

5 SECTION 4(f) EVALUATION



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5.1 DESCRIPTION OF THE PROPOSED ACTION

The Federal Railroad Administration (FRA) and Virginia Department of Rail and Public Transportation (DRPT) propose passenger rail service and rail infrastructure improvements in the north-south travel corridor between Washington, D.C. and Richmond, VA. These passenger rail service and rail infrastructure improvements are collectively known as the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Project.

5.1.1 Introduction to Section 4(f)

Section 4(f) of the *U.S. Department of Transportation (U.S. DOT) Act of 1966* (23 United States Code [U.S.C.] 138) prohibits use of land from a public park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless it can be demonstrated that there are no feasible and prudent alternatives to avoid the property and that the proposed project included all possible planning to minimize effects.

- Section 4(f) applies only to publicly owned parks, recreation areas, and wildlife and waterfowl refuges. Similar resources that are privately owned yet open to the public are not considered Section 4(f) resources.
- Section 4(f) also applies to historic sites listed on or eligible for listing on the National Register of Historic Places (NRHP), regardless of whether the site is in public or private ownership.
- Section 4(f) applies to all archaeological sites listed on or eligible for inclusion on the NRHP, including those discovered during construction. The exception to this is when FRA, in consultation with the Virginia Department of Historic Resources (DHR), determines that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value to preservation in place.
- Section 4(f) applies to protected resources when a “use” occurs. This “use” can be permanent, such as the permanent acquisition of a property, or temporary, such as the use of the property for construction staging purposes. Section 4(f) also applies when a “constructive use” occurs, such as when the noise, vibration, air quality, or visual effects of a project are so great that the use of the property is substantially impaired, even though it is not physically affected by the project.

5.1.2 Purpose and Need for the Project

The Project would deliver higher speed passenger rail service, increase passenger and freight rail capacity, and improve passenger rail service frequency and reliability in a corridor shared by growing volumes of passenger, commuter, and freight rail traffic, thereby providing a competitive option for travelers going between Washington, D.C. and Richmond and those traveling to and from adjacent connecting corridors.

The purpose of the current DC2RVA Project described here is to fulfill the purpose of the Southeast High Speed Rail (SEHSR) Tier I Environmental Impact Statement (EIS) within this segment of the larger SEHSR corridor. The Project, by increasing rail capacity and improving travel times between Washington, D.C. and Richmond, would improve passenger train performance and reliability in the corridor, enabling intercity passenger rail to be a competitive transportation choice for travelers between Washington, D.C. and Richmond and beyond.

DRPT anticipates that the Project will provide multiple benefits to the traveling public and the Commonwealth of Virginia, including:

- Providing an efficient and reliable multimodal rail corridor between Washington, D.C. and Richmond and beyond.
- Increasing the capacity of the multimodal rail system between Washington, D.C. and Richmond.
- Improving the frequency, reliability, and travel time of passenger rail operations in Virginia and beyond, and providing a competitive alternative to highway and air travel.
- Accommodating Virginia Railway Express (VRE) commuter rail service operations.
- Accommodating freight rail movement through the corridor, including to and from Virginia's ports.
- Improving modal connectivity with other public transportation systems within the corridor to further expand travel options for passengers within Virginia and beyond.
- Improving multimodal rail operations safety in the corridor.
- Improving air quality and reducing greenhouse gas (GHG) emissions by diverting passenger trips by automobile and movement of freight by trucks to more environmentally sustainable rail transportation.

Higher speed passenger rail service would also encourage economic development in Virginia and along the Eastern Seaboard travel corridors by expanding competitive travel options in the corridor for business and leisure travelers. Additionally, because the Project corridor is a multimodal corridor shared with freight, intercity passenger, and commuter service, the proposed improvements would also enhance the efficiency of freight rail movements within the corridor. Improvements to freight rail operations in the corridor would encourage economic development by increasing freight traffic through Virginia's ports and present an opportunity for greater diversion of freight transport from congested highways to rail.

Current conditions existing in the Project corridor support the Tier I EIS purpose and need and are the foundation for the Project today. These conditions include:

- **Population Growth.** Population in the corridor and adjacent urban regions continues to grow, increasing demand for reliable and safe travel options for passengers. In addition

to overall population growth, changing demographics in the corridor and adjacent urban regions are increasing the demand for passenger rail service.

- **Freight Growth.** Demand for freight movement through and within the corridor is growing as economic activity and population increase. Ongoing expansion of Virginia's deep water ports and intermodal facilities further increases the need for efficient shipment of freight.
- **Congestion in the I-95 Corridor.** The I-95 corridor between Washington, D.C. and Richmond remains congested, despite ongoing and planned improvements. As a result, trip times by highway vehicle are not reliable.
- **Air Travel Congestion.** Travel by air is increasingly at capacity, resulting in frequent delays and causing commercial carriers to reduce flights and increase fares, which limits the transportation options between Washington, D.C., Richmond, and adjacent corridors, and generates detrimental economic effects such as lost productivity for travelers and excessive fuel consumption.
- **Rail Capacity in the Corridor.** The shared freight and passenger rail corridor between Washington, D.C. and Richmond is nearing capacity and requires improvements to effectively and efficiently meet existing and future demands for passenger service, commuter passenger service, and freight service.
- **Providing Options for Reliable and Convenient Movement of Goods and People.** The transportation network must provide options for reliable and convenient movement of goods and people for Virginia and the southeast region's economy to remain strong and grow.
- **Air Quality.** There is a need to reduce growth of transportation-related mobile source emissions and the resultant effects to air quality. Travel or freight movement by train provides a safe and efficient travel mode, and it uses less energy and produces fewer emissions per passenger or ton of freight moved per mile.

5.1.3 Project Description and Approach

The DC2RVA Project will include specific rail infrastructure improvements and service upgrades to deliver higher speed passenger rail, expand commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor. The increased capacity will improve passenger rail service frequency, reliability, and door-to-door competitive travel time in a corridor shared by growing volumes of passenger, commuter, and freight rail traffic. Specific improvements to the existing rail infrastructure between Arlington, VA, and Centralia, VA, include:

- Corridor-wide improvements to train operating capacity to accommodate efficient operation of passenger, commuter, and freight rail service with increased frequency, reliability, and speed, including an additional main track along most of the corridor, additional sidings, crossovers, yard bypasses and leads, and other capacity and reliability improvements at certain locations.
- Corridor-wide upgrades to existing track and signal systems to achieve higher operating speeds, including curve realignments, higher-speed crossovers between tracks, passing sidings, and grade crossing improvements.

- New or replacement station, platform, and parking improvements at intercity passenger stations in the corridor to improve the efficiency of railroad operations, improve quality of service, and accommodate increased ridership.
- Safety improvements to roadway crossing treatments, to include median treatment, grade separations, and/or closure of existing at-grade crossings of the rail corridor.

5.1.4 Project Alternatives

Developing potential rail alignments was an iterative process. DRPT relied on previous studies and public scoping comment as the starting point for developing potential rail alignments. Rail alignment modifications were made to avoid or minimize potential adverse effects on environmental resources and existing infrastructure, and to minimize the need for additional new infrastructure, while preserving the ability of that alignment to meet the Project's Purpose and Need. The final screening evaluation – to determine the Build Alternatives to be carried forward for evaluation in the Draft EIS – focused on each rail alignment's ability to reduce trip times based on increased track design speed and increase the reliability of rail operations based upon added capacity, with the least potential environmental impact and consideration of cost to construct.

As part of the Build Alternatives, DRPT evaluated both existing and potential new passenger rail stations in the DC2RVA corridor. DRPT plans to incorporate the DC2RVA SEHSR passenger train service into Amtrak's regional and long distance intercity passenger rail network; along the DC2RVA corridor, these existing stations include: Alexandria, Woodbridge, Quantico, Fredericksburg, Ashland, and Staples Mill Road and Main Street in Richmond. Additionally, in Richmond, DRPT is considering two proposed new locations under some Build Alternatives: Boulevard Station and Broad Street Station. However, not all proposed trains would necessarily serve all existing or proposed stations.

For evaluation in the Tier II Draft EIS, DRPT combined and categorized the Build Alternatives into six alternative areas along the corridor (Figure 5.1-1):

- Alternative Area 1: Arlington (Long Bridge Approach): 1-mile section that includes approach alignments to the Long Bridge, which crosses the Potomac River between Washington, D.C. and Virginia.
- Alternative Area 2: Northern Virginia (Long Bridge to Dahlgren Spur): 47-mile section that includes additional track within existing railroad right-of-way.
- Alternative Area 3: Fredericksburg (Dahlgren Spur to Crossroads): 14-mile section that includes alignments through or around the city.
- Alternative Area 4: Central Virginia (Crossroads to Doswell): 29-mile section that includes additional track primarily within the existing railroad right-of-way.
- Alternative Area 5: Ashland (Doswell to I-295): 10-mile section including alignments through or around the town.
- Alternative Area 6: Richmond (I-295 to Centralia): 23-mile section including different station locations and routing options along the A-Line and/or S-Line.

Project Build Alternatives were developed separately, specific to the existing conditions, constraints, and/or needs of each of the six areas, and will be linked to form a single DRPT recommended Preferred Alternative for the corridor, to be confirmed in the Final EIS and Record of Decision (ROD).

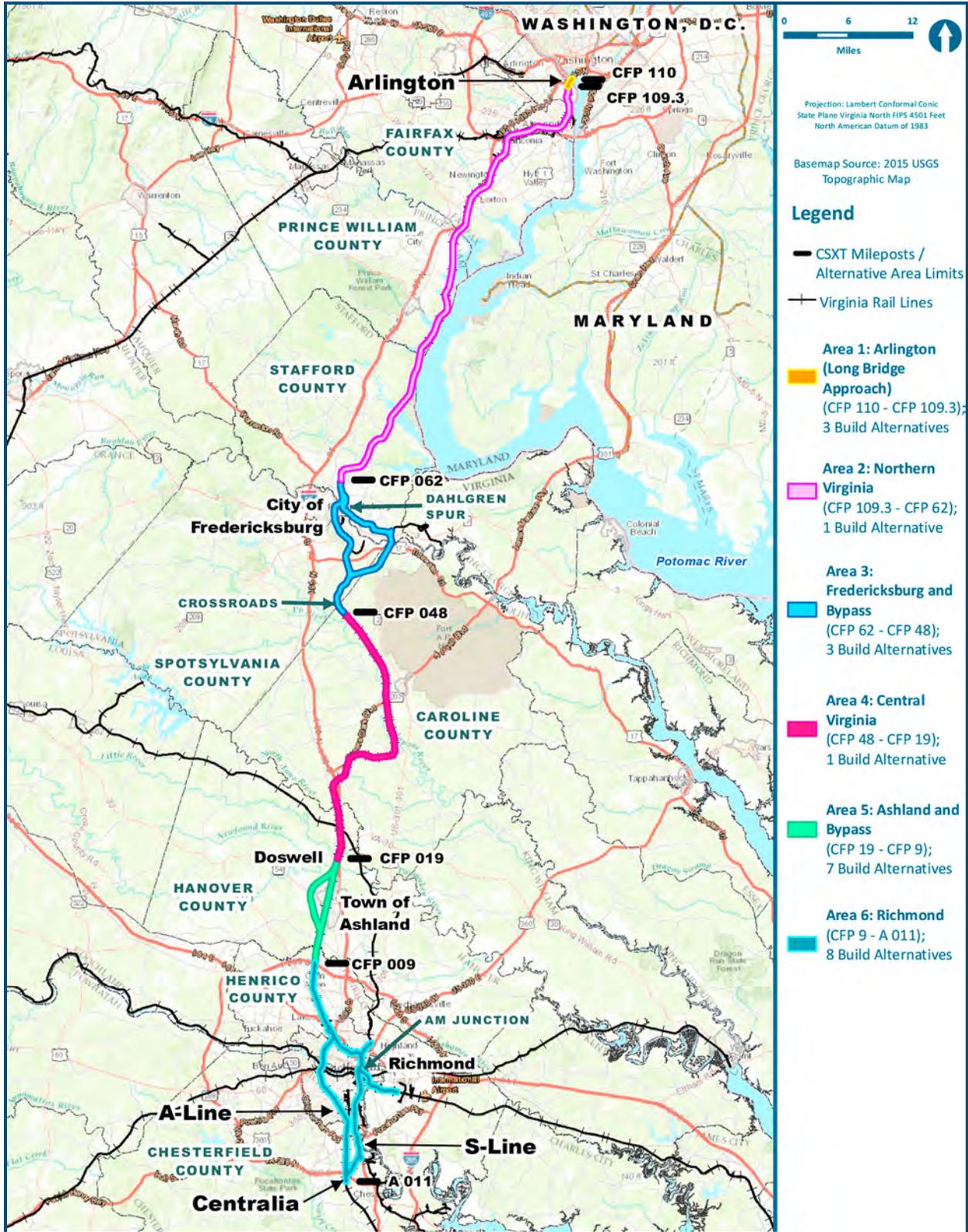


Figure 5.1-1: Alternative Areas

Refer to Chapter 2 of the Draft EIS for a full summary of the alternatives development process and description of Build Alternatives, and Chapter 7 of the Draft EIS for description of the DRPT recommended Preferred Alternative.

In general, the DC2RVA Project proposes to increase capacity by adding one additional main track. In most areas, the Project will add a new third track in addition to two existing tracks. The determination of the location of the new track on the east or west of existing trackage varies by location within the corridor based on physical constraints and minimization of impacts. For each alternative, DRPT also evaluated the potential to realign the tracks to improve speeds. The proposed Build Alternatives vary within the City of Fredericksburg and the Town of Ashland, where alignments outside of the existing right-of-way were considered (i.e., bypass alignments around the downtown areas); the typical section of the new bypass alignments consists of two tracks.

From a wide range of options that were considered during the alternatives development process, 23 Build Alternatives, which vary within each alternative area, were included for evaluation in the Draft EIS (Table 5.1-1). Each includes build-alternative-specific improvements to features such as stations and at-grade roadway crossings, as applicable. The following sections provide details of each of these Build Alternatives, as well as the No Build Alternative.

5.1.4.1 No Build Alternative

The No Build Alternative defines the future infrastructure and service levels that will result from planned investments in the Washington, D.C. to Richmond rail corridor, independent of the improvements planned by the DC2RVA Project. Information about planned physical improvements and rail service additions in the corridor was gathered from fiscally-constrained Metropolitan Planning Organization (MPO) planning documents, Commonwealth multiyear improvement programs, and from transit agency planning documents. If a project was under construction, fully-funded, or was the focus of advanced collaborative planning (evidenced by partial funding, board-level commitments, or interagency agreements), DRPT assumed it to be complete by 2025 for the purposes of the Draft EIS evaluation. Chapter 2 of the Draft EIS provides a full description of elements included in the No Build Alternative.

The purpose of the No Build Alternative is to serve as a baseline for comparison of potential effects and impacts of the DC2RVA Build Alternatives. The No Build Alternative was fully evaluated and dismissed by FRA in the 2002 SEHSR Tier I ROD because it does not meet the SEHSR Purpose and Need. Although previously dismissed as not a viable alternative, it is fully considered as part of the Tier II Draft EIS for the DC2RVA Project because the baseline is required by the National Environmental Policy Act (NEPA).

5.1.4.1 Build Alternatives

The 23 Build Alternatives are summarized below. Figures 5.1-2 through 5.1-22 show the proposed improvements by alternative. Figures 5.1-23 through 5.1-39 show the proposed station improvements. All of these figures are provided at the end of this section.

Chapter 2 of the Draft EIS provides full information, including lists of specific track and station improvements, for each Build Alternative.

Table 5.1-1: Build Alternatives

Alternative Area	Alternative	Description
Area 1: Arlington (Long Bridge Approach)	1A	Add Two Tracks on the East
	1B	Add Two Tracks on the West
	1C	Add One Track East and One Track West
Area 2: Northern Virginia (Long Bridge to Dahlgren Spur)	2A	Add One Track/Improve Existing Track
Area 3: Fredericksburg (Dahlgren Spur to Crossroads)	3A	Maintain Two Tracks Through Town
	3B	Add One Track Through Town East of Existing
	3C	Add Two-Track Bypass East
Area 4: Central Virginia (Crossroads to Doswell)	4A	Add One Track/Improve Existing Track
Area 5: Ashland (Doswell to I-295)	5A	Maintain Two Tracks Through Town
	5A–Ashcake	Maintain Two Tracks Through Town (Relocate Station to Ashcake)
	5B	Add One Track Through Town East of Existing
	5B–Ashcake	Add One Track Through Town East of Existing (Relocate Station to Ashcake)
	5C	Add Two-Track West Bypass
	5C–Ashcake	Add Two-Track West Bypass (Relocate Station to Ashcake)
	5D–Ashcake	Three Tracks Centered Through Town (Add One Track, Relocate Station to Ashcake)
Area 6: Richmond (I-295 to Centralia)	6A	Staples Mill Road Station Only
	6B–A-Line	Boulevard Station Only, A-Line
	6B–S-Line	Boulevard Station Only, S-Line
	6C	Broad Street Station Only
	6D	Main Street Station Only
	6E	Split Service, Staples Mill Road/Main Street Stations
	6F	Full Service, Staples Mill Road/Main Street Stations
6G	Shared Service, Staples Mill Road/Main Street Stations	

Recommended Preferred Alternative (see Chapter 7)

Build Alternatives in Alternative Area 1: Arlington (Long Bridge Approach)

There are three Build Alternatives in Alternative Area 1, which are described in Table 5.1-2. Build Alternative 1A, 1B, and 1C are shown in Figure 5.1-2.

Table 5.1-2: Arlington Build Alternatives: 1A, 1B, and 1C

TRACK
<p>All three Build Alternatives would:</p> <ul style="list-style-type: none"> Equally support expanded intercity passenger service (all types), expanded VRE commuter service, and expanded CSXT freight service Add two main tracks, with minor shifts to improve speed Be constructed within existing railroad right-of-way <p>The difference between the alternatives is on which side(s) of the existing track the new track is added (as indicated in Build Alternative names): two tracks on the east (1A); two tracks on the west (1B); one track east and one track west (1C)</p> <p>Final decision deferred to the completion of the Long Bridge Study (separate study by the District of Columbia Department of Transportation)</p> <p>Track maximum authorized speed: ≤ 45 mph</p>
STATIONS
No stations within area
CROSSINGS
No changes to existing public roadway crossings

Build Alternatives in Alternative Area 2: Northern Virginia

There is one Build Alternative in Alternative Area 2, which is described in Table 5.1-3. Build Alternative 2A is shown in Figure 5.1-3.

Table 5.1-3: Northern Virginia Build Alternative 2A

TRACK
<p>One main track would be added, with realignment of some curves to improve speed, to create:</p> <ul style="list-style-type: none"> ▪ Fourth track from Alexandria to Crystal City ▪ Third track from Spotsylvania to Alexandria <p>Improvements are generally within existing right-of-way Track maximum authorized speed: ≤ 79 mph</p>
STATIONS
<p>Station improvements are mainly platform improvements and to be performed by VRE Proposed new DC2RVA service includes:</p> <ul style="list-style-type: none"> ▪ Alexandria: Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) (Figure 5.1-23) ▪ Woodbridge: Northeast Regional (SEHSR) (Figure 5.1-24) ▪ Quantico: Northeast Regional (SEHSR) (<i>no figure</i>) ▪ All other stations: VRE service only (<i>no figure</i>) <p>No changes to the locations of Amtrak Long Distance, Interstate Corridor (Carolinian), and Northeast Regional (Virginia) or VRE commuter stations served</p>
CROSSINGS
<p>Close one existing public roadway crossing (Mount Hope Church Road), with alternate access provided; no grade separations of at-grade crossings All other public roadway crossings would remain at-grade, with safety improvements Major water crossings at Occoquan River, Neabsco Creek, and Aquia Creek</p>



Alexandria Union Station

Build Alternatives in Alternative Area 3: Fredericksburg

There are three Build Alternatives in Alternative Area 3, which are described in Table 5.1-4, Table 5.1-5, and Table 5.1-6. Build Alternative 3A, 3B, and 3C are shown in Figure 5.1-4, Figure 5.1-5, and Figure 5.1-6, respectively. All three Build Alternatives would support expanded intercity passenger (all types), VRE commuter, and CSXT freight service, without change to stations served by existing Amtrak (Interstate Corridor (Carolinian), Northeast Regional (Virginia), Long Distance, and Auto Train) passenger service or VRE commuter service. Due to constraints of the geography through this location, the maximum authorized speed in this section is designed for 79 mph where feasible. Build Alternative 3B is consistent with the City of Fredericksburg Comprehensive Plan (2015).

Table 5.1-4: Fredericksburg Build Alternative 3A

TRACK
<p>No construction of new track / no additional rail capacity within Fredericksburg</p> <ul style="list-style-type: none"> ▪ Existing two main tracks would be maintained, which are used by freight, passenger, and commuter trains, similar to existing conditions ▪ Tracks would be shifted in some areas to improve speed <p>Construction of one additional track, with some track shifts to improve speed, north and south of the city</p> <p>All improvements are within existing right-of-way</p> <p>Track maximum authorized speed: ≤ 79 mph</p>
STATIONS
<p>Improvements to Fredericksburg Station would include a new station building, side platform improvements, and a new parking structure (Figure 5.1-25)</p> <p>Proposed new DC2RVA service at Fredericksburg Station:</p> <ul style="list-style-type: none"> ▪ Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) <p>The other station in Alternative Area 3 is located in Spotsylvania County and provides VRE service only.</p>
CROSSINGS
<p>All public roadway crossings would remain at-grade, with safety improvements (no roadway crossing closures or grade separations of public at-grade crossings)</p> <p>Improvements to major rail bridges over the Rappahannock River</p>

Table 5.1-5: Fredericksburg Build Alternative 3B

TRACK
<p>One main track would be added in most areas, with track shifts to improve speed</p> <ul style="list-style-type: none"> ▪ Within Fredericksburg, the additional track would be added east of the existing two tracks ▪ A third track already exists between Fredericksburg and Spotsylvania stations; therefore, no improvements are required in this section <p>Improvements are generally within existing right-of-way</p> <p>Track maximum authorized speed: ≤ 79 mph</p>
STATIONS
<p>Improvements to Fredericksburg Station would include a new station building, a new elevated railway, side and center platform improvements, and a new parking structure (Figure 5.1-26)</p> <p>Proposed new DC2RVA service at Fredericksburg Station: Northeast Regional (SEHSR) and Interstate Corridor (SEHSR)</p> <p>The other station in Alternative Area 3 is located in Spotsylvania County and provides VRE service only.</p>
CROSSINGS
<p>No public roadway crossing closures; grade separation of one at-grade roadway crossing (Landsdowne Road)</p> <p>Improvements to major rail bridges over the Rappahannock River</p>

Table 5.1-6: Fredericksburg Build Alternative 3C

TRACK
Existing two-track corridor through the city would be maintained, with some track shifts to improve speed New two-track bypass would be constructed east of the city <ul style="list-style-type: none"> ▪ Would serve all freight rail as well as some or all of Interstate Corridor (SEHSR) and Amtrak Interstate Corridor (Carolinian), Long Distance, and Auto Train passenger trains ▪ Would require new right-of-way Construction of one additional track, with some track shifts to improve speed, north and south of the bypass Track maximum authorized speed: ≤ 79 mph
STATIONS
Improvements to Fredericksburg station would include a new station building, side platform improvements, and a new parking structure (Figure 5.1-25) Proposed new DC2RVA service at Fredericksburg Station: Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) The other station in Alternative Area 3 is located in Spotsylvania County and provides VRE service only.
CROSSINGS
Public roadway crossings along existing Dahlgren Spur would remain at-grade, with safety improvements All new public roadway crossings on the bypass would be grade-separated All other public roadway crossings would remain at-grade, with safety improvements Improvements to major rail bridge over the Rappahannock River

Build Alternatives in Alternative Area 4: Central Virginia

There is one Build Alternative in Alternative Area 4, which is described in Table 5.1-7. Build Alternative 4A is shown in Figure 5.1-7. Based on geography throughout this area, this section is most suitable for higher speed passenger rail service and therefore provides the greatest contiguous section along the DC2RVA corridor with a maximum authorized speed up to 90 mph.

Table 5.1-7: Central Virginia Build Alternative: 4A

TRACK
One main track would be added, with track shifts to improve speed Improvements are generally within existing right-of-way Supports expanded intercity passenger service (all types) and CSXT freight service Track maximum authorized speed: ≤ 90 mph
STATIONS
No stations within the area Would not preclude the development of a proposed future station at Carmel Church (not included as part of this study)
CROSSINGS
Close one existing public roadway crossing (Colemans Mill Road); no grade separations of at-grade crossings All other public roadway crossings would remain at-grade, with safety improvements Multiple crossings of small waterways and wetlands



Corridor in rural Caroline County

Build Alternatives in Alternative Area 5: Ashland

There are seven Build Alternatives in Alternative Area 5, which are described in Table 5.1-8 through Table 5.1-11 below. Build Alternative 5A, 5A–Ashcake, 5B, 5B–Ashcake, 5C, 5C–Ashcake, and 5D–Ashcake are shown in Figure 5.1-8, Figure 5.1-9, Figure 5.1-10, Figure 5.1-11, Figure 5.1-12, Figure 5.1-13, and Figure 5.1-14, respectively.

The Ashland Build Alternatives may include different station locations: either maintaining the station at the existing downtown station with improvements (Build Alternatives 5A, 5B, and 5C) or relocating the station to south of Ashcake Road (all Build Alternatives with “–Ashcake” in their name). The Build Alternatives with the same letter, with and without the “–Ashcake” designation, are otherwise identical in terms of alignment. For ease of comparison, they are presented together in the tables below.

Due to constraints of the geography through this location, the maximum authorized speed in this section is designed for 79 mph where feasible, with an existing 35 mph municipal slow order through the Town of Ashland.

Table 5.1-8: Ashland Build Alternatives: 5A and 5A–Ashcake

TRACK
Both alternatives would maintain two existing tracks (no construction of new track/no additional rail capacity) within Ashland Both alternatives would construct one additional track, with some track shifts to improve speed, north and south of the town All rail improvements are generally within existing right-of-way
STATIONS
Both alternatives would provide Northeast Regional (SEHSR and Virginia) service at different station locations: <ul style="list-style-type: none"> ▪ 5A: Would maintain existing station location with improvements, including 850-foot platforms, which would require closure of the existing roadway crossing at College Avenue; use of shorter, 350-foot platforms is an option to minimize impacts (Figure 5.1-27) ▪ 5A–Ashcake: Would close the existing station and relocate service to a new station south of Ashcake Road (Figure 5.1-28)
CROSSINGS
Both alternatives include the grade separation of two existing at-grade roadway crossings in Ashland: West Vaughan Road and Ashcake Road All other existing public roadway crossings would remain at-grade, with safety improvements

Table 5.1-9: Ashland Build Alternatives: 5B and 5B–Ashcake

TRACK
Both alternatives would maintain two existing tracks and construct one additional track east of the existing tracks within Ashland <ul style="list-style-type: none"> ▪ The addition of a third track through town would require closure of a short portion of Railroad Avenue/Center Street ▪ New right-of-way would be required for rail improvements within the town Both alternatives would construct one additional track, with some track shifts to improve speed, north and south of the town <ul style="list-style-type: none"> ▪ Rail improvements north and south of the town are generally within existing right-of-way
STATIONS
Both alternatives would provide Northeast Regional (SEHSR and Virginia) with different station locations: <ul style="list-style-type: none"> ▪ 5B: Would maintain existing station location with improvements, including 850-foot platforms, which requires closure of the existing roadway crossing at College Avenue; use of shorter, 350-foot platforms is an option to minimize impacts (Figure 5.1-29) ▪ 5B–Ashcake: Would close the existing station and relocate service to a new station south of Ashcake Road (Figure 5.1-28)
CROSSINGS
Both alternatives include the grade separation of two existing at-grade roadway crossings in Ashland: West Vaughan Road and Ashcake Road All other existing public roadway crossings would remain at-grade, with safety improvements

Table 5.1-10: Ashland Build Alternatives: 5C and 5C–Ashcake

TRACK
<p>Both alternatives would construct a two-track bypass, west of Ashland, to serve all freight rail as well as all Interstate Corridor (SEHSR) and Amtrak Interstate Corridor (Carolinian), Long Distance, and Auto Train passenger trains</p> <ul style="list-style-type: none"> ▪ New right-of-way would be required on bypass alignment <p>Both alternatives would maintain the existing two-track corridor through town</p> <ul style="list-style-type: none"> ▪ No additional right-of-way needed in town <p>Both alternatives would construct one additional track, with some track shifts to improve speed, north and south of the town</p> <ul style="list-style-type: none"> ▪ Rail improvements north and south of the town are generally within existing right-of-way
STATIONS
<p>Both alternatives would provide Northeast Regional (SEHSR and Virginia) service at different station locations:</p> <ul style="list-style-type: none"> ▪ 5C: Would maintain existing station location with improvements, including 850-foot platforms, which requires closure of the existing roadway crossing at College Avenue; use of shorter, 350-foot platforms is an option to minimize impacts (Figure 5.1-27) ▪ 5C–Ashcake: Would close the existing station and relocate service to a new station south of Ashcake Road (Figure 5.1-28)
CROSSINGS
<p>All new roadway crossings on the bypass would be grade-separated</p> <p>All existing public roadway crossings within town would remain at-grade, with safety improvements</p>

Table 5.1-11: Ashland Build Alternatives: 5D–Ashcake

TRACK
<p>One additional main line track, with centering of all main line tracks on the existing alignment, would be constructed through the entire area, which generally requires additional railroad right-of-way, especially within the town of Ashland</p> <ul style="list-style-type: none"> ▪ The addition of a third track through town would require closure of a short portion of Railroad Avenue/Center Street
STATIONS
<p>This rail alignment would require removal of the existing station building and platforms, resulting in the relocation of service to a new station south of Ashcake Road to provide Northeast Regional (SEHSR and Virginia) service (Figure 5.1-28).</p>
CROSSINGS
<p>Includes the grade separation of two existing at-grade roadway crossings in Ashland: West Vaughan Road and Ashcake Road</p> <p>All other existing public roadway crossings within town would remain at-grade, with safety improvements</p>



Corridor in downtown Ashland

Build Alternatives in Alternative Area 6: Richmond

There are eight Build Alternatives in Alternative Area 6. All Build Alternatives generally add one main track (though they vary whether they use the A-Line or S-Line through the city), and they vary in whether they consolidate passenger train service to a single station (including two potential new stations at Boulevard Station or Broad Street Station) or provide combinations of service at two stations. There are no changes to CSXT freight service routes due to proposed changes to passenger train routes as part of the DC2RVA Project. The Amtrak Auto Train does not stop in Richmond.

Five of the Richmond area alternatives are single-station alternatives, which are presented in Table 5.1-12 through Table 5.1-16. The single station alternatives are Build Alternative 6A, 6B-A-Line, 6B-S-Line, 6C, and 6D, which are shown in Figure 5.1-15, Figure 5.1-16, Figure 5.1-17, Figure 5.1-18, and Figure 5.1-19, respectively. All single-station alternatives consolidate Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) service, as well as all Amtrak Long Distance, Interstate Corridor (Carolinian), and Northeast Regional (Virginia) service, to one station.

Three of the Richmond area alternatives are two-station alternatives, which are presented in Table 5.1-17 through Table 5.1-19. All dual station alternatives use the existing Staples Mill Road and Main Street Stations. The dual station Build Alternatives are Build Alternatives 6E, 6F, and 6G, which are shown in Figure 5.1-20, Figure 5.1-21, and Figure 5.1-22, respectively. All two-station alternatives provide Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) service to at least one station, as well as associated service of Amtrak Long Distance, Interstate Corridor (Carolinian), and Northeast Regional (Virginia) to one or both stations.



Main Street Station

Table 5.1-12: Richmond Single Station Build Alternative: 6A (Staples Mill Road Station Only)

TRACK
One main track would be added along portions of RF&P (north of Richmond) and A-Line (through Richmond), with track shifts to improve speed
STATIONS
Existing Main Street Station would be closed to passenger rail service, and all service consolidated at Staples Mill Road Station Staples Mill Road Station would be improved and becomes the one passenger rail station to serve Richmond (Figure 5.1-30) <ul style="list-style-type: none"> ▪ Does not meet FRA requirement for CBD location ▪ Would be served by all passenger trains, including new proposed Interstate Corridor (SEHSR) and Northeast Regional (SEHSR) service Freight and passenger rail service operating together on the A-Line, CSXT’s principal freight corridor, would increase rail congestion/delay
CROSSINGS
Close four existing public roadway crossings; grade separate three at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

Table 5.1-13: Richmond Single Station Build Alternative: 6B–A-Line (Boulevard Station Only)

TRACK
One of two Boulevard Station-Only alternatives in Alternative Area 6 One main track would be added along portions of existing RF&P (north of Richmond) and A-Line (through Richmond), with track shifts to improve speed Elevated loop track at new station
STATIONS
Main Street and Staples Mill Road stations would be closed to passenger rail service and all service relocated and consolidated to a new station at Boulevard New Boulevard Road Station would be the one passenger rail station to serve Richmond (Figure 5.1-31) <ul style="list-style-type: none"> ▪ May not meet FRA requirement for CBD location ▪ Would be served by all passenger trains, including new proposed Interstate Corridor (SEHSR) and Northeast Regional (SEHSR) service Freight and passenger rail service operating together on the A-Line, CSXT’s principal freight corridor, would increase rail congestion/delay
CROSSINGS
Close four existing public roadway crossings; grade separate three at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

Table 5.1-14: Richmond Single Station Build Alternative: 6B–S-Line (Boulevard Station Only)

TRACK
Second of two Boulevard Station-Only alternatives in Alternative Area 6 One main track would be added along portions of existing RF&P (north of Richmond) and S-Line (through Richmond), with track shifts to improve speed
STATIONS
Existing Main Street and Staples Mill Road stations would be closed to passenger rail service and all service relocated and consolidated to a new station at Boulevard New Boulevard Road Station would be the one passenger rail station to serve Richmond (Figure 5.1-31) <ul style="list-style-type: none"> ▪ May not meet FRA requirement for CBD location ▪ Would be served by all passenger trains, including new proposed Interstate Corridor (SEHSR) and Northeast Regional (SEHSR) service Locating all passenger train service (except Auto Train, which does not stop in Richmond) to S-Line, separate from CSXT’s principal freight corridor through Richmond (the A-Line), would reduce rail congestion/delay
CROSSINGS
Close five existing public roadway crossings; grade separate four at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

Table 5.1-15: Richmond Single Station Build Alternative: 6C (Broad Street Station Only)**TRACK**

One main track would be added along portions of existing RF&P (north Richmond) and A-Line (through Richmond), with track shifts to improve speed
At-grade loop track at new station

STATIONS

Existing Main Street and Staples Mill Road stations would be closed to passenger rail service and all service relocated and consolidated to a new station at Broad Street

New Broad Street Station would be the one passenger rail station to serve Richmond (Figure 5.1-32)

- May not meet FRA requirement for CBD location
- Would be served by all passenger trains, including new proposed Interstate Corridor (SEHSR) and Northeast Regional (SEHSR) service

Freight and passenger rail service operating together on the A-Line, CSXT's principal freight corridor, would increase rail congestion/delay

CROSSINGS

Station location would require two new at-grade crossings on West Leigh Street adjacent to proposed station, which would require a variance from state code and/or coordination with VDOT

Close four existing public roadway crossings; grade separate three at-grade roadway crossings

All other public roadway crossings would remain at-grade, with safety improvements

Major waterway crossing of James River

Table 5.1-16: Richmond Single Station Build Alternative: 6D (Main Street Station Only)**TRACK**

One main track would be added along portions of existing RF&P (north of Richmond) and S-Line (through Richmond), with track shifts to improve speed

STATIONS

Existing Staples Mill Road Station would be closed to passenger rail service and all service consolidated at Main Street Station
Main Street Station would be improved and be the one passenger rail station to serve Richmond (Figure 5.1-33)

- Meets FRA requirement for CBD location
- Would be served by all passenger trains, including new proposed Interstate Corridor (SEHSR) and Northeast Regional (SEHSR) service
- Potential increases in passenger and freight delay may occur as proximity to I-95 prevents adding sufficient station platforms/track on the west side of the station

Locating all passenger train service (except Auto Train, which does not stop in Richmond) to S-Line, separate from CSXT's principal freight corridor through Richmond (the A-Line), would reduce rail congestion/delay

CROSSINGS

Close five existing public roadway crossings; grade separate three at-grade crossings

All other public roadway crossings would remain at-grade, with safety improvements

Major waterway crossing of James River



James River Bridge

Table 5.1-17: Richmond Two Station Build Alternative: 6E (Split Service)

TRACK
One main track would be added along portions of existing RF&P (north of Richmond) and A-Line (through Richmond), with track shifts to improve speed
STATIONS
Both existing stations would remain operational. All passenger trains would serve Staples Mill Road Stations; trains to and from Newport News would additionally serve Main Street Station. <ul style="list-style-type: none"> ▪ Staples Mill Road Station would be expanded and would be served by all passenger trains that stop in Richmond, including new proposed Northeast Regional (SEHSR) to Norfolk and Interstate Corridor (SEHSR) trains (Figure 5.1-34) ▪ Main Street Station would have platform and parking improvements and would be served by all Northeast Regional (SEHSR and Virginia) passenger trains to Newport News (Figure 5.1-35) Freight and passenger rail service operating together on the A-Line, CSXT’s principal freight corridor, would increase rail congestion/delay
CROSSINGS
Close four existing public roadway crossings; grade separate three at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

Table 5.1-18: Richmond Two Station Build Alternative: 6F (Full Service)

TRACK
One main track would be added along portions of existing RF&P (north of Richmond) and S-Line (through Richmond), with track shifts to improve speed
STATIONS
Both existing stations would remain operational, with all passenger trains serving both stations <ul style="list-style-type: none"> ▪ Both stations would be improved, including new/modified station buildings, platforms, and parking (Figure 5.1-36 and Figure 5.1-37) ▪ Both stations would be served by all passenger trains that stop in Richmond, including new proposed Northeast Regional (SEHSR) and Interstate Corridor (SEHSR) service Locating all passenger train service (except Auto Train, which does not stop in Richmond) to S-Line, separate from CSXT’s principal freight corridor through Richmond (the A-Line), would reduce rail congestion/delay
CROSSINGS
Close five existing public roadway crossings; grade separate three at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

Table 5.1-19: Richmond Two Station Build Alternative: 6G (Shared Service)

TRACK
One main track would be added along portions of existing RF&P (north of Richmond) and the S-Line (through Richmond), with track shifts to improve speed <ul style="list-style-type: none"> ▪ The A-Line is used for service but does not require proposed track
STATIONS
Both existing stations would remain operational, with both stations being served by all new proposed SEHSR service and other Amtrak passenger train services to either one or both stations <ul style="list-style-type: none"> ▪ Both stations would be improved, including new/modified station buildings, platforms, and parking (Figure 5.1-38 and Figure 5.1-39) ▪ Both stations would be served by all Interstate Corridor (SEHSR) and Northeast Regional (SEHSR and Virginia) trains ▪ Long Distance (Amtrak) and Interstate Corridor (Carolinian) would serve Staples Mill Station only Freight and passenger rail service operating together on the A-Line, CSXT’s principal freight corridor, would increase rail congestion/delay
CROSSINGS
Close five existing public roadway crossings; grade separate three at-grade roadway crossings All other public roadway crossings would remain at-grade, with safety improvements Major waterway crossing of James River

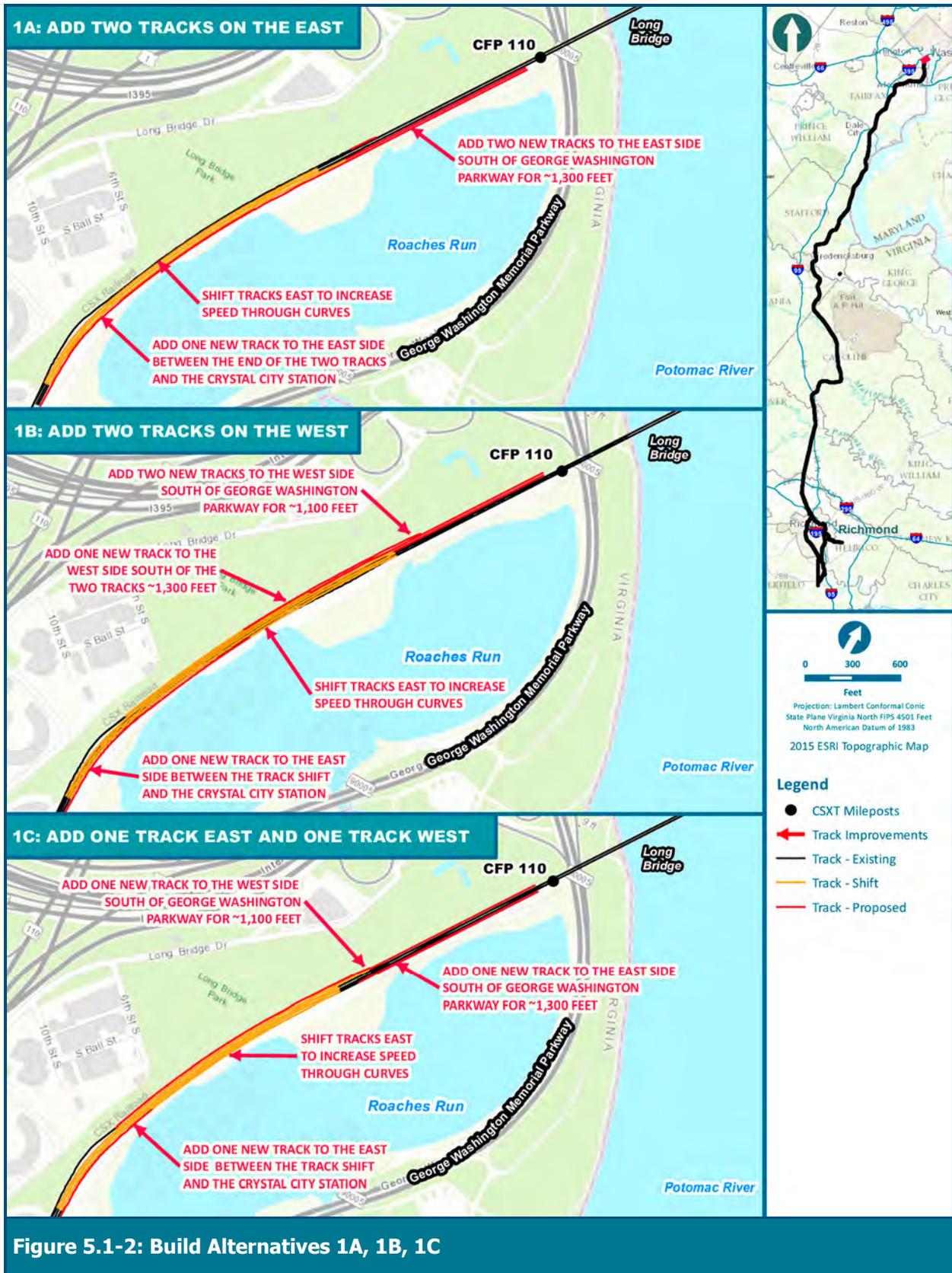


Figure 5.1-2: Build Alternatives 1A, 1B, 1C

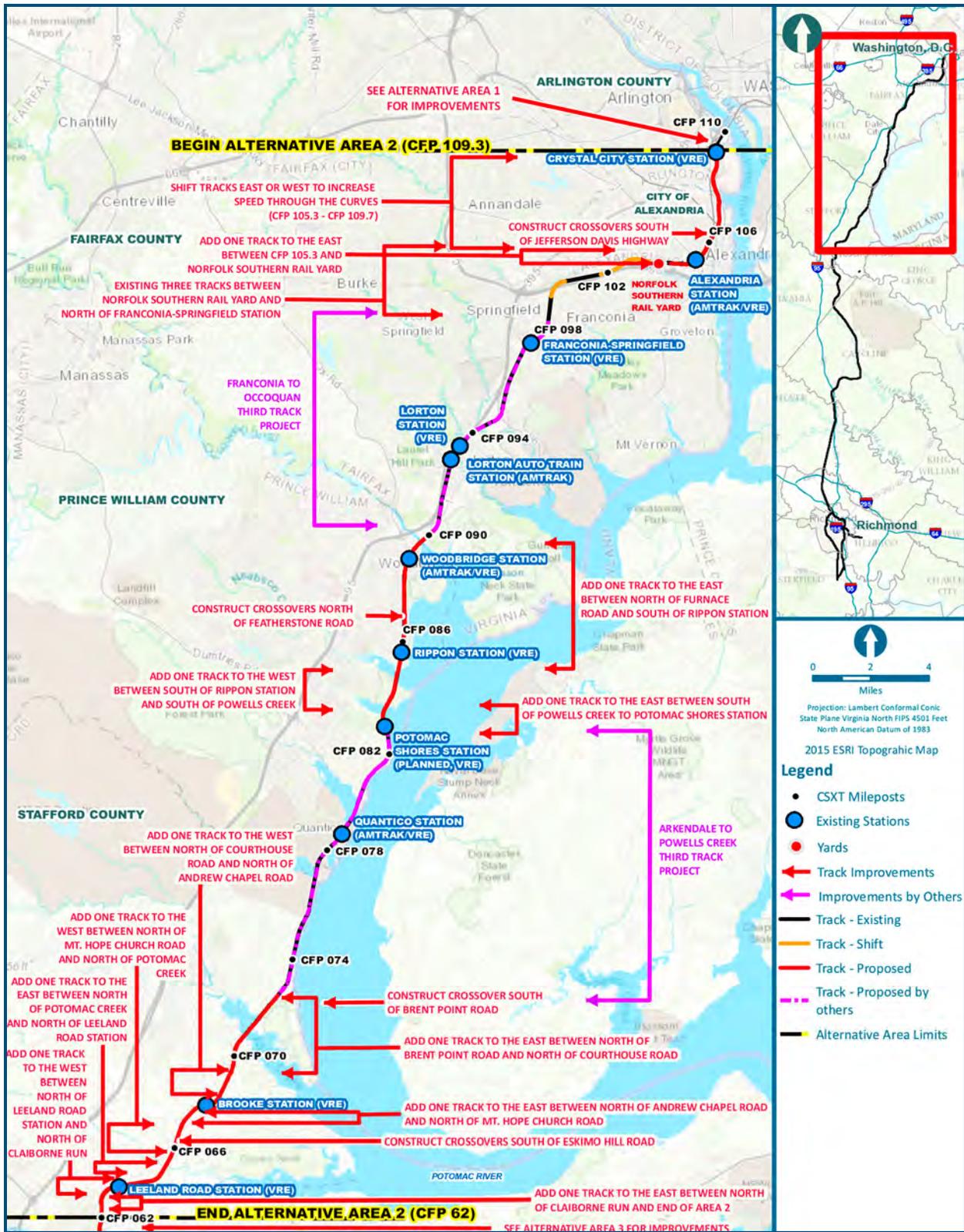


Figure 5.1-3: Build Alternative 2A – Add One Track/Improve Existing Track

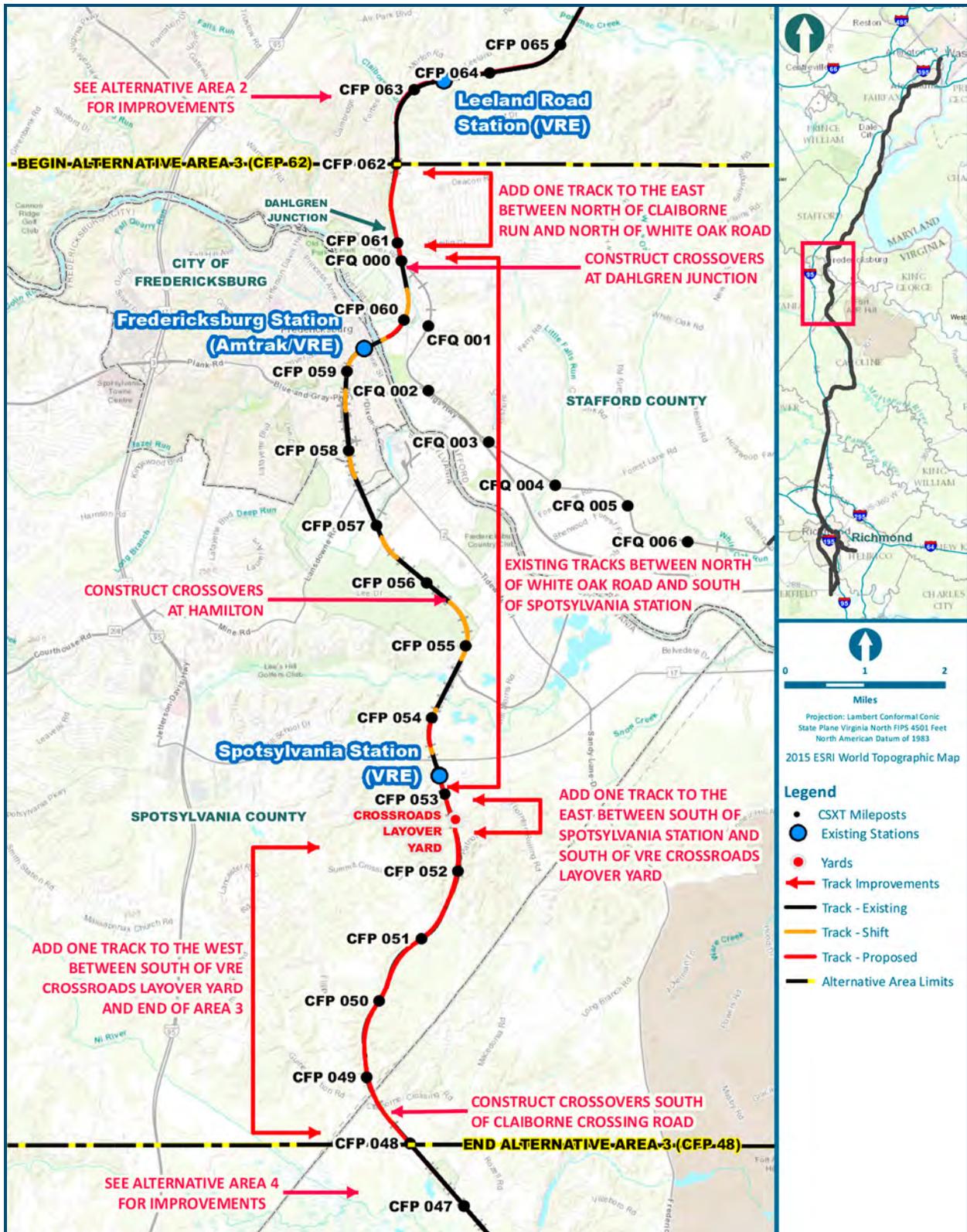


Figure 5.1-4: Build Alternative 3A – Maintain Two Tracks Through Town

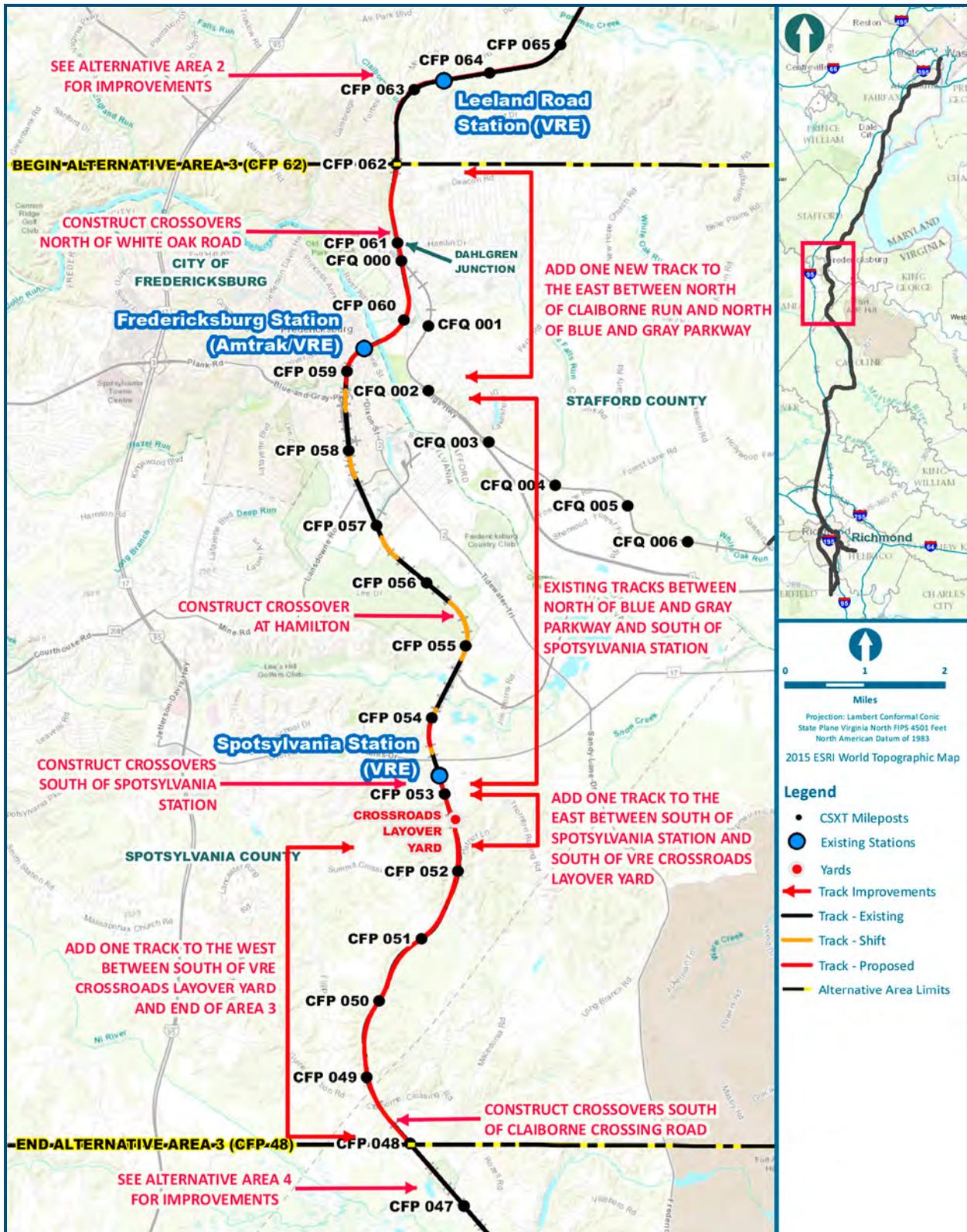


Figure 5.1-5: Build Alternative 3B – Add One Track Through Town East of Existing

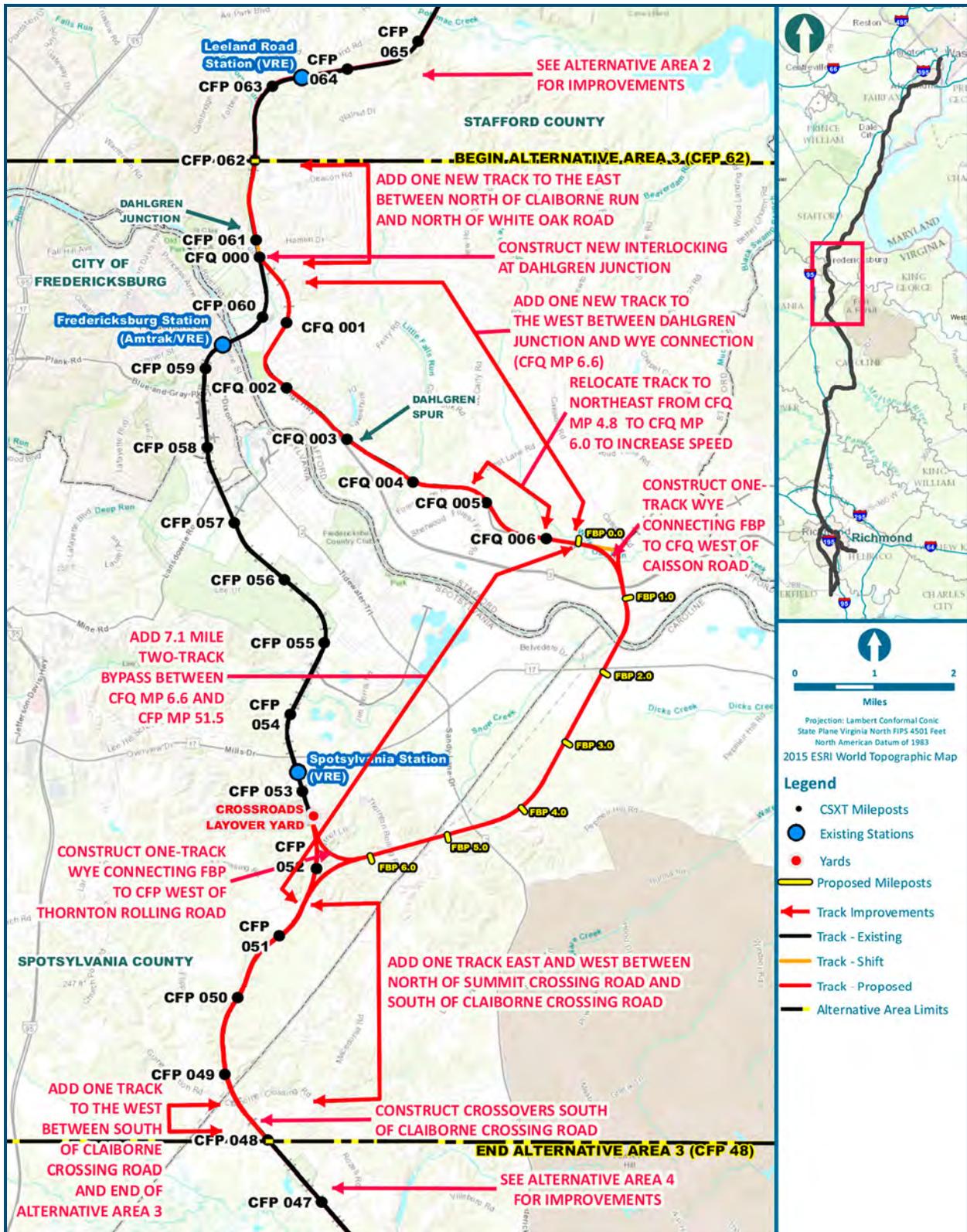


Figure 5.1-6: Build Alternative 3C – Add Two-Track Bypass East

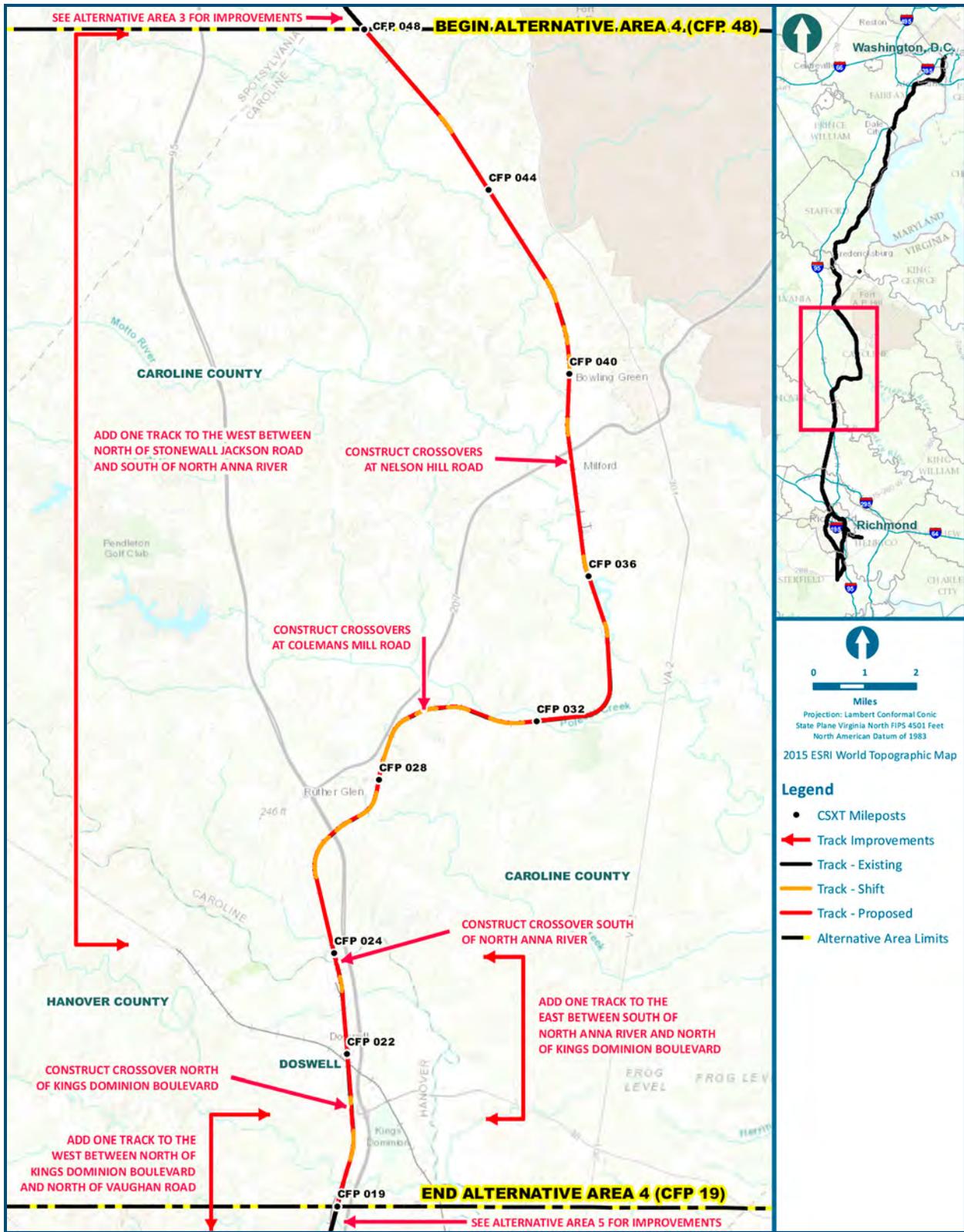


Figure 5.1-7: Build Alternative 4A – Add One Track/Improve Existing Track

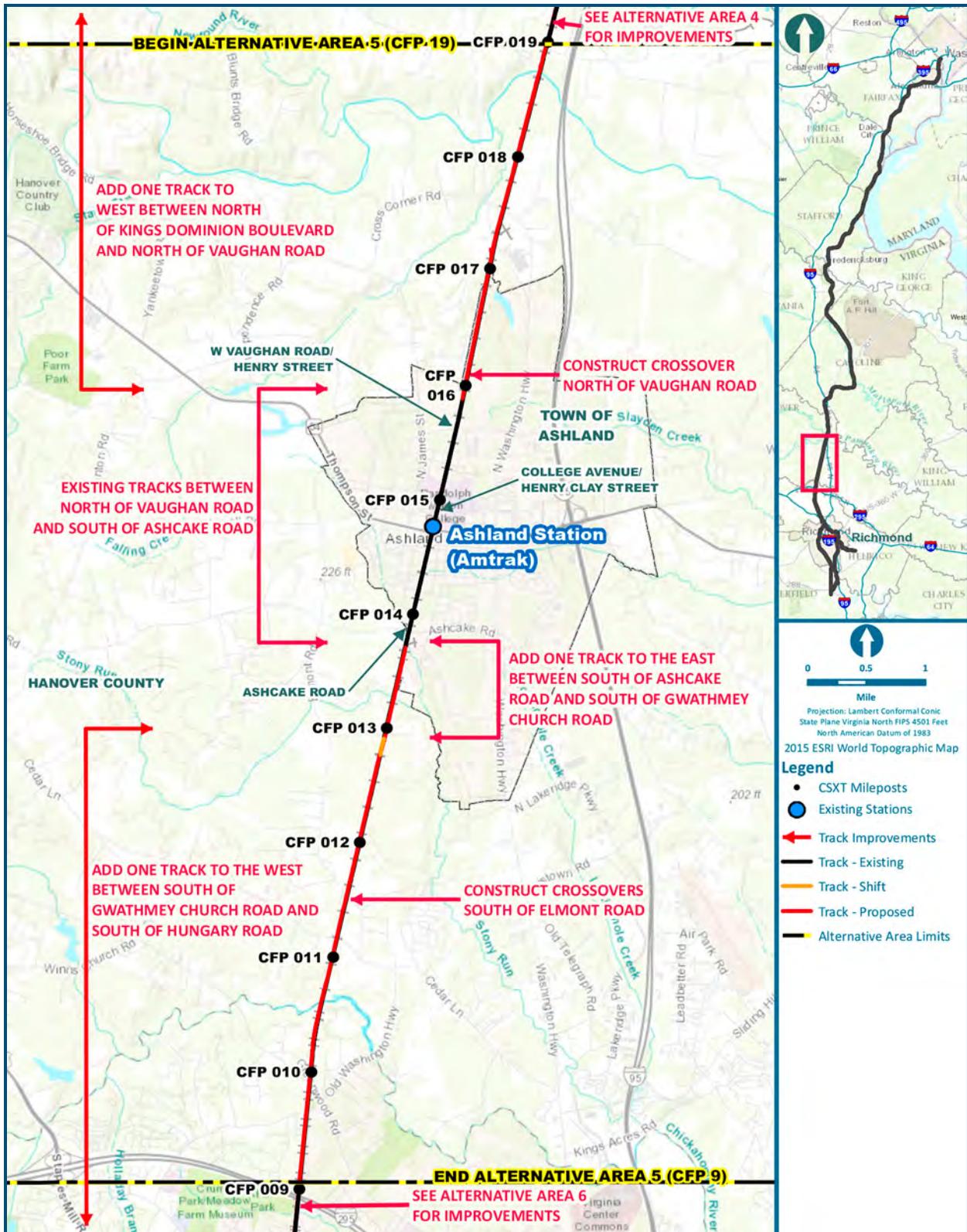


Figure 5.1-8: Build Alternative 5A – Maintain Two Track Through Town

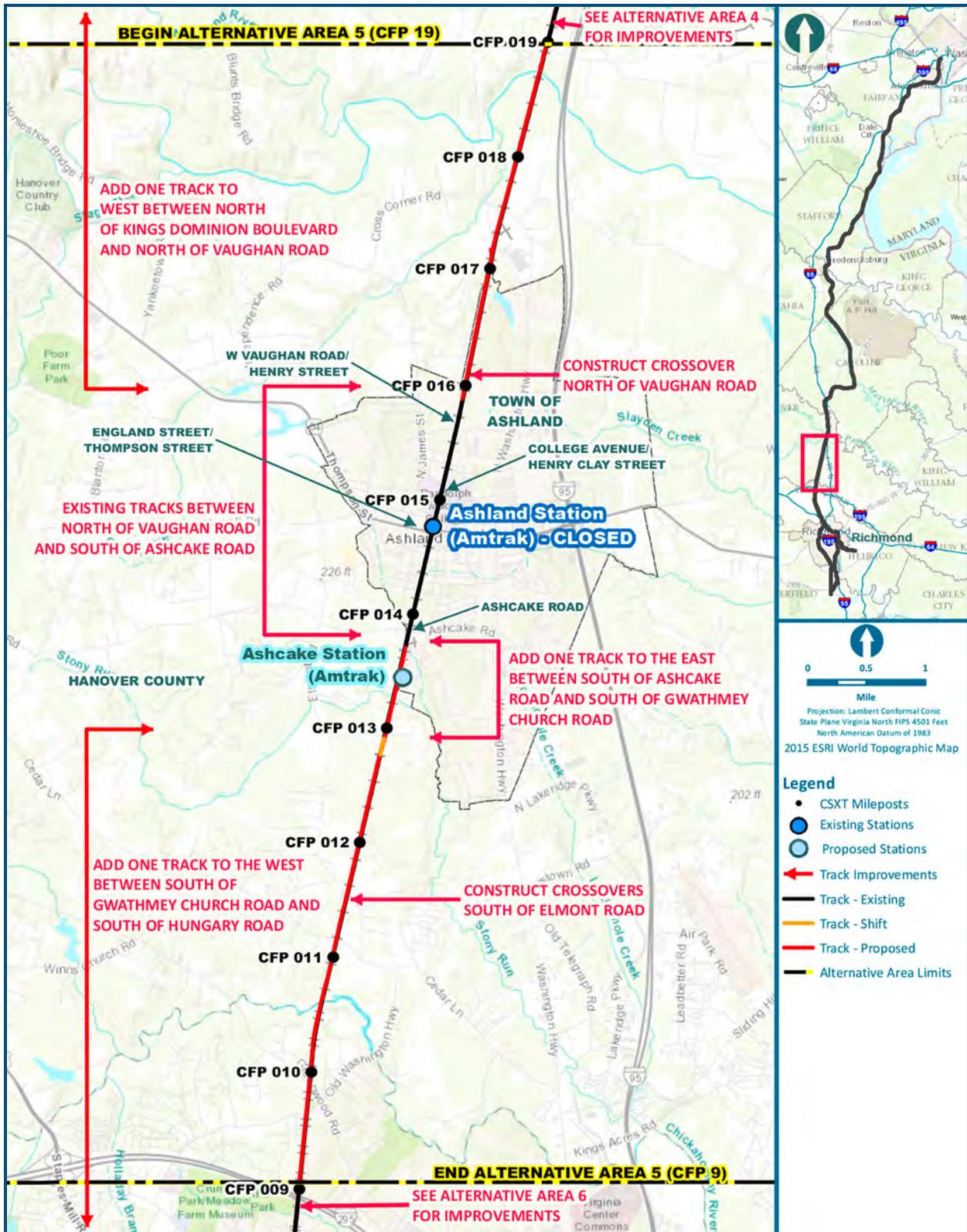


Figure 5.1-9: Build Alternative 5A–Ashcake – Maintain Two Track Through Town (Relocate Station to Ashcake)

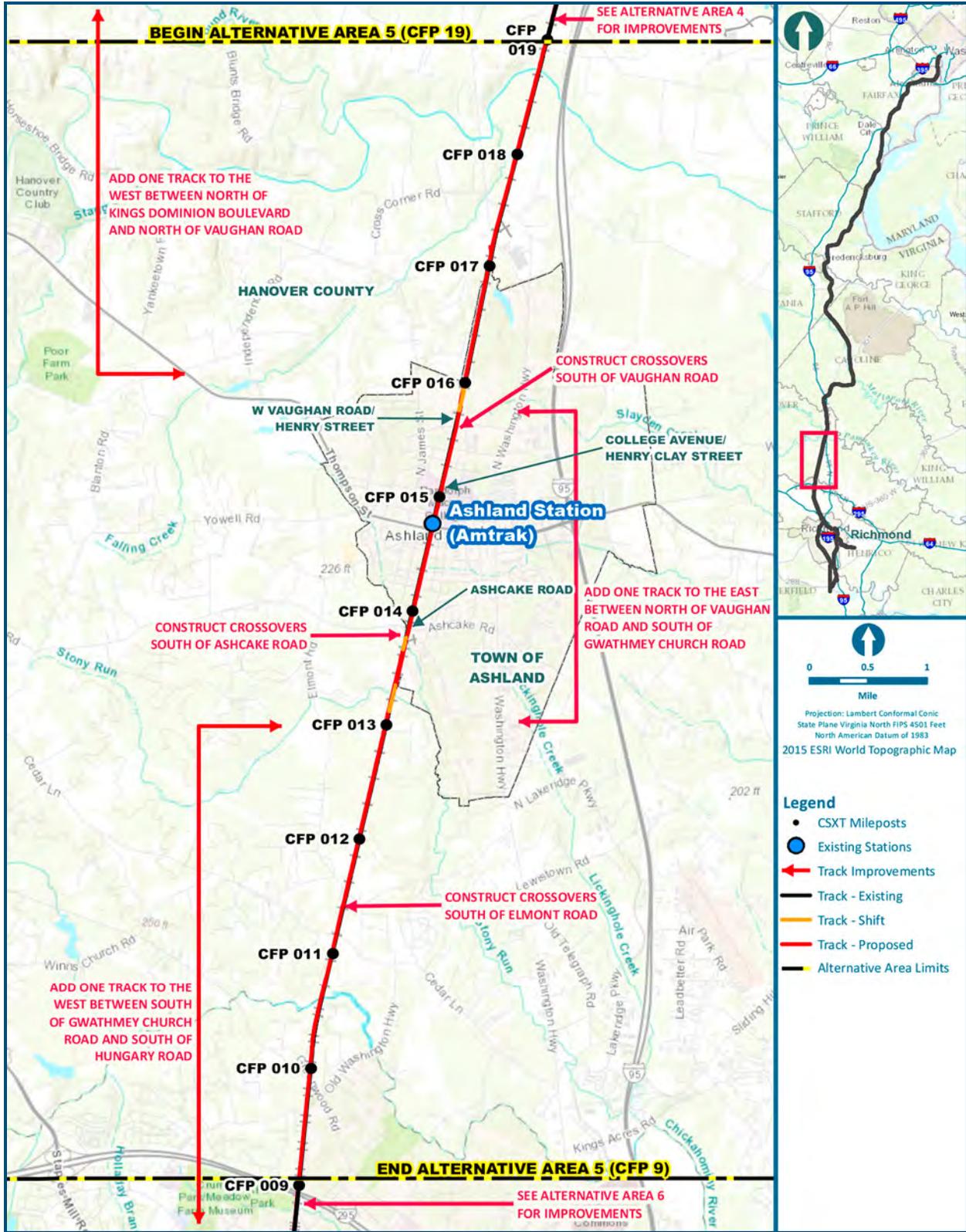


Figure 5.1-10: Build Alternative 5B – Add One Track Through Town East of Existing

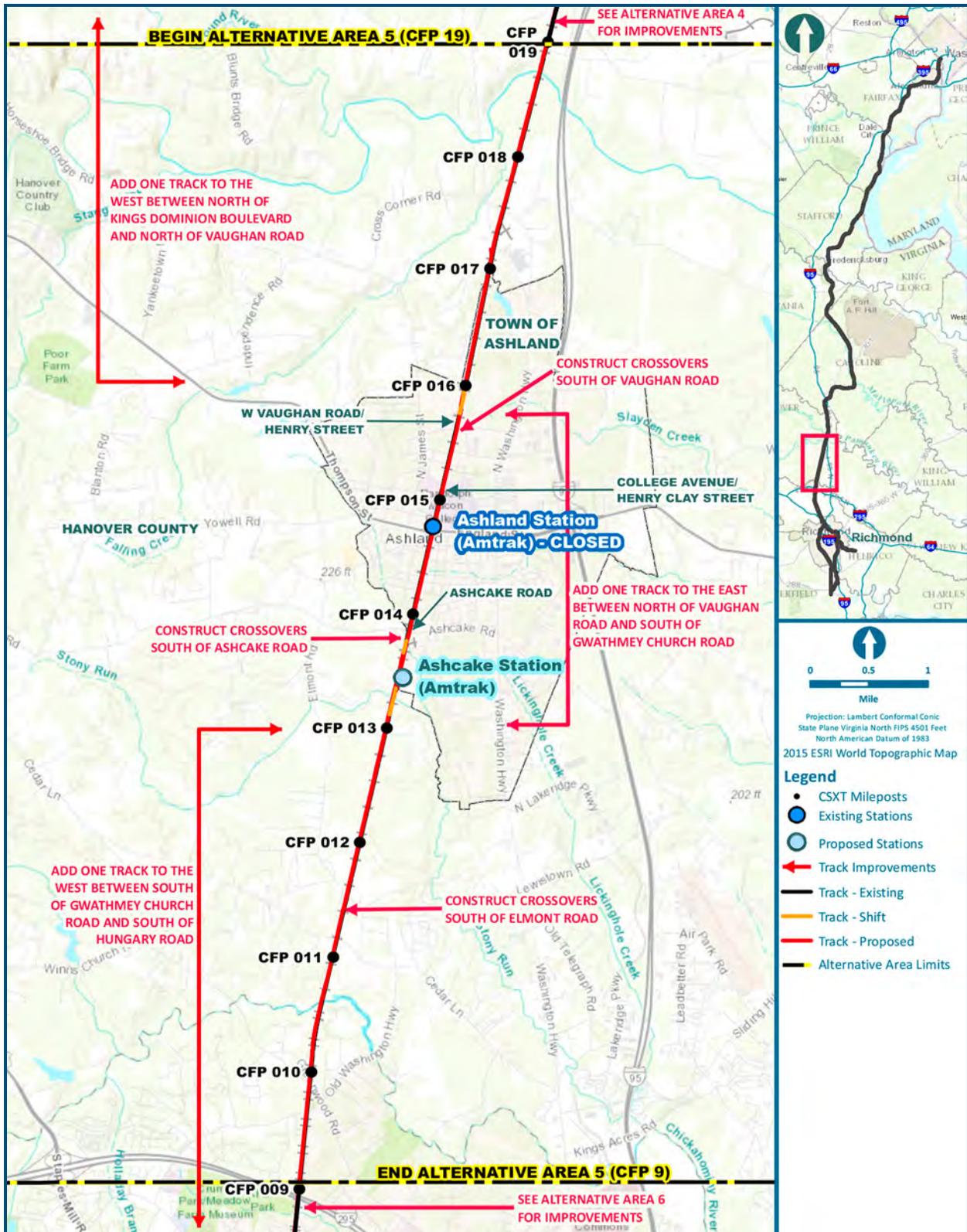


Figure 5.1-11: Build Alternative 5B–Ashcake – Add One Track Through Town East of Existing (Relocate Station to Ashcake)

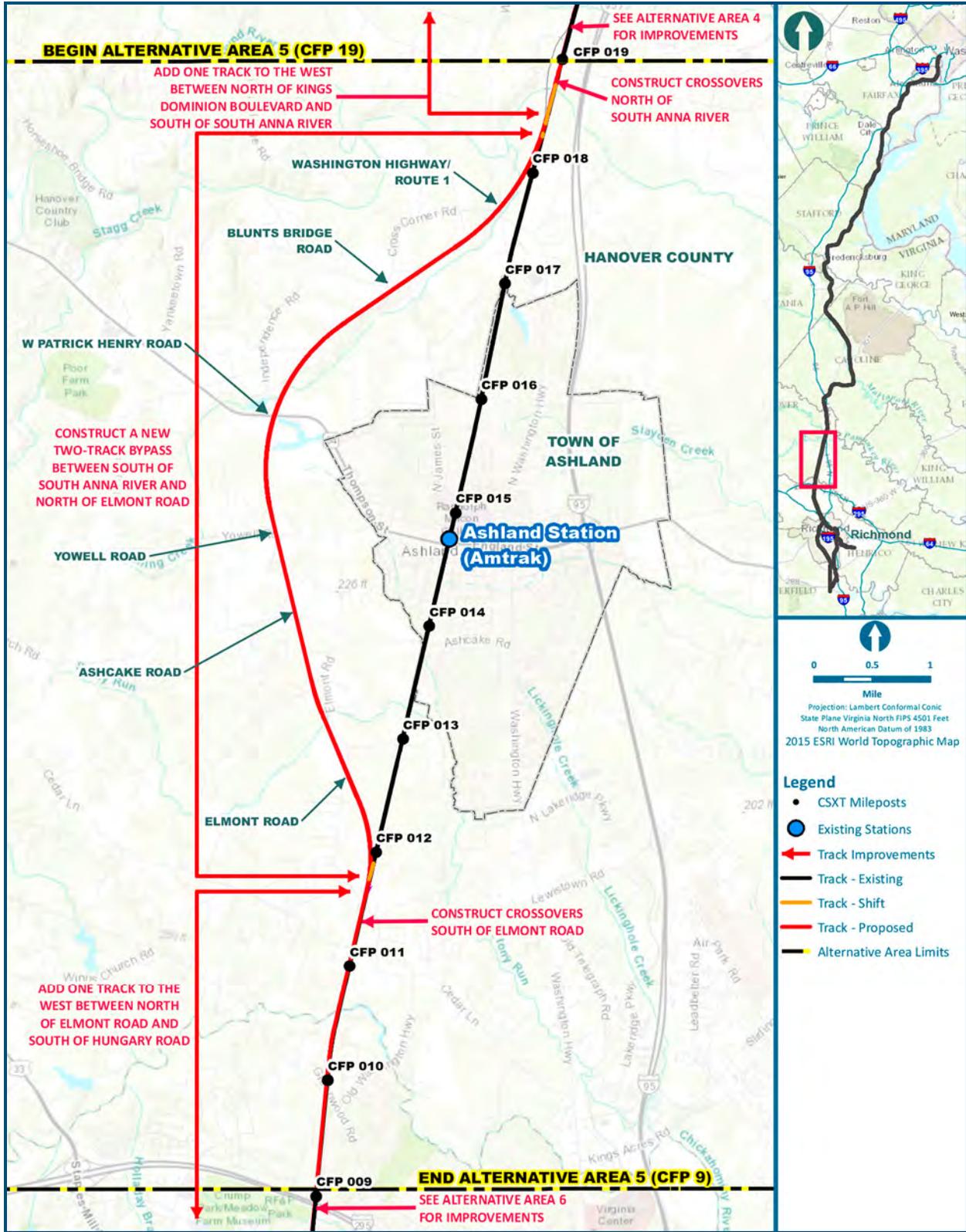


Figure 5.1-12: Build Alternative 5C – Add Two-Track West Bypass

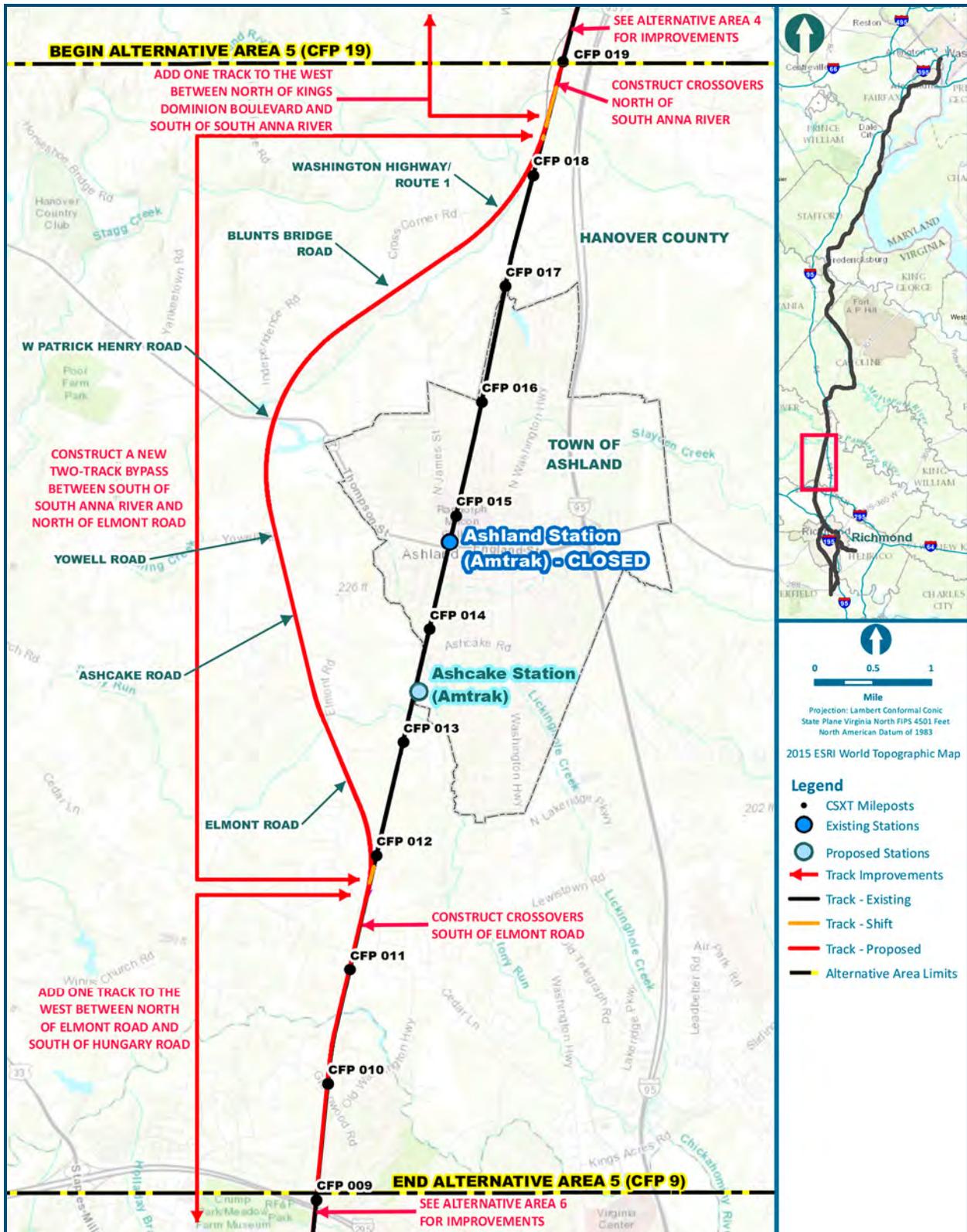


Figure 5.1-13: Build Alternative 5C–Ashcake – Add Two-Track West Bypass (Relocate Station to Ashcake)

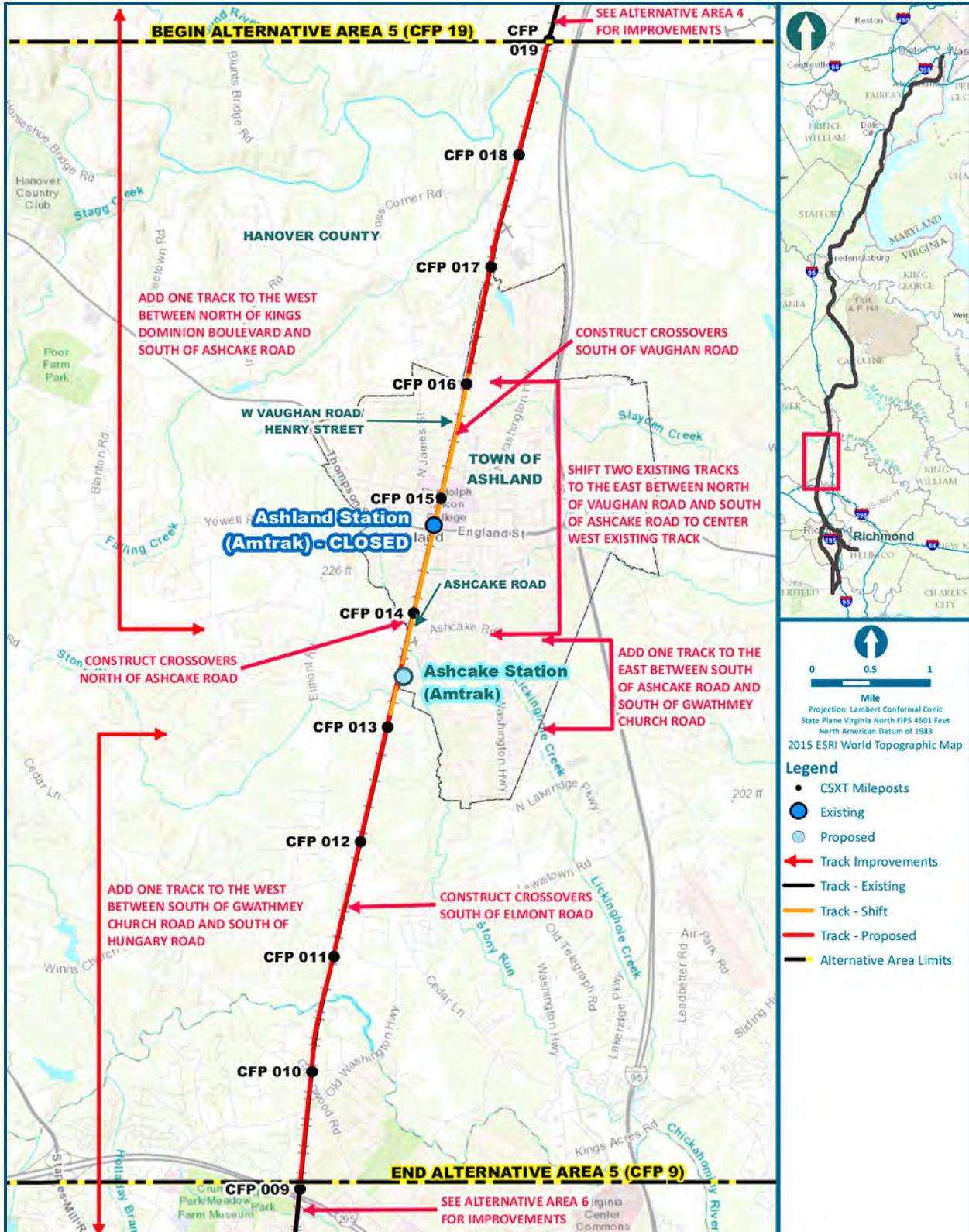


Figure 5.1-14: Build Alternative 5D–Ashcake – Three Tracks Centered Through Town (Add Single Track, Relocate Station to Ashcake)

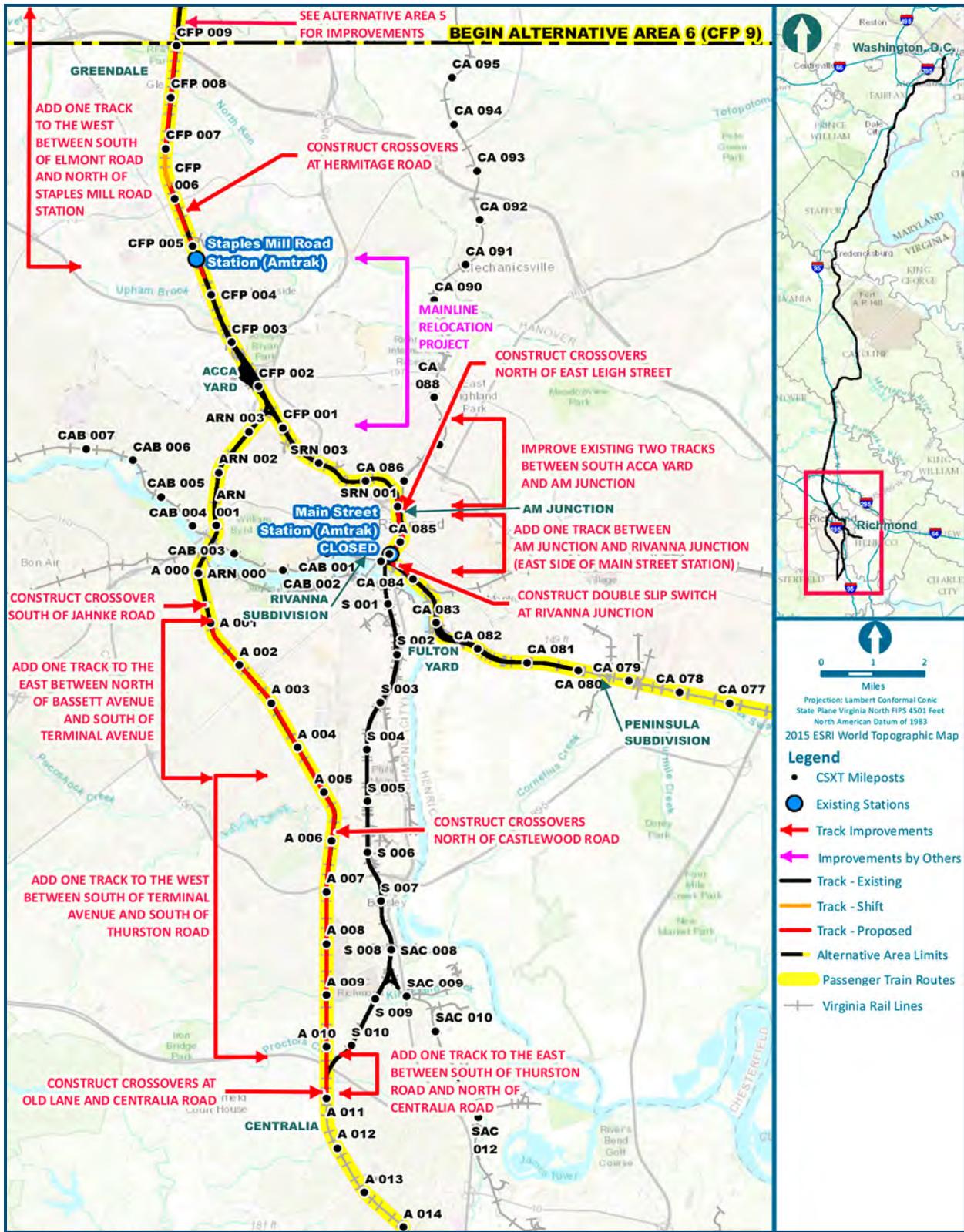


Figure 5.1-15: Build Alternative 6A – Staples Mill Road Station Only

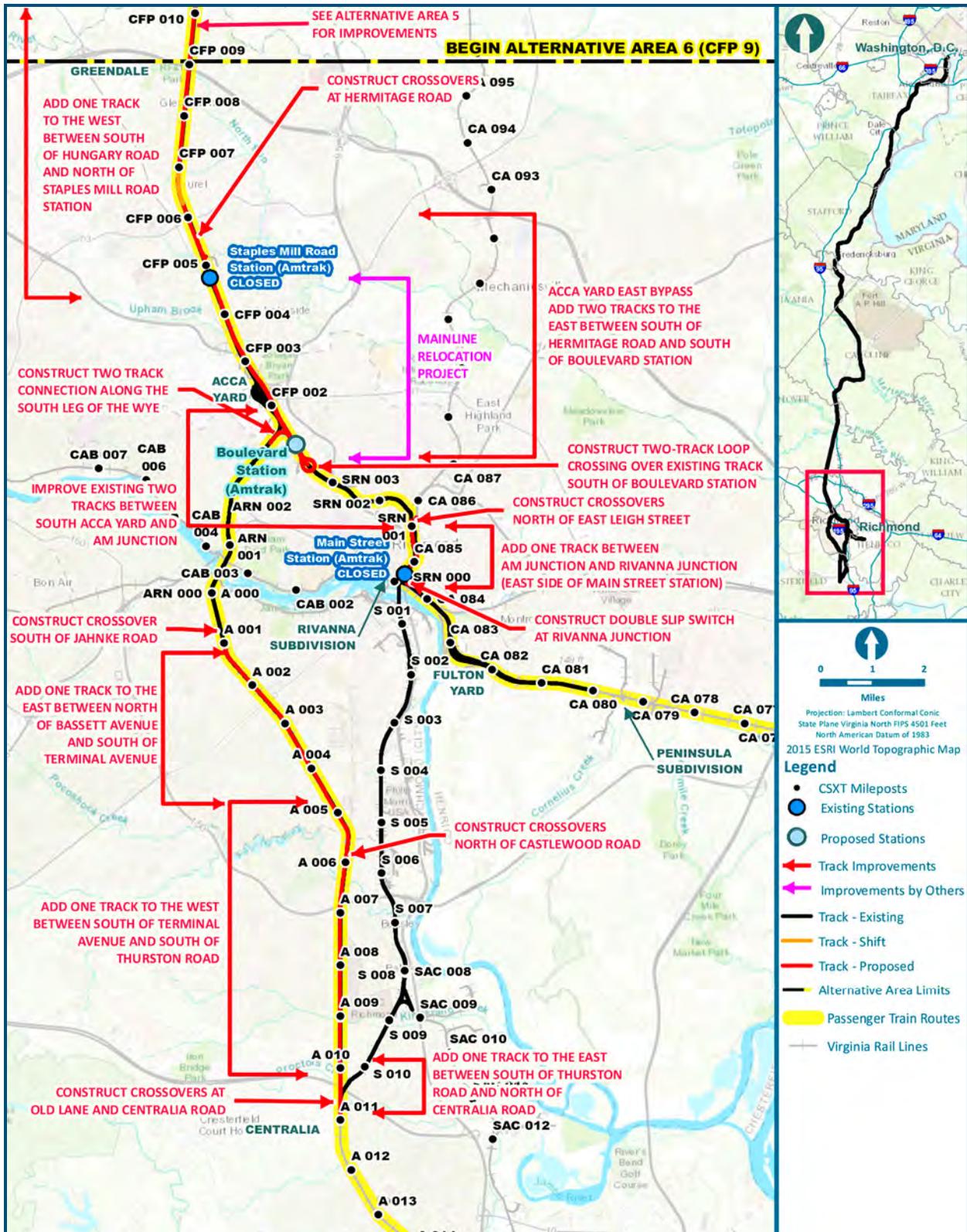


Figure 5.1-16: Build Alternative 6B-A-Line – Boulevard Station Only, A-Line

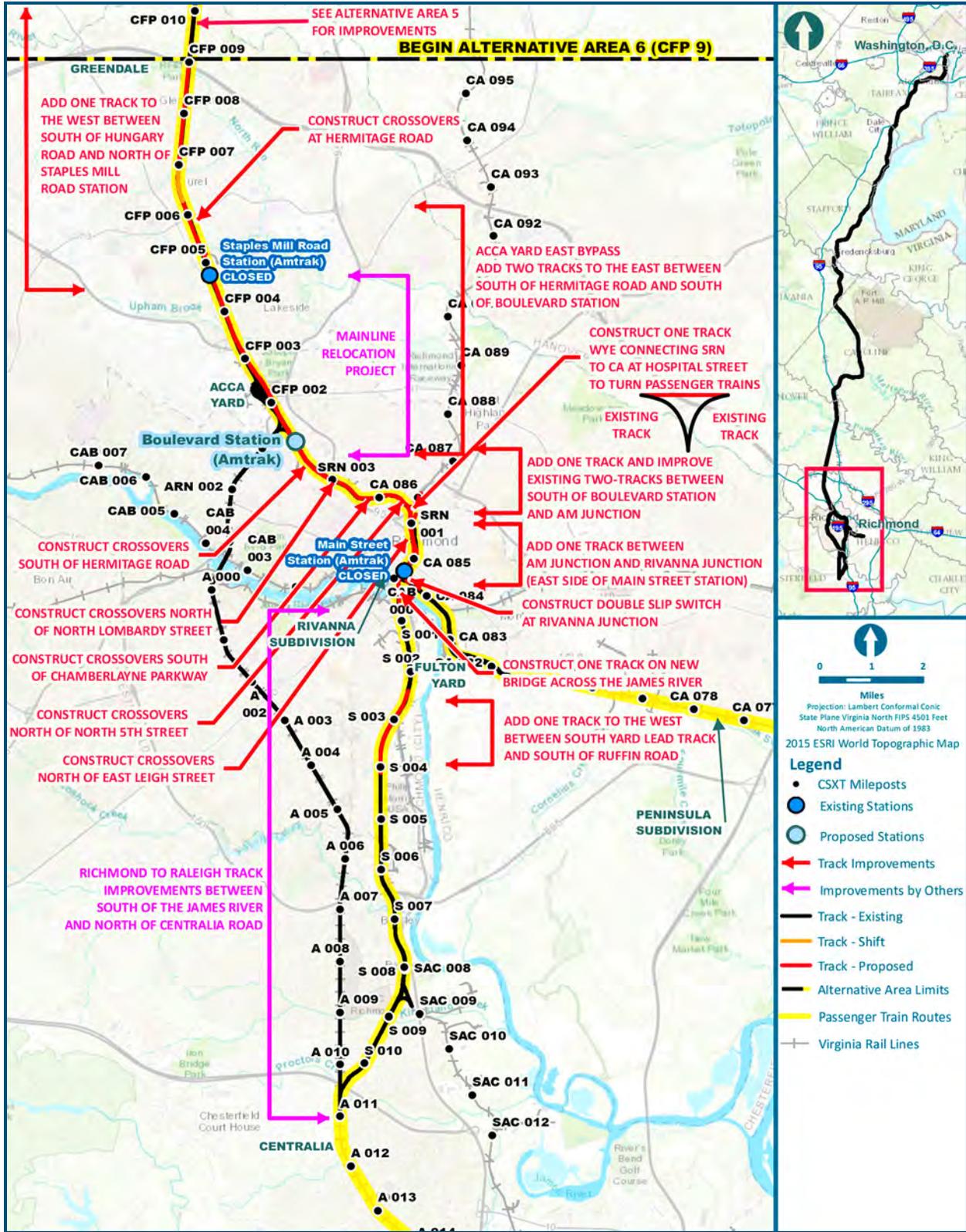


Figure 5.1-17: Build Alternative 6B-S-Line – Boulevard Station Only, S-Line

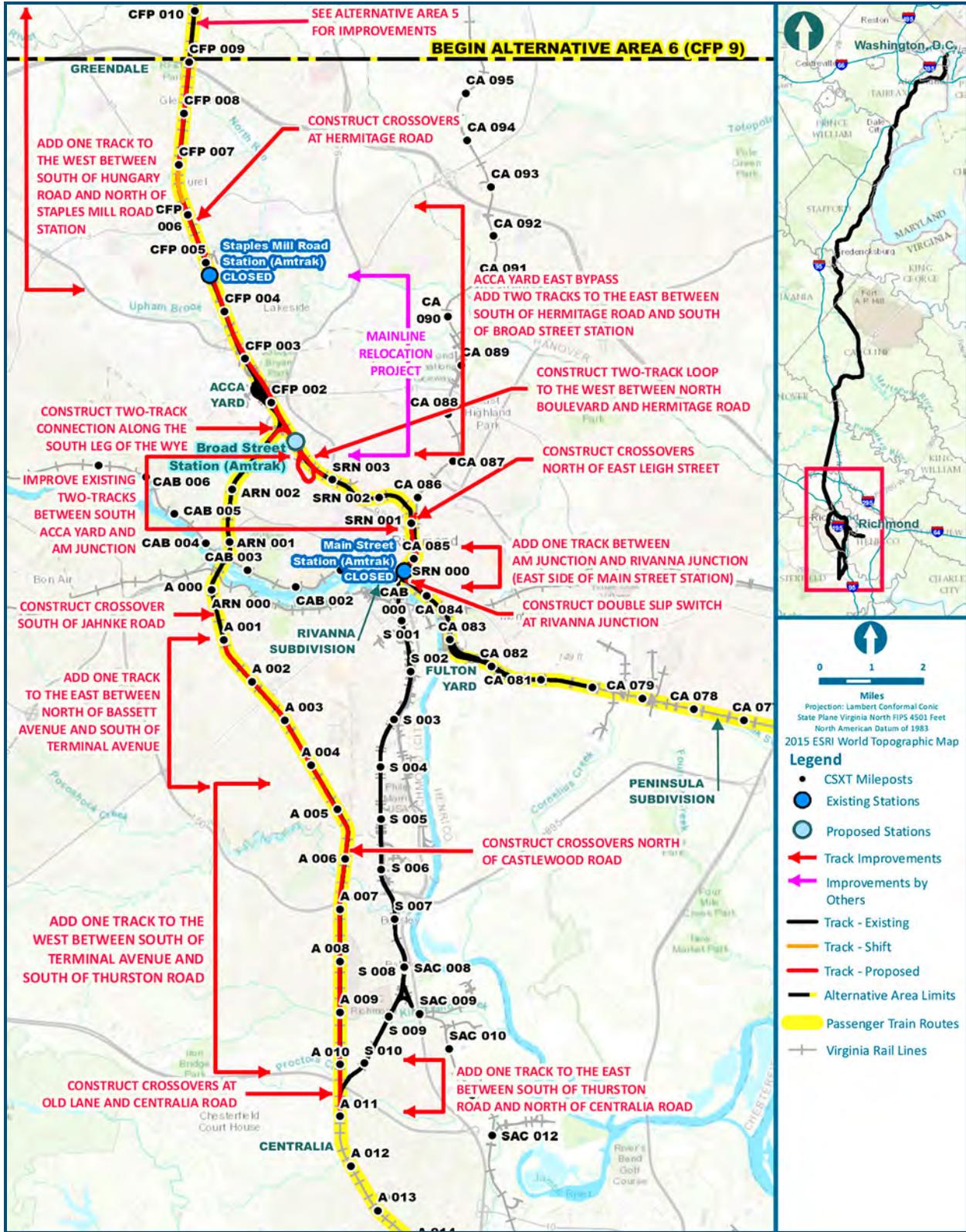


Figure 5.1-18: Build Alternative 6C – Broad Street Station Only

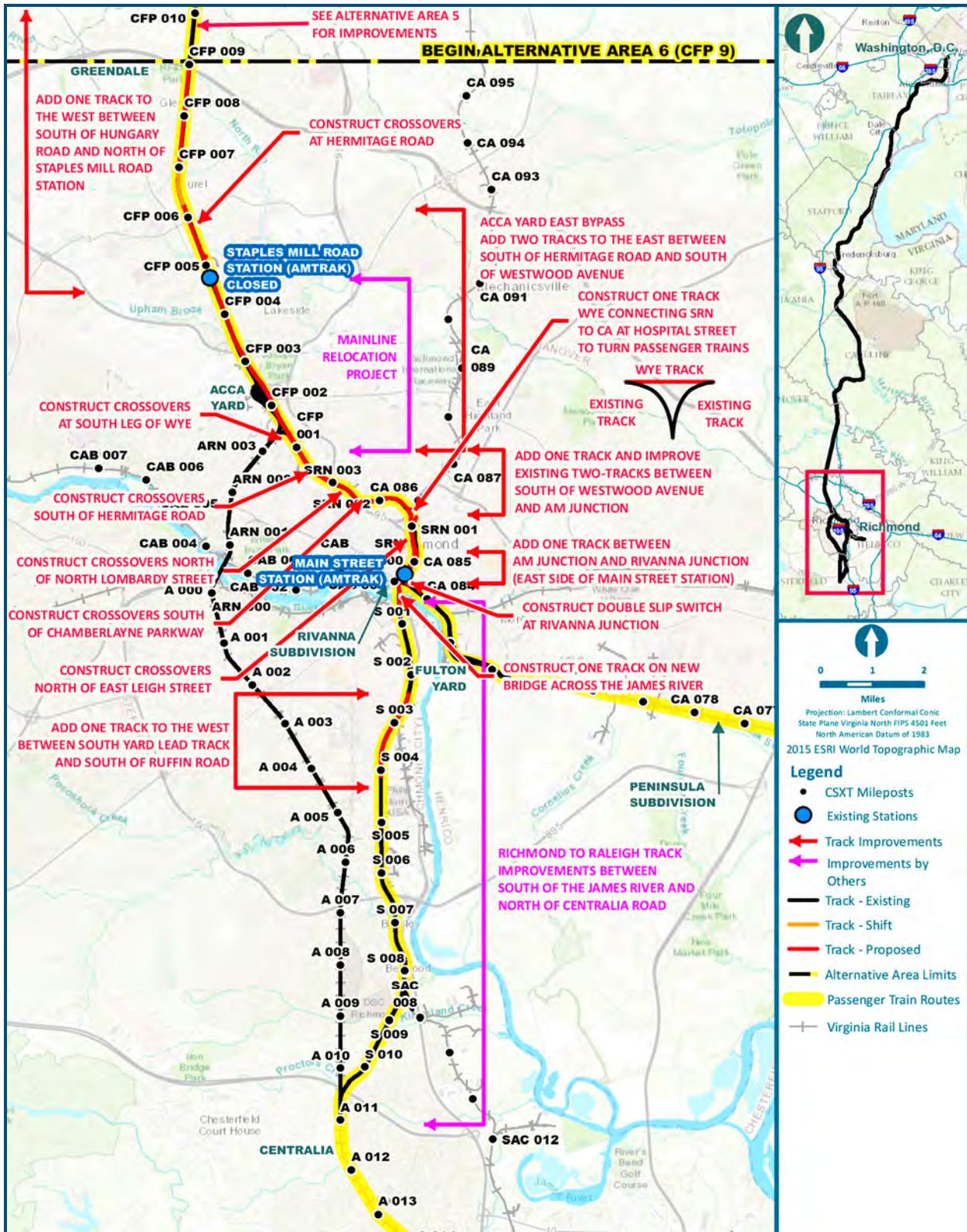


Figure 5.1-19: Build Alternative 6D – Main Street Station Only

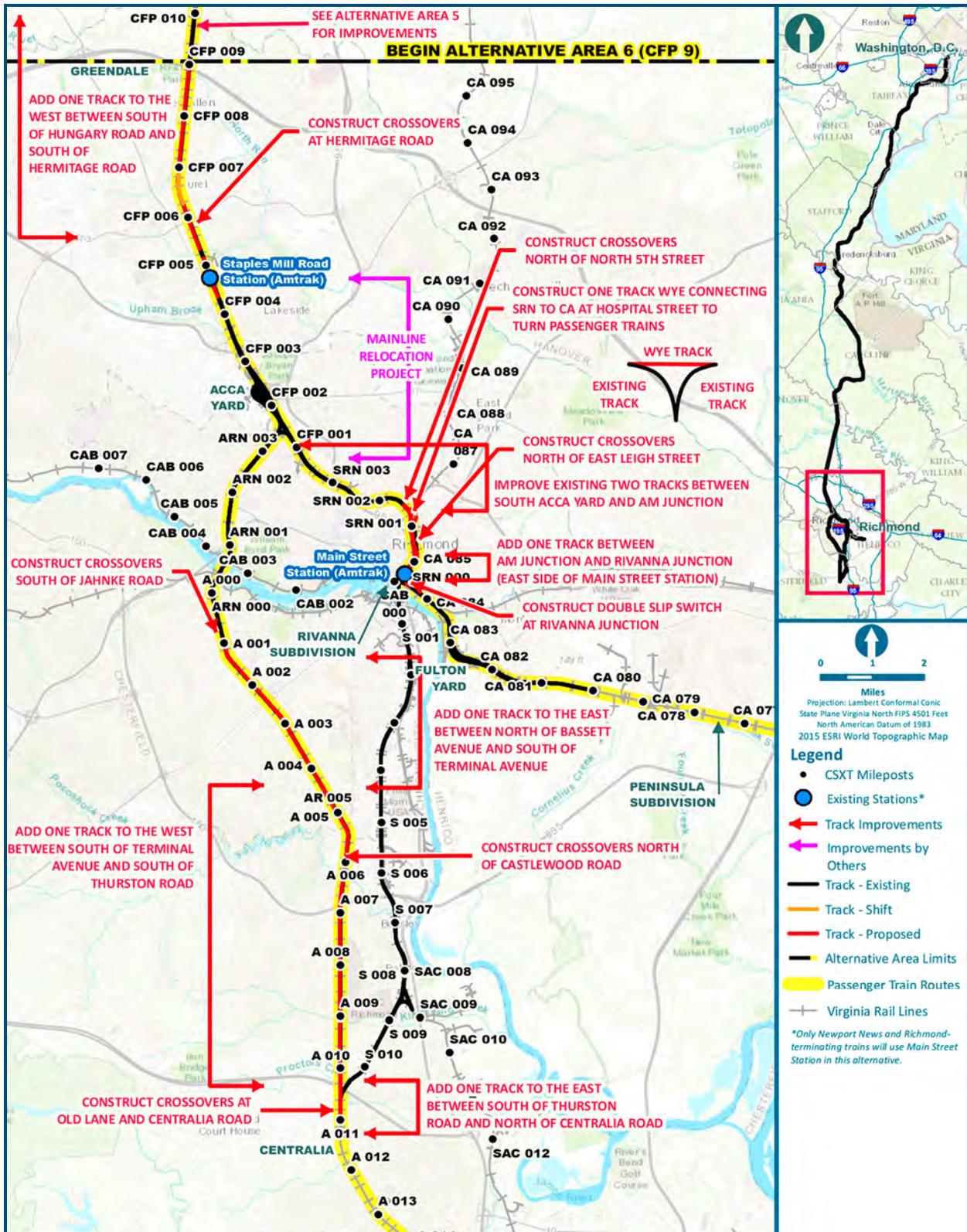


Figure 5.1-20: Build Alternative 6E – Split Service, Staples Mill Road/Main Street Stations

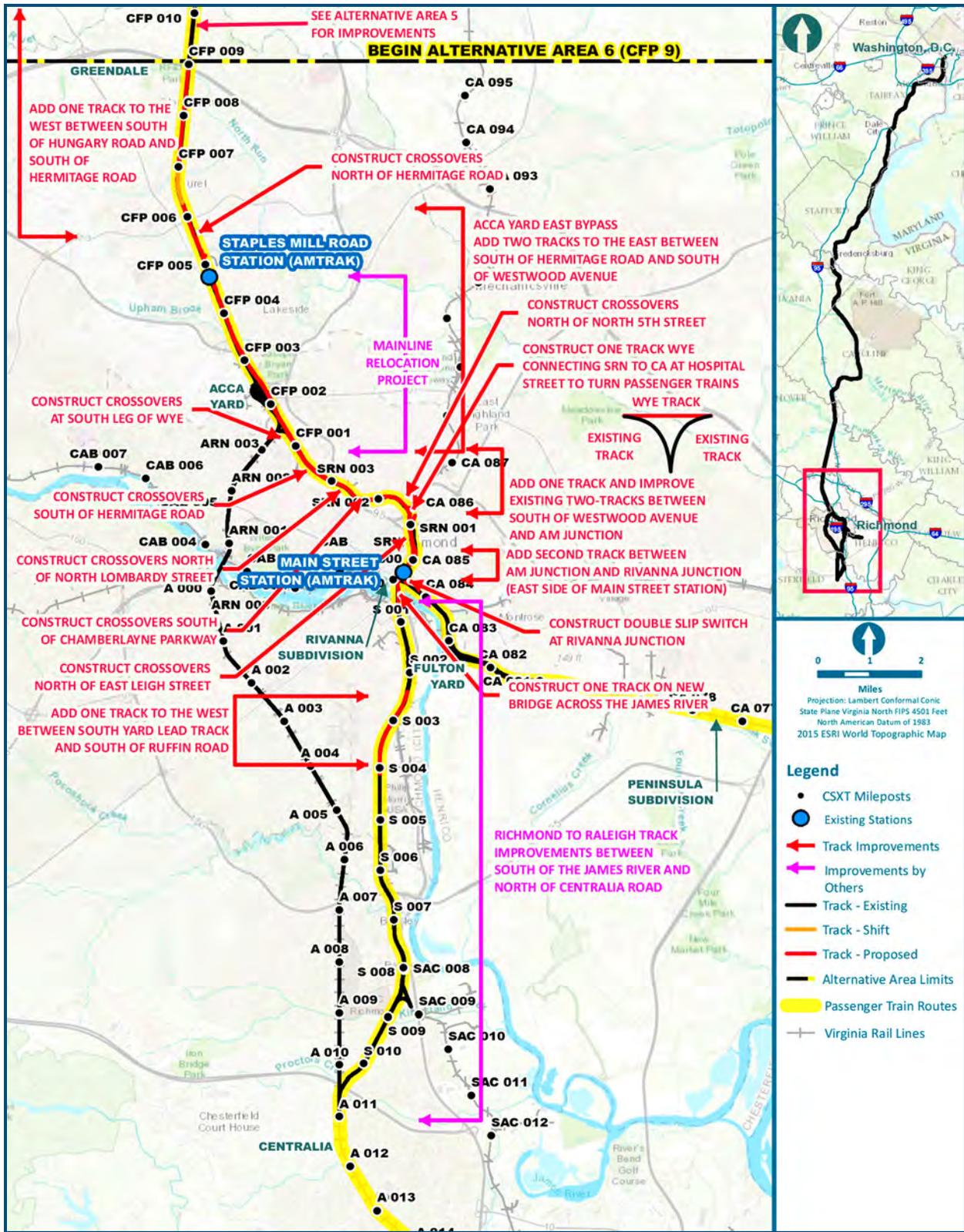


Figure 5.1-21: Build Alternative 6F – Full Service, Staples Mill Road/Main Street Stations

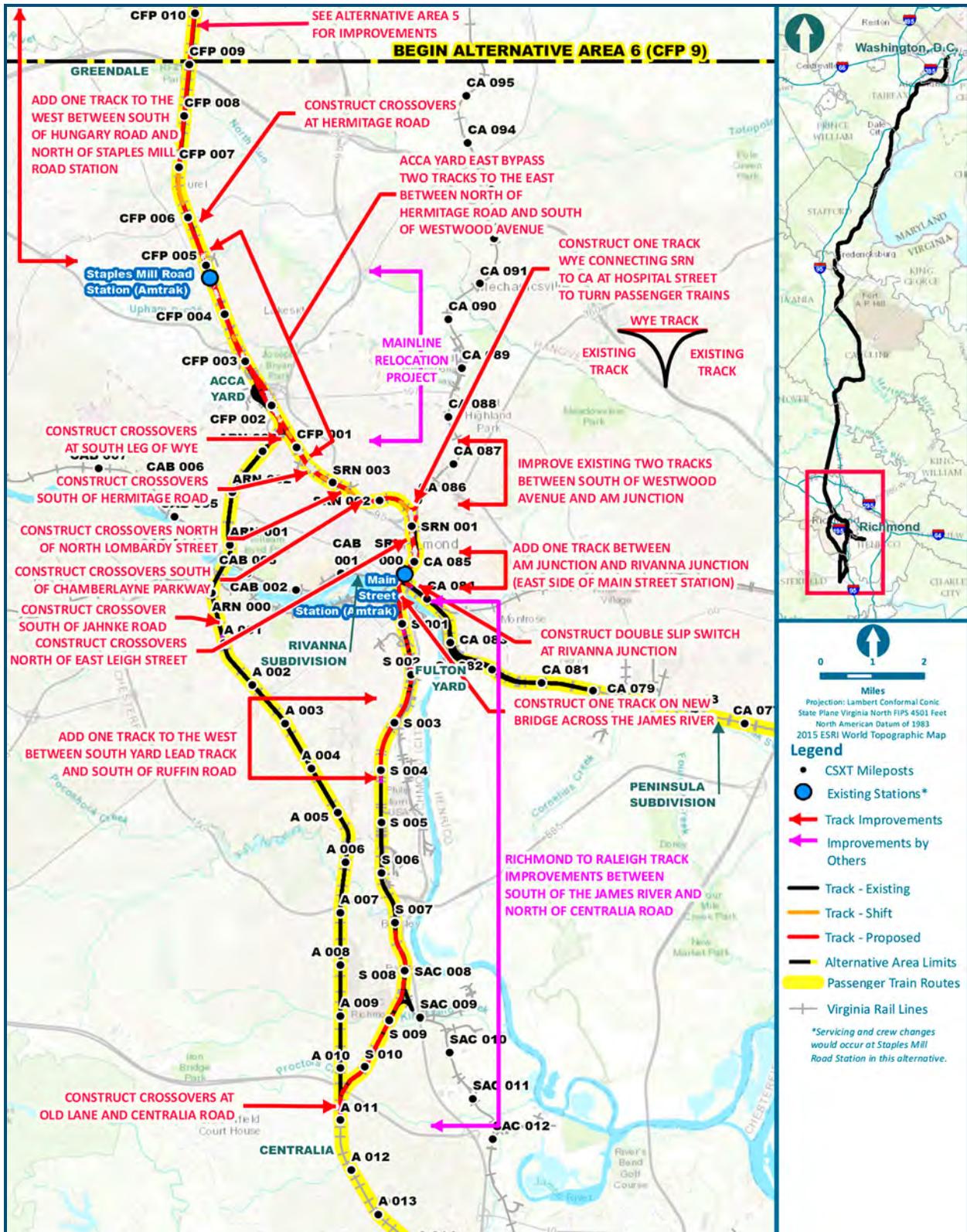


Figure 5.1-22: Build Alternative 6G – Shared Service, Staples Mill Road/Main Street Stations

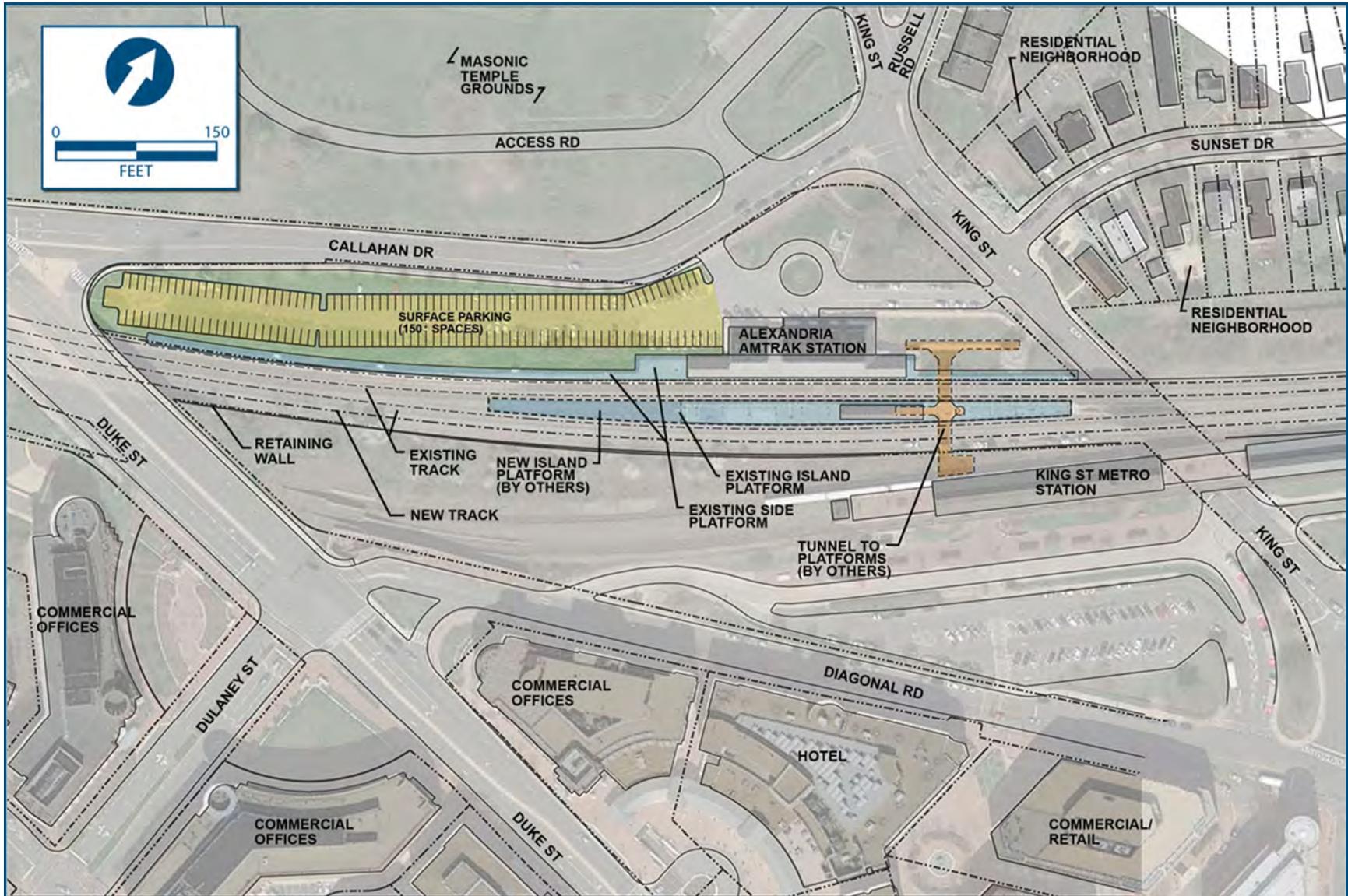


Figure 5.1-23: Alexandria Station Improvements for Build Alternative 2A

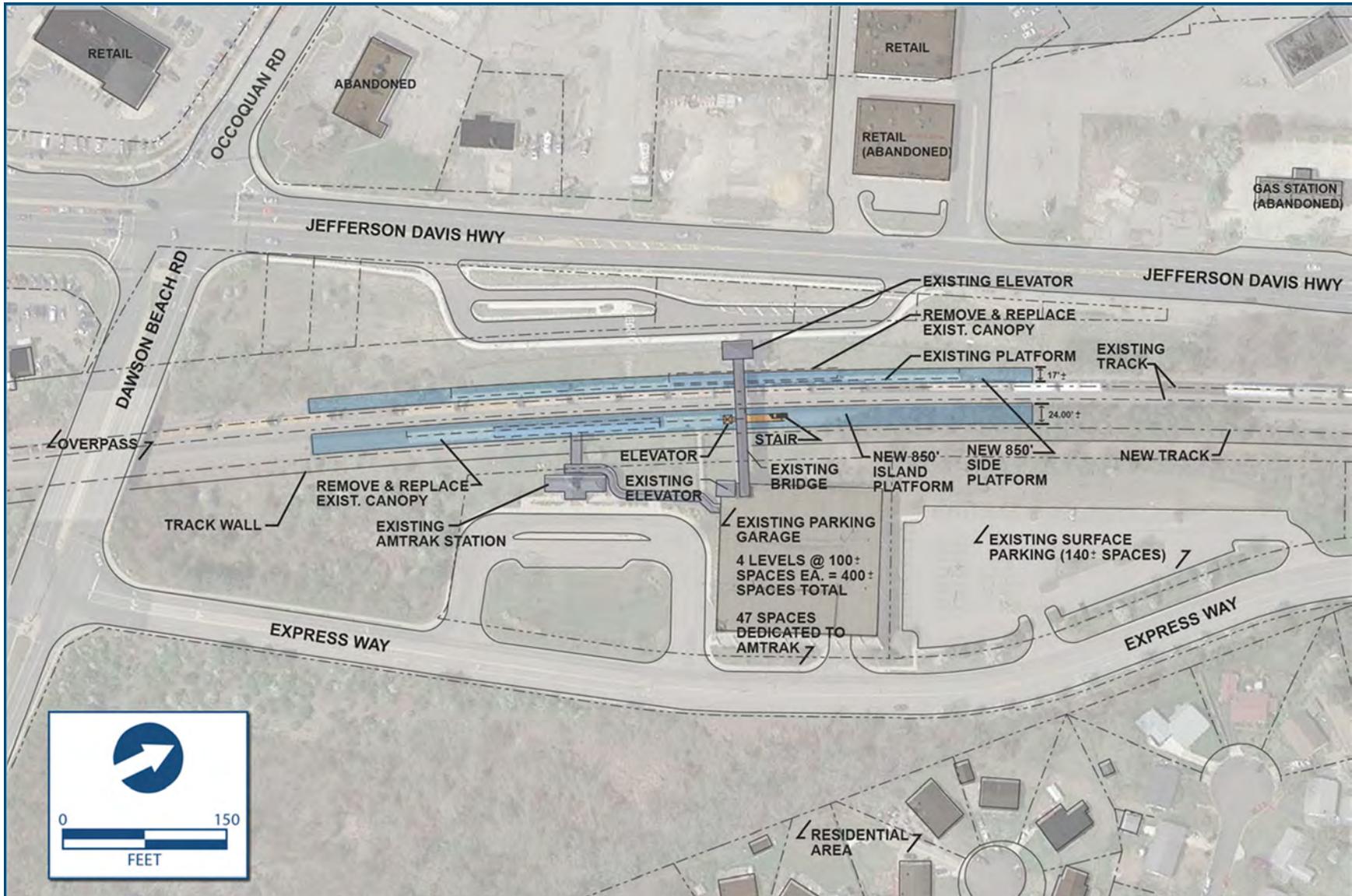


Figure 5.1-24: Woodbridge Station Improvements for Build Alternative 2A

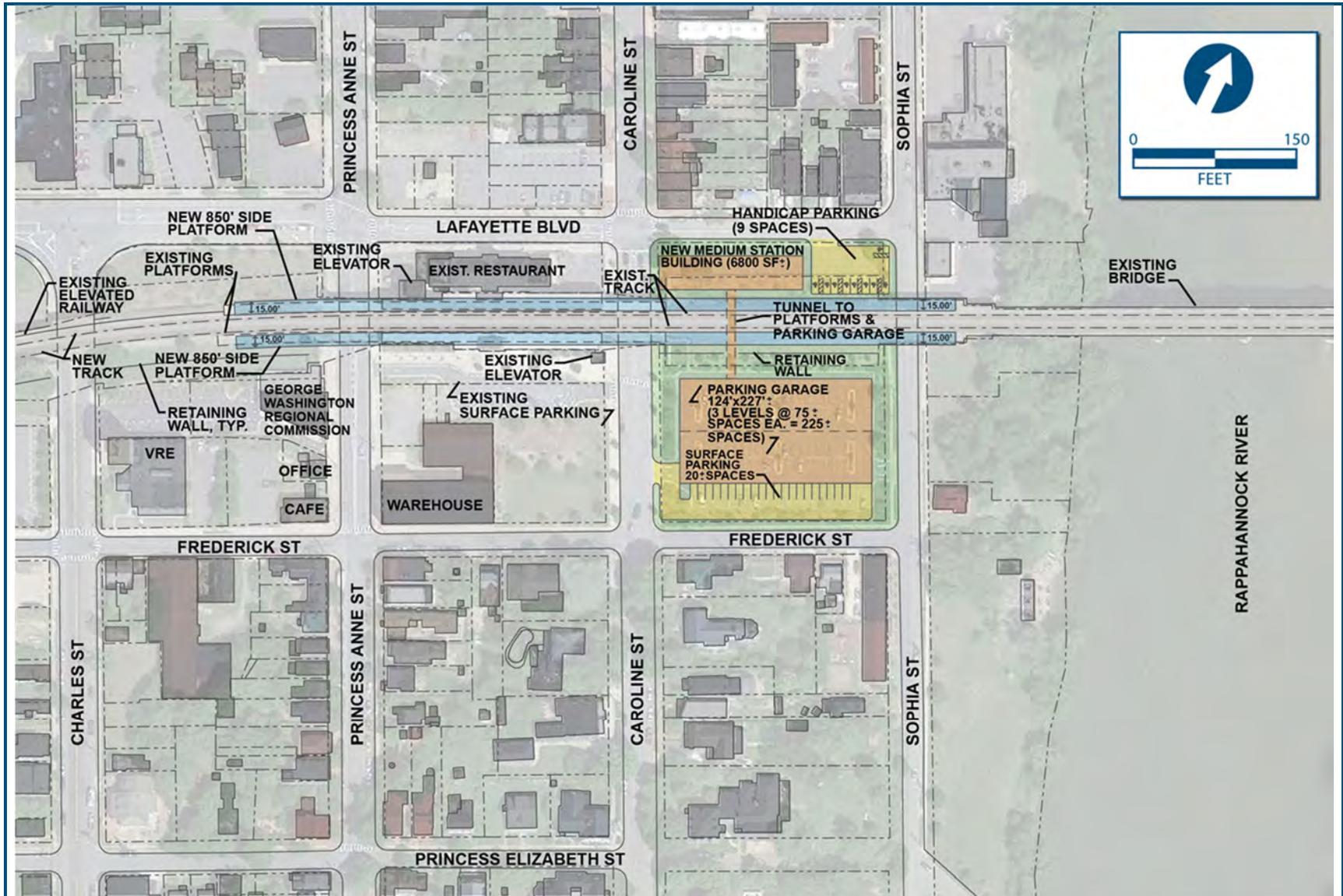


Figure 5.1-25: Fredericksburg Station Improvements for Build Alternatives 3A and 3C

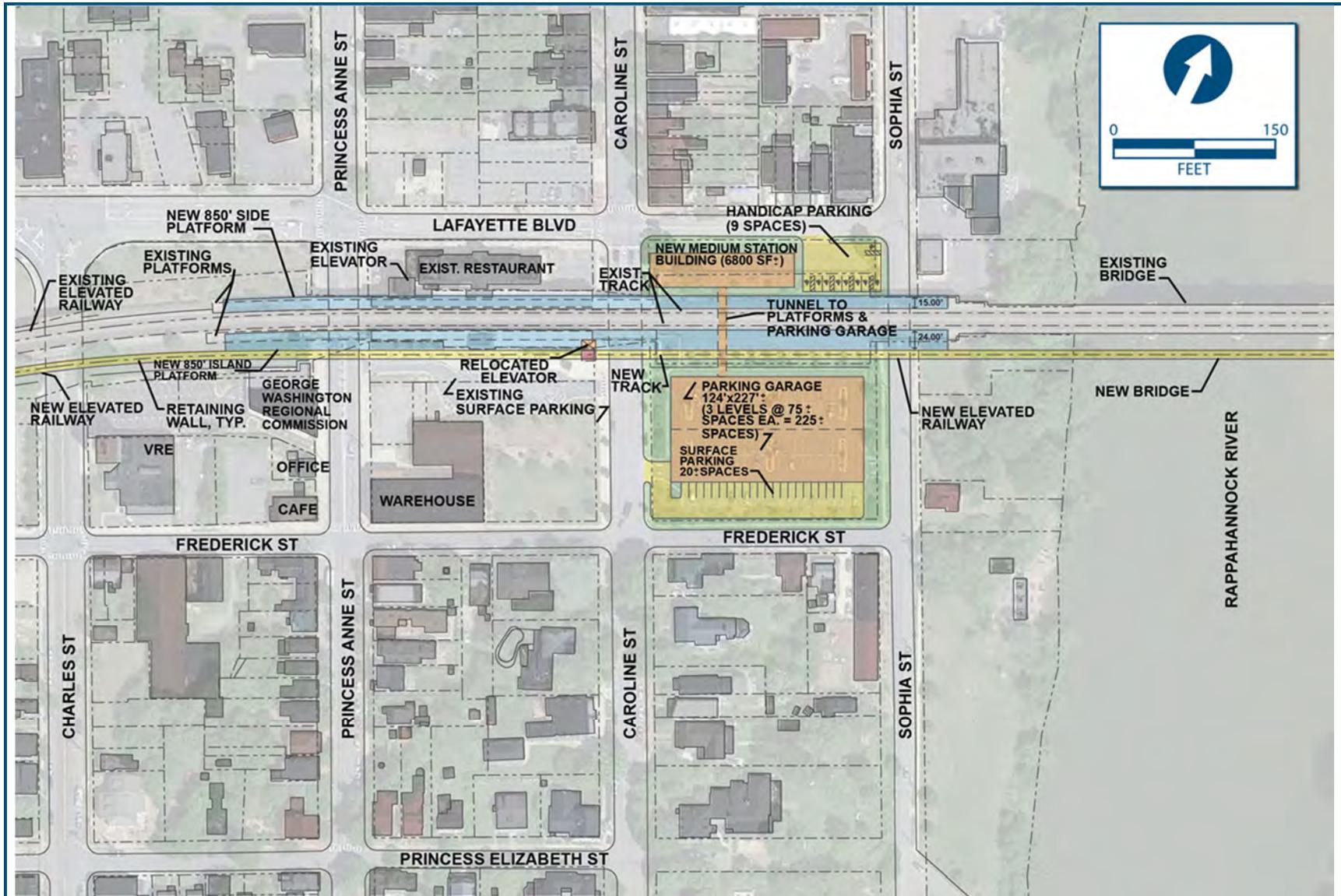


Figure 5.1-26: Fredericksburg Station Improvements for Build Alternative 3B

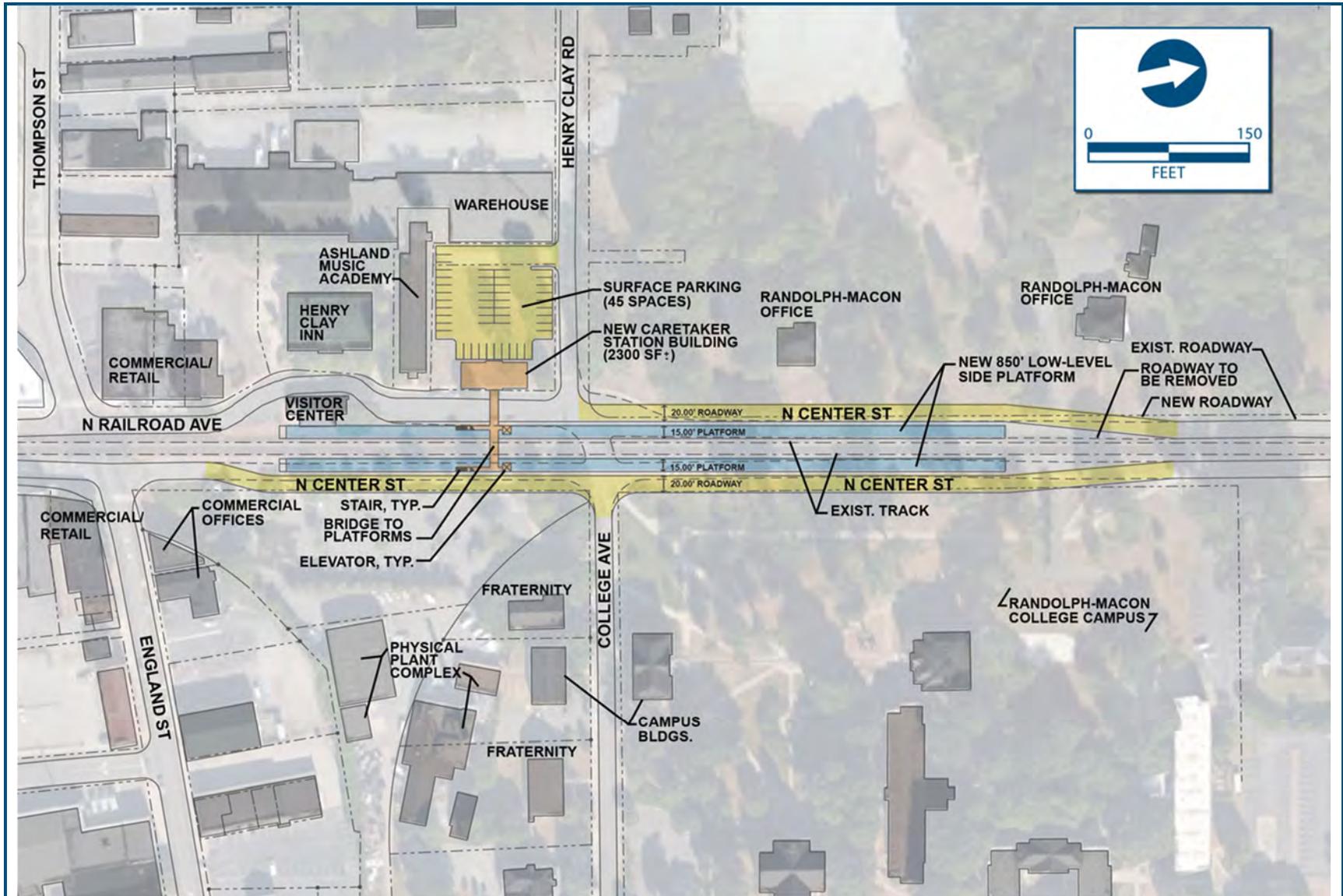


Figure 5.1-27A: Ashland Station Improvements for Build Alternatives 5A and 5C (Two-Track/850-Foot Platforms)

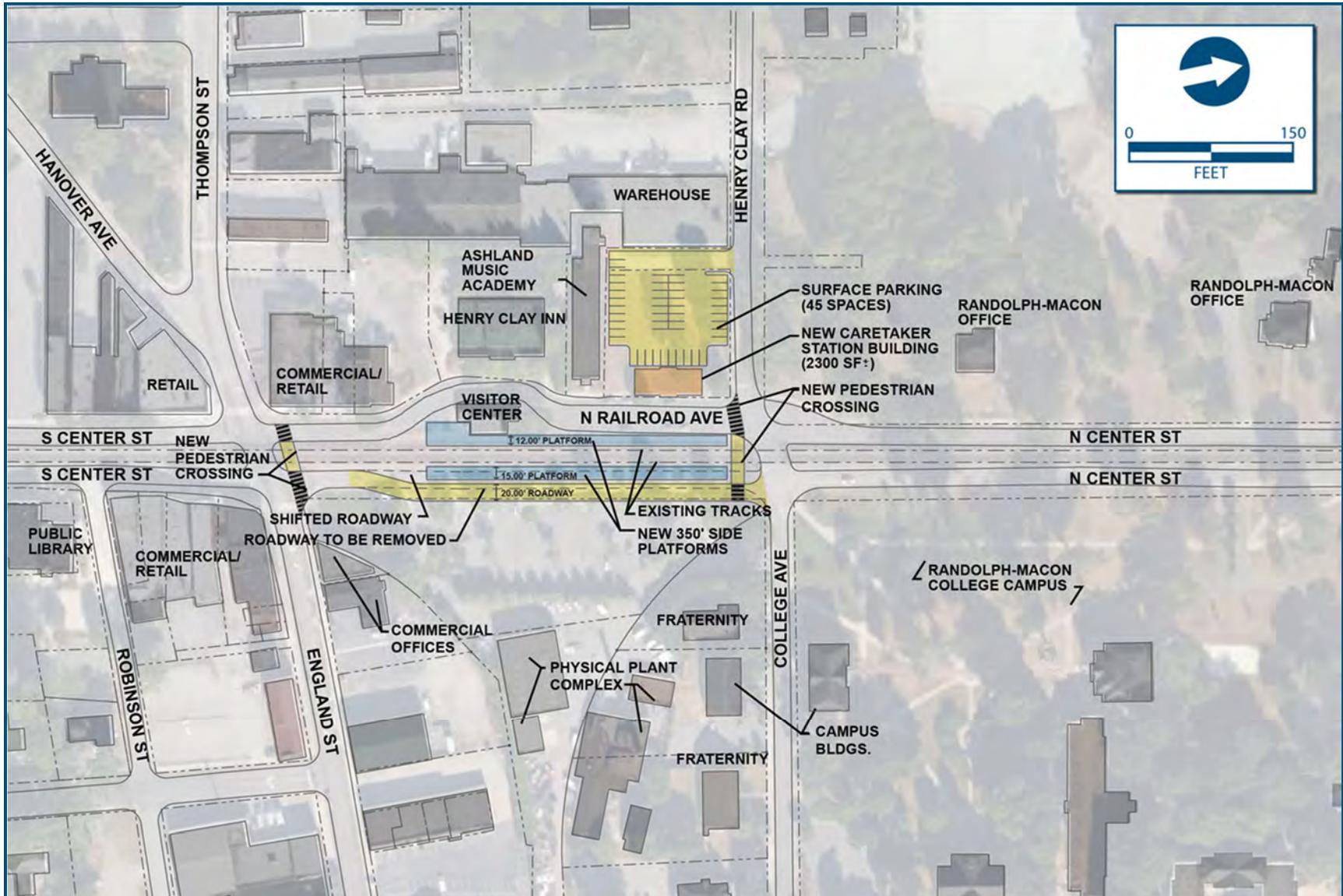


Figure 5.1-27B: Ashland Station Improvements for Build Alternatives 5A and 5C (Two-Track/350-Foot Platforms)

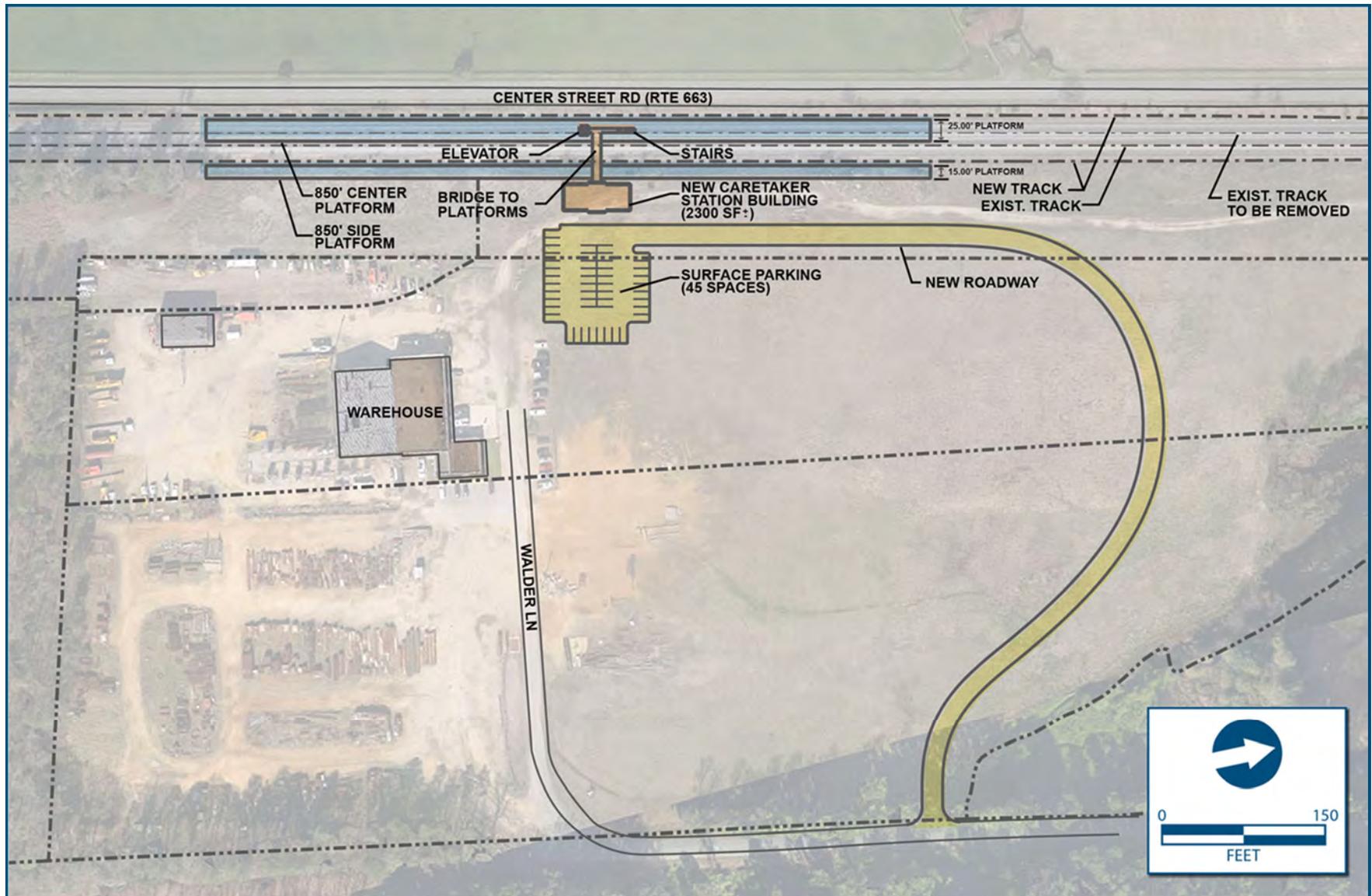


Figure 5.1-28: Ashcake Station Improvements for Build Alternatives 5A–Ashcake, 5B–Ashcake, 5C–Ashcake, and 5D–Ashcake

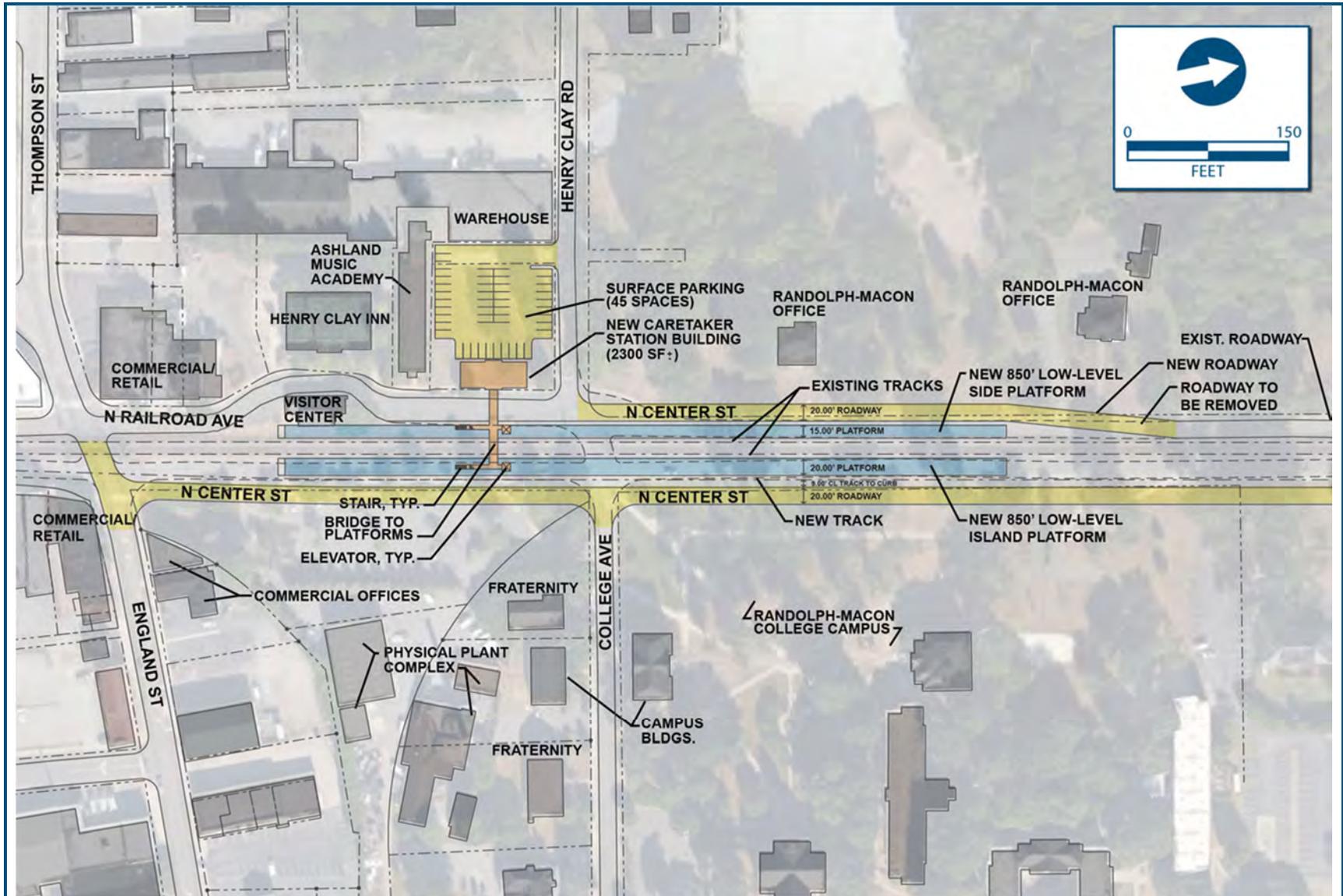


Figure 5.1-29A: Ashland Station Improvements for Build Alternative 5B (Three-Track/850-Foot Platforms)

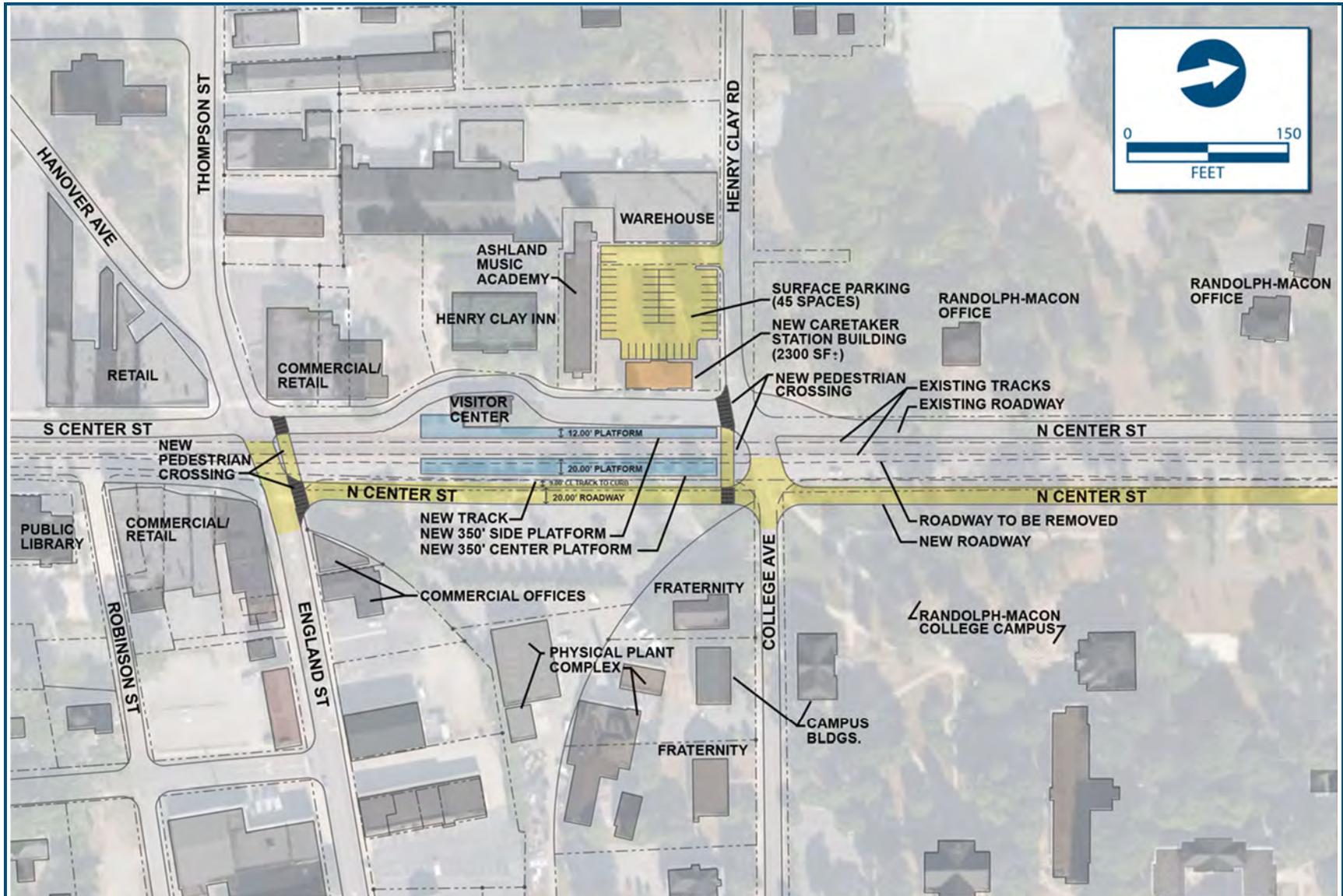


Figure 5.1-29B: Ashland Station Improvements for Build Alternative 5B (Three-Track/350-Foot Platforms)

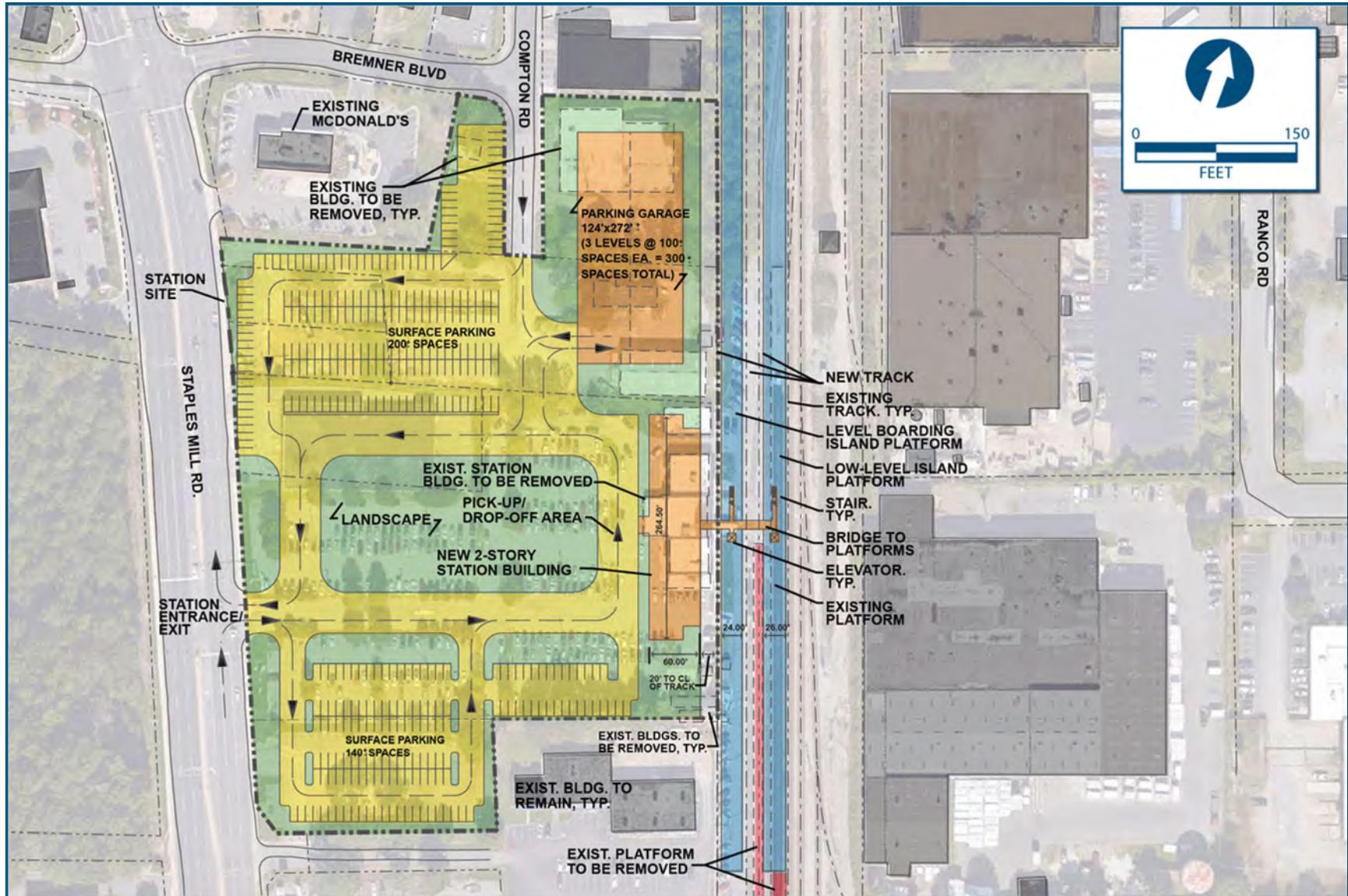


Figure 5.1-30: Staples Mill Road Station Improvements for Build Alternative 6A

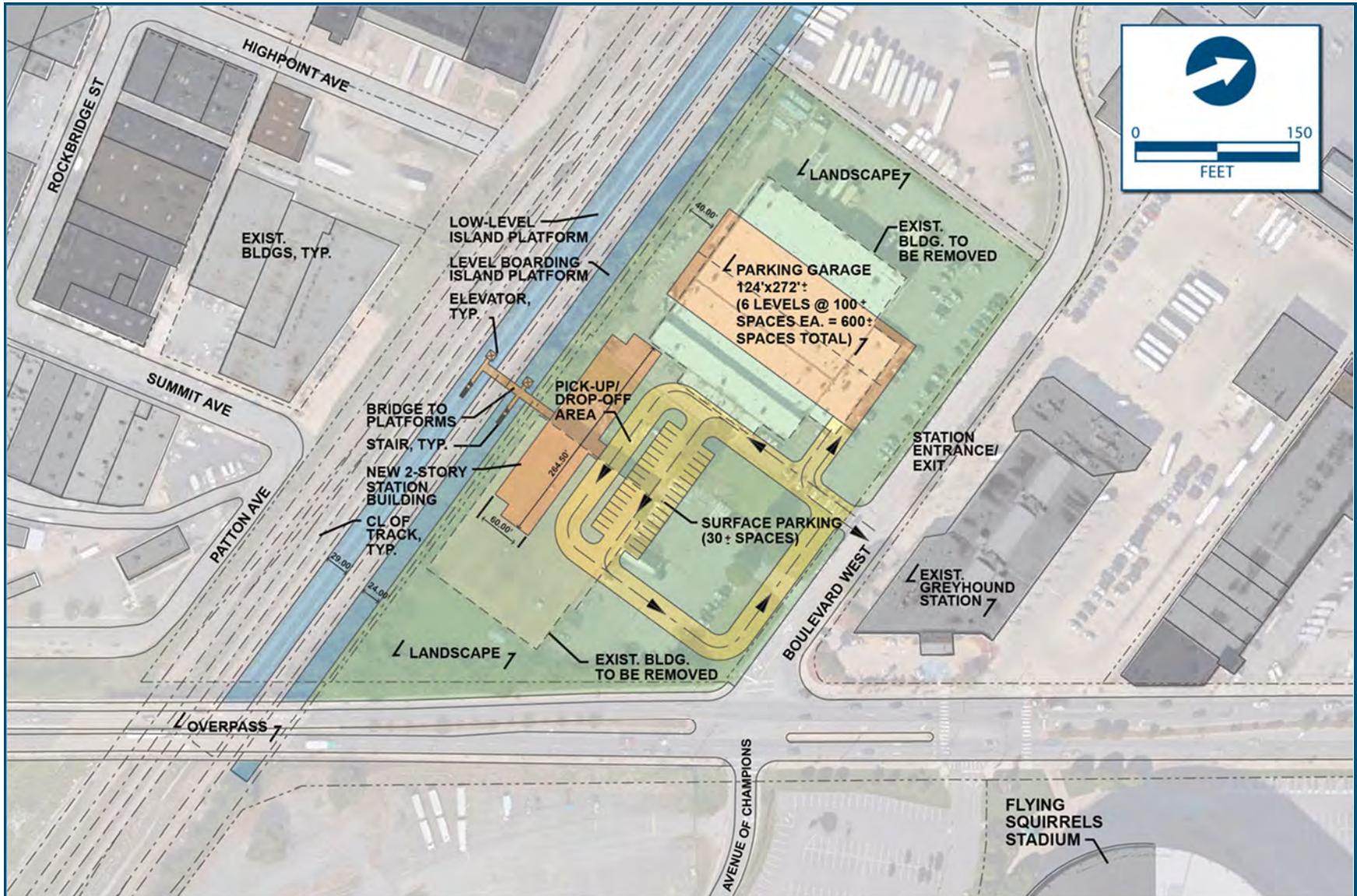


Figure 5.1-31: Boulevard Station Improvements for Build Alternatives 6B–A-Line and 6B–S-Line

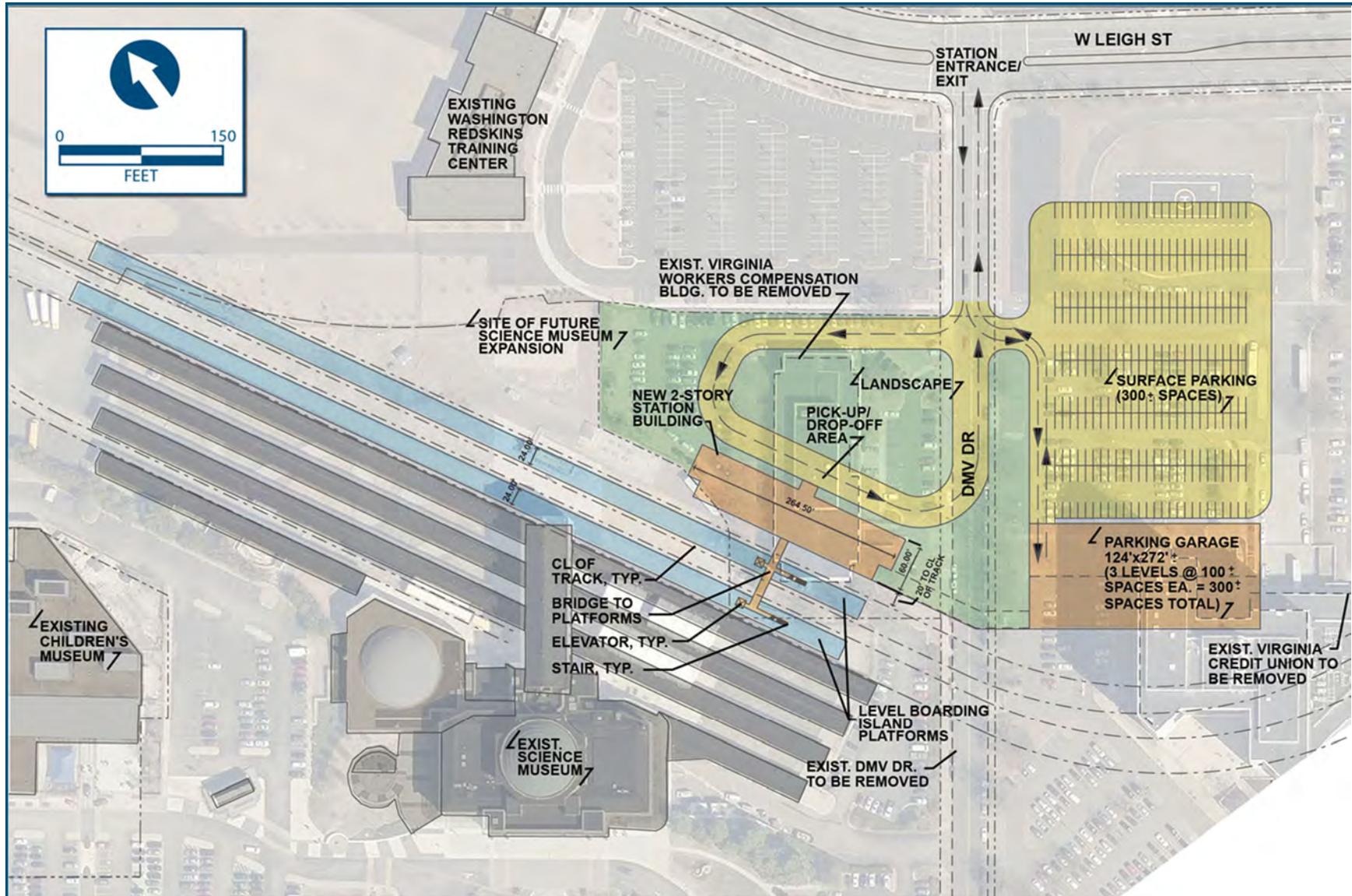


Figure 5.1-32: Broad Street Station Improvements for Build Alternative 6C

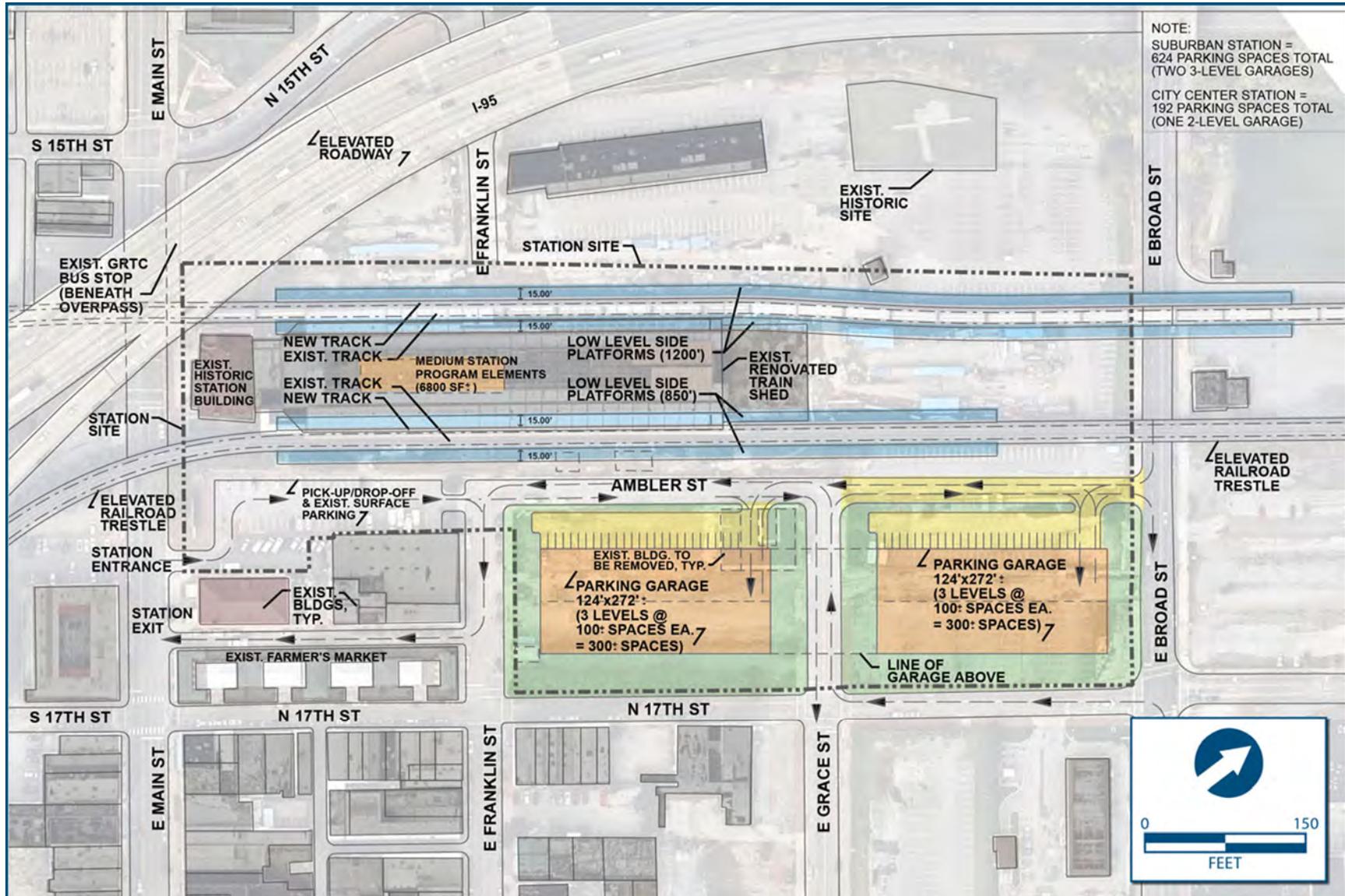


Figure 5.1-33: Main Street Station Improvements for Build Alternative 6D

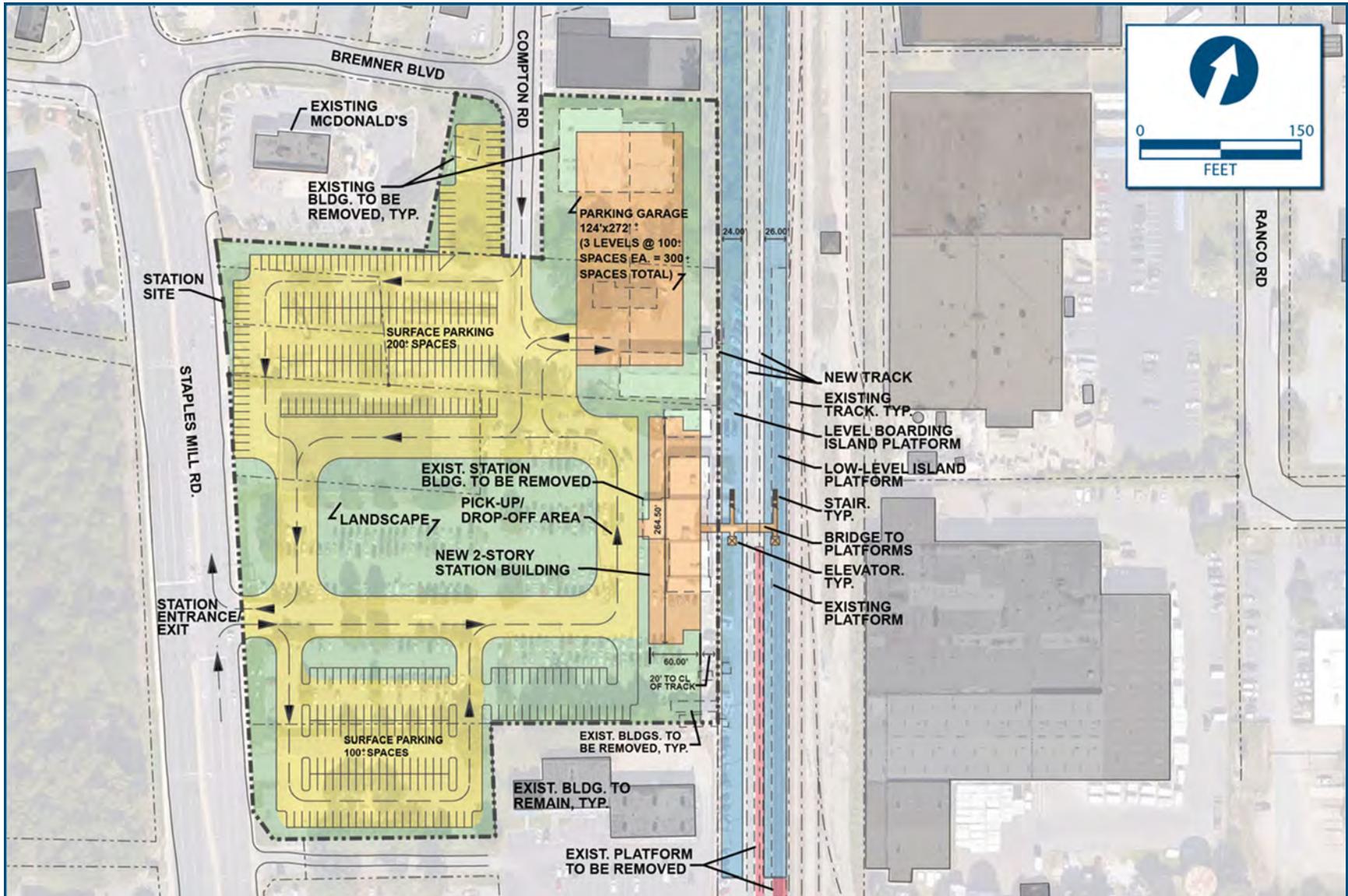


Figure 5.1-34: Staples Mill Road Station Improvements for Build Alternative 6E

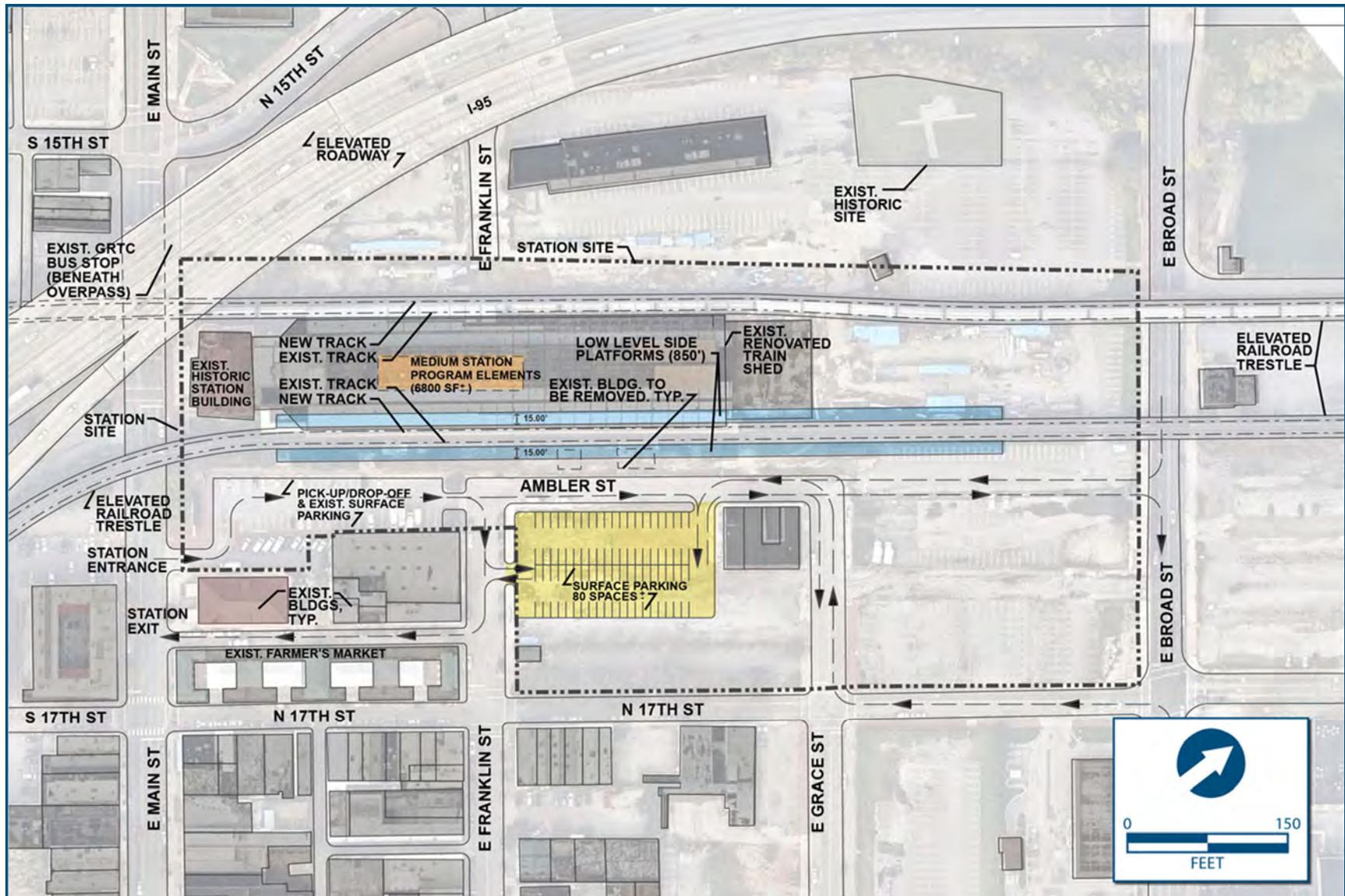


Figure 5.1-35: Main Street Station Improvements for Build Alternative 6E

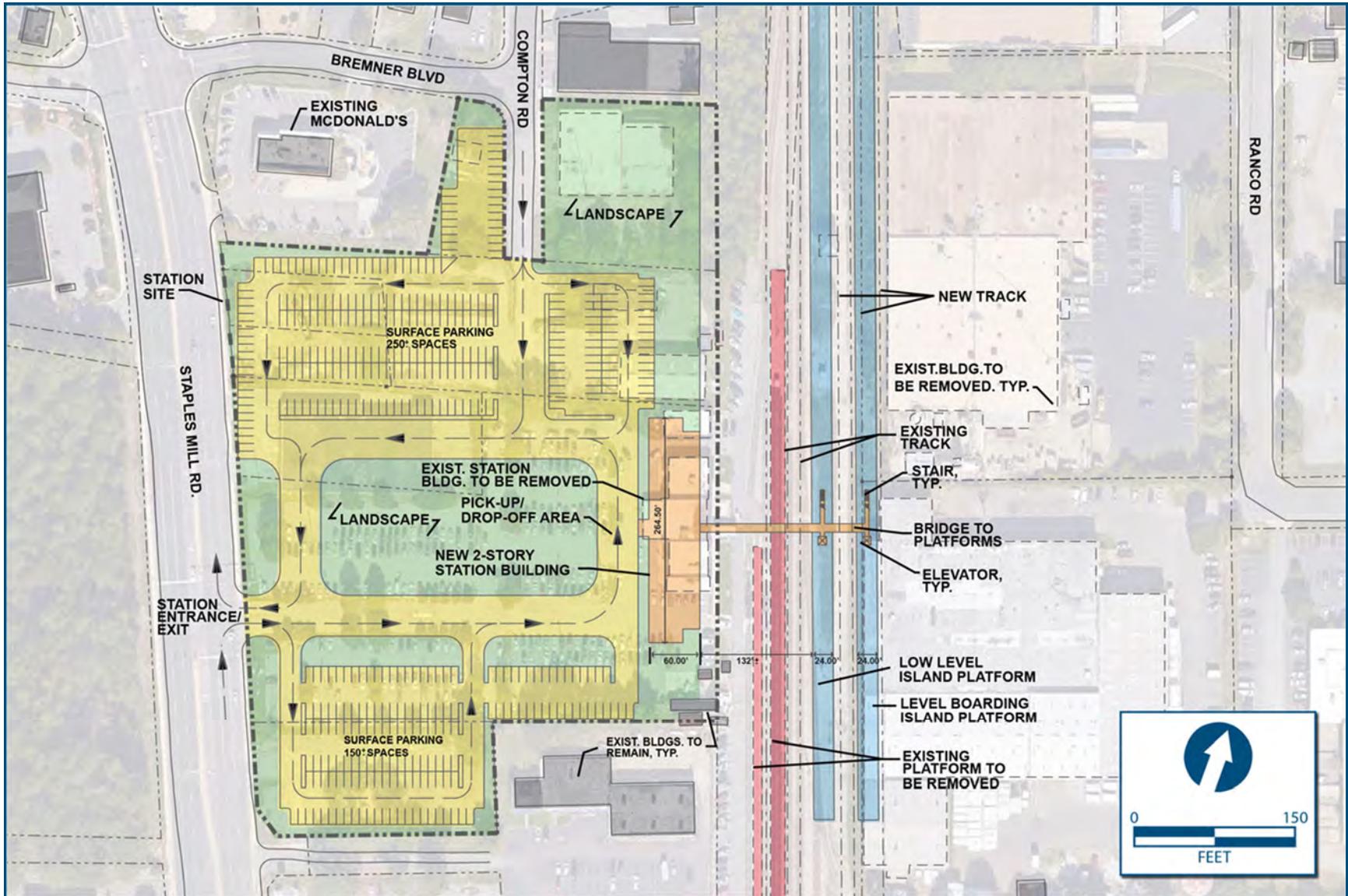


Figure 5.1-36: Staples Mill Road Station Improvements for Build Alternative 6F

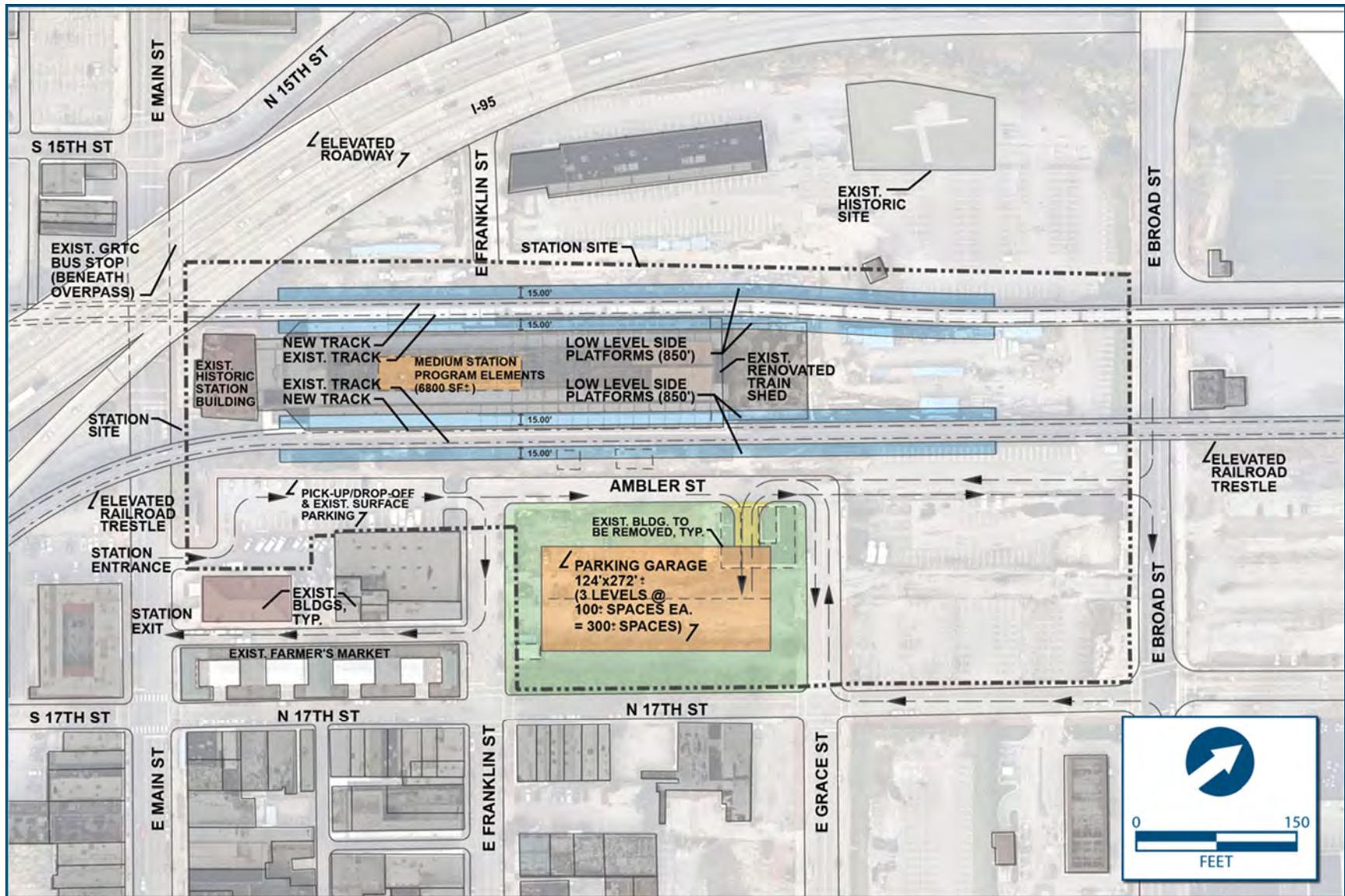


Figure 5.1-37: Main Street Station Improvements for Build Alternative 6F

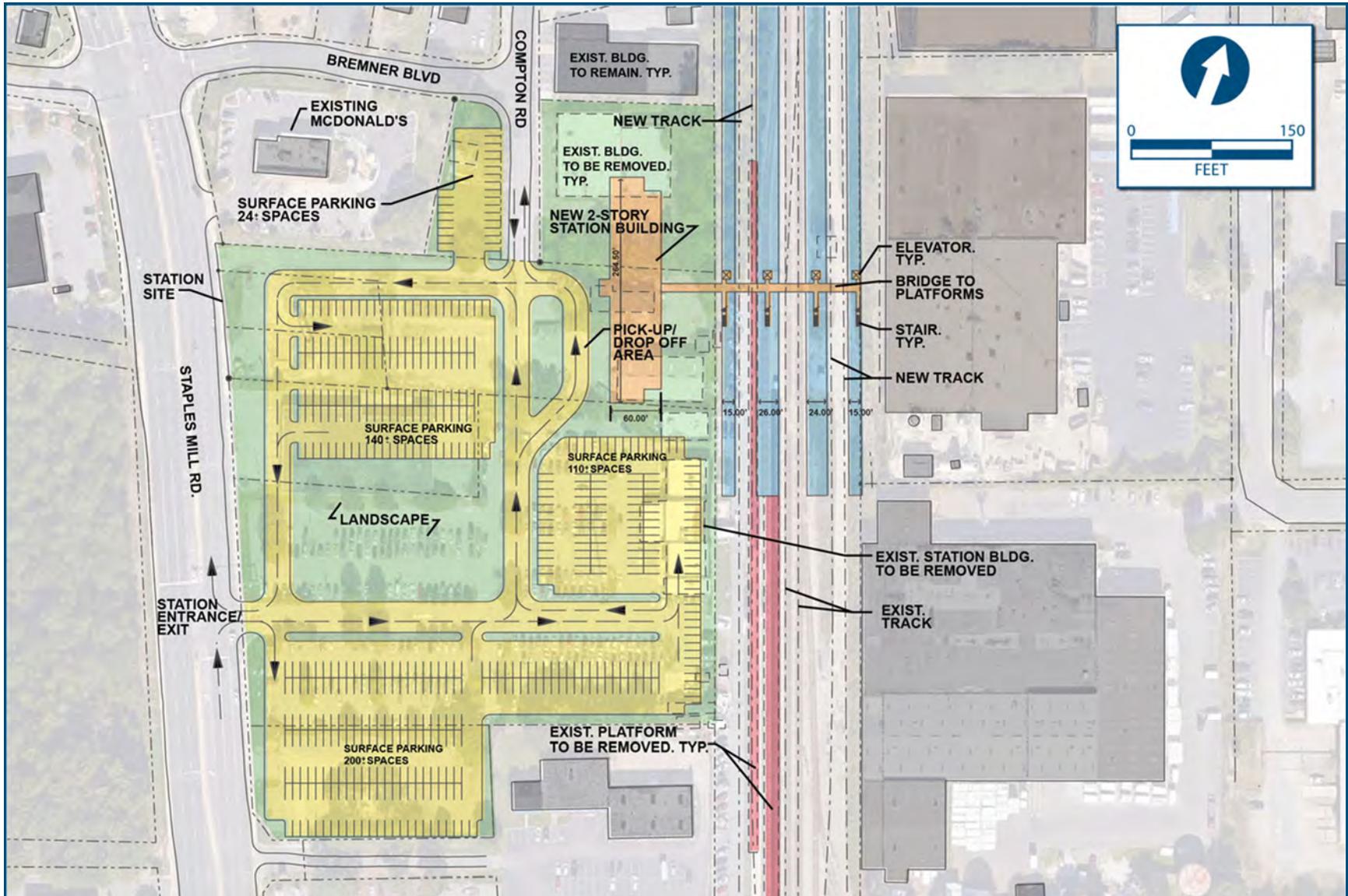


Figure 5.1-38: Staples Mill Road Station Improvements for Build Alternative 6G

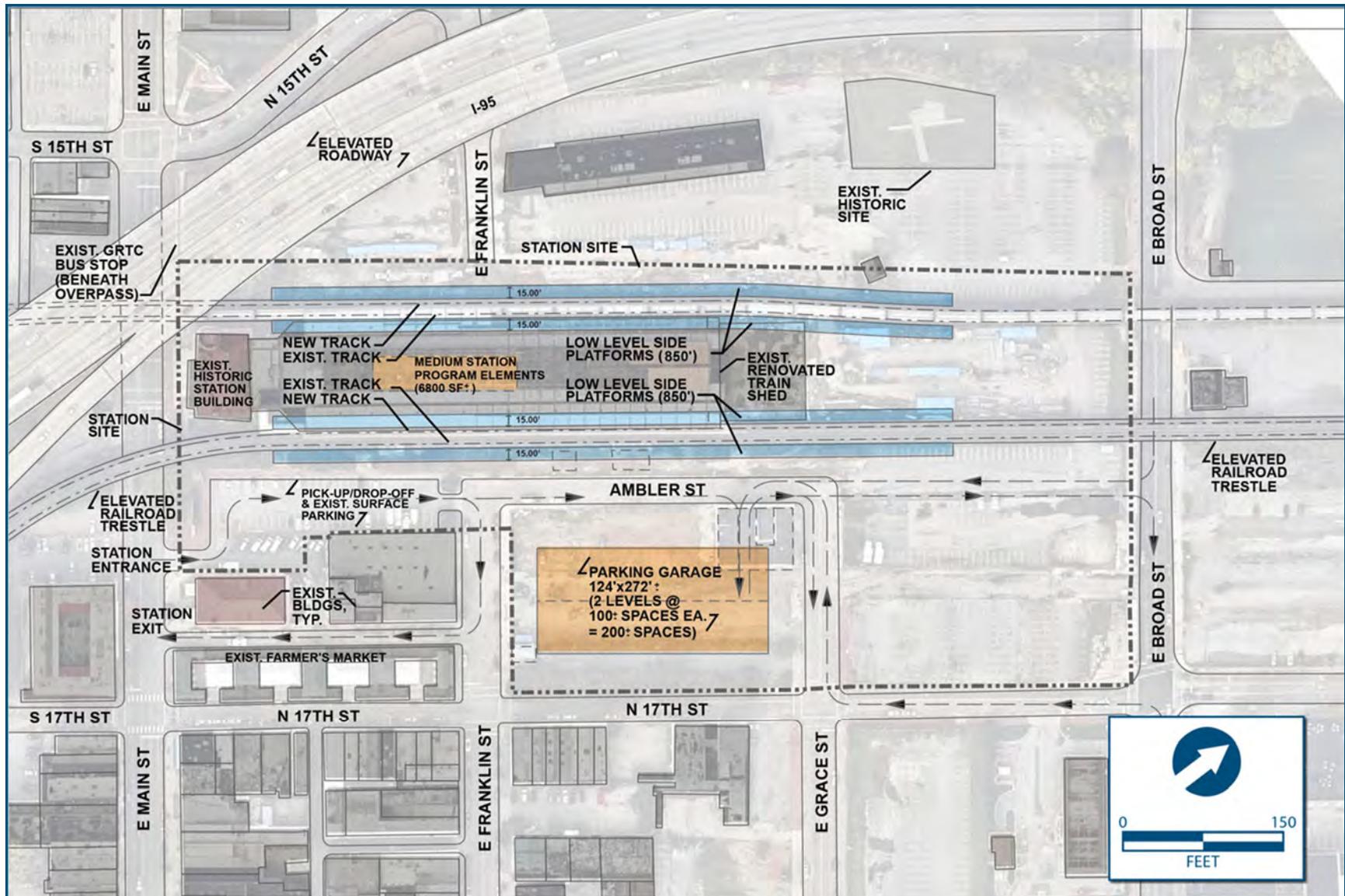


Figure 5.1-39: Main Street Station Improvements for Build Alternative 6G

5.2 TYPES OF SECTION 4(f) USE

Under Section 4(f) of the *U.S. DOT Act of 1966* (49 U.S.C. 303[c]), as amended by Section 6009 of the *Safe, Accountable, Flexible, Efficient, Transportation Equity Act: a Legacy for Users* (SAFETEA-LU), U.S. DOT may approve a transportation project requiring the use of a publicly owned park, recreation area, wildlife and waterfowl refuge, or a historic site only if: (1) there is no prudent and feasible alternative to using that land; and (2) the project includes all possible planning to minimize harm to the Section 4(f) resource resulting from the use, unless the criteria for *de minimis* Section 4(f) involvement can be met. Historic sites protected under Section 4(f) include publicly or privately owned properties listed or eligible for listing on the NRHP. For those historic sites, the Section 106 process helps inform the Section 4(f) process, but the two processes are distinct. Section 4.13 of the Draft EIS includes a description of the Section 106 process. Projects funded by U.S. DOT must comply with the requirements of Section 4(f). Section 4(f) has mandatory requirements for avoidance alternatives, minimization measures, and possible mitigation of any use of the above types of resources.

There are three different types of Section 4(f) use:

- Permanent Use
- Temporary Use
- Constructive Use

A Section 4(f) Permanent Use occurs if a property meeting the requirements of Section 4(f) is permanently acquired (as fee simple or as permanent easement) such that the use of that acquired Section 4(f) property is incorporated in the transportation facility changing its original use to “transportation use” and the acquisition does not meet the *de minimis* criteria.

Temporary Use occurs when the Section 4(f) property or a portion of the Section 4(f) property is impacted or used only during a portion of the construction of the project such that the Section 4(f) property is not permanently incorporated into the transportation facility or transportation use. For temporary use, the Section 4(f) property must be restored to its original condition (e.g. regrading or revegetating the area). For temporary use the following conditions must be met:

- The land use is of short duration (defined as less than the time needed for the construction of the project)
- There is no change in ownership of the land
- The scope of the work must be minor
- There are no temporary or permanent adverse changes to the activities, features, or attributes of the property
- The land must be fully restored to a condition at least as good as prior to the project
- There must be documented agreement from the official(s) with jurisdiction over the property with the above conditions

Constructive Use occurs when there is an indirect impact to the Section 4(f) property of such magnitude as to effectively act as a permanent incorporation. Here, the project does not physically incorporate the resource but is close enough to it to severely impact important features, activities, or attributes associated with it and to substantially impair it. Examples of impacts that may be

considered constructive use include noise, vibration, air quality, and visual impacts. “Constructive use” is rare; however, if it is determined that there is a “constructive use”, the requirements are the same as a regular Section 4(f) use.

A *de minimis* impact involves the use of a Section 4(f) property that is generally minor in nature. For a *de minimis* use of a non-historic site:

- The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
- The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
- The official(s) with jurisdiction over the property is informed of U.S. DOT’s intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

A determination of *de minimis* impact on a historic site may be made when all three of the following criteria are satisfied:

- The process required by Section 106 of the National Historic Preservation Act (NHPA) results in the determination of "no adverse effect" or "no historic properties affected" with the concurrence of the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO), and Advisory Council on Historic Preservation (ACHP), if the ACHP is participating in the Section 106 consultation;
- The SHPO and/or THPO, and ACHP, if the ACHP is participating in the Section 106 consultation, is informed of U.S. DOT's intent to make a *de minimis* impact determination based on their written concurrence in the Section 106 determination; and
- U.S. DOT has considered the views of any consulting parties participating in the Section 106 consultation.

Additional details on historic properties and the Section 106 evaluation process can be found in Section 4.13.

5.3 DESCRIPTION OF THE 4(f) RESOURCES

Chapter 3 of this Draft EIS discusses the screening process that was completed to identify Section 4(f) resources that would potentially be affected by Project alternatives. The following sections describe these resources.

5.3.1 Parks and Recreation Areas

The parks discussed in this section are located within the temporary and/or permanent rights-of-way of the proposed Build Alternatives. Potential impacts to these park properties are described in Section 5.4.

- **Long Bridge Park**—Long Bridge Park is a 29-acre local park constructed in 2011 that is owned and operated by Arlington County. The park is located between Long Bridge Drive and the western edge of the rail alignment and includes additional land east of the rail

alignment adjacent to Roaches Run Waterfowl Sanctuary. This park includes multi-sport, lighted, athletic fields, as well as walkways, greenspace, and playgrounds. The park facilities are located west of the rail alignment.

- **Dog Run Park at Carlyle**—This 3-acre facility consists of a fenced dog exercise area and tennis courts. The park is owned by the City of Alexandria.
- **George Washington Memorial Parkway**—The Parkway encompasses 1,105 acres and is operated by the National Park Service (NPS). The facility is utilized for transportation and recreational driving, but it also includes several walking/biking trails. The Parkway runs parallel to the DC2RVA corridor throughout much of Arlington.
- **Veterans Memorial Park**—This 110-acre park includes a recreation center and several outdoor athletic fields, pavilions, a skate park, horseshoe pits, and walking trails.
- **Fredericksburg and Spotsylvania National Military Park**—This park is operated by NPS. The park is 8,374 acres in size and is comprised of several different sections. The park encompasses four major Civil War battlefields and also preserves four historic buildings associated with them. The Stonewall Jackson Shrine is contained within this park in the section located near Guinea, VA.
- **North Ashland Park**—This small 0.2-acre park is owned by the Town of Ashland and currently consists of open greenspace and a picnic shelter, but it is under development and is likely to expand in size. The park is part of a much larger 29-acre parcel owned by the Town that includes a sewage treatment facility and maintenance/storage areas.
- **Railside Park**—This 1.0-acre park is owned by the Town of Ashland and is located at the northern end of North Center Street. The park connects to Vaughan Road by a 1/3-mile-long path along the rail tracks. The site remains largely open space with one picnic table and some park benches for viewing passing trains.
- **Carter Park**—This park is around 13.5 acres and is located between South Center Street and Maple Street Extended. Most of the park is heavily wooded. Carter Park is the centerpiece of the Ashland park system. It contains a junior Olympic size swimming pool, one-half basketball court, a picnic shelter and picnic area, playground, and gravel walking trails through the wooded areas.
- **Ashland Trolley Line**—This park is approximately 0.5 mile in length and totals 6.7 acres. It is part of the historic Ashland-Richmond Trolley Line. The majority of the walkway and park is owned by Hanover County and is maintained as a natural surface trail. The northern portion of the park also includes Walder Lane and is owned by the Town of Ashland.
- **Maggie Walker Governor’s School Fields**—The Maggie Walker Governor’s School is located adjacent to the railroad tracks to the west on North Lombardy Street in Richmond. This resource includes approximately 4.9 acres of outdoor athletic fields. The parcel is owned by the Maggie L. Walker Governor’s School Regional School Board.
- **Walker’s Creek Retention Basin Park**—This 6.4-acre park is owned by the City of Richmond Public Works. The park provides access to the walk along the floodwall south of the James River.
- **Gates Mill Park**—This park is 11.4 acres and is located west of the railroad right-of-way. The park is owned by Chesterfield County and includes some trails for passive recreation.

- **Mount Vernon Trail**—The trail is an 18-mile-long trail that connects Theodore Roosevelt Island Park with George Washington’s Estate at Mount Vernon. It is a very popular trail in the Washington, D.C. area with heavy use by bikers and pedestrians. Most of the trail is paved with some portions on boardwalk. This trail also connects with several other local and regional trails, including the Woodrow Wilson Bridge Trail, the Four Mile Run Trail, and the Custis Trail. The trail crosses the DC2RVA corridor near Long Bridge Park.

5.3.2 Wildlife Refuges

There is only one wildlife refuge potentially affected by the Build Alternatives.

- **Mattaponi State Wildlife Management Area**—This state wildlife management area is 2,652 acres in size and is owned and operated by the Virginia Department of Game and Inland Fisheries (VDGIF).

Roaches Run Waterfowl Sanctuary is located in close proximity to Build Alternatives 1A, 1B, and 1C, but there would be no permanent or temporary impacts to the Wildlife Sanctuary land.

5.3.3 Historic Properties

Chapter 3 of the Draft EIS describes the historic architecture resources within the Area of Potential Effect (APE) of the Project that were determined to be eligible for listing or are listed on the NRHP. DRPT determined that these resources meet one or more of the following NRHP eligibility criteria:

- **Criterion A**—Associated with events that have made a significant contribution to the broad patterns of our history
- **Criterion B**—Associated with the lives of persons significant in our past
- **Criterion C**—Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction
- **Criterion D**—Has yielded or may be likely to yield information important in prehistory or history. Although resources considered eligible for the NRHP under Criterion D alone are evaluated for project effect, a resource must be eligible for one other criterion in addition to D (wherein preservation in place in warranted) to be considered a Section 4(f) resource.

The 158 historic properties (buildings, districts, objects, structures, and sites) that are included in this Section 4(f) analysis are listed in Table 5.3-1 (see Chapter 3 for additional details). The resources are listed in the order they appear in the DC2RVA corridor from north to south.

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 1: Arlington	029-0218	Mount Vernon Memorial Highway (portion of George Washington Memorial Parkway)	Ca. 1929	Listed under Criteria A and C
Area 1: Arlington	000-0045	Washington National Airport (Reagan National Airport)	1941	Listed under Criteria A and C

► Continued.

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 2: Northern Virginia	100-0160	George Washington Junior High School, 1005 Mt. Vernon Avenue	1935	Potentially Eligible under Criterion C
Area 2: Northern Virginia	100-0133	Parker-Gray Historic District/Uptown	Ca. 1810	Listed under Criteria A and C
Area 2: Northern Virginia	100-0137	Rosemont Historic District	Ca. 1900	Listed under Criteria A and C
Area 2: Northern Virginia	100-0124	Alexandria Depot 110 Callahan Drive	1905	Listed under Criteria A and C
Area 2: Northern Virginia	100-0128	George Washington National Masonic Memorial	Ca. 1922	Listed Criterion C and Criterion Consideration F
Area 2: Northern Virginia	TBD	RF&P Bridge over Holmes Run in Cameron Run Park	1946	Potentially Eligible under Criterion C
Area 2: Northern Virginia	100-0277	Phoenix Mill 3642 Wheeler Avenue	ca. 1776	Potentially Eligible under Criteria A and C
Area 2: Northern Virginia	029-0953	Old Colchester Road, Potomac Path, King's Highway	ca. 1664	Eligible under Criterion A
Area 2: Northern Virginia	029-5741	Hannah P. Clark House/Enyedi House, 10605 Furnace Road	ca. 1876	Potentially Eligible under Criterion B and Criteria Consideration B and G
Area 2: Northern Virginia	029-0043	Colchester Arms, Fairfax Arms, 10712 Old Colchester Road	ca. 1756	Listed under Criteria A and C
Area 2: Northern Virginia	TBD	RF&P Bridge over Occoquan River	1915	Potentially Eligible under Criterion C
Area 2: Northern Virginia	287-0010	Marine Corps Base Quantico (Current), Quantico Marine Corps Base Historic District (NRHP Listing)	post-1918	Listed NRHP and VLR under Criteria A and C
Area 2: Northern Virginia	287-5147	Town of Quantico (Historic/Current), Town of Quantico Historic District (Current)	post-1918	Eligible under Criterion A
Area 2: Northern Virginia	089-0019	Richland/Richlands, 945 Widewater Road	ca. 1790	Eligible for the NRHP under Criteria B and C
Area 3: Fredericksburg	089-0045	RF&P Bridge over Potomac Creek at Leland Road	1872	Potentially Eligible under Criteria A and B
Area 3: Fredericksburg	089-0080	RF&P Bridge over Naomi Road	1931	Potentially Eligible under Criterion C
Area 3: Fredericksburg	111-0147	Fredericksburg & Spotsylvania Co. Battlefields National Military Park & Cemetery, Lee Drive	1862	Listed under Criteria A and D
Area 3: Fredericksburg	089-0016/ 44ST0084	Ferry Farm	1738	Listed National Historic Landmark (NHL), NRHP, and Virginia Landmarks Registry (VLR) under Criteria A, B, and D
Area 3: Fredericksburg	089-0014	Sherwood Forest (Historic)	1810	Eligible under Criterion C
Area 3: Fredericksburg	111-0132- 0025	Rappahannock River Railroad Bridge	1927	Potentially Eligible under Criterion C
Area 3: Fredericksburg	44SP0187	Stone Piers; Bridge or Building	19 th Century	Potentially Eligible under Criteria C and D
Area 3: Fredericksburg	111-0132- 0704	Fredericksburg Train Station 200 Lafayette Boulevard	1910	Potentially Eligible under Criteria A and C
Area 3: Fredericksburg	111-0132	Fredericksburg Historic District	Post 1727	Listed under Criterion C

► *Continued.*

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 3: Fredericksburg	111-0132-0020	Purina Tower	1916	Potentially Eligible under Criteria A and C
Area 3: Fredericksburg	111-0132-0522	House 314–316 Frederick Street	1851	Potentially Eligible under Criteria A and C
Area 3: Fredericksburg	111-0009-0795	Pulliam's Service Station 411 Lafayette Boulevard	ca. 1935	Potentially Eligible under Criterion C
Area 3: Fredericksburg	111-0009	Fredericksburg Historic District Extension	post 1775	Potentially Eligible under Criteria A and C
Area 3: Fredericksburg	111-5295	Battle of Fredericksburg I	1862	Eligible/Potentially Eligible under Criterion A
Area 3: Fredericksburg	111-5296	Battle of Fredericksburg II	1863	Eligible/Potentially Eligible under Criterion A
Area 3: Fredericksburg	088-5181	Salem Church Battlefield (Banks Ford Battlefield)	1863	Eligible under Criterion A
Area 3: Fredericksburg	088-5364	Fredericksburg & Gordonsville Railroad Bed District (Virginia Central Railroad)	1853	Eligible under Criterion A
Area 3: Fredericksburg	111-0145	Fredericksburg Gun Manufactory	ca. 1775	Listed under Criteria A and D
Area 3: Fredericksburg	088-0254	Slaughter Pen Farm 11232 Tidewater Trail (Wayside Farm or Pierson Farm)	ca. 1898	Potentially Eligible under Criterion A
Area 3: Fredericksburg	44SP0468-extension	Earthwork/ Jackson's Earthwork	1861	Eligible/Potentially Eligible under Criteria A, C, and D
Area 3: Fredericksburg	088-0039	LaVue 3232 LaVue Lane (Prospect View)	ca. 1848	Listed under Criterion C
Area 4: Central Virginia	016-0092	Fairfield Plantation Office Jackson Shrine 12019 Stonewall Jackson Road	ca. 1820	Potentially Eligible under Criteria A, B, and C
Area 4: Central Virginia	016-0208	House 12096 Guinea Drive	ca. 1900	Potentially Eligible under Criterion C
Area 4: Central Virginia	016-5165	Excelsior Industry of Caroline County MPD	ca. 1896- ca. 1950	Potentially Eligible under Criteria A and C
Area 4: Central Virginia	016-5129	Woodford Historic District	ca. 1890-1969	Potentially Eligible under Criteria A and C
Area 4: Central Virginia	016-0223	Woodford Excelsior Company Office, Lake Farm Road	ca. 1896	Potentially Eligible under Criterion A
Area 4: Central Virginia	016-0222	Woodford Freight & Passenger Depot, Woodford Road	ca. 1900	Potentially Eligible under Criterion C
Area 4: Central Virginia	016-0224	Glenwood House 11102 Woodford Road	ca. 1925	Potentially Eligible under Criterion C
Area 4: Central Virginia	016-0220	Carolina Mansion 11146 Woodford Road	ca. 1900	Potentially Eligible under Criterion C
Area 4: Central Virginia	016-0270	Milford State Bank 15461 Antioch Road	ca. 1910	Potentially Eligible under Criterion C
Area 4: Central Virginia	016-5136	Milford Historic District	ca. 1880-1960	Potentially Eligible under Criteria A and C
Area 4: Central Virginia	016-0286	Coleman's Store 22275 Penola Road Penola 16095 Polecat Lane	ca. 1900	Potentially Eligible under Criterion C

► Continued.

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 4: Central Virginia	042-0123	North Anna Battlefield	1864	Eligible under Criterion A
Area 4: Central Virginia	042-5448	Doswell Historic District	ca. 1840-1950	Potentially Eligible under Criteria A and C
Area 4: Central Virginia	042-0470	House 10570 Doswell Road	ca. 1898	Potentially Eligible under Criteria B and C
Area 4: Central Virginia	042-0469	Tri-County Bank, Doswell Branch (part of Squashapenny Antiques) 10561 Doswell Road	ca. 1920	Potentially Eligible under Criterion C
Area 4: Central Virginia	042-0093	Doswell Depot and Tower 10577 Doswell Road	ca. 1928	Potentially Eligible under Criterion C
Area 4: Central Virginia	042-5307	Taylorville Road Historic District	ca. 1900-1935	Potentially Eligible under Criteria A and C
Area 4: Central Virginia	TBD	RF&P Bridge over Little River	1923	Potentially Eligible under Criterion C
Area 4: Central Virginia	042-0836	Earthworks, Little River	1862	Eligible under Criteria A and C
Area 5: Ashland	042-0557	Dry Bridge 10411 Old Bridge Road	ca. 1850	Potentially Eligible under Criteria A and C
Area 5: Ashland	042-0392	Montevideo	1790	Eligible under Criteria A and C
Area 5: Ashland	166-5073	Berkleytown Historic District	ca. 1900-1965	Potentially Eligible under Criteria A and C
Area 5: Ashland	166-5073-0010	House, Dabney Funeral Home 600 B Street	1955	Potentially Eligible under Criteria A and C
Area 5: Ashland	166-0001	Ashland Historic District	1850-1950	Listed under Criteria A and C
Area 5: Ashland	166-0001-0015	Business Office, Randolph-Macon, 310 N. Center Street	ca. 1895	Potentially Eligible under Criterion C
Area 5: Ashland	166-5072	Randolph-Macon College Historic District Expansion	ca. 1900-1960	Potentially Eligible under Criteria A and C
Area 5: Ashland	166-0002	Randolph-Macon College Historic District	1872-1950	Listed VLR and NRHP under Criteria A and C
Area 5: Ashland	166-0001-0008	Ashland Station Depot 112 N. Railroad Avenue	1910	Potentially Eligible under Criteria A and C
Area 5: Ashland	166-5041	Priddy House 107 Stebbins Street	ca. 1926	Potentially Eligible under Criterion C
Area 5: Ashland	166-0001-0055	House 704 S. Center Street	ca. 1850	Potentially Eligible under Criterion C
Area 5: Ashland	166-0001-0060	House 708 S. Center Street	ca. 1894	Potentially Eligible under Criterion C
Area 5: Ashland	166-0036	MacMurdo House 713 S. Center Street	ca. 1858	Potentially Eligible under Criterion C
Area 5: Ashland	166-0037	Hugo House, 11208 Gwathmey Church Road	ca. 1886	Potentially Eligible under Criterion C
Area 5: Ashland	166-0001-0077	House 1005 S. Center Street	ca. 1890	Potentially Eligible under Criterion C
Area 5: Ashland	042-5048	Elmont Historic District	ca. 1870-1950	Potentially Eligible under Criterion C
Area 5: Ashland	043-0693	Mill Road Historic District	ca. 1870-1950	Potentially Eligible under Criterion C

▶ Continued.

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 5: Ashland	043-0694	Hunton Treasures 11701 Greenwood Road	ca. 1930	Potentially Eligible under Criterion C
Area 5: Ashland	043-5646	House 11501 Old Washington Highway	ca. 1937	Potentially Eligible under Criterion C
Area 6: Richmond	043-5108	Yellow Tavern Battlefield	1864	Eligible/Potentially Eligible under Criterion A
Area 6: Richmond	043-5657	Darling Smokestack Old Washington Highway	ca. 1910	Potentially Eligible under Criterion C
Area 6: Richmond	043-0690	Lewis-McLeod House 2945 Mountain Road	ca. 1921	Potentially Eligible under Criterion C
Area 6: Richmond	043-0292	Laurel Industrial School Historic District, Hungary Road	1892	Listed under Criteria A and C
Area 6: Richmond	043-0292- 0001	Main Building/Robert Stiles Building/ Bluford Office Building, 2900 Hungary Road	1895	Potentially Eligible under Criteria A and C
Area 6: Richmond	043-5636	Integrated Power Sources of Virginia 2260 Dabney Road	ca. 1940	Potentially Eligible under Criterion A
Area 6: Richmond	127-6136	Scott's Addition Historic District	Post-1900	Listed under Criteria A and C
Area 6: Richmond	127-6569	Central National Bank 3501 W. Broad Street	1956	Potentially Eligible under Criterion C
Area 6: Richmond	127-6514	Kent Road Village 905 Kent Road	1942	Listed on the NRHP and VLR under Criterion C
Area 6: Richmond	127-0742	West of Boulevard Historic District	ca. 1895	Listed under Criteria A and C
Area 6: Richmond	127-6756	Carillon Neighborhood Historic District	1859	Potentially Eligible under Criteria A and C
Area 6: Richmond	127-0171	James River and Kanawha Canal Historic District	1795	Listed NRHP and VLR under Criteria A and C
Area 6: Richmond	127-6792	Southern Railway	ca. 1850	Potentially Eligible under Criterion A
Area 6: Richmond	127-6629	Cedarhurst Neighborhood Historic District	post-1941	Eligible under Criteria A and C
Area 6: Richmond	Temp 402	House 351 W. 49 th Street	ca. 1958	Not accessible; Further Survey Required
Area 6: Richmond	127-6757	Woodstock Historic District	ca. 1950-1960	Potentially Eligible under Criterion C
Area 6: Richmond	Temp R	Rolando Historic District	ca. 1946-1950	Potentially Eligible under Criterion C
Area 6: Richmond	Temp 268	Broad Run House 2011 S. Kinsley Avenue	ca. 1770	Potentially Eligible under Criterion C
Area 6: Richmond	020-5351	Richmond & Petersburg Electric Railway	1902	Eligible under Criterion A
Area 6: Richmond	020-5336	The Bellwood-Richmond Quartermaster Depot Historic District, United States Department of Defense Supply Center Historic District	post-1942	Eligible under Criteria A, B, C, and D
Area 6: Richmond	44CF0680	Fort Darling/Battlefield, Earthworks, Fort	1861-1865	Eligible under Criteria A, C, and D
Area 6: Richmond	020-5320	Proctor's Creek Battlefield	1864	Eligible/Potentially Eligible under Criterion A

► *Continued.*

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 6: Richmond	127-6188	Movieland Bowtie Cinema 1331 North Boulevard	1887	Listed under Criteria A and C
Area 6: Richmond	127-6840	Warehouse 2728 Hermitage Road	ca. 1955	Indeterminate; Could not Access; Phase II Needed
Area 6: Richmond	127-6730	Hermitage Road Warehouse Historic District	1930-1958	Listed under Criteria A and C
Area 6: Richmond	127-6165	Cookie Factory Lofts 900 Terminal Place	1927	Listed under Criteria A and C
Area 6: Richmond	127-0226	Science Museum of Virginia 2500 Broad Street, West	1919	Listed under Criteria A and C
Area 6: Richmond	127-5978	Todd Lofts 1128 Hermitage Road	1892	Listed under Criterion A
Area 6: Richmond	127-6145	Southern Stove Works 1215 Hermitage Road	1905	Listed under Criteria A and C
Area 6: Richmond	127-6570	West Broad Street Industrial and Commercial Historic District	1890-1960	Listed under Criteria A and C
Area 6: Richmond	127-0414	Governor's School 1000 North Lombardy Street	1938	Listed under Criteria A and C
Area 6: Richmond	127-0354	Virginia Union University Historic District 1500 North Lombardy Street	1899	Listed under Criteria A and C
Area 6: Richmond	127-0428	George W. Carver Elementary School 1110 West Leigh Street	1887	Eligible under Criterion C
Area 6: Richmond	127-0822	Carver Residential Historic District	Pre-1958	Listed under Criterion C
Area 6: Richmond	127-6171	Richmond and Chesapeake Bay Railway Barn), Richmond-Ashland Railway Company Car Barn	1907	Listed NRHP and VLR under Criteria A and C
Area 6: Richmond	127-5679	Barton Heights Cemetery 1600 Lamb Avenue	1814	Listed under Criteria A and B and Criterion Consideration D
Area 6: Richmond	127-0353	Richmond Nursing Home 210 Hospital Street	1860	Listed under Criterion C
Area 6: Richmond	127-6166	Hebrew Cemetery 320 Hospital Street	1816	Listed under Criteria A and C
Area 6: Richmond	127-0343	Chestnut Hill/ Plateau Historic District	1889-1950	Listed under Criteria A and C
Area 6: Richmond	127-0344	Shockoe Valley & Tobacco Row Historic District	post 1737	Listed NRHP and VLR under Criteria A and C
Area 6: Richmond	44HE1098	Main Street Station Parking Lot/Railroad	19 th Century	Potentially Eligible under Criteria A and D; under Parking Lot
Area 6: Richmond	127-6129	Winfree Cottage East Main Street	ca. 1866	Potentially Eligible under Criteria A and C
Area 6: Richmond	44HE1097	Railroad, Warehouse	19 th Century	Potentially Eligible under Criteria A and D; under Parking Lot
Area 6: Richmond	127-0172	Main Street Station and Trainshed, New Union Station, Seaboard Airline & Chesapeake & Ohio Railroad Depot	1901	Listed NHL, NRHP, and VLR under Criteria A and C
Area 6: Richmond	127-0344- 0123	Railroad Y.M.C.A. 1552 East Main Street	1907	Potentially Eligible under Criteria A and C

▶ Continued.

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 6: Richmond	127-0219	Shockoe Slip Historic District and Expansions	1780	Listed NRHP and VLR under Criteria A and C
Area 6: Richmond	44HE1092	Warehouse	19 th Century	Potentially Eligible under Criteria A and D; under Parking Lot
Area 6: Richmond	44HE1094	Warehouse	19 th Century	Potentially Eligible under Criteria A and D; under Parking Lot
Area 6: Richmond	127-6793	C&O Railroad	Pre-1851	Potentially Eligible under Criterion A
Area 6: Richmond	127-5809	Bridge #1857, North 14 th Street; Mayo Bridge North	1911	Potentially Eligible under Criteria A and C
Area 6: Richmond	127-5808	Bridge #1857, South 14 th Street; Mayo Bridge South	1911	Potentially Eligible under Criteria A and C
Area 6: Richmond	127-0197	Philip Morris Leaf Storage Warehouse 1717-1721 East Cary Street	1914	Potentially Eligible under Criterion C
Area 6: Richmond	44HE1095	Storage Facility	19 th Century	Potentially Eligible under Criteria A and D; under Parking Lot
Area 6: Richmond	127-0282	Henrico County Courthouse 2127 Main Street East	1896	Potentially Eligible under Criteria A and C
Area 6: Richmond	127-0192	St. John's Church Historic District	18 th Century to 1940	Listed under Criterion C
Area 6: Richmond	127-0192-0322	Libby Hill Park and Park House 2801 East Franklin Street	ca. 1873	Potentially Eligible under Criteria A and C
Area 6: Richmond	127-0854	Bridge #1850, E. Main Street spanning Southern Railway	ca. 1913	Eligible under Criteria A and C
Area 6: Richmond	127-0119	John Woodward House 3017 Williamsburg Avenue	pre-1782	Listed on the NRHP and VLR under Criteria A and C
Area 6: Richmond	127-6693	Armitage Manufacturing Company 3200 Williamsburg Avenue	1900	Listed on the NRHP and VLR under Criteria A and C
Area 6: Richmond	127-6255	Fulton Gas Works Williamsburg Avenue	ca. 1925	Eligible under Criterion A
Area 6: Richmond	127-0257	Bridge #8067	1938	Potentially Eligible under Criterion C
Area 6: Richmond	043-5313	James River Steam Brewery Cellars 4920 Old Main Street	1866	Listed on the NRHP and VLR under Criteria A and C
Area 6: Richmond	043-0439	Aviation General Supply Depot 508 Bickerstaff Road	1917	Eligible under Criterion A
Area 6: Richmond	043-0307	Battle of Chaffin's Farm (New Market Heights Battlefield) New Market Road	1862	Eligible/Potentially Eligible under Criterion A
Area 6: Richmond	043-5071	Darbytown & New Market Roads Battlefield, Route 5	1864	Eligible/Potentially Eligible under Criterion A
Area 6: Richmond	127-0457	Manchester Warehouse Historic District	1880-1960	Listed under Criteria A and C
Area 6: Richmond	127-6193	J.P. Taylor Leaf Tobacco Southern Stove Works 516 Dinwiddie Avenue	1920	Listed under Criteria A and C

▶ *Continued.*

Table 5.3-1: Summary of Historic Properties in the Area of Potential Effect

Alternative Area	DHR ID	Name/Description	Date/Time Period	NRHP Eligibility
Area 6: Richmond	127-6245/ 44CF0724	Williams Bridge Company, Emergency Fleet Corporation Factory 700 East 4 th Street	1919	Eligible under Criteria A, C, and D
Area 6: Richmond	127-6248	Pure Oil Company, 1314 Commerce Street Transmontaigne	1936	Eligible under Criteria A and C
Area 6: Richmond	127-6213	Davee Gardens Historic District	1947	Eligible under Criteria A and C
Area 6: Richmond	020-5474	DuPont Spruance	1929	Eligible under Criteria A and C
Area 6: Richmond	020-0063	Falling Creek Ironworks Archaeological Site	1619	Listed NRHP and VLR under Criterion D
Area 6: Richmond	020-0147	Drewry's Bluff Battlefield (Fort Darling, Fort Drewry) Fort Darling Road	1862	Eligible/Potentially Eligible under Criterion A
Area 6: Richmond	123-5025	Assault on Petersburg (Petersburg Battlefield II) Bermuda Hundred Road (Alt Route 697)	1865	Eligible/Potentially Eligible under Criterion A
Area 6: Richmond	020-0007	Bellwood, Sheffields, Auburn Chase Building 42, Defense Supply Center Richmond 8000 Jefferson Davis Highway	1804	Listed NRHP and VLR under Criteria A, C, and D
Area 6: Richmond	020-0013	House 3619 Thurston Road	1913	Eligible under Criterion C
Area 6: Richmond	020-0022/ 44CF0680	Centralia Earthworks	1861	Eligible under Criteria A and C
Area 6: Richmond	020-5378	VEPCo Power Transmission Line	ca. 1910	Eligible under Criteria A and C
Area 6: Richmond	020-0140	Circle Oaks 4510 Centralia Road	1840	Eligible under Criterion C
Area 6: Richmond	020-0552	Centralia Post Office	1905	Eligible under Criterion A
Area 6: Richmond	127-6251	Atlantic Coast Line Railroad (ACL) Corridor Richmond and Petersburg Railroad	post 1833	Eligible under Criterion A
Area 6: Richmond	127-6271	Seaboard Air Line Railroad (SAL) Corridor	1900	Eligible under Criterion A
All	076-0301	RF&P Railroad	1836	Eligible under Criterion A

5.4 SECTION 4(f) PROPERTY IMPACTS

5.4.1 Parks and Recreation Areas

This section describes the potential impacts by alternative to parks and recreational areas protected under Section 4(f). Table 5.4-1 provides a summary of the temporary and permanent use of lands associated with these Section 4(f) resources. Figure 5.4-1 depicts the areas of permanent use. Based on the criteria discussed in Section 5.2, FRA anticipates all permanent impacts to parks and recreation areas will be *de minimis* and all temporary impacts to parks and recreation areas will not result in a Section 4(f) use. DRPT sent initial coordination letters regarding Section 4(f) impacts to resource owners in June 2017 (Appendix U). FRA and DRPT

will continue this coordination after publication of the Draft EIS and will discuss potential impacts with all affected resource owners prior to issuance of the Final EIS.

- **Long Bridge Park**—Build Alternatives 1A, 1B, and 1C would have temporary impacts to this facility. Build Alternatives 1B and 1C would also have permanent impacts.

Build Alternative 1A would expand the railroad infrastructure on the east side of the right-of-way approaching Long Bridge from the south, which would have 0.51 acre of temporary impacts during construction associated with access, erosion control, and material placement to this 29-acre park; this is less than two percent of the parkland at this facility. The temporary impacts would affect a narrow strip of land less than 10 feet in width along the east side of the railroad; however, this area is segregated from the active parkland by a retaining wall and fence on the west side of the active railroad corridor and is inaccessible for public use. The Long Bridge Park activities such as trails and sport fields are located along the west side of the railroad. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.

Build Alternative 1B would expand the railroad infrastructure on the west side of the right-of-way approaching Long Bridge from the south, which would require 1.45 acres of permanent right-of-way and 0.88 acre of temporary impacts for a combined permanent and temporary impact of eight percent of the 29-acre facility. The permanent impacts would affect a long narrow width of additional right-of-way of generally less than 50 feet expanding to around 100 feet in one area on the west side of the existing railroad. Temporary impacts, from area needed for construction access, erosion control, and material placement, extend approximately another 15 feet in width. The permanent impacts avoid the park activity areas such as walking trails and sport fields. The areas impacted consist of landscaping or natural vegetation. Impacted landscaped elements will be replaced in nearby locations in the remaining parkland. Temporary impacts may affect the area adjacent to the soccer field but will not affect the field itself, and disruptions to the activity will be avoided. FRA believes the permanent impacts to be minor in nature and will recommend that the use is *de minimis*. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.

Build Alternative 1C would expand the railroad infrastructure on both the east and west sides of the right-of-way approaching Long Bridge from the south, which would require 0.36 acre of additional permanent right-of-way and 0.65 acre of temporary impacts totaling three percent of the 29-acre facility. These impacts would affect a narrow strip of land along the west side of the existing railroad, generally less than 25 feet in width (approximately 15-foot width of permanent impacts and 10-foot width of temporary impacts). The areas impacted consist of landscaping and natural vegetation. Temporary impacts are associated with access, erosion control, and material placement for construction. Trails and sport fields are not impacted. Impacted landscaped elements will be replaced in nearby locations in the remaining parkland. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.

- **Mount Vernon Trail**—Build Alternative 2A would have temporary impacts to 20 feet of this trail facility for access and erosion control during construction. Trail connectivity would be maintained during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, trail connectivity would be maintained, and the land would be restored to its prior condition. The activities of the park would not be affected during the timeframe of the temporary impacts.
- **Dog Run Park at Carlyle**—Build Alternative 2A would require 0.04 acre of permanent right-of-way from this park facility and 0.14 acre of temporary impacts totaling six percent of this 3-acre dog park. The permanent impacts are primarily located at the west side of the park in an area of natural vegetation that is not utilized for park activities. There is also a very narrow strip of permanent impacts along the length of the park, approximately 3 feet in width. Temporary impacts, from area needed for access, erosion control, and material placement during construction, are located in an area of natural vegetation comprising a narrow strip and extending an additional 10 feet from the additional permanent right-of-way. The adjacent dog run area and tennis courts would not be impacted. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. The transportation use of this additional right-of-way does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition. The activities of the park would not be affected during the timeframe of the temporary impacts.
- **George Washington Memorial Parkway**—Build Alternative 2A would have temporary impacts to this facility. These impacts consist of an approximately 10-foot-wide strip of vacant forested land on the east side of the existing railroad totaling 1.04 acres or less than 0.1 percent of the 1,105-acre facility. Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.
- **Veterans Memorial Park**—Build Alternative 2A would have temporary impacts of 0.05 acre of this 110-acre facility or 0.5 percent of the total parkland acreage. The impacted area is a narrow strip of land, less than 5 feet in width. Temporary impacts would be needed from area needed for access, erosion control, and material placement during construction. The area consists of natural vegetation. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.
- **Fredericksburg and Spotsylvania National Military Park**—Build Alternatives 3A, 3B, and 4A would have temporary impacts to this facility. Build Alternatives 3A and 3B, which follow the existing CSXT right-of-way through Fredericksburg, share a common alignment in this area and would have temporary impacts of 0.02 acre, less than 0.001 percent of the 8,374-acre National Military Park. The temporarily impacted area is a small rectangular-shaped piece of land that is vacant. Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion

of construction, the land would be restored to its prior condition and the activities of the park would not be affected during the timeframe of the temporary impacts.

Build Alternative 4A, which follows the existing CSXT right-of-way south of Fredericksburg, would have temporary impacts of 1.09 acres, or 0.01 percent of the National Military Park. The temporary impacts consist of an approximately 20-foot-wide strip that consists of forest and agricultural lands. Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.

- **North Ashland Park**—Build Alternative 5D–Ashcake, which adds a third track through and constructs a new station south of Ashland, would have temporary impacts to this facility. The temporary impacts would be 0.02 acre in size or 10 percent of the 0.2-acre park. The temporary impacts would be to an open grassed area that is approximately 10 feet wide along the existing right-of-way. Temporary impacts would be from area needed for access and erosion control during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.
- **Railside Park**—Build Alternative 5D–Ashcake, which adds a third track through and constructs a new station south of Ashland, would have temporary impacts to this facility. The temporary impacts would be 0.01 acre in size or one percent of the 1.-acre park. The temporary impacts would be to an approximately 6-foot-wide strip of vacant land along the existing right-of-way. Temporary impacts would be from area needed for access and erosion control during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.
- **Carter Park**—Build Alternatives 5B and 5B–Ashcake, which add a third track through Ashland (Build Alternative 5B–Ashcake also constructs a new station south of Ashland), share a common alignment in this area and would require 0.03 acre of permanent right-of-way, 0.2 percent of this 13.5-acre park facility. This impact consists of a very narrow strip of forested land, less than 5 feet in width, on the east side of the existing right-of-way. Park activities would not be affected. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. The transportation use of this additional right-of-way does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
- **Ashland Trolley Line**—Build Alternatives 5A–Ashcake, 5B–Ashcake, 5C–Ashcake, and 5D–Ashcake, each of which constructs a new station south of Ashland, share a common alignment at this location and would require 0.01 acre of permanent right-of-way, 0.1 percent of this 6.7-acre park facility. The additional right-of-way is required for access purposes to connect to Walder Lane which is located within the park boundaries in the area owned by the Town of Ashland. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. The permanent impacts consist of a small area of additional right-of-way. The transportation use of this additional right-of-way does not

adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

- **Maggie Walker Governor’s School Fields**—Build Alternatives 6B–S-Line, 6D, 6F, and 6G, which expand intercity passenger rail service on the S-Line through and south of downtown Richmond, share a common alignment in this area and would have temporary impacts of 0.01 acre, 0.2 percent of this 4.9-acre facility. The area temporarily impacted consists of small slivers of land less than 5 feet in width. These areas are not actively used by the school and consist of natural vegetation. Temporary impacts would be from area needed for access and erosion control during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the activities of the park would not be affected during the timeframe of the temporary impacts.
- **Walker’s Creek Retention Basin Park**—Build Alternatives 6B–S-Line, 6D, 6F, and 6G, which expand intercity passenger rail service on the S-Line through and south of downtown Richmond, share a common alignment in this area and would require permanent right-of-way from and temporary impacts to this park facility. Permanent impacts would be 0.17 acre, and temporary impacts would be 0.23 acre for a total affected percentage of six percent of the 6.4-acre park. The affected area is a vacant grassed area with a multi-use trail that currently crosses under the existing tracks. Trail connectivity would be maintained during and after construction. The impacted width ranges up to 70 feet for temporary and permanent impacts combined. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. The transportation use of this additional right-of-way does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, trail connectivity would be maintained, and the other activities of the park would not be affected during the timeframe of the temporary impacts.
- **Gates Mill Park**—Build Alternatives 6A, 6B–A-Line, 6C, and 6E, which expand intercity passenger rail service on the A-Line through and south of Richmond (none of which are identified as the recommended Preferred Alternative as described in Chapter 7 of this Draft EIS), share a common alignment in this area and would require permanent right-of-way from and temporary impacts to this park facility. Permanent impacts would be 0.19 acre, and temporary impacts would be 0.22 acre for a total affected percentage of four percent of the 11-acre park. The affected area includes parking for an adjacent business and vacant forested land. The land is not actively used for park activities. FRA believes the impacts to be minor in nature and will recommend that the use is *de minimis*. The transportation use of this additional right-of-way does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and there would be no changes to areas of park activity.

5.4.2 Wildlife Refuges

There are no permanent impacts to wildlife refuges (see Table 5.4-2). Build Alternative 4A would have temporary impacts of 2.54 acres or 0.1 percent of the 2,652-acre Mattaponi Wildlife Management Area. The impacted area consists of forest in a narrow strip of land, approximately 15 feet wide on the west side of the existing right-of-way. Temporary impacts would be from area needed for access, erosion control, and material placement during construction. FRA does not anticipate the temporary impacts will result in a Section 4(f) use because upon completion of construction, the land would be restored to its prior condition, and the other activities of the park would not be affected during the timeframe of the temporary impacts. Roaches Run Waterfowl Sanctuary is located near the DC2RVA corridor but will not have temporary or permanent impacts associated with any of the Build Alternatives.



Mattaponi Wildlife Management Area

Table 5.4-1: Permanent and Temporary Impacts to Park Resources by Build Alternative (Acres)

Resource	Build Alternative																						
	1A	1B	1C	2A	3A	3B	3C	4A	5A	5A--Ashcake	5B	5B--Ashcake	5C	5C--Ashcake	5D--Ashcake	6A	6B--A-Line	6B--S-Line	6C	6D	6E	6F	6G
Long Bridge Park	0.00 (0.51)	1.45 (0.88)	0.36 (0.65)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mount Vernon Trail	-	-	-	0 ft (20 ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dog Run Park at Carlyle	-	-	-	0.04 (0.14)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
George Washington Memorial Parkway	-	-	-	0.00 (1.04)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Veterans Memorial Park	-	-	-	0.00 (0.05)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fredericksburg and Spotsylvania National Military Park	-	-	-	-	0.00 (0.02)	0.00 (0.02)	-	0.00 (1.09)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Ashland Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00 (0.02)	-	-	-	-	-	-	-	-
Railside Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00 (0.01)	-	-	-	-	-	-	-	-
Carter Park	-	-	-	-	-	-	-	-	-	-	0.03 (0.00)	0.03 (0.00)	-	-	-	-	-	-	-	-	-	-	-
Ashland Trolley Line	-	-	-	-	-	-	-	-	-	0.01 (0.00)	-	0.01 (0.00)	-	0.01 (0.00)	0.01 (0.00)	-	-	-	-	-	-	-	-

► Continued; Key: Permanent Impacts / (Temporary Impacts); Recommended Preferred Alternative (see Chapter 7)

Table 5.4-1: Permanent and Temporary Impacts to Park Resources by Build Alternative (Acres)

Resource	Build Alternative																						
	1A	1B	1C	2A	3A	3B	3C	4A	5A	5A--Ashcake	5B	5B--Ashcake	5C	5C--Ashcake	5D--Ashcake	6A	6B--A-Line	6B--S-Line	6C	6D	6E	6F	6G
Maggie Walker Governor's School Fields	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00 (0.01)	-	0.00 (0.01)	-	0.00 (0.01)	0.00 (0.01)
Walker's Creek Retention Basin Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17 (0.23)	-	0.17 (0.23)	-	0.17 (0.23)	0.17 (0.23)
Gates Mill Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19 (0.22)	0.19 (0.22)	-	0.19 (0.22)	-	0.19 (0.22)	-	-

Key: Permanent Impacts / (Temporary Impacts); Recommended Preferred Alternative (see Chapter 7)

Table 5.4-2: Permanent and Temporary Impacts to Wildlife Refuges by Build Alternative (Acres)

Resource	Build Alternative																						
	1A	1B	1C	2A	3A	3B	3C	4A	5A	5A--Ashcake	5B	5B--Ashcake	5C	5C--Ashcake	5D--Ashcake	6A	6B--A-Line	6B--S-Line	6C	6D	6E	6F	6G
Mattaponi Wildlife Management Area	-	-	-	-	-	-	-	0.00 (2.54)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Key: Permanent Impacts / (Temporary Impacts); Recommended Preferred Alternative (see Chapter 7)

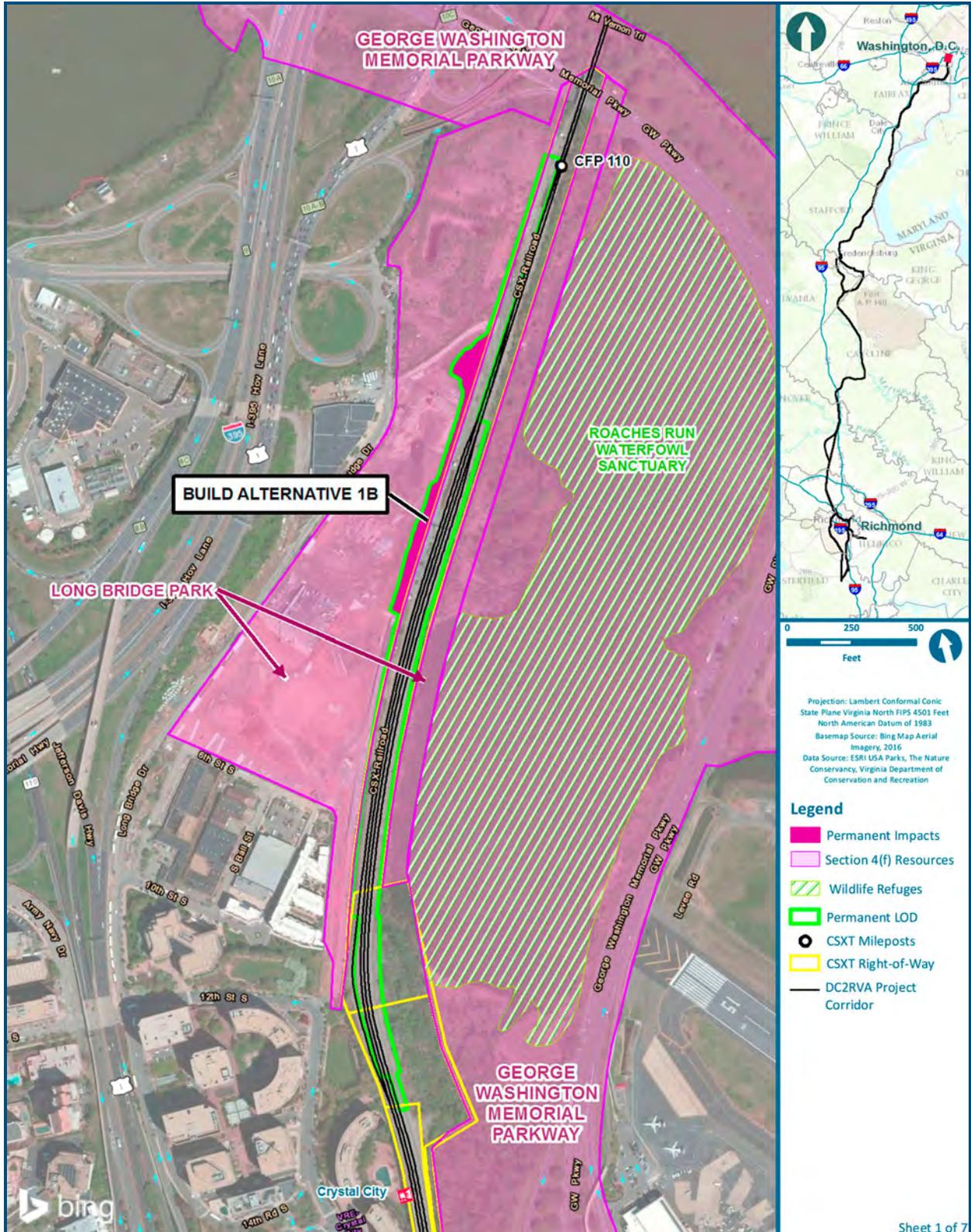


Figure 5.4-1: Permanent Park Impacts – Build Alternative 1B

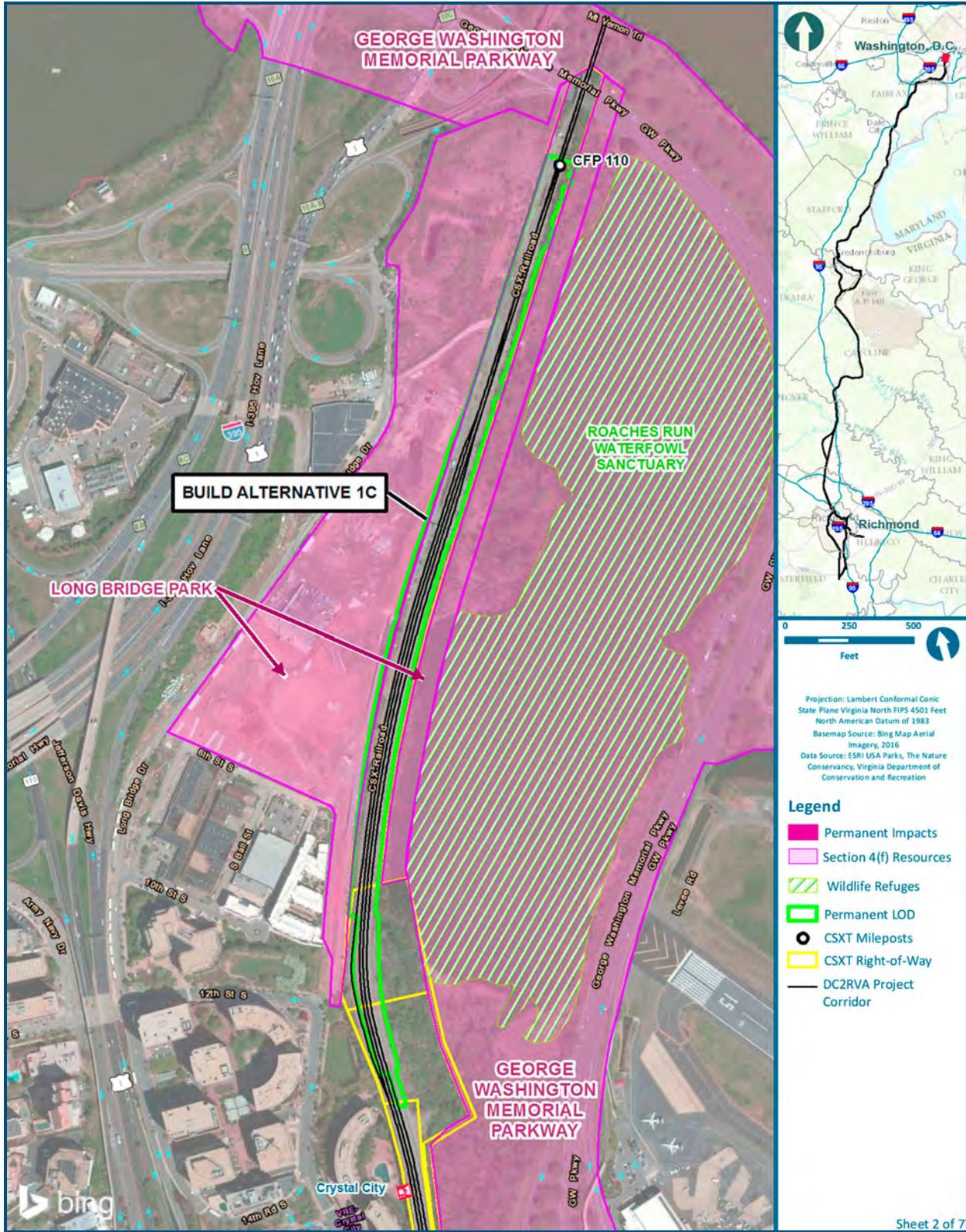


Figure 5.4-1: Permanent Park Impacts – Build Alternative 1C

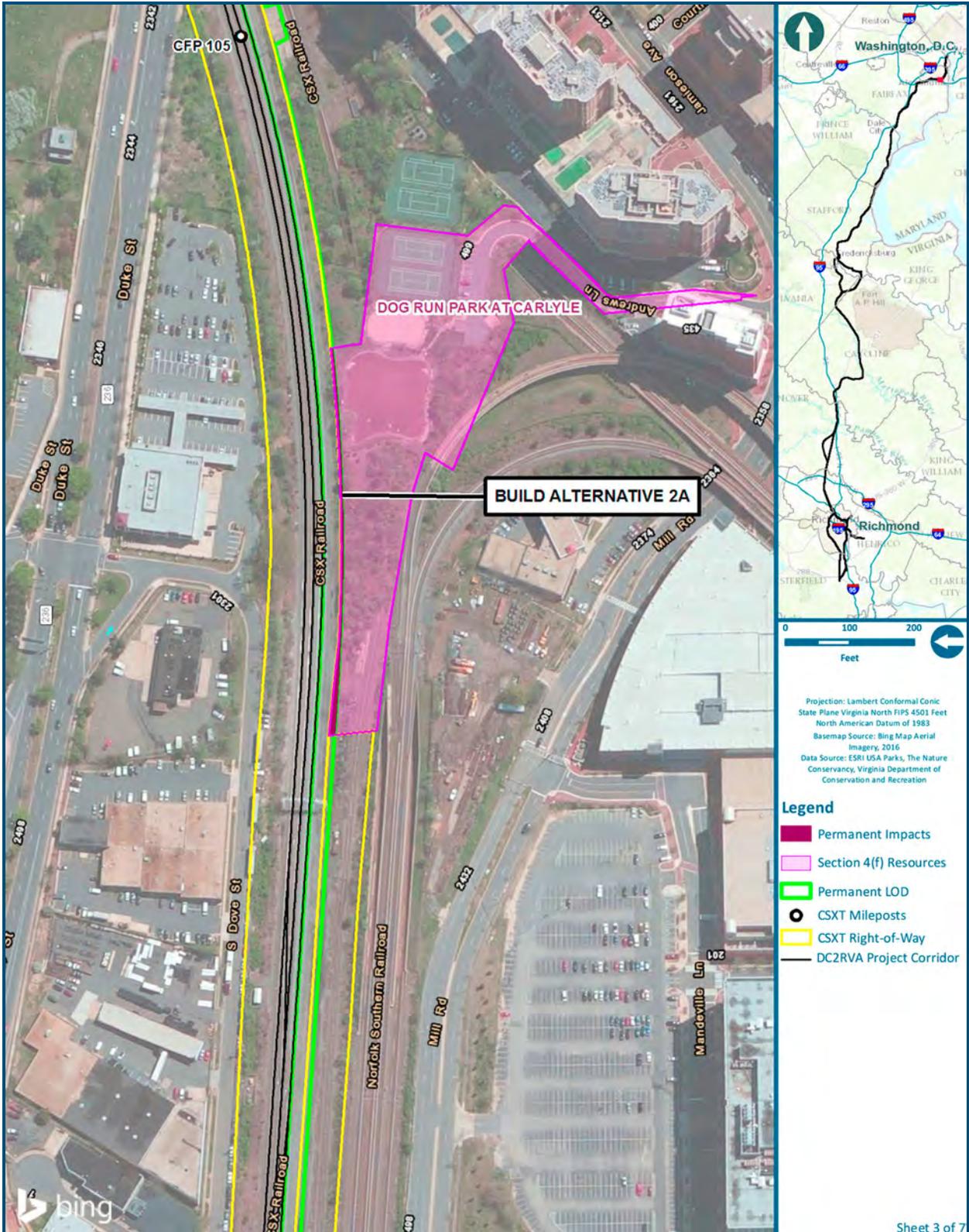


Figure 5.4-1: Permanent Park Impacts – Build Alternative 2A

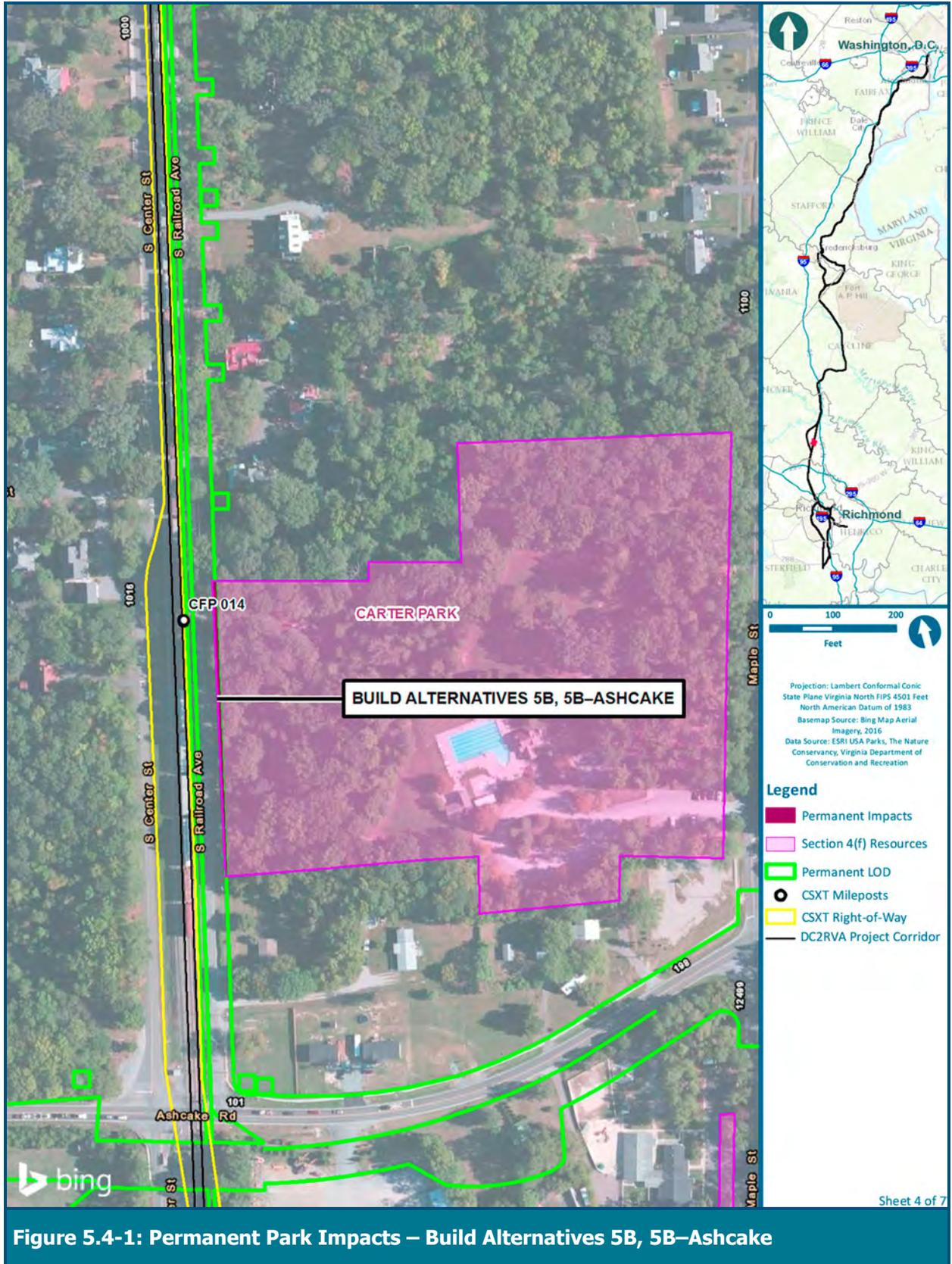


Figure 5.4-1: Permanent Park Impacts – Build Alternatives 5B, 5B–Ashcake

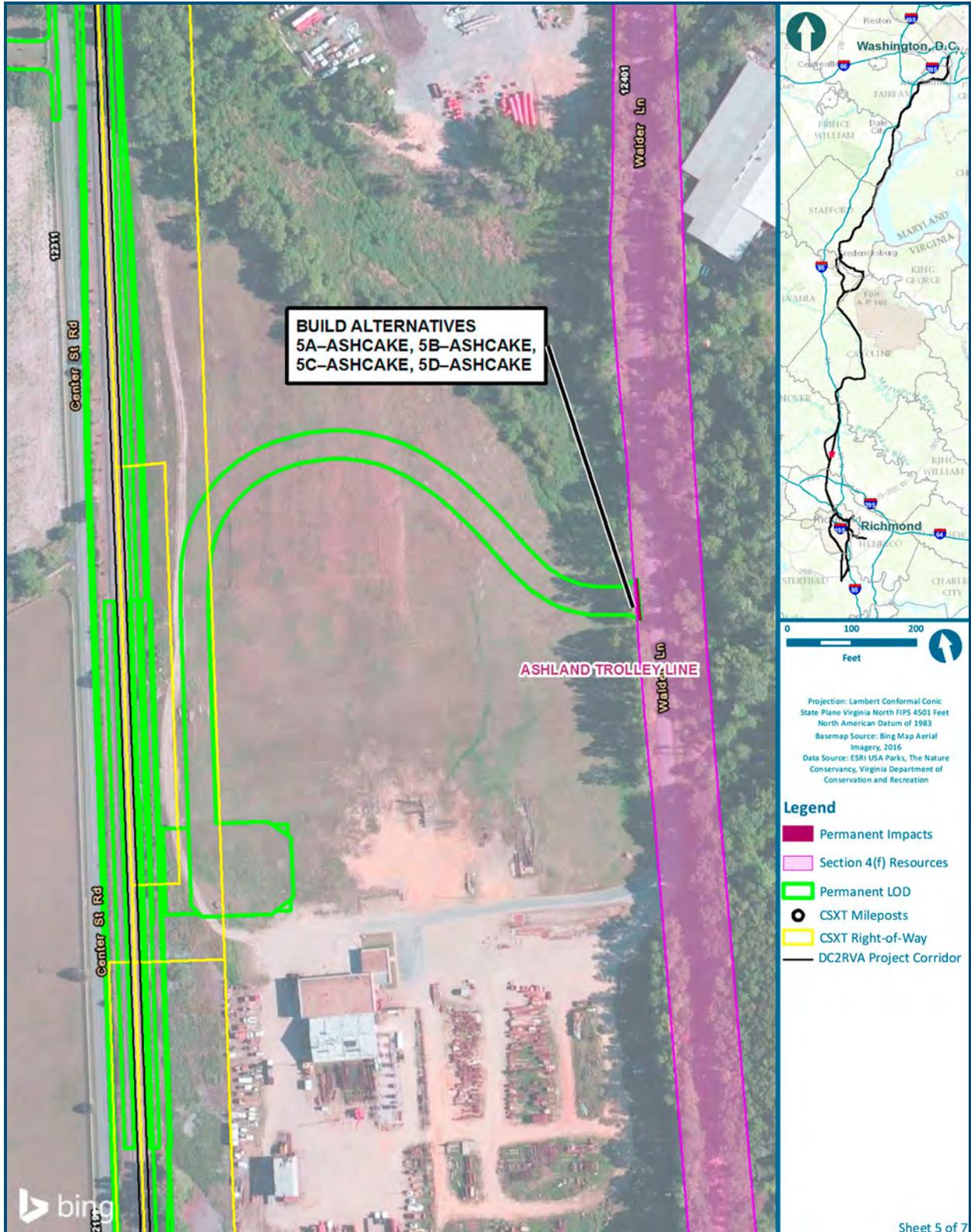
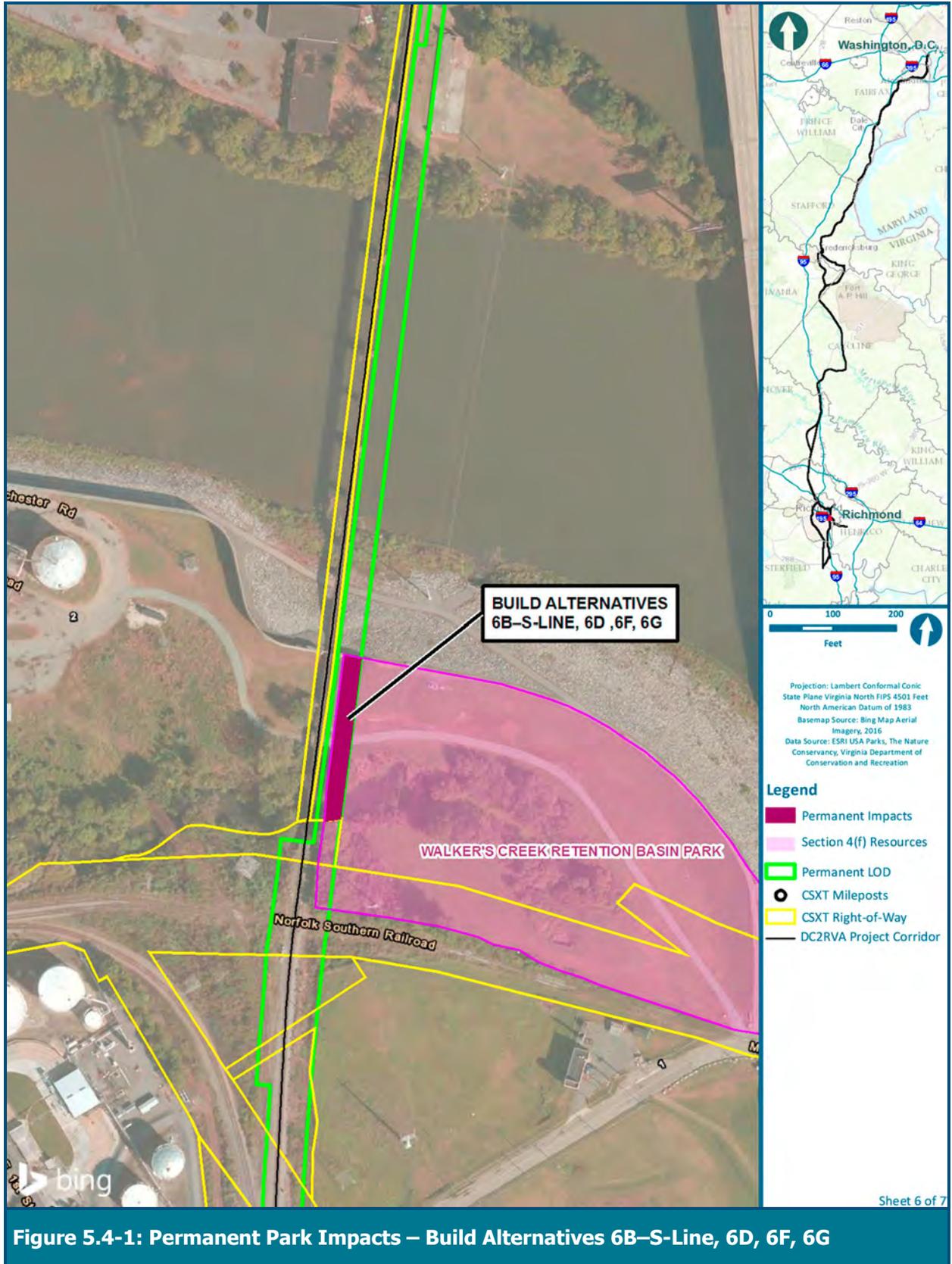


Figure 5.4-1: Permanent Park Impacts – Build Alternatives 5A–Ashcake, 5B–Ashcake, 5C–Ashcake, 5D–Ashcake



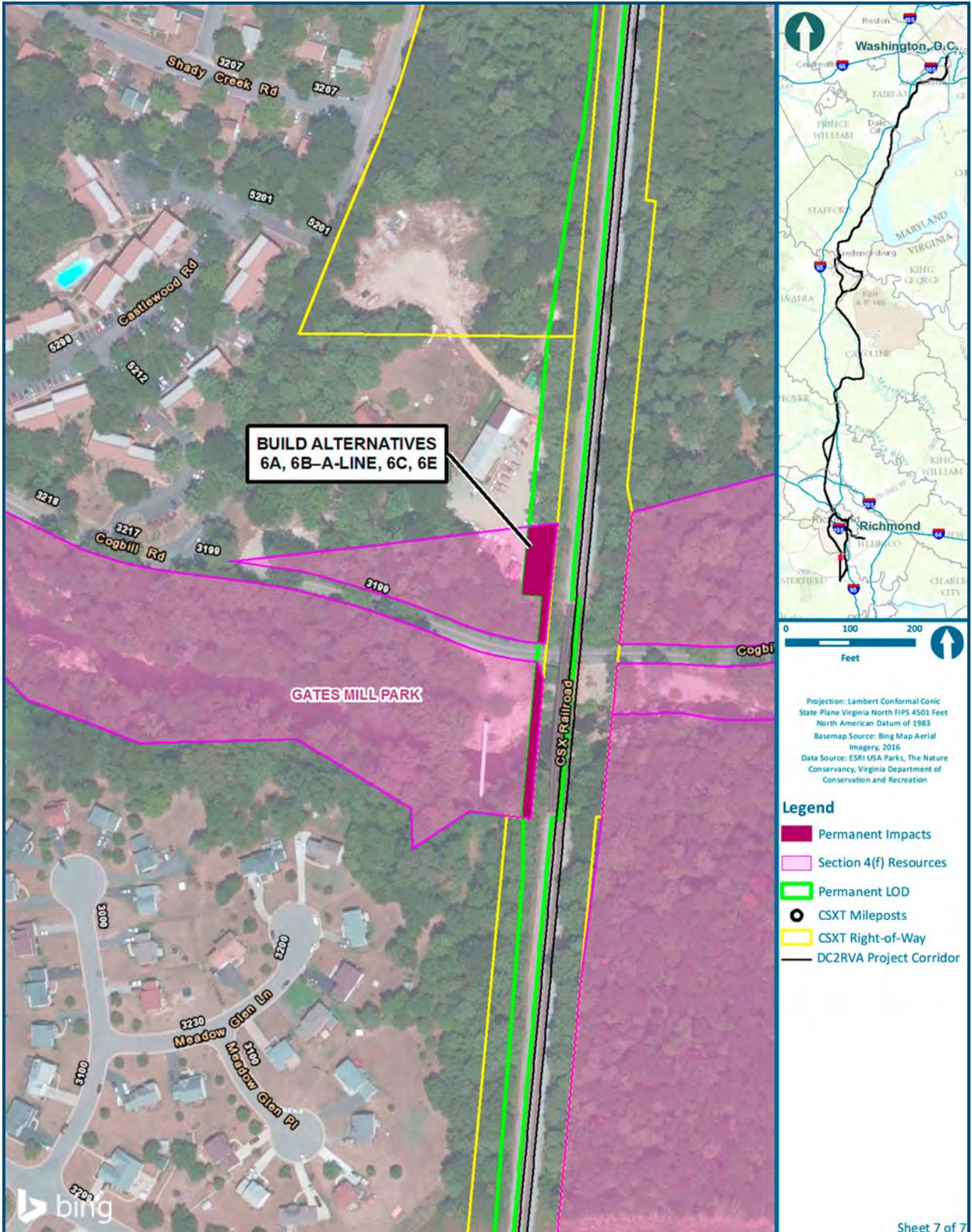


Figure 5.4-1: Permanent Park Impacts – Build Alternative 6A, 6B–A-Line, 6C, 6E

5.4.3 Historic Properties

There are 158 historic properties within the APE: 9 archaeological sites, 135 aboveground resources, 3 resources with an aboveground and belowground component, and 11 battlefields. FRA anticipates that the Project could potentially result in a Section 4(f) use of up to 14 of the 158 historic properties from one or more of the Build Alternatives (Tables 5.4-3 and 5.4-4 and Figure 5.4-2). Therefore, FRA anticipates the Project will result in either no use or *de minimis* use of the remaining 144 properties. If FRA determines there is no use of these properties, no further action is required, and these results will be presented to the DHR to inform DHR of FRA’s *de minimis* determinations. More-detailed figures showing impacts to historic properties and DHR eligibility determinations (including individual eligibility and contributions to historic districts) are provided in the *Cultural Resources Reports* (Appendix R).

Preliminary dialogues with the DHR on effect and Section 4(f) use took place on August 10, 2016, and the ensuing preliminary determinations are represented here. Where FRA anticipates that one or more of the Build Alternatives will potentially result in a use of a historic property, details are provided below regarding each alternative’s impact on the resource. If the DHR determined that the project will have an adverse effect on a resource but FRA determined that the project will have a *de minimis* use or no use, these resources are discussed below to provide contextual data for the *de minimis*/no use determination. FRA and DRPT will continue consultations with DHR and consulting parties, and the Final EIS will detail final determinations of effect and Section 4(f) uses.

Table 5.4-3: Summary of Preliminary Section 4(f) Recommendations for All Historic Properties

Alternative Area	Alternative	Section 4(f) Recommendation		
		Use	<i>de minimis</i>	No Use
Area 1: Arlington	1A	1	1	1
	1B	1	1	1
	1C	1	1	1
Area 2: Northern Virginia	2A	1	6	8
Area 3: Fredericksburg	3A	0	0	21
	3B	3	10	8
	3C ¹	1	3	2
Area 4: Central Virginia	4A	3	10	7
Area 5: Ashland	5A	0	0	0
	5A–Ashcake	0	4	15
	5B	3	11	5
	5B–Ashcake	3	11	5
	5C ¹	1	3	3
	5C–Ashcake ¹	1	3	3
Area 6: Richmond	5D–Ashcake	3	11	5
	6A	4	36	43
	6B–A-Line	5	25	53
	6B–S-Line	8	30	45
	6C	5	28	50
	6D	7	36	40
	6E	3	47	33
	6F	7	35	41
6G	7	43	33	

Note: 1. Partial Data; Only Phase 1A reconnaissance studies were completed on the bypass alternatives. As such, this count only includes previously recorded resources; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
029-0218	Mount Vernon Memorial Highway (portion of George Washington Memorial Parkway)	<i>de minimis</i>	<i>de minimis</i>	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
000-0045	Washington National Airport (Reagan National Airport)	No Use	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0160	George Washington Junior High School 1005 Mt. Vernon Avenue	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0133	Parker-Gray Historic District/Uptown	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0137	Rosemont Historic District	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0124	Alexandria Depot 110 Callahan Drive	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0128	George Washington National Masonic Memorial	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-0277	Phoenix Mill 3642 Wheeler Avenue	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBD	RF&P Bridge over Holmes Run in Cameron Run Park	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
029-0953	Old Colchester Road, Potomac Path, King's Highway	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
029-5741	Hannah P. Clark House/Enyedi House 10605 Furnace Road	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
029-0043	Colchester Arms Fairfax Arms 10712 Old Colchester Road	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBD	RF&P Bridge over Occoquan River	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
287-0010	Marine Corps Base Quantico (Current), Quantico Marine Corps Base Historic District (NRHP Listing)	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287-5147	Town of Quantico (Historic/Current), Town of Quantico Historic District (Current)	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
089-0019	Richland/Richlands 945 Widewater Road	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
089-0045	RF&P Bridge over Potomac Creek at Leland Road	-	-	-	-	No Use	de minimis	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
089-0080	RF&P Bridge over Naomi Road	-	-	-	-	No Use	Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0147	Fredericksburg & Spotsylvania Co. Battlefields National Military Park & Cemetery, Lee Drive	-	-	-	-	No Use	de minimis	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
089-0016/44ST0084	Ferry Farm	-	-	-	-	No Use	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
089-0014	Sherwood Forest (Historic)	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0132-0025	Rappahannock River Railroad Bridge	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44SP0187	Stone Piers; Bridge or Building	-	-	-	-	No Use	Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0132-0704	Fredericksburg Train Station 200 Lafayette Boulevard	-	-	-	-	No Use	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0132	Fredericksburg Historic District	-	-	-	-	No Use	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0132-0020	Purina Tower	-	-	-	-	No Use	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
111-0132-0522	House 314–316 Frederick Street	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0009-0795	Pulliam's Service Station 411 Lafayette Boulevard	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0009	Fredericksburg Historic District Extension	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-5295	Battle of Fredericksburg I	-	-	-	-	No Use	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-5296	Battle of Fredericksburg II	-	-	-	-	No Use	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
088-5181	Salem Church Battlefield (Banks Ford Battlefield)	-	-	-	-	No Use	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
088-5364	Fredericksburg & Gordonsville Railroad Bed District (Virginia Central Railroad)	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111-0145	Fredericksburg Gun Manufactory	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
088-0254	Slaughter Pen Farm 11232 Tidewater Trail (Wayside Farm or Pierson Farm)	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44SP0468- extension	Earthwork/ Jackson's Earthwork	-	-	-	-	No Use	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
088-0039	La Vue 3232 LaVue Lane (Prospect View)	-	-	-	-	No Use	<i>de minimis</i>	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0092	Fairfield Plantation Office Jackson Shrine 12019 Stonewall Jackson Road	-	-	-	-	-	-	-	<i>de minimis</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0208	House 12096 Guinea Drive	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
016-5165	Excelsior Industry of Caroline County MPD	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-5129	Woodford Historic District	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0223	Woodford Excelsior Company Office, Lake Farm Road	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0222	Woodford Freight & Passenger Depot, Woodford Road	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0224	Glenwood House, 11102 Woodford Road	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0220	Carolina Mansion 11146 Woodford Road	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0270	Milford State Bank 15461 Antioch Road	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-5136	Milford Historic District	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
016-0286	Coleman's Store, 22275 Penola Road Penola, 16095 Polecat Lane	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0123	North Anna Battlefield	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-5448	Doswell Historic District	-	-	-	-	-	-	-	Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0470	Squashapenny Junction Store; House 10570 Doswell Road	-	-	-	-	-	-	-	Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0469	Tri-County Bank, Doswell Branch (part of Squashapenny Antiques) 10561 Doswell Road	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0093	Doswell Depot and Tower 10577 Doswell Road	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
042-5307	Taylorsville Road Historic District	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBD	RF&P Bridge over Little River	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0836	Earthworks, Little River	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042-0557	Dry Bridge 10411 Old Bridge Road	-	-	-	-	-	-	-	-	-	de minimis	-	-	-	-	-	-	-	-					
042-0392	Montevideo	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	-	-	-	-	-	-	-	-	-
166-5073	Berkleytown Historic District	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-
166-5073-0010	House, Dabney Funeral Home, 600 B Street	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	-	-	No Use	-	-	-	-	-	-	-	-
166-0001	Ashland Historic District	-	-	-	-	-	-	-	-	-	de minimis	Use	Use	-	-	Use	-	-	-	-	-	-	-	-
166-0001-0015	Business Office, Randolph-Macon College 310 N. Center Street	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	-	-	No Use	-	-	-	-	-	-	-	-
166-5072	Randolph-Macon College Historic District Expansion	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-
166-0002	Randolph-Macon College Historic District	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-
166-0001-0008	Ashland Station Depot 112 N. Railroad Avenue	-	-	-	-	-	-	-	-	-	de minimis	Use	Use	-	-	Use	-	-	-	-	-	-	-	-
166-5041	Priddy House 107 Stebbins Street	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	-	-	No Use	-	-	-	-	-	-	-	-
166-0001-0055	House 704 S. Center Street	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-
166-0001-0060	House 708 S. Center Street	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-
166-0036	MacMurdo House 713 S. Center Street	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																							
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G	
166-0037	Hugo House 11208 Gwathmey Church Road	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-	-
166-0001-0077	House 1005 S. Center Street	-	-	-	-	-	-	-	-	-	No Use	de minimis	de minimis	-	-	de minimis	-	-	-	-	-	-	-	-	-
042-5048	Elmont Historic District	-	-	-	-	-	-	-	-	-	No Use	de minimis	-	-	-	-	-	-	-	-	-				
043-0693	Mill Road Historic District	-	-	-	-	-	-	-	-	-	No Use	de minimis	-	-	-	-	-	-	-	-	-				
043-0694	Hunton Treasures 11701 Greenwood Road	-	-	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-					
043-5646	House 11501 Old Washington Highway	-	-	-	-	-	-	-	-	-	No Use	-	-	-	-	-	-	-	-	-					
043-5657	Darling Smokestack Old Washington Highway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
043-5108	Yellow Tavern Battlefield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
043-0690	Lewis-McLeod House 2945 Mountain Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
043-0292	Laurel Industrial School Historic District, Hungary Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
043-0292-0001	Main Building/Robert Stiles Building/Bluford Office Building, 2900 Hungary Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
043-5636	Integrated Power Sources of Virginia, 2260 Dabney Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
127-6136	Scott's Addition Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
127-6569	Central National Bank 3501 W Broad Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis	

▶ Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
127-6514	Kent Road Village 905 Kent Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use							
127-0742	West of Boulevard Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
127-6756	Carillon Neighborhood Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
127-0171	James River and Kanawha Canal Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
127-6792	Southern Railway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
127-6629	Cedarhurst Neighborhood Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
Temp 402	House 351 W. 49 th Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
127-6757	Woodstock Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
Temp R	Rolando Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	de minimis	de minimis	No Use	de minimis
Temp 268	Broad Run House 2011 S. Kinsley Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	de minimis	No Use	de minimis	No Use	de minimis	No Use	de minimis
020-5351	Richmond & Petersburg Electric Railway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
020-5336	The Bellwood-Richmond Quartermaster Depot Historic District, US Department of Defense Supply Center Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
44CF0680	Fort Darling/Battlefield, Earthworks, Fort	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
020-5320	Proctor's Creek Battlefield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
127-6188	Movieland Bowtie Cinema 1331 North Boulevard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																							
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G	
127-6840	Warehouse 2728 Hermitage Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-6730	Hermitage Road Warehouse Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-6165	Cookie Factory Lofts, 900 Terminal Place	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0226	Science Museum of Virginia 2500 Broad Street, West	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	Use	Use	Use	No Use	No Use	No Use	No Use	No Use
127-5978	Todd Lofts 1128 Hermitage Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	de minimis					
127-6145	Southern Stove Works 1215 Hermitage Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	de minimis					
127-6570	West Broad Street Industrial and Commercial Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	de minimis	No Use				
127-0414	Governor's School 1000 North Lombardy St.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	No Use	No Use	de minimis				
127-0354	Virginia Union University Historic District, 1500 North Lombardy St.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0428	George W. Carver Elementary School 1110 West Leigh Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0822	Carver Residential Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-6171	Richmond and Chesapeake Bay Railway Barn), Richmond-Ashland Railway Company Car Barn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-5679	Barton Heights Cemetery 1600 Lamb Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0353	Richmond Nursing Home 210 Hospital Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																							
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G	
127-6166	Hebrew Cemetery 320 Hospital Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	No Use	No Use	de minimis	de minimis	de minimis	de minimis	
127-0343	Chestnut Hill/ Plateau Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use							
127-0344	Shockoe Valley & Tobacco Row Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	No Use	No Use	de minimis	de minimis	de minimis	de minimis	
44HE1098	Main Street Station Parking Lot/Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	Use	No Use	Use	de minimis	Use	Use	
127-6129	Winfree Cottage East Main Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
44HE1097	Railroad, Warehouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	Use	No Use	Use	de minimis	Use	Use	
127-0172	Main Street Station and Trainshed, New Union Station, Seaboard Airline & Chesapeake & Ohio Railroad Depot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Use	Use	Use	Use	Use	de minimis	Use	Use	
127-0344-0123	Railroad Y.M.C.A. 1552 East Main Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
127-0219	Shockoe Slip Historic District and Expansions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis	
44HE1092	Warehouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
44HE1094	Warehouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
127-6793	C&O Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis								
127-5809	Bridge #1857, North 14 th Street; Mayo Bridge North	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
127-5808	Bridge #1857, South 14 th Street; Mayo Bridge South	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								
127-0197	Philip Morris Leaf Storage Warehouse 1717-1721 East Cary Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use								

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
44HE1095	Storage Facility	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	Use	No Use	Use	de minimis	Use	Use
127-0282	Henrico County Courthouse 2127 Main Street East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0192	St. John's Church Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0192-0322	Libby Hill Park and Park House, 2801 East Franklin Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-0854	Bridge #1850, E. Main Street, spanning Southern Railway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
127-0119	John Woodward House 3017 Williamsburg Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-6693	Armitage Manufacturing Company 3200 Williamsburg Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
127-6255	Fulton Gas Works Williamsburg Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
127-0257	Bridge #8067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
043-5313	James River Steam Brewery Cellars 4920 Old Main Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
043-0439	Aviation General Supply Depot 508 Bickerstaff Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	No Use	No Use	No Use	No Use	No Use	No Use
043-0307	Battle of Chaffin's Farm (New Market Heights Battlefield) New Market Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
043-5071	Darbytown & New Market Roads Battlefield, Route 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
127-0457	Manchester Warehouse Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
127-6193	J.P. Taylor Leaf Tobacco Southern Stove Works 516 Dinwiddie Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use							
127-6245/44CF0724	Williams Bridge Company, Emergency Fleet Corporation Factory 700 East 4 th Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
127-6248	Pure Oil Company 1314 Commerce Street Transmontaigne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
127-6213	Davee Gardens Historic District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
020-5474	DuPont Spruance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
020-0063	Falling Creek Ironworks Archaeological Site	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use							
020-0147	Drewry's Bluff Battlefield (Fort Darling, Fort Drewry), Fort Darling Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
123-5025	Assault on Petersburg (Petersburg Battlefield II), Bermuda Hundred Road (Alt Route 697)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
020-0007	Bellwood, Sheffields, Auburn Chase, Building 42, Defense Supply Center Richmond, 8000 Jefferson Davis Highway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use	No Use	de minimis	No Use	de minimis	de minimis	de minimis	de minimis
020-0013	House 3619 Thurston Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Use							
020-0022/44CF0680	Centralia Earthworks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							

► Continued; Recommended Preferred Alternative (see Chapter 7)

Table 5.4-4: Details of Recommended Preliminary Section 4(f) Use Determinations of Historic Properties

DHR ID	Name/Description	Build Alternative																						
		1A	1B	1C	2A	3A	3B	3C	4A	5A	5A-Ashcake	5B	5B-Ashcake	5C	5C-Ashcake	5D-Ashcake	6A	6B-A-Line	6B-S-Line	6C	6D	6E	6F	6G
020-5378	VEPCo Power Transmission Line	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
020-0140	Circle Oaks` 4510 Centralia Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
020-0552	Centralia Post Office	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	de minimis							
076-0301	RF&P Railroad	Use	Use	Use	Use	No Use	Use	Use	Use	-	de minimis	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use
127-6251	Atlantic Coast Line Railroad (ACL) Corridor, Richmond and Petersburg Railroad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Use							
127-6271	Seaboard Air Line Railroad (SAL) Corridor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Use							

Recommended Preferred Alternative (see Chapter 7)

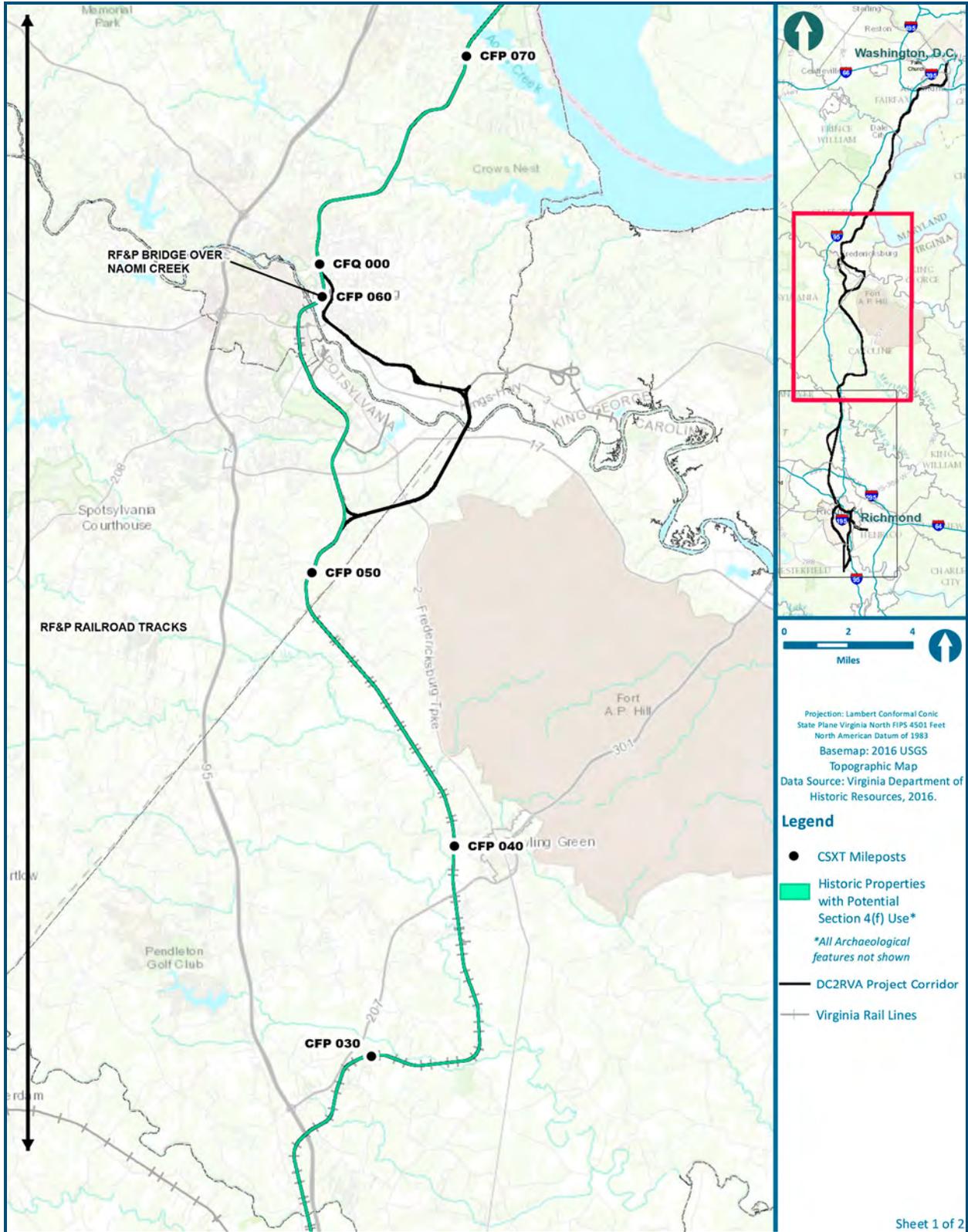


Figure 5.4-2: Historical Properties with Potential Section 4(f) Use

RF&P Bridge over Naomi Road (089-0080): The bridge is a double-vault arched structure rumored to be the oldest documented and identified reinforced concrete bridge in the Commonwealth. It is potentially eligible for the NRHP under Criterion C for its architectural merit. Construction of Build Alternative 3B, which follows the existing CSXT right-of-way through Fredericksburg, would result in the removal of the existing bridge and construction of a new structure. Based on effect dialogues with DHR, FRA believes that demolition would remove all character-defining features of this resource. FRA's initial determination is that Build Alternative 3B, which is identified as the recommended Preferred Alternative in Alternative Area 3 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect on this structure and would result in a Section 4(f) use of this resource.

Rappahannock River Railroad Bridge (111-0132-0025): This multiple-span, open-spandrel, concrete-arch bridge is an excellent and rare surviving example of a reinforced-concrete arch railroad bridge within this region of Virginia. The bridge is both individually eligible (Criterion C for its architectural merit) and eligible as a contributing element to the Fredericksburg Historic District (111-0132) and the RF&P Railroad (076-0301). Addition of a third track to the east of the existing alignment as part of Build Alternative 3B, which follows the existing CSXT right-of-way through Fredericksburg, would require construction of a new bridge adjacent to the old structure. Although the new bridge would somewhat diminish its integrity of design, setting, feeling, and association, and affect the architectural character of the Rappahannock Railroad Bridge, FRA does not believe these indirect impacts are so severe as to substantially impair the bridge.¹ FRA's initial determination is that Build Alternative 3B, which is identified as the recommended Preferred Alternative in Alternative Area 3 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of the bridge.

Site 44SP0187: This site includes a series of stone piers along the river, likely associated with a railroad structure or a mill once located in this area. It is eligible under Criteria A and D for its association with the development of Fredericksburg and its information potential. Construction of a new bridge across the Rappahannock River to accommodate a third track for Build Alternative 3B, which follows the existing CSXT right-of-way through Fredericksburg, would physically impact the subsurface archaeological deposits in this area, thus diminishing the data potential of this site. FRA's initial determination is that Build Alternative 3B, which is identified as the recommended Preferred Alternative in Alternative Area 3 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect to this historic property and would result in a Section 4(f) use of this site.

Fredericksburg Historic District (111-0132): The district is a 200-acre area that comprises the city's downtown commercial area, adjacent industrial area, and some of the surrounding residential blocks. It is listed in the NRHP under Criterion C for its architectural merit. Although no new tracks are part of Build Alternative 3A and installation of the third track associated with Build Alternative 3B, which follows the existing CSXT right-of-way through Fredericksburg, would be constructed within the existing rail right-of-way, work associated with both alternatives would entail building a multi-story parking deck to the east (south) of the tracks in an existing parking lot. This new structure would impact the viewshed of the district and its integrity of setting, feeling, and association by adding a large, non-conforming, visual element to the distinct area skyline. The new parking structure would also add a new physical element within the district boundaries. These impacts are all, however, indirect, and FRA does not believe that they are severe enough to

¹ Per 23 CFR 774.15(a), "substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished."

substantially impair the district. FRA's initial determination is, therefore, that Build Alternatives 3A and 3B, of which Build Alternative 3B is identified as the recommended Preferred Alternative in Alternative Area 3 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect on this historic property but would not result in a Section 4(f) use of the district.

Doswell Historic District (042-5448): Doswell Historic District encompasses a rural community that was once a center of major activity along road and rail networks. It is potentially eligible for the NRHP under Criteria A for its association with railroad history and C for its architectural integrity. Although the community was founded along the rail lines, Build Alternative 4A would adversely affect one contributing element to the district, the Squashapenny Junction Store (042-0470), as listed below. This includes potentially removing the main dwelling and/or associated outbuildings and taking land from the parcel, thus diminishing the characteristics that render it eligible for the NRHP. Because of the potential physical adverse effects to a contributing element, Build Alternative 4A, which is identified as the recommended Preferred Alternative in Alternative Area 4 as described in Chapter 7 of this Draft EIS, would likely have a Section 106 adverse effect on the district, and FRA's initial determination is that this alternative would result in a Section 4(f) use.

Squashapenny Junction Store/House, 10570 Doswell Road (042-0470): The store was a commercial hub for the Doswell community and is an excellent example of railroad-town commercial architecture. It is potentially eligible for the NRHP under Criterion C for its architectural style. The building, also a contributing element to the Doswell Historic District (042-5448), is located immediately east of the rail tracks. At a minimum, Build Alternative 4A requires the acquisition of approximately 10 feet of land from the parcel and would bring the tracks closer to the dwelling, potentially requiring the physical removal of one or more contributing buildings on the property and compromising its integrity of design, setting, materials, workmanship, feeling, and association. Depending on final design, the main building itself may be an acquisition, thus resulting in additional physical impacts. As such, FRA's initial determination is that Build Alternative 4A, which is identified as the recommended Preferred Alternative in Alternative Area 4 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect on this resource and would result in a Section 4(f) use. However, this determination may be altered pending future design plans that minimize the project footprint in this area.

Berkleytown Historic District (166-5073): The district is typical of many small-town, twentieth-century, African-American neighborhoods, dotted by small vernacular dwellings. It is potentially eligible under Criteria A for its association with African-American history in this area and C for its architectural merit. Construction of an overpass carrying Vaughan Road over the rail tracks associated with Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would require alterations to the historic road pattern within the district and require a new bridge structure within the viewshed of the district and several contributing elements, although FRA does not believe these indirect impacts will result in substantial impairment of the district. Due to these disturbances to the setting, feeling, and design of the district, FRA's initial determination is that Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would have a Section 106 adverse effect but would not result in a Section 4(f) use of the district.

Ashland Historic District (166-0001): The Ashland Historic District survives as a fine example of a railroad and streetcar suburb, preserving much of its turn-of-the-century character. It is listed in the NRHP under Criteria A for its association with railroad history and C for its architectural character. Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake, expanding the existing rail corridor through town, would result in physically modified roadways, sidewalks, secondary resources, and viewsheds in the district, some of which are contributing elements to the district. Character-

defining features may be impacted. Moreover, FRA believes these alternatives would have an adverse effect to several contributing resources to the district through physical modifications or additions to their viewshed. As such, FRA's initial determination is that Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would have a Section 106 adverse effect on the Ashland Historic District and would result in a Section 4(f) use of this district.

Randolph-Macon College Historic District (166-0002) and Randolph-Macon College Historic District Expansion (166-5072): The districts include the 85-acre college campus and all associated buildings, structures, and landscape features. The original district was listed in the NRHP under Criteria A as one of the oldest Methodist colleges in the United States and C for its architectural merit. The expansion was determined to be eligible for the NRHP as part of the current survey. Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would result in modifications that would physically and visually diminish character-defining features of the districts through roadway realignments, sidewalk modifications, and viewshed changes, although FRA does not believe these indirect impacts will result in substantial impairment of the districts. FRA's preliminary determination is that Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would have a Section 106 adverse effect on these historic properties but would not result in a Section 4(f) use of these historic properties.

Ashland Station Depot (166-0001-0008): The building is a good example of a Colonial Revival-styled depot, potentially eligible for the NRHP under Criteria A for its association with area development and C for its architectural character. It is also a contributing element to the Ashland Historic District (166-0001) and the RF&P Railroad (076-0301). Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake require track changes, platform modifications, and alterations to the NRHP-eligible station. Some design proposals associated with these alternatives include demolition of the historic station and construction of a new station. FRA's preliminary determination is that Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would have a Section 106 adverse effect on this resource and would result in a Section 4(f) use of the property.

MacMurdo House (166-0036): This two-story, three-bay, Greek Revival, single-family dwelling is one of the few buildings of its style in Ashland. As such, it is potentially eligible for the NRHP under Criterion C for its architectural merit. The building is a contributing element to the Ashland Historic District (166-0001) as it dates to the period of significance and reflects the developmental history of the district. Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake, expanding the existing rail corridor through town, would result in moving the existing sidewalks and roadways closer to the historic dwelling and onto the parcel boundaries, thus physically impacting the resource's integrity of design, setting, feeling, and association and modifying key visual elements of the building, although FRA does not believe these indirect impacts will result in substantial impairment of the house. FRA's preliminary determination is that Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake would have a Section 106 adverse effect on this property but would not result in a Section 4(f) use of the resource.

Laurel Industrial School Historic District (043-0292): The district consists of a complex of buildings that were part of a school founded under the patronage of the Prison Association of Virginia. It is listed in the NRHP under Criteria A for its association with prison reform and C for its architectural character. All Build Alternatives in Area 6 (6A-6G) would require construction of a bridge to carry traffic on Hungary Road over the rail tracks, as well as notable associated secondary road changes. These modifications would impact the district through introduction of a large visual element (the new overpass) and physically modified roadway plans. Some additional landscape elements may also be required to be relocated. As such, FRA's preliminary

determination is that Build Alternatives 6A through 6G, of which Build Alternative 6F is identified as the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS, would have a Section 106 adverse effect on this historic district; however, the modifications do not rise to the level of substantial impairment. Therefore, the Project would not result in a Section 4(f) use of the district.

Scott's Addition Historic District (127-6136): This area is a 152-acre industrial and commercial district in Richmond featuring 287 contributing resources built primarily between 1900 and 1956. It is listed in the NRHP under Criteria A for its association with Richmond development and C for its architectural fabric. Construction of Build Alternatives 6A, 6B-A-Line, 6B-S-Line, 6C, 6E, and 6G would require notable visual and physical changes to this area, including new tracks outside of the existing right-of-way, erecting superstructures to support rail facilities, and construction of multi-story parking facilities. These changes would diminish character-defining features of the district, although FRA does not believe these indirect impacts will result in substantial impairment of the district. FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6B-S-Line, 6C, 6E, and 6G would have a Section 106 adverse effect on the historic district but would not result in a Section 4(f) use of the district; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Rolando Historic District (Temp R): The district is a post-World War II-era, suburban neighborhood containing approximately 142 parcels. It is potentially eligible for the NRHP under Criterion C for its styling as a post-war neighborhood. Plans associated with Build Alternatives 6A, 6B-A-Line, 6C, 6E, and 6G include construction of a new overpass carrying Broad Rock Boulevard over the tracks and associated roadway modifications, which are required to expand intercity passenger rail service on the A-Line through and south of downtown Richmond. Some of the impacted roadways are located within the footprint of the district, and the new overpass would be a notable new visual element to the viewshed of the neighborhood. These changes would diminish the district's integrity of design, setting, feeling, and association, although FRA does not believe these indirect impacts will result in substantial impairment of the district. FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6C, 6E, and 6G would have a Section 106 adverse effect on this district but would not result in a Section 4(f) use of the resource; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Broad Run House (Temp 268): This two-story, Federal-style, frame dwelling was constructed around 1770 with a central-passage plan. It is potentially eligible for the NRHP under Criterion C for its architectural style and as a unique example of extant eighteenth-century architecture in this part of Richmond. Plans associated with Build Alternatives 6A, 6B-A-Line, 6C, 6E, and 6G include construction of a new overpass carrying Broad Rock Boulevard over the tracks and associated roadway modifications, which are required to expand intercity passenger rail service on the A-Line through and south of downtown Richmond. Some of the impacted roadways are located within the viewshed of this resource, and the new overpass would be a notable new visual element to the property. These changes would diminish the district's integrity of design, setting, feeling, and association, although FRA does not believe these indirect impacts will result in substantial impairment of the house. FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6C, 6E, and 6G would have a Section 106 adverse effect on this property but would not result in a Section 4(f) use of the resource; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Movieland Bowtie Cinema (127-6188): This is an industrial complex with two buildings, the brass foundry and the iron foundry, that are both steel-framed resources with masonry walls. It is listed in the NRHP under Criteria A for its association with Richmond industrial history and C for its architectural merit. Construction of Build Alternatives 6B-A-Line and 6C require development of new rail corridors and large-scale structures to accommodate train movement in this part of Richmond to serve new stations on either Boulevard or Broad Street, as well as associated road modifications and new parking structures. Construction of 6B-S-Line also requires modifications to the rail system and new structures in this area. Some of these changes border, or are located on, the Movieland Bowtie Cinema parcel. Modifications would physically and visually diminish the characteristics that render this resource eligible for the NRHP, although FRA does not believe these indirect impacts will result in substantial impairment of the property. As such, FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of the historic property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Warehouse (127-6840): This circa 1955 warehouse could not be accessed during the reconnaissance survey; eligibility for this resource is assumed. As with the Movieland Bowtie Cinema, Build Alternatives 6B-A-Line, 6B-S-Line, and 6C all require notable modifications to the landscape, road system, rail lines, and extant resources in this area to serve new stations on either Boulevard or Broad Street. These changes would introduce large-scale new visual elements to the viewshed of this resource, although FRA does not believe these indirect impacts will result in substantial impairment of the warehouse. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of the historic property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Hermitage Road Warehouse Historic District (127-6730): This industrial district is characterized by roughly a dozen medium- to large-scale one-story warehouse buildings constructed in the second quarter of the twentieth century and set on a gridded block pattern. It is listed in the NRHP under Criterion A for its association with twentieth-century Richmond development and Criterion C for its architectural styling. Construction of Build Alternatives 6B-A-Line and 6C require development of new rail corridors and large-scale structures to accommodate train movement to serve new stations on either Boulevard or Broad Street, as well as road modifications and new parking structures. Construction of Build Alternative 6B-S-Line also requires modifications to the rail system and new structures in this area. These changes would physically and visually diminish the characteristics that render this resource eligible for the NRHP, although FRA does not believe these indirect impacts will result in substantial impairment of the district. As such, FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of the historic property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Cookie Factory Lofts (127-6165): The building is a six-story, multi-bay industrial building constructed in 1927 with Colonial Revival attributes. It is listed in the NRHP under Criterion A for its association with the development of this section of Richmond and Criterion C for its architectural merit. The resource is also a contributing element to the West Broad Street Industrial and Commercial Historic District (127-6570) listed below. As with nearby properties listed above, Build Alternatives 6B-A-Line, 6B-S-Line, and 6C all require notable modifications to the

landscape, road system, rail lines, and extant resources in this area to serve new stations on either Boulevard or Broad Street. These changes would introduce large-scale new visual elements to the viewshed of this resource, although FRA does not believe these impacts will result in substantial impairment of the building. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of the historic property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Science Museum of Virginia (127-0226): This building is a 3-story, 11-bay, monumental Neoclassical style train station that now houses the Science Museum of Virginia. It is listed on the NRHP under Criteria A for its association with transportation history and C for its architectural characteristics. The resource is also a contributing element to the West Broad Street Industrial and Commercial Historic District (127-6570) listed below. While construction of Build Alternative 6C would partially restore the historic usage of this property as a passenger station, many of the rail-related features originally part of this property were removed when the structure was converted into a museum. Work associated with Build Alternative 6C, as well as that required to serve a new station on Boulevard in Build Alternatives 6B-A-Line and 6B-S-Line, would result in new construction, such as raised tracks and the installation of new structures, as well as roadway modifications, to the north and east of the historic building. This work would physically and visually diminish the integrity of design, setting, materials, workmanship, feeling, and association of this historic property. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on the Science Museum of Virginia and, because of the physical alteration to the museum and demolition of contributing elements to this resource, would result in a Section 4(f) use of this property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Todd Lofts (127-5978): The structure is a five-story, multi-bay commercial building originally used as a brewery. It is listed on the NRHP under Criterion A for its association with industrial development in this part of Richmond. Build Alternative 6C would require road work along Hermitage Road and includes construction of a rail superstructure to aid in train movement to a new station on Broad Street. This new superstructure would be visible from the property and directly impact the property but not touch the building. Similar nearby large-scale modifications would be part of Build Alternatives 6B-A-Line and 6B-S-Line to serve a new station on Boulevard. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this resource, but because no changes will be made to the building itself, it would not result in a Section 4(f) use of this resource. None of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Southern Stove Works (127-6145): This resource is an industrial complex of four brick buildings and a water tower built during the time of rapid industrialization in Richmond. It is listed on the NRHP under Criteria A for its association with Richmond industrialization and C for its architectural merit. This resource is located just east across Hermitage Road from Todd Lofts, listed above. The same modifications stated for Todd Lofts are applicable to this resource, including roadway changes and construction of new rail structures required to serve a new station on Boulevard in Build Alternatives 6B-A-Line and 6B-S-Line, or a new station on Broad Street in Build Alternative 6C, although FRA does not believe these indirect impacts will result in substantial impairment of the building. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this historic property but would not

result in a Section 4(f) use of the property; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

West Broad Street Industrial and Commercial Historic District (127-6570): The district comprises an area of approximately 40 acres; it reflects the development of the industrial capabilities of Richmond. It is listed in the NRHP under Criteria A for its association with industrial history in this area and C for its architectural characteristics. The district is located on both sides of Broad Street and extends northeast past Marshall Street. Changes associated with the Project and associated roads required to serve a new station on Boulevard in Build Alternatives 6B-A-Line and 6B-S-Line, or a new station on Broad Street in Build Alternative 6C would physically and visually diminish character-defining features of this district, as well as at least two contributing resources: the Science Museum of Virginia (127-0226) and Cookie Factory Lofts (127-6165), although FRA does not believe these indirect impacts will result in substantial impairment of the district. FRA's preliminary determination is that Build Alternatives 6B-A-Line, 6B-S-Line, and 6C would have a Section 106 adverse effect on this historic district but would not result in a Section 4(f) use of this district; however, none of these Build Alternatives are identified as the recommended Preferred Alternative for Alternative Area 6 in this Project.

Shockoe Valley & Tobacco Row Historic District (127-0344): This district encompasses the area of Richmond's earliest residential, commercial, and manufacturing activity. It is listed in the NRHP under Criteria A for its association with early Richmond developmental history and C for its architectural merit. The district is located east of the S-line corridor and north of the James River in downtown Richmond. Construction associated with the expansion of intercity passenger rail service to Main Street Station on the S-Line in Build Alternatives 6D, 6F, and 6G would include one to two multistory parking garages and the addition of long, linear platforms within the district boundaries. These elements have the potential to visually diminish the characteristics that render this resource eligible for the NRHP, although FRA does not believe these indirect impacts will result in substantial impairment of the district. FRA's preliminary determination is that Build Alternatives 6D, 6F, and 6G would have a Section 106 adverse effect on this resource but would not result in a Section 4(f) use of this district, of which Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

Sites 44HE1098, 44HE1097, and 44HE1095: These three sites represent warehouses once located in this part of Richmond. They are potentially eligible for the NRHP under Criteria A and D for their association with the development of Richmond and their data potential. Current plans for Build Alternatives 6B-S-Line, 6D, 6F, and 6G, which expand intercity passenger rail service on the S-Line through and south of downtown Richmond, include installation of new piers to support expanded tracks near Main Street Station. Installation of the piers would result in physical subsurface disturbances within these three recorded archaeological sites. As such, FRA's preliminary determination is that Build Alternatives 6B-S-Line, 6D, 6F, and 6G would have a Section 106 adverse effect on these three archaeological sites and would result in a Section 4(f) use of these three sites. Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

Main Street Station and Trainshed (127-0172): This multi-story, multi-bay monumental structure symbolizes the importance of the rail terminal as an entrance gateway to Richmond. The building is a National Historic Landmark (NHL), listed in the NRHP under Criteria A and C, and is also a contributing element to both RF&P Railroad (076-0301) and the Seaboard Air Line Railroad (127-6271), both listed below. Based on parameters set forth in 800.5(2)(iv) and DHR's evaluation of

effect, FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6B-S-Line, and 6C could have a Section 106 adverse effect on this resource based on the disuse of the current station and thus removal of the historic, and continued, use of this rail station. In addition, construction of Build Alternatives 6D, 6F, and 6G, which expand intercity passenger rail service on the S-Line through and south of downtown Richmond, would alter physical elements of the property, and FRA's preliminary determination is that this impact would constitute a Section 106 adverse effect on this resource. FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6B-S-Line, and 6C could and 6D, 6F, and 6G would result in a Section 4(f) use of this property. Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

Railroad Y.M.C.A (127-0344-0123): The resource is a three-story, three-bay, rectangular, French Renaissance Revival-style commercial building constructed in 1907. It is eligible for the NRHP under Criterion A for its importance to the early recreational and social history of this segment of Richmond and under Criterion C for its architectural styling. Build Alternatives 6D, 6F, and 6G, which expand intercity passenger rail service on the S-Line through and south of downtown Richmond, all involve the construction of large parking decks to the north of this resource within the viewshed. The decks will diminish the integrity of setting, feeling, and association of this resource, although FRA does not believe these indirect impacts will result in substantial impairment of the building. FRA's preliminary determination is that Build Alternatives 6D, 6F, and 6G would have a Section 106 adverse effect on this property but would not result in a Section 4(f) use of this resource. Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

Richmond, Fredericksburg, & Potomac Railroad (076-0301): The RF&P opened in 1836 and eventually spanned from the Potomac River to Richmond. It is eligible for the NRHP under Criterion A for its association with rail development in northern and central Virginia. Construction associated with several alternatives would result in removal or large-scale physical modifications to several contributing elements to the railroad district, including the Ashland Depot and several bridges. Determinations on the structures to be modified as part of the Project are ongoing and will be reflected in the final designs. However, based on preliminary data, FRA's preliminary determination is that Build Alternatives 1A, 1B, 1C, 2A, 3B, 3C, 4A, 5B, 5B-Ashcake, 5C, 5C-Ashcake, 5D-Ashcake, and 6A through 6G would have a Section 106 adverse effect on this property and, because of the physical alterations to contributing elements, could result in a Section 4(f) use of the property.² Among these Build Alternatives, one of the Build Alternatives in Alternative Area 1 (Build Alternative 1A, 1B, or 1C) will be required to deliver the service proposed in this Draft EIS, and Build Alternatives 2A, 3B, 4A, and 6F are the recommended Preferred Alternatives in respective Alternative Areas 2, 3, 4, and 6 as described in Chapter 7 of this Draft EIS.

² Section 11502 (23 U.S.C. 138(f)/49 U.S.C. 303(h)) exempts from Section 4(f) review the use of railroad and rail transit lines, or elements thereof, that are in use or that were historically used for the transportation of goods or passengers. The exemption applies regardless of whether the railroad or rail transit line, or element thereof, is listed on or is eligible for listing on the National Register of Historic Places. The exemption has two important exceptions: 1) the exemption does not apply to rail stations or transit stations; and 2) the exemption does not apply to bridges or tunnels located on a rail line that has been abandoned under the process described in 49 U.S.C. 10903 or a transit line that is not in use.

Atlantic Coast Line Railroad (ACL) Corridor (127-6251): This is a historic railroad corridor that represents the origins and growth of the railroad industry in the Richmond to Petersburg corridor. It is eligible for the NRHP under Criterion A for its association with area transportation history. Like the RF&P listed above, construction of the Build Alternatives would result in physical modifications or reconstruction of several contributing elements to this railroad district. The exact list is pending, but this includes the A-line bridge over the James River and potential contributing resources in the Centralia area. Determinations on the structures to be modified as part of the Project are ongoing and will be reflected in the final designs. However, based on preliminary data, FRA's preliminary determination is that all Richmond area alternatives (Build Alternatives 6A through 6G) would have a Section 106 adverse effect on this resource and, because of the physical alterations to contributing elements, could result in a Section 4(f) use of the resource. Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

Seaboard Air Line Railroad (SAL) Corridor (127-6271): This historic railroad corridor represents a competing rail enterprise to the ACL above. It is also eligible for the NRHP under Criterion A for its association with area transportation history. Similar to the ACL, work associated with improvements to the S-Line would include modifications to contributing elements to this resource, such as Main Street Station, the S-Line bridge over the James River, and other road and rail structures south of Richmond. Determinations on the structures to be modified as part of the undertaking are ongoing and will be reflected in the final designs. However, based on preliminary data, FRA's preliminary determination is that Build Alternatives 6A through 6G would have a Section 106 adverse effect on this resource and, because of the physical alterations to contributing elements, could result in a Section 4(f) use of the historic property. Build Alternative 6F is the recommended Preferred Alternative in Alternative Area 6 as described in Chapter 7 of this Draft EIS.

5.5 AVOIDANCE ALTERNATIVES

A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. An alternative is not prudent if:

- It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
- It results in unacceptable safety or operational problems;
- After reasonable mitigation, it still causes:
 - Severe social, economic, or environmental impacts;
 - Severe disruption to established communities;
 - Severe disproportionate impacts to minority or low income populations; or
 - Severe impacts to environmental resources protected under other Federal statutes;
- It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;

- It causes other unique problems or unusual factors; or
- It involves multiple factors that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

If FRA concludes that there is no feasible and prudent alternative to the use of Section 4(f) property, then it may approve only the alternative that causes the least overall harm in light of the statute's preservation purpose. The least overall harm is determined by balancing the following factors:

- The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
- The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
- The relative significance of each Section 4(f) property;
- The views of the official(s) with jurisdiction over each Section 4(f) property;
- The degree to which each alternative meets the purpose and need for the project;
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
- Substantial differences in costs among the alternatives.

An avoidance alternative for an individual Section 4(f) resource used by the Project must be evaluated within the area of the Project where the resource is located. An avoidance alternative must not impact other Section 4(f) resources. The recommended Preferred Alternative will be comprised of a recommended Preferred Alternative option within each alternative area.

Avoidance alternatives are not required when a finding of *de minimis* use is made for Section 4(f) resources because Section 4(f) is satisfied once *de minimis* applies.

The following sections discuss the resources for which FRA recommends there is Section 4(f) use with one or more of the proposed Build Alternatives. The resources are discussed by the overall corridor first and then by Build Alternatives in alternative areas 1 through 6.

5.5.1 Summary of Preliminary Section 4(f) Use Determinations

FRA's preliminary determination is that there are up to 14 historic resources for which one or more of the Build Alternatives would result in a Section 4(f) use. None of these Section 4(f) resources is along Build Alternatives 1A, 1B, 1C, or 2A. There are two historic resources along Build Alternative 3B (Fredericksburg) with a potential Section 4(f) use. There are no feasible and prudent avoidance alternatives in Alternative Area 3. Depending on the resource, Build Alternatives 3A and 3C would be avoidance alternatives; however, Build Alternative 3A does not meet the Project Purpose and Need and Build Alternative 3C is not prudent and feasible due to extensive impacts and substantial costs. There are two historic resources with a potential Section 4(f) use along Build Alternative 4A. No avoidance alternatives were identified with Build Alternative 4A; therefore, the No Build Alternative would be the avoidance alternative. The No Build Alternative does not meet the Project Purpose and Need. Two resources along Build Alternatives 5B, 5B-Ashcake, and 5D-Ashcake have a potential Section 4(f) use. Build Alternatives 5A, 5A-Ashcake, 5C, and 5C-Ashcake would not result in a Section 4(f) use and, as

such, would be the avoidance alternatives within this area. There are seven resources in Alternative Area 6 with a potential Section 4(f) use along one or more of the Build Alternatives. Due to extensive resources in Alternative Area 6 (Richmond), there is no avoidance alternative that would avoid all potential Section 4(f) use other than the No Build Alternative. The No Build Alternative does not meet the Project Purpose and Need. The RF&P Railroad extends through all six alternative areas. There is no avoidance alternative for this resource other than the No Build Alternative, which does not meet the Project Purpose and Need.

Chapter 7 of this Draft EIS identifies Build Alternatives 2A, 3B, 4A, and 6F as the recommended Preferred Alternatives in their respective alternative areas along the Project corridor. This Draft EIS does not identify a recommended Preferred Alternative in Alternative Areas 1 and 5. With the identification of recommended Preferred Alternatives in Areas 2, 3, 4 and 6, while remaining undetermined in Areas 1 and 5, FRA's preliminary determination is that there are up to 14 historic resources for which one or more Build Alternatives would result in a Section 4(f) use upon publication of this Draft EIS.

5.5.2 Entire DC2RVA Corridor

Richmond, Fredericksburg, & Potomac Railroad (076-0301): Given that the historic RF&P Railroad corridor extends between the Potomac River on the north and Main Street Station on the south, FRA's preliminary determination is that there is a permanent Section 4(f) use with all Build Alternatives in all six of the alternative areas with the exception of Build Alternatives 3A and 5A. Build Alternatives 3A and 5A do not add additional track or modify any structures within the existing rail corridor, but they do not comprise a complete alternative; therefore, they would not meet the Purpose and Need of the Project.

A total avoidance alternative is the only alternative that would avoid all Section 4(f) uses within the corridor. The only total avoidance alternative would be to not use the existing rail line, and this would not be feasible and prudent due to cost and extensive impacts to the human and natural environment.

5.5.3 Build Alternatives 1A, 1B, and 1C

FRA's preliminary determination is that Build Alternatives 1A, 1B, and 1C would not result in a Section 4(f) use, other than *de minimis*, for any resources other than the RF&P Railroad (076-0301) discussed in Section 5.5.2.

5.5.4 Build Alternative 2A

FRA's preliminary determination is that Build Alternative 2A would not result in a Section 4(f) use, other than *de minimis*, for any resources other than the RF&P Railroad (076-0301) discussed in Section 5.5.2. Chapter 7 of this Draft EIS identifies Build Alternative 2A as the recommended Preferred Alternative for Alternative Area 2 of the Project corridor.

5.5.5 Build Alternatives 3A, 3B, and 3C

FRA's preliminary determination is that Build Alternative 3A would not result in a Section 4(f) use. Build Alternative 3B would result in a Section 4(f) use from two historic resources. Build Alternative 3B is the recommended Preferred Alternative in Alternative Area 3 as described in

Chapter 7 of this Draft EIS. Build Alternative 3C does not result in any Section 4(f) uses and, as such, would be the avoidance alternative within Area 3; however, Build Alternative 3C is not a feasible and prudent alternative because it results in extensive impacts to wetlands, residential and commercial properties, and substantially higher costs and the cultural resource study only provided preliminary data. In addition to these historic resources, FRA's preliminary determination is that the Build Alternatives 3B and 3C also include certain *de minimis* uses of Section 4(f) resources, and Build Alternatives 3A, 3B, and 3C include use of the RF&P Railroad (076-0301) discussed in Section 5.5.2.

RF&P Bridge over Naomi Road (089-0080): This is the existing railroad bridge over Naomi Road. FRA's preliminary determination is that Build Alternative 3B would result in a Section 4(f) use of this resource. Avoidance alternatives must not modify the existing structure at all (including not adding an abutting structure) or not add an additional track. Build Alternatives 3A and 3C are avoidance alternatives for this resource. Build Alternative 3A is not a prudent and feasible alternative as it does not meet the Purpose and Need of the Project. Build Alternative 3C is not a feasible and prudent alternative because it results in extensive impacts to wetlands, residential and commercial properties, and substantially higher costs. Build Alternative 3B is the recommended Preferred Alternative for Alternative Area 3 as described in Chapter 7 of this Draft EIS and would result in a use of this resource.

Site 44SP0187: This archaeological site is located under the existing bridge and FRA's preliminary determination is that Build Alternative 3B would result in a Section 4(f) use due to construction of a new bridge. There are no other avoidance alternatives other than utilizing a new alignment, not modifying the existing structure at all (including not adding an abutting structure), or not adding an additional track. The avoidance alternatives are Build Alternatives 3A and 3C as discussed above. Build Alternative 3A is not a prudent and feasible alternative as it does not meet the Purpose and Need of the Project. Build Alternative 3C is not a feasible and prudent alternative because it results in extensive impacts to wetlands, residential and commercial properties, and has substantially higher costs. Build Alternative 3B is the recommended Preferred Alternative for Alternative Area 3 as described in Chapter 7 of this Draft EIS and would result in a use of this resource.

5.5.6 Build Alternative 4A

FRA's preliminary determination is that Build Alternative 4A would result in a Section 4(f) use of two historic resources along the existing tracks. In addition to these historic resources, FRA's preliminary determination is that Build Alternatives 4A also includes certain *de minimis* uses of Section 4(f) resources, as well as use of the RF&P Railroad (076-0301) discussed in Section 5.5.2. Build Alternative 4A is the recommended Preferred Alternative for Alternative Area 4 as described in Chapter 7 of this Draft EIS and would result in a use of these resources.

Doswell Historic District (042-5448): Because the district is located on both sides of the existing tracks, there is no avoidance alternative other than the No Build Alternative. The No Build Alternative is not a prudent and feasible alternative because it does not meet the Purpose and Need of the Project.

Squashapenny Junction Store (042-0470): This resource is located within the Doswell Historic District. Impacts to individually eligible historic resources within the district were minimized to the greatest extent feasible. Any shifts to avoid this resource would result in impacts to other resources. Similar to the Doswell Historic District, there is no feasible and prudent avoidance alternative.

5.5.7 Build Alternatives 5A, 5A–Ashcake, 5B, 5B–Ashcake, 5C, 5C–Ashcake, and 5D–Ashcake

FRA’s preliminary determination is that Build Alternatives 5B, 5B–Ashcake, and 5D–Ashcake which add a third track through Ashland, would result in a Section 4(f) use of two historic resources along the existing tracks. Build Alternatives 5A, 5A–Ashcake, 5C, and 5C–Ashcake, which do not add a third track through Ashland, would not result in a Section 4(f) use of these resources and, as such, would be the avoidance alternatives within this segment. In addition to these historic resources, FRA’s preliminary determination is that the Build Alternatives in Alternative Area 5, with the exception of Build Alternative 5A, also include certain *de minimis* uses of Section 4(f) resources, as well as use, or *de minimis* use, of the RF&P Railroad (076-0301) discussed in Section 5.5.2. This Draft EIS does not identify a recommended Preferred Alternative for Alternative Area 5; therefore, FRA will defer determination of use of the resources in this area to the Final EIS.

Ashland Historic District (166-0001): FRA’s preliminary determination is that Build Alternatives 5B, 5B–Ashcake, and 5D–Ashcake, which add a third track through Ashland, would result in a Section 4(f) use of this historic district. The historic district is located on both sides of the existing tracks. Build Alternatives 5A and 5A–Ashcake, which do not add additional track, and Build Alternatives 5C and 5C–Ashcake, which are a bypass on new alignment, would be the avoidance alternatives.

Ashland Station Depot (166-0001-0008): FRA’s preliminary determination is that Build Alternatives 5B, 5B–Ashcake, and 5D–Ashcake, which add a third track through Ashland, would result in a Section 4(f) use of this resource. Build Alternatives 5A and 5A–Ashcake, which do not add additional track, and Build Alternatives 5C and 5C–Ashcake, which are a bypass on new alignment, would be the avoidance alternatives.

5.5.8 Build Alternatives 6A, 6B–A-Line, 6B–S-Line, 6C, 6D, 6E, 6F, and 6G

FRA’s preliminary determination is that Build Alternative 6A would result in a Section 4(f) use of three historic resources; Build Alternatives 6B–A-Line and 6C would result in a Section 4(f) use of four historic resources; Build Alternative 6B–S-Line would result in the highest number of Section 4(f) uses of seven historic resources; Build Alternatives, 6D, 6F, and 6G would result in a Section 4(f) use of six historic resources; and Build Alternative 6E would result in a Section 4(f) use of two historic resources.

Due to the extensive resources in Alternative Area 6, there is no avoidance alternative that would avoid all Section 4(f) use other than the No Build Alternative. The No Build Alternative does not meet the Project Purpose and Need and, therefore, is neither feasible nor prudent. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which includes certain use, or *de minimis* use, of Section 4(f) resources described below, as well as use of the RF&P Railroad (076-0301) discussed in Section 5.5.2.

Science Museum of Virginia (127-0226): FRA’s preliminary determination is that Build Alternatives 6B–A-Line, 6B–S-Line, and 6C, which serve new stations on either Boulevard or Broad Street, would result in a Section 4(f) use of this resource due to the new Broad Street station or installation of new structures with accompanying new road patterns. All other Build Alternatives would result in no use. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6; therefore, use of this resource would be avoided.

Main Street Station and Trainshed (127-0172): FRA's preliminary determination is that Build Alternatives 6A, 6B-A-Line, 6B-S-Line, and 6C could result in a Section 4(f) use to this resource due to the discontinuation of passenger rail service at the station. Build Alternatives 6D, 6F, and 6G would result in a Section 4(f) use to this resource due to physical alterations of the station. Build Alternative 6E would result in *de minimis* impacts. There is no prudent and feasible avoidance alternative for this resource. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource.

Sites 44HE1098, 44HE1097, and 44HE1095: These sites would be impacted due to piers for new Main Street Station platforms. FRA's preliminary determination is that Build Alternatives 6B-S-Line, 6D, 6F, and 6G, which expand intercity passenger rail service at Main Street Station, would result in a Section 4(f) use to these three resources. All other Build Alternatives would result in no use or *de minimis* impacts. There is no prudent and feasible avoidance alternative for these resources. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource.

Atlantic Coast Line (ACL) Railroad Corridor (127-6251): FRA's preliminary determination is that all Build Alternatives would result in a Section 4(f) use of this resource. There is no avoidance alternative. Although use of the S-Line would minimize impacts to the A-Line, impacts to the A-Line cannot be avoided. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource.

Seaboard Air Line (SAL) Railroad Corridor (127-6271): FRA's preliminary determination is that all Build Alternatives would result in a Section 4(f) use of this resource. There is no avoidance alternative. Although use of the A-Line would minimize impacts to the S-Line, impacts to the S-Line cannot be avoided. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource.

5.6 MEASURES TO MINIMIZE HARM

Section 4(f), as applied by FRA and in this document, requires a description of the measures undertaken to minimize harm where the preferred alternatives would result in a Section 4(f) use. Minimization measures are not required when a finding of *de minimis* use is made for Section 4(f) resources because Section 4(f) is satisfied once *de minimis* applies.

FRA's preliminary determination is that all impacts to parklands, recreational areas, and wildlife refuges will result in *de minimis* impacts; therefore, no further minimization measures are required.

Eleven historic resources located along the recommended Preferred Alternative wherein a Section 4(f) use would occur were evaluated to minimize harm by the Project (presented below in north to south order). The minimization measures presented here only comprise efforts to date and do not represent the full suite of measures that will ultimately be undertaken by the Project during final design. They represent consultation to date based on coordination with FRA, DHR, cooperating agencies, and consulting parties.

5.6.1 RF&P Bridge over Naomi Road (089-0080)

This is the existing railroad bridge over Naomi Road, located within the APE for Build Alternative 3B. The current bridge is a double-vault arched structure constructed in 1931. Designs associated with the recommended Preferred Alternative require the replacement of this structure, resulting in a Section 4(f) use. Project engineers explored numerous options to incorporate the existing structure into the Project design, including reinforcing the current structure, widening the structure, and encasing the structure within a new bridge system; none of these options met engineering standards and safety protocols required by the Project design. Mitigation for the use of this structure, inclusive of all comments received from cooperating agencies and consulting parties, will be included in the Project Memorandum of Agreement (MOA). The mitigation stipulations will outline steps to minimize harm.

5.6.2 Site 44SP0187 (Stone Piers)

Site 44SP0187 comprises a set of stone piers located within and directly adjacent to the Rappahannock River, just east of the rail trestle, in Fredericksburg. The piers may represent a mill once located in this area or be associated with the pre-1927 rail bridge, but additional research is needed to determine their exact use. The footprint of the site overlaps with the construction footprint for the new Rappahannock River rail bridge required as part of Build Alternative 3B. Construction of the bridge, and more specifically the approach to the structure, would physically impact significant archaeological deposits. Project engineers inspected alternatives to the currently designed bridge and approach to minimize harm to this archaeological site; however, other approaches caused greater disturbances to nearby historic properties. The footprint of the impact was lessened to the greatest extent possible to minimize impacts on the site. Mitigation of the impacts will be included in the MOA, likely to include additional archival research and a data recovery excavation.

5.6.3 Doswell Historic District (042-5448)

The Doswell Historic District is located at the intersection of the main rail corridor (historic RF&P) and the Buckingham Branch Railroad as part of Build Alternative 4A. The community developed around the two railroads, including a store, a bank, an inn, and numerous dwellings. The current rail station and associated track house were built in 1929. The district straddles the extant rail line and, as such, the Project runs through the center of the district. Project engineers have worked closely in this area to refine Project plans to minimize impacts to the district. Original design concepts ranged from a rail bridge spanning the historic district to enlarging the intersection to accommodate additional rail traffic. The engineering team conducted charrettes on the design of the rail in this location attended by DRPT. The resulting plans are greatly reduced and minimize the footprint in this area to the maximum extent practicable. Plans for utilities were also minimized to limit impacts.

Despite these efforts, the rail would be widened on the east side of the railroad right-of-way in the vicinity of Squashapenny Junction Store – the original general store for the Doswell community. The store was purposefully built directly adjacent to the tracks to facilitate the movement of goods to and from the rail cars that stopped at the nearby station. Widening of the rails may require removal of the store or an associated outbuilding, which is a contributing element to the historic district. DRPT held meetings with the public to discuss the current design on June 1-3, 2015, and December 8-10, 2015. In addition, Hanover County is a consulting party to the Project, and their comments have been solicited

for the cultural resource studies. Their comments, as well as those of all other consulting parties and cooperating agencies, will be included in the development of the Project MOA. The stipulations outlined to mitigate adverse effects will highlight efforts to minimize harm.

5.6.4 Squashapenny Junction Store (042-0470)

Squashapenny Junction Store, as mentioned above, is located in the Doswell Historic District as part of Build Alternative 4A. It is immediately east of the extant rail tracks and north of Doswell Road. The store property was designed to abut the rail tracks and face onto the main road through town to maximize exposure and accessibility for rail passengers and goods arriving by the rail system. Although DRPT has thoroughly revisited the design schematics for this area to minimize impacts, the limits of disturbance still extend onto the Squashapenny property, and relocation of the store is possible. A new utility line may also be installed under a contributing outbuilding and through the western edge of the property. Original plans for the Project included removal of the outbuilding for utility installation, but avoidance plans are now underway to minimize the impacts to the built environment.

As with the larger Doswell Historic District, discussions are ongoing with the public and consulting parties regarding additional ways to minimize harm to this resource. The historic property will be included in the Project MOA, and stipulations to mitigate any adverse effects will be clearly outlined.

5.6.5 Site 44HE1098 (Main Street Station Parking) and Site 44HE1097 (Railroad, Warehouse)

Both of these resources are archaeological sites located within and adjacent to the west side of Main Street Station. They are currently covered in pavement and used as parking lots. The exact details of the subsurface integrity of the sites, as well as their temporal associations, are not known; additional research is needed. These two sites will be impacted by construction associated with Build Alternative 6F, the recommended Preferred Alternative identified in Chapter 7 of this Draft EIS, which requires new structural supports for an expanded rail platform. Construction of the supports will require subsurface disturbances within the mapped boundary of each site, thus removing significant archaeological data. Project engineers have worked to minimize the footprint of each structural support and place the supports as close to the existing structural system as possible. These actions have minimized the footprint of the Project impacts on these sites, but disturbances are still anticipated. Mitigation of the impacts will be included in the MOA, likely to include additional archival research and a data recovery excavation.

5.6.6 Main Street Station Trainshed (127-0172)

Main Street Station was built in 1901 as the main terminal for the SAL, a competitor to the ACL. Both lines ran from Richmond to Florida during the first half of the twentieth century, capitalizing on America's desire for travel during this period. The property includes the Beaux Arts-style station as well as the associated trainshed, platform, and other landscape elements. Build Alternative 6F, the recommended Preferred Alternative identified in Chapter 7 of this Draft EIS, has the potential to diminish the characteristics that render this property eligible for the NRHP due to modifications to the building, platform, trainshed, and other contributing elements.

The area around Main Street Station was the subject of numerous meetings between the Project team, the City of Richmond, other cooperating agencies, consulting parties, and the public. Build Alternative 6F would minimize harm to this historic property as it will have the least amount of impacts to this resource. In addition, Project engineers worked to minimize the extent of the changes to the resource and its contributing elements by making the footprint of the changes as minimal as possible, reducing the size of the new platforms as they could, and committing to include specific design criteria in the final designs to minimize harm to this resource. Stipulations related to this resource will be included in the Project MOA, including mitigating effects to the resource and criteria to ensure a sympathetic design to any new construction associated with this resource.

5.6.7 Site 44HE1095 (Storage Facility)

Site 44HE1095 is located south of Main Street Station. The site represents a possible warehouse/storage facility dating to the nineteenth century. Additional research is needed to determine its exact use and temporal association. The site will be impacted by construction associated with Build Alternative 6F, the recommended Preferred Alternative identified in Chapter 7 of this Draft EIS, which requires new structural supports for an expanded rail platform. Construction of the supports will require subsurface disturbances within the mapped boundary of the site, thus disturbing significant archaeological deposits. Project engineers have worked to minimize the footprint of each structural support. While these actions have minimized the footprint of the Project impacts on the site, disturbances to significant archaeological deposits are still anticipated. Mitigation of the impacts will be included in the MOA, likely to include additional archival research and a data recovery excavation.

5.6.8 Richmond, Fredericksburg, and Potomac Railroad (076-0301)

The recommended Preferred Alternative is parallel to, and in some instances encapsulates, the historic RF&P Railroad corridor between the Potomac River on the north and Main Street Station on the south. The design team has minimized impacts on the extant rail corridor to the maximum extent practicable through retention of the general alignment, maintenance of existing tracks, and minimizing the limits of disturbance (LOD) outside of the current right-of-way. Project impacts come through replacement of several contributing bridges and culverts—replacements that are required to bring the alignment in compliance with current safety standards and operational protocols. Steps to mitigate the adverse impacts will be stated in the Section 106 MOA.

5.6.9 Atlantic Coast Line Railroad (ACL) Corridor (127-6251)

The ACL Corridor includes the linear railroad footprint from what was Broad Street Station (now the Science Museum of Virginia) to the south to cross the James River. It merged with the main line in Centralia and continued to Florida. Today, this is referred to as the “A-Line.” The ACL and SAL (see below) merged in 1967. Like the RF&P, the rail corridor as a historic property includes the rail alignment itself, as well as numerous bridges, culverts, track houses, rail stations, and more. DRPT has sought out engineering solutions to avoid or minimize impacts to contributing elements to the rail district; however, due to the nature of the current Project—parallel to this historic rail alignment—some impacts will be unavoidable. In order to meet modern safety standards and proposed operational functions, all of the alternatives will require removal or replacement of some elements, most notably bridges and culverts, that contribute to the significance of this resource. FRA’s preliminary determination is that improvements

associated with Build Alternatives 6A through 6G will result in a use of the ACL Corridor. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource. Minimization of the adverse effects will be outlined in the Project MOA.

5.6.10 Seaboard Air Line Railroad (SAL) Corridor (127-6271)

The SAL was a competing company to the ACL. This operation also ran between Richmond and Florida, commencing at Main Street Station and crossing the James River, then running parallel to the ACL before veering west in Petersburg. When the ACL and SAL merged in 1967, trains for the new company operated out of both Broad Street Station and Main Street Station and shared the same tracks. Known today as the “S-Line,” this historic property is composed of the rail itself, stations, track houses, and structures. As with the RF&P and the ACL, DRPT vigorously sought to minimize harm by narrowing the LOD where possible, maintaining historic bridges, and reusing the extant corridor. Despite these efforts, several structures—and Main Street Station itself—require modifications to meet ridership needs and safety features. As such, avoidance of all contributing elements is not possible. FRA’s preliminary determination is that improvements associated with Build Alternatives 6A through 6G will result in a use of the SAL Corridor. Chapter 7 of this Draft EIS identifies Build Alternative 6F as the recommended Preferred Alternative for Alternative Area 6, which will result in a use of this resource. Due to the adverse effect/use of the property, the Project MOA will contain stipulations to mitigate the harm.

5.7 COORDINATION

DRPT coordinated with numerous property owners and officials with jurisdiction over resources protected under Section 4(f) and further coordination will take place as necessary. Additional coordination with owners and officials with jurisdiction over impacted parkland and recreational areas will take place after issuance of the Draft EIS. If FRA determines that the Project will result in a Section 4(f) use and there are no feasible and prudent alternatives, FRA will provide individual Section 4(f) evaluations to the U.S. Department of Interior (DOI) Office of Environmental Compliance and Policy for review and concurrence with the Final EIS.

5.7.1 Consulting Parties

While FRA continued to be the primary point of contact for all federally recognized tribes, FRA delegated state agency and consulting party coordination to DRPT in 2014. As such, DRPT sent invitation letters to agencies, local governments, and other stakeholders in the Section 106 consultation process. FRA sent a letter to the one federally recognized tribe along the DC2RVA corridor—Pamunkey Indian Tribe. Table 5.7-1 provides information on the 39 distributed consulting party invitations. Of these, 14 have elected to participate in the process; Table 5.7-1 lists these groups, along with their response dates. For an additional six, DRPT assumed that they would want to participate and has treated them as consulting parties. Although a formal response was not received from these six groups, they have requested participation on similar projects and have shown a noted interest in the current undertaking through telephone calls or attendance at associated meetings. These six are noted by “assumed yes” in the table on the next page.

Table 5.7-1: List of Invited Consulting Parties

Stakeholder	Invite Letter Date	Response (Date)
American Battlefield Protection Program (ABPP)	January 6, 2015	Assumed Yes
NPS–Fredericksburg	January 6, 2015	Assumed Yes
NPS–National Capital Region	January 6, 2015	Assumed Yes
Quantico Marine Corps Base	January 6, 2015	Assumed Yes
NPS–Washington-Rochambeau NHT	January 22, 2015	Assumed Yes
Pamunkey Indian Tribe ¹	April 17, 2017	Assumed Yes
City of Fredericksburg	January 6, 2015	Yes (January 12, 2015)
NPS–Richmond	January 6, 2015	Yes (January 14, 2015)
Arlington County	January 6, 2015	Yes (January 14, 2015)
City of Richmond	January 6, 2015	Yes (January 16, 2015)
Alexandria Archaeology	January 6, 2015	Yes (January 21, 2015)
Ashland Museum	January 6, 2015	Yes (January 21, 2015)
NPS–Captain John Smith Chesapeake NHT	January 6, 2015	Yes (January 22, 2015)
Central Virginia Battlefields Trust	January 6, 2015	Yes (January 22, 2015)
Historic Fredericksburg Foundation, Inc.	January 6, 2015	Yes (January 9, 2015)
Civil War Trust	January 6, 2015	Yes (February 11, 2015)
Prince William County	January 6, 2015	Yes (February 13, 2015)
Caroline County	January 6, 2015	Yes (February 3, 2015)
Hanover County	January 6, 2015	Yes (February 3, 2015)
NPS–Potomac Heritage National Scenic Trail	January 22, 2015	Yes (March 4, 2015)
City of Alexandria	January 6, 2015	No reply received
Fairfax County	January 6, 2015	No reply received
Henrico County	January 6, 2015	No reply received
Spotsylvania County	January 6, 2015	No reply received
Stafford County	January 6, 2015	No reply received
ACL & SAL Railroad Historical Society	January 6, 2015	No reply received
Center for Neighborhood Revitalization	January 6, 2015	No reply received
Arlington Historical Society	January 6, 2015	No reply received
Caroline Historical Society	January 6, 2015	No reply received
Chesterfield Historical Society	January 6, 2015	No reply received
Hanover County Historical Society, Inc.	January 6, 2015	No reply received
Henrico County Historical Society	January 6, 2015	No reply received
Historic Alexandria Foundation	January 6, 2015	No reply received
Historic Prince William, Inc.	January 6, 2015	No reply received
Historic Richmond Foundation	January 6, 2015	Yes (December 2016)
Historical Society of Fairfax County, Virginia, Inc.	January 6, 2015	No reply received
National Trust for Historic Preservation	January 6, 2015	Yes (December 22, 2016)
Stafford County Historical Society	January 6, 2015	No reply received
Catawba Indian Tribe	January 6, 2015	No reply received

Note: 1. The letter to the Pamunkey Indian Tribe was sent by FRA. The Pamunkey were not a federally recognized tribe at the time the initial letters were disseminated. They were recognized at a later date, at which time the FRA invited them to participate.

5.7.2 Meetings

DRPT has held several in-person and telephone-based meetings with DHR, ACHP, and other consulting parties. They included a Section 106 kick-off and several follow-up meetings to update participating agencies and parties on the Project initiation; determination of APE; cultural resource methodology for the reconnaissance predictive model, identification surveys, and evaluation studies; survey results; Project effect on historic properties; stipulations to mitigate adverse effects; and crafting the Project MOA. Table 5.7-2 highlights the meetings held with these groups.

Table 5.7-2: Section 106 and Section 4(f) Meetings

Date	Attendees	Topics
November 7, 2014	DHR, DRPT	Kick-off meeting; discussions on APE, methodology, reporting
March 19, 2015	VDOT, DRPT	Roadway bridges and Section 106 coordination
February 18, 2016	DHR	Update on corridor and status of studies
June 14, 2016	Civil War Trust	General discussion on results to date; Richmond to Raleigh Memorandum of Agreement
August 10, 2016	DHR	Preliminary dialogue on historic properties and project effect
TBD	FRA, DRPT, DHR	Project PA; mitigation of adverse effects
TBD	FRA, DRPT, Consulting Parties, DHR, ACHP	Review of studies and discussion of historic properties and Project effect

5.7.3 Correspondence

Since the Project's initiation, repeated correspondence has occurred between DRPT and the cultural resource agencies, localities, and consulting parties to keep them informed on the progress of the studies, resource eligibility, and the Project's potential effects on historic properties, and DRPT will continue to hold meetings at milestones or as necessary throughout the Project. In particular, meetings and e-mail exchanges with DHR have occurred regularly to provide information on Project plans. Data on the study results in specific Project areas were also sent to corresponding consulting parties to garner comments on the Project results. The architectural reports were posted on the Project's webpage for general public comment as well. The archaeological reports were only distributed to the agencies, localities, and consulting parties as requested due to the sensitivity of site location mapping. Table 5.7-3 includes correspondence conducted to date and lists the additional anticipated correspondence that will occur at Project milestones as required. Copies of relevant correspondence are included in Appendix R, *Cultural Resources Reports* and Appendix U, *Section 106 and 4(f) Coordination Documents*.

Table 5.7-3: Project Correspondence

Date	Medium	Recipient	Topic
September 25-October 15, 2014	E-mail; Letter	DHR, FRA, DRPT	Initiation of Section 106 Process
January 5-February 2, 2015	E-mail, Letter	DHR, FRA, DRPT	Defining Project APE
June 8, 2015	E-mail	VDOT	VDOT/DHR PA on Historic Bridges
June 22, 2015	Letter	Civil War Trust, DRPT	Receipt of comments on Project screening review

► Continued

Table 5.7-3: Project Correspondence

Date	Medium	Recipient	Topic
July 30, 2015	E-mail	Consulting Parties, DRPT	Distribution of Archaeological Predictive Model report for review
July 17, 2015; August 28, 2015	Letter, E-mail	DHR	Submittal of Archaeological Predictive Model Report; DHR Reply
August 3- September 4, 2015	E-mail	Arlington County, City of Alexandria, Prince William County, City of Fredericksburg, DRPT	Receipt of comments on Archaeological IA Predictive model
August 28, 2015	E-mail	Consulting Parties, DRPT	Reminder to submit comments on Predictive Model Report
October 20, 2015; December 18, 2015	Letters	NPS (FSNMP)	<i>Archaeological Resources Protection Act</i> (ARPA) permit to dig on federal land (Segment 7)
December 9, 2015; February 5, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 7); DHR Reply
December 15, 2015	Letter	DHR	Application to conduct archaeology on state lands (Segment 11)
March 18-31, 2016	E-mail; Memo	DHR	Discussion of alternative methodology for architecture in Segment 18
April 13- April 26, 2016	E-mail	David Hamilton (Consulting Party), DHR, DRPT, FRA	Mr. Hamilton is a private property owner along the Ashland Bypass. Numerous emails were exchanged with Mr. Hamilton regarding his concerns, his position as a consulting party, and distributing Project data
May 20, 2016; June 8, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 6); DHR Reply
May 31, 2016; June 22, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 3); DHR Reply
May 31, 2016; June 22, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 4); DHR Reply
June 21, 2016; June 28, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segments 8-9); DHR Reply
July 6, 2016; July 22, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 1); DHR Reply
July 6, 2016; July 15, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 2); DHR Reply
July 25, 2016; August 15, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segments 10-12); DHR Reply
December 21, 2016; February 21, 2017	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 13); DHR Reply
August 3, 2016; August 22, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 14); DHR Reply
October 21, 2016; November 30, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segments 15, 16, 20); DHR Reply
November 14, 2016; December 22, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segments 17, 19); DHR Reply
October 21, 2016; November 3, 2016	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Segment 18); DHR Reply
January 20, 2017; March 1, 2017	Letter, E-mail	DHR	Submittal of Architectural Phase I Report (Structures); DHR Reply
February 24, 2017; TBD	E-mail	Consulting Parties	Distribution of Architectural Reports for Review; Consulting Party Comments

► *Continued*

Table 5.7-3: Project Correspondence

Date	Medium	Recipient	Topic
April 14, 2017; TBD	Letter	Consulting Parties	Distribution of All Phase IA and IB Reports for Review; Consulting Party Comments
September 6, 2016; October 11, 2016	Letter, E-mail	DHR	Submittal of Archaeological Phase I Report (Segments 1-20); DHR Reply
January 20, 2017; February 3, 2017	Letter, E-mail	DHR	Submittal of Phase IA Fredericksburg Bypass Report; DHR Reply
January 6, 2017; February 3, 2017	Letter, E-mail	DHR	Submittal of Phase IA Ashland Bypass Report; DHR Reply
TBD	Letter, E-mail	DHR	Submittal of LOD Expansion Areas Report; DHR Reply
TBD	E-mail	Consulting Parties	Distribution of LOD Expansion Areas Report for Review; Consulting Party Comments
TBD	Letter, E-mail	DHR	Submittal of Architectural Phase II Report; DHR Reply
TBD	E-mail	Consulting Parties	Distribution of Architectural Phase II Report for Review; Consulting Party Comments
TBD	Letter, E-mail	DHR	Submittal of Project Effects Letter; DHR Reply
TBD	E-mail	Consulting Parties	Distribution of Project Effects Letter for Review; Consulting Party Comments
TBD	Letter, E-mail	DHR	Submittal of Draft MOA for Review
TBD	E-mail	Consulting Parties	Distribution of Draft MOA for Review; Consulting Party Comments

5.8 FINAL SECTION 4(f) EVALUATION

The Final Section 4(f) Evaluation will be completed for the Final EIS for the Project. Included will be an analysis to determine the Preferred Alternative in each of the six alternative areas of the Project that has the least overall harm on Section 4(f) resources. All possible planning measures to minimize harm to Section 4(f) resources will be undertaken and documented in this evaluation.