkeley-Charleston-Dorchester Council of Governments

Supersedes

Regional Human Services Transportation Plan (2015)

Funding Source

U.S. Department of Transportation's Federal Highway Administration and Federal Transit Administration under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code.

Board of Directors Adoption

XX/XX/22 (anticipated)

Asistencia Lingüística

Para solicitar este documento en Español, contacte con: Daniel Brock (danielb@bcdcog.com).

BCDCOG Non-Discrimination Policy

BCDCOG guarantees that no person shall be subjected to discrimination, excluded from participation, provided a "separate but equal" service, or denied benefits from its programs or services on the basis of their race, their skin color, their religion, their sex, their age, their disability status, of where they were born. Any person that believes they have been aggrieved by an unlawful discriminatory practice under Title VI may file a complaint by contacting BCDCOG's Title VI designee:

Robin Mitchum

T: 843-529-0400
robinm@bcdcog.com
5790 Casper Padgett Way
North Charleston, SC 29406

Stakeholder Contributions

AccessAbility
All About Seniors
Association for the Blind & Visually Impaired
Barbara Franklin
Beyond Basics
Charleston Area Justice Ministry
Charleston Area Senior Citizens
Charleston Green Taxi
City of Charleston
City of North Charleston
College of Charleston
Custom Care Carriage

Disabilities Board of Charleston County
Dorchester County Board of Disabilities & Special Needs
East Cooper Community Outreach
Family Medical Transport
Family Resource Center for Disabilities & Special Needs
Lowcountry & Waring Senior Centers
Ranky Tanky Transit, LLC
South Carolina Commission for the Blind
The Arc of South Carolina
Trident Area Agency on Aging
Unlimited Possibilities

CONTENTS

CHAPTERS

LIST OF FIGURES

CONTENTS

Section Title

CONTEXT

Section Navigation

Everyone - regardless of age, ability, or income - needs to be able to get around.

As people age, experience a physical or cognitive disability, or struggle to afford rising cost of living in our region, it helps to have an accessible and affordable travel option available.

Without it, people are challenged to get to work, attend school, visit a doctor, buy groceries, or complete one of the million other daily tasks or items on their to-do lists. This Regional Human Services Transportation Coordination Plan brings together public transit[1] and "human service" providers[2] to identify the mobility needs of people that might otherwise fall through the cracks.

Who does it serve?

Specifically, this Plan is intended to identify and suggest actions that will address the needs of 3 groups:

+ Older adults
+ People with disabilities
+ Low-income residents

How will it make a difference?

The process outlined in this Plan seeks to coordinate otherwise siloed transportation providers to leverage scarce transportation resources and expand the region's available mobility options.

15%
of *Total Population*

Older Adults

As people age, their transportation needs change. Private vehicle use may no longer be possible due to loss of physical abilities.[3,4,5] While the need for commuting to work may decrease with age, the need for more routine medical visits may increase[6]. However, the desire to continue living independently at home, with the ability to access necessary goods and services or to participate in social activities, does not necessarily diminish with age. In short, reliable and affordable transportation for older adults ensures a high-quality of life and, to the extent possible, an independent lifestyle.

For the purposes of this Plan, older adults are defined as people 65 and older to align with the U.S. Census Bureau[7]. The total population of individuals 65 and older in the tri-county region increased by almost 50% between 2012 and 2019, from 76,000 people to 113,000 people of the region's total population[8]. Should the BCD region continue to grow in the same way it has been growing, older adults may constitute as much as 22% (126,000 people) of the total population by 2035[9].

12%
of *Total Population*

People with Disabilities

Like older adults, limited mobility options for people with disabilities can also impact access to employment and social opportunities. A 2004 survey by the National Organization on Disability found that only 35% of people with disabilities reported being employed part- or full-time compared to 78% of people without a disability. Compared to their counterparts, people with disabilities were also less likely to socialize, eat out, or attend religious services and were three times more likely to live in poverty.

A major contributing factor identified in the 2004 survey was a lack of access to transportation, where reportedly 31% of people with disabilities did not have access to transportation compared to just 13% of people without a disability[10].

The U.S. Census Bureau defines a disability as a serious difficulty in hearing, vision, cognition, ambulation, self-care, or independent living[11]. While the proportion of the total population in the tri-county region with a disability has remained relatively steady, increasing slightly from 11% in 2012 to 12% in 2019, the region's total population has ballooned over that same time period. Consequently, the total number of people with at least one disability increased from approximately 74,000 in 2012 to 93,000 in 2019.

In addition, disabilities often exist in combination, with individuals experiencing more than one disability[12]. In the tri-county region, 46% of people with a disability over the age of 4 experience multiple disabilities[13].

Just as people may experience multiple disabilities, there is a large overlap in demographics between older adults, people with disabilities, and low-income residents in our region.

The U.S. Census Bureau estimated that approximately 34% of older adults in the tri-county region experience at least one disability in 2019[14]. In addition, a similar overlap existed between disability status and the percent of people living below the Federal poverty line[15] (18% of people with a disability compared to 12% without a disability).[16, 17]

Figure 1 shows the concentration and overlap of older adults and people with at least one disability across the three counties.

Concentration of
Transportation-Disadvantaged Populations
by Census Tract

% of Population over 65
	1% - 10%
	11% - 15%
	15% - 30%
	>30%

% of Population with a Disability
	1% - 5%
	6% - 12%
	13% -20%
	>20%

Older adults: 76k 80k 85k 90k 96k 102k 107k 113k

People with a disability: 74k 75k 77k 81k 85k 78k 89k 93k

2012 2013 2014 2015 2016 2017 2018 2019
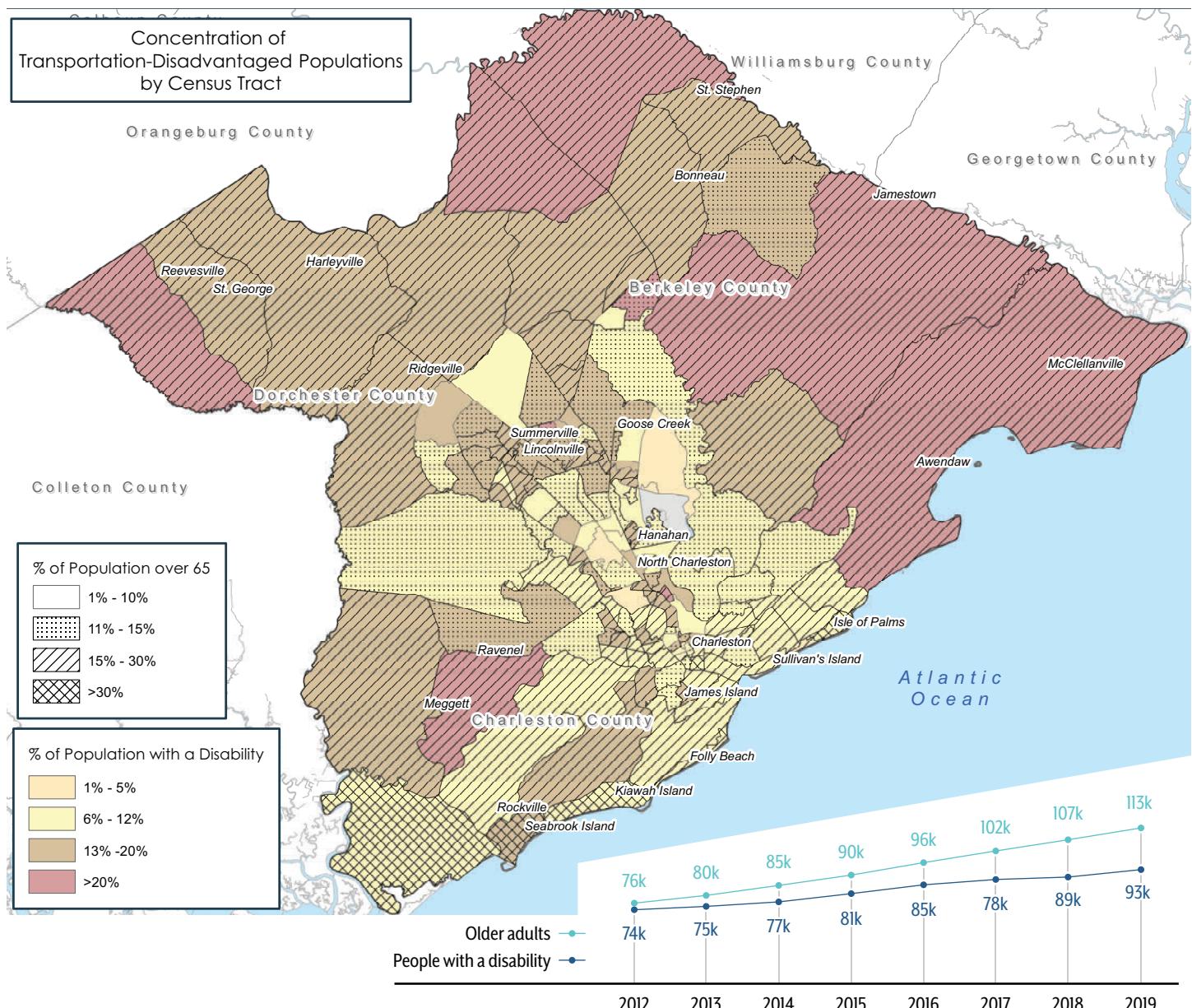
13%
of
Total Population

Low-income Residents [19]

The income disparities that exist between poverty and disability status is seemingly compounded when considering the combined cost of housing and transportation in the tri-county region.

According to the Center for Neighborhood Technology, the average household in the tri-county region spends right around the Center's recommended amount of '30% or less' of income on housing, but spends more (and often much more) than the recommended 15% of income on transportation [20].

This may suggest that residents are locating further away from employment centers to find affordable housing but at the expense of spending more on transportation and risking having fewer transportation options available.

This Plan is designed to help leverage the limited transportation resources available, roughly $500,000 per year in federal funding, specifically for improving transportation options for older adults, people with disabilities, and low-income residents.

As the designated recipient for federal funding, the BCDCOG administers this funding in urban areas of the tricounty region as part of FTA's 'Section 5310' program[21], and has the flexibility to select sub-recipients for urban Section 5310 funding, as long as recipients are funding transportation services and objectives clearly documented in this Plan[22]. Using a comparable process, the South Carolina Department of Transportation (SCDOT) administers the 'Section 5310' program to distributed funding to sub-recipients serving rural areas across the state[23].

Eligible Activities

Below is a list of activities that are eligible for Section 5310 funding:

Capital (80% Federal Funding with 20% Local Match)
› Vehicle purchases (buses, vans, or supporting new accessible taxi, ridesharing, or vanpooling programs)
› Wheelchair lifts, ramps, and securement devices
› Transit-related technology for scheduling and routing
› Pedestrian facilities that improve access to transit stops
› Wayfinding signage or technology

Programmatic (50% Federal Funding and 50% Local Match)
› Training
› Volunteer driver programs
› Incremental cost of providing same-day or door-to-door service
› Meal delivery services for homebound individuals
› Mobility management programs that decrease reliance on paratransit service
› Acquisition of transportation services via a contract, lease agreement, or other agreement

Timeline

Plans for coordination of human services transportation serves, like this one, create a systematic way for communities to improve collaboration and communication among transportation providers and human service organizations. FTA requires the following be included in this Plan[24]:

+ Documentation of existing public, private, and nonprofit transportation services
+ Assessment, either qualitatively or quantitatively, of the unmet transportation needs of transportation disadvantaged populations
+ Listing of potential strategies to address the identified transportation needs
+ Prioritized potential strategies based on feasibility and available resources
+ Timeframes for implementation of the prioritized strategies

FTA requires that this Plan be updated at least every five years so that it follows the regular update cycle of the region's long-range transportation plans.

Below is a brief timeline of how the Section 5310 program has evolved with federal transportation authorizations:

- **2005: Adoption of SAFETEA-LU**[25]
  - › Created the first requirements for transportation coordination plans
  - › Linked three grant programs - Section 5310, Section 5316[26], and Section 5317[27] - by consolidating a collective set of strategies to address mobility challenges for disadvantaged populations into a single plan

- **2012: Adoption of MAP-21**[28]
  - › Made sweeping changes to the transit coordination plan requirements, including the repeal of the Section 5316 and Section 5317 programs and the bolstering of the Section 5310 program
  - › Required that strategies funded by Section 5310 must be specifically identified in a coordination Plan
  - › Change placed an increased emphasis on the need for public engagement early in the planning process to help identify mobility challenges and to shape the recommended list of strategies

- **2016: Adoption of the FAST Act**[29]
  - › Included additional recommendations to increase participation by recipients of federal grants in locally developed, coordination planning processes

  Note: Adoption of the Infrastructure Investment & Jobs Act in 2022[30] made no structural, formulaic, or programmatic changes to Section 5310

This Plan serves as an update to BCDCOG's most recently adopted Transportation Coordination Plan from 2015. As shown in **Figure 2**, most of the identified strategies (or a slightly modified version of the strategies) from the 2015 Plan have become ongoing regular activities through BCDCOG's administration of the rural and urban transit systems.[31]

FIGURE 2: *Status of 2015 Strategies*

PREVIOUSLY-IDENTIFIED NEEDS	2015 STRATEGIES	STATUS THROUGH 2021
ADMINISTRATION: Explore non-traditional transit options	Conduct a pilot project to subsidize taxi, private transportation providers, or ride-hailing (Transportation Network Companies) services for medical trips	Ongoing: CARTA partnered with Uber and UZURV to launch CARTA OnDemand in February 2021 to provide subsidized transportation to medical appointments, including dialysis
	Create a specific shuttle service for dialysis patients	
	Coordinate volunteer transportation for passengers receiving cancer treatment	Incomplete: No progress to-date
	Examine the potential for a water shuttle	Incomplete: In 2018, CARTA identified a potential ferry route between Daniel Island and downtown Charleston; however, this service did not advance to a pilot project[32]

PREVIOUSLY-IDENTIFIED NEEDS	2015 STRATEGIES	STATUS THROUGH 2021
ACCESSIBILITY: Improve physical access to bus stops	Hire new transit planning staff with a focus on improving the accessibility of bus stops	Ongoing: BCDCOG expanded its transit planning team in 2019 to include a staff member focused on bus stop amenities and accommodations
	Develop uniform design guidelines for bus stops within the region, including guidance for temporary shelter locations during roadway construction and ADA-compliant sidewalk and curb ramp access	Ongoing: CARTA's Board of Directors adopted the Transit & Bus Stop Design Guidelines in December 2021; however, the document does not include guidance on temporary shelters during roadway construction
	Work with municipal and human service providers to install new transit shelters with enhanced amenities	Ongoing: Between 2016 and 2021, CARTA installed 54 shelters, 31 benches, 9 bike racks, 14 digital signs, over 130 solar lights, and 4 new Park-&-Ride lots. Many of these additions were made possible through partnerships with local businesses and municipalities
	Coordinate the location of major bus stops near human service providers, concentrate future development/ redevelopment near high-frequency transit routes, and examine the role of transit-oriented development as a way to support land use plans	Ongoing: the Shipwatch Square Transit Center (expected completion -2024) will be co-located with a library, Social Services Hub, and substance abuse treatment facility
		Ongoing: BCDCOG is currently planning the Lowcountry Rapid Transit system and completing a related Transit-oriented Development Study

PREVIOUSLY-IDENTIFIED NEEDS	2015 STRATEGIES	STATUS THROUGH 2021
ACCESSIBILITY: Improve accessibility of route information	Update CARTA website so that it is more user-friendly	Ongoing: BCDCOG revamped CARTA's website in 2017 and plans to make further changes as part of a 2022 scheduled rebranding
	Develop a mobile smartphone app to provide passengers with route and real-time bus arrival information	Ongoing: BCDCOG launched the mobile "Transit" app in 2017 and the "MyTCLink" app in 2019
	Install updated transit route maps at bus shelters	Ongoing: BCDCOG redesigned route and system maps following a Comprehensive Operational Analysis of CARTA in 2017 and plans to redesign its transit shelter maps as part of a 2022 scheduled rebranding
	Develop a "bus buddies" program to pair experienced bus riders with interested but hesitant bus riders	Ongoing: BCDCOG established the CARTA Transit Ambassador program in the early 2010s and TriCounty Link offer a "Travel Training" program
ACCESSIBILITY: Expand route frequency and coverage	Expand transit coverage, including greater rural coverage, longer hours of operation, and extended weekend availability	Ongoing: Added CARTA Route 33 in 2016, increased frequency on CARTA Route 31 and CARTA Route 32 in 2021, expanded weekend service, and implemented Hospitality on the Peninsula (H.O.P.) route with service until 2:00 AM (temporarily discontinued due to COVID-19 pandemic)
	Study the potential for fixed-guideway bus rapid transit service with dedicated right of way to improve transit travel times	Ongoing: BCDCOG is currently planning the Lowcountry Rapid Transit system and completing a related transit signal prioritization pilot project along Dorchester Road

PREVIOUSLY-IDENTIFIED NEEDS	2015 STRATEGIES	STATUS THROUGH 2021
COORDINATION: Improve coordination among transportation agencies, human service agencies, 211 centers, and local communities	Convene regular advisory board meetings to track progress towards implement of the Plan	Ongoing: "Human Service Transportation Partners" meetings convened regularly between 2015 and 2019 (temporarily discontinued during the COVID-19 pandemic)
	Create new advisory board subcommittees to improve the public perception of transit, to change perceptions of who rides transit, and to advocate for transit issues at State Coordinating Council	Ongoing: CARTA established two Transit Rider Advisory Committees (TRACs) for fixed-route and Tel-A-Ride services in 2017
	Use new advisory boards to conduct workshops with potential stakeholders and business groups	Incomplete: No progress to-date

Strategies not yet completed include the previously proposed BCDCOG-coordinated volunteer transportation services, dedicated funding for a water shuttle, employer workshops, and continued advisory group meetings for implementing the 2015 plan.

This Plan is one piece of a puzzle of transportation plans addressing regional transportation needs. The Plan works in conjunction with BCDCOG's Regional Transit Framework and the region's long-range transportation plans to support a broader vision of regional mobility.
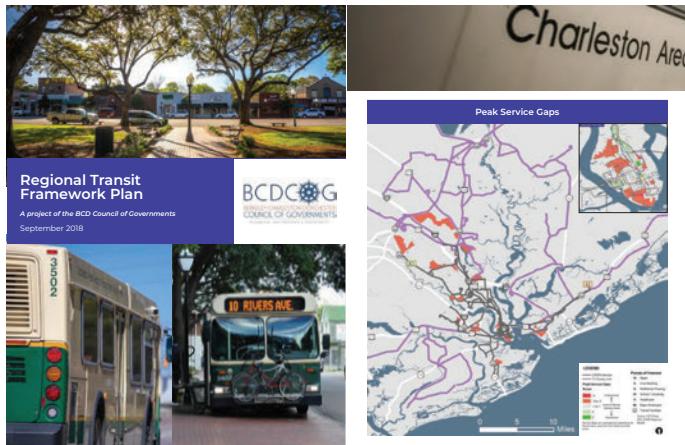
Regional Transit Framework Plan

This document sets the foundation for transit investments in the tri-county region, including fixed-route bus, express bus, bus rapid transit, bus rapid transit lite, and microtransit zones. To inform the recommendations in this framework, BCDCOG completed a transit needs assessment to identify where gaps in transit service exist for concentrations of youths, older adults, people with disabilities, low-income residents, and zero-vehicle households.

BCDCOG found that the highest transit need for these groups existed in downtown Charleston (near East Bay Street, south of US-17, and near Beaufain Street), in West Ashley (along Ashley River Road), in North Charleston (along Dorchester Road, Ashley Phosphate Road, and Otranto Road), in Goose Creek (along Harbour Lake Drive), and near Hanahan (between I-526 and Yeamans Hall Road)[33].

Long-range Transportation Plans

The metropolitan and rural[34] long-range transportation plans (LRTPs) prioritize spending on federal funds for transportation projects in the tri-county region, including highways, roads, bridges, transit facilities and service, and micromobility facilities. As part of the metropolitan or CHATS LRTP[35], BCDCOG completed an equity analysis that identified the concentration of vulnerable populations, including older adults and people with disabilities[36].

The greatest concentration of vulnerable communities was identified along the edges of Dorchester and Berkeley counties and in the downtown areas of Charleston and North Charleston.

Both regional LRTPs are shared with SCDOT to help inform their *Statewide Multimodal Transportation Plan*[37], and then incorporated into the CHATS, rural, and state Transportation Improvement Programs (TIPs). TIPs essentially function as short-term budgets for prioritized transportation projects with dedicated federal funding attached to them. Projects must be programmed in the regional and statewide TIPs to be eligible to receive federal funding.

BCDCOG's first mobility manager shares the benefits of the Lowcountry Go program with elementary school student

BCDCOG established its Mobility Management program in 2007 following adoption of the first volume of this Plan. The program uses the following Transportation Demand Management (TDM) strategies to encourage a shift from single-occupancy motor vehicle trips to lower-impact modes of travel:

+ Promotes regional ridematching initiatives like carpooling and vanpooling
+ Supports an "Emergency Ride Home" program to reimburse people that planned on sharing a ride through the program, but had a change in plans and needed to use a taxi or other private transportation service to get home
+ Helps employers incorporate flex time, teleworking, compressed work week, and staggered work hours
+ Encourages people to walk, bicycle, ride transit, and live near transit stops

Timeline

2011
- BCDCOG launched "Trident Rideshare", an online ridematching platform accompanied by Emergency Ride Home reimbursement

2013
- SCDOT finalized the Corridor Analysis for I-526 between North Charleston & West Ashley which included an employer survey and presented a menu of commuter-, employer-, and operations-based TDM strategies

2017
- BCDCOG completed employer and employee surveys to learn more about existing commuter travel behaviors
- BCDCOG finalized the Commuter Services Program Guide, a marketing plan for launching of a rebranded version of the "Trident Rideshare" platform

2018
- BCDCOG launched the "Lowcountry Go" platform for desktop and mobile[38], a successor program to "Trident Rideshare"
- BCDCOG promoted the platform through a "LowGoTober" marketing campaign with gift baskets as incentives for participation[39]

2020
- The COVID-19 pandemic drastically changed travel behaviors

2021
- SCDOT finalized the I-26 Corridor Management Plan which identified pinch points and safety conditions along the corridor but only briefly discussed potential TDM strategies[40]

PROJECTS

Three ongoing projects directly impact older adults, people with disabilities, and low-income residents.

LOWCOUNTRY RAPID TRANSIT SYSTEM
When built, LCRT will be South Carolina's first mass transit system providing a combination of transit signal prioritization and dedicated right of way for transit trips between downtown Charleston's medical district and the Exchange Park Fairgrounds in Ladson.

HEALTHY FOOD ACCESS STUDY
An ongoing study of transportation-related options for improving healthy food access to residents in Charleston's "Neck Area".

CARTA ON-DEMAND PILOT PROGRAM
An ongoing pilot program to subsidize Uber and UZURV trips to medical appointments for older adults and people with disabilities.

Legend:
— Proposed LCRT Alignment
▨ NCMM Food Access Project Area
▭ CARTA OnDemand Service Area

FIGURE 3: *Ongoing Projects*[41]
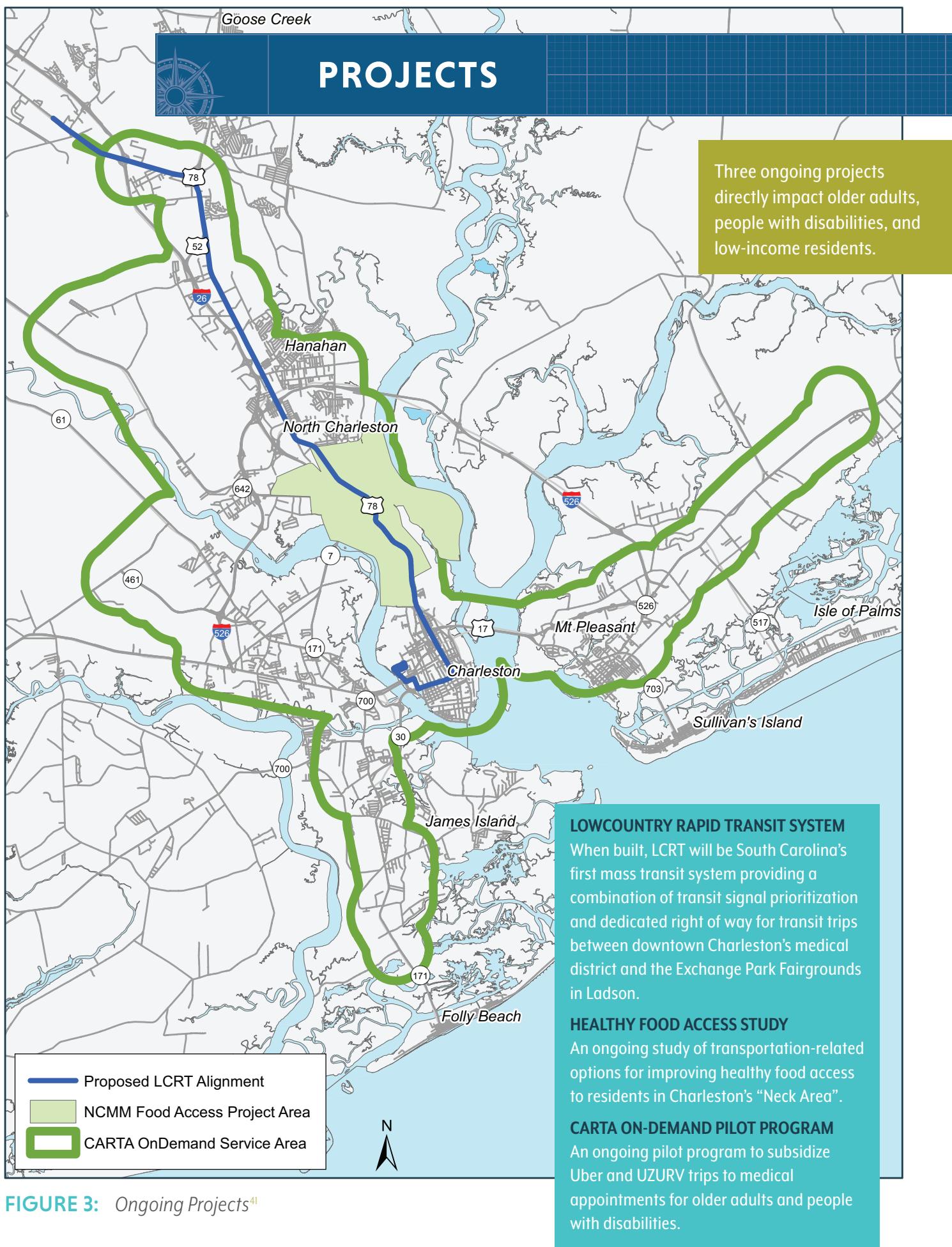
To inform the needs assessment and proposed strategies identified in the subsequent sections of this Plan, the BCDCOG engaged the general public and conducted targeted outreach to stakeholders from human service providers and advocacy groups.

Community Survey

BCDCOG conducted a community survey targeted towards potential end users of this Plan's proposed strategies. BCDCOG received 272 responses to our 13-question survey over a three-week period between late May and early June of 2021.

Figure 4 shows that the survey largely captured responses from people self-identifying into one or more of the transportation disadvantaged groups. In addition, efforts were made to reach rural areas of the region. The survey collected responses from 38 of the tri-county region's 81 zip codes as shown in **Figure 5**. The survey instrument can be found in Appendix B.

FIGURE 4: *Demographics of Community Survey Respondents (n=391)*

Drop-off and pick-up locations for physical surveys (libraries, post offices, and townhalls)

Responses by Zip Code
- 1- 2
- 3-4
- 5-7
- 8-11
- 12-29

Disabilities Board of Charleston County and N. Charleston Senior Centers

FIGURE 5: *Community Survey Drop-off Locations*
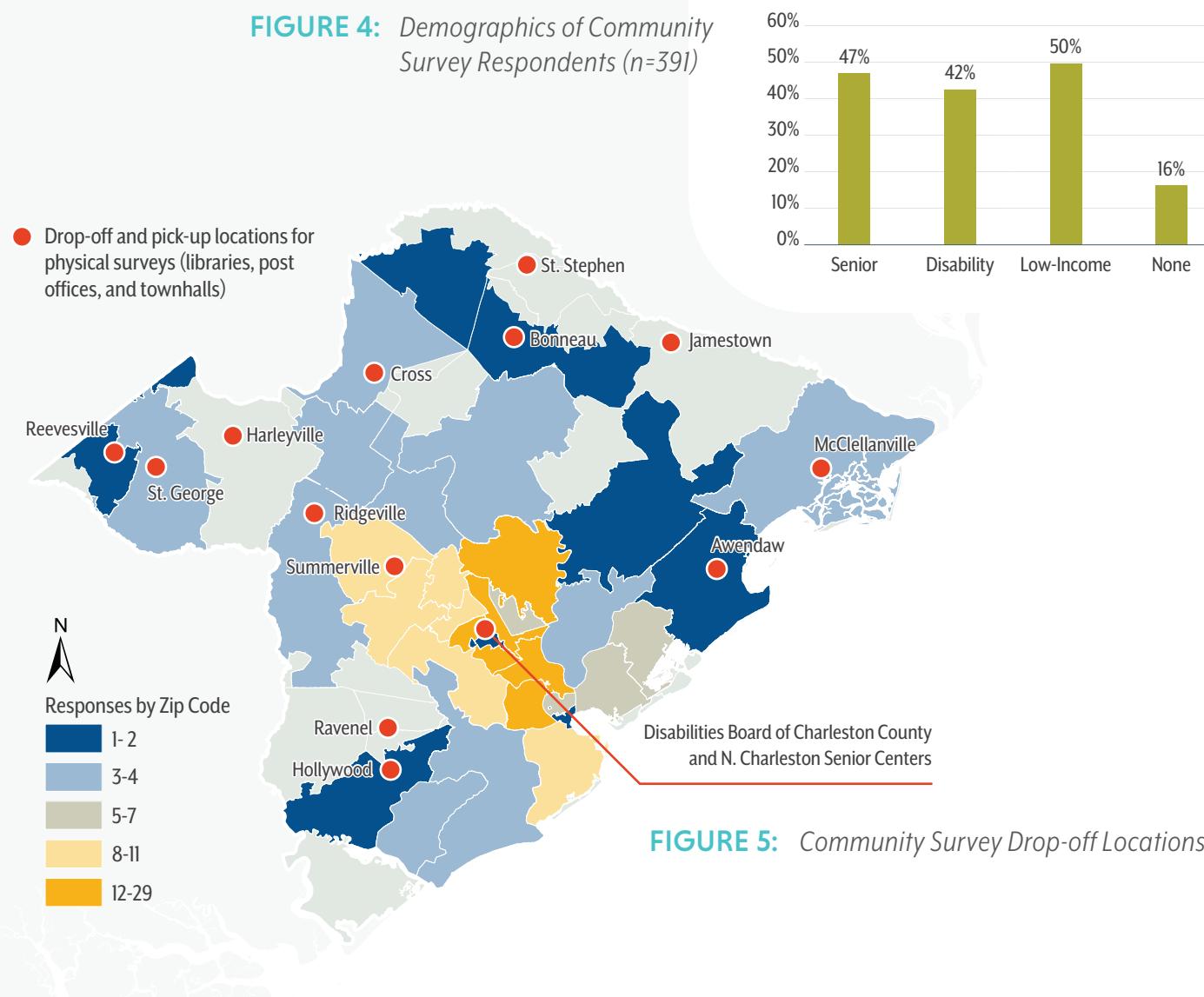
Stakeholder Survey & Group Virtual Meeting

BCDCOG received 11 responses from human service providers and advocacy groups to a 10-question survey in December 2020. See Appendix C for the survey instrument. The results of the survey were discussed at a virtual meeting in January 2021 (the ability to meet in person was limited due to the COVID-19 pandemic).

In total, 12 representatives from different human service providers and advocacy groups attended the meeting. Attendees provided feedback related to technology, customer service, public transportation system improvements, infrastructure, and changing demographics. Much of the discussion was centered around the responses to the survey, with attendees elaborating on the unmet needs that they had previously identified.

Stakeholder One-on-One Discussions & Prioritization Virtual Meeting

Between December 2021 and January 2022, BCDCOG held one-on-one discussions with representatives from 23 different human service providers and advocacy groups, plus public transit staff. At the end of January 2022, eight stakeholders participated in a virtual meeting to complete an exercise to inform this Plan's priorities.

The proposed strategies within this Plan are organized by the following four goal areas:

Goal 1: Administration

Adopt policies, conduct training, and provide customer service that is responsive to the needs of transportation-disadvantaged populations

Goal 2: Accessibility

Build and maintain transportation accommodations that serve the needs of people of all ages and abilities

Goal 3: Partnerships

Create a venue for transportation providers and "human service" agencies to discuss needs, opportunities, and funding

Goal 4: Coordination

Forge agreements for expanding services, reducing costs, or fostering resiliency through shared transportation responsibilities

Goal 1

ADMINISTRATION

Goal Objective

Adopt policies, conduct training, and provide customer service that is responsive to the needs of transportation-disadvantaged populations.

Section Navigation

Objective 1.1: CARTA Tel-A-Ride

Improve existing and potential Tel-A-Ride passengers' satisfaction with the application process, communication of existing policies, and travel times

● **Strategy 1.1.1:** Tel-A-Ride Application

Simplify the CARTA Tel-A-Ride application process to reduce the burden on applicants and to help a potential applicant pre-screen whether the origin and destinations of their trips are within the service boundary

● **Strategy 1.1.2:** Tel-A-Ride Processing

Monitor the length of time it takes for an ADA Eligibility Specialist to review a Tel-A-Ride application and notify an applicant if they qualify

● **Strategy 1.1.3:** Tel-A-Ride Boundary

Study the financial feasibility of expanding the Tel-A-Ride boundary from a ¾-mile radius around CARTA's fixed-route bus system to the full municipal boundaries of cities in which CARTA's fixed-route system operates or identify potential Park-&-Ride locations within the existing Tel-A-Ride boundary that have comfortable waiting areas and can serve as pick-up "islands" for people who do not live in the service boundary

● **Strategy 1.1.4:** Ride Pooling System

Evaluate the existing ride combining software/process for CARTA's pre-scheduled Tel-A-Ride system and compare to alternative options

> *Paratransit refers to any shared ride public service intended to serve as a safety net for people with disabilities that are unable to ride a system's standard bus service.*

CARTA Tel-A-Ride

Responsibilities for the Charleston region's urban public transit system - Charleston Area Regional Transportation Authority (CARTA) - are shared by BCDCOG and its private sector contractor, Transdev. BCDCOG oversees the system's administrative and planning tasks while Transdev manages its day-to-day operations (hiring drivers, training drivers, and maintaining CARTA vehicles).

Although the largest share of CARTA trips take place on its fixed-route bus network, some passengers with mobility impairments require supplementary support to ease the burden of traveling to and from bus stops[42]. Unlike the fixed-route network that travels between designated bus stops, CARTA Tel-A-Ride provides a pre-scheduled "curb-to-curb" service.

CARTA's existing "curb-to-curb" policy for paratransit service means that it is the rider's responsibility to meet the driver at the curb. As a safety precaution, drivers are required to stay with their vehicles and passengers. Drivers may assist passengers in and out of the vehicle, but they cannot assist riders up and down steps or ramps, and under no circumstances are drivers permitted to enter a passenger's residence.

Tel-a-Ride is available on a first come - first serve basis, so passengers must make advanced reservations. Eligible passengers can schedule a trip with Tel-A-Ride 1 to 14 days in advance by calling the Tel-A-Ride office any day of the week between 8:00 AM and 5:00 PM. During the day of the trip[43], CARTA strives to arrive within 15 minutes of the passenger's scheduled time. Drivers pick up passengers directly outside of their selected pick-up location and then drop the passenger off at their selected destination.

If a passenger is returning from a medical appointment and the exact time of their return trip cannot be scheduled in advance, the passenger can call the Tel-A-Ride office when they are ready to return. However, this may mean that a passenger may have to wait for an extended period of time before the Tel-A-Ride vehicle arrives. If a passenger needs to use Tel-A-Ride for a regularly recurring trip, such as commuting to work or school, they can join Tel-A-Ride's subscription service and bypass the need to individually schedule their trips.

Service Boundary

The current Tel-A-Ride service boundary for pick-up and drop-off locations, as shown in **Figure 6**, is limited to a ¾-mile buffer around CARTA's fixed-route transit network. This includes all of the Charleston peninsula and portions of Hanahan, Isle of Palms, James Island, Mt. Pleasant, North Charleston, and West Ashley[44].

Surveys conducted during the Mount Pleasant Transit Study (2020) showed a need for expanded transportation options for older adults. One option recommended in the study was the expansion of the Tel-A-Ride service boundary to include the entire Town limits of Mt. Pleasant. Potential funding sources identified for this expansion included sponsorships from private partners or transportation fees tied to senior center memberships.

Eligibility

To qualify for Tel-A-Ride service, a resident with a mobility impairment must submit an application to CARTA[45]. The first part of the application form includes questions about disability type, mobility-aid devices, and the need for a personal care attendant (for more information on personal care attendants see "Operator Interactions on **page xx**). The second part of the application form requires a licensed healthcare professional to verify the applicant's disability.

Once the application is physically mailed or personally delivered to CARTA, applicants will be notified of approval within 21 days. Approved applicants will receive a notification letter by mail, along with instructions on how to have a Tel-A-Ride photo identification card created at CARTA's offices in North Charleston so that they can begin using the service.

TriCounty Link's Deviated-Route Service

The Rural Transportation Management Authority (BCD RTMA) operates ten fixed routes and four commuter routes in rural (and some limited urban) areas of the tri-county region under the banner of TriCounty Link. TriCounty Link is a "flag-stop" system, meaning that there are no designated stops along the route. Instead, riders are able to wave down the bus anywhere along the route for pickup. Although TriCounty Link does not have a standalone "paratransit" service like CARTA Tel-A-Ride, eligible TriCounty Link passengers can request deviated route service along TriCounty Link's ten fixed routes.

TriCounty Link will deviate off established non-commuter routes up to ¾-of-a-mile (see **Figure 7**)[46]. Eligible TriCounty Link deviated-route passengers are picked-up and dropped-off at the curb, and passenger assistance to and from the door is offered as needed and when conditions allow. Passengers can make one free transfer between TriCounty Link and CARTA per trip.

To qualify for TriCounty Link's deviated-route service, passengers must mail-in a completed application form[47] and take part in an in-person interview with a member of TriCounty Link staff to establish that the passenger is unable to use TriCounty's commuter and fixed-route services. Applicants receive an eligibility determination from TriCounty Link within 21 days after completing their application. If after 21 days, a decision has not been made, an applicant will be temporarily allowed to use TriCounty Link's deviated route service until a determination on their application is made.

FIGURE 7: *TriCounty Link's Deviated-route Service Boundary*
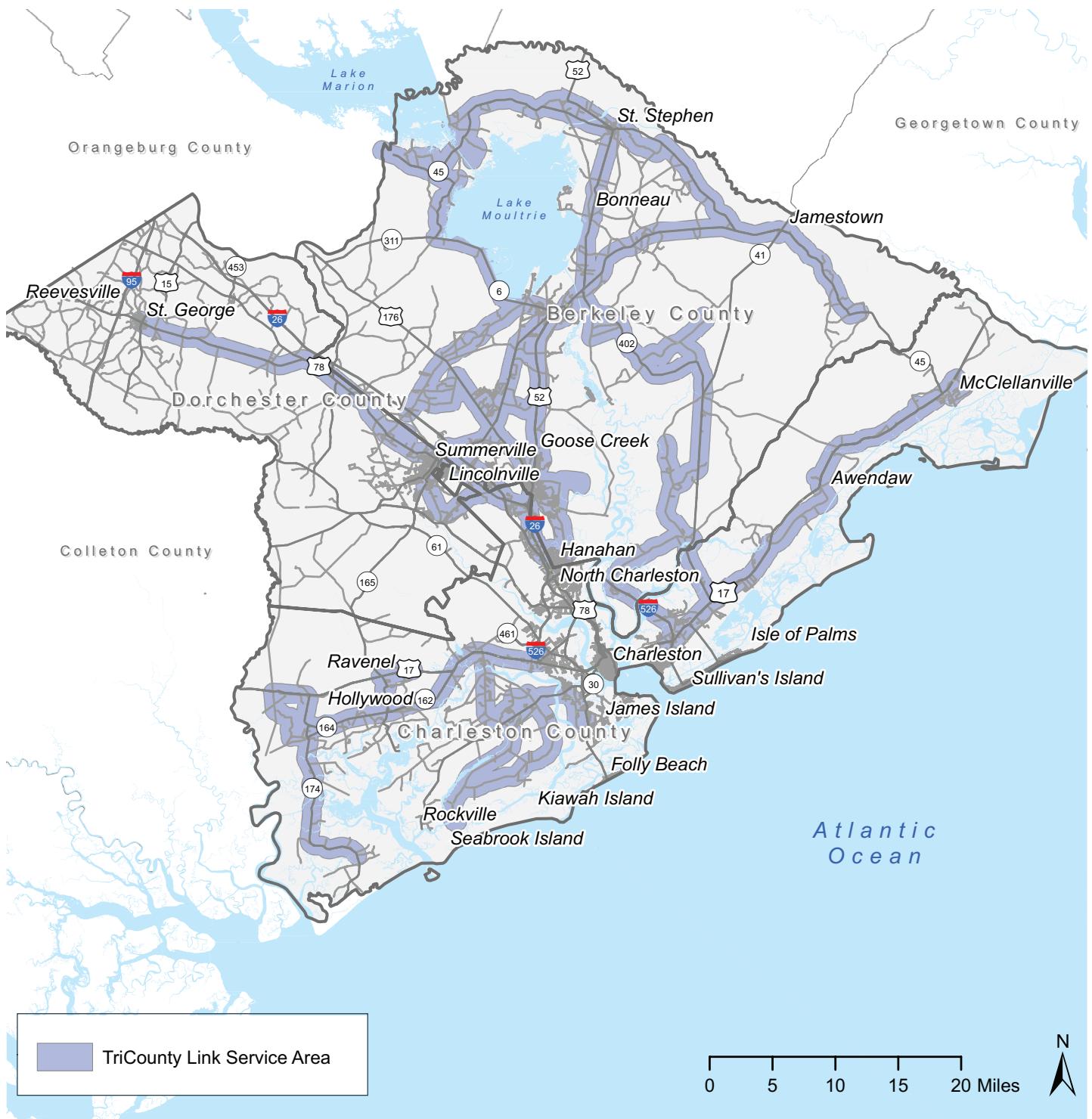
Stakeholder Feedback

CARTA's Tel-A-Ride service fulfills a significant need in public transit service for people with mobility impairments, but the application and ride scheduling process may need to be modernized. During one-on-one interviews, stakeholders highlighted the following issues with the Tel-A-Ride application process and service:

+ The application form is long and time-consuming to complete
+ For applicants that are comfortable with technology or that can receive assistance from someone that is comfortable with technology, an electronic option would be appreciated and may help make it easier and quicker to receive verification from a licensed healthcare professional
+ The combined time needed to exchange correspondence by mail, for CARTA to review an application, and to create a new photo identification card is long
+ Limited access to a map of the Tel-A-Ride service area boundary results in applicants receiving approval, but then later finding out that their trips are outside of the service area
+ The system used to combine rides often leads to passenger trips that feel inefficiently matched with one another

Objective 1.2: Demand-Responsive Service

Supplement non-emergency medical trips through technology-enabled, demand-responsive services

- **Strategy 1.2.1: Marketing Campaign**

  Continue to promote the CARTA OnDemand pilot program through a specific marketing campaign targeted towards existing Tel-A-Ride customers, senior centers, and churches

- **Strategy 1.2.2: Expand Destination List**

  Actively solicit suggestions for medical facilities that could be added to the list of eligible destinations for the CARTA OnDemand service from human service providers, existing and potential CARTA OnDemand customers, and directly from medical providers

- **Strategy 1.2.3: Monitor Usage**

  Track and regularly report the number of CARTA OnDemand trips to include the origin and destination of the trips and customer demographics to inform the potential conversion of the program to a permanent service

CARTA

ONDEMAND

Powered by **Uber**

Predicting the overall time it will take to complete a medical appointment can be difficult, which can make it tough to pre-schedule a trip home with paratransit services. Both the 2007 and 2015 versions of this Plan indicated a need to improve regional transportation services for non-emergency medical trips beyond Tel-A-Ride.

CARTA OnDemand

To address this need, CARTA began a new partnership called CARTA OnDemand in February 2021 to provide a "demand-responsive" service, eliminating the need to schedule a day in advance like with Tel-A-Ride, specifically for pre-scheduled, non-emergency medical appointments.

CARTA partnered with Uber and UZURV, two Transportation Network Companies (TNCs), to subsidize the service for older adults and people with disabilities (passengers only pay $4 for individual trips costing up to $25 and any additional costs beyond $25)[48]. Transportation Network Companies are ridehailing services that (typically) connect automobile owners driving personal vehicles with fee-paying passengers for short trips. Usually, the route scheduling and payment takes place over a smartphone app, and examples include Lyft and Uber.

Policies for both companies include accommodating people with service animals, and UZURV drivers are trained to help passengers in and out of vehicles, similar to Tel-A-Ride drivers.

While the program began as a small pilot limited to just medical trips beginning and ending within Charleston's peninsula, the service area was expanded in August 2021 to match the boundaries of Tel-A-Ride. The parameters of the program changed once again in February 2022 when the medical trip requirement was lifted, enabling customers to use CARTA OnDemand for any trip purpose within the service area. **Figure 8** shows a jump in use of the service following the change in the boundary in July 2021.

Eligibility

Existing Tel-A-Ride passengers automatically qualify for CARTA OnDemand service and only have to notify CARTA of their interest to be added to Uber and UZURV's internal systems. The only qualification for non-existing Tel-A-Ride passengers interested in using CARTA OnDemand is age: Applicants have to fill out a short, online or mail-in application demonstrating that they are at least 55 years old.

Service Boundary

CARTA OnDemand is limited to a specific service area that mirrors the CARTA paratransit service area with the exception of the Sullivan's Island and Isle of Palms communities. Service hours are on weekdays from 7:00 AM to 5:00 PM.

FIGURE 8: *CARTA OnDemand Usage*

UBER

UZURV

	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
UBER	4	1	3	2	3	8	19	20	29	35	30
UZURV	4	8	2	6	3	5	22	22	20	19	13
Total	8	9	5	8	6	13	41	42	49	54	43

The CARTA OnDemand pilot service area expanded from downtown Charleston to the full CARTA service area in August 2021
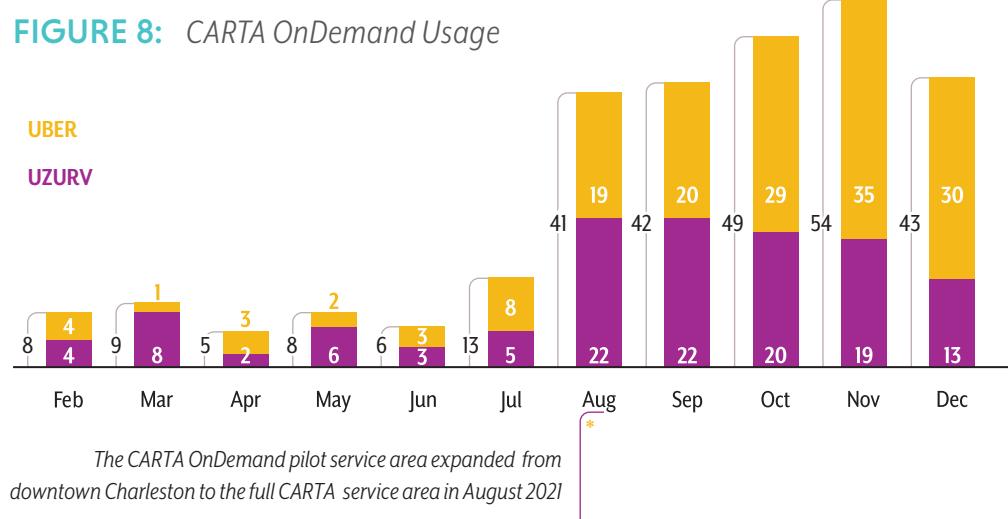
Additional Demand-Response Service

With continued success, the CARTA OnDemand pilot service may open the door to future demand-responsive public transportation throughout the region. While demand-responsive service can focus on specific demographics, like older adults and people with disabilities, it can also target a specific geographic area in which the population and employment density is too low to support fixed-route service. In addition to taking passengers directly to their destination, demand-responsive service can also be designed to help transit passengers close the gap in traveling the first or last few miles to a transit stop. TNC companies such as Via and Spare offer microtransit technology platforms for transit vehicles which can enable agencies to directly operate demand-response service.

Phase II of the Mount Pleasant Transit Study (2020)'s recommended developing on-demand service in areas of Mt. Pleasant where fixed-route transit service was less financially feasible. As shown in **Figure 9**, the study conceptualized an on-demand service area spanning approximately 20 square miles roughly from Brickyard Parkway/Hamlin Road to the eastern Town boundaries. The service could include "door-to-door" pick-ups or pre-determined stops, and it could allow for passengers to transfer to CARTA Route 40.

FIGURE 9: *Potential Mt. Pleasant Demand-responsive Service Area*
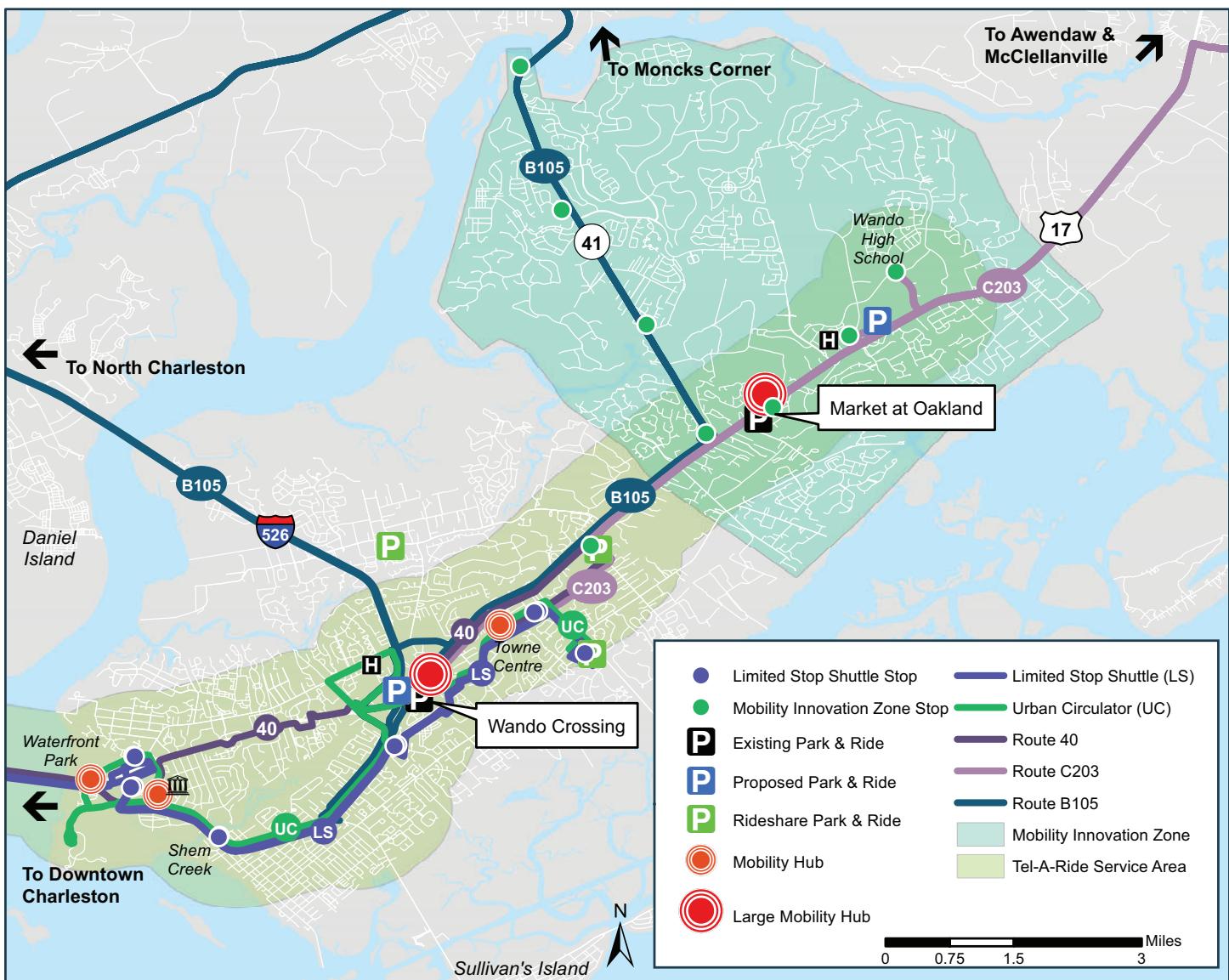
Similarly, BCDCOG's Regional Transit Framework Plan (2018) recommends improving suburban circulation or connecting areas with low population and employment density to high-capacity transit through demand-responsive service along:

+ Folly Road (James Island)
+ US-17 (Mt. Pleasant)
+ Rivers Avenue (Goose Creek)
+ Glenn McConnell Parkway (West Ashley)
+ Dorchester Road, Old Trolley Road, and Main Street (Summerville)
+ Seasonal routes (Folly Beach and Isle of Palms)

BCDCOG's current US-52 Corridor Study (anticipated 2022) also proposes the use of demand-responsive service, with the goal of supplementing existing TriCounty Link service in rural areas of Berkeley County. These recommendations align with the recommendations for replacing select TriCounty Link routes with demand-responsive services in BCDCOG's TriCounty Link Routes evaluation report (2014)[49].

Stakeholder Feedback

Use of CARTA OnDemand grew gradually over the first year of the pilot program. Figure 8 illustrates the number of individual trips completed as part of the CARTA OnDemand pilot program, showing a spike in usage after the service boundary was expanded in August 2021. While usage has been relatively limited, one-on-one discussions and community survey responses indicated that there is likely greater demand for it but that general awareness of the program does not yet exist. In the community survey, 49% of respondents indicated an interest in demand-responsive service. When sorted by modes of travel that respondents use regularly, the percentage of respondents interested in demand-responsive service jumped to 60% of Tel-A-Ride users, 75% of existing taxi/rideshare users, and 79% of existing transit riders. This may suggest that as people become more familiar with ridesharing services, they may be more willing to use CARTA OnDemand.

Addressing the digital divide among residents has been an ongoing issue in the region and across the country. During a survey conducted for the "Neck Area" Healthy Food Access project, smartphone access and a lack of willingness to share credit card information with a technology company were identified by survey respondents as the second greatest barrier to use of TNCs behind overall costs. A 2021 Pew Research Center survey found that 97% of U.S. adults with a household income of $100,000 or more had access to a smartphone. The percent dropped to 87% for adults with a household income of $30,000 to $99,999, and then to 76% for adults with a household income of less than $30,000[50]. ACS 5-year estimate data (2019) shows that 8% of the region's residents do not have access to a smartphone, computer, laptop, or tablet[51], and 20% of residents do not have access to the internet at home (dial-up or broadband)[52].

Although there is some evidence to suggest that the gap in access to smartphones and the internet may be closing for older adults, people with disabilities, and low-income residents[53], some stopgap services do exist to help provide access to smartphone-based applications with the need for owning a smartphone. One option to help close this divide may be GoGo Grandparent, a company that allows older adults and people with disabilities the option to access services like Uber or Lyft without a smartphone for an additional fee. Users can speak with a concierge directly that will help them arrange a car ride, meal delivery, grocery delivery, pharmacy delivery, or wellness checks. Local municipalities are also able to partner with GoGo Grandparent to subsidize the cost of the service for area residents[54].

Objective 1.3: Fares & Passes

Expand the number of opportunities to purchase transit passes and to access other discounted fares

● **Strategy 1.3.1:** Senior Free Ride Days

Study the financial feasibility of expanding the number of "senior FREE ride days" beyond the existing quarterly promotion

● **Strategy 1.3.2:** Multi-trip Fare Passes

Expand the number of locations at which passengers can purchase multi-trip fare passes

CARTA Fares

CARTA offers many ways to save on transportation, but accessing available discounts requires a little more work from passengers. While a typical (non-Express) fixed-route bus passenger pays $2.00 per trip, CARTA offers multiple discounts targeted towards older adults, people with disabilities, and low-income residents, as shown in **Figure 10**[55]. In addition, four times each year CARTA encourages older adults (55+) to ride transit by offering "Senior FREE Ride Days" in which older adults pay no fare.

FIGURE 10: *CARTA Discounted Fares*

DISCOUNT ELIGIBILITY	ONE-WAY FARE
Pre-qualified low-income passengers[56]	$1.25
Older adults (55+)	$1.00
People with disabilities[57]	$0.75
Pre-qualified Tel-A-Ride passengers	Free rides on fixed routes $4 for Tel-A-Ride trips
Transfers	1 free with each one-way fare

Multi-Trip Passes

Another way that passengers can save on transit trips is to purchase fares in bulk through a CARTA pass. CARTA offers a wide range of passes that can reduce the $2.00 per-trip cost for fixed-route service anywhere from $1.60 to $1.40, as well as additional bulk discounts for Express service and for unlimited 1-day, 3-day, and 7-day passes.

As shown in **Figure 11**, only 7% of CARTA passenger trips are paid using a multi-trip pass. These passes help reduce the need to provide exact change on each trip, but cannot be replaced if lost. Passengers can purchase these passes in-person at six locations[58]. CARTA provides discounted pricing of up to 15% for large bulk purchases. Human service providers and other organizations can also purchase passes in bulk and distribute them to clients.

FIGURE 11: *Percent of Trips by Passenger Fare (CARTA, 2019-2021)*

Currently, only 7% of CARTA passengers use multi-trip passes.

- **28%** Free
- **20%** Regular
- **20%** CofC/MUSC/Student Fare
- **9%** Older Adults (55+)
- **8%** Transfer
- **7%** Multi-Trip Pass
- **4%** Other
- **3%** People with Disabilities
- **2%** Low-Income Fare

Electronic Payment

Because multi-trip passes are currently only available in-person and discounts are currently only available to passengers that are willing and able to pay for the upfront costs of multiple trips, CARTA partnered with Token Transit to enable smartphone-based passes. Passengers will be able to download the smartphone application and set up direct billing to pay for trips. Once the passenger is ready to ride CARTA, all they have to do is open the application and tap it to the buses' farebox[59].

For a passenger that takes multiple trips in a given day or month, the application can be enabled to automatically apply a daily or monthly discount. For example, if a passenger takes four trips in a given day that would otherwise cost $2.00 per trip or $8.00 total, the cost of their trip will be capped at the 1-day pass cost of $7.00 for a savings of $1.00. Additional trips would lead to more savings as the customer would not be charged beyond the $7 daily pass rate for that day. CARTA anticipates the launch of the electronic payment system and integration into the CARTA route planning smartphone application in 2022.

Human service providers and other organizations will also be able to complete bulk purchases through Token Transit's electronic payment system. On completion of the purchase, the purchaser will be able to distribute the passes by email instead of physically distributing paper passes.

TriCounty Link Fares

A one-way fare on the TriCounty Link system is $2.25. Like CARTA, TriCounty Link also offers customers the option to purchase multiple trip passes at a discounted rate. A weekly unlimited pass is $18 and a monthly unlimited pass is $70. Ambulatory customers can also purchase a 10-trip pass for $22.50 while ADA eligible passengers can purchase a 10-trip pass for $40. All of TriCounty Link's ticket options can be purchased at the TriCounty Link office building in Moncks Corner or can be purchased directly from TriCounty Link drivers. TriCounty Link also allows electronic fare payment through the Token Transit app.

Stakeholder Feedback

While existing targeted discounts for public transit reach many of the transportation disadvantaged populations identified in this Plan, there remains a need to make accessing those discounts easier. Most of the existing locations to purchase CARTA passes are limited to standard business hours (weekdays from 8:30 AM to 5:00 PM). For passengers that also work during those standard business hours, they are unlikely to be able to bus to the locations that sell passes during business hours.

The anticipated implementation of a complementary electronic payment system will allow passengers with smartphones to more easily access discounted fares. However, for passengers without access to a smartphone, there may still be a need to expand the availability of in-person locations for purchasing multi-trip passes

Additionally, during one-on-one discussions with stakeholders, several noted that "Senior FREE Ride Days" were popular and that there was a desire to expand the promotion.

SENIOR FREE RIDE

Public transportation helps to keep seniors active and independent. Seniors should take advantage of these days and try CARTA and TriCounty Link for free!

Email us at *cruze@ridecarta.com* if you or a group would like travel training with CARTA and/or TriCounty Link staff

DATES OF FREE RIDES IN 2021:

March 20th (Saturday)
May 26th (Wednesday): *National Senior Health and Fitness Day*
August 21st (Saturday): *National Senior Citizen Day*
December 11th (Saturday)

FOR INFORMATION

Visit: www.ridecarta.com or call (843) 724-7420 for CARTA information regarding routes and schedules

Visit: www.ridetricountylink.com or call (843) 899-4098 for TriCounty Link information regarding routes and schedules

Objective 1.4: Customer Service

Complete a high-level review of logged passenger comments and work to ensure that ADA-specific complaints are thoroughly addressed

● **Strategy 1.4.1:** Patterns of Complaints

Review the customer service department's comment log to identify potential recurring issues
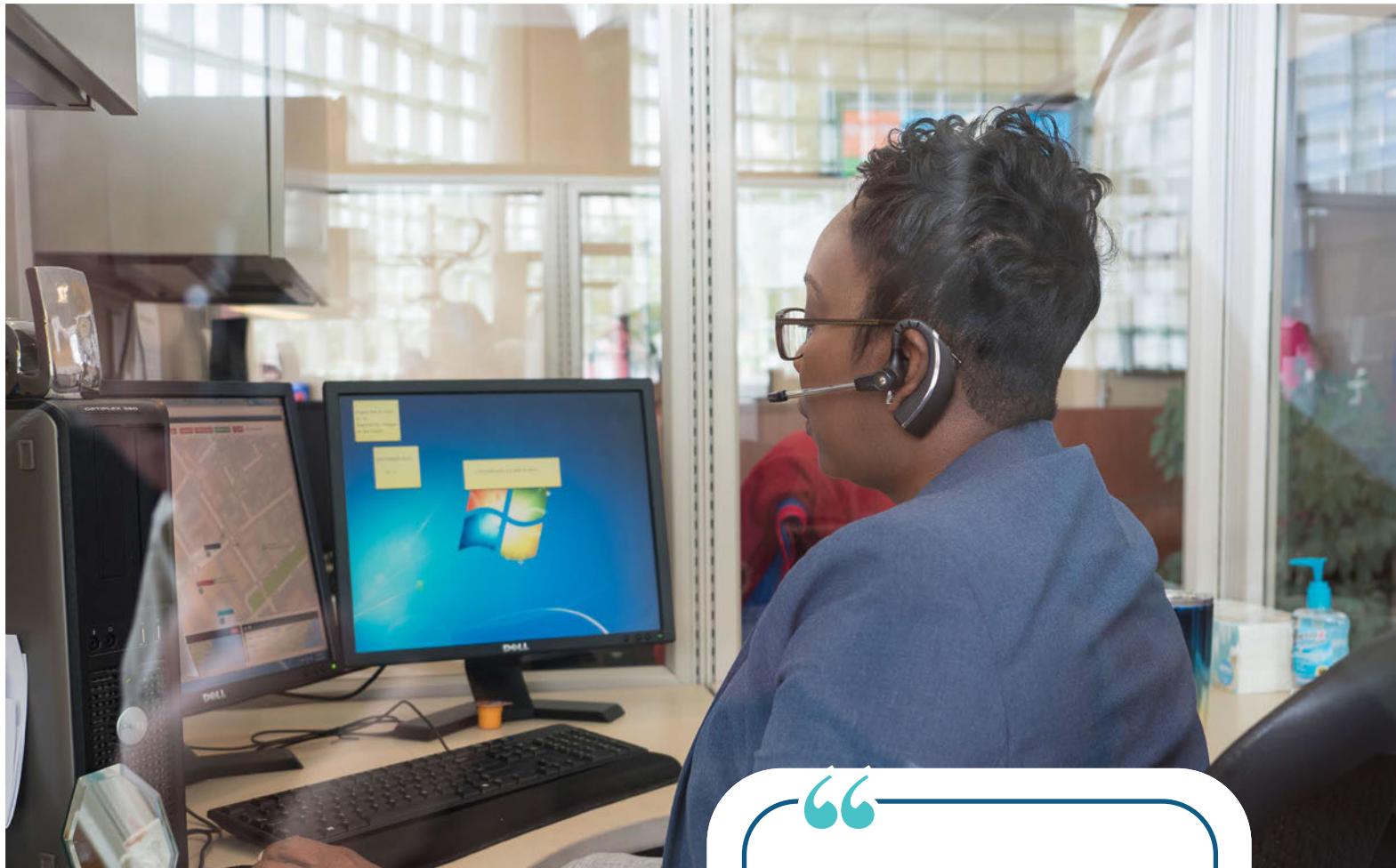
> *If something needs attention, CARTA and TriCounty Link are committed to systematically tracking it through our customer service department so that service can be improved.*

CARTA Customer Service

CARTA's customer service department supports the entire CARTA system. The team's customer service supervisor leads a five-person department which can be reached by phone, voicemail, chat, mail, or through the online contact form on weekdays from 7:00 AM to 9:00 PM and on weekends and holidays from 8:00 AM to 8:00 PM. The team helps passengers access bus arrival and route information (including detours), communicates CARTA policies and procedures (including lost and found), and fields complaints (and compliments!).

The team tracks all comments and complaints within a database, and their policy is to follow-up within 72 hours. Investigation into complaints may take up to three days to complete, at which point the team provides the passenger who submitted the complaint with a written statement and follows up with the appropriate staff to take any corrective action, if needed.

TriCounty Link Customer Service

TriCounty Link's customer service center can be reached by phone, email, or fax. Customer service is also available in-person at the TriCounty Link office building in Moncks Corner which is open weekdays from 8:00 AM to 5:00 PM.

Stakeholder Feedback

Feedback from stakeholders during one-on-one discussions indicated that stakeholders were aware of passengers that stopped using CARTA and TriCounty Link services because of one or more poor experiences. CARTA's customer service department maintains strong records of complaints which can be analyzed to see if specific recurring issues may contribute to a passenger no longer using CARTA.

Objective 1.5: Operator Interactions

Develop more formalized systems for facilitating driver interactions with older adults and people with disabilities to improve the overall passenger experience

● **Strategy 1.5.1:** Notification Card

Work with human service providers to develop a notification card system to support communication between operators and passengers with difficulty communicating verbally because of a disability" to the end of this sentence

● **Strategy 1.5.2:** Personal Care Attendants

Develop a more formal system for operators to identify personal care attendants accompanying eligible Tel-A-Ride passengers

● **Strategy 1.5.3:** Accepted Proofs of Age

Reinforce the full range of accepted proofs of age for senior fares (e.g., Medicare cards or other I.D. cards with stated date of birth) among CARTA fixed-route operators
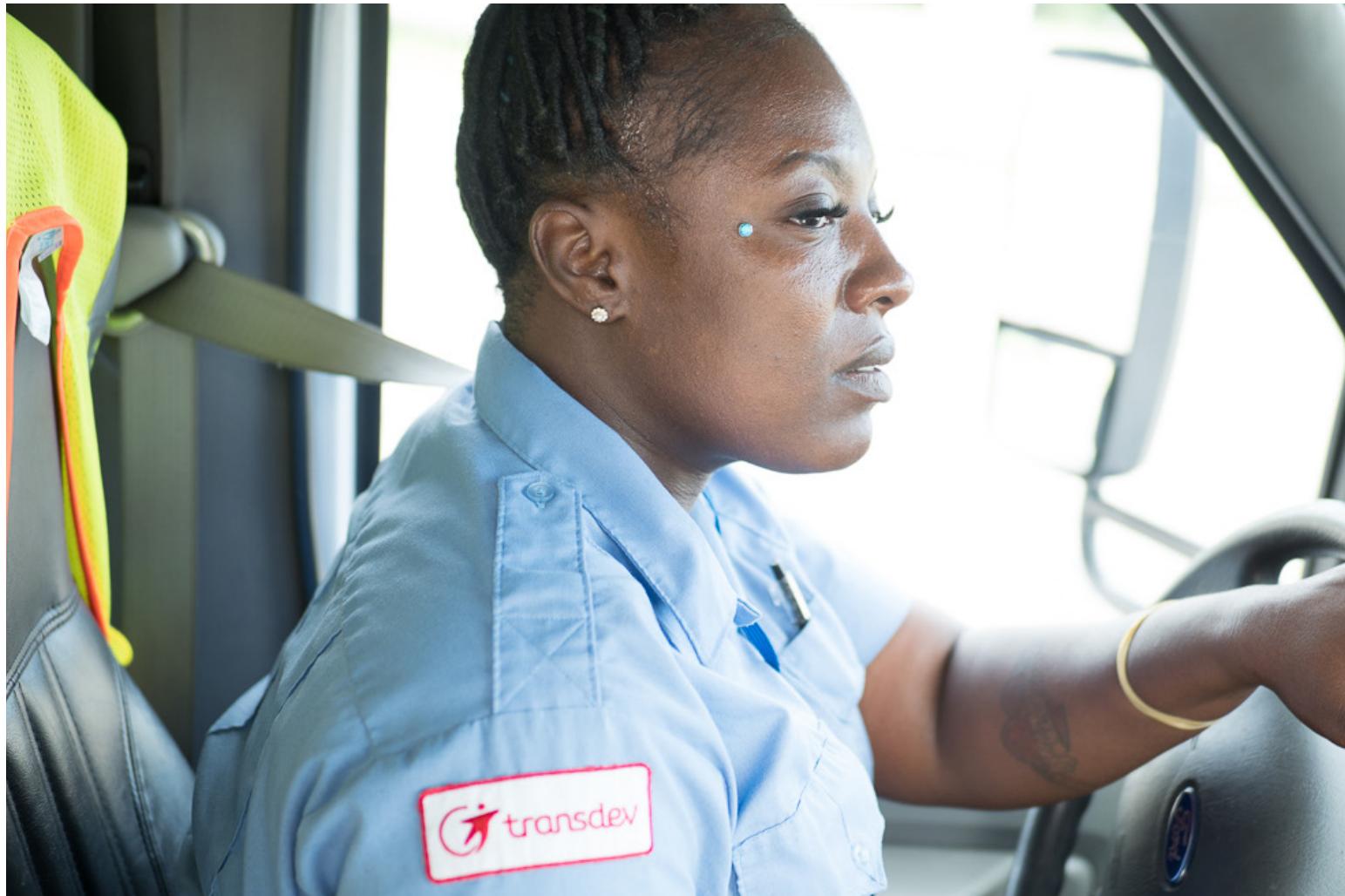
Avoiding misunderstandings between drivers and passengers requires a strong awareness of the range of disabilities that a passenger may be experiencing, as well as patience to help assist non-verbal passengers in exchanging information. Transdev training requires operators to learn the following strategies for interacting with people with disabilities:

+ Speak directly to the person rather than personal care attendant or friend
+ Always offer to shake hands when introduced
+ Always identify yourself and others you are with when meeting with someone who is blind or visually impaired
+ If you offer assistance, wait for a response and then follow instructions accordingly
+ Treat adults as adults
+ Do not lean against/hang on wheelchairs or mobility devices
+ Listen attentively to people with difficulty speaking
+ Place yourself at eye level when speaking to someone in a wheelchair
+ attempting to communicate if they are not aware you are trying to communicate with them
+ Relax – do not be overly insecure about language or figures of speech
+ Always carry a pen and paper to aid in communicating with non-verbal passengers

Personal Care Attendants

CARTA Tel-A-Ride passengers with disabilities can be accompanied by one personal care attendant to help address the passenger's personal needs while using public transit. Tel-A-Ride passengers must indicate in their application that they will be using an attendant when they travel or when they are making reservations. These attendants can accompany a Tel-A-Ride passenger at no additional cost if the rider notifies the dispatcher of a need for a PCA when making the trip reservation. If a Tel-A-Ride passenger does not reserve space in advance for their attendant, an attendant can still accompany the passenger but must pay the same fare as the passenger. Attendants may not travel alone on Tel-A-Ride services without accompanying an eligible passenger.

Similar to CARTA Tel-A-Ride, TriCounty Link allows one personal care attendant to accompany eligible passengers free of charge. Eligibility for accompaniment of a personal care attendant is documented in the passenger's letter from TriCounty Link notifying them of their eligibility to use the deviated-route service.

Stakeholder Feedback

To better accommodate all of the ways that passengers communicate, CARTA could work to formalize systems for facilitating driver interactions with older adults and people with disabilities to help improve the overall passenger experience. Stakeholders indicated a need for more consistent implementation of existing personal care attendant policies and a more formal way for attendants to be identified by drivers.

Stakeholders also noted inconsistencies in driver knowledge about what identification forms are accepted as proof of a passenger's age. While drivers receive specific training to help prepare them to work with older adults and people with disabilities, stakeholders noted a need to identify ways to ease the burden on passengers for initiating those interactions.

Goal 2
ACCESSIBILITY

Goal Objective

Build and maintain transportation accommodations that serve the needs of people of all ages and abilities.

Section Navigation

Objective 2.1: Route Information

Continue to build upon existing route information tactics with an emphasis on providing a wide-range of options to cover all comfort levels with technology

● **Strategy 2.1.1:** In-vehicle Arrival Information

Integrate automated stop announcement system that provide audio and visual cues of upcoming bus stop/station names into all procurement for new fixed-route CARTA and TriCounty Link vehicles

● **Strategy 2.1.2:** Accessible Brochures

Incorporate best practices for visual accessibility, such as large typefaces, matte paper stock, and colorblind-aware color schemes, into future route map brochures and work with people with visual impairments as a focus group for usability testing

● **Strategy 2.1.3:** Transit Ambassador Program

Analyze historic CARTA Tel-A-Ride applications to understand what percent of applicants expressed an interest in the CARTA Transit Ambassador program, consider expanding the existing Transit CARTA Ambassador program to TriCounty Link services as a more formal version of the "Travel Training" service, and provide ambassadors with a "train-the-trainer" session on using the mobile "Transit" and "MyTCLink" app features to navigate the fixed-route system

● **Strategy 2.1.4:** Web Mapping

Improve upon desktop-based companion to the mobile "MyTCLink" app by incorporating a built-in screen reader for people that are blind or visually impaired (alternatively, market existing transit planning through Google maps)

● **Strategy 2.1.5:** Real-time Bus Information

Continue to install scrolling digital information boards at high-demand bus stops to provide passengers without access to the mobile "Transit" and "MyTCLink" apps with real-time bus arrival information, as well as potential route detour information

> *Highly-accessible route information can help simplify a complicated public transit system.*

Since the last update of this Plan, BCDCOG took several steps towards making route information more accessible for CARTA and TriCounty Link passengers:

2017

- › BCDCOG launched the free mobile "Transit" smartphone app for CARTA's fixed-route system that offers step-by-step trip planning and real-time bus arrival information
- › BCDCOG implemented an automated call-in (auditory announcement) and text message (notification) alert system that allows passengers to receive CARTA fixed-route bus arrival information for the next two upcoming bus arrivals
- › BCDCOG added new, user-friendly trip planning options on CARTA's revamped website
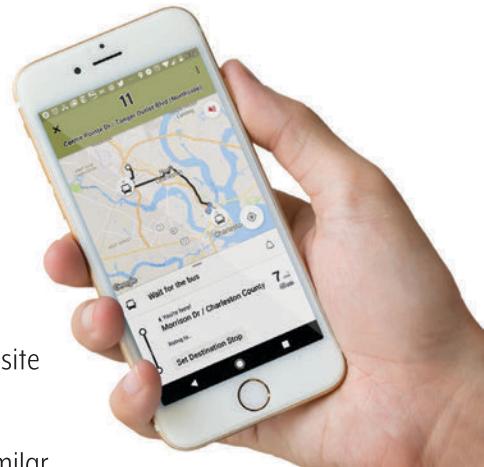
2019

- › TriCounty Link launched the free mobile "MyTCLink" smartphone app that offers similar functionality to CARTA's mobile "Transit" app

2020

- › CARTA began installing automatic voice annunciation systems on some of the newer fixed-route vehicles to provide auditory announcements when approaching stops

2021

- › BCDCOG tested and began installing scrolling digital information boards at CARTA bus stops that provide passengers with real-time bus arrival information

2022

- › CARTA anticipates completing a major rebranding effort in 2022, including a revamp of its website
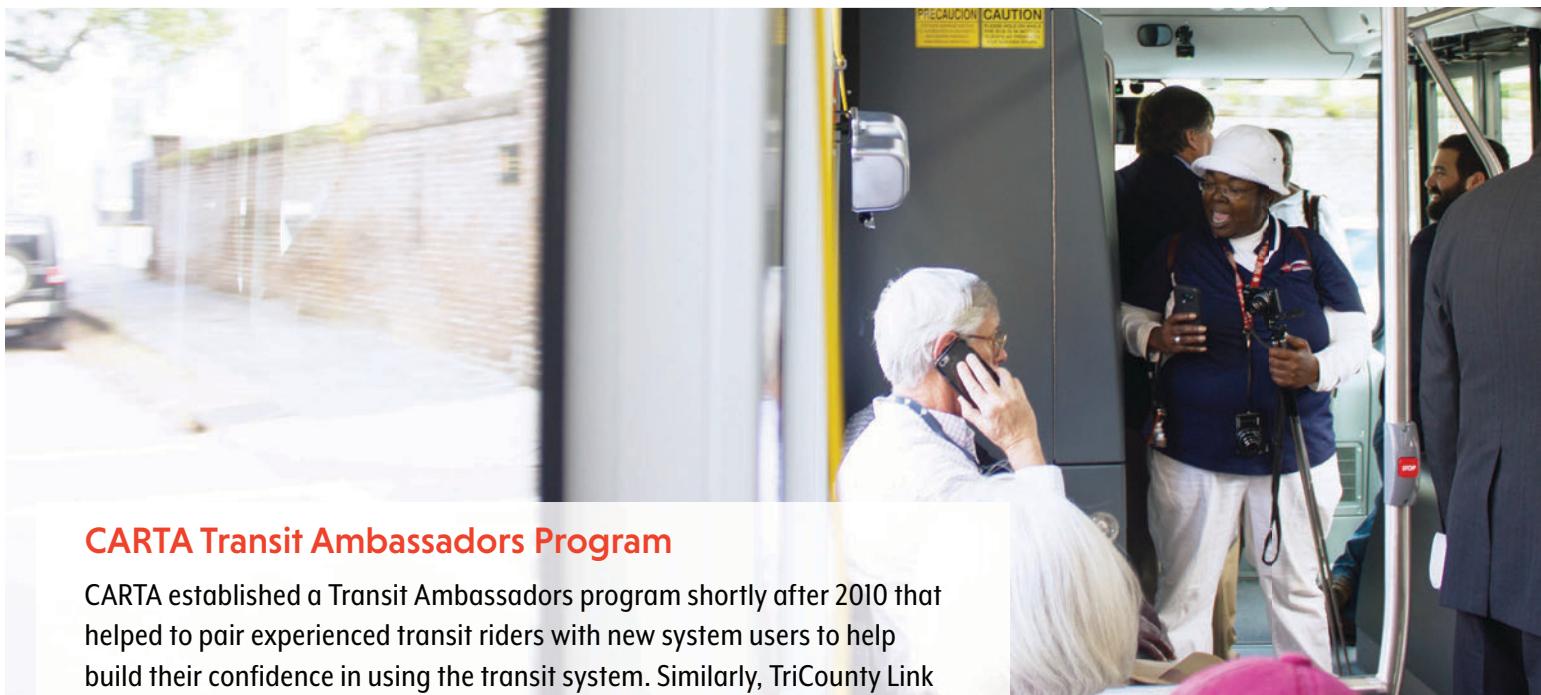
CARTA Transit Ambassadors Program

CARTA established a Transit Ambassadors program shortly after 2010 that helped to pair experienced transit riders with new system users to help build their confidence in using the transit system. Similarly, TriCounty Link provides "Travel Training" to help new passengers learn how to use its regular flag-stop service.

To become a Transit Ambassador, an individual must:

+ Complete at least 2 hours of classroom training
+ Complete at least 1 hour of practical, on-bus training
+ Attend quarterly Transit Ambassador meetings
+ Attend at least 4 CARTA marketing events/activities per year
+ Volunteer at least 5 hours per month
+ Wear the Transit Ambassador vest, visor, and name tag while volunteering
+ Commit to at least 12 months of service with the goal of assisting at least 10 new passengers
+ Volunteers that would like to volunteer as senior ambassadors must be at least 55 years old.

In addition to volunteering as a regular ambassador, Transit Ambassadors can elect to participate as a student ambassador, senior ambassador, or at-work ambassador.

To participate as one of these types of ambassadors, volunteers must also help maintain a small informational kiosk to help transit riders stay informed of transit news and events. Progress towards these requirements is tracked through required monthly participation forms.

CARTA Transit Ambassadors receive a free monthly pass, CARTA-branded gear, and a letter of recognition. Currently, there are four Transit Ambassadors helping to support and promote transit in the region.

Route Information Features

Figure 12 lists all route information features currently available on the CARTA and TriCounty Link systems:

FIGURE 12: *Route Information Features*

ROUTE INFORMATION FEATURES	SYSTEM AVAILABILITY
Paper schedules on transit vehicles	CARTA / TriCounty Link
Website with digital system map and downloadable schedules	CARTA / TriCounty Link
CARTA customer service department available via phone, voicemail, chat, mail, or through the online contact	CARTA / TriCounty Link
Operator announcements at major time point stops	CARTA / TriCounty Link
Plans transit trips within Google Maps, including walk-to-transit trips, multi-route trips, and transit connections between CARTA and TriCounty Link	CARTA / TriCounty Link
Route map poster and time schedules posted within bus shelters	CARTA
Mobile "Transit" app and desktop mapping tool	CARTA
Automated call/text system for fixed-route bus stops	CARTA
Mobile "MyTCLink" app	TriCounty Link

Stakeholder Feedback

Stakeholders commented during one-on-one discussions that route information systems can be improved to better accommodate riders with auditory and visual impairments. Human service providers can be a good resource for promoting new technologies that are designed with auditory and visual impairments in mind, like the mobile "Transit" app.

Stakeholders also commented that the size of the typefaces on existing CARTA and TriCounty Link brochures is too small for some of their clients to use without a magnifying glass. However, Additionally, the use of high-gloss paper on existing brochures reflects back light from magnifying glasses, making it difficult to read enlarged typefaces through the magnifying glass.

VEHICLE ACCESSIBILITY
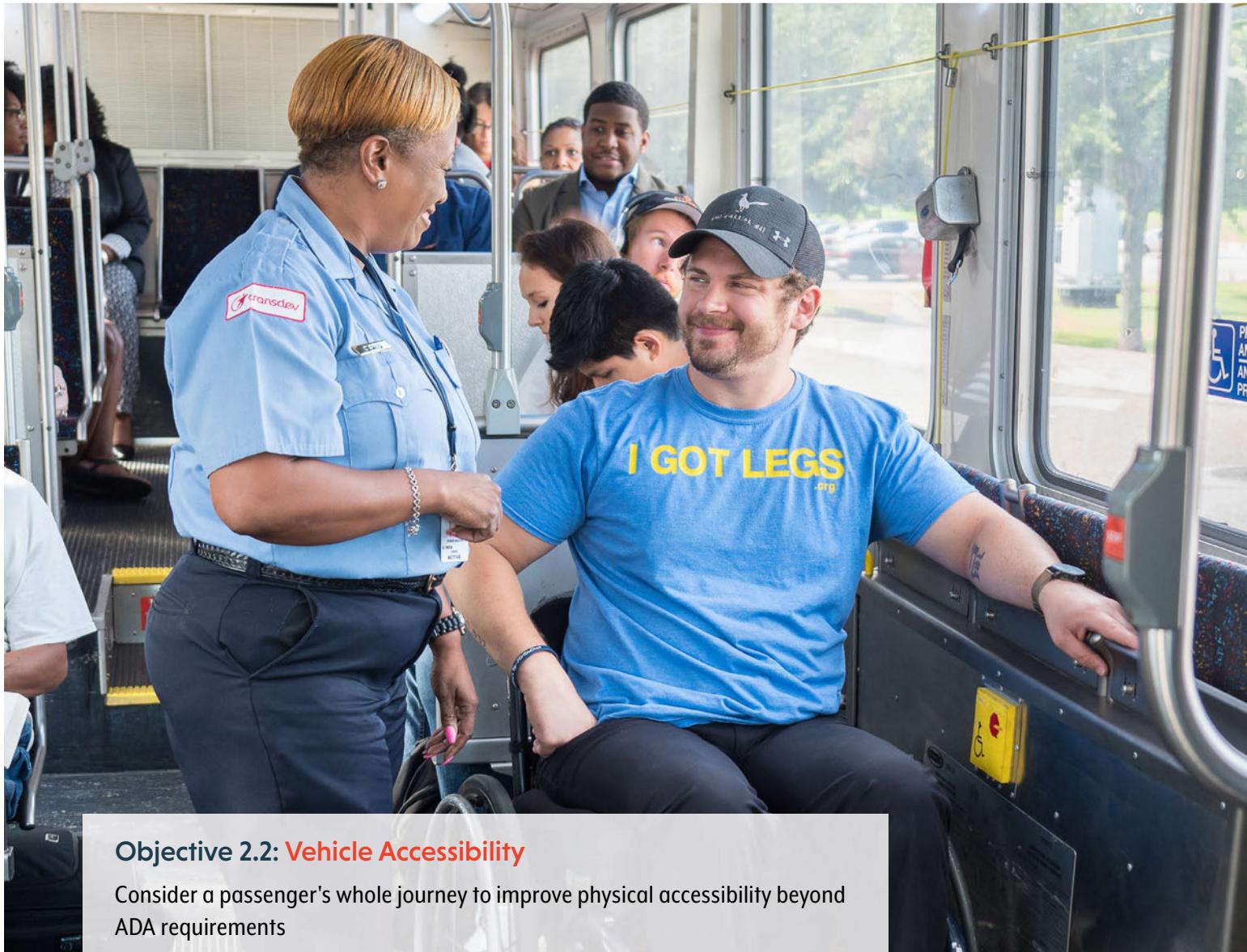
Objective 2.2: Vehicle Accessibility

Consider a passenger's whole journey to improve physical accessibility beyond ADA requirements

● Strategy 2.2.1: At-home Ramps

Assess the financial feasibility of an at-home accessibility ramp give-away program to help eligible Tel-A-Ride passengers travel from their residences to a Tel-A-Ride vehicle

● Strategy 2.2.2: Temperature Regulation

Work with officials representing municipalities to develop shared policies for transit vehicle idling and their implications on vehicle temperature regulation

All CARTA and TriCounty Link vehicles are legally required to follow accessibility requirements from the Americans with Disabilities Act (ADA). These requirements are documented in a series of regulations from Federal Transit Administration[60]. In addition, the U.S. Access Board provides accessibility guidelines to ensure the accessibility and usability of transportation vehicles for people with disabilities[61]. Vehicles on both systems offer ramps, lifts, and securement systems for mobility devices.

All operators are trained to assist passengers that use mobility devices with boarding and alighting the vehicles as well as securing their mobility devices. Due to the larger size of CARTA fixed-route vehicles, CARTA offers priority seating for older adults and people with disabilities.

These seats are conveniently located towards the front of the bus and can fold up to accommodate people using wheelchairs and larger mobility devices. Service animals, such as guide dogs, are also welcome on CARTA and TriCounty Link vehicles.

Stakeholder Feedback

ADA policy has been successful in ensuring that people with disabilities have affordable access to vehicles that address their needs; however, stakeholders identified additional opportunities to improve accessibility and comfort for people with disabilities. During one-on-one discussions, some stakeholders inquired if CARTA and TriCounty Link could go beyond ADA requirements to consider ways to help older adults and people with disabilities to get from their pick-up and drop-off locations to their awaiting transit vehicle.

In addition, stakeholders inquired about developing a consistent system-wide policy for temperature control while on CARTA fixed-route services. Currently, municipal regulations dictate whether or not CARTA drivers can keep a bus running (and thus the air conditioning running) while taking a scheduled layover.

Anti-idling regulations shown in **Figure 13** may require drivers to shut off buses, and for some passengers, that disruption in temperature control can affect their ability to comfortably ride the bus.

FIGURE 13: *Idling Ordinances by Municipality*

MUNICIPALITY	REGULATION
North Charleston	No person shall allow the engine or other mechanical equipment on a motor vehicle stopped or standing on a public street to continue to operate longer than five (5) minutes, unless movement of such vehicle is prevented by traffic control signals or is physically blocked by other vehicles. [Sec. 11-27.]
Charleston	No person shall allow the engine or other mechanical equipment on a motor vehicle stopped or standing on a public street to continue to operate longer than five (5) minutes, unless movement of such vehicle is prevented by traffic control signals or is physically blocked by other vehicles. [Sec. 19-244.]
Mount Pleasant	None

Feedback from the community survey conducted for this Plan, and from a previous online survey for BCDCOG's Healthy Food Access project, indicated that a particular focus on improving access to grocery stores may directly benefit transportation disadvantaged populations. Responses from the community survey indicated that the three most desired destinations among respondents were healthcare facilities, food outlets, and work. This break-out of desired destinations remained consistent for respondents identifying as people with disabilities or as low-income residents. However, older adults, on average, indicated a greater desire to access places of business (i.e. shops, banks, laundry, hair salons, etc.) than work.
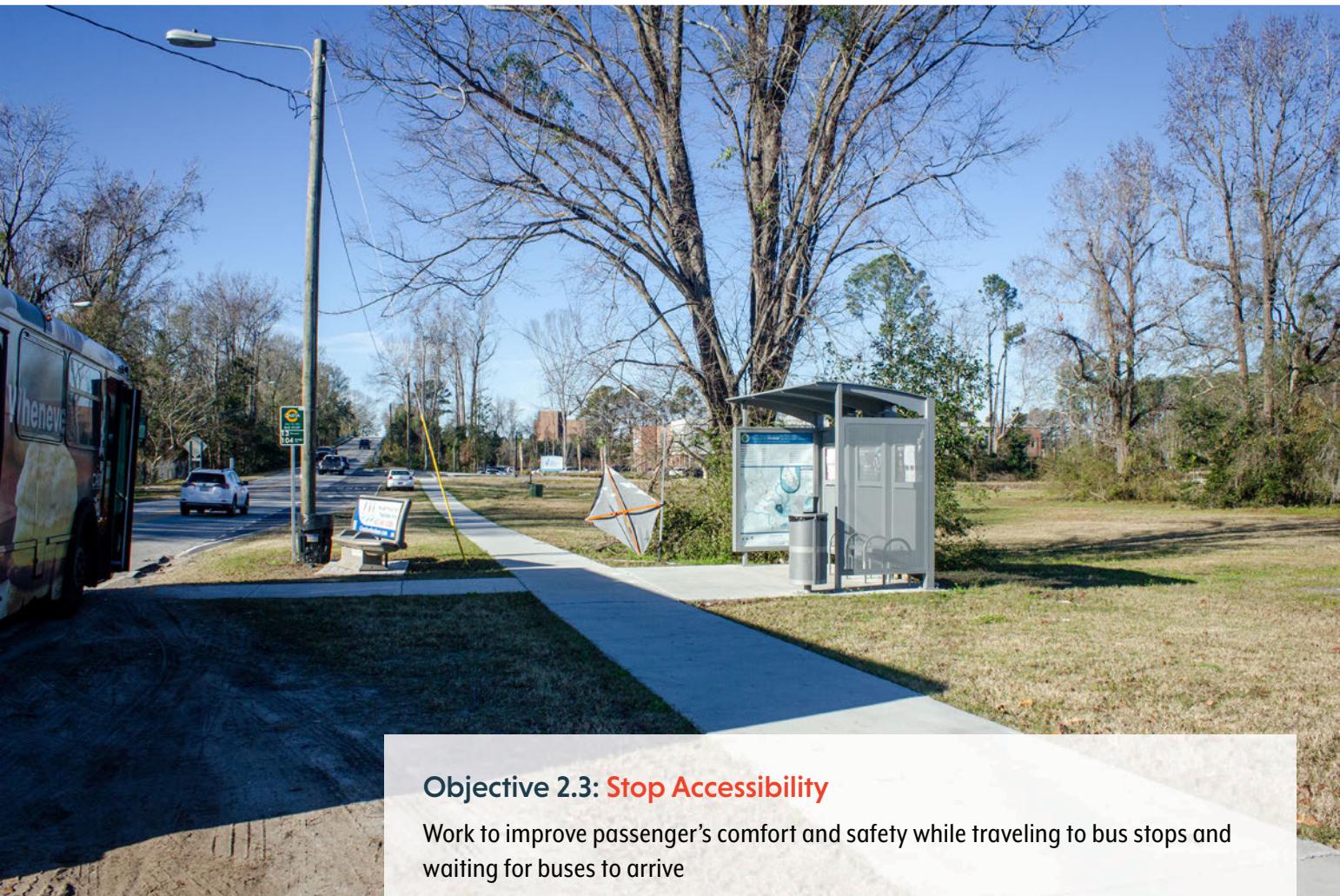
Objective 2.3: Stop Accessibility

Work to improve passenger's comfort and safety while traveling to bus stops and waiting for buses to arrive

Strategy 2.3.1: Design Guidelines

Review BCDCOG's Transit & Bus Stop Design Guidelines to ensure bus stop placement cues for people with visual impairments are addressed and to identify additional accessibility best practices that could be incorporated into the guidelines such as incorporating barrier-free design principles to improve pedestrian access to bus stops

Strategy 2.3.2: Shelter Installation

Continue to install new bus shelters and related amenities to improve the trip experience for passengers

Strategy 2.3.3: Stop Request Process

Review and amend the formal bus stop request process to ensure that each request is accompanied by a timely response documenting the transit agency's decision and the rationale for the decision

In addition to vehicle accessibility requirements, the Americans with Disabilities Act also mandates that certain accessibility features be included in the design of transit bus stops[62]. A 2016 study found that passengers perceive wait times at bus stops with no amenities as more than twice as long as the actual wait time. The authors of the study found that the combination of a bus shelter, bench, and real-time arrival information could reduce passenger perceptions of wait times to within one minute of their actual wait times[63].

CARTA Stops & Shelters

Any new stop that is installed on the CARTA system is designed to be ADA compliant. However – as is the case with agencies across the country – some CARTA stops were installed prior to the passage of the ADA. For these stops, CARTA is making diligent efforts to upgrade the stops to be ADA compliant as funding becomes available.

The amenities at CARTA bus stops vary, some stops only having a sign on a post and others having shelters, benches, trash cans, and lighting. CARTA uses a weighted criteria to decide where to install amenities. The weighted factors include:

+ Passenger activity
+ Existing conditions
+ Zero-vehicle households and environmental justice area
+ Significant transfer point
+ Near medical facility, significant civil building or educational institution
+ Part of a corridor or neighborhood initiative to strengthen identity[64]

Currently, the most prominent stop location in the CARTA system is the "SuperStop" located at the intersection of Rivers Avenue and Cosgrove Avenue in North Charleston. This stop serves as a central stop for many CARTA routes in North Charleston, and waiting passengers can find restrooms and snacks for sale inside the building. An upgraded transit center is expected to open in 2024 at the site of Charleston County's Social Services Hub. The location for the new transit hub is two blocks north of the existing SuperStop at the intersection of Rivers Avenue and McMillan Avenue.

The Social Services Hub will include a library; a South Carolina Department of Social Services office; a South Carolina Department of Health & Human Services office and clinics; a North Charleston Police Department substation; and Charleston County's Department of Alcohol and Other Drug Abuse Services office.

In the fall of 2019, BCDCOG demonstrated a commitment to transit stop improvement by expanding transit staff to support the implementation of a bus stop improvement program. Below is an inventory of new bus stop amenities (excluding replaced amenities) that have been installed between 2016 and 2021:

+ 54 shelters
+ 31 benches
+ 14 digital signs
+ 9 bike racks
+ 4 new Park-&-Ride lots
+ 130 solar lights

In 2021, BCDCOG published its Transit & Bus Stop Design Guidelines, a document that serves as a tool for facilitating the proper siting, design, installation, and maintenance of existing and proposed bus stops throughout the CARTA and TriCounty Link systems. Local municipalities are encouraged to adopt the design guidelines, but there is no official requirement for doing so. The intention behind creating the guidelines was to develop a standard that CARTA and TriCounty Link stops should strive to achieve across each system and also provide guidance for municipalities, external agencies, and developers to follow when dealing with bus stops[65].

TriCounty Link

TriCounty Link is a flag-stop system, meaning that passengers are able to wave the bus down to stop and pick them up anywhere along the fixed route. For TriCounty Link, bus stop signage and amenities are only located at scheduled stops.

Stakeholder Feedback

Significant progress has been made towards improving transit stop accessibility over the last five years, but with over 800 transit stops across the region, there is a lot of work left to do. During one-on-one discussions with stakeholders, many highlighted a continued need to install bus stop amenities across the CARTA fixed-route system, to improve walkways near bus stops, and to remove potential barriers within the clear zone of existing walkways near bus stops.

Objective 2.4: Access to Destinations

Identify new opportunities to improve access to destinations that serve residents' daily needs for people with disabilities

- **Strategy 2.4.1: Teleworking Jobs**

  Capitalize on recent employer acceptance of teleworking and flexible work hours to refocus the Lowcountry Go platform towards these activities and working with individual employers to recruit from transportation disadvantaged populations

- **Strategy 2.4.2: New Employment Areas**

  Study the financial feasibility of new fixed-route, microtransit, or vanpool service to emerging employment hubs such as Palmetto Commerce Parkway

- **Strategy 2.4.3: Vehicle Acquisition and Replacement**

  Enable transportation providers and human services agencies to capitalize on the availability of Section 5310 funding for procuring new vehicles and replacing aging vehicles

- **Strategy 2.4.4: Purchase of Service**

  Encourage human services providers to consider purchased transportation service for transporting clientele including seniors and individuals with disabilities

> *Expanding route information, vehicle accessibility, and stop accessibility are not the only ways to help get people where they need to be.*

Trip Log Activity by Month/Year

2018
- MAR 134
- APR 8
- MAY 22
- JUN 4
- JUL 11
- AUG 12
- SEP 87
- OCT 778
- NOV 115
- DEC 85

2019
- JAN 100
- FEB 95
- MAR 67
- APR 95
- MAY 88
- JUN 69
- JUL 69
- AUG 94
- SEP 64
- OCT 69
- NOV 50
- DEC 34

2020
- JAN 54
- FEB 46
- MAR 9
- APR 20
- MAY 20
- JUN 14
- JUL 15
- AUG 10
- SEP 17
- OCT 23
- NOV 29
- DEC 18
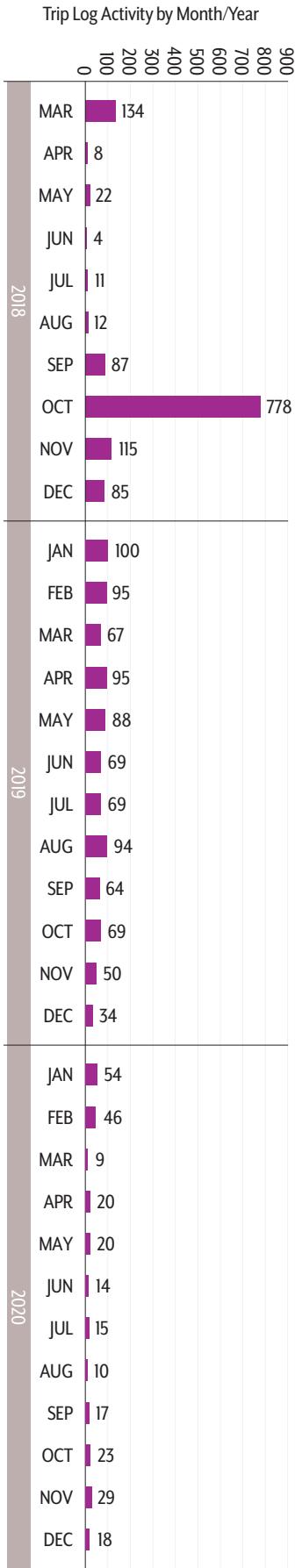
There are opportunities to improve access to employment and other critical needs destinations by co-locating public transit near greater concentrations of residences and employment, as well as taking advantage of technology's ability to connect people.

Transit-Oriented Development

Transit-oriented Development (TOD) is a strategy that encourages developers to build residences and employment centers in close proximity to public transit stations. In 2020, BCDCOG commissioned a TOD study for the Lowcountry Rapid Transit system, a proposed bus rapid transit system that, when built, will connect downtown Charleston to the Exchange Park and Fairgrounds in Ladson through high-frequency bus service. Phase I of the TOD study was completed in 2021[66], and Phase II is scheduled to begin in 2022.

An example of TOD can be seen in the plans for the new Transit Center described in the "Stop Accessibility" section on . Because the Transit Center will be co-located next to other public services and employment areas, this concentration of activities may make it easier for tri-county residents to access public services and jobs than they otherwise would be if the services were located at multiple different locations.

Lowcountry Go

As part of BCDCOG's Mobility Management program (see for more information), BCDCOG launched the online "Lowcountry Go" platform[67]. This online platform encourages tri-county residents to switch from non-single-occupant vehicles to other modes for commute trips by helping them identify potential matches for carpooling, access Emergency Ride Home reimbursements, join BCDCOG's vanpool program, or walk, bicycle, and ride transit to work. In addition, employers can access help on how to set up flexible or staggered work schedules for their employees, as well as the benefits of teleworking.

Users can log their trips through the online platform to compete for prizes, during promotions such as BCDCOG's "LowGoTober" in October 2018. This promotion entered all active users that logged trips into a raffle for donated gift cards, passes to parks, bikeshare memberships, and tickets to area events. A second, similar promotional event was held in February 2019 in which gift baskets were provided as an incentive to the "Commuter Challenge". As shown in **Figure 14**, the Lowcountry Go platform had its highest spike in activity in October 2018 when over 700 trips were logged as part of the LowGoTober promotion. Although these promotions helped to drive users to the website and encouraged initial trip activity, use of the website waned outside of the promotional events, suggesting a need for sustained commuter services marketing efforts.

FIGURE 14: *Lowcountry Go Trips Logged (May 1, 2018 - May 31, 2021)*
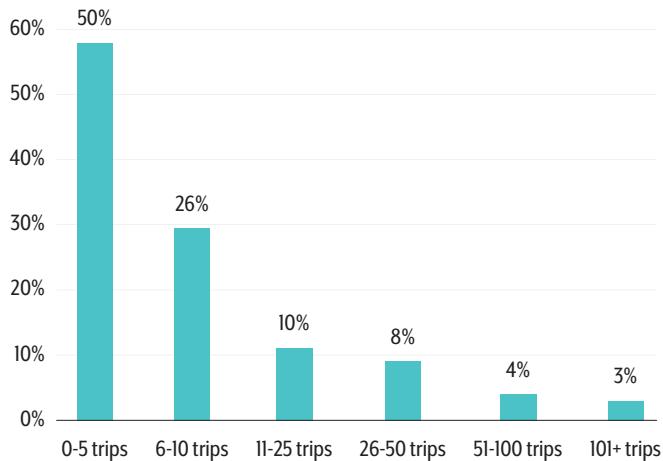
FIGURE 15: *Lowcountry Go Trips Logged per Active User (May 1, 2018 - May 31, 2021)*
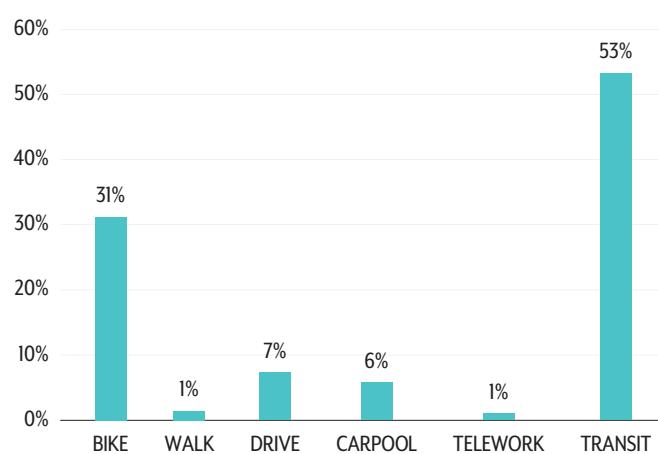
FIGURE 16: *Lowcountry Go Mode of Logged Trips (May 1, 2018 - May 31, 2021)*

Figure 15 shows that 50% of users logged only between zero and five trips. Sustained entries into the system came from a small number of users and people associated with larger institutions that promoted the platform, such as the Medical University of South Carolina and the College of Charleston.

The ridematching feature of the Lowcountry Go platform was designed to identify opportunities to create or participate in a carpool. As shown in **Figure 16**, the majority (53%) of logged trips on Lowcountry Go were for transit, followed by bicycling (31%), and carpooling (6%). Among the users that did log carpool trips, 49% were for trips of 16 or more miles.

Traditional Section 5310 Project Opportunities

The Section 5310 Program provides an excellent opportunity for transportation agencies and human services providers to improve access to critical needs destinations for seniors and individuals with disabilities. Two of the most common Section 5310 project types are vehicle acquisitions and purchases of service. Both of these project types are considered capital projects and are therefore eligible to receive 80% federal funding with a 20% local match. BCDCOG and SCDOT have facilitated awards to regional agencies for new vehicles, purchased transportation service, and even the hiring of a driver. All of these projects have demonstrated success in their missions of enhancing the mobility of seniors and individuals with disabilities.

Rural Vanpools

BCDCOG completed the Rural Workforce Transit Study in 2020 to identify strategies for improving access to training and employment for underserved communities living in rural areas. **Figure 17** shows the four transportation strategies evaluated during the study. Feedback from the study's stakeholders indicated a preference for pursuing the carpool/vanpool strategy because of its relatively greater flexibility and reliability compared to the other strategies and its potential to solicit support from employers and to encourage a sense of community among rural workers. In 2021, BCDCOG purchased 11 vans that can be leased by an individual or an employer to coordinate vanpool groups. In 2019, BCDCOG hired a full-time vanpool coordinator to manage the program.

FIGURE 17: *Evaluated Strategies in the Rural Workforce Transit Study*

MEASURES OF EFFECTIVENESS		STRATEGIES			
		EXPAND TRICOUNTY LINK	DEMAND RESPONSE SERVICE	CARSHARE	CARPOOL/ VANPOOL
SERVICE EFFECTIVENESS & ACCESSIBILITY	Directness	Low	High	Low	Medium-High
	Travel Time/ Reliability	Low	Low	Low	
	Flexibility in Time of Day	Low	Low	Medium	
EASE OF USE & COMMUNICATION		Medium	Low	Low	Medium
COMMUNITY PARTNERSHIP & COLLABORATION	Partnership Opportunities	Medium	Low	Low	Medium-High
	Community Collaboration	Medium	Low	Low	High
HIGH-LEVEL COSTS	Cost to Users	High	Low	Low	High
	Cost to Providers	Low	Low	Low	Medium

University Carpool Programs

Both the College of Charleston and Medical University of South Carolina offer incentives to carpool or ride transit. The College of Charleston's "Campus Services HQ" offers discounted parking passes for carpoolers[68]. The Medical University of South Carolina's parking management office offers special parking spaces for carpoolers and special passes to allow carpoolers to deviate from their rideshare arrangement on occasion[69].

"Neck Area" Healthy Food Access Project

In October 2020, BCDCOG received a grant from the National Center for Mobility Management's community design challenge. Through the grant, BCDCOG has been studying transportation-based approaches to increasing access to healthy food for people living in Charleston's "Neck Area", an identified "food desert". Feedback from intercept surveys identified that carrying groceries up and down the stairs to a bus, storing them while on the bus (especially during the hot summer months), and transporting them to and from bus stops was a challenge. BCDCOG is currently in the second phase of the grant and conducting small-scale tests of potential strategies. Residents living in Charleston's "Neck Area" indicated in responses to a healthy food access survey that the most common methods for traveling to the grocery store were a personal vehicle (45%), CARTA bus (18%), catching a ride (13%), taking a taxi/TNC (8%), or walking (8%). Among those that used CARTA buses to access grocery stores, 71% stated that getting groceries was a challenge, compared to 45% of people using a personal vehicle.

Stakeholder Feedback

During one-on-one discussions, stakeholders commented that a lack of consistent transportation remained a barrier for people with disabilities to be able to maintain employment.

The ADA notes that permitting an employee with a disability to telework may be a reasonable accommodation[70]. In 2016, BCDCOG surveyed large employers located near I-526 and found that 37% of employers offered some form of teleworking for their employees. Among employers that did not already offer teleworking, 22% indicated it was a strategy that they would be open to considering[71].

As the COVID-19 pandemic disrupted commuters' travel patterns, more and more employers and employees have gained first-hand experience with teleworking. According to the Bureau of Labor Statistics (BLS), approximately 13% of U.S. workers had some form of telework arrangement in 2017. Because of the COVID-19 pandemic, 33% of U.S. workers reported teleworking between May 2020 and June 2020, before declining to a still substantial 22% of the workforce by the end of 2020. Overall, BLS estimated that approximately 26% of jobs in the U.S. were suitable for teleworking, including 22% of jobs held by older adults[72].

Additional surveying by the Pew Research Center of employed adults in October 2020 found that the percent of U.S. workers that were working from home jumped from 20% pre-pandemic to 71% during the pandemic. More than half of those that say they can do their job remotely, if given a choice, would prefer to continue to telework when the pandemic is over and that there has been no change in their productivity or job security. In addition, 38% of workers that picked up teleworking during the pandemic said that they found it easier to balance work and family because of teleworking. Even still, 65% of new teleworkers said that they feel less connected to their co-workers, but found that online tools were a good substitute for in-person contact[73].

The COVID-19 pandemic has had a profound impact on the way employers nationwide view the viability of teleworking. However, people with disabilities are still less likely than people without disabilities to have worked remotely during the pandemic[74]. Being able to promote policies that help bridge this divide may go a long way in expanding employers' consideration of people with disabilities for open positions and for helping people with disabilities to overcome the transportation barrier for maintaining employment.

Another strategy highlighted by stakeholders to improve access to employment centers for low-income residents was to consider adding new bus routes into emerging employment centers, such as the Palmetto Commerce Parkway. One option for employees hoping to find lower-cost transportation to these emerging employment centers would be through vanpooling. BCDCOG's recent hire of a full-time vanpool coordinator allows dedicated staff time to recruiting and managing vanpools with employers or groups of workers.
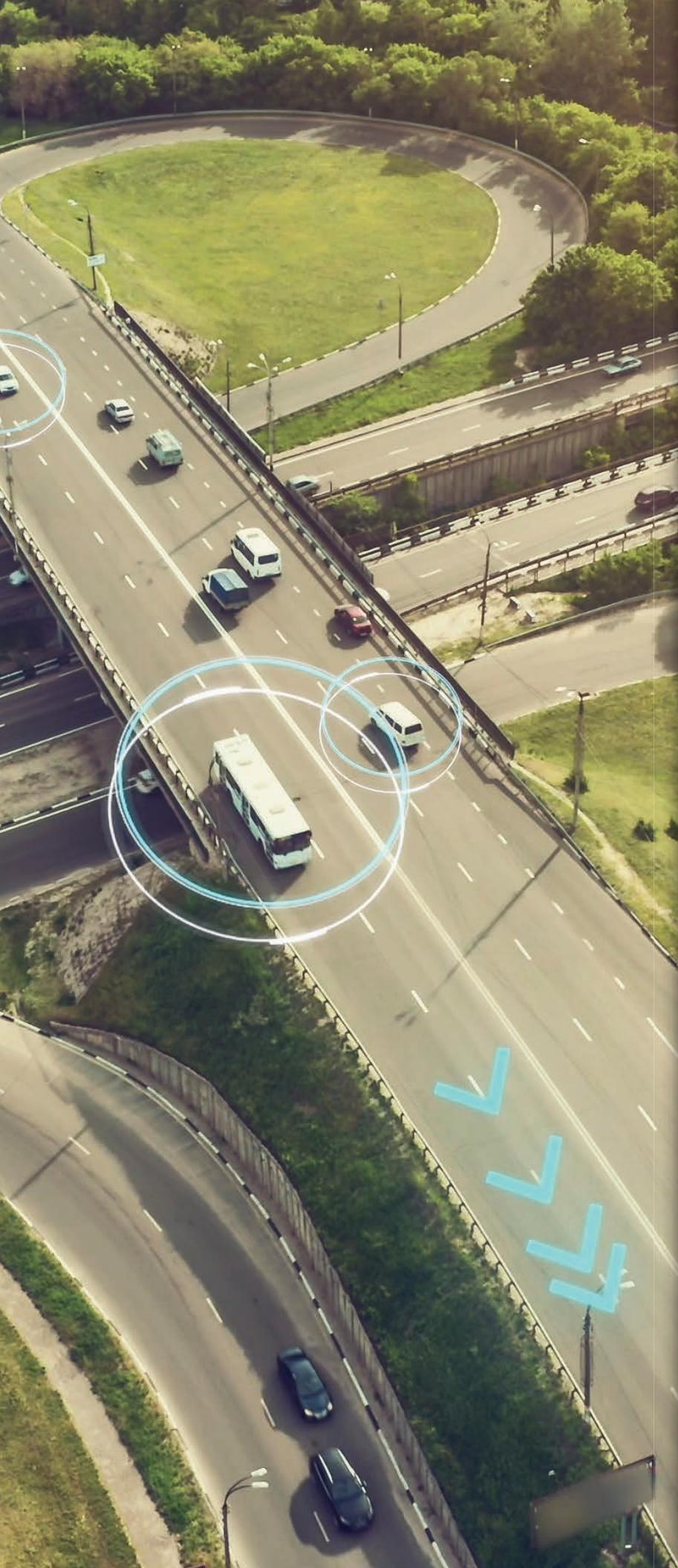
Goal 3
COORDINATION

Goal Objective

Create a venue for transportation providers and human service agencies to discuss needs, opportunities, and funding.

Section Navigation

Objective 3.1: Information Sharing

Seek opportunities for BCDCOG and human service providers to stay up-to-date on existing services and best practices for providing mobility options for older adults and people with disabilities and share these back with interested parties

● **Strategy 3.1.1:** Aging & Health Practice

Develop a formal "aging and health" webpage on BCDCOG's website to share links to human service provider services, such as transportation, housing, and caregiving, as well as to promote "lifelong communities" for older adults and people with disabilities within routine planning, projects, and programs

● **Strategy 3.1.2:** Regular Service Updates

BCDCOG's mobility manager to regularly attend Lowcountry Senior Network meetings to share knowledge about the range of transportation options available to older adults based on need, trip type, and location, as well as changes in services such as new or expanded pilot programs, real-time bus arrival text alerts, and Transit App's features that can be promoted through care providers

● **Strategy 3.1.3:** Orientation & Mobility Training

Identify opportunities for BCDCOG and human service providers to promote existing Orientation and Mobility (O&M) training to teach safe travel skills to people interested in independent transit ridership but potentially hesitant due to a visual impairment
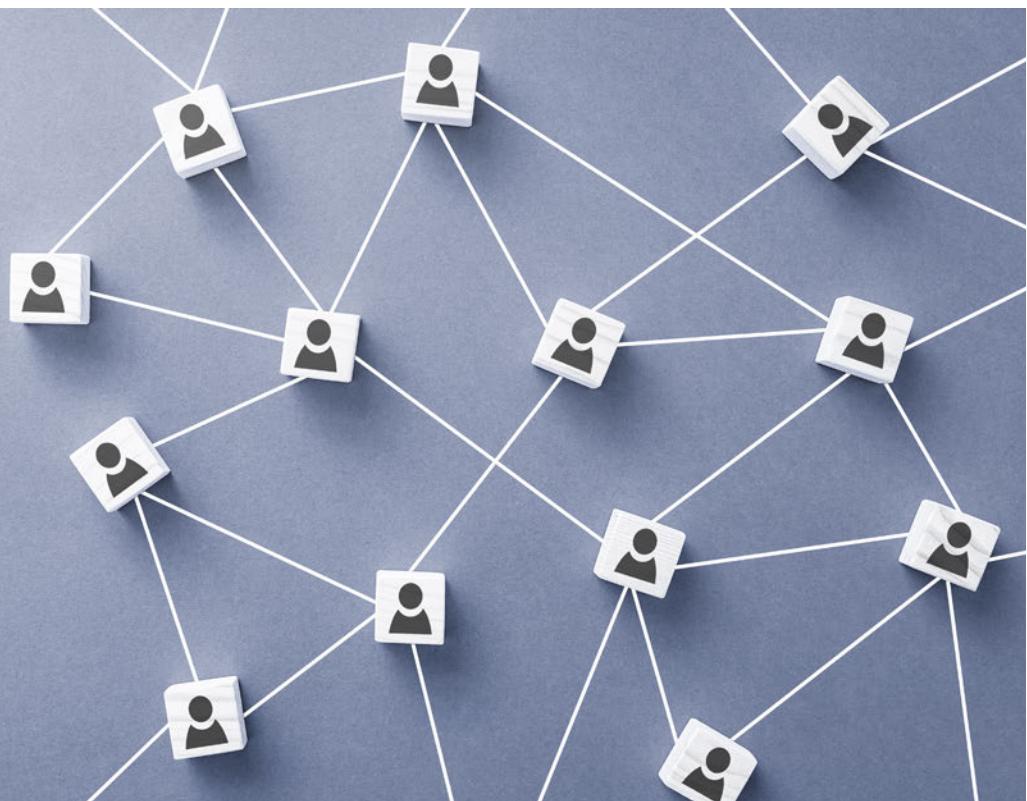
Being able to provide transportation to older adults, people with disabilities, and low-income residents is a big task that requires coordination with a wide-range of existing groups. **Figure 18** and **Figure 19** illustrate the overlapping groups working to improve conditions for transportation disadvantaged populations in the BCD region.

FIGURE 18: *Human Services Providers*

GROUPS FOCUSED ON OLDER ADULTS

- Aging Life Care Charleston
- All About Seniors
- Alzheimer's Association
- ARK, Alzheimer's Support Services
- Berkeley Seniors, Inc.
- Care for Life
- Carolina Nightingale Associates
- Center for Creative Retirement
- Charleston Area Senior Citizens, Inc.
- Charleston Eldercare Channel
- Choices Women's Center
- City of Charleston (ADA Director + Mayor's Office on Aging)
- City of North Charleston Mayor's Office on Aging
- Dorchester Seniors, Inc.
- Elder Helpers
- h2u (Health, Happiness, YOU) at Trident Health System
- Love, Inc.
- Lowcountry Senior Network
- Lt. Governor's Office on Aging
- Memory Bridge
- MUSC's Center on Aging
- National Active & Retired Federal Employees Association (Charleston and Summerville chapters)
- Palmetto Senior Care
- Red Hat, Inc.
- Respite Care Ministries
- Senior Care Connection
- Senior Corps - Seniors Helping Seniors
- Senior Loving Care
- Seniors Choice
- Shepherd's Center East Cooper
- Sizzling Seniors Group
- South Carolina Assisted Living Association
- South Carolina Department on Aging
- South Carolina Long-term Care Ombudsman Program
- South Carolina Silver Haired Legislature
- Trident Area Agency on Aging

GROUPS FOCUSED ON PEOPLE WITH DISABILITIES

- AccessAbility
- Adaptive Expectations
- Association for the Blind and Visually Impaired
- Berkeley Citizens, Inc.
- Beyond BASIC Life Skills
- Building Independence Together
- CarolinaLIFE
- Charleston Social Security Disability
- ClemsonLIFE
- College of Charleston Disabilities Service
- Disabilities Board of Charleston County
- Dorchester County Board of Disabilities & Special Needs
- Family Connection of South Carolina
- Family Resource Center for Disabilities & Special Needs, Inc.
- Goodwill Industries
- Healing Farms
- Impact South Carolina
- Lowcountry Autism Consortium
- Lowcountry Autism Foundation
- Protection and Advocacy for People with Disabilities, Inc.
- South Carolina Assistive Technology Program
- South Carolina Commission for the Blind
- South Carolina Department of Disabilities & Special Needs
- South Carolina Vocational Rehabilitation
- Stasi's Low Vision Therapy
- Synergy Supportive Services, LLC
- The Arc of South Carolina
- Transition Alliance in South Carolina/Charleston Collaborative Action Network (CAN)
- Unlimited Possibilities

SENIOR CENTERS

- Awendaw Senior Center
- Charleston Area Senior Citizens Center
- City of Goose Creek's Senior Adult Programs
- David Sojourner Senior Center
- Edisto Island Senior Center
- Faith Sellers Senior Center
- Hanahan Senior Center
- Liberty Hill Senior Center
- Live Oak Senior Center
- Moncks Corner Senior Center
- Mount Pleasant Senior Center
- North Charleston Senior Center at Dorchester Road
- North Charleston Senior Center at Northwoods
- Roper St. Francis Lowcountry Senior Center
- Roper St. Francis Waring Senior Center
- South Berkeley Senior Centers
- South Santee Community Center
- St. Stephen Senior Center
- Thomasina Stokes Marshall Senior Center
- Wadmalaw Island Senior Center

GROUPS FOCUSED ON A BROAD-RANGE OF ISSUES

- Charleston Area Justice Ministry (CAJM)
- East Cooper Community Outreach (ECCO)
- Trident United Way

ADULT DAY CARE CENTERS

- Active Day of Charleston
- Active Day of the Lowcountry
- Adult Day Care 41
- Aging Gracefully Senior Care Services, LLC
- Alice's Clubhouse Memory Care Day Center
- East Cooper Senior Day Care
- Graceful Embrace
- Sea Island Adult Day Care

Tracking available services can be a large task that requires continuous coordination. Two existing groups that routinely compile lists of available services are All About Seniors and the Trident Area Agency on Aging (TAAA). *All About Seniors' Resource & Referral Directory of Greater Charleston, SC* is available online and by mail. TAAA's *Aging and Disability Resource Directory* is available online. Both track a full-range of resources available to older adults and people with disabilities, including "Orientation & Mobility" training that provides blind and visually impaired individuals with specialized instruction that includes crossing streets, using white canes, and accessing public transportation.

Stakeholder Feedback

During one-on-one discussions, stakeholders highlighted their appreciation for BCDCOG's past efforts to provide service updates at the Lowcountry Senior Network and requested continued updates through this venue. Some stakeholders weren't aware of ongoing BCDCOG, CARTA, and TriCounty Link transportation services, and continued service updates through existing groups or through a more targeted web presence may help to communicate changes in services and new services.

Objective 3.2: Sustained Collaboration

Develop a sustainable structure for BCDCOG, CARTA, and TriCounty Link to continue gathering feedback from human service providers and members of the public, as well as facilitating conversations among related groups

● **Strategy 3.2.1:** Reset Coordination Group

Reconstitute the former "Human Service Transportation Coordination Partner" group for semi-annual or annual meetings and broadly recruit participation from public transit staff, private transportation providers, public human service agencies, advocacy groups, and community members that represent older adults and people with disabilities

● **Strategy 3.2.2:** Expand Rural Representation

Actively solicit greater rural representation on existing public transit-related advisory boards such as the Transit Rider Advisory Committees (TRACs) or create a separate, similar rural committee to better understand changing rural transportation needs and to create additional opportunities for promoting available TriCounty Link services

● **Strategy 3.2.3:** Curriculum Collaboration

Designate a sub-group of volunteers within the Human Service Transportation Coordination Group to join Transdev and BCDCOG in a series of collaborative learning sessions to share training materials and identify opportunities to update new operator training curriculum within the context of Transdev's and TriCounty Link's standard operating procedures for interacting with people with disabilities

Based on recommendations of the 2015 version of this Plan, BCDCOG created two separate opportunities for sustained collaboration around implementation of the Plan's full set of strategies.

Human Service Transportation Coordination Partners

The first venue for collaboration was the "Human Service Transportation Coordination Partners" meetings that were held regularly between 2015 and 2019. The group was composed of representatives from public transit agencies, non- and for-profit transportation providers, and human service providers with the following two primary objectives:

Updating, maintaining, and determining how best to implement the 2015 version of this Plan

Providing a venue for stakeholder interaction, sharing of human services transportation issues, and developing solutions for further action

Although this group provided a valuable forum for sharing information across agencies, attendance at the meetings declined over time. This may be a result of the target from the 2015 Plan to conduct monthly or quarterly meetings.

TRACs

The second venue for collaboration that was developed from the 2015 Plan was the creation of two Transit Rider Advisory Committees, one for CARTA fixed-route services (TRAC) and one for CARTA Tel-A-Ride (paraTRAC). These committees were started in 2017, and their primary roles are promoting public transit ridership in the urban areas of the tri-county region and serving as a passenger-led forum for soliciting feedback.

While these two committees help promote transit within the urban area, no such committee exists for rural transit riders. Community survey respondents from Berkeley County (28%) were more likely than other respondents to say that travel was unaffordable, and some stakeholders during one-on-one discussions highlighted a need for more rural representation on committees.

Operator Training

Transdev, the day-to-day operator of CARTA's fixed-route and Tel-A-Ride services, tries to incorporate public feedback into their training procedures. As part of its two-week standard operating procedures for new driver training, Transdev dedicates one day specifically to customer service, conflict management, and interacting with people with disabilities. The ADA-related hands-on training covers the technical operations of using lifts, ramps, and securing wheelchair-bound passengers.

It also covers basic rules for interactions with people with disabilities organized into "Ten Commandments" and sensitivity training to understand the full range of disabilities that people experience, practicing common interactive scenarios, and experience-based training[75]. In addition to new driver training, Transdev provides regular refreshers for existing drivers to reinforce policies and hot-topic issues.

Although Transdev provides as comprehensive a sensitivity training as one day will allow, there may be additional opportunities to learn from human service providers in the region to modify the training curriculum or to provide supplementary material. During one-on-one discussions with stakeholders, many offered to participate in an update to the training curriculum for transit drivers.
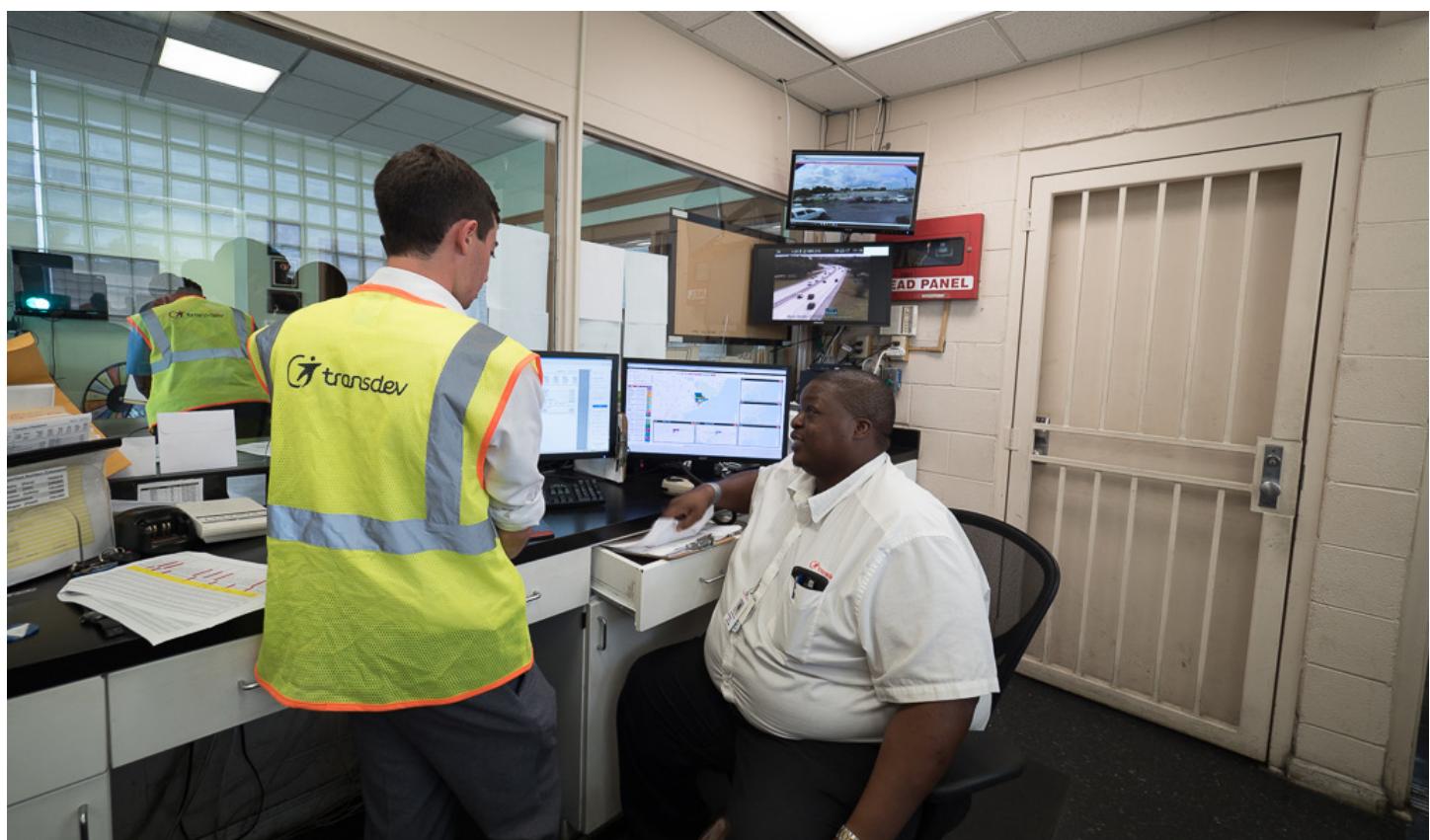
Objective 3.3: Institutional Outreach

Identify opportunities to work with larger institutions on documenting mobility needs for older adults and people with disabilities

● **Strategy 3.3.1:** Intracampus Transportation

Create an outreach campaign to higher education institutions (i.e. Charleston Southern University, College of Charleston, MUSC, Trident Technical College and affiliated campuses) to document transportation issues for people with disabilities while on their campuses and encourage their participation within the Human Services Transportation Coordination Group

● **Strategy 3.3.2:** Emergency Preparedness

Review existing emergency evacuation procedures to ensure the needs of older adults and people with disabilities are explicitly identified and coordinate with existing emergency managers at the South Carolina Emergency Management Division, South Carolina Department of Transportation, and South Carolina Highway Patrol's Emergency Traffic Management Unit to share procedures with potentially impacted populations

In addition to collaborating with smaller human service providers, an opportunity exists to support larger institutions in managing the mobility needs of older adults, people with disabilities, and low-income residents.

Stakeholder Feedback

During one-on-one discussions with stakeholders, some noted an overlapping need on educational campuses and suggested that coordinated meetings to discuss shared issues and potential solutions may be beneficial. In addition, one stakeholder highlighted the need to ensure an adequate level of transportation for older adults and people with disabilities during emergency evacuations out of the tri-county area.

Goal 4
PARTNERSHIPS

Goal Objective

Forge agreements for expanding services, reducing costs, or fostering resiliency through shared transportation responsibilities.

Section Navigation

Objective 4.1: Section 5310 Funding

Receive urban Section 5310 funding applications from a broader range of public agencies, human service organizations, and private transportation providers, as well as for a more diverse range of proposed activities compared to 2015-2021 applications.

● **Strategy 4.1.1: 5310 One-pager**

Attempt to expand the applicant pool for urban Section 5310 program funding by creating a graphically-engaging overview of the program, applicant eligibility criteria, eligible activities, sample past projects and potential projects, anticipated dates for the annual call for applications, and reporting requirements that can be shared with a broad audience multiple times per year to encourage advance preparation in developing an application

● **Strategy 4.1.2: Simplify 5310 Forms**

Explore development of an urban Section 5310 program funding application and reporting form using an interactive format (PDF or Google form) that removes redundant or irrelevant questions by creating a custom set of follow-up questions based on how the recipient's responses to a set of initial questions

● **Strategy 4.1.3: Promote 5310**

Bring awareness to the availability of urban Section 5310 program funding among human service providers and actively promote the program at the Transportation Coordination Partner group meetings, at Lowcountry Senior Network meetings, on social media, and through direct relationship building with human service organizations in advance of the call for applications window

Large-scale changes like adding new routes, increasing the number of buses operating on existing routes, and expanded hours of operation are dependent on limited, available funding. As shown in **Figure 20**, funding for CARTA in 2020 came from a combination of the Federal government (57%), State government (1%), local government sales tax (30%), revenue generated from passengers' fares (11%), and advertising (2%).

Similarly, **Figure 21** shows that funding for TriCounty Link in 2020 came from a combination of the federal government (70%), state government (11%), local government (16%), and revenue generated from passengers' fares (4%).

57.1% Federal Government
0.6 % State Government
29.6% Local Government
12.7% Directly Generated

69.8% Federal Government
11.2 % State Government
15.5% Local Government
3.5% Directly Generated
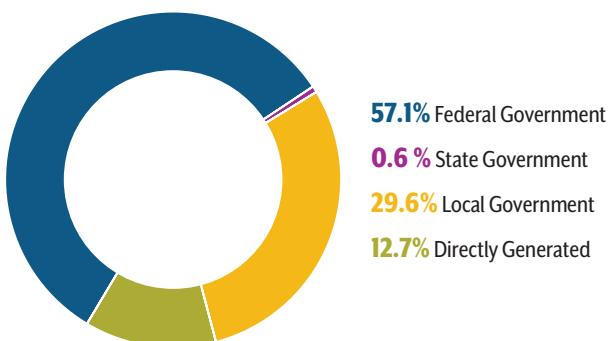
FIGURE 20: *CARTA Funding Sources (2020)*[76]   **FIGURE 21:** *TriCounty Link Funding Sources (2020)*[77]
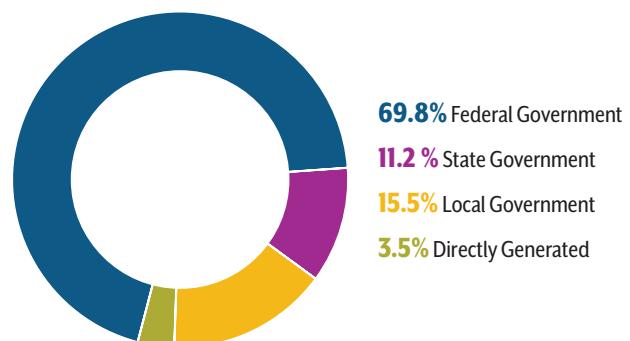
Section 5310 Administration

While the ability to generate new revenue for CARTA and TriCounty Link to expand service for transportation disadvantaged groups may be limited, one existing federal program may be able to continue to help with the transportation needs of older adults and people with disabilities.

FTA's "Enhanced Mobility of Seniors & Individuals with Disabilities"[78] - more commonly known as the "Section 5310" program - allocates money to BCDCOG (for the urbanized areas of the tri-county region) and SCDOT (for rural areas across South Carolina) to help fund projects and programs that remove barriers to transportation for these two specific demographic groups. See "Requirements" on page 6 for more information on the program's purpose, its history, and eligible activities.

After BCDCOG receives urban Section 5310 program funds from FTA, the agency uses the following methods to solicit applications:

+ BCDCOG posts an annual press release on bcdcog.com which provides potential applicants a brief description of the program, contact information for the program administrator, and a downloadable PDF of the application form
+ BCDCOG advertises the program in the Post & Courier
+ BCDCOG emails a one-page memo with a brief description of the program and contact information for the program administrator to a list of known interested parties
+ BCDCOG shares a 22-page Microsoft Word application with interested applicants that email the program administrator directly

Once applications are received from agencies seeking assistance in providing services to clients in the urban area, BCDCOG staff reviews, ranks, and selects projects for suballocation. BCDCOG staff subsequently make project recommendations to BCDCOG's Board of Directors. Following the Board's approval of the recommendations, the projects are included in the metropolitan and state Transportation Improvement Program documents. Finally, BCDCOG notifies approved applicants of their funding award and initiates FTA contractual agreements to ensure compliance with federal requirements.

After a successful applicant receives approval for funding, BCDCOG requires the awardee to submit quarterly reports documenting how the funding was used. In 2020, BCDCOG transitioned from a more open-ended narrative format for urban Section 5310 funding recipients to report their activities on a quarterly basis to a 6-page standardized, interactive PDF.

Stakeholder Feedback

Responses to the community survey showed that 20% of total respondents said that their current mode of transportation was not affordable for them. This rate jumped to 40% for respondents that self-identified as older adults, people with disabilities, or low-income residents. The Section 5310 program provides an opportunity to identify new or creative ways to provide transportation and other services for transportation disadvantaged populations. Between 2017 and 2021, BCDCOG received five or fewer urban Section 5310 sub-recipient applications per year, as shown in **Figure 22**. Moreover, the applicant pool during that time period was limited to six total organizations. During one-on-one discussions with stakeholders, only those that had applied in the past were aware of the program.

FIGURE 22: *Urban Section 5310 Applicants (2017-2021)*

YEAR(S)	APPLICANT	PROJECT NAME	DESCRIPTION
2017 - 2021	BCDCOG	BCD Mobility Management Program	Regional commuter services program dedicated to implementing Travel Demand Management strategies
2017 - 2019	Berkeley Citizens, Inc.	Berkeley Citizens Urban Transportation	Purchase of Transportation service from contractor TriCounty Link for providing transportation to clients living in urban areas of the BCD region
2018	CARTA	Demand-Response Pilot Project	Contracting with TNC providers to offer demand-response service to seniors and people with disabilities within the CARTA service area
2017 & 2021	CARTA	Paratransit Vehicle Replacement	Purchase of vehicles to replace Tel-a-Ride vehicles that reached their useful life
2018 & 2021	Charleston Dorchester Mental Health Center	CDMHC Patient Transportation Services	Funding for a full time driver position to transport clients in the urban area
2018	Senior Ride Charleston	Enhanced Mobility for Underserved Seniors & Individuals with Disabilities	Subsidized ride program for seniors and people with disabilities through Charleston Green Taxi
2019	Pattison's Academy for Comprehensive Education	Enhanced Mobility for Children with Multiple Disabilities	Purchase of a vehicle to directly operate transportation service for clients in the urban area (award was forfeited due to impacts of COVID-19 pandemic)
2020	CARTA	Paratransit operations and paratransit vehicle maintenance	Funding for the operations of Tel-a-Ride services as well as preventative maintenance services for Tel-a-Ride vehicles

Objective 4.2: Rideshare Partnership

Fill the gap created by discontinued coordinated rideshare programs

● **Strategy 4.2.1:** Rideshare Sub-group

Designate a task force within the Human Service Transportation Coordination Group to map existing church rideshare services and engage church members interested in expanding services beyond their congregation on a limited or ongoing basis

● **Strategy 4.2.2:** Private Providers

Build off lists of available non-emergency medical transportation providers published by All About Seniors and Trident Area Agency on Aging to create an easy-to-maintain, shared list of providers sorted by geographic coverage, cost, services (such as "door-to-door" or "door-through-door" assistance), and vehicle accessibility features

● **Strategy 4.2.3:** Rotation List

Work with the Coordination Group to explore the creation of a formal rotating referral list of qualified private transportation providers

● **Strategy 4.2.4:** Liability Insurance

Work with the Coordination Group to explore opportunities for shared financing for driver liability insurance from private, nonprofit, and public institutions to support an economically-sustainable primarily volunteer-based rideshare program

In addition to public transit, human service providers and private transportation companies play a large role in providing transportation for older adults and people with disabilities in the tri-county region. Examples of human service providers that supplement public transit with transportation services in the tri-county region include:

+ Berkeley Citizens, Inc. operates vehicles and contracts with TriCounty Links for services for Berkeley County residents with disabilities working at their center
+ The Disabilities Boards for Charleston and Dorchester counties operate transportation services to and from care facilities and provide vehicles to respite homes throughout the region
+ Sea Island Comprehensive Health Care Corporation provides transportation on Johns Island
+ The South Carolina Department of Health & Human Services contracts out Emergency Medical Transportation in the Charleston area, including Medicaid transportation
+ The South Carolina Head Start operates vehicles on Edisto and Kiawah Islands for children of migrant families
+ Charleston Area Senior Citizens lease state-owned vans for "Meals on Wheels" deliveries, they regularly transport older adults in Charleston, North Charleston, and Mt. Pleasant, and occasionally provide CARTA passes to people that are homeless for travel to medical appointments.
+ Beyond Basic has one donated vehicle, and its staff largely uses personal vehicles to help transport clients.
+ The Trident Area Agency on Aging received a limited amount of funding to provide short-term transportation for older adults receiving life-saving treatments, as well as limited funding for specialty transportation to medical facilities.

Non-Emergency Medical Transportation Brokerage

Modivcare, formerly known as LogistiCare, is a publicly-traded company that coordinates non-emergency transportation, meal delivery, and personal care attendants for its members across the country. Modivcare's "WellRyde'' – in addition to other similar transportation brokerages - operates as a non-emergency transportation broker service. Their service brings together a network of subcontracted private transportation providers and provides dispatching, automated reminders, live vehicle tracking, and automated billing similar to a TNC such as Uber or Lyft.

Private Non-Emergency Medical Transportation Providers

Figure 23 includes a list of known private transportation companies offering services for older adults and people with disabilities in the tri-county region.

FIGURE 23: *Private Transportation Companies*

PRIVATE PROVIDER	COVERAGE	VEHICLE ACCESSIBILITY	SERVICES	COST
A Golden Ride Personal Senior Transportation	Entire region	Ambulatory[79]	Door-through-door Accompaniment	$39/hr (1-hr min.) + $19.50 for each additional half-hour Reservations only (at least 48 hours advance notice) Includes 1 caregiver
A Nurse Next Door Senior Care Services	Entire region+	Ambulatory	Door-to-door	$1 per mile

PRIVATE PROVIDER	COVERAGE	VEHICLE ACCESSIBILITY	SERVICES	COST
Absolute Charleston Airport Taxi/Shuttle Service	Entire region+	Wheelchair	Curb-to-curb	$95/hour $65 for less than 1 hour
Care 4 Transportation	Entire region+	Wheelchair (bariatric) Stretcher	Curb-to-curb and Door-to-door	Contract with Medicaid and other brokers Wheelchair $28 load fee and $3 Stretchers - $600 round trip (20-30) Ambulatory $28
Charleston Green Taxi	Entire region	Ambulatory	Curb-to-curb	Variable (senior discount program but the program is full)
Custom Care Carriage	Most of region (longer trips require more advance notice)	Wheelchair (bariatric)	Door-through-door Accompaniment Mobile Stairlift (for additional fee)	Includes caregiver/spouse/both $195/two-hr min. + $80/hr
Diamond Care Transportation	Entire region+	Wheelchair (bariatric)	Curb-to-curb and Door-to-door	Depends on situation Wheelchair is $5 load fee + $2.50 Ambulatory $10 base fee plus $1.50
Family Medical Transport	Entire region	Wheelchair + Stretcher	Door-to-door Door-through-door Evacuation support	Overflow service for existing emergency services, patient discharges, and VA
JCW Taxi Services	Entire region+	Ambulatory	Door-to-door (by request)	~$2.40/mi + flat rate common trips
JT's Metro Transport	Based on contract area	Ambulatory	Door-through-door	Contract-based by companies and Medicaid

PRIVATE PROVIDER	COVERAGE	VEHICLE ACCESSIBILITY	SERVICES	COST
Let's Go Transportation	Entire region+	Ambulatory Wheelchair (bariatric) Stretcher	Door-through-door (limited)	Within a 10-mile radius $200-250 wheelchair $100-125 ambulatory Additional fees for extended distances or to accommodate client needs
Lyft	Entire region (service may be limited rural areas)	Ambulatory	Curb-to-curb	Variable (surge pricing)
Mantis Transport of SC	Entire region Mostly Berkeley County and Charleston County	Wheelchair (bariatric)	Curb-to-curb and Door-to-door	"Prices vary for every independent contractor" Charge by every 3 miles around $13 for ambulatory and around $20 for wheelchair
McKnight & Rosenthal	Temporary not operating due to COVID pandemic			
MedTrust Medical Transport, LLC	Entire region+	Wheelchair (bariatric) Stretcher	Door-to-door (no private residences except hospices) Evacuation support	Contract with facilities + per-mile costs
Meduport	Entire region+	Wheelchair (bariatric) and Stretcher	Curb-to-curb and door-to-door	Subcontract through Modivcare and do Medicaid trips
Personal Care Ambulance	Entire region+	Wheelchair (bariatric*) + Stretcher	Door-through-door (limited to private residences) Evacuation support	$70 base (one-way) + $2/mile

PRIVATE PROVIDER	COVERAGE	VEHICLE ACCESSIBILITY	SERVICES	COST
R & E Medical Transportation	Charleston County	Ambulatory	Door-through-door	Variable
Ride It Out	Entire region	Ambulatory	-	Zone-based fee Min. $35 each way
Speedy Senior Transportation	Entire region	Ambulatory, Wheelchair (bariatric), and will provide stretcher in the future	Curb-to-curb and Door-to-door	$175 flat two-way (ambulatory) $200 flat two-way (wheelchair) + additional mileage fee for longer distances
Summerville Cab Company	Entire region+ (mostly in Summerville, Goose Creek, parts of North Charleston)	Ambulatory	Door-to-door (Waits during shopping or appointments)	Run a meter $5 base fare $2.50/mile $2 fuel surcharge when gas prices are high
SURV	Entire region+	Trying to break into the market for NEMT; workers use their personal vehicles		$35/hr
TC Medical Transit	Entire region+	Ambulatory	Door-to-door	Variable: >25 miles, $75/hr + $20/hr for wait time
Uber	Entire region (but limited in rural areas)	Ambulatory	Curb-to-curb	Variable

Stakeholder Feedback

An example of a non-profit filling a large gap in the tri-county region was Senior Ride Charleston (known in a previous iteration as the Independent Transportation Network). The group was operated by a staff of three people and supported by a network of volunteer drivers that would provide transportation for older adults and adults with visual impairments. The program was popular while it was active, and during one-on-one discussions with stakeholders, many noted the gap created by Senior Ride Charleston's discontinuation of services and the financial challenges in operating non-emergency medical transportation.

By seeking alternative funding sources or partnering with organizations that serve older adults and people with disabilities, non-profits, human service providers, and private transportation companies may be able to leverage existing resources to offer low- or no-cost trips for transportation disadvantaged populations.

Objective 4.3: Transit Matching Funds

Identify opportunities to partner with municipalities to expand the range of transit opportunities that are available to people of all ages and abilities

● **Strategy 4.3.1:** Shuttle Partnerships

Partner with local municipalities to explore the financial feasibility of operating public transit shuttles in commercial districts outside of the Charleston peninsula

As noted in the "Section 5310 Funding" discussion on , the bulk of public transit funding in the tri-county region comes from the federal government - specifically FTA formula and discretionary apportionments. When local governments and public or private agencies provide additional contributions to the transit system, it can create opportunities that would not be possible otherwise. CARTA in particular has experienced great success with programs that were made possible through local contributions.

DASH Shuttles

CARTA's Downtown Area Shuttle (DASH) system, shown in **Figure 24**, is an excellent example of the impact that local transit contributions can have on the community. The system enables local residents, students, and tourists to get around the downtown area conveniently and affordably. DASH, in part, became free to ride in 2010 through contributions from the City of Charleston, the Charleston Area Convention & Visitors Bureau, and the South Carolina Ports Authority. There are currently three DASH routes which provide access to downtown Charleston's most visited destinations:

+ 210 - College of Charleston/Aquarium
+ 211 - Meeting Street/King Street
+ 213 - Lockwood Drive/Calhoun Street

MUSC Shuttles

The Medical University of South Carolina (MUSC) operates six shuttles to and from parking and the downtown Charleston medical district, as shown in **Figure 25**[80]. The current MUSC shuttles overlap with CARTA Route 203.

+ Jonathan Lucas/ Ashley River Tower (ART)
+ Jonathan Lucas/ Hagood (AM)
+ Jonathan Lucas/ Hagood (PM)
+ Ashley River Tower (ART)/ Ashley (AM)
+ Ashley River Tower (ART)/ Ashley (PM)
+ WestEdge Shuttle

In addition to the parking lot shuttles, MUSC operates a Patient Shuttle to help patients travel within the downtown Medical District. As shown in **Figure 26**, the Patient Shuttle overlaps several existing CARTA routes.

FIGURE 24: *Existing DASH Routes*

FIGURE 25: *Existing MUSC Shuttle Routes to Parking*

CARTA Shuttle
— Route 203

MUSC Shuttles
— ART/JL Shuttle
— ART/Ashley Shuttle
— JL/HAG Shuttle
— Westedge Shuttle

Source: muscarolina.ridesystems.net

0   1/8   1/4 mi   N

MUSC Shuttle
— Patient Shuttle

Source: muscarolina.ridesystems.net

CARTA Routes
— 33 / XP2
— XP3
— 102
— 213
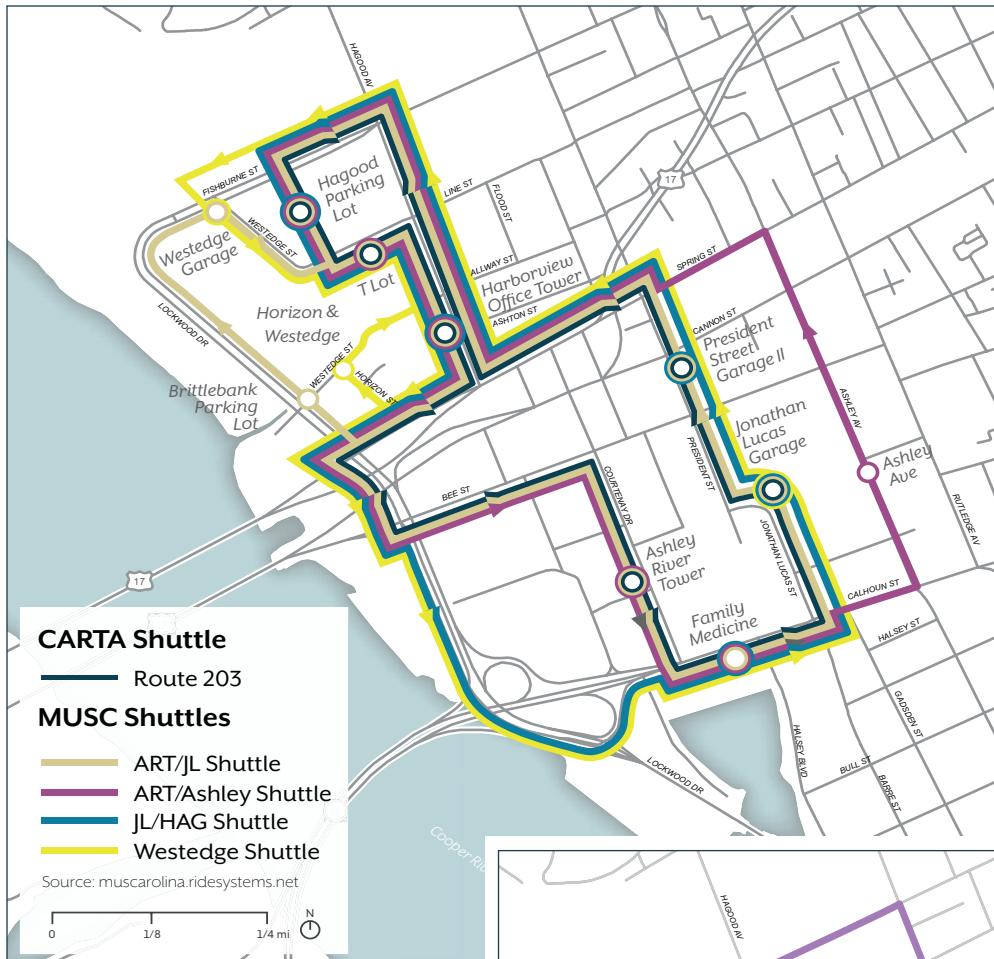
FIGURE 26: *Existing MUSC Shuttle Route for Patients*

0   1/8   1/4 mi   N
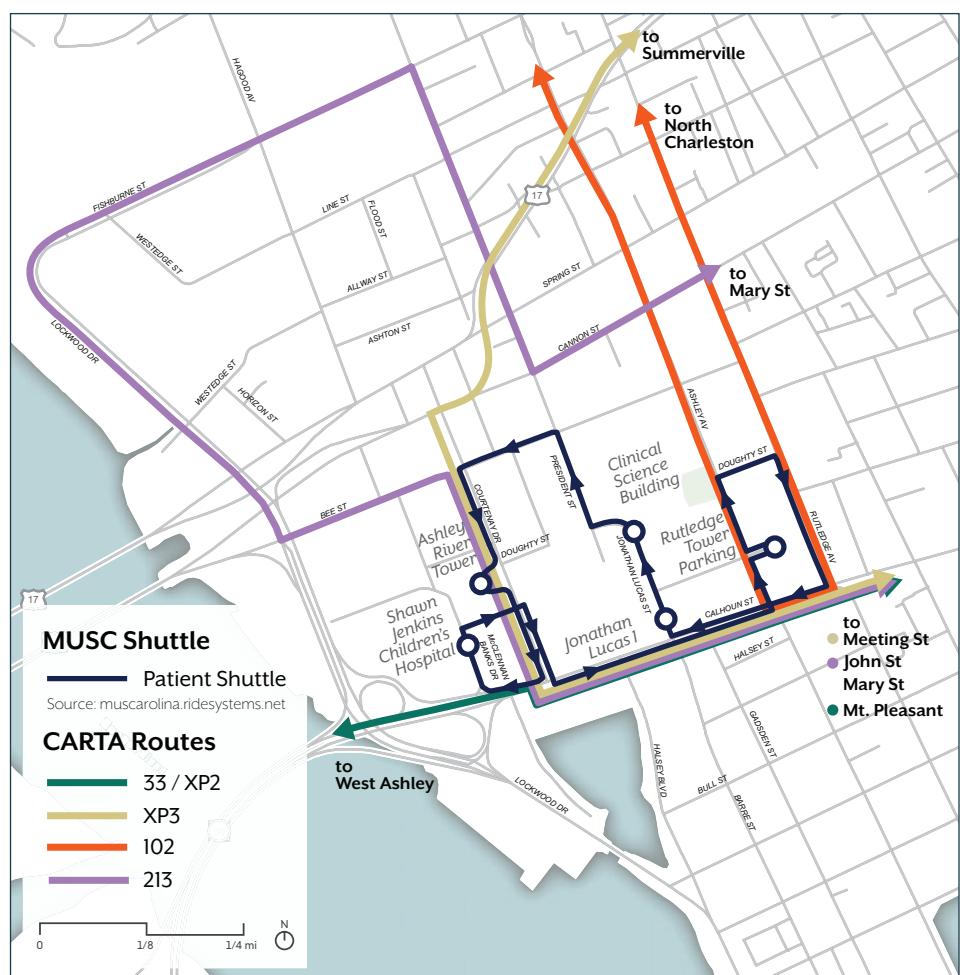
VA Transportation

In addition to MUSC's shuttles that operate within the downtown Charleston medical district, the Ralph H. Johnson Department of Veterans Affairs (VA) Medical Center offers a van service and a shuttle service. The "Disabled American Veterans" vans provide transportation for veterans and authorized caregivers to and from scheduled medical appointments[81].

The VA operates a shuttle that transports passengers between an off-site parking lot at 41 Folly Road to the VA Medical Center. The shuttle runs from 4:30 AM to 11:00 PM on weekdays (except holidays) and typically comes every 15 minutes except during the morning peak period (6:00 AM to 8:30 AM) and the afternoon peak period (3:00 PM to 5:30 PM) when it comes every 5 minutes[82].

The VA also reimburses eligible veterans for mileage and other travel expenses to and from approved healthcare appointments through its Beneficiary Travel program[83].

College of Charleston Shuttle

Although temporarily suspended due to a shortage of drivers, the College of Charleston operates the "Grice Shuttle" on weekdays when classes are in session during the spring and fall semesters. This shuttle transports faculty, students, staff, and guests between the Rita Hollings Science Center's parking lot on the main campus to the Hollings Marine Lab and the Grice Marine Lab. The College of Charleston makes a limited number of spaces at the Grice Marine Lab available for Park-&-Ride transfers to the main campus using the Grice Shuttle. Passengers can track the shuttle online or receive text notifications. Passengers can also reserve their seat in advance through the College's online reservation system[84].

Free University CARTA Trips

Through separate partnerships with the College of Charleston[85] and the Medical University of South Carolina, students and employees that show their university identification cards to CARTA drivers can ride for free. In addition, the Medical University of South Carolina promotes a "Cancel for CARTA" incentive program through their parking management office. This program offers 12 free parking passes for students, faculty, and staff that cancel their parking pass to use CARTA[86].

Park-&-Ride Lots

Another example of local contributions to the public transit system is Park-&-Ride lots. Also known as commuter lots, Park-&-Ride lots allow commuters and other travelers heading towards major city centers to walk, park their bicycles, or park their vehicles and either transfer to a bus system or carpool for the rest of their trip. The vehicle remains in the parking lot until its owner returns after their workday or event to retrieve it.

In 2018, BCDCOG completed a site selection report as part of its Regional Park-&-Ride Study. The study documented 19 existing Park-&-Ride lots and evaluated 77 potential new lots[87]. Preference was given to locations that are highly visible and in an area with an active law enforcement presence. Access to these free lots are made possible by business owners creating a formal agreement with CARTA or TriCounty Link[88].

Park-&-Ride lots can even be created with specific commuters in mind and directly integrated in public transit service. In 2018, CARTA launched the Hospitality on Peninsula (HOP) Park-&-Ride shuttle service in downtown Charleston. The free shuttle primarily targeted hospitality industry workers as a way to mitigate downtown parking challenges. Riders could pay $5.00 to park in the HOP lot located on the upper end of the peninsula and take the free shuttle into the downtown core. The service was made possible through a no-cost lease agreement with Charleston County. Although the HOP lot was well received, use of the lot has been indefinitely suspended due to the COVID-19 pandemic[89].

University Bikeshare Memberships

MUSC offers students and employees discounted memberships to the City of Charleston's bikeshare service. Through this program, students and employees can ride up to one hour free per day[90]. The bikeshare operator also offers discounts for all other local college students and accepts corporate sponsorships[91].

Similarly, the College of Charleston allows students to use its campus-run bikeshare program free of charge for short- or long-term rentals[92].

Stakeholder Feedback

During one-on-one discussions, some stakeholders inquired about expanding shuttle services (similar to the DASH service within downtown Charleston) to other municipalities' downtown areas.

Additionally, Strategy 1.1.3 on proposes the potential identification of Park-&-Ride locations within the existing Tel-A-Ride boundary that have comfortable waiting areas and can serve as pick-up "islands" for people who do not live in the paratransit service boundary.

Section Title

PRIORITIES

Developing a prioritized list of the objectives and strategies resulting from the Plan's unmet needs analysis is essential for making progress towards implementation over the next five years. The prioritization process incorporated stakeholder feedback as well as knowledge of available resources, associated costs, and implementation feasibility.

Method

To prioritize the list of potential strategies, BCDCOG used four evaluation criteria and scored the proposed strategies out of a total of 100 points.

Stakeholder Feedback

Stakeholders completed an online pairwise exercise to identify the relative importance that they individually placed on each of the four goal areas. Based on the results of this exercise, the goal areas were assigned the following weights.

› Administration: 8/25 points
› Accessibility: 25/25 points
› Coordination: 8/25 points
› Partnerships: 9/25 points

Feasibility

BCDCOG staff internally scored the feasibility of each strategy in terms of overall cost and ease of implementation. Based on these internal discussions, each project was assigned one of the following weights.

› Low feasibility: 8/25 points
› Moderate feasibility: 17/25 points
› High feasibility: 25/25 points

Geographic Equity

BCDCOG staff internally scored the potential of each strategy to impact a broad geographic area. Based on these internal discussions, each project was assigned one of the following weights.

› Urban only: 8/25 points
› Rural only: 17/25 points
› Urban and rural: 25/25 points

Impact on Transportation Disadvantaged Populations

BCDCOG staff internally scored the potential of each strategy to directly benefit older adults and people with disabilities. Based on these internal discussions, each project was assigned one of the following weights.

› Benefit to general public: 8/25 points
› Direct benefit to one disadvantaged group: 17/25 points
› Direct benefit to both disadvantaged groups: 25/25 points

Figure 27 shows how each individual strategy scored using these four evaluation criteria and how the collective objective scored based on an average of each strategy identified for the objective. Final rankings were based on the objective score.

Based on this approach, the ten highest-ranking objectives were:

› 1st – Objective 2.2: Vehicle Accessibility

› 2nd (tied) – Objective 2.3: Stop Accessibility

› 2nd (tied) – Objective: 3.1 Information Sharing

› 4th - Objective 2.1: Route Information

› 5th – Objective 4.2: Rideshare Partnerships

› 6th – Objective 3.2: Sustained Collaboration

› 7th – Objective 1.5: Operator Interactions

› 8th (tied) – Objective 4.1: Section 5310 Funding

› 8th (tied) – Objective 3.3: Institutional Outreach

› 8th (tied) – Objective 2.4: Access to Destinations

FIGURE 27: *Prioritized Objectives*

OBJECTIVE	STRATEGY	PRIORITIZATION CRITERIA				STRATEGY		OBJECTIVE	
		Stakeholder Feedback	Feasibility	Geographic Equity	Disadvantaged Populations	Individual Score	Rank	Average Score	Rank
1.1: CARTA Tel-A-Ride	1.1.1: Tel-A-Ride Application	8	25	8	17	58	31st	53	13th
	1.1.2: Tel-A-Ride Processing	8	25	8	17	58	31st		
	1.1.3: Tel-A-Ride Boundary	8	8	8	17	41	40th		
	1.1.4: Ride Pooling System	8	17	8	17	50	36th		
	1.1.5: Origin-to-Destination Service	8	25	8	17	58	31st		
1.2: Demand-responsive Service	1.2.1: Marketing Campaign	8	25	8	25	66	26th	66	11th
	1.2.2: Expand Destination List	8	25	8	25	66	26th		
	1.2.3: Monitor Usage	8	25	8	25	66	26th		
1.3: Fares & Passes	1.3.1: Senior Free Ride Days	8	17	8	17	50	36st	46	14th
	1.3.2: Multi-trip Fare Passes	8	17	8	8	41	40th		
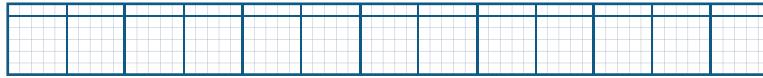
OBJECTIVE	STRATEGY	Stakeholder Feedback	Feasibility	Geographic Equity	Disadvantaged Populations	Individual Score	Rank	Average Score	Rank
1.4: Customer Service	1.4.1: Patterns of Complaints	8	25	25	8	66	26th	66th	11th
	1.4.2: ADA Complaint Process	8	25	25	8	66	26th		
1.5: Operator Interactions	1.5.1: Notification Card	8	25	25	17	75	15th	69	7th
	1.5.2: Personal Care Attendants	8	25	25	17	75	15th		
	1.5.3: Proofs of Age	8	25	8	17	58	32nd		
2.1: Route Information	2.1.1: In-vehicle Arrival Information	25	17	8	17	67	20th	79	4th
	2.1.2: Accessible Brochures	25	25	25	25	100	1st		
	2.1.3: Transit Ambassador Program	25	17	25	17	84	3rd		
	2.1.4: Web Mapping	25	17	25	8	75	15th		
	2.1.5: Real-time Bus Information	25	17	8	17	67	20th		
2.3: Stop Accessibility	2.3.1: Design Guidelines	25	25	25	17	92	2nd	80	2nd

OBJECTIVE	STRATEGY	PRIORITIZATION CRITERIA				STRATEGY		OBJECTIVE	
		Stakeholder Feedback	Feasibility	Geographic Equity	Disadvantaged Populations	Individual Score	Rank	Average Score	Rank
2.3: Stop Accessibility	2.3.1: Design Guidelines	25	25	25	17	92	2nd	80	2nd
	2.3.2: Shelter Installation	25	8	8	25	66	26th		
	2.3.3: Stop Request Process	25	25	25	8	83	7th		
2.4: Access to Destinations	2.4.1: Teleworking Jobs	25	17	25	17	84	3rd	67	8th
	2.4.2: New Employment Areas	25	8	8	8	49	40th		
	Strategy 2.4.3: Vehicle Acquisition and Replacement								
	Strategy 2.4.4: Purchase of Service								
3.1: Information Sharing	3.1.1: Aging & Health Practice	8	25	25	25	83	7th	80	2nd
	3.1.2: Regular Service Updates	8	25	25	25	83	7th		
	3.1.3: Orientation & Mobility Training	8	25	25	17	75	15th		

OBJECTIVE	STRATEGY	PRIORITIZATION CRITERIA				STRATEGY		OBJECTIVE	
		Stakeholder Feedback	Feasibility	Geographic Equity	Disadvantaged Populations	Individual Score	Rank	Average Score	Rank
3.2: Sustained Collaboration	3.2.1: Reset Coordination Group	8	25	25	25	83	7th	72nd	6th
	3.2.2: Expand Rural Representation	8	25	17	8	58	32nd		
	3.2.3: Curriculum Collaboration	8	25	25	17	75	15th		
3.3: Institutional Outreach	3.3.1: Intracampus Transportation	8	17	8	17	50	37th	67	8th
	3.3.2: Emergency Preparedness	8	25	25	25	83	7th		
4.1: Section 5310 Funding	4.1.1: 5310 One-pager	9	25	8	25	67	20th	67	8th
	4.1.2: Simplify 5310 Forms	9	25	8	25	67	20th		
	4.1.3: Promote 5310	9	25	8	25	67	20th		

OBJECTIVE	STRATEGY	PRIORITIZATION CRITERIA				STRATEGY		OBJECTIVE	
		Stakeholder Feedback	Feasibility	Geographic Equity	Disadvantaged Populations	Individual Score	Rank	Average Score	Rank
4.2: Rideshare Partnership	4.2.1: Rideshare Task Force	9	17	25	25	76	14th	78	5th
	4.2.2: Private Providers	9	25	25	25	84	3rd		
	4.2.3: Rotation List	9	25	25	25	84	3rd		
	4.2.4: Liability Insurance	9	8	25	25	67	20th		
4.3: Transit Matching Funds	4.3.1: Shuttle Partnerships	9	8	8	8	33	43rd	33	15th

Section Title

IMPLEMENTATION
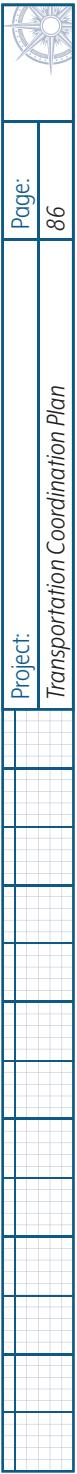
IMPLEMENTATION

The tables shown in **Figure 28** through **Figure 37** contain a list of action items to be implemented between 2022 and 2027 for the ten highest-ranking objectives and related strategies. An individual party or group of responsible parties are identified for each action item, as well as specific performance measures and performance targets to be tracked over time. These tables are provided in order of prioritized ranking.

FIGURE 28: *Performance Monitoring (2.2: Vehicle Accessibility)*

VEHICLE ACCESSIBILITY STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
2.2.1: At-home Ramps (Human Service Provider, Volunteers + BCDCOG)	Number of ADA-accessible ramps installed per year	-	Identify potential human service provider partner to help create program		5 ramps	5 ramps	5 ramps
2.2.2: Temperature Regulation (Local Municipal Governments + BCDCOG)	Percent of municipalities that allow bus idling during scheduled layovers so that buses can maintain temperature controls during the summer months	Study local municipal ordinances to identify limits on bus idling	75%	100%	-	-	-

FIGURE 29: *Performance Monitoring (2.3: Stop Accessibility)*

STOP ACCESSIBILITY STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
2.3.1 Design Guidelines (BCDCOG)	Amend Transit & Bus Stop Design Guidelines to include pedestrian connectivity, bicycle parking demand, and stop placement cues for low-vision and blind bus riders	Review pedestrian connectivity to bus stop best practices as part of scheduled update to regional micromobility plan, including establishing preferences for pedestrian clear zones and a buffer zones and a process for assessing demand for bicycle parking at transit and bus stops	Adopt new appendix to Transit & Bus Stop Design Guidelines with transit-related recommendations from regional micromobility plan	Review best practices for stop placement cues for low-vision and blind bus riders	Adopt new appendix to Transit & Bus Stop Design Guidelines with stop placement standards for low-vision and blind bus riders	-	-

PERFORMANCE TARGETS

STOP ACCESSIBILITY STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	2022	2023	2024	2025	2026	2027
	Create and maintain bus stop amenity database	Create bus stop amenity database (and revise baselines if needed)	Maintain bus stop amenity database	Maintain bus stop amenity database	Maintain bus stop amenity database	Maintain bus stop amenity database	Maintain bus stop amenity database
	Number of new shelters installed per year	4	4	4	4	4	4
2.3.2: Shelter Installation (BCDCOG + municipalities)	Number of new digital message signs installed per year	12	12	12	12	12	12
	Percent of shelters with benches	10% (baseline)	12%	14%	16%	18%	20%
	Percent of shelters with bike racks	5%	7%	9%	11%	13%	15%
	Percent of stops meeting revised pedestrian connectivity standard	-	Establish baseline	Base target off of 2023 baseline	Base target off of 2023 baseline	Base target off of 2023 baseline	Base target off of 2023 baseline
	Percent of newly-installed bus stop poles meeting standard	-	-	-	Establish baseline	Base target off of 2025 baseline	Base target off of 2025 baseline

STOP ACCESSIBILITY STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
2.3.3: Stop Request Process (BCDCOG)	Completed review of bus stop request process and maintenance of database	Review bus stop request process	Maintain database	Maintain database	Maintain database	Maintain database	Maintain database
	Percent of CARTA bus stop requests receiving notification within 21 days	Establish baseline	100%	100%	100%	100%	100%

FIGURE 30: *Performance Monitoring (3.1: Information Sharing)*

INFORMATION SHARING STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
3.1.1: Aging & Health Practice (BCDCOG)	Develop Aging & Health webpage on bcdcog.com	Develop new webpage	Update links to human service providers' websites (including Orientation & Mobility Training providers), private transportation providers' contact information, and other relevant resources				
3.1.2: Regular Service Updates (BCDCOG)	Percent of Lowcountry Senior Network meetings attended by BCDCOG staff	25%	25%	25%	25%	25%	25%
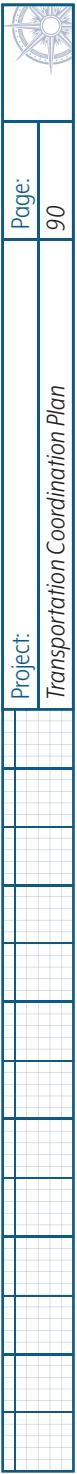
FIGURE 31: *Performance Monitoring (2.1: Route Information)*

ROUTE INFORMATION STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
2.1.1: In-vehicle Arrival Information (CARTA, TriCounty Link)	Percent of new CARTA and TriCounty Link fleet vehicles with audio and visual cues of upcoming bus stops/stations	50%	100%	100%	100%	100%	100%
2.1.2: Accessible Brochures (BCDCOG, CARTA, TriCounty Link)	Percent of newly-printed brochures that incorporate universal design best practices	100%	100%	100%	100%	100%	100%
2.1.3: Transit Ambassador Program (CARTA, TriCounty Link)	Number of CARTA Transit Ambassadors	4	5	5	5	5	5
	Number of TriCounty Link Ambassadors	Replicate CARTA program for TriCounty Link	1	2	2	2	2
2.1.4: Web Mapping (TriCounty Link)	Develop MyTCLink desktop companion	Identify funding	Wireframe	Implement	Maintain		
2.1.5: Real-time Bus Information (CARTA)	Number of new digital message signs installed per year	12	12	12	12	12	12

FIGURE 32: *Performance Monitoring (4.2: Rideshare Partnership)*

RIDESHARE PARTNERSHIP STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
4.2.1: Rideshare Sub-group (BCDCOG, Human Service Providers)	Number of churches reached	10	15	20	25	30	35
	Number of churches coordinating transportation services	2	3	4	5	6	7
4.2.2: Private Providers (BCDCOG)	Share private transportation provider list with Human Services Transportation Coordination Group	Create baseline	Update list	Update list	Update list	Update list	Update list
4.2.3: Rotation List (TBD)	To be decided by the Human Services Transportation Coordination Group						
4.2.4: Liability Insurance (TBD)							
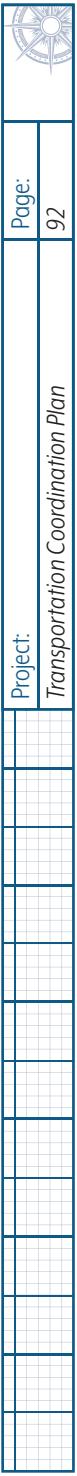
FIGURE 33: *Performance Monitoring (3.2: Sustained Collaboration)*

SUSTAINED COLLABORATION STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
3.2.1: Reset Coordination Group (BCDCOG, Human Service Providers)	Minimum number of Human Service Transportation Coordination Group meetings	1	1	1	1	1	1
3.2.2: Expand Rural Representation (BCDCOG, TriCounty Link)	Percent of rural representatives on TRAC	Establish separate rural TRAC	Grow rural TRAC membership	Integrate rural TRAC with existing TRACs	10%	10%	10%
3.2.3: Curriculum Collaboration (CARTA, TriCounty Link)	Training Manual Update	Update	-	-	Update	-	-

FIGURE 34: *Performance Monitoring (I.5: Operator Interactions)*

OPERATOR INTERACTIONS STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS						
		2022	2023	2024	2025	2026	2027	
I.5.1: Notification Card (CARTA, TriCounty Link)	Number of distributed notification cards	-	100	50	25	25	25	
I.5.2: Personal Care Attendants (CARTA, TriCounty Link)	Documented complaints about issues with personal care attendants riding with passengers with disabilities	Work with CARTA and TriCounty Link customer service to establish baseline	0	0	0	0	0	
I.5.3: Accepted Proofs of Age (CARTA, TriCounty Link)	Documented complaints about issues with operators not accepting pre-approved forms of proofs of age	Work with CARTA and TriCounty Link customer service to establish baseline	0	0	0	0	0	

FIGURE 35: *Figure 35: Performance Monitoring (4.1: Section 5310 Funding)*

SECTION 5310 FUNDING STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
4.1.1: 5310 One-pager (BCDCOG)							
4.1.2: Simplify 5310 Forms (BCDCOG)	Number of applicants to Section 5310 program	7	8	9	10	10	10
4.1.3: Promote 5310 (BCDCOG)							

FIGURE 36: *Figure 36: Performance Monitoring (3.3: Institutional Outreach)*

INSTITUTIONAL OUTREACH STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
3.3.1: Intracampus Transportation (BCDCOG)	Number of new campuses reached	1	1	1	1	1	1
3.3.2: Emergency Preparedness (BCDCOG)	To be decided by the Coordination Group						

FIGURE 37: *Figure 37: Performance Monitoring (2.4: Access to Destinations)*

ACCESS TO DESTINATIONS STRATEGIES (RESPONSIBLE PARTIES)	PERFORMANCE MEASURES	PERFORMANCE TARGETS					
		2022	2023	2024	2025	2026	2027
2.4.1: Teleworking Jobs (N/A)	Percent of workers 16+ working from home	5.8% (ACS, 2015-2019)	6.5%	6.8%	7.0%	7.3%	7.5%
2.4.2: New Employment Areas (N/A)	Percent of workers 16+ riding transit in emerging employment centers	Establish baseline	System-wide transit commute mode share	System-wide transit commute mode share	System-wide transit commute mode share	System-wide transit commute mode share	System-wide transit commute mode share

CONTEXT ENDNOTES

1 In this Plan, public transit is defined as any regular, continuing shared-ride surface transportation service that is open to the general public or open to a segment of the general public defined by age, disability, or income.

2 Human service nonprofits are the organizations that most people think of when they hear the word nonprofit. Among many other roles, they feed the hungry, assist crime victims and offenders, provide job training, house the homeless, help prepare for and recover from disasters, maintain recreation facilities, and act as advocates for children. Human services can also include providing transportation to meet the basic, day-to-day mobility needs of transportation-disadvantaged populations.

3 Shrestha, B.P., Millonig, A., Hounsell, N.B., and M. McDonald. Review of Public Transport Needs of Older People in European Context. Journal of Population Aging. 2017; 10(4): 343-361. <https://dx.doi.org/10.1007%2Fs12062-016-9168-9>

4 Dickerson, A.E., Molnar, L.J., Adler, G., Bédard, M., Berg-Weger, M., Classen, S., Foley, D., Horowitz, A., Kerschner, H., Page, O., Silverstein, N.M., Staplin, L., and L. Trujillo. Transportation and Aging: A Research Agenda for Advancing Safe Mobility. The Gerontologist. 2007; 47(5): 578-590. <https://doi.org/10.1093/geront/47.5.578>

5 Javalagi, R., Thomas, E., and S.R. Rao. Consumer Behavior in the U.S. Pleasure Travel Marketplace: An Analysis of Senior and Nonsenior Travelers. Journal of Travel Research. 1992; 31(2): 14-19. <https://www.semanticscholar.org/paper/Consumer-Behavior-in-the-U.S.-Pleasure-Travel-An-of-Javalgi-Thomas/832dd3862e7d3ccb4b34cfca2f3a02e6d129bb41>

6 Sikder, S. An Analysis of Travel Patterns and Preferences of the Elderly. Graduate Theses and Dissertations. University of South Florida. 2010. <https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=4664&context=etd>

7 Roberts, A.W., Ogunwole, S.U., Blakeslee, L., and M.A. Rabe. The Population 65 Years and Older in the United States: 2016. U.S. Census Bureau, American Community Survey Reports. October 2018. <https://www.census.gov/content/dam/Census/library/publications/2018/acs/ACS-38.pdf>

8 American Community Survey, U.S. Census Bureau. Table ID: S1810. 2012-2019. Five-year Estimates.

9 South Carolina Revenue and Fiscal Affairs Office. "South Carolina population estimates from 2000-2018 and population projections from 2019-2035: Four broad age groups". <https://rfa.sc.gov/data-research/population-demographics/census-state-data-center/population-estimates-projections>

10 R"Landmark Disability Survey Finds Pervasive Disadvantages" Mobility Lab. June 25, 2004. <https://mobilitylab.org/wp-content/uploads/2017/07/NationalOrganizationonDisabilityHarrisSurvey.htm>

11 U.S. Census Bureau, American Community Survey. "Disability Status". <https://www.census.gov/quickfacts/fact/note/US/DIS010219>

12 American Community Survey, U.S. Census Bureau. Table ID: S1810. 2012-2019. Five-year Estimates.

13 American Community Survey, U.S. Census Bureau. Table ID: B18108. 2019. One-year Estimates.

14 American Community Survey, U.S. Census Bureau. Table ID: S1810. 2019. Five-year Estimates.

15 Office of the Assistant Secretary for Planning and Evaluation. 2019 Poverty Guidelines. <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2019-poverty-guidelines>

16 American Community Survey, U.S. Census Bureau. Table ID: C18130. 2019. Five-year Estimates.

17 No such disparity between age and poverty status was present for our region according to five-year estimates from American Community Survey.

18 Steven Manson, Jonathan Schroeder, David Van Riper, Tracy Kugler, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 16.0 [dataset]. Minneapolis, MN: IPUMS. 2021. http://doi.org/10.18128/D050.V16.0 Table ID: B18101. American Community Survey, U.S. Census Bureau. 2015-2019. Five-year Estimates.

19 American Community Survey, U.S. Census Bureau. Table ID: S1701. 2015-2019. Five-year Estimates. <https://data.census.gov/cedsci/e?t=Poverty&g=0500000US45015,45019,45035&y=2019&tid=ACSST5Y2019.S1701>

20 The Center for Neighborhood Technology, Brookings Institution. <https://htaindex.cnt.org/about/HTMethods_2016.pdf>

21 Previously called the Elderly Persons and Persons with Disabilities program and now the Enhanced Mobility of Seniors & Individuals with Disabilities program. This program (49 U.S.C. 5310 or "Section 5310") provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of (1) older adults and (2) people with disabilities when the local public transit service is unavailable, insufficient, or inappropriate for meeting those needs. Funds are apportioned based on each state's share of the population for these two groups. The selection process may be formula-based, competitive, or discretionary, and subrecipients can include states or local government authorities, private non-profit organizations, and public transit agencies.

22 See FTA's Circular 9070.1G for more information: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29_1.pdf

23 SCDOT. Public Transit Programs. Accessed February 4, 2022. <https://www.scdot.org/inside/PublicTransit-Programs.aspx>

24 See Appendix D: Section 5310 Requirements for the specific federal guidance related to this Plan.

25 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Public Law 109-059

26 Job Access & Reverse Commute program (Section 5316)

27 New Freedom program (Section 5317)

28 Moving Ahead for Progress for the 21st Century Act (MAP-21), Public Law 112-141

29 Fixing America's Surface Transportation Act, Public Law 114-94

30 Public Law 117-58

31 BCDCOG's 2015 Plan largely pulls from SCDOT's 2013 Regional Transit & Coordination Plan. Appendix A shows the status of strategies included in both planning efforts. <https://www.scdot.org/multimodal/pdf/SC_MTP_Regional_Transit_Plan_Berkeley-Charleston-Dorchester_FINAL.pdf>

32 The National Park Service studied the viability of an expanded waterborne transportation network in Charleston Harbor in its 2004 Fort Sumter National Monument Alternative Transportation Study. While the emphasis of this study was on tourism-based water shuttle service, it laid the groundwork for commuter ferry services. Ferry and water taxi services were identified as part of the regional vision in Our Region Our Plan in 2012. The plan identified the Ashley and Cooper rivers as potential corridors for waterway transit service to downtown Charleston, Hanahan, and Charleston International Airport.

BCDCOG's I-26 Fixed Guideway Alternative Analysis (2016) included waterborne transit in its universe of alternatives matrix. Alternative G represented a commuter ferry service along the Ashley River and Alternative H represented a commuter ferry service along the Cooper River. These alternatives received "low" ratings and were not recommended to move into the next phase of screening because they did not provide transit-oriented development opportunities in North Charleston, avoided several communities previously identified as catalyst areas for future development, would impact historical and environmental areas near the North Charleston dock location, and would not directly connect to major employment centers.

A Commuter Ferry Working Group convened in 2017 to assess the feasibility of a regional commuter ferry service that could complement existing water taxi services. BCDCOG's Transit Needs Assessment (2017) built on early findings from the working group and included peer and market analyses for commuter-oriented ferry services. The Regional Transit Framework and CHATS' Long-range Transportation Plan (2019) stop short of providing a recommendation for ferry services and referenced anticipated findings from the working group but did suggest commuter ferries along routes through the Ashley River ($15.5 million estimated capital costs), Cooper River ($15.9 million estimated capital costs), and Charleston Harbor ($10.8 million estimated capital costs) with an implementation horizon of 2030 through 2040. While competitive grant opportunities exist to fund capital components of the ferry service (i.e., vessels, dock, etc.), the availability of funds to support of a detailed planning study and ongoing operations and maintenance are limited.

33 Regional Transit Framework. BCDCOG. 2018. <https://www.bcdcog.com/transportation/planning/regional-transit-framework/>

34 Rural Long-range Transportation Plan. BCDCOG. <https://www.bcdcog.com/transportation/planning/rural-long-rage-plan/>

35 Metro Long-range Transportation Plan. CHATS. 2019. <https://www.bcdcog.com/transportation/planning/long-range-transportation-plan/>

36 More precisely, the equity analysis was first completed in our region's micromobility plan, Walk Bike BCD (2016), and then incorporated into the metro long-range transportation plan.

37 Statewide Multimodal Transportation Plan. SCDOT. 2020. <https://www.scdot.org/multimodal/>

38 Lowcountry Go. BCDCOG. <https://www.lowcountrygo.com/>

39 Lowcountry Go, LowGoTober. BCDCOG. <https://www.lowcountrygo.com/lowgotober>

40 I-26 Corridor Management Plan. SCDOT. 2021. <https://www.scdot.org/projects/i26-corridor.aspx>

41 The second most desired destinations indicated by community survey respondents was grocery stores/restaurants, only trailing healthcare facilities/pharmacies. Older adults were more likely to list grocery stores/restaurants as one of their top three desired destinations compared to people with disabilities and low-income respondents.

ADMINISTRATION ENDNOTES

42 To learn more about CARTA's full range of services, visit: https://www.ridecarta.com/services/

43 Tel-A-Ride trip hours: Monday to Friday - 5:15 AM to 1:00 AM / Saturday - 6:00 AM to 12:00 AM / Sunday - 7:00 AM to 9:00 PM

44 Although there are no existing routes serving Sullivan's Island and Isle of Palms, parts of these communities are served by Tel-a-Ride because of previous routing

45 CARTA's existing Tel-A-Ride application form: https://www.ridecarta.com/wp-content/uploads/2019/07/TelARide-Temp-App-072019.pdf

46 See TriCounty Link's website for more information on its deviated-route service policy: https://ridetricountylink.com/ada-policy/

47 To see TriCounty Link's application form for deviated-route service, please visit: https://ridetricountylink.com/wp-content/uploads/2015/04/TCLADADeviatedRouteApplication.pdf

48 See the CARTA OnDemand webpage for more information: https://www.ridecarta.com/services/ondemand/

49 BCDCOG. TriCounty Link Routes final report. October 17, 2017

50 Vogels, E.A. Digital divide persists even as Americans with lower incomes make gains in tech adoption. Pew Research Center. June 22, 2021. <https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/>

51 American Community Survey, U.S. Census Bureau. Table ID: B28001. 2015-2019. Five-year Estimates

52 American Community Survey, U.S. Census Bureau. Table ID: B28004. 2015-2019. Five-year Estimates

53 Vogels, E.A. Digital divide persists even as Americans with lower incomes make gains in tech adoption. Pew Research Center. June 22, 2021. <https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/>

54 For more information, visit: https://gogograndparent.com/faq

55 For a full and routinely updated list of fares, visit: https://www.ridecarta.com/fares-passes/

56 For a full and routinely updated list of fares, visit: https://www.ridecarta.com/fares-passes/

57 To use qualify for this discount, passengers must receive a Disabled Fare identification card at the SC Works Charleston Career Center

58 In-person locations for CARTA pass purchases:

> › Charleston Visitor Center
> *375 Meeting Street, Charleston*
> *Mon-Sun, 8:30 AM - 5:00 PM*

> › Mt. Pleasant Visitor Center
> *99 Harry M. Hallman Boulevard, Mt. Pleasant*
> *Mon - Sun, 9:00 AM - 5:00 PM*

> › CARTA Main Office
> *3664 Leeds Avenue, North Charleston*
> *Mon - Fri, 8:30 AM - 5:00 PM*

> › SC Works Career Center
> *1930 Hanahan Road, North Charleston*
> *Mon - Fri, 8:30 AM - 5:00 PM*

> › Piggly Wiggly
> *8780 Rivers Avenue, North Charleston*
> *Mon - Sun, 7:00 AM - 11:00 PM*

> › Price Wise
> *1270 Yeamans Hall Road*
> *Mon - Sat, 7:00 AM - 10:00 PM*
> *Sun, 8:00 AM - 9:00 PM*

59 For more information on how the Token Transit electronic payment system works, visit: https://www.youtube.com/watch?v=HkCrnygSaoI

ACCESSIBILITY ENDNOTES

60 Federal Transit Administration. ADA Regulations. Last Updated: September 15, 2021. <https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/ada-regulations>

61 Architectural and Transportation Barriers Compliance Board. American with Disabilities Act (ADA) Accessibility Guidelines for Transportation Vehicles. December 14, 2016. <https://www.federalregister.gov/documents/2016/12/14/2016-28867/americans-with-disabilities-act-ada-accessibility-guidelines-for-transportation-vehicles>

62 Americans with Disabilities Act - Architectural Barriers Act Accessibility Guidelines. Last Amended: August 5, 2005. <https://www.ada.gov/archive/NPRM2008/ada_standards/proposedadastds.htm> See Section 810.5.3 for station platform design requirements

63 Fan, Yingling & Guthrie, Andrew & Levinson, David (2016). "Waiting time perceptions at transit stops and stations: Effects of basic amenities, gender, and security," Transportation Research Part A: Policy and Practice, Elsevier, vol. 88(C), pages 251-264. <https://nacto.org/wp-content/uploads/2016/02/1_Fan-et-al-Perception-of-Waiting-Time-at-Transit-Stops-and-Stations_2015.pdf>

64 BCDCOG. Transit Shelter and Design Guidelines. October 2021. <https://www.bcdcog.com/bus_stop_design_guidelines/>

65 BCDCOG. Transit & Bus Stop Design Guidelines. October 2021. <https://www.bcdcog.com/bus_stop_design_guidelines/>

66 For more information, see the Lowcountry Rapid Transit system's webpage on transit-oriented development: https://lowcountryrapidtransit.com/docs/BCDCOG_LCRT_TOD_Workshops_1_website.pdf

67 For more information on Lowcountry GO, visit: https://www.lowcountrygo.com/

68 For more information on the College of Charleston's carpooling program, visit: https://sustain.cofc.edu/impact/transportation/carpooling-vanpooling.php

69 For more information on the Medical University of South Carolina's carpool program, visit: https://web.musc.edu/about/facilities/sustainability/transportation

70 The Council of State Governments. Disability-Inclusive Telework for States. December 2020. <https://seed.csg.org/wp-content/uploads/2020/12/2020_SEED_Telework_RGB_Web.pdf>

71 ETC Institute. Transportation Demand Management Employee and Employer Surveys. 2016

72 Bureau of Labor Statistics. Teleworking and lost work during the pandemic: new evidence from CPS. Monthly Labor Review. July 2021. <https://www.bls.gov/opub/mlr/2021/article/teleworking-and-lost-work-during-the-pandemic-new-evidence-from-the-cps.htm#:~:text=Our%20results%20show%20that%20the,percent%20in%20the%20fourth%20quarter.>

73 Parker, K., Horowitz, J.M., and R. Minkin. "How the Coronavirus Outbreak Has - and Hasn't - Changed the Way Americans Work. Pew Research Center. December 9, 2020. <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>

74 Kruse, D., Park, S.R., Rodgers, Y., and L. Schur. Fact Sheet on Disability and Telework During the Pandemic. Rutgers University. September 30, 2021. <https://smlr.rutgers.edu/sites/default/files/Documents/Centers/Program_Disability_Research/FactSheet_DisabilityTelework_Pandemic_Sept2021.pdf>

COORDINATION ENDNOTES

75 Federal Transit Administration. ADA Regulations. Last Updated: September 15, 2021. <https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/ada-regulations>

PARTNERSHIP ENDNOTES

76 Federal Transit Administration. 2020 Annual Database Revenue Sources. National Transit Database. <https://www.transit.dot.gov/ntd/data-product/2020-annual-database-revenue-sources>

77 Federal Transit Administration. 2020 Annual Database Revenue Sources. National Transit Database. <https://www.transit.dot.gov/ntd/data-product/2020-annual-database-revenue-sources>

78 For more information on this program, visit: https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310

79 A Golden Ride Personal Senior Transportation can accommodate passengers in wheelchairs if they are able to stand and pivot

80 For real-time bus arrival information for the Medical University of South Carolina's shuttles, visit: http://www.muscarolina.ridesystems.net/routes/23/stops

81 For more information on the VA's van service, visit: https://www.va.gov/charleston-health-care/dav-vans-transportation-for-veterans/

82 For more information on the VA's shuttle services, visit: https://www.va.gov/charleston-health-care/locations/ralph-h-johnson-department-of-veterans-affairs-medical-center/

83 For more information on the VA's Beneficiary Travel program, visit: https://www.va.gov/health-care/get-reimbursed-for-travel-pay/

84 CofC/Grice Shuttle Service. Accessed February 15, 2022. <https://ssm.cofc.edu/shuttle.php>

85 For more information on the College of Charleston's subsidized CARTA trips, visit: https://parkingservices.cofc.edu/information-for/carta-bus-service.php

86 For more information on the Medical University of South Carolina's subsidized CARTA trips, visit: https://web.musc.edu/about/facilities/sustainability/transportation

87 BCDCOG. Regional Park-&-Ride Study. September 2018. <https://www.bcdcog.com/transportation/planning/regional-park-and-ride-study/>

88 BCDCOG. TriCounty Link Routes final report. October 17, 2014

89 For more information on the HOP lot, visit: https://www.ridecarta.com/services/hop-park-and-ride-shuttle/

90 For more information on MUSC's bikeshare program, visit: https://www.mymuschousing.com/resource

91 This discounted pricing information was accurate for the Holy Spokes bikeshare service operated by Gotcha Bike up through January 2021. At the time of this publication, it is unknown if the City of Charleston's new bikeshare operator, Lime, will maintain the same incentives for students

92 For more information on the College of Charleston's bikeshare program, visit: https://bike.cofc.edu/bike-share-program/index.php

Section Title

APPENDICES

Section Navigation

TOP 10 OBJECTIVES (2022-2027)	PROGRESS MADE (2015-2021)	PERFORMANCE TARGETS (2022-2027)
VEHICLE ACCESSIBILITY - Consider a passenger's whole journey to improve physical accessibility beyond ADA requirements	All new CARTA vehicle purchases are ADA-compliant, new fixed-route vehicles include a built-in stop announcement system, and BCDCOG is currently studying potential transportation strategies to improve healthy food access	By 2027, help human service provider to install 15 ADA-accessible ramps at eligible Tel-A-Ride passengers' residences
		Work with local municipalities to allow bus idling during scheduled layovers in the summer months to maintain temperature control
STOP ACCESSIBILITY - Work to improve passenger's comfort and safety while traveling to bus stops and waiting for buses to arrive	BCDCOG hired a transit planning team member in 2019 to facilitate installation of new bus stop accommodations	Send 100% of notifications to people requesting bus stops within 21 days
	CARTA's Board of Directors adopted the Transit & Bus Stop Design Guidelines in 2021	Add new appendices for pedestrian connectivity, bicycle parking demand, and stop placement cues for low-vision and blind bus riders
	Between 2016 and 2021, BCDCOG helped municipalities install 54 shelters, 31 benches, 14 digital signs, 4 Park-&-Ride lots, and over 130 solar lights	By 2027, install 60 new shelters, 72 new digital message signs, obtain 20% of shelters with benches, obtain 15% of shelters with bike racks
INFORMATION SHARING - Seek opportunities to stay up-to-date on existing services and best practices for providing mobility options for older adults and people with disabilities and share these back with interested parties	BCDCOG staff periodically attended Lowcountry Senior Network meetings to provide service updates	Develop a new landing page for "Aging & Health" on the BCDCOG website and attend Lowcountry Senior Network meetings on a quarterly basis to stay informed on changes in the industry

TOP 10 OBJECTIVES (2022-2027)	PROGRESS MADE (2015-2021)	PERFORMANCE TARGETS (2022-2027)
ROUTE INFORMATION - Continue to build upon existing route information strategies with an emphasis on providing a wide-range of options to cover all comfort levels with technology	BCDCOG revamped CARTA's website in 2017	Incorporate universal design best practices into planned newly-printed route brochures
	BCDCOG launched the mobile "Transit" app in 2017 and the mobile "MyTCLink" app in 2019	Develop a desktop companion to the mobile MyTCLink app
	The CARTA Ambassador program was established in the early 2010s and is ongoing	Expand the number of existing CARTA Transit Ambassadors and expand the program to TriCounty Link
	BCDCOG installed 14 digital message signs and began the installation in-vehicle audio and visual cues in CARTA fixed-route buses	Continue to install at least 12 new digital message signs per year and add in-vehicle audio and visual cues of upcoming stops to all new transit vehicles
RIDESHARE PARTNERSHIP - Fill the gap created by discontinued coordinated rideshare programs	Senior Ride Charleston's operations ceased in 2019 leaving a large gap in the region for affordable transportation for older adults	Routinely update a list of private transportation providers and share with All About Seniors, the Trident Area Agency on Aging, and other interested groups for inclusion in their publications; work through the reconvened Coordination Group to engage churches about transportation services, explore shared financing for a volunteer-based rideshare program, and the creation of a referral list of private transportation providers
	BCDCOG launched the "Lowcountry Go" mobile and desktop platforms in 2018	
	BCDCOG purchased a fleet of vans to support its vanpool program in 2021 and hired a full-time vanpool coordinator in 2022	Continue to promote the vanpool program as a transportation option for low-income workers
SUSTAINED COLLABORATION - Develop a sustainable structure for BCDCOG, CARTA and TriCounty Link to continue to solicit feedback from human service organizations and members of the public, as well as facilitate conversations among related groups	BCDCOG convened "Human Service Transportation Coordination Partners" meetings between 2015 and 2017	Reconvene annual Coordination Group meetings, and work through the group to update transit training manuals every three years
	Starting in 2017, CARTA regularly convenes two Transit Rider Advisory Committees (TRACs) for fixed-route and Tel-A-Ride service	Expand TRAC to include at least 10% rural representation

TOP 10 OBJECTIVES (2022-2027)	PROGRESS MADE (2015-2021)	PERFORMANCE TARGETS (2022-2027)
OPERATOR INTERACTIONS - Develop more formalized systems for facilitating driver interactions with older adults and people with disabilities to improve the overall passenger experience	New objective!	Develop and distribute notification cards to assist non-verbal passengers in communicating trip needs with transit drivers
		Work with CARTA and TriCounty Link to clarify existing policies regarding personal care attendants and approved documents for demonstrating proof of age
SECTION 5310 FUNDING - Receive urban Section 5310 funding applications from a broader range of public agencies, human service organizations, and private transportation providers, as well as for a more diverse range of proposed activities compared to 2015-2021 applications	In 2020, BCDCOG transitioned from a more open-ended narrative format for Section 5310 (Urban) funding recipients to report their activities on a quarterly basis to a 6-page standardized, interactive PDF	Expand (from 3-5 applicants per year to and 10 per year) diversify the applicant pool for Section 5310 funding through simplified forms and direct outreach to human service providers
INSTITUTIONAL OUTREACH - Identify opportunities to work with larger institutions on documenting mobility needs for older adults and people with disabilities	New objective!	Solicit participation from higher education institutions in the Coordination Group and document campus-related transportation needs for people with disabilities and low-income students
		Collate existing emergency evacuation procedures for older adults and people with disabilities
ACCESS TO DESTINATIONS - Identify new opportunities to improve employment access for people with disabilities	BCDCOG is currently developing the Lowcountry Rapid Transit (LCRT) system, including a Transit-oriented Development Study and transit signal prioritization project	Promote the post-pandemic benefits of teleworking to employers and employees through Lowcountry Go
		Increase transit and carpool commute mode share near emerging employment centers to system-wide percentages

BCDC✷G
BERKELEY-CHARLESTON-DORCHESTER
COUNCIL OF GOVERNMENTS

HUMAN SERVICES COORDINATION SURVEY

Scan here to access the online survey

1. What is your current primary means of transportation to essential services (medical, grocery, etc.)?

   a. Personal vehicle

   b. Friend, family, or social organizations (church, senior center, etc.)

   c. Transit (bus)

   d. Walk

   e. Bicycle

   f. Taxi/Rideshare

   g. Other _____

2. Is your current mode of transportation easy and efficient?

   a. Yes

   b. No

3. Is your current mode of transportation affordable?

   a. Yes

   b. No

4. How many trips per week to essential services to you make?

   a. 1-2

   b. 3-4

   c. 5 or more?

5. What are your top 3 destinations you would need transport to?

   a. _____

   b. _____

   c. _____

6. Is public transportation an option for you?

   a. Yes. I use it.

   b. No. It is not available where I live.

   c. No. It does not go where I need to go.

   d. No. It is not available at the times or days when I need it.

   e. No. The vehicles are not wheelchair accessible

   f. Other: _____

7. Is carpooling an option for you?

    a. Yes. I use it.
    b. No. It is not available where I live.
    c. No. It does not go where I need to go.
    d. No. It is not available at the times or days when I need it.
    e. No. The vehicles are not wheelchair accessible
    f. Other: _____

8. Are senior transportation services an option for you?

    a. Yes. I use it.
    b. No, I am not eligible for senior services
    c. No. It is not available where I live.
    d. No. It does not go where I need to go.
    e. No. It is not available at the times or days when I need it.
    f. Other: _____

9. Would you prefer paratransit/ADA service (service typically provided by a public transportation provider for those in our community that are disabled or have mobility challenges) or would you prefer a vanpool operated by a church or social service organization?

    a. Paratransit/ADA service
    b. Vanpool

10. Would you use a demand-response program with an on-call transportation service such as Uber or Lyft?

    a. Yes
    b. No

11. Please check which demographic group(s) you are in (check all that apply):

    a. Senior Citizen
    b. Persons with a Disability
    c. Household Income below $45,400
    d. None of the Above

12. Are you employed?

    a. Employed outside the home
    b. Work from home
    c. Retired
    d. Student
    e. Unemployed
    f. Other

13. What is your zip code? _____

Coordination Plan - Strategy Prioritization

Admin – Adopt policies, conduct training, and provide customer service that is responsive to the needs of transportation-disadvantaged populations

Access – Build and maintain transit accommodations that serve the needs of people of all ages and abilities

Coordination – Create a venue for transportation providers and human service agencies to discuss needs, opportunities, and funding

Partnerships – Forge agreements for expanding services, reducing costs, or fostering resiliency through shared transportation responsibilities

Compare the importance of these goals by picking where you fall on the scale from +3 (much more important) to +1 (slightly more important). Note: You must select one goal as being as being more important than the other; there is no *neutral* option.

OK

Example—What do you value more in picking a college: sports or academics?

0 of 7 answered

* Admin v. Access

Admin + 3	Admin + 2	Admin + 1	Access + 1	Access+ 2	Access +3
○	○	○	○	○	○

* Admin v. Coordination

Admin +3	Admin +2	Admin +1	Coordination +1	Coordination +2	Coordination +3
○	○	○	○	○	○

* Admin v. Partnerships

Admin + 3	Admin +2	Admin +1	Partnerships + 1	Partnerships +2	Partnerships +3
○	○	○	○	○	○
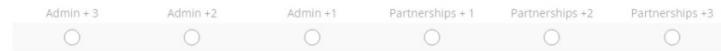
* Access v. Coordination

Access +3	Access + 2	Access +1	Coordination + 1	Coordination + 2	Coordination + 3
○	○	○	○	○	○

* Access v. Partnerships

Access + 3	Access + 2	Access + 1	Partnerships + 1	Partnerships + 2	Partnerships + 3
○	○	○	○	○	○
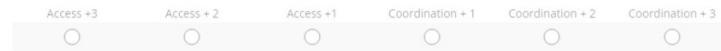
* Coordination v. Partnerships

Coordination + 3	Coordination + 2	Coordination + 1	Partnerships + 1	Partnerships + 2	Partnerships + 3
○	○	○	○	○	○

APPENDIX D:
SECTION 5310 REQUIREMENTS

Transit assistance programming for older adults and people with disabilities from the Federal Transit Administration's 2014 Circular 9070.1G (which supersedes previous guidance from 2007) for 49 U.S.C. 5310:

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C9070_1G_FINAL_circular_4-20-15%281%29_1.pdf

ELIGIBLE PROJECT TYPES OVERVIEW	
Eligible for Capital (55% minimum)	Eligible for Operations (45% maximum)
ELIGIBLE PROJECT TYPES KEY*	
Capital projects that meet the 55% minimum requirement	Operating projects that meet the 45% maximum requirment
1. Rolling stock and related activities for Section 5310-funded vehicles 2. Passenger facilities related to Section 5310-funded vehicles 3. Support facilities and equipment for Section 5310-funded vehicles 4. Lease of equipment when lease is more cost effective than purchase 5. Acquisition of transportation services under a contract, lease, or other arrangement 6. Support for mobility management and coordination programs among public transportation providers and other human service agencies provding transportation 7. Capital activities (e.g., acquisition of rolling stock and related activities, acquisition of services, etc.) to support ADA-complementary paratransit service may qualify toward the 55 percent requirement, so long as the service is provided by an eligible recipient/subrecipient as defined in section 5, above, and is included in the coordinated plan.	1. Exceed the ADA minimum requirments 2. Improve access to fixed-route service and decrease reliance by individuals with disabilities on ADA-complementary paratransit service 3. Provide alternatives to public transportation that assist seniors and individuals with disabilities with transportation

*refer to FTA C 9070.1G pp. III-9 - III-15

User Survey

1. In general, which of these phrases best describes how well your household's transportation needs are currently being met?

   a. Can always get places

   b. Can usually get places

   c. Can get places but it takes a long time

   d. Sometimes cannot get places

   e. Often cannot get places

2. If you need informaion about public transportation services, how do you currently get it?

   a. I've never tried to get public transit information

   b. I use the internet

   c. I ask a friend or family member

   d. I call the transportation agency

   e. I look in the phone book

   f. I ask a bus driver

   g. I use the system's printed guidance (, printed bus schedules, brochures, et)

   h. I ask a social worker, case worker, or social service provider

   i. Other: _____

3. How would you like to get information about public transit services?

   a. By calling the transit agency on the telephone

   b. In printed materials such as bus schedules and brochures

   c. On the internet

   d. Displays or signs at the bus stop

   e. From a social worker, case worker, or social service provider

   f. From friends or family

4. How familiar are you with the following transportation programs?

   - Very familiar

   - Somewhat familiar

   - Not very familiar

   - Don't know about at all

   a. BCDCOG's vanpool program

   b. CARTA Tel-A-Ride

   c. CARTA OnDemand

   d. CARTA Transit Ambassador program

   e. CARTA's Transit App

   f. Tri-County Link deviated route service

   g. Tri-County Link traveler training

   h. TriCounty Link's MyTCLink app

i. Beach Reach Shuttle

j. Lowcountry Go

k. Park-&-Ride Lots

l. CARTA passes

m. Senior FREE ride days

n. Senior Fares

5. Does your household have access to a personal vehicle?

a. Yes

b. No

6. Does someone in your household have a valid driver's license?

a. Yes

b. No

7. What is your household's primary mode of transportation to work?

a. Not applicable

b. Personal vehicle

c. Carpool using a vehicle not owned by your household

d. Vanpool

e. Bus

f. Walk

g. Bicycle

h. Taxi

i. Uber/Lyft

j. Other: _____

8. What is your household's primary mode of transportation to school?

a. Not applicable

b. Personal vehicle

c. Carpool using a vehicle not owned by your household

d. Vanpool

e. Bus

f. Walk

g. Bicycle

h. Taxi

i. Uber/Lyft

j. Other: _____

9. Do you or any member of you household...? (Select all that apply)

a. Have a disability that prevents them from using public transit independently

b. Have a physical disability that keeps them from getting to a bus stop

c. Use a wheelchair, scooter, or walker

d. Have a vision impairment or other disability that prevents them from driving

10. How well do you speak English?

a. Not at all

b. Not well

c. Well

d. Very well

11. What is your current home zip code? _____