Agency Profile and System Overview

(Page Intentionally Left Blank)

Contents

Tables

Figures

(Page Intentionally Left Blank)

Appendix A: Agency Profile and System Overview

A.1   History

Hampton Roads Transit (HRT) serves a 431 square mile area within the Hampton Roads region. HRT consists of six member cities: Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach. The combined population of the six jurisdictions is approximately 1.35 million;[1] the 2045 projected population for the six jurisdictions is 1.53 million, a 13 percent increase over a 30-year period. Out of the six cities, Chesapeake is projected to see the largest actual and percentage population increase over that period, with a projected growth of 78,383 people or 33 percent.[2] The average population density of the six cities is approximately 3,100 persons per square mile; however, there is a wide range of population densities in the service area, from over 22,000 persons per square mile in part of Downtown Norfolk to less than 20 persons per square mile in Chesapeake near the Great Dismal Swamp National Wildlife Refuge. The six cities served by HRT account for approximately 58.4 percent of economic activity in the region.[3]

The service area is divided by the James River. The service area on the *Southside* of the river consists of Chesapeake, Norfolk, Portsmouth, and Virginia Beach, and the service area on the *Peninsula* or *Northside* (between the James River, York River and Chesapeake Bay) is made up of Hampton and Newport News.

All six jurisdictions in the service area are home to United States military installations and various federal facilities, including: Naval Station Norfolk, Joint Expeditionary Base Little Creek – Fort Story, Naval Air Station Oceana, and Joint Base Langley-Eustis; there are approximately 150,000 active duty and civilian personnel in the region, and Norfolk is home to the world's largest naval base. The command headquarters of the North Atlantic Treaty Organization (NATO) is also located in Norfolk. Estimated Department of Defense (DOD) direct spending in Hampton Roads is estimated at $22.1 billion dollars in 2019.[4]

Originally, two transit systems developed independently on the Southside and Peninsula, Tidewater Regional Transit and Pentran, respectively. Electric trolleys operated in both areas before the turn of the 20th century and were gradually replaced by buses between the 1920s and 1940s. Paratransit service began in both areas of the region in 1979-1980, and ferry service between Norfolk and Portsmouth – operated by Tidewater Regional Transit – was established in 1983. Late night bus service began on the Peninsula in 1991.

Tidewater Regional Transit and Pentran merged in 1999 to create the Transportation District Commission of Hampton Roads (TDCHR), which operates as HRT. In 2008, HRT began an eight-route express bus service linking the seven jurisdictions that were part of the TDCHR at the time. In 2011, HRT completed and opened Virginia's first light rail line, The Tide, which provides service connecting Downtown Norfolk to the border of Norfolk and Virginia Beach. HRT currently operates 67 fixed-route bus services, including three seasonal routes serving oceanfront and recreational destinations in Virginia Beach.

A.2   Governance

HRT is a local government agency, a body corporate and politic, created pursuant to the Transportation District Act of 1964, Virginia Code §§ 33.2-1900, et seq. A thirteen-member board of commissioners (Commission) governs the affairs of HRT, including its statutorily mandated functions as a regional transportation authority. The Commission typically meets on the fourth Thursday of every month and alternates meeting locations between its facility in the City of Norfolk and its headquarters in the City of Hampton.[5] In addition to monthly meetings of the full board, governance and oversight activities of the Commission are carried out with the advisement of several committees. These include: Audit and Budget; Operations and Oversight; Planning and New Starts Development;

---

[1] HRTPO, "Hampton Roads 2045 Socioeconomic Forecast and Transportation Analysis Zone Allocation" Accessed at
https://www.hrtpo.org/uploads/docs/Hampton%20Roads%202045%20Socioeconomic%20Forecast%20and%20TAZ%20Allocation%20Report.pdf
[2] Ibid.
[3] 2019 Hampton Roads State of the Region Report, Dragas Center for Economic Analysis and Policy, Old Dominion University, Accessed at
https://www.ceapodu.com/wp-content/uploads/2019/10/SOR%202019.pdf
[4] Ibid.
[5] http://www.gohrt.com/about/governing-board/

External and Legislative Affairs; Smart Cities and Innovation, Paratransit Advisory Committee; and the Transit Riders Advisory Committee.

A.2.1   Membership

The Transportation District of Hampton Roads (TDCHR) has six member cities: Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach and a 13-member board of commissioners. Terms of commissioners are typically four years. The board is comprised of two commissioners from each of its six member cities. This includes one commissioner appointed by the member city, usually a city council person, and one non-legislative citizen commissioner who resides in the member city and is appointed by the Governor of Virginia. The Chairman of the Commonwealth Transportation Board (CTB), or his/her designee, serves as a commissioner *ex officio*, with voting privileges. **Table A-1** lists current TDCHR Commissioners. Officers of the Commission, elected at the annual meeting of the Commission to a one-year term, are also noted in **Table A-1**.

Table A-1: TDCHR Officers[6]

Location	Officer	Term Expires
Virginia Beach	Hon. Aaron Rouse	City Council Appointed
	Hon. Amelia Ross-Hammond	June 30, 2022
Newport News	Hon. Patricia P. Woodbury	City Council Appointed
	Comm. Robert "Rob" Coleman	June 30, 2020
Hampton	Hon. Jimmy Gray *(Vice Chair)*	City Council Appointed
	Comm. Gaylene Kanoyton	June 30, 2022
Portsmouth	Hon. John L. Rowe, Jr.	City Council Appointed
	Comm. Brad Hunter *(Chair)*	June 30, 2022
Chesapeake	Comm. Matthew "Matt" Hamel	City Council Appointed
	Comm. Douglas W. Fuller	June 30, 2022
Norfolk	Hon. Andria McClellan	City Council Appointed
	Comm. Keith Parnell	June 30, 2020
CTB	Comm. Jennifer Mitchell	Appointed

A.2.2   Funding

The TDHCR is divided into two divisions for the allocation of operating revenue and costs: the Southside Division (Chesapeake, Norfolk, Portsmouth, and Virginia Beach) and the Peninsula Division (Hampton and Newport News). Funding for HRT services has traditionally been provided by federal, state, and local subsidies, as well as passenger revenues. Local funding is provided based on a Cost Allocation Agreement, where service allocation in each city is based on the subsidy it provides after all federal, state, and farebox revenues are applied.[7] HRT, as with its predecessor agencies, has had no dedicated revenue source since its founding in 1999. In 2020, the Virginia General Assembly passed historic legislation to create dedicated regional funding for public transportation in the HRT service area. Through Senate Bill 1038 and House Bill 1727, which require the establishment of the Hampton Roads Regional Transit Program, the General Assembly emphasized the importance of having effective multimodal transportation, as it is essential for the region's economic growth, vitality, and competitiveness.

To this end, the Hampton Roads Regional Transit Program is established to define and supply resources for the development, operating, and capital needs for both expansion and state of good repair of reliable regional transit operations. The Program must be documented in the Transit Strategic Plan (TSP) approved by the TDCHR. The Program adopted by the Commission becomes the foundation for any complementary regional transit planning,

---

[6] Transportation District Commission of Hampton Roads, Accessed at http://www.gohrt.com/about/governing-board/transportation-district-commission-of-hampton-roads/
[7] TDCHR Cost Allocation Agreement

and encompasses the operating and capital costs for transit infrastructure and operations that are eligible to be funded by the Hampton Roads Regional Transit Fund. The Hampton Roads Regional Transit Fund is a dedicated regional transit fund to be administered through the Hampton Roads Transportation Accountability Commission.

There is express parity in the legislative statutes between the purposes of the Hampton Roads Regional Transit Program and the Hampton Roads Regional Transit Fund. Specifically, pursuant to Virginia Code section 33.2-2600.1, et seq., the Hampton Roads Regional Transit Program is explicitly for a "core regional network of transit routes and related infrastructure, rolling stock, and support facilities". The express goal of the Program is "to provide a modern, safe, and efficient core network of transit services across the Hampton Roads region." Meanwhile, the Fund shall be used for "the development, maintenance, improvement, and operation of a core and connected regional network of transit routes and related infrastructure, rolling stock, and support facilities, to include the operation of a regional system of inter-jurisdictional high-frequency bus service, in a [the] transportation district in Hampton Roads".

The Hampton Roads Regional Transit Program is documented in **Chapter 6**, consistent with the purposes and requirements outlined in the Code of Virginia related to the Program and usage of the Hampton Roads Regional Transit Fund. The Program is also aligned to the service planning principles and framework detailed in **Section 1.2.2.** and **Section 1.2.3**. This includes top regional priorities of providing more reliable inter-jurisdictional bus service, with priority on more service frequency during hours of the day that most commuters are traveling between work and home.

A.2.3   Special Advisory Committees

Transit Riders Advisory Subcommittee

The Transit Riders Advisory Committee (TRAC) is a subcommittee to the TDCHR Executive Committee. The TRAC may have up to 14 members, including residents from each city in the service area; these residents are HRT customers. TRAC's function is to:

- Provide HRT administration with input and information on issues affecting HRT customers
- Suggest ideas for improving operations and services
- Provide input into HRT's customer outreach activities
- Share information with HRT customers and the community at large about HRT services and avenues for providing input concerning service improvements.

Paratransit Advisory Subcommittee

The Paratransit Advisory Committee (PAC) is a subcommittee to the TDCHR Executive Committee. The PAC may have up to 21 members; of those, up to 14 may be consumers, and up to seven may be service provider agency representatives. The TDCHR defines a consumer as "an individual, or parent, guardian, or caregiver of an individual with a disability, who is certified eligible for ADA paratransit services and has been using the Paratransit services of the Commission during the past six months."[8] The PAC's function is to:

- Advise TDCHR on implementation of HRT's Unified Service Plan & Policy for Complementary Paratransit Services Under the Americans with Disabilities Act
- Advise TDCHR on compliance issues relative to the Plan
- Share information with HRT customers and community-at-large about HRT's paratransit services
- Share information with HRT staff and the TDCHR regarding paratransit customer needs
- Provide input to the staff and the TDCHR on quality of service issues relative to paratransit services provided.[9]

---

[8] Paratransit Advisory Committee, Accessed at https://gohrt.com/agency/governing-board/pac/
[9] Bylaws of the Transportation District Commission of Hampton Roads, Accessed at http://www.gohrt.com/wp-content/uplaods/2016/01/revised-bylaws.pdf

Management and Financial Advisory Committee

The Management / Financial Advisory Committee (MFAC) includes a designee of the CTB Chair and staff of HRT and member cities. Members serve as liaisons between the agency and City Managers of the component governments. Some of the key functions of MFAC include:

- To serve as an advisory body to make general or specific recommendations to the Commission
- To review the monthly financial statements as they pertain to each component government
- Ensure all financial information is communicated to the City Managers of the component governments on a regular basis
- To assist HRT in the development of transit services and programs that will complement component government plans and projects
- To facilitate development of HRT annual budgets in coordination with the component government budget development process
- To provide input to the Chief Financial Officer on improving HRT's financial and accounting practices.

A.3   Organizational Structure

A.3.1   Organization

TDCHR staff provide management and administrative support and serve to achieve the agency's goals and objectives. TDCHR staff includes the President and Chief Executive Officer (CEO), the Commission Secretary, Internal Auditor and the Chief Financial Officer/Commission Treasurer.

The General Counsel and Internal Auditor serve at the pleasure of the Commission and have direct access to the Commission as required. On daily business matters, they report to the President and CEO. Additionally, the following HRT staff report to the President and CEO:

- Chief of Staff
- Chief Safety Officer
- Chief Financial Officer
- Chief Transit Operations Officer
- Chief Planning and Development Officer
- Chief Information and Technology Officer
- Director of Marketing & Communications
- Chief Engineering & Facilities Officer
- Chief Human Resources Officer
- Corporate Counsel

Table A-2 provides an overview of these staff and associated departmental responsibilities. **Figure A-1** illustrates the organizational structure.

Table A-2: HRT Executive Team and Departments

Department	Title	Staff	Department Responsibility
Executive Department	President & CEO	William Harrell	Responsible for oversight of all functional areas within HRT. This includes leadership and unity of effort to achieve the vision and mission of the agency, as well as: ■ **Internal Audit:** Provides assurances on HRT's governance, risk management and control processes to help the organization achieve its strategic operational and financial and compliance objectives. ■ **Government Relations**: Facilitates the development and implementation of the legislative and policy agenda of the TDCHR. ■ **Records Management:** Maintenance of all policies, agreements, transactions, and official correspondence of HRT.
	Internal Auditor	Shanti Mullen	
	Chief of Staff	Brian Smith	
	TDCHR Secretary	Luis Ramos	
Technology	Chief Information & Technology Officer	Michael Price	■ **Office of the CIO/CTO (Support Services):** Directs and coordinates agency-wide information resource planning to ensure that agency information technology (IT), information management (IM), and IT security resources are selected and managed to provide maximum value to the agency. The CIO/CTO has oversight responsibility over the entire Technology Department IT portfolio and has operational responsibilities consisting of local area networks, wide area networks, desktops and backend services for all HRT modes. The CIO/CTO also promotes entrepreneurship, innovation, investment and alliances to address transit issues by creating technology solutions. The CIO/CTO is also implementing a holistic cybersecurity plan to strengthen HRT's security framework. The CIO/CTO also directly maintains the Technology Project Management Office (TPMO), Fare Technology Operations Office (FTOO) and the Information Technology Security Office (ITSO). ■ **Technology Project Management Office (TPMO):** Serves as the primary point of contact for all technology-related project requests. The TPMO was established in 2017. The TPMO focuses on prioritizing projects and strategically utilizing resources to move projects to success. ■ **Fare Technology Operations Office (FTOO):** Serves as the primary administrator and project management office for all fare and revenue technology systems. The FTOO works collaboratively with Revenue Services, Planning and Fleet Services to procure and manage all fare collection and revenue systems, equipment, hardware and software. ■ **IT Security Office (ITSO):** Responsible for ensuring network and information system security. Goals include establishing a standard, integrated approach to ensure the Agency becomes secure and compliant as well as making sure that everyone who uses computer or network services understands how to keep their computer, data, and other electronic devices secure are critical to keeping the agency and its assets protected. ■ **Technology Infrastructure & Operations Services (TIOS):** Provides wired and wireless connections between customer devices (such as workstations and laptops) and agency networks, providing internet access and Agency IT and OT systems, services and applications. Network Services assists with knowledgeable technical support to help manage relationships between HRT and external suppliers such as equipment supply houses and system maintenance vendors. Network Services also aims to provide reliable, high speed, secure, and accessible network services to sustain Agency business needs. The Technology Department runs the agency IT Helpdesk that includes support for all agency workstations, laptops, agency-procured cellular phones, multi-function devices for printing, faxing, scanning and copying, working hard to ensure all staff can work effectively. The Technology Department keeps key software and hardware up-to-date, available and secure.

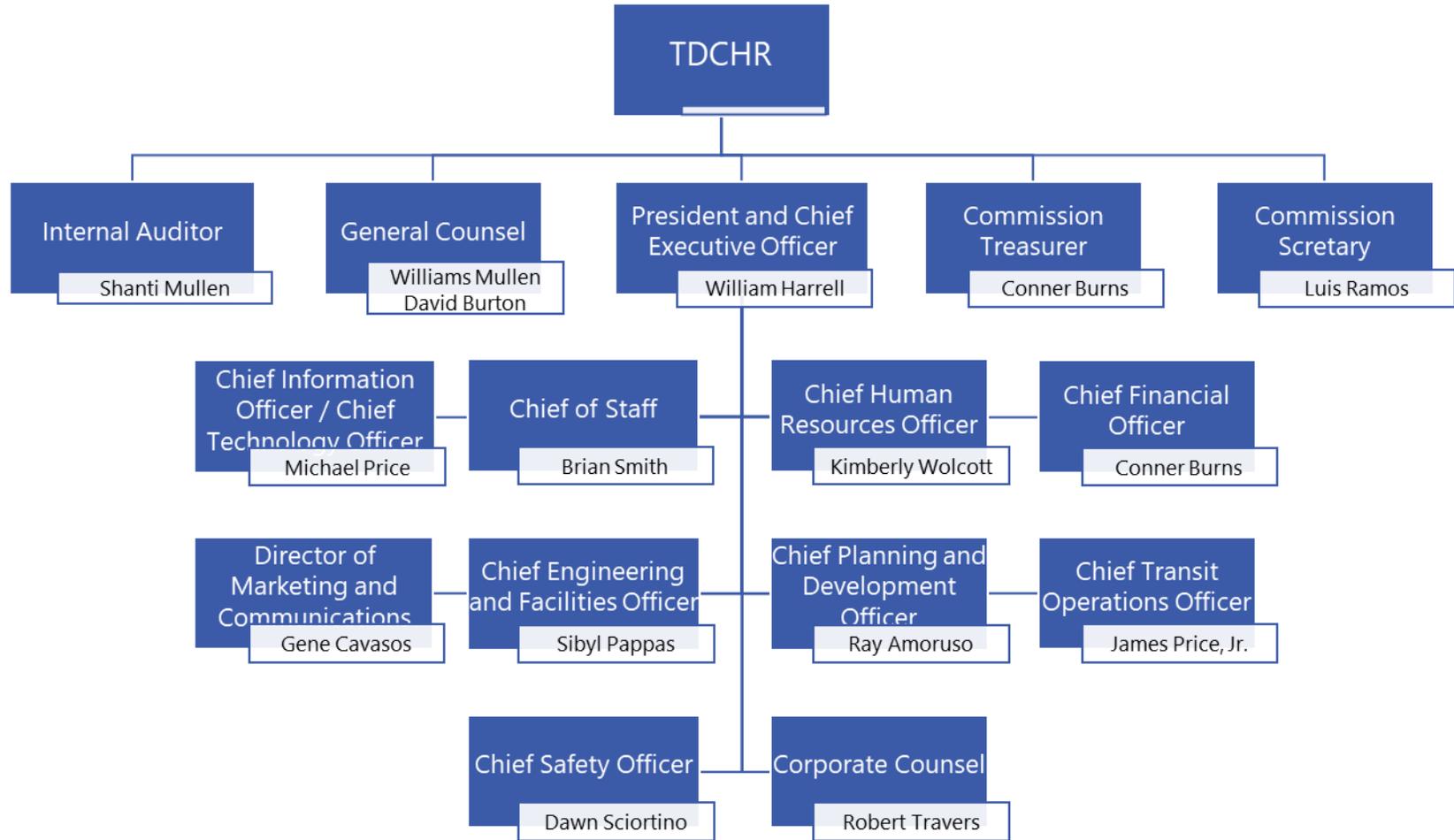| Department	Title	Staff	Department Responsibility
			▪ **Intelligent Transportation Systems (ITS):** HRT's ITS division focuses on intelligent vehicles, intelligent infrastructure and the creation of an intelligent transportation system through integration with and between these two components. ITS staff manage and support a variety of on-vehicle transit technologies and applications. advanced sensors, computers, electronics, and communications technologies as well as management strategies – in an integrated manner – providing traveler information – to increase the safety and efficiency of the transit system. ▪ **Enterprise Technology Solutions (ETS):** Responsible for managing the IT Services portfolio which consists of projects that have been approved by the CIO/CTO in collaboration with Agency Executive Management. Maintaining business relationships to ensure awareness of customer needs is the primary focus of ETS. Responsibilities include Identifying, prioritizing, authorizing, managing, and controlling information technology projects, programs, and other related work, to achieve specific strategic agency objectives. Revenue Systems Support, Database Services, Web Services, Business Intelligence and Analytics are managed through this division. ▪ **Enterprise Resource Planning (ERP) Services:** Responsible for providing implementation services and technical support, primarily for users of the agency's ERP systems including: PeopleSoft HCM, PeopleSoft Financials and the new Microsoft Dynamics 365 implementation. ERP Services Staff specialize in application-level technical services and management of the support process with a focus on results oriented, quality support and responsiveness.
Marketing & Communications	Director of Marketing & Communications	Gene Cavasos	Works across a range of disciplines to share information about the agency's policies and practices using traditional and web-based platforms. Works to refine and improve the agency's brand while supporting HRT departments with initiatives and programming through public outreach, planning and communication development.
Engineering & Facilities	Chief Engineering & Facilities Officer	Sibyl Pappas	Responsible for managing and maintaining HRT's engineering, construction projects and facilities. This includes the development, implementation, and continual improvement of HRT's physical infrastructure. Emphasis is placed on reducing costs, minimizing liability and improving efficiency and quality of services. The Department is organized into six divisions: Construction; Engineering; Environmental Compliance & Sustainability; Facilities Maintenance; Asset Management and Project Management. Facilities Maintenance & Asset Management: Provides day to day operational support to all HRT departments, facilities, major systems and routine equipment maintenance, surplus property management, and the general upkeep of HRT properties. Also manages all contracts supporting HRT facilities. ▪ **Office of Project Management (OPM):** Provides oversight of HRT capital projects. ▪ **Environmental Compliance and Sustainability (EMS):** Works with employees and departments to coordinate EMS procedures and sustainability initiatives to minimize HRT's environmental impacts, energy use, and resource use. Responsible for facilitating HRT's Environmental Policy and ensuring HRT's compliance with all federal, state, and local environmental laws and regulations.
Finance Department	Chief Financial Officer	Conner Burns	Responsible for developing strategic goals and objectives, assessing and monitoring financial and administrative performance, safeguarding the agency's assets, and ensuring the effective use of financial resources. ▪ **Accounting:** Provide accurate and timely financial accounting and reporting services. Responsible for the post-award financial management and fiscal reporting functions for all Hampton Roads Transit grant awards. Analyze and prepare monthly financial reports and Comprehensive Annual Financial Report. ▪ **Budget & Financial Analysis:** Prepare and submit annual operating budget that supports the agency's goals and objectives. Establish budgetary guidelines, communicates policies, procedures and best business practices and monitors compliance

Department	Title	Staff	Department Responsibility
			with HRT, federal and state policies. Reports statistical data to FTA, DRPT, and the American Bus Benchmarking Group (ABBG).
			■ **Procurement:** Acquire supplies and professional and construction services in accordance with Virginia law and FTA regulations. Provide support to DBE efforts, helps identify opportunities for cost-savings.
			■ **Revenue Services:** Collects, deposits, and accounts for all farebox revenue, is responsible for fare media purchases, and maintains control over fare media inventory.
Planning & Development Department	Chief Planning & Development Officer	Ray Amoruso	Direct and support the development and implementation of short and long-range service and system plans and programs for public transportation services and facilities, including HRT's Six Year Capital Improvement Program and Transit Development Plan (TDP), as well as the development of the information for High Capacity transit corridors, bus routes, schedules, and the annual Transportation Service Plans for member cities in accordance with the Cost Allocation Agreement.
			■ **Service Planning & Scheduling:** Provides service planning and scheduling for all bus and trolley services, as well as strategic planning and quality assurance. Develops new routes and schedules and modifies and redesigns existing routes and schedules to improve the efficiency and effectiveness of HRT's service structure. Manages the route planning process including bus stop locations, identification of locations for passenger shelters and coordination with local governments and businesses. Maintains the agency database for bus stops and passenger shelters. Examines ridership counts, on time performance data and conducts ride checks to ensure that services are being provided properly. Coordinates long range planning for future routes and services. Conducts data collection, not only for the National Transit Database, but also the Planning and Scheduling staff when data is required for scheduling improvements and passenger loads.
			■ **Fare Media and Advertising Sales:** Works to increase the sale of fare media through partnerships with area businesses. Responsible for all internal and external bus and rail advertising, direct oversight over sales advertising, the GoPass 365 program and fare media sales.
			■ **Transportation Demand Management (TDM) program (TRAFFIX):** The regional TDM program, TRAFFIX grant funds are directed through HRT, which oversees the administration of the program.[9] TRAFFIX provides commuter programs for vanpools, carpools, biking, walking, riding transit and telework options. TRAFFIX staff work closely with DRPT, VDOT, the military, and various employers and local governments to administer programs associated with transportation alternatives.
			■ **Customer Relations:** Provides customer service via the contact center and the transit centers. The contact center is the central point in which all customer contacts are managed via the telephone, email and web. Information is entered into a formal database called the Customer Assistance System (CAS). The database is used to measure customer perceptions related to Key Performance Indicators.
			■ **Grants Administration and DBE Compliance:** Pre- and post-award grant administration, including the submission of grant applications, amendments, revision, and closeouts. Has a shared responsibility for the development of the capital budget. Responsible for the preparation of requests for federal, state, and local funding, as well as managing the Disadvantaged Businesses Enterprise (DBE) Program.
			■ **Long Range Planning & Transit Development:** Facilitates the planning and management of fixed guideway and High Capacity studies, major capital investment planning as well as transit-oriented development projects. Supports the preparation of requests for federal, state and local funding and manages the planning and environmental assessment for new rail, bus, ferry, and intermodal transportation. Responsible for the development of the six-year Capital Improvement Plan and Transit Strategic Plan. Develops and implements the HRT Title VI program, including: Title VI service and fare equity analyses, Title VI complaints and agency compliance.

Department	Title	Staff	Department Responsibility
Safety	Chief Safety Officer	Dawn Sciortino	■ **Safety:** Achieve the highest practical level of safety for all HRT modes of transit to protect passengers, employees, revenues, and property. HRT has implemented a proactive, agency-wide safety program plan supported by the Federal Transit Administration (FTA). Responsible for the development and implementation of the Safety Management System for HRT. Supports HRT Departments in meeting the requirements set forth in the Public Transit Agency Safety Plan. ■ **Safety Policy:** Promote commitment to safety performance through SMS — Establish clear safety objectives, and commitment to manage to those objectives — Define methods, processes, and organizational structure needed to meet safety goals — Establish transparency in management of safety through fully documented policy and processes, employee hazard reporting and resolution system, and accountability of management and employees — Facilitate cross-organizational communication and cooperation ■ **Safety Risk Management (SRM):** Determine the need for, and adequacy of, new or revised risk controls based on the assessment of system risks. Develop formal process within the SMS composed of: Identifying hazards, Assessing the risk, Analyzing the risk, and Controlling the risk ■ **Safety Assurance (SA):** Evaluate the continued effectiveness of implemented risk control strategies — SMS process management functions that systematically provide confidence that HRT meets or exceed safety requirement — Ensure compliance with SMS requirements and FTA standards, policies, and directives — Provide insight and analysis regarding methods/opportunities for improving safety and minimizing risk through Information Acquisition, Data Analysis, and System Assessment ■ **Safety Promotion:** Includes training, communication, and other actions to create a positive safety culture within all levels of the workforce. Safety promotion activities within the SMS framework include: — Advocating/strengthening a positive safety culture — System and safety communication and awareness — Matching competency requirements to system requirements — Disseminating safety lessons learned
Operations	Chief Transit Operations Officer	James Price, Jr.	Bus Maintenance Departments ■ **Fleet Maintenance:** Vehicle maintenance services, as well as management of all corporate inventory functions. There are three maintenance facilities; one in Norfolk, one in Hampton and one seasonally operated facility in Virginia Beach. ■ **Inventory Services:** Responsible for management and operation of two storage and distribution centers, as well as management of all purchase requisitions, delivery schedules, and storage levels of petroleum products, oils, and lubricants. ■ **Fleet Support Services:** Provides maintenance and support for mobile and portable radios, Advanced Communication System, fare collection, Wi-Fi on buses and digital security camera systems, fare collection units, isolation boxes, Ticket Vending Machines, receivers, bus Wi-Fi systems, mobile radios, portable radios, base stations, dispatcher consoles, towers, emergency call boxes and mobile camera systems. Support Services team members are on-call 24 hours a day to respond to service needs.

Department	Title	Staff	Department Responsibility
			Bus Transportation Service Departments ■ **Transportation Services:** More than 500 bus operators, about 46 supervisors and dispatchers (during seasonal service). ■ **Bus Training:** Responsible for training all Bus Operators and Bus Supervisors on the operation of bus vehicles and operating rules and procedures. Rail Maintenance Service Departments ■ **Light Rail Vehicle Maintenance**: Preventive and corrective maintenance, which is accomplished by a preventive maintenance program, nightly cleaning and servicing, and from direct feedback received from the operators on corrective maintenance needs. ■ **Light Rail Inventory:** Ensure material needs for the department are met, including consumable supplies and spare parts for both LRV maintenance and System's maintenance divisions. ■ **Light Rail Systems**: Responsible for all maintenance along the Light Rail Right of Way and all HRT Operations Facilities equipment. Staffed 24 hours a day, 7 days a week. Rail Transportation Service Departments ■ **Light Rail Transportation Services**: The department consists of 23 light rail operators, 12 controllers/dispatchers and 1 Manager of Rail. ■ **Rail Training:** The Rail Training department is responsible for training all Rail Operators and Rail Controllers on the operation of the rail vehicles and associated operating rules and procedures. ■ **Ferry Services:** HRT contracts with Norfolk-by-Boat to provide ferryboat service on the Elizabeth River between Downtown Norfolk and Olde Town Portsmouth. Ferry service is also provided for special events at Harbor Park Stadium, home to Norfolk's Minor League Baseball team. The fleet consists of three, HRT-owned T-class, 150-passenger ferries that operate with dual control twin diesel engines. ■ **Paratransit Services:** Works side-by-side with HRT fixed route services in a "demand-response" capacity; eligible customers call in advance for the service. A fare is required for each ride. These services are federally mandated by the American with Disabilities Act (ADA) of 1990. Paratransit services operate the same days and hours as the regular service and are limited to the same areas as HRT's fixed route bus service. HRT provides an origin to destination service within ¾ miles of the nearest fixed route service. The fleet dedicated to HRT's Paratransit service is comprised of 76 Agency-owned lift-equipped cutaway passenger vans and 3 Agency owned 15-passenger vans complemented by 29 sedans which are provided by the service contractor. ■ **Support Vehicle Services:** Staff maintains a fleet of 134 non-revenue (or support) vehicles used by HRT employees for company business. The department performs all scheduled maintenance and repairs for the support vehicles and is responsible for tracking mileage and drivers and ensuring proper usage of fleet vehicles. ■ **Security Department:** HRT's President/CEO is ultimately responsible for secure operations and communicating security as a top priority for all employees. The Director of Transportation and Security leads the security department and has primary responsibility for implementing the tasks and requirements set forth in the HRT SEPP and responsible for developing relationships and agreements with external organizations that contribute to the security program; Manages security services for all HRT facilities, including transfer centers, light rail vehicles, revenue vehicles, as well as non-revenue vehicles; Security card access, surveillance camera systems, and key and lock systems for all agency facilities are also overseen by the Security department. Staff works with police departments throughout the Hampton Roads area.

Department	Title	Staff	Department Responsibility
Human Resources	Chief Human Resources Officer	Kimberly Wolcott	HRT has over 1,000 employees who maintain the fleet, operate buses and light rail vehicles, and maintain support services to the organization. Human Resources staff plays an integral role in providing quality supportive and innovative service and advice to our employees and to our management team while promoting a positive, safe, productive working environment that supports a work/life balance. Human Resources departments include Compensation & Benefits, Recruitment, Employee/Labor Relations, Performance Management and Compliance.
Legal	General Counsel	David Burton, Williams Mullen	The Legal Department is comprised of a Corporate Counsel who serves as a member of the Senior Executive Team and is responsible for providing legal advice and services to the President & CEO, other members of the Senior Executive Team, all departments, as well as the Board of Commissioners upon request.
	Corporate Counsel	Robert Travers	

Figure A-1: HRT Transportation District Commission of Hampton Roads – Organizational Chart

- TDCHR
  - Internal Auditor — Shanti Mullen
  - General Counsel — Williams Mullen / David Burton
  - President and Chief Executive Officer — William Harrell
  - Commission Treasurer — Conner Burns
  - Commission Scretary — Luis Ramos

Under President and Chief Executive Officer:
- Chief Information Officer / Chief Technology Officer — Michael Price
- Chief of Staff — Brian Smith
- Chief Human Resources Officer — Kimberly Wolcott
- Chief Financial Officer — Conner Burns
- Director of Marketing and Communications — Gene Cavasos
- Chief Engineering and Facilities Officer — Sibyl Pappas
- Chief Planning and Development Officer — Ray Amoruso
- Chief Transit Operations Officer — James Price, Jr.
- Chief Safety Officer — Dawn Sciortino
- Corporate Counsel — Robert Travers

A.3.2   Contracted Transportation Services

HRT owns its ferry vessels and contracts to provide ferryboat service on the Elizabeth River between Downtown Norfolk and Olde Town Portsmouth, as well as special event services from April-September to Harbor Park Stadium, home to the Norfolk Tides, Norfolk's Minor League Baseball team. HRT contracts with VIA to provide daily paratransit operations (**Table A-3**).

Table A-3: HRT Contracted Transportation Services

Service	Contractor	Contract Expiration
Elizabeth River Ferry	Norfolk-by-Boat	July 11, 2021[10]
Paratransit Operation	VIA	Jan. 31, 2023[11]

A.3.3   Labor Unions and Contracts

HRT's contract with Amalgamated Transit Union (ATU) Local 1177 is approved through June 2021 (**Table A-4**). ATU Local 1,177 represents full- and part-time operators and permanent full-time hourly maintenance department employees at HRT, excluding clerical employees, guards, professional employees, or supervisors.[12]

Table A-4: HRT Labor Unions and Contracts

Union	Contract	Contract Length
Amalgamated Transit Union Local 1177	Agreement between ATU Local 1177 and HRT	July 1, 2018 – June 30, 2021

A.4   Services Provided and Areas Served

A.4.1   Area Served

HRT serves a 431 square mile area within the Hampton Roads Region. HRT consists of six member jurisdictions: Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach. The population of the six jurisdictions combined is approximately 1.35 million.[13]

A.4.2   Services Provided

HRT provides the following service:

- Local, limited stop, regional express, and seasonal bus
- Demand response paratransit
- Passenger ferry
- Light rail
- Transportation demand management vanpools

Table A-5 details the total vehicles operated in maximum service for each mode in FY 2020.

---

[10] The Norfolk-by-Boat contract has a two-year option period, which would extend the contract to July 11, 2023.
[11] The current paratransit contract has two one-year options available, which could extend the contract to January 31, 2025.
[12] Agreement between ATU Local 1177 and HRT, Contract Term July 1, 2018-June 30, 2021. Accessed at https://www.gohrt.com/public-records/Commission-Documents/Governance/Collective-Bargaining-Agreement.pdf
[13] ACS 2011-2015 5-year estimates

Table A-5: Vehicles Operated in Maximum Service, FY 2020

Mode	Number of Vehicles
Bus	198
Demand Response	98
Ferry Boat	3
Light Rail	6
Vanpool	26

Local Bus Service
HRT operates 53 local bus fixed-routes, 33 routes on the Southside and 20 routes on the Peninsula. Fixed-route buses are equipped with bicycle racks and have low floors, ramps, or wheelchair lifts to assist the elderly and passengers with disabilities. Weekday service runs between approximately 4:30 AM and 1:30 AM (until 2:00 AM on the Virginia Beach (VB) Wave service in the summer).

Peninsula Commuter Service
HRT's Peninsula Commuter Service (PCS) is a five route, limited stop bus service that provides service to major employers on the Peninsula, including the Huntington Ingalls Shipyard in Newport News. PCS routes offer commuter service with only one or two trips per day, designed to coincide with shift change times of major employers.

Metro Area Express Service
HRT's Metro Area Express (MAX) is a seven route regional express bus service operating between Hampton / Newport News and Norfolk / Chesapeake / Virginia Beach, mostly along the interstate highways. The routes are designed for commuters; MAX service is limited stop and operates on coach style buses with free Wi-Fi. Some MAX routes operate throughout the day; others are designed for commuter service, only operating during peak periods.

Virginia Beach Wave and Bayfront Shuttle
The VB Wave and Bayfront Shuttle consist of three routes that operate seasonal service for residents and tourists in the Virginia Beach resort area. The VB Wave (Routes 30 and 31) use replica trolley-style diesel buses and the Bayfront Shuttle (Route 35) uses 29-ft diesel buses. These routes operate approximately from April to October 1st, from 8:00 AM to 2:00 AM.

The Tide Light Rail
HRT opened Virginia's first fixed guideway light rail system in August 2011, called "The Tide." It operates on 7.4 miles of track in the City of Norfolk, stopping at eleven stations and connecting downtown Norfolk with the western edge of Virginia Beach. The Tide operates nine light rail vehicles, powered by an overhead electrical system. Each vehicle can carry up to 160 passengers. Nineteen HRT bus routes offer direct connections to eight Tide stations, and four Tide stations have a combination of almost 800 free parking spaces.

Passenger Ferry
HRT contracts with Norfolk-by-Boat to provide daily service on the Elizabeth River between Downtown Norfolk and Downtown Portsmouth, using three 150-passenger ferries. Ferry service is also provided to the Harbor Park baseball stadium between April and September when the Norfolk Tides (Minor League Baseball team) play home games.

Demand Response Paratransit
HRT contracts with VIA to provide demand response paratransit service for persons with disabilities. Paratransit service is offered within three-quarters of a mile of any fixed-route bus service during the same hours of service as bus operations. Performance tracking for paratransit operations is accessible at HRT's online Accountability Center at www.gohrt.com/agency/accountability-center/.

A.4.3   Bus Stop and Shelter Placement

Bus Stop Location Guidelines

When establishing new bus stops or replacing existing bus stops, HRT coordinates with local jurisdictions to locate and identify mutually acceptable locations. Local jurisdictions make the final decisions about new bus stop placement or relocation. HRT considers many elements when locating a new bus stop:

- Stops should be placed based on population density and/or major passenger generators (i.e. major employment centers, regional shopping centers, hospitals, etc.)

- Distance between bus stops should be a minimum of 1,056 feet (one-fifth mile) and a maximum of 1,320 feet (one-quarter mile) apart or three to four blocks apart

- Presence of sidewalks, marked crosswalks, and curb ramps

- Protected crossings at signalized intersections

- Connection to nearby pedestrian circulation system

- Access for elderly and people with disabilities

- Convenient passenger transfers to other routes

- Effect on adjacent property owners.

Further guidelines for new bus stops – including bus operations, traffic and rider safety, placement at intersections, passenger boarding areas, bus stop access, and ADA requirements – can be found in HRT's *Bus Stop Location Policy* (updated May 5, 2016).[14]

Shelters

HRT's Passenger Guidelines classify different types of transit stops by level of use, and identify the appropriate amenities for each stop type, including bus stop shelters (**Table A-6**). Bus benches are typically placed at stops with an average of 25 or more daily boardings. Stops with 40 or more average daily boardings typically would warrant installation of a bus shelter unless there are right-of-way constrictions. Shelters are required to be ADA accessible, and include both an interior bench and nearby trashcan.

Table A-6: HRT Shelter Placement Guidelines[15]

Stop Type	Average Daily Boardings	Bench, Trash Can	Shelter
Standard	0-24	N	N
Enhanced	25-39	Y	N
Sheltered	25+ Priority 40+	Y	Y
Transfer Center	5-9 routes	Y	Y
Transit Center	10+ routes	Y	Y
Fixed Guideway	Tide, Ferry	Y	Y

A.4.4   Bicycle Amenities

All HRT buses and light rail vehicles are equipped with bike racks. Bicycle amenities at HRT transit stops include bicycle parking, bicycle lockers, on-bus racks, bike share programs, or other infrastructure. The distribution of these amenities may be based on a number of factors, including bicycle ridership, local infrastructure requirements, and connectivity. However, bicycle amenities are not currently required at transit stops – for each type of transit stop, HRT's amenity guidelines note that the bicycle amenities will vary.

---

[14] HRT Bus Stop Location Policy, PD 106, July 1, 2019.
[15] HRT Passenger Amenity Policy, PD 113, July 12, 2019.

A.4.5 Pedestrian Amenities

HRT's guidelines for pedestrian amenities, as found in its Passenger Amenity Policy, are classified by level of transit stop. All HRT bus transit stops are required to have an ADA-accessible alighting pad, cover ADA accessibility, a minimum sidewalk width of five feet, and basic signage.[16] At a standard stop, HRT only requires a sidewalk, signage and an ADA alighting pad; however, enhanced stops, which expect 25-39 average daily boardings, are required to have a bench and trash receptable. Additional amenities, for stops with higher average daily boardings, include shelters, food and beverage vending machines and vendors, restrooms, and water fountains.

A.4.6 ADA Requirements

HRT provides demand response paratransit service for persons with disabilities. Paratransit service is offered to origins and destinations within three-quarters of a mile of any fixed route during the same hours of hours of service as bus, light rail and/or ferry operations. All paratransit riders must be certified through an eligibility application process.[17]

All HRT transit services are wheelchair accessible. HRT's Bus Stop Location Policy also includes ADA design requirements for passenger boarding areas and bus stop sites.[18]

The HRT Paratransit Advisory Committee (PAC) is a subcommittee under the TDCHR Executive Committee. The PAC provides a vital communication link between the TDCHR, persons with disabilities who use or may use HRT services, and service providers to the disabled community on matters related to paratransit service within HRT's service area.

A.4.7 TDM Program (TRAFFIX)

Overview

TRAFFIX was established in 1995 as Hampton Roads' regional Transportation Demand Management (TDM) program. TDM, also called transportation demand management, has traditionally focused on commuter ridesharing, air quality mitigation, reduced trip generation or parking needs, and increased multi-modal options in transportation plans. However, the U.S. Department of Transportation has updated the definition of TDM to focus on traveler choice:

"Managing demand is about providing travelers, regardless of whether they drive alone, with travel choices, such as work location, route, time of travel, and mode. In the broadest sense, demand management is defined as providing travelers with effective choices to improve travel reliability."[19]

TRAFFIX receives funding through the Virginia Department of Rail and Public Transportation as well as federal funding administered through the Hampton Roads Transportation Planning Organization (HRTPO). HRT administers TRAFFIX, and program grants are directed through HRT.[20] Through TRAFFIX, commuters have better access to vanpools, carpools, telework options, as well as parking options.

TRAFFIX Program[21]

- **Vanpools/Carpools/Telework:** TRAFFIX provides and facilitates access to vanpools, carpools, and telework options for commuters; in FY 2019, 92 vanpools were registered with TRAFFIX and 721 commuters participated in vanpools via the TRAFFIX program. TRAFFIX is a partner in the Telework!Va Program and promotes in conjunction with the DRPT for the annual Telework Week in March as well as other telework messaging.

---

[16] HRT Passenger Amenity Policy (7-1-2019)

[17] HRT Paratransit, Accessed at http://www.gohrt.com/services/paratransit/

[18] HRT Bus Stop Policy (5-10-16)

[19] U.S. Department of Transportation Federal Highway Administration, "Transportation Demand Management." Accessed at http://www.ops.fhwa.dot.gov/plan4ops/trans_demand.htm

[20] TRAFFIX Long-Range Transportation Demand Management (TDM) Plan, 2010. Accessed at http://www.drpt.virginia.gov/media/1256/traffix-tdm-plan_feb-2010.pdf

[21] 2019 TRAFFIX Annual Report

- **Employer Services:** TRAFFIX TDM Programs include Agilemile, a ride-matching and commuter reward program that offers rewards to commuters logging non-SOV trips. In FY 2019, 13,324 commuters were members of the TRAFFIX Program with 2.3 million reduced vehicle miles traveled were recorded in AgileMile, including carpooling, vanpooling, biking, walking, telecommuting, and taking public transportation. Guaranteed Ride Home: Provides carpool, vanpool, transit or active transportation commuters with a reliable ride home if an unexpected emergency occurs after they arrive at work. Commuters can use this program up to two times or month, or six times a year. In FY 2019, 197 rides were given under this program. Registration for the program also increased from 159 new registrations with a total of 1,542 commuters in the program.

- **GoPass365 Program:** GoPass365 is a discounted bus pass that allows users unlimited usage of HRT's services (light rail, bus, ferry, VB Wave and MAX) by showing a GoPass365 and photo ID. The passes are purchased by colleges, employers and other businesses to provide a transit incentive or benefit to students or employees. In FY 2019, GoPass365 ridership reached 1,002,607. The top three GoPass365 clients were Newport News Shipbuilding, Tidewater Community College, and Portfolio Recovery Associates.

- **Military Benefits:** To reduce the number of commuters driving alone to military installations, the U.S. Navy, Marines, and Air Force offer a Transportation Incentive Program (TIP) to their members, and the U.S. Army offers a Mass Transportation Benefit Program (MTBP). These transportation benefits are issued as debit cards, which can be used at HRT ticket vending machines or customer service centers.

A.4.8   Transportation Network Companies (TNCs)

Ride hailing services like Uber and Lyft are available across the entire HRT service area, shown in **Figure A-2** and **Figure A-3**, respectively. Both Uber and Lyft offer on-demand services in mid-size or larger vehicles; ride-pooling services (such as UberPOOL or Lyft Line) are not available in the region.

Figure A-2: Uber Service in HRT Service Area
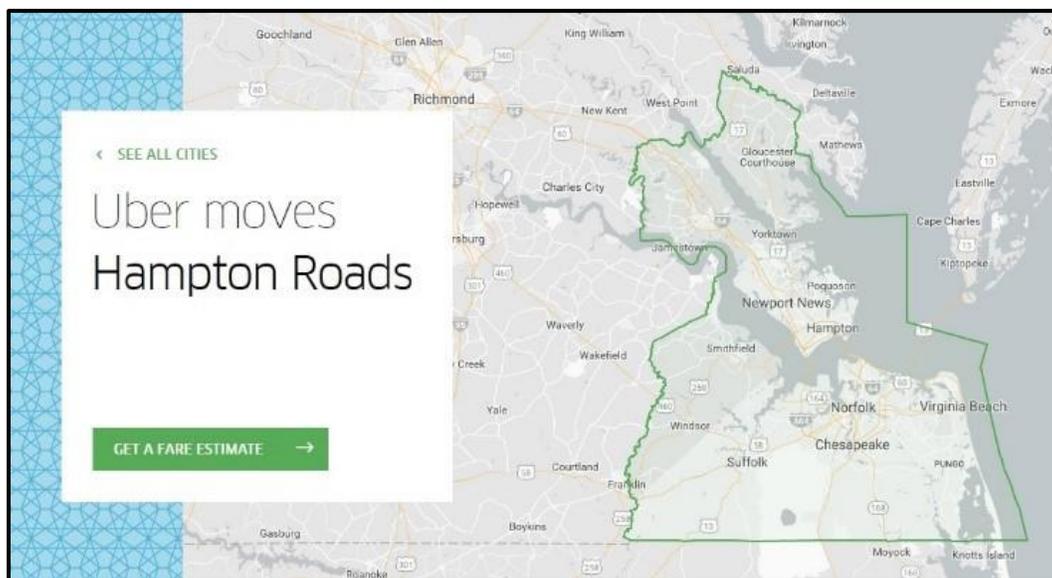
Figure A-3: Lyft Service in HRT Service Area
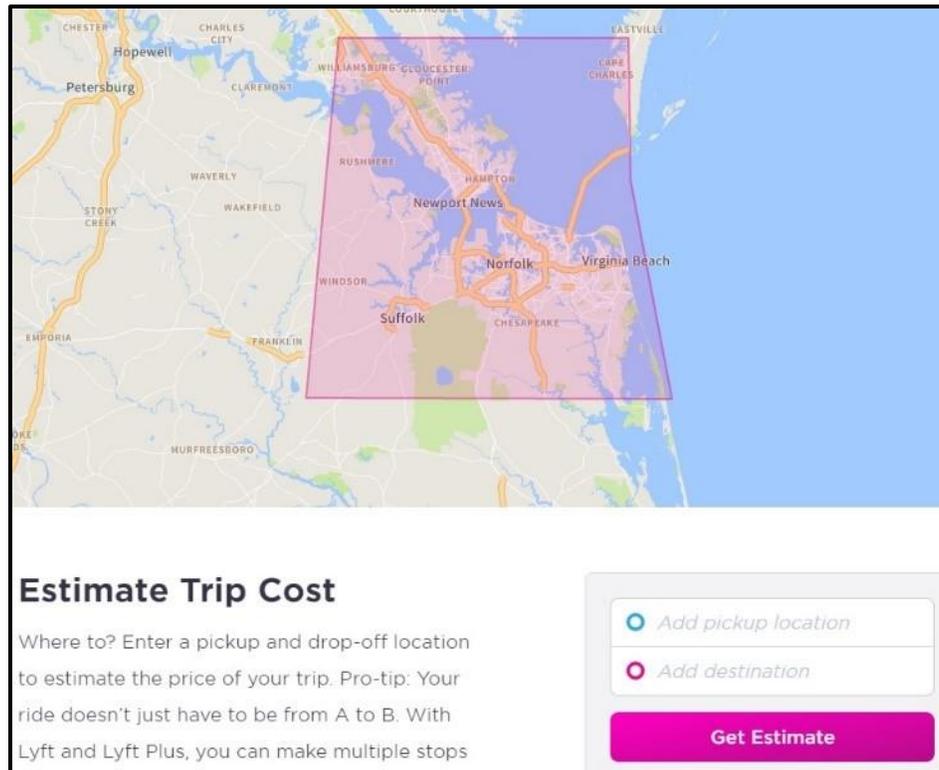
A.4.9 Taxi

For-hire vehicles, including taxis, are governed by each city's local ordinances rather than a taxicab commission. Some cities (e.g., Norfolk) allow the City Manager or a Board to create additional regulations for taxis.

Hampton Roads Transportation, Inc., provides a regional taxi dispatch service in the HRT service area. Taxis in the service (**Table A-7**) can be booked through phone, desktop website, or the smartphone app, App-a-Cab.[22] A full list of taxicabs authorized to operate in the Hampton Roads service area can be found on the Virginia Department of Motor Vehicles website.[23]

Table A-7: HRT Regional Taxi Services

Service	Location
Black and White Cabs	Norfolk
Black and White Cabs	Virginia Beach
Coastal Ride	Virginia Beach
Norfolk Checker Taxi	Norfolk
Yellow Cab of Norfolk	Norfolk
Yellow Cab of Hampton	Hampton
Yellow Cab of Newport News	Newport News
Hampton Roads Transportation, Inc.	Regional Taxi Dispatch/Aggregation

---

[22] Hampton Roads Transportation, Inc. Accessed at http://www.hrtitaxi.com/about-us
[23] Virginia DMV, Search/Filter Licensed Transportation Services. Accessed at http://www.dmv.virginia.gov/as/mcs/default/aspx

A.4.10 Transportation for Seniors

Seniors over the age of 65 qualify to ride HRT fixed-route services for a discounted fare. Seniors who are also paratransit customers using fixed-route services can present valid forms of identification to receive free service on HRT's bus, light rail, and ferry service. Several other organizations in the HRT service area offer senior transportation, including those listed in **Table A-8**.

Table A-8: Senior Transportation HRT Service Area

Organization	HRT Service Area	Service Name
Senior Services of Southeastern Virginia	Chesapeake, Norfolk, Portsmouth, Virginia Beach	I-Ride Transit[24]
Peninsula Agency on Aging, Inc.	Hampton, Newport News	PAA Transportation Services[25]

A.4.11 Other Transportation Services

Amtrak

Amtrak service is available at the Newport News station on the Peninsula and Harbor Park station in Norfolk. Amtrak service is also available in Williamsburg. Both the Norfolk and Newport News stations provide connections to Amtrak's Northeast Regional service, which operates on the Northeast Corridor between Boston and Washington, D.C., with several additional Virginia destinations (**Table A-9** and **Figure A-4**).[26]

On the Peninsula, the City of Newport News is nearing completion of a new multi-modal station near Bland Boulevard in Newport News, which will replace the current Amtrak station near Mercury Boulevard. The new facility is planned to accommodate HRT buses, as well as taxis and airport shuttles. The new station is expected to open in 2021.[27]

Table A-9: Amtrak Service in Hampton Roads

Station	Trains per day	Amtrak Bus Service	HRT Routes
Newport News	**Monday-Thursday:** two arrivals, two departures **Friday:** three arrivals, two departures **Saturday-Sunday:** two arrivals, one departure	Norfolk, Virginia Beach	106, 107
Norfolk	**Monday-Friday:** Two arrivals, two departures daily **Saturday-Sunday**: one arrival, one departure daily	Virginia Beach	The Tide
Williamsburg	**Monday-Thursday:** two arrivals, two departures **Friday:** three arrivals, three departures **Saturday-Sunday:** two arrivals, two departures		121

---

[24] I-Ride Transit. Accessed at https://www.ssseva.org/page/i_ride-transit/
[25] PAA Transportation Services, Accessed at https://www.paainc.org/transportation-services.html
[26] Amtrak Virginia Service Timetable, Updated November 2016. Accessed at https://www.amtrak.com/ccurl/1018/288/Northeast-Corridor-Scheudle-W06-11416.pdf
[27] The Daily Press, "Newport News transportation center construction planned for early next year." Nov. 26, 2016. Accessed at http://www.dailypress.com/news/newport-news/dp-nws-nn-transportation-center-update-20161123-story.html

Figure A-4: Hampton Roads Amtrak Train Station Locations[28]
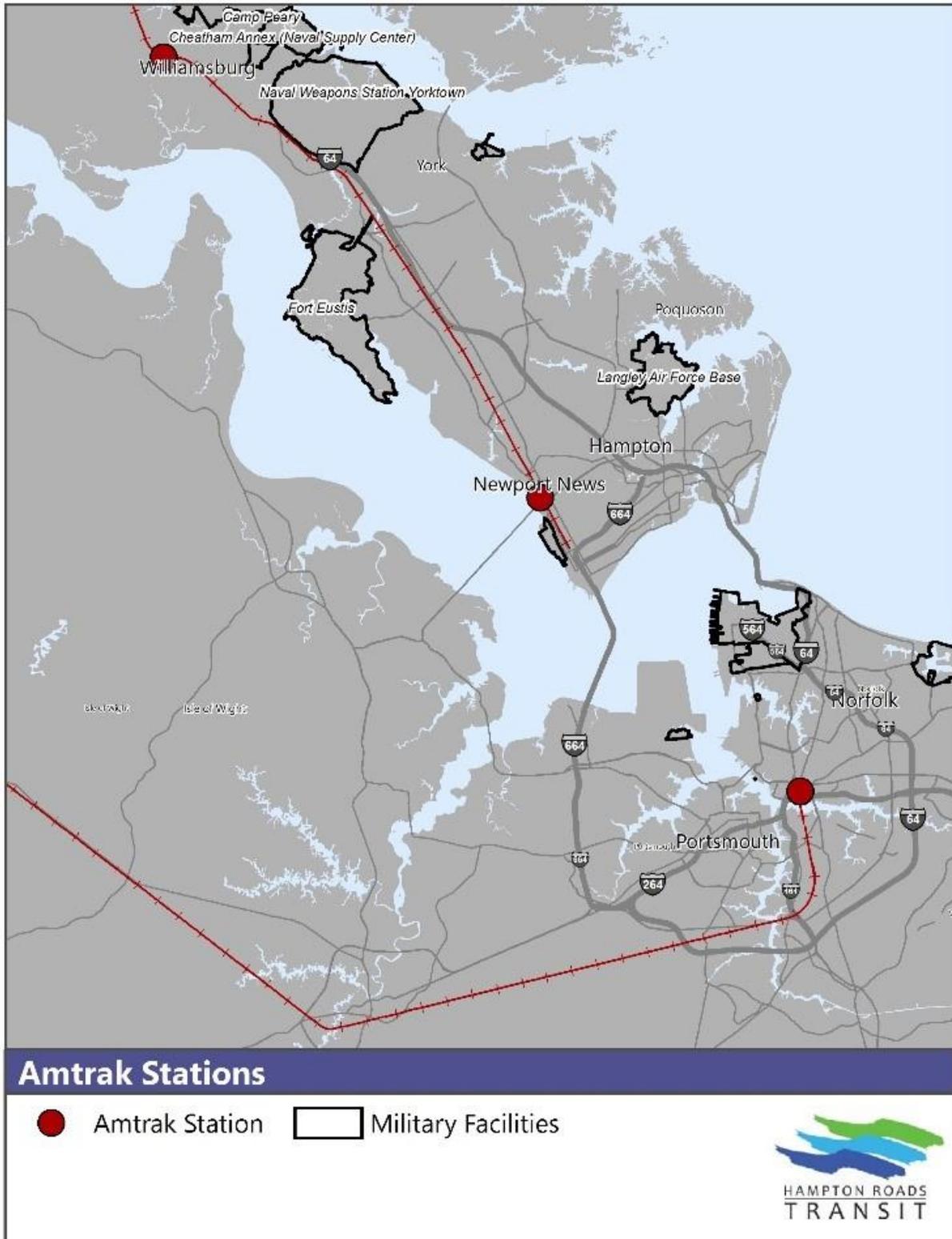
Regional Bus

Greyhound, an intercity bus service with over 2,700 destinations in the United States, stops at four locations in the HRT service area: Hampton, Norfolk, Virginia Beach, and Williamsburg.[29] Megabus, which provides intercity regional bus service in many parts of the United States, stops at the Hampton Transit Center and at the bus pullout on Pacific Avenue in Virginia Beach **(Table A-10)**.[30]

Table A-10: Intercity Bus Service in HRT Service Area

Station	Address	Bus Services
Hampton Bus Station	2 W Pembroke Avenue, Hampton, VA	Greyhound, Megabus, HRT Routes 101, 102, 103, 109, 110, 114, 115, 117, 118, 120, 403, 961
Norfolk Bus Station	701 Monticello Avenue, Norfolk, VA	Greyhound, HRT Routes 1, 3
Circle D Food Market	971 Virginia Beach Boulevard, Virginia Beach, VA	Greyhound, HRT Route 20
Virginia Beach Bus Stop	1900 Pacific Avenue, Virginia Beach, VA	Megabus, HRT Routes 20, 33, 35, 960
Williamsburg Bus Stop	468 N Boundary Street, Williamsburg, VA	Greyhound, HRT Route 121, WATA Routes Blue, Gray, Jamestown, Orange, Red, Tan

Other Public Transit

The City of Suffolk, located just west of HRT's Southside communities, operates Suffolk Transit, which provides fixed-route and paratransit service to Downtown Suffolk and surrounding areas. Suffolk Transit was formed in January 2012, utilizing Virginia Regional Transit as the City's contracted service provider. Suffolk Transit operates six fixed routes. The Purple route currently connects with HRT Route 47 at the Walmart in Suffolk, and the Pink route connects with HRT Route 45 at Chesapeake Square shopping area.

The Williamsburg Area Transit Authority (WATA) operates twelve routes serving the City of Williamsburg and parts of James City County, Surry County, and York County. Six WATA routes (Route 1: Gray Line, Route 2: Blue Line, Route 3: Orange Line, Route 5: Red Line, Route 7: Tan Line, Route 9: Purple2 Line) serve the Williamsburg Transportation Center, which connects to HRT Route 121. HRT Routes 108 and 116 also connect with the WATA Route 1: Gray Route at Lee Hall in Newport News.

Carshare

Zipcar, a short-term car-rental service, has cars at Old Dominion University in Norfolk and the College of William and Mary in Williamsburg.[31]

A.5   Fare Structures, Payments, and Purchasing

A.5.1   HRT Fare Structure and Types

Fare Structure

Passenger boardings on HRT buses are subject to the fares shown in **Table A-11**. In 2014, after nine public hearings, HRT raised fares for the first time in 15 years, from $1.50 to $1.75; the fares increased again in October 2017 from $1.75 to $2.00.

Under HRT's fare policy (revised in 2018) HRT staff report annually to the TDCHR with a "review of farebox revenues, farebox recovery ratio and ridership for the entire system and by mode." Tracking and reporting of these metrics and other key performance information is also done on a monthly basis during TDCHR committee and

---

[29] Greyhound Bus Station Locator, Accessed at http://locations.greyhound.com/
[30] Megabus Route Map, Accessed at https://us.megabus.com/journey-planner/map
[31] Zipcar, Where the Cars Are. Accessed at http://www.zipcar.com/cities

board meetings. Additionally, HRT staff make recommendations for solutions, which may include fare adjustments, to maximize transit service usage and achieve farebox revenue goals.[32]

Table A-11: HRT Fares

Ticket/Pass Type	Adult	Discounted Fare
Local Bus, Light Rail, & Ferry		
Cash	$2.00	$1.00
1-Day Pass	$4.50	$2.25
1-Day Pass *(Bundle of 5)*	$21.00	$10.50
7-Day Pass	$22.00	n/a
30-Day Pass	$70.00	$40.00
VB Wave		
Cash	$2.00	$1.00
1-Day Pass	$4.50	$2.25
3-Day Pass	$8.00	$4.00
MAX		
Cash	$4.00	$2.00
1-Day Pass	$7.50	n/a
1-Day Pass *(Bundle of 5)*	$35.00	n/a
30-Day Pass	$125.00	n/a
Paratransit		
Clients - Cash	$3.50	-
Personal Care Attendant[33] - Cash	$0.00	-
Guests - Cash	$3.50	-

Bus/Light Rail Fare Types
The following fare types are available for all HRT bus and light rail services.

- **One Day GoPass:** Unlimited access to all HRT services, except MAX, which requires an additional fee. The One Day GoPass is good for bus, light rail and ferry services.
- **Children/Youth:** Those 17 years old and younger can ride on any HRT vehicle for free if they:
  — Are accompanied by an adult fare-paying passenger
  — Use a Student Freedom Pass
  — Provide a valid proof of age, including a school ID with photo, DMV identification card, or HRT Youth ID.
- **Senior citizens:** Those 65 years old and over can pay a reduced fare for local bus, light rail, ferry, VB Wave, and MAX cash fare (half the full fare for all products except the 30-day pass) with a DMV ID, Medicare ID (with photo ID), HRT's Discounted Fare ID, or any other proof of age that includes a photograph.
- **Persons with Disabilities:** Persons with disabilities can pay a reduced fare for local bus, light rail, ferry, VB Wave, and MAX cash fare (half the full fare for all products except the 30-day pass) with an HRT Discounted Fare ID, or an ADA Paratransit ID (with photo). Identification is also required at time of farecard purchase.

---

[32] Hampton Roads Transit Fare Policy (5-2018)
[33] A personal care attendant (PCA) provides personal assistance to disabled passengers.

■ **Medicare Cardholders:** Medicare cardholders can pay a reduced fare for local bus, light rail, ferry, VB Wave, and MAX cash fare (half the full fare for all products except the 30-day pass) with a Medicare card ID or HRT Discounted Fare ID.

■ **Cash fare:** HRT accepts exact fare only; bus/light rail/ferry operators cannot make change.

■ **MAX:** Passengers can board the MAX using any valid fare pass, but an additional fee may be required for some passes, including the One Day GoPass.

■ **Paratransit:** Persons with disabilities who have applied for and received an ADA Paratransit ID can use this service and bring a personal care attendant (PCA) at no additional cost and a guest at the same fare as the paratransit-eligible rider.

HRT's complete Discounted Fare ID guidelines and a list of accepted forms of ID are available at https://gohrt.com/fares/discounted-fare-id/ or on an HRT route schedule. HRT does not give refunds on any purchase.

A.5.2   HRT Fare Payment

On-Board Payment Methods
All HRT buses, trolleys, and ferries are equipped with electronic fareboxes which accept cash, coins, and HRT magnetic-stripe farecards.

Ticket Vending Machines
Ticket vending machines (TVMs) are located at transfer centers, Tide Light Rail stations, Naval Station Norfolk, the High Street ferry dock, and several VB Wave stops (**Table A-12**). TVMs sell fare cards for local bus routes, MAX services, VB Wave, and ferries, as well as reduced fare passes for seniors and persons with disabilities. TVM screens prompt customers to select and purchase a fare card, which is then dispensed from the machine. TVMs accept cash, credit, and debit transactions. Passes are not active until inserted into a farebox.

Table A-12: Ticket Vending Machine Locations

Locations	Address
Downtown Norfolk Transfer Center	434 St Pauls Boulevard, Norfolk
Newport News Transfer Center	150 35th Street, Newport News
Hampton Transfer Center	2 W Pembroke Avenue, Hampton
Silverleaf Transit Center	4300 Commuter Drive, Virginia Beach
Naval Station Norfolk	Building C-9, Bacon & Gilbert, food court/mini-mart area
Elizabeth River Ferry	1 High Street, Portsmouth
The TIDE Light Rail Stations	EVMC/Fort Norfolk York Street/Freemason Monticello MacArthur Square Civic Plaza Harbor Park Norfolk State University Ballentine/Broad Creek Ingleside Road Military Highway Newtown Road

Retail Outlets
HRT fare cards are also sold in numerous retail outlets in Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach. Retail locations include approximately 95 grocery stores, 10 gas stations, 24

convenience stores, 34 tourism centers, and three military bases. A full list of retail outlets, organized by jurisdiction, is available on the HRT website here: https://gohrt.com/fares/where-to-buy/.

Bulk Purchases
HRT administers bulk purchases of fare cards. Orders can be placed online at HRT's website. There is a $300 minimum purchase for mail orders.

Transfer Agreements
HRT does not currently have any transfer agreements between HRT transit services and other transit services in the region (for example, free or reduced-price transfers, etc.).

A.6 Transit Asset Management Plan - Existing Facilities and Vehicle Fleet

In October 2018, HRT developed and began implementation of its Transit Asset Management Plan (TAM) to achieve a state of good repair (SGR) for all public transit assets. The TAM Plan supports a data-driven approach to maintenance, rehabilitation, enhancement, and replacement. With over $796 million in value, HRT's assets represent a significant public investment in public transit infrastructure and services. HRT monitors and manages its assets to enhance safety, reduce maintenance costs, increase reliability, and improve performance by implementing the following initiatives:

- Building an inventory of capital assets with up-to-date asset condition.
- Identifying risks and level of impact from asset management activities.
- Setting condition and performance targets for major asset classes.
- Developing prioritization criteria and methods for smart investments.
- Implementing specific asset maintenance, rehabilitation, enhancement, and retirement actions.
- Evaluating and reporting agency performance against targets.
- Identifying and acquiring the necessary resources to meet these targets.

These initiatives are guided by HRT's Asset Management Policy, which includes five Guiding Principles for Transit Asset Management:

1. Quality, reliable, and safe service
2. Financial stewardship
3. Success through a diverse, innovative, and inspired workforce
4. Sustainable and efficient service, growth, practices, and assets
5. Accountability and integrity

HRT's TAM Plan contains fundamental guidance for today and serves as the baseline for HRT's future asset management efforts. It is an essential tool for the agency to undergird an organization-wide culture and directive to achieve State of Good Repair (SGR) through a data-driven approach to maintaining, rehabilitating, enhancing, and replacing assets in an efficient, financially responsible, and sustainable way. The plan also demonstrates compliance with the FTA's associated reporting requirements.

Every department at HRT is responsible for implementing asset management practices for their assets. The President and CEO is responsible for overseeing the development of asset management plans and procedures, enforcing policy, and reporting to HRT's governing board on the status of asset management. The Engineering and Facilities department leads the coordination of these activities and maintains the TAM Plan.

HRT will review and update the plan at least once every four years to ensure continued improvement and a relevant strategy for achieving SGR and levels of service commensurate with the needs of HRT's customers. More frequent updates of this plan may occur based on the process for evaluation described in the plan.

HRT acknowledges the challenge of managing key public transit assets for the region under realistic budget constraints. Therefore, HRT is committed to implementing a data-driven, outcome-based approach to maintaining

assets in SGR and prioritizing reinvestments in critical assets. To support ongoing improvement in asset management practices, the TAM Plan includes an Improvement Program to guide HRT's short, medium and long-term actions to achieve the best level of service from existing assets.

A.6.1   Existing Facilities

HRT service delivery relies on four key asset groups:

- Revenue Vehicle Fleet (see **Section A.6.2 Vehicle Fleet.**)
  — Bus Fleet
  — Ferry Fleet
  — Light Rail Fleet
  — Demand Response Fleet.

- Light Rail Guideway and Systems
  — Bridges
  — Track
  — Signaling and Power (catenary).

- Passenger Facilities
  — Bus stops and amenities
  — Transit Centers
  — Light Rail Stations/Platforms
  — Ferry Docks
  — Park & Ride lots.

- Support Facilities
  — Administrative and Employee Restrooms
  — Maintenance Facilities
  — Maintenance Equipment.

Light Rail Bridges

The Tide light rail system includes five bridges, of various lengths, which are inspected periodically and maintained by the Facilities department. These bridges include:

- Smith Creek Bridge
- Lamberts/Brambleton Viaduct
- Sewells Point Branch Bridge
- Moseley Creek Bridge
- Broad Creek Bridge.

Passenger Facilities

Bus Stops & Amenities

HRT operates bus services at approximately 2,600 bus stops – including bus bays at Transit Centers. A majority of these stops, over 2,300, are "signage only" stops where HRT only owns the bus route signs. The remainder of stops include HRT-owned passenger amenities, which can be any combination of the following:

- Signage/Display Cases
- Shelter(s)
- Benches/seating.
- Trash cans

- Lighting
- Bike Rack
- Security Cameras
- Site Improvements (pedestrian sidewalks, paving, landscaping, etc.).

Transit Centers

HRT owns and operates three transit centers, the most recent opening in 2016:

- Downtown Norfolk Transit Center
- Hampton Transit Center
- Newport News Transit Center.

A fourth transit center, Silverleaf, supports HRT operations but is not owned by HRT. The assets at this location are included in the condition assessment and needs reports that follow, as they may be included under MAP-21 rules as an HRT facility.

Light Rail Stations and Platforms

As already noted, The Tide includes 11 passenger stations all opened in 2011.

Ferry Docks

HRT operates its Elizabeth River Ferry from four ferry docks. The oldest ferry dock, Waterside, is assumed to have opened in 1983 – though the structure may be older. Harbor Park and High Street opened in 1997, and North Landing in 2001. Ferry upgrades and new amenities are scheduled for construction in 2020.

Park & Ride Lots

There are twelve Park & Ride Lots listed on HRT's website for transit services (**Table A-13**); however, HRT only owns three of these lots. All lots are monitored by security officers and parking is free. The lots service six cities in the Hampton Roads Area. Lot sizes range from 32 to over 458 parking spaces (average 199) and feature passenger waiting pavilions, lighting and surveillance systems, emergency call boxes, signs, and public address systems. The three HRT-owned Park and Ride Lots are all in Norfolk, and are the only lots included in the condition and needs assessment:

- **Newtown Road:** 125 spaces
- **Military Highway:** 541 spaces
- **Ballentine Boulevard:** 278 spaces

Table A-13: HRT Park & Ride Lots

City	Number of Lots	Parking Spaces
Chesapeake	1	50
Hampton	1	138
Newport News	2	297
Norfolk	5	1,237
Portsmouth	1	119
Virginia Beach	2	543
Total	**12**	**2384**

Support Facilities

Administrative and Employee Restrooms

HRT operates two employee restrooms and one building strictly for administration, as listed in **Table A-14**.

Table A-14: HRT Administrative and Restroom Facilities

Facility	Facility Type	Municipality
Newtown Road Operator's Restroom	Restroom	Norfolk
Ward's Corner Operator Restroom	Restroom	Norfolk
Southside Complex (4 small buildings)	Administration	Norfolk
Southside Operations & Maintenance / Administration Facility, Building 4	Administration	Norfolk

Maintenance Facilities

Facilities that mix administrative, operations and maintenance functions are described in the TAM Plan "Maintenance Facilities" which include:

- Norfolk Tide Facility (NTF)
- Northside Operations & Maintenance / Administration. Facility
- Mangrove Warehouse
- Southside Operations & Maintenance / Administration Facility, Building 1
- Southside Operations & Maintenance / Administration Facility, Building 2
- Southside Parking Deck Building 3
- Northside Daily Services Building
- Virginia Beach Trolley Base.

HRT owns its maintenance, operations and administration facilities, with the exception of the Rail Operations warehouse at Mangrove Avenue, which is leased. Maintenance equipment in the facilities include bus and train lifts, bus and train washers, fueling stations, oil tanks and air compressors, etc. The maintenance equipment located at the maintenance and operations facilities is owned by HRT.

Bicycle Facilities

Transit

HRT transit stop bicycle amenities include bicycle parking, bicycle lockers, on-bus racks, bike share programs, or other infrastructure. The distribution of these amenities may be based on a number of factors, including bicycle ridership, local infrastructure requirements, and connectivity. Bicycle amenities, while listed in the HRT Amenity guidelines, are not currently required at transit stops – for each type of transit stop, the amenity guidelines note that the bicycle amenities will vary.[34]

Paths and Trails

There are over 1,300 miles of shared use paths, bike lanes, paved shoulders, wide sidewalks, signed shared roadways, shared roadways, and trails in the Hampton Roads metropolitan planning organization area.[35] Major trails (two miles or longer) in the HRT service area include: (descriptions of existing trails adapted from the Rails to Trails Conservancy). [36]

- **South Hampton Roads Trail:** A planned 41-mile trail connecting Suffolk and the Virginia Beach Waterfront. Over three miles of the trail near the Suffolk Seaboard Coastline is currently open[37]

---

[34] HRT Passenger Amenity Policy (7-1-2019)
[35] Hampton Roads TPO, "The State of Transportation in Hampton Roads – 2018."
[36] Rails-to-Trails Conservancy, Accessed at www.traillink.com
[37] Hampton Roads TPO, "The State of Transportation in Hampton Roads – 2018."

- **Elizabeth River Trail Atlantic City Spur (9.5 miles):** The Elizabeth River Trail–Atlantic City Spur runs between Harbor Park Stadium and the Norfolk International Terminals

- **Wesley Drive/Haygood Road Trail (2.7 miles):** The trail runs parallel to its namesake roads between Independence Boulevard and Baker Road (Virginia Beach)

- **Little Neck Road Trail (3.3 miles):** The trail runs parallel to its namesake road between W. Little Neck Road and Virginia Beach Boulevard (US 58) (Virginia Beach)

- **Cape Henry Trail (7.5 miles):** The Cape Henry Trail crosses the heavily wooded First Landing State Park, located on Cape Henry north of Virginia Beach. The trail provides access to the Narrows Recreation area, located in the park, as well as to neighborhoods and shops just west of the park boundary (Virginia Beach)

- **General Booth Boulevard Trail (6.1 miles):** The trail runs parallel to its namesake road between Princess Anne Road and Norfolk Avenue (Virginia Beach)

- **Virginia Beach Boardwalk (2.6 miles):** The trail runs between 40th Street on the north and Rudee Inlet on the south with access to the Atlantic Ocean the whole way (Virginia Beach)

- **Birdneck Road Trail (2.1 miles):** The trail runs parallel to its namesake road between Norfolk Avenue and General Booth Boulevard (Virginia Beach)

- **Great Neck Road/London Bridge Road Trail (11.5 miles):** This 11.5-mile paved trail begins in the busy commercial area just south of Shore Drive/US 60 in Virginia Beach, and ends at the Virginia Beach Boardwalk (Virginia Beach)

- **Rosemont Road Trail (3.5 miles):** The trail runs parallel to its namesake road between Holland Road and Whiteberry Lane (Virginia Beach)

- **Dam Neck Road Trail (7.9 miles):** The trail runs parallel to its namesake road between Salem Road and Terrier Avenue, along the southern border of the Dam Neck Naval Air Station (Virginia Beach)

- **Lynnhaven Parkway Trail (6.4 miles):** The trail runs parallel to its namesake road between Lishelle Place and Stewart Drive (Virginia Beach)

- **Independence Boulevard Trail (3.8 miles):** The trail runs parallel to S. Independence Boulevard in two disconnected segments (Virginia Beach)

- **Kempsville Road Trail (7.3 miles):** The trail runs parallel to its namesake road between Providence Road (SR 40) and Battlefield Boulevard (Virginia Beach/Chesapeake)

- **Trillium Trail - Sandy Bottom Nature Park (3.3 miles):** Sandy Bottom Nature Park is a 456-acre recreational oasis in Hampton, bordered on the northeast side by Interstate 64 and surrounded by busy residential, shopping and entertainment areas (Hampton)[38]

A.6.2   Vehicle Fleet

The following sections summarize the revenue fleet by mode and the non-revenue fleet by type. The FY 2018 Capital Improvement Plan provides in-depth fleet asset management plan, with a detailed schedule for replacement, expansion, overhaul and rebuild for each vehicle within the fleet.

Revenue Fleet

The HRT fixed-route bus fleet consisted of 279 vehicles, as of August 2019. Ninety percent of the fleet, or 253 total buses, were manufactured by Gillig. The HRT fleet also includes four Optima buses, seven Nova buses, and 14 Hometown Trolley buses. Hometown Trolley buses are only operated on VB Wave routes, which operate during summer months. Aside from the trolley-style buses, the remainder of HRT's fleet is standard buses that range in length from 29-ft to 40-ft. HRT has no articulated buses or over-the-road coaches.

---

[38] Rails-to-Trails Conservancy, Accessed at www.traillink.com

In addition to the buses listed above, HRT owns three ferry vessels, nine light rail transit vehicles, and 79 paratransit vehicles (including 76 cutaway vans and three vans). HRT is also responsible for the federal reporting of an additional 29 sedans leased and operated by VIA, HRT's current paratransit service contractor. Regardless of ownership, all paratransit vehicles are operated by VIA.

HRT does not own the vehicles used in its vanpool program. Instead, vanpool drivers use a van leased from a third-party or one that they themselves own. The vanpool drivers are also responsible for vehicle maintenance.

Table A-15 summarizes the number of revenue vehicles in HRT's fleet by mode, across both fixed route and demand responsive vehicles. Because HRT rotates vehicles between routes to ensure mileage is distributed appropriately among its vehicles, individual vehicles are not separated into an active or reserve fleet. HRT's spare ratio for its bus fleet is 17 percent, slightly under the FTA's recommended spare ratio of 20 percent for fleet of HRT's size. However, the agency will maintain the 20 percent spare ratio as new equipment is placed in service and older equipment is retired.

Table A-15: Revenue Fleet by Mode

Mode	Fleet Size	Vehicles Operated in Maximum Service	Spare Ratio
Bus	279	235	17%
Light Rail	9	7	22%
Ferry	3	2	33%
Paratransit	108	98	10%

Non-Revenue Fleet

HRT's non-revenue fleet consists of sedans, vans, SUVs, pick-up trucks and special purpose vehicles that are used as system support vehicles by HRT's administrative and maintenance staffs. In total, there are 102 non-revenue vehicles employed by HRT for purposes that range from revenue vehicle maintenance to facility upkeep to sedans driven by HRT staff for field work purposes (**Table A-16**).

Table A-16: Non-Revenue Fleet by Type

Type	Count of Vehicles
Van	44
SUV	14
Pickup Truck	28
Other Utility Vehicle	8
Sedan	8
Total	**102**

ADA Accommodations

Transit

HRT fixed route buses offer low floor "kneeling" buses, which allow the operator to bring the entire bus down to curb level, eliminating steps for boarding passengers, as well as wide doors and front aisles, interior visual and audio destination and stop announcements, and priority seating for those in need. In addition, the buses are equipped to accommodate two wheelchairs at one time.

HRT Tide Light Rail Stations offer tactile strips on every platform, audio and Braille Ticket Vending Machines, directional Braille tablets at platform entrances, height accessible 911 emergency call buttons on platforms, platform level train vehicles for easy boarding, and priority seating for those in need. Visual and audio departure,

arrival, and destination signage and announcements are used on all trains/stations, as well as visual and audio indicators for door opening and closing operations. Each train vehicle is equipped to accommodate four wheelchairs.[39]

All HRT ferries are accessible; ramps and boarding docks allow for level boarding.

Paratransit
HRT provides demand response paratransit service for persons with disabilities. Paratransit service is offered within three-quarters of a mile of any fixed route service during HRT's hours of operation. All paratransit riders must be certified through an eligibility application process.[40]

A.7   Transit Security Program
HRT has a commitment to creating a quality safety and security program.

- In 2000, HRT developed the Security Manager position
- In 2004, the TDCHR approved the support to pursue a Special Police appointment
- In 2011, HRT hired a Chief of Safety and Security Officer and a Safety Manager
- In 2019, HRT reorganized the Safety and Security Department, separating the two and placing the Security Department under Operations
- In 2019, HRT hired the Emergency Management Security Specialist
- In 2019, HRT hired the Security Specialist
- In 2019 HRT hired the Security System Specialist
- Currently, HRT has an additional Extra Duty Officer (EDO) Supervisor, 30 law enforcement officers, and additional contracted security.

A.7.1   Security and Emergency Preparedness Plans
HRT has completed a Security and Emergency Preparedness Plan (SEPP).

The SEPP establishes methodologies for threat and vulnerability assessments for the LRT. HRT also has a security plan for buses and ferry. The plan delineates security practices for HRT's security contractors, off-duty police officers working for HRT, and all pertinent safety and security employees.

In accordance with the Public Transportation Agency Safety Plan (PTASP) 49 CFR Part 673, the Safety Department is required to document its Integration with Public Safety and Emergency Management. This ensures integration of programs that have input into, or output from, the SMS. Safety and Security work in parallel to establish procedures for both external organizations and internal departments for dealing with emergencies and abnormal operations, as well as the return to normal operations. Emergency Preparedness procedures are developed to ensure the safety of employees, passengers, assets, and the community, which in turn helps to protect the business investment itself.

Emergency Preparedness Preparations include:

- Developing plans
- Involving the entire management team
- Ensuring customers will be safe in emergencies
- Ensuring employees will be safe in emergencies
- Planning for business continuity into the future

---

[39] HRT Service Accessibility, Accessed at http://www.gohrt.com/services/hrt-accessibility/
[40] HRT Paratransit Service, Accessed at http://www.gohrt.com/services/paratransit

- Preparing contingency plans
- Conducting drills with multiple stakeholders
- Preparing back-up equipment and processes for operations.

HRT has always worked to be prepared, to the greatest extent possible, to respond to all-hazard disasters and emergencies. However, HRT has become increasingly aware of how disasters and emergencies could interrupt its primary mission of moving people. Considering this, HRT has determined to develop and maintain a Continuity of Operations (COOP) Plan, an Emergency Operations Plan (EOP), and a Contagious Virus Response Plan (CVRP). COOP, EOP, and CVRP planning is designed to develop and maintain a program that preserves, maintains, and reconstitutes its ability to function effectively in the event of the threat or occurrence of any disruptive disaster or emergency.

A.7.2   Fare Inspection
HRT conducts fare inspection on its light rail system Monday - Thursday, 5:00 AM - 10:00 PM, Friday - Saturday, 5:00 AM - 11:00 PM, and Sunday, 10:00 AM - 9:00 PM. In 2019, HRT inspected approximately eight percent of fares on the light rail system.

A.7.3   Security Features on Vehicles
HRT maintains video cameras on both its buses and light rail vehicles that can be used to investigate incidents onboard HRT vehicles, as well as to validate customer complaints about operators, justify employee discipline and/or termination, and verify workers' compensation claims and auto claims from drivers involved in crashes with HRT buses.

HRT also has in place an audio monitoring system that records calls between bus operators and dispatchers, which can aid in investigations of safety or security incidents onboard HRT vehicles. Each vehicle has security features to enable the driver or operator to contact dispatch for emergency situations, as well as contact local police enforcement, and GPS systems.

A.7.4   Security Features at Transit Stations and Facilities
At Tide Light Rail stations, emergency call boxes can be used to contact the City of Norfolk's 911 system. The FY 2019 HRT Capital Improvement Plan also proposed passenger information display systems for both Tide stations and key bus transfer locations, which could provide both audio and visual security alerts to passengers. Transit stations are monitored and patrolled by contract security and augmented by a municipal police presence, as available.

HRT facilities are secured through, security card badges key and lock systems, and surveillance cameras. Cameras benefit riders, employees, and the general public alike by both deterring crime and helping to investigate incidents on HRT property. Gates and guards also secure entrances to HRT's 18th Street (Southside) and 3400 Victoria Boulevard (Peninsula) facilities. All HRT properties are fenced and are designed using Crime Prevention Through Environmental Design (CPTED) concepts.

At HRT's 18th Street (Southside) and Virginia Beach bus operating facilities, mobile vaults are used to create a secure system for transferring cash from vehicle fareboxes to secure vaults. HRT's 3400 Victoria Boulevard facility uses an in-wall vault system that the agency plans to replace.

A.7.5   Security Training Programs
Currently, there is safety and security training for new employees. All Operations employees receive a security awareness training, based on the National Transit Institute (NTI). In addition, segments of the monthly Operations Safety and Security Committee meetings are devoted to security and emergency preparedness training topics for HRT management personnel.

In accordance with a Department of Homeland Security directive, HRT has trained its mid-level through senior management in the National Incident Management System (NIMS), which will include an annual refresher course.

Two safety/security drills (locational and a tabletop) are required annually by FTA and VDRPT on the light rail system; five were conducted prior to the start of light rail revenue operations. Also, TSA VIPR readiness drills are performed annually.

A.8   Intelligent Transportation Systems Programs

HRT is currently in the process of documenting its Intelligent Transportation Systems (ITS) plan in conjunction with its Technology Project Management Plan. The following sections summarize the agency's current ITS programs and projects. HRT maintains a policy of updating its software assets at the end of their useful life, typically every four years, in accordance with State of Good Repair principles.

A.8.1   Computer Aided Dispatch / Automatic Vehicle Locator Systems

HRT's bus fleet is equipped with Trapeze TransitMaster Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system. The system includes onboard software and hardware for vehicles, radio communications infrastructure, as well as fixed side software, computing, and networking infrastructure. AVL hardware is installed and in use on all buses in HRT's fleet. AVL hardware is also installed on ferry vessels.

A.8.2   Automatic Passenger Counters

Automated Passenger Counter (APC) units are installed on HRT's bus and light rail fleet. Approximately 67 percent of HRT's bus fleet and 100 percent of light rail fleet is equipped with APC. Approximately 36 percent of the APC units on the bus fleet are beyond their useful life. Moving forward, it is HRT's policy to equip with APC units any buses purchased as replacements for the current fleet. HRT has plans to purchase APC units for remaining buses in the future.

A.8.3   Traffic Signal Priority

Traffic Signal Priority and traffic signal pre-emption is used to improve travel times and reliability on The Tide Light Rail System. HRT is studying the introduction of signal priority at select intersections for its bus services.

A.8.4   Trip Planners

HRT provides a Google Maps-based trip planning tool to its customers via the gohrt.com website. Customers can also access trip planning assistance from HRT by calling the Customer Service Center.

HRT also makes schedules available to the public via the General Transit Feed Specification (GTFS), which is used by websites and apps such as Google Maps to help plan trips using HRT services.

A.8.5   Scheduling Software

HRT uses GIRO HASTUS software for bus, light rail, and ferry route planning and scheduling. HRT's Service Planning and Operations departments use the software to create bus schedules, construct bus runs, and schedule operators. HASTUS is also used to geographically locate and analyze routes and bus stops and monitor the performance of the system.

For paratransit scheduling, VIA (HRT's contracted paratransit service provider) uses its proprietary software. The software compiles customer profiles, fixed route service geography, and operating hours, along with fleet and driver information, to schedule paratransit trips.

A.8.6   Maintenance, Operations and Yard Management Systems

The Operations Department uses Infor Spear fleet maintenance management software to store information and schedule activities relevant to fleet maintenance. HRT's Capital Improvement Plan proposes upgrading this software to a newer transit asset management system that would allow the agency to more effectively track its fleet, vehicle ages, and their repair and replacement schedules in one system. HRT also uses FTA's Transit Economic Requirements Model (TERM) Lite tool to track the condition of assets and the level of investment necessary to reach a State of Good Repair. TERM Lite measures:

- **State of Good Repair (SGR) backlog**: Total dollar value and by asset type

- **Level of Annual Investment:** To attain SGR or other investment objective
- **Impact of Variations in Funding:** Regarding future asset conditions and reinvestment needs
- **Investment Priorities:** By mode and asset type.

In addition, efforts are underway to inventory HRT's facility assets and to procure a facility asset management system that will track facility assets and repair and replacement schedules. HRT is in the process of Implementing Trapeze EAM software to provide a modern asset management system.

A.8.7   Information Displays
HRT currently does not provide passenger information displays at its transit facilities.

A.8.8   Real Time Arrival
Upgrades to HRT's CAD/AVL systems in 2019-2020 are making it possible for HRT to provide real-time information for HRT transit services, for the first time in the agency's history, starting in 2020. HRT expects to launch its own customer tools later in 2020, and also makes its schedules (as well as newly available real-time information) available to app developers in the General Transit Feed Specification (GTFS) format, which enables trip planning for HRT services on mobile apps like Google Maps. Future upgrades will include real-time arrival information to customers, including through passenger information displays, mobile applications, and Interactive Voice Response (IVR) phone systems.

A.8.9   Information to Mobile Devices or Applications
HRT distributes information about its services and collects feedback from customers through a variety of mobile devices and applications. Customers can engage with HRT through Facebook, Twitter, and YouTube mobile apps, where HRT also distributes important service alerts and information.

HRT makes its schedules available to app developers in the General Transit Feed Specification (GTFS) format, which enables trip planning for HRT services on mobile apps like Google Maps. Additionally, AVL data has been made available on to third-party app developers, who have created a real-time arrival application for HRT services.

In addition, the CIP-funded bus video surveillance equipment project will equip the bus fleet with cellular connectivity. Fleet wide connectivity to the high-speed broadband will open new possibilities for real-time data acquisition and delivery across all vehicle systems (e.g., passenger amenities in the form of Transit WiFi, information display systems, connectivity to the smart fareboxes, greater bandwidth for ITS systems, remote access to security systems, and possibility of monitoring the vehicle vital systems). While every system mentioned will not be able to leverage all the broadband capabilities, they will be developed over time; broadband connectivity is now part of the standard revenue vehicle build order.

A.9   Data Collection and Ridership/Revenue Reporting Method
HRT's methods for collecting, processing, verifying, storing, and reporting ridership and revenue service data vary based on the data source and report format required.

A.9.1   Electronic Registering Fareboxes
HRT uses Electronic Registering Fareboxes manufactured by Odyssey and Fast Fare to collect ridership and fare revenue data. Fareboxes are the source of the vast majority of ridership counts for HRT's bus services, with remaining counts obtained manually (see **Section A.9.3**   Manual Ridership Counts). Data from fareboxes is stored in a Genfare database before being imported into HRT's CRIS database, the internal system of record for National Transit Database (NTD) reporting (see **Section A.9.13**   National Transit Database Data Submission Practices**.**). For ferry services, farebox ridership reports are further adjusted in the CRIS database based on manual counts.

A.9.2 Automatic Passenger Counters (APCs)

Iris IRMA and Trapeze TransitMaster APCs are installed on approximately 67 percent of HRT's fixed route buses and 100 percent of HRT's light rail vehicles. APCs track the number of boardings and alightings by stop for each vehicle. Raw APC data is transmitted from each vehicle in real-time or in a batch upload when the vehicle returns to a garage. Each service day, this data is processed and stored in a data mart.

In 2019, the light rail APCs were certified and will be used in future NTD reporting. Manual sampling of bus trips based on NTD sampling guidelines are used to generate the number of passenger miles traveled. This process is described in the following section.

A.9.3 Manual Ridership Counts

HRT employs data collectors whose primary purpose is to gather data required to meet the FTA/NTD Sampling requirements. Manual forms include: the name of data collector, date, weather, bus number, boardings, alightings, load, the time the scheduled trip starts and ends, as well as scheduled time at the timepoints are included on the form. Each data collector is provided with individual training on the detail and regulations of capturing the data and meeting the sampling requirements.

For ferry services, manual counts are the primary source of ridership data. Not only are manual counts of passengers boarding and alighting at each stop required by the US Coast Guard, the fareboxes used for ferries have been found to produce inconsistent counts of ridership. After ferry farebox data is extracted to a GFI database and transferred to HRT's CRIS database for NTD reporting, an adjustment figure is added to match farebox counts to counts of total ridership obtained manually.

Vanpool services operated by Enterprise and V-Ride also provide ridership counts to HRT through manual counts. Daily ridership logs are imported into the CRIS database for further reporting.

A.9.4 Scheduling Software

HASTUS data is stored in an Oracle database for at least five years before it is expunged. Exports from this database are used to support both NTD reporting and other internal reports.

A.9.5 Accounting/Payroll Systems

HRT uses Oracle PeopleSoft Financials and Human Capital Management (HCM) software for its accounting, financial management, human resources, and payroll processes. These systems manage the collection, processing, verification, storage and reporting of such data. Data from accounting and payroll systems are reported in the agency's annual budget and Comprehensive Annual Financial Reports, as well as reports for various internal, local, state, and federal stakeholders.

A.9.6 Mobile Data Terminals

HRT's paratransit provider MV uses tablet devices as mobile data terminals (MDTs). These tablets download schedules from Trapeze and provide drivers with turn-by-turn directions. While the vehicle is in operation, the tablets also transmit information to the Trapeze system, including vehicle location, arrivals, and departures. In the event of a Trapeze system outage, the devices store up to two hours of schedules in memory.

Using information generated from these MDTs, Trapeze generates a monthly route productivity report. This report is imported into HRT's CRIS database for further reporting.

A.9.7 Automatic Vehicle Locator

Trapeze TransitMaster AVLs are installed on all of HRT's revenue vehicles. These devices track and report vehicle location for use by dispatchers, ridership reporting, and planning activities.

As with APC data, AVL data on schedule adherence and location is transmitted from each vehicle in real-time or in a batch upload when the vehicle returns to a garage. This data is ultimately processed and stored in a data mart.

A.9.8 Odometer Readings for Mileage

Bus mileage is automatically collected by Fleet Watch, a system used to monitor fuel and fluid usage in the fleet. This data is uploaded to the Spear fleet management system on a daily basis.

Fleet Watch generates reports on the fuel efficiency of the fleet and a variety of other canned reports for use by bus maintenance staff. Odometer readings are also reported in the agency's annual Capital Improvement Plan.

For the purposes of calculating revenue miles and hours, however, HRT utilizes the scheduled miles and hours, generated from the HASTUS scheduling software, and deducts the exceptions. This process is performed for both bus and rail. Revenue hours and miles data for paratransit service are generated from the vendor's system.

A.9.9 Operating Expense and Revenue Data

The system of record for operating expense and revenue data is HRT's PeopleSoft systems, which include revenues from fares, leases, advertising, contract service and other sources. These systems comprehensively manage the collection, processing, verification, storage and reporting of such data.

A.9.10 Agency Accountability Policy

HRT's Comprehensive Annual Financial Reports are audited by an independent public accounting firm. Submissions to NTD are certified by the HRT CEO or his designee.

A.9.11 On-Line Grant Administration Performance Data Submission

HRT complies with DRPT's On-Line Grant Administration (OLGA) submission requirements by submitting required data into OLGA by the 20th day of each month. The same data reported to NTD is also reported here, including measures such as revenue hours, revenue miles, and ridership for each mode.

In 2016, HRT entered into a contract with CelWell Services to provide Vehicle Miles Reduced tracker application software and support services. The system collects information on TRAFFIX programs, and data on employers and their commuter programs. The system supports monthly Online Grant Administration (OLGA) reporting requirements (daily, weekly, monthly, and annually) for the TRAFFIX program.[41]

A.9.12 Executive Director or Board Certification of Adherence to Standards and Accuracy of Data Submitted to OLGA

HRT does not currently have a certification process for OLGA submission, as it is not required.

A.9.13 National Transit Database Data Submission Practices

To produce HRT's submissions to the NTD, HRT compiles data from various departments into the HRT CRIS database. This database is the repository of data for various NTD measures and includes built-in reports

The Finance Department and Safety and Security Departments enter data for NTD submission separately, and these submissions are reviewed by Chief Financial and Safety Officers. All submissions are ultimately certified by the CEO. Submissions to NTD take place on a monthly or annual basis, depending on the type of data.

A policy document describing the processes for NTD data collection and submission was adopted by the agency in July 2019.[42]

A.9.14 Financial Audit Review of Verification Method

HRT publishes a Comprehensive Annual Financial Report, which includes an independent audit of the agency's financial statements by an outside accounting firm.

---

[41] TDCHR Commission Meeting Packet, April 28, 2015. Hampton Roads FY2016 Financial Report, Accessed at https://gohrt.com/wp-content/uploads/2015/12/April-TDCHR-Meeting-Package.pdf
[42] PD-111 - NTD Random Sampling Procedures

A.10   Coordination with Other Transportation Service Providers

Section 2.5 of the TSP contains detailed information about HRT's efforts to coordinate transit service with surrounding jurisdictions.

A.11   Public Outreach/Engagement/Involvement

A.11.1 Public Outreach - Major Service Changes

HRT's Marketing and Communications Public Outreach staff is notified by the Chief of Planning and Development when the agency is proposing a major service change(s), elimination of a route, or fare increase. HRT's Public Hearings and Meetings policy details the formal process of scheduling public hearings and meetings relative to these service/fare changes, including internal procedures, external communications, and follow-up.

A.11.2 Public Participation Plan Overview

Besides actions defined as a fare change or a major reduction in service, any change in HRT service will be the subject to "meaningful public engagement methods as appropriate to the nature of the proposed change."

HRT uses a broad range of outreach tools, documented in its Title VI Program Public Participation Plan and the HRT Policy and Procedures Manual for Public Hearings and Meetings, to conduct meaningful public engagement, which can include:

- **Public Meetings and Hearings:** Open public meetings and formal public hearings are frequently used in an effort to gain public review and comment
- **Stakeholder Communications:** Public agencies and elected officials may be notified by mail of significant service changes
- **Community-based Organizations:** HRT is in communication with many community-based organizations throughout the region, including cultural organizations, senior organizations, city partners, and business associations. HRT staff often attends meeting and events sponsored by these groups
- **Social Media:** Facebook status updates, Twitter feeds, and website comment forms may be used to provide access through the internet
- **Distribution of Written Materials:** At major transfer points
- **Informational Postings:** Flyers in public places and postings on the HRT website:
  — Notices (signs and brochures) describing proposed action(s), date(s) and location(s) of any hearings or meetings posted on buses and at transfer centers
  — Notices may also be published in major local and/or relevant neighborhood newspapers and on the HRT website

All public comments submitted to HRT through any of these outreach tools become part of the official record. If special accommodation is needed at an HRT public meeting, meeting attendees can call HRT Customer Service 48 working hours before the meeting to arrange proper accommodations, which include language translation services. HRT selects meeting and hearing locations to provide reasonable accommodations in accordance with the Americans with Disabilities Act of 1990.

A.11.3   HRT's Public Participation Process

HRT adheres to a proactive public participation process. All public involvement activities must be functional for HRT decisions and must be meaningful to the public. HRT benefits from public involvement by engaging the public at the earliest project stages from the development of the purpose and need through project implementation. HRT's public involvement activities increase public awareness and give the public an active voice in planning decisions. HRT's public participation process includes the following steps:

- **Step 1:** Outline a public participation plan at the beginning of key HRT planning projects
- **Step 2:** Previously established mailing and email lists are identified

- **Step 3:** Update existing mailing and email lists; new lists are identified
- **Step 4:** All project documentation is archived with HRT's records management department throughout the life of the project
- **Step 5:** Based on a project's milestones and requirements, a public involvement timeline is created. The public involvement timeline outlines each activity of the project's outreach efforts
- **Step 6:** The effectiveness of the public participation plan is periodically assessed throughout the life of the project, to determine if the public involvement objectives were achieved:
  — The public participation strategy is assessed at different stages of a project to determine if the practices were effective in reaching each of the expected population and whether the events created opportunities for meaningful involvement
  — HRT will change the public participation strategy to improve future performance in response to the assessment

A.11.4 Customer Satisfaction and Feedback

HRT gauges customer satisfaction throughout the year during focused efforts on surveys, customer outreach and public meetings. As a matter of routine, data is compiled monthly on the number and nature of complaints and commendations received in-person or via social media, phone, email and mail. Complaints per 100,000 Boardings are summarized monthly.

Additionally, the Transit Riders Advisory Committee, comprised of two representatives from each of the six cities, provides bimonthly input on customer perceptions and areas of interest. The Paratransit Advisory Subcommittee (PAC) provides input on quality of service issues related to paratransit services provided.

A.11.5 Transit Transformation Project Public Involvement

Community feedback for the *Transit Transformation Project* was gathered in person through public meetings, small group workshops and "pop-up" meetings. Comments were also solicited through a regional survey and "trade-off" exercises, which were done both in-person and online through the project website. The project website also provided additional information and project documentation.

A.12 Current Initiatives

A.12.1 Transit Transformation Project

HRT initiated the *Transit Transformation Project* in November 2018, a comprehensive review and planning effort to improve the design and performance of HRT services based on new regional standards. With input from community stakeholders, including a Regional Advisory Panel of representative business and civic leaders from public, private, and non-profit sectors, eight overarching goals for the project were defined:

1. Present a truly regional, cross-boundary analysis of service needs based on a blank-slate analysis of current travel demand, demographics, land uses, and new service design in comparison to current system performance.
2. Be open to hard conversations on service trade-offs such as frequency vs. coverage, on system inefficiencies, and on planning and funding while explaining the steps necessary to implement service changes.
3. Think outside the box to propose solutions to operational, service provision, and financial issues: consider testing and revisiting new service/service changes, pilots for new technologies and mobilities, different service patterns for different areas, etc.
4. Describe and promote the value of transit as a critical regional need for supporting economic growth and access to jobs in the region, as well as transit branding, including vehicles.
5. Present clear and new options of service models for transit in Hampton Roads including high-frequency service and on-demand service, while considering local needs.
6. Develop a final cost-neutral plan with recommendations for service, cost allocation and funding strategy (if different from current model), and customer-oriented improvements, which shall be adopted by HRT's

governing board and endorsed by the Hampton Roads Metropolitan Planning Organization as required by the Commonwealth of Virginia.

7. Develop additional options for targeted capital and operating investments for the cities and the region, including improvements to reduce trip time and appropriate vehicle investments and amenities.

8. Communicate broadly, spread the enthusiasm, and engage the cities, regional stakeholders, the HRT governing board, and the general public, including current users, in decision-making at all stages of the project.

For an improved HRT system, the project identified six specific goals:[43]

1. **Provide multimodal options** for access to major activity centers, jobs, higher education, schools, healthcare, grocery stores, cultural and sports venues and community services across the region, regardless of jurisdictional boundaries.

2. **Provide safe and accessible service** to all users including people with disabilities, people who depend on transit, seniors, and youth.

3. **Provide frequent and reliable service** that offers regional connections in line with travel demand.

4. **Provide a customer-centric service** by making it easier to understand and more attractive, leveraging up-to-date technology for providing real-time information and payment options.

5. **Support economic and land use development** plans and attract new businesses to the region.

6. **Reduce congestion and limit the environmental impacts of transportation** by making a more efficient use of roadway space, taking cars off the road, and reducing bus emissions.

The *Transit Transformation Project* involved a route-by-route evaluation and network scenario planning and modeling to illustrate the relative tradeoffs associated with different transit network options, including a better match of supply and demand, a focus on high frequency service, and a focus on broad geographic coverage (see **Chapter 1** for details and results from the tradeoff exercises). Outcomes of the *Project* formed the foundation upon which legislation was developed and adopted by the Virginia General Assembly in 2020, to create the Hampton Roads Regional Transit Program and Fund. As new and improved services are implemented by HRT in the coming years, the *Transit Transformation Project* will be an ongoing initiative. **Chapter 3** of the TSP contains service recommendations resulting from the *Transit Transformation Project*.

A.12.2 HRT 2019 Strategic Planning

In concert with the *Transit Transformation Project,* HRT reevaluated its vision, mission, core values, and agency goals and objectives that were part of previous planning efforts. Following a Senior Executive Team retreat, employees across the agency provided input through a survey in addition to employee focus group meetings, to help set the strategic direction for HRT. Moving into the 2020, HRT will be utilizing the Transit Strategic Plan and outcomes from these efforts to implement organizational improvements. Additionally, in 2020 HRT adopted new organizational policy in support of an improved Strategic Planning Process (SPP). The SPP is the process by which HRT develops strategic goals and objectives and implements, monitors, and continuously improves on key processes, plans, programs and business activities to achieve the agency's vision and mission.

A.12.3 FY 2018 - FY 2027 Transit Development Plan

Per Virginia state guidelines, HRT completed a TDP most recently in 2017. The TDP effort involved a comprehensive analysis of existing service, projected changes in demand for transit service, and recommendations to improve existing bus routes. This plan was approved by the agency's board in January 2018. The state requirement to complete a TDP is being superseded by the new requirement to complete a Transit Strategic Plan

---

[43] https://transformtransit.com/about/goals-for-the-project/

A.12.4 Draft Environmental Impact Statement for High Capacity Transit Extension to Naval Station Norfolk (East Side)

HRT, the City of Norfolk, and the Hampton Roads region have identified a need for high-capacity transit mobility and connectivity from the light rail system to Naval Station Norfolk. In 2015, HRT, in partnership with the City of Norfolk, completed the Naval Station Norfolk Transit Extension Study (NSNTES), which functioned as an Alternatives Analysis to look at a wide variety of alignments and technologies throughout the City of Norfolk.[44] As documented in the NSNTES, no consensus was achieved regarding the precise alignment connecting from the light rail to Naval Station Norfolk on the east side of the City. HRT and the City of Norfolk have evaluated initial corridors and development needs within the City and have determined that a connection along the eastern side of Norfolk would serve this need at a regional level and would provide for resiliency and redevelopment opportunities to support both the City of Norfolk and the greater Hampton Roads region.

As an outcome of the 2015 NSNTES study and at the request of the FTA, a refined analysis of alignment alternatives on the west side of the City of Norfolk was conducted in order to evaluate the feasibility of high capacity transit. The conclusion of the Norfolk Westside Transit Study was a "No-Build" solution for the west side of the City of Norfolk.

HRT is currently evaluating a reasonable alternative and fixed guideway mode to implement high capacity transit on the east side of the City and began work on the preparation of a draft Environmental Impact Statement in fall 2019. The DEIS will re-examine the alignment options to connect the Tide to Naval Station Norfolk and will look at technology options that include Bus Rapid Transit and light rail. The DEIS process is anticipated to take 24-30 months to complete.

A.12.5 Peninsula Bus Rapid Transit Categorical Exclusion

In 2016 and into 2017, the Peninsula Corridor Study defined potential high-capacity transit connections between existing and future activity centers in Hampton and Newport News.[45] The study identified two bus rapid transit (BRT) corridors—the Jefferson and Mercury corridors—as the most feasible and cost-effective alternatives, representing the Peninsula's best opportunity to meet the high-capacity transit needs of the community and effectively compete for FTA funding. These corridors provide the best mobility and community benefits with the least impacts to the existing environment.

This project will address a number of key opportunities including using transit to connect activity centers, decreasing travel times on the BRT vehicle, and the storage and maintenance of BRT vehicles. HRT will evaluate and document the project's effects on the natural, cultural, and human environment; potential property impacts; and transit-oriented development (TOD) opportunities.

The Peninsula BRT project will further define corridor alternatives and environmental documentation will be completed to prepare for future processes an application under the federal Capital Investment Grant Program. NEPA documentation is required for projects seeking federal funds. Environmental documentation considers the natural, cultural, and human elements of the project as they relate to the environment as well as local and regional travel changes. The Documented Categorial Exclusion process is expected to conclude by Spring 2020. Subsequent to the completion of the NEPA process, it will be the decision of both City Councils if they wish HRT to proceed with the next phase of project development under the Capital Investment Grant process.

A.12.6 Light Rail Automatic Passenger Counters

Automatic Passenger Counters (APCs) are installed on each light rail vehicle. These APCs have recently been certified by the Federal Transit Administration for NTD reporting purposes. This certification process involved validating the data generated by the APCs, outlining processes related to data cleaning, and creating a maintenance plan. HRT is now able to use APC-generated data to report ridership and passenger miles traveled to NTD, beginning in 2020. The certification is valid for three years.

[44] https://gohrt.com/wp-content/themes/gohrt_com/includes/reports/20161103_FINAL-NSN_Report_05122015_V2_with-Appendices.pdf
[45] https://www.peninsulabrt.com/

A.12.7 Autonomous Bus Consortium

HRT is participating in a consortium of transit and transportation agencies called the Autonomous Bus Consortium (Consortium), which is a collaboration designed to investigate the feasibility of implementing "Level 4" pilot automated bus routes across the United States.[46] Established by AECOM, the Consortium is a first-of-its-kind approach to accelerate the deployment of automated transit technologies and will combine the purchasing power and collaborative decision-making of these founding transit agencies nationwide. The pilot projects will use full-sized, full-speed buses and enable Consortium members to collectively demonstrate and deploy automated technologies in live service environments.

The Consortium's founding members include the following U.S. transit and transportation agencies: Dallas Area Rapid Transit (DART); Foothill Transit; Long Beach Transit (LBT); Los Angeles County Metropolitan Transportation Authority (Metro); MetroLINK (Moline); Metropolitan Atlanta Rapid Transit Authority (MARTA); Michigan Department of Transportation (MDOT)/Michigan's mobility initiative, PlanetM; Minnesota Department of Transportation/Rochester Public Transit (MnDOT); Pinellas Suncoast Transit Authority (PSTA), and Virginia Department of Rail and Public Transportation (DRPT)/Hampton Roads Transit.

Consortium members will define candidate deployment routes and locations, operating plans, autonomous bus specifications, financial plans and deployment strategies. AECOM will manage the planning, assessment, implementation and evaluation of the program's rollout in all locations. The Consortium will make an expected initial purchase of 75 to 100 full-sized, automated buses. By joining the Consortium, the cost of conducting local autonomous bus projects should be reduced for each agency. Lessons learned and best practices from each pilot project will be shared among member agencies to promote better and faster learning and adoption of safety protocols and operational insights. The Consortium's plan calls for a 12-month feasibility phase, followed by implementation within a two-year time frame, currently estimated to begin between 2021 and 2022. Each agency will make their own decisions regarding future additional automated bus purchases and deployment following the completion of the feasibility phase.

A.12.8 Alternative Fuel Vehicle Pilot

HRT has successfully been awarded grant funding which totals $7.8 million and is funded by two Low or No Emission Vehicle (LoNo) Program awards for the federal share, and a combination of Volkswagen Environmental Mitigation Trust and DRPT state funding, as well as a local capital contribution. In partnership with Proterra Bus, HRT will be acquiring six full sized, all-electric buses and supporting charging stations to demonstrate the capabilities of all electric buses on a Southside route. The Southside bus maintenance facility in Norfolk at 18th Street will be retrofitted with charging stations and will be connected to the Dominion Power electric grid. Only the Southside facility can support the charging infrastructure at this time due to insufficient power capacity elsewhere. If the all-electric buses prove to have advantageous operating characteristics, HRT will explore the opportunity to diversify the composition of the fleet.

A.12.9 Mobile Ticketing

In July 2018, HRT introduced its first mobile ticketing app on the three VB Wave trolley routes as part of an initial introduction to the technology. In years past, VB Wave trolley passengers would have needed exact change or a pre-purchased fare card to ride. In April 2019, the second phase commenced, and the 2019 summer season kicked off a week early for the inaugural Something in the Water music festival. There were many improvements from the 2018 season's "Phase 1" of the pilot program. All 14 trolleys were fitted with fare validator equipment that can scan fare barcodes on mobile devices, eliminating the need for operators to visually inspect customers' mobile devices, allowing for a more efficient and accurate boarding process. During 2019, HRT also worked with the vendor, Moovel, to pilot a Loyalty/Reward program as an opportunity to grow ridership. Moving forward, it is HRT's intent to implement mobile ticketing agency-wide for all services, based on grant funding availability.

---

[46] Level 4 automation is defined by NHTSA as "An Automated Driving System (ADS) on the vehicle can itself perform all driving tasks and monitor the driving environment – essentially, do all the driving – in certain circumstances. The human need not pay attention in those circumstances." Source: "Automated Vehicles for Safety." NHTSA. Available at https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety.

A.12.10   Peninsula TAP Grant

HRT has nearly 2,800 bus stops in the six cities of its service district that serves over 50,000 passenger trips per day. Currently nearly 65% of its bus stops are still out of compliance with Americans with Disabilities (ADA) requirements regarding accessible ramps for wheelchairs and sidewalks at our bus stops. HRT has been awarded $350,000 under the TAP grant program to retrofit some of the most utilized, non-compliant, bus stops with sidewalks and wheelchair accessible ramps. HRT anticipates continuing to retrofit non-compliant bus stops in its system.

A.12.11   2021 Origin-Destination On-Board Survey

HRT is planning to conduct an on-board customer survey to understand the travel patterns of riders and demographic and attitudinal information. This project is in the planning phase. The effort is planned as an initial RFI as it may be coordinated with other agency initiatives, such as the bus APC validation initiative or others.