CHAPTER 1: Overview of Transit System
Contents

1 OVERVIEW OF ARLINGTON TRANSIT SYSTEM ............................................. 1-1
  1.1 History ............................................................................................................. 1-1
  1.2 Governance Structure ..................................................................................... 1-2
  1.3 Organizational Structure ................................................................................. 1-4
  1.4 Transit Services Provided and Areas Served .................................................. 1-8
    1.4.1 Arlington Transit ....................................................................................... 1-8
    1.4.2 Specialized Transit for Arlington Residents .............................................. 1-8
    1.4.3 Metrobus ................................................................................................. 1-11
    1.4.4 Metrorail .................................................................................................. 1-11
    1.4.5 MetroAccess ........................................................................................... 1-14
    1.4.6 Virginia Railway Express ........................................................................ 1-15
    1.4.7 Arlington County Commuter Services ..................................................... 1-15
    1.4.8 Ridesharing / Car Pooling / Car Sharing .................................................... 1-17
    1.4.9 Bicycling ................................................................................................. 1-17
    1.4.10 Walking ................................................................................................... 1-17
    1.4.11 Taxi ......................................................................................................... 1-18
    1.4.12 Transportation Network Companies ....................................................... 1-18
    1.4.13 Transportation for seniors ........................................................................ 1-18
    1.4.14 Other Transportation Services ................................................................ 1-19
  1.5 Fare Structure ............................................................................................... 1-19
    1.5.1 ART Fare Structure ................................................................................ 1-19
    1.5.3 STAR ...................................................................................................... 1-21
    1.5.4 Metrobus Fare Structure ........................................................................... 1-21
  1.6 Vehicle Fleet ................................................................................................. 1-21
  1.7 Existing Facilities ........................................................................................... 1-22
    1.7.1 Administrative .......................................................................................... 1-22
    1.7.2 Maintenance/Fueling ................................................................................. 1-22
    1.7.3 Storage and Staging .................................................................................. 1-23
    1.7.4 Parking ..................................................................................................... 1-23
<table>
<thead>
<tr>
<th>1.7.5</th>
<th>Stations/Transit Centers/Bus Stops</th>
<th>1-23</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7.6</td>
<td>Track or Guideway</td>
<td>1-26</td>
</tr>
<tr>
<td>1.7.7</td>
<td>Bicycle Facilities</td>
<td>1-27</td>
</tr>
<tr>
<td>1.7.8</td>
<td>ADA Accommodations</td>
<td>1-29</td>
</tr>
<tr>
<td>1.8</td>
<td>Transit Security Program</td>
<td>1-29</td>
</tr>
<tr>
<td>1.9</td>
<td>Intelligent Transportation Systems Program</td>
<td>1-30</td>
</tr>
<tr>
<td>1.9.1</td>
<td>Computer Aided Dispatch or Automatic Vehicle Locator systems</td>
<td>1-30</td>
</tr>
<tr>
<td>1.9.2</td>
<td>Automatic Passenger Counters</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.3</td>
<td>Traffic Signal Priority</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.4</td>
<td>On-board Cameras</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.5</td>
<td>Trip Planners</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.6</td>
<td>Scheduling and Run cutting Software</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.7</td>
<td>Maintenance, Operations and Yard Management Systems</td>
<td>1-31</td>
</tr>
<tr>
<td>1.9.8</td>
<td>Information Displays and Real Time Arrival</td>
<td>1-32</td>
</tr>
<tr>
<td>1.9.9</td>
<td>Information to Mobile Devices or Applications</td>
<td>1-32</td>
</tr>
<tr>
<td>1.10</td>
<td>Data Collection and Ridership and Revenue Reporting Methodology</td>
<td>1-32</td>
</tr>
<tr>
<td>1.11</td>
<td>Public Outreach Program</td>
<td>1-34</td>
</tr>
</tbody>
</table>

**Figures**

- Figure 1 | Arlington Transit Annual Ridership (Fiscal Years 2005-2014) | 1-2
- Figure 2 | Arlington County Transit Bureau Organization Chart | 1-7
- Figure 3 | Arlington Regional Transit System | 1-10
- Figure 4 | Metrobus System in Arlington County | 1-12
- Figure 5 | Metrorail System | 1-13
- Figure 6 | Virginia Railway Express System | 1-15
- Figure 7 | Shirlington Bus Station Layout | 1-25
- Figure 8 | Crystal City Potomac Yard Transitway and Metroway Service | 1-26
- Figure 9 | Arlington County Bicycle Lanes | 1-28
Tables
Table 1 | ART Fare Structure ..................................................................................... 1-20
Table 2 | STAR Fare Structure ................................................................................... 1-21
Table 3 | Metrobus Fare Structure .............................................................................. 1-21
Table 4 | Arlington Transit Vehicle Fleet (As of October 2015) .................................. 1-22
Table 5 | Arlington Data Collection Processes ........................................................... 1-33
1 OVERVIEW OF ARLINGTON TRANSIT SYSTEM

Arlington County, Virginia is an urban county of 25.8 square miles and is geographically the smallest county in the United States. Located directly across the Potomac River from Washington, DC, it is bounded on the northwest by Fairfax County; on the west by the City of Falls Church; on the south by the City of Alexandria; and to the northeast by the Potomac River. Arlington County’s population was 207,627 in the 2010 census. As of January 1, 2015, Arlington had an estimated population of 216,700, reflecting an increase of 4.4% since 2010. Arlington County is one of the most densely populated jurisdictions in the country with a population density of 8,399 persons per square mile. Population forecasts project 246,900 individuals living in Arlington County by 2025.2

Although Arlington County has high-density residential communities, it is also known for its high employment concentrations. Arlington had an estimated 221,700 at-place employees as of January 2015. Currently, Arlington County has more private office space than the downtowns of Los Angeles, Dallas, Denver, Seattle, and Atlanta.3 Nearly half of the employment is concentrated along the Rosslyn-Ballston Corridor near Orange and Silver Line Metrorail Stations. The Crystal City and Pentagon City areas are also major employment centers in the County. Employment forecasts project employment to increase to 243,600 by 2025 with growth concentrated in the Rosslyn-Ballston, Jefferson Davis, and Columbia Pike corridors.4 To handle this anticipated growth, Arlington will need to improve the effectiveness and overall capacity of its transportation network.

1.1 History

Arlington Transit (ART) fixed route bus system began providing service in November 1998 to meet the needs of Arlington residents. Initial routes were in Crystal City. Prior to ART, the Washington Metropolitan Area Transit Authority (WMATA) was the sole provider of local bus service in the County with Metrobus. Today, the ART service has grown to 16 routes (December 2015), with continued ridership growth to over 2.8 million riders in FY 2014 (Figure 1). In FY 2008, ART received its first eight heavy-duty transit buses. Today, ART operates a fleet of 68 transit buses that all use compressed natural gas (CNG). In 2008, Arlington Transit opened the Shirlington Bus Station, which is a hub for ART, Metrobus, and Alexandria DASH buses. ART has become an important transportation link between local neighborhoods and regional transit services (e.g., Metrorail and Metrobus).

---

2 Arlington County Forecast Round 8.4
1.2 Governance Structure

Arlington County is governed by a five-member County Board vested with its legislative powers. Elected at-large, members serve for staggered four-year terms. The Board’s current Chair is Libby Garvey and the Vice-Chair is Jay Fisette. The County Board sets policy direction for Arlington, which is then administered by the County Manager. Board members also serve on other regional advisory groups and commissions addressing transportation issues such as the Metropolitan Washington Area Transit Authority (WMATA), Northern Virginia Transportation Commission (NVTC), Northern Virginia Transportation Authority (NVTA), and Metropolitan Area Council of Governments (MWCOG).

The County Transportation Commission (TC) reviews transportation related items in Arlington County, including streets, transit, pedestrian, taxicabs and bicycle modes and their relation to site plans, local area and sector plans. The TC also advises the County Board on the implementation of elements of the Master Transportation Plan. The TC generally meets at 7:30 PM on select Thursdays during the year, ranging from once to twice monthly. The TC was formed in 1972 and is a committee appointed by the County Manager to four-year terms; the chairman is designated by the County Board in June of every year. The Commission is comprised of anywhere from seven to thirteen members. The current members are:

- Chris Slatt, Chairman (term ends: Sept. 30, 2017)
The Transit Advisory Committee (TAC) advises the County Manager and other staff on issues related to transit in Arlington, including ART, Specialized Transit for Arlington Residents (STAR), Metrobus, Metrorail, and MetroAccess. They also provide input on implementation of transit elements from the Master Transportation Plan. The Committee is comprised of up to 15 members appointed by the County Manager. One requirement is that each member must live or work in Arlington. The current members are:

- John Carten (Chair)
- Harvey Berlin
- James Davenport
- Frances DeSilva (Commission on Aging)
- Franz Gimmler
- Herschel Kanter
- David Dickson (Transportation Commission)
- Laura MacNeil
- Carlota Cobo
- Christina Perez
- Diedre Grant
- Katy Lang
- William Staderman
The Transit Accessibility Subcommittee reviews accessibility issues in Arlington, including access to transit vehicles, stops and stations and the specialized transit services provided by Metrorail, Metrobus, ART, STAR and MetroAccess. Members are:

- Frances DeSilva (Co-chair)
- Alexis Mavroidis (Co-chair)
- Laura MacNeil
- William Staderman

The TAC usually meets the second Tuesday of each month from 7:00 PM-9:00 PM. The subcommittee usually meets on the third Thursday of each month starting at 7:00 PM.

### 1.3 Organizational Structure

Arlington County’s Department of Environmental Services is responsible, through its Transit Bureau, for providing public transportation that encompasses a network of transit services and facilities. Arlington Transit is one element of the program that also includes Metrorail, Metrobus, MetroAccess, STAR, Commuter Services, and Virginia Railway Express.

Greg Emanuel is Director of the Arlington County Department of Environmental Services (DES) and establishes policy and directive guidance for the management of the department. Responsibility for day-to-day activities including oversight of the Transit Bureau rests with the Deputy Director (Dennis Leach) for the Division of Transportation and Development Services (DOT) who also serves as Director of Transportation. The Director of Transportation oversees five (5) bureaus: Transportation Engineering & Operations, Transit, Development Services, Transportation Planning, and Commuter Services. In addition, The Director of Transportation also has a Transportation Program Support staff that deals with Operational Program Financial Management (Carolyn Gershfeld) as well as Capital Program Financial Management and Compliance. Staff in the Transportation Program Support section include: Management & Budget Specialist (Elizabeth Craig), who supervises the Capital Budget Analyst (Transit) (Giovanna Calabrese) and Capital Budget Analyst (Keo Sihalath). The Transportation Grants Manager is (David Frye), and the Contract Administrator (Ramon Paez) supervises the Contract Specialist (Michelle Chaney).

Marti Reinfeld, Acting Transit Bureau Chief, manages the Transit Bureau, which is organized as shown in Figure 2. The WMATA Service Coordinator is the liaison between the County and WMATA, and is also the lead of an in-house consultant team provided under contract with First Transit. Under this contract, several members of both the Transit
Services and Operations and Transit Capital Program teams are also First Transit employees.

The Capital Program Manager (Bee Buergler) supervises the Transit Capital Program team which is responsible for planning transit facilities and infrastructure improvements in Arlington including upgrades to Metrorail stations and implementation of major new surface transit services. The Transit Capital Program Team includes: Senior Capital Program Manager (Jim Curren, First Transit), Senior Transit Planner (Mark Schnaufer), Capital Project Manager (Under Recruitment, First Transit), and Bus Stop Manager (Oleg Kotov, First Transit).

The Transit Services Manager (Steve Yaffe) is responsible for local transit services including ART fixed route and STAR para-transit services. Both of these services are provided through public-private partnerships. The Transit Services and Operations team is responsible for leading the procurement process and overseeing the provision of contracted services, including service planning and evaluation; development of ART timetables; procurement of ART buses and support technology and equipment; and, in conjunction with the Commuter Services Bureau and other DOT staff, marketing of services and community engagement activities. While staff are also currently responsible for STAR support technology and equipment, that responsibility will be transferred to a contractor in late Fiscal Year 2017. The Transit Services Manager supervises a staff of five: Transit Operations Coordinator (Kelley Mackinnon); Transit Technology Coordinator (Tom Scherer with First Transit); Transit Service Planners (William Jones and Andy Wexler); and partially oversees the operations-related activities of the Bus Stop Manager (Oleg Kotov).

Mr. Yaffe’s team oversees the work of several contractors and also works with other County departments:

- National Express Transit Corporation (hereinafter “National Express”) operates, maintains, supervises and dispatches ART buses. This contract is structured to separate variable costs from fixed costs to minimize risk to both the County and Contractor and enable the Contractor to provide high-quality service on a continuing basis. The current contract is set to expire in June 2016 with an option to extend.

- ART Transit Technology capabilities are provided via contracts either directly through the County or through National Express.

- ART marketing capabilities are enhanced with personal service and company contracts overseen by the Commuter Services Bureau for marketing and webmaster services.

- First Transit is responsible for the STAR Call Center, which oversees paratransit street operations as well as books and schedules STAR rides and provides summary statistics each month.
• Diamond Transportation operates 14 vehicles dedicated to STAR services and, through the same contract, another 13 vehicles dedicated to transporting Arlington County Dept. of Human Services – Intellectual and Developmental Disabilities Services (IDDS) Division clients to/from day support and employment programs.

• Red Top Cab provides taxi dispatch services for STAR, four IDDS clients, as well as the senior center programs operated by the Arlington County Parks & Recreation Department.

The Facilities Design & Construction Bureau is responsible for designing, constructing, and commissioning transit facilities. June Locker serves as Bureau Chief.
Figure 2 | Arlington County Transit Bureau Organization Chart
1.4 Transit Services Provided and Areas Served

The Arlington County Department of Environmental Services' Transit Bureau oversees transit operations and provides public transportation services to accommodate the needs of Arlington residents, workers and visitors. The ART bus service is operated through a competitively procured contract with a private sector company (currently National Express). Funding for the ART bus service is derived from the County general funds, fares, state transit aid, and developer contributions.

The integrated network of mobility services and facilities developed, coordinated or operated through this program to meet the mobility needs of the Arlington community and offer alternatives to driving alone include: Arlington Transit, Specialized Transit for Arlington Residents, Metrorail, Metrobus, MetroAccess, Commuter Services, Virginia Railway Express, Bicycling, Walking, Super Senior Taxi (SST) and Taxi. Following is a brief description of each of these Mobility Services.

1.4.1 Arlington Transit

ART is Arlington County’s local bus service, which complements the line service provided by Metrorail, offering fixed route transit with cross-county routes and neighborhood connections to Metrorail stations. ART provides service to numerous urban villages in Arlington, including Rosslyn, Ballston, Pentagon City, and Crystal City. ART also serves several high-level security agencies and facilities, such as the Pentagon, Transportation Security Administration (TSA), US Marshals Service, State Department, Federal Deposit Insurance Corporation (FDIC), and Defense Advanced Research Projects Agency (DARPA).

ART currently (December 2015) operates 16 routes (Figure 3), five of which operate during weekday peak periods only, 10 operate all-day on weekdays, seven offer service on Saturdays, and six operate on Sunday. Weekday service operates between 5:00 AM and 1:45 AM, Saturday service is offered between 5:50 AM and 2:00 AM, and Sunday service operates between 6:20 AM and 12:50 AM. Weekday peak-period service operates with frequencies ranging between 10 and 30 minutes, weekday midday service headways range between 15 and 70 minutes, and weekend service operates within a range of between 20 and 65 minute frequencies. Chapter 1: Service and System Evaluation contains a detailed description of each ART fixed route including span of service hours and frequency of service by time period.

1.4.2 Specialized Transit for Arlington Residents

Specialized Transit for Arlington Residents (STAR) is a shared-ride paratransit service intended to provide comparable levels of transportation to that provided by ART, Metrobus and Metrorail. Service is provided to Arlington County residents who have difficulty using public fixed route transit due to a disability. STAR was reconfigured from a separate service for people with disabilities to offer a higher level of service for residents certified for MetroAccess at a lower cost per trip.
STAR is available between 5:30 AM and midnight, seven days a week. All peak period, night and weekend trips must begin or end in Arlington. STAR serves Arlington residents certified to receive MetroAccess services as well as some human service agency clients. Trips are scheduled without regard to the purpose of the trip, with a few exceptions related to medical trips.

All trips are scheduled through the STAR Call Center either by a phone call to the dispatcher or from STAR's website. Trips need to be booked one to seven days in advance. STAR will allow same-day scheduling of medical trips, including medical return trips.

STAR carried 85,429 MetroAccess-certified passengers and 15,421 human service passengers in FY15.
1.4.3 Metrobus

The Washington, DC area’s regional bus service, operated by WMATA, has 26 bus lines operating 59 route patterns within Arlington County. Metrobus primarily operates line-haul fixed route (16 local fixed lines) and express route (8 express lines) service within and through Arlington County (Figure 4). Of the 26 lines operated in Arlington County, 12 operate on weekdays only, 11 routes operate Monday through Sunday, and one route operates Monday through Saturday. Weekday and Saturday service generally operates between 5:00 AM and 12/1:00 AM, and Sundays between 6:00 AM and 11:00 PM/12:00 AM. Weekday service frequencies range between 5 and 60 minutes, while weekend service operates at frequencies between 30 and 60 minutes. Metrobus began operating in Arlington County in 1973. In FY 2015, Metrobus routes in Arlington had a ridership of 13.7 million. Chapter 1: Service and System Evaluation contains a detailed description of each Metrobus fixed line including span of service hours and frequency of service by time period.

1.4.4 Metrorail

WMATA began Metrorail service in Arlington County in July 1977 with the opening of the Blue Line. Today, WMATA operates three heavy rail lines with 12 miles of rail and 11 stations in the County (Figure 5). Following are the lines and stations:

- The Orange and Silver Lines operate in Arlington County with stations at Rosslyn, Courthouse, Clarendon, Virginia Square-George Mason University, Ballston-Marymount University and East Falls Church.
- The Blue Line operates in Arlington County with stations at Rosslyn, Arlington Cemetery, Pentagon, Pentagon City, Crystal City and Ronald Reagan Washington National Airport.
- The Yellow Line operates in Arlington County with stations at Pentagon, Pentagon City, Crystal City and Ronald Reagan Washington National Airport.

Metrorail trains operated Monday through Thursday from 5:30 AM until midnight, Friday from 5:30 AM until 3:00 AM the next day, Saturday from 7:00 AM until 3:00 AM the next day, and Sunday from 7:00 AM until midnight. Effective June 4, 2016, operations after midnight were discontinued due to the SafeTrack Metrorail rehabilitation program.

In FY 2015, Arlington County Metrorail Stations had ridership of 56.2 million, with the Pentagon Station being the busiest in the County, averaging over 30,000 combined station entries and exits during weekdays.

---

Figure 4 | Metrobus System in Arlington County
1.4.5 MetroAccess

Accompanying Metrorail, Metrobus, and local bus service, MetroAccess is a regional, shared-ride, door-to-door paratransit service for people whose disability prevents them from being able to use bus or rail. In order to use MetroAccess, riders must meet the criteria specified by the Americans with Disabilities Act (ADA) and who have been certified as eligible. Eligibility is based on a person’s functional limitations, instead of whether they have a disability or because of their age. The service area includes the District of Columbia, Montgomery County, Prince George’s County, Arlington County, Fairfax County, and the cities of Alexandria, Fairfax and Falls Church.

Core hours of MetroAccess operation mirror the core hours of operation of fixed-route services (Metrorail and Metrobus): Monday through Thursday, 5:00 AM to midnight; Friday 5:00 AM to 3:00 AM Saturday; Saturday 7:00 AM to 3:00 AM Sunday; and Sunday 7:00 AM to midnight. Reservations can be made outside of those hours if fixed-route service is offered at the same time and along the requested route of MetroAccess travel.

MetroAccess fares are two times the fastest comparable fixed-route fare, with a maximum fare of $6.50. Passengers may travel through up to four additional zones beyond the weekday, peak period public transit service area by paying $1.00 per zone in addition to the base fare. In Fiscal Year 2015, MetroAccess provided 18,634 trips for those Arlington County residents certified for ADA paratransit.
1.4.6 Virginia Railway Express

VRE is a commuter rail service connecting the Northern Virginia suburbs to Alexandria, Arlington (Crystal City), and L’Enfant Plaza and Union Station in Washington, D.C. VRE is operated as a partnership of the Northern Virginia Transportation Commission (NVTC) and Potomac Rappahannock Transportation Commission (PRTC) to provide commuter rail service on two lines along the Interstate 95 and Interstate 66 corridors from Fredericksburg and Manassas (Figure 6). VRE began service in June 1992. Located on South Crystal Drive, VRE’s Crystal City station, about five miles south of Union Station, had a ridership of 875,000 in FY 2015. Trains run Monday through Friday, except on federal holidays.

The combined headway of both lines provide Crystal City with 16 northbound trains to Union Station between 6:00 AM and 9:00 AM, two southbound trains during the midday between 1:00 PM and 1:30 PM, and 14 southbound trains that arrive at the Crystal City station between 1:00 PM and 7:00 PM.

There is no station-area parking, but connections are possible to the Metrorail Crystal City Station (Yellow and Blue lines) and by Metrobus (Routes 9S, 10R, 13Y, 23A, 23B) and ART (Route 43).

1.4.7 Arlington County Commuter Services

Arlington County Commuter Services (ACCS) is the Transportation Demand Management (TDM) agency of Arlington County. ACCS encourages people who live, work or commute through Arlington to use mass transit, car and vanpool, bicycle, walk,

---

telecommute and use other alternatives to driving alone. The ACCS program provides information and services to customers via employer and residential outreach efforts, general travel option marketing, commuter information distribution, commuter stores, the internet, advertising, direct mail and other promotional events. ACCS also works with businesses, property managers and hotel managers who, in turn, work with their employees, tenants and guests. Major program areas include: Arlington Transit Partners (ATP), Commuter Stores, marketing and promotions, and internet services. The Demand and System Management Element of the Arlington Master Transportation Plan (MTP), reinforces the general policy of integrating transportation and land use, and focuses on the general policy of managing travel demand and transportation systems.

In FY 2015, ACCS reduced traffic by approximately 42,900 single-occupant vehicle (SOV) trips per workday, saving tens of thousands of gallons of gas and reducing hundreds of thousands of pounds of carbon dioxide.⁷

Arlington County has a long-standing tradition of concentrating much of its development near public transit facilities and services. According to the 2009 Arlington County Master Transportation Plan (MTP):

> Approximately 96 percent of Arlington’s residents and 96 percent of its jobs are located within a quarter mile of a local bus route and/or a half mile of a Metrorail station…. About one-quarter of all Arlingtonians rely on Metrorail, Metrobus, and Arlington Transit (ART) service for daily commuting, primarily for access to worksites in Washington, DC Many other residents take transit to work at the nearly 200,000 jobs clustered around transit stops within Arlington’s higher-density corridors.

Several other public transportation agencies also provide service to Arlington’s Metrorail stations, including Alexandria’s DASH bus system, the District Department of Transportation (DDOT)’s DC Circulator bus service, the Fairfax Connector bus system, the Georgetown Metro Connection, Georgetown University Transportation Shuttle, Loudoun County Transit, and OmniRide, a weekday express bus service operated by the Potomac and Rappahannock Transportation Commission (PRTC).

Additional transportation connections to Arlington County include private commuter services from the City of Fredericksburg, Stafford and Loudoun counties; shuttle services from Marymount University, the federal government and several private property owners; the Washington Flyer airport service; taxicab and car-share services; and the Arlington Department of Human Services and other specialized transportation services.

---

1.4.8 Ridesharing / Car Pooling / Car Sharing

Commuter Connections is a network of Washington, DC area transportation organizations coordinated by the Metropolitan Washington Council of Governments (MWCOG). Commuter Connections will match commuters with a carpool, or they can use their online bulletin board. Commuter Connections also operates the Guaranteed Ride Home program, which provides commuters who regularly (twice a week) carpool, vanpool, bike, walk or take transit to work with a free and reliable ride home when unexpected emergencies arise. Car sharing is a form of car rental service where people rent cars for short periods of time, usually by the hour. Car sharing services include Enterprise CarShare, Zipcar and Car2go. Vehicles for car sharing are available at several locations throughout the County.

1.4.9 Bicycling

Arlington’s emphasis on mixed-use development and the county’s compact size produces many short trips for which bicycling is the most effective travel mode. The Arlington County Board first included trails in the County’s Master Plan for Transportation in 1974. Currently in the county, there are 50 miles of off-street trails, 38 miles of marked on-street bike lanes and sharrows, 78 miles of recommended on-street bicycle routes, and more than 700 public bike parking racks. Both ART and Metrobus buses have bicycle racks that will accommodate two standard length bicycles. Bikes ride free with the passenger and are permitted on Metrorail during off-peak times.

For short point-to-point bicycle trips, Capital Bikeshare, one of the largest and most successful public bikeshare systems in North America, has 81 stations in Arlington County, with 1,110 docks and 598 bicycles available for use. Capital Bikeshare stations are concentrated in the Rosslyn-Ballston Corridor, Crystal City, and Pentagon City areas. Capital Bikeshare launched in the county in September 2010 and in FY 2015, the system had 466,131 miles ridden in Arlington County, with the average trip length being 1.79 miles and average trip duration of 16 minutes.8

Future Arlington County infrastructure projects include protected bike lanes in Pentagon City, Rosslyn, Ballston and Crystal City. The Bicycle Element of the Arlington Master Transportation Plan (MTP) focuses on bicycle travel, which is greatly affected by land use, street design, traffic volumes, fuel prices, public perception and transportation system management.

1.4.10 Walking

Arlington County offers some of the best walking environments as an urban area in the country. Approximately 90% of residential streets in Arlington have sidewalks. Arlington's goal is to design sidewalks to be safe from conflicts with automobile traffic, and to provide

---

easy access to mixed-use destinations. All new construction in Arlington is built to ADA standards. Additionally, the county has retimed traffic signals to improve pedestrian safety at intersections. The Pedestrian Element of the Arlington Master Transportation Plan (MTP), focuses on pedestrian travel, which is greatly affected by land use, street design and transportation system management.

1.4.11 Taxi

Arlington County works with multiple taxi providers to regulate fares and the size and age of the fleet to ensure quality alternative mobility services within the county. The operation of taxicab service within Arlington is regulated and controlled by Chapter 25.1 of the County Code.

1.4.12 Transportation Network Companies

A Transportation Network Company (TNC) is a company that uses an online-enabled platform to connect passengers with drivers using their personal, non-commercial, vehicles. This transportation business platform is commonly referred to as “ride sourcing” (i.e., outsourcing of rides). Examples include Uber and Lyft. UberPool and LyftLine allow TNC riders to share their rides with another rider along their route traveling in the same direction, similar to carpooling. These services are all available in Arlington County. A TNC provides an alternative to owning a personal vehicle. TNCs in Arlington are not regulated by the County, but by the Virginia Department of Motor Vehicles.

1.4.13 Transportation for seniors

Super Senior Taxi

Super Senior Taxi (SST) is a subsidized transportation program for Arlington County residents age 70 and over. Participants are issued vouchers which can be used for trips using Arlington Red Top Cab and Yellow Cab. Seniors are able to purchase a $20 book of vouchers for half price, at $10.

Senior Center Adult Transportation

Senior Center Adult Transportation (SCAT) is a pre-arranged shared-ride cab transportation service that Arlington residents age 55 and older can use to travel to and from their homes to Arlington Senior Centers. Each one-way trip costs $2.50 (roundtrip is $5.00). An additional discount can be attained by purchasing a coupon book from Red Top Cab and Yellow Cab.

Senior Loops

There are several other transportation options available to Arlington County residents. Senior Loops provide weekly and monthly grocery shopping for residents of the Culpepper Garden, The Carlin, Claridge House, Hunters Park, and Woodland Hill
apartment communities and select neighborhoods. This service is also available to all Arlington residents age 55 and older who are able to get to these locations. During the summer months, an additional Senior Loop provides transportation to participating Senior Farmer’s Markets.

1.4.14 Other Transportation Services

Door-Thru-Door Assisted Transportation is a grant-funded program for adult residents of Arlington County and the City of Alexandria who need help in getting to and from health care appointments. This program provides the passenger with home care aides who help individuals prepare for the trip, get to and from the vehicle, accompany persons during the health care appointment, provide assistance in returning home, and share information with family caregivers and community service providers, when appropriate.

1.5 Fare Structure

1.5.1 ART Fare Structure

Passengers boarding ART buses are subject to the fares shown in Table 1. On July 1, 2014 Arlington Transit increased bus fares for the first time since 2010. The base fare for ART rose $0.25 and the discounted fare for seniors, middle and high school students, and people with disabilities increased by $0.10. The additional revenue generated from the increased fares are used to help offset increased contractual costs for operation and maintenance and the cost of additional ART bus services.
### Table 1 | ART Fare Structure

<table>
<thead>
<tr>
<th>Service</th>
<th>Fare</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular Fares</strong></td>
<td></td>
</tr>
<tr>
<td>Regular Fare with a SmarTrip® card or cash</td>
<td>$1.75</td>
</tr>
<tr>
<td>Transfer from ART to ART or ART to/from Metrobus with SmarTrip® card</td>
<td>Free</td>
</tr>
<tr>
<td>card within two hours</td>
<td></td>
</tr>
<tr>
<td>Transfer from Metrorail to ART or ART to Metrorail with SmarTrip® card</td>
<td>$0.50 discount</td>
</tr>
<tr>
<td>Transfer between Metrobus &amp; ART with SmarTrip® card within two hours</td>
<td>Free</td>
</tr>
<tr>
<td>Transfer without a SmarTrip® card</td>
<td>$1.75</td>
</tr>
<tr>
<td>Children under five</td>
<td>Free</td>
</tr>
<tr>
<td><strong>Senior/Disabled Discount</strong></td>
<td></td>
</tr>
<tr>
<td>Fare for senior citizens (age 65 and over with any ID that shows date</td>
<td>$0.85</td>
</tr>
<tr>
<td>of birth) and people with disabilities (WMATA ID or Medicare card)</td>
<td></td>
</tr>
<tr>
<td>With Senior/Disabled SmarTrip® card</td>
<td>$0.85</td>
</tr>
<tr>
<td>Transfer from ART to ART or ART to/from Metrobus with SmarTrip® card</td>
<td>Free</td>
</tr>
<tr>
<td>Transfer from Metrorail to ART or ART to Metrorail with SmarTrip® card</td>
<td>$0.50 discount</td>
</tr>
<tr>
<td><strong>iRide Teen Discount</strong></td>
<td></td>
</tr>
<tr>
<td>Teens paying with cash, a green iRide token or a Student iRide SmarTrip®</td>
<td>$0.85 discount</td>
</tr>
<tr>
<td>card. Students must have a middle or high school ID if paying by cash</td>
<td></td>
</tr>
</tbody>
</table>


1.5.3 STAR
Riders using ART’s complementary paratransit service pay fares that are structured on a zone basis as shown in Table 2.

<table>
<thead>
<tr>
<th>Service</th>
<th>Fare</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zone 1:</strong> Trips inside Arlington County.</td>
<td>$3.50</td>
</tr>
<tr>
<td><strong>Zone 2:</strong> Trips to/from Washington, DC, Alexandria, Falls Church or Fairfax County inside the Beltway and Inova Fairfax Hospital</td>
<td>$5.00</td>
</tr>
<tr>
<td><strong>Zone 3:</strong> Trips to/from Fairfax County outside the Beltway, Montgomery County or Prince George's County. All trips must begin or end in Arlington. (MetroAccess is also available to provide these rides for a lower fare.)</td>
<td>$9.00</td>
</tr>
</tbody>
</table>

1.5.4 Metrobus Fare Structure
Passengers boarding Metrobus are subject to the fares shown in Table 3.

<table>
<thead>
<tr>
<th>Service</th>
<th>Fare</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular Fares</strong></td>
<td></td>
</tr>
<tr>
<td>With a SmarTrip® card or cash</td>
<td>$1.75</td>
</tr>
<tr>
<td>Senior SmarTrip® card or cash (with proper ID) for seniors and people with disabilities</td>
<td>$0.85</td>
</tr>
<tr>
<td><strong>Express Bus Fares</strong></td>
<td></td>
</tr>
<tr>
<td>Express Bus Fare with a SmarTrip® card or cash</td>
<td>$4.00</td>
</tr>
<tr>
<td>Senior SmarTrip® card or cash (with proper ID) for seniors and people with disabilities</td>
<td>$2.00</td>
</tr>
<tr>
<td><strong>Airport Express Route Fare</strong></td>
<td></td>
</tr>
<tr>
<td>Airport Express Route Fare with a SmarTrip® card or cash</td>
<td>$7.00</td>
</tr>
<tr>
<td>Senior SmarTrip® card or cash (with proper ID) for seniors and people with disabilities</td>
<td>$3.50</td>
</tr>
</tbody>
</table>

1.6 Vehicle Fleet
As of October 2015, ART has a transit vehicle fleet size of 68 buses (Table 4): 16 heavy-duty 40’ buses, 23 heavy-duty 35’ buses, 15 heavy-duty 31’ buses and 14 light-duty narrow-width 28’ body-on-chassis buses. The three 2012 Designline CNG-Electric Hybrid buses are currently not operational. The total number of vehicles required for maximum service (i.e., peak period) is 46, leaving 19 spare buses or a spare ratio of 27 percent. All ART buses are fueled with compressed natural gas (CNG), but three of the vehicles are CNG-Electric hybrids. All ART buses are fully ADA accessible with wheelchair ramps and priority seating. In addition to the buses, there are six non-revenue vehicles that are used to support transit operations. The non-revenue vehicle fleet includes a 2006 Ford van, 2005 Chevy truck, and four Chevy HHRs of varying age from 2006 to 2011.
### Table 4 | Arlington Transit Vehicle Fleet (As of October 2015)

<table>
<thead>
<tr>
<th>Year Purchased</th>
<th>Make &amp; Model</th>
<th>Size of Bus</th>
<th>Number of Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>NABI 40 LWF</td>
<td>40 FT</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>NABI 40 LWF</td>
<td>40 FT</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>ARBOC Spirit of Mobility</td>
<td>28 FT</td>
<td>4</td>
</tr>
<tr>
<td>2013</td>
<td>ARBOC Spirit of Mobility</td>
<td>28 FT</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>Designline CNG-Electric Hybrid</td>
<td>35 FT</td>
<td>3</td>
</tr>
<tr>
<td>2012</td>
<td>ARBOC Spirit of Mobility</td>
<td>28 FT</td>
<td>6</td>
</tr>
<tr>
<td>2011</td>
<td>NABI 31 LFW</td>
<td>31 FT</td>
<td>3</td>
</tr>
<tr>
<td>2010</td>
<td>NABI 31 LFW</td>
<td>31 FT</td>
<td>12</td>
</tr>
<tr>
<td>2009</td>
<td>NABI 35 LFW</td>
<td>35 FT</td>
<td>12</td>
</tr>
<tr>
<td>2007</td>
<td>NABI 35 LFW</td>
<td>35 FT</td>
<td>8</td>
</tr>
</tbody>
</table>

### 1.7 Existing Facilities

#### 1.7.1 Administrative

Arlington Transit leases space from another County department for the ART operations center, located at 2900 South Eads Street near Crystal City. The center contains administrative and management offices, dispatch and other operating functions, a break room for bus drivers, and a classroom for training. The facility was built in 1948, and leased by ART in 2012.

#### 1.7.2 Maintenance/Fueling

Currently, washing and fueling services for ART buses are contracted from the WMATA Four Mile Run bus operations and maintenance facility on South Eads Street at South Glebe Road. ART buses are maintained at a site leased by National Express on Farrington Avenue in Fairfax County, inside the I-495 beltway near the Van Dorn interchange.

Planning is underway for a new ART bus facility in Crystal City at South Eads Street and 32nd Street South, adjacent to the WMATA Four Mile Run facility. The County is building the facility with construction expected to begin in September 2015. The new facility will be two-stories and will include:

- Light-duty maintenance bay
- Bus wash bay
- Compressed natural gas fueling station

---

• Bus Parking

1.7.3 Storage and Staging

During construction of the new ART bus facility, ART buses are temporarily parked at 3600 South Four Mile Run Drive (former LaPorte Property) in Shirlington. The new ART bus facility will not be large enough to house the entire existing ART fleet or accommodate all of the buses that will expand the fleet over the next decade. Extensive maintenance of ART buses will continue to take place outside of the County for the near future. The necessity for additional dedicated space for bus maintenance and parking is one of many County facilities needs highlighted by the Community Facilities Study, which is a planning effort launched in January 2015 to examine requirements for additional school, fire station, vehicle storage sites and other facility needs in the county.10

1.7.4 Parking

Arlington Transit currently does not own or operate any park-and-ride facilities. The WMATA-owned park-and-ride facility at the East Falls Church Metrorail Station has 422 all-day parking spaces and 33 short-term metered spaces. Other privately-owned parking facilities are located throughout Arlington with access to transit.

1.7.5 Stations/Transit Centers/Bus Stops

Arlington County has 1,120 bus stops, including both ART and Metrobus stops. Of these stops, 251 have bus shelters and 301 have benches. Most shelters (244) also have benches. The majority of bus stops in the County (1,083) have a 5'x8' pedestrian pad. Arlington and WMATA have updated their bus stop signs to indicate the routes that serve a particular stop. 711 of the bus stops also include additional information, like schedules, in informational boxes mounted at the bus stop.

---

ART uses the following guidelines when determining bus stop amenities:

- **Shelters** - Ridership exceeding 40 passenger boardings per day.
- **Benches** - Benches are installed at all shelters and at stops where a shelter is not warranted but some level of amenity is justified. There is no formal criteria, but typically daily boardings between 10 and 40 riders would be prioritized.
- **Trash Cans** - Trash cans are installed at all locations where a shelter is installed, and at locations where litter is a frequent problem.
- **Customer Information** - Route map and schedule information are installed at all ART bus stops. WMATA’s guidelines also call for the same, but this is not currently the case in Arlington.

ART’s bus stop guidelines also include recommendations for stop spacing, location in relation to the intersections, and stop length. They also provide guidance on minimum elements for bus stops: landing area, pedestrian connections, signage, and safety and security.

ART recently completed an update to their bus stop database in 2013. This information is being used to target capital improvements for the more than 1,100 bus stops in the County. Currently, the County is working to maintain and upgrade bus stops as part of a capital project to improve accessibility and meet ADA standards. These efforts include adding level waiting areas, connecting sidewalks, and providing areas inside shelters for wheelchairs. Additionally, the program will replace aging bus shelters and repair broken signage and information cases.

Arlington County owns, operates and maintains a bus transfer hub on South Quincy Street next to a southbound ramp for the Shirley Highway/I-395. Called the Shirlington Bus Station, the facility provides a climate-controlled indoor waiting area with customer seating and restrooms and a partially covered outdoor plaza. The station has seven bays with LED signs that provide real-time data for ART, Metrobus and DASH. Indoor LCD screens provide additional transit information. There is also a Commuter Store in the waiting room. The facility opened in 2008 and currently there are more than 2,000 commuters use the station each day.

Shirlington Bus Station (Figure 7) is served by three ART Bus Routes, five Metrobus Lines, and one Alexandria DASH Bus Route:

- **ART 75** – Shirlington-Wakefield High School Carlin Springs Road-Ballston-Virginia Square

---

- ART 77 – Shirlington-Lyon Park-Court House
- ART 87 – Pentagon Metro-Army Navy Drive-Shirlington
- Metrobus 7ACEF – Lincolnia-North Fairlington
- Metrobus 10B – Hunting Towers-Ballston
- Metrobus 22A – Barcroft-South Fairlington
- Metrobus 23AC – McLean-Crystal City
- Metrobus 25A – Ballston-Brulee-Pentagon
- Dash AT9 – Mark Center-Potomac Yard

Figure 7 | Shirlington Bus Station Layout
1.7.6 Track or Guideway

Arlington County opened its first segment of dedicated guideway, the Crystal City Potomac Yard Transitway, in March 2016 for use by the new Metroway service. Metroway is the region’s first BRT-type service utilizing a dedicated transitway for portions of the route from the Braddock Road Metro Station to the Crystal City Metro Station. The service began operation in August 2014 utilizing a dedicated busway on part of the route in the City of Alexandria. The transitway runs along South Glebe Road between Potomac Avenue and Crystal Drive, and along Crystal Drive from South Glebe Road to 26th Street (Figure 8). The Metroway service operates in peak period-only curbside bus lanes along Crystal Drive, 15th Street, and Clark Street between 26th and 15th Streets. Figure 1-8 below shows the routing of the Metroway within the City of Alexandria and Crystal City. The final alignment for the transitway extension to Pentagon City is yet to be determined. In spring 2016, Metroway service during midday hours and alternating trips during peak periods began serving Pentagon City using existing streets.

Figure 8 | Crystal City Potomac Yard Transitway and Metroway Service

---

1.7.7 Bicycle Facilities

Arlington County has 50 miles of shared-use off-street trails. These multi-use trails are usually 10 feet wide with a solid yellow line striped down the middle to separate users. Multi-use trails in the county include the Arlington Boulevard Trail, Bluemount Junction Trail, Custis Trail, Four Mile Run Trail, Mount Vernon Trail, and Washington & Old Dominion Trail. The Mt. Vernon Trail is the most popular trail in Arlington, with nearly 74,000 bicyclists recorded in June FY2014.15

Bicycle lanes are striped areas on the roadway designated for the preferential use of bicyclists over motor vehicles. Bicycle lanes are generally located between the curb and the right travel lane, or between the curbside parking lane and the right travel lane. In Arlington as of spring 2015, there are 38 miles of striped bike lanes that can be found on several roadways throughout the County (Figure 9).16

Sharrows, shared-lane markings, are intended to help cyclists and motorists safely share the roadway. The lane markings show cyclists where to be in the road. In the County, sharrows are used primarily on streets designated as part of Arlington’s bicycle route network. They may also be used where there is a significant number of cyclists or to note a connection between common cycling routes. As of fall 2015, there are 3.42 miles of sharrows in the County.

Protected bike lanes provide physical separation between people on bikes and motor vehicles. The separation can be provided in a variety of ways including plastic bollards or “flex posts”, landscaping and large planters, curbs, and car parking. Arlington’s first protected bike lanes were installed on S. Hayes Street and Eads Street in Pentagon City in 2014 and uses car parking as the separation from motor vehicles.

Arlington has a number of bicycle repair "Fixit" stands that include an air pump for filling up tires and tools for basic repairs and adjustments. The stands are free to use and are located near the Ballston and Clarendon Metro Stations and another is proposed near the Pentagon City Metro Station. There is a similar bike maintenance Fixit stand located at the Crystal City Water Park on Crystal Drive, which was installed through a partnership between the Crystal City Business Improvement District and Phoenix Bikes.

---

16 Source: Arlington County GIS Mapping Center, October 2015
Figure 9 | Arlington County Bicycle Lanes
Overview of Arlington Transit System

1.7.8 ADA Accommodations

All ART buses are fully ADA accessible with low floors, wheelchair lifts or ramps, and priority seating. A bus annunciatior system provides both audible and digital display announcements of each upcoming stop.

To meet ADA requirements, several standards were established by the Master Transportation Plan for bus stops throughout Arlington County. Boarding/alighting areas should provide a 40-foot by 4-foot clear zone at each stop, unobstructed by street furniture, landscaping, or signage to allow ingress and egress from both the front and back doors for travelers of all abilities. Pedestrian paths of travel of at least 5 feet wide, should be provided between bus stops and sidewalks to allow pedestrians of all abilities to pass in opposite directions.

The County subsidizes two paratransit systems (STAR and MetroAccess) to serve those who cannot use public transit due to a disability.

1.8 Transit Security Program

National Express, the operations and maintenance contractor of ART, follows a nationally recognized customer and safety program, which includes safe and defensive driving techniques, accident reporting, and emergency preparedness including table-top and live exercises. National Express has a company-wide, global safety development campaign called "Driving Out Harm" which has proven to both drive and strengthen consistency in safety practices. National Express has designed its Safety Program on 12 Global Standards of Excellence, including risk assessment, accident and incident investigation, safety audit and management check, and safety of vehicles.

According to the Arlington County 2011-2016 Transit Development Plan (TDP), on-board cameras were proposed to be installed on all buses during the subsequent two to six years. Currently no buses are equipped with on-board video surveillance; however there are plans in place to install them in FY 2017. Video surveillance will be an important component of the Safety and Security Plans currently being established by the Transit Bureau for ART by the new regulations under the federal Moving Ahead for Progress in the 21st Century Act (MAP-21). Subsequent updates to the TDP will contain the most recent version of this plan. At the moment, ART buses are only equipped with a silent security system in which a driver can press a button to notify dispatch of a situation.

In the 2011-2016 TDP, transit facility security upgrades were proposed. Bus garage security was planned to be improved, including security cameras and an operator-activated security alarm system. This feature will be included with the planned redevelopment of the bus parking lots. Shirlington Station is not currently staffed with security personnel. While cameras are located on the inside and outside of the building, staff have expressed concerns about the station’s automatic opening, alarming, and closing system. Operating procedures have been changed to decrease the occurrence of false alarms.
ART’s fare collection program has several measures in place to ensure security of the collected revenues. The ART buses are equipped with Genfare GFI fareboxes, designed to ensure security of collected fares on the bus. Upon returning to the bus yard, each farebox is probed to download fare data into the system and farebox vaults are pulled and dumped into a single vault. This procedure ensures that the money is never accessible to anyone. Collected fares are then transported from the vault to the bank via a contracted security firm. Revenues are counted by the bank and credited back to the County.

Arlington County does not currently have any ART-specific public safety awareness programs or campaigns in place. ART is a partner in the “See Something, Say Something” campaign. The campaign asks those riding public transportation across the region to keep an eye for suspicious activity or items and report them to the appropriate officials. Arlington County has a number of campaigns in place that cover transit riders, including: Be a PAL, Street Smart, and Arlington Alerts. The “Be a PAL” campaign is produced by Arlington County Commuter Services and promotes sharing the street with all users. PAL stands for: Predictable, Alert, and Lawful. The Street Smart campaign is a regional campaign promoting education to drivers, pedestrian, and cyclists. The campaign began in 2002 and is funded through a partnership between the District of Columbia Department of Transportation, Maryland Motor Vehicle Administration, Metropolitan Washington Council of Governments, Virginia Highway Safety Office, and WMATA. Similar to ART’s subscription service for alerts, Arlington County provides a subscription service to residents, commuters, and visitors to give alerts about different types of emergencies and situations within the County.

1.9 Intelligent Transportation Systems Program

ART has a robust Intelligent Transportation System (ITS) program, covering dispatching, scheduling, and public information.

1.9.1 Computer Aided Dispatch or Automatic Vehicle Locator systems

ART uses the Connexions Computer Aided Dispatch (CAD) / Automatic Vehicle Locator (AVL) system to manage bus service. This software is loaded with timetable, schedule and operator information and updated automatically using real-time information. ART uses this system to identify current on-time performance for each bus, send messages to each bus, and alter service as needed. This system also produces a General Transit Feed Specification (GTFS) compliant data feed used on ART’s website (www.arlingtontransit.com) that informs passengers how many minutes their bus is away from their bus stop. This feed also supports publically available trip planning software such as CarFreeAtoZ, RideScout, Hop Stop, and other similar services.
1.9.2 Automatic Passenger Counters

ART uses the Urban Transportation Associates’ Automated Passenger Counter (APC) system to count passengers on their buses. This system allows ART to count passenger boardings and alightings. These counters are installed on 100 percent of the fleet.

1.9.3 Traffic Signal Priority

ART is currently undertaking a study to implement Traffic Signal Priority (TSP) capability on major corridors in the county.

1.9.4 On-board Cameras

ART proposes to install on-board cameras on all buses with audio-recording in the driver compartment.

1.9.5 Trip Planners

Real time information and trip planners are available over the web at: http://www.commuterpage.com/

Additionally, ART provides General Transit Feed Specifications (GTFS) data to the general public, which supports publically available trip planning software such as Google Maps and Hopstop.

1.9.6 Scheduling and Run cutting Software

ART currently uses Schedule Masters’ The Master Scheduler software for preparation of system schedules.

1.9.7 Maintenance, Operations and Yard Management Systems

Maintenance management, driver management, and yard management are the responsibility of the contractor that provides bus service for ART. Staff are currently working with Connexionz to implement a yard management software solution within their computer-aided dispatch package.
1.9.8 Information Displays and Real Time Arrival

Arlington County uses electronic message boards that are located at select bus stops, in County buildings, and libraries as a means of transmitting information about the real-time status of bus arrivals. Real-time information is also available at http://artdev.commuterpage.com/pages/rider-tools/.

ART uses DRI Corporation's Talking Bus Automatic Vehicle Annunciation (AVA) system, based on DRI600 technology. The system is used to announce the route and stop for passengers with a visual disability to meet ADA requirements. It can also be used to share system warnings and alerts. However, this technology will only be supported through 2018 and must be replaced.

1.9.9 Information to Mobile Devices or Applications

ART currently provides email and text alerts about service changes or disruptions for riders who sign up. These are also shared through their Facebook, Twitter, or RSS feed. The Arlington Transit website is mobile device friendly, providing access to real-time predictions for routes, schedules, and alerts. ART's GTFS feed allows applications like Google Maps to identify routes that would be suitable to complete a trip by transit within the County. Google Maps is also linked to ART's real-time predictive software, allowing the user to identify where a stop is location.

The County's website provides a list of applications, websites, and tools designed to work from a mobile device platform. They are designed to help users live a more car free lifestyle by identifying transportation alternatives, providing route and schedule information, and trip planner services.

1.10 Data Collection and Ridership and Revenue Reporting Methodology

ART conducts the following activities to collect, process/verify, and retain ridership and revenue data (Table 5).
## Table 5 | Arlington Data Collection Processes

<table>
<thead>
<tr>
<th>Process</th>
<th>Ridership Data</th>
<th>Revenue Service / Financial Data</th>
<th>Equipment or Process Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect</td>
<td>Automatic Passenger Counters and/or Electronic Registering Fareboxes (Boarding and alighting by stop, route)</td>
<td>Fares from Passengers via Electronic Registering Fareboxes</td>
<td>INFODEV (for 1&lt;sup&gt;st&lt;/sup&gt; 20) and UTA Sensors sent through wireless link; processed through software.</td>
</tr>
<tr>
<td>Process</td>
<td>Through sensors at the doors of the bus (recorded at each door opening); Through transactions from the Electronic registering fareboxes (cash, SmartTrip cards, or flash passes)</td>
<td>Through transactions (SmartTrip cards, cash, fare tokens, and/or flash (ID) passes) at the farebox through the service day on each route.</td>
<td>GFI Odyssey fareboxes with Cubic operator control units and smartcard processing units</td>
</tr>
<tr>
<td>Verify</td>
<td>Information from both sources are checked to ensure that figures generated are accurate from both systems. APC software compares data with previous and current for consistency and accuracy.</td>
<td>All transactions are checked by revenue inspectors at the close of each day. Those in charge of transferring the cash transactions conduct this once a week matching the amount deposited in the department’s account with what was collected during the same period from the fareboxes.</td>
<td>National Express and Transit Bureau personnel review farebox reports for accuracy and completeness.</td>
</tr>
<tr>
<td>Store</td>
<td>This information is downloaded into a data repository that collects the information on a daily basis. It is stored locally for use by staff (Raw Data and Compilation).</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Report</td>
<td>The data is reported on a monthly and quarterly basis to various local, regional, state and federal agencies.</td>
<td>The data is reported on a monthly and quarterly basis to various local, regional, state and federal agencies.</td>
<td>n/a</td>
</tr>
</tbody>
</table>
1.11 Public Outreach Program

Arlington Transit provides outreach and information to the public by providing information about existing services and how, best to use them. They also solicit feedback from the public through daily interactions with their customer service agents on problems riders experience on buses or at bus stops, and through more formal outreach events to understand the impacts of larger service changes.

The Arlington County Commuter Services Bureau (ACCS) and the Transit Bureau, both within the Department of Environmental Services, share responsibility for public outreach activities to promote transit use. Arlington Transportation Partners (ATP) is a program of ACCS to support businesses, residential communities and commercial properties to create transportation programs for the reduction of single occupancy vehicle trips in Arlington County. ATP provides information and offers commuter and transportation benefits to employers, visitors, and tenants throughout Arlington County. ATP provides information and assistance to businesses implementing commuter benefits programs as well as residential developments and hotels looking to improve their attractiveness to potential tenants and guests. ACCS provides transportation and commuting information to Arlington County residents through direct mailings, free brochures, point-of-purchase displays, articles and special inserts in The Citizen newsletter, events, Commuter Stores and the internet.

ACCS, in conjunction with the Transit Bureau, also prepares and provides printed and online Northern Virginia Transit schedules (ART, Metrobus, and other local bus routes), the STAR Rider Guide, and periodic newsletters of interest to the riders. ACCS develops and maintains signage at each ART bus stop displaying the route and schedule using that stop, including new LED Bus information signs. ACCS contracts for maintenance of the ART/STAR websites as well as the software allowing staff to send ART Alerts to user e-mail and cell phone accounts with information of interest. ACCS staff takes a prime role in executing the Demand and System Management element of the Master Transportation Plan, which encourages developers to support transit through a variety of means.

The Commuter Store®, Mobile commuter Store, and CommuterDirect.com® provide one-stop location to purchase ART, Metro, VRE, MARC, Circulator, and DASH fares. ACCS operates four Commuter Stores in Arlington County, (Ballston, Crystal City, Rosslyn, and Shirlington) with two affiliate stores in Maryland (Odenton and Frederick). The Mobile Store serves additional Arlington and Washington, DC locations. Capital Bikeshare memberships can also be purchased at The Commuter Store® outlets in Arlington, as well as the Mobile Commuter Store. CommuterDirect.com® allows for the purchase and delivery of transit tickets and passes online.

ART uses its website as a method of public outreach for service changes and disruptions. Passengers can be updated on service changes, disruptions and other advisories through news headlines and links on the homepage. Passengers can also subscribe to receive
ART service alerts via email or text message. The website also provides regional transit news and service advisories that may affect Arlington residents. Periodically, ART publishes the *ART Forum Newsletter* to provide updates and information about Arlington Transit and other transit-related topics. The newsletter is distributed in printed form on board ART buses.

The Transit Bureau has a variety of outreach functions that are currently shared between the bureau, ACCS, and Arlington DOT. These include maintenance of an inventory of civic and neighborhood associations affected by each bus route; maintenance of an email list of observers on each ART route, oversight of the on-line customer comments system; and liaison duties with potential stakeholders in the success of transit in Arlington. The Transit Bureau has developed the public participation process for this TDP and conducts community meetings to assess the adequacy of routing and scheduling ideas and changes that would affect the community. Residents may also fill out a comment form to submit feedback on how bus service should be improved. There are also several advisory committees, which are open to the public, that allow the community to give feedback and improvement suggestions and to be made aware of issues affecting transportation in the County, the committees include: Bicycle Advisory Committee, Pedestrian Advisory Committee, Transit Advisory Committee, and Transportation Commission.