REPORT OF THE

DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

Amtrak Station Wayfinding Signage Report

HB 2737

TO THE GOVERNOR OF VIRGINIA AND THE VIRGINIA GENERAL ASSEMBLY

COMMONWEALTH OF VIRGINIA
RICHMOND
2019

Contents

1 Executive Summary

Chapter 553 of the 2019 Virginia General Assembly directed the Virginia Department of Rail and Public Transportation (DRPT) to work with relevant stakeholders to evaluate existing highway signs in the Commonwealth of Virginia indicating the location and direction of nearby intercity passenger rail stations and the use of Amtrak intercity passenger rail at those stations. This directive included four evaluation requirements:

- Create an inventory of existing passenger rail wayfinding signs;
- Evaluate their costs;
- Review wayfinding signage in other states, and
- Identify potential funding sources for the signs.

Currently, there are 182 wayfinding signs for 20 Amtrak stations throughout the Commonwealth.[1] Amtrak procured these signs through the Virginia Department of Transportation, the agency responsible for the placement and maintenance of the signs on state maintained highways. Prior to this report's completion, an accurate inventory did not exist because many signs were procured prior to the start of state-sponsored service in the Commonwealth.

DRPT also examined whether there is a need to replace current signs or construct new signs. As part of the review, DRPT considered the following:

- Traffic volumes;
- Existing station ridership;
- Local sign ordinances;
- Federal and VDOT sign design standards and guidelines;
- Review of large format wayfinding signage options; and
- Input from the existing signage inventory.

Based on the presence and condition of existing wayfinding signage, DRPT identified potential locations for installing and/or replacing signage at each of the stations. **This study determined there is a need to replace 55 signs throughout the Commonwealth at an approximate cost of $61,000.**[2] **DRPT also identified potential locations for an additional 174 signs at a total cost of approximately $1.4 million.** At this time, DRPT only recommends proceeding with replacing the 55 signs if an appropriate funding source is located. Additional research will be

[1] The 20 Amtrak stations include three stations, Clifton Forge, Danville, and Staunton, which do not receive service from a state-sponsored train. DRPT also excluded the Lorton Station from the survey due to its unique business structure as an Auto Train station.

[2] The data includes some signs that may be upgraded and moved to a new location on an existing structure (i.e. moving from the side of a highway signpost to cantilevered) so those costs are included in this list. Some stations have no cost associated, but are shown to have some existing sign improvement activities. This is because activities such as clearing vegetation, fixing a dented pole, etc. did not have costs associated with them for the purposes of the study.

needed to determine the effectiveness of the current signs before proceeding with the full implementation of this report.

A summary of current, replacement, and potential signs and total cost per station is below.

Station	Current	Replacement	Replacement Costs	Potential	Potential Costs
Alexandria	14	5	$3,520	19	$409,200
Ashland	10	4	$3,447	1	$36,000
Burke Center	10	7	$4,770	8	$26,070
Charlottesville	3	0	---	17	$33,100
Clifton Forge	4	1	$1,450	12	$51,900
Culpeper	4	0	---	12	$26,050
Danville	18	5	$21,870	3	$18,000
Fredericksburg	13	3	$2,862	10	$69,394
Lynchburg	12	0	---	3	$5,489
Manassas	7	1	$840	7	$30,020
Newport News	10	5	$4,815	0	---
Norfolk	16	1	$870	4	$5,800
Petersburg	10	7	$5,631	18	$271,200
Quantico	7	3	$2,304	4	$9,934
Richmond: Main Street	7	2	---	13	$69,250
Richmond: Staples Mill	14	10	$8,376	10	$113,800
Roanoke	10	0	---	7	$44,954
Staunton	6	0	---	6	$61,200
Williamsburg	1	1	---	14	$54,500
Woodbridge	6	0	----	5	$29,484
TOTAL	**182**	**55**	**$60,755**	**174**	**$1,364,895**

The legislation also directed DRPT to examine the possibility of replicating the passenger rail promotional signage used by other states, specifically the North Carolina Department of Transportation. Like Virginia, North Carolina operates its own Amtrak state-sponsored service. The North Carolina signs have website and phone numbers to encourage use of its state-sponsored services. Coordination with VDOT staff indicated that websites and phone numbers are not permitted on signs within Virginia as per the Virginia-adopted Manual on Uniform Traffic Control Devices (MUTCD). Therefore, potential large format signs can be designed as guide signs meeting Virginia's supplemental sign design standards.

DRPT also explored funding sources at the federal, state, and other outside sources for potential use in the payment of installing signs to indicate the presence of Amtrak and intercity train stations. Potential sources include:

- Amtrak Great American Stations Project Trailblazer Signage Kits, an application-based program for localities;
- Intercity Passenger Rail Operating and Capital Fund (IPROC);[3]
- Federal Funding Sources;
    - Surface Transportation Block Grant Program: Transportation Alternatives Set-Aside
    - Flexible Funding Programs - Surface Transportation Block Grant Program (23 USC 133)
- Local Funding Sources
    - Local government funding

Moving forward, DRPT recommends the following approach:

- The Commonwealth and its localities will replace signs as recommended in this report if funding is available. Due to the limit on available funding in the IPROC program, DRPT proposes that localities pursue funding from the Amtrak Great American Stations Project. DRPT will work with localities in completing the application process.
- At a future time, if DRPT determines that the current and updated signs are effective in encouraging individuals to use passenger rail services, the Commonwealth will explore adding new signs at high ridership stations that state-sponsored passenger trains service. This step is contingent upon available funds from any of the proposed sources.

[3] In DRPT's current Six Year Improvement Program, IPROC is fully committed to infrastructure projects, including the Long Bridge project and accompanying statewide projects, as well as the operating costs of the six daily roundtrip state-sponsored services originating in Virginia.

2 Introduction

2.1 Purpose

The purpose of this report is to summarize data DRPT collected on the existing conditions, requirements, costs, funding, and potential locations for the installation of wayfinding signage to Virginia intercity passenger rail stations. Chapter 553 of the 2019 Virginia Acts of Assembly states:

> *The Department of Rail and Public Transportation (Department), in conjunction with all relevant stakeholders, shall evaluate the placement and maintenance of highway signs to (i) indicate the presence and direction of nearby Amtrak or intercity passenger rail stations and (ii) promote the use of such services and shall evaluate the cost and potential funding sources for such signs. The Department shall consult relevant stakeholders to create an inventory of existing Amtrak highway signs and review Amtrak signage in other states, including the "by train" signs in North Carolina. The Department shall report its findings to the Secretary of Transportation and the Chairmen of the House and Senate Committees on Transportation by December 1, 2019.*

2.2 Tasks

In support of this legislation, DRPT completed the following:

- Created an extensive inventory to provide a base to improve wayfinding signage for Amtrak stations;
- Developed a template for large format guide signs and potential locations for these signs to maximize the possible impact;
- Identified potential funding sources;
- Compiled planning level cost estimates for each of the stations utilizing Virginia Department of Transportation (VDOT) guidelines which assigns costs by the size of the potential sign; and
- Developed a Geographic Information System (GIS) database with the existing and potential signs including location, condition, message, and cost.

2.3 Stakeholders

Stakeholders consulted included Amtrak, DRPT, the North Carolina Department of Transportation, the Virginia Department of Transportation (VDOT), and the Virginia Railway Express (VRE).

3 Existing Amtrak Signage Inventory

There are currently 21 Amtrak stations in the Commonwealth with Virginia state-sponsored trains servicing 18 stations.[4] DRPT staff conducted an on-site review of current signage approaching each station.[5] DRPT found that there are currently 182 Amtrak signs at 20 Amtrak stations.[6] The chart below provides an overview of the number of signs currently for each station.

Station	Current Number of Signs
Alexandria	14
Ashland	10
Burke Center	10
Charlottesville	3
Clifton Forge	4
Culpeper	4
Danville	18
Fredericksburg	13
Lynchburg	12
Manassas	7
Newport News	10
Norfolk	16
Petersburg	10
Quantico	7
Richmond (Main Street)	7
Richmond (Staples Mill)	14
Roanoke	10
Staunton	6
Williamsburg	1
Woodbridge	6
TOTAL	182

[4] This report focuses on 20 Amtrak stations include three stations, Clifton Forge, Danville, and Staunton, which state-sponsored trains service. DRPT excluded the Lorton Station from the survey due to its unique business structure as an Auto Train station.
[5] To learn more about the survey and the collection process, please see the Section 11.
[6] For specifics regarding type of signs, including sign sizes, please see Section 10.

4 Large Format Guide Signs

4.1 North Carolina Signage

Large format guide signs, such as those signs in North Carolina, provide wayfinding and promote the use of Amtrak by advertising nearby stations. Coordination with North Carolina DOT staff provided the sample of signs considered for installation along major routes to promote train travel as shown. An example of a North Carolina directional sign is to the left.

4.2 Proposals

Coordination with VDOT staff indicated that websites and phone numbers are not permitted on signs within Virginia as per the Virginia-adopted MUTCD. Therefore, this report suggests that the large format signs be designed as guide signs meeting the supplemental sign design standards. Based on the design guidelines for different functional classifications of roadways, several example large format guide signs were developed to be used in the cost estimating for each of the stations. The large format signs developed are representative of signs that would be placed on VDOT maintained interstates and major highways. Individual signs will vary in size based on the message and destination name length. Two examples of these signs are to the right.

5 Potential Changes to Wayfinding Signs

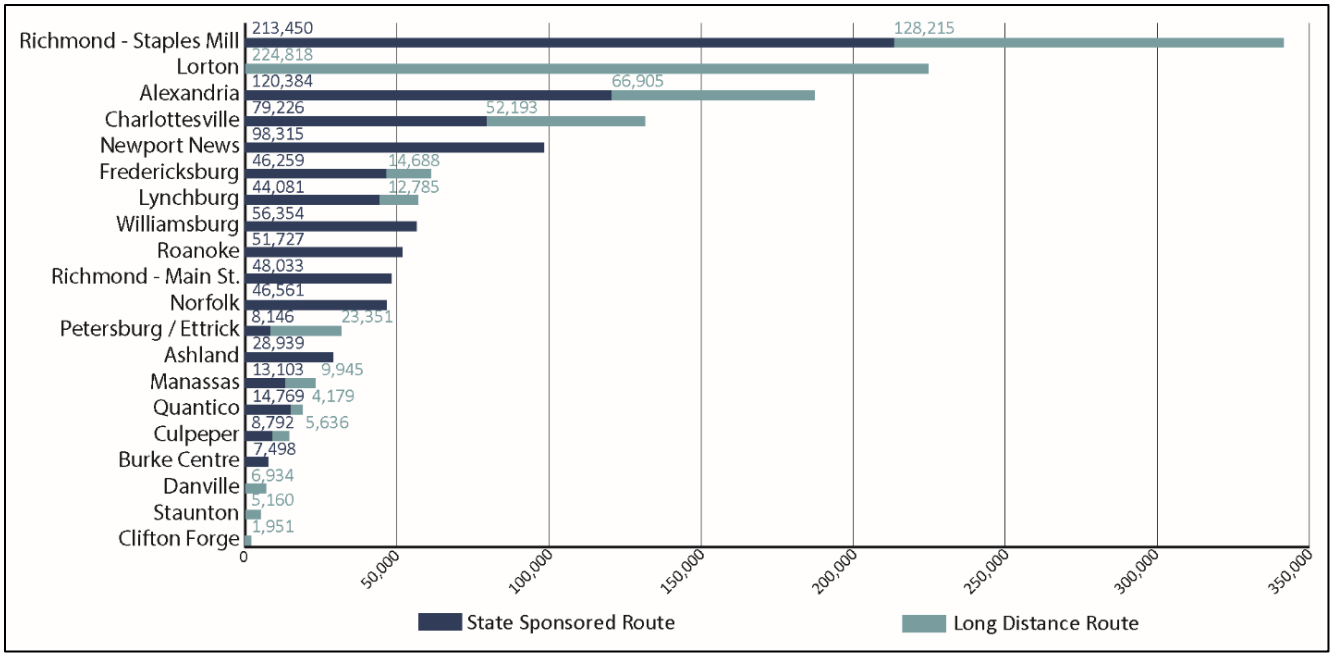
5.1 Criteria

DRPT created several criteria in evaluating the sign inventory for each of the stations. The criteria were:

- Traffic volume on the main access thoroughfares to the stations;
- Existing station ridership;
- Local sign ordinances and design guidelines;
- Strategic locations for larger promotional signs; and
- Existing station wayfinding signage.

VDOT traffic volumes consisting of the Average Daily Traffic (ADT) volumes with vehicle classification data on interstate, arterial, and primary routes were utilized in determining the major traffic routes around each of the stations. This data is presented in an ArcGIS layer.[7] The ADT was considered in determining what routes may need large guide signs.

Station ridership also helped determined number and placement of signage. Existing station ridership for Federal Fiscal Year 2018 (October 2017-September 2018) for each of the stations is shown below.



The presence and condition of existing wayfinding signage was also used as a baseline for future wayfinding signage installation. The existing signage inventory provided information on

[7] https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=a8da35dd9ce54993b25f64487c3717ec

preferred station access routes, such as interchanges and arterials most likely to be used to access the stations.

5.2 Replacement Signs

DRPT recommends replacing 55 signs across the Commonwealth.[8] The data includes some signs to be upgraded and moved to a new location on an existing structure (i.e., moving from the side of a highway signpost to cantilevered). Some stations have no cost associated, but are shown to have some existing sign improvement activities. This is because activities such as clearing vegetation or fixing a dented pole did not have costs associated with them for the purposes of the study.

Station	# of Replacement Signs
Alexandria	5
Ashland	4
Burke Center	7
Charlottesville	0
Clifton Forge	1
Culpeper	0
Danville	5
Fredericksburg	3
Lynchburg	0
Manassas	1
Newport News	5
Norfolk	1
Petersburg	7
Quantico	3
Richmond (Main Street)	2
Richmond (Staples Mill)	10
Roanoke	0
Staunton	0
Williamsburg	1
Woodbridge	0
TOTAL	55

[8] For more details about the sign sizes and locations, please see Section 8 and 9.

5.3 Potential New Signs

The chart below highlights potential locations for new signs. Based on the presence and condition of existing wayfinding signage, potential sign locations were determined for installing and/or replacing signage at each of the stations. These potential locations were entered into the GIS wayfinding signage database. The data included approximate locations, sign types, and potential mounting configurations.[9]

Station	# of Potential Signs
Alexandria	19
Ashland	1
Burke Center	8
Charlottesville	17
Clifton Forge	12
Culpeper	12
Danville	3
Fredericksburg	10
Lynchburg	3
Manassas	7
Newport News	0
Norfolk	4
Petersburg	18
Quantico	4
Richmond (Main Street)	12
Richmond (Staples Mill)	10
Roanoke	7
Staunton	6
Williamsburg	14
Woodbridge	5
TOTAL	174

The Alexandria station, with the second highest ridership in the state, has several high-volume roadways in the vicinity, as well as the highest projected cost due to the high number of potential large format signs with the potential for new cantilever structures due to limited space. If ground mounted locations can be found for these signs, the costs could be significantly reduced. The

[9] A breakdown of potential signs for each station is in Section 8 and 9.

Charlottesville station has the third highest ridership and minimal existing signage; therefore, extensive signing should be considered to direct traffic from multiple directions. Due to the traffic volumes and classifications of the surrounding roads, the potential sign locations are mainly limited to small and medium sized signs.

VRE services several stations including Burke Centre, Fredericksburg, Manassas, Quantico, and Woodbridge, and they already have VRE specific signs in the vicinity of the station. DRPT recommends adding Amtrak logos to these existing signs. By using the existing signing as a base, costs can be minimized.

Upgrading the Amtrak logo to current Amtrak brand standards on existing signs is recommended. Stations where the Amtrak logo needs to be updated to the current standard include Ashland, Charlottesville, Newport News, Petersburg (Ettrick), Quantico, Richmond-Staples Mill, and Williamsburg.

6 Costs and Funding Sources

6.1 VDOT Cost Guidelines

VDOT developed the *Guidelines for Costs of VDOT Signs + Sign Structures for 2019 General Assembly Fiscal Impact Assessments*, and they are used as a baseline for the unit cost estimates of Amtrak signage. These guidelines include costs for signs ranging from very small ground-mounted signs to overhead signs on new cantilever structures. The costs consider sign panels, mounting hardware, sign posts, maintenance of traffic, site review and inspection, installation, and maintenance. The below chart summarizes the guidelines for Costs of VDOT Signs + Sign Structures for 2019 General Assembly Fiscal Impact Assessments.[10]

Guidelines for Costs of VDOT Signs + Sign Structures for 2019 General Assembly Fiscal Impact Assessments

Size	Typical Locations	Representative Signs	Cost Ranges**	Notes
Very Small ground-mounts (1-6.5 SF)	Two-lane roads, urban streets, subdivisions	• Parking Restrictions (4~6 SF) • Route Markers (4~6 SF per sign) • Speed Limit signs (small – 24"x30") • Stop signs (small – 30"x30") • Civil War Trails and Virginia Byways (4~7 SF) • Bicycle lane / bicycle destination signs	$750	• Single square tube steel post foundation • Add up to $600 if contracted out (See Note 3)
Small ground-mounts (7-11 SF)	Two-lane roads	• Memorial/Dedication sign (small – 60"x18") • Diamond-shaped warning signs (small – 36"x36") – "Watch for Children", Signal Ahead, etc. • Stop signs (medium – 36" x 36")	$850	• Single square tube steel post foundation • Add up to $600 if contracted out (See Note 3)
Medium ground-mounts (12-19 SF)	Multilane secondaries and primaries	• Speed Limit signs (medium – 36"x48") • Diamond-shaped warning signs (large – 48"x48") – Signal Ahead, Deer, etc. • Stop signs (large – 48"x48")	12 SF: $1,500 16 SF: $1,800 19 SF: $2,000	• 1-2 square tube steel posts & slip base foundations (3 feet deep concrete)
Large ground-mounts (20-60 SF)	Divided primaries, limited access freeways	• Memorial/Dedication sign (large – 20~30 SF) • College, airport, watershed, etc. signs (size varies) • "Move Over" signs (66"x66" or 96"x96") • Speed Limit signs on freeways (large – 48"x60") • Speed Limit signs with Minimum Speeds (48"x96") • Informational/Guide/Destination signs (size varies)	20 SF: $2,200 30 SF: $2,700 40 SF: $3,100 50 SF: $3,900 60 SF: $4,500	• 1-3 square tube steel posts, inner posts, & slip base concrete foundations • 20-40 SF signs - concrete foundations are typically 3 feet deep • 50-60 SF signs - concrete foundations are up to 7 feet deep
Very large ground-mounts (140-200 SF)	Limited-access freeways	• Informational/Guide/Destination signs (size varies) (See Notes 7 and 8)	140 SF: $18,000 200 SF: $25,000	• 2-3 steel I-beam posts & concrete foundations (7~12 feet deep)
Replace overhead sign on existing structure	Limited-access freeways	• Informational/Guide/Destination signs (See Notes 7 and 8)	$14,500	• Assumes the sign will replace a sign of equal or lesser size • Lane closure costs are included
Overhead sign on new cantilever structure	Limited-access freeways	• Informational/Guide/Destination signs (See Notes 7 and 8)	$120k ~ $160k for 40 ft span	• Lane closure cost is included • Many new overhead sign structures require new/modified guardrail

****Cost Range Notes:**

1) The costs are preliminary estimates; actual costs vary based on geographic location, road type, roadside topography, and exact sign dimensions.
2) **Cost estimates are based on current statewide average prices and do not account for potential future escalation in steel or aluminum costs.**
3) Cost estimates for smaller signs assume some in-house work. Cost estimates for larger signs assume all work is contracted out.
4) Cost estimates assume three trips: locating the sign structures/marking utilities, installing foundation/structure, and erecting a sign panel once the foundation has cured.
5) These estimates do not account for other incidental costs such as Right of Way, additional earthwork, utility relocation, mobilization, guardrail, removal of existing signs, etc.
6) Construction Engineering/Inspection (CEI) costs are not included due to the unknown variability in size and scope of the project.
7) These estimate ranges may not be appropriate to use for very large or very small-scale projects, and should not be used for on-call contracts.
8) Costs for electrical components of signs (sign lighting, luminaire retrieval systems, changeable message sign elements, flashing beacons, etc.) are not included.
9) Larger signs in eastern portions of Hampton Roads District may be 5%~10% more expensive due to need to design for stronger hurricane winds and poorer soil conditions.
10) Cost ranges have been updated from previous December 2016 cost guidelines to reflect rising steel, aluminum, and labor costs, recent bid histories, and changes in VDOT sign structure standards.

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Sign ordinances for each of the jurisdictions that contain intercity passenger rail stations were researched. These ordinances do not apply to signs placed on VDOT maintained roadways. Jurisdictions where sign ordinances set a higher standard for design and/or placement are those

[10] Additional information about the guidelines impacting sign costs can be found in Section 12.

localities with historic districts adjacent to the train station. These locations include Charlottesville, Culpeper, Staunton, and Williamsburg. Historic districts often have unique signing designed to fit within the aesthetic of the area and standard signing may not be approved by the jurisdiction to be placed within the historic area.

6.2 Station Costs[11]

Station	Replacement Sign Costs	Potential Sign Costs	Total Cost
Alexandria	$3,520	$409,200	$412,720
Ashland	$3,447	$36,000	$39,447
Burke Center	$4,770	$26,070	$30,840
Charlottesville	---	$33,100	$33,100
Clifton Forge	$1,450	$51,900	$53,350
Culpeper	---	$26,050	$26,050
Danville	$21,870	$18,000	$39,870
Fredericksburg	$2,862	$69,394	$72,256
Lynchburg	---	$5,489	$5,489
Manassas	$840	$30,020	$30,860
Newport News	$4,815	---	$4,815
Norfolk	$870	$5,800	$6,670
Petersburg	$5,631	$271,200	$276,831
Quantico	$2,304	$9,934	$12,238
Richmond (Main Street)	---	$69,250	$69,250
Richmond (Staples Mill)	$8,376	$113,800	$122,176
Roanoke	---	$44,954	$44,954
Staunton	---	$61,200	$61,200
Williamsburg	---	$54,500	$54,500
Woodbridge	----	$29,484	$29,484
TOTAL	**$60,755**	**$1,364,895**	**$1,425,650**

[11] A more detail breakdown of costs per station can be found in Section 9.

6.3 Funding Sources

Funding sources at the federal, state, and other outside sources were explored for potential use in the payment of installing signs to indicate the presence of Amtrak and intercity train stations. Some funding sources have a higher likelihood of being a potential resource, while others may have a low likelihood unless included in another transportation project receiving these funds.

Amtrak

- Great American Stations Project: Amtrak established this application-based program in 2006 to educate communities on the benefits of redeveloping train stations, offer tools to community leaders to preserve their stations, and provide the appropriate Amtrak resources. Per the Great American Stations Project: "Municipalities, counties and state DOTs or highway authorities may order Trailblazer Signage kits from Amtrak at no cost. Each kit includes a Trailblazer sign with the Amtrak logo, directional arrow, and hardware for mounting to a standard u-channel post. The Federal Highway Administration (FHWA) green station symbol panel is also available. Communities must provide the posts, oversee installation, and provide Amtrak with a list of installation sites. Trailblazer Signage meets FHWA requirements for reflectivity." This resource can be used for the smaller wayfinding signs to minimize total costs of signage. DRPT will work with the respective localities in completing the application process.

State Funding Sources

- Intercity Passenger Rail Operating and Capital Fund (IPROC): The General Assembly established IPROC in 2011; it is a special, non-reverting fund within the Transportation Trust Fund. The fund provides a mechanism to finance continued operations of Amtrak's Virginia-sponsored regional trains, invest directly in projects related to growth and enhancement of intercity passenger rail service in the Commonwealth, and match federal transportation grants to improve intercity passenger rail and fund high-speed rail. DRPT administers this fund subject to the approval of the Commonwealth Transportation Board.

Federal Funding Sources

- Surface Transportation Block Grant Program: Transportation Alternatives Set-Aside – Funds are available for construction, planning, and design of transportation projects to achieve compliance with the Americans with Disabilities Act regulations. Additionally, funds are provided for historic preservation of a site, if the station is listed in the National Register of Historic Places.
- Flexible Funding Programs – The Surface Transportation Block Grant Program (23 USC 133) provides funding that may be used by states and localities for a wide range of projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle, and pedestrian projects.

Local Funding Sources

- Local Governments – This includes locally provided funding from general budgets or specific local funding sources. Signs on locally maintained roads and in communities can be shared/borne by the localities.

7 Moving Forward

There are currently 182 wayfinding signs promoting Amtrak intercity passenger rail travel across the Commonwealth. Amtrak procured these signs from the Virginia Department of Transportation, the agency responsible for the placement and maintenance of the signs on state-maintained highways.

DRPT also determined that there is a need to replace 55 signs at a cost of approximately $61,000. While in the field, DRPT also analyzed potential locations for additional signs. While the report notes that there are 174 potential locations for additional signs, it does not recommend adding more signs currently.

Instead, this report recommends replacing the 55 signs across the Commonwealth by utilizing the several available federal, state, and local funding sources identified. One such viable funding source is the Amtrak Great American Stations Project, an application-based program for localities. DRPT will provide assistance to localities in completing their applications.

IPROC, the state source most likely to be used for such an expense, has been fully obligated by the Commonwealth Transportation Board to high-priority statewide projects, including the Long Bridge and accompanying statewide improvements and operating expenses for Virginia's six state-sponsored trains.

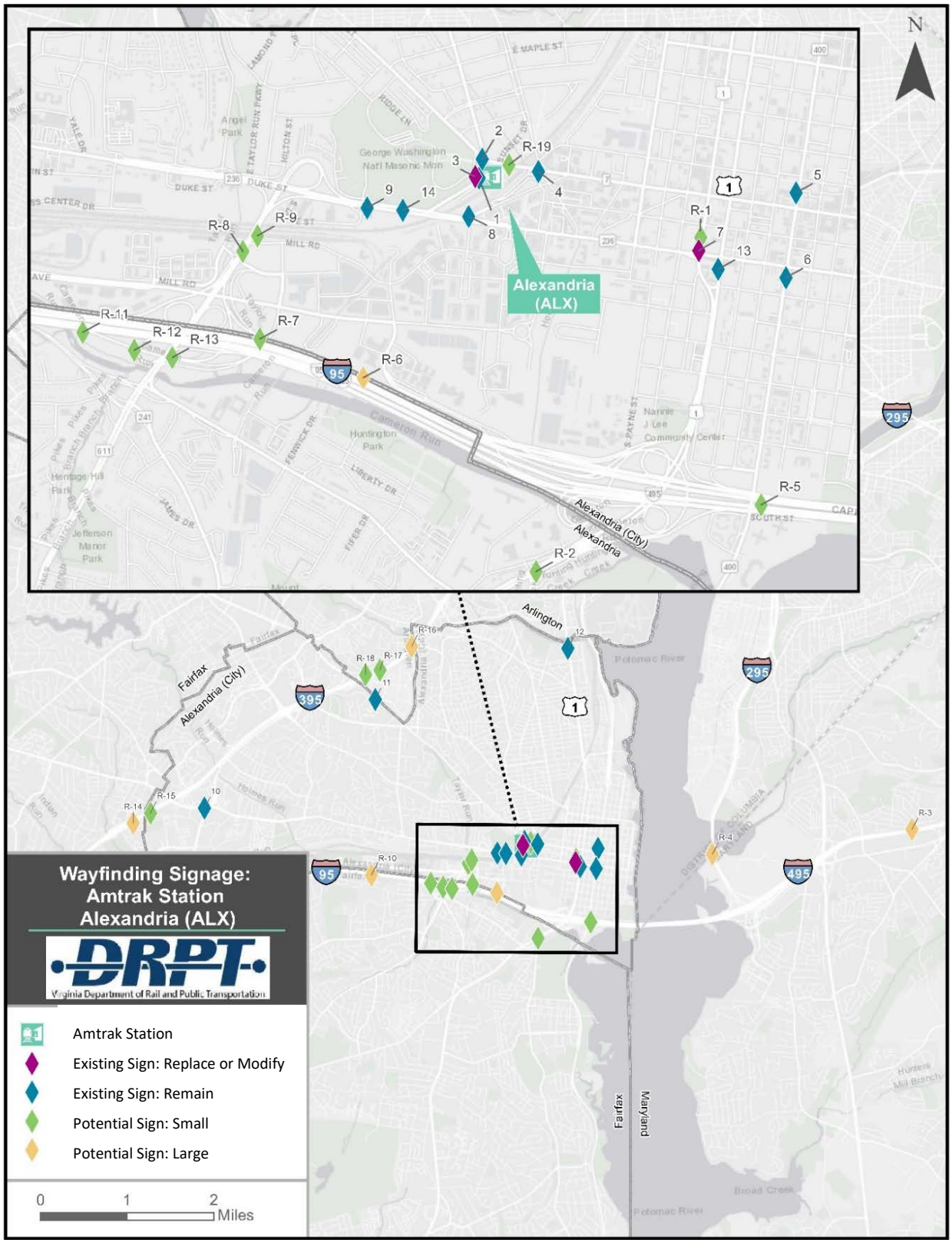
DRPT staff is committed to working with Amtrak, fellow state agencies, and local governments on ways to continue improving Amtrak ridership, including updating wayfinding signage to encourage and promote more users of the system. The 2010s were a successful decade for state-sponsored Amtrak ridership in Virginia, culminating in Federal Fiscal Year 2019 being the highest year of ridership. The 2020s provide an opportunity to build upon that success and grow ridership to citizens throughout the Commonwealth.

8 Appendix: Station Sign Inventory Maps

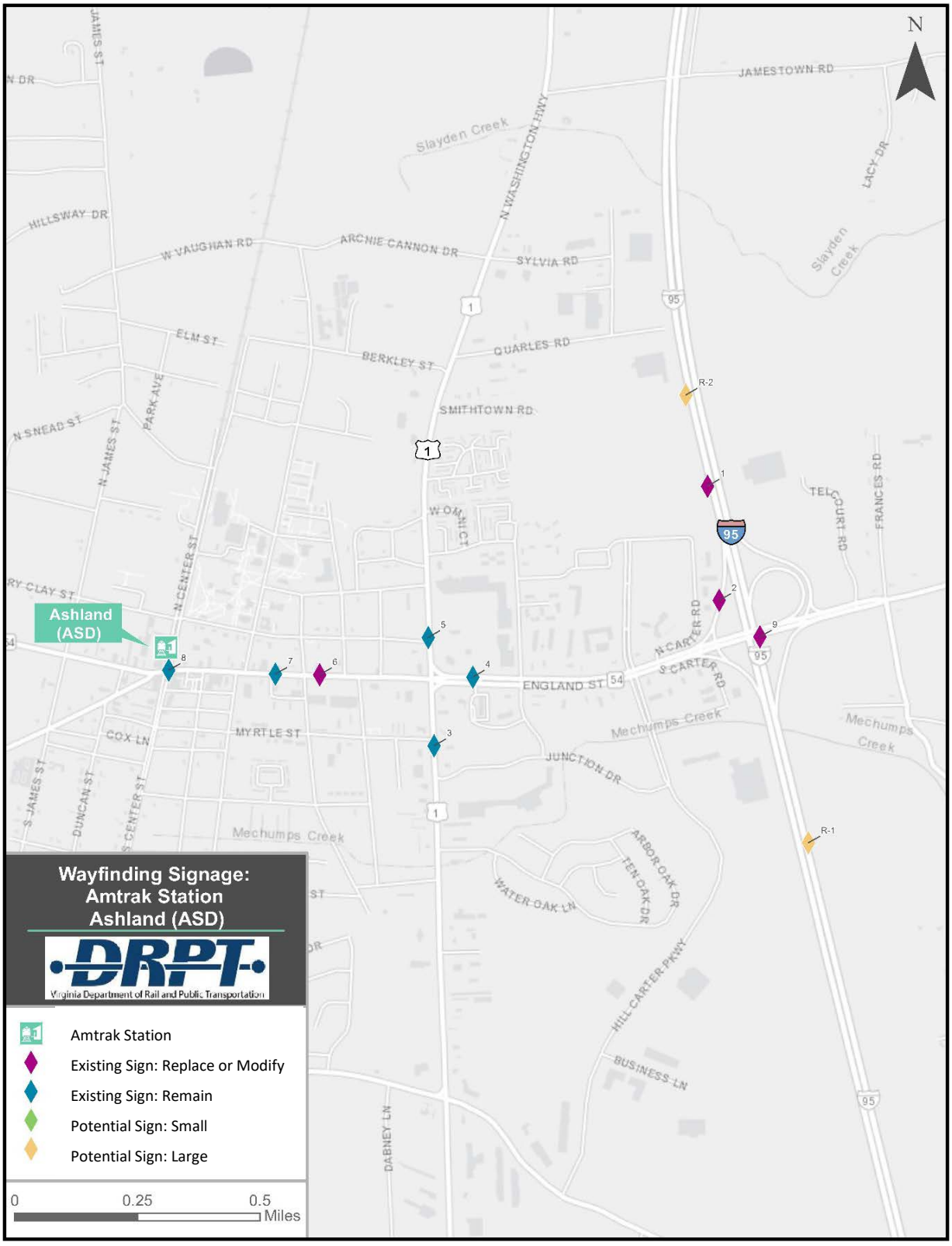
The below maps show the existing, updated, and potential signage documented for each of the stations. These maps classified the existing and potential signage into four categories:

- Existing wayfinding signs to remain in place;
- Existing wayfinding signs which need to be replaced or relocated;
- Potential small wayfinding signs (Amtrak logo/Train Station sign/Arrows); and
- Potential large wayfinding signs (guide signs placed on large arterials/expressways/freeways with the Amtrak logo/Train station logo/Station name).

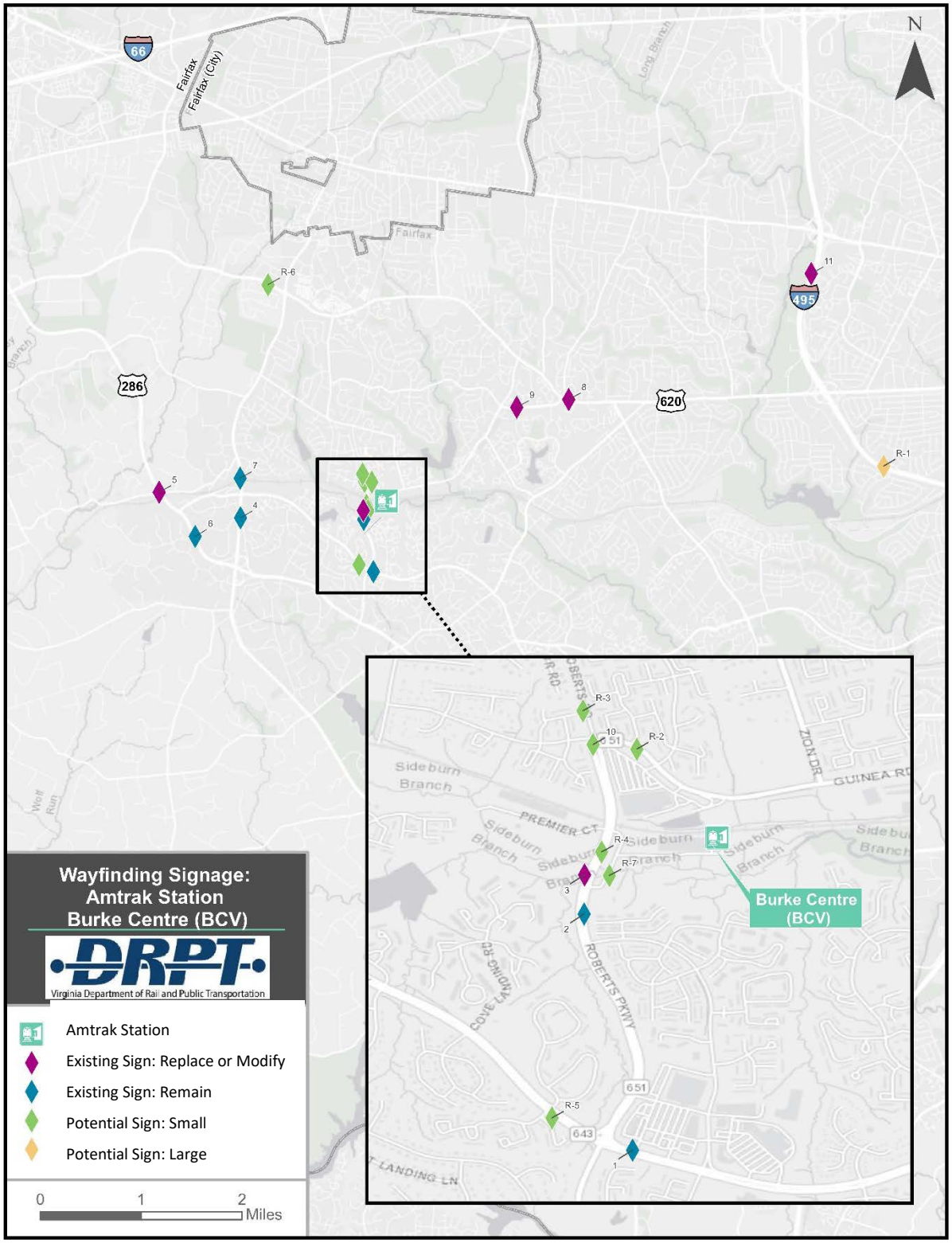
Alexandria Station



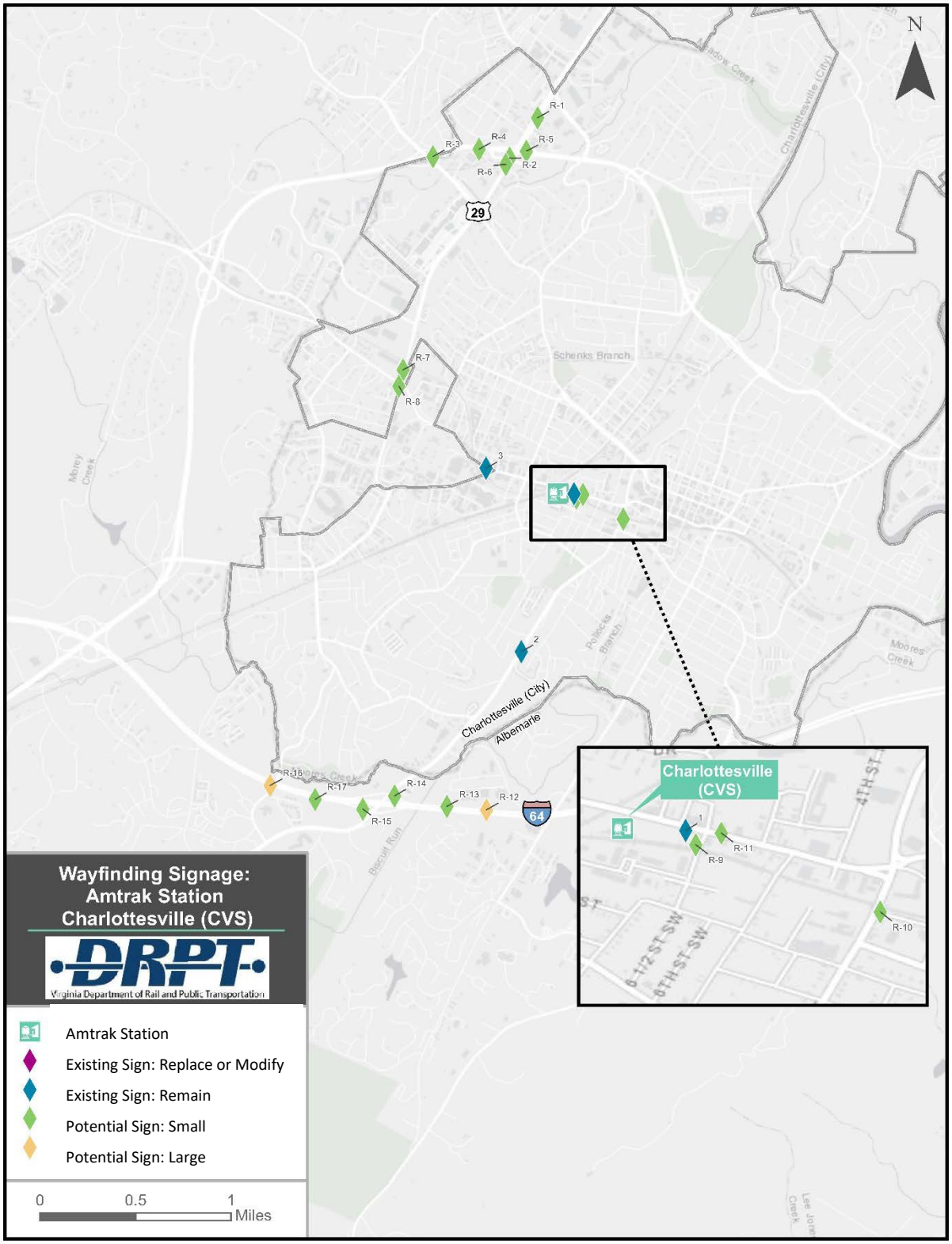
Ashland Station



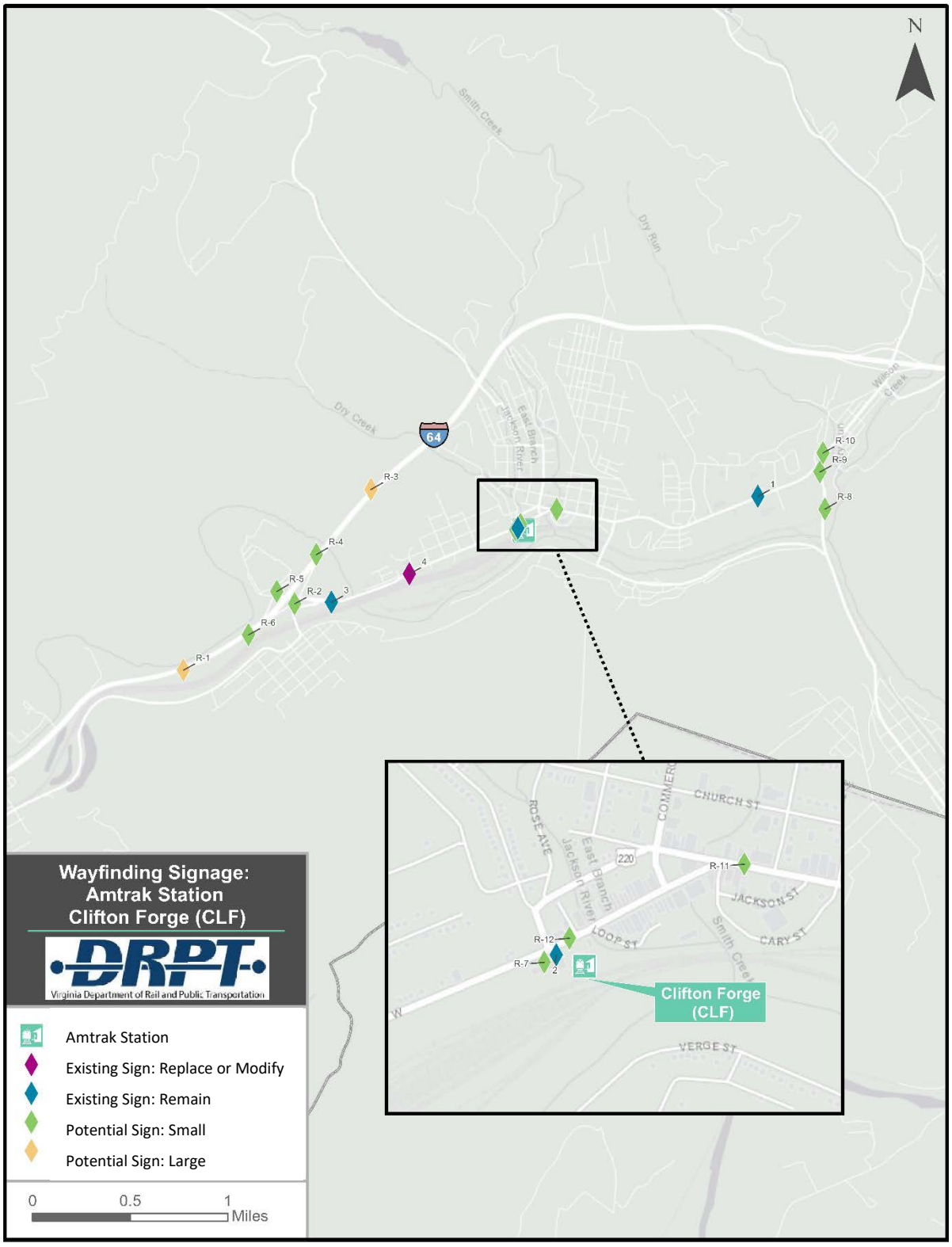
Burke Centre Station



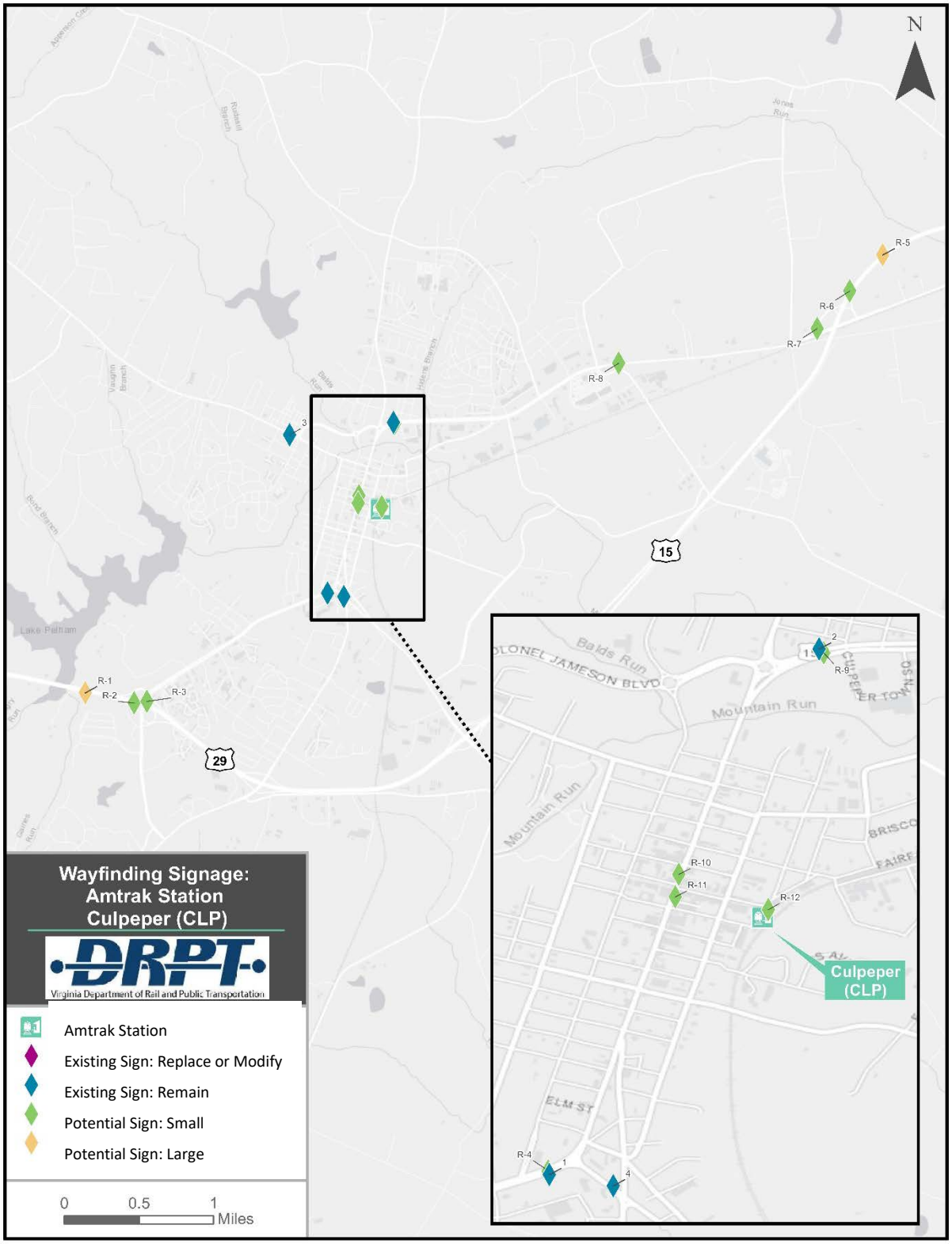
Charlottesville Station



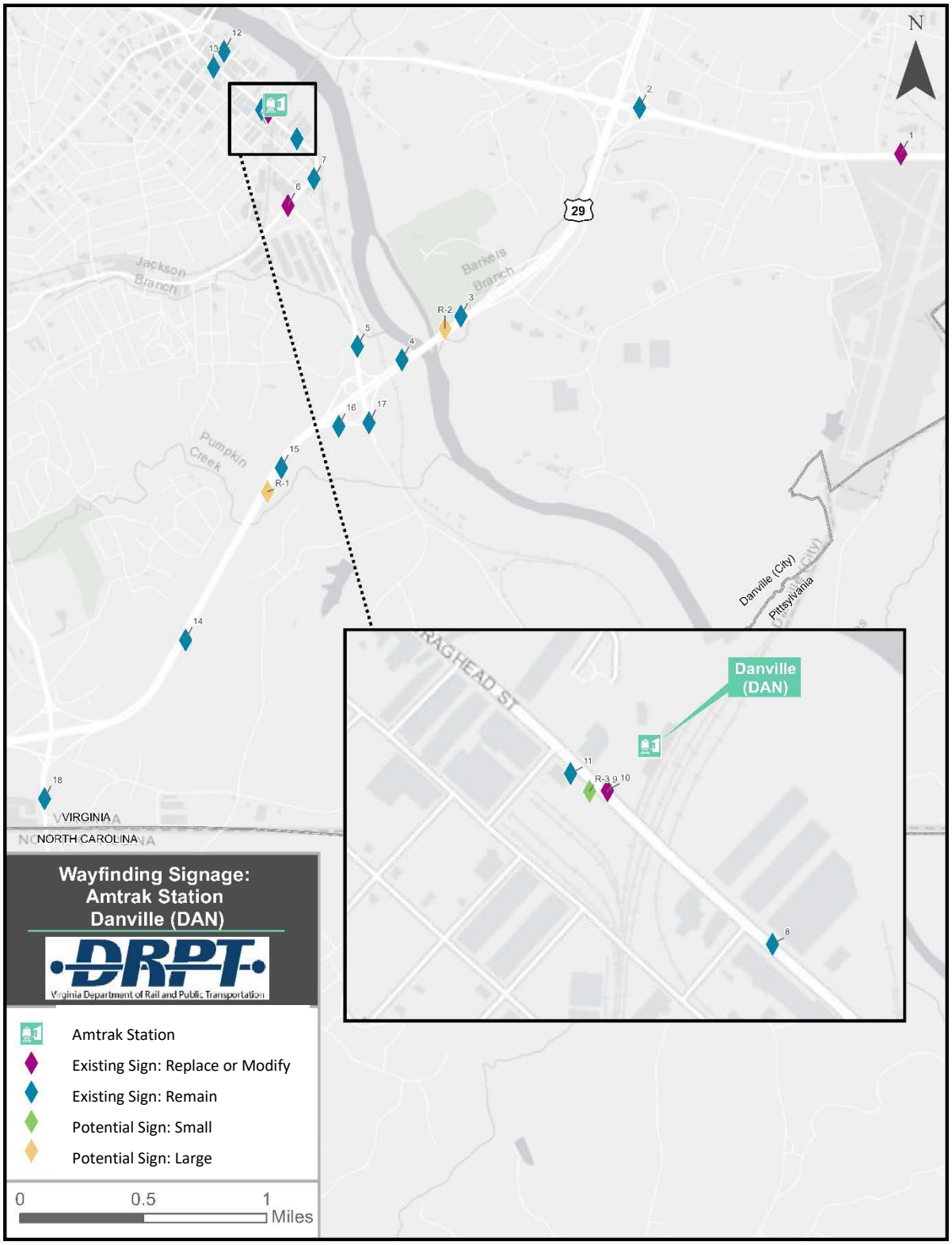
Clifton Forge Station



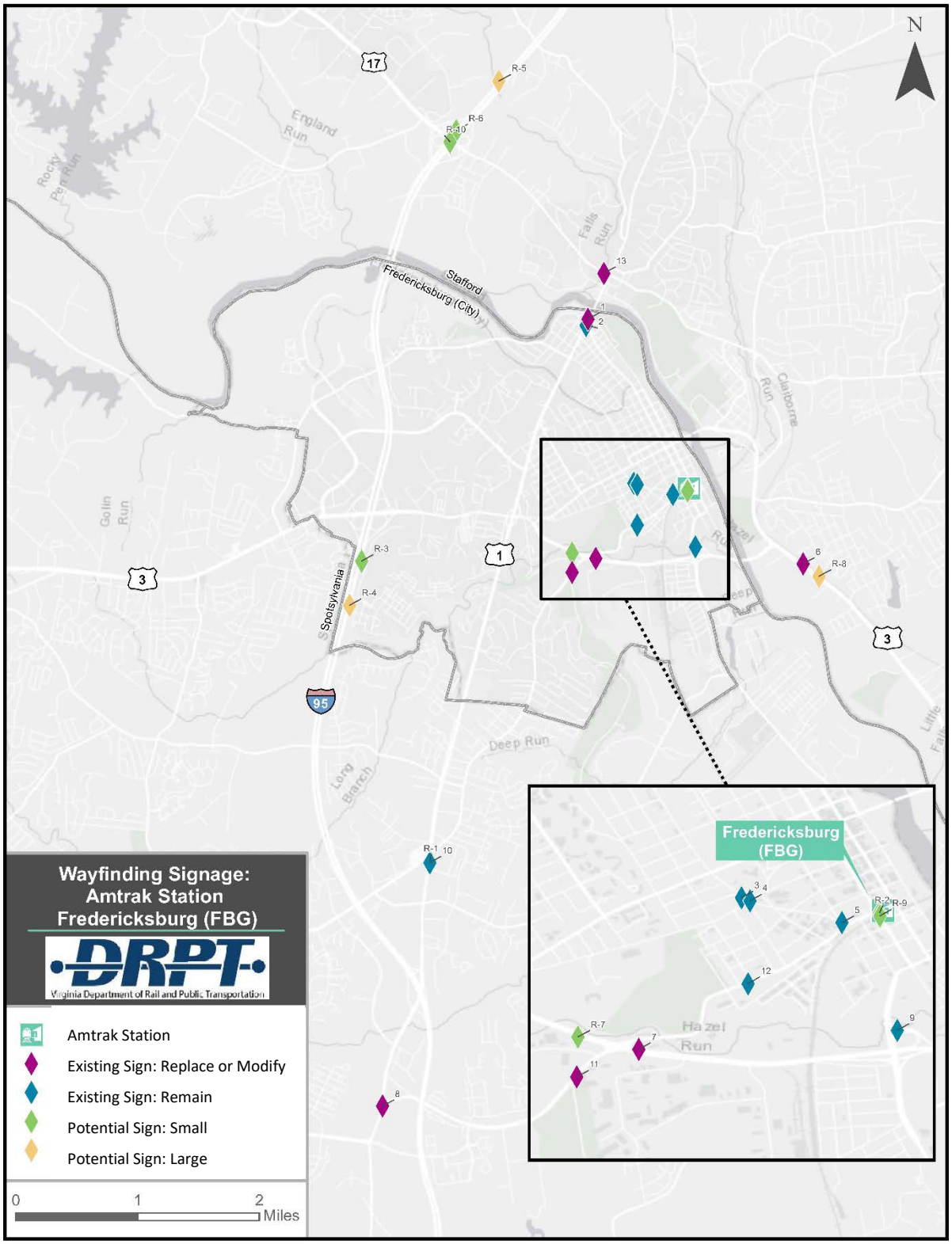
Culpeper Station



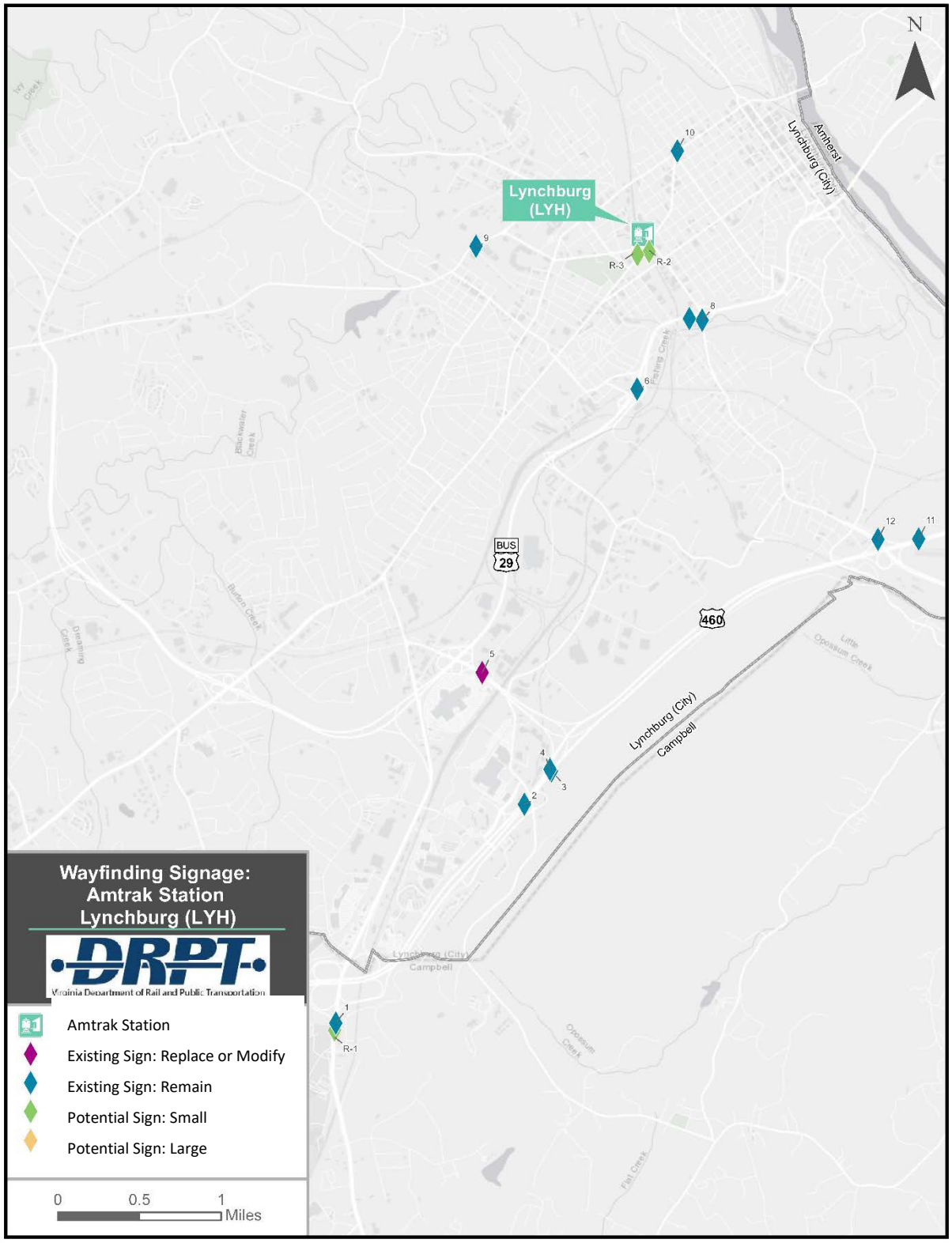
Danville Station



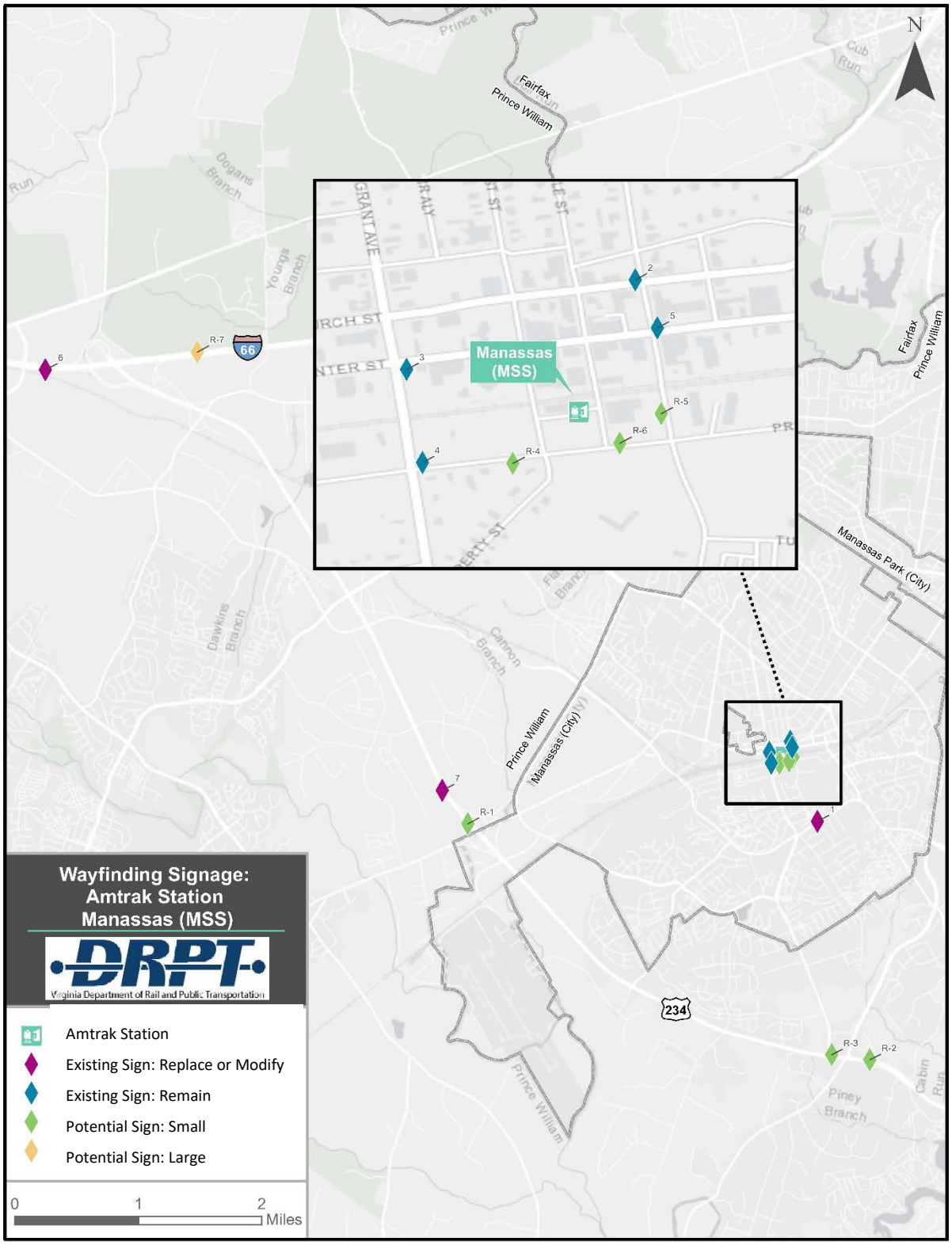
Fredericksburg Station



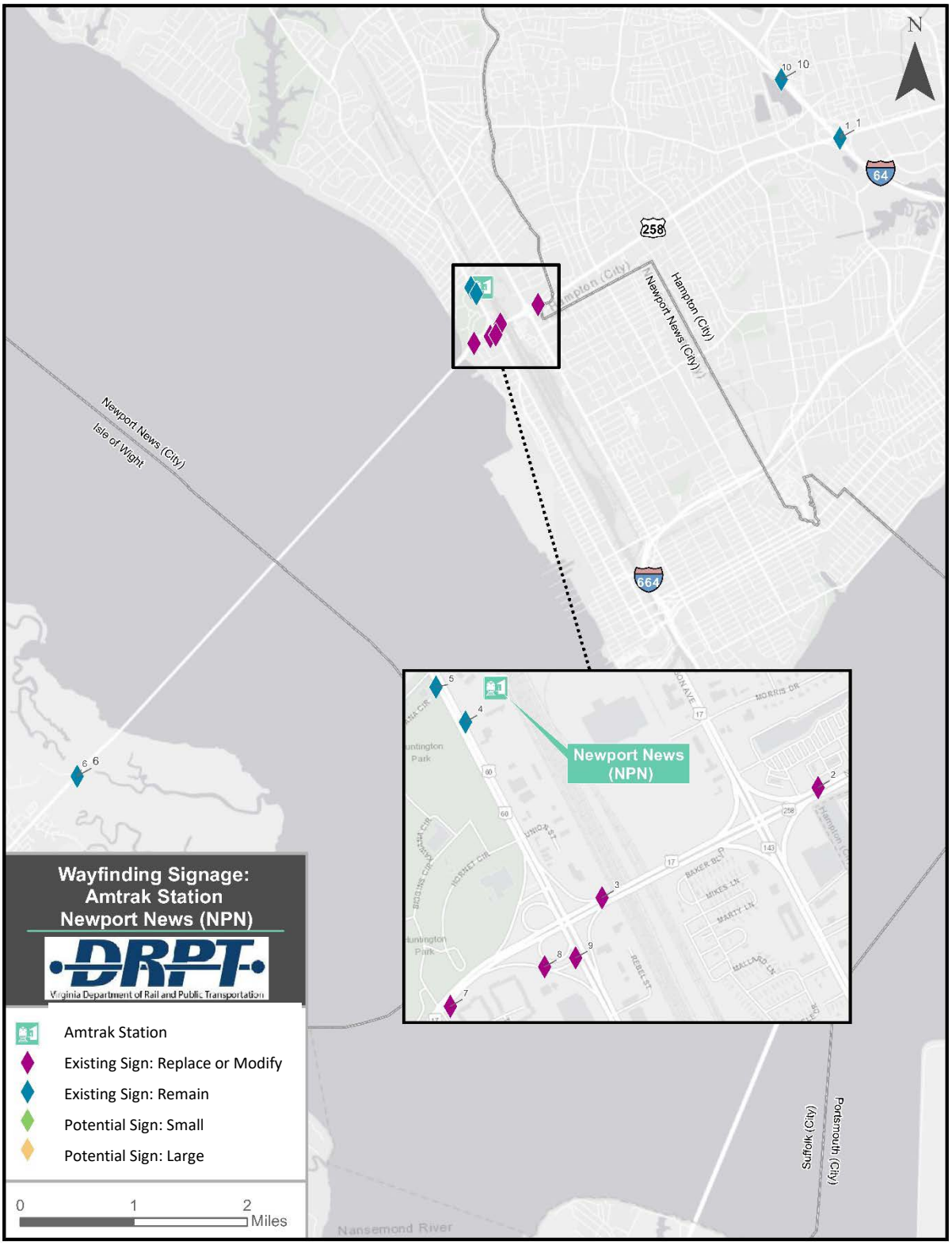
Lynchburg Station



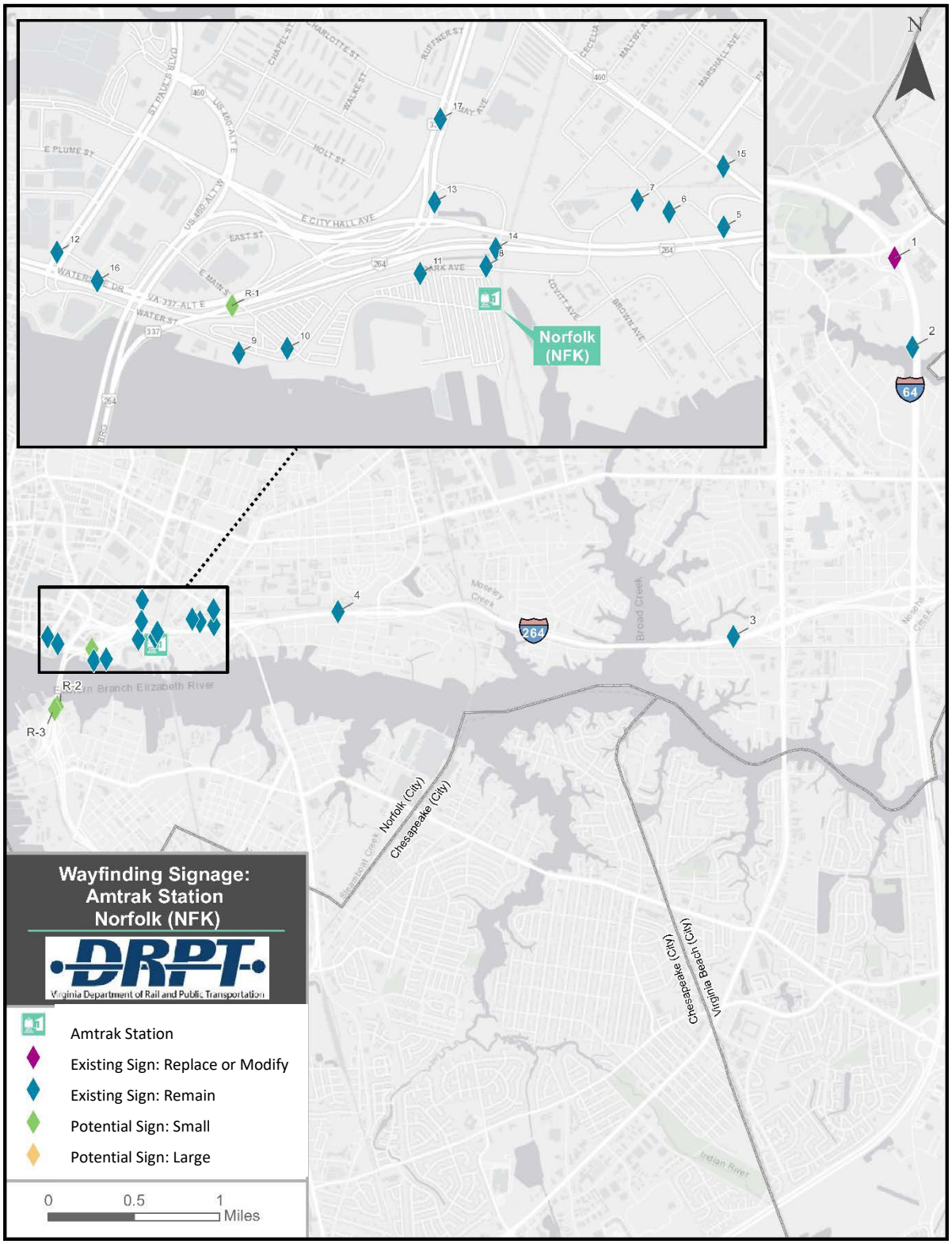
Manassas Station



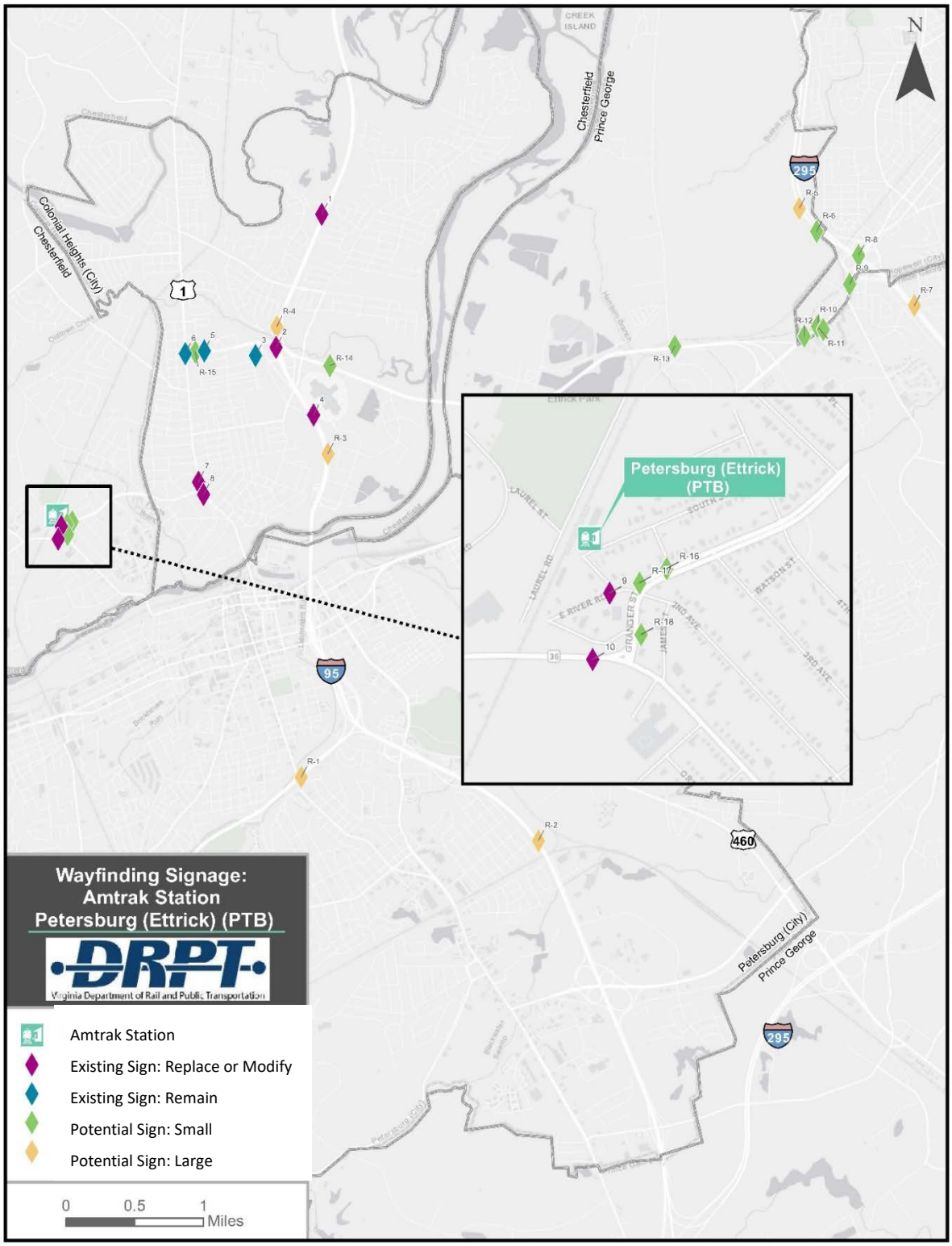
Newport News Station



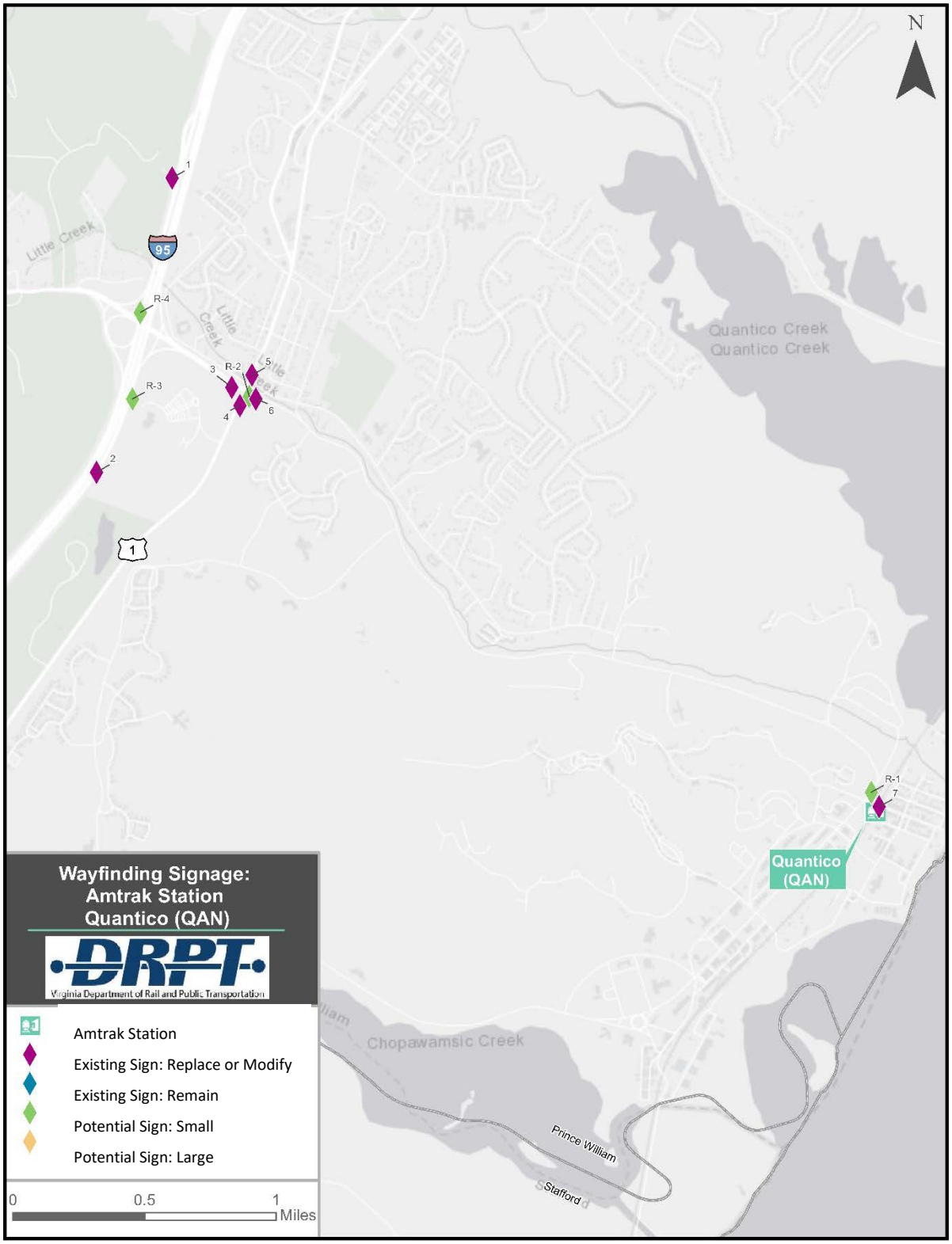
Norfolk Station



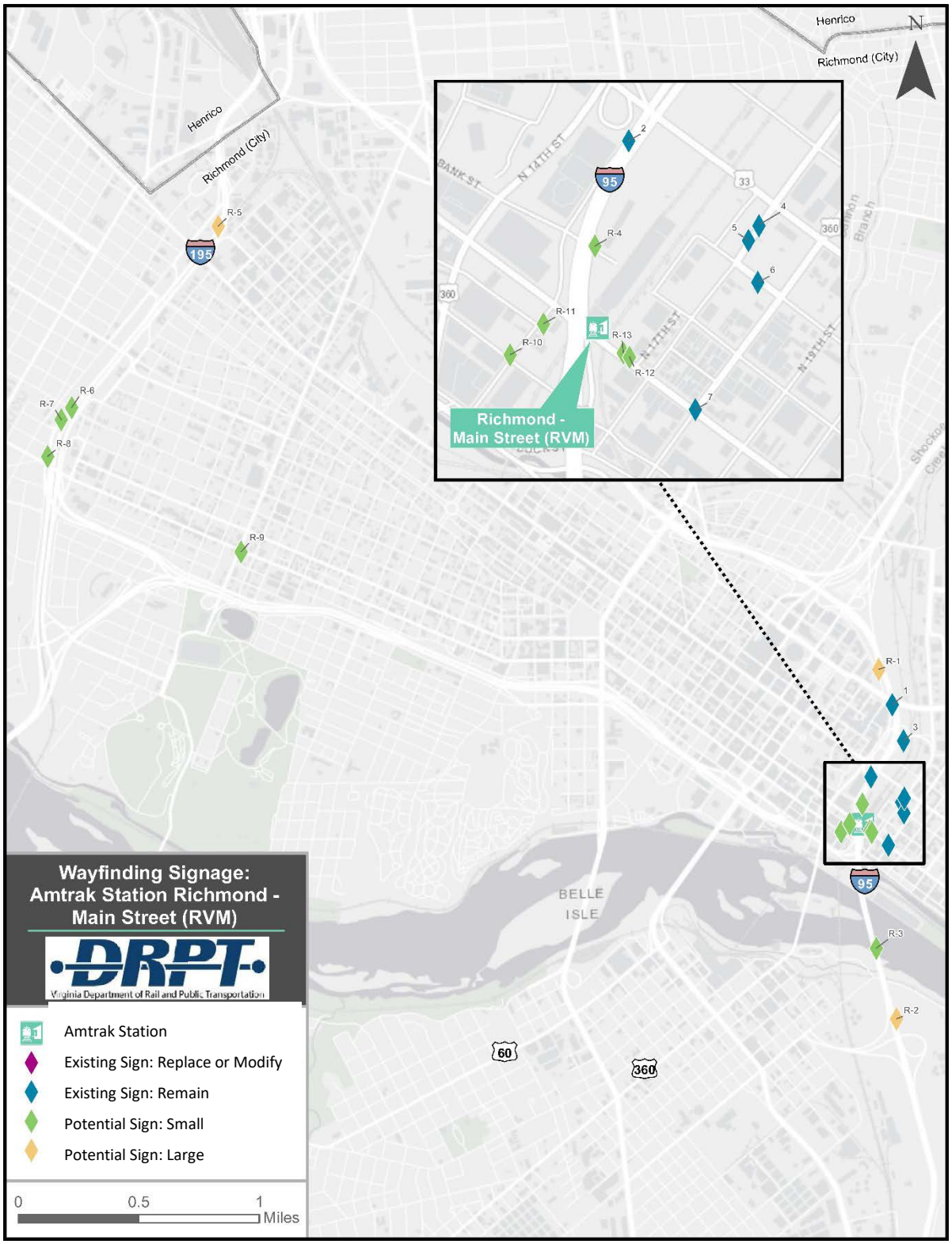
Petersburg (Ettrick) Station



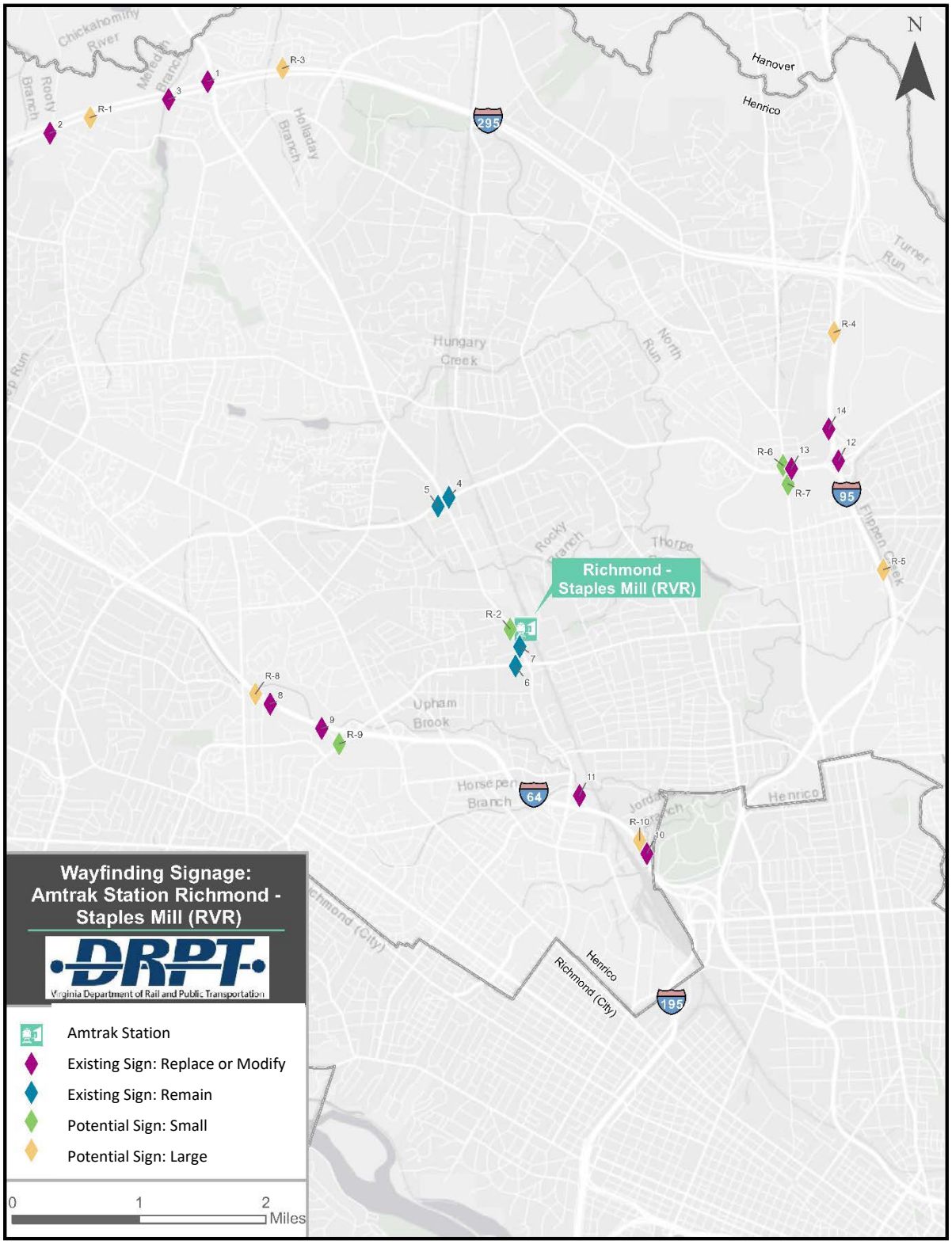
Quantico Station



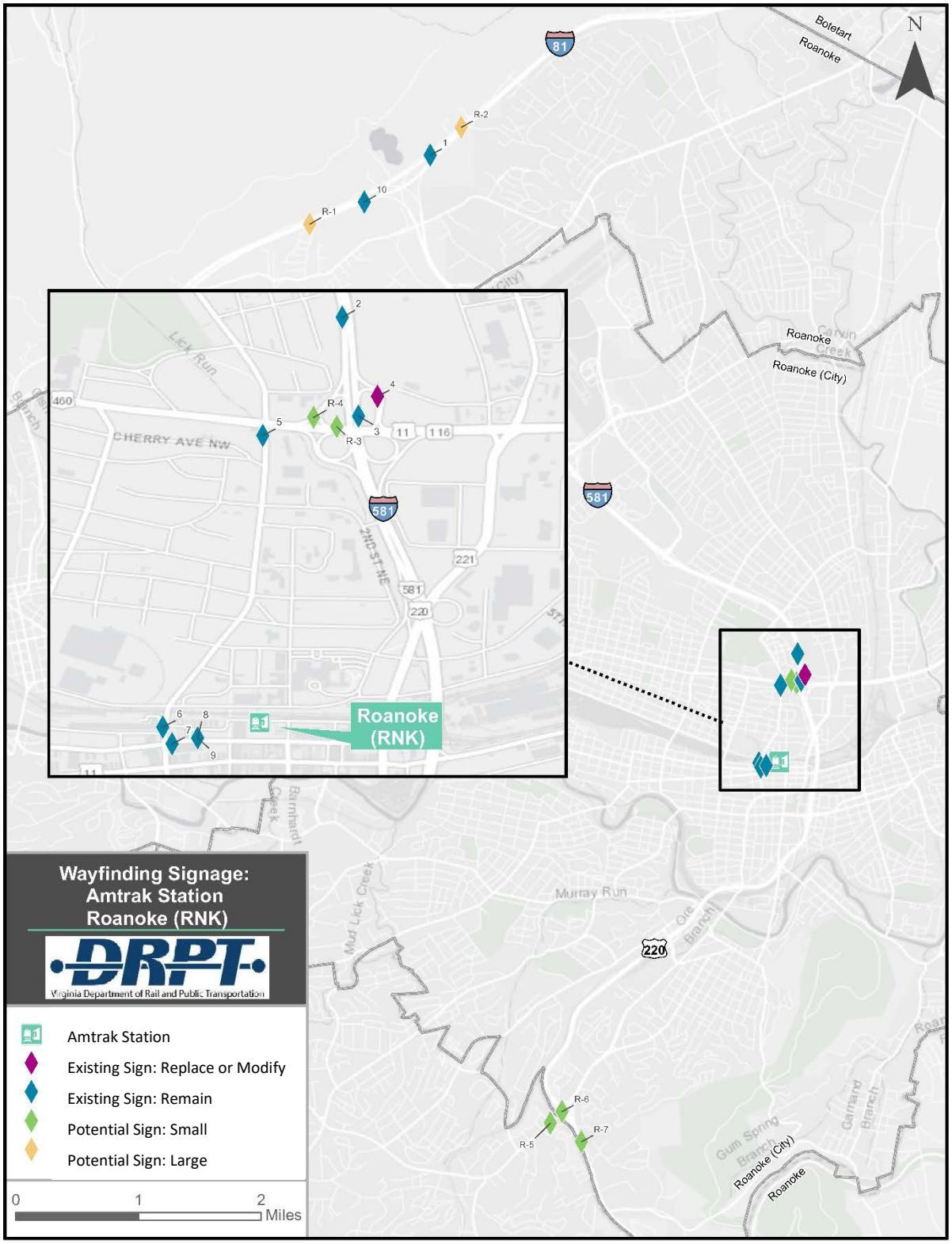
Richmond-Main Street Station



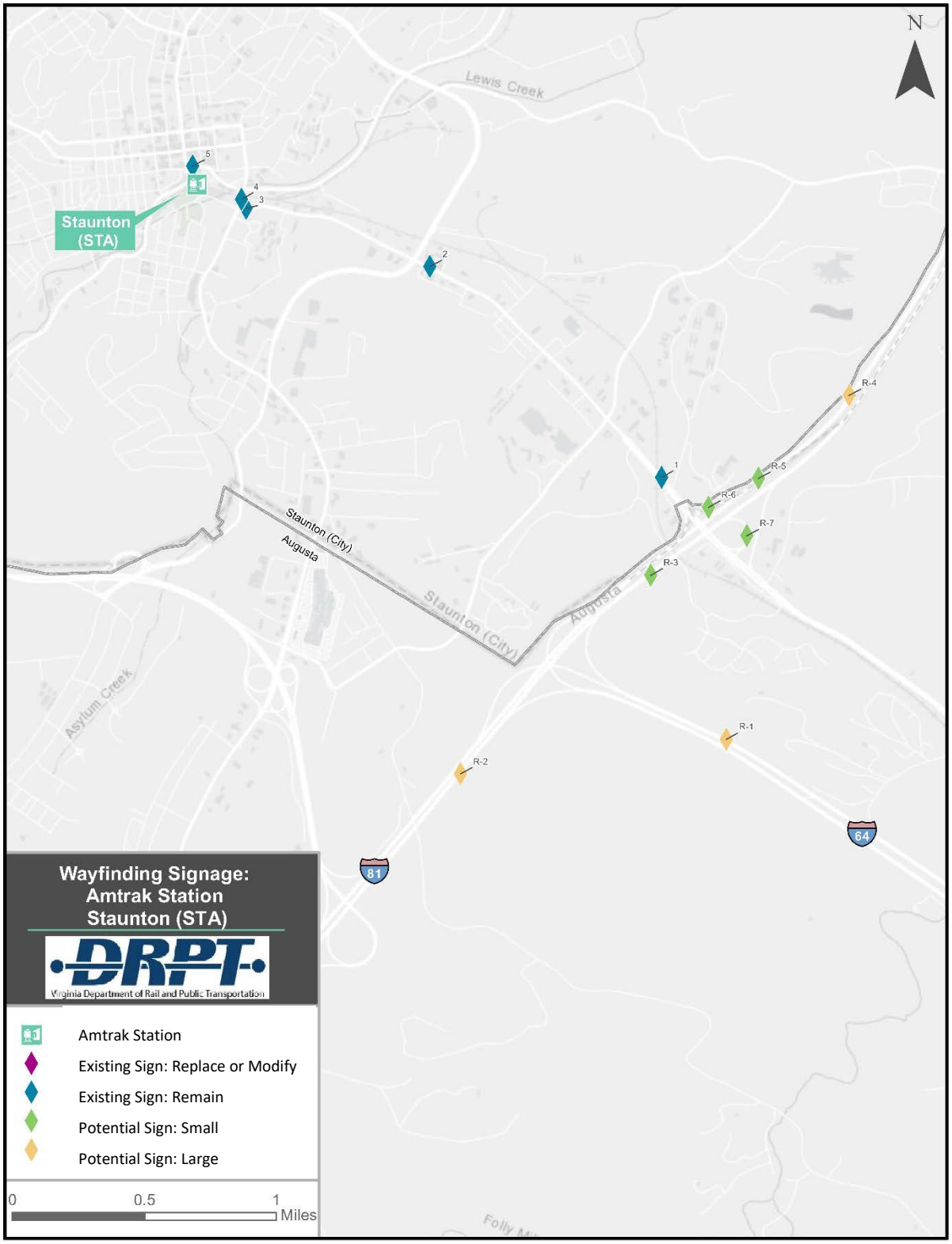
Richmond-Staples Mill Station



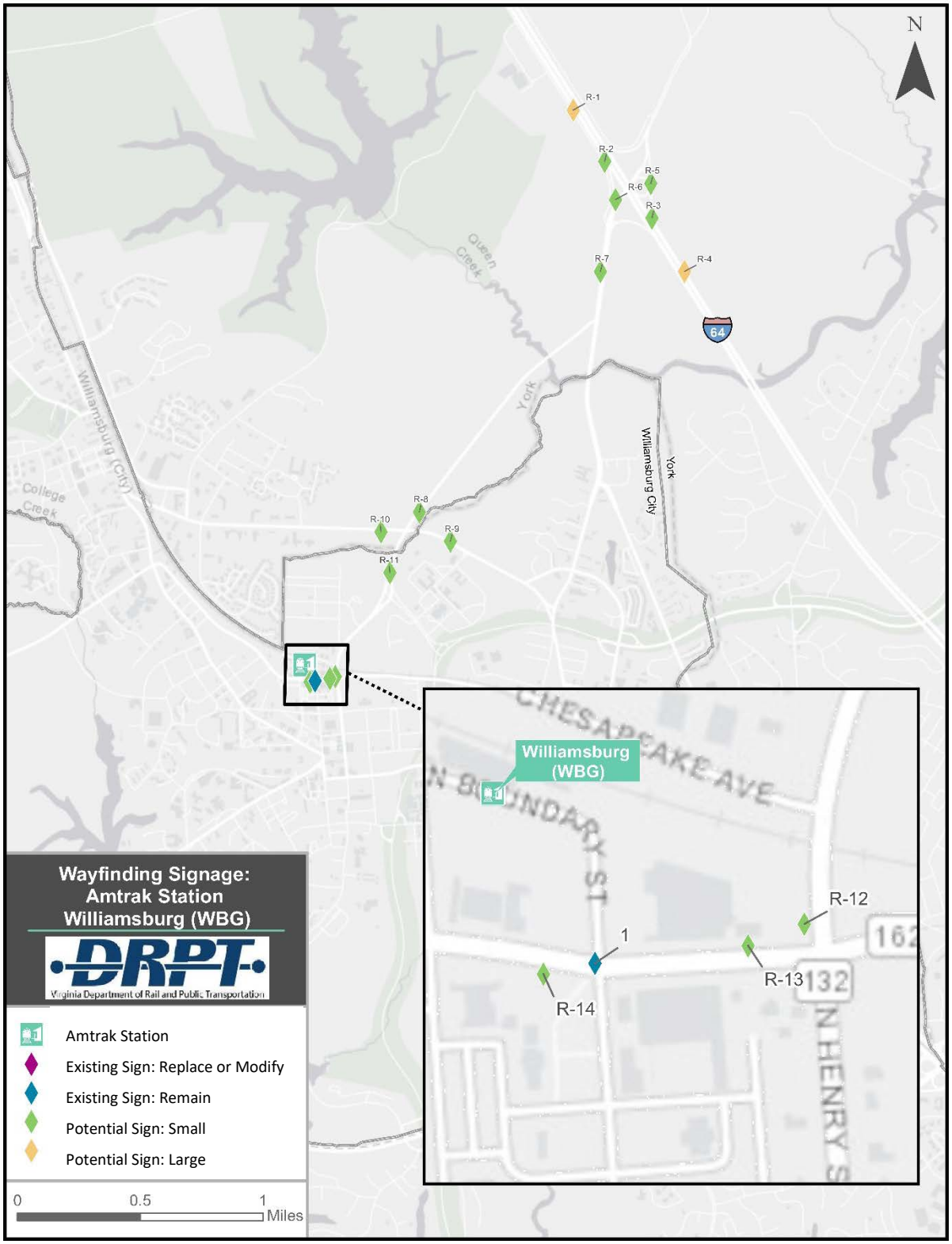
Roanoke Station



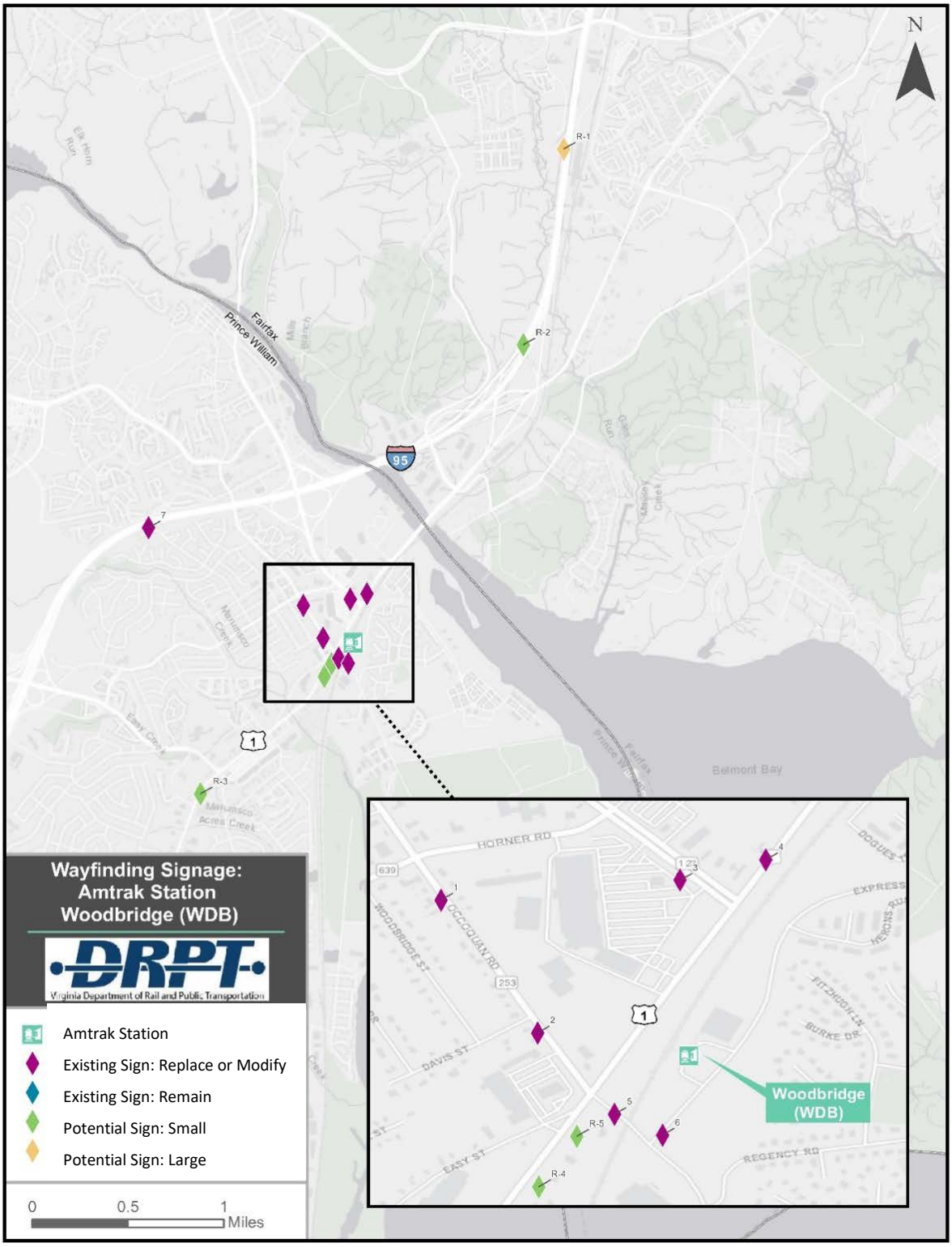
Staunton Station



Williamsburg Station



Woodbridge Station



9 Appendix: Station Replacement & Potential Sign Costs

The following tables provide a summary of number of replacement and potential signs at each station as well as the associated cost.

Alexandria Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	3	$4,050.00
Small ground-mounts (7-11 SF)	11	$1,450.00	11	$15,950.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	4	$72,000.00
Overhead Sign on new cantilever structure		$160,000.00	2	$320,000.00
Sign Panel Only	4	$30.00	1	$720.00
Station Total Cost				**$412,720.00**

Ashland Station				
	SF	Unit Cost	Quantity	Total Cost
Very large ground-mounts (140-200 SF)	140	$18,000.00	2	$36,000.00
Sign Panel Only	34.9	$30.00	4	$3,447.00
Station Total Cost				**$39,447.00**

Burke Center Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	5	$6,750.00
Medium ground-mounts (12-19 SF)	12	$1,500.00	3	$4,500.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	1	$18,000.00
Sign Panel Only	13	$30.00	2	$1,590.00
Station Total Cost				**$30,840.00**

Charlottesville Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	4	$5,800.00
Medium ground-mounts (12-19 SF)	12	$1,500.00	1	$1,500.00
	16	$1,800.00	10	$18,000.00
	50	$3,900.00	2	$7,800.00
Station Total Cost				**$33,100.00**

Clifton Forge Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	7	$10,150.00
Medium ground-mounts (12-19 SF)	12	$1,500.00		$0.00
	16	$1,800.00	4	$7,200.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	2	$36,000.00
Station Total Cost				**$53,350.00**

Culpeper Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	4	$5,400.00
Small ground-mounts (7-11 SF)	11	$1,450.00	1	$1,450.00
Medium ground-mounts (12-19 SF)	16	$1,800.00	5	$9,000.00
	80	$5,100.00	2	$10,200.00
Station Total Cost				**$26,050.00**

Danville Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	1	$1,350.00
	16	$1,800.00	1	$1,800.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	2	$36,000.00
Sign Panel Only	4	$30.00	1	$720.00
Station Total Cost				**$39,870.00**

Fredericksburg Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	2	$2,700.00
Small ground-mounts (7-11 SF)	11	$1,450.00	1	$1,450.00
Medium ground-mounts (12-19 SF)	12	$1,500.00	1	$1,500.00
	16	$1,800.00	5	$9,000.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	3	$54,000.00
Sign Panel Only	40.2	$30.00	4	$3,606.00
Station Total Cost				**$72,256.00**

Lynchburg Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	2	$2,900.00
Medium ground-mounts (12-19 SF)	16	$1,800.00	1	$1,800.00
Sign Panel Only	6.3	$30.00	1	$789.00
Station Total Cost				**$5,489.00**

Manassas Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	1	$1,350.00
Small ground-mounts (7-11 SF)	11	$1,450.00	2	$2,900.00
Medium ground-mounts (12-19 SF)	12	$1,500.00	1	$1,500.00
	16	$1,800.00	3	$5,400.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	1	$18,000.00
Sign Panel Only	17	$30.00	2	$1,710.00
Station Total Cost				**$30,860.00**

Newport News Station				
	SF	Unit Cost	Quantity	Total Cost
Sign Panel Only	60.5	$30.00	5	$4,815.00
Station Total Cost				**$4,815.00**

Norfolk Station				
	SF	Unit Cost	Quantity	Total Cost
Medium ground-mounts (12-19 SF)	16	$1,800.00	1	$1,800.00
	19	$2,000.00	2	$4,000.00
Sign Panel Only	9	$30.00	1	$870.00
Station Total Cost				**$6,670.00**

Petersburg (Ettrick) Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	3	$4,350.00
	16	$1,800.00	8	$14,400.00
	19	$2,000.00	1	$2,000.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	5	$90,000.00
Overhead Sign on new cantilever structure		$160,000.00	1	$160,000.00
Sign Panel Only	47.7	$30.00	7	$5,631.00
Station Total Cost				**$276,381.00**

Quantico Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	3	$4,050.00
Small ground-mounts (7-11 SF)	11	$1,450.00	1	$1,450.00
Medium ground-mounts (12-19 SF)	12	$1,500.00	1	$1,500.00
	16	$1,800.00	1	$1,800.00
Sign Panel Only	34.6	$30.00	4	$3,438.00
Station Total Cost				**$12,238.00**

Richmond-Main Street Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	3	$4,050.00
Small ground-mounts (7-11 SF)	11	$1,450.00	4	$5,800.00
	16	$1,800.00	3	$5,400.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	3	$54,000.00
Station Total Cost				**$69,250.00**

Richmond-Staples Mill Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	4	$5,800.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	6	$108,000.00
Sign Panel Only	79.2	$30.00	10	$8,376.00
Station Total Cost				**$122,176.00**

Roanoke Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	2	$2,900.00
	16	$1,800.00	3	$5,400.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	2	$36,000.00
Sign Panel Only	1.8	$30.00	1	$654.00
Station Total Cost				**$44,954.00**

Staunton Station				
	SF	Unit Cost	Quantity	Total Cost
	16	$1,800.00	4	$7,200.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	3	$54,000.00
Station Total Cost				**$61,200.00**

Williamsburg Station				
	SF	Unit Cost	Quantity	Total Cost
Very Small ground-mounts (1-6.5 SF)	6.5	$1,350.00	3	$4,050.00
Small ground-mounts (7-11 SF)	11	$1,450.00	5	$7,250.00
	16	$1,800.00	4	$7,200.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	2	$36,000.00
Station Total Cost				**$54,500.00**

Woodbridge Station				
	SF	Unit Cost	Quantity	Total Cost
Small ground-mounts (7-11 SF)	11	$1,450.00	3	$4,350.00
	16	$1,800.00	1	$1,800.00
Very large ground-mounts (140-200 SF)	140	$18,000.00	1	$18,000.00
Sign Panel Only	37.8	$30.00	7	$5,334.00
Station Total Cost				**$29,484.00**

10 Appendix: Station Inventory of Existing and Potential Signs

The following tables provide details from the GIS database of the existing and potential signs for each Amtrak station. The information provided in the table includes the sign designation that is reflected on the preceding maps, the mounting location of the sign, the Amtrak logo, MUTCD station sign, and arrows that are existing or potential, and comments on needed actions. Signs that show a size of zero are large format signs that would need to be designed uniquely for their placement.

Alexandria Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
ALX	1	Existing	Pole	24	24	Current Standard	No	Yes	Yes	
ALX	2	Existing	Pole	24	24	Current Standard	No	Yes	No	
ALX	3	Existing	Light Pole	12	0	Current Standard	No	Yes	Yes	Place Amtrak current logo over the arrow.
ALX	4	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	Yes	Clear Vegetation to make sign visible.
ALX	5	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	Yes	
ALX	6	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	Yes	
ALX	7	Existing	Pole	24	24	Current Standard	No	Yes	Yes	Move the sign before the intersection, to R-1 location.
ALX	8	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	Yes	
ALX	9	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	No	
ALX	10	Existing	Pole	24	24	Current Standard	No	Yes	Yes	Replace the pole. Current one is damaged.
ALX	11	Existing	Pole	24	24	Current Standard	No	Yes	No	
ALX	12	Existing	Light Pole	24	24	Current Standard	No	Yes	No	
ALX	13	Existing	Pole	24	24	Current Standard	No	Yes	No	
ALX	14	Existing	Pole	24	24	Current Standard	No	Yes	No	
ALX	R-1	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right, New Pole. Relocated from ALX 9.
ALX	R-2	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
ALX	R-3	Potential	Interstate Overhead	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-4	Potential	Interstate Roadside	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-5	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
ALX	R-6	Potential	Interstate Roadside	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-7	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add Amtrak New Sign, Arrow Straight.
ALX	R-8	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right, New Pole.
ALX	R-9	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
ALX	R-10	Potential	Interstate Roadside	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-11	Potential	Interstate Roadside	30	30	Current Standard	No	Yes	No	Add new Amtrak Sign, Arrow Angled Right.
ALX	R-12	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Left.
ALX	R-13	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Left.
ALX	R-14	Potential	Interstate Overhead	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-15	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
ALX	R-16	Potential	Interstate Roadside	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
ALX	R-17	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
ALX	R-18	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Left.
ALX	R-19	Potential	Pole	24	24	Current Standard	No	Yes	No	Add Amtrak Sign, Arrow Left.

Ashland Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
ASD	1	Existing	Interstate Overhead	12	24	Outdated	Yes	Other-Not Standard	No	Replace with larger Signs onto the Column of Exit Sign.
ASD	2	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with new logo.
ASD	3	Existing	Pole	41	72	Unique Locality	No	Other-Not Standard	Yes	
ASD	4	Existing	Pole	41	72	Unique Locality	No	Other-Not Standard	Yes	
ASD	5	Existing	Pole	41	72	Unique Locality	No	Other-Not Standard	Yes	
ASD	6	Existing	Pole	12	24	Outdated	No	Other-Not Standard	Yes	Replace with new logo.
ASD	7	Existing	Pole	41	48	Unique Locality	No	Other-Not Standard	Yes	
ASD	8	Existing	Pole	41	48	Unique Locality	No	Other-Not Standard	Yes	
ASD	9	Existing	Interstate Roadside	36	36		Yes	Other-Not Standard	No	Add Amtrak Sign, replace MUTCD with larger Sign.
ASD	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
ASD	R-2	Existing	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.

Burke Centre Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
BCV	1	Existing	Pole	24	24	Current Standard	No	Yes	VRE Only	Clear the Vegetation
BCV	2	Existing	Pole	24	24	Current Standard	No	Yes	No	Clear the Vegetation
BCV	3	Existing	Pole	24	24	Current Standard	Yes	Yes	No	Move the sign to the median, i.e. R-4 Location.
BCV	4	Existing	Pole	24	24	Current Standard	Yes	Yes	VRE Only	
BCV	5	Existing	Interstate Roadside	24	24	Current Standard	No	Yes	Yes	Replace damaged sign.
BCV	6	Existing	Interstate Roadside	24	24	Current Standard	No	Yes	VRE Only	
BCV	7	Existing	Pole	24	24	Current Standard	No	Yes	VRE Only	
BCV	8	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add New Amtrak Sign, Arrow Left, New Longer Pole. Clear the vegetation.
BCV	9	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add New Amtrak Sign, Arrow Left, New Longer Pole. Clear the vegetation.
BCV	10	Potential	Pole	24	24		No	Other-Not Standard	VRE Only	
BCV	11	Existing	Interstate Roadside	96	138		No	No	VRE Only	Amtrak sign above this exit sign if possible.
BCV	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
BCV	R-2	Potential	Pole	24	24	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Left, VRE Sign, Arrow Left.
BCV	R-3	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
BCV	R-4	Potential	Pole	24	24	Current Standard	No	Yes	No	Relocate Signs from BCV-3. Add new Pole.
BCV	R-5	Potential	Pole	24	24	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Left, VRE Sign, Arrow Left, New Pole.
BCV	R-6	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
BCV	R-7	Potential	Pole	24	24	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Right, VRE Signs, Arrow Right.

Charlottesville Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
CVS	1	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	No	
CVS	2	Existing	Light Pole	9	24	Outdated	Yes	Other-Not Standard	No	
CVS	3	Existing	Pole	48	36	Unique Locality	No	Other-Not Standard	Yes	
CVS	R-1	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight
CVS	R-2	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
CVS	R-3	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight, New Pole.
CVS	R-4	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right
CVS	R-5	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
CVS	R-6	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
CVS	R-7	Potential	Light Pole	24	24	Current Standard	Yes	No	Yes	Add MUTCD Sign, New Amtrak Sign, "Left At Signal"
CVS	R-8	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
CVS	R-9	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right, New Pole.
CVS	R-10	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
CVS	R-11	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
CVS	R-12	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CVS	R-13	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right, New Pole.
CVS	R-14	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
CVS	R-15	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
CVS	R-16	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CVS	R-17	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.

Clifton Forge Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
CLF	1	Existing	Pole	24	24	Unique Locality	No	No	Yes	
CLF	2	Existing	Pole	24	24	Current Standard	Yes	No	Yes	
CLF	3	Existing	Pole	36	36	Current Standard	Yes	Yes	No	
CLF	4	Existing	Pole	24	24	Current Standard	Yes	Yes	No	Replace the signs on a longer pole.
CLF	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CLF	R-2	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Insert MUTCD, Amtrak New Sign, Arrow Right.
CLF	R-3	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CLF	R-4	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, Amtrak New Sign, Arrow Angled Right.
CLF	R-5	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Insert MUTCD Sign, Amtrak New Sign, Arrow Left.
CLF	R-6	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD, Amtrak New Logo, Arrow Angled Right.
CLF	R-7	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, Amtrak New Sign, Arrow Right.
CLF	R-8	Potential	Pole	30	30	Current Standard	No	Yes	No	Add Amtrak New Logo, Arrow Straight. If pole length too short, replace the pole.
CLF	R-9	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
CLF	R-10	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
CLF	R-11	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Left.
CLF	R-12	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.

Culpeper Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
CLP	1	Existing	Pole	60	48	Unique Locality	No	Other-Not Standard	Yes	
CLP	2	Existing	Pole	60	48	Unique Locality	No	Other-Not Standard	Yes	
CLP	3	Existing	Pole	60	48		No	Other-Not Standard	Yes	
CLP	4	Existing	Pole	0.88	0	Unique Locality	No	Other-Not Standard	Yes	
CLP	R-1	Potential	Pole	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CLP	R-2	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD New Sign, New Amtrak Sign, Arrow Angled Right, New Pole.
CLP	R-3	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
CLP	R-4	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
CLP	R-5	Potential	Pole	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
CLP	R-6	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right, New Pole.
CLP	R-7	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
CLP	R-8	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
CLP	R-9	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
CLP	R-10	Potential	Light Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
CLP	R-11	Potential	Light Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
CLP	R-12	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right, New Pole.

Danville Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
DAN	1	Existing	Pole	12	24	Current Standard	Yes	Other-Not Standard	No	Replace whole set, with pole.
DAN	2	Existing	Pole	36	36	Current Standard	No	Yes	No	
DAN	3	Existing	Interstate Roadside	36	36		Yes	No	Yes	
DAN	4	Existing	Interstate Roadside	36	36	Current Standard	Yes	Yes	No	
DAN	5	Existing	Pole	24	24	Current Standard	No	Yes	No	
DAN	6	Existing	Pole	24	24	Current Standard	No	Yes	No	Replace damaged sign.
DAN	7	Existing	Pole	24	24	Current Standard	No	Yes	No	
DAN	8	Existing	Pole	24	24	Current Standard	No	Yes	No	
DAN	9	Existing	Pole	7	60	Unique Locality	No	Other-Not Standard	Yes	
DAN	10	Existing	Pole	36	36	Current Standard	No	Yes	No	Relocate to R-3 position.
DAN	11	Existing	Pole	12	60	Unique Locality	No	Other-Not Standard	Yes	
DAN	12	Existing	Pole	55	33	Unique Locality	No	Other-Not Standard	Yes	
DAN	13	Existing	Light Pole	55	33	Unique Locality	No	Other-Not Standard	Yes	
DAN	14	Existing	Interstate Roadside	36	36		Yes	No	Yes	
DAN	15	Existing	Pole	24	24	Current Standard	Yes	Yes	No	
DAN	16	Existing	Pole	24	24	Current Standard	Yes	Yes	No	
DAN	17	Existing	Pole	36	36	Current Standard	No	Yes	No	
DAN	18	Existing	Pole	24	24	Current Standard	No	Yes	No	
DAN	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
DAN	R-2	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
DAN	R-3	Potential	Pole	24	24	Current Standard	No	Yes	No	Relocated from DAN-10. Add New Amtrak Sign, Arrow Left. New pole if required.

Fredericksburg Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
FBG	1	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add Amtrak Sign on the new pole if possible.
FBG	2	Existing	Pole	48	48	Unique Locality	No	Other-Not Standard	Yes	
FBG	3	Existing	Pole	30	40	Unique Locality	No	Other-Not Standard	Yes	
FBG	4	Existing	Pole	30	40	Unique Locality	No	Other-Not Standard	Yes	
FBG	5	Existing	Pole	18	40	Unique Locality	No	Other-Not Standard	No	
FBG	6	Existing	Pole	12	24	Outdated	No	Other-Not Standard	VRE Only	Replace with new VRE and Amtrak Logo.
FBG	7	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Replace with new VRE and Amtrak Logo.
FBG	8	Existing	Pole	12	24	Outdated	No	Other-Not Standard	VRE Only	Replace with new VRE and Amtrak Logo.
FBG	9	Existing	Pole	24	48	Unique Locality	Yes	Other-Not Standard	Yes	
FBG	10	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	
FBG	11	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add New Amtrak Sign, Arrow Straight, New Pole.
FBG	12	Existing	Pole	0	0	Unique Locality	No	Other-Not Standard	Yes	
FBG	13	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add New Amtrak Sign, Arrow Straight, New Pole.
FBG	R-1	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right, New Pole.
FBG	R-2	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
FBG	R-3	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
FBG	R-4	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
FBG	R-5	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
FBG	R-6	Potential	Interstate Roadside	30	30	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, VRE Sign, Arrow Angled Right, New Pole.
FBG	R-7	Potential	Pole	30	30	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, VRE Sign, Arrow Left, New Pole.
FBG	R-8	Potential	Pole	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
FBG	R-9	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
FBG	R-10	Potential	Pole	30	30	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, VRE Sign, Arrow Straight, New Pole.

Lynchburg Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
LYH	1	Existing	Pole	24	24		Yes	Other-Not Standard	Yes	
LYH	2	Existing	Interstate Roadside	36	36	Current Standard	No	Yes	No	
LYH	3	Existing	Interstate Roadside	36	36	Current Standard	No	Yes	No	
LYH	4	Existing	Interstate Roadside	24	24	Current Standard	No	Yes	No	
LYH	5	Existing	Interstate Roadside	18	18		No	Yes	No	Add new logo sign.
LYH	6	Existing	Interstate Roadside	24	24		Yes	Other-Not Standard	No	
LYH	7	Existing	Interstate Roadside	24	24		Yes	Other-Not Standard	No	
LYH	8	Existing	Signal Mast Arm	24	24		Yes	Other-Not Standard	Yes	
LYH	9	Existing	Pole	24	24	Current Standard	No	Yes	No	
LYH	10	Existing	Pole	24	24	Current Standard	No	Yes	No	
LYH	11	Existing	Pole	36	36	Current Standard	No	Yes	No	
LYH	12	Existing	Signal Mast Arm	36	36		Yes	Other-Not Standard	Yes	
LYH	R-1	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
LYH	R-2	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
LYH	R-3	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.

Manassas Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
MSS	1	Existing	Light Pole	24	24		Yes	Other-Not Standard	No	Replace the sign and add Amtrak current Logo
MSS	2	Existing	Light Pole	24	24	Current Standard	No	Other-Not Standard	VRE Only	
MSS	3	Existing	Light Pole	24	24	Current Standard	Yes	Yes	Yes	
MSS	4	Existing	Light Pole	24	24	Current Standard	Yes	Yes	Yes	
MSS	5	Existing	Light Pole	24	24	Current Standard	No	Yes	Yes	
MSS	6	Existing	Interstate Roadside	0	0		No	No	Yes	Add Amtrak Sign on this Exit Sign.
MSS	7	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add New Amtrak Sign, Arrow Straight. Correct VRE Arrow to Straight. Add New Pole.
MSS	R-1	Potential	Pole	30	30	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Angled Right, VRE Sign, VRE Arrow Right, New Pole.
MSS	R-2	Potential	Pole	30	30	Current Standard	Yes	No	Yes	Add MUTCD Sign, New Amtrak Sign, "Right at Second Signal", New Pole
MSS	R-3	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign. Arrow Right.
MSS	R-4	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add New Amtrak Sign, Arrow Left, New Pole.
MSS	R-5	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Right.
MSS	R-6	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
MSS	R-7	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.

Newport News Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
NPN	1	Existing	Interstate Overhead	0	0	Unique Locality	No	No	No	
NPN	2	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace All Signs.
NPN	3	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace All Signs.
NPN	4	Existing	Pole	24	24	Current Standard	No	Yes	Yes	
NPN	5	Existing	Pole	32	43.5	Unique Locality	No	Other-Not Standard	No	
NPN	6	Existing	Pole	36	36	Current Standard	No	Other-Not Standard	No	
NPN	7	Existing	Light Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace All Signs.
NPN	8	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace All Signs.
NPN	9	Existing	Light Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace All Signs.
NPN	10	Existing	Interstate Overhead	0	0	Unique Locality	No	No	Yes	

Norfolk Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
NFK	1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Amtrak sign above this exit sign if possible.
NFK	2	Existing	Interstate Roadside	36	36	Current Standard	Yes	No	Yes	
NFK	3	Existing	Interstate Roadside	36	36	Current Standard	Yes	No	Yes	
NFK	4	Existing	Interstate Roadside	36	36	Current Standard	Yes	No	Yes	
NFK	5	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	Yes	
NFK	6	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	7	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	Yes	
NFK	8	Existing	Light Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	9	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	10	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	11	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	12	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	13	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	14	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	No	
NFK	15	Existing	Light Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	16	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	17	Existing	Pole	24	24	Current Standard	No	Other-Not Standard	Yes	
NFK	R-1	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD, New Amtrak Sign, Arrow Angled Left.
NFK	R-2	Potential	Light Pole	30	30	Current Standard	Yes	No	Yes	Add MUTCD sign, New Amtrak Sign, "Take Exit 10"
NFK	R-3	Potential	Light Pole	30	30	Current Standard	Yes	No	Yes	Add MUTCD Sign, Amtrak New Logo, "Take Exit 10"

Petersburg (Ettrick) Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
PTB	2	Existing	Interstate Roadside	24	24		Yes	Other-Not Standard	No	Replace with new logo.
PTB	1	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	No	Replace with new logo.
PTB	3	Existing	Pole	24	24		Yes	Other-Not Standard	No	
PTB	4	Existing	Interstate Roadside	12	24	Outdated	Yes	Yes	No	Replace All Signs.
PTB	5	Existing	Pole	23	23		Yes	Other-Not Standard	Yes	
PTB	6	Existing	Pole	5.75	12.5		Yes	Other-Not Standard	Yes	
PTB	7	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with new logo.
PTB	8	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with new logo.
PTB	9	Existing	Pole	12	24	Outdated	No	Other-Not Standard	No	Replace with new logo and add MUTCD Sign.
PTB	10	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace with new logo. Clear Vegetation.
PTB	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
PTB	R-2	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
PTB	R-3	Potential	Interstate Overhead	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
PTB	R-4	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
PTB	R-5	Potential	Interstate Roadside	0	0	Current Standard	Yes	No	Yes	Add Amtrak Station Sign.
PTB	R-6	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
PTB	R-7	Potential	Interstate Overhead	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
PTB	R-8	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
PTB	R-9	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
PTB	R-10	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
PTB	R-11	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
PTB	R-12	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
PTB	R-13	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, Amtrak New Sign, Arrow Straight.
PTB	R-14	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight, New Pole.
PTB	R-15	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left, New Pole.
PTB	R-16	Potential	Pole	30	30	Current Standard	Yes	Other-Not Standard	No	Add MUTCD Sign, New Amtrak Sign, Arrow Thru-right.
PTB	R-17	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
PTB	R-18	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.

Quantico Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
QAN	1	Existing	Interstate Roadside	96	138		No	No	VRE Only	Amtrak sign above this exit sign if possible.
QAN	2	Existing	Interstate Roadside	96	138		No	No	VRE Only	Amtrak sign above this exit sign if possible.
QAN	3	Existing	Pole	12	24	Outdated	No	Other-Not Standard	VRE Only	Add new logo sign.
QAN	4	Existing	Pole	12	24	Outdated	No	Other-Not Standard	VRE Only	Replace with new VRE and Amtrak Logo.
QAN	5	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign. New Pole.
QAN	6	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Relocate to R-2. Add a new pole and add new Amtrak logo.
QAN	7	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign. New Pole.
QAN	R-1	Potential	Light Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
QAN	R-2	Potential	Pole	24	24	Current Standard	No	Yes	Yes	Relocate Sign 4 here and Add New Amtrak Sign, Arrow Straight, New Pole.
QAN	R-3	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD, Amtrak New Sign, Arrow Angled Right.
QAN	R-4	Potential	Interstate Roadside	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.

Richmond-Main Street Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
RVM	1	Existing	Interstate Roadside	36	36	Current Standard	Yes	No	Yes	
RVM	2	Existing	Interstate Roadside	36	36	Current Standard	Yes	Other-Not Standard	Yes	
RVM	3	Existing	Interstate Roadside	36	36	Current Standard	Yes	Other-Not Standard	Yes	Clear the Vegetation.
RVM	4	Existing	Pole	108	60	Unique Locality	No	Other-Not Standard	Yes	
RVM	5	Existing	Light Pole	24	24	Current Standard	Yes	Other-Not Standard	Yes	
RVM	6	Existing	Light Pole	24	24	Current Standard	Yes	Other-Not Standard	Yes	
RVM	7	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	Yes	Clear the Vegetation.
RVM	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign
RVM	R-2	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVM	R-3	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
RVM	R-4	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right.
RVM	R-5	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVM	R-6	Potential	Interstate Overhead	30	30	Current Standard	Yes	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
RVM	R-7	Potential	Light Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
RVM	R-8	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Left.
RVM	R-9	Potential	Pole	24	24	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Straight.
RVM	R-10	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
RVM	R-11	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
RVM	R-13	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
RVM	R-12	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.

Richmond-Staples Mill Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
RVR	1	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	No	Replace with new logo.
RVR	2	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	No	Replace with new logo.
RVR	3	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	No	Replace with new logo.
RVR	4	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	No	
RVR	5	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	No	
RVR	6	Existing	Pole	24	24	Current Standard	Yes	Other-Not Standard	No	
RVR	7	Existing	Pole	24	24	Current Standard	Yes	Yes	No	
RVR	8	Existing	Interstate Roadside	12	24	Outdated	Yes	No	Yes	Replace with new logo.
RVR	9	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with new logo.
RVR	10	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with new logo
RVR	11	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	No	Replace with New Amtrak Logo. Clear Vegetation.
RVR	12	Existing	Interstate Roadside	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with newer signs and new logo.
RVR	13	Existing	Pole	12	24	Outdated	Yes	Other-Not Standard	Yes	Replace with newer signs and new logo.
RVR	14	Existing	Interstate Roadside	12	24	Outdated	Yes	No	No	Replace with newer signs and new logo.
RVR	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVR	R-2	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
RVR	R-3	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVR	R-4	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVR	R-5	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVR	R-6	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Thru-Right.
RVR	R-7	Potential	Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
RVR	R-8	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
RVR	R-9	Potential	Pole	30	30	Current Standard	No	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
RVR	R-10	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.

Roanoke Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
RNK	1	Existing	Interstate Roadside	36	36	Current Standard	No	Yes	No	
RNK	2	Existing	Pole	36	36	Current Standard	No	Yes	No	
RNK	3	Existing	Interstate Roadside	36	36	Current Standard	No	Yes	No	
RNK	4	Existing	Pole	24	24	Current Standard	No	No	No	Add Arrow.
RNK	5	Existing	Light Pole	24	24	Current Standard	Yes	Yes	No	
RNK	6	Existing	Light Pole	24	24	Current Standard	No	Yes	No	
RNK	7	Existing	Light Pole	24	24	Current Standard	No	Yes	No	
RNK	8	Existing	Pole	24	24	Current Standard	No	Yes	No	
RNK	9	Existing	Pole	24	24	Current Standard	No	Yes	Yes	
RNK	10	Existing	Interstate Roadside	36	36	Current Standard	No	Yes	No	
RNK	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	No	Add Amtrak Station Sign.
RNK	R-2	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign, "Left Exit"
RNK	R-3	Potential	Light Pole	24	24	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Left.
RNK	R-4	Potential	Pole	30	30	Current Standard	Yes	No	Yes	Add MUTCD Sign, New Amtrak Sign, "Take Next Left" Sign
RNK	R-5	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight
RNK	R-6	Potential	Pole	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Right.
RNK	R-7	Potential	Light Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.

Staunton Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
STA	1	Existing	Pole	15	36	Unique Locality	No	Other-Not Standard	Yes	
STA	2	Existing	Pole	12	18	Unique Locality	No	Other-Not Standard	Yes	
STA	3	Existing	Pole	30	24		No	Other-Not Standard	No	
STA	4	Existing	Pole	18	36	Unique Locality	No	Other-Not Standard	Yes	
STA	5	Existing	Light Pole	12	18	Unique Locality	No	Other-Not Standard	Yes	
STA	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
STA	R-2	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
STA	R-3	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Straight.
STA	R-4	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
STA	R-5	Existing	Interstate Roadside	30	30	Current Standard	Yes	No	No	Add MUTCD Sign, New Amtrak Sign, Arrow Angled Right
STA	R-6	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right.
STA	R-7	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, New Amtrak Sign, Arrow Right. Replace pole if height too short.

Williamsburg Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
WBG	1	Existing	Pole	24	42	Outdated	No	Other-Not Standard	Yes	Replace with new logo.
WBG	R-1	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign.
WBG	R-2	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, Green New Amtrak Sign, Arrow angled Right.
WBG	R-3	Potential	Interstate Roadside	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, Green New Amtrak Sign, Arrow angled Right.
WBG	R-4	Potential	Interstate Roadside	0	0	Current Standard	No	Yes	No	Add Amtrak Station Sign.
WBG	R-5	Potential	Pole	24	24	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow left.
WBG	R-6	Potential	Pole	24	24	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Right.
WBG	R-7	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add Green New Amtrak Sign. Arrow angled Right.
WBG	R-8	Potential	Pole	30	30	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Straight.
WBG	R-9	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add new Green New Amtrak Sign with MUTCD. Arrow Left. New Pole.
WBG	R-10	Potential	Pole	30	30	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Right.
WBG	R-11	Potential	Pole	30	30	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Straight.
WBG	R-12	Potential	Pole	24	24	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Right.
WBG	R-13	Potential	Light Pole	30	30	Current Standard	No	Yes	No	Add Green New Amtrak Sign. Arrow Right.
WBG	R-14	Potential	Pole	30	30	Current Standard	Yes	Yes	No	Add MUTCD Sign, Green New Amtrak Sign, Arrow Left. New Pole.

Woodbridge Station Signing

Station Designation	Sign Number	Existing or Potential	Position at Location	Size Height	Size Width	Amtrak Logo	VDOT_MUTCD	Arrow	Other Graphics	Further Action Comment
WDB	1	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign.
WDB	2	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign.
WDB	3	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign.
WDB	5	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign.
WDB	6	Existing	Pole	24	24		No	Other-Not Standard	VRE Only	Add new logo sign.
WDB	7	Existing	Interstate Roadside	96	138		No	No	VRE Only	Add new logo sign.
WDB	R-1 Alt	Potential	Interstate Roadside	0	0	Current Standard	No	No	Yes	Add Amtrak Station Sign. "Left Exit"
WDB	R-2	Potential	Interstate Roadside	30	30	Current Standard	No	Yes	No	Add New Amtrak Sign, Arrow Angled Left.
WDB	R-3	Potential	Pole	24	24	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Straight, VRE Sign Arrow Straight.
WDB	R-4	Potential	Light Pole	24	24	Current Standard	No	No	Yes	Add New Amtrak Sign, VRE Sign, "Right At Signal"
WDB	R-5	Potential	Pole	24	24	Current Standard	No	Yes	VRE Only	Add New Amtrak Sign, Arrow Right, VRE Sign, Arrow Right, New Pole.

11 Appendix: Research Process

11.1 Collection Process of Existing Signs

DRPT initially identified the components, subcomponents, and measurements as shown in table below for use in the signage inventory.

Initial Sign Inventory Components

Comp.	Sub Comp.	Desktop or Field?	Measure Type(s)	Open Response?	Comment?
Wayfinding Signage	Location	Both	• Coordinates (Lat./Long.) • Position at location (i.e. pole, street light, standalone, etc.) • Street distance from station entrance • From which database was data obtained? (i.e. VDOT, locality, consultant, Amtrak, etc.)	Yes	Yes
Wayfinding Signage	Condition	Field	• General SGR 1-5 condition • Visibility SGR 1-5 condition • Style of sign (i.e. Amtrak kit, VDOT, unique locality, VRE, etc.) • Size of sign (e.g. 10x4 ft.) • Text/Graphics displayed on sign	Yes (for text displayed on sign)	Yes

The above list of subcomponents was used to develop an assessment methodology and form to collect the necessary information during signage inventory site visits at each station. The table was used to conduct the inventory and assign a rating (on a scale of 1 to 5 following the Federal Transit Administration (FTA) Transit Economics Requirements Model (TERM) scale with "1" and "2" representing well past or exceeding useful life. The numbers "3", "4" and "5" on the scale represent adequate, good, or new observed sign conditions and comments based on the subcomponents.)

DRPT developed a physical form as a backup to the online web application used to collect sign data in the field. In addition to subcomponents DRPT developed, actual sign measurements were added to the data collection form during field inventories. Measurement data allowed DRPT to make more detailed and specific determinations for replacement and potential sign locations.

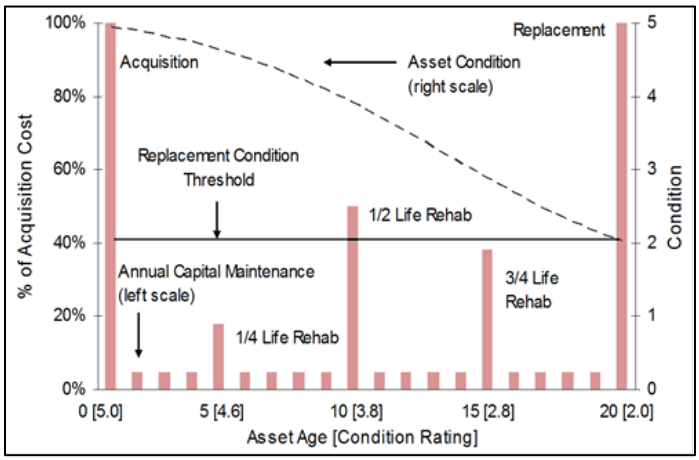
To prepare for the field inventory, a desktop review was first completed by creating a map on Google Streetview that pinpoints all existing Amtrak wayfinding signage for each station. This helped streamline the field inventory process and save time in the field. DRPT identified all

roadways, including freeways, arterials, collector-distributor roads, and local roads, that lead toward the stations. Points were plotted of existing Amtrak, VRE, and *Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices for Streets and Highways, 2011 Edition, Revision 1 – September 30, 2013* (VDOT MUTCD) train signs and/or other unique locality signs on a private Google map. In addition to plotting the existing signage location, pictures of each sign were added to provide a better visual of what to look for in the field. During the inventory, the field collector accessed the map on a mobile device to find the sign.

Collector for ArcGIS, a mobile data collection app, was used for capturing accurate signage inventory and location data on a mobile device and/or tablet. Each column in the inventory form was also a fillable option within the app. Staff also took pictures of each sign and uploaded them as an attachment to give the viewer a sense of the physical condition, text/graphics of the sign, as well as the type of roadway/environment where it is located. Pictures were taken from various distances (if possible) to show any sign visibility issues.

11.2 Condition Rating Methodology

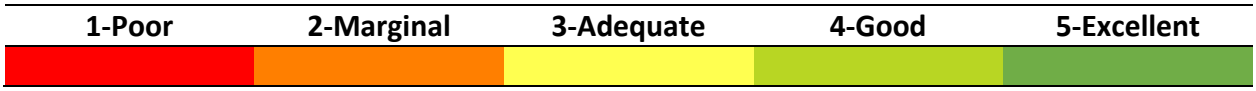
DRPT assessed the condition of signage, or SGR using the numerically based condition rating scale used by the Federal Transit Administration (FTA) Transit Economics Requirements Model (TERM). TERM estimates the condition of different asset classes by assessing the age of those assets against "decay curves," such as the one shown below. The condition is expressed as a number from five to one on this scale, with five being excellent and one being poor. DRPT performed physical inspections and rated the condition of each sign using the TERM rating scale.



Source: Federal Transit Administration

The curve represented illustrates a decay curve for a generic asset. Decay curves can be developed for an individual asset based on industry or an agency's own experience.

Following the FTA TERM rating descriptions for fields requiring a condition rating, STV assigned a rating and used a color scale to illustrate those ratings, as shown below.



Rating	Condition	Description
5	Excellent	No visible defects, new or near new condition, may still be under warranty if applicable.
4	Good	Good condition, but no longer new, may have some slightly defective or deteriorated system(s), but is overall functional.
3	Adequate	Moderately deteriorated or defective system(s); but has not exceeded useful life.
2	Marginal	Defective or deteriorated system(s) in need of replacement; exceeded useful life.
1	Poor	Critically damaged system(s) or in need of immediate repair; well past useful life.

Source: FTA Facility Condition Assessment Guidebook

Station subcomponents receive a condition rating of "1" or "2" if they have reached the end of their useful life and need replacement or repair. This study identifies a solution for addressing these existing signage needs. Although the wayfinding signage inventories were primarily intended to assess the overall physical condition of the existing wayfinding signage and identify SGR needs, the inspectors were also required to note and report any defects that might have constituted safety concerns or potential hazards to motorists or pedestrians that may require immediate attention.

The process that the inspectors followed in the field:

1. In a team of two, the driver and collector used the Wayfinding Signage Google Maps to navigate directly to a sign.
2. When approaching a sign, the driver parked in a safe location off the main thoroughfare and placed an orange traffic cone by the rear of the vehicle in the direction of oncoming traffic.
3. The collector, equipped with ANSI-3 safety apparel, exited the vehicle and moved towards the sign, only when there was a safe gap in traffic, to inspect its condition, visibility, etc.,
4. When possible, depending on traffic volume and roadway speed, the collector took pictures from varying distances and angles to assess the sign visibility from different lanes on the road. Close up pictures were also taken to assess the physical condition of the sign.
5. When returning to the vehicle, the collector filled in any remaining information about the sign.
6. Upon collecting all wayfinding signage statewide, the street distance was calculated within the ArcGIS online platform.

11.3 GIS Classification User Guide

The GIS layer has two categories of signs:

- Existing Signs that were collected in the field/found on Google Earth; and
- Potential Signs that could be installed.

The method for adding an Existing Sign versus a Potential Sign is different as explained below: The various categories that are important for Existing Signs are as follows:

- **Standalone/Collocated:** Standalone signs refer to the signs that only have the current Amtrak Signs and nothing else. If there are any other signs on this pole, then that location is designated as collocated.
- **General SGR:** Classification of the quality of signs on a scale of 5 to 1, with five being highest score and one being the lowest.
- **General Compliance:** If the sign has current Amtrak Signage, it is compliant.
- **Visibility SGR:** The visibility of the sign is rated from five to one, with five being highest score and one being the lowest.
- **Visibility Compliance:** If the sign is not visible at all, it gets a "no."
- **Style/Standard:** This refers to the type and message of signs at the location, i.e. is the sign current Amtrak standard, outdated Amtrak Standard, VDOT (MUTCD train station sign), Unique Locality, VRE or Other. If the Train station is on a Unique Locality board, it falls under that category.
- **Size of Height/Width:** This column is the dimensions of the sign in the field.
- **Text/Graphics Displayed:** This is the message displayed by the signs at the location.
- **Comment:** This is the observations made in the field.
- **Position at Location:** States the mounting type/location of the existing sign, i.e. on a Pole, Light pole, Signal Pole, Highway Roadside, Highway overhead or Highway off Ramp.
- **Visibility Issue:** This refers to any visibility issues observed in the field.
- **Amtrak Logo:** Refers to the type of Amtrak Sign at the location, such as, if the sign is current standard, outdated standard or a Unique Locality.
- **VDOT MUTCD:** Mentions if the sign has the MUTCD train station sign or not.
- **Arrow:** If arrow is standard then it is classified as Yes. If there is any other arrow, i.e. VRE or MUTCD, in use at this location, then it is classified as Other. If there is no Arrow present, then it is classified as a "no."
- **Other Graphics:** If there is any other graphics other than Amtrak or MUTCD, it is classified as "yes." A separate selection is available for us to highlight VRE signs.
- **Sign Location:** This mentions an issue with the positioning and location of the sign.
- **Further Action:** If the sign needs any improvements to be made, like addition, replacement, relocation, removal or other, a relevant response is selected. If no action is needed, that option is selected.
- **Further Action Comments:** Based on the selection made in the previous option, relevant action to be made is mentioned in this section.

The Potential Sign follows a slightly different methodology when compared to Existing Signs as explained below:

- **Standalone/Collocated:** Standalone sign means it is going to be a new sign and there is no other sign at that location. If there is already a sign at that location, it is designated as collocated.
- **General SGR:** Not used for potential signs.
- **General Compliance:** Not used for potential signs.
- **Visibility SGR:** Not used for potential signs.
- **Visibility Compliance:** Classified as a "no" if sign is not visible.
- **Style/Standard:** Potential signs will be the current Amtrak logo, so they are classified as Current.
- **Size of Height/Width:** This column is the dimensions of the potential signs (it is only used for small wayfinding signs).
- **Text/Graphics Displayed:** This column displays the graphics on the existing sign at the location. This is filled only if the Standalone/Collocated column has Collocated selected in it.
- **Comment:** This section contains the location of the potential sign. The description corresponds to the attached image(s) where there is a potential sign.
- **Position at Location:** States the type of location on which the sign is to be placed, i.e. on a Pole, Light pole, Signal Pole, Highway Roadside, Highway overhead or Highway off Ramp.
- **Visibility Issue:** Not used for potential signs.
- **Amtrak Logo:** Refers to the type of Amtrak Sign at the location. For example, if the sign is current standard, outdated standard or a Unique Locality.
- **VDOT MUTCD:** Denotes if the sign at a location will have the MUTCD sign or not.
- **Arrow:** All the potential signs have the Amtrak Standard signs in them. If the arrow is not needed, it is classified as a "no."
- **Other Graphics:** If the potential location needs a VRE sign, that option is selected. If there is a need for a graphic sign to say which exit to take, the option of "yes" is chosen.
- **Sign Location:** This is left blank for potential signs, as they have not yet been installed.
- **Further Action:** This is classified as "Add" for new potential signs. Signs to be relocated are classified as "Relocated".
- **Further Action Comments:** This section details what are the new signs needed at this location. If a larger sign is needed, it has the designation "Add Amtrak Station Sign".

11.4 Wayfinding Signage Inventory Form Field Descriptions

The following list describes the data collected in the Wayfinding Signage Inventory Form.

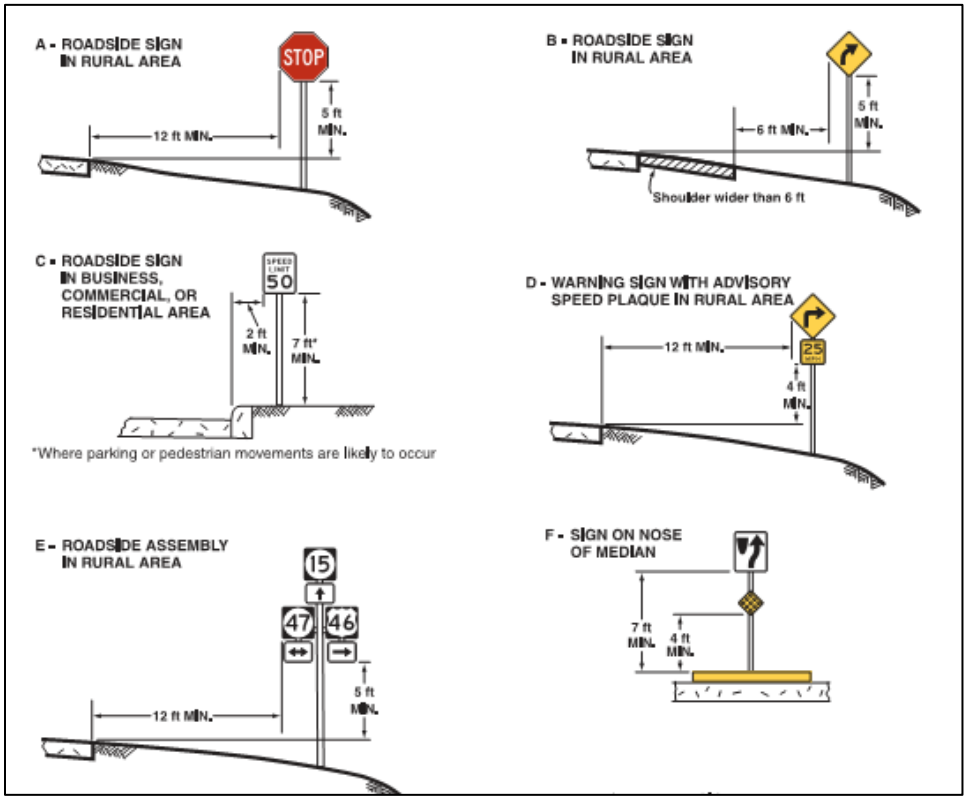
1. Sign Number: Sign numbers were recorded with the station code (e.g., Ashland= "ASD"), followed by the sign number (e.g., ASD-1).
2. Location (Lat. /Long.): Latitude and longitude was captured using an app called "Coordinate" to capture the location of each sign. (e.g., 33.89291, -77.29441)
3. Position at Location: Signs are located on poles or at various places on a roadway. The position was chosen from one of seven options: pile; light pole; signal mast arm; signal pole; highway overhead; highway roadside; and highway ramp.

4. Standalone or Co-located: A standalone sign has only one sign on the pole and its only function is to provide wayfinding for the Amtrak station. A co-located sign has multiple signs attached along with the Amtrak sign. The Amtrak sign was likely added after the sign pole was built.
5. Distance from Station: Distance was calculated using ArcGIS online platform from the sign to the station in street miles.
6. General SGR: The "General SGR (1-5)" column is a scoring measure based on the sign's physical condition. Scores are assigned based on the FTA TERM scale with "1" and "2" representing well past or exceeding useful life and "3", "4" and "5" representing adequate, good, or new SGR.
7. General Compliance: Signs were given a yes or no based on compliance with the current Amtrak signage standards.
8. Visibility SGR (1-5): A score was given based on a sign's visibility given its current location and physical state. Roadway speed limit, distance from next turn, size, and reflectivity were among the factors that were taken into consideration during this evaluation. A "5" is the highest score, meaning the sign is easily readable and free of any visual obstructions. A "1" is the lowest score, meaning the sign is difficult to read and is likely blocked by trees or heavily faded.
9. Visibility Compliance: If the visibility SGR score was either a "1" or "2", then a visibility issue must be selected. This includes text/graphic size deficiencies and/or any visual obstructions that may be in the way from reading the sign.
10. Visibility Issue: Any visibility issues such as vegetation that affected the ability to read the signs were recorded.
11. Sign Location: A sign was given a location issue designation if it was not along the roadway in a location that gives the driver enough time to read it and make the necessary turn/decision.
12. Style/Standard: Train station signs varied from station to station. Options include outdated Amtrak logo, current Amtrak logo, VDOT, unique locality, and/or VRE signs.
13. Size: Measurements for length and width were recorded in inches.
14. Text/Graphics Displayed: All text and graphics located on sign are recorded. Some signs are a compilation of multiple signs attached to each other.
15. Amtrak Logo: Multiple variations of the Amtrak logo were seen in the field (Current, outdated, and green similar to VDOT theme).
16. VDOT MUTCD: Signs were given a yes or no if it was collocated with a VDOT MUTCD train station sign.
17. Arrow: Signs that were collocated with a current Amtrak standard arrow were given a "Yes". Arrows not to Amtrak's current standard received "Other", and signs without an arrow received a "No".
18. Other Graphics: A sign can be collocated with other sign graphics like Hospital Sign or VRE. This column distinguishes whether or not there are multiple graphics displayed or just the Amtrak logo.
19. Comment: Additional comments can be left here if it could not fit in any of the previous columns (i.e. "The sign was manufactured in May 2007 per the sticker on the back.")

12 Appendix: Signing Design Guidelines

DRPT considered both Federal and VDOT design guidelines due to the variety of roads on which the existing and potential wayfinding signage are located. Part 2 of the *Manual on Uniform Traffic Control Devices* (MUTCD) provides guidance on the proper design of signs including the legend, color, spacing, size, and mounting. Relevant sections for this report include:

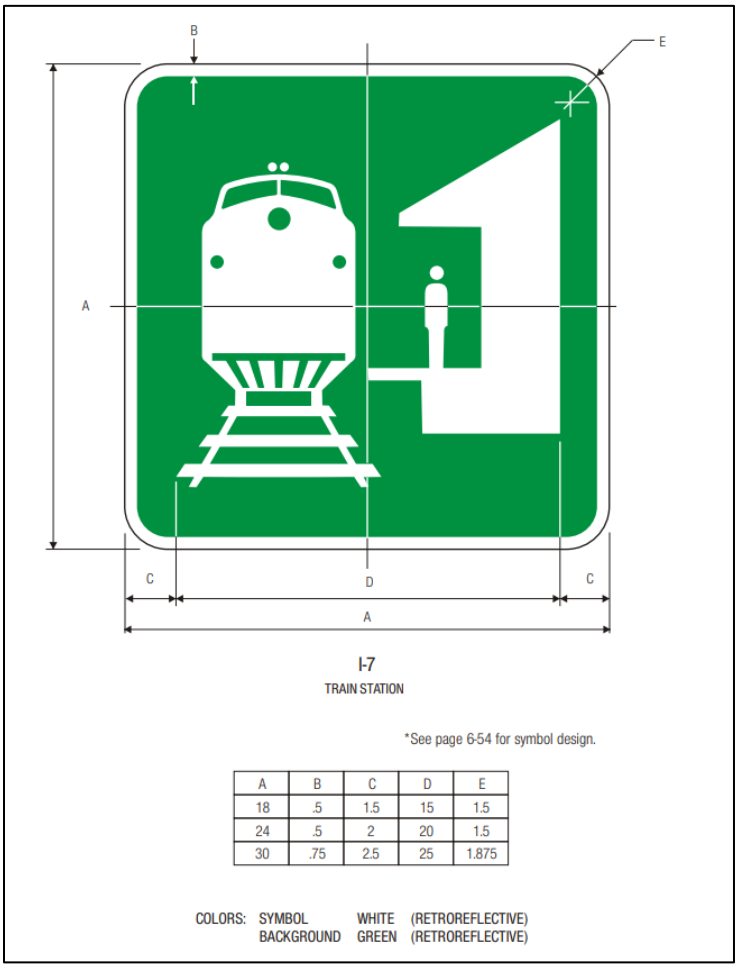
- Section 2A.16 Standardization of Location
  - The below chart shows examples of heights and lateral locations of typical sign locations from the MUTCD.
  - One of the factors in determining spacing shall be the 85th percentile speed of the roadway.
  - Signs should be on the right-hand side where they are easily recognized.
  - Signs should be installed on separate posts except where one sign supplements another or route or directional signs may be grouped to clarify information to motorists.



- Chapter 2D. Guide Signs-Conventional Roads
  - Provides guidance on the signing coloring, lettering, size, and location on conventional roads.
- Chapter 2E. Guide Signs-Freeways and Expressways

- Provides guidance on the signing coloring, lettering, size, and location on expressways and freeways.

- Chapter 2H. General Information Signs.
  - Provides guidance on the size of the "Train Station" (I-7) sign as shown below. On conventional roads it should be a minimum of 24"x24" and on expressway/freeways it should be a minimum of 30"x30".



I-7
TRAIN STATION

*See page 6-54 for symbol design.

A	B	C	D	E
18	.5	1.5	15	1.5
24	.5	2	20	1.5
30	.75	2.5	25	1.875

COLORS: SYMBOL WHITE (RETROREFLECTIVE)
BACKGROUND GREEN (RETROREFLECTIVE)

VDOT design guidelines are also used for the design of potential signage. Chapter 3-Signing and Pavement Markings of the *VDOT Traffic Engineering Design Standards and Guidelines* provides guidance on the development of signing and marking plans, including sign panel and sign structure details. Section 1300 of the *VDOT 2016 Road and Bridge Standards* provides detailed standards on signposts, sign structures, sign mounting details, and sign panel designs. Additionally, *The Amtrak Signage Manual (August 2018)* provides details of the Trailblazing Kits that are available to jurisdictions through Amtrak Signage Brand Management and the Great American Stations website. Examples of these signing kits are shown below.