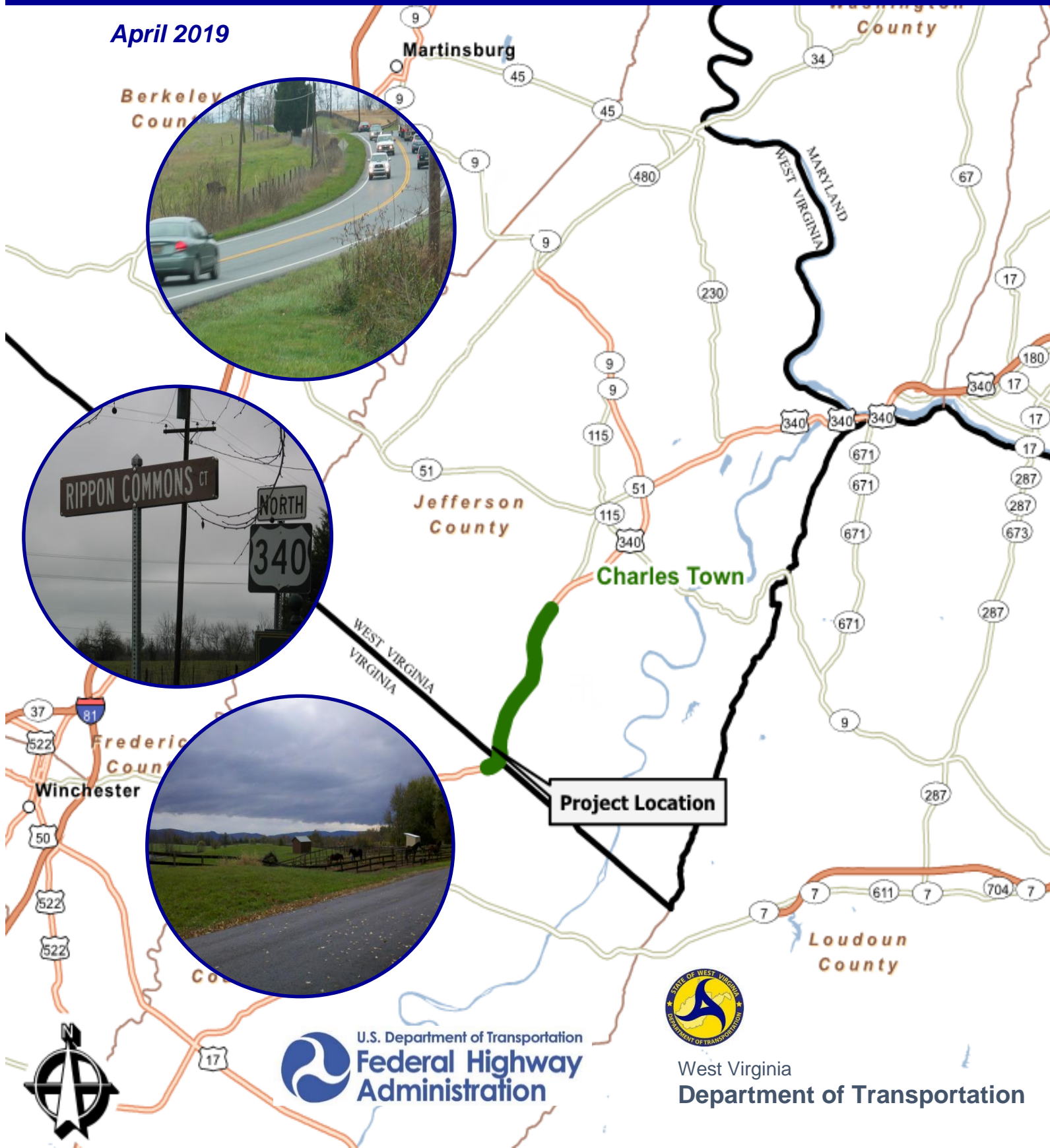


Final Environmental Impact Statement

US 340 Improvement

Jefferson County, West Virginia

April 2019



SECTION V

Section 4(f) Evaluation

V. SECTION 4(f) EVALUATION

In accordance with Section 4(f) of the 1966 Department of Transportation Act, an evaluation of the project area was conducted for properties determined to be qualified for Section 4(f) protection. This law requires that no publicly owned land from a public park or public recreation area, or land from a significant historic site or public wildlife refuge, be used for federal-aid highways unless there is no feasible and prudent alternative. Section 4(f) uses can include direct takes, temporary occupancy, or constructive use due to proximity effects. Specific alternatives and actions to minimize harm must be considered. This Section demonstrates that (1) no feasible and prudent alternative exists to avoid the use of all Section 4(f) resources and (2) all possible planning to minimize harm to Section 4(f) resources is being incorporated.

A. INTRODUCTION

Within the project area, there are no public parks, recreational areas, or wildlife refuges. However, there are a large number of historic properties, including large districts with overlapping boundaries. The amount of area covered by the historic resources make complete avoidance impossible. Over the long history of the development of this project, and as a result of ongoing consultation and public involvement, a total of 15 build alternates have been studied.

The Draft Section 4(f) Evaluation was included in the Draft Environmental Impact Statement (DEIS) circulated in November 2001. The Draft Section 4(f) Evaluation reviewed the Section 4(f) impacts from Alternates 6 and 8 which were identified in the DEIS as the two remaining “alternates still under consideration.” Alternates 6 and 8 were retained as alternates still under consideration for the project since these alternates, when compared to the remaining alternates studied in detail, minimized impacts to the Kabletown Rural Historic District and historic resources located east of the railroad.

Following the circulation of the DEIS, a Public Hearing was held on January 15, 2002. Comments received at the hearing referred to several potentially historic properties located west of the railroad. Additional historic studies were performed in 2002 and 2003 for the areas west of the railroad. These studies identified a rural historic district and several historic properties eligible for listing in the National Register.

A survey of these properties was performed and two cultural resource technical reports were submitted to WV SHPO in September 2002 and December 2002. WV SHPO attended a field review on April 11, 2003 to evaluate the historic boundaries. Based on WV SHPO comments, an additional technical report was submitted to WV SHPO in December 2003.

Alternates 6 and 8 avoided impacts to the majority of historic properties east of US 340 and minimized impacts to the Kabletown Rural Historic District. However, by incorporating the historic resources identified in the 2002 and 2003 technical reports into the project study, Alternates 6 and 8 no longer avoid and minimize impacts to all the historic resources in the project area, east and west of the railroad. Therefore, Alternates 1, 3, 4, 5, 6, 8, and 9 were evaluated in 2003, and Alternate 4 was identified as the Preferred Alternate at that time. Alternates 2 and 7 had been eliminated due to their alignment and impacts to the Village of Rippon and Ripon Lodge.

As a result of funding availability, the project was placed on hold. During this time, the project study area experienced residential growth and development. Due to the growth and development within the area of the Preferred Alternate 4, and a desire to potentially further minimize impacts to historic resources, two modifications of Alternate 4 (Alternates **4A (Preferred)** and 4B) were developed. These modifications include a slight westerly shift of Alternate 4, identified as Alternate 4A, to further minimize impacts to the Byrdland Historic Property and residential properties, as well as an easterly shift of Alternate 4, identified as Alternate 4B, to further minimize impacts to the Village of Rippon Historic District and residential properties.

A public information workshop was held on September 24, 2012, to present these modifications to Alternate 4 to the public, update the public on the project status, and gather input and feedback from the public. Verbal and written comments received at the workshop expressed opposition to Alternates 4, 4A, and 4B due to their impacts to the Ryan's Glen subdivision and the proposed Rippon Commons subdivision as well as a desire by the public for all previous alternatives to be re-evaluated using current data and conditions.

Additional build alternates (Alternates 4C, 10A, 10B, and 11) were created in response to public input received at the 2012 workshop. These alternates, along with Alternates 4, **4A (Preferred)**, and 4B, were presented at a public hearing on June 3, 2013. WVDOH and FHWA have agreed that these alternates should be discussed in the SDEIS.

As noted in Section III, Alternates 4C, 10A, 10B, and 11 have been eliminated from further consideration and evaluation due to their increased costs, greater extent of environmental impacts, and lack of public support. This Section 4(f) Evaluation revises the Draft Section 4(f) Evaluation by including an evaluation of the remaining build alternates on the Section 4(f) resources.

The SDEIS was approved by FHWA in July 2016 with Alternate 4A identified as the Preferred Alternate. Alternate 4A was presented along with the other remaining build alternates at the August 30, 2016 Public Workshop/Hearing on the project. In general, there was overall support for Alternate 4A (for a complete summary of the public workshop/hearing, please see Section VIII).

In a letter from the WV SHPO dated September 8, 2016, the WV SHPO concurred with the recommendations in the SDEIS that the project would have an adverse effect on eight architectural resources listed in or eligible for inclusion in the National Register of Historic Places.

The Department of the Interior (DOI), in a letter dated September 29, 2016, concurred that there are no prudent and feasible alternatives to the use of 4(f) lands and encouraged the consideration of the project's effects on the Summit Point Battlefield. The DOI further recommended that any measures to minimize harm should be formalized in a Memorandum of Agreement (MOA) developed in conjunction with the WV SHPO, WV DOH, and other parties as appropriate.

WVDOH prepared and submitted a draft MOA to the WV SHPO by letter dated February 8, 2017. The WV SHPO responded to the stipulations in the draft MOA and, in a letter dated March 10, 2017, stated that more significant mitigation measures should be pursued due to the extensive impacts resulting from the US 340 Improvements project. Their recommendation was to consider mitigation measures as follows:

1. Complete applications nominating the affected resources for the National Register of Historic Places,
2. Coordinate with the Jefferson County Historic Landmark Commission (JCHLC) to develop an oral history collection project to record and archive recollections of residents associated the historic resources,

3. Development of interpretive signs documenting both the history of the local area and the development of the US 340 project, and
4. Explore options to help in county planning efforts, such as assistance in the development of protective easements with property owners who wish to preserve the historic character of this area.

The JCHLC provided a response on the draft MOA in a letter dated June 26, 2017. The letter echoed the comments of the March 10, 2017 letter from the WV SHPO but was more specific regarding item 1 above and requested nominations for Wayside Farm, Olive Boy Farm, Byrdland, and Village of Rippon Historic District. They also asked for specific mitigation/design strategy for the intersection of US 340 and Meyerstown Road which will physically and visually divide the Village of Rippon from Wayside Farm which lie less than 1000 feet from one another.

While the draft MOA was being developed, an archaeological survey of the preferred alternative was being performed. The draft *Archaeological Survey of Preferred Alternative 4A* (Commonwealth Heritage Group) was submitted on March 22, 2017. The WV SHPO provided their comments on the draft report in a letter dated April 10, 2017. These comments were addressed in the revised *Archaeological Survey of Preferred Alternative 4A* (Commonwealth Heritage Group) that was submitted on May 8, 2017. In a letter dated June 21, 2017, the WV SHPO concurred with the report's determination that no eligible historic archaeological properties are present within the proposed project area. They further stated that no further consultation is necessary.

WVDOH revised the stipulations in the draft MOA in accordance with the comments received from the WV SHPO and submitted the updated draft MOA to FHWA on July 12, 2017. In a letter dated July 31, 2017, the FHWA invites the Advisory Council on Historic Preservation (ACHP) to participate in the Section 106 consultation process. The ACHP decided to participate and requested additional information in their letter of August 11, 2017. Also, JCHLC voted to approve the MOA at its September 18, 2017 meeting. FHWA complied with the ACHP request and provided the additional information and updated MOA to ACHP in a letter transmittal dated November 28, 2017.

A letter report on the *Evaluation and Effect Recommendations, Summit Point Battlefield (JF-0738)* (Commonwealth Heritage Group) was submitted to WV SHPO on October 27, 2017. The assessment focused on the area studied for the US 340 Improvements project since examination of the overall battlefield was beyond the scope of the compliance investigation. The assessment concluded that the effects include both acquisition of portions of the rural landscape and the introduction of visual and atmospheric elements within the rural landscape of US 340 and, therefore, the construction of Alternate 4A will have an adverse effect on the Summit Point Battlefield. The WV SHPO concurred with this recommendation in their letter dated November 2, 2017. These documents were included in the FHWA transmittal to ACHP on November 28, 2017.

The ACHP concluded their review of the additional information submitted by FHWA and transmitted their comments by letter on December 28, 2017. In January 2018 and after some minor edits to the MOA, the Final MOA was distributed for signatures.

Some minor comments to the MOA were made in the ensuing months followed by distribution for approvals and original signatures. FHWA submitted the Final MOA to ACHP for approval in a letter dated April 27, 2018. ACHP transmitted the approved Final MOA dated June 27, 2018 to FHWA concluding the Section 106 consultation process (see Appendix B for approved MOA).

In the following sections, we first examine Section 4(f) considerations for Alternates 4, **4A (Preferred)**, and 4B on individual properties, then summarize Section 4(f) resources within the project area, summarize the alternative development process with an analysis of the avoidance alternative and least overall harm.

B. AFFECTED SECTION 4(F) PROPERTIES

1. Kabletown Rural Historic District

a) Description

The Kabletown Rural Historic District is eligible for listing on the NRHP. The district boundaries, as shown on Exhibit V-1, encompass approximately 18 square miles. The district boundaries are generally defined by the West Virginia state line to the south, the Kabletown magisterial district to the north, the Shenandoah River to the east, and existing US 340 to the west until the Village of Rippon where the boundaries roughly follow the railroad tracks.

Exhibit V-2 shows the location of the Kabletown Rural Historic District in relation to the alternates. All of the build alternates extend through the western side of the Kabletown Rural Historic District. Alternates 4, **4A (Preferred)**, and 4B are located in the western edge the historic district on the east side of US 340.

The Kabletown Rural Historic District has multiple owners. The district encompasses several very large private farms and parts of four communities: Kabletown, Meyerstown, Rippon, and Wheatland. The farms are located to the east of US 340 extending to the Shenandoah River. The communities of Rippon and Wheatland are within the project area and include various commercial businesses, churches, and private residences. These communities are located along existing US 340 and CR 25 (east of the project area).

The Kabletown Rural Historic District is unique to West Virginia because it represents an antebellum Virginia landscape. The district includes the agricultural landscape and architectural resources of an area distinctively rural. It contains numerous large antebellum and postbellum estates, several small nineteenth and early twentieth century farms, and rural communities. The main type of architectural resource in the district is the farm, estate dwelling, and its related outbuildings. In addition, several mills, mill sites, schools, and churches also contribute to the diversity of this district.

The primary roads accessing the Kabletown Rural Historic District include US 340, and the Jefferson County roads CR 340/1, 340/2, 19, 21, 38, and 25.

b) Potential Impacts

Alternates 4, **4A (Preferred)**, and 4B will directly impact the Kabletown Rural Historic District by requiring land acquisition, resulting in a 4(f) use of the resource. The entire length of Alternates 4, 4A, and 4B extend through the district primarily east of existing US 340, requiring 94.0 to 98.4 acres of permanent right-of-way from the district. Two to three contributing resources may be lost in the Historic District: the bridge carrying US 340 over Bullskin Run creek (JF-0062-0068, taken by all three remaining build alternates), the Johnson House within the Village of Rippon Historic District (JF-0062-0037, taken by Alternates 4A and 4B), and the 1870 tenant farmhouse at Byrdland (JF-0171, taken by Alternates 4 and 4B). Based on conceptual designs, no constructive uses or temporary occupancies have been identified. Other environmental impacts are discussed in Section IV.

c) Measures to Minimize Harm

The MOA documents WVDOH's commitment to mitigate for use of the resource: funding to prepare National Register of Historic Places nominations for Wayside Farm, Olive Boy Farm, Byrdland, and the Village of Rippon Historic District; funding to develop an oral history collection; funding for interpretive signs; developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

2. Bullskin Run Rural Historic District

a) Description

The Bullskin Run Rural Historic District is eligible for listing on the National Register of Historic Places. The district boundaries, as shown on Exhibit V-3, encompass approximately 20 square miles and include the head of the Bullskin Run at its westernmost boundary, and the confluence of the North and South Forks at the easternmost boundary. The southern boundary of the proposed district is the West Virginia state line.

Exhibit V-4 shows the location of the Bullskin Run Rural Historic District in relation to the remaining build alternates. All of the build alternates extend through the eastern side of the Bullskin Run Rural Historic District. Alternates 4, **4A (Preferred)**, and 4B are located east of existing US 340 and also impact the area of the district that is common to or overlaps the Kabletown Rural Historic District.

The Bullskin Run Rural Historic District has multiple owners. The district encompasses several very large private farms and parts of two communities, Franklinton and Wheatland. The farms are located predominantly west of US 340 extending to CR 1. The community of Wheatland is within the project area and includes various commercial businesses, churches, a non-profit business, and private residences.

The Bullskin Run Rural Historic District includes an outstanding collection of historic buildings that illustrate the growth and development of the area from the mid-1730s up to the mid-twentieth century. The majority of resources are farm and estate dwellings and their associated outbuildings. Also included are mills, cemeteries, churches, a school, a tavern, and other historic resources that further develop and illustrate Jefferson County's history. The

Bullskin Run Rural Historic District is further enhanced by the pristine nature of the landscape with few modern intrusions.

The primary roads accessing the Bullskin Run Rural Historic District include US 340, and the CR 340/1, 340/2, 19, 13/2, and 19/1.

b) Potential Impacts

All three of the Alternates 4, **4A (Preferred)**, and 4B will directly impact the Bullskin Run Rural Historic District with land acquisition, resulting in a 4(f) use of the resource. Alternates 4, 4A, and 4B impact between 21.3 to 24.1 acres in the vicinity of the Wheatland community, generally along the existing US 340 alignment. Two contributing elements would be affected: the bridge carrying US 340 over Bullskin Run creek (JF-0062-0068), which would be reconstructed to match the new cross-section of the widened highway, and the 1870s tenant house at Byrdland (JF-0171). Based on conceptual designs, no constructive uses or temporary occupancies have been identified. Other environmental impacts are discussed in Section IV.

c) Measures to Minimize Harm

The MOA documents WVDOH's commitment to mitigate for use of the resource: funding to prepare National Register of Historic Places nominations including Byrdland, funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

As each of the remaining build alternatives follow the existing highway corridor through the narrowest possible portion of the rural historic district, physical impacts within the district will be minimal.

3. Village of Rippon Historic District

a) Description

A large portion of the Village of Rippon is eligible for listing on the National Register as a historic district under Criteria A and C. It is also a contributing element within the larger Kabletown Rural Historic District. The Village of Rippon consists of approximately 45 acres. Thirty-two properties are located in the community of Rippon and identified as contributing to the eligible historic district. These include several stores, a school, two churches, a grain

elevator, a warehouse, a parish hall, and 22 dwellings. A majority of these buildings are dated to the late-nineteenth and early-twentieth century. The district is located along the existing US 340 and encompasses the junctures with CR 21 and CR 19.

Within the district, one contributing resource could potentially be impacted: the Johnson House property (JF-0062-0037). It is the southeast most boundary of the district. The residence features concrete block construction covered with German-lap and composition siding in the gable ends. It was constructed in the 1940s. The property is privately owned. The property also contains a modern metal shed.

The Village of Rippon Historic District is accessed from US 340 and CR 19. Access to the Johnson House property is by private drive. The main driveway to the house is accessed from CR 21.

b) Potential Impacts

Required land acquisition for Alternates 4, **4A (Preferred)**, and 4B will directly impact the southeast edge of the Village of Rippon Historic District, resulting in a 4(f) use of the resource. Based on conceptual plans, approximately 0.7 to 1.4 acres will be acquired from the historic district, including one structure listed as a contributing resource (Johnson House, JF-0062-0037). Land acquisition also includes two sheds dated to the early to mid-twentieth century. Exhibit V-5 and Exhibit V-6 show the relationship of the alternates to the historic district.

Alternate 4 results in the least impacts (0.7 acres) within this district, clipping the southernmost extension of the district along Meyerstown Road at the Johnson House property. Alternates **4A (Preferred)**, and 4B impact the same location but have a greater footprint as a longer portion of Meyerstown Road is improved in these scenarios. Alternate 4A also includes additional acquisition area along Rippon Commons Court to connect back to existing US 340. Alternate 4A requires 1.4 acres of acquisition within the district; Alternate 4B requires 1.1 acres. Based on conceptual designs, no constructive uses or temporary occupancies have been identified.

c) Measures to Minimize Harm

While **Alternate 4A (Preferred)** does not result in the least harm to the Village of Rippon Historic District considered as an individual resource, it does result in fewer impacts to Section 4(f) properties overall. The MOA documents WVDOH's commitment to mitigate for use of the

resource: funding to prepare a National Register of Historic Places nomination, funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

4. Olive Boy Farm Section 4(f) Property

a) Description

The Olive Boy Farm is eligible for listing on the National Register of Historic Properties under criterion C and is located on the east side of US 340. The historic property boundaries encompass approximately 182 acres and represent the previous ownership boundaries of the Olive Boy Farm. It is also a contributing component within the Kabletown Rural Historic District.

Alternates 4, **4A (Preferred)**, and 4B border the western boundary of the property along US 340. These alternates are located approximately 1,500 feet from the main house. Exhibit V-5 and Exhibit V-7 show the location of the Olive Boy property in relation to the build alternates.

The Olive Boy property is privately owned. The property was constructed by Dr. Blackburn sometime in the 1840's. The main house is a fine example of the Italianate style as expressed by local craftsmen. The setting is pristine and includes several outbuildings. These outbuildings include a stone spring house, the Blackburn cemetery, a one story kitchen/slave quarters, a small frame barn, a 1990 tenant house, and a 1970 turn-out shed.

Access to the Olive Boy property is by private drive. The driveway to the tenant house is from existing US 340. The driveway to the main house on Olive Boy Farm is accessed from CR 38.

b) Potential Impacts

Land acquisition for right-of-way impacts the Olive Boy property with Alternates 4, **4A (Preferred)**, and 4B as shown on Exhibit V-7, resulting in a 4(f) use of the resource. Alternates 4, 4A, and 4B follow similar alignments in this location along the western boundary of Olive Boy adjacent to the existing highway; each of these alternates will require from 6.3 to 10.7 acres from the Olive Boy property, located in a strip along the existing US 340 right of way. No standing structures will be directly impacted with any of the build alternates. Based on

conceptual designs, no constructive uses or temporary occupancies have been identified. Other environmental impacts are discussed in Section IV.

c) Measures to Minimize Harm

As each of the remaining build alternatives follow the existing highway corridor along the property's boundary, physical changes within the property will be minimal. The MOA documents WVDOT's commitment to mitigate for use of the resource: funding to prepare a National Register of Historic Places nomination for Olive Boy Farm and other resources, funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

5. Byrdland Section 4(f) Property

a) Description

The Byrdland property is eligible for listing on the National Register of Historic Places. The property consists of approximately 412 acres. This historic property was constructed between 1830 and 1850. The property consists of a large I-house of log construction with stucco cladding. Many outbuildings are located within the property that date from the late 1800's to the early 1900's. The outbuildings include three tenant houses, a frame bank barn, several frame shed-roofed chicken coops, a frame corncrib, three concrete silos, four gable-roofed sheds clad in either vertical siding or German-lap siding, a pigsty, several tractor sheds, a two-story frame granary with exterior stairs, a frame garage with sliding doors, and several modern machine sheds. The main house has undergone very little alteration. This property is eligible for listing on the National Register for its architectural and historic importance. It is also a contributing component within the Bullskin Run and Kabletown Rural Historic Districts. Together with its many late nineteenth-century outbuildings it is one of the most intact farm complexes in the area.

The Byrdland property is located on a hill surrounded by mature trees. The main residence faces west towards the existing US 340. It is approximately 750 feet east of the existing roadway; however, US 340 is barely visible due to varying elevations and existing vegetation. The Byrdland property is privately owned.

Access to the Byrdland property is by private drive. The main driveway to the house is from the existing US 340.

b) Potential Impacts

The Byrdland property is directly impacted under Alternates 4, **4A (Preferred)**, and 4B by land acquisition, resulting in a 4(f) use of the resource. Approximately 25.7 to 28.5 acres of permanent right is required for Alternates 4, 4A, and 4B. All of the impacts are to unimproved or agricultural land located in fields along existing US 340. There is one farmhouse that would be directly impacted by Alternate 4B, a tenant house (JF-0171) that dates to the 1870s and is eligible as a contributing element to the Bullskin Run and Kabletown Rural Historic Districts, although its condition is rapidly deteriorating and is vacant. Alternates 4, 4A, and 4B extend approximately 700 feet west of the main house. Exhibit V-5 and Exhibit V-8 show the location of the Byrdland property in relation to the alternates. No constructive uses or temporary occupancies have been identified based on conceptual designs.

Other environmental effects are discussed in Section IV.

c) Measures to Minimize Harm

While it would be possible to avoid or minimize impacts to the Byrdland property by shifting the alignments further west, this would lead to a more significant use within the Village of Rippon Historic District, including the loss of multiple contributing structures. Acquisition within the footprint of the Ripon Lodge historic property would also likely be required to accommodate the wider cross-section of the improved highway. A tighter radius S-curve along the proposed alignment could also reduce the footprint within Byrdland; however, this would compromise the project purpose depending on the severity of the curve.

The MOA documents WVDOH's commitment to mitigate for use of the resource: funding to prepare a National Register of Historic Places nomination for Byrdland and other resources, funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

6. Straithmore Section 4(f) Property

a) Description

The Straithmore property is eligible for listing on the NHRP under criteria A and C. The property consists of approximately 160 acres. The Straithmore property is located on the north end of the project along the existing US 340. It is a Federal-style house that was constructed in 1827. Also located on the property are the ruins of a stone mill and other stone and wood remnants from various buildings. The house faces west and is situated on top of a hill that grades down to Bullskin Run. The resource is a contributing element to the Kabletown and Bullskin Run Rural Historic Districts.

US 340 currently lies about 1,150 feet west of the main house. The topography between the house and the roadway varies in elevation, making it difficult, if not impossible, to see the existing roadway.

The Straithmore property is privately owned. Straithmore possesses great integrity of design and workmanship and is a fine example of a brick Federal-style dwelling with an attached brick service wing. It is composed of a five-bay, two-story brick section with a recessed one and a half-story, two-bay service wing. An old road trace is evident in the front yard, and the house faces west on a hill above Bullskin Run. The mill ruins further enhance the property's significance. Other outbuildings include two frame barns (circa 1900), a brick two-story smokehouse with gable roof (circa 1827), and a modern, three-bay, one and a half-story log building under construction using logs from a house on the neighboring property.

Access to the Straithmore property is by private drive. The main driveway to the house is accessed from CR 340/2, east of US 340.

b) Potential Impacts

The Straithmore property is impacted by land acquisition under all the remaining build alternates, resulting in a 4(f) use. Along this historic property, the location of Alternates 4, **4A (Preferred)**, and 4B are the same, traveling along the western property boundary adjacent to the existing US 340 alignment. Alternates 4, 4A, and 4B will require from 8.8 to 10.5 acres of right-of-way, located in a strip along the existing right of way. An additional strip of acquisition will be necessary to reconstruct the driveway, increasing the acreage totals. Exhibit V-5 and

Exhibit V-9 show the relationship of the alternates to the property. Based on conceptual designs, no constructive uses or temporary occupancies have been identified.

No standing historic structures fall within the proposed acquisition areas; a seasonal produce stand is located at the northern corner of the property within the acquisition area but is not considered a contributing element within the resource. Other environmental effects are discussed in Section IV.

c) Measures to Minimize Harm

Minimizing harm to the Section 4(f) property may be accomplished by additional design measures, such as widening west of the existing US 340 alignment or reducing the cross-section to reduce the extent of impacts. However, a westerly shift could require increased acquisition within the Beverly Farm. The MOA documents WVDOH's commitment to mitigate for use of the resource: funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

7. Beverly Farm Section 4(f) Property

a) Description

Beverley Farm is located along US 340, south of Charles Town, encompassing 438 acres. It is a contributing element within the Bullskin Run Rural Historic District. The house faces south and is situated adjacent to existing US 340 at the northern end of the study area. The main residence is at an elevation of 500 feet above mean sea level. Existing US 340 is approximately 520 feet above mean sea level and is east of the main house. The embankment between the house and the roadway obstructs the view of the existing roadway.

The Beverly Farm is privately owned. The property includes a two-story, five-bay, gable-roofed, Federal-style brick dwelling laid in Flemish-bond brick. Some of the architectural details include a brick water table, and brick jack arches. Two stone outbuildings on the property are believed to date to the original eighteenth-century construction period of the Stephenson house. Beverley is one of the finest Federal-style brick dwellings within the Bullskin Run Rural Historic District. The property is accessed from a private driveway off of existing US 340.

b) Potential Impacts

Alternates 4, **4A (Preferred)**, and 4B will directly impact the Beverly Farm with land acquisition, resulting in a 4(f) use of the resource. Alternates 4, 4A, and 4B follow the same location and will impact 0.5 to 0.9 acres from the easternmost tip of the property, adjacent to existing US 340 right of way. Exhibit V-5 and Exhibit V-10 show the location of the Beverly Farm in relation to the alternates. As each of the remaining build alternatives follow the existing highway corridor along the property's boundary, physical changes within the district will be minimal. No standing structures lie within the acquisition area. No constructive uses or temporary occupancies have been identified based on conceptual plans.

c) Measures to Minimize Harm

Alternates 4, **4A (Preferred)**, and 4B could potentially be shifted further east to minimize and possibly avoid the impacts to the Beverly Farm although this may increase impacts to Straithmore, and the Kabletown, and Bullskin Run Rural Historic Districts. The MOA documents WVDOT's commitment to mitigate for use of the resource: funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

8. Summit Point Battlefield

a) Description

The Summit Point Battlefield (JF-0738) is a Civil War era battlefield included in the American Battlefield Protection Program (ABPP - authorized under the National Park Service). The portion of the site within the US 340 corridor has been determined NRHP eligible under Criterion A; the larger battlefield complex has not been assessed as part of this project and is not evaluated herein (see Exhibit V-11). The Summit Point Battlefield is contained within a 14,092 acre boundary, with 8,671 acres (6,966 within West Virginia) identified as potentially National Register eligible. The ABPP identifies several "core areas" where critical battle phases with intense fighting or decisive outcomes occurred. The portion of the battlefield in the US 340 Study Area is reflective of an avenue of troop movement and skirmishing, not the core area of engagement for the battlefield itself. Regarding the landscape and built environment, several pivotal individual Antebellum-period resources remain largely intact; however, numerous structures postdating the Civil War also exist along the corridor, particularly concentrated

around the community of Rippon. Much of the US 340 Study Area may not reflect a recognizable built environment as it was experienced by those present during the Civil War. Yet despite changes to the built environment, the Summit Point battlefield boundary area and its vistas are still predominantly rural, including agricultural fields and pastures, retaining its general location and setting. The portion of the battlefield within the Alternate 4A (Preferred) alignment was evaluated during an intensive archaeological survey. No NRHP eligible archaeological sites were identified, and no evidence attributed to Civil War military activities were encountered.

b) Potential Impacts

Alternates 4, **4A (Preferred)**, and 4B will directly impact the resource: additional land acquisition will be required and the highway itself will be reconstructed with a wider footprint. Both the highway widening and new alignment portions will use between 71.3 to 96.2 acres within the historic boundary and will alter the rural landscape, a character-defining feature of the battlefield. To satisfy the project's purpose and need, some degree of impact is unavoidable. Exhibit V-5 and Exhibit V-12 show the location of the historic corridor in relation to the alternates. No standing structures or NHRP eligible archaeological resources lie within the acquisition area. No constructive uses or temporary occupancies have been identified based on conceptual plans.

Although Alternative 4A (Preferred) would alter the historic setting of this portion of the battlefield, it is the remaining alternative that most closely follows the existing alignment and would best retain the relationship between the historic corridor and the surrounding rural landscape.

c) Measures to Minimize Harm

The MOA documents WVDOH's commitment to mitigate for use of the resource: funding to develop an oral history collection, funding for interpretive signs, developing a historic driving tour brochure, developing a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

C. SECTION 4(F) EVALUATION SUMMARY

1. Section 4(f) Properties

Within the project area, there are no public parks, recreation areas, or wildlife refuges. There are, however, eighteen historic resources within the project area, discussed further in Section IV.B.4. The complexity of the historic landscape and the density of resources cannot be overstated. The historic architectural resources include three properties and one district listed on the NRHP, three eligible historic districts, nine eligible aboveground historic properties, one railroad, and a portion of a battlefield. Most of the individual properties are large estates or farmsteads and range from tens to hundreds of acres. Some of the individually eligible properties contribute to more than one historic district. For example, Byrdland is contained within and contributes to both the Kabletown Rural Historic District and the Bullskin Run Rural Historic District. It is also partially overlain by the Summit Point Battlefield site. Therefore, a use within Byrdland would also impact two historic districts and a battlefield site. One archaeological site considered eligible for listing on the NRHP was also identified in the project area.

The Ripon Lodge, the William Grubb Farm, and the Beverly Farm are listed on the NRHP. Long Marsh Run Rural Historic District (Long Marsh Run) is also listed; Long Marsh Run is located at the south end of the study area in Clarke County, Virginia with one contributing element within Jefferson County, West Virginia.

The three historic districts eligible for the NRHP include the Kabletown Rural Historic District (Kabletown), the Bullskin Run Rural Historic District (Bullskin Run), and the Village of Rippon Historic District (Village of Rippon). Kabletown historic boundaries, shown in Exhibit V-1 encompass approximately 18 square miles surrounding and including over half of the project area east of the Norfolk Southern Railroad. Bullskin Run historic boundaries, shown in Exhibit V-3, encompass approximately 20 square miles and include a majority of the project area west of the Norfolk Southern Railroad. Kabletown and Bullskin Run also include a common area surrounding the community of Wheatland at the north end of the project area. The Village of Rippon historic boundaries include the community of Rippon. The Village of Rippon is also a contributing element to the Kabletown Historic District.

The historic resources eligible for or listed on the NRHP in the project area, excluding Long Marsh Run Rural Historic District (located primarily in Virginia), are contributing elements to

and are located within the historic boundaries of either Kabletown, Bullskin Run, or both rural districts. The historic resources, shown on Exhibits V-6 through V-12, are individually listed or eligible for listing on the NRHP based on each of their unique historic contributions to West Virginia. The individual properties in the project area eligible for listing on the NRHP are identified below. Where the eligible resource also contributes to a larger district, the encompassing rural historic district(s) is also noted, as applicable.

- St. John's Episcopal Church (Village of Rippon and Kabletown Historic Districts)
- Olive Boy Farm (Kabletown Rural Historic District)
- Glenwood (Kabletown Rural Historic District)
- Wayside Farm (Kabletown Rural Historic District)
- Byrdland (Kabletown and Bullskin Run Rural Historic Districts)
- Straithmore (Kabletown and Bullskin Run Rural Historic Districts)
- Norfolk Southern Railroad (Kabletown and Bullskin Run Rural Historic Districts)
- McPherson-Adams House (Kabletown Rural Historic District)
- Berry Hill (Bullskin Run Rural Historic District)
- Summit Point Battlefield

The only archaeological site within the project area that is considered eligible is the Wheatland Farm and is located within both Kabletown and Bullskin Run. However, there are no impacts on this site by the preferred alternate and it is therefore not discussed as part of the Section 4(f) analysis.

2. Build Alternates and Build Impacts to 4(f) Properties

As of the 2001 DEIS, eight build alternates were evaluated. Based on conceptual alignments, Alternates 6 and 8 were identified as having the fewest uses of Section 4(f) resources. It should be noted that cultural resource investigations west of the rail line were not undertaken prior to the publication of the DEIS. Based on the conceptual level of detail for each build alternate, no

constructive uses or temporary occupancies were anticipated for any resource. It is understood that the conceptual footprint incorporates an adequate buffer of right of way to accommodate construction activities; the character and function of the resources (i.e., private homes) preclude a substantial loss of value due to proximity impacts under typical circumstances.

- Alternate 1 bisects the Ripon Lodge property and Wheatland Farm archaeological site. It traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It also runs along the boundaries of Olive Boy Farm, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.
- Alternate 2, which generally follows the existing US 340 alignment, bisects the Village of Rippon Historic District and traverses the Summit Point Battlefield and Kabletown Rural Historic District plus portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It also runs along the boundaries of Olive Boy Farm, Ripon Lodge, Byrdland, Straithmore, and Beverly Farm. It should be noted that this alternative requires the acquisition of the majority of properties adjacent to the highway through the community of Rippon. This alternative was not fully developed because of the difficulty of maintaining traffic during construction.
- Alternate 3 bisects the Ripon Lodge; it traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It also runs along the boundaries of Olive Boy Farm, Byrdland, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.
- Alternate 4 bisects Byrdland; it traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It also runs along the boundaries of Olive Boy Farm, the Village of Rippon Historic District, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.
- Alternate 5 bisects Olive Boy Farm, Wayside Farm, and Byrdland. It traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic

District that overlap with Kabletown. It also runs along the boundaries of Glenwood, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.

- Alternate 6 bisects the northern edge of the Ripon Lodge property and crosses the Wheatland Farm archaeological site; it traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It also runs along the boundaries of Olive Boy Farm, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.
- Alternate 7 bisects the Ripon Lodge property; it also traverses the Kabletown Rural Historic District and portions of the Bullskin Run Rural Historic District that overlap with Kabletown. It runs along the boundaries of Olive Boy Farm, the Village of Rippon Historic District, Byrdland, Straithmore, and Beverly Farm. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield. Because of the resulting skew of the US 340/CR 19 intersection, this alternative was not fully developed.
- Alternate 8 was initially developed as an avoidance alternative; although subsequent historic surveys identified additional resources nullifying this aim. Alternate 8 crosses the historic Norfolk Southern Railroad in two locations; bisects Sunnyside, William Grubb Farm, and the southern corner of Beverly Farm; and traverses the Bullskin Run Rural Historic District plus a small portion of the Kabletown Rural Historic District that overlaps with Bullskin Run Rural Historic District. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.

During 2002-2003, additional historic surveys were conducted in the western portion of the project area and Alternate 9 was added.

- Alternate 9 follows the historic Norfolk Southern Railroad, requiring the tracks to be shifted north on new alignment. This alternate bisects the Norfolk Southern Railroad, Sunnyside, William Grubb Farm, and the southern corner of Beverly Farm. It traverses the Bullskin Run Rural Historic District and a small area of the Kabletown Rural Historic District that overlaps with Bullskin Run Rural Historic District. It also runs along the

boundaries of Olive Boy Farm, Ripon Lodge, and Sunnyside. When on existing alignment, it is also within the boundaries of the Summit Point Battlefield.

As a result of the expanded historic analysis following the 2002 public workshop, Alternate 4 was identified as the preferred alternate, dismissing all other build alternates previously considered. During the intervening years between 2002 and 2012, build alternates 4A, 4B, 4C, 10A, 10B, and 11 were added in response to public comments on impacts to residential development in the project area..

- **Alternate 4A (Preferred)** bisects Byrdland, requiring 26.6 acres of right of way within the historic boundary. It also passes through the southeastern corner of the Village of Rippon Historic District, requiring 1.4 acres of right of way acquisition including one contributing structure. It traverses the Kabletown Rural Historic District and a portion of the Bullskin Run Rural Historic District, for a total of 97.5 acres of right of way acquisition within the two districts, including their overlap. Alternate 4A also runs along the boundaries of Olive Boy Farm, Straithmore, and Beverly Farm, resulting in 16.8 acres of right of way acquisition within the three historic boundaries; this could likely be minimized during final design. Within the Summit Point Battlefield boundary, Alternate 4A will require 96.2 acres of additional right of way for US 340 improvements.
- Alternate 4B bisects Byrdland, requiring 28.5 acres of right of way within the historic boundary. It traverses the Kabletown Rural Historic District and a portion of the Bullskin Run Rural Historic District, for a total of 101.9 acres of right of way acquisition within the two districts, including their overlap. It also runs along the boundaries of Olive Boy Farm, the Village of Rippon Historic District, Straithmore, and Beverly Farm, requiring acquisition of 18.6 acres of right of way and one contributing structure. These impacts could likely be minimized during final design. Within the Summit Point Battlefield boundary, Alternate 4B will require 86.7 acres of additional right of way for US 340 improvements.
- Alternate 4C bisects Byrdland, requiring 33.2 acres of right of way within the historic boundary. It traverses the Kabletown Rural Historic District and a portion of the Bullskin Run Rural Historic District for a total of 98.9 acres of right of way acquisition within the two districts, including their overlap. It also runs along the boundaries of

Olive Boy Farm, the Village of Rippon Historic District, Straithmore, and Beverly Farm, requiring acquisition of 16.8 acres of right of way and one contributing structure.

These impacts could likely be minimized during final design. Within the Summit Point Battlefield boundary, Alternate 4C will require 104.2 acres of additional right of way for US 340 improvements.

- Alternate 10A crosses the historic Norfolk Southern Railroad in two locations and curves into the northern boundary of Byrdland. It traverses portions of Bullskin Run Rural Historic District and Kabletown Rural Historic District. It runs along the boundaries of Olive Boy Farm, Straithmore, and Beverly Farm. In total, Alternate 10A results in approximately 169 acres of right of way acquisition within historic properties.
- Alternate 10B follows the historic Norfolk Southern Railroad, requiring the tracks to be shifted north on new alignment. This alternate bisects the Norfolk Southern Railroad and curves into the northern boundary of Byrdland. It traverses portions of Bullskin Run Rural Historic District and Kabletown Rural Historic District. It runs along the boundaries of Olive Boy Farm, Ripon Lodge, Sunnyside, Straithmore, and Beverly Farm. In total, Alternate 10B results in approximately 192 acres of right of way acquisition within historic properties.
- Alternate 11 bisects Byrdland; it traverses portions of Kabletown Rural Historic District and portions of Bullskin Run Rural Historic District that overlap with Kabletown. It runs along the boundaries of Olive Boy Farm, Straithmore, and Beverly Farm. In total, Alternate 11 results in approximately 239 acres of right of way acquisition within historic properties.

Alternates 4C, 10A, 10B, and 11 were dismissed from further consideration in the 2016 Supplemental Draft Environmental Impact Assessment due to increased impacts to historic resources, higher right of way requirements, impacts to farmlands, and higher costs. See Table I-1 for a summary of impacts by alternate.

Additional effort was undertaken in 2017 in response to agency comments on the SDEIS. The Summit Point Battlefield (JF-0738) was identified as an NRHP eligible site, following the footprint of the historic Berryville Pike through the Study Area. Each of the build alternates

considered would also require right of way acquisition within the historic footprint of the resource as noted above.

3. Avoidance Alternatives

As large rural historic districts span the entire length and width of the project area and cover over 90% of its surface area, an avoidance alternative that satisfies the project purpose is not feasible. A total of 15 new location alternates and alignment shifts were considered as discussed in Section III; it is impossible to trace a highway alignment through the project area that does not pass within the boundaries of one or more historic districts. Further, the highway corridor itself is considered historic for its association with Civil War troop movements and skirmishes. To avoid the entirety of both rural historic districts, a location alternative would have to be located over 3 miles east or west of the existing alignment; such an alternative would not satisfy the project's purpose of addressing traffic operations and improving safety along the existing US 340 corridor. The US Department of the Interior concurred that there are no prudent and feasible alternatives to the proposed use of Section 4(f) lands (see correspondence dated September 29, 2016 in Appendix B).

Design changes to modify the footprint of the typical section likewise do not enable designs to avoid encroachment within one or more historic districts. Alternative actions, such as running transit along the existing alignment or incorporating transportation management systems, would not necessarily result in a Section 4(f) use; however, these strategies do not satisfy the project's purpose and need as discussed in Section II. Although the No Build Alternative avoids Section 4(f) properties and districts, it is not considered a prudent alternative since it would not meet the purpose and need for the project.

4. Minimization and Overall Harm (Macro-level Analysis)

Alternates 1, 2, 3, 6, 7, 9, and 10B would lead to a 4(f) use of the Ripon Lodge, which has been previously listed on the NHRP. Alternates 8 and 9 would result in right of way acquisition through the William Grubb Farm property, also previously listed on the NHRP. Alternate 5 avoids both these resources but would result in a 4(f) use of two additional resources (Glenwood and Wayside farms) which are not directly affected by any of the other build alternates. Alternate 10A also avoids the most significant resources; however, it requires multiple grade-separated crossings of the historic Norfolk Southern Railroad, thereby increasing project costs and dramatically affecting the historic agrarian setting of the valley.

Alternate 11 results in among the highest acreage of direct right of way takes within historic boundaries, and would require substantial residential and business relocations. While Alternate 4C results in similar effects on historic resources as Alternate 4B, Alternate 4C results in greater impacts on other resources (i.e., residential relocations, acres of right of way, wetlands, and farmlands). Accordingly, Alternate 4, 4A, and 4B were advanced for detailed study in the 2016 SDEIS.

The following subsections discuss the seven criteria for a Least Harm analysis, followed by a summary of Section 4(f) recommendations. Exhibit V-5 shows the location of the Section 4(f) properties in relation to each of these build alternates.

a) Ability to Mitigate Adverse Impacts

Each of the remaining build alternates provide a similar level of flexibility to mitigate further impacts. Based on current information, minor shifts in the alignment may allow designers to avoid or minimize the required footprint within Olive Boy Farm, Straithmore, and/or Beverly Farm. Measures to mitigate harm to the larger rural historic districts, the Village of Rippon Historic District, and Byrdland could include minor alignment shifts, a narrower typical section, landscaping, or other site-specific measures. Further minimization efforts will be completed upon receipt of project surveys and development of project design plans. The Section 106 MOA for the project includes specific mitigation commitments including funding to prepare National Register of Historic Places nominations, funding to developing an oral history collection, funding for interpretive historic signs, developing a historic driving tour brochure, develop a GIS layer that documents historic agriculture resources in Jefferson County, WV, and inclusion of the project area on a History Through Highways website.

b) Relative Severity of Remaining Harm

Each of the remaining build alternates results in a similar severity of harm to Section 4(f) properties. Table V-1 and Table V-2 show a comparison summary of the Section 4(f) impacts related to the remaining alternates. Table V-1 provides the Kabletown and Bullskin Run impacts of the alternates for: 1) the area of property unique to each of the two rural historic districts, 2) the area of property that is common to both rural historic districts, and 3) the total amount of Section 4(f) property without including the common areas twice.

Of the three remaining build alternates, Alternate **4A (Preferred)** results in the fewest acres within the Kabletown Rural Historic District (94.0 acres) and within the combined footprints of individual resources (44.8 acres) but the most acreage from the Summit Point Battlefield (96.2 acres). However, the impacted portion of Summit Point Battlefield represents only about 1% of the overall battlefield site, and wouldn't impact any of the core areas identified by the ABPP. Alternates 4 and 4A (Preferred) result in the loss of two contributing elements, while Alternative 4B results in the loss of three contributing elements. Each follows existing highway right of way boundaries along the edge of the property for three of the resources, minimizing the extent of physical changes to the setting following construction.

Table V-1: Comparative Summary of Section 4(f) Impacts on Districts

District	Right of Way Acquisition for Build Alternates (Acres)		
	Alt 4	Alt 4A (Preferred)	Alt 4B
Kabletown Rural Historic District*	78.9	74.1	77.8
Bullskin Run Historic District*	3.0	3.6	3.6
Combined Bullskin Run and Kabletown Historic Districts Area	18.3	19.9	20.6
Long Marsh Run Rural Historic District	0.0	0.0	0.0
Total Section 4(f) Impacts on Districts	100.2	97.5	98.9

Note: The impacts to the Kabletown Rural Historic District could be minimized further during final design.

* Excludes combined area that is common to both districts

Alternate 4 will impact 97.2 total acres of Kabletown and 21.3 total acres of Bullskin Run. This alternate will impact six other historic resources in the project area as shown in Table V-2. These six include the Village of Rippon Historic District, Olive Boy Farm, Byrdland, Straithmore, Beverly Farm, and Summit Point Battlefield.

Alternate **4A (Preferred)** will impact 94.0 total acres of Kabletown and 23.4 total acres of Bullskin Run. This alternate will impact six other individual historic resources in the project area including the Village of Rippon Historic District, Olive Boy Farm, Byrdland, Straithmore, Beverly Farm, and Summit Point Battlefield.

Alternate 4B will impact 98.4 total acres of Kabletown and 24.2 total acres of Bullskin Run. This alternate will impact six other individual historic resources in the project area. These include the Village of Rippon Historic District, Olive Boy Farm, Byrdland, Straithmore, Beverly Farm, and Summit Point Battlefield.

Table V-2: Comparative Summary of Individual Historic Property and District Impacts

Property	Historic Property (Total Acres)	Right-of-Way Acquisition for Build Alternates (Acres)		
		Alt. 4	Alt. 4A (Preferred)	Alt. 4B
¹⁾ Village of Rippon Historic District	45	0.7	1.4	1.1
^{1) 3)} St. John's Episcopal Church	--	0.0	0.0	0.0
^{1) 2)} William Grubb	25	0.0	0.0	0.0
^{1) 4)} Olive Boy	182	10.7	6.3	6.5
¹⁾ Glenwood	24	0.0	0.0	0.0
¹⁾ Wayside Farm	16	0.0	0.0	0.0
¹⁾ Ripon Lodge	195	0.0	0.0	0.0
^{1) 2)} Byrdland	412	25.7	26.6	28.5
^{1) 2)} Wheatland Farm	17	0.0	0.0	0.0
^{1) 2)} Straithmore	160	8.8	10.0	10.5
^{1) 2)} Norfolk Southern Railroad	--	0.0	0.0	0.0
¹⁾ McPherson-Adams House	--	0.0	0.0	0.0
²⁾ Berry Hill	144	0.0	0.0	0.0
^{2) 4)} Beverly Farm	438	0.9	0.5	0.5
Summit Point Battlefield	686	71.3	96.2	86.8
TOTALS		118.1	141.0	133.9

¹⁾ This property is part of the Kabletown Rural Historic District

²⁾ This property is part of the Bullskin Run Rural Historic District

³⁾ This property is part of the Village of Rippon Historic District

⁴⁾ The impacts from Alternates 4, 4A, and 4B could be minimized or potentially avoided during final design.

c) Relative Significance of Each Property

The most significant features in the vicinity are the three previously listed properties: William Grubb Farm, Ripon Lodge, and Beverly Farm. Of these, William Grubb Farm and the Ripon Lodge are avoided; the remaining alignments require approximately 0.5-0.9 acres of right of way along the edge of the Beverly Farm historic boundary based on conceptual designs.

Impacts to the remaining properties will be similar for each of the three alternates advanced for detailed study. Although the portion of the Summit Point Battlefield impacted by the project alternatives has been determined eligible for listing on the NRHP, the most significant areas of the battlefield site, the core areas, are located outside of the project area.

d) Views of Officials with Jurisdiction

Coordination and meetings with WV SHPO and other agencies included discussions concerning the determination of Section 4(f) properties, avoidance alternatives, and measures to minimize harm. An overview of historic resources within the project area and project impacts to these features has been presented at the 2002 public hearing and during 2012 and 2013 public workshops as well as at the 2016 public workshop/hearing. As discussed in Section IV, the WV SHPO has concurred with the eligibility and effects determinations and is a signatory to the MOA, outlining measures to mitigate adverse effects on NRHP listed and eligible resources.

e) Degree each Alternate Meets Purpose and Need

As discussed in Section II, the purpose and need for the proposed improvements to US 340 is to address traffic operations and improve safety deficiencies along the existing facility. The remaining build alternates satisfy the project purpose to a similar degree.

f) Adverse Impacts to Non 4(f) Resources

As presented in Table I-1, the remaining detailed study alternates result in similar levels of impacts to other resources within the human and natural environment. Alternate 4 has over three times as many residential relocations as the preferred. Alternate 4B impacts more right of way, has greater wetland impacts and impacts more acres of active farmland than either Alternate 4 or 4A. **Alternate 4A (Preferred)** has the fewest residential relocations, least wetland impacts, and fewest acres of active farmland disturbed.

g) Cost Differences

Also presented in Table I-1, the remaining detailed study alternates result in similar costs, ranging from an estimated \$47 to \$51 million.

D. SUMMARY

While the project area contains no public parks, recreation areas, or wildlife refuges, the large number and size of historic resources make avoidance of Section 4(f) properties impossible.

Fifteen build alternates were evaluated alongside the No-Build Alternate. Alternates 1, 2, 3, 6, 7, 9, and 10B would lead to a 4(f) use of the NRHP-listed Ripon Lodge. Alternates 8 and 9 would bisect the NRHP-listed William Grubb Farm. Alternate 5 avoids both these resources but would result in a 4(f) use of two additional resources which are not directly affected by any of the other build alternates. Alternate 10A also avoids the most significant resources; however, it requires multiple grade-separated crossings of the historic Norfolk Southern Railroad.

Alternate 11 results in among the highest acreage of direct right of way takes within historic boundaries and would require substantial residential and business relocations. While Alternate 4C results in similar effects on historic resources as Alternate 4B, Alternate 4C results in greater impacts on other resources. Accordingly, Alternate 4, 4A (Preferred), and 4B were advanced for detailed study in the 2016 SDEIS.

Alternate **4A (Preferred)** results in the fewest acres of Section 4(f) use within the Kabletown Rural Historic District and within the combined footprints of individual resources excluding the Summit Point Battlefield. While Alternate 4A (Preferred) does not have the lowest impact on the battlefield in terms of direct area, qualitatively, there is little difference between the remaining alternatives, considering the relatively small size of the impact to the overall resource, and the fact that none of the alternates impact any core areas of the battlefield. Alternate 4 and 4A (Preferred) result in the loss of two contributing elements, while Alternate 4B results in the loss of three:

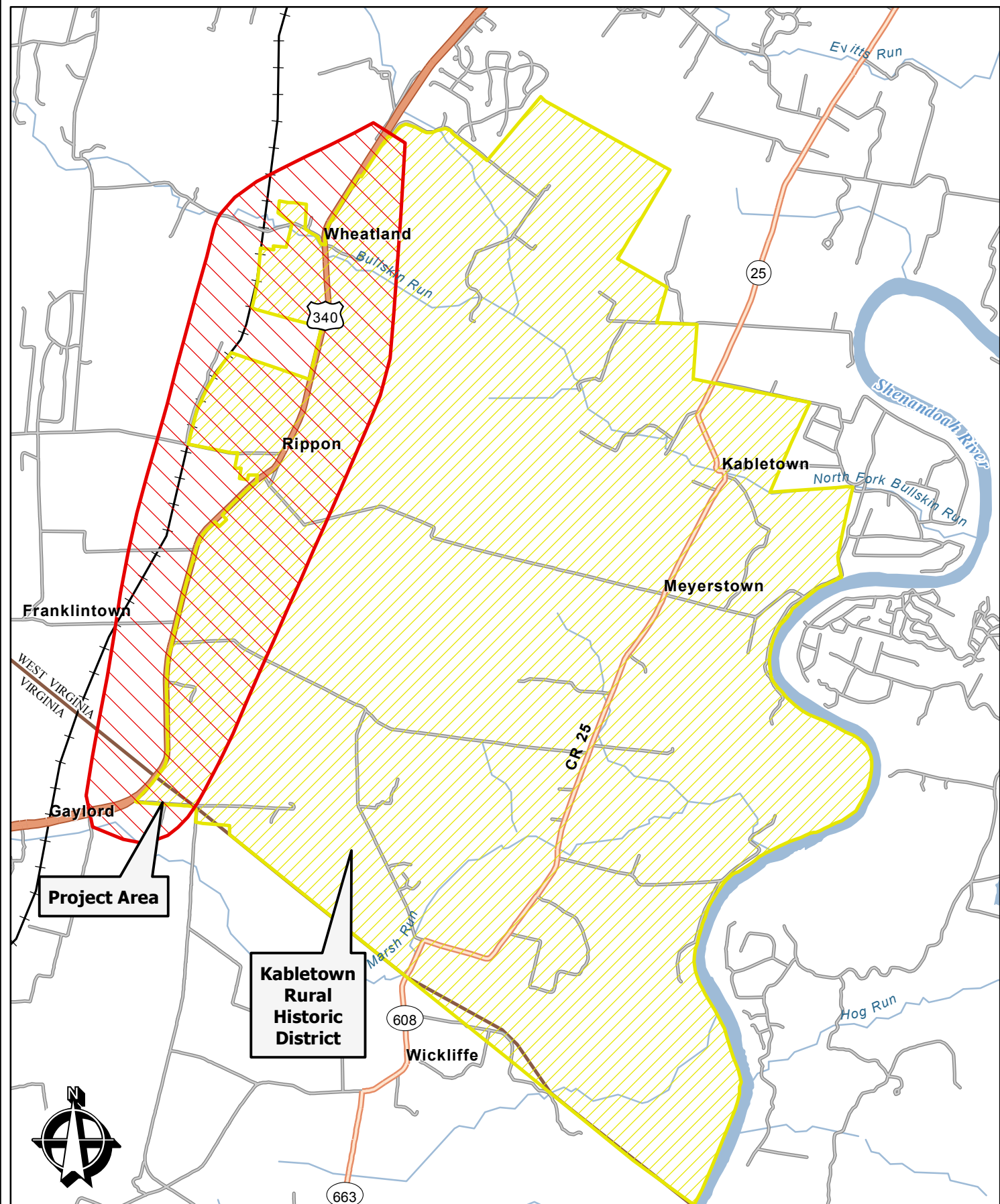
- JF-0062-0068, US 340 Bridge over Bullskin Run (contributing to Kabletown and Bullskin Run rural historic districts) will be reconstructed under any remaining alternate to carry the wider highway cross-section.

- JF-0062-0037, Johnson House (contributing to Village of Rippon and Kabletown districts), will be taken by alternates 4A or 4B as it falls within the conceptual project footprint.
- JF-0171, 1870s tenant house at Byrdland (contributing to Kabletown and Bullskin Run rural historic districts), will be taken by alternates 4 or 4B as it falls within the conceptual project footprint.

Each follows the existing highway right of way boundaries along the edge of the property for three of the resources, minimizing the extent of physical changes to the setting following construction.

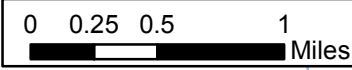
Of the remaining alternates (4, 4A and 4B), Alternate 4A (Preferred) provides the least overall harm to Section 4(f) properties when considering the seven criteria for a least harm analysis. Each of the alternates provide similar opportunities to mitigate adverse impacts. All would result in a similar relative remaining harm when considering impacts both quantitatively and qualitatively, with Alternate 4A (Preferred) having slightly less area of impact to the historic districts and individual resources other than the Summit Point Battlefield. The West Virginia SHPO has been involved during the project development and concurs in the projects findings and recommendations as evidenced by their correspondence and participation in the Section 106 MOA. Each of the remaining alternates would meet the projects purpose. Alternate 4A (Preferred) will have the least overall impact to non-Section 4(f) resources. The Section 4(f) analysis supports the project team recommendation to advance Alternate 4A as the preferred alternative.

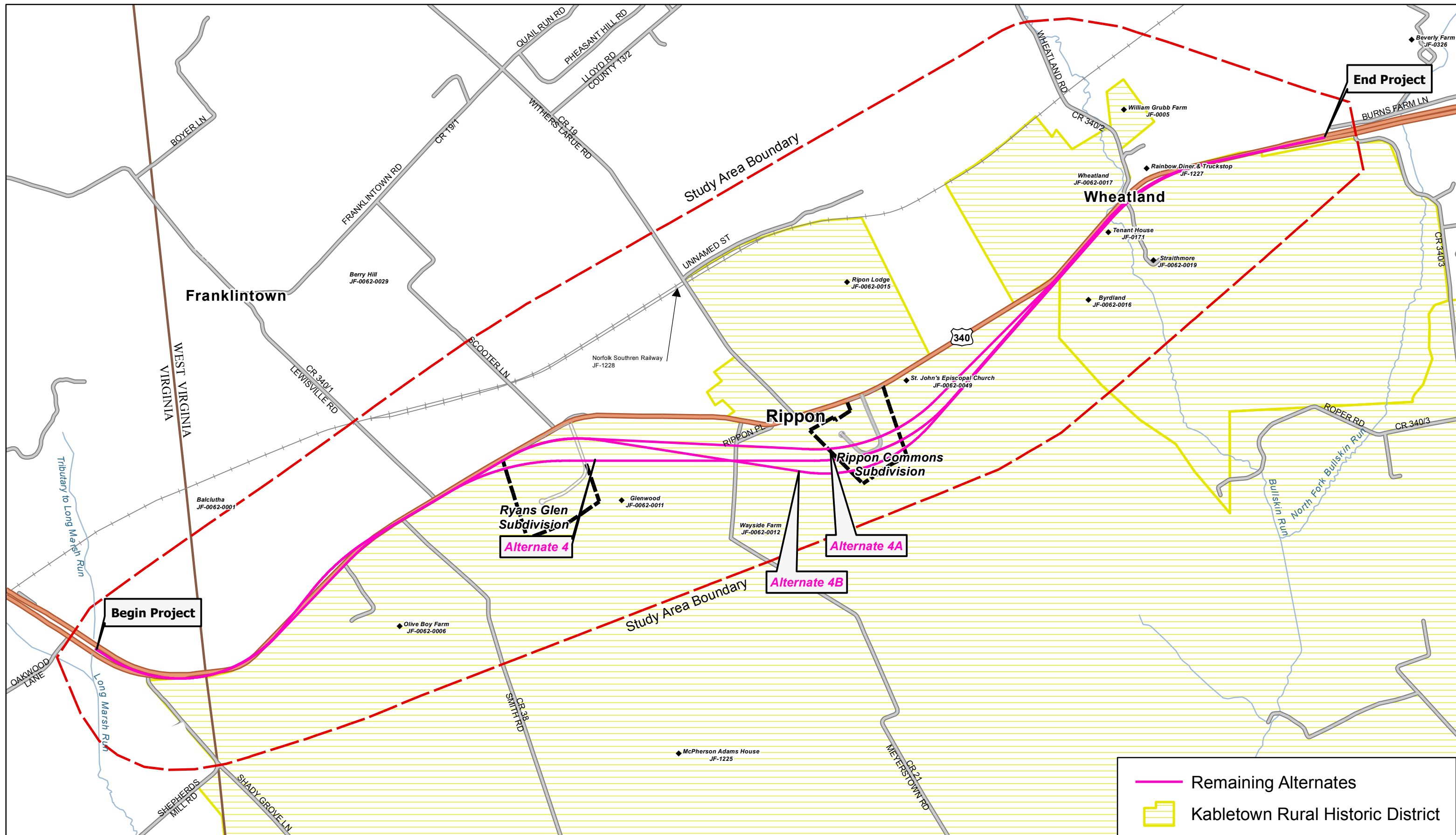
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**US 340
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STUDY**

**Kabletown Rural
Historic District**

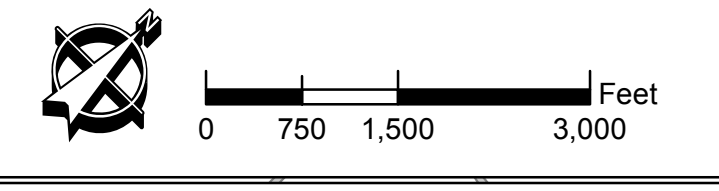


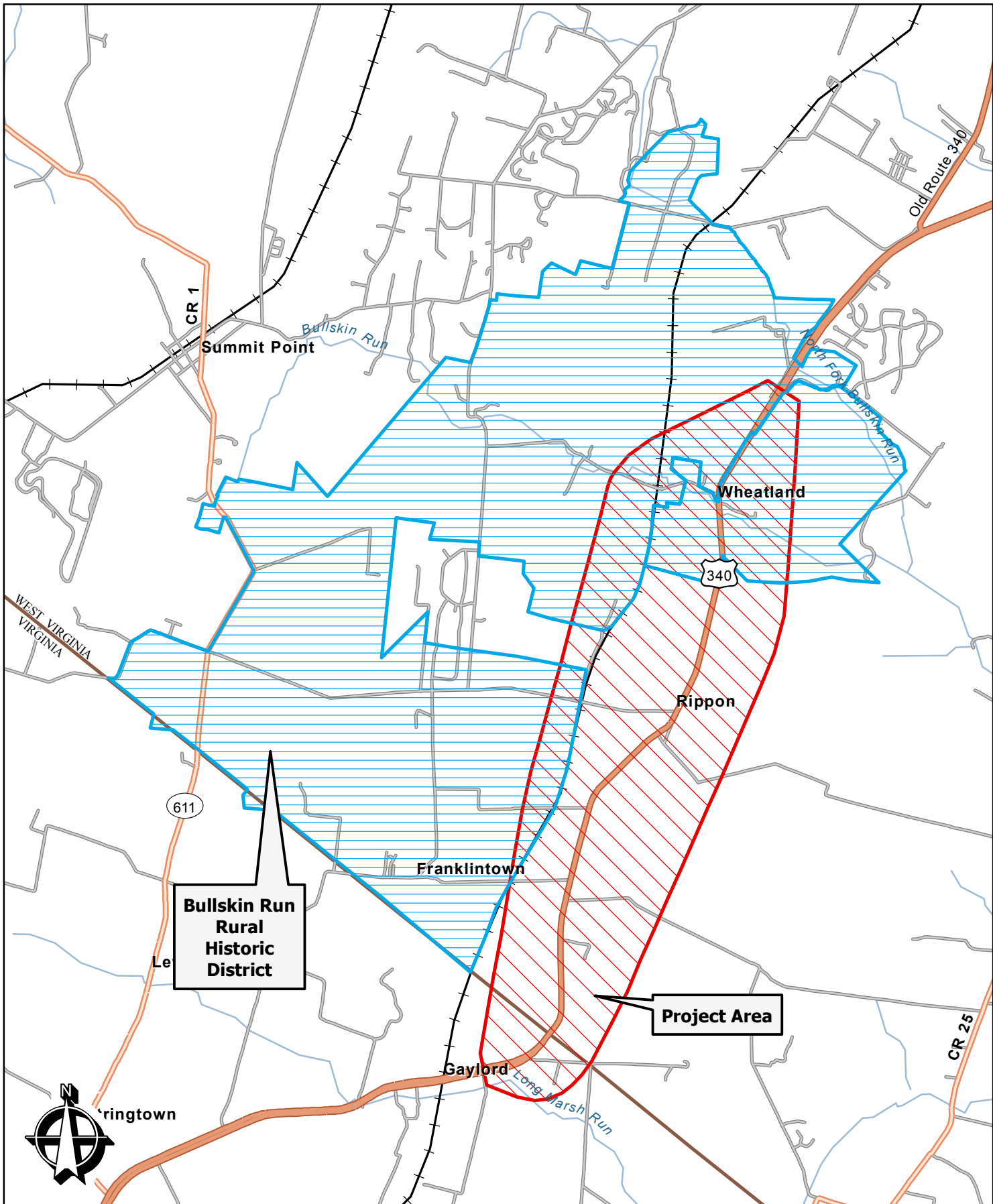


- Remaining Alternates
- Kabletown Rural Historic District

Impacts to Kabletown Rural Historic District

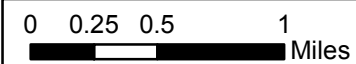
US 340 IMPROVEMENT STUDY

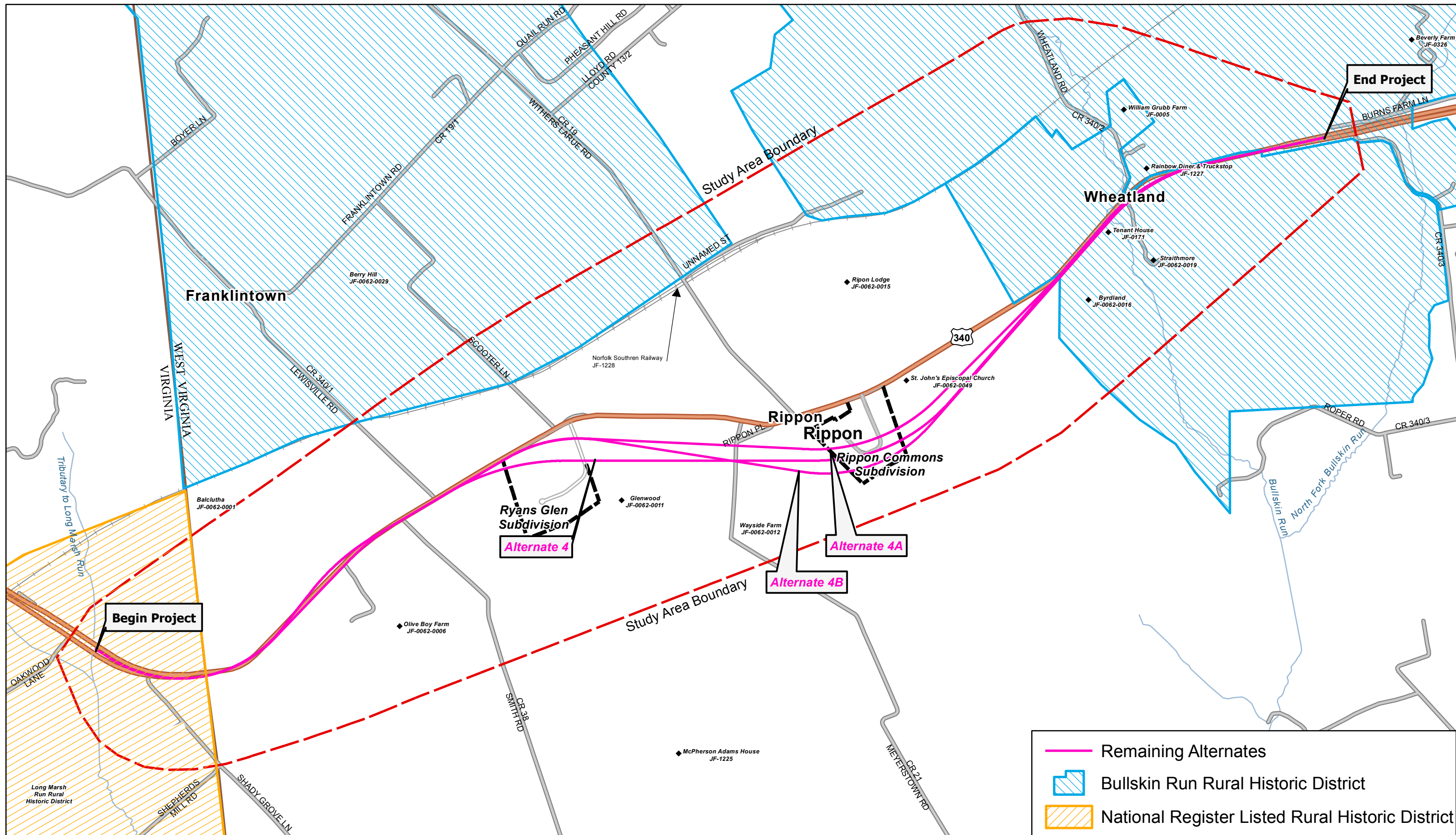







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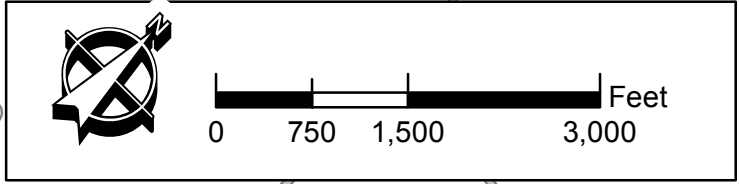
**Bullskin Run Rural
Historic District**



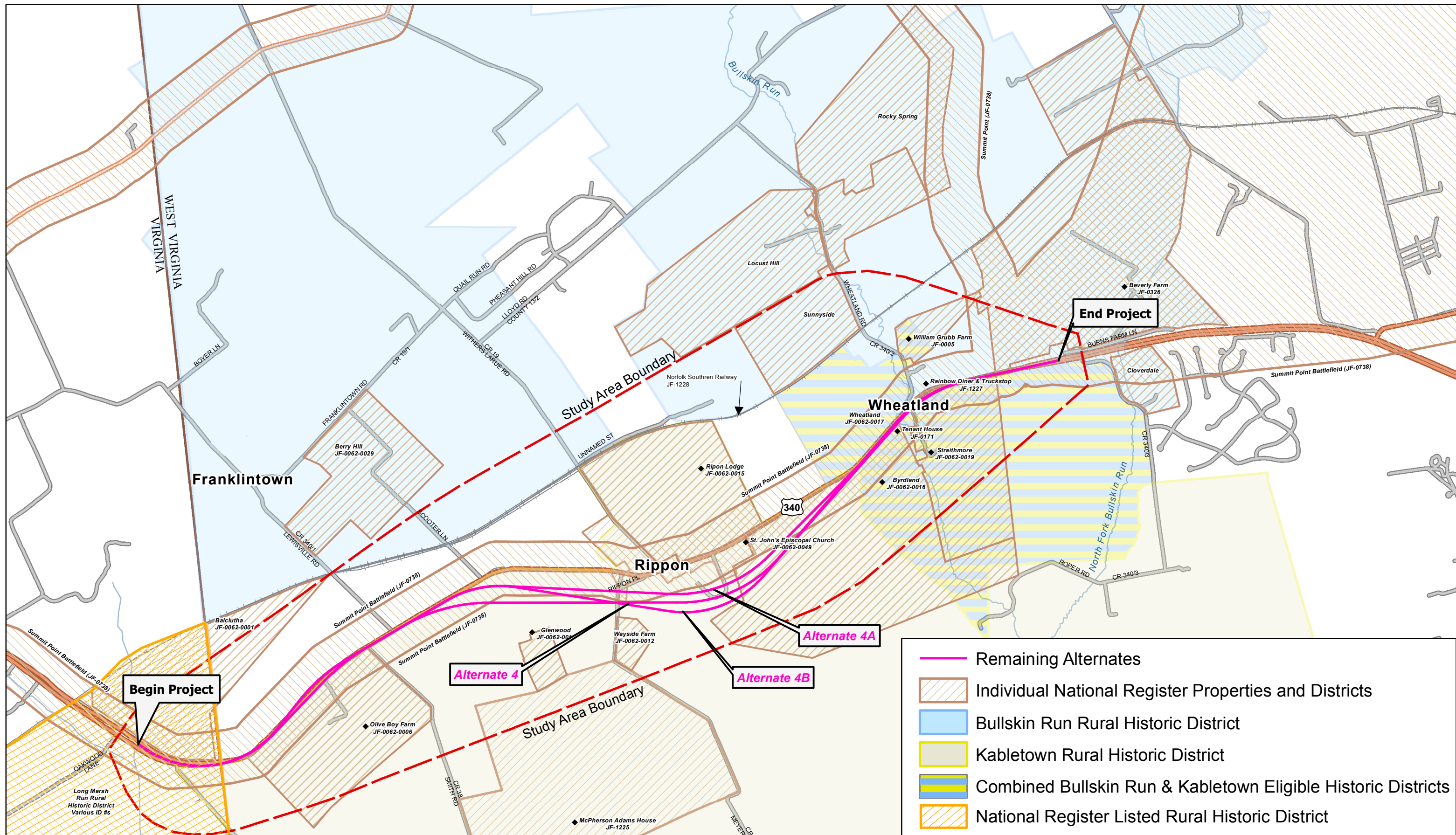


-  Remaining Alternates
-  Bullskin Run Rural Historic District
-  National Register Listed Rural Historic District

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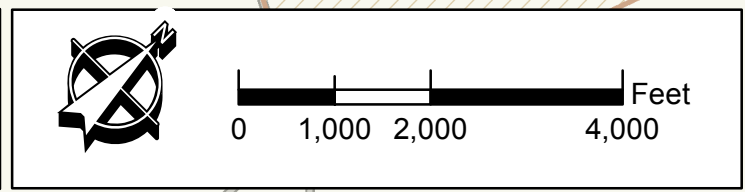


**Impacts to
Bullskin Run Rural
Historic District**

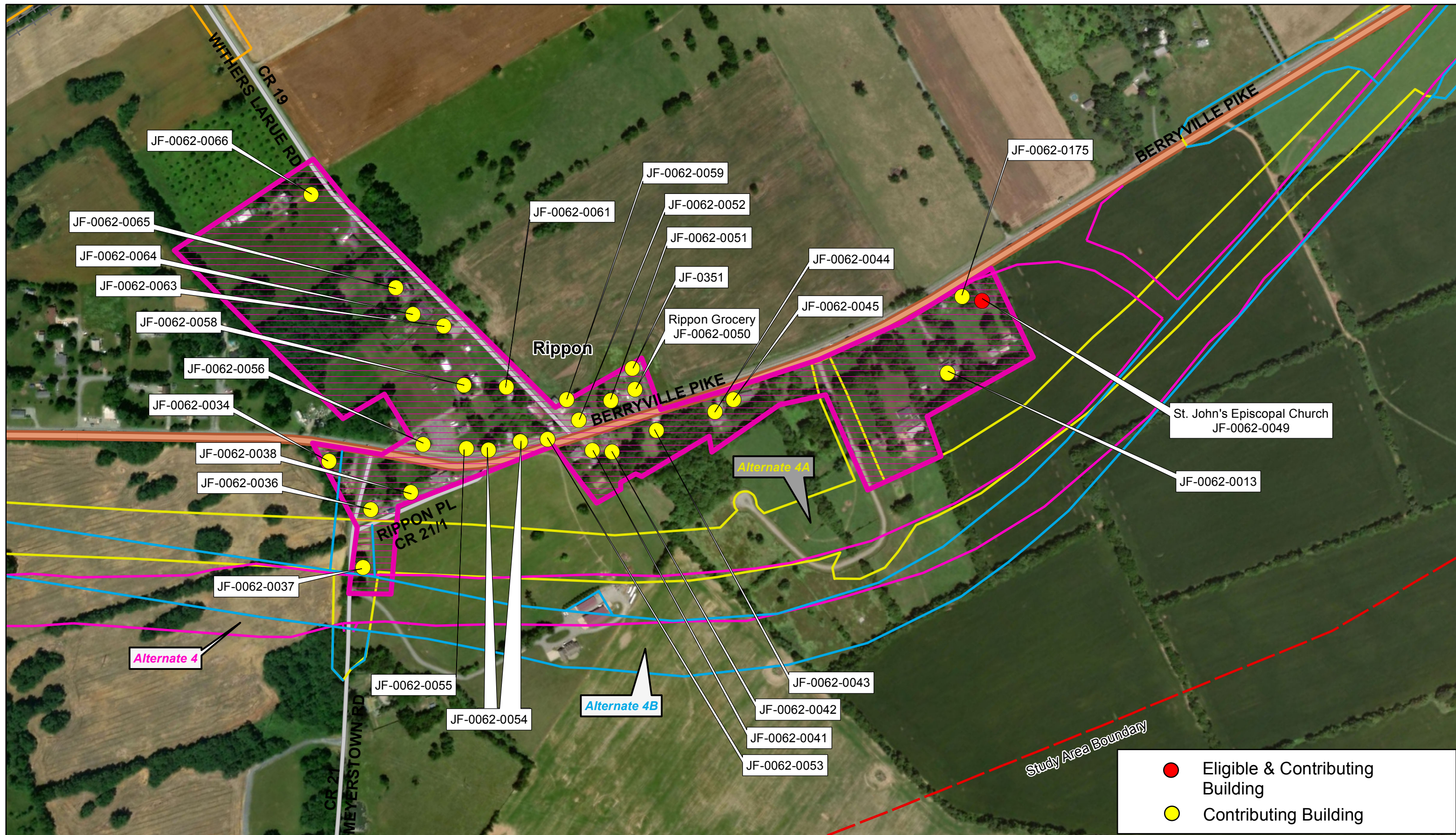


-  Remaining Alternates
-  Individual National Register Properties and Districts
-  Bullskin Run Rural Historic District
-  Kabletown Rural Historic District
-  Combined Bullskin Run & Kabletown Eligible Historic Districts
-  National Register Listed Rural Historic District

**US 340
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STUDY**



Historic Resources

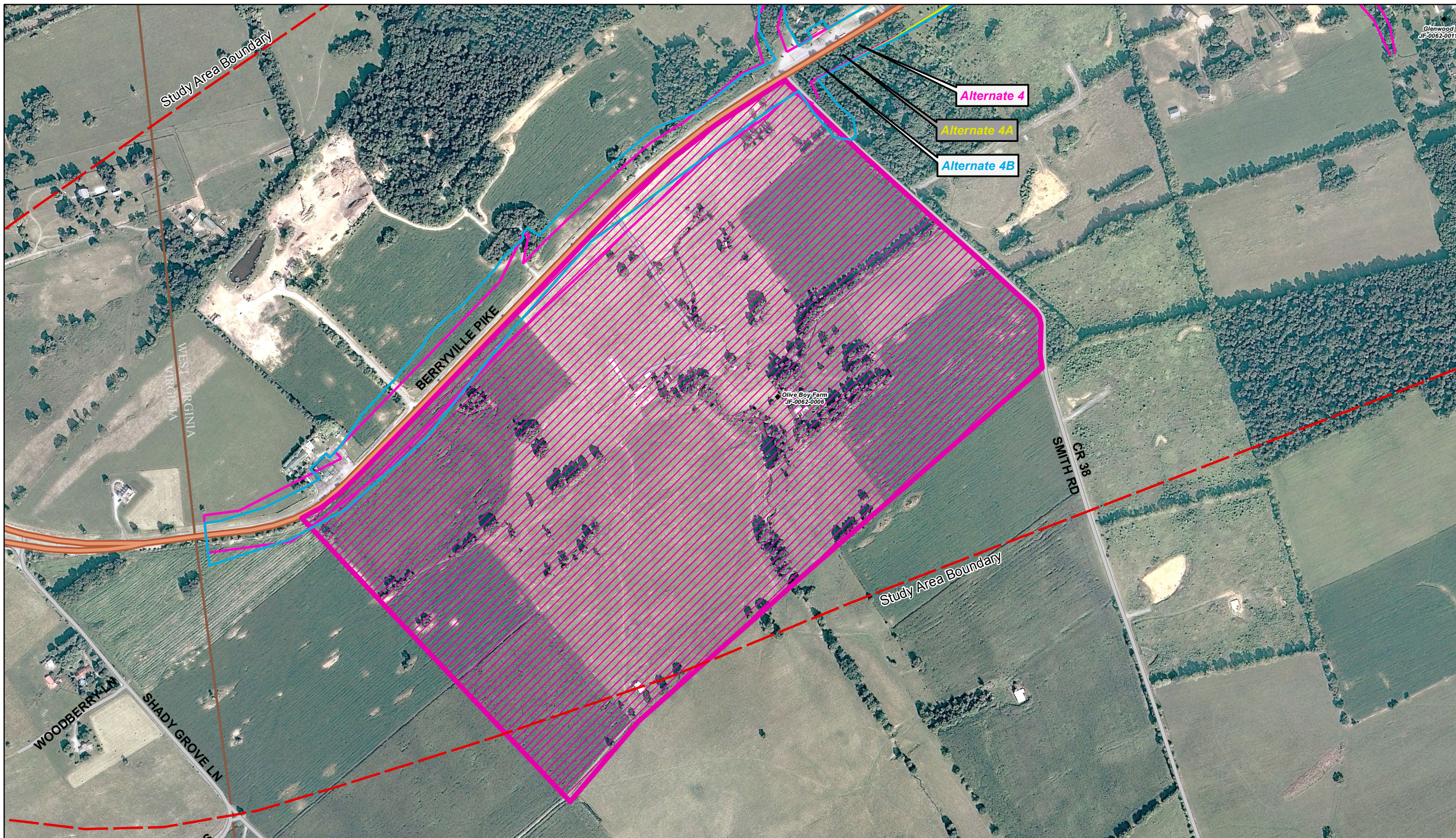


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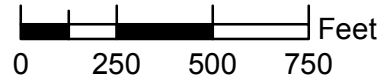


- Eligible & Contributing Building
- Contributing Building

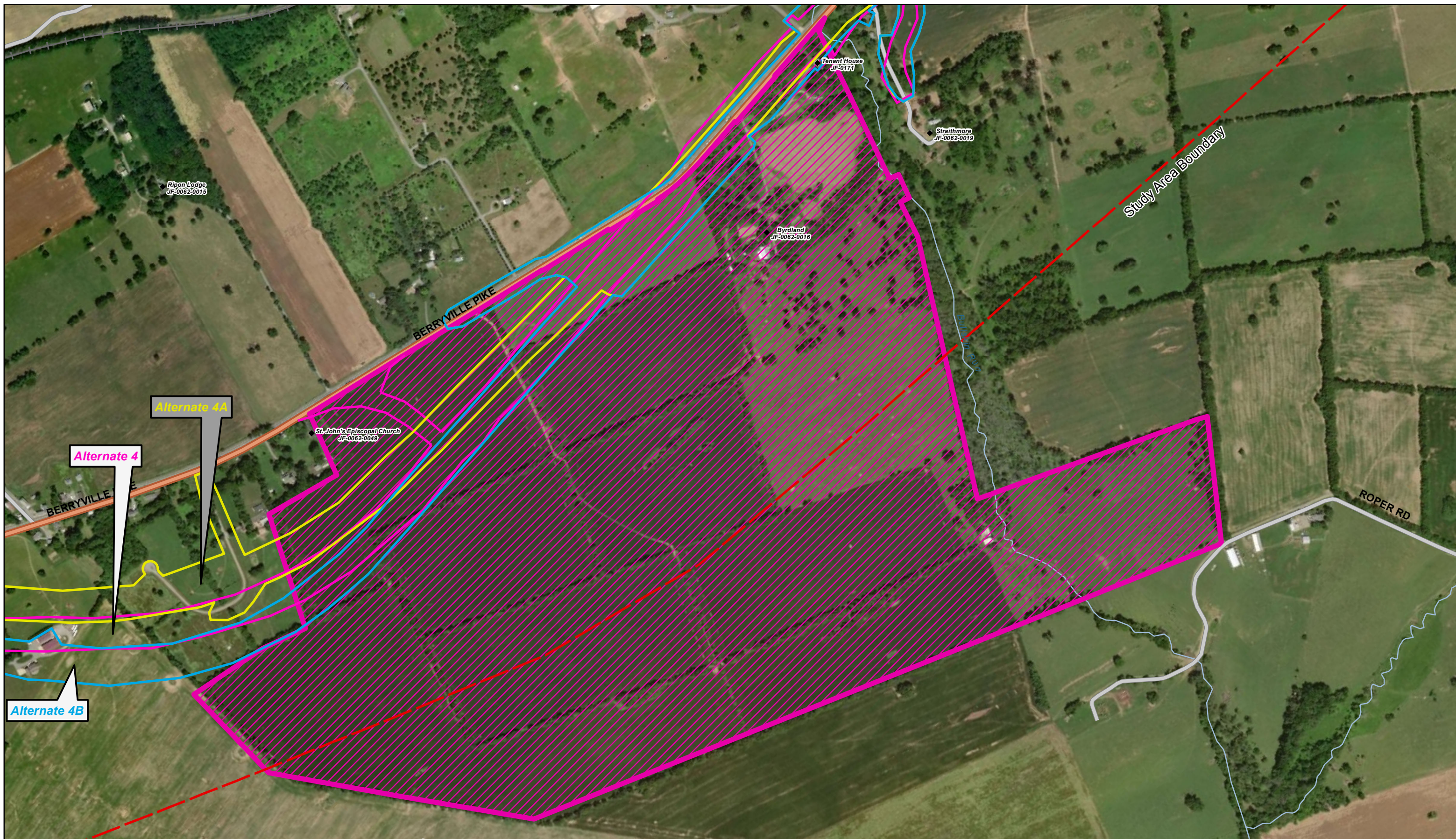
**Impacts to Village of
Rippon Historic District**



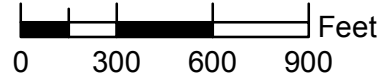
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IMPROVEMENT
STUDY**



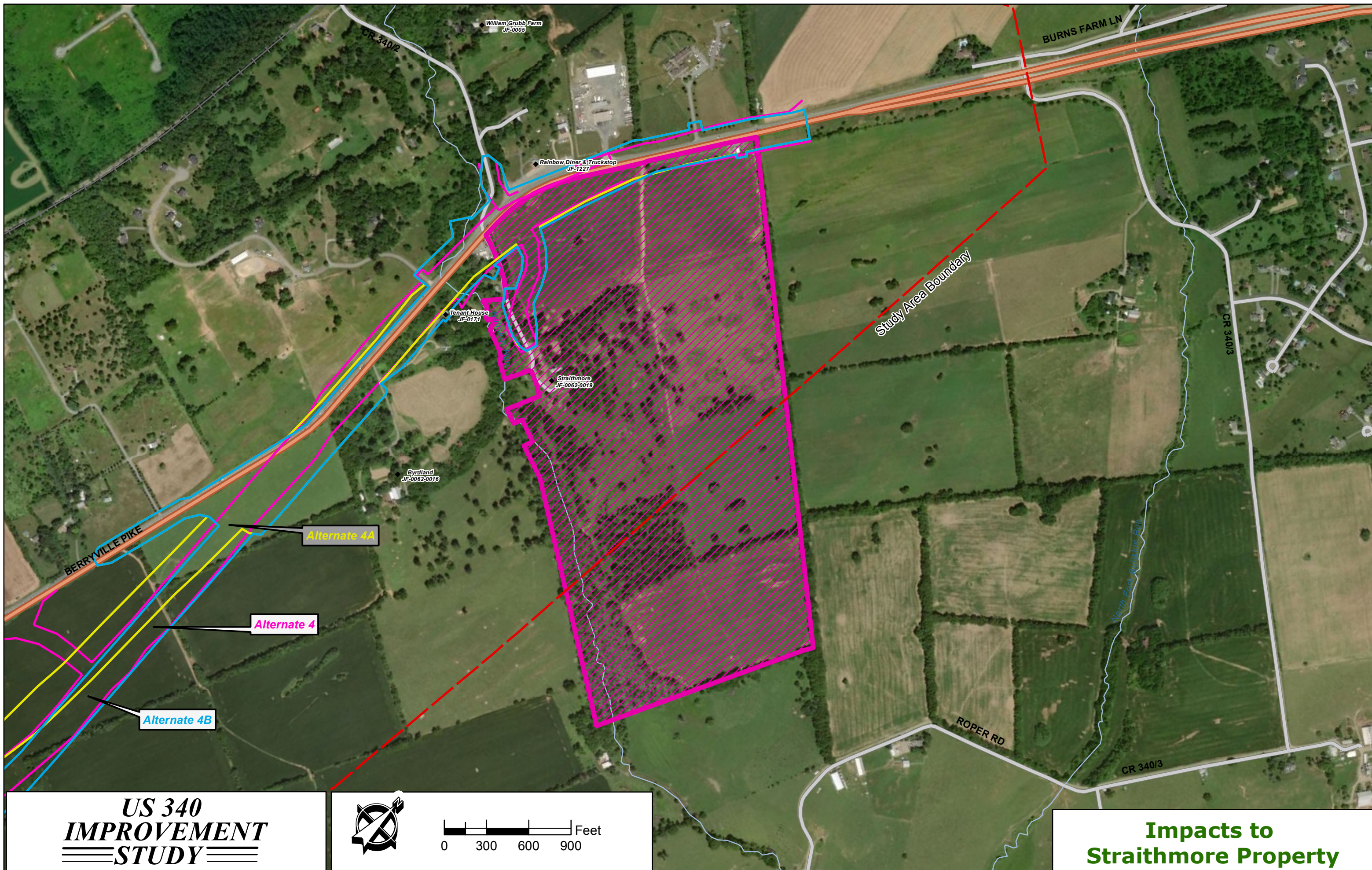
**Impacts to
Olive Boy Farm
Property**



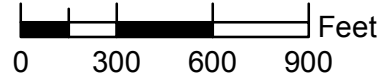
**US 340
IMPROVEMENT
STUDY**



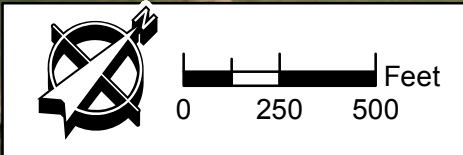
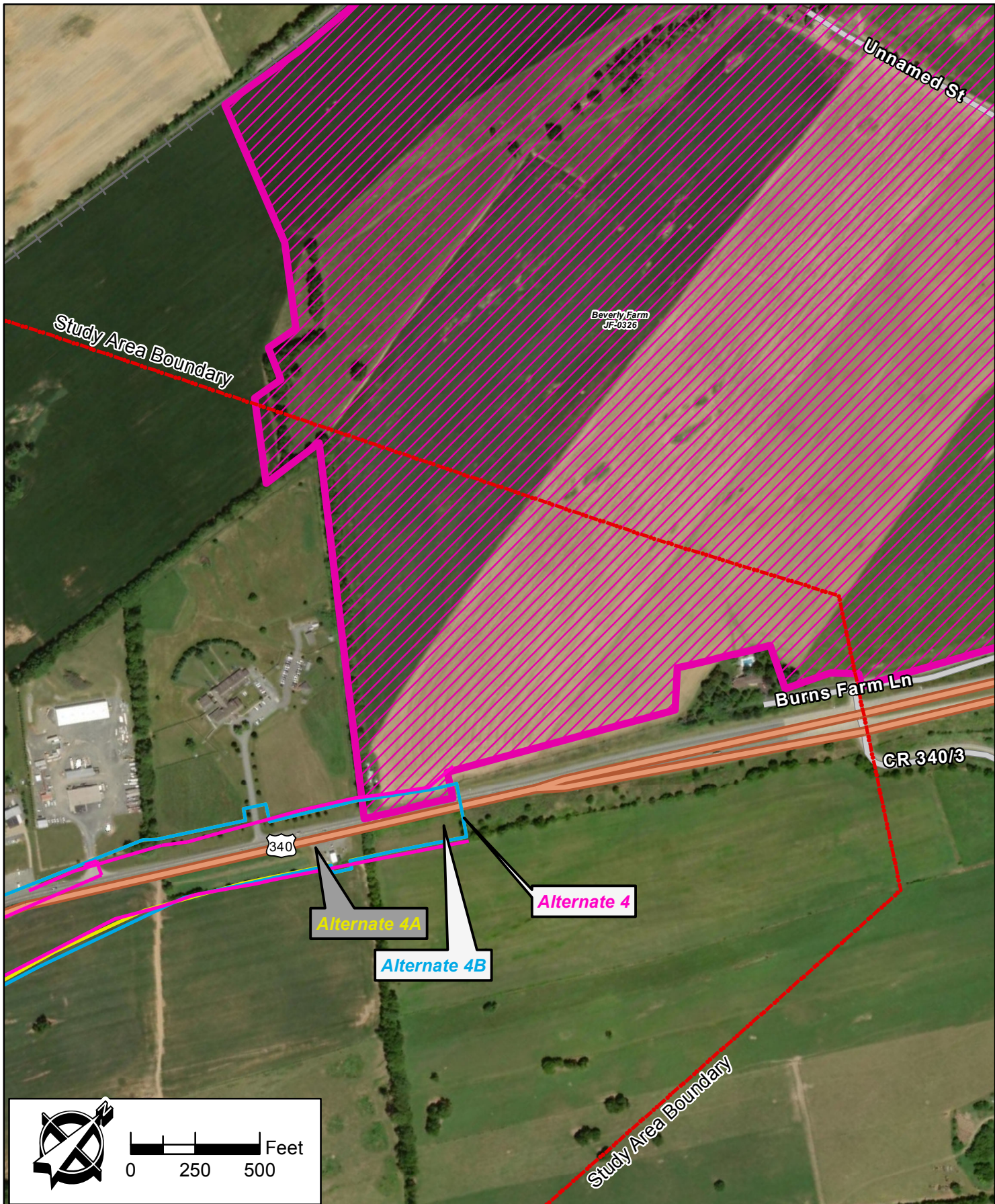
**Impacts to
Byrdland Property**



**US 340
IMPROVEMENT
STUDY**

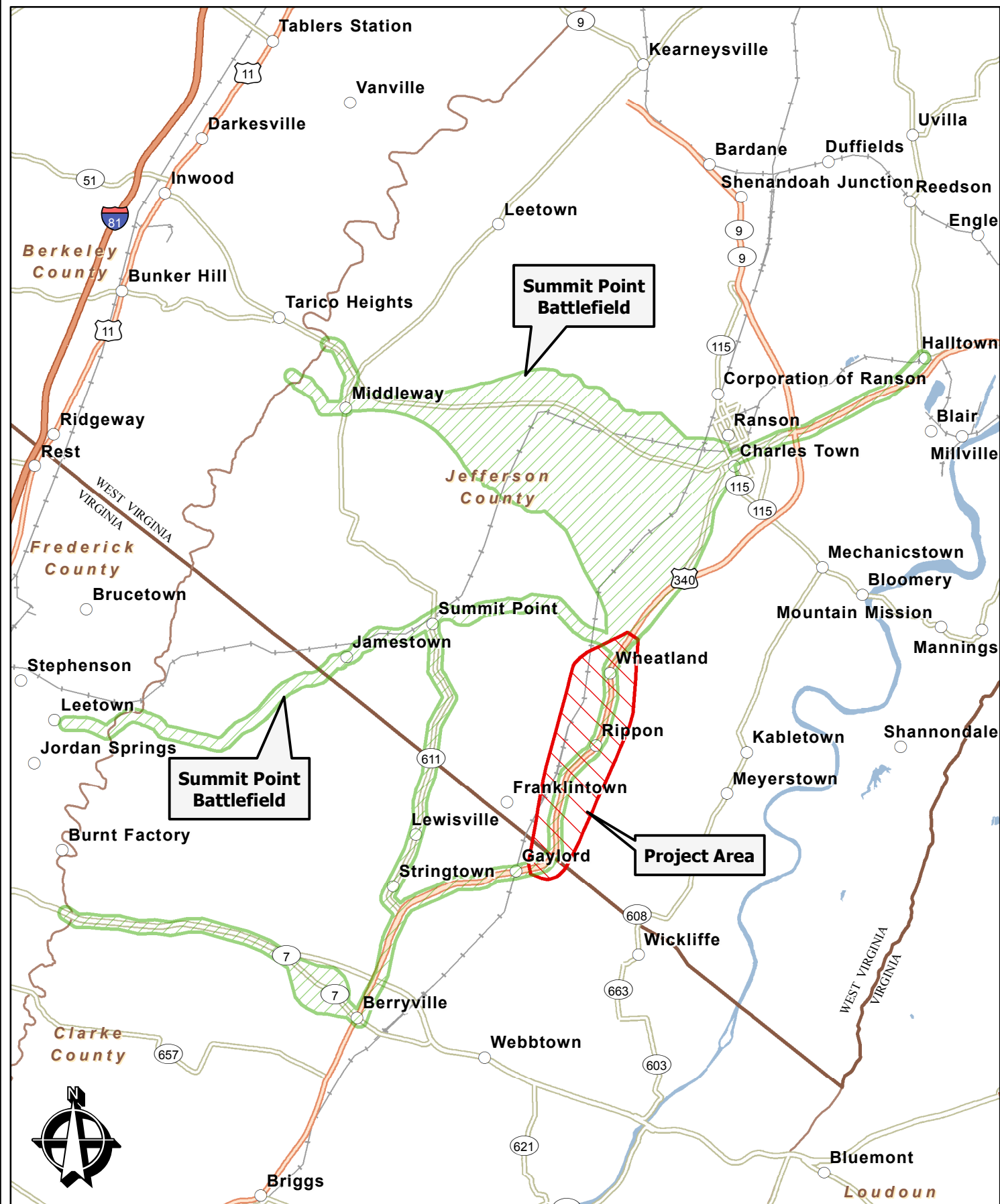


**Impacts to
Straithmore Property**



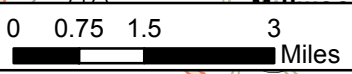
**US 340
IMPROVEMENT
STUDY**

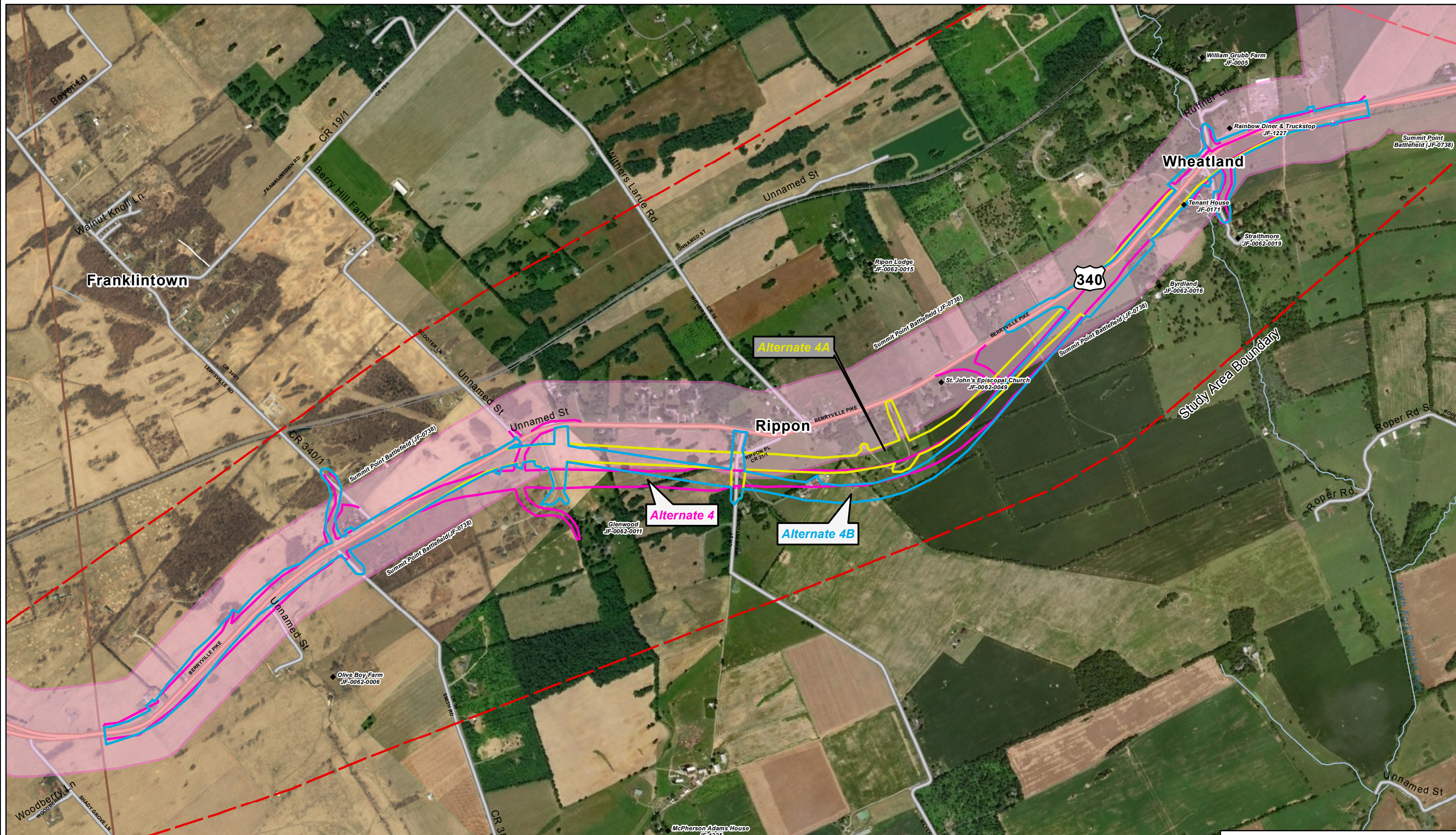
**Impacts to
Beverly Farm Property**



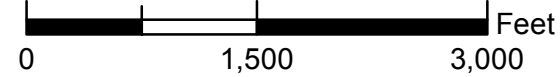
**US 340
IMPROVEMENT
STUDY**

**Summit Point
Battlefield**





**US 340
IMPROVEMENT
STUDY**



**Impacts to
Summit Point
Battlefield**